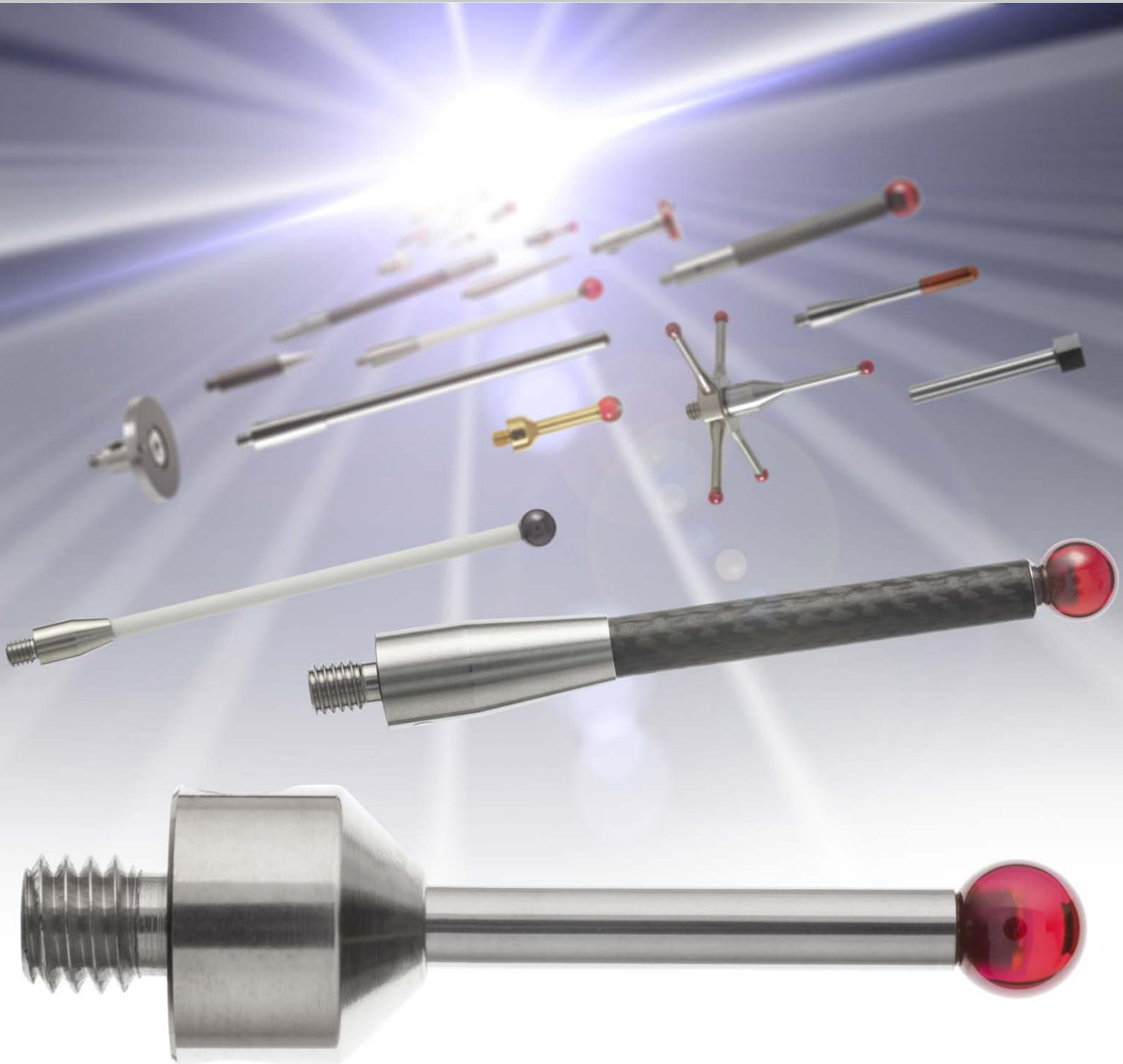


# Styli and accessories

When precision counts, insist on genuine Renishaw styli. Don't settle for less!





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A premium range specifically designed for highest accuracy scanning probes from Renishaw and other manufacturers.



## Section 7

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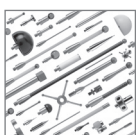
These styli have been designed especially for use on Faro portable arm CMMs.



## Section 8

### Accessories

All of the 'bits and pieces' that you need to assemble anything from the most complex stylus clusters to a simple star.



## Section 9

### Product listing by part number

The complete catalogue presented in part number order.





# Technical specifications

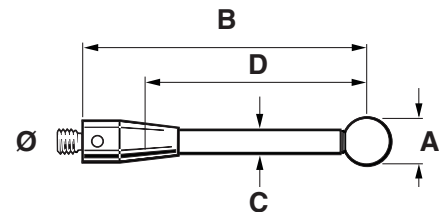
## Tip material properties

| Stylus type                               | Material                                                      | Grade          | Deviation from spherical form             | Structure | Composition                        | Purity | Density              | Hardness | Compression strength | Bending strength | Fracture toughness K1c |
|-------------------------------------------|---------------------------------------------------------------|----------------|-------------------------------------------|-----------|------------------------------------|--------|----------------------|----------|----------------------|------------------|------------------------|
|                                           |                                                               |                | (μm)                                      | –         | (wt%)                              | (%)    | (g/cm <sup>3</sup> ) | HV       | (MPa)                | (MPa)            | (MN/m <sup>3/2</sup> ) |
| AL <sub>2</sub> O <sub>3</sub> Ruby balls | Synthetic ruby monocrystalline                                | Grade 5*       | 0.13                                      | mono      | 99% AL <sub>2</sub> O <sub>3</sub> | 99.90  | 3.90                 | 2300     | 2100                 | 400-700          | 1                      |
| Silicon nitride balls                     | Hard pressed Si <sub>3</sub> N <sub>4</sub>                   | Grade 5*       | 0.13                                      | poly      | Si <sub>3</sub> N <sub>4</sub>     | 90     | 3.0-3.2              | 1600     | 3000                 | 850              | 6                      |
| Zirconia oxide balls                      | Sintered ZrO <sub>2</sub>                                     | Grade 5*       | 0.13                                      | poly      | ZrO <sub>2</sub>                   | 90-95  | 6.05                 | 1200     | 2000                 | 1000             | 10                     |
| Alumina hollow balls                      | White ceramic sintered alumina AL <sub>2</sub> O <sub>3</sub> | –              | 1                                         | poly      | AL <sub>2</sub> O <sub>3</sub>     | 99.80  | 3.8-3.9              | 1900     | 2500                 | 350              | 3.5                    |
| Silver steel discs                        | Silver steel                                                  | –              | 1                                         | –         | –                                  | –      | 8                    | 450      | –                    | –                | –                      |
| Silver steel simple cylinder              | Silver steel                                                  | –              | Roundness 4 μm                            | –         | –                                  | –      | 8                    | 200      | –                    | –                | –                      |
| Ruby ball ended cylinder                  | Synthetic ruby                                                | Ball: Grade 5* | Ball deviation from spherical form : 0.13 | mono      | 99% AL <sub>2</sub> O <sub>3</sub> | 99.90  | 3.99                 | 2300     | 2300                 | 400-700          | 1                      |
| Tungsten carbide ball ended cylinder      | Tungsten carbide                                              | –              | + 20 μm end radius                        | –         | 92-93.5% WC<br>6.5-8% CO           | 14.8   | 14.95                | 1550     | 6000                 | –                | –                      |
| Silver steel simple pointer               | Silver steel                                                  | –              | Cone angle 30°                            | –         | –                                  | –      | 8                    | 300      | –                    | –                | –                      |
| Tungsten carbide radius end pointer       | Tungsten carbide                                              | –              | Cone angle 30°                            | –         | 92-93.5% WC<br>6.5-8% CO           | 99.90  | 15                   | 1550     | 6000                 | –                | –                      |
| Aluminium hollow balls                    | Al. alloy 6082-T6                                             | –              | 30 μm                                     | –         | 95.2-98.3% AL                      | –      | 2.7                  | 95       | –                    | –                | –                      |

\* Refers to DIN-5401 ball grade standard  
\*\* Grade 3 sphericity balls are available on request.

## Extension material properties

| Material                       | Coefficient of expansion @25°C |
|--------------------------------|--------------------------------|
| Stainless steel                | 16×10 <sup>-6</sup> /°C        |
| Tungsten carbide               | 5×10 <sup>-6</sup> /°C         |
| White ceramic sintered alumina | 8.1×10 <sup>-6</sup> /°C       |
| Carbon fibre                   | -0.4×10 <sup>-6</sup> /°C      |
| Titanium                       | 9.2×10 <sup>-6</sup> /°C       |
| Ruby                           | 4.5×10 <sup>-6</sup> /°C       |
| Silicon nitride                | 3.2×10 <sup>-6</sup> /°C       |
| Zirconia                       | 10.5×10 <sup>-6</sup> /°C      |



- A** Ball diameter
- B** Overall length
- C** Stem diameter
- D** Effective working length
- Ø M2 = 3 mm
- Ø M3 = 4 mm
- Ø M4 = 7 mm
- Ø M5 = 10 mm

# M2 styli and extensions quick reference guide\*

## Ruby ball / stainless steel stem

| Ball diameter |       | 1.0 (0.4)   | 1.5 (0.06)  | 2.0 (0.08)  | 2.5 (0.10)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  | 6.0 (0.24)  | 8.0 (0.32)  |
|---------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length        | 10 mm | A-5000-7806 | A-5000-7802 | A-5000-7807 | A-5000-7803 | A-5000-3604 | A-5000-4154 | A-5000-4155 | A-5000-4156 | A-5000-4158 |
|               | 20 mm | –           | –           | A-5000-3603 | A-5000-7804 | A-5000-4160 | A-5000-4161 | –           | –           | –           |

## Ruby ball / tungsten carbide stem

| Ball diameter |       | 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) | 1.0 (0.04)  | 1.5 (0.06)  | 2.0 (0.08)  | 2.5 (0.10)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
|---------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length        | 10 mm | A-5000-7800 | A-5000-7805 | A-5000-7801 | A-5003-1325 | –           | –           | –           | –           | –           | –           |
|               | 20 mm | –           | A-5003-1345 | A-5003-0577 | A-5000-7808 | A-5003-0034 | A-5003-3822 | A-5003-1896 | A-5003-0938 | A-5003-1029 | A-5003-0046 |
|               | 30 mm | –           | –           | –           | A-5000-8663 | A-5003-0035 | A-5003-0036 | A-5003-0038 | A-5003-0040 | A-5003-0043 | A-5003-0047 |
|               | 40 mm | –           | –           | –           | –           | –           | A-5003-0037 | A-5003-0039 | A-5003-0041 | A-5003-0044 | A-5003-0048 |
|               | 50 mm | –           | –           | –           | –           | –           | –           | –           | A-5003-0042 | A-5003-0045 | A-5003-0049 |

## Ruby ball / ceramic stem

| Ball diameter |       | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  | 6.0 (0.24)  |
|---------------|-------|-------------|-------------|-------------|-------------|
| Length        | 30 mm | A-5003-4177 | A-5003-1370 | A-5003-4779 | A-5003-4780 |
|               | 50 mm | A-5003-0064 | A-5003-0065 | A-5003-0066 | A-5003-0470 |

## Ruby ball / carbon fibre stem

| Ball diameter |        | 4.0 (0.16)  | 5.0 (0.20)  | 6.0 (0.24)  |
|---------------|--------|-------------|-------------|-------------|
| Length        | 30 mm  | A-5003-4241 | A-5003-4781 | A-5003-4782 |
|               | 50 mm  | A-5003-2285 | A-5003-2286 | A-5003-2287 |
|               | 75 mm  | A-5003-4784 | A-5003-4785 | A-5003-4786 |
|               | 100 mm | A-5003-2289 | A-5003-2290 | A-5003-2291 |

## Stylus extensions

| Length          |         | 5.0 (0.20)  | 10.0 (0.40) | 20.0 (0.79) | 30.0 (1.19) | 40.0 (1.58) | 50.0 (1.97) | 70.0 (2.76) | 90.0 (3.55) |
|-----------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Stainless steel |         | A-5004-7610 | A-5004-7585 | A-5004-7586 | A-5004-7591 | A-5004-7611 | –           | –           | –           |
|                 | Ceramic | –           | –           | –           | A-5003-0070 | A-5003-0071 | A-5003-0072 | –           | –           |
| Carbon fibre    |         | –           | –           | –           | –           | A-5003-2280 | A-5003-2281 | A-5003-2282 | A-5003-2283 |

\* These are a selection of the most popular styli

# M3 styli and extensions quick reference guide\*

## Ruby ball / stainless steel stem

| Ball diameter |       | 1.0 (0.04)  | 2.0 (0.08)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
|---------------|-------|-------------|-------------|-------------|-------------|-------------|
| Length        | 21 mm | A-5000-3551 | A-5000-3552 | A-5000-3553 | A-5000-7606 | A-5000-7630 |
|               | 31 mm | –           | –           | –           | A-5000-3554 | A-5000-7648 |

## Ruby ball / tungsten carbide stem

| Ball diameter |       | 0.5 (0.020) | 1.5 (0.06)  | 2.0 (0.08)  | 2.5 (0.10)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
|---------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length        | 21 mm | A-5000-7632 | A-5003-0050 | –           | A-5003-0054 | –           | –           | –           |
|               | 30 mm | –           | A-5003-0051 | A-5003-0052 | A-5003-0055 | A-5003-0057 | –           | –           |
|               | 40 mm | –           | –           | A-5003-0053 | A-5003-0056 | A-5003-0058 | A-5003-0060 | A-5003-0062 |
|               | 50 mm | –           | –           | –           | –           | A-5003-0059 | A-5003-0061 | A-5003-0063 |

## Ruby ball / ceramic stem

| Ball diameter |       | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
|---------------|-------|-------------|-------------|-------------|
| Length        | 50 mm | A-5003-0067 | A-5003-0068 | A-5003-0069 |

## Ruby ball / carbon fibre stem

| Ball diameter |        | 6.0 (0.24)  | 8.0 (0.32)  |
|---------------|--------|-------------|-------------|
| Length        | 75 mm  | A-5003-4860 | A-5003-4862 |
|               | 100 mm | A-5003-4861 | A-5003-4863 |

## Stylus extensions

| Length          | 10.0 (0.40) | 20.0 (0.79) | 35.0 (1.38) | 50.0 (1.97) | 75.0 (2.95) | 100.0 (3.94) |
|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Stainless steel | A-5004-7609 | A-5004-7583 | A-5004-7584 | –           | –           | –            |
| Ceramic         | –           | –           | –           | A-5003-0075 | –           | –            |
| Carbon fibre    | –           | –           | –           |             | A-5003-4864 | A-5003-4865  |

\*These are a selection of the most popular styli

# M4 styli and extensions quick reference guide\*

## Ruby ball / stainless steel stem

| Ball diameter | 1.0 (0.04)  | 2.0 (0.08)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  | 6.0 (0.24)  | 8.0 (0.32)  |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length 10 mm  | –           | –           | –           | –           | A-5000-6350 | –           | –           |
| 20 mm         | A-5000-7545 | A-5000-7547 | A-5000-7549 | A-5000-7551 | –           | A-5000-7555 | A-5000-7557 |
| 30 mm         | –           | –           | –           | –           | A-5000-6352 | –           | –           |
| 50 mm         | –           | –           | –           | –           | A-5000-7521 | –           | –           |
| 100 mm        | –           | –           | –           | –           | A-5000-7522 | –           | –           |

## Ruby ball / tungsten carbide stem

| Ball diameter | 1.0 (0.04)  | 2.0 (0.08)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  | 6.0 (0.24)  |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length 20 mm  | A-5003-4792 | A-5003-2932 | A-5003-4793 | A-5003-4794 | A-5003-4795 | A-5003-4796 |
| 50 mm         | –           | A-5003-4797 | A-5003-3680 | A-5003-4799 | A-5003-4800 | A-5003-4801 |

## Ruby ball / ceramic stem

| Ball diameter | 5.0 (0.20)  | 6.0 (0.24)  | 8.0 (0.32)  |
|---------------|-------------|-------------|-------------|
| Length 50 mm  | A-5003-0235 | A-5000-3709 | A-5000-7795 |
| 75 mm         | A-5003-0236 | A-5003-2764 | A-5003-4802 |
| 100 mm        | A-5000-9761 | A-5000-3712 | A-5000-7796 |

## Ruby ball / carbon fibre stem

| Ball diameter | 6.0 (0.24)  | 8.0 (0.32)  |
|---------------|-------------|-------------|
| Length 50 mm  | A-5003-1436 | –           |
| 100 mm        | A-5003-1358 | –           |
| 150 mm        | A-5003-1255 | –           |
| 200 mm        | A-5003-1075 | –           |
| 300 mm        | –           | A-5003-3461 |

## Stylus extensions

| Length          | 10.0 (0.40) | 15.0 (0.60) | 20.0 (0.79) | 30.0 (1.19) | 50.0 (1.97) | 100.0 (3.94) |
|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Stainless steel | A-5004-7599 | A-5004-7600 | A-5004-7601 | A-5004-7602 | –           | –            |
| Ceramic         | –           | –           | –           | A-5000-7754 | A-5000-7755 | A-5000-7727  |

\*These are a selection of the most popular styli

# M5 styli and extensions quick reference guide\*

## Ruby ball / tungsten carbide stem

| Ball diameter | 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) | 1.0 (0.04)  | 1.5 (0.06)  | 2.0 (0.08)  | 2.5 (0.10)  | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Length 20 mm  | A-5003-5201 | A-5003-5202 | A-5003-5203 | A-5003-5204 | A-5003-5205 | A-5003-5206 | A-5003-5207 | A-5003-5208 | A-5003-5209 | A-5003-5210 |
| 30 mm         | A-5003-5211 | A-5003-5212 | A-5003-5213 | A-5003-5214 | A-5003-5215 | A-5003-5216 | A-5003-5217 | A-5003-5218 | A-5003-5219 | A-5003-5220 |
| 40 mm         | –           | –           | –           | –           | A-5003-5221 | A-5003-5222 | A-5003-5223 | A-5003-5224 | –           | –           |
| 50 mm         | A-5003-5225 | A-5003-5226 | A-5003-5227 | A-5003-5228 | A-5003-5229 | A-5003-5230 | A-5003-5232 | A-5003-5234 | A-5003-5235 | A-5003-5236 |
| 75 mm         | A-5003-5240 | A-5003-5241 | A-5003-5242 | A-5003-5243 | A-5003-5244 | –           | –           | A-5003-5253 | A-5003-5248 | A-5003-5249 |
| 100 mm        | –           | –           | –           | –           | –           | –           | A-5003-5254 | –           | –           | –           |

## Ruby ball / carbon fibre stem

| Ball diameter | 2.5 (0.10) | 6.0 (0.24)  | 8.0 (0.32)  | 10.0 (0.40) |
|---------------|------------|-------------|-------------|-------------|
| Length 20 mm  | –          | –           | –           | –           |
| 30 mm         | –          | –           | –           | –           |
| 40 mm         | –          | –           | –           | –           |
| 50 mm         | –          | A-5003-5237 | A-5003-5238 | A-5003-5239 |
| 75 mm         | –          | A-5003-5250 | A-5003-5251 | A-5003-5252 |
| 100 mm        | –          | A-5003-5259 | A-5003-5261 | A-5003-5263 |
| 150 mm        | –          | A-5003-5265 | A-5003-5266 | A-5003-5267 |
| 200 mm        | –          | A-5003-5268 | A-5003-5269 | A-5003-5270 |
| 300 mm        | –          | A-5003-5271 | A-5003-5272 | A-5003-5273 |

## Stylus extensions

| Length               | 10.0 (0.40) | 20.0 (0.79) | 30.0 (1.19) | 40.0 (1.58) | 50.0 (1.97) | 60.0 (2.37) | 70.0 (2.76) | 80.0 (3.15) | 90.0 (3.55) | 100.0 (3.94) |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| CF/Titanium (Ø11 mm) | –           | –           | –           | A-5555-0647 | A-5555-0648 | A-5555-0649 | A-5555-0623 | A-5555-0650 | A-5555-0651 | A-5555-0652  |
| CF/Titanium (Ø20 mm) | –           | –           | –           | A-5555-0620 | A-5555-0657 | A-5555-0658 | –           | A-5555-0621 | –           | A-5555-0659  |
| Stainless steel      | A-5555-0142 | A-5555-0140 | A-5555-0669 | –           | A-5555-0670 | –           | –           | –           | –           | A-5555-0136  |
| Aluminium tube       | –           | –           | –           | –           | A-5555-0671 | –           | –           | –           | –           | A-5555-0127  |

| Length               | 120.0 (4.73) | 150.0 (5.91) | 180.0 (7.09) | 200.0 (7.88) | 250.0 (9.85) | 300.0 (11.82) | 400.0 (15.76) | 500.0 (19.70) | 600.0 (23.64) |
|----------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| CF/Titanium (Ø11 mm) | A-5555-0425  | A-5555-0424  | A-5555-0653  | A-5555-0654  | A-5555-0655  | A-5555-0642   | A-5555-0656   | –             | –             |
| CF/Titanium (Ø20 mm) | A-5555-0660  | A-5555-0621  | A-5555-0662  | A-5555-0663  | A-5555-0427  | A-5555-0664   | A-5555-0665   | A-5555-0667   | A-5555-0668   |
| Stainless steel      | –            | –            | –            | –            | –            | –             | –             | –             | –             |
| Aluminium tube       | –            | –            | –            | A-5555-0125  | –            | –             | –             | –             | –             |

\*These are a selection of the most popular styli



# Accuracy at the point of contact

2.1



### Accuracy at the point of contact

As industry has developed its requirement for increasingly diverse and complex manufactured parts, inspection systems have had to work hard to keep up. The use of co-ordinate measuring machines (CMMs) with probing systems and in-process inspection on machine tools are two of the solutions offered by Renishaw to help you maximise your productivity and maintain the highest quality.

Successful gauging depends very much on the ability of the probe's stylus to access a feature and then maintain accuracy at the point of contact. At Renishaw, we have used our expertise in probe and stylus design to develop a comprehensive range of CMM and machine tool styli to offer you the greatest possible precision.

These notes explain the critical features of every stylus type, helping you to choose the right design for each inspection need.

### What is a stylus?

A stylus is that part of the measuring system which makes contact with the component, causing the probe's mechanism to displace. The generated signal enables a measurement to be taken. The feature to be inspected dictates the type and size of stylus used. In all cases, however, maximum rigidity of the stylus and perfect sphericity of the tip are vital.

To achieve this, Renishaw's stylus stems are produced on CNC machine tools to exacting standards. Great care is taken to ensure that location faces give maximum stiffness whilst stylus mass is optimised to suit Renishaw's range of probes.

Genuine Renishaw stylus balls are produced to the highest standards and are bonded to the stems in such a way as to ensure maximum joint integrity.

The performance of your gauging can easily be degraded if you use a stylus with poor ball roundness, poor ball location, bad thread fit or a compromised design that allows excessive bending during measurement. To ensure the integrity of the data you gather, make certain that you specify and use a stylus from the comprehensive range of genuine Renishaw styli.

### What naming protocol do Renishaw use to describe their styli range?

Renishaw uses the following naming protocol to allow easy identification of styli by name and part number. The examples below show how this protocol is assigned and describe the abbreviations used:

#### Straight styli

**M2 STY D2R L20 EWL14 d1.4SS**

The above protocol describes an M2 threaded straight stylus fitted with a 2 mm diameter ruby ball. It has an overall length of 20 mm, has an effective working length (EWL) of 14 mm and has a 1.4 mm diameter stainless steel stem.

#### Star styli

**M2 STR D2R L20 5BALL L19.5 S32**

The above protocol describes an M2 threaded star stylus fitted with a 2 mm diameter ruby ball. It has 5 balls on the star and an overall length of 19.5 mm (from the centre of the ball to the rear of the star mounting face when assembled to a probe). The span of the star cluster is 32 mm.

#### Disc styli

**M2 DSC SD18 SLVS T2.2 L2.6 BR-Y**

The above protocol describes an M2 threaded disc stylus with a spherical diameter disc of 18 mm. It is made from silver steel with a disc thickness of 2.2 mm and a length of 2.6 mm. BR stands for balls/rollers followed by yes (Y) or no (N).

#### Cylinder styli

**M2 CYL D3 SLVS L13 EWL4**

The above protocol describes an M2 threaded cylinder stylus with a critical measuring element diameter of 3 mm made from silver steel. It has an overall length of 13 mm and an EWL of 4 mm.

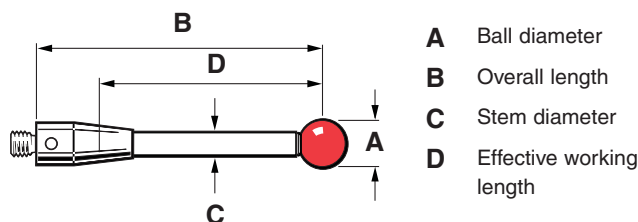
#### Extensions

**M4 EXT L15 d7 SS**

The above protocol describes an M4 threaded extension with a length of 15 mm diameter and a diameter of 7 mm. The extension is made from stainless steel.



## Terminology



### Overall length

Renishaw uses a standard description of overall length, measuring from the rear mounting face of the stylus to the centre of the ball.

### Effective working length (EWL)

This is measured from the centre of the ball to the point at which the stem will foul against the feature when measuring 'normal' to the part.

## Choosing a stylus

To maintain accuracy at the point of contact we recommend that you:

### Keep styli short

The more that a stylus bends or deflects, the lower the accuracy. Probing with the minimum stylus length for your application is the best option.

### Minimise joints

Every time you join styli and extensions, you introduce potential bending and deflection points. Try, wherever possible, to keep to the minimum number of pieces for your application.

### Keep the ball as large as possible

There are two reasons for this;

- firstly, it maximises your ball/stem clearance thereby reducing the chances for false triggers caused by 'shanking out' on the stylus stem
- secondly, the larger ball reduces the effect of the surface finish of the component being inspected.

## The range of genuine Renishaw styli

### Ball material

#### Ruby

The industry standard and the optimum stylus ball material for a vast majority of measurement applications, ruby is one of the hardest known materials. Synthetic ruby is 99% pure aluminium oxide which is grown into crystals (or "boules") at 2000 °C using the Verneuil process.

The boules are then cut and gradually machined into a highly spherical form. Ruby balls are exceptionally smooth on the surface, have great compressive strength and a high resistance to mechanical corrosion.

Very few applications exist where ruby is not the preferred ball material, however there are two applications where balls manufactured from other materials are recommended.

The first is for heavy duty scanning applications on aluminium. Because the materials attract, a phenomenon known as 'adhesive wear' can occur which involves build up of aluminium from the surface onto the ball. A better ball material for such applications is silicon nitride.

The second is in heavy duty scanning applications on cast iron. Interaction between the two materials can result in 'abrasive wear' of the ruby ball surface. For such applications, Zirconia balls are recommended.

#### Silicon nitride

Silicon nitride possesses many similar properties to ruby. It is a very hard and wear-resistant ceramic which can be machined into very high precision spheres. It can also be polished to an extremely smooth surface finish. Silicon nitride does not have the attraction to aluminium and so does not exhibit the adhesive wear seen with ruby in similar applications. However, silicon nitride does show significant abrasive wear characteristics when scanning on steel surfaces and so its applications are best confined to aluminium.

#### Zirconia

Zirconia is a particularly tough ceramic material with hardness and wear characteristics approaching those of ruby. Its surface properties make it an ideal material for aggressive scanning applications on cast iron components.

### Stem material

#### Steel

Stylus stems manufactured from stainless steel are used widely for styli with ball/tip diameters of 2 mm or greater and with lengths up to 30 mm. Within this range, one-piece steel stems offer the optimum stiffness to weight ratio, giving adequate ball/stem clearance without compromising stiffness with a joint between the stem and threaded body.

Please contact us if you require any styli with special ball materials. We can recommend the most suitable material for scanning different materials

### Tungsten carbide

Tungsten carbide stems are best used for maximising stiffness with either small stem diameters required for ball diameters of 1 mm and below, or lengths up to 50 mm. Beyond this, weight can become a problem and stiffness is lost due to deflection at the stem to body joint.

### Ceramic

For ball diameters greater than 3 mm, and lengths over 30 mm, ceramic stems offer stiffness comparable to steel but are significantly lighter than tungsten carbide. Ceramic stemmed styli can also offer additional crash protection to your probe as the stem will shatter in a collision.

### Carbon fibre (Renishaw GF)

There are many grades of carbon fibre materials. However, Renishaw GF combines optimum stiffness characteristics, both longitudinally and in torsion (important in star constructions), with extremely low weight. Carbon fibre is inert and this, combined with a special resin matrix, provides excellent protection in the most hostile of machine tool environments.

Renishaw GF is ideal for maximising stiffness while giving very low mass for styli above 50 mm in length. It is the optimum stem material for high accuracy strain gauge technology probes with excellent vibration damping characteristics and negligible co-efficient of thermal expansion.

The genuine Renishaw stylus range comprises several types:

### Straight styli



These are the simplest form of stylus, incorporating highly spherical industrial ruby balls and a choice of stem material.

Ruby is an extremely hard material and hence stylus wear is minimised. It is also of low density, keeping tip mass to a minimum, which avoids unwanted probe triggers caused by machine motion or vibration.

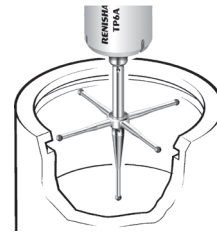
Mounted on stems made from a range of materials – stainless steel, tungsten carbide, ceramic and a specialised carbon fibre material, “Renishaw GF” – these simple ruby ball styli are suitable for most inspection applications.

Each stylus has an effective working length (EWL) which is the penetration that can be achieved by the ball before the stem fouls against the feature.

The size of the ball and the EWL of the stylus chosen are dictated by the size of the feature to be inspected. However, keeping the stylus ball as large as possible and the stem as short as possible will ensure maximum ball/stem clearance, whilst providing a greater yet still rigid EWL. Using larger ruby balls also reduces the effect of the surface finish of the component being inspected.

Probing with very long stylus/extension combinations is not recommended with standard kinematic touch trigger probes as the rigidity is reduced and accuracy lost due to stylus bending. This is not the case with other types of probe such as those with strain gauge technology, as their very low trigger forces permit the use of long stylus/extension combinations without a significant loss of accuracy.

### Star styli



These stylus clusters provide you with multiple-tip probing of complex features and bores. Four or five ruby ball systems are mounted rigidly on a stainless steel centre. Three standard sizes are offered – alternatively, you can create custom-made star styli using a 5-way stylus centre and any of the genuine Renishaw stylus range.

Star styli can be used to inspect a variety of different features. Their use can reduce inspection cycle times by allowing multi-tip probing, minimising the need to move the probe to extreme points of internal features such as the sides or grooves in a bore. Using star styli also allows effective probing in the –Z (upwards) direction when using a 5-way probe, provided that the stylus tips extend beyond the diameter of the probe body. Each tip on a star stylus requires datuming (sometimes referred to as ‘qualifying’ or ‘calibrating’) in the same manner as a single-ball stylus. The ‘span’ of star styli is taken from ball centre to ball centre.

### Disc styli



These styli are used to probe undercuts and grooves within bores which may be inaccessible to star styli. They are ‘sections’ of highly spherical balls and are available in various diameters and thicknesses. Full rotational adjustment and the ability to add a centre stylus are features of the Renishaw range of disc styli that make them particularly flexible and easy to use.

Probing with the 'spherical edge' of a simple disc is effectively the same as probing on or about the equator of a large stylus ball. However, only a small area of this ball surface is available for contact and hence thinner discs require careful angular alignment in order to ensure correct contact with the feature being probed.

A simple disc requires datuming for only one diameter (usually in a ring gauge), but limits effective probing to only X and Y directions.

Adding a 'radius end roller' allows you to datum and hence probe in the Z direction, provided that the centre of the 'radius end roller' extends beyond the diameter of the probe. The 'radius end roller' can be datumed on a sphere or a slip gauge. Rotating and locking the disc about its centre axis allows the 'radius end roller' to be positioned to suit the application.

Discs may also have a threaded centre to allow the fixing of a centre stylus, giving the additional flexibility of probing the bottom of deep bores (where access for the disc may be limited).

## Styli for specialist applications

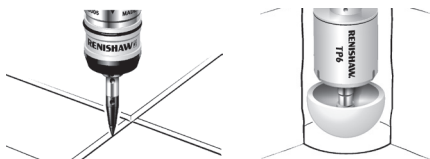
A range of specialist styli is available to enable probing of features such as thread form, thin sectioned material, tool setting and other specialist applications.

### Cylinder styli



These are used for probing holes in thin sheet material. In addition, various threaded features can be probed and the centres of tapped holes located. Ball-ended cylinder styli allow full datuming and probing in X, Y and Z directions, thus allowing surface inspection to be performed.

### Pointer and ceramic hollow ball styli



Pointer styli are designed for the inspection of thread forms, specific points and scribed lines (to lower accuracy). The use of a radius end pointer stylus allows more accurate datuming and probing of features as detailed above and can also be used to inspect the location of very small holes.

Ceramic hollow ball styli are ideal for probing deep features and bores in X, Y and Z directions, with the need to datum only one ball. There are two versions in the range, 18 and 30 mm diameter, specially designed for the TP2 / TP20 / TP200 and TP6 probes respectively. Probing with such a large diameter ball can average out the effects of very rough surfaces.

## Tool setting styli



Typically, these are fitted with a square tip and can have threaded or plain shaft attachments. The tip faces are ground to ensure high squareness and parallelism. The TS27R tool setting probe for machining centres can also be fitted with a tungsten carbide disc stylus.

## Crash protection devices



Renishaw's stylus crash protection devices are designed to break in the event of impact and protect the probe from damage.

## Accessories and tools

A wide range of accessories including extensions, 4 and 5-way centres and stylus knuckles complement the genuine Renishaw stylus range to achieve fully flexible inspection.

### Stylus centres



These provide maximum probing flexibility with a single probe. Taking up to five styli of the same mounting thread, this accessory allows you to build stylus configurations to your own specification.

### Stylus knuckles



These give full adjustment about two axes, allowing the stylus to be orientated to probe angled features. This adjustment is especially useful when the probe cannot be correctly orientated by the probe head, or when access for the head is limited.

### Stylus extensions



These provide additional probing penetration by extending the stylus away from the probe. However, using stylus extensions can reduce probe accuracy due to loss of rigidity. This is not the case with electronic probes, whose extremely low trigger forces render them less sensitive to this type of inaccuracy.

### Stylus thread adaptors



These allow M2, M3, M4 and M5 threaded styli to be interchanged on the majority of touch trigger probes. They are particularly useful for adapting the extensive range of specialised application M2 styli for use on larger probes.

### Stylus tools

Specifically designed for mounting styli correctly onto probes and for the construction of specialised stylus combinations, Renishaw's stylus tools protect your investment.

#### The S7 stylus tool



The stylus tool is used for tightening styli and accessories when connecting to one another or directly into the probe. It is specifically designed to yield if excessive tightening force is applied, avoiding damage to the threads of stylus and probe.

#### A stylus crank



A stylus crank can allow access to features that are otherwise difficult to reach, and are often used in lathe inspection applications.

### Renishaw stylus kits

Renishaw styli and accessories are available in a wide selection of kits, ranging from a small precision set of the most frequently used styli, to a comprehensive set to meet virtually every inspection need.

Some sets are housed in a quality wooden case for maximum protection and superb presentation. The styli are held in a wood insert, individually located in a nylon sleeve providing protection for the mounting threads. This type of box features a removable module which houses up to twelve ruby ball styli and contains a tray for discs, tools and accessories. This allows the stylus selection for a particular inspection task to be brought to the CMM's table. The sloping lid design of this kit provides easy access to styli, minimising handling of ruby balls and contact surfaces, thus aiding cleanliness.

Probing kits are also available to include a probe, probe head, extension bars and styli.

### Custom design service

Renishaw's Styli division offers a unique service by providing customers with a total custom stylus solution for their probing needs for CMM, machine tool, Equator or scanning applications, where a standard stylus may not be suitable.

The division includes expertise in applications, design, engineering and manufacturing with extensive experience in providing tailor-made stylus product solutions to specific customer's requirements.

Our expertise allows us to develop a product that satisfies customer demand for accuracy, piece part feature inspection, delivery and cost. All of these aspects are considered within the design of a custom stylus, ensuring that the solution incorporates the ideal choice of ball & stem materials and optimises probe performance for your particular application.

Renishaw's Styli division has designed over 10,000 different custom styli for a wide range of probing applications worldwide ranging from aeronautical & automotive to high volume manufacturing, so the solution to your application problem may already exist.

For advice and further details, please contact your nearest Renishaw distributor.

We always recommend using Renishaw styli in order to maximise your quality & probing performance.

# Custom stylus request form

2.7

Please complete the form and send it back to us. Our design team will review the supplied information and present you with a solution for your application.

|                |                          |
|----------------|--------------------------|
| Customer _____ | Customer email _____     |
| Company _____  | Customer telephone _____ |

**Stylus information**

Type of stylus (please indicate on diagrams below) Other\* ☐ \* Please attach as much information as possible, including a sketch of the stylus.

Thread M2 ☐ M3 ☐ M4 ☐ M5 ☐ Other \_\_\_\_\_

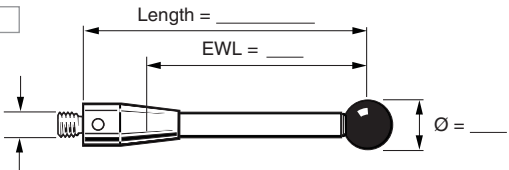
Tip material Ruby ☐ Silicon nitride ☐ Stainless steel ☐ Tungsten carbide ☐ Zirconia ☐

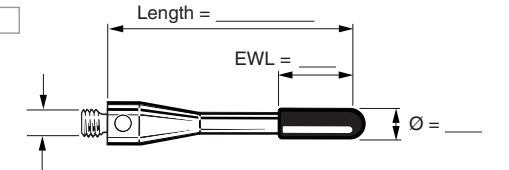
Stem material Carbon fibre ☐ Ceramic ☐ Stainless steel ☐ Tungsten carbide ☐

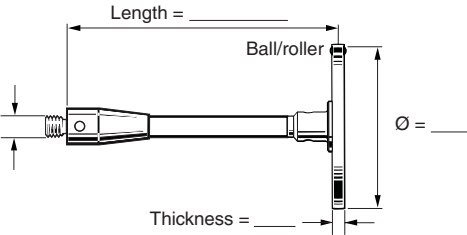
Quantity of styli required \_\_\_\_\_

**Type of stylus**

Dimensions given are: Metric (mm) ☐ Imperial (in) ☐

**A** ☐ 

**B** ☐ 

**C** ☐ 

Is there a ball/roller? Yes ☐ No ☐

If yes, please specify height of ball/roller: \_\_\_\_\_

|                               |                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------|
| <b>Probe information</b>      |                                                                                   |
| Type of probe _____           | Orientation Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> |
| Material being measured _____ | Application Scanning <input type="checkbox"/> Inspection <input type="checkbox"/> |

**Additional information**

\_\_\_\_\_

### Grade 3 high accuracy styli

With the increased use of very high accuracy CMMs, the specification of the stylus ball has become a significant factor when calculating error budgets. High precision measuring machines require precision styli. Renishaw offers grade 3 styli with a form deviation of  $\pm 0.08$  microns.

The sphericity of your stylus ball can affect your CMM measurements. To ensure the accuracy of your measurements, use a minimum of AFBMA 3290 / DIN 5401-11.1993 Grade 5 balls.

As standard, Renishaw uses Grade 5 stylus balls with a sphericity of  $0.13 \mu\text{m}$  and not the lesser Grade 10 balls that most other manufacturers use.

Grade 3 balls, with a sphericity of  $0.08 \mu\text{m}$ , are also available.

#### Grade 3 ball design considerations:

Investigations into the effect of the design and construction of styli using such a highly specified ball have indicated that the form of the ball can be degraded by machining a hole in it and through distortion from gluing it onto a spigot. Renishaw has researched ways to improve the design of the high accuracy Grade 3 ball styli.

All Grade 3 styli being produced by Renishaw are constructed using an undrilled ball bonded into a spherical cup. Measurements taken before and after assembly of this design have shown that the form of the ball remains well within specification throughout the process.

In order to easily identify a Grade 3 ball stylus, the stems are coated in Titanium Nitride, giving them a gold coloured finish.

Due to limits of measurement capability and bond strength, Grade 3 ball styli are only available with a minimum ball diameter of 1 mm. The styli are not serialised and are supplied with a certificate of roundness.

Contact your local Renishaw office for more details.

# M2 threaded stylus range

3.1

## REVO® 5-axis measurement multi-sensor system

Renishaw's probing systems are designed to give optimum performance using styli from Renishaw's comprehensive range. The following probes all use M2 threaded styli, however, with suitable adaptors, other thread sizes may be used.

- TP2
- TP20
- TP200
- REVO®





## Ruby ball styli (stainless steel stems)

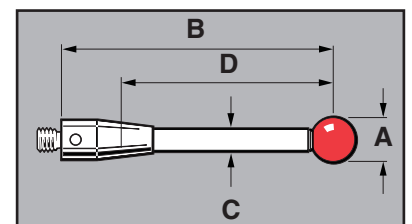
| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-7806                                                                       | A-5000-7802                                                                       | A-5000-7807                                                                       | A-5000-7803                                                                       | A-5000-3604                                                                       | A-5000-4154                                                                         | A-5000-4155                                                                         | A-5000-4156                                                                         | A-5000-4158                                                                         |
| Silicon nitride |                    | A-5004-0210                                                                       | A-5004-1918                                                                       | A-5003-6120                                                                       | A-5004-1920                                                                       | A-5003-2138                                                                       | A-5003-9524                                                                         | A-5004-1921                                                                         | A-5004-0237                                                                         | A-5004-1922                                                                         |
| Zirconia        |                    | A-5003-7757                                                                       | A-5004-0165                                                                       | A-5003-7723                                                                       | A-5004-2913                                                                       | A-5004-2914                                                                       | A-5003-7261                                                                         | A-5003-2186                                                                         | A-5004-2203                                                                         | A-5004-2915                                                                         |
| A               | Ball dia. mm (in.) | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          | 8.0 (0.32)                                                                          |
| B               | Length mm (in.)    | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 11.0 (0.44)                                                                         |
| C               | Stem dia. mm (in.) | 0.7 (0.028)                                                                       | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 1.5 (0.06)                                                                          | 2.5 (0.10)                                                                          | 2.5 (0.10)                                                                          | 2.5 (0.10)                                                                          |
| D               | EWL* mm (in.)      | 4.5 (0.18)                                                                        | 4.5 (0.18)                                                                        | 6.0 (0.24)                                                                        | 6.5 (0.25)                                                                        | 7.0 (0.28)                                                                        | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 11.0 (0.44)                                                                         |
|                 | Mass grammes       | 0.3                                                                               | 0.3                                                                               | 0.3                                                                               | 0.3                                                                               | 0.4                                                                               | 0.4                                                                                 | 0.7                                                                                 | 0.9                                                                                 | 1.5                                                                                 |
| 10 mm range     |                    |  |  |  |  |  |  |  |  |  |

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-3603                                                                         | A-5000-7804                                                                         | A-5000-4160                                                                         | A-5000-4161                                                                         |
| Silicon nitride |                    | A-5003-1730                                                                         | A-5004-1923                                                                         | A-5003-6691                                                                         | A-5004-0236                                                                         |
| Zirconia        |                    | A-5004-2916                                                                         | A-5004-2917                                                                         | A-5004-1057                                                                         | A-5004-2918                                                                         |
| A               | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          |
| B               | Length mm (in.)    | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         |
| C               | Stem dia. mm (in.) | 1.4 (0.05)                                                                          | 1.4 (0.05)                                                                          | 1.5 (0.06)                                                                          | 1.5 (0.06)                                                                          |
| D               | EWL* mm (in.)      | 14.0 (0.56)                                                                         | 16.4 (0.64)                                                                         | 17.0 (0.67)                                                                         | 20.0 (0.79)                                                                         |
|                 | Mass grammes       | 0.4                                                                                 | 0.4                                                                                 | 0.5                                                                                 | 0.6                                                                                 |
| 20 mm range     |                    |  |  |  |  |

## Ruby ball styli (tungsten carbide stems)

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-7800**                                                                       | A-5000-7805                                                                         | A-5000-7801                                                                         | A-5003-1325                                                                         |
| Silicon nitride |                    | A-5004-2016**                                                                       | A-5003-2020                                                                         |                                                                                     | A-5004-2018                                                                         |
| Zirconia        |                    |                                                                                     | A-5003-7672                                                                         | A-5004-2632                                                                         | A-5004-2919                                                                         |
| A               | Ball dia. mm (in.) | 0.3 (0.012)                                                                         | 0.5 (0.020)                                                                         | 0.7 (0.028)                                                                         | 1.0 (0.04)                                                                          |
| B               | Length mm (in.)    | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         |
| C               | Stem dia. mm (in.) | 0.2 (0.01)                                                                          | 0.4 (0.02)                                                                          | 0.5 (0.020)                                                                         | 0.7 (0.028)                                                                         |
| D               | EWL* mm (in.)      | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 4.0 (0.16)                                                                          |
|                 | Mass grammes       | 0.3                                                                                 | 0.3                                                                                 | 0.3                                                                                 | 0.3                                                                                 |
| 10 mm range     |                    |  |  |  |  |

\*\*Grade 10 balls

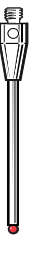
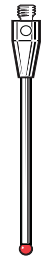




## Ruby ball styli (tungsten carbide stems) – continued

| Ball Material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5004-7398                                                                       | A-5003-1345                                                                       | A-5003-0577                                                                       | A-5000-7808                                                                       | A-5003-0033                                                                       | A-5003-0034                                                                         |
| Silicon nitride |                    | A-5004-7399                                                                       | A-5004-2019                                                                       |                                                                                   | A-5004-1508                                                                       | A-5004-2021                                                                       | A-5004-1925                                                                         |
| Zirconia        |                    |                                                                                   | A-5004-2920                                                                       | A-5004-1714                                                                       | A-5004-0435                                                                       | A-5004-2921                                                                       | A-5004-2922                                                                         |
| A               | Ball dia. mm (in.) | 0.3 (0.012)                                                                       | 0.5 (0.020)                                                                       | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                          |
| B               | Length mm (in.)    | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.76)                                                                       | 20.0 (0.76)                                                                         |
| C               | Stem dia. mm (in.) | 0.2 (0.01)                                                                        | 0.3 (0.012)                                                                       | 0.5 (0.020)                                                                       | 0.7 (0.028)                                                                       | 0.8 (0.04)                                                                        | 1.0 (0.04)                                                                          |
| D               | EWL* mm (in.)      | 2.0 (0.08)                                                                        | 7.0 (0.28)                                                                        | 12.0 (0.48)                                                                       | 7.0 (0.28)                                                                        | 12.5 (0.50)                                                                       | 12.5 (0.50)                                                                         |
|                 | Mass grammes       | 0.50                                                                              | 0.48                                                                              | 0.32                                                                              | 0.50                                                                              | 0.41                                                                              | 0.50                                                                                |
| 20 mm range     |                    |  |  |  |  |  |  |

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-3822                                                                         | A-5003-1896                                                                         | A-5003-0938                                                                         | A-5003-1029                                                                         | A-5003-0046                                                                         |
| Silicon nitride |                    | A-5004-1017                                                                         | A-5004-1928                                                                         | A-5004-1021                                                                         | A-5004-1929                                                                         | A-5004-1930                                                                         |
| Zirconia        |                    | A-5004-2923                                                                         | A-5004-2924                                                                         | A-5004-0437                                                                         | A-5004-2925                                                                         | A-5004-2926                                                                         |
| A               | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          |
| B               | Length mm (in.)    | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 22.0 (0.87)                                                                         | 20.0 (0.79)                                                                         |
| C               | Stem dia. mm (in.) | 1.0 (0.04)                                                                          | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          |
| D               | EWL* mm (in.)      | 14.0 (0.55)                                                                         | 15.5 (0.62)                                                                         | 17.0 (0.67)                                                                         | 22.0 (0.87)                                                                         | 20.0 (0.79)                                                                         |
|                 | Mass grammes       | 0.48                                                                                | 0.50                                                                                | 0.77                                                                                | 1.24                                                                                | 1.98                                                                                |
| 20 mm range     |                    |  |  |  |  |  |

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-8663                                                                         | A-5003-0035                                                                         | A-5003-0036                                                                         | A-5003-0038                                                                         | A-5003-0040                                                                         | A-5003-0043                                                                           | A-5003-0047                                                                           |
| Silicon nitride |                    | A-5004-2022                                                                         | A-5004-1931                                                                         | A-5003-7573                                                                         | A-5004-1932                                                                         | A-5004-1933                                                                         | A-5004-1944                                                                           | A-5004-1945                                                                           |
| Zirconia        |                    | A-5004-2927                                                                         | A-5004-1711                                                                         | A-5004-1058                                                                         | A-5004-2928                                                                         | A-5004-0264                                                                         | A-5004-2929                                                                           | A-5004-2930                                                                           |
| A               | Ball dia. mm (in.) | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                            | 5.0 (0.20)                                                                            |
| B               | Length mm (in.)    | 27.5 (1.08)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                           | 30.0 (1.19)                                                                           |
| C               | Stem dia. mm (in.) | 0.7 (0.028)                                                                         | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                            | 2.5 (0.10)                                                                            |
| D               | EWL* mm (in.)      | 20.5 (0.81)                                                                         | 22.5 (0.89)                                                                         | 22.5 (0.89)                                                                         | 22.5 (0.89)                                                                         | 27.0 (1.06)                                                                         | 30.0 (1.19)                                                                           | 30.0 (1.19)                                                                           |
|                 | Mass grammes       | 0.40                                                                                | 0.58                                                                                | 0.99                                                                                | 1.48                                                                                | 1.49                                                                                | 1.57                                                                                  | 2.57                                                                                  |
| 30 mm range     |                    |  |  |  |  |  |  |  |

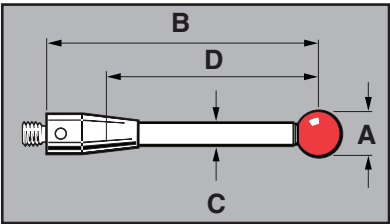
\*Effective working length

Ruby ball styli (ceramic stems)

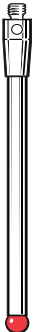
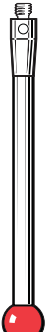
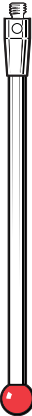
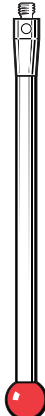
| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-4177                                                                       | A-5003-1370                                                                       | A-5003-4779                                                                       | A-5003-4780                                                                       |
| Silicon nitride |                    | A-5004-1946                                                                       | A-5004-1952                                                                       | A-5004-1953                                                                       | A-5004-1954                                                                       |
| Zirconia        |                    | A-5004-2931                                                                       | A-5004-2932                                                                       | A-5004-2933                                                                       | A-5004-2934                                                                       |
| A               | Ball dia. mm (in.) | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                        | 5.0 (0.20)                                                                        | 6.0 (0.24)                                                                        |
| B               | Length mm (in.)    | 30.0 (1.19)                                                                       | 30.0 (1.19)                                                                       | 30.0 (1.19)                                                                       | 30.0 (1.19)                                                                       |
| C               | Stem dia. mm (in.) | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 2.5 (0.10)                                                                        |
| D               | EWL* mm (in.)      | 27.0 (1.06)                                                                       | 30.0 (1.19)                                                                       | 30.0 (1.19)                                                                       | 30.0 (1.19)                                                                       |
|                 | Mass grammes       | 0.44                                                                              | 0.68                                                                              | 0.93                                                                              | 1.11                                                                              |
| 30 mm range     |                    |  |  |  |  |

Ruby ball styli (carbon fibre stems)

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-4241                                                                         | A-5003-4781                                                                         | A-5003-4782                                                                         |
| Silicon nitride |                    | A-5004-1955                                                                         | A-5004-1956                                                                         | A-5004-1957                                                                         |
| Zirconia        |                    | A-5004-2935                                                                         | A-5004-2936                                                                         | A-5004-0618                                                                         |
| A               | Ball dia. mm (in.) | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          |
| B               | Length mm (in.)    | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         |
| C               | Stem dia. mm (in.) | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          |
| D               | EWL* mm (in.)      | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         |
|                 | Mass grammes       | 0.57                                                                                | 0.79                                                                                | 0.96                                                                                |
| 30 mm range     |                    |  |  |  |



## Ruby ball styli (tungsten carbide stems)

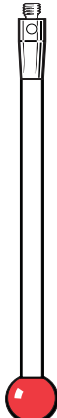
| Ball material       |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                      |                                                                                      |                                                                                      |
|---------------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Ruby                |                    | A-5003-0037                                                                       | A-5003-0039                                                                       | A-5003-0041                                                                       | A-5003-0044                                                                       | A-5003-0048                                                                       | A-5003-0042                                                                          | A-5003-0045                                                                          | A-5003-0049                                                                          |
| Silicon nitride     |                    | A-5003-7269                                                                       | A-5004-1959                                                                       | A-5004-1960                                                                       | A-5004-1961                                                                       | A-5004-1962                                                                       | A-5004-1963                                                                          | A-5004-1964                                                                          | A-5004-1965                                                                          |
| Zirconia            |                    | A-5004-2937                                                                       | A-5004-2938                                                                       | A-5004-1059                                                                       | A-5004-2939                                                                       | A-5004-2940                                                                       | A-5004-2942                                                                          | A-5004-2943                                                                          | A-5004-2944                                                                          |
| <b>A</b>            | Ball dia. mm (in.) | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                        | 5.0 (0.20)                                                                        | 3.0 (0.12)                                                                           | 4.0 (0.16)                                                                           | 5.0 (0.20)                                                                           |
| <b>B</b>            | Length mm (in.)    | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 50.0 (1.97)                                                                          | 50.0 (1.97)                                                                          | 50.0 (1.97)                                                                          |
| <b>C</b>            | Stem dia. mm (in.) | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 2.0 (0.08)                                                                           | 2.0 (0.08)                                                                           | 2.5 (0.10)                                                                           |
| <b>D</b>            | EWL* mm (in.)      | 32.5 (1.28)                                                                       | 32.5 (1.28)                                                                       | 37.0 (1.46)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 47.0 (1.85)                                                                          | 50.0 (1.97)                                                                          | 50.0 (1.97)                                                                          |
|                     | Mass grammes       | 1.29                                                                              | 1.95                                                                              | 1.97                                                                              | 2.04                                                                              | 3.17                                                                              | 2.44                                                                                 | 2.52                                                                                 | 3.75                                                                                 |
| 40 mm – 50 mm range |                    |  |  |  |  |  |  |  |  |
|                     |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                      |                                                                                      |                                                                                      |
|                     |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                      |                                                                                      |                                                                                      |
|                     |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                      |                                                                                      |                                                                                      |

M2 threaded  
stylus range

3.5

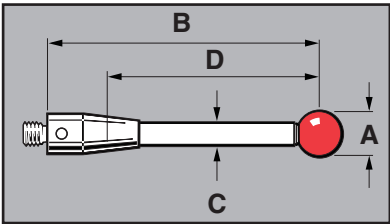
\*Effective working length

Ruby ball styli (ceramic stems)

| Ball material   |                    | Part number                                                                        |                                                                                    |                                                                                    |                                                                                    |
|-----------------|--------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-0064                                                                        | A-5003-0065                                                                        | A-5003-0066                                                                        | A-5003-0470                                                                        |
| Silicon nitride |                    | A-5004-1967                                                                        | A-5004-1519                                                                        | A-5004-1968                                                                        | A-5004-1969                                                                        |
| Zirconia        |                    | A-5004-2945                                                                        | A-5004-2946                                                                        | A-5004-2947                                                                        | A-5004-2948                                                                        |
| A               | Ball dia. mm (in.) | 3.0 (0.12)                                                                         | 4.0 (0.16)                                                                         | 5.0 (0.20)                                                                         | 6.0 (0.24)                                                                         |
| B               | Length mm (in.)    | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        |
| C               | Stem dia. mm (in.) | 2.0 (0.08)                                                                         | 2.0 (0.08)                                                                         | 2.5 (0.10)                                                                         | 2.5 (0.10)                                                                         |
| D               | EWL* mm (in.)      | 47.0 (1.85)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        |
|                 | Mass grammes       | 0.83                                                                               | 0.91                                                                               | 1.31                                                                               | 1.49                                                                               |
| 50 mm range     |                    |  |  |  |  |

Ruby ball styli (carbon fibre stems)

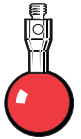
| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-2285                                                                         | A-5003-2286                                                                         | A-5003-2287                                                                         |
| Silicon nitride |                    | A-5004-1970                                                                         | A-5004-1971                                                                         | A-5004-1972                                                                         |
| Zirconia        |                    | A-5004-1331                                                                         | A-5004-1330                                                                         | A-5004-1329                                                                         |
| A               | Ball dia. mm (in.) | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          |
| B               | Length mm (in.)    | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         |
| C               | Stem dia. mm (in.) | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          |
| D               | EWL* mm (in.)      | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         |
|                 | Mass grammes       | 1.00                                                                                | 1.10                                                                                | 1.20                                                                                |
| 50 mm range     |                    |  |  |  |



## Ruby ball styli (carbon fibre stems) – continued

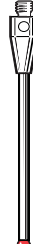
| Ball material           |                    | Part number                                                                        |                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                      |
|-------------------------|--------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Ruby                    |                    | A-5003-4784                                                                        | A-5003-4785                                                                        | A-5003-4786                                                                        | A-5003-2289                                                                        | A-5003-2290                                                                        | A-5003-2291                                                                          |
| Silicon nitride         |                    | A-5004-1973                                                                        | A-5004-1974                                                                        | A-5004-1975                                                                        | A-5004-1976                                                                        | A-5004-1977                                                                        | A-5004-1978                                                                          |
| Zirconia                |                    | A-5004-2949                                                                        | A-5004-2950                                                                        | A-5004-2951                                                                        | A-5004-2952                                                                        | A-5004-2953                                                                        | A-5004-2954                                                                          |
| A                       | Ball dia. mm (in.) | 4.0 (0.16)                                                                         | 5.0 (0.20)                                                                         | 6.0 (0.24)                                                                         | 4.0 (0.16)                                                                         | 5.0 (0.20)                                                                         | 6.0 (0.24)                                                                           |
| B                       | Length mm (in.)    | 75.0 (2.96)                                                                        | 75.0 (2.96)                                                                        | 75.0 (2.96)                                                                        | 100.0 (3.94)                                                                       | 100.0 (3.94)                                                                       | 100.0 (3.94)                                                                         |
| C                       | Stem dia. mm (in.) | 2.0 (0.8)                                                                          | 3.0 (0.12)                                                                         | 3.0 (0.12)                                                                         | 3.0 (0.12)                                                                         | 3.0 (0.12)                                                                         | 3.0 (0.12)                                                                           |
| D                       | EWL* mm (in.)      | 75.0 (2.96)                                                                        | 75.0 (2.96)                                                                        | 75.0 (2.96)                                                                        | 100.0 (3.94)                                                                       | 100.0 (3.94)                                                                       | 100.0 (3.94)                                                                         |
|                         | Mass grammes       | 0.75                                                                               | 1.35                                                                               | 1.45                                                                               | 1.50                                                                               | 1.59                                                                               | 1.78                                                                                 |
| 75 mm –<br>100 mm range |                    |  |  |  |  |  |  |

## Recommended REVO styli (stainless steel stem)

| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-7806                                                                       | A-5000-7807                                                                       | A-5000-3604                                                                       | A-5000-4154                                                                       | A-5000-4156                                                                        | A-5000-4158                                                                         |
| Silicon nitride |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A-5004-0237                                                                        |                                                                                     |
| Zirconia        |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
| A               | Ball dia. mm (in.) | 1.0 (0.04)                                                                        | 2.0 (0.08)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                        | 6.0 (0.24)                                                                         | 8.0 (0.32)                                                                          |
| B               | Length mm (in.)    | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                        | 11.0 (0.44)                                                                         |
| C               | Stem dia. mm (in.) | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 1.5 (0.06)                                                                        | 2.5 (0.10)                                                                         | 2.5 (0.10)                                                                          |
| D               | EWL* mm (in.)      | 4.5 (0.18)                                                                        | 6.0 (0.24)                                                                        | 7.0 (0.28)                                                                        | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                        | 11.0 (0.44)                                                                         |
|                 | Mass grammes       | 0.3                                                                               | 0.3                                                                               | 0.4                                                                               | 0.4                                                                               | 0.9                                                                                | 1.5                                                                                 |
| 10 mm range     |                    |  |  |  |  |  |  |

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-3603                                                                         | A-5000-4160                                                                         | A-5000-4161                                                                         |
| Silicon nitride |                    | A-5003-1730                                                                         |                                                                                     |                                                                                     |
| Zirconia        |                    |                                                                                     |                                                                                     |                                                                                     |
| A               | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          |
| B               | Length mm (in.)    | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         |
| C               | Stem dia. mm (in.) | 1.4 (0.05)                                                                          | 1.5 (0.06)                                                                          | 1.5 (0.06)                                                                          |
| D               | EWL* mm (in.)      | 14.0 (0.56)                                                                         | 17.0 (0.67)                                                                         | 20.0 (0.79)                                                                         |
|                 | Mass grammes       | 0.4                                                                                 | 0.5                                                                                 | 0.6                                                                                 |
| 20 mm range     |                    |  |  |  |

## Recommended REVO styli (tungsten carbide stem)

| Ball material    |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|------------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby             |                    | A-5000-7805                                                                       | A-5003-1345                                                                       | A-5003-0577                                                                       | A-5003-0033                                                                       | A-5000-8663                                                                       | A-5003-0035                                                                         |
| Silicon nitride  |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
| Zirconia         |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
| A                | Ball dia. mm (in.) | 0.5 (0.020)                                                                       | 0.5 (0.020)                                                                       | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                          |
| B                | Length mm (in.)    | 10.0 (0.40)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 27.5 (1.08)                                                                       | 30.0 (1.19)                                                                         |
| C                | Stem dia. mm (in.) | 0.4 (0.02)                                                                        | 0.3 (0.012)                                                                       | 0.5 (0.020)                                                                       | 0.8 (0.04)                                                                        | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                          |
| D                | EWL* mm (in.)      | 3.0 (0.12)                                                                        | 7.0 (0.28)                                                                        | 12.0 (0.48)                                                                       | 12.5 (0.50)                                                                       | 20.5 (0.81)                                                                       | 22.5 (0.89)                                                                         |
|                  | Mass grammes       | 0.3                                                                               | 0.48                                                                              | 0.32                                                                              | 0.41                                                                              | 0.4                                                                               | 0.58                                                                                |
| 10 – 30 mm range |                    |  |  |  |  |  |  |

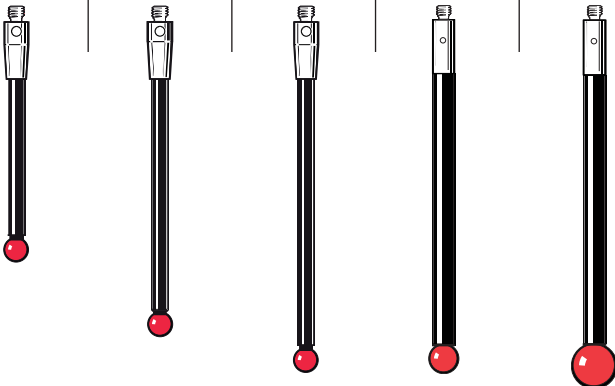
## Recommended REVO styli (ceramic stem)

| Ball material    |                    | Part number                                                                         |                                                                                     |                                                                                     |
|------------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby             |                    | A-5004-3404                                                                         | A-5003-6985                                                                         | A-5003-4779                                                                         |
| Silicon nitride  |                    | A-5004-7273                                                                         | A-5004-7123                                                                         |                                                                                     |
| Zirconia         |                    |                                                                                     |                                                                                     |                                                                                     |
| A                | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 5.0 (0.20)                                                                          |
| B                | Length mm (in.)    | 30.0 (1.19)                                                                         | 40.0 (1.58)                                                                         | 30.0 (1.19)                                                                         |
| C                | Stem dia. mm (in.) | 1.5 (0.06)                                                                          | 1.5 (0.06)                                                                          | 2.5 (0.10)                                                                          |
| D                | EWL* mm (in.)      | 22.5 (0.89)                                                                         | 32.5 (1.28)                                                                         | 30.0 (1.19)                                                                         |
|                  | Mass grammes       | 0.51                                                                                | 0.58                                                                                | 0.93                                                                                |
| 30 – 40 mm range |                    |  |  |  |

Recommended REVO styli (carbon fibre stem)

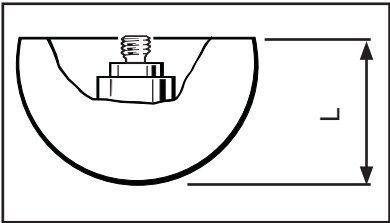
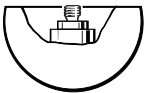
| Ball material   |                    | Part number |             |             |             |             |
|-----------------|--------------------|-------------|-------------|-------------|-------------|-------------|
| Ruby            |                    | A-5003-7852 | A-5003-3877 | A-5003-9506 | A-5003-2285 | A-5003-2287 |
| Silicon nitride |                    |             |             |             |             |             |
| Zirconia        |                    |             |             |             |             |             |
| A               | Ball dia. mm (in.) | 3.0 (0.12)  | 3.0 (0.12)  | 3.0 (0.12)  | 4.0 (0.16)  | 6.0 (0.24)  |
| B               | Length mm (in.)    | 30.0 (1.19) | 40.0 (1.58) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) |
| C               | Stem dia. mm (in.) | 2.0 (0.08)  | 2.0 (0.08)  | 2.0 (0.08)  | 3.0 (0.12)  | 3.0 (0.12)  |
| D               | EWL* mm (in.)      | 27.5 (1.08) | 37.5 (1.48) | 47.0 (1.85) | 50.0 (1.97) | 50.0 (1.97) |
|                 | Mass grammes       | 0.45        | 0.75        | 0.9         | 1.0         | 1.2         |

30 – 50 mm  
range



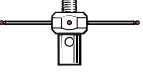
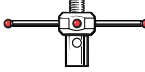
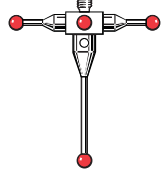
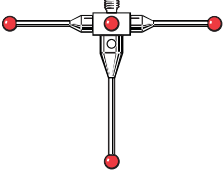
Recommended REVO styli (ceramic hemisphere)

| Ball material |                    | Part number |
|---------------|--------------------|-------------|
| Ceramic       |                    | A-5000-3614 |
| A             | Ball dia. mm (in.) | 18.0 (0.71) |
| B             | Length mm (in.)    | 11.0 (0.44) |
| C             | Mass grammes       | 3.3         |





## Star styli (fixed)

| Part number        | A-5003-4011<br>Tungsten carbide                                                   | A-5000-7811<br>Tungsten carbide                                                   | A-5003-4787<br>Tungsten carbide                                                   | A-5003-4788<br>Tungsten carbide                                                   | A-5000-7629<br>Stainless steel                                                      | A-5000-3626<br>Stainless steel                                                      |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Span mm (in.)      | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 18.0 (0.71)                                                                         | 30.0 (1.19)                                                                         |
| Ball dia. mm (in.) | 0.5 (0.020)                                                                       | 1.0 (0.04)                                                                        | 0.5 (0.020)                                                                       | 1.0 (0.04)                                                                        | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          |
| Stem dia. mm (in.) | 0.3 (0.012)                                                                       | 0.7 (0.028)                                                                       | 0.3 (0.012)                                                                       | 0.7 (0.028)                                                                       | 1.4 (0.05)                                                                          | 1.4 (0.05)                                                                          |
| EWL* mm (in.)      | N/A                                                                               | N/A                                                                               | N/A                                                                               | N/A                                                                               | 12.0 (0.48)                                                                         | 12.0 (0.48)                                                                         |
| Mass grammes       | 0.7                                                                               | 0.5                                                                               | 0.7                                                                               | 0.9                                                                               | 1.3                                                                                 | 1.8                                                                                 |
|                    |  |  |  |  |  |  |

M2 threaded  
stylus range

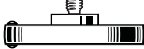
3.11

## Star styli centres

| Part number             | A-5003-4789<br>Tungsten carbide                                                     | A-5003-4790<br>Tungsten carbide                                                     | A-5003-4791<br>Tungsten carbide                                                     | A-5000-3609<br>Stainless steel                                                      |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ball dia mm (in.)       | 1.0 (0.04)                                                                          | 0.5 (0.020)                                                                         | 1.0 (0.04)                                                                          | 2.0 (0.08)                                                                          |
| Overall length mm (in.) | 8.5 (0.33)                                                                          | 18.5 (0.73)                                                                         | 18.5 (0.73)                                                                         | 16.3 (0.64)                                                                         |
| Stem dia. mm (in.)      | 0.7 (0.028)                                                                         | 0.4 (0.02)                                                                          | 0.7 (0.028)                                                                         | 1.4 (0.05)                                                                          |
| EWL* mm (in.)           | 3.5 (0.14)                                                                          | 7.0 (0.28)                                                                          | 11.0 (0.44)                                                                         | 12.0 (0.48)                                                                         |
| Mass grammes            | 0.31                                                                                | 0.43                                                                                | 0.45                                                                                | 0.44                                                                                |
|                         |  |  |  |  |

## Disc styli

| Part number           | A-5000-3611<br>Ruby                                                               | A-5004-1387<br>Silver steel                                                       | A-5004-1395*<br>Silver steel                                                      | A-5004-1396*<br>Silver steel                                                       | A-5000-7809*<br>Silver steel                                                        |
|-----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Disc dia mm (in.)     | 6.0 (0.24)                                                                        | 10.0 (0.40)                                                                       | 12.0 (0.47)                                                                       | 14.0 (0.55)                                                                        | 18.0 (0.71)                                                                         |
| Disc depth mm (in.)   | 1.2 (0.05)                                                                        | 1.2 (0.05)                                                                        | 1.6 (0.06)                                                                        | 1.6 (0.06)                                                                         | 1.5 (0.06)                                                                          |
| Roller depth mm (in.) | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 2.5 (0.10)                                                                        | 2.5 (0.10)                                                                         | 2.5 (0.10)                                                                          |
| Stem dia. mm (in.)    | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 4.2 (0.17)                                                                        | 4.2 (0.17)                                                                         | 4.2 (0.17)                                                                          |
| Mass grammes          | 0.6                                                                               | 1.0                                                                               | 2.0                                                                               | 2.5                                                                                | 3.0                                                                                 |
|                       |  |  |  |  |  |

| Part number           | A-5000-3613<br>Silver steel                                                       | A-5000-7810*<br>Silver steel                                                       | A-5000-4187*<br>Silver steel                                                      |
|-----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Disc dia mm (in.)     | 18.0 (0.71)                                                                       | 25.0 (0.99)                                                                        | 25.0 (0.99)                                                                       |
| Disc depth mm (in.)   | 2.2 (0.09)                                                                        | 1.5 (0.06)                                                                         | 3.0 (0.12)                                                                        |
| Roller depth mm (in.) | 3.0 (0.12)                                                                        | 2.5 (0.10)                                                                         | N/A                                                                               |
| Stem dia. mm (in.)    | N/A                                                                               | 4.2 (0.17)                                                                         | N/A                                                                               |
| Mass grammes          | 2.7                                                                               | 4.0                                                                                | 3.8                                                                               |
|                       |  |  |  |

| Part number           | A-5555-0298<br>Ceramic                                                              | A-5555-0297<br>Ceramic                                                              | A-5555-0299<br>Ceramic                                                              | A-5555-0300<br>Ceramic                                                               |
|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Disc dia mm (in.)     | 4.0 (0.16)                                                                          | 8.0 (0.32)                                                                          | 14.0 (0.55)                                                                         | 20.0 (0.79)                                                                          |
| Disc depth mm (in.)   | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                           |
| Roller depth mm (in.) | N/A                                                                                 | N/A                                                                                 | N/A                                                                                 | N/A                                                                                  |
| Stem dia. mm (in.)    | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | N/A                                                                                 | N/A                                                                                  |
| Mass grammes          | 1                                                                                   | 1                                                                                   | 1                                                                                   | 3.8                                                                                  |
|                       |  |  |  |  |

\* M2 stylus can be attached to front face

## Cylinder styli

| Part number             | A-5004-7589<br>Silver steel                                                       | A-5004-7590<br>Silver steel                                                       | A-5000-8876<br>Ruby                                                               | A-5000-8877<br>Ruby                                                               | A-5000-7812<br>Ruby                                                                 | A-5003-0073<br>Ruby                                                                 |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cylinder dia mm (in.)   | 1.5 (0.06)                                                                        | 3.0 (0.12)                                                                        | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                          | 4.0 (0.16)                                                                          |
| Overall length mm (in.) | 10.75 (0.42)                                                                      | 12.75 (0.50)                                                                      | 15.0 (0.60)                                                                       | 15.0 (0.60)                                                                       | 20.0 (0.79)                                                                         | 22.0 (0.87)                                                                         |
| Stem dia. mm (in.)      | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | N/A                                                                               | N/A                                                                               | 1.6 (0.07)                                                                          | 2.0 (0.08)                                                                          |
| EWL* mm (in.)           | 1.25 (0.05)                                                                       | 3.8 (0.15)                                                                        | 8.0 (0.32)                                                                        | 8.0 (0.32)                                                                        | 7.2 (0.29)                                                                          | 10.0 (0.40)                                                                         |
| Mass grammes            | 0.3                                                                               | 0.6                                                                               | 0.3                                                                               | 0.3                                                                               | 0.5                                                                                 | 0.9                                                                                 |
|                         |  |  |  |  |  |  |

\*Effective working length

## Parallel hemispherical ended styli (tungsten carbide)

| Part number             | A-5003-1208                                                                       | A-5003-1210                                                                       | A-5003-1218                                                                       | A-5003-1219                                                                       | A-5003-1228                                                                        | A-5003-0074                                                                         | A-5003-1258                                                                         |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cylinder dia mm (in.)   | 0.3 (0.012)                                                                       | 0.5 (0.020)                                                                       | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                         | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          |
| Overall length mm (in.) | 10.2 (0.41)                                                                       | 15.3 (0.61)                                                                       | 35.5 (1.40)                                                                       | 15.8 (0.63)                                                                       | 16.0 (0.63)                                                                        | 40.0 (1.58)                                                                         | 22.5 (0.89)                                                                         |
| EWL* mm (in.)           | 2.7 (0.11)                                                                        | 7.8 (0.31)                                                                        | 28.0 (1.10)                                                                       | 8.3 (0.33)                                                                        | 8.5 (0.34)                                                                         | 32.0 (1.26)                                                                         | 22.5 (0.89)                                                                         |
| Mass grammes            | 0.3                                                                               | 0.3                                                                               | 0.7                                                                               | 0.6                                                                               | 0.8                                                                                | 2.0                                                                                 | 2.0                                                                                 |
|                         |  |  |  |  |  |  |  |

## Stylus extensions (stainless steel)

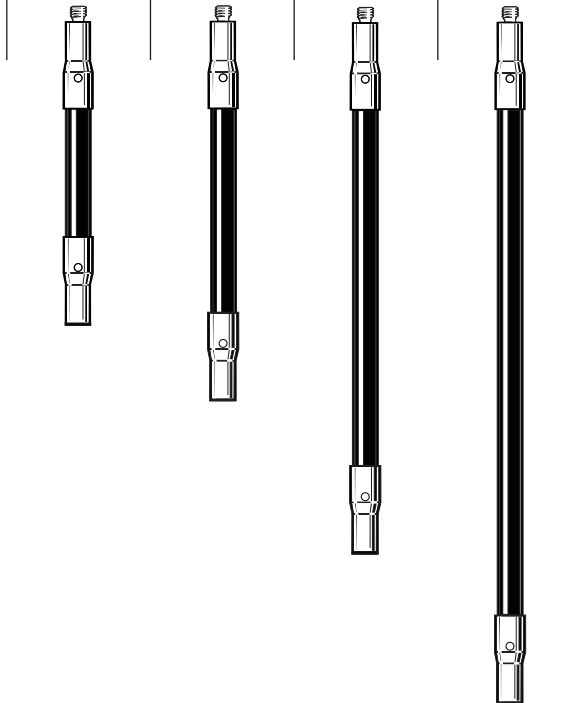
| Part number        | A-5004-7610                                                                         | A-5004-7585                                                                         | A-5004-7586                                                                         | A-5004-7591                                                                         | A-5004-7611                                                                          |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Length mm (in.)    | 5.0 (0.20)                                                                          | 10.0 (0.40)                                                                         | 20.0 (0.79)                                                                         | 30.0 (1.19)                                                                         | 40.0 (1.58)                                                                          |
| Stem dia. mm (in.) | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                           |
| Mass grammes       | 0.2                                                                                 | 0.4                                                                                 | 0.9                                                                                 | 1.4                                                                                 | 1.8                                                                                  |
|                    |  |  |  |  |  |

## Stylus extensions (ceramic)

| Part number        | A-5003-0070                                                                         | A-5003-0071                                                                         | A-5003-0072                                                                         |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Length mm (in.)    | 30.0 (1.19)                                                                         | 40.0 (1.58)                                                                         | 50.0 (1.97)                                                                         |
| Stem dia. mm (in.) | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          |
| Mass grammes       | 0.97                                                                                | 1.22                                                                                | 1.51                                                                                |
|                    |  |  |  |

## Stylus extensions (carbon fibre)

| Part number         | A-5003-2280 | A-5003-2281 | A-5003-2282 | A-5003-2283 |
|---------------------|-------------|-------------|-------------|-------------|
| Length mm (in.)     | 40.0 (1.58) | 50.0 (1.97) | 70.0 (2.76) | 90.0 (3.55) |
| Stem dia. mm (in.)  | 3.0 (0.12)  | 3.0 (0.12)  | 3.0 (0.12)  | 3.0 (0.12)  |
| Outer dia. mm (in.) | 3.5 (0.14)  | 3.5 (0.14)  | 3.5 (0.14)  | 3.5 (0.14)  |
| Mass grammes        | 0.9         | 1.0         | 1.3         | 1.5         |



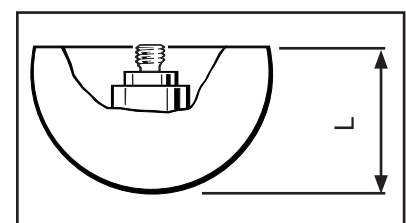
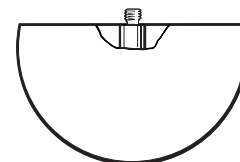
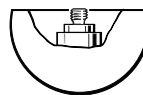
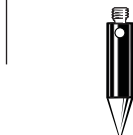
Tightening tool recommended: A-5003-2300

M2 threaded  
stylus range

**3.15**

## Special purpose styli

| Part number          | A-5004-7588<br>Silver steel | A-5000-7813<br>Tungsten carbide | A-5000-3614<br>Ceramic | A-5004-7400<br>Ceramic |
|----------------------|-----------------------------|---------------------------------|------------------------|------------------------|
| Length mm (in.)      | 15.0 (0.60)                 | 10.0 (0.40)                     | 11.0 (0.44)            | 18.0 (0.71)            |
| Ball dia. mm (in.)   | N/A                         | N/A                             | 18.0 (0.71)            | 30.0 (1.19)            |
| End feature mm (in.) | Flat Rad 0.05 (0.002)       | Spherical Rad 0.1 (0.004)       | N/A                    | N/A                    |
| Mass grammes         | 0.7                         | 0.7                             | 3.3                    | 14.5                   |
| Angles               | 30° inclusive               | 30° inclusive                   | N/A                    | N/A                    |





# M3 threaded stylus range

4.1



## SP25M with two FCR25s on a modular rail system

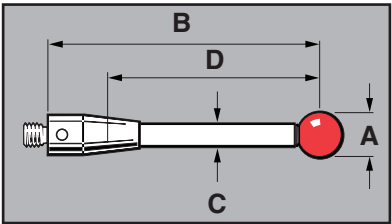
Renishaw's probing systems are designed to give optimum performance using styli from Renishaw's comprehensive range. The following probes all use M3 threaded styli, however, with suitable adaptors, other thread sizes may be used.

- TP1
- TP6
- REVO®
- SP25M

Ruby ball styli (stainless steel stems)

| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Ruby            |                    | A-5004-7401                                                                       | A-5004-0421                                                                       | A-5004-0422                                                                       | A-5004-0423                                                                       |
| Silicon nitride |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Zirconia        |                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| A               | Ball dia. mm (in.) | 1.0 (0.04)                                                                        | 2.0 (0.08)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                        |
| B               | Length mm (in.)    | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       | 10.0 (0.40)                                                                       |
| C               | Stem dia. mm (in.) | 0.7 (0.028)                                                                       | 1.5 (0.06)                                                                        | 1.5 (0.06)                                                                        | 2.5 (0.10)                                                                        |
| D               | EWL* mm (in.)      | 4.0 (0.16)                                                                        | 6.0 (0.24)                                                                        | 6.5 (0.25)                                                                        | 7.0 (0.28)                                                                        |
|                 | Mass grammes       | 0.6                                                                               | 0.5                                                                               | 0.5                                                                               | 0.7                                                                               |
|                 |                    |  |  |  |  |

| Ball material       |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|---------------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Ruby                |                    | A-5000-3551                                                                         | A-5000-3552                                                                         | A-5000-3553                                                                         | A-5000-7606                                                                         | A-5000-7630                                                                          | A-5000-3554                                                                           |
| Silicon nitride     |                    | A-5004-1979                                                                         | A-5003-5723                                                                         | A-5003-6257                                                                         | A-5003-5061                                                                         | A-5003-6695                                                                          | A-5004-1980                                                                           |
| Zirconia            |                    | A-5004-2955                                                                         | A-5003-5736                                                                         | A-5004-2956                                                                         | A-5003-5737                                                                         | A-5003-9500                                                                          | A-5004-2957                                                                           |
| A                   | Ball dia. mm (in.) | 1.0 (0.04)                                                                          | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                           | 4.0 (0.16)                                                                            |
| B                   | Length mm (in.)    | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                          | 31.0 (1.23)                                                                           |
| C                   | Stem dia. mm (in.) | 0.7 (0.028)                                                                         | 1.4 (0.05)                                                                          | 1.5 (0.06)                                                                          | 2.5 (0.10)                                                                          | 2.5 (0.10)                                                                           | 2.5 (0.10)                                                                            |
| D                   | EWL* mm (in.)      | 4.0 (0.16)                                                                          | 9.6 (0.38)                                                                          | 14.7 (0.58)                                                                         | 17.2 (0.68)                                                                         | 21.0 (0.83)                                                                          | 27.0 (1.07)                                                                           |
|                     | Mass grammes       | 1.0                                                                                 | 1.0                                                                                 | 1.0                                                                                 | 1.3                                                                                 | 1.5                                                                                  | 2.5                                                                                   |
| 21 mm – 31 mm range |                    |  |  |  |  |  |  |





## Ruby ball styli (tungsten carbide stems)

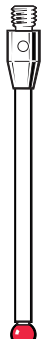
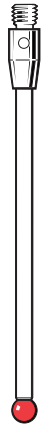
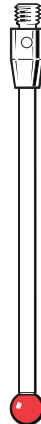
| Ball material       |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|---------------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby                |                    | A-5000-7632                                                                       | A-5004-2442                                                                       | A-5003-0050                                                                       | A-5003-3676                                                                       | A-5003-0054                                                                       | A-5004-7402                                                                         |
| Silicon nitride     |                    | A-5004-2023                                                                       |                                                                                   | A-5004-1198                                                                       |                                                                                   | A-5004-1982                                                                       |                                                                                     |
| Zirconia            |                    | A-5004-2959                                                                       |                                                                                   | A-5004-2960                                                                       |                                                                                   | A-5004-2961                                                                       |                                                                                     |
| A                   | Ball dia. mm (in.) | 0.5 (0.020)                                                                       | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 3.0 (0.12)                                                                          |
| B                   | Length mm (in.)    | 21.0 (0.83)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.2 (0.80)                                                                       | 20.0 (0.79)                                                                         |
| C                   | Stem dia. mm (in.) | 0.4 (0.02)                                                                        | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                          |
| D                   | EWL* mm (in.)      | 2.0 (0.08)                                                                        | 12.5 (0.50)                                                                       | 12.5 (0.50)                                                                       | 12.5 (0.50)                                                                       | 12.5 (0.50)                                                                       | 14.0 (0.55)                                                                         |
|                     | Mass grammes       | 1.0                                                                               | 0.7                                                                               | 0.8                                                                               | 1.1                                                                               | 1.3                                                                               | 1.4                                                                                 |
| 20 mm – 30 mm range |                    |  |  |  |  |  |  |

| Ball material       |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |
|---------------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby                |                    | A-5003-0051                                                                         | A-5003-0052                                                                         | A-5003-0055                                                                         | A-5003-0057                                                                         |
| Silicon nitride     |                    | A-5003-8091                                                                         | A-5003-5724                                                                         | A-5004-1983                                                                         | A-5004-1984                                                                         |
| Zirconia            |                    | A-5004-2962                                                                         | A-5003-5738                                                                         | A-5004-2963                                                                         | A-5003-6766                                                                         |
| A                   | Ball dia. mm (in.) | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          |
| B                   | Length mm (in.)    | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         |
| C                   | Stem dia. mm (in.) | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          |
| D                   | EWL* mm (in.)      | 22.5 (0.89)                                                                         | 22.8 (0.90)                                                                         | 22.5 (0.89)                                                                         | 24.0 (0.94)                                                                         |
|                     | Mass grammes       | 0.93                                                                                | 1.32                                                                                | 1.81                                                                                | 1.83                                                                                |
| 20 mm – 30 mm range |                    |  |  |  |  |

## Ruby ball styli (tungsten carbide stems)

| Ball material       |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                      |                                                                                      |                                                                                      |
|---------------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Ruby                |                    | A-5003-0053                                                                       | A-5003-0056                                                                       | A-5003-0058                                                                       | A-5003-0060                                                                       | A-5003-0062                                                                        | A-5003-0059                                                                          | A-5003-0061                                                                          | A-5003-0063                                                                          |
| Silicon nitride     |                    | A-5004-1985                                                                       | A-5004-1986                                                                       | A-5004-1987                                                                       | A-5004-1195                                                                       | A-5004-1718                                                                        | A-5004-1199                                                                          | A-5004-1988                                                                          | A-5004-1201                                                                          |
| Zirconia            |                    | A-5003-2043                                                                       | A-5004-2964                                                                       | A-5004-2965                                                                       | A-5003-6767                                                                       | A-5004-2966                                                                        | A-5004-2968                                                                          | A-5003-6768                                                                          | A-5003-7665                                                                          |
| A                   | Ball dia. mm (in.) | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                        | 5.0 (0.20)                                                                         | 3.0 (0.12)                                                                           | 4.0 (0.16)                                                                           | 5.0 (0.20)                                                                           |
| B                   | Length mm (in.)    | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                       | 40.0 (1.58)                                                                        | 50.0 (1.97)                                                                          | 50.0 (1.97)                                                                          | 50.0 (1.97)                                                                          |
| C                   | Stem dia. mm (in.) | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                         | 2.0 (0.08)                                                                           | 2.0 (0.08)                                                                           | 2.5 (0.10)                                                                           |
| D                   | EWL* mm (in.)      | 32.5 (1.28)                                                                       | 32.5 (1.28)                                                                       | 33.7 (1.33)                                                                       | 36.0 (1.42)                                                                       | 40.0 (1.58)                                                                        | 43.7 (1.72)                                                                          | 46.0 (1.82)                                                                          | 50.0 (1.97)                                                                          |
|                     | Mass grammes       | 1.58                                                                              | 2.28                                                                              | 2.30                                                                              | 2.38                                                                              | 3.50                                                                               | 2.78                                                                                 | 2.85                                                                                 | 4.10                                                                                 |
| 40 mm – 50 mm range |                    |  |  |  |  |  |  |  |  |

## Ruby ball styli (ceramic stems)

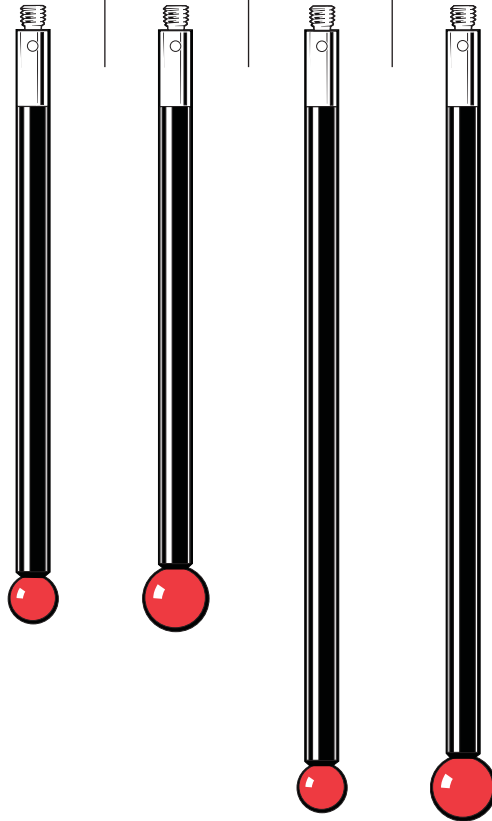
| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Ruby            |                    | A-5004-3646                                                                         | A-5004-2545                                                                         | A-5004-6040                                                                         | A-5004-0154                                                                         | A-5004-6735                                                                          | A-5003-0067                                                                           | A-5003-0068                                                                           | A-5003-0069                                                                           |
| Silicon nitride |                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      | A-5004-1989                                                                           | A-5003-5725                                                                           | A-5004-1990                                                                           |
| Zirconia        |                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      | A-5004-2969                                                                           | A-5003-5739                                                                           | A-5004-2970                                                                           |
| A               | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                           | 3.0 (0.12)                                                                            | 4.0 (0.16)                                                                            | 5.0 (0.20)                                                                            |
| B               | Length mm (in.)    | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                          | 50.0 (1.97)                                                                           | 50.0 (1.97)                                                                           | 50.0 (1.97)                                                                           |
| C               | Stem dia. mm (in.) | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                           | 2.0 (0.08)                                                                            | 2.0 (0.08)                                                                            | 2.5 (0.10)                                                                            |
| D               | EWL* mm (in.)      | 32.5 (1.28)                                                                         | 32.5 (1.28)                                                                         | 32.5 (1.28)                                                                         | 36.0 (1.42)                                                                         | 40.0 (1.58)                                                                          | 43.7 (1.72)                                                                           | 46.0 (1.82)                                                                           | 50.0 (1.97)                                                                           |
|                 | Mass grammes       | 0.9                                                                                 | 1.1                                                                                 | 1.1                                                                                 | 1.2                                                                                 | 1.7                                                                                  | 1.17                                                                                  | 1.24                                                                                  | 1.33                                                                                  |
| 50 mm range     |                    |  |  |  |  |  |  |  |  |

\*Effective working length

## Ruby ball styli (carbon fibre stems)

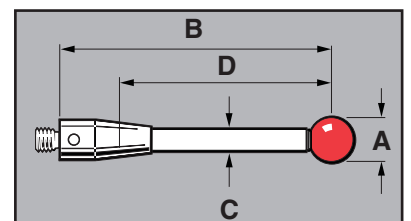
| Ball material   |                    | Part number |             |              |              |
|-----------------|--------------------|-------------|-------------|--------------|--------------|
| Ruby            |                    | A-5003-4860 | A-5003-4862 | A-5003-4861  | A-5003-4863  |
| Silicon nitride |                    | A-5003-5726 | A-5004-1991 | A-5003-5727  | A-5004-5466  |
| Zirconia        |                    | A-5003-5740 | A-5003-6771 | A-5003-5741  | A-5003-6778  |
| A               | Ball dia. mm (in.) | 6.0 (0.24)  | 8.0 (0.32)  | 6.0 (0.24)   | 8.0 (0.32)   |
| B               | Length mm (in.)    | 75.0 (2.96) | 75.0 (2.96) | 100.0 (3.94) | 100.0 (3.94) |
| C               | Stem dia. mm (in.) | 4.0 (0.16)  | 4.0 (0.16)  | 4.0 (0.16)   | 4.0 (0.16)   |
| D               | EWL* mm (in.)      | 75.0 (2.96) | 75.0 (2.96) | 100.0 (3.94) | 100.0 (3.94) |
|                 | Mass grammes       | 2.40        | 2.98        | 2.89         | 3.47         |

75 mm –  
100 mm range



M3 threaded  
stylus range

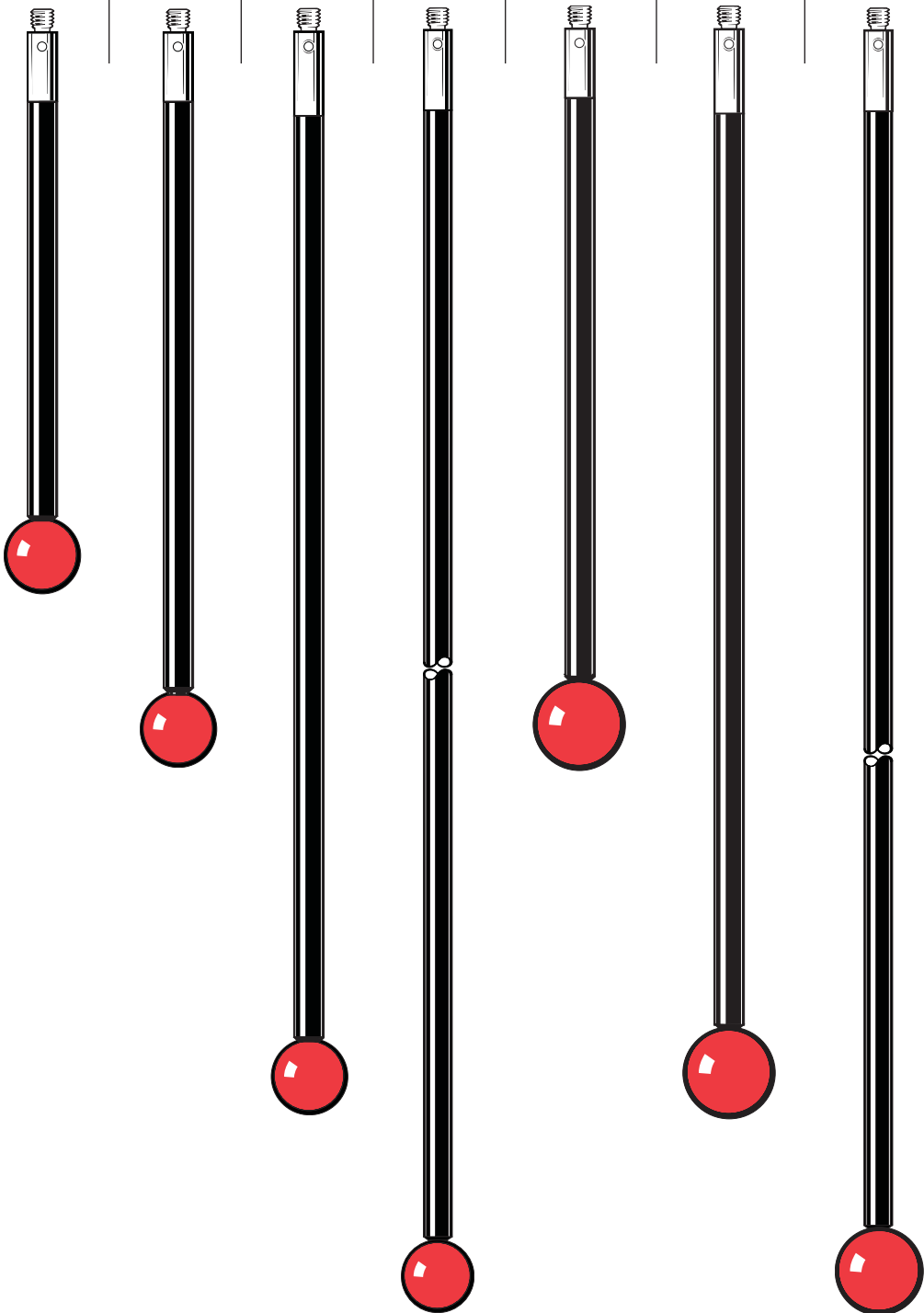
4.5



Ruby ball styli (carbon fibre stems)

| Ball material |                    | Part number |              |              |              |               |               |               |
|---------------|--------------------|-------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A             | Ruby               | A-5003-7057 | A-5003-7056  | A-5003-7055  | A-5003-7054  | A-5003-7445   | A-5003-7446   | A-5003-7447   |
|               | Silicon nitride    | A-5004-1992 | A-5004-1993  | A-5004-1994  | A-5004-1995  | A-5004-1996** | A-5004-1997** | A-5004-1998** |
|               | Zirconia           | A-5004-2972 | A-5003-9495  | A-5004-2973  | A-5004-2974  | A-5004-2975** | A-5004-2976** | A-5004-2977** |
| B             | Ball dia. mm (in.) | 10.0 (0.40) | 10.0 (0.40)  | 10.0 (0.40)  | 10.0 (0.40)  | 12.0 (0.48)   | 12.0 (0.48)   | 12.0 (0.48)   |
| C             | Length mm (in.)    | 75.0 (2.96) | 100.0 (3.94) | 150.0 (5.91) | 200.0 (7.88) | 100.0 (3.94)  | 150.0 (5.91)  | 200.0 (7.88)  |
| D             | Stem dia. mm (in.) | 4.0 (0.16)  | 4.0 (0.16)   | 4.0 (0.16)   | 4.0 (0.16)   | 4.0 (0.16)    | 4.0 (0.16)    | 4.0 (0.16)    |
| E             | EWL* mm (in.)      | 75.0 (2.96) | 100.0 (3.94) | 150.0 (5.91) | 200.0 (7.88) | 100.0 (3.94)  | 150.0 (5.91)  | 200.0 (7.88)  |
| F             | Mass grammes       | 4.05        | 4.53         | 5.49         | 6.47         | 5.9           | 6.9           | 7.9           |

75 mm – 200 mm  
range



\* Effective working length  
\*\* Specials

## Stylus extensions (stainless steel)

| Part number        | A-5004-7609 | A-5004-7583 | A-5004-7584 |
|--------------------|-------------|-------------|-------------|
| Length mm (in.)    | 10.0 (0.40) | 20.0 (0.79) | 35.0 (1.38) |
| Stem dia. mm (in.) | 4.0 (0.16)  | 4.0 (0.16)  | 4.0 (0.16)  |
| Mass grammes       | 0.9         | 1.6         | 2.9         |



## Stylus extension (ceramic)

| Part number        | A-5003-0075 |
|--------------------|-------------|
| Length mm (in.)    | 50.0 (1.97) |
| Stem dia. mm (in.) | 4.0 (0.16)  |
| Mass grammes       | 2.95        |



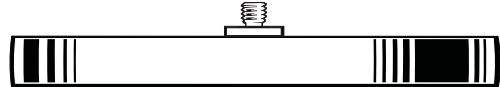
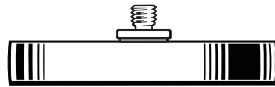
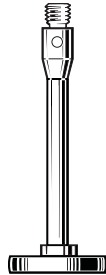
## Stylus extensions (carbon fibre)

| Part number        | A-5003-4864 | A-5003-4865  |
|--------------------|-------------|--------------|
| Length mm (in.)    | 75.0 (2.96) | 100.0 (3.94) |
| Stem dia. mm (in.) | 4.5 (0.17)  | 4.5 (0.17)   |
| Mass grammes       | 2.53        | 3.02         |

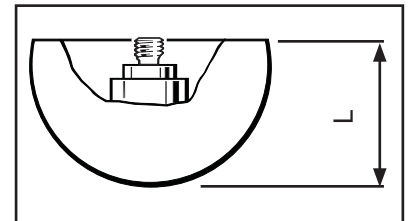
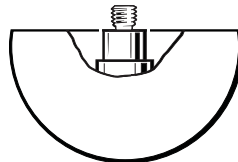
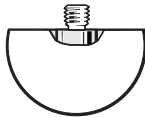


## Disc and hollow ball styli

| Part number         | A-5000-3615<br>Silver steel | A-5000-7612<br>Silver steel | A-5000-7669<br>Carbon steel |
|---------------------|-----------------------------|-----------------------------|-----------------------------|
| Disc dia mm (in.)   | 12.7 (0.50)                 | 35.0 (1.38)                 | 63.5 (2.51)                 |
| Disc depth mm (in.) | 2.2 (0.09)                  | 5.0 (0.20)                  | 6.0 (0.24)                  |
| Stem dia. mm (in.)  | 3.5 (0.14)                  | N/A                         | N/A                         |
| Mass grammes        | 4.0                         | 10.0                        | 45.0                        |

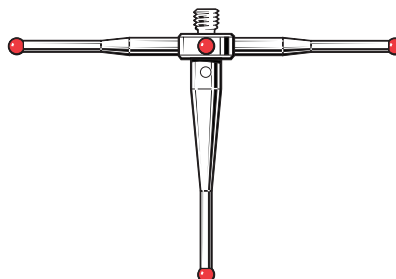
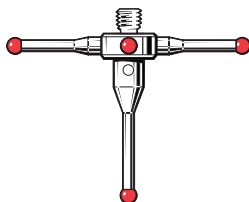


| Part number         | A-5004-3728<br>Ceramic | A-5000-7814<br>Ceramic | A-5003-7098<br>Ceramic |
|---------------------|------------------------|------------------------|------------------------|
| Disc dia mm (in.)   | 18.0 (0.71)            | 30.0 (1.19)            | 30.0 (1.19)            |
| Disc depth mm (in.) | 12.0 (0.48)            | 17.0 (0.67)            | 1.5 (0.06)             |
| Stem dia. mm (in.)  | N/A                    | N/A                    | 4.0 (0.16)             |
| Mass grammes        | 4                      | 13.0                   | 3.6                    |



## Star styli (fixed)

| Part number        | A-5003-0076<br>Stainless steel | A-5003-0077<br>Stainless steel |
|--------------------|--------------------------------|--------------------------------|
| Span mm (in.)      | 30.0 (1.19)                    | 50.0 (1.97)                    |
| Ball mm (in.)      | 2.0 (0.08)                     | 2.0 (0.08)                     |
| Stem dia. mm (in.) | 1.4 (0.05)                     | 1.4 (0.05)                     |
| EWL* mm (in.)      | 11.0 (0.44)                    | 11.0 (0.44)                    |
| Mass grammes       | 2.38                           | 5.25                           |



\*Effective working length

# M4 threaded stylus range

5.1



**The OSP60 is a high-speed optical 3D scanning probe for machining centres**

Renishaw's probing systems are designed to give optimum performance using styli from Renishaw's comprehensive range. The following probes all use M4 threaded styli, however, with suitable adaptors, other thread sizes may be used.

## CMM

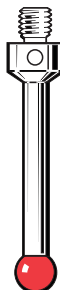
- TP1
- TP7
- SP600

## Machine tool

- MP11
- LP2
- TS27R
- OMP40-2
- OMP400
- RMP60
- RP3
- RMP40
- RLP40
- OLP40
- OMP60
- OTS
- RMP600
- MP250
- HPRA
- HPPA
- HPMa
- OSP60
- PRIMO

## Ruby ball styli (stainless steel stems)

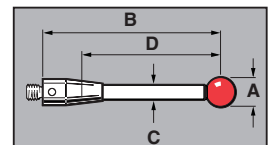
| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Ruby            |                    | A-5000-6350                                                                       | A-5000-7545                                                                       | A-5000-7547                                                                       | A-5000-7549                                                                       | A-5000-7551                                                                        |
| Silicon nitride |                    |                                                                                   |                                                                                   | A-5003-5728                                                                       |                                                                                   | A-5003-5729                                                                        |
| Zirconia        |                    |                                                                                   |                                                                                   | A-5003-5742                                                                       |                                                                                   | A-5003-5743                                                                        |
| A               | Ball dia. mm (in.) | 5.0 (0.20)                                                                        | 1.0 (0.04)                                                                        | 2.0 (0.08)                                                                        | 3.0 (0.12)                                                                        | 4.0 (0.16)                                                                         |
| B               | Length mm (in.)    | 10.0 (0.40)                                                                       | 19.5 (0.77)                                                                       | 19.0 (0.75)                                                                       | 18.5 (0.73)                                                                       | 18.0 (0.71)                                                                        |
| C               | Stem dia. mm (in.) | 3.0 (0.12)                                                                        | 0.7 (0.028)                                                                       | 1.4 (0.05)                                                                        | 2.0 (0.08)                                                                        | 3.0 (0.12)                                                                         |
| D               | EWL* mm (in.)      | 5.0 (0.20)                                                                        | 4.5 (0.18)                                                                        | 9.2 (0.36)                                                                        | 13.0 (0.52)                                                                       | 13.7 (0.54)                                                                        |
|                 | Mass grammes       | 1.9                                                                               | 2.5                                                                               | 2.3                                                                               | 2.0                                                                               | 2.1                                                                                |
|                 |                    |  |  |  |  |  |

| Part number |                    | A-5000-7553                                                                         | A-5000-6731                                                                         | A-5000-6352                                                                         | A-5000-7555                                                                         | A-5000-7557                                                                          |
|-------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| A           | Ball dia. mm (in.) | 5.0 (0.20)                                                                          | 5.0 (0.20)                                                                          | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          | 8.0 (0.32)                                                                           |
| B           | Length mm (in.)    | 17.5 (0.69)                                                                         | 20.0 (0.79)                                                                         | 30.0 (1.19)                                                                         | 17.0 (0.67)                                                                         | 16.0 (0.63)                                                                          |
| C           | Stem dia. mm (in.) | 3.5 (0.14)                                                                          | 3.0 (0.12)                                                                          | 3.0 (0.12)                                                                          | 4.5 (0.18)                                                                          | 6.0 (0.24)                                                                           |
| D           | EWL* mm (in.)      | 13.6 (0.55)                                                                         | 15.89 (0.63)                                                                        | 26.0 (1.03)                                                                         | 13.3 (0.53)                                                                         | 16.0 (0.63)                                                                          |
|             | Mass grammes       | 2.3                                                                                 | 2.4                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.9                                                                                  |
|             |                    |  |  |  |  |  |

10 mm – 30 mm range

## Ruby ball styli (Tungsten carbide stems)

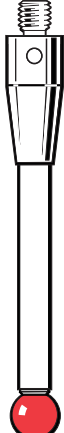
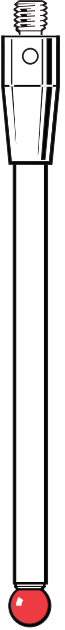
| Part number | A-5003-4792        | A-5003-2932                                                                         | A-5003-4793                                                                         | A-5003-4794                                                                         | A-5003-4795                                                                         | A-5003-4796                                                                          |                                                                                       |
|-------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| A           | Ball dia. mm (in.) | 1.0 (0.04)                                                                          | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                           | 6.0 (0.24)                                                                            |
| B           | Length mm (in.)    | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                          | 20.0 (0.79)                                                                           |
| C           | Stem dia. mm (in.) | 0.7 (0.028)                                                                         | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                           | 2.5 (0.10)                                                                            |
| D           | EWL* mm (in.)      | 10.0 (0.40)                                                                         | 10.0 (0.40)                                                                         | 8.5 (0.33)                                                                          | 8.5 (0.33)                                                                          | 7.9 (0.31)                                                                           | 10.7 (0.42)                                                                           |
|             | Mass grammes       | 2.39                                                                                | 3.01                                                                                | 3.53                                                                                | 3.53                                                                                | 4.52                                                                                 | 4.66                                                                                  |
| 20 mm range |                    |  |  |  |  |  |  |
|             |                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |



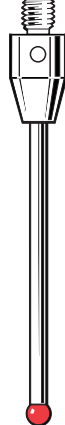


## Ruby ball styli

### Ceramic stems

| Part number                |                    | A-5003-0233                                                                        | A-5003-0235                                                                        | A-5000-3709                                                                        | A-5000-7795                                                                        | A-5003-0236                                                                        | A-5003-2764                                                                          | A-5003-4802                                                                          |
|----------------------------|--------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                            |                    | Ceramic                                                                            | Ceramic                                                                            | Ceramic                                                                            | Ceramic                                                                            | Ceramic                                                                            | Ceramic                                                                              | Ceramic                                                                              |
| <b>A</b>                   | Ball dia. mm (in.) | 4.0 (0.16)                                                                         | 5.0 (0.20)                                                                         | 6.0 (0.24)                                                                         | 8.0 (0.32)                                                                         | 5.0 (0.20)                                                                         | 6.0 (0.24)                                                                           | 8.0 (0.32)                                                                           |
| <b>B</b>                   | Length mm (in.)    | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 50.0 (1.97)                                                                        | 75.0 (2.96)                                                                        | 75.0 (2.96)                                                                          | 75.0 (2.96)                                                                          |
| <b>C</b>                   | Stem dia. mm (in.) | 3.0 (0.12)                                                                         | 3.8 (0.15)                                                                         | 4.5 (0.18)                                                                         | 4.5 (0.18)                                                                         | 3.8 (0.15)                                                                         | 4.5 (0.18)                                                                           | 4.5 (0.18)                                                                           |
| <b>D</b>                   | EWL* mm (in.)      | 33.5 (1.32)                                                                        | 33.5 (1.32)                                                                        | 38.5 (1.50)                                                                        | 50.0 (1.97)                                                                        | 58.5 (2.30)                                                                        | 63.5 (2.51)                                                                          | 75.0 (2.96)                                                                          |
|                            |                    | Mass grammes                                                                       | 3.9                                                                                | 5.0                                                                                | 4.8                                                                                | 5.4                                                                                | 5.63                                                                                 | 5.64                                                                                 |
|                            |                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                      |                                                                                      |
| <b>50 mm – 75 mm range</b> |                    |  |  |  |  |  |  |  |

### Tungsten carbide stems

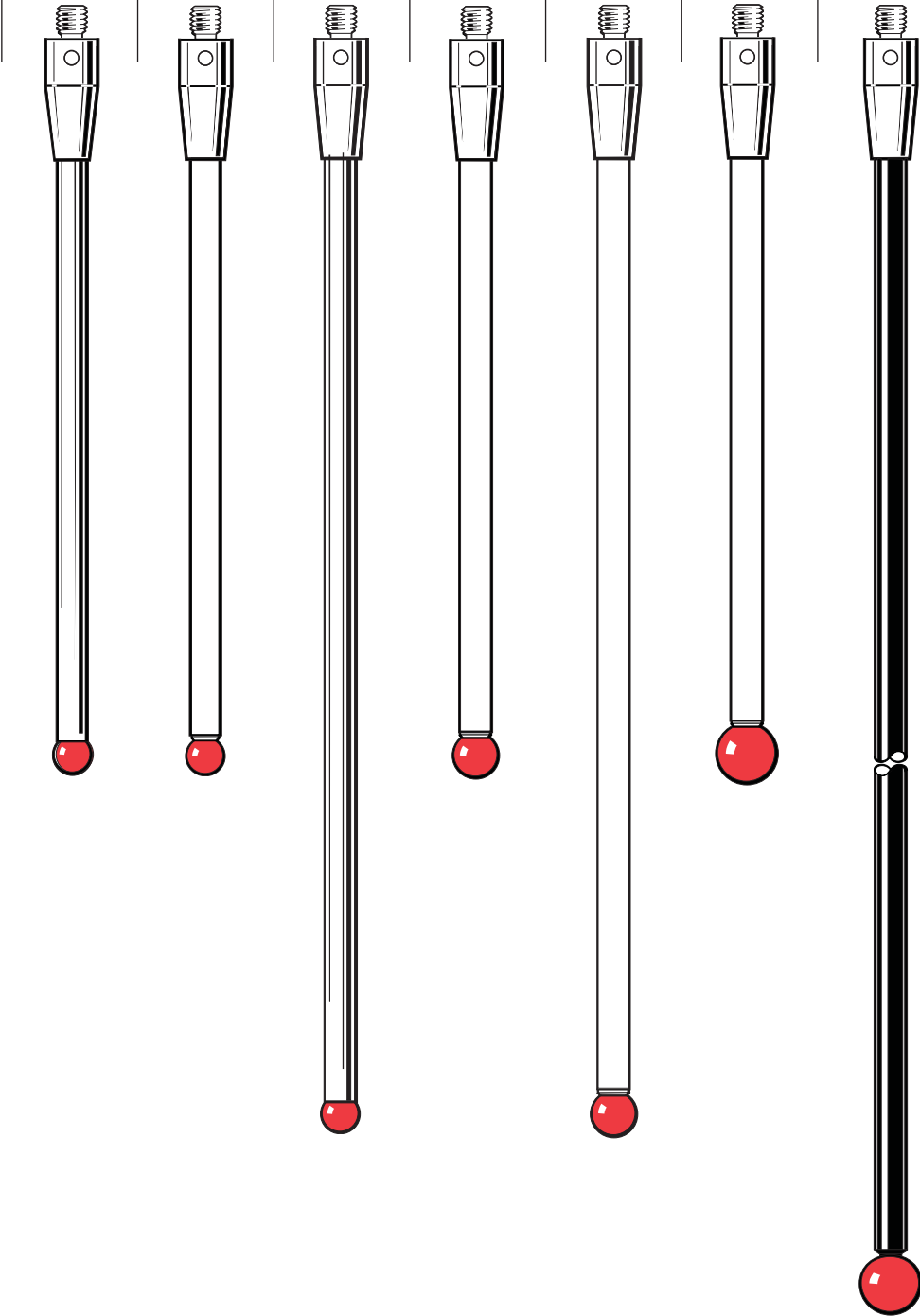
| Part number        |                    | A-5003-4797                                                                         | A-5003-3680                                                                         | A-5003-4799                                                                         | A-5003-4800                                                                         | A-5003-4801                                                                         |
|--------------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |                    | Tungsten carbide                                                                    | Tungsten carbide                                                                    | Tungsten carbide                                                                    | Tungsten carbide                                                                    | Tungsten carbide                                                                    |
| <b>A</b>           | Ball dia. mm (in.) | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          |
| <b>B</b>           | Length mm (in.)    | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         |
| <b>C</b>           | Stem dia. mm (in.) | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 2.5 (0.10)                                                                          |
| <b>D</b>           | EWL* mm (in.)      | 40.0 (1.58)                                                                         | 38.5 (1.51)                                                                         | 38.5 (1.51)                                                                         | 37.9 (1.49)                                                                         | 40.7 (1.60)                                                                         |
|                    |                    | Mass grammes                                                                        | 3.80                                                                                | 4.94                                                                                | 4.99                                                                                | 6.72                                                                                |
|                    |                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>50 mm range</b> |                    |  |  |  |  |  |

### Stainless steel stems

| Part number        |                    | A-5000-7521                                                                           |
|--------------------|--------------------|---------------------------------------------------------------------------------------|
|                    |                    | Stainless steel                                                                       |
| <b>A</b>           | Ball dia. mm (in.) | 5.0 (0.20)                                                                            |
| <b>B</b>           | Length mm (in.)    | 50.0 (1.97)                                                                           |
| <b>C</b>           | Stem dia. mm (in.) | 4.5 (0.18)                                                                            |
| <b>D</b>           | EWL* mm (in.)      | 33.5 (1.32)                                                                           |
|                    |                    | Mass grammes                                                                          |
|                    |                    | 5.8                                                                                   |
| <b>50 mm range</b> |                    |  |

Ruby ball styli

| Part number |                    | A-5000-7522     | A-5000-9761  | A-5000-7523     | A-5000-3712  | A-5000-8156  | A-5000-7796  | A-5003-3461   |
|-------------|--------------------|-----------------|--------------|-----------------|--------------|--------------|--------------|---------------|
|             |                    | Stainless steel | Ceramic      | Stainless steel | Ceramic      | Ceramic      | Ceramic      | Carbon fibre  |
| A           | Ball dia. mm (in.) | 5.0 (0.20)      | 5.0 (0.20)   | 5.0 (0.20)      | 6.0 (0.24)   | 6.0 (0.24)   | 8.0 (0.32)   | 8.0 (0.32)    |
| B           | Length mm (in.)    | 100.0 (3.94)    | 100.0 (3.94) | 150.0 (5.91)    | 100.0 (3.94) | 150.0 (5.91) | 100.0 (3.94) | 300.0 (11.82) |
| C           | Stem dia. mm (in.) | 4.5 (0.18)      | 3.8 (0.15)   | 4.4 (0.17)      | 4.5 (0.18)   | 4.5 (0.18)   | 4.5 (0.18)   | 4.5 (0.18)    |
| D           | EWL* mm (in.)      | 83.2 (3.28)     | 83.5 (3.29)  | 133.0 (5.24)    | 88.5 (3.48)  | 135.0 (5.31) | 100.0 (3.94) | 300.0 (11.82) |
|             | Mass grammes       | 11.3            | 6.3          | 17.4            | 6.3          | 7.9          | 7.5          | 10.4          |



100 mm – 300 mm range

M4 threaded  
stylus range

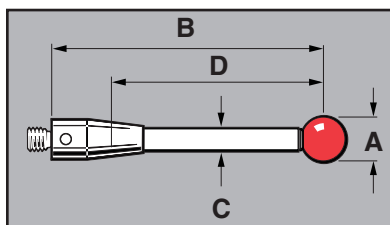
**Ruby ball styli**  
(recommended for use with  
OMP400 and RMP600)

| Ball material |                        | Part number        |                    |                    |                    |
|---------------|------------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Ruby</b>   |                        | <b>A-5003-7306</b> | <b>A-5003-6510</b> | <b>A-5003-6511</b> | <b>A-5003-6512</b> |
|               | <b>Silicon nitride</b> | <b>A-5003-5730</b> | <b>A-5003-5731</b> |                    |                    |
|               | <b>Zirconia</b>        | <b>A-5003-5744</b> | <b>A-5003-5745</b> |                    |                    |
|               |                        | Carbon fibre       | Carbon fibre       | Carbon fibre       | Carbon fibre       |
| <b>A</b>      | Ball dia. mm (in.)     | 6.0 (0.24)         | 6.0 (0.24)         | 6.0 (0.24)         | 6.0 (0.24)         |
| <b>B</b>      | Length mm (in.)        | 50.0 (1.97)        | 100.0 (3.94)       | 150.0 (5.91)       | 200.0 (7.88)       |
| <b>C</b>      | Stem dia. mm (in.)     | 4.5 (0.18)         | 4.5 (0.18)         | 4.5 (0.18)         | 4.5 (0.18)         |
| <b>D</b>      | EWL* mm (in.)          | 38.5 (1.52)        | 88.5 (3.48)        | 138.5 (5.45)       | 188.5 (7.42)       |
|               | Mass grammes           | 4.1                | 6.2                | 7.5                | 8.7                |



**Ruby ball styli**  
(recommended for use with MP700)

| <b>A-5003-1436**</b> | <b>A-5003-1358**</b> | <b>A-5003-1255**</b> | <b>A-5003-1075**</b> |
|----------------------|----------------------|----------------------|----------------------|
| Carbon fibre         | Carbon fibre         | Carbon fibre         | Carbon fibre         |
| 6.0 (0.24)           | 6.0 (0.24)           | 6.0 (0.24)           | 6.0 (0.24)           |
| 50.0 (1.97)          | 100.0 (3.94)         | 150.0 (5.91)         | 200.0 (7.88)         |
| 4.5 (0.18)           | 4.5 (0.18)           | 4.5 (0.18)           | 4.5 (0.18)           |
| 38.5 (1.52)          | 88.5 (3.48)          | 138.5 (5.46)         | 188.5 (7.42)         |
| 4.1                  | 6.2                  | 7.5                  | 8.7                  |

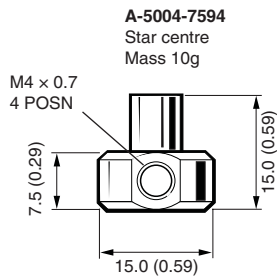
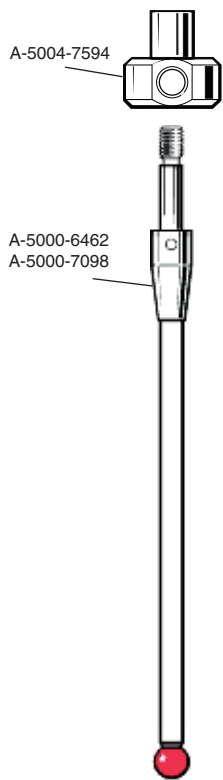


\*Effective working length

\*\* This MP700 specific stylus has an additional internal design feature that in case of severe overtravel crash allows for a controlled reseating of the probe kinematics avoiding strain gauge damage.

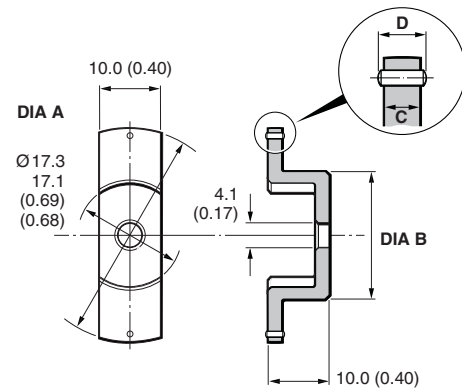
## M4 star styli

| Ball material |                    | Part number        |                    |
|---------------|--------------------|--------------------|--------------------|
| <b>Ruby</b>   |                    | <b>A-5000-6462</b> | <b>A-5000-7098</b> |
| <b>A</b>      | Ball dia. mm (in.) | 6.0 (0.24)         | 6.0 (0.24)         |
| <b>B</b>      | Length mm (in.)    | 100.0 (3.94)       | 50.0 (1.97)        |
| <b>C</b>      | Stem dia. mm (in.) | 4.5 (0.18)         | 4.5 (0.18)         |
| <b>D</b>      | EWL* mm (in.)      | 88.5 (3.48)        | 38.5 (1.52)        |
|               | Mass grammes       | 7.5                | 6.0                |

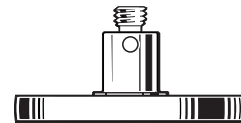


## Disc styli

| Part number         | A-5000-7596  | A-5000-7597  | A-5000-7598  |
|---------------------|--------------|--------------|--------------|
| Diameter A mm (in.) | Ø30.0 (1.19) | Ø35.0 (1.38) | Ø50.0 (1.97) |
| Diameter B mm (in.) | Ø21.0 (0.83) | Ø21.0 (0.83) | Ø23.0 (0.91) |
| C mm (in.)          | 2.2 (0.09)   | 2.2 (0.09)   | 3.0 (0.12)   |
| D mm (in.)          | 3.0 (0.12)   | 3.0 (0.12)   | 4.0 (0.16)   |
| Mass grammes        | 8.01         | 9.57         | 13.55        |

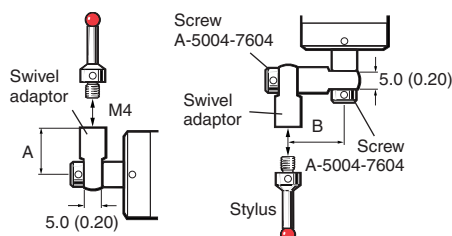


| Part number         | A-5000-6351  |
|---------------------|--------------|
|                     | Silver steel |
| Disc dia. mm (in.)  | Ø30.0 (1.19) |
| Disc depth mm (in.) | 3.0 (0.12)   |
| Length mm (in.)     | 10.0 (0.40)  |
| Rollers             | N/A          |
| Mass grammes        | 7.9          |



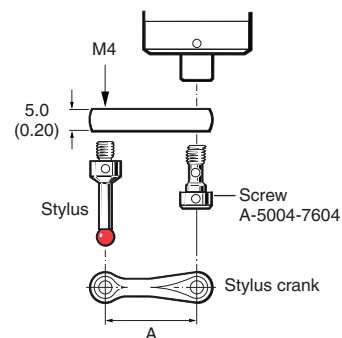
## Swivel adaptor

| Part number       | A-5004-7607 | A-5004-7608 |
|-------------------|-------------|-------------|
| Length A mm (in.) | 10.0 (0.40) | 13.5 (0.54) |
| Length B mm (in.) | 12.5 (0.50) | 16.0 (0.63) |
| Mass grammes      | 2.76        | 3.70        |



## Styli crank

| Part number       | A-5004-7605 | A-5004-7606 |
|-------------------|-------------|-------------|
| Length A mm (in.) | 21.9 (0.86) | 27.6 (1.09) |
| Mass grammes      | 6.07        | 6.94        |

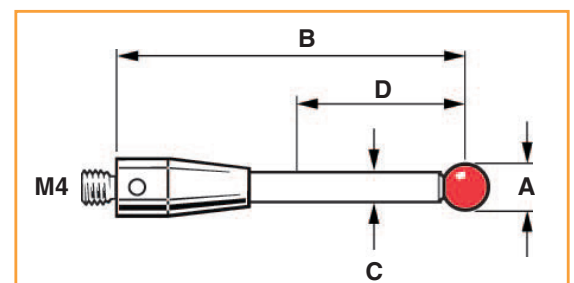
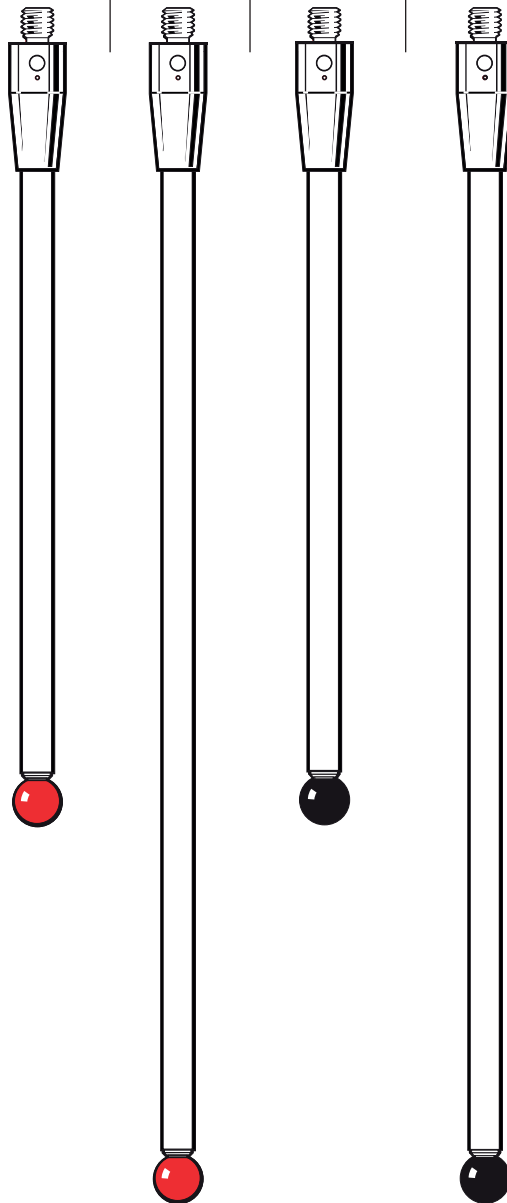


\*Effective working length

## OSP60 styli – M4 thread (ceramic stems)

| Part number (standard)      | A-5004-4472  | A-5004-4474  | A-5004-6470     | A-5004-6471     |
|-----------------------------|--------------|--------------|-----------------|-----------------|
| Part number (calibrated)    | A-5465-8576  | A-5465-8577  | A-5465-5008     | A-5465-5009     |
| Ball material               | Ruby         | Ruby         | Silicon nitride | Silicon nitride |
| <b>A</b> Ball dia. mm (in.) | 6.0 (0.24)   | 6.0 (0.24)   | 6.0 (0.24)      | 6.0 (0.24)      |
| <b>B</b> Length mm (in.)    | 100.0 (3.94) | 150.0 (5.91) | 100.0 (3.94)    | 150.0 (5.91)    |
| <b>C</b> Stem dia. mm (in.) | 3.8 (0.15)   | 3.8 (0.15)   | 3.8 (0.15)      | 3.8 (0.15)      |
| <b>D</b> ESWL* mm (in.)     | 62.9 (2.48)  | 71.5 (2.81)  | 62.9 (2.48)     | 71.5 (2.81)     |
| Mass grammes                | 6.5          | 8.0          | 6.5             | 8.0             |

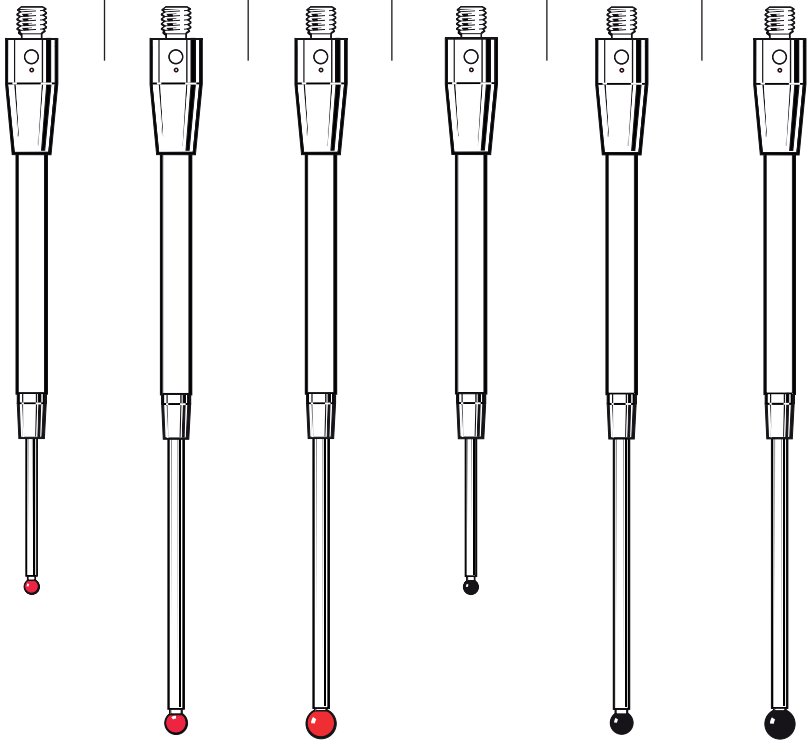
\* ESWL = Effective Scanning Working Length, measured from the centre of the ball to the point at which the stem will foul against a vertical face when at the maximum scanning deflection.



OSP60 styli continued  
M4 thread (ceramic stems)

| Part number (standard)   |                         | A-5004-6463 | A-5004-6464  | A-5004-6465  | A-5004-6467     | A-5004-6468     | A-5004-6469     |
|--------------------------|-------------------------|-------------|--------------|--------------|-----------------|-----------------|-----------------|
| Part number (calibrated) |                         | A-5465-5001 | A-5465-5002  | A-5465-5003  | A-5465-5005     | A-5465-5006     | A-5465-5007     |
| Ball material            |                         | Ruby        | Ruby         | Ruby         | Silicon nitride | Silicon nitride | Silicon nitride |
| A                        | Ball diameter mm (inch) | 2.0 (0.08)  | 3.0 (0.12)   | 4.0 (0.16)   | 2.0 (0.08)      | 3.0 (0.12)      | 4.0 (0.16)      |
| B                        | Length mm (inch)        | 80.0 (3.15) | 100.0 (3.94) | 100.0 (3.94) | 80.0 (3.15)     | 100.0 (3.94)    | 100.0 (3.94)    |
| C                        | Stem diameter mm (inch) | 1.5 (0.06)  | 2.0 (0.08)   | 2.0 (0.08)   | 1.5 (0.06)      | 2.0 (0.08)      | 2.0 (0.08)      |
| D                        | ESWL* mm (inch)         | 10.7 (0.42) | 27.0 (1.06)  | 42.6 (1.68)  | 10.7 (0.42)     | 27.0 (1.06)     | 42.6 (1.68)     |
| E                        | Stem diameter mm (inch) | 3.8 (0.15)  | 3.8 (0.15)   | 3.8 (0.15)   | 3.8 (0.15)      | 3.8 (0.15)      | 3.8 (0.15)      |
| Mass (grammes)           |                         | 5.9         | 7.4          | 7.4          | 5.9             | 7.4             | 7.4             |

\* ESWL = Effective Scanning Working Length, measured from the centre of the ball to the point at which the stem will foul against a vertical face when at the maximum scanning deflection.



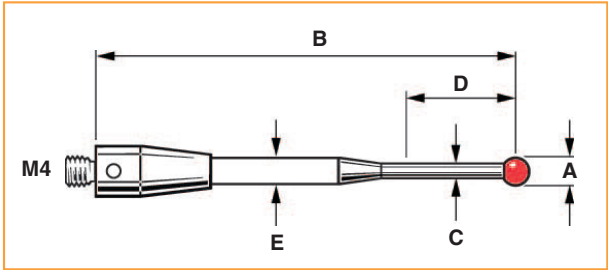
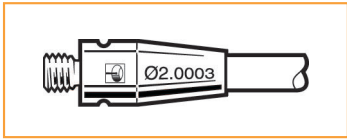
OSP60 standard range

During scanning the stylus is constantly deflected, so the ceramic stem has been designed to be narrow and therefore tightly control all squareness tolerances. This ensures that even when measuring a part with vertical surfaces, such as on prismatic parts, the risk of the stylus shank contacting the part before the stylus tip is minimised.

OSP60 calibrated range

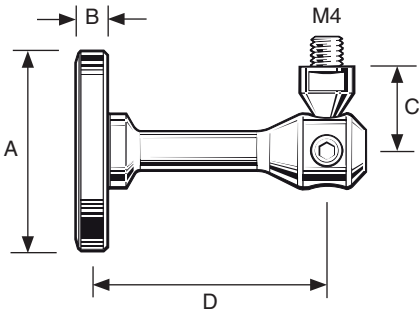
In the variable temperature environment typical of a machine tool, the dimensional variation of the calibration sphere, compared with the machine structure, can degrade the performance of the measurement system. In the highest accuracy applications, this contribution to the overall system measurement uncertainty can be significant.

To ensure the highest possible measurement accuracy in all measurement conditions, the ball on each stylus within the OSP60 calibrated range is measured and UKAS certified. The exact ball diameter is engraved onto the stylus holder, so that this highly accurate value can be applied during probe calibration as an absolute reference.



Primo toolsetter stylus

|                 |                     |                  |
|-----------------|---------------------|------------------|
| Part number     |                     | A-5472-3000      |
|                 |                     | Tungsten carbide |
| Ruby            |                     |                  |
| Silicon nitride |                     |                  |
| Zirconia        |                     |                  |
| A               | Disc dia. mm (in.)  | 26 (1.02)        |
| B               | Disc depth mm (in.) | 4 (0.16)         |
| C               | Length A mm (in.)   | 11 (0.43)        |
| D               | Length B mm (in.)   | 31 (1.22)        |
| Mass grammes    |                     | 34               |



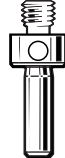
## Flat bottom cylinder stylus (tungsten carbide)

| Part number             | A-5004-5370<br>Tungsten<br>carbide |
|-------------------------|------------------------------------|
| Cylinder dia. mm (in.)  | 1.0 (0.04)                         |
| Overall length mm (in.) | 20.0 (0.79)                        |
| EWL mm (in.)            | 10.0 (0.40)                        |
| Mass grammes            | 2.5                                |



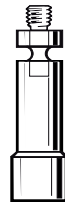
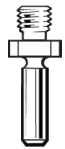
This flat-bottomed stylus has been specifically designed for xy and accurate z point measurement with the face being precision ground parallel.

## Crash protection devices

| Part number     | A-5004-7598                                                                         | A-5004-7603                                                                         | A-5004-7604                                                                         | A-5004-7621                                                                         | A-5003-0661*<br>A-5004-1865                                                          | A-5004-7624<br>A-5004-1867                                                            | A-5004-6723<br>A-5004-1869                                                            |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| For pack of ten | Stainless steel                                                                     | Stainless steel                                                                     | Stainless steel                                                                     | Silver steel                                                                        | Silver steel                                                                         | Silver steel                                                                          | Silver steel                                                                          |
| Length mm (in.) | 8.0 (0.32)                                                                          | 8.0 (0.32)                                                                          | 10.0 (0.40)                                                                         | 12.0 (0.48)                                                                         | 15.2 (0.60)                                                                          | 9.0 (0.36)                                                                            | 16.0 (0.63)                                                                           |
| Mass grammes    | 1.8                                                                                 | 1.4                                                                                 | 1.5                                                                                 | 2.7                                                                                 | 4.6                                                                                  | 1.5                                                                                   | 2.1                                                                                   |
| For use on      | LP2                                                                                 | LP2                                                                                 | LP2                                                                                 | MP10                                                                                | TS27R                                                                                | HPMA                                                                                  | HPMA                                                                                  |
|                 |                                                                                     |                                                                                     |                                                                                     | MP12                                                                                |                                                                                      | HPRA                                                                                  | HPRA                                                                                  |
|                 |                                                                                     |                                                                                     |                                                                                     | RMP60                                                                               |                                                                                      | HPPA                                                                                  | HPPA                                                                                  |
|                 |                                                                                     |                                                                                     |                                                                                     | OMP60                                                                               |                                                                                      |                                                                                       |                                                                                       |
|                 |                                                                                     |                                                                                     |                                                                                     | MP3                                                                                 |                                                                                      |                                                                                       |                                                                                       |
|                 |                                                                                     |                                                                                     |                                                                                     | MP11                                                                                |                                                                                      |                                                                                       |                                                                                       |
|                 |  |  |  |  |  |  |  |

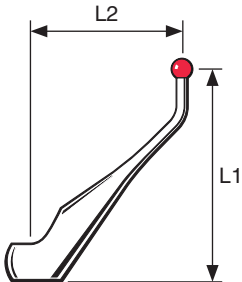
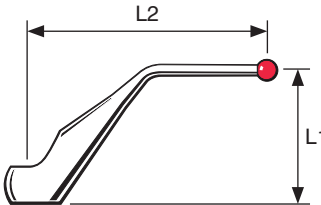
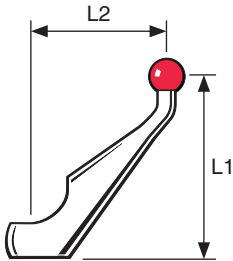
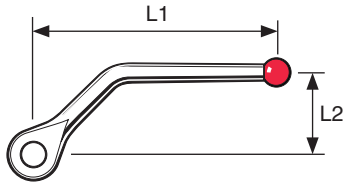
Use **P-TL09-0003**  
to tighten.

\* Please note: If you require the full TS27R break stem kit, please order A-5003-5171.

| Part number     | A-5004-7616<br>M3<br>Silver steel                                                   | A-5004-7618<br>M3<br>Silver steel                                                   | A-5004-7619<br>M3<br>Silver steel                                                   | A-5004-7620<br>M4<br>Silver steel                                                   | A-5004-7622<br>M4<br>Silver steel                                                    |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Length mm (in.) | 13.3 (0.52)                                                                         | 22.3 (0.88)                                                                         | 30.3 (1.19)                                                                         | 13.5 (0.53)                                                                         | 19.0 (0.75)                                                                          |
| Mass grammes    | 2.43                                                                                | 3.6                                                                                 | 4.5                                                                                 | 1.37                                                                                | 2.2                                                                                  |
| For use on      | TS20                                                                                | TS20                                                                                | TS20                                                                                | RP1/2                                                                               | TSA                                                                                  |
|                 |  |  |  |  |  |

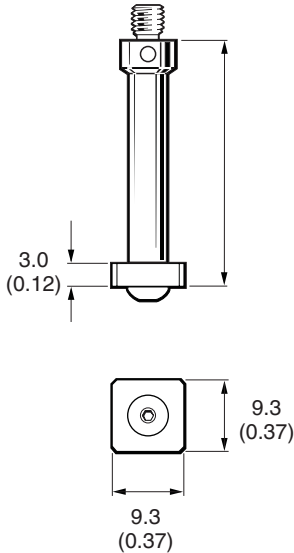
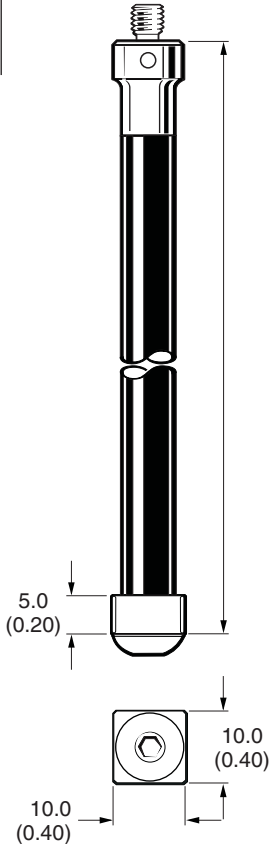
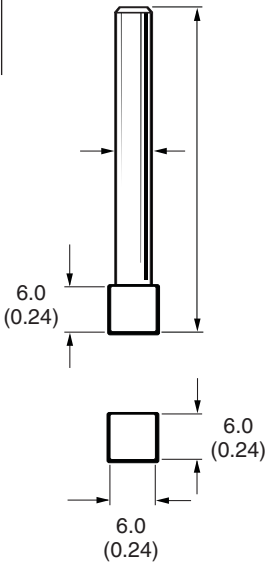
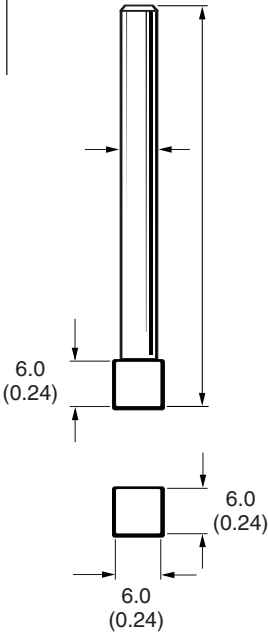


## Cranked styli

| Part number            | A-5000-5302<br>M4<br>Stainless steel                                              | A-5000-5307<br>M4<br>Stainless steel                                              | A-5000-6620<br>M4<br>Stainless steel                                               | A-5000-7580<br>M4<br>Stainless steel                                                |
|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ball diameter mm (in.) | 3.0 (0.13)                                                                        | 3.0 (0.12)                                                                        | 5.0 (0.20)                                                                         | 4.0 (0.16)                                                                          |
| Length L1 mm (in.)     | 32.0 (1.26)                                                                       | 20.1 (0.79)                                                                       | 27.4 (1.08)                                                                        | 38.8 (1.53)                                                                         |
| Length L2 mm (in.)     | 21.9 (0.86)                                                                       | 34.9 (1.37)                                                                       | 19.0 (0.75)                                                                        | 12.5 (0.49)                                                                         |
| Mass grammes           | 3.8                                                                               | 3.85                                                                              | 4.7                                                                                | 2.5                                                                                 |
| For use on             | LP2                                                                               | LP2                                                                               | LP2                                                                                | LP2                                                                                 |
|                        |  |  |  |  |

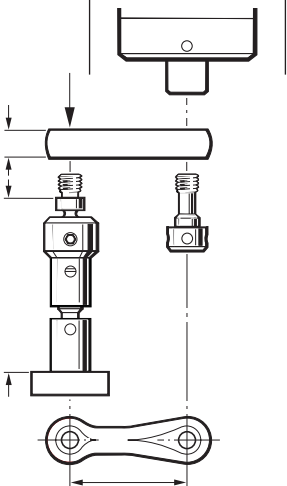
Tool datuming styli

| Part number             | A-5000-3212*<br>Stainless steel | A-5000-6701*<br>Stainless steel | A-5000-6713<br>Aluminium | A-5000-6403<br>Stainless steel |
|-------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------------|
| Overall length mm (in.) | 53.0 (2.09)                     | 43.0 (1.70)                     | 96.5 (3.80)              | 32.5 (1.28)                    |
| Stem dia. mm (in.)      | 4.5 (0.18)                      | 4.5 (0.18)                      | 7.5 (0.30)               | 5.4 (0.22)                     |
| Mass grammes            | 4.5                             | 4.3                             | 21.9                     | 11.0                           |



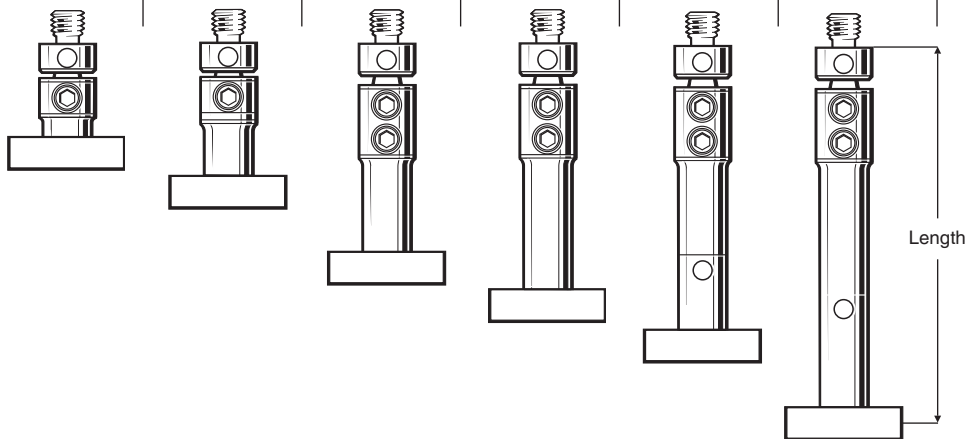
\* A toolsetting stylus for measuring tool diameter and Z point, allows you to measure in XY and Z .

| Part number     | A-2116-0142 |
|-----------------|-------------|
| Length mm (in.) | 30.3 (0.40) |
| Mass grammes    | 22.6        |
| For use on      | TSA         |

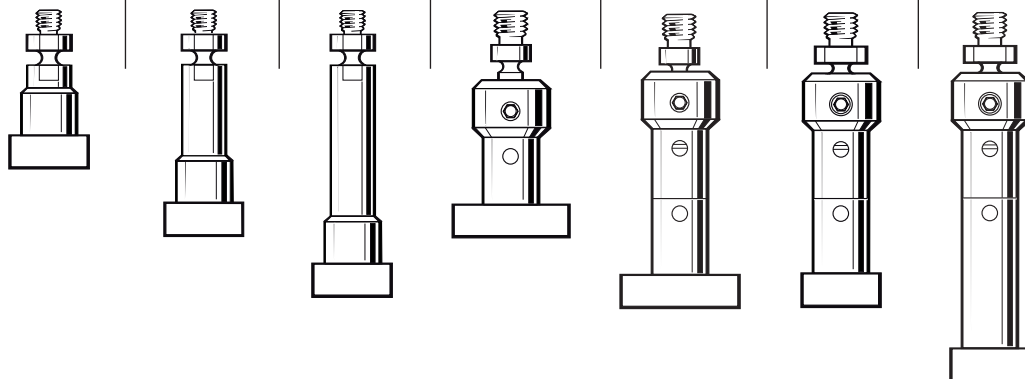


## Tool datuming styli (continued)

| Part number            | A-2197-0157<br>Tungsten carbide | A-2197-0158<br>Tungsten carbide | A-2197-0159<br>Tungsten carbide | A-2197-0160<br>Tungsten carbide | A-2197-0161<br>Tungsten carbide | A-2197-0162<br>Tungsten carbide |
|------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Length mm (in.)        | 14.2 (0.56)                     | 19.57 (0.77)                    | 29.5 (1.16)                     | 34.5 (1.36)                     | 39.5 (1.55)                     | 49.5 (1.95)                     |
| Mass grammes           | 14.86                           | 16.0                            | 20.0                            | 20.7                            | 21.8                            | 23.5                            |
| For use on             | HPPA                            | HPPA                            | HPPA                            | HPPA                            | HPPA                            | HPPA                            |
|                        | HPMA                            | HPMA                            | HPMA                            | HPMA                            | HPMA                            | HPMA                            |
|                        | HPRA                            | HPRA                            | HPRA                            | HPRA                            | HPRA                            | HPRA                            |
|                        | RP3                             | RP3                             | RP3                             | RP3                             | RP3                             | RP3                             |
| Replacement break stem | A-5004-7624                     | A-5004-7624                     | A-5004-6723                     | A-5004-6723                     | A-5004-6723                     | A-5004-6723                     |



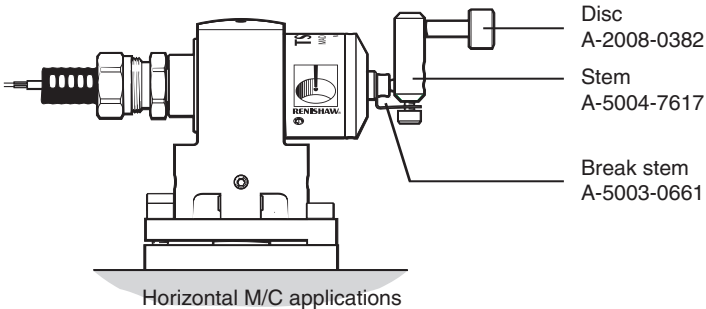
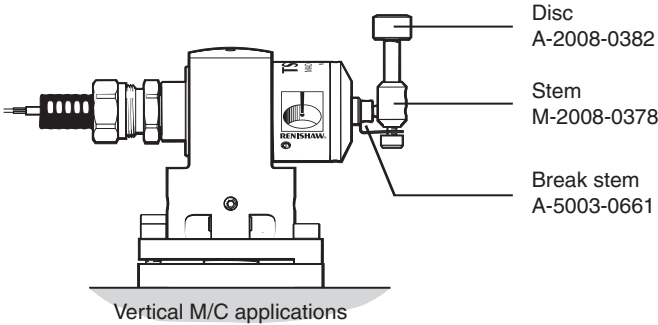
| Part number            | A-2008-0601<br>M3<br>Tungsten carbide | A-2008-0602<br>M3<br>Tungsten carbide | A-2008-0603<br>M3<br>Tungsten carbide | A-2048-2050<br>M4<br>Tungsten carbide | A-2048-2051<br>M4<br>Tungsten carbide | A-2116-0140<br>M4<br>Tungsten carbide | A-2116-0141<br>M4<br>Tungsten carbide |
|------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Length mm (in.)        | 15.4 (0.61)                           | 24.0 (0.96)                           | 32.4 (1.27)                           | 23.2 (0.91)                           | 32.0 (1.26)                           | 32.0 (1.26)                           | 42.0 (1.65)                           |
| Mass grammes           | 9.1                                   | 8.0                                   | 8.95                                  | 18.14                                 | 20.64                                 | 13.56                                 | 16.05                                 |
| For use on             | TS20                                  | TS20                                  | TS20                                  | HPA (M6 MTG)                          | HPA (M6 MTG)                          | TSA                                   | TSA                                   |
| Replacement break stem | A-5004-7616                           | A-5004-7618                           | A-5004-7619                           | A-5004-7620                           | A-5004-7620                           | A-5004-7620                           | A-5004-7620                           |



TS27R styli

M4 threaded  
stylus range

5.14



Horizontal machine application conversion  
kit part number A-2008-0448

\*Order also requires 2 x P-SC11-0404

## TS27R styli – parallel shafted (not M4) – Not compatible with TS27 probes

| Part number             | A-2008-0382<br>Tungsten carbide                                                   | A-2008-0384<br>Ceramic                                                               |
|-------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Overall length mm (in.) | 23.0 (0.91)                                                                       | 22.0 (0.87)                                                                          |
| Mass grammes            | 12.1                                                                              | 7.1                                                                                  |
|                         | <p>Ø3.925 (0.12)</p> <p>8.0 (0.32)</p> <p>Ø12.7 (0.50)</p> <p>19.0 A/F (0.75)</p> | <p>Ø3.925 (0.12)</p> <p>8.0 (0.32)</p> <p>19.0 A/F (0.75)</p> <p>19.0 A/F (0.75)</p> |

Stylus extensions

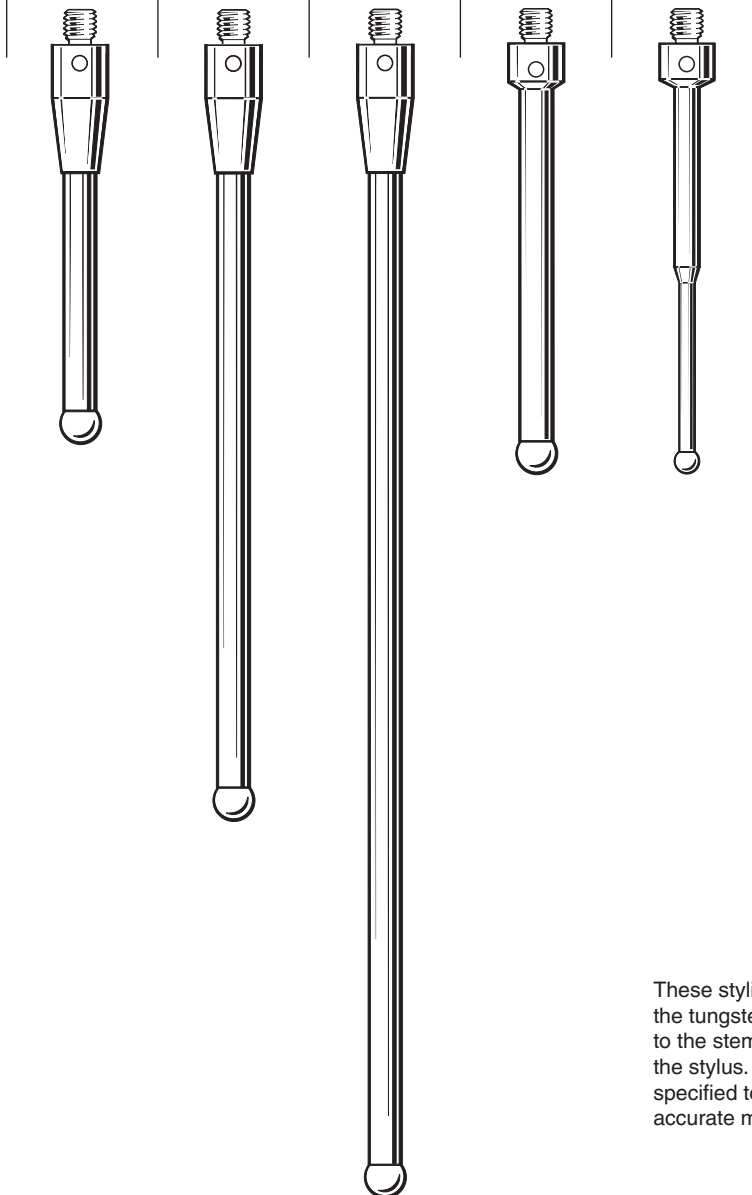
| Part number        | A-5004-7599     | A-5004-7600     | A-5004-7601     | A-5004-7602     | A-5000-7754 | A-5000-7755 | A-5000-7727  | A-5003-0587  |
|--------------------|-----------------|-----------------|-----------------|-----------------|-------------|-------------|--------------|--------------|
|                    | Stainless steel | Stainless steel | Stainless steel | Stainless steel | Ceramic     | Ceramic     | Ceramic      | Ceramic      |
| Length mm (in.)    | 10.0 (0.40)     | 15.0 (0.60)     | 20.0 (0.79)     | 30.0 (1.19)     | 30.0 (1.19) | 50.0 (1.97) | 100.0 (3.94) | 200.0 (7.87) |
| Stem dia. mm (in.) | 7.0 (0.28)      | 7.0 (0.28)      | 7.0 (0.28)      | 7.0 (0.28)      | 7.4 (0.30)  | 7.4 (0.30)  | 7.4 (0.30)   | 7.4 (0.30)   |
| Mass grammes       | 2.4             | 3.7             | 4.8             | 7.4             | 5.1         | 6.7         | 10.6         | 26.7         |



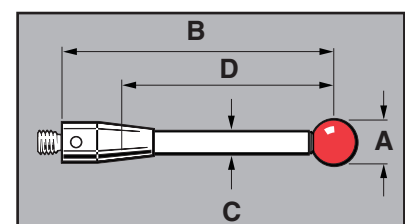
M4 threaded  
stylus range

## Tungsten carbide styli (stainless steel stems)

| Part number                 | A-5000-7670 | A-5000-7671  | A-5000-7672  | A-5000-9685 | A-5000-9697 |
|-----------------------------|-------------|--------------|--------------|-------------|-------------|
| <b>A</b> Ball dia. mm (in.) | 5.0 (0.20)  | 5.0 (0.20)   | 5.0 (0.20)   | 5.0 (0.20)  | 3.0 (0.12)  |
| <b>B</b> Length mm (in.)    | 50.0 (1.97) | 100.0 (3.94) | 150.0 (5.91) | 54.0 (2.12) | 55.0 (2.17) |
| <b>C</b> Stem dia. mm (in.) | 4.5 (0.18)  | 4.5 (0.18)   | 4.5 (0.18)   | 3.9 (0.15)  | 1.9 (0.07)  |
| <b>D</b> EWL* mm (in.)      | 35.0 (1.38) | 85.0 (3.35)  | 135.0 (5.31) | 50.0 (1.97) | 25.0 (0.99) |
| Mass grammes                | 6.2         | 11.9         | 18.2         | 6.9         | 3.8         |



These styli are for use on job contact probes; the tungsten carbide balls have been brazed to the stem to ensure conductivity through the stylus. The resistance of these styli are specified to be less than 0.1  $\Omega$  to ensure accurate measurement with your probe.



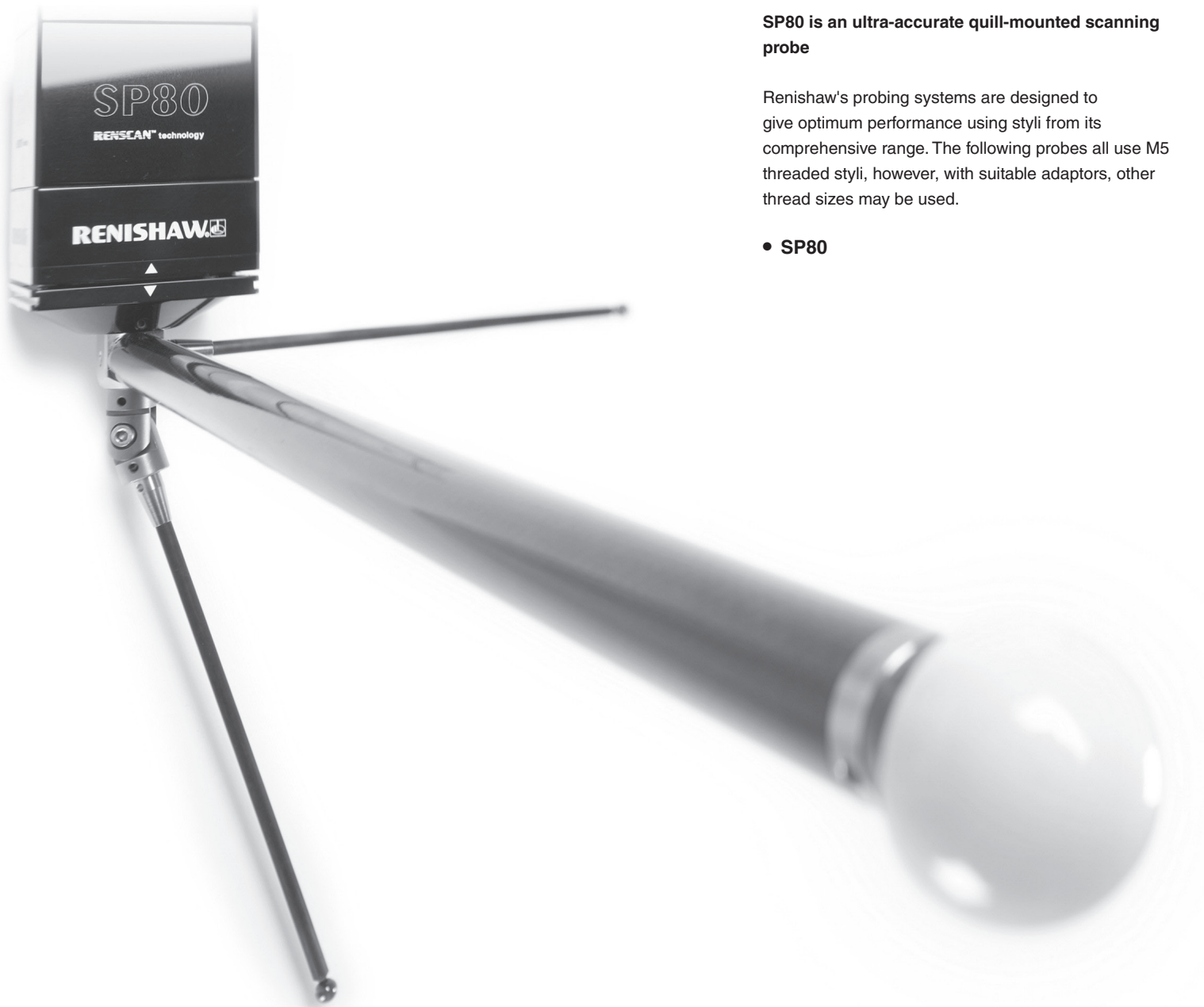
\*Effective working length





# M5 threaded stylus range

6.1



**SP80 is an ultra-accurate quill-mounted scanning probe**

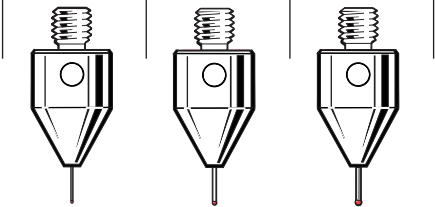
Renishaw's probing systems are designed to give optimum performance using styli from its comprehensive range. The following probes all use M5 threaded styli, however, with suitable adaptors, other thread sizes may be used.

- **SP80**

Ruby micro ball styli (Tungsten carbide stems)

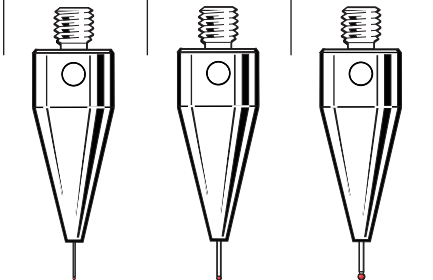
| Part number  |                    | A-5003-5201 | A-5003-5202 | A-5003-5203 |
|--------------|--------------------|-------------|-------------|-------------|
| A            | Ball dia. mm (in.) | 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) |
| B            | Length mm (in.)    | 20.0 (0.79) | 20.0 (0.79) | 20.0 (0.79) |
| C            | Stem dia. mm (in.) | 0.2 (0.008) | 0.4 (0.016) | 0.5 (0.020) |
| D            | EWL* mm (in.)      | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
| Mass grammes |                    | 6.5         | 6.5         | 6.5         |

20 mm range



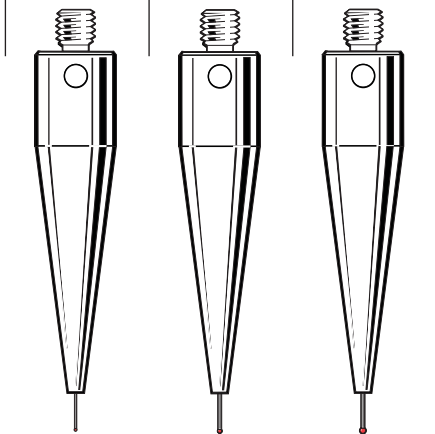
| A-5003-5211 | A-5003-5212 | A-5003-5213 |
|-------------|-------------|-------------|
| 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) |
| 30.0 (1.19) | 30.0 (1.19) | 30.0 (1.19) |
| 0.2 (0.008) | 0.4 (0.016) | 0.5 (0.020) |
| 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
| 8.95        | 8.95        | 8.98        |

30 mm range



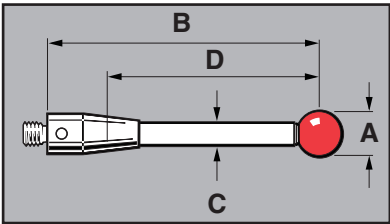
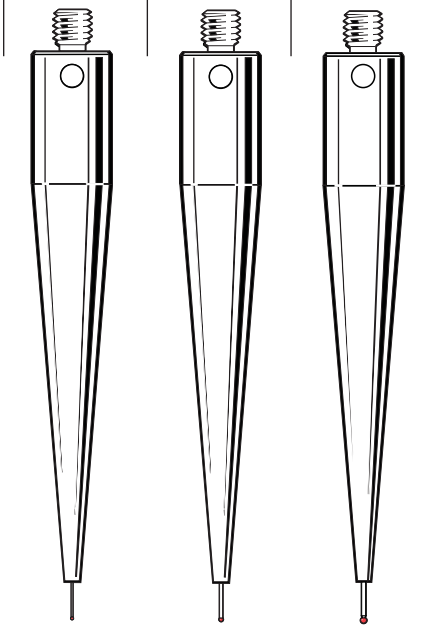
| Part number  |                    | A-5003-5225 | A-5003-5226 | A-5003-5227 |
|--------------|--------------------|-------------|-------------|-------------|
| A            | Ball dia. mm (in.) | 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) |
| B            | Length mm (in.)    | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) |
| C            | Stem dia. mm (in.) | 0.2 (0.008) | 0.4 (0.016) | 0.5 (0.020) |
| D            | EWL* mm (in.)      | 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
| Mass grammes |                    | 15.79       | 15.79       | 15.79       |

50 mm range

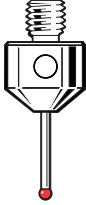
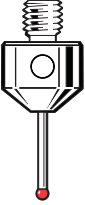
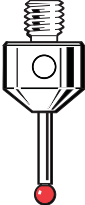
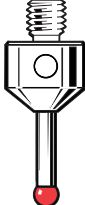
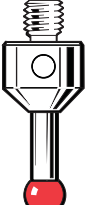


| A-5003-5240 | A-5003-5241 | A-5003-5242 |
|-------------|-------------|-------------|
| 0.3 (0.012) | 0.5 (0.020) | 0.7 (0.028) |
| 75.0 (2.96) | 75.0 (2.96) | 75.0 (2.96) |
| 0.2 (0.008) | 0.4 (0.016) | 0.5 (0.020) |
| 3.0 (0.12)  | 4.0 (0.16)  | 5.0 (0.20)  |
| 23.84       | 23.84       | 23.84       |

75 mm range



## Ruby ball styli (tungsten carbide stems)

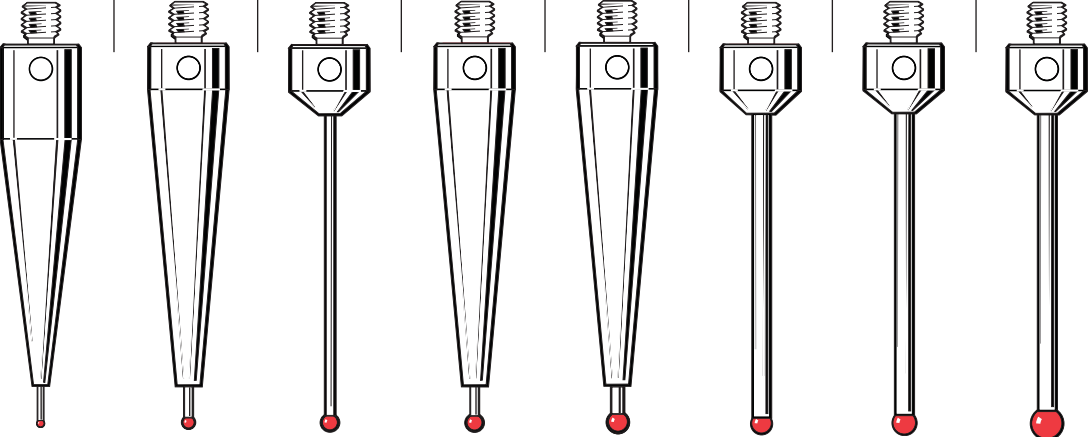
| Ball material   |                    | Part number                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|-----------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-5204                                                                       | A-5003-5205                                                                       | A-5003-5206                                                                       | A-5003-5207                                                                       | A-5003-5208                                                                        | A-5003-5209                                                                         | A-5003-5210                                                                         |
| Silicon nitride |                    |                                                                                   |                                                                                   | A-5003-5732                                                                       |                                                                                   |                                                                                    | A-5003-5733                                                                         |                                                                                     |
| Zirconia        |                    |                                                                                   |                                                                                   | A-5003-5746                                                                       |                                                                                   |                                                                                    | A-5003-5747                                                                         |                                                                                     |
| <b>A</b>        | Ball dia. mm (in.) | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                        | 2.5 (0.10)                                                                        | 3.0 (0.12)                                                                         | 4.0 (0.16)                                                                          | 5.0 (0.20)                                                                          |
| <b>B</b>        | Length mm (in.)    | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                        | 20.0 (0.79)                                                                         | 20.0 (0.79)                                                                         |
| <b>C</b>        | Stem dia. mm (in.) | 0.7 (0.028)                                                                       | 1.0 (0.04)                                                                        | 1.0 (0.04)                                                                        | 1.5 (0.06)                                                                        | 2.0 (0.08)                                                                         | 2.0 (0.08)                                                                          | 3.0 (0.12)                                                                          |
| <b>D</b>        | EWL* mm (in.)      | 5.0 (0.20)                                                                        | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                        | 11.9 (0.47)                                                                         | 11.5 (0.45)                                                                         |
|                 | Mass grammes       | 6.52                                                                              | 4.68                                                                              | 4.70                                                                              | 4.84                                                                              | 5.12                                                                               | 5.19                                                                                | 6.06                                                                                |
| 20 mm range     |                    |  |  |  |  |  |  |  |

| Part number |                    | A-5003-5214                                                                         | A-5003-5215                                                                         | A-5003-5216                                                                         | A-5003-5217                                                                         | A-5003-5218                                                                          | A-5003-5219                                                                           | A-5003-5220                                                                           |
|-------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>A</b>    | Ball dia. mm (in.) | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                           | 4.0 (0.16)                                                                            | 5.0 (0.20)                                                                            |
| <b>B</b>    | Length mm (in.)    | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                         | 30.0 (1.19)                                                                          | 30.0 (1.19)                                                                           | 30.0 (1.19)                                                                           |
| <b>C</b>    | Stem dia. mm (in.) | 0.7 (0.028)                                                                         | 1.0 (0.04)                                                                          | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                           | 2.0 (0.08)                                                                            | 3.0 (0.12)                                                                            |
| <b>D</b>    | EWL* mm (in.)      | 5.0 (0.20)                                                                          | 12.0 (0.48)                                                                         | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                         | 21.0 (0.83)                                                                          | 21.9 (0.86)                                                                           | 21.5 (0.85)                                                                           |
|             | Mass grammes       | 9.01                                                                                | 7.28                                                                                | 4.81                                                                                | 5.14                                                                                | 5.58                                                                                 | 5.64                                                                                  | 7.10                                                                                  |
| 30 mm range |                    |  |  |  |  |  |  |  |

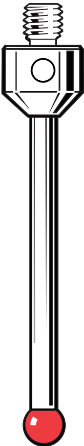
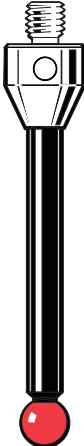
| Part number |                    | A-5003-5221                                                                         | A-5003-5222                                                                         | A-5003-5223                                                                         | A-5003-5224                                                                         |
|-------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>A</b>    | Ball dia. mm (in.) | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          | 2.5 (0.10)                                                                          | 3.0 (0.12)                                                                          |
| <b>B</b>    | Length mm (in.)    | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         | 40.0 (1.58)                                                                         |
| <b>C</b>    | Stem dia. mm (in.) | 1.0 (0.04)                                                                          | 1.0 (0.04)                                                                          | 1.5 (0.06)                                                                          | 2.0 (0.08)                                                                          |
| <b>D</b>    | EWL* mm (in.)      | 22.0 (0.87)                                                                         | 31.0 (1.23)                                                                         | 31.0 (1.23)                                                                         | 31.0 (1.23)                                                                         |
|             | Mass grammes       | 7.39                                                                                | 4.93                                                                                | 5.40                                                                                | 6.04                                                                                |
| 40 mm range |                    |  |  |  |  |

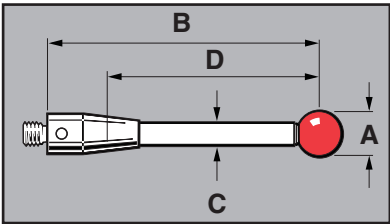
\*Effective working length

Ruby ball styli (tungsten carbide stems – <5 mm ball diameter)

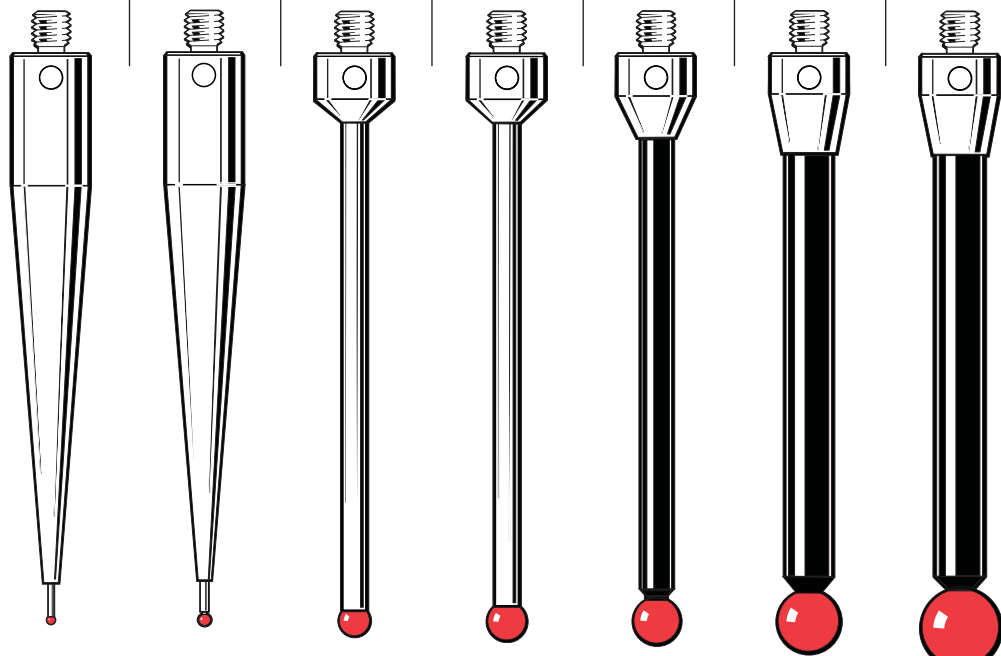
| Part number |                    | A-5003-5228                                                                        | A-5003-5229 | A-5003-5230 | A-5003-5231 | A-5003-5233 | A-5003-5232 | A-5003-5234 | A-5003-5235 |
|-------------|--------------------|------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A           | Ball dia. mm (in.) | 1.0 (0.04)                                                                         | 1.5 (0.06)  | 2.0 (0.08)  | 2.0 (0.08)  | 2.5 (0.10)  | 2.5 (0.10)  | 3.0 (0.12)  | 4.0 (0.16)  |
| B           | Length mm (in.)    | 50.0 (1.97)                                                                        | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) |
| C           | Stem dia. mm (in.) | 0.7 (0.028)                                                                        | 1.0 (0.04)  | 1.0 (0.04)  | 1.0 (0.04)  | 1.5 (0.06)  | 2.0 (0.08)  | 2.0 (0.08)  | 2.0 (0.08)  |
| D           | EWL* mm (in.)      | 5.0 (0.20)                                                                         | 5.0 (0.20)  | 41.0 (1.62) | 5.0 (0.20)  | 5.0 (0.20)  | 41.0 (1.62) | 41.0 (1.62) | 41.9 (1.65) |
|             | Mass grammes       | 15.81                                                                              | 14.82       | 5.05        | 14.85       | 14.94       | 6.48        | 6.50        | 6.55        |
| 50 mm range |                    |  |             |             |             |             |             |             |             |

Ruby ball styli (≥5 mm ball diameter)

| Ball material   |                    | Part number                                                                         |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ruby            |                    | A-5003-5236                                                                         | A-5003-5237                                                                         | A-5003-5238                                                                         | A-5003-5239                                                                         |
| Silicon nitride |                    |                                                                                     | A-5003-5734                                                                         |                                                                                     |                                                                                     |
| Zirconia        |                    |                                                                                     |                                                                                     | A-5003-5748                                                                         |                                                                                     |
|                 |                    | Tungsten carbide                                                                    | Carbon fibre                                                                        | Carbon fibre                                                                        | Carbon fibre                                                                        |
| A               | Ball dia. mm (in.) | 5.0 (0.20)                                                                          | 6.0 (0.24)                                                                          | 8.0 (0.32)                                                                          | 10.0 (0.40)                                                                         |
| B               | Length mm (in.)    | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         | 50.0 (1.97)                                                                         |
| C               | Stem dia. mm (in.) | 3.0 (0.12)                                                                          | 4.0 (0.16)                                                                          | 6.0 (0.24)                                                                          | 6.0 (0.24)                                                                          |
| D               | EWL* mm (in.)      | 41.5 (1.63)                                                                         | 39.5 (1.55)                                                                         | 39.5 (1.55)                                                                         | 44.5 (1.75)                                                                         |
|                 | Mass grammes       | 9.19                                                                                | 6.10                                                                                | 7.96                                                                                | 8.91                                                                                |
| 50 mm range     |                    |  |  |  |  |

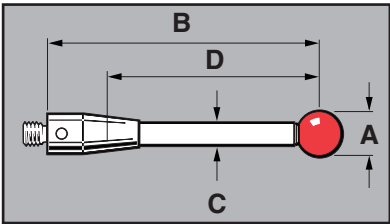
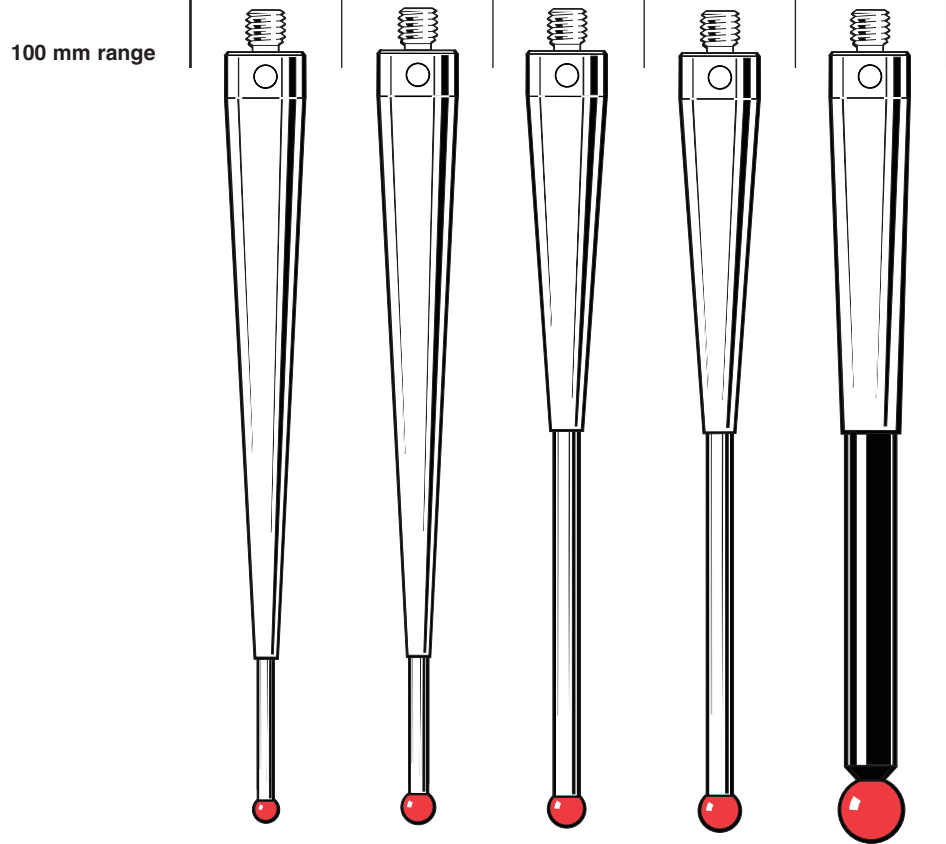


## Ruby ball styli (1 mm – 10 mm ball diameter)

| Part number        |                    | A-5003-5243<br>Tungsten carbide                                                     | A-5003-5244<br>Tungsten carbide | A-5003-5248<br>Tungsten carbide | A-5003-5249<br>Tungsten carbide | A-5003-5250<br>Carbon fibre | A-5003-5251<br>Carbon fibre | A-5003-5252<br>Carbon fibre |
|--------------------|--------------------|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>A</b>           | Ball dia. mm (in.) | 1.0 (0.04)                                                                          | 1.5 (0.06)                      | 4.0 (0.16)                      | 5.0 (0.20)                      | 6.0 (0.24)                  | 8.0 (0.32)                  | 10.0 (0.40)                 |
| <b>B</b>           | Length mm (in.)    | 75.0 (2.96)                                                                         | 75.0 (2.96)                     | 75.0 (2.96)                     | 75.0 (2.96)                     | 75.0 (2.96)                 | 75.0 (2.96)                 | 75.0 (2.96)                 |
| <b>C</b>           | Stem dia. mm (in.) | 0.7 (0.028)                                                                         | 1.0 (0.04)                      | 3.0 (0.12)                      | 3.0 (0.12)                      | 4.0 (0.16)                  | 6.0 (0.24)                  | 6.0 (0.24)                  |
| <b>D</b>           | EWL* mm (in.)      | 5.0 (0.20)                                                                          | 5.0 (0.20)                      | 66.0 (2.60)                     | 66.0 (2.60)                     | 65.1 (2.56)                 | 64.5 (2.54)                 | 69.5 (2.74)                 |
|                    | Mass grammes       | 23.86                                                                               | 23.90                           | 11.61                           | 11.80                           | 6.59                        | 9.06                        | 10.01                       |
| <b>75 mm range</b> |                    |  |                                 |                                 |                                 |                             |                             |                             |

Ruby ball styli (≤50 mm EWL)

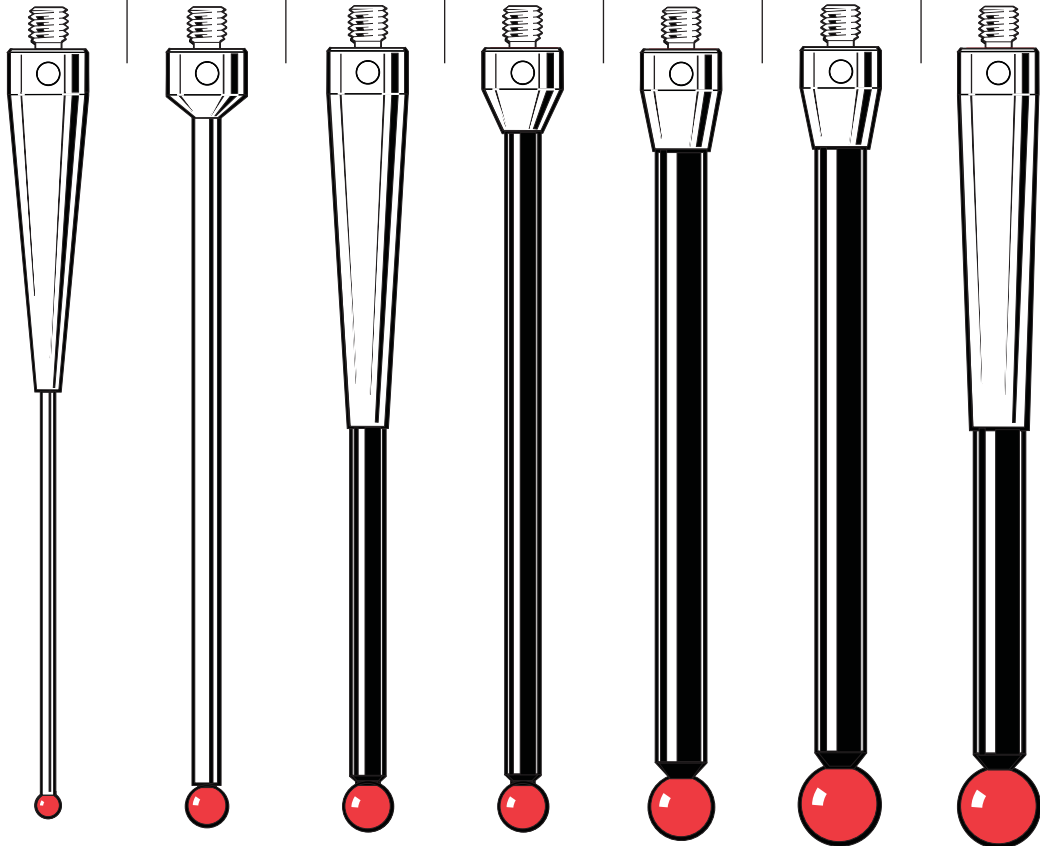
| Ball material   |                    | Part number      |                  |                  |                  |              |
|-----------------|--------------------|------------------|------------------|------------------|------------------|--------------|
| Ruby            |                    | A-5003-5253      | A-5003-5255      | A-5003-5256      | A-5003-5257      | A-5003-5261  |
| Silicon nitride |                    |                  |                  |                  |                  |              |
| Zirconia        |                    |                  |                  |                  |                  |              |
|                 |                    | Tungsten carbide | Tungsten carbide | Tungsten carbide | Tungsten carbide | Carbon fibre |
| A               | Ball dia. mm (in.) | 3.0 (0.12)       | 4.0 (0.16)       | 4.0 (0.16)       | 5.0 (0.20)       | 8.0 (0.32)   |
| B               | Length mm (in.)    | 100.0 (3.94)     | 100.0 (3.94)     | 100.0 (3.94)     | 100.0 (3.94)     | 100.0 (3.94) |
| C               | Stem dia. mm (in.) | 2.0 (0.08)       | 2.0 (0.08)       | 3.0 (0.12)       | 3.0 (0.12)       | 6.0 (0.24)   |
| D               | EWL* mm (in.)      | 20.0 (0.79)      | 30.5 (1.20)      | 50.0 (1.97)      | 50.0 (1.97)      | 50.0 (1.97)  |
|                 | Mass grammes       | 25.71            | 25.75            | 23.07            | 23.31            | 22.97        |



## Ruby ball styli (>50 mm EWL)

| Ball material   |                    | Part number      |                  |              |              |              |              |              |
|-----------------|--------------------|------------------|------------------|--------------|--------------|--------------|--------------|--------------|
| Ruby            |                    | A-5003-5254      | A-5003-5258      | A-5003-5259  | A-5003-5260  | A-5003-5262  | A-5003-5264  | A-5003-5263  |
| Silicon nitride |                    |                  |                  | A-5003-5735  |              |              |              |              |
| Zirconia        |                    |                  |                  | A-5003-5749  |              |              |              |              |
|                 |                    | Tungsten carbide | Tungsten carbide | Carbon fibre | Carbon fibre | Carbon fibre | Carbon fibre | Carbon fibre |
| <b>A</b>        | Ball dia. mm (in.) | 3.0 (0.12)       | 5.0 (0.20)       | 6.0 (0.24)   | 6.0 (0.24)   | 8.0 (0.32)   | 10.0 (0.40)  | 10.0 (0.40)  |
| <b>B</b>        | Length mm (in.)    | 100.0 (3.94)     | 100.0 (3.94)     | 100.0 (3.94) | 100.0 (3.94) | 100.0 (3.94) | 100.0 (3.94) | 100.0 (3.94) |
| <b>C</b>        | Stem dia. mm (in.) | 1.5 (0.06)       | 3.0 (0.12)       | 4.0 (0.16)   | 4.0 (0.16)   | 6.0 (0.24)   | 6.0 (0.24)   | 6.0 (0.24)   |
| <b>D</b>        | EWL* mm (in.)      | 55.0 (2.17)      | 91.0 (3.59)      | 58.9 (2.32)  | 90.1 (3.55)  | 89.5 (3.52)  | 94.5 (3.72)  | 95.5 (3.76)  |
|                 | Mass grammes       | 16.30            | 14.40            | 19.66        | 7.08         | 10.17        | 11.11        | 23.91        |

100 mm range



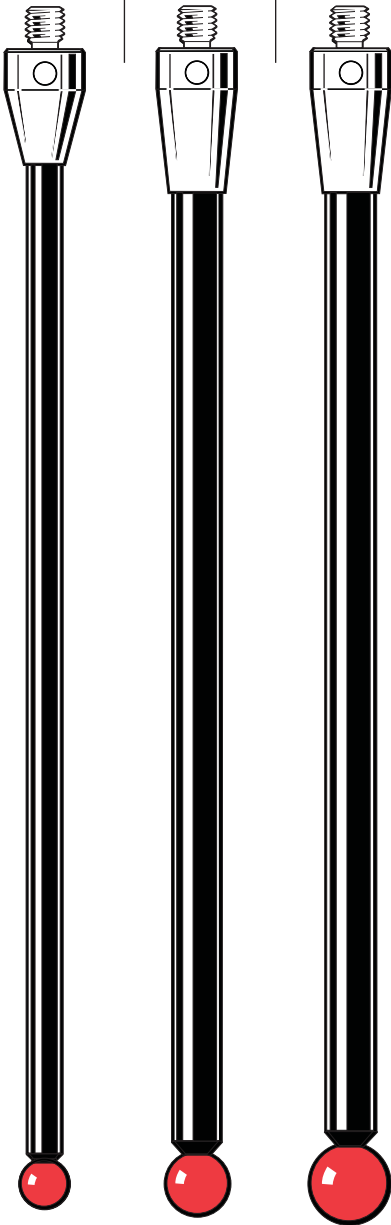
M5 threaded  
stylus range

6.7

Ruby ball styli (carbon fibre stems)

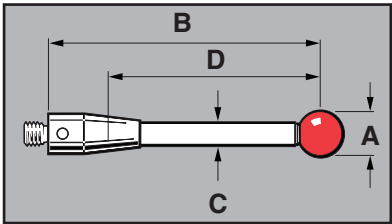
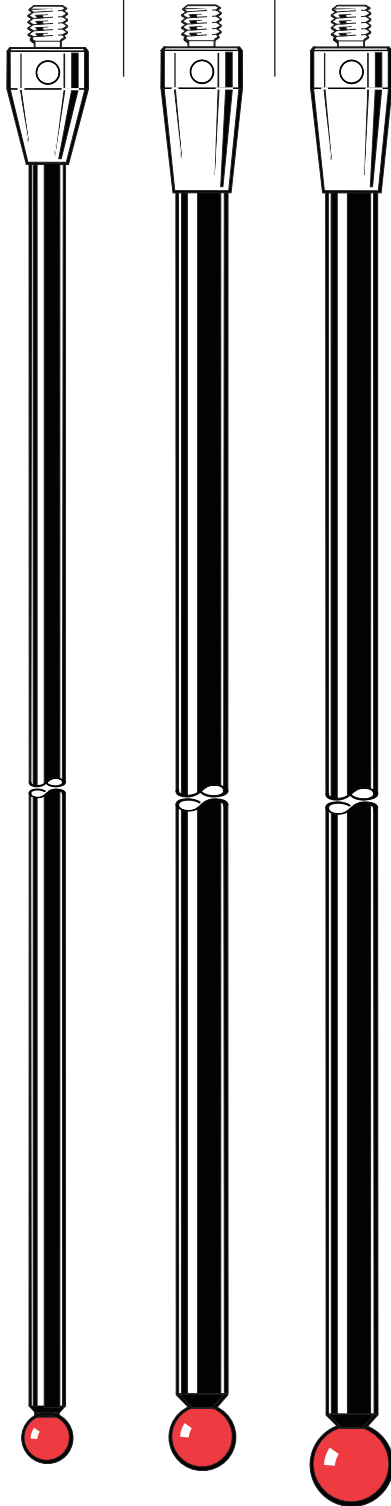
| Part number  |                    | A-5003-5265  | A-5003-5266  | A-5003-5267  |
|--------------|--------------------|--------------|--------------|--------------|
| A            | Ball dia. mm (in.) | 6.0 (0.24)   | 8.0 (0.32)   | 10.0 (0.40)  |
| B            | Length mm (in.)    | 150.0 (5.91) | 150.0 (5.91) | 150.0 (5.91) |
| C            | Stem dia. mm (in.) | 4.0 (0.16)   | 6.0 (0.24)   | 6.0 (0.24)   |
| D            | EWL* mm (in.)      | 137.0 (5.39) | 135.0 (5.31) | 144.5 (5.69) |
| Mass grammes |                    | 9.09         | 13.71        | 14.66        |

150 mm range



| A-5003-5268  | A-5003-5269  | A-5003-5270  |
|--------------|--------------|--------------|
| 6.0 (0.24)   | 8.0 (0.32)   | 10.0 (0.40)  |
| 200.0 (7.88) | 200.0 (7.88) | 200.0 (7.88) |
| 4.0 (0.16)   | 6.0 (0.24)   | 6.0 (0.24)   |
| 187.0 (7.36) | 180.0 (7.09) | 194.5 (7.66) |
| 10.07        | 15.92        | 16.87        |

200 mm range

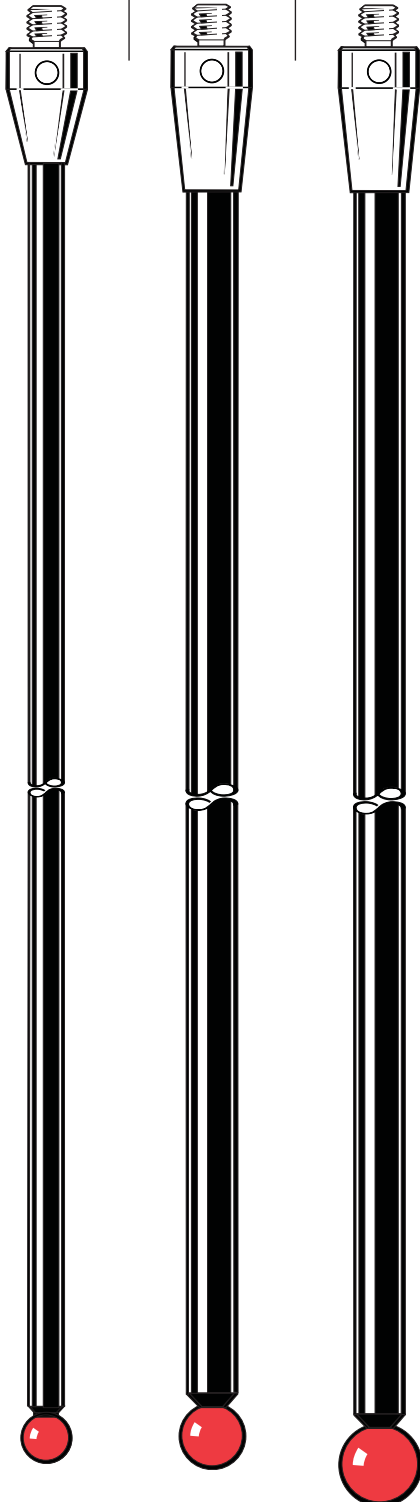




## Ruby ball styli (carbon fibre stems)

| Part number                 | A-5003-5271   | A-5003-5272   | A-5003-5273   |
|-----------------------------|---------------|---------------|---------------|
| <b>A</b> Ball dia. mm (in.) | 6.0 (0.24)    | 8.0 (0.32)    | 10.0 (0.40)   |
| <b>B</b> Length mm (in.)    | 300.0 (11.82) | 300.0 (11.82) | 300.0 (11.82) |
| <b>C</b> Stem dia. mm (in.) | 4.0 (0.16)    | 6.0 (0.24)    | 6.0 (0.24)    |
| <b>D</b> EWL* mm (in.)      | 287.0 (11.30) | 280.0 (11.03) | 294.5 (11.59) |
| Mass grammes                | 12.02         | 20.33         | 21.28         |

300 mm range

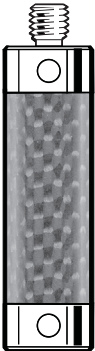
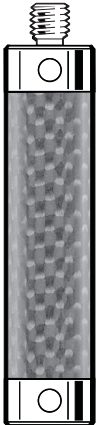
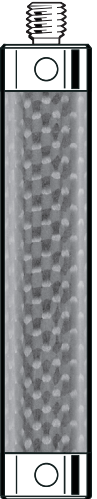
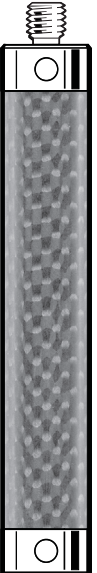
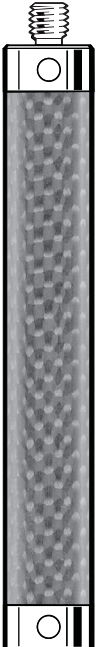
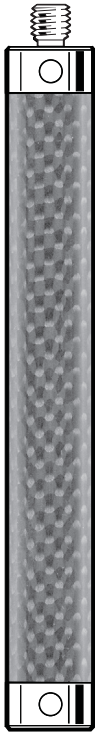
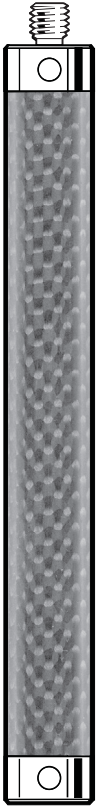


M5 threaded  
stylus range

6.9

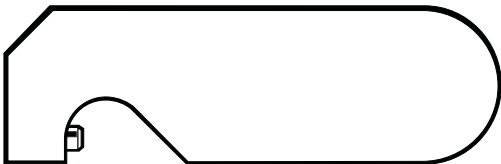
\* Effective working length

Stylus extensions – thermo stable carbon fibre stems, titanium ends (stem dia. 11 mm)

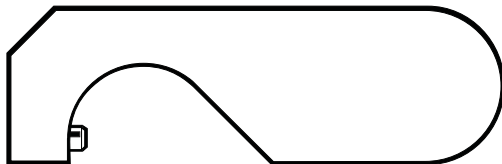
| Part number        | A-5555-0647                                                                       | A-5555-0648                                                                       | A-5555-0649                                                                       | A-5555-0623                                                                        | A-5555-0650                                                                          | A-5555-0651                                                                          | A-5555-0652                                                                          |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Length mm (in.)    | 40.0 (1.58)                                                                       | 50.0 (1.97)                                                                       | 60.0 (2.37)                                                                       | 70.0 (2.76)                                                                        | 80.0 (3.15)                                                                          | 90.0 (3.55)                                                                          | 100.0 (3.94)                                                                         |
| Stem dia. mm (in.) | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                       | 11.0 (0.44)                                                                        | 11.0 (0.44)                                                                          | 11.0 (0.44)                                                                          | 11.0 (0.44)                                                                          |
| Mass grammes       | 7.6                                                                               | 8.3                                                                               | 9.0                                                                               | 9.7                                                                                | 10.4                                                                                 | 11.1                                                                                 | 11.8                                                                                 |
|                    |  |  |  |  |  |  |  |

M5 extension tools

**A-5003-6134**  
For M5 threaded extensions with  
11 mm (0.44 in.) stem diameter



**A-5003-6135**  
For M5 threaded extensions with  
20 mm (0.79 in.) stem diameter

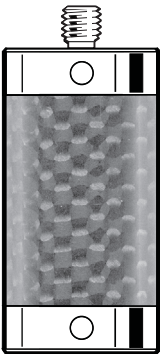
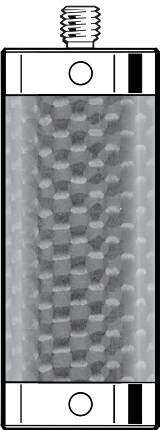
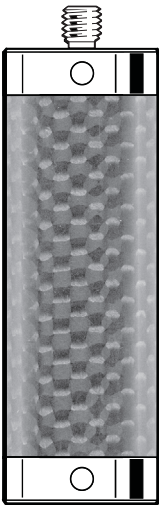
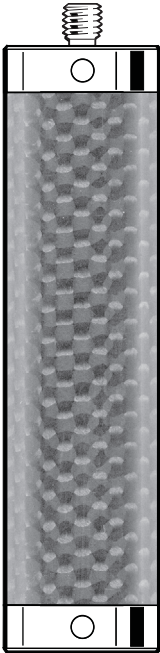
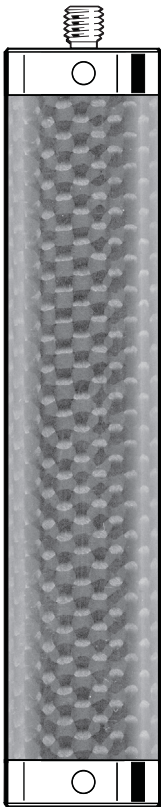
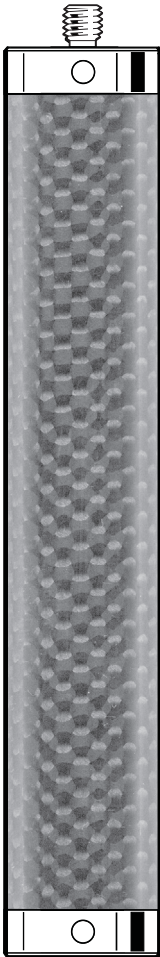
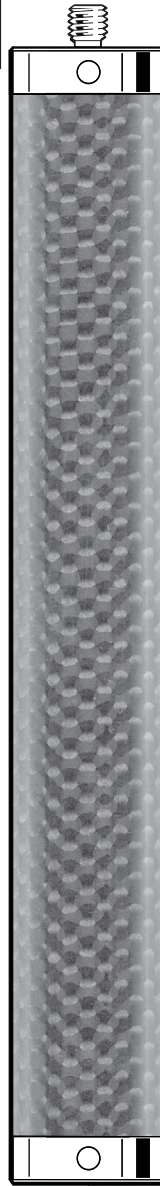


These tools are designed to fit styli extensions to Renishaw probes without causing internal damage

## Stylus extensions – thermo stable carbon fibre stems, titanium ends (stem dia. 11 mm)

| Part number        | A-5555-0425  | A-5555-0424  | A-5555-0653  | A-5555-0654  | A-5555-0655  | A-5555-0642   | A-5555-0656   |
|--------------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Length mm (in.)    | 120.0 (4.73) | 150.0 (5.91) | 180.0 (7.09) | 200.0 (7.88) | 250.0 (9.85) | 300.0 (11.82) | 400.0 (15.76) |
| Stem dia. mm (in.) | 11.0 (0.44)  | 11.0 (0.44)  | 11.0 (0.44)  | 11.0 (0.44)  | 11.0 (0.44)  | 11.0 (0.44)   | 11.0 (0.44)   |
| Mass grammes       | 13.2         | 15.4         | 17.5         | 18.9         | 22.4         | 25.9          | 33.0          |

Stylus extensions – thermo stable carbon fibre stems, titanium ends (stem dia. 20 mm)

| Part number        | A-5555-0620                                                                       | A-5555-0657                                                                       | A-5555-0658                                                                       | A-5555-0621                                                                        | A-5555-0659                                                                          | A-5555-0660                                                                          | A-5555-0661                                                                          |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Length mm (in.)    | 40.0 (1.58)                                                                       | 50.0 (1.97)                                                                       | 60.0 (2.37)                                                                       | 80.0 (3.15)                                                                        | 100.0 (3.94)                                                                         | 120.0 (4.73)                                                                         | 150.0 (5.91)                                                                         |
| Stem dia. mm (in.) | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                        | 20.0 (0.79)                                                                          | 20.0 (0.79)                                                                          | 20.0 (0.79)                                                                          |
| Mass grammes       | 23.8                                                                              | 25.1                                                                              | 26.5                                                                              | 29.3                                                                               | 32.1                                                                                 | 34.9                                                                                 | 39.0                                                                                 |
|                    |  |  |  |  |  |  |  |

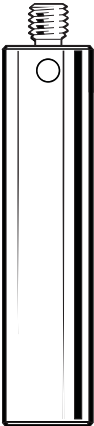
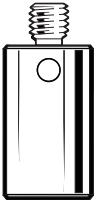
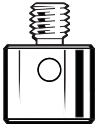


## Stylus extensions – thermo stable carbon fibre stems, titanium ends (stem dia. 20 mm)

| Part number        | A-5555-0662  | A-5555-0663  | A-5555-0427  | A-5555-0664   | A-5555-0665   | A-5555-0667   | A-5555-0668   |
|--------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Length mm (in.)    | 180.0 (7.09) | 200.0 (7.88) | 250.0 (9.85) | 300.0 (11.82) | 400.0 (15.76) | 500.0 (19.70) | 600.0 (23.64) |
| Stem dia. mm (in.) | 20.0 (0.79)  | 20.0 (0.79)  | 20.0 (0.79)  | 20.0 (0.79)   | 20.0 (0.79)   | 20.0 (0.79)   | 20.0 (0.79)   |
| Mass grammes       | 43.2         | 46.0         | 52.9         | 59.9          | 73.8          | 87.7          | 101.5         |

Stylus extensions – stainless steel

| Part number        | A-5555-0142 | A-5555-0140 | A-5555-0669 | A-5555-0670 | A-5555-0136  |
|--------------------|-------------|-------------|-------------|-------------|--------------|
| Length mm (in.)    | 10.0 (0.40) | 20.0 (0.79) | 30.0 (1.19) | 50.0 (1.97) | 100.0 (3.94) |
| Stem dia. mm (in.) | 11.0 (0.44) | 11.0 (0.44) | 11.0 (0.44) | 11.0 (0.44) | 11.0 (0.44)  |
| Mass grammes       | 6.0         | 13.0        | 20.0        | 34.8        | 73.0         |

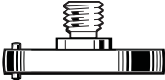
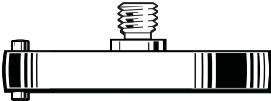
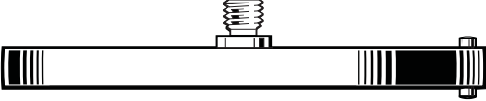


M5 threaded  
stylus range

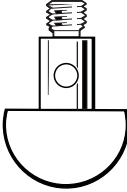
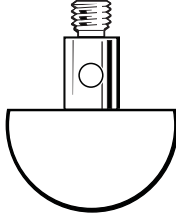
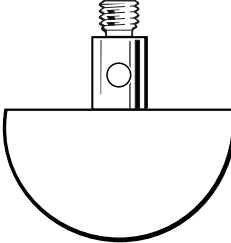
Stylus extensions – aluminium

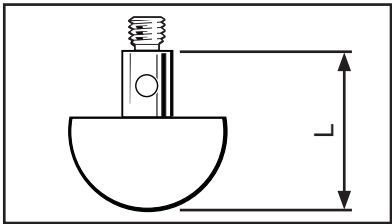
| Part number        | A-5555-0671                                                                       | A-5555-0127                                                                        | A-5555-0125                                                                        |
|--------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Length mm (in.)    | 50.0 (1.97)                                                                       | 100.0 (3.94)                                                                       | 200.0 (7.88)                                                                       |
| Stem dia. mm (in.) | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                        | 20.0 (0.79)                                                                        |
| Mass grammes       | 47.2                                                                              | 50.0                                                                               | 85.0                                                                               |
|                    |  |  |  |

Disc styli – silver steel

| Part number           | A-5003-5288                                                                       | A-5003-5289                                                                       | A-5003-5290                                                                       | A-5003-5291                                                                         |
|-----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Disc dia. mm (in.)    | 12.0 (0.48)                                                                       | 21.0 (0.83)                                                                       | 35.0 (1.38)                                                                       | 63.5 (2.51)                                                                         |
| Disc depth mm (in.)   | 3.0 (0.12)                                                                        | 3.0 (0.12)                                                                        | 5.0 (0.20)                                                                        | 5.0 (0.20)                                                                          |
| Roller depth mm (in.) | 5.0 (0.20)                                                                        | 5.0 (0.20)                                                                        | 8.0 (0.31)                                                                        | 8.0 (0.31)                                                                          |
| Mass grammes          | 2.52                                                                              | 5.23                                                                              | 14.0                                                                              | 51.0                                                                                |
|                       |  |  |  |  |

Hemispherical styli – ceramic

| Part number        | A-5003-5275                                                                         | A-5003-5276                                                                         | A-5003-5277                                                                         |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ball dia. mm (in.) | 16.0 (0.63)                                                                         | 22.0 (0.87)                                                                         | 30.0 (1.18)                                                                         |
| Length mm (in.)    | 19.5 (0.77)                                                                         | 20.5 (0.81)                                                                         | 24.5 (0.96)                                                                         |
| Mass grammes       | 7.0                                                                                 | 14.0                                                                                | 19.7                                                                                |
|                    |  |  |  |





# Styli for Faro arms

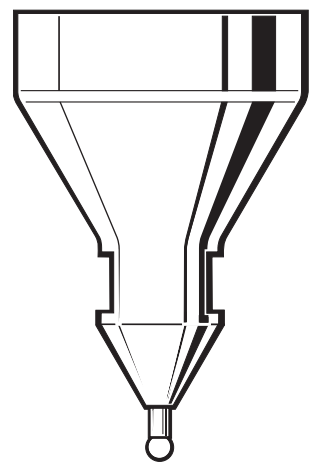
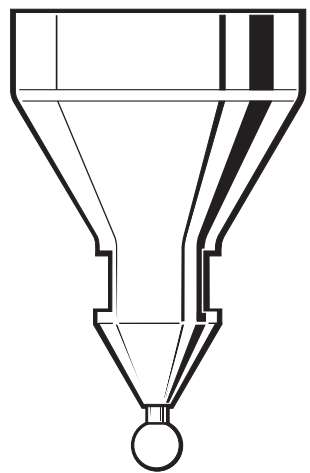
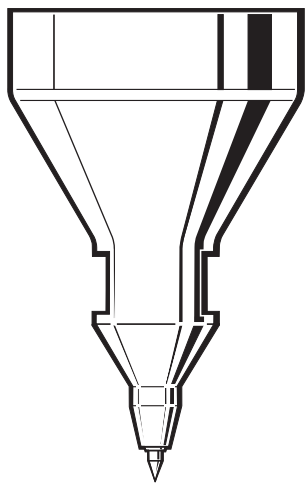
7.1



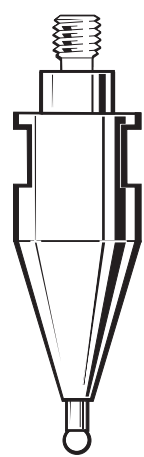
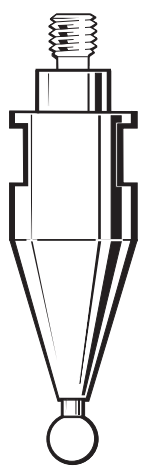
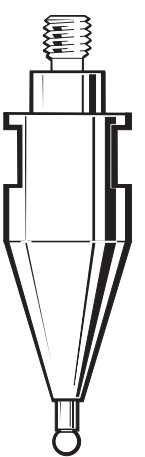
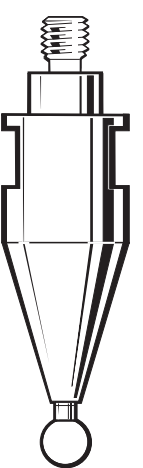
Styli for Faro arms

These styli have been designed especially for use on Faro portable arm CMMs. Their robust design and construction utilizes Grade 5 Zirconia balls that have a high fracture toughness. The balls are bonded to the high strength tungsten carbide stem with impact resistant adhesive, and specialist construction techniques have been incorporated to ensure that the joint between the body and stem is extremely rigid and virtually indestructible.

1¼–20 UN thread styli

| Part number    | A-5003-7673<br>Zirconia                                                            | A-5003-7674<br>Zirconia                                                            | A-5003-7675<br>Tungsten carbide                                                     |
|----------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Ball dia. (mm) | 3                                                                                  | 6                                                                                  | N/A                                                                                 |
| Length (mm)    | 57                                                                                 | 57                                                                                 | 57                                                                                  |
|                |  |  |  |

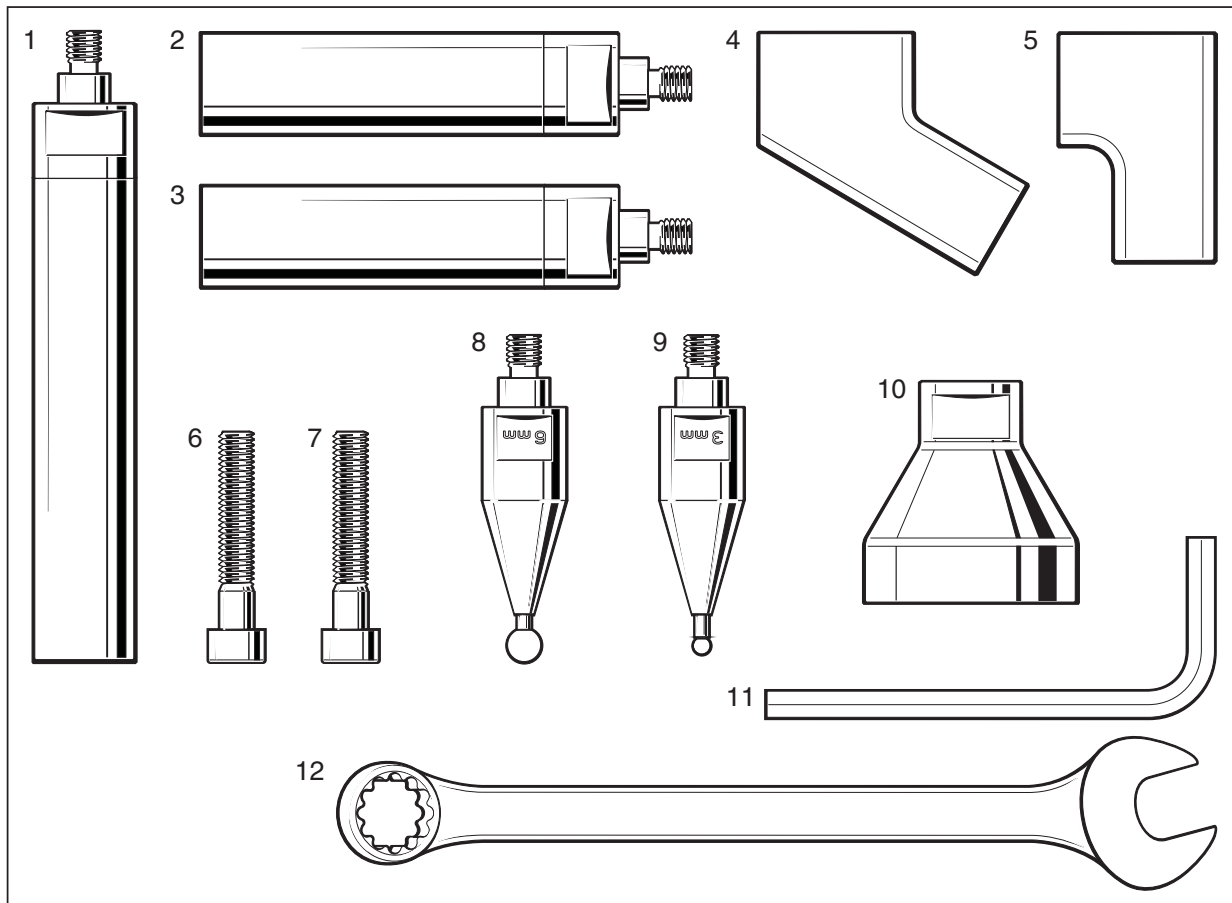
M6 styli

| Part number   | A-5003-7676<br>Zirconia                                                             | A-5003-7677<br>Zirconia                                                             | A-5003-7678<br>Zirconia                                                             | A-5003-7679<br>Zirconia                                                               |
|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Ball diameter | 1/8 in.                                                                             | ¼ in.                                                                               | 3 mm                                                                                | 6 mm                                                                                  |
| Length (mm)   | 43                                                                                  | 43                                                                                  | 43                                                                                  | 43                                                                                    |
|               |  |  |  |  |

## Faro kit

### A-5003-9190 Faro probe kit 0073 12 piece

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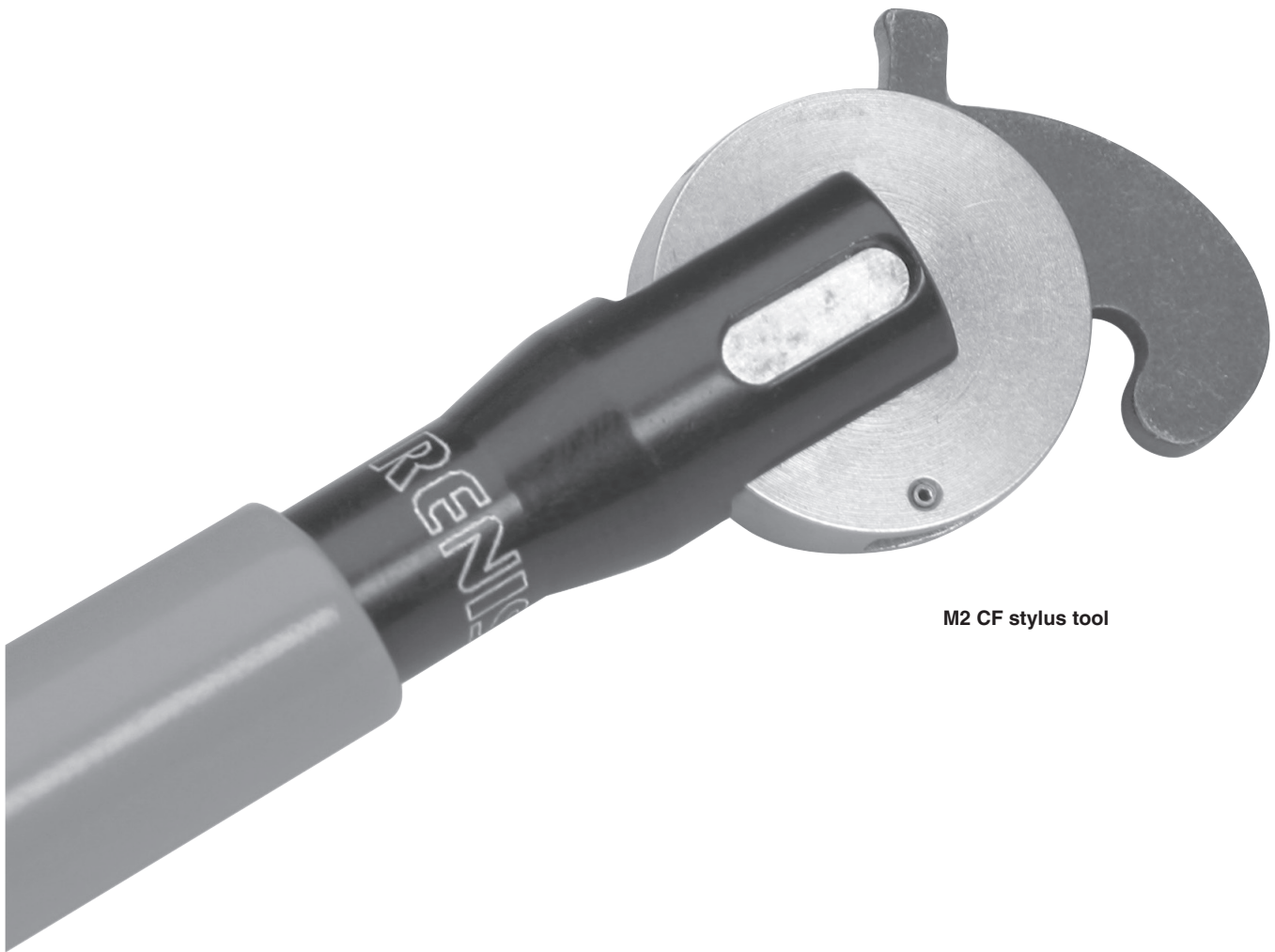


| Position | Part number | Description                       |
|----------|-------------|-----------------------------------|
| 1        | A-5003-9127 | M6M - M6F EXT L101.6 (4.0) D18 AL |
| 2 - 3    | A-5003-9126 | M6M - M6F EXT L76.2 (3.0) D18 AL  |
| 4        | A-5003-9186 | M6F FARO EXT 60 DEG ADAPTOR       |
| 5        | A-5003-9187 | M6F FARO EXT 90 DEG ADAPTOR       |
| 6 - 7    | P-SC08-0635 | SCREW HEX SKT CAPHD M6X35 STST    |
| 8        | A-5003-7679 | STYLUS M6 DIA 6 MM 21 PROBE 0067  |
| 9        | A-5003-7678 | STYLUS M6 DIA 3 MM 21 PROBE 0065  |
| 10       | M-5003-9133 | FARO ADAPTOR 1.25-20 UN-M6        |
| 11       | P-TL01-0500 | SKT WRENCH 5 MM A/F               |
| 12       | P-TL09-0012 | 12 MM A/F OPEN/RING SPANNER       |



# Accessories

8.1



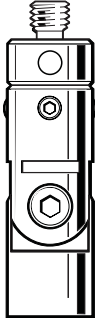
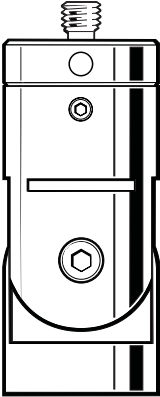
M2 CF stylus tool

Stylus knuckles

| Part number               | A-5000-7534*                                                                      | A-5003-4697                                                                       | A-5000-9902<br>Rotary                                                             | A-5000-7616*                                                                      | A-5003-4686<br>Rotary                                                               |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Thread size               | M2                                                                                | M2                                                                                | M2                                                                                | M3                                                                                | M3                                                                                  |
| Effective length mm (in.) | 8.0 (0.32)                                                                        | 13.5 (0.54)                                                                       | 16.5 (0.65)                                                                       | 12.0 (0.48)                                                                       | 17.0 (0.67)                                                                         |
| Centre offset mm (in.)    | 4.5 (0.18)                                                                        | N/A                                                                               | N/A                                                                               | 6.0 (0.24)                                                                        | N/A                                                                                 |
| Mass grammes              | 1.6                                                                               | 1.1                                                                               | 1.3                                                                               | 3.7                                                                               | 1.5                                                                                 |
|                           |  |  |  |  |  |

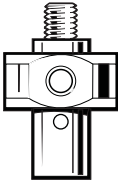
\* M2 screw kit available to order A-5004-4447

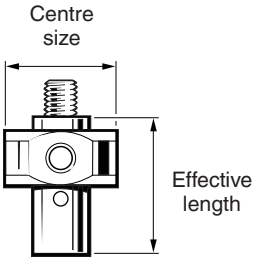
\* M3 screw kit available to order A-5004-7403

| Part number               | A-5003-4689<br>Rotary                                                              | A-5003-5278**<br>Rotary                                                            | A-5003-5279<br>Rotary                                                              |
|---------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Thread size               | M4                                                                                 | M5                                                                                 | M5                                                                                 |
| Effective length mm (in.) | 33.0 (1.30)                                                                        | 36.5 (1.44)                                                                        | 46.5 (1.84)                                                                        |
| Centre offset mm (in.)    | N/A                                                                                | N/A                                                                                | N/A                                                                                |
| Mass grammes              | 9.8                                                                                | 16.5                                                                               | 64.9                                                                               |
|                           |  |  |  |

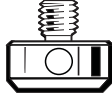
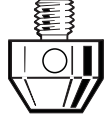
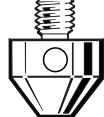
\*\*Not for use with SP80

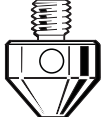
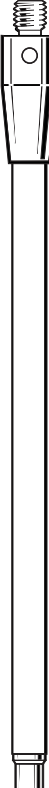
Stylus centres

| Part number               | A-5000-8395<br>4-way                                                                | A-5000-3627<br>5-way                                                                | A-5000-7610<br>5-way                                                                | A-5000-7792<br>5-way                                                                 |
|---------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Thread size               | M2                                                                                  | M2                                                                                  | M3                                                                                  | M4                                                                                   |
| Effective length mm (in.) | 7.5 (0.30)                                                                          | 7.5 (0.30)                                                                          | 13.0 (0.52)                                                                         | 18.0 (0.71)                                                                          |
| Centre size mm (in.)      | 7.5 (0.30)                                                                          | 7.0 (0.28)                                                                          | 10.0 (0.40)                                                                         | 15.0 (0.60)                                                                          |
| Mass grammes              | 1.1                                                                                 | 0.8                                                                                 | 3.6                                                                                 | 12.1                                                                                 |
|                           |  |  |  |  |

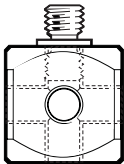
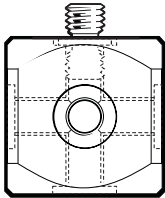
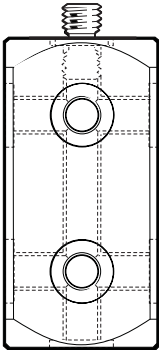
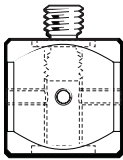
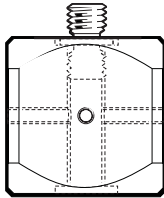


## Adaptors

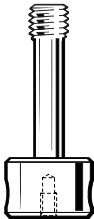
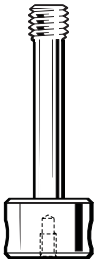
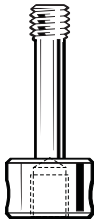
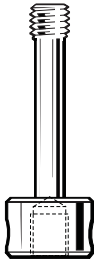
| Part number        | A-5004-7593<br>Stainless steel                                                    | A-5004-7592<br>Stainless steel                                                    | A-5004-7595<br>Stainless steel                                                    | A-5004-7597<br>Stainless steel                                                    | A-5004-7596<br>Stainless steel                                                    | A-5004-7613<br>Stainless steel                                                      | A-5003-0856<br>Stainless steel                                                      | A-5555-0227<br>Stainless steel                                                      |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Male/female thread | M2/M3                                                                             | M3/M2                                                                             | M4/M2                                                                             | M4/M3                                                                             | M4/M3                                                                             | M5/M4                                                                               | M5/M4                                                                               | M5/M3                                                                               |
| Length mm (in.)    | 7.0 (0.28)                                                                        | 5.0 (0.20)                                                                        | 5.0 (0.20)                                                                        | 9.0 (0.36)                                                                        | 20.0 (0.79)                                                                       | 6.5 (0.26)                                                                          | 9.0 (0.36)                                                                          | 10.0 (0.40)                                                                         |
| Mass grammes       | 0.4                                                                               | 0.6                                                                               | 1.5                                                                               | 1.4                                                                               | 3.2                                                                               | 6.0                                                                                 | 4.6                                                                                 | 5.0                                                                                 |
|                    |  |  |  |  |  |  |  |  |

| Part number        | A-5555-0226<br>Stainless steel                                                     | A-5000-7751<br>Ceramic                                                             | A-5004-7612<br>Stainless steel                                                     | A-5000-7752<br>Ceramic                                                             | A-5000-7753<br>Ceramic                                                             | A-2054-6350<br>Stainless steel                                                      |
|--------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Male/female thread | M5/M2                                                                              | M4/M3                                                                              | TF6/M3                                                                             | M4/M3                                                                              | M4/M3                                                                              | M4/Ø4.5                                                                             |
| Length mm (in.)    | 10.0 (0.40)                                                                        | 50.0 (1.97)                                                                        | 18.0 (0.71)                                                                        | 75.0 (2.96)                                                                        | 100.0 (3.94)                                                                       | 10.0 (0.40)                                                                         |
| Mass grammes       | 5.0                                                                                | 4.4                                                                                | 1.9                                                                                | 5.2                                                                                | 6.3                                                                                | 5.0                                                                                 |
|                    |  |  |  |  |  |  |

## Cubes and bolts

| Part number     | A-5555-0189*<br>Titanium                                                          | A-5555-0190*<br>Titanium                                                          | A-5555-0194*<br>Titanium                                                          | A-5003-5683*<br>Titanium                                                           | A-5003-5684*<br>Titanium                                                            |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Thread size     | M5                                                                                | M5                                                                                | M5                                                                                | M5 – M2                                                                            | M5 – M2                                                                             |
| Length mm (in.) | 15.0 (0.60)                                                                       | 20.0 (0.79)                                                                       | 20.0 (0.79)                                                                       | 15.0 (0.60)                                                                        | 20.0 (0.79)                                                                         |
| Width mm (in.)  | 15.0 (0.60)                                                                       | 20.0 (0.79)                                                                       | 40.0 (1.58)                                                                       | 15.0 (0.60)                                                                        | 20.0 (0.79)                                                                         |
| Mass grammes    | 12.85                                                                             | 32.55                                                                             | 63.50                                                                             | 13.75                                                                              | 35.18                                                                               |
|                 |  |  |  |  |  |

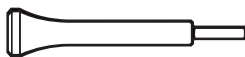
\* Non-removable male thread

| Part number     | A-5003-5679<br>Stainless steel                                                      | A-5003-5678<br>Stainless steel                                                      | A-5003-5677<br>Stainless steel                                                      | A-5003-5676<br>Stainless steel                                                       |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Thread size     | M5 – M2                                                                             | M5 – M2                                                                             | M5                                                                                  | M5                                                                                   |
| Length mm (in.) | 28.0 (1.11)                                                                         | 33.0 (1.30)                                                                         | 28.0 (1.11)                                                                         | 33.0 (1.30)                                                                          |
| Mass grammes    | 6.7                                                                                 | 7.1                                                                                 | 6.0                                                                                 | 6.4                                                                                  |
|                 |  |  |  |  |

## Styli tools

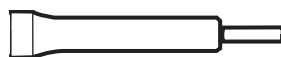
### A-5004-7582

For M2 and M3  
threaded styli



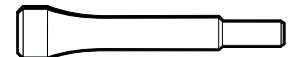
### A-5004-7587

For M4  
threaded styli



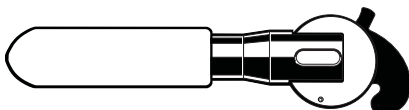
### A-5004-7614

For M5  
threaded styli



### A-5003-2300

For the M2 carbon fibre  
range of styli



This tool is to be used exclusively to tighten all M2 carbon fibre extensions. The tool has been designed to tighten the extensions to the correct torque value & will click when value has been reached. Do not overtighten past the click as this could potentially damage the component you are tightening.

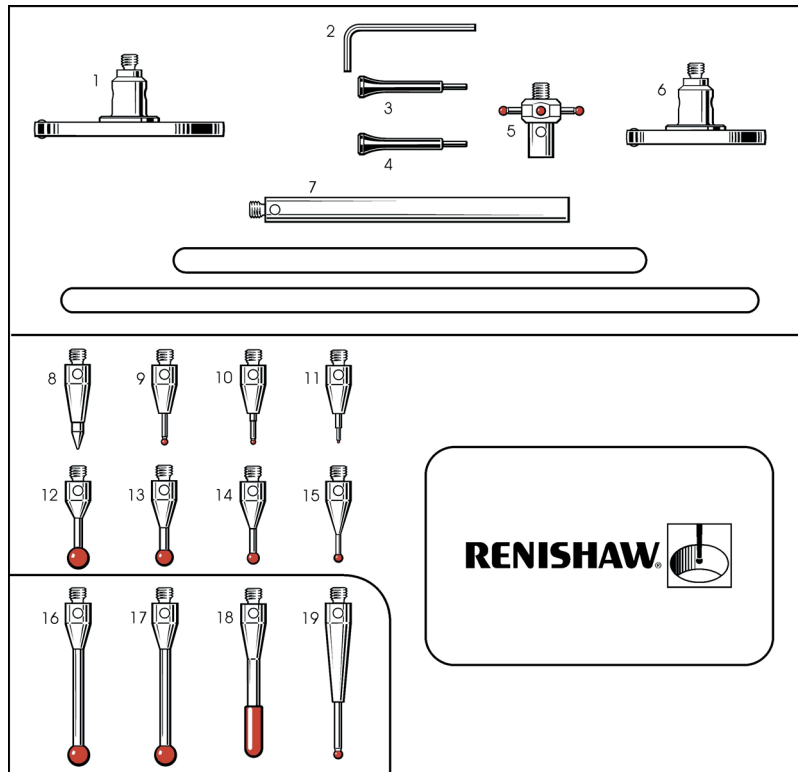
These tools are designed to fit styli to Renishaw probes without causing internal damage



## M2 styli kits

### A-5000-0002 M2 stylus enhancement kit

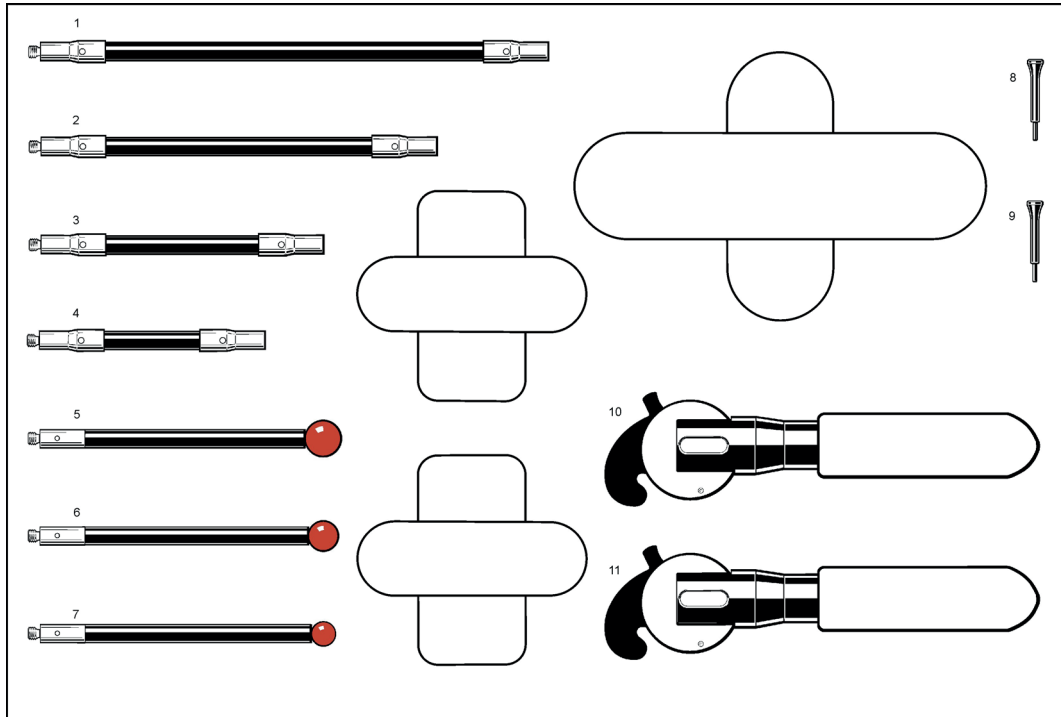
**RENISHAW**  
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| Position | Part number | Description                      |
|----------|-------------|----------------------------------|
| 1        | A-5000-7810 | M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5 |
| 2        | P-TL01-0150 | S3 HEX WRENCH 1.5 MM A/F         |
| 3-4      | A-5004-7582 | M2-M3 STYLUS TOOL                |
| 5        | A-5000-7811 | M2 STR D1R 4BALL L7.5T S10       |
| 6        | A-5000-7809 | M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5 |
| 7        | A-5004-7611 | M2 EXT L40 d3SS                  |
| 8        | A-5000-7813 | M2 PNT D1.4TC 30deg L10          |
| 9        | A-5000-7801 | M2 STY D0.7R L10 EWL4 d0.5TC     |
| 10       | A-5000-7805 | M2 STY D0.5R L10 EWL3 d0.4TC     |
| 11       | A-5000-7800 | M2 STY D0.3R L10 EWL2 d0.2TC     |
| 12       | A-5000-7803 | M2 STY D2.5R L10 EWL6.5 d1SS     |
| 13       | A-5000-7807 | M2 STY D2R L10 EWL6 d1SS         |
| 14       | A-5000-7802 | M2 STY D1.5R L10 EWL4.5 d0.7SS   |
| 15       | A-5000-7806 | M2 STY D1R L10 EWL4.5 d0.7SS     |
| 16-17    | A-5000-7804 | M2 STY D2.5R L20 EWL16.4 d1.4SS  |
| 18       | A-5000-7812 | M2 SPH D2R L20 EWL7.2 SS         |
| 19       | A-5000-7808 | M2 STY D1R L20 EWL7 d0.7TC       |

A-5003-2310 M2 high performance kit

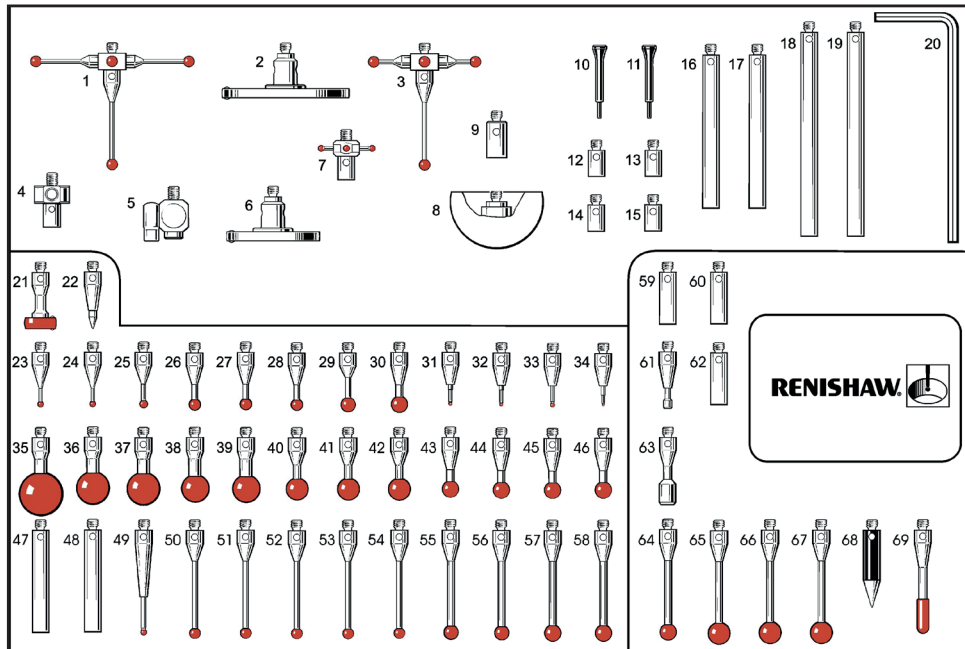
**RENISHAW**  
apply innovation™



| Position | Part number | Description               |
|----------|-------------|---------------------------|
| 1        | A-5003-2283 | M2 EXT L90 d3CF           |
| 2        | A-5003-2282 | M2 EXT L70 d3CF           |
| 3        | A-5003-2281 | M2 EXT L50 d3CF           |
| 4        | A-5003-2280 | M2 EXT L40 d3CF           |
| 5        | A-5003-2287 | M2 STY D6R L50 EWL50 d3CF |
| 6        | A-5003-2286 | M2 STY D5R L50 EWL50 d3CF |
| 7        | A-5003-2285 | M2 STY D4R L50 EWL50 d3CF |
| 8-9      | A-5004-7582 | M2-M3 STYLUS TOOL         |
| 10-11    | A-5003-2300 | M2 STYLUS TOOL CF RANGE   |

**A-5000-0001 M2 comprehensive stylus kit**

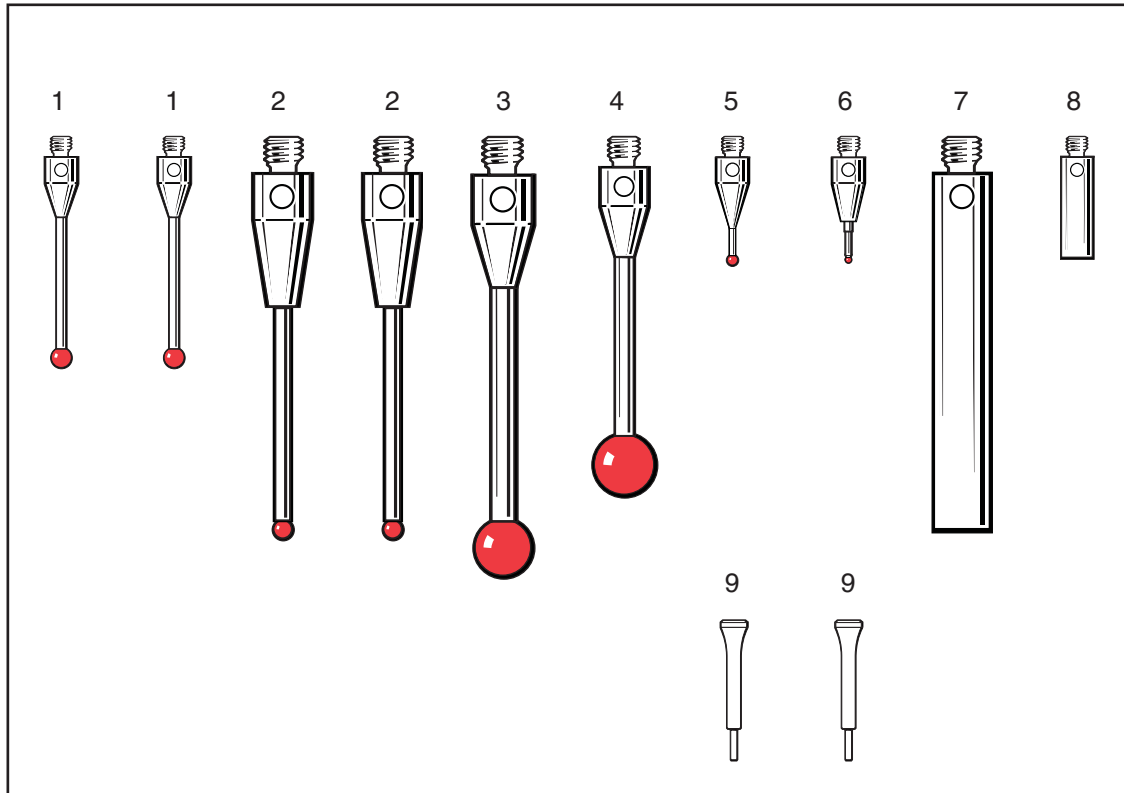
**RENISHAW**  
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| Position | Part number | Description                      |
|----------|-------------|----------------------------------|
| 1        | A-5000-3626 | M2 STR D2R 5BALL L19.2 S30       |
| 2        | A-5000-7810 | M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5 |
| 3        | A-5000-7629 | M2 STR D2R 5BALL L19.2 S18       |
| 4        | A-5000-3627 | M2 ACC CENTRE 5WAY               |
| 5        | A-5000-7534 | M2 ACC KNUCKLE OFFSET            |
| 6        | A-5000-7809 | M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5 |
| 7        | A-5000-7811 | M2 STR D1 4BALL L7.5 S10         |
| 8        | A-5000-3614 | M2 HEM D18CE                     |
| 9        | A-5004-7593 | M2-M3 EXT L7SS                   |
| 10-11    | A-5004-7582 | M2-M3 STYLUS TOOL                |
| 12-15    | A-5004-7610 | M2 EXT L5 d3SS                   |
| 16-17    | A-5004-7591 | M2 EXT L30 d3SS                  |
| 18-19    | A-5004-7611 | M2 EXT L40 d3SS                  |
| 20       | P-TL01-0150 | S3 HEX WRENCH 1.5 MM A/F         |
| 21       | A-5000-3611 | M2 DSC D6R T1.2 L10 BR-Y2        |
| 22       | A-5000-7813 | M2 PNT D1.4TC 30deg L10          |
| 23-24    | A-5000-7806 | M2 STY D1R L10 EWL4.5 d0.7SS     |
| 25       | A-5000-7802 | M2 STY D1.5R L10 EWL4.5 d0.7SS   |
| 26-28    | A-5000-7807 | M2 STY D2R L10 EWL6 d1SS         |
| 29       | A-5000-7803 | M2 STY D2.5R L10 EWL6 d1SS       |
| 30       | A-5000-3604 | M2 STY D3R L10 EWL7.5 d1.5SS     |
| 31-32    | A-5000-7805 | M2 STY D0.5R L10 EWL3 d0.4TC     |
| 33       | A-5000-7801 | M2 STY D0.7R L10 EWL4 d0.5TC     |
| 34       | A-5000-7800 | M2 STY D0.3R L10 EWL2 d0.2TC     |
| 35       | A-5000-4158 | M2 STY D8R L11 EWL11 d2.5SS      |
| 36-37    | A-5000-4156 | M2 STY D6R L10 EWL10 d2.5SS      |
| 38-39    | A-5000-4155 | M2 STY D5R L10 EWL10 d2.5SS      |
| 40-42    | A-5000-4154 | M2 STY D4R L10 EWL10 d1.5SS      |
| 43-46    | A-5000-3604 | M2 STY D3R L10 EWL7 d1.5SS       |
| 47-48    | A-5004-7586 | M2 EXT L20 d3SS                  |
| 49       | A-5000-7808 | M2 STY D1R L20 EWL7 d0.7TC       |
| 50-54    | A-5000-3603 | M2 STY D2R L20 EWL14 d1.4SS      |
| 55-56    | A-5000-7804 | M2 STY D2.5R L20 EWL16.4 d1.4SS  |
| 57-58    | A-5000-4160 | M2 STY D3R L20 EWL17 d1.5SS      |
| 59-60    | A-5004-7585 | M2 EXT L10 d3SS                  |
| 61       | A-5004-7589 | M2 CYL D1.5SLVS L11 EWL1.25      |
| 62       | A-5004-7585 | M2 EXT L10 d3SS                  |
| 63       | A-5004-7590 | M2 CYL D3SLVS L13 EWL3.8         |
| 64       | A-5000-4160 | M2 STY D3R L20 EWL17 d1.5SS      |
| 65-67    | A-5000-4161 | M2 STY D4R L20 EWL20 d1.5SS      |
| 68       | A-5004-7588 | M2 PNT D3SLVS 30deg L15          |
| 69       | A-5000-7812 | M2 SPH D2R L20 EWL7.2 SS         |

## M2 styli kits

### A-5004-5131 M2 stylus starter kit

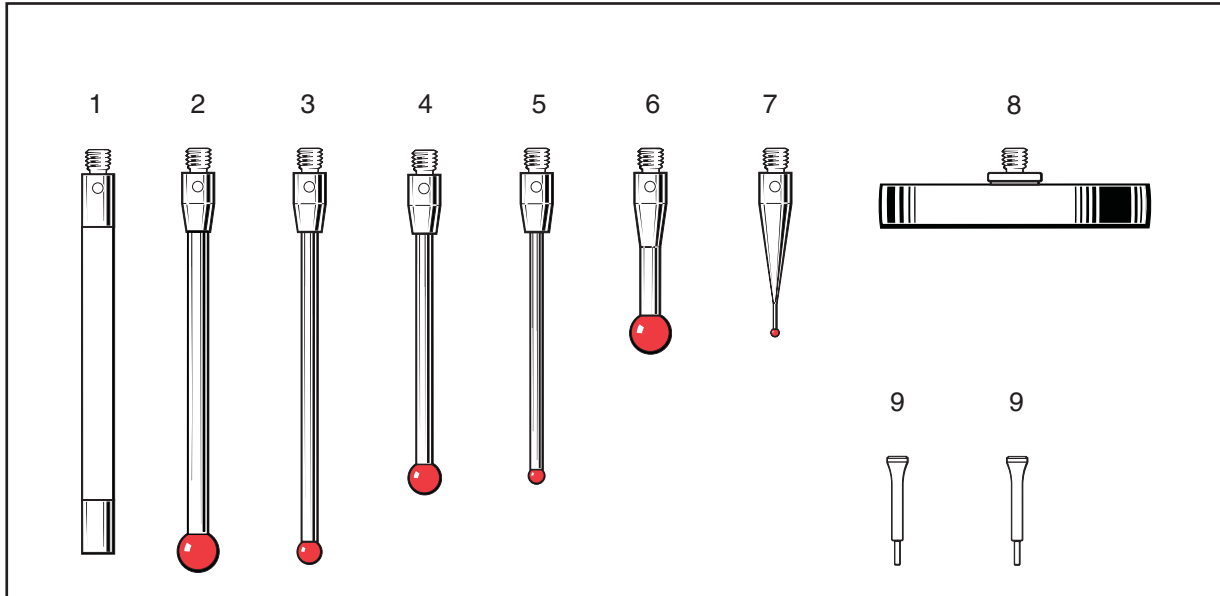


| Position | Part number | Description                   |
|----------|-------------|-------------------------------|
| 1        | A-5003-3603 | M2 STY D2R L20 EWL14 d1.4SS   |
| 2        | A-5003-0033 | M2 STY D1R L20 EWL12.5 d0.8TC |
| 3        | A-5000-4160 | M2 STY D3R L20 EWL17 d1.5SS   |
| 4        | A-5000-4161 | M2 STY D4R L20 EWL20 d1.5SS   |
| 5        | A-5000-7806 | M2 STY D1R L10 EWL4.5 d0.7SS  |
| 6        | A-5000-7805 | M2 STY D0.5R L10 EWL3 d0.4TC  |
| 7        | A-5004-7586 | M2 EXT L20 d3SS               |
| 8        | A-5004-7585 | M2 EXT L10 d3SS               |
| 9        | A-5004-7582 | M2-M3 STYLUS TOOL             |

## M3 styli kits

### A-5004-6880 M3 stylus starter kit

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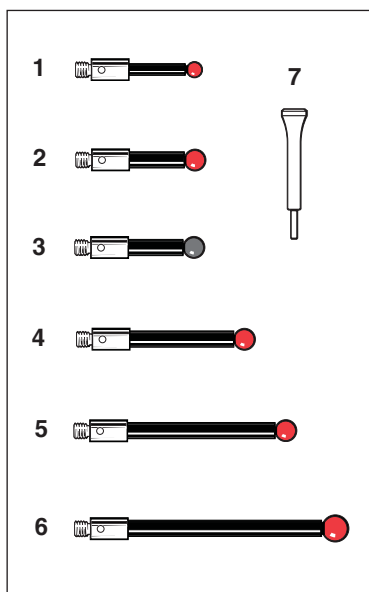


| Position | Part number | Description                   | Position | Part number | Description                 |
|----------|-------------|-------------------------------|----------|-------------|-----------------------------|
| 1        | A-5003-0075 | M3 EXT L50 d4CE               | 6        | A-5000-7630 | M3 STY D5R L21 EWL21 d2.5SS |
| 2        | A-5003-0069 | M3 STY D5R L50 EWL50 d2.5CE   | 7        | A-5000-3551 | M3 STY D1R L21 EWL4 d0.7SS  |
| 3        | A-5003-0059 | M3 STY D3R L50 EWL43.7 d2TC   | 8        | A-5000-7612 | M3 DSC D35SLVS T5 L3.5 BR-N |
| 4        | A-5003-0060 | M3 STY D4R L40 EWL36 d2TC     | 9        | A-5004-7582 | M2-M3 STYLUS TOOL           |
| 5        | A-5003-0053 | M3 STY D2R L40 EWL32.5 d1.5TC |          |             |                             |

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### A-5003-6151 M3 stylus kit for SP25M/SM25-1/SH25-1

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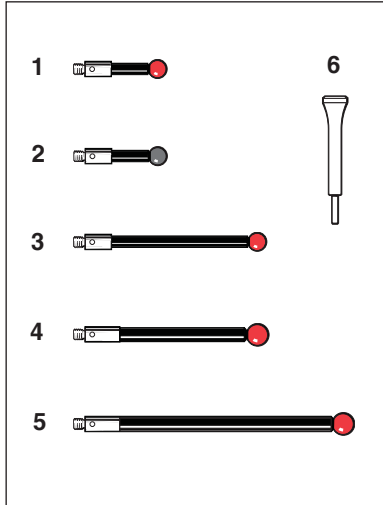


| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1        | A-5003-5970 | M3 STY D3R L21 EWL13.5 d2CF  |
| 2        | A-5003-5971 | M3 STY D4R L21 EWL13.5 d3CF  |
| 3        | A-5003-5977 | M3 STY D4SN L21 EWL13.5 d3CF |
| 4        | A-5003-5972 | M3 STY D4R L31 EWL23.5 d3CF  |
| 5        | A-5003-5973 | M3 STY D4R L40 EWL32.5 d3CF  |
| 6        | A-5003-5974 | M3 STY D5R L50 EWL42.5 d3CF  |
| 7        | A-5004-7582 | M2-M3 STYLUS TOOL            |

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## M3 styli kits

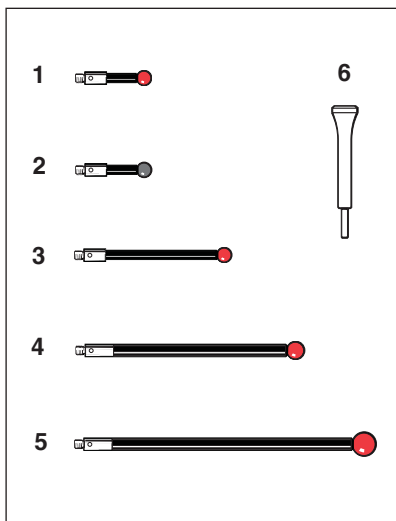
### A-5003-6152 M3 stylus kit for SP25M/SM25-2/SH25-2



| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1        | A-5003-5975 | M3 STY D5R L21 EWL13.5 d3CF  |
| 2        | A-5003-5978 | M3 STY D5SN L21 EWL13.5 d3CF |
| 3        | A-5003-5974 | M3 STY D5R L50 EWL42.5 d3CF  |
| 4        | A-5003-5976 | M3 STY D6R L50 EWL50 d4CF    |
| 5        | A-5003-4860 | M3 STY D6R L75 EWL75 d4CF    |
| 6        | A-5004-7582 | M2-M3 STYLUS TOOL            |

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### A-5003-6153 M3 stylus kit for SP25M/SM25-3/SH25-3



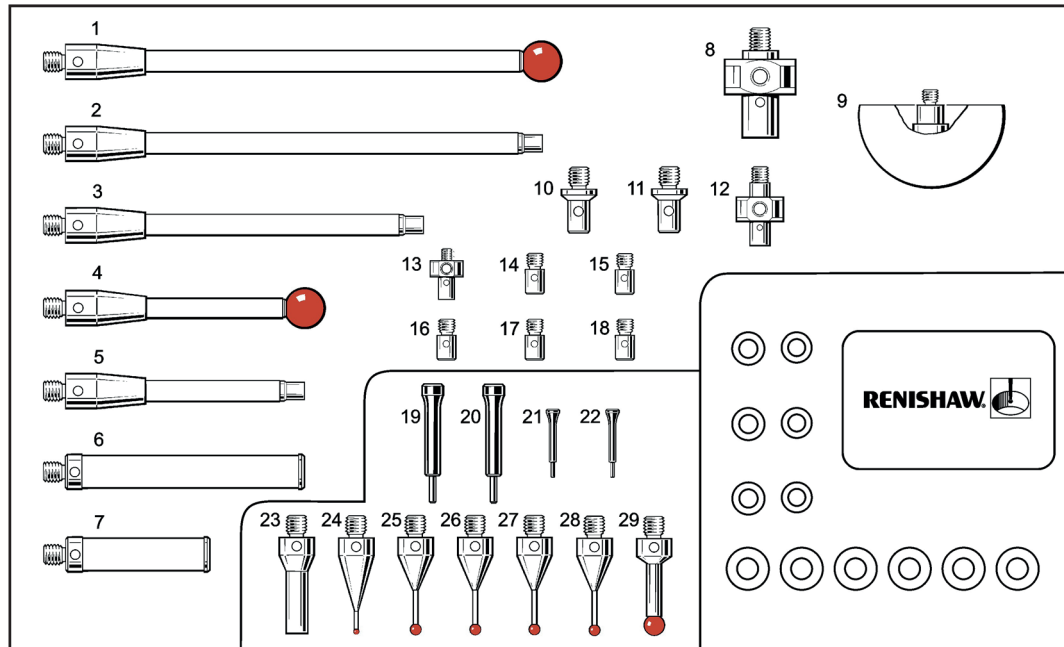
| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1        | A-5003-5975 | M3 STY D5R L21 EWL13.5 d3CF  |
| 2        | A-5003-5978 | M3 STY D5SN L21 EWL13.5 d3CF |
| 3        | A-5003-5974 | M3 STY D5R L50 EWL42.5 d3CF  |
| 4        | A-5003-4860 | M3 STY D6R L75 EWL75 d4CF    |
| 5        | A-5003-4863 | M3 STY D8R L100 EWL100 d4CF  |
| 6        | A-5004-7582 | M2-M3 STYLUS TOOL            |

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## M4 styli kits

### A-5000-7829 M4 stylus kit (TP7M use)

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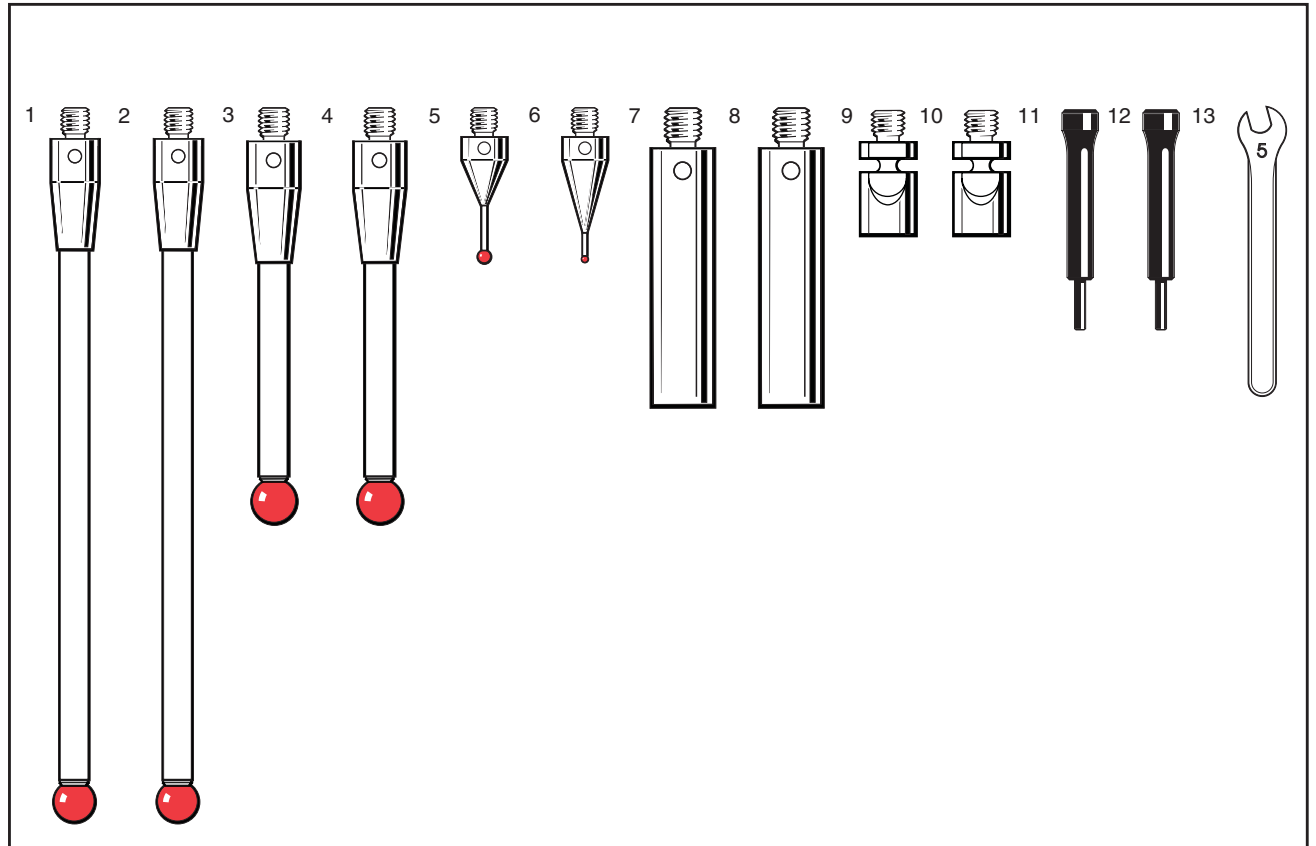


| Position | Part number | Description                    |
|----------|-------------|--------------------------------|
| 1        | A-5000-7796 | M4 STY D8R L100 EWL100 d4.5CE  |
| 2        | A-5000-7753 | M4-M3 EXT L100CE               |
| 3        | A-5000-7752 | M4-M3 EXT L75CE                |
| 4        | A-5000-7795 | M4 STY D8R L50 EWL50 d4.5CE    |
| 5        | A-5000-7751 | M4-M3 EXT L50CE                |
| 6        | A-5000-7755 | M4 EXT L50 d7.4CE              |
| 7        | A-5000-7754 | M4 EXT L30 d7.4CE              |
| 8        | A-5000-7792 | M4 ACC CENTRE 5WAY             |
| 9        | A-5000-7814 | M3 HEM D30CE                   |
| 10-11    | A-5004-7597 | M4-M3 EXT L9SS                 |
| 12       | A-5000-7610 | M3 ACC CENTRE 5WAY             |
| 13       | A-5000-3627 | M2 ACC CENTRE 5WAY             |
| 14-18    | A-5004-7592 | M3-M2 EXT L5SS                 |
| 19-20    | A-5004-7587 | M4 STYLUS TOOL                 |
| 21-22    | A-5004-7582 | M2-M3 STYLUS TOOL              |
| 23       | A-5004-7596 | M4-M3 EXT L20SS                |
| 24       | A-5000-7545 | M4 STY D1R L19.5 EWL4.5 d0.7SS |
| 25-28    | A-5000-7547 | M4 STY D2R L19 EWL9.2 d1.4SS   |
| 29       | A-5000-7551 | M4 STY D4R L18 EWL13.7 d3SS    |

## M4 styli kits

### A-5004-5132 M4 stylus starter kit

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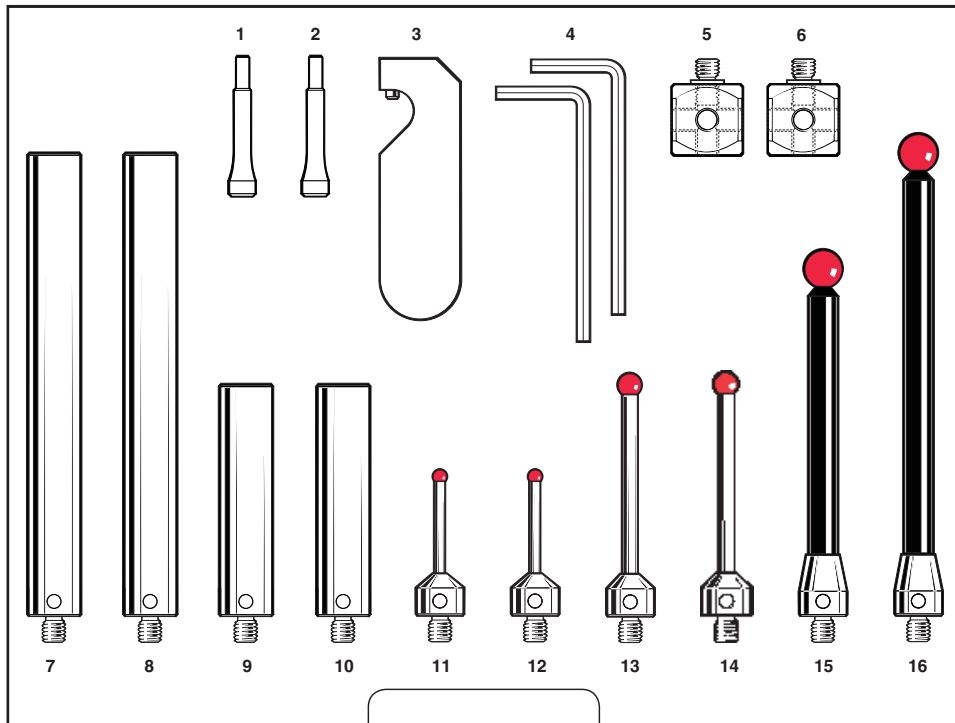
| Position | Part number | Description                    |
|----------|-------------|--------------------------------|
| 1-2      | A-5000-3712 | M4 STY D6R L100 EWL88.5 d4.5CE |
| 3-4      | A-5000-3709 | M4 STY D6R L50 EWL38.5 d4.5CE  |
| 5        | A-5000-7547 | M4 STY D2R L19 EWL9.2 d1.4SS   |
| 6        | A-5000-7545 | M4 STY D1R L19.5 EWL4.5 d0.7SS |
| 7-8      | A-5004-7602 | M4 EXT L30 d7SS                |
| 9-10     | A-5004-7621 | M4 CPD L12SLVS                 |
| 11-12    | A-5004-7587 | M4 STYLUS TOOL                 |
| 13       | P-TL09-0003 | SPANNER 5 MM A/F               |



## M5 styli kits

### A-5003-6168 M5 stylus kit SP80

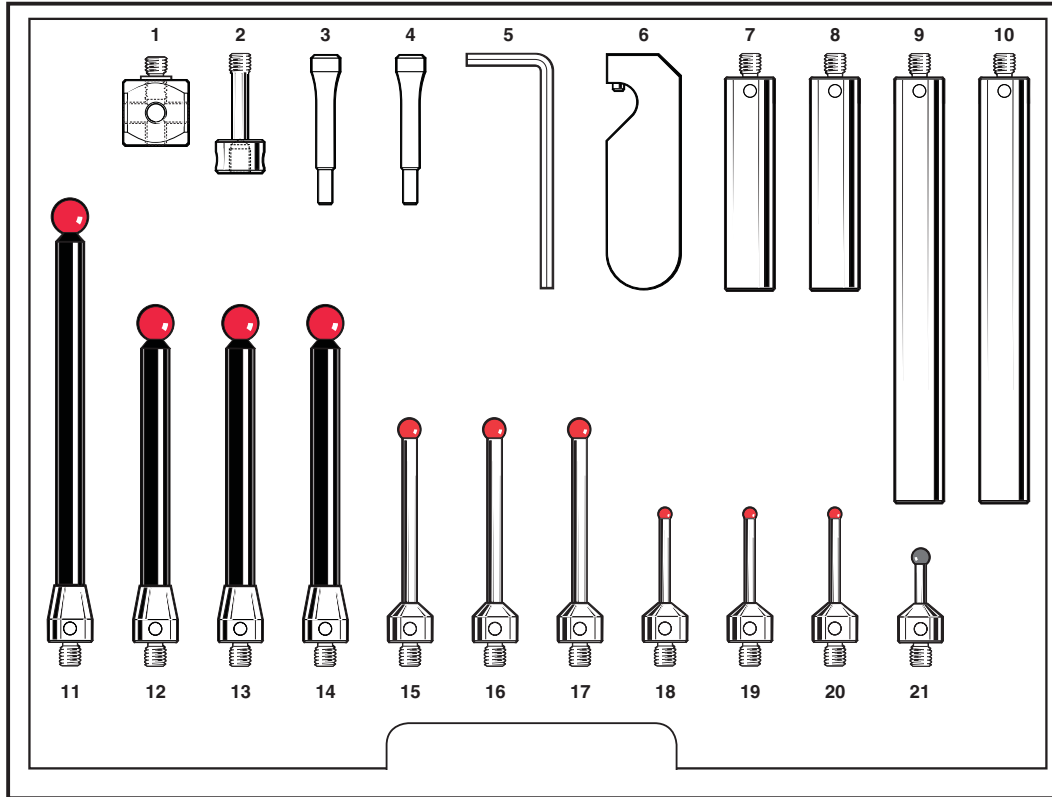
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| Position | Part number | Description                |
|----------|-------------|----------------------------|
| 1-2      | A-5004-7614 | M5 STYLUS TOOL             |
| 3        | A-5003-6134 | M5 ACC D11 EXTENSION TOOL  |
| 4        | P-TL01-0250 | S3 HEX WRENCH 2.5 MM A/F   |
| 5-6      | A-5555-0189 | M5 ACC 15×15 CUBE          |
| 7-8      | A-5555-0136 | M5 EXT L100 d11SS          |
| 9-10     | A-5555-0670 | M5 EXT L50 d11SS           |
| 11-12    | A-5003-5218 | M5 STY D3R L30 EWL21 d2TC  |
| 13-14    | A-5003-5236 | M5 STY D5R L50 EWL41 d3TC  |
| 15       | A-5003-5251 | M5 STY D8R L75 EWL62 d6CF  |
| 16       | A-5003-5262 | M5 STY D8R L100 EWL87 d6CF |

A-5003-5911 M5 stylus kit – standard

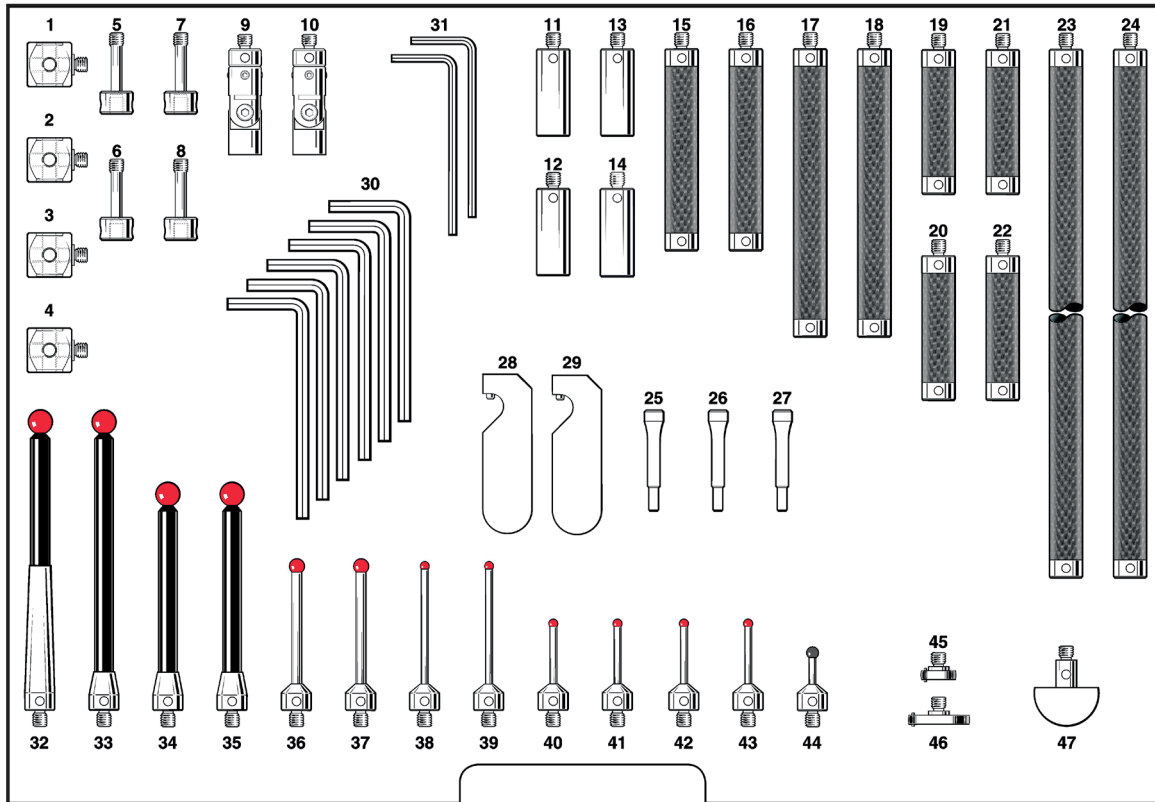
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| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1        | A-5555-0189 | M5 ACC 15×15 CUBE            |
| 2        | A-5003-5677 | M5 ACC CUBE BOLT L28         |
| 3-4      | A-5004-7614 | M5 STYLUS TOOL               |
| 5        | P-TL01-0250 | S6 HEX WRENCH 2.5 MM A/F     |
| 6        | A-5003-6134 | M5 ACC D11 EXTENSION TOOL    |
| 7-8      | A-5555-0670 | M5 EXT L50 d11SS             |
| 9-10     | A-5555-0136 | M5 EXT L100 d11SS            |
| 11       | A-5003-5262 | M5 STY D8R L100 EWL89.5 d6CF |
| 12-14    | A-5003-5251 | M5 STY D8R L75 EWL64.5 d6CF  |
| 15-17    | A-5003-5236 | M5 STY D5R L50 EWL41.5 d3TC  |
| 18-20    | A-5003-5218 | M5 STY D3R L30 EWL21 d2TC    |
| 21       | A-5003-5733 | M5 STY D4SN L20 EWL11.9 d2TC |

**A-5003-5909 M5 stylus kit – comprehensive**

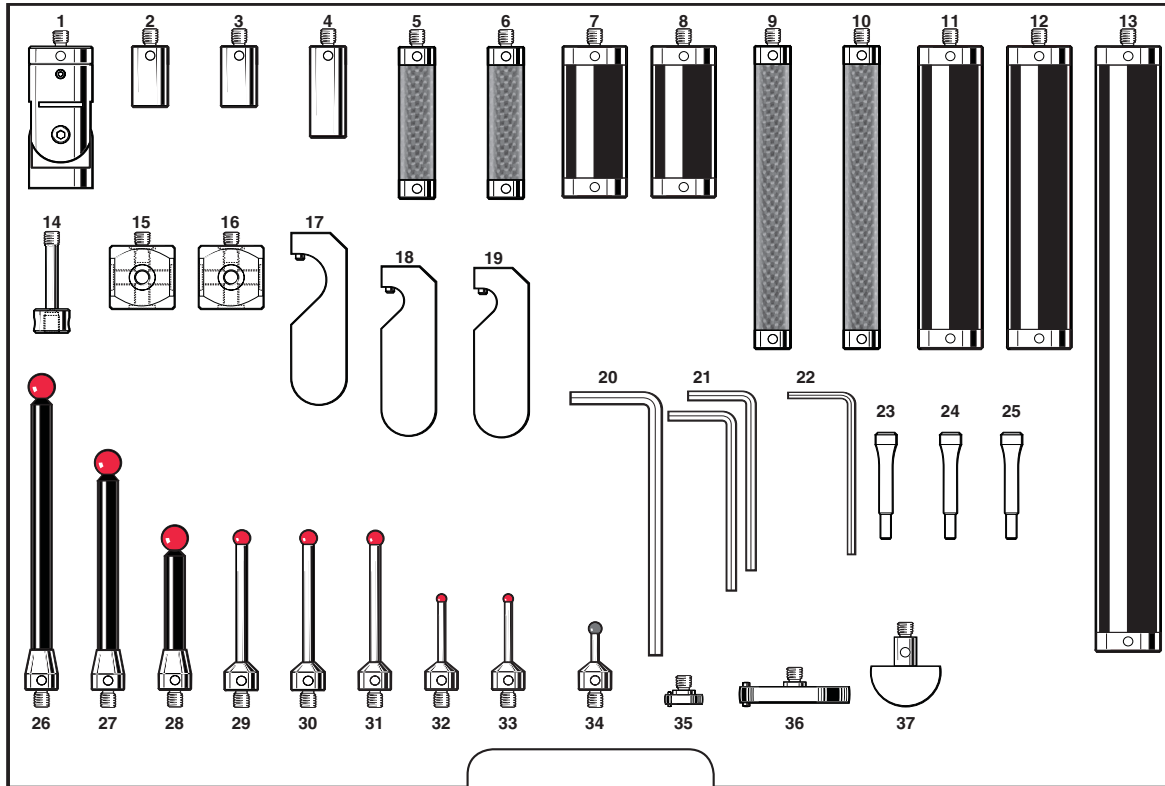
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| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1-4      | A-5555-0189 | M5 ACC 15×15 CUBE            |
| 5-8      | A-5003-5677 | M5 ACC CUBE BOLT L28         |
| 9-10     | A-5003-5278 | M5 ACC KNUCKLE d11 ROTARY    |
| 11-14    | A-5555-0669 | M5 EXT L30 d11SS             |
| 15-16    | A-5555-0623 | M5 EXT L70 d11CF             |
| 17-18    | A-5555-0652 | M5 EXT L100 d11CF            |
| 19-22    | A-5555-0648 | M5 EXT L50 d11CF             |
| 23-24    | A-5555-0654 | M5 EXT L200 d11CF            |
| 25-27    | A-5004-7614 | M5 STYLUS TOOL               |
| 28-29    | A-5003-6134 | M5 ACC D11 EXTENSION TOOL    |
| 30       | P-TL01-0250 | S3 HEX WRENCH 2.5 MM A/F     |
| 31       | P-TL01-0150 | S3 HEX WRENCH 1.5 MM A/F     |
| 32       | A-5003-5261 | M5 STY D8R L100 EWL50 d6CF   |
| 33       | A-5003-5262 | M5 STY D8R L100 EWL89.5 d6CF |
| 34-35    | A-5003-5251 | M5 STY D8R L75 EWL64.5 d6CF  |
| 36-37    | A-5003-5236 | M5 STY D5R L50 EWL41.5 d3TC  |
| 38-39    | A-5003-5234 | M5 STY D3R L50 EWL41 d2TC    |
| 40-43    | A-5003-5218 | M5 STY D3R L30 EWL21 d2TC    |
| 44       | A-5003-5733 | M5 STY D4SN L20 EWL11.9 d2TC |
| 45       | A-5003-5288 | M5 DSC D12SLVS T3 L3 BR-Y5   |
| 46       | A-5003-5289 | M5 DSC D21SLVS T3 L3 BR-Y5   |
| 47       | A-5003-5276 | M5 HEM D22CE d7SS            |

# A-5003-5910 M5 stylus kit - general purpose

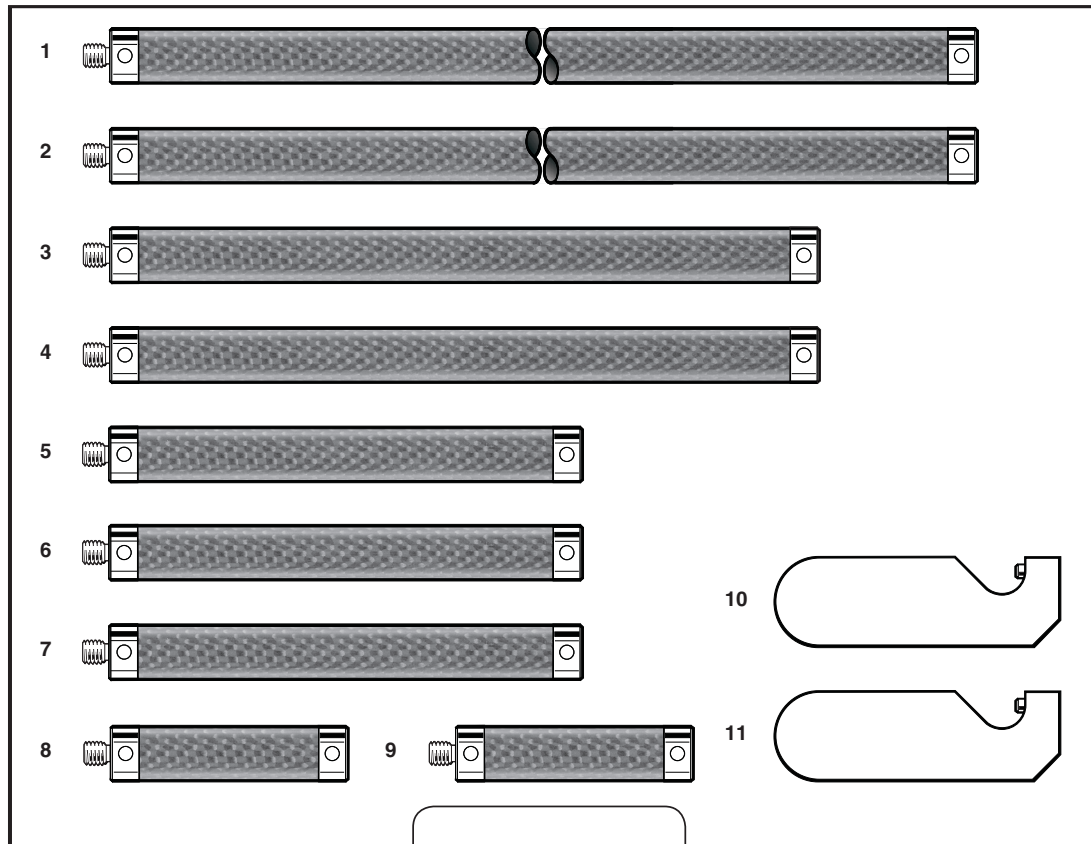
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| Position | Part number | Description                  |
|----------|-------------|------------------------------|
| 1        | A-5003-5279 | M5 ACC KNUCKLE d20 ROTARY    |
| 2-3      | A-5555-0140 | M5 EXT L20 d11SS             |
| 4        | A-5555-0669 | M5 EXT L30 d11SS             |
| 5-6      | A-5555-0648 | M5 EXT L50 d11CF             |
| 7-8      | A-5555-0671 | M5 EXT L50 d20AL             |
| 9-10     | A-5555-0652 | M5 EXT L100 d11CF            |
| 11-12    | A-5555-0127 | M5 EXT L100 d20AL            |
| 13       | A-5555-0125 | M5 EXT L200 d20AL            |
| 14       | A-5003-5676 | M5 ACC CUBE BOLT L33         |
| 15-16    | A-5555-0190 | M5 ACC 20x20 CUBE            |
| 17       | A-5003-6135 | M5 ACC D20 EXTENSION TOOL    |
| 18-19    | A-5003-6134 | M5 ACC D11 EXTENSION TOOL    |
| 20       | P-TL01-0300 | S4 HEX WRENCH 3.0 MM A/F     |
| 21       | P-TL01-0250 | S6 HEX WRENCH 2.5 MM A/F     |
| 22       | P-TL01-0150 | S3 HEX WRENCH 1.5 MM A/F     |
| 23-25    | A-5004-7614 | M5 STYLUS TOOL               |
| 26       | A-5003-5262 | M5 STY D8R L100 EWL89.5 d6CF |
| 27       | A-5003-5251 | M5 STY D8R L75 EWL64.2 d6CF  |
| 28       | A-5003-5238 | M5 STY D8R L50 EWL39.5 d6CF  |
| 29-31    | A-5003-5236 | M5 STY D5R L50 EWL41.5 d3TC  |
| 32-33    | A-5003-5218 | M5 STY D3R L30 EWL21 d2TC    |
| 34       | A-5003-5733 | M5 STY D4SN L20 EWL11.9 d2TC |
| 35       | A-5003-5288 | M5 DSC D12SLVS T3 L3 BR-Y5   |
| 36       | A-5003-5290 | M5 DSC D35SLVS T5 L4 BR-Y8   |
| 37       | A-5003-5276 | M5 HEM D22CE d7SS            |

**A-5003-5912 M5 stylus extension kit – 11 mm**

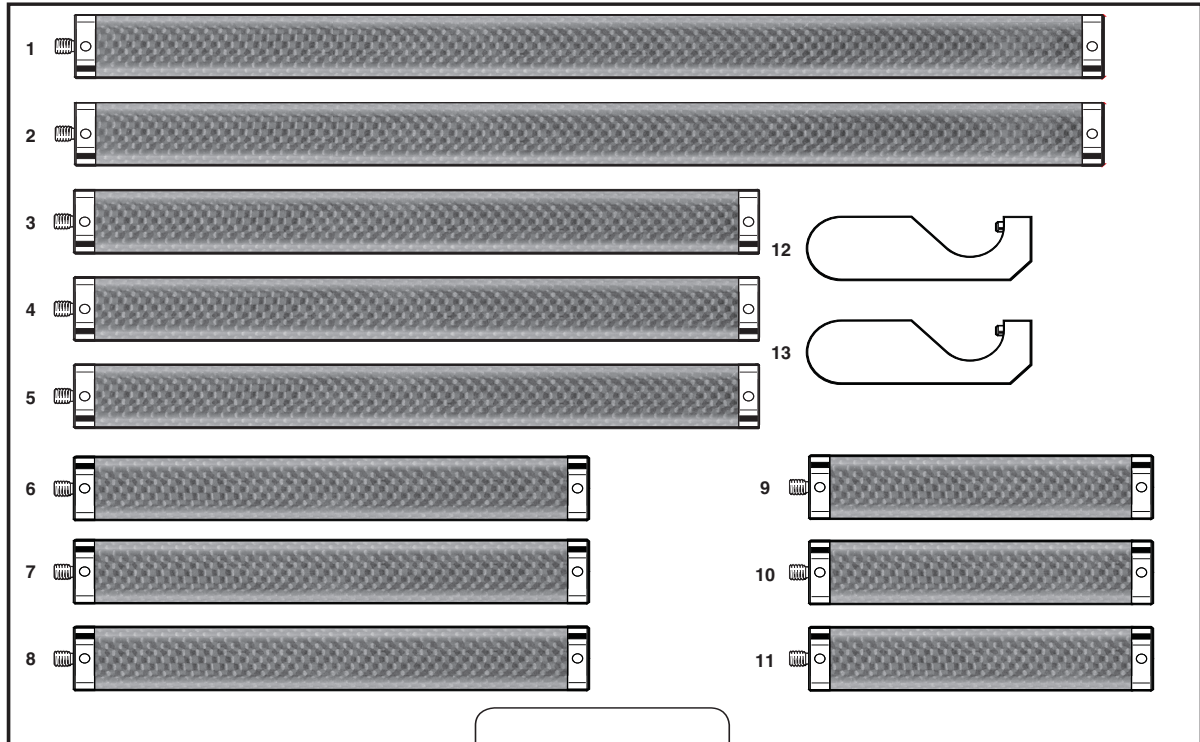
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| Position | Part number | Description               |
|----------|-------------|---------------------------|
| 1-2      | A-5555-0654 | M5 EXT L200 d11CF         |
| 3-4      | A-5555-0424 | M5 EXT L150 d11CF         |
| 5-7      | A-5555-0652 | M5 EXT L100 d11CF         |
| 8-9      | A-5555-0648 | M5 EXT L50 d11CF          |
| 10-11    | A-5003-6134 | M5 ACC D11 EXTENSION TOOL |

A-5003-5913 M5 stylus extension kit - 20 mm

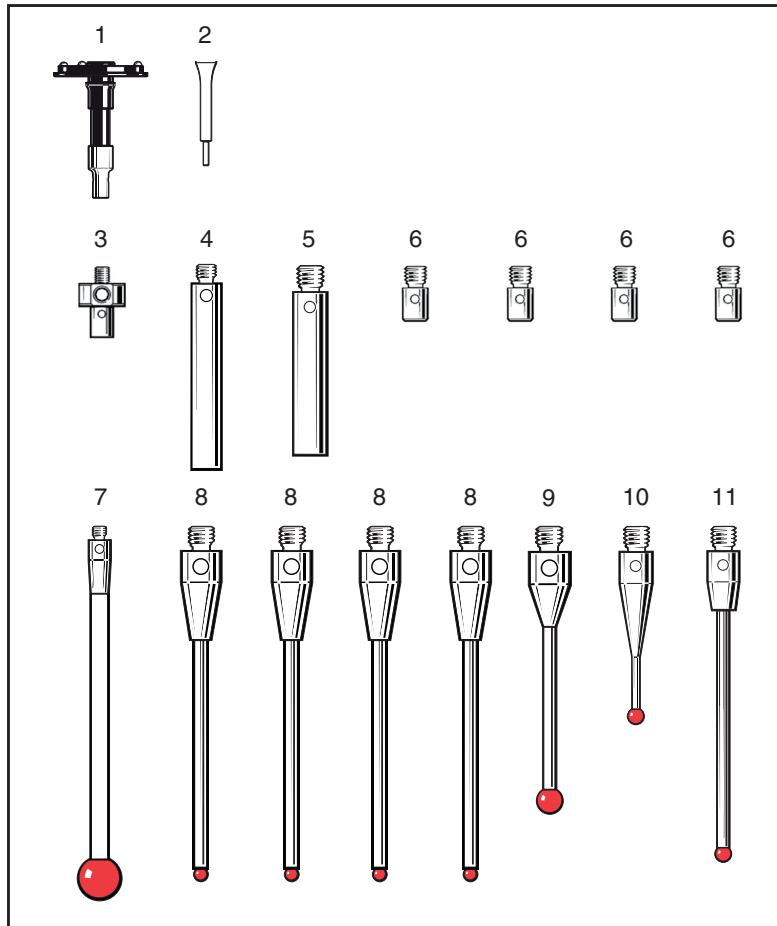
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| Position | Part number | Description               |
|----------|-------------|---------------------------|
| 1-2      | A-5555-0664 | M5 EXT L300 d20CF         |
| 3-5      | A-5555-0663 | M5 EXT L200 d20CF         |
| 6-8      | A-5555-0661 | M5 EXT L150 d20CF         |
| 9-11     | A-5555-0659 | M5 EXT L100 d20CF         |
| 12-13    | A-5003-6135 | M5 ACC D20 EXTENSION TOOL |

**A-5504-0281 EQUATOR stylus kit-basic**

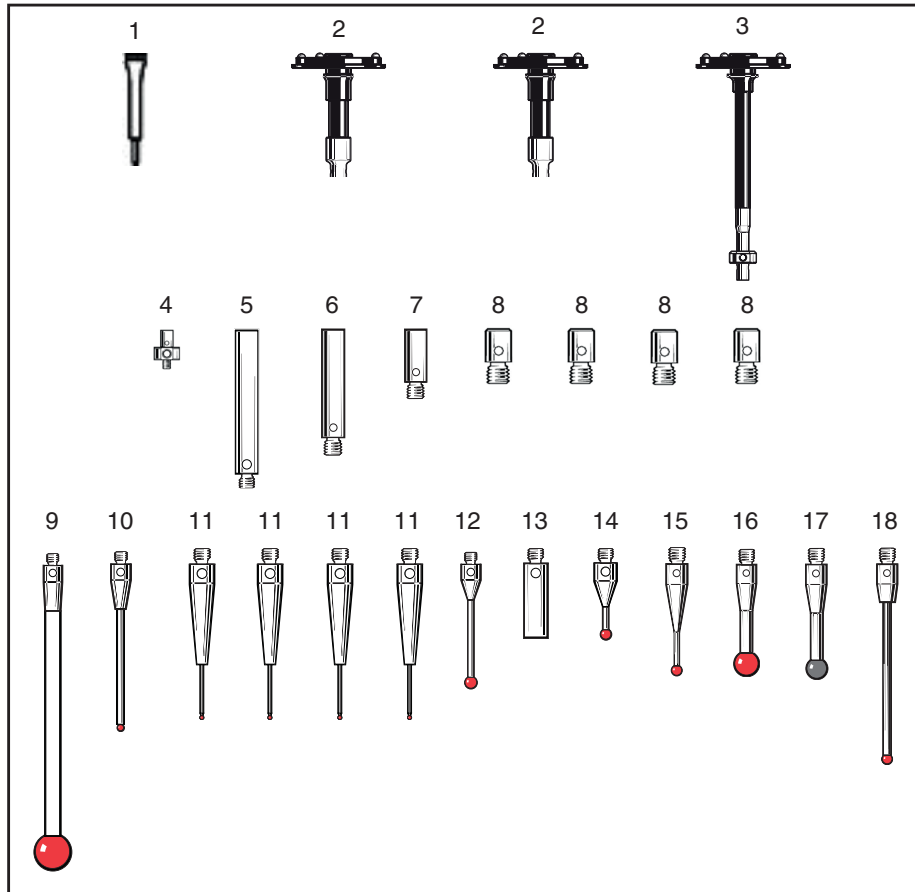
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| Position | Part number | Description                     |
|----------|-------------|---------------------------------|
| 1        | A-2237-1702 | SH25-2A KIT                     |
| 2        | A-5004-7582 | STYLUS TOOL D1.13/1.10          |
| 3        | A-5000-3627 | SC2 5-WAY CENTRE                |
| 4        | A-5004-7586 | SE5 STYLUS EXTENSION            |
| 5        | A-5004-7583 | SE2 STYLUS EXTENSION            |
| 6        | A-5004-7592 | SA3 STYLUS ADAPTOR              |
| 7        | A-5003-0470 | M2 STYLUS D6R L50 EWL50 d2.5CR  |
| 8        | A-5000-8663 | M2 STY D1R L27.5 EWL20.5 d0.7TC |
| 9        | A-5000-3603 | M2 STY D2R EWL13.9 d1.4SS       |
| 10       | A-5000-3552 | M3 STY D2R L21 EWL11 d1.4SS     |
| 11       | A-5003-0053 | M3 STY D2R L40 EWL32,5 d1,5TC   |

A-5504-0282 EQUATOR stylus kit-intermediate

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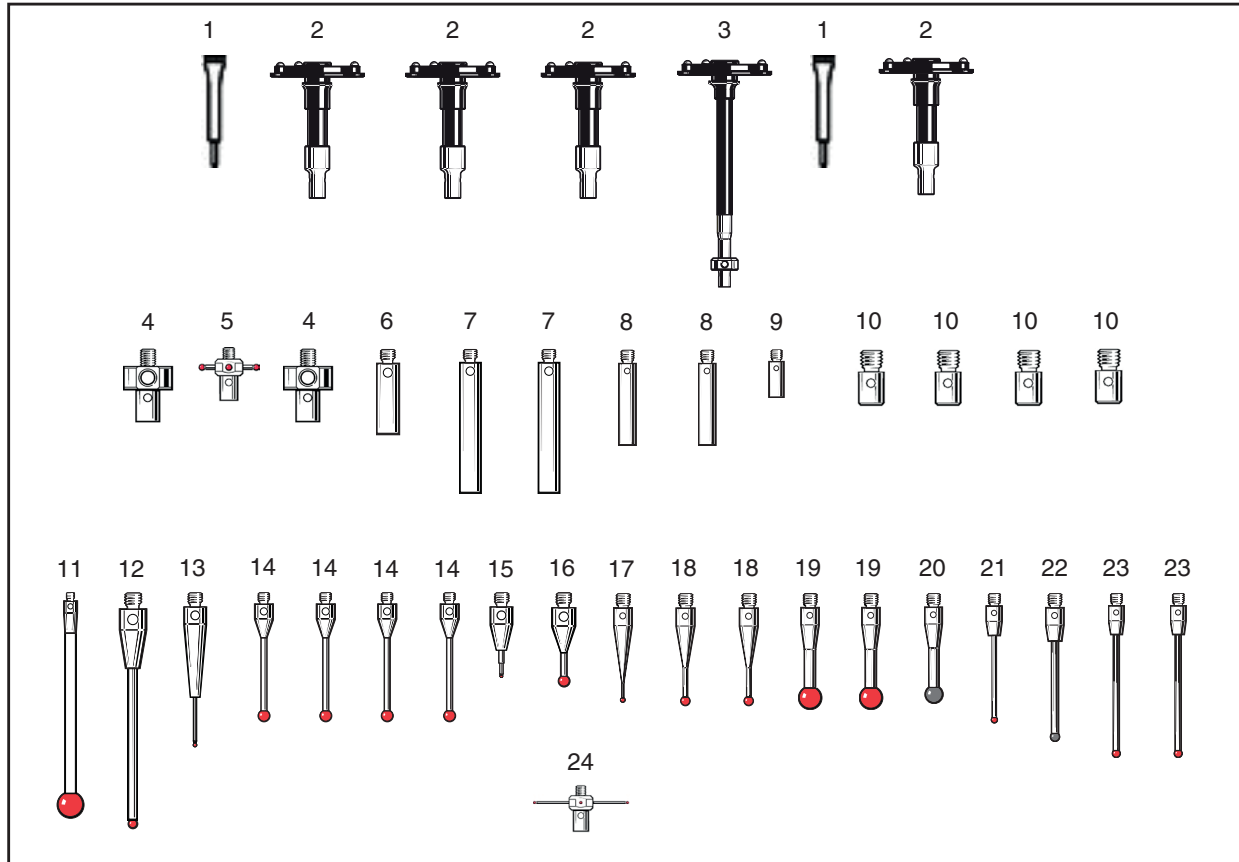
| Position | Part number | SEDescription                  |
|----------|-------------|--------------------------------|
| 1        | A-5004-7582 | STYLUS TOOL D1.13/1.10         |
| 2        | A-2237-1702 | SH25-2A KIT                    |
| 3        | A-5004-5101 | SH25-2 STY L50 5 WAY CNTR      |
| 4        | A-5000-3627 | SC2 5-WAY CENTRE               |
| 5        | A-5004-7586 | SE5 STYLUS EXTENSION           |
| 6        | A-5004-7583 | SE2 STYLUS EXTENSION           |
| 7        | A-5004-7609 | SE8 STYLUS EXTENSION           |
| 8        | A-5004-7592 | SA3 STYLUS ADAPTOR             |
| 9        | A-5003-0470 | M2 STYLUS D6R L50 EWL50 d2.5CR |

| Position | Part number | SEDescription                   |
|----------|-------------|---------------------------------|
| 10       | A-5000-8663 | M2 STY D1R L27.5 EWL20.5 d0.7TC |
| 11       | A-5003-1345 | M2 STY D0.5R L20 EWL7 d0.34TC   |
| 12       | A-5000-3603 | M2 STY D2R EWL13.9 d1.4SS       |
| 13       | A-5004-7585 | SE4 STYLUS EXTENSION            |
| 14       | A-5000-7802 | M2 STY D1,5R L10 EWL5,4 d0,7SS  |
| 15       | A-5000-3552 | M3 STY D2R L21 EWL11 d1.4SS     |
| 16       | A-5000-7630 | M3 STY D5R L21 d2,5SS           |
| 17       | A-5003-5061 | M3 STY D4SiN L21 EWL21 D2.5SS   |
| 18       | A-5003-0053 | M3 STY D2R L40 EWL32,5 d1,5TC   |



**A-5504-0283 EQUATOR stylus kit-advanced**

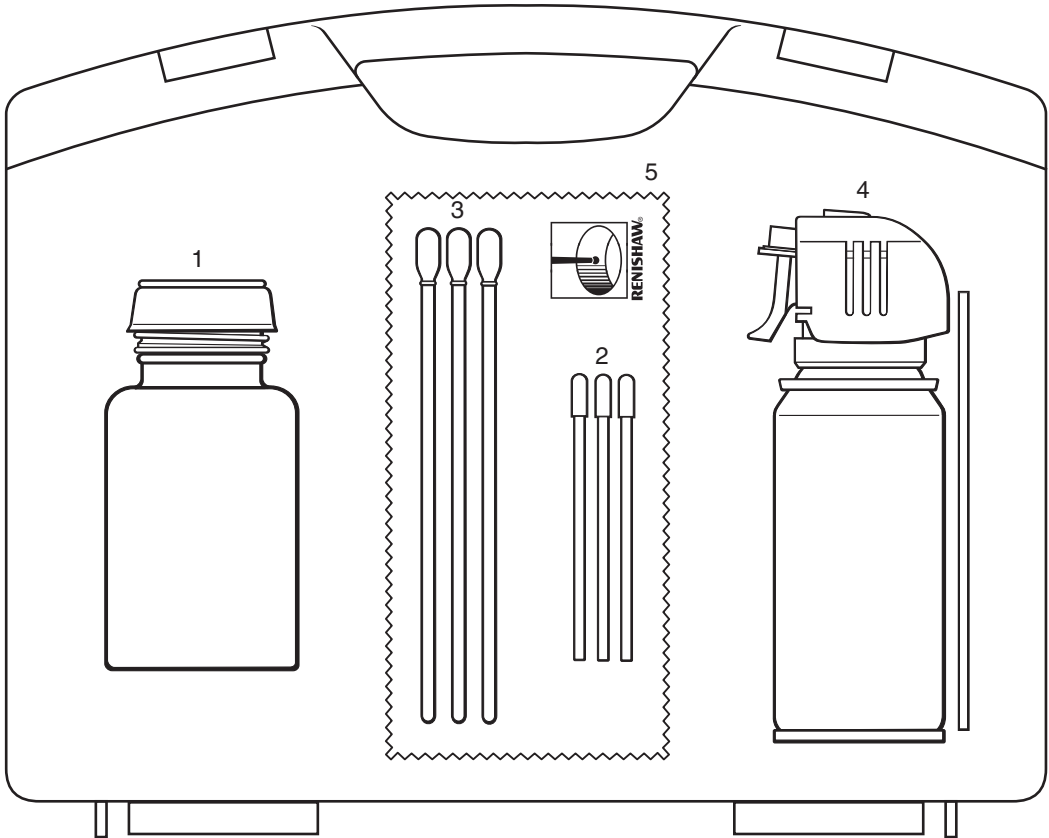
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| Position | Part number | Description                     |
|----------|-------------|---------------------------------|
| 1        | A-5004-7582 | STYLUS TOOL D1.13/1.10          |
| 2        | A-2237-1702 | SH25-2A KIT                     |
| 3        | A-5004-5101 | SH25-2 STY L50 5 WAY CNTR       |
| 4        | A-5000-3627 | SC2 5-WAY CENTRE                |
| 5        | A-5000-7811 | M2 STAR STY 4-WAY D1R L7,5 S10  |
| 6        | A-5004-7585 | SE4 STYLUS EXTENSION            |
| 7        | A-5004-7586 | SE5 STYLUS EXTENSION            |
| 8        | A-5004-7583 | SE2 STYLUS EXTENSION            |
| 9        | A-5004-7609 | SE8 STYLUS EXTENSION            |
| 10       | A-5004-7592 | SA3 STYLUS ADAPTOR              |
| 11       | A-5003-0470 | M2 STYLUS D6R L50 EWL50 d2.5CR  |
| 12       | A-5000-8663 | M2 STY D1R L27.5 EWL20.5 d0.7TC |

| Position | Part number | Description                     |
|----------|-------------|---------------------------------|
| 13       | A-5003-1345 | M2 STY D0.5R L20 EWL7 d0.34TC   |
| 14       | A-5000-3603 | M2 STY D2R EWL13.9 d1.4SS       |
| 15       | A-5000-7800 | M2 STY D0,3R L10 EWL1,8 d0,2TC  |
| 16       | A-5000-7802 | M2 STY D1,5R L10 EWL5,4 d0,7SS  |
| 17       | A-5000-3551 | M3 STY D1R L21 EWL4 d0.7SS      |
| 18       | A-5000-3552 | M3 STY D2R L21 EWL11 d1.4SS     |
| 19       | A-5000-7630 | M2 STY D5R L21 d2,5SS           |
| 20       | A-5003-5061 | M3 STY D4iN L21 EWL21 D2.5SS    |
| 21       | A-5003-0051 | M3 STY D1,5R L30 EWL22,5 d1TC   |
| 22       | A-5003-5724 | M3 STY D2SiN L30 EWL22.5 d1.5TC |
| 23       | A-5003-0053 | M3 STY D2R L40 EWL32,5 d1,5TC   |
| 24       | A-5003-4787 | M2 STAR STY 4xD0.5 S20 EWL 7    |

A-5004-7235 Stylus cleaning kit



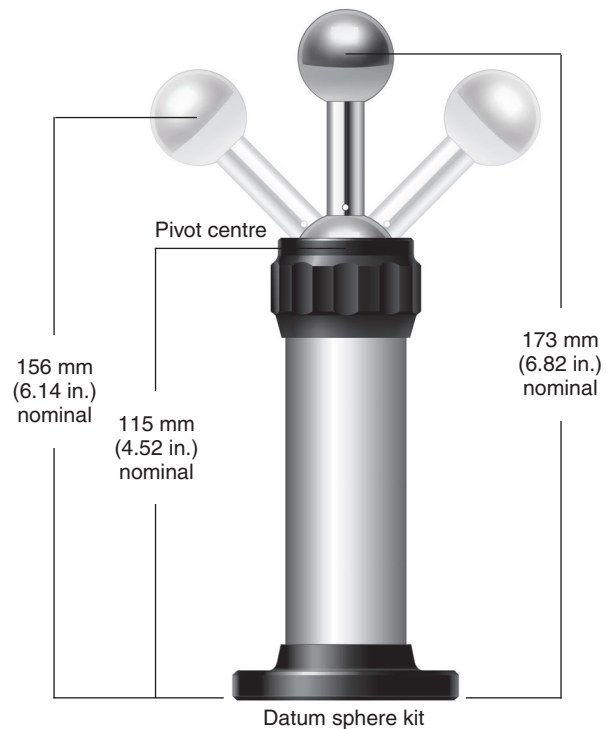
| Position | Part number | Description                    |
|----------|-------------|--------------------------------|
| 1        | A-5004-7236 | EMPTY IPA PUMP POT (BLACK)     |
| 2        | A-5004-7237 | SMALL LINT FREE BUDS (100 OFF) |
| 3        | A-5004-7238 | LARGE LINT FREE BUDS (100 OFF) |
| 4        | A-5004-7239 | 87 ML AIR DUSTER               |
| 5        | A-5004-7240 | CLEANING CLOTH                 |

## Datum balls

Datum spheres are made from hard-wearing tungsten carbide and come supplied with individual UKAS certificates stating ball diameter and roundness. All sphere measurements are performed on equipment traceable to UK (NPL) standards.

| Datum sphere kit |            | Grade 5 (0.13 µm) | Grade 3 (0.08 µm) |
|------------------|------------|-------------------|-------------------|
| Ø12 mm           | datum ball | A-1034-0028       | A-1034-0361       |
| Ø19 mm           | datum ball | A-1034-0027       | A-1034-0360       |
| Ø25 mm           | datum ball | A-1034-0026       | A-1034-0359       |
| Ø¾ in.           | datum ball | A-1034-0031       | A-1034-0363       |
| Ø1 in.           | datum ball | A-1034-0035       | A-1034-0362       |

**Fixing stud – a fixing stud is required with each kit to attach pillar to table surface.**



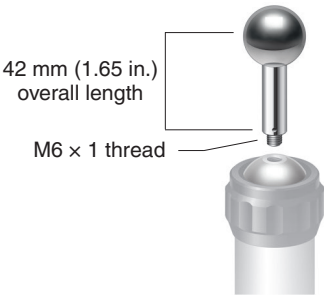
| Fixing stud thread size | Part number |
|-------------------------|-------------|
| M6 × 1                  | A-1034-0352 |
| M8 × 1.25               | A-1034-0351 |
| M10 × 1.5               | A-1034-0350 |
| 5/16 - 18 × UNC         | A-1034-0354 |
| 3/8 - 16 × UNC          | A-1034-0353 |



Datum balls continued

Optional extras

| Datum ball |            | Grade 5 (0.13 µm) | Grade 3 (0.08 µm) |
|------------|------------|-------------------|-------------------|
| Ø12 mm     | datum ball | A-1034-0005       | A-1034-0538       |
| Ø19 mm     | datum ball | A-1034-0023       | A-1034-0595       |
| Ø25 mm     | datum ball | A-1034-0002       | A-1034-0596       |
| Ø¾ in.     | datum ball | A-1034-0032       | A-1034-0358       |
| Ø1 in.     | datum ball | A-1034-0036       | A-1034-0243       |

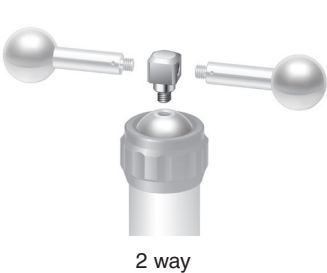


| Revo datum ball |      | Part number |
|-----------------|------|-------------|
| Ø45 mm          | M10F | A-3060-0310 |

A certified Ceramic ball is used on the Revo datum sphere



| Accessories            | Part number |
|------------------------|-------------|
| 2 way adaptor          | A-1034-0356 |
| 3 way adaptor          | A-1034-0357 |
| Pillar extension 75 mm | A-1034-0355 |
| Magnetic base          | A-1034-0385 |
| 45° magnetic base      | A-1034-0550 |
| Gramme gauge 4 - 30 g  | P-GA01-0001 |



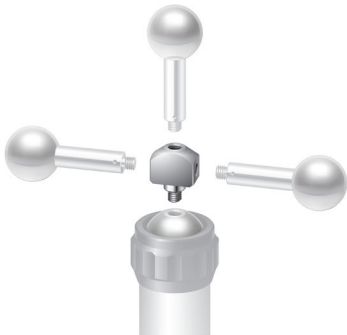
2 way



Pillar



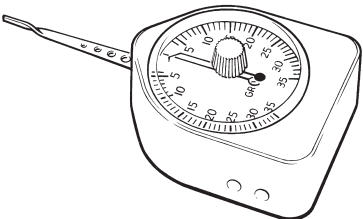
Magnetic base



3 way



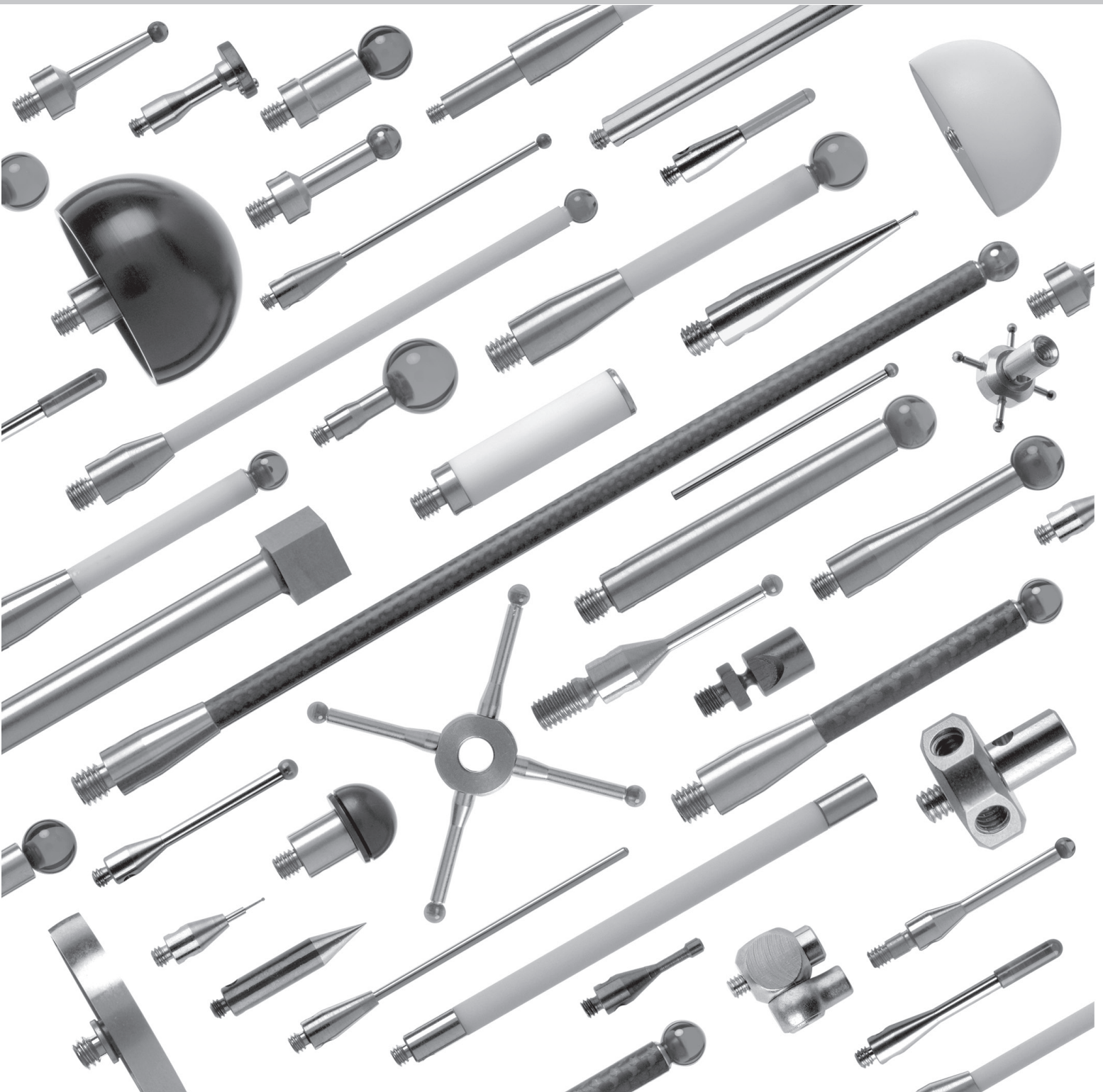
45° magnetic base



Gramme gauge

# Product listing by part number

9.1



## Styli and accessories

| Part no.    | PS no   | Description                      | Thread | Component     | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|---------|----------------------------------|--------|---------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-1034-0002 | -       | DATUM BALL D25                   | -      | Accessory     | 25.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0005 | -       | DATUM BALL D12                   | -      | Accessory     | 12.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0023 | -       | DATUM BALL D19                   | -      | Accessory     | 19.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0026 | -       | DATUM SPHERE KIT D25             | -      | Accessory     | 25.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0027 | -       | DATUM SPHERE KIT D19             | -      | Accessory     | 19.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0028 | -       | DATUM SPHERE KIT D12             | -      | Accessory     | 12.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0031 | -       | DATUM SPHERE KIT D¾              | -      | Accessory     | ¾                  | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0032 | -       | DATUM BALL D¾                    | -      | Accessory     | ¾                  | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0035 | -       | DATUM SPHERE KIT D1IN            | -      | Accessory     | 1 in.              | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0036 | -       | DATUM BALL D1IN                  | -      | Accessory     | 1 in.              | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0243 | -       | D1" DATUM BALL M6 (GRADE 3)      | -      | Accessory     | 25.4               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0350 | -       | DATUM FIXING STUD M10            | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.23        |
| A-1034-0351 | -       | DATUM FIXING STUD M8             | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.23        |
| A-1034-0352 | -       | DATUM FIXING STUD M6             | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.23        |
| A-1034-0353 | -       | DATUM FIXING STUD 3/8 UNC        | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.23        |
| A-1034-0354 | -       | DATUM FIXING STUD 5/16 UNC       | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.23        |
| A-1034-0355 | -       | DATUM EXTENSION L75              | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.24        |
| A-1034-0356 | -       | DATUM ADAPTER 2WAY               | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.24        |
| A-1034-0357 | -       | DATUM ADAPTER 3WAY               | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.24        |
| A-1034-0358 | -       | M6 DAT BALL D19.05TC(0.08) L42   | -      | Accessory     | 19.05              | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0359 | -       | DIA 25 (0.08) DATUM BALL KIT     | -      | Accessory     | 25.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0360 | -       | DIA 19 (0.08) DATUM BALL KIT     | -      | Accessory     | 19.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0361 | -       | DIA 12 (0.08) DATUM BALL KIT     | -      | Accessory     | 12.0               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0362 | -       | DIA 25.4 (0.08) DATUM BALL KIT   | -      | Accessory     | 25.4               | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0363 | -       | DIA 19.05 (0.08) DATUM BALL KIT  | -      | Accessory     | 19.05              | Tungsten carbide  | -           | -                | -        | -        | 8.23        |
| A-1034-0385 | -       | MAG BASE ASSEMBLY                | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.24        |
| A-1034-0538 | -       | M6 DAT BALL D12TC(0.08) L42      | -      | Accessory     | 12.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0550 | -       | MAG BASE M6 45° MTG BLOCK ASSY   | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.24        |
| A-1034-0595 | -       | M6 DATUM BALL D19 (0.08) L42     | -      | Accessory     | 19.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-1034-0596 | -       | M6 DATUM BALL D25 (0.08) L42     | -      | Accessory     | 25.0               | Tungsten carbide  | -           | -                | -        | -        | 8.24        |
| A-2008-0382 | -       | TS27R TDS L23 TIP12.7×8          | -      | Tool datuming | 12.7               | Tungsten carbide  | 23.0        | Stainless steel  | -        | 12.1     | 5.15        |
| A-2008-0384 | -       | TS27R TDS L22 TIP19×19×8         | -      | Tool datuming | 19.0               | Ceramic           | 22.0        | Stainless steel  | -        | 7.1      | 5.15        |
| A-2008-0448 | -       | TS27R OTS HORIZONTAL ADAPTER KIT | -      | Tool datuming | -                  | -                 | -           | Stainless steel  | -        | -        | 5.14        |
| A-2008-0601 | -       | STYLUS ASSEMBLY (025)            | M4     | Tool datuming | -                  | -                 | 15.4        | Tungsten carbide | -        | 9.1      | 5.13        |
| A-2008-0602 | -       | STYLUS ASSEMBLY (032)            | M4     | Tool datuming | -                  | -                 | 24.0        | Tungsten carbide | -        | 8.0      | 5.13        |
| A-2008-0603 | -       | STYLUS ASSEMBLY (040)            | M4     | Tool datuming | -                  | -                 | 32.4        | Tungsten carbide | -        | 8.95     | 5.13        |
| A-2048-2050 | -       | M4 × 23.2 LG STYLUS ASSY         | M4     | Tool datuming | -                  | -                 | 23.2        | Tungsten carbide | -        | 18.14    | 5.13        |
| A-2048-2051 | -       | M4 × 32 LG STYLUS ASSY           | M4     | Tool datuming | -                  | -                 | 32.0        | Tungsten carbide | -        | 20.64    | 5.13        |
| A-2054-6350 | SA1     | M4-Ø4.5 EXT L10SS                | M4     | Extension     | -                  | -                 | 10.0        | Stainless steel  | -        | 5.0      | 8.3         |
| A-2116-0140 | -       | TSA 25 MM STYLUS KIT             | M4     | Tool datuming | -                  | -                 | 32.0        | Tungsten carbide | -        | 13.56    | 5.13        |
| A-2116-0141 | -       | TSA 32 MM STYLUS KIT             | M4     | Tool datuming | -                  | -                 | 42.0        | Tungsten carbide | -        | 16.05    | 5.13        |
| A-2116-0142 | -       | TSA 40 MM STYLUS KIT             | M4     | Tool datuming | -                  | -                 | 30.3        | Tungsten carbide | -        | 22.6     | 5.12        |
| A-2197-0157 | -       | STYLUS KIT FOR 16 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 14.2        | Tungsten carbide | -        | 14.86    | 5.13        |
| A-2197-0158 | -       | STYLUS KIT FOR 20 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 19.5        | Tungsten carbide | -        | 16.0     | 5.13        |
| A-2197-0159 | -       | STYLUS KIT FOR 25 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 29.5        | Tungsten carbide | -        | 20.0     | 5.13        |
| A-2197-0160 | -       | STYLUS KIT FOR 32 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 34.5        | Tungsten carbide | -        | 20.7     | 5.13        |
| A-2197-0161 | -       | STYLUS KIT FOR 40 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 39.5        | Tungsten carbide | -        | 21.8     | 5.13        |
| A-2197-0162 | -       | STYLUS KIT FOR 50 MM TOOLING     | M4     | Tool datuming | -                  | -                 | 49.5        | Tungsten carbide | -        | 23.5     | 5.13        |
| A-3060-0310 | -       | REVO DATUM BALL KIT              | -      | Accessory     | 45.0               | Ceramic           | -           | -                | -        | -        | 8.24        |
| A-5000-0001 | -       | M2 KIT COMPREHENSIVE             | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.7         |
| A-5000-0002 | -       | M2 KIT ENHANCEMENT               | -      | Accessory     | -                  | -                 | -           | -                | -        | -        | 8.5         |
| A-5000-3212 | PS1-13  | MP4 TDS L53 TIP6×6×6             | M4     | Tool datuming | 6.0                | Tungsten carbide  | 53.0        | Stainless steel  | -        | 4.5      | 5.12        |
| A-5000-3551 | PS1-9R  | M3 STY D1R L21 EWL4 d0.7SS       | M3     | Ball stylus   | 1.0                | Ruby              | 21.0        | Stainless steel  | 4.0      | 1.0      | 4.2         |
| A-5000-3552 | PS1-10R | M3 STY D2R L21 EWL9.6 d1.4SS     | M3     | Ball stylus   | 2.0                | Ruby              | 21.0        | Stainless steel  | 9.6      | 1.0      | 4.2         |
| A-5000-3553 | PS1-11R | M3 STY D3R L21 EWL14.7 d1.5SS    | M3     | Ball stylus   | 3.0                | Ruby              | 21.0        | Stainless steel  | 14.7     | 1.0      | 4.2         |
| A-5000-3554 | PS1-1R  | M3 STY D4R L31 EWL27 d2.5SS      | M3     | Ball stylus   | 4.0                | Ruby              | 31.0        | Stainless steel  | 27.0     | 2.5      | 4.2         |
| A-5000-3603 | PS2R    | M2 STY D2R L20 EWL14 d1.4SS      | M2     | Ball stylus   | 2.0                | Ruby              | 20.0        | Stainless steel  | 14.0     | 0.4      | 3.2         |
| A-5000-3604 | PS1R    | M2 STY D3R L10 EWL7 d1.5SS       | M2     | Ball stylus   | 3.0                | Ruby              | 10.0        | Stainless steel  | 7.0      | 0.4      | 3.2         |
| A-5000-3609 | -       | M2 STC D2R L16.5 EWL12.0 d1.4SS  | M2     | Star centre   | 2.0                | Ruby              | 16.5        | Stainless steel  | 12.0     | 0.44     | 3.11        |
| A-5000-3611 | PS3R    | M2 DSC D6R T1.2 L10 BR-Y2        | M2     | Disc          | 6.0                | Ruby              | 10.0        | Stainless steel  | 1.2      | 0.6      | 3.12        |



| Part no.    | PS no   | Description                     | Thread | Component      | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|---------|---------------------------------|--------|----------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5000-3613 | PS4R    | M2 DSC D18SLVS T2.2 L2.6 BR-Y3  | M2     | Disc           | 18.0               | Silver steel      | 2.6         | Stainless steel  | 2.3      | 2.7      | 3.12        |
| A-5000-3614 | PS21R   | M2 HEM D18CE                    | M2     | Hemispherical  | 18.0               | Ceramic           | 11.0        | Stainless steel  | -        | 3.3      | 3.15        |
| A-5000-3615 | PS1-3R  | M3 DSC D12.7SLVS T2 L30.8 BR-N  | M3     | Disc           | 12.7               | Silver steel      | 30.8        | Stainless steel  | 2.2      | 4.0      | 4.8         |
| A-5000-3626 | PS7R    | M2 STR D2 5BALL L19.5 S30       | M2     | Star           | 2.0                | Ruby              | 19.2        | Stainless steel  | 12.0     | 1.8      | 3.11        |
| A-5000-3627 | SC2     | M2 ACC CENTRE 5WAY              | M2     | Accessory      | -                  | -                 | 7.5         | Stainless steel  | 7.5      | 0.8      | 8.2         |
| A-5000-3709 | PS3-1C  | M4 STY D6R L50 EWL38.5 d4.5CE   | M4     | Ball stylus    | 6.0                | Ruby              | 50.0        | Ceramic          | 38.5     | 4.8      | 5.3         |
| A-5000-3712 | PS3-2C  | M4 STY D6R L100 EWL88.5 d4.5CE  | M4     | Ball stylus    | 6.0                | Ruby              | 100.0       | Ceramic          | 88.5     | 6.3      | 5.4         |
| A-5000-4154 | PS12R   | M2 STY D4R L10 EWL10 d1.5SS     | M2     | Ball stylus    | 4.0                | Ruby              | 10.0        | Stainless steel  | 10.0     | 0.4      | 3.2         |
| A-5000-4155 | PS13R   | M2 STY D5R L10 EWL10 d2.5SS     | M2     | Ball stylus    | 5.0                | Ruby              | 10.0        | Stainless steel  | 10.0     | 0.7      | 3.2         |
| A-5000-4156 | PS14R   | M2 STY D6R L10 d2.5SS           | M2     | Ball stylus    | 6.0                | Ruby              | 10.0        | Stainless steel  | 10.0     | 0.9      | 3.2         |
| A-5000-4158 | PS15R   | M2 STY D8R L11 EWL11 d2.5SS     | M2     | Ball stylus    | 8.0                | Ruby              | 11.0        | Stainless steel  | 11.0     | 1.5      | 3.2         |
| A-5000-4160 | PS16R   | M2 STY D3R L20 EWL17 d1.5SS     | M2     | Ball stylus    | 3.0                | Ruby              | 20.0        | Stainless steel  | 17.0     | 0.5      | 3.2         |
| A-5000-4161 | PS17R   | M2 STY D4R L20 EWL20 d1.5SS     | M2     | Ball stylus    | 4.0                | Ruby              | 20.0        | Stainless steel  | 20.0     | 0.6      | 3.2         |
| A-5000-4187 | PS22R   | M2 DSC D25SLVS T3 L2.5 BR-N     | M2     | Disc           | 25.0               | Silver steel      | 2.5         | Stainless steel  | 3.0      | 3.8      | 3.12        |
| A-5000-5302 | -       | PS2-1R CRANKED STYLUS           | M4     | Cranked stylus | -                  | Ruby              | 32.0        | Stainless steel  | -        | 3.8      | 5.11        |
| A-5000-5307 | -       | PS2-11R CRANKED STYLUS          | M4     | Cranked stylus | -                  | Ruby              | 21.6        | Stainless steel  | -        | 3.85     | 5.11        |
| A-5000-6350 | -       | M4 STY D5R L10 EWL5.5 d3SS      | M4     | Ball stylus    | 5.0                | Ruby              | 10.0        | Stainless steel  | 5.0      | 1.9      | 5.2         |
| A-5000-6351 | -       | M4 DSC SD30SILV T3 L10 BR-N     | M4     | Disc           | 30.0               | Silver steel      | 10.0        | Silver steel     | 3.0      | 7.9      | 5.6         |
| A-5000-6352 | PS2-23R | M4 STY D5R L30 EWL26 d3SS       | M4     | Ball stylus    | 5.0                | Ruby              | 30.0        | Stainless steel  | 26.0     | 3.0      | 5.2         |
| A-5000-6403 | PS2-41  | M4 TDS L32.5 TIP9.3x9.3x3 LP2   | M4     | Tool datuming  | 9.3                | Tungsten carbide  | 32.5        | Stainless steel  | -        | 11.0     | 5.12        |
| A-5000-6462 | PS3-5C  | M4 STC D6R L100 EWL88.5 D4.5CE  | M4     | Star centre    | 6.0                | Ruby              | 100.0       | Ceramic          | 88.5     | 7.5      | 5.6         |
| A-5000-6620 | -       | PS2-2R CRANKED STYLUS           | M4     | Cranked stylus | -                  | Ruby              | 27.4        | Stainless steel  | -        | 4.7      | 5.11        |
| A-5000-6701 | PS1-14  | MP4 TDS L43 TIP6x6x6            | M4     | Tool datuming  | 6.0                | Tungsten carbide  | 43.0        | Stainless steel  | -        | 4.3      | 5.12        |
| A-5000-6713 | PS2-40  | M4 TDS L96.5 TIP10x10x5 MP6-3   | M4     | Tool datuming  | 10.0               | Tungsten carbide  | 96.5        | Carbon fibre     | -        | 21.9     | 5.12        |
| A-5000-6731 | PS2-22R | M4 STY D5R L20 EWL16 d3SS       | M4     | Ball stylus    | 5.0                | Ruby              | 20.0        | Stainless steel  | 15.89    | 2.4      | 5.2         |
| A-5000-7098 | PS3-4C  | M4 STC D6R L50 EWL38.5 D4.5CE   | M4     | Star centre    | 6.0                | Ruby              | 50.0        | Ceramic          | 38.5     | 6.0      | 5.6         |
| A-5000-7521 | PS3-1R  | M4 STY D5R L50 EWL33.5 d4.5SS   | M4     | Ball stylus    | 5.0                | Ruby              | 50.0        | Stainless steel  | 33.5     | 5.8      | 5.3         |
| A-5000-7522 | PS3-2R  | M4 STY D5R L100 EWL83.2 d4.5SS  | M4     | Ball stylus    | 5.0                | Ruby              | 100.0       | Stainless steel  | 83.2     | 11.3     | 5.4         |
| A-5000-7523 | -       | M4 STY D5R L150 EWL133 d4.45SS  | M4     | Ball stylus    | 5.0                | Ruby              | 150.0       | Stainless steel  | 133.0    | 17.4     | 5.4         |
| A-5000-7534 | SK2     | M2 ACC KNUCKLE OFFSET           | M2     | Accessory      | -                  | -                 | 8.0         | Stainless steel  | 8.0      | 1.6      | 8.2         |
| A-5000-7545 | PS2-3R  | M4 STY D1R L19.5 EWL4.5 d0.7SS  | M4     | Ball stylus    | 1.0                | Ruby              | 19.5        | Stainless steel  | 4.5      | 2.5      | 5.2         |
| A-5000-7547 | PS2-4R  | M4 STY D2R L19 EWL9.2 d1.4SS    | M4     | Ball stylus    | 2.0                | Ruby              | 19.0        | Stainless steel  | 9.2      | 2.3      | 5.2         |
| A-5000-7549 | -       | M4 STY D3R L18.5 EWL13 d2SS     | M4     | Ball stylus    | 3.0                | Ruby              | 18.5        | Stainless steel  | 13.0     | 2.0      | 5.2         |
| A-5000-7551 | -       | M4 STY D4R L18 EWL13.7 d3SS     | M4     | Ball stylus    | 4.0                | Ruby              | 18.0        | Stainless steel  | 13.7     | 2.1      | 5.2         |
| A-5000-7553 | PS2-7R  | M4 STY D5R L17.5 EWL13.6 d3.5SS | M4     | Ball stylus    | 5.0                | Ruby              | 17.5        | Stainless steel  | 13.6     | 2.3      | 5.2         |
| A-5000-7555 | PS2-8R  | M4 STY D6R L17 EWL13.3 d4.5SS   | M4     | Ball stylus    | 6.0                | Ruby              | 17.0        | Stainless steel  | 13.3     | 3.0      | 5.2         |
| A-5000-7557 | PS2-9R  | M4 STY D8R L16 EWL16 d6SS       | M4     | Ball stylus    | 8.0                | Ruby              | 16.0        | Stainless steel  | 16.0     | 3.9      | 5.2         |
| A-5000-7580 | -       | LP2 CRANK STYLUS                | M4     | Cranked stylus | -                  | Ruby              | 38.8        | Stainless steel  | -        | 2.5      | 5.11        |
| A-5000-7596 | PS2-12R | M4 DSC D30SLVS T2.2 L8.9 BR-Y3  | M4     | Disc           | 30.0               | Silver steel      | 8.9         | Stainless steel  | 2.2      | 8.01     | 5.6         |
| A-5000-7597 | PS2-13R | M4 DSC D35SLVS T2.2 L8.9 BR-Y3  | M4     | Disc           | 35.0               | Silver steel      | 8.9         | Stainless steel  | 2.2      | 9.57     | 5.6         |
| A-5000-7598 | PS2-14R | M4 DSC D50SLVS T3 L8.9 BR-Y4    | M4     | Disc           | 50.0               | Silver steel      | 8.9         | Stainless steel  | 3.0      | 13.55    | 5.6         |
| A-5000-7606 | PS1-12R | M3 STY D4R L21 EWL17.2 d2.5SS   | M3     | Ball stylus    | 4.0                | Ruby              | 21.0        | Stainless steel  | 17.2     | 1.3      | 4.2         |
| A-5000-7610 | SC4     | M3 ACC CENTRE 5WAY              | M3     | Accessory      | -                  | -                 | 13.0        | Stainless steel  | 13.0     | 3.6      | 8.2         |
| A-5000-7612 | PS1-5R  | M3 DSC D35SLVS T5 L3.5 BR-N     | M3     | Disc           | 35.0               | Silver steel      | 3.5         | Stainless steel  | 5.0      | 10.0     | 4.8         |
| A-5000-7616 | SK3     | M3 ACC KNUCKLE OFFSET           | M3     | Accessory      | -                  | -                 | 12.0        | Stainless steel  | 12.0     | 3.7      | 8.2         |
| A-5000-7629 | -       | M2 STR D2 5BALL L19.2 S18       | M2     | Star           | 2.0                | Ruby              | 19.2        | Stainless steel  | 12.0     | 1.3      | 3.11        |
| A-5000-7630 | PS1-13R | M3 STY D5R L21 EWL21 d2.5SS     | M3     | Ball stylus    | 5.0                | Ruby              | 21.0        | Stainless steel  | 21.0     | 1.5      | 4.2         |
| A-5000-7632 | PS1-8R  | M3 STY D0.5R L21 EWL2 d0.4TC    | M3     | Ball stylus    | 0.5                | Ruby              | 21.0        | Tungsten carbide | 2.0      | 1.0      | 4.3         |
| A-5000-7648 | PS1-14R | M3 STY D5R L31 EWL31 d3.5SS     | M3     | Ball stylus    | 5.0                | Ruby              | 31.0        | Stainless steel  | 31.0     | 3.0      | 4.2         |
| A-5000-7669 | PS1-15R | M3 DSC D63.5CS T6 L4 BR-N       | M3     | Disc           | 63.5               | Carbon steel      | 4.0         | Stainless steel  | 6.0      | 45.0     | 4.8         |
| A-5000-7670 | -       | M4 STY D5TC L50 EWL35           | M4     | Ball stylus    | 5.0                | Tungsten carbide  | 50.0        | Stainless steel  | 35.0     | 6.2      | 5.17        |
| A-5000-7671 | -       | M4 STY D5TC L100 EWL85          | M4     | Ball stylus    | 5.0                | Tungsten carbide  | 100.0       | Stainless steel  | 85.0     | 11.9     | 5.17        |
| A-5000-7672 | -       | M4 STY D5TC L150 EWL135         | M4     | Ball stylus    | 5.0                | Tungsten carbide  | 150.0       | Stainless steel  | 135.0    | 18.2     | 5.17        |
| A-5000-7727 | SE-30   | M4 EXT L100 d7.4CE              | M4     | Extension      | -                  | -                 | 100.0       | Ceramic          | -        | 10.6     | 5.16        |
| A-5000-7751 | SE22    | M4-M3 EXT L50CE                 | M4     | Extension      | -                  | -                 | 50.0        | Ceramic          | -        | 4.4      | 8.3         |
| A-5000-7752 | SE23    | M4-M3 EXT L75CE                 | M4     | Extension      | -                  | -                 | 75.0        | Ceramic          | -        | 5.2      | 8.3         |
| A-5000-7753 | SE24    | M4-M3 EXT L100CE                | M4     | Extension      | -                  | -                 | 100.0       | Ceramic          | -        | 6.3      | 8.3         |
| A-5000-7754 | SE-19   | M4 EXT L30 d7.4CE               | M4     | Extension      | -                  | -                 | 30.0        | Ceramic          | -        | 5.1      | 5.16        |
| A-5000-7755 | SE-20   | M4 EXT L50 d7.4CE               | M4     | Extension      | -                  | -                 | 50.0        | Ceramic          | -        | 6.7      | 5.16        |
| A-5000-7792 | SC5     | M4 ACC CENTRE 5WAY              | M4     | Accessory      | -                  | -                 | 18.0        | Stainless steel  | -        | 12.1     | 8.2         |

Styli and accessories

| Part no.    | PS no   | Description                      | Thread | Component                  | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|---------|----------------------------------|--------|----------------------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5000-7795 | PS3-6C  | M4 STY D8R L50 EWL50 d4.5CE      | M4     | Ball stylus                | 8.0                | Ruby              | 50.0        | Ceramic          | 50.0     | 5.4      | 5.3         |
| A-5000-7796 | PS3-7C  | M4 STY D8R L100 EWL100 d4.5CE    | M4     | Ball stylus                | 8.0                | Ruby              | 100.0       | Ceramic          | 100.0    | 7.5      | 5.4         |
| A-5000-7800 | PS29R   | M2 STY D0.3R L10 EWL2 d0.2TC     | M2     | Ball stylus                | 0.3                | Ruby              | 10.0        | Tungsten carbide | 2.0      | 0.3      | 3.2         |
| A-5000-7801 | PS31R   | M2 STY D0.7R L10 EWL4 d0.5TC     | M2     | Ball stylus                | 0.7                | Ruby              | 10.0        | Tungsten carbide | 4.0      | 0.3      | 3.2         |
| A-5000-7802 | PS24R   | M2 STY D1.5R L10 EWL4.5 d0.7SS   | M2     | Ball stylus                | 1.5                | Ruby              | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5000-7803 | PS26R   | M2 STY D2.5R L10 EWL6.5 d1SS     | M2     | Ball stylus                | 2.5                | Ruby              | 10.0        | Stainless steel  | 6.5      | 0.3      | 3.2         |
| A-5000-7804 | PS27R   | M2 STY D2.5R L20 EWL16.4 d1.4SS  | M2     | Ball stylus                | 2.5                | Ruby              | 20.0        | Stainless steel  | 16.4     | 0.4      | 3.2         |
| A-5000-7805 | PS10R   | M2 STY D0.5R L10 EWL3 d0.4TC     | M2     | Ball stylus                | 0.5                | Ruby              | 10.0        | Tungsten carbide | 3.0      | 0.3      | 3.2         |
| A-5000-7806 | PS9R    | M2 STY D1R L10 EWL4.5 d0.7SS     | M2     | Ball stylus                | 1.0                | Ruby              | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5000-7807 | PS8R    | M2 STY D2R L10 EWL6 d1SS         | M2     | Ball stylus                | 2.0                | Ruby              | 10.0        | Stainless steel  | 6.0      | 0.3      | 3.2         |
| A-5000-7808 | PS23R   | M2 STY D1R L20 EWL7 d0.7TC       | M2     | Ball stylus                | 1.0                | Ruby              | 20.0        | Tungsten carbide | 7.0      | 0.50     | 3.3         |
| A-5000-7809 | PS33R   | M2 DSC D18SLVS T1.6 L8.6 BR-Y2.5 | M2     | Disc                       | 18.0               | Silver steel      | 8.6         | Stainless steel  | 1.5      | 3.0      | 3.12        |
| A-5000-7810 | PS34R   | M2 DSC D25SLVS T1.6 L8.6 BR-Y2.5 | M2     | Disc                       | 25.0               | Silver steel      | 8.6         | Stainless steel  | 1.5      | 4.0      | 3.12        |
| A-5000-7811 | PS28R   | M2 STR D1R 4BALL L7.5T S10       | M2     | Star                       | 1.0                | Ruby              | 7.5         | Stainless steel  | -        | 0.5      | 3.11        |
| A-5000-7812 | PS35R   | M2 SPH D2R L20 EWL7.2 SS         | M2     | Spherically ended cylinder | 2.0                | Ruby              | 20.0        | Stainless steel  | 7.2      | 0.5      | 3.13        |
| A-5000-7813 | PS36R   | M2 PNT D1.4TC 30deg L10          | M2     | Pointer                    | 1.4                | Tungsten carbide  | 10.0        | Stainless steel  | -        | 0.7      | 3.15        |
| A-5000-7814 | PS1-16R | M3 HEM D30CE                     | M3     | Hemispherical              | 30.0               | Ceramic           | 17.0        | Stainless steel  | -        | 13.0     | 4.8         |
| A-5000-7829 | -       | M4 STYLUS KIT (TP7M)             | M4     | Accessory                  | -                  | -                 | -           | -                | -        | -        | 8.11        |
| A-5000-8156 | -       | M4 STY D6R L150 EWL135 d4.5CE    | M4     | Ball stylus                | 6.0                | Ruby              | 150.0       | Ceramic          | 135.0    | 7.9      | 5.4         |
| A-5000-8395 | SC6     | M2 ACC CENTRE 4WAY               | M2     | Accessory                  | -                  | -                 | 7.5         | Stainless steel  | -        | 1.1      | 8.2         |
| A-5000-8663 | PS51R   | M2 STY D1R L27.5 EWL20.5 d0.7TC  | M2     | Ball stylus                | 1.0                | Ruby              | 27.5        | Tungsten carbide | 20.5     | 0.40     | 3.3         |
| A-5000-8876 | PS44R   | M2 SPH D1R L15 EWL8              | M2     | Spherically ended cylinder | 1.0                | Ruby              | 15.0        | Stainless steel  | 8.0      | 0.3      | 3.13        |
| A-5000-8877 | PS45R   | M2 SPH D1.5R L15 EWL8            | M2     | Spherically ended cylinder | 1.5                | Ruby              | 15.0        | Stainless steel  | 8.0      | 0.3      | 3.13        |
| A-5000-9685 | -       | M4 STY D5TC L54 EWL50            | M4     | Ball stylus                | 5.0                | Tungsten carbide  | 54.0        | Stainless steel  | 50.0     | 6.9      | 5.17        |
| A-5000-9697 | -       | M4 STY D3TC L55 EWL25            | M4     | Ball stylus                | 3.0                | Tungsten carbide  | 55.0        | Stainless steel  | 25.0     | 3.8      | 5.17        |
| A-5000-9761 | -       | M4 STY D5R L100 EWL83.5 d3.8CE   | M4     | Ball stylus                | 5.0                | Ruby              | 100.0       | Ceramic          | 83.5     | 6.3      | 5.4         |
| A-5000-9902 | -       | M2 ACC KNUCKLE ROTARY            | M2     | Accessory                  | -                  | -                 | 16.5        | Stainless steel  | -        | 1.3      | 8.2         |
| A-5003-0033 | PS48R   | M2 STY D1R L20 EWL12.5 d0.8TC    | M2     | Ball stylus                | 1.0                | Ruby              | 20.0        | Tungsten carbide | 12.5     | 0.41     | 3.3         |
| A-5003-0034 | PS49R   | M2 STY D1.5R L20 EWL12.5 d1TC    | M2     | Ball stylus                | 1.5                | Ruby              | 20.0        | Tungsten carbide | 12.5     | 0.50     | 3.3         |
| A-5003-0035 | PS52R   | M2 STY D1.5R L30 EWL22.5 d1TC    | M2     | Ball stylus                | 1.5                | Ruby              | 30.0        | Tungsten carbide | 22.5     | 0.58     | 3.3         |
| A-5003-0036 | PS53R   | M2 STY D2R L30 EWL22.5 d1.5TC    | M2     | Ball stylus                | 2.0                | Ruby              | 30.0        | Tungsten carbide | 22.5     | 0.99     | 3.3         |
| A-5003-0037 | PS58R   | M2 STY D2R L40 EWL32.5 d1.5TC    | M2     | Ball stylus                | 2.0                | Ruby              | 40.0        | Tungsten carbide | 32.5     | 1.29     | 3.5         |
| A-5003-0038 | PS54R   | M2 STY D2.5R L30 EWL22.5 d2TC    | M2     | Ball stylus                | 2.5                | Ruby              | 30.0        | Tungsten carbide | 22.5     | 1.48     | 3.3         |
| A-5003-0039 | PS59R   | M2 STY D2.5R L40 EWL32.5 d2TC    | M2     | Ball stylus                | 2.5                | Ruby              | 40.0        | Tungsten carbide | 32.5     | 1.95     | 3.5         |
| A-5003-0040 | PS55R   | M2 STY D3R L30 EWL27 d2TC        | M2     | Ball stylus                | 3.0                | Ruby              | 30.0        | Tungsten carbide | 27.0     | 1.49     | 3.3         |
| A-5003-0041 | PS60R   | M2 STY D3R L40 EWL37 d2TC        | M2     | Ball stylus                | 3.0                | Ruby              | 40.0        | Tungsten carbide | 37.0     | 1.97     | 3.5         |
| A-5003-0042 | PS63R   | M2 STY D3R L50 EWL47 d2TC        | M2     | Ball stylus                | 3.0                | Ruby              | 50.0        | Tungsten carbide | 47.0     | 2.44     | 3.5         |
| A-5003-0043 | PS56R   | M2 STY D4R L30 EWL30 d2TC        | M2     | Ball stylus                | 4.0                | Ruby              | 30.0        | Tungsten carbide | 30.0     | 1.57     | 3.3         |
| A-5003-0044 | PS61R   | M2 STY D4R L40 EWL40 d2TC        | M2     | Ball stylus                | 4.0                | Ruby              | 40.0        | Tungsten carbide | 40.0     | 2.04     | 3.5         |
| A-5003-0045 | PS64R   | M2 STY D4R L50 EWL50 d2TC        | M2     | Ball stylus                | 4.0                | Ruby              | 50.0        | Tungsten carbide | 50.0     | 2.52     | 3.5         |
| A-5003-0046 | PS50R   | M2 STY D5R L20 EWL20 d2.5TC      | M2     | Ball stylus                | 5.0                | Ruby              | 20.0        | Tungsten carbide | 20.0     | 1.98     | 3.3         |
| A-5003-0047 | PS57R   | M2 STY D5R L30 EWL30 d2.5TC      | M2     | Ball stylus                | 5.0                | Ruby              | 30.0        | Tungsten carbide | 30.0     | 2.57     | 3.3         |
| A-5003-0048 | PS26R   | M2 STY D5R L40 EWL40 d2.5TC      | M2     | Ball stylus                | 5.0                | Ruby              | 40.0        | Tungsten carbide | 40.0     | 3.17     | 3.5         |
| A-5003-0049 | PS65R   | M2 STY D5R L50 EWL50 d2.5TC      | M2     | Ball stylus                | 5.0                | Ruby              | 50.0        | Tungsten carbide | 50.0     | 3.75     | 3.5         |
| A-5003-0050 | PS1-17R | M3 STY D1.5R L20 EWL12.5 d1TC    | M3     | Ball stylus                | 1.5                | Ruby              | 20.0        | Tungsten carbide | 12.5     | 0.8      | 4.3         |
| A-5003-0051 | PS1-19R | M3 STY D1.5R L30 EWL22.5 d1TC    | M3     | Ball stylus                | 1.5                | Ruby              | 30.0        | Tungsten carbide | 22.5     | 0.93     | 4.3         |
| A-5003-0052 | PS1-20R | M3 STY D2R L30 EWL22.8 d1.5TC    | M3     | Ball stylus                | 2.0                | Ruby              | 30.0        | Tungsten carbide | 22.8     | 1.32     | 4.3         |
| A-5003-0053 | PS1-23R | M3 STY D2R L40 EWL32.5 d1.5TC    | M3     | Ball stylus                | 2.0                | Ruby              | 40.0        | Tungsten carbide | 32.5     | 1.58     | 4.4         |
| A-5003-0054 | PS1-18R | M3 STY D2.5R L20.2 EWL12.5 d2TC  | M3     | Ball stylus                | 2.5                | Ruby              | 20.2        | Tungsten carbide | 12.5     | 1.3      | 4.3         |
| A-5003-0055 | PS1-21R | M3 STY D2.5R L30 EWL22.5 d2TC    | M3     | Ball stylus                | 2.5                | Ruby              | 30.0        | Tungsten carbide | 22.5     | 1.81     | 4.3         |
| A-5003-0056 | PS1-24R | M3 STY D2.5R L40 EWL32.5 d2TC    | M3     | Ball stylus                | 2.5                | Ruby              | 40.0        | Tungsten carbide | 32.5     | 2.28     | 4.4         |
| A-5003-0057 | PS1-22R | M3 STY D3R L30 EWL24 d2TC        | M3     | Ball stylus                | 3.0                | Ruby              | 30.0        | Tungsten carbide | 24.0     | 1.83     | 4.3         |
| A-5003-0058 | PS1-25R | M3 STY D3R L40 EWL33.7 d2TC      | M3     | Ball stylus                | 3.0                | Ruby              | 40.0        | Tungsten carbide | 33.7     | 2.30     | 4.4         |
| A-5003-0059 | PS1-28R | M3 STY D3R L50 EWL43.7 d2TC      | M3     | Ball stylus                | 3.0                | Ruby              | 50.0        | Tungsten carbide | 43.7     | 2.78     | 4.4         |
| A-5003-0060 | PS1-26R | M3 STY D4R L40 EWL36 d2TC        | M2     | Ball stylus                | 4.0                | Ruby              | 40.0        | Tungsten carbide | 36.0     | 2.38     | 4.4         |
| A-5003-0061 | PS1-29R | M3 STY D4R L50 EWL46 d2TC        | M3     | Ball stylus                | 4.0                | Ruby              | 50.0        | Tungsten carbide | 46.0     | 2.85     | 4.4         |
| A-5003-0062 | PS1-27R | M3 STY D5R L40 EWL40 d2.5TC      | M3     | Ball stylus                | 5.0                | Ruby              | 40.0        | Tungsten carbide | 40.0     | 3.50     | 4.4         |
| A-5003-0063 | PS1-30R | M3 STY D5R L50 EWL50 d2.5TC      | M3     | Ball stylus                | 3.0                | Ruby              | 50.0        | Tungsten carbide | 50.0     | 4.10     | 4.4         |
| A-5003-0064 | PS66R   | M2 STY D3R L50 EWL47 d2CE        | M2     | Ball stylus                | 3.0                | Ruby              | 50.0        | Ceramic          | 47.0     | 0.83     | 3.6         |
| A-5003-0065 | PS67R   | M2 STY D4R L50 EWL50 d2CE        | M2     | Ball stylus                | 4.0                | Ruby              | 50.0        | Ceramic          | 50.0     | 0.91     | 3.6         |



| Part no.    | PS no   | Description                     | Thread | Component                  | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|---------|---------------------------------|--------|----------------------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5003-0066 | PS68R   | M2 STY D5R L50 EWL50 d2.5CE     | M2     | Ball stylus                | 5.0                | Ruby              | 50.0        | Ceramic          | 50.0     | 1.31     | 3.6         |
| A-5003-0067 | PS1-31R | M3 STY D3R L50 EWL43.7 d2CE     | M3     | Ball stylus                | 3.0                | Ruby              | 50.0        | Ceramic          | 43.7     | 1.17     | 4.4         |
| A-5003-0068 | PS1-32R | M3 STY D4R L50 EWL46 d2CE       | M3     | Ball stylus                | 4.0                | Ruby              | 50.0        | Ceramic          | 46.0     | 1.24     | 4.4         |
| A-5003-0069 | PS1-33R | M3 STY D5R L50 EWL50 d2.5CE     | M3     | Ball stylus                | 5.0                | Ruby              | 50.0        | Ceramic          | 50.0     | 1.33     | 4.4         |
| A-5003-0070 | SE26    | M2 EXT L30 d3CE                 | M2     | Extension                  | -                  | -                 | 30.0        | Ceramic          | -        | 0.97     | 3.14        |
| A-5003-0071 | SE27    | M2 EXT L40 d3CE                 | M2     | Extension                  | -                  | -                 | 40.0        | Ceramic          | -        | 1.22     | 3.14        |
| A-5003-0072 | SE28    | M2 EXT L50 d3CE                 | M2     | Extension                  | -                  | -                 | 50.0        | Ceramic          | -        | 1.51     | 3.14        |
| A-5003-0073 | PS69R   | M2 SPH D4R L22 EWL10 SS         | M2     | Spherically ended cylinder | 4.0                | Ruby              | 22.0        | Stainless steel  | 10.0     | 0.9      | 3.13        |
| A-5003-0074 | PS70R   | M2 SPH D2TC L40 EWL32           | M2     | Spherically ended cylinder | 2.0                | Tungsten carbide  | 40.0        | Stainless steel  | 32.0     | 2.0      | 3.14        |
| A-5003-0075 | SE29    | M3 EXT L50 d4CE                 | M3     | Extension                  | -                  | -                 | 50.0        | Ceramic          | -        | 2.95     | 4.7         |
| A-5003-0076 | PS1-34R | M3 STR D2 5BALL L21.5 S30       | M3     | Star                       | 2.0                | Ruby              | 21.5        | Stainless steel  | 11.0     | 2.38     | 4.8         |
| A-5003-0077 | PS1-35R | M3 STR D2 5BALL L31.5 S50       | M3     | Star                       | 2.0                | Ruby              | 31.5        | Stainless steel  | 11.0     | 5.25     | 4.8         |
| A-5003-0233 | -       | M4 STY D4R L50 EWL33.5 d3.8CE   | M4     | Ball stylus                | 4.0                | Ruby              | 50.0        | Ceramic          | 33.5     | 3.9      | 5.3         |
| A-5003-0235 | -       | M4 STY D5R L50 EWL33.5 d3.8CE   | M4     | Ball stylus                | 5.0                | Ruby              | 50.0        | Ceramic          | 33.5     | 5.0      | 5.3         |
| A-5003-0236 | -       | M4 STY D5R L75 EWL58.5 d3.8CE   | M4     | Ball stylus                | 5.0                | Ruby              | 75.0        | Ceramic          | 58.5     | 5.63     | 5.3         |
| A-5003-0470 | -       | M2 STY D6R L50 EWL50 d2.5CE     | M2     | Ball stylus                | 6.0                | Ruby              | 50.0        | Ceramic          | 50.0     | 1.49     | 3.6         |
| A-5003-0577 | -       | M2 STY D0.7R L20 EWL12 d0.5TC   | M2     | Ball stylus                | 0.7                | Ruby              | 20.0        | Tungsten carbide | 12.0     | 0.32     | 3.3         |
| A-5003-0587 | -       | M4 EXT L200 d7.4CE              | M4     | Extension                  | -                  | -                 | 200.0       | Ceramic          | -        | 26.7     | 5.16        |
| A-5003-0661 | -       | M4 STY BREAK STEM L15 d2.5      | M4     | Crash protection device    | -                  | -                 | 15.2        | Silver steel     | -        | 4.6      | 5.10        |
| A-5003-0856 | -       | M5-M4 EXT L9SS                  | M5     | Extension                  | -                  | -                 | 9.0         | Stainless steel  | -        | 4.6      | 8.3         |
| A-5003-0938 | -       | M2 STY D3R L20 EWL17 d1.5TC     | M2     | Ball stylus                | 3.0                | Ruby              | 20.0        | Tungsten carbide | 17.0     | 0.77     | 3.3         |
| A-5003-1029 | -       | M2 STY D4R L22 EWL22 d2TC       | M2     | Ball stylus                | 4.0                | Ruby              | 22.0        | Tungsten carbide | 22.0     | 1.24     | 3.3         |
| A-5003-1075 | -       | M4 STY D6R L200 EWL188.5 d4.5CF | M4     | Ball stylus                | 6.0                | Ruby              | 200.0       | Carbon fibre     | 188.5    | 8.7      | 5.5         |
| A-5003-1208 | -       | M2 SPH D0.3TC L10.2 EWL2.7      | M2     | Spherically ended cylinder | 0.3                | Tungsten carbide  | 10.2        | Stainless steel  | 2.7      | 0.3      | 3.14        |
| A-5003-1210 | -       | M2 SPH D0.5TC L15.3 EWL7.8      | M2     | Spherically ended cylinder | 0.5                | Tungsten carbide  | 15.3        | Stainless steel  | 7.8      | 0.3      | 3.14        |
| A-5003-1218 | -       | M2 SPH D1TC L35.5 EWL28         | M2     | Spherically ended cylinder | 1.0                | Tungsten carbide  | 35.5        | Stainless steel  | 28.0     | 0.7      | 3.14        |
| A-5003-1219 | -       | M2 SPH D1.5TC L15.8 EWL8.3      | M2     | Spherically ended cylinder | 1.5                | Tungsten carbide  | 15.8        | Stainless steel  | 8.3      | 0.6      | 3.14        |
| A-5003-1228 | -       | M2 SPH D2TC L16 EWL8.5          | M2     | Spherically ended cylinder | 2.0                | Tungsten carbide  | 16.0        | Stainless steel  | 8.5      | 0.8      | 3.14        |
| A-5003-1255 | -       | M4 STY D6R L150 EWL138.5 d4.5CF | M4     | Ball stylus                | 6.0                | Ruby              | 150.0       | Carbon fibre     | 138.5    | 7.5      | 5.5         |
| A-5003-1258 | -       | M2 SPH D3TC L22.5 EWL22.5       | M2     | Spherically ended cylinder | 3.0                | Tungsten carbide  | 22.5        | Stainless steel  | 22.5     | 2.0      | 3.14        |
| A-5003-1325 | -       | M2 STY D1R L10 EWL4 d0.7TC      | M2     | Ball stylus                | 1.0                | Ruby              | 10.0        | Tungsten carbide | 4.0      | 0.3      | 3.2         |
| A-5003-1345 | -       | M2 STY D0.5R L20 EWL7 d0.3TC    | M2     | Ball stylus                | 0.5                | Ruby              | 20.0        | Tungsten carbide | 7.0      | 0.48     | 3.3         |
| A-5003-1358 | -       | M4 STY D6R L100 EWL88.5 d4.5CF  | M4     | Ball stylus                | 6.0                | Ruby              | 100.0       | Carbon fibre     | 88.5     | 6.2      | 5.5         |
| A-5003-1370 | -       | M2 STY D4R L30 EWL30 d2CE       | M2     | Ball stylus                | 4.0                | Ruby              | 30.0        | Ceramic          | 30.0     | 0.68     | 3.4         |
| A-5003-1436 | -       | M4 STY D6R L50 EWL38.5 d4.5CF   | M4     | Ball stylus                | 6.0                | Ruby              | 50.0        | Carbon fibre     | 38.5     | 4.1      | 5.5         |
| A-5003-1730 | PS2R    | M2 STY D2SN L20 EWL14 d1.4SS    | M2     | Ball stylus                | 2.0                | Silicon nitride   | 20.0        | Stainless steel  | 14.0     | 0.4      | 3.2         |
| A-5003-1896 | -       | M2 STY D2.5R L20 EWL15.5 d1TC   | M2     | Ball stylus                | 2.5                | Ruby              | 20.0        | Tungsten carbide | 15.5     | 0.5      | 3.3         |
| A-5003-2020 | PS10R   | M2 STY D0.5SN L10 EWL3 d0.4TC   | M2     | Ball stylus                | 0.5                | Silicon nitride   | 10.0        | Tungsten carbide | 3.0      | 0.3      | 3.2         |
| A-5003-2043 | -       | M3 STY D2Z L40 EWL32.5 d1.5TC   | M3     | Ball stylus                | 2.0                | Zirconia          | 40.0        | Tungsten carbide | 32.5     | 1.58     | 4.4         |
| A-5003-2138 | PS1R    | M2 STY D3SN L10 EWL7 d1.5SS     | M2     | Ball stylus                | 3.0                | Silicon nitride   | 10.0        | Stainless steel  | 7.0      | 0.4      | 3.2         |
| A-5003-2186 | -       | M2 STY D5Z L10 EWL10 d2.5SS     | M2     | Ball stylus                | 5.0                | Zirconia          | 10.0        | Stainless steel  | 10.0     | 0.7      | 3.2         |
| A-5003-2280 | -       | M2 EXT L40 d3CF                 | M2     | Extension                  | -                  | -                 | 40.0        | Carbon fibre     | -        | 0.9      | 3.15        |
| A-5003-2281 | -       | M2 EXT L50 d3CF                 | M2     | Extension                  | -                  | -                 | 50.0        | Carbon fibre     | -        | 1.0      | 3.15        |
| A-5003-2282 | -       | M2 EXT L70 d3CF                 | M2     | Extension                  | -                  | -                 | 70.0        | Carbon fibre     | -        | 1.3      | 3.15        |
| A-5003-2283 | -       | M2 EXT L90 d3CF                 | M2     | Extension                  | -                  | -                 | 90.0        | Carbon fibre     | -        | 1.5      | 3.15        |
| A-5003-2285 | -       | M2 STY D4R L50 EWL50 d3CF       | M2     | Ball stylus                | 4.0                | Ruby              | 50.0        | Carbon fibre     | 50.0     | 1.0      | 3.6         |
| A-5003-2286 | -       | M2 STY D5R L50 EWL50 d3CF       | M2     | Ball stylus                | 5.0                | Ruby              | 50.0        | Carbon fibre     | 50.0     | 1.1      | 3.6         |
| A-5003-2287 | -       | M2 STY D6R L50 EWL50 d3CF       | M2     | Ball stylus                | 6.0                | Ruby              | 50.0        | Carbon fibre     | 50.0     | 1.2      | 3.6         |
| A-5003-2289 | -       | M2 STY D4R L100 EWL100 d3CF     | M2     | Ball stylus                | 4.0                | Ruby              | 100.0       | Carbon fibre     | 100.0    | 1.50     | 3.7         |
| A-5003-2290 | -       | M2 STY D5R L100 EWL100 d3CF     | M2     | Ball stylus                | 5.0                | Ruby              | 100.0       | Carbon fibre     | 100.0    | 1.59     | 3.7         |
| A-5003-2291 | -       | M2 STY D6R L100 EWL100 d3CF     | M2     | Ball stylus                | 6.0                | Ruby              | 100.0       | Carbon fibre     | 100.0    | 1.78     | 3.7         |
| A-5003-2300 | -       | M2 STYLUS TOOL CF RANGE         | -      | Accessory                  | -                  | -                 | -           | -                | -        | -        | 8.4         |
| A-5003-2310 | -       | M2 KIT HIGH PERFORMANCE         | -      | Accessory                  | -                  | -                 | -           | -                | -        | -        | 8.6         |
| A-5003-2764 | -       | M4 STY D6R L75 EWL63.5 d4.4CE   | M4     | Ball stylus                | 6.0                | Ruby              | 75.0        | Ceramic          | 63.5     | 5.64     | 5.3         |
| A-5003-2932 | -       | M4 STY D2R L20 EWL10 d1.5TC     | M4     | Ball stylus                | 2.0                | Ruby              | 20.0        | Tungsten carbide | 10.0     | 3.01     | 5.2         |
| A-5003-3461 | -       | M4 STY D8R L300 EWL300 d4.5CF   | M4     | Ball stylus                | 8.0                | Ruby              | 300.0       | Carbon fibre     | 300.0    | 10.4     | 5.4         |
| A-5003-3676 | -       | M3 D2 L20 STYLUS T/C STEM       | M3     | Ball stylus                | 2.0                | Ruby              | 20.0        | Tungsten carbide | 12.5     | 1.1      | 4.3         |
| A-5003-3680 | -       | M4 STY D3R L50 EWL38.5 d2TC     | M4     | Ball stylus                | 3.0                | Ruby              | 50.0        | Tungsten carbide | 38.5     | 4.94     | 5.3         |
| A-5003-3822 | -       | M2 STY D2R L20 EWL14 d1TC       | M2     | Ball stylus                | 2.0                | Ruby              | 20.0        | Tungsten carbide | 14.0     | 0.48     | 3.3         |
| A-5003-3877 | -       | M2 STY D3R L40 EWL37.5 D2CF     | M2     | Ball stylus                | 3.0                | Ruby              | 40.0        | Carbon fibre     | 37.5     | 0.75     | 3.10        |

## Styli and accessories

| Part no.    | PS no | Description                    | Thread | Component   | Ball/tip<br>size (mm) | Ball/tip<br>Material | Length<br>(mm) | Stem<br>material | EWL<br>(mm) | Mass<br>(g) | Section<br>no. |
|-------------|-------|--------------------------------|--------|-------------|-----------------------|----------------------|----------------|------------------|-------------|-------------|----------------|
| A-5003-4011 | -     | M2 STR D0.5 4BALL L7.5 S10     | M2     | Star        | 0.5                   | Ruby                 | 7.5            | Stainless steel  | -           | 0.7         | 3.11           |
| A-5003-4177 | -     | M2 STY D3R L30 EWL27 d2CE      | M2     | Ball stylus | 3.0                   | Ruby                 | 30.0           | Ceramic          | 27.0        | 0.44        | 3.4            |
| A-5003-4241 | -     | M2 STY D4R L30 EWL30 d2CF      | M2     | Ball stylus | 4.0                   | Ruby                 | 30.0           | Carbon fibre     | 30.0        | 0.57        | 3.4            |
| A-5003-4686 | -     | M3 ACC KNUCKLE ROTARY          | M3     | Accessory   | -                     | -                    | 17.0           | Stainless steel  | -           | 1.5         | 8.2            |
| A-5003-4689 | -     | M4 ACC KNUCKLE ROTARY          | M4     | Accessory   | -                     | -                    | 33.0           | Stainless steel  | -           | 9.8         | 8.2            |
| A-5003-4697 | -     | M2 ACC KNUCKLE                 | M2     | Accessory   | -                     | -                    | 13.5           | Stainless steel  | -           | 1.1         | 8.2            |
| A-5003-4779 | -     | M2 STY D5R L30 EWL30 d2.5CE    | M2     | Ball stylus | 5.0                   | Ruby                 | 30.0           | Ceramic          | 30.0        | 0.93        | 3.4            |
| A-5003-4780 | -     | M2 STY D6R L30 EWL30 d2.5CE    | M2     | Ball stylus | 6.0                   | Ruby                 | 30.0           | Ceramic          | 30.0        | 1.11        | 3.4            |
| A-5003-4781 | -     | M2 STY D5R L30 EWL30 d3CF      | M2     | Ball stylus | 5.0                   | Ruby                 | 30.0           | Carbon fibre     | 30.0        | 0.79        | 3.4            |
| A-5003-4782 | -     | M2 STY D6R L30 EWL30 d3CF      | M2     | Ball stylus | 6.0                   | Ruby                 | 30.0           | Carbon fibre     | 30.0        | 0.96        | 3.4            |
| A-5003-4784 | -     | M2 STY D4R L75 EWL75 d2CF      | M2     | Ball stylus | 4.0                   | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 0.75        | 3.7            |
| A-5003-4785 | -     | M2 STY D5R L75 EWL75 d3CF      | M2     | Ball stylus | 5.0                   | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 1.35        | 3.7            |
| A-5003-4786 | -     | M2 STY D6R L75 EWL75 d3CF      | M2     | Ball stylus | 6.0                   | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 1.45        | 3.7            |
| A-5003-4787 | -     | M2 STR D0.5 4BALL L7.5 S20     | M2     | Star        | 0.5                   | Ruby                 | 7.5            | Stainless steel  | -           | 0.7         | 3.11           |
| A-5003-4788 | -     | M2 STR D1 4BALL L7.5 S20       | M2     | Star        | 1.0                   | Ruby                 | 7.5            | Stainless steel  | -           | 0.9         | 3.11           |
| A-5003-4789 | -     | M2 STC D1R L8.5 EWL3.5 d0.7TC  | M2     | Star centre | 1.0                   | Ruby                 | 8.5            | Tungsten carbide | 3.5         | 0.31        | 3.11           |
| A-5003-4790 | -     | M2 STC D0.5R L18.5 EWL7 d0.4TC | M2     | Star centre | 0.5                   | Ruby                 | 18.5           | Tungsten carbide | 7.0         | 0.43        | 3.11           |
| A-5003-4791 | -     | M2 STC D1R L18.5 EWL11 d0.7TC  | M2     | Star centre | 1.0                   | Ruby                 | 18.5           | Tungsten carbide | 4.0         | 0.45        | 3.11           |
| A-5003-4792 | -     | M4 STY D1R L20 EWL10 d0.7TC    | M4     | Ball stylus | 1.0                   | Ruby                 | 20.0           | Tungsten carbide | 10.0        | 2.39        | 5.2            |
| A-5003-4793 | -     | M4 STY D3R L20 EWL8.5 d1.5TC   | M4     | Ball stylus | 3.0                   | Ruby                 | 20.0           | Tungsten carbide | 8.5         | 3.53        | 5.2            |
| A-5003-4794 | -     | M4 STY D4R L20 EWL8.5 d1.5TC   | M4     | Ball stylus | 4.0                   | Ruby                 | 20.0           | Tungsten carbide | 8.5         | 3.53        | 5.2            |
| A-5003-4795 | -     | M4 STY D5R L20 EWL7.9 d2.5TC   | M4     | Ball stylus | 5.0                   | Ruby                 | 20.0           | Tungsten carbide | 7.9         | 4.52        | 5.2            |
| A-5003-4796 | -     | M4 STY D6R L20 EWL10.7 d2.5TC  | M4     | Ball stylus | 6.0                   | Ruby                 | 20.0           | Tungsten carbide | 10.7        | 4.66        | 5.2            |
| A-5003-4797 | -     | M4 STY D2R L50 EWL40 d1.5TC    | M4     | Ball stylus | 2.0                   | Ruby                 | 50.0           | Tungsten carbide | 40.0        | 3.80        | 5.3            |
| A-5003-4799 | -     | M4 STY D4R L50 EWL38.5 d2.0TC  | M4     | Ball stylus | 4.0                   | Ruby                 | 50.0           | Tungsten carbide | 38.5        | 4.99        | 5.3            |
| A-5003-4800 | -     | M4 STY D5R L50 EWL36 d2.5TC    | M4     | Ball stylus | 5.0                   | Ruby                 | 50.0           | Tungsten carbide | 37.9        | 6.72        | 5.3            |
| A-5003-4801 | -     | M4 STY D6R L50 EWL40.7 d2.5TC  | M4     | Ball stylus | 6.0                   | Ruby                 | 50.0           | Tungsten carbide | 40.7        | 6.86        | 5.3            |
| A-5003-4802 | -     | M4 STY D8R L75 EWL75 d4.5CE    | M4     | Ball stylus | 8.0                   | Ruby                 | 75.0           | Ceramic          | 75.0        | 6.20        | 5.3            |
| A-5003-4860 | -     | M3 STY D6R L75 EWL75 d4CF      | M3     | Ball stylus | 6.0                   | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 2.40        | 4.5            |
| A-5003-4861 | -     | M3 STY D6R L100 EWL100 d4CF    | M3     | Ball stylus | 6.0                   | Ruby                 | 100.0          | Carbon fibre     | 100.0       | 2.89        | 4.5            |
| A-5003-4862 | -     | M3 STY D8R L75 EWL75 d4CF      | M3     | Ball stylus | 8.0                   | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 2.98        | 4.5            |
| A-5003-4863 | -     | M3 STY D8R L100 EWL100 d4CF    | M3     | Ball stylus | 8.0                   | Ruby                 | 100.0          | Carbon fibre     | 100.0       | 3.47        | 4.5            |
| A-5003-4864 | -     | M3 EXT L75 d4CF                | M3     | Extension   | -                     | -                    | 75.0           | Carbon fibre     | -           | 2.53        | 4.7            |
| A-5003-4865 | -     | M3 EXT L100 d4CF               | M3     | Extension   | -                     | -                    | 100.0          | Carbon fibre     | -           | 3.02        | 4.7            |
| A-5003-5061 | -     | M3 STY D4SN L21 EWL17.2 d2.5SS | M3     | Ball stylus | 4.0                   | Silicon nitride      | 21.0           | Stainless steel  | 17.2        | 1.3         | 4.2            |
| A-5003-5201 | -     | M5 STY D0.3R L20 EWL3 d0.2TC   | M5     | Ball stylus | 0.3                   | Ruby                 | 20.0           | Tungsten carbide | 3.0         | 6.5         | 6.2            |
| A-5003-5202 | -     | M5 STY D0.5R L20 EWL4 d0.4TC   | M5     | Ball stylus | 0.5                   | Ruby                 | 20.0           | Tungsten carbide | 4.0         | 6.5         | 6.2            |
| A-5003-5203 | -     | M5 STY D0.7R L20 EWL5 d0.5TC   | M5     | Ball stylus | 0.7                   | Ruby                 | 20.0           | Tungsten carbide | 5.0         | 6.5         | 6.2            |
| A-5003-5204 | -     | M5 STY D1R L20 EWL5 d0.7TC     | M5     | Ball stylus | 1.0                   | Ruby                 | 20.0           | Tungsten carbide | 5.0         | 6.52        | 6.3            |
| A-5003-5205 | -     | M5 STY D1.5R L20 EWL11 d1TC    | M5     | Ball stylus | 1.5                   | Ruby                 | 20.0           | Tungsten carbide | 11.0        | 4.68        | 6.3            |
| A-5003-5206 | -     | M5 STY D2R L20 EWL11 d1TC      | M5     | Ball stylus | 2.0                   | Ruby                 | 20.0           | Tungsten carbide | 11.0        | 4.70        | 6.3            |
| A-5003-5207 | -     | M5 STY D2.5R L20 EWL11 d1.5TC  | M5     | Ball stylus | 2.5                   | Ruby                 | 20.0           | Tungsten carbide | 11.0        | 4.84        | 6.3            |
| A-5003-5208 | -     | M5 STY D3R L20 EWL11 d2TC      | M5     | Ball stylus | 3.0                   | Ruby                 | 20.0           | Tungsten carbide | 11.0        | 5.12        | 6.3            |
| A-5003-5209 | -     | M5 STY D4R L20 EWL11.9 d2TC    | M5     | Ball stylus | 4.0                   | Ruby                 | 20.0           | Tungsten carbide | 11.9        | 5.19        | 6.3            |
| A-5003-5210 | -     | M5 STY D5R L20 EWL11.5 d3TC    | M5     | Ball stylus | 5.0                   | Ruby                 | 20.0           | Tungsten carbide | 11.5        | 6.06        | 6.3            |
| A-5003-5211 | -     | M5 STY D0.3R L30 EWL3 d0.2TC   | M5     | Ball stylus | 0.3                   | Ruby                 | 30.0           | Tungsten carbide | 3.0         | 8.95        | 6.2            |
| A-5003-5212 | -     | M5 STY D0.5R L30 EWL4 d0.4TC   | M5     | Ball stylus | 0.5                   | ruby                 | 30.0           | Tungsten carbide | 4.0         | 8.95        | 6.2            |
| A-5003-5213 | -     | M5 STY D0.7R L30 EWL5 d0.5TC   | M5     | Ball stylus | 0.7                   | Ruby                 | 30.0           | Tungsten carbide | 5.0         | 8.98        | 6.2            |
| A-5003-5214 | -     | M5 STY D1R L30 EWL5 d0.7TC     | M5     | Ball stylus | 1.0                   | Ruby                 | 30.0           | Tungsten carbide | 5.0         | 9.01        | 6.3            |
| A-5003-5215 | -     | M5 STY D1.5R L30 EWL12 d1TC    | M5     | Ball stylus | 1.5                   | Ruby                 | 30.0           | Tungsten carbide | 12.0        | 7.28        | 6.3            |
| A-5003-5216 | -     | M5 STY D2R L30 EWL21 d1TC      | M5     | Ball stylus | 2.0                   | Ruby                 | 30.0           | Tungsten carbide | 21.0        | 4.81        | 6.3            |
| A-5003-5217 | -     | M5 STY D2.5R L30 EWL21 d1.5TC  | M5     | Ball stylus | 2.5                   | Ruby                 | 30.0           | Tungsten carbide | 21.0        | 5.14        | 6.3            |
| A-5003-5218 | -     | M5 STY D3R L30 EWL21 d2TC      | M5     | Ball stylus | 3.0                   | Ruby                 | 30.0           | Tungsten carbide | 21.0        | 5.58        | 6.3            |
| A-5003-5219 | -     | M5 STY D4R L30 EWL21.9 d2TC    | M5     | Ball stylus | 4.0                   | Ruby                 | 30.0           | Tungsten carbide | 21.9        | 5.64        | 6.3            |
| A-5003-5220 | -     | M5 STY D5R L30 EWL21.5 d3TC    | M5     | Ball stylus | 5.0                   | Ruby                 | 30.0           | Tungsten carbide | 21.5        | 7.10        | 6.3            |
| A-5003-5221 | -     | M5 STY D1.5R L40 EWL22 d1TC    | M5     | Ball stylus | 1.5                   | Ruby                 | 40.0           | Tungsten carbide | 22.0        | 7.39        | 6.3            |
| A-5003-5222 | -     | M5 STY D2R L40 EWL31 d1TC      | M5     | Ball stylus | 2.0                   | Ruby                 | 40.0           | Tungsten carbide | 31.0        | 4.93        | 6.3            |
| A-5003-5223 | -     | M5 STY D2.5R L40 EWL31 d1.5TC  | M5     | Ball stylus | 2.5                   | Ruby                 | 40.0           | Tungsten carbide | 31.0        | 5.40        | 6.3            |
| A-5003-5224 | -     | M5 STY D3R L40 EWL31 d2TC      | M5     | Ball stylus | 3.0                   | Ruby                 | 40.0           | Tungsten carbide | 31.0        | 6.04        | 6.3            |
| A-5003-5225 | -     | M5 STY D0.3R L50 EWL3 d0.2TC   | M5     | Ball stylus | 0.3                   | Ruby                 | 50.0           | Tungsten carbide | 3.0         | 15.79       | 6.2            |

| Part no.    | PS no | Description                     | Thread | Component     | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|-------|---------------------------------|--------|---------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5003-5226 | -     | M5 STY D0.5R L50 EWL4 d0.4TC    | M5     | Ball stylus   | 0.5                | Ruby              | 50.0        | Tungsten carbide | 4.0      | 15.79    | 6.2         |
| A-5003-5227 | -     | M5 STY D0.7R L50 EWL5 d0.5TC    | M5     | Ball stylus   | 0.7                | Ruby              | 50.0        | Tungsten carbide | 5.0      | 15.79    | 6.2         |
| A-5003-5228 | -     | M5 STY D1R L50 EWL5 d0.7TC      | M5     | Ball stylus   | 1.0                | Ruby              | 50.0        | Tungsten carbide | 5.0      | 15.81    | 6.4         |
| A-5003-5229 | -     | M5 STY D1.5R L50 EWL5 d1TC      | M5     | Ball stylus   | 1.5                | Ruby              | 50.0        | Tungsten carbide | 5.0      | 14.82    | 6.4         |
| A-5003-5230 | -     | M5 STY D2R L50 EWL41 d1TC       | M5     | Ball stylus   | 2.0                | Ruby              | 50.0        | Tungsten carbide | 41.0     | 5.05     | 6.4         |
| A-5003-5231 | -     | M5 STY D2R L50 EWL5 d1TC        | M5     | Ball stylus   | 2.0                | Ruby              | 50.0        | Tungsten carbide | 5.0      | 14.85    | 6.4         |
| A-5003-5232 | -     | M5 STY D2.5R L50 EWL41 d2TC     | M5     | Ball stylus   | 2.5                | Ruby              | 50.0        | Tungsten carbide | 41.0     | 6.48     | 6.4         |
| A-5003-5233 | -     | M5 STY D2.5R L50 EWL5 d1.5TC    | M5     | Ball stylus   | 2.5                | Ruby              | 50.0        | Tungsten carbide | 5.0      | 14.94    | 6.4         |
| A-5003-5234 | -     | M5 STY D3R L50 EWL41 d2TC       | M5     | Ball stylus   | 3.0                | Ruby              | 50.0        | Tungsten carbide | 41.0     | 6.50     | 6.4         |
| A-5003-5235 | -     | M5 STY D4R L50 EWL41.9 d2TC     | M5     | Ball stylus   | 4.0                | Ruby              | 50.0        | Tungsten carbide | 41.9     | 6.50     | 6.4         |
| A-5003-5236 | -     | M5 STY D5R L50 EWL41.5 d3TC     | M5     | Ball stylus   | 5.0                | Ruby              | 50.0        | Tungsten carbide | 41.5     | 9.19     | 6.4         |
| A-5003-5237 | -     | M5 STY D6R L50 EWL39.5 d4CF     | M5     | Ball stylus   | 6.0                | Ruby              | 50.0        | Carbon fibre     | 39.5     | 6.10     | 6.4         |
| A-5003-5238 | -     | M5 STY D8R L50 EWL39.5 d6CF     | M5     | Ball stylus   | 8.0                | Ruby              | 50.0        | Carbon fibre     | 39.5     | 7.96     | 6.4         |
| A-5003-5239 | -     | M5 STY D10R L50 EWL44.5 d6CF    | M5     | Ball stylus   | 10.0               | Ruby              | 50.0        | Carbon fibre     | 44.5     | 8.91     | 6.4         |
| A-5003-5240 | -     | M5 STY D0.3R L75 EWL3 d0.2TC    | M5     | Ball stylus   | 0.3                | Ruby              | 75.0        | Tungsten carbide | 3.0      | 23.84    | 6.2         |
| A-5003-5241 | -     | M5 STY D0.5R L75 EWL4 d0.4TC    | M5     | Ball stylus   | 0.5                | Ruby              | 75.0        | Tungsten carbide | 4.0      | 23.84    | 6.2         |
| A-5003-5242 | -     | M5 STY D0.7R L75 EWL5 d0.5TC    | M5     | Ball stylus   | 0.7                | Ruby              | 75.0        | Tungsten carbide | 5.0      | 23.84    | 6.2         |
| A-5003-5243 | -     | M5 STY D1R L75 EWL5 d0.7TC      | M5     | Ball stylus   | 1.0                | Ruby              | 75.0        | Tungsten carbide | 5.0      | 23.86    | 6.5         |
| A-5003-5244 | -     | M5 STY D1.5R L75 EWL5 d1TC      | M5     | Ball stylus   | 1.5                | Ruby              | 75.0        | Tungsten carbide | 5.0      | 23.90    | 6.5         |
| A-5003-5248 | -     | M5 STY D4R L75 EWL66 d3TC       | M5     | Ball stylus   | 4.0                | Ruby              | 75.0        | Tungsten carbide | 66.0     | 11.61    | 6.5         |
| A-5003-5249 | -     | M5 STY D5R L75 EWL66 d3TC       | M5     | Ball stylus   | 5.0                | Ruby              | 75.0        | Tungsten carbide | 66.0     | 11.80    | 6.5         |
| A-5003-5250 | -     | M5 STY D6R L75 EWL65.1 d4CF     | M5     | Ball stylus   | 6.0                | Ruby              | 75.0        | Carbon fibre     | 65.1     | 6.59     | 6.5         |
| A-5003-5251 | -     | M5 STY D8R L75 EWL64.5 d6CF     | M5     | Ball stylus   | 8.0                | Ruby              | 75.0        | Carbon fibre     | 64.5     | 9.06     | 6.5         |
| A-5003-5252 | -     | M5 STY D10R L75 EWL69.5 d6CF    | M5     | Ball stylus   | 10.0               | Ruby              | 75.0        | Carbon fibre     | 69.5     | 10.01    | 6.5         |
| A-5003-5253 | -     | M5 STY D3R L100 EWL20 d2TC      | M5     | Ball stylus   | 3.0                | Ruby              | 100.0       | Tungsten carbide | 20.0     | 25.71    | 6.6         |
| A-5003-5254 | -     | M5 STY D3R L100 EWL55 d1.5TC    | M5     | Ball stylus   | 3.0                | Ruby              | 100.0       | Tungsten carbide | 55.0     | 16.30    | 6.7         |
| A-5003-5255 | -     | M5 STY D4R L100 EWL30.5 d2TC    | M5     | Ball stylus   | 4.0                | Ruby              | 100.0       | Tungsten carbide | 30.5     | 25.75    | 6.6         |
| A-5003-5256 | -     | M5 STY D4R L100 EWL50 d3TC      | M5     | Ball stylus   | 4.0                | Ruby              | 100.0       | Tungsten carbide | 50.0     | 23.07    | 6.6         |
| A-5003-5257 | -     | M5 STY D5R L100 EWL50 d3TC      | M5     | Ball stylus   | 5.0                | Ruby              | 100.0       | Tungsten carbide | 50.0     | 23.31    | 6.6         |
| A-5003-5258 | -     | M5 STY D5R L100 EWL91 d3TC      | M5     | Ball stylus   | 5.0                | Ruby              | 100.0       | Tungsten carbide | 91.0     | 14.40    | 6.7         |
| A-5003-5259 | -     | M5 STY D6R L100 EWL58.9 d4CF    | M5     | Ball stylus   | 6.0                | Ruby              | 100.0       | Carbon fibre     | 58.9     | 19.66    | 6.7         |
| A-5003-5260 | -     | M5 STY D6R L100 EWL90.1 d4CF    | M5     | Ball stylus   | 6.0                | Ruby              | 100.0       | Carbon fibre     | 90.1     | 7.08     | 6.7         |
| A-5003-5261 | -     | M5 STY D8R L100 EWL50 d6CF      | M5     | Ball stylus   | 8.0                | Ruby              | 100.0       | Carbon fibre     | 50.0     | 22.97    | 6.6         |
| A-5003-5262 | -     | M5 STY D8R L100 EWL89.5 d6CF    | M5     | Ball stylus   | 8.0                | Ruby              | 100.0       | Carbon fibre     | 89.5     | 10.17    | 6.7         |
| A-5003-5263 | -     | M5 STY D10R L100 EWL95.5 d6CF   | M5     | Ball stylus   | 10.0               | Ruby              | 100.0       | Carbon fibre     | 95.5     | 23.91    | 6.7         |
| A-5003-5264 | -     | M5 STY D10R L100 EWL94.5 d6CF   | M5     | Ball stylus   | 10.0               | Ruby              | 100.0       | Carbon fibre     | 94.5     | 11.11    | 6.7         |
| A-5003-5265 | -     | M5 STY D6R L150 EWL137 d4CF     | M5     | Ball stylus   | 6.0                | Ruby              | 150.0       | Carbon fibre     | 137.0    | 9.09     | 6.8         |
| A-5003-5266 | -     | M5 STY D8R L150 EWL135 d6CF     | M5     | Ball stylus   | 8.0                | Ruby              | 150.0       | Carbon fibre     | 135.0    | 13.71    | 6.8         |
| A-5003-5267 | -     | M5 STY D10R L150 EWL144.5 D6CF  | M5     | Ball stylus   | 10.0               | Ruby              | 150.0       | Carbon fibre     | 144.5    | 14.66    | 6.8         |
| A-5003-5268 | -     | M5 STY D6R L200 EWL187 d4CF     | M5     | Ball stylus   | 6.0                | Ruby              | 200.0       | Carbon fibre     | 187.0    | 10.07    | 6.8         |
| A-5003-5269 | -     | M5 STY D8R L200 EWL180 d6CF     | M5     | Ball stylus   | 8.0                | Ruby              | 200.0       | Carbon fibre     | 180.0    | 15.92    | 6.8         |
| A-5003-5270 | -     | M5 STY D10R L200 EWL194.50 d6CF | M5     | Ball stylus   | 10.0               | Ruby              | 200.0       | Carbon fibre     | 194.5    | 16.87    | 6.8         |
| A-5003-5271 | -     | M5 STY D6R L300 EWL287 d4CF     | M5     | Ball stylus   | 6.0                | Ruby              | 300.0       | Carbon fibre     | 287.0    | 12.02    | 6.9         |
| A-5003-5272 | -     | M5 STY D8R L300 EWL280 d6CF     | M5     | Ball stylus   | 8.0                | Ruby              | 300.0       | Carbon fibre     | 280.0    | 20.33    | 6.9         |
| A-5003-5273 | -     | M5 STY D10R L300 EWL294.5 d6CF  | M5     | Ball stylus   | 10.0               | Ruby              | 300.0       | Carbon fibre     | 294.5    | 21.28    | 6.9         |
| A-5003-5275 | -     | M5 HEM D16CE d7SS               | M5     | Hemispherical | 16.0               | Ceramic           | 19.5        | Stainless steel  | -        | 7.0      | 6.16        |
| A-5003-5276 | -     | M5 HEM D22CE d7SS               | M5     | Hemispherical | 22.0               | Ceramic           | 20.5        | Stainless steel  | -        | 14.0     | 6.16        |
| A-5003-5277 | -     | M5 HEM D30CE d7SS               | M5     | Hemispherical | 30.0               | Ceramic           | 24.5        | Stainless steel  | -        | 19.7     | 6.16        |
| A-5003-5278 | -     | M5 ACC KNUCKLE d11 ROTARY       | M5     | Accessory     | -                  | -                 | 36.5        | Stainless steel  | -        | 16.5     | 8.2         |
| A-5003-5279 | -     | M5 ACC KNUCKLE d20 ROTARY       | M5     | Accessory     | -                  | -                 | 46.5        | Stainless steel  | -        | 64.9     | 8.2         |
| A-5003-5288 | -     | M5 DSC D12SLVS T3 L3 BR-Y5      | M5     | Disc          | 12.0               | Silver steel      | 3.0         | Stainless steel  | 3.0      | 2.52     | 6.16        |
| A-5003-5289 | -     | M5 DSC D21SLVS T3 L3 BR-Y5      | M5     | Disc          | 21.0               | Silver steel      | 3.0         | Stainless steel  | 3.0      | 5.23     | 6.16        |
| A-5003-5290 | -     | M5 DSC D35SLVS T5 L4 BR-Y8      | M5     | Disc          | 35.0               | Silver steel      | 4.0         | Stainless steel  | 5.0      | 14.0     | 6.16        |
| A-5003-5291 | -     | M5 DSC D63.5SLVS T5 L4 BR-Y8    | M5     | Disc          | 63.5               | Silver steel      | 4.0         | Stainless steel  | 5.0      | 51.00    | 6.16        |
| A-5003-5676 | -     | M5 ACC CUBE BOLT L33            | M5     | Accessory     | -                  | -                 | 33.0        | Stainless steel  | -        | 6.4      | 8.4         |
| A-5003-5677 | -     | M5 ACC CUBE BOLT L28            | M5     | Accessory     | -                  | -                 | 28.0        | Stainless steel  | -        | 6.0      | 8.4         |
| A-5003-5678 | -     | M5-M2 ACC CUBE BOLT L33         | M5     | Accessory     | -                  | -                 | 33.0        | Stainless steel  | -        | 7.1      | 8.4         |
| A-5003-5679 | -     | M5-M2 ACC CUBE BOLT L28         | M5     | Accessory     | -                  | -                 | 28.0        | Stainless steel  | -        | 6.7      | 8.4         |
| A-5003-5683 | -     | M5-M2 15×15 CUBE                | M5     | Accessory     | -                  | -                 | 15.0        | Titanium         | -        | 13.75    | 8.4         |
| A-5003-5684 | -     | M5-M2 20×20 CUBE                | M5     | Accessory     | -                  | -                 | 20.0        | Titanium         | -        | 35.18    | 8.4         |

## Styli and accessories

| Part no.    | PS no | Description                      | Thread | Component   | Ball/tip<br>size (mm) | Ball/tip<br>Material | Length<br>(mm) | Stem<br>material | EWL<br>(mm) | Mass<br>(g) | Section<br>no. |
|-------------|-------|----------------------------------|--------|-------------|-----------------------|----------------------|----------------|------------------|-------------|-------------|----------------|
| A-5003-5723 | -     | M3 STY D2SN L21 EWL9.6 d1.4SS    | M3     | Ball stylus | 2.0                   | Silicon nitride      | 21.0           | Stainless steel  | 9.6         | 1.0         | 4.2            |
| A-5003-5724 | -     | M3 STY D2SN L30 EWL22.8 d1.5TC   | M3     | Ball stylus | 2.0                   | Silicon nitride      | 30.0           | Tungsten carbide | 22.8        | 1.32        | 4.3            |
| A-5003-5725 | -     | M3 STY D4SN L50 EWL46 d2CE       | M3     | Ball stylus | 4.0                   | Silicon nitride      | 50.0           | Ceramic          | 46.0        | 1.24        | 4.4            |
| A-5003-5726 | -     | M3 STY D6SN L75 EWL75 d4CF       | M3     | Ball stylus | 6.0                   | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 2.4         | 4.5            |
| A-5003-5727 | -     | M3 STY D6SN L100 EWL100 d4CF     | M3     | Ball stylus | 6.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 2.89        | 4.5            |
| A-5003-5728 | -     | M4 STY D2SN L19 EWL9.2 d1.4SS    | M4     | Ball stylus | 2.0                   | Silicon nitride      | 19.0           | Stainless steel  | 9.2         | 2.30        | 5.2            |
| A-5003-5729 | -     | M4 STY D4SN L18 EWL13.7 d3SS     | M4     | Ball stylus | 4.0                   | Silicon nitride      | 18.0           | Stainless steel  | 13.7        | 2.08        | 5.2            |
| A-5003-5730 | -     | M4 STY D6SN L50 EWL38.5 d4.5CF   | M4     | Ball stylus | 6.0                   | Silicon nitride      | 50.0           | Carbon fibre     | 38.5        | 4.1         | 5.5            |
| A-5003-5731 | -     | M4 STY D6SN L100 EWL88.5 d4.5CF  | M4     | Ball stylus | 6.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 88.5        | 6.2         | 5.5            |
| A-5003-5732 | -     | M5 STY D2SN L20 EWL11 d1TC       | M5     | Ball stylus | 2.0                   | Silicon nitride      | 20.0           | Tungsten carbide | 11.0        | 4.70        | 6.3            |
| A-5003-5733 | -     | M5 STY D4SN L20 EWL11.9 d2TC     | M5     | Ball stylus | 4.0                   | Silicon nitride      | 20.0           | Tungsten carbide | 11.9        | 5.17        | 6.3            |
| A-5003-5734 | -     | M5 STY D6SN L50 EWL39.5 d4CF     | M5     | Ball stylus | 6.0                   | Silicon nitride      | 50.0           | Carbon fibre     | 39.5        | 6.02        | 6.4            |
| A-5003-5735 | -     | M5 STY D6SN L100 EWL56.9 d4CF    | M5     | Ball stylus | 6.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 56.9        | 19.66       | 6.7            |
| A-5003-5736 | -     | M3 STY D2Z L21 EWL9.6 d1.4SS     | M3     | Ball stylus | 2.0                   | Zirconia             | 21.0           | Stainless steel  | 9.6         | 1.0         | 4.2            |
| A-5003-5737 | -     | M3 STY D4Z L21 EWL17.2 d2.5SS    | M3     | Ball stylus | 4.0                   | Zirconia             | 21.0           | Stainless steel  | 17.2        | 1.3         | 4.2            |
| A-5003-5738 | -     | M3 STY D2Z L30 EWL22.8 d1.5TC    | M3     | Ball stylus | 2.0                   | Zirconia             | 30.0           | Tungsten carbide | 22.8        | 1.32        | 4.3            |
| A-5003-5739 | -     | M3 STY D4Z L50 EWL46 d2CE        | M3     | Ball stylus | 4.0                   | Zirconia             | 50.0           | Ceramic          | 46.0        | 1.24        | 4.4            |
| A-5003-5740 | -     | M3 STY D6Z L75 EWL75 d4CF        | M3     | Ball stylus | 6.0                   | Zirconia             | 75.0           | Carbon fibre     | 75.0        | 2.4         | 4.5            |
| A-5003-5741 | -     | M3 STY D6Z L100 EWL100 d4CF      | M3     | Ball stylus | 6.0                   | Zirconia             | 100.0          | Carbon fibre     | 100.0       | 2.89        | 4.5            |
| A-5003-5742 | -     | M4 STY D2Z L19 EWL9.2 d1.4SS     | M4     | Ball stylus | 2.0                   | Zirconia             | 19.0           | Stainless steel  | 9.2         | 2.3         | 5.2            |
| A-5003-5743 | -     | M4 STY D4Z L18 EWL13.7 d3SS      | M4     | Ball stylus | 4.0                   | Zirconia             | 18.0           | Stainless steel  | 13.7        | 2.40        | 5.2            |
| A-5003-5744 | -     | M4 STY D6Z L50 EWL38.5 d4.5CF    | M4     | Ball stylus | 6.0                   | Zirconia             | 50.0           | Carbon fibre     | 38.5        | 4.1         | 5.5            |
| A-5003-5745 | -     | M4 STY D6Z L100 EWL88.5 d4.4CF   | M4     | Ball stylus | 6.0                   | Zirconia             | 100.0          | Carbon fibre     | 88.5        | 6.2         | 5.5            |
| A-5003-5746 | -     | M5 STY D2Z L20 EWL11 d1TC        | M5     | Ball stylus | 2.0                   | Zirconia             | 20.0           | Tungsten carbide | 11.0        | 4.73        | 6.3            |
| A-5003-5747 | -     | M5 STY D4Z L20 EWL11.9 d2TC      | M5     | Ball stylus | 4.0                   | Zirconia             | 20.0           | Carbon fibre     | 11.9        | 4.95        | 6.3            |
| A-5003-5748 | -     | M5 STY D6Z L50 EWL39.5 d4CF      | M5     | Ball stylus | 6.0                   | Zirconia             | 50.0           | Tungsten carbide | 39.5        | 5.49        | 6.4            |
| A-5003-5749 | -     | M5 STY D6Z L100 EWL58.9 d4CF     | M5     | Ball stylus | 6.0                   | Zirconia             | 100.0          | Carbon fibre     | 58.9        | 19.66       | 6.7            |
| A-5003-5909 | -     | M5 STYLUS KIT - COMPREHENSIVE    | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.15           |
| A-5003-5910 | -     | M5 STYLUS KIT - GENERAL PURPOSE  | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.16           |
| A-5003-5911 | -     | M5 STYLUS KIT - STANDARD         | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.14           |
| A-5003-5912 | -     | M5 STYLUS EXTENSION KIT - 11 MM  | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.17           |
| A-5003-5913 | -     | M5 STYLUS EXTENSION KIT - 20 MM  | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.18           |
| A-5003-6120 | PS8R  | M2 STY D2SN L10 EWL6 d1SS        | M2     | Ball stylus | 2.0                   | Silicon nitride      | 10.0           | Stainless steel  | 6.0         | 0.3         | 3.2            |
| A-5003-6134 | -     | M5 ACC D11 EXTENSION TOOL        | -      | Accessory   | -                     | -                    | -              | -                | -           | -           | 6.10           |
| A-5003-6135 | -     | M5 ACC D20 EXTENSION TOOL        | -      | Accessory   | -                     | -                    | -              | -                | -           | -           | 6.10           |
| A-5003-6151 | -     | M3 STY KIT (SP25M/SM25-1/SH25-1) | M3     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.9            |
| A-5003-6152 | -     | M3 STY KIT (SP25M/SM25-2/SH25-2) | M3     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.10           |
| A-5003-6153 | -     | M3 STY KIT (SP25M/SM25-3/SH25-3) | M3     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.10           |
| A-5003-6168 | -     | M5 STYLUS KIT (SP80)             | M5     | Accessory   | -                     | -                    | -              | -                | -           | -           | 8.13           |
| A-5003-6257 | -     | M3 STY D3SN L21 d1.5SS           | M3     | Ball stylus | 3.0                   | Silicon nitride      | 21.0           | Stainless steel  | 14.7        | 1.0         | 4.2            |
| A-5003-6510 | -     | M4 STY D6R L100 EWL88.5 d4.5CF   | M4     | Ball stylus | 6.0                   | Ruby                 | 100.0          | Carbon fibre     | 88.5        | 6.2         | 5.5            |
| A-5003-6511 | -     | M4 STY D6R L150 EWL138.5 d4.5CF  | M4     | Ball stylus | 6.0                   | Ruby                 | 150.0          | Carbon fibre     | 138.5       | 7.5         | 5.5            |
| A-5003-6512 | -     | M4 STY D6R L200 EWL188.5 d4.5CF  | M4     | Ball stylus | 6.0                   | Ruby                 | 200.0          | Carbon fibre     | 188.5       | 8.7         | 5.5            |
| A-5003-6691 | PS16R | M2 STY D2SN L20 EWL17 d1.SS      | M2     | Ball stylus | 3.0                   | Silicon nitride      | 20.0           | Stainless steel  | 17.0        | 0.5         | 3.2            |
| A-5003-6695 | -     | M3 STY D5SN L21 EWL21 d2.5SS     | M3     | Ball stylus | 5.0                   | Silicon nitride      | 21.0           | Stainless steel  | 21.0        | 1.5         | 4.2            |
| A-5003-6766 | -     | M3 STY D3Z L30 EWL24 d2TC        | M3     | Ball stylus | 3.0                   | Zirconia             | 30.0           | Tungsten carbide | 24.0        | 1.83        | 4.3            |
| A-5003-6767 | -     | M3 STY D4Z L40 EWL40 d2TC        | M3     | Ball stylus | 4.0                   | Zirconia             | 40.0           | Tungsten carbide | 36.0        | 2.38        | 4.4            |
| A-5003-6768 | -     | M3 STY D4Z L50 EWL46 d2TC        | M3     | Ball stylus | 4.0                   | Zirconia             | 50.0           | Tungsten carbide | 46.0        | 2.85        | 4.4            |
| A-5003-6771 | -     | M3 STY D8Z L75 EWL75 d4CF        | M3     | Ball stylus | 8.0                   | Zirconia             | 75.0           | Carbon fibre     | 75.0        | 2.98        | 4.5            |
| A-5003-6778 | -     | M3 STY D8Z L100 EWL100 d4CF      | M3     | Ball stylus | 8.0                   | Zirconia             | 100.0          | Carbon fibre     | 100.0       | 3.47        | 4.5            |
| A-5003-6985 | -     | M2 STY D2R L40 EWL32.5 d1.5CER   | M2     | Ball stylus | 2.0                   | Ruby                 | 40.0           | Ceramic          | 32.5        | 0.58        | 3.9            |
| A-5003-7054 | -     | M3 STY D10R L200 EWL200 d4CF     | M3     | Ball stylus | 10.0                  | Ruby                 | 200.0          | Carbon fibre     | 200.0       | 6.47        | 4.6            |
| A-5003-7055 | -     | M3 STY D10R L150 EWL150 d4CF     | M3     | Ball stylus | 10.0                  | Ruby                 | 150.0          | Carbon fibre     | 150.0       | 5.49        | 4.6            |
| A-5003-7056 | -     | M3 STY D10R L100 EWL100 d4CF     | M3     | Ball stylus | 10.0                  | Ruby                 | 100.0          | Carbon fibre     | 100.0       | 4.53        | 4.6            |
| A-5003-7057 | -     | M3 STY D10R L75 EWL75 d4CF       | M3     | Ball stylus | 10.0                  | Ruby                 | 75.0           | Carbon fibre     | 75.0        | 4.05        | 4.6            |
| A-5003-7098 | -     | M3 DSC SD30CER T1.5 L5.5 d4TI    | M3     | Disc stylus | 30.0                  | Ceramic              | -              | -                | -           | 7.10        | 4.8            |
| A-5003-7261 | -     | M2 STY D4Z L10 EWL10 d1.5SS      | M2     | Ball stylus | 4.0                   | Zirconia             | 10.0           | Stainless steel  | 10.0        | 0.4         | 3.2            |
| A-5003-7269 | PS58R | M2 STY D2SN L40 EWL32.5 d1.5TC   | M2     | Ball stylus | 2.0                   | Silicon nitride      | 40.0           | Tungsten carbide | 32.5        | 1.29        | 3.5            |
| A-5003-7306 | -     | M4 STY D6R L50 EWL38.5 d4.5CF    | M4     | Ball stylus | 6.0                   | Ruby                 | 50.0           | Carbon fibre     | 38.5        | 4.1         | 5.5            |
| A-5003-7445 | -     | M3 STY D12R L100 EWL100 d4CF     | M3     | Ball stylus | 12.0                  | Ruby                 | 100.0          | Carbon fibre     | 100.0       | 5.90        | 4.6            |



| Part no.    | PS no | Description                      | Thread | Component                    | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|-------|----------------------------------|--------|------------------------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5003-7446 | -     | M3 STY D12R L150 EWL150 d4CF     | M3     | Ball stylus                  | 12.0               | Ruby              | 150.0       | Carbon fibre     | 150.0    | 6.90     | 4.6         |
| A-5003-7447 | -     | M3 STY D12R L200 EWL200 d4CF     | M3     | Ball stylus                  | 12.0               | Ruby              | 200.0       | Carbon fibre     | 200.0    | 7.90     | 4.6         |
| A-5003-7573 | PS53R | M2 STY D2SN L30 EWL22.5 d1.5T    | M2     | Ball stylus                  | 2.0                | Silicon nitride   | 30.0        | Tungsten carbide | 22.5     | 0.99     | 3.3         |
| A-5003-7665 | -     | M3 STY D5Z L50 EWL50 d2.5TC      | M3     | Ball stylus                  | 5.0                | Zirconia          | 50.0        | Tungsten carbide | 50.0     | 4.10     | 4.4         |
| A-5003-7672 | -     | M2 STY D0.5Z L10 EWL3 d0.3TC     | M2     | Ball stylus                  | 0.5                | Zirconia          | 10.0        | Tungsten carbide | 3.0      | 0.3      | 3.2         |
| A-5003-7673 | -     | CONE STYLUS 1.25x20 d3 L57       | 1¼-20  | Cone stylus                  | 3.0                | Zirconia          | 57.0        | -                | -        | -        | 7.2         |
| A-5003-7674 | -     | CONE STYLUS 1.25x20 d6 L57       | 1¼-20  | Cone stylus                  | 6.0                | Zirconia          | 57.0        | -                | -        | -        | 7.2         |
| A-5003-7675 | -     | CONE STYLUS 1.25x20 d30 PT L75   | 1¼-20  | Cone stylus                  | -                  | Zirconia          | 57.0        | -                | -        | -        | 7.2         |
| A-5003-7676 | -     | STYLUS M6 DIA. 125" Z PROBE 0066 | M6     | Cone stylus                  | 1/8 in.            | Zirconia          | 43.0        | -                | -        | -        | 7.2         |
| A-5003-7677 | -     | STYLUS M6 DIA. 25" Z PROBE 0068  | M6     | Cone stylus                  | ¼ in.              | Zirconia          | 43.0        | -                | -        | -        | 7.2         |
| A-5003-7678 | -     | STYLUS M6 DIA 3MM Z PROBE 0065   | M6     | Cone stylus                  | 3.0                | Zirconia          | 43.0        | -                | -        | -        | 7.2         |
| A-5003-7679 | -     | STYLUS M6 DIA 6 MM Z PROBE 0067  | M6     | Cone stylus                  | 6.0                | Zirconia          | 43.0        | -                | -        | -        | 7.2         |
| A-5003-7723 | -     | M2 STY D2Z L10 EWL6 d1SS         | M2     | Ball stylus                  | 2.0                | Zirconia          | 10.0        | Stainless steel  | 6.0      | 0.3      | 3.2         |
| A-5003-7757 | -     | M2 STY D1Z L10 EWL4.5 d0.7SS     | M2     | Ball stylus                  | 1.0                | Zirconia          | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5003-7852 | -     | M2 STY D3R L30 EWL27.5 d2CF      | M2     | Ball stylus                  | 3.0                | Ruby              | 30.0        | Carbon fibre     | 27.5     | 0.45     | 3.10        |
| A-5003-8091 | -     | M3 STY D1.5SN L30 E22.5 d1TC     | M3     | Ball stylus                  | 1.5                | Silicon nitride   | 30.0        | Tungsten carbide | 22.5     | 0.93     | 4.3         |
| A-5003-9190 | -     | FARO PROBE KIT                   | -      | Accessory                    | -                  | -                 | -           | -                | -        | -        | 7.3         |
| A-5003-9495 | -     | M3 STY D10Z L100 EWL100 d4CF     | M3     | Ball stylus                  | 10.0               | Zirconia          | 100.0       | Carbon fibre     | 100.0    | 4.53     | 4.6         |
| A-5003-9500 | -     | M3 STY D5Z L21 EWL21 d2.5SS      | M3     | Ball stylus                  | 5.0                | Zirconia          | 21.0        | Stainless steel  | 21.0     | 1.5      | 4.2         |
| A-5003-9506 | -     | M2 STY D3R L50 EWL47 D2CF        | M2     | Ball stylus                  | 3.0                | Ruby              | 50.0        | Carbon fibre     | 47.0     | 0.9      | 3.10        |
| A-5003-9524 | PS12R | M2 D4SN L10 EWL10 d1.5SS         | M2     | Ball stylus                  | 4.0                | Silicon nitride   | 10.0        | Stainless steel  | 10.0     | 0.4      | 3.2         |
| A-5004-0154 | -     | M3 STY D4R L40 EWL36 D2CER       | M3     | Ball stylus                  | 4.0                | Ruby              | 40.0        | Ceramic          | 36.0     | 1.2      | 4.4         |
| A-5004-0165 | -     | M2 STY D1.5Z L10 EWL4.5 d0.7SS   | M2     | Ball stylus                  | 1.5                | Zirconia          | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5004-0210 | PS9R  | M2 STY D1SN L10 EWL4.5 d0.7SS    | M2     | Ball stylus                  | 1.0                | Silicon nitride   | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5004-0236 | PS17R | M2 STY D4SN L20 EWL20 d1.5SS     | M2     | Ball stylus                  | 4.0                | Silicon nitride   | 20.0        | Stainless steel  | 20.0     | 0.6      | 3.2         |
| A-5004-0237 | PS14R | M2 STY D6SN L10 EWL10 d2.5SS     | M2     | Ball stylus                  | 6.0                | Silicon nitride   | 10.0        | Stainless steel  | 10.0     | 0.9      | 3.2         |
| A-5004-0264 | -     | M2 STY D3Z L30 EWL27 d2TC        | M2     | Ball stylus                  | 3.0                | Zirconia          | 30.0        | Tungsten carbide | 27.0     | 1.49     | 3.3         |
| A-5004-0421 | -     | M3 STY D2R L10 EWL6 D1.5SS       | M3     | Ball stylus                  | 2.0                | Ruby              | 10.0        | Stainless steel  | 6.0      | 0.5      | 4.2         |
| A-5004-0422 | -     | M3 STY D3R L10 EWL6.5 D1.5SS     | M3     | Ball stylus                  | 3.0                | Ruby              | 10.0        | Stainless steel  | 6.5      | 0.5      | 4.2         |
| A-5004-0423 | -     | M3 STY D4R L10 EWL7 D2.5SS       | M3     | Ball stylus                  | 4.0                | Ruby              | 10.0        | Stainless steel  | 7.0      | 0.7      | 4.2         |
| A-5004-0435 | -     | M2 STY D1Z L20 EWL7 d0.7TC       | M2     | Ball stylus                  | 1.0                | Zirconia          | 20.0        | Tungsten carbide | 7.0      | 0.50     | 3.3         |
| A-5004-0437 | -     | M2 STY D3Z L20 EWL17.5 d1.5TC    | M2     | Ball stylus                  | 3.0                | Zirconia          | 20.0        | Tungsten carbide | 17.0     | 0.77     | 3.3         |
| A-5004-0618 | -     | M2 STY D6Z L30 EWL30 d3CF        | M2     | Ball stylus                  | 6.0                | Zirconia          | 30.0        | Carbon fibre     | 30.0     | 0.96     | 3.4         |
| A-5004-1017 | -     | M2 STY D2SN L20 EWL14 d1TC       | M2     | Ball stylus                  | 2.0                | Silicon nitride   | 20.0        | Tungsten carbide | 14.0     | 0.48     | 3.3         |
| A-5004-1021 | -     | M2 STY D3SN L20 EWL17.5 d1.5TC   | M2     | Ball stylus                  | 3.0                | Silicon nitride   | 20.0        | Tungsten carbide | 17.0     | 0.77     | 3.3         |
| A-5004-1057 | -     | M2 STY D3Z L20 EWL17.5 d1.5SS    | M2     | Ball stylus                  | 3.0                | Zirconia          | 20.0        | Stainless steel  | 17.0     | 0.5      | 3.2         |
| A-5004-1058 | -     | M2 STY D2Z L30 EWL22.5 d1.5TC    | M2     | Ball stylus                  | 2.0                | Zirconia          | 30.0        | Tungsten carbide | 22.5     | 0.99     | 3.3         |
| A-5004-1059 | -     | M2 STY D3Z L40 EWL37 d2TC        | M2     | Ball stylus                  | 3.0                | Zirconia          | 40.0        | Tungsten carbide | 37.0     | 1.97     | 3.5         |
| A-5004-1195 | -     | M3 STY D4SN L40 EWL36 d2TC       | M3     | Ball stylus                  | 4.0                | Silicon nitride   | 40.0        | Tungsten carbide | 36.0     | 2.38     | 4.4         |
| A-5004-1198 | -     | M3 STY D1.5SN L20 EWL12.5 d1TC   | M3     | Ball stylus                  | 1.5                | Silicon nitride   | 20.0        | Tungsten carbide | 12.5     | 0.8      | 4.3         |
| A-5004-1199 | -     | M3 STY D3SN L50 EWL43.7 d2TC     | M3     | Ball stylus                  | 3.0                | Silicon nitride   | 50.0        | Tungsten carbide | 43.7     | 2.78     | 4.4         |
| A-5004-1201 | -     | M3 STY D5SN L50 EWL50 d2.5TC     | M3     | Ball stylus                  | 5.0                | Silicon nitride   | 50.0        | Tungsten carbide | 50.0     | 4.10     | 4.4         |
| A-5004-1329 | -     | M2 STY D6Z L50 EWL50 d3CF        | M2     | Ball stylus                  | 6.0                | Zirconia          | 50.0        | Carbon fibre     | 50.0     | 1.2      | 3.6         |
| A-5004-1330 | -     | M2 STY D5Z L50 EWL50 d3CF        | M2     | Ball stylus                  | 5.0                | Zirconia          | 50.0        | Carbon fibre     | 50.0     | 1.1      | 3.6         |
| A-5004-1331 | -     | M2 STY D4Z L50 EWL50 d3CF        | M2     | Ball stylus                  | 4.0                | Zirconia          | 50.0        | Carbon fibre     | 50.0     | 1.0      | 3.6         |
| A-5004-1387 | -     | M2 DSC SD10SLVS L10 T1.2 BRY     | M2     | Disc stylus                  | -                  | Silver steel      | -           | Stainless steel  | -        | 1.0      | 3.12        |
| A-5004-1395 | -     | M2 DSC SD12SLVS L7.5 T1.6 BRY    | M2     | Disc stylus                  | -                  | Silver steel      | -           | Stainless steel  | -        | 2.0      | 3.12        |
| A-5004-1396 | -     | M2 DSC SD14SLVS L7.5 T1.6 BRY    | M2     | Disc stylus                  | -                  | Silver steel      | -           | Stainless steel  | -        | 2.5      | 3.12        |
| A-5004-1508 | PS23R | M2 STY D1SN L20 EWL7 d0.7TC      | M2     | Ball stylus                  | 1.0                | Silicon nitride   | 20.0        | Tungsten carbide | 7.0      | 0.50     | 3.3         |
| A-5004-1519 | PS67R | M2 STY D4SN L50 EWL50 d2CE       | M2     | Ball stylus                  | 4.0                | Silicon nitride   | 50.0        | Ceramic          | 50.0     | 0.91     | 3.6         |
| A-5004-1711 | -     | M2 STY D1.5Z L30 EWL22.5 d1TC    | M2     | Ball stylus                  | 1.5                | Zirconia          | 30.0        | Tungsten carbide | 22.5     | 0.58     | 3.3         |
| A-5004-1714 | -     | M2 STY D0.7Z L20 EWL12 d0.5TC    | M2     | Ball stylus                  | 0.7                | Zirconia          | 20.0        | Tungsten carbide | 12.0     | 0.32     | 3.3         |
| A-5004-1718 | -     | M3 STY D5SN L40 EWL40 d2.5TC     | M3     | Ball stylus                  | 5.0                | Silicon nitride   | 40.0        | Tungsten carbide | 40.0     | 3.50     | 4.4         |
| A-5004-1865 | -     | M4 STY BREAK STEM L15 d2.5       | M4     | Crash protection device x 10 | -                  | -                 | 15.2        | Silver steel     | -        | 4.6      | 5.10        |
| A-5004-1867 | -     | M4 CPD L9SLVS                    | M4     | Crash protection device x 10 | -                  | -                 | 9.0         | Silver steel     | -        | 1.5      | 5.10        |
| A-5004-1869 | -     | M4 CPD L16SLVS                   | M4     | Crash protection device x 10 | -                  | -                 | 16.0        | Silver steel     | -        | 2.1      | 5.10        |
| A-5004-1918 | PS24R | M2 STY D1.5SN L10 EWL4.5 d0.7SS  | M2     | Ball stylus                  | 1.5                | Silicon nitride   | 10.0        | Stainless steel  | 4.5      | 0.3      | 3.2         |
| A-5004-1920 | PS26R | M2 STY D2.5SN L10 EWL6.5 d1SS    | M2     | Ball stylus                  | 2.5                | Silicon nitride   | 10.0        | Stainless steel  | 6.5      | 0.3      | 3.2         |
| A-5004-1921 | PS13R | M2 STY D2SN L10 EWL10 d2.5SS     | M2     | Ball stylus                  | 5.0                | Silicon nitride   | 10.0        | Stainless steel  | 10.0     | 0.7      | 3.2         |
| A-5004-1922 | PS15R | M2 STY D8SN L11 EWL11 d2.5SS     | M2     | Ball stylus                  | 8.0                | Silicon nitride   | 11.0        | Stainless steel  | 11.0     | 1.5      | 3.2         |

## Styli and accessories

| Part no.    | PS no | Description                      | Thread | Component   | Ball/tip<br>size (mm) | Ball/tip<br>Material | Length<br>(mm) | Stem<br>material | EWL<br>(mm) | Mass<br>(g) | Section<br>no. |
|-------------|-------|----------------------------------|--------|-------------|-----------------------|----------------------|----------------|------------------|-------------|-------------|----------------|
| A-5004-1923 | PS27R | M2 STY D2.5SN L20 EWL16.4 d1.4SS | M2     | Ball stylus | 2.5                   | Silicon nitride      | 20.0           | Stainless steel  | 16.4        | 0.4         | 3.2            |
| A-5004-1925 | PS49R | M2 STY D1.5SN L20 EWL12.5 d1TC   | M2     | Ball stylus | 1.5                   | Silicon nitride      | 20.0           | Tungsten carbide | 12.5        | 0.50        | 3.3            |
| A-5004-1928 | -     | M2 STY D2.5SN L20 EWL15.5 d1TC   | M2     | Ball stylus | 2.5                   | Silicon nitride      | 20.0           | Tungsten carbide | 15.5        | 0.5         | 3.3            |
| A-5004-1929 | -     | M2 STY D4SN L20 EWL20 d2TC       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 22.0           | Tungsten carbide | 22.0        | 1.24        | 3.3            |
| A-5004-1930 | PS50R | M2 STY D5SN L20 EWL20 d2.5TC     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 20.0           | Tungsten carbide | 20.0        | 1.98        | 3.3            |
| A-5004-1931 | PS52R | M2 STY D1.5SN L30 EWL22.5 d1TC   | M2     | Ball stylus | 1.5                   | Silicon nitride      | 30.0           | Tungsten carbide | 22.5        | 0.58        | 3.3            |
| A-5004-1932 | PS54R | M2 STY D2.5SN L30 EWL22.5 d2TC   | M2     | Ball stylus | 2.5                   | Silicon nitride      | 30.0           | Tungsten carbide | 22.5        | 1.48        | 3.3            |
| A-5004-1933 | PS55R | M2 STY D3SN L30 EWL27 d2TC       | M2     | Ball stylus | 3.0                   | Silicon nitride      | 30.0           | Tungsten carbide | 27.0        | 1.49        | 3.3            |
| A-5004-1944 | PS56R | M2 STY D4SN L30 EWL30 d2TC       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 30.0           | Tungsten carbide | 30.0        | 1.57        | 3.3            |
| A-5004-1945 | PS57R | M2 STY D5SN L30 EWL30 d2.5TC     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 30.0           | Tungsten carbide | 30.0        | 2.57        | 3.3            |
| A-5004-1946 | -     | M2 STY D3SN L30 EWL27 d2CE       | M2     | Ball stylus | 3.0                   | Silicon nitride      | 30.0           | Ceramic          | 27.0        | 0.44        | 3.4            |
| A-5004-1952 | -     | M2 STY D4SN L30 EWL30 d2CE       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 30.0           | Ceramic          | 30.0        | 0.68        | 3.4            |
| A-5004-1953 | -     | M2 STY D5SN L30 EWL30 d2.5CE     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 30.0           | Ceramic          | 30.0        | 0.93        | 3.4            |
| A-5004-1954 | -     | M2 STY D6SN L30 EWL30 d2.5CE     | M2     | Ball stylus | 6.0                   | Silicon nitride      | 30.0           | Ceramic          | 30.0        | 1.11        | 3.4            |
| A-5004-1955 | -     | M2 STY D4SN L30 EWL30 d2CF       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 30.0           | Carbon fibre     | 30.0        | 0.57        | 3.4            |
| A-5004-1956 | -     | M2 STY D5SN L30 EWL30 d3CF       | M2     | Ball stylus | 5.0                   | Silicon nitride      | 30.0           | Carbon fibre     | 30.0        | 0.79        | 3.4            |
| A-5004-1957 | -     | M2 STY D6SN L30 EWL30 d3CF       | M2     | Ball stylus | 6.0                   | Silicon nitride      | 30.0           | Carbon fibre     | 30.0        | 0.96        | 3.4            |
| A-5004-1959 | PS59R | M2 STY D2.5SN L40 EWL32.5 d2TC   | M2     | Ball stylus | 2.5                   | Silicon nitride      | 40.0           | Tungsten carbide | 32.5        | 1.95        | 3.5            |
| A-5004-1960 | PS60R | M2 STY D3SN L40 EWL37 d2TC       | M2     | Ball stylus | 3.0                   | Silicon nitride      | 40.0           | Tungsten carbide | 37.0        | 1.97        | 3.5            |
| A-5004-1961 | PS61R | M2 STY D4SN L40 EWL40 d2TC       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 40.0           | Tungsten carbide | 40.0        | 2.04        | 3.5            |
| A-5004-1962 | PS62R | M2 STY D5SN L40 EWL40 d2.5TC     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 40.0           | Tungsten carbide | 40.0        | 3.17        | 3.5            |
| A-5004-1963 | PS63R | M2 STY D3SN L50 EWL47 d2TC       | M2     | Ball stylus | 3.0                   | Silicon nitride      | 50.0           | Tungsten carbide | 47.0        | 2.44        | 3.5            |
| A-5004-1964 | PS64R | M2 STY D4SN L50 EWL50 d2TC       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 50.0           | Tungsten carbide | 50.0        | 2.52        | 3.5            |
| A-5004-1965 | PS65R | M2 STY D5SN L50 EWL50 d2.5TC     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 50.0           | Tungsten carbide | 50.0        | 3.75        | 3.5            |
| A-5004-1967 | PS66R | M2 STY D3SN L50 EWL47 d2CE       | M2     | Ball stylus | 3.0                   | Silicon nitride      | 50.0           | Ceramic          | 47.0        | 0.83        | 3.6            |
| A-5004-1968 | PS68R | M2 STY D5SN L50 EWL50 d2.5CE     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 50.0           | Ceramic          | 50.0        | 1.31        | 3.6            |
| A-5004-1969 | -     | M2 STY D6SN L50 EWL50 d2.5CE     | M2     | Ball stylus | 6.0                   | Silicon nitride      | 50.0           | Ceramic          | 50.0        | 1.49        | 3.6            |
| A-5004-1970 | -     | M2 STY D4SN L50 EWL50 d3CF       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 50.0           | Carbon fibre     | 50.0        | 1.0         | 3.6            |
| A-5004-1971 | -     | M2 STY D5SN L50 EWL50 d3CF       | M2     | Ball stylus | 5.0                   | Silicon nitride      | 50.0           | Carbon fibre     | 50.0        | 1.1         | 3.6            |
| A-5004-1972 | -     | M2 STY D6SN L50 EWL50 d3CF       | M2     | Ball stylus | 6.0                   | Silicon nitride      | 50.0           | Carbon fibre     | 50.0        | 1.2         | 3.6            |
| A-5004-1973 | -     | M2 STY D4SN L75 EWL75 d2CF       | M2     | Ball stylus | 4.0                   | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 0.75        | 3.7            |
| A-5004-1974 | -     | M2 STY D5SN L75 EWL75 d3CF       | M2     | Ball stylus | 5.0                   | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 1.35        | 3.7            |
| A-5004-1975 | -     | M2 STY D6SN L75 EWL75 d3CF       | M2     | Ball stylus | 6.0                   | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 1.45        | 3.7            |
| A-5004-1976 | -     | M2 STY D4SN L100 EWL100 d3CF     | M2     | Ball stylus | 4.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 1.50        | 3.7            |
| A-5004-1977 | -     | M2 STY D5SN L100 EWL100 d3CF     | M2     | Ball stylus | 5.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 1.59        | 3.7            |
| A-5004-1978 | -     | M2 STY D6SN L100 EWL100 d3CF     | M2     | Ball stylus | 6.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 1.78        | 3.7            |
| A-5004-1979 | -     | M3 STY D1SN L21 EWL4 d0.7SS      | M3     | Ball stylus | 1.0                   | Silicon nitride      | 21.0           | Stainless steel  | 4.0         | 1.0         | 4.2            |
| A-5004-1980 | -     | M3 STY D4SN L31 EWL27 d2.5SS     | M3     | Ball stylus | 4.0                   | Silicon nitride      | 31.0           | Stainless steel  | 27.0        | 2.5         | 4.2            |
| A-5004-1981 | -     | M3 STY D5R L31 EWL31 d3.5SS      | M3     | Ball stylus | 5.0                   | Silicon nitride      | 31.0           | Stainless steel  | 31.0        | 3.0         | 4.2            |
| A-5004-1982 | -     | M3 STY D2.5SN L20.2 EWL12.5 d2TC | M3     | Ball stylus | 2.5                   | Silicon nitride      | 20.2           | Tungsten carbide | 12.5        | 1.3         | 4.3            |
| A-5004-1983 | -     | M3 STY D2.5SN L30 EWL22.5 d2TC   | M3     | Ball stylus | 2.5                   | Silicon nitride      | 30.0           | Tungsten carbide | 22.5        | 1.81        | 4.3            |
| A-5004-1984 | -     | M3 STY D3SN L30 EWL24 d2TC       | M3     | Ball stylus | 3.0                   | Silicon nitride      | 30.0           | Tungsten carbide | 24.0        | 1.83        | 4.3            |
| A-5004-1985 | -     | M3 STY D2SN L40 EWL32.5 d1.5TC   | M3     | Ball stylus | 2.0                   | Ruby                 | 40.0           | Tungsten carbide | 32.5        | 1.58        | 4.4            |
| A-5004-1986 | -     | M3 STY D2.5SN L40 EWL32.5 d2TC   | M3     | Ball stylus | 2.5                   | Silicon nitride      | 40.0           | Tungsten carbide | 32.5        | 2.28        | 4.4            |
| A-5004-1987 | -     | M3 STY D3SN L40 EWL33.7 d2TC     | M3     | Ball stylus | 3.0                   | Silicon nitride      | 40.0           | Tungsten carbide | 33.7        | 2.30        | 4.4            |
| A-5004-1988 | -     | M3 STY D4SN L50 EWL46 d2TC       | M3     | Ball stylus | 4.0                   | Silicon nitride      | 50.0           | Tungsten carbide | 46.0        | 2.85        | 4.4            |
| A-5004-1989 | -     | M3 STY D3SN L50 EWL43.7 d2CE     | M3     | Ball stylus | 3.0                   | Silicon nitride      | 50.0           | Ceramic          | 43.7        | 1.17        | 4.4            |
| A-5004-1990 | -     | M3 STY D5SN L50 EWL50 d2.5CE     | M3     | Ball stylus | 5.0                   | Silicon nitride      | 50.0           | Ceramic          | 50.0        | 1.33        | 4.4            |
| A-5004-1991 | -     | M3 STY D8SN L75 EWL75 d4CF       | M3     | Ball stylus | 8.0                   | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 2.98        | 4.5            |
| A-5004-1992 | -     | M3 STY D10SN L75 EWL75 d4CF      | M3     | Ball stylus | 10.0                  | Silicon nitride      | 75.0           | Carbon fibre     | 75.0        | 4.05        | 4.6            |
| A-5004-1993 | -     | M3 STY D10SN L100 EWL100 d4CF    | M3     | Ball stylus | 10.0                  | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 4.53        | 4.6            |
| A-5004-1994 | -     | M3 STY D10SN L150 EWL150 d4CF    | M3     | Ball stylus | 10.0                  | Silicon nitride      | 150.0          | Carbon fibre     | 150.0       | 5.49        | 4.6            |
| A-5004-1995 | -     | M3 STY D10SN L200 EWL200 d4CF    | M3     | Ball stylus | 10.0                  | Silicon nitride      | 200.0          | Carbon fibre     | 200.0       | 6.47        | 4.6            |
| A-5004-1996 | -     | M3 STY D12SN L100 EWL100 d4CF    | M3     | Ball stylus | 12.0                  | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 5.90        | 4.6            |
| A-5004-1997 | -     | M3 STY D12SN L150 EWL150 d4CF    | M3     | Ball stylus | 12.0                  | Silicon nitride      | 150.0          | Carbon fibre     | 150.0       | 6.90        | 4.6            |
| A-5004-1998 | -     | M3 STY D12SN L200 EWL200 d4CF    | M3     | Ball stylus | 12.0                  | Silicon nitride      | 200.0          | Carbon fibre     | 200.0       | 7.90        | 4.6            |
| A-5004-2016 | PS29R | M2 STY D0.3SN L10 EWL2 d0.2TC    | M2     | Ball stylus | 0.3                   | Silicon nitride      | 10.0           | Tungsten carbide | 2.0         | 0.3         | 3.2            |
| A-5004-2018 | -     | M2 STY D1SN L10 EWL4 d0.7TC      | M2     | Ball stylus | 1.0                   | Silicon nitride      | 10.0           | Tungsten carbide | 4.0         | 0.3         | 3.2            |
| A-5004-2019 | -     | M2 STY D0.5SN L20 EWL7 d0.3TC    | M2     | Ball stylus | 0.5                   | Silicon nitride      | 20.0           | Tungsten carbide | 7.0         | 0.48        | 3.3            |
| A-5004-2021 | PS48R | M2 STY D1SN L20 EWL12.5 d0.8TC   | M2     | Ball stylus | 1.0                   | Silicon nitride      | 20.0           | Tungsten carbide | 12.5        | 0.41        | 3.3            |

| Part no.    | PS no | Description                      | Thread | Component   | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|-------|----------------------------------|--------|-------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5004-2022 | PS51R | M2 STY D1SN L27.5 EWL20.5 d0.7TC | M2     | Ball stylus | 1.0                | Silicon nitride   | 27.5        | Tungsten carbide | 20.5     | 0.40     | 3.3         |
| A-5004-2023 | -     | M3 STY D0.5SN L21 EWL2 d0.4TC    | M3     | Ball stylus | 0.5                | Silicon nitride   | 21.0        | Tungsten carbide | 2.0      | 1.0      | 4.3         |
| A-5004-2203 | -     | M2 STY D6Z L10 EWL10 d2.5SS      | M2     | Ball stylus | 6.0                | Zirconia          | 10.0        | Stainless steel  | 10.0     | 0.9      | 3.2         |
| A-5004-2442 | -     | M3 STY D1R L20 EWL12.5 D0.7TC    | M3     | Ball stylus | 1.0                | Ruby              | 20.0        | Tungsten carbide | 12.5     | 0.7      | 4.3         |
| A-5004-2545 | -     | M3 STY D2.5R L40 EWL32.5 D2CER   | M3     | Ball stylus | 2.5                | Ruby              | 40.0        | Ceramic          | 32.5     | 1.1      | 4.4         |
| A-5004-2632 | -     | M2 STY D0.7Z L10 EWL4 d0.5TC     | M2     | Ball stylus | 0.7                | Zirconia          | 10.0        | Tungsten carbide | 4.0      | 0.3      | 3.2         |
| A-5004-2913 | -     | M2 STY D2.5Z L10 EWL6.5 d1SS     | M2     | Ball stylus | 2.5                | Zirconia          | 10.0        | Stainless steel  | 6.5      | 0.3      | 3.2         |
| A-5004-2914 | -     | M2 STY D3Z L10 EWL7.5 d1.5SS     | M2     | Ball stylus | 3.0                | Zirconia          | 10.0        | Stainless steel  | 7.0      | 0.4      | 3.2         |
| A-5004-2915 | -     | M2 STY D8Z L11 EWL11 d2.5SS      | M2     | Ball stylus | 8.0                | Zirconia          | 11.0        | Stainless steel  | 11.0     | 1.5      | 3.2         |
| A-5004-2916 | -     | M2 STY D2Z L20 EWL14 d1.4SS      | M2     | Ball stylus | 2.0                | Zirconia          | 20.0        | Stainless steel  | 14.0     | 0.4      | 3.2         |
| A-5004-2917 | -     | M2 STY D2.5Z L20 EWL16.4 d1.4SS  | M2     | Ball stylus | 2.5                | Zirconia          | 20.0        | Stainless steel  | 16.4     | 0.4      | 3.2         |
| A-5004-2918 | -     | M2 STY D4Z L20 EWL20 d1.4SS      | M2     | Ball stylus | 4.0                | Zirconia          | 20.0        | Stainless steel  | 20.0     | 0.6      | 3.2         |
| A-5004-2919 | -     | M2 STY D1Z L10 EWL4 d0.7TC       | M2     | Ball stylus | 1.0                | Zirconia          | 10.0        | Tungsten carbide | 4.0      | 0.3      | 3.2         |
| A-5004-2920 | -     | M2 STY D0.5Z L20 EWL7 d0.3TC     | M2     | Ball stylus | 0.5                | Zirconia          | 20.0        | Tungsten carbide | 7.0      | 0.48     | 3.3         |
| A-5004-2921 | -     | M2 STY D1Z L20 EWL12.5 d0.8TC    | M2     | Ball stylus | 1.0                | Zirconia          | 20.0        | Tungsten carbide | 12.5     | 0.41     | 3.3         |
| A-5004-2922 | -     | M2 STY D1.5Z L20 EWL12.5 d1TC    | M2     | Ball stylus | 1.5                | Zirconia          | 20.0        | Tungsten carbide | 12.5     | 0.50     | 3.3         |
| A-5004-2923 | -     | M2 STY D2Z L20 EWL14 d1TC        | M2     | Ball stylus | 2.0                | Zirconia          | 20.0        | Tungsten carbide | 14.0     | 0.48     | 3.3         |
| A-5004-2924 | -     | M2 STY D2.5Z L20 EWL15.5 d1TC    | M2     | Ball stylus | 2.5                | Zirconia          | 20.0        | Tungsten carbide | 15.5     | 0.5      | 3.3         |
| A-5004-2925 | -     | M2 STY D4Z L22 EWL22 d2TC        | M2     | Ball stylus | 4.0                | Zirconia          | 22.0        | Tungsten carbide | 22.0     | 1.24     | 3.3         |
| A-5004-2926 | -     | M2 STY D5Z L20 EWL20 d2.5TC      | M2     | Ball stylus | 5.0                | Zirconia          | 20.0        | Tungsten carbide | 20.0     | 1.98     | 3.3         |
| A-5004-2927 | -     | M2 STY D1Z L27.5 EWL20.5 d0.7TC  | M2     | Ball stylus | 1.0                | Zirconia          | 27.5        | Tungsten carbide | 20.5     | 0.40     | 3.3         |
| A-5004-2928 | -     | M2 STY D2.5Z L30 EWL22.5 d2TC    | M2     | Ball stylus | 2.5                | Zirconia          | 30.0        | Tungsten carbide | 22.5     | 1.48     | 3.3         |
| A-5004-2929 | -     | M2 STY D4Z L30 EWL30 d2TC        | M2     | Ball stylus | 4.0                | Zirconia          | 30.0        | Tungsten carbide | 30.0     | 1.57     | 3.3         |
| A-5004-2930 | -     | M2 STY D5Z L30 EWL30 d2.5TC      | M2     | Ball stylus | 5.0                | Zirconia          | 30.0        | Tungsten carbide | 30.0     | 2.57     | 3.3         |
| A-5004-2931 | -     | M2 STY D3Z L30 EWL27 d2CE        | M2     | Ball stylus | 3.0                | Zirconia          | 30.0        | Ceramic          | 27.0     | 0.44     | 3.4         |
| A-5004-2932 | -     | M2 STY D4Z L30 EWL30 d2CE        | M2     | Ball stylus | 4.0                | Zirconia          | 30.0        | Ceramic          | 30.0     | 0.68     | 3.4         |
| A-5004-2933 | -     | M2 STY D5Z L30 EWL30 d2.5CE      | M2     | Ball stylus | 5.0                | Zirconia          | 30.0        | Ceramic          | 30.0     | 0.93     | 3.4         |
| A-5004-2934 | -     | M2 STY D6Z L30 EWL30 d2.5CE      | M2     | Ball stylus | 6.0                | Zirconia          | 30.0        | Ceramic          | 30.0     | 1.11     | 3.4         |
| A-5004-2935 | -     | M2 STY D4Z L30 EWL30 d2CF        | M2     | Ball stylus | 4.0                | Zirconia          | 30.0        | Carbon fibre     | 30.0     | 0.57     | 3.4         |
| A-5004-2936 | -     | M2 STY D5Z L30 EWL30 d3CF        | M2     | Ball stylus | 5.0                | Zirconia          | 30.0        | Carbon fibre     | 30.0     | 0.79     | 3.4         |
| A-5004-2937 | -     | M2 STY D2Z L40 EWL32.5 d1.5TC    | M2     | Ball stylus | 2.0                | Zirconia          | 40.0        | Tungsten carbide | 32.5     | 1.29     | 3.5         |
| A-5004-2938 | -     | M2 STY D2.5Z L40 EWL32.5 d2TC    | M2     | Ball stylus | 2.5                | Zirconia          | 40.0        | Tungsten carbide | 32.5     | 1.95     | 3.5         |
| A-5004-2939 | -     | M2 STY D4Z L40 EWL40 d2TC        | M2     | Ball stylus | 4.0                | Zirconia          | 40.0        | Tungsten carbide | 40.0     | 2.04     | 3.5         |
| A-5004-2940 | -     | M2 STY D5Z L40 EWL40 d2.5TC      | M2     | Ball stylus | 5.0                | Zirconia          | 40.0        | Tungsten carbide | 40.0     | 3.17     | 3.5         |
| A-5004-2942 | -     | M2 STY D3Z L50 EWL47 d2TC        | M2     | Ball stylus | 3.0                | Zirconia          | 50.0        | Tungsten carbide | 47.0     | 2.44     | 3.5         |
| A-5004-2943 | -     | M2 STY D4Z L50 EWL50 d2TC        | M2     | Ball stylus | 4.0                | Zirconia          | 50.0        | Tungsten carbide | 50.0     | 2.52     | 3.5         |
| A-5004-2944 | -     | M2 STY D5Z L50 EWL50 d2.5TC      | M2     | Ball stylus | 5.0                | Zirconia          | 50.0        | Tungsten carbide | 50.0     | 3.75     | 3.5         |
| A-5004-2945 | -     | M2 STY D3Z L50 EWL47 d2CE        | M2     | Ball stylus | 3.0                | Zirconia          | 50.0        | Ceramic          | 47.0     | 0.83     | 3.6         |
| A-5004-2946 | -     | M2 STY D4Z L50 EWL50 d2CE        | M2     | Ball stylus | 4.0                | Zirconia          | 50.0        | Ceramic          | 50.0     | 0.91     | 3.6         |
| A-5004-2947 | -     | M2 STY D5Z L50 EWL50 d2.5CE      | M2     | Ball stylus | 5.0                | Zirconia          | 50.0        | Ceramic          | 50.0     | 1.31     | 3.6         |
| A-5004-2948 | -     | M2 STY D6Z L50 EWL50 d2.5CE      | M2     | Ball stylus | 6.0                | Zirconia          | 50.0        | Ceramic          | 50.0     | 1.49     | 3.6         |
| A-5004-2949 | -     | M2 STY D4Z L75 EWL75 d2CF        | M2     | Ball stylus | 4.0                | Zirconia          | 75.0        | Carbon fibre     | 75.0     | 0.75     | 3.7         |
| A-5004-2950 | -     | M2 STY D5Z L75 EWL75 d3CF        | M2     | Ball stylus | 5.0                | Zirconia          | 75.0        | Carbon fibre     | 75.0     | 1.35     | 3.7         |
| A-5004-2951 | -     | M2 STY D6Z L75 EWL75 d3CF        | M2     | Ball stylus | 6.0                | Zirconia          | 57.0        | Carbon fibre     | 75.0     | 1.45     | 3.7         |
| A-5004-2952 | -     | M2 STY D4Z L100 EWL100 d3CF      | M2     | Ball stylus | 4.0                | Zirconia          | 100.0       | Carbon fibre     | 100.0    | 1.50     | 3.7         |
| A-5004-2953 | -     | M2 STY D5Z L100 EWL100 d3CF      | M2     | Ball stylus | 5.0                | Zirconia          | 100.0       | Carbon fibre     | 100.0    | 1.59     | 3.7         |
| A-5004-2954 | -     | M2 STY D6Z L100 EWL100 d3CF      | M2     | Ball stylus | 6.0                | Zirconia          | 100.0       | Carbon fibre     | 100.0    | 1.78     | 3.7         |
| A-5004-2955 | -     | M3 STY D1Z L21 EWL4 d0.7SS       | M3     | Ball stylus | 1.0                | Zirconia          | 21.0        | Stainless steel  | 4.0      | 1.0      | 4.2         |
| A-5004-2956 | -     | M3 STY D3Z L21 EWL14.7 d1.5SS    | M3     | Ball stylus | 3.0                | Zirconia          | 21.0        | Stainless steel  | 14.7     | 1.0      | 4.2         |
| A-5004-2957 | -     | M3 STY D4Z L31 EWL27 d2.5SS      | M3     | Ball stylus | 4.0                | Zirconia          | 31.0        | Stainless steel  | 27.0     | 2.5      | 4.2         |
| A-5004-2958 | -     | M3 STY D5Z L31 EWL31 d3.5SS      | M3     | Ball stylus | 5.0                | Zirconia          | 31.0        | Stainless steel  | 31.0     | 3.0      | 4.2         |
| A-5004-2959 | -     | M3 STY D0.5Z L21 EWL2 d0.4TC     | M3     | Ball stylus | 0.5                | Zirconia          | 21.0        | Tungsten carbide | 2.0      | 1.0      | 4.3         |
| A-5004-2960 | -     | M3 STY D1.5Z L20 EWL12.5 d1TC    | M3     | Ball stylus | 1.5                | Zirconia          | 20.0        | Tungsten carbide | 12.5     | 0.8      | 4.3         |
| A-5004-2961 | -     | M3 STY D2.5Z L20.2 EWL12.5 d2TC  | M3     | Ball stylus | 2.5                | Zirconia          | 20.2        | Tungsten carbide | 12.5     | 1.3      | 4.3         |
| A-5004-2962 | -     | M3 STY D1.5Z L30 EWL22.5 d1TC    | M3     | Ball stylus | 1.5                | Zirconia          | 30.0        | Tungsten carbide | 22.5     | 0.93     | 4.3         |
| A-5004-2963 | -     | M3 STY D2.5Z L30 EWL22.5 d2TC    | M3     | Ball stylus | 2.5                | Zirconia          | 30.0        | Tungsten carbide | 22.5     | 1.81     | 4.3         |
| A-5004-2964 | -     | M3 STY D2.5Z L40 EWL32.5 d2TC    | M3     | Ball stylus | 2.5                | Zirconia          | 40.0        | Tungsten carbide | 32.5     | 2.28     | 4.4         |
| A-5004-2965 | -     | M3 STY D3Z L40 EWL33.7 d2TC      | M3     | Ball stylus | 3.0                | Zirconia          | 40.0        | Tungsten carbide | 33.7     | 2.30     | 4.4         |
| A-5004-2966 | -     | M3 STY D5Z L40 EWL40 d2.5TC      | M3     | Ball stylus | 5.0                | Zirconia          | 40.0        | Tungsten carbide | 40.0     | 3.50     | 4.4         |
| A-5004-2968 | -     | M3 STY D3Z L50 EWL43.7 d2TC      | M3     | Ball stylus | 3.0                | Zirconia          | 50.0        | Tungsten carbide | 43.7     | 2.78     | 4.4         |

## Styli and accessories

| Part no.    | PS no | Description                        | Thread | Component               | Ball/tip<br>size (mm) | Ball/tip<br>Material | Length<br>(mm) | Stem<br>material | EWL<br>(mm) | Mass<br>(g) | Section<br>no. |
|-------------|-------|------------------------------------|--------|-------------------------|-----------------------|----------------------|----------------|------------------|-------------|-------------|----------------|
| A-5004-2969 | -     | M3 STY D3Z L50 EWL43.7 d2CE        | M3     | Ball stylus             | 3.0                   | Zirconia             | 50.0           | Ceramic          | 43.7        | 1.17        | 4.4            |
| A-5004-2970 | -     | M3 STY D5Z L50 EWL50 d2.5CE        | M3     | Ball stylus             | 5.0                   | Zirconia             | 50.0           | Ceramic          | 50.0        | 1.33        | 4.4            |
| A-5004-2972 | -     | M3 STY D10Z L75 EWL75 d4CF         | M3     | Ball stylus             | 10.0                  | Zirconia             | 75.0           | Carbon fibre     | 75.0        | 4.05        | 4.6            |
| A-5004-2973 | -     | M3 STY D10Z L150 EWL150 d4CF       | M3     | Ball stylus             | 10.0                  | Zirconia             | 150.0          | Carbon fibre     | 150.0       | 5.49        | 4.6            |
| A-5004-2974 | -     | M3 STY D10Z L200 EWL200 d4CF       | M3     | Ball stylus             | 10.0                  | Zirconia             | 200.0          | Carbon fibre     | 200.0       | 6.47        | 4.6            |
| A-5004-2975 | -     | M3 STY D12Z L100 EWL100 d4CF       | M3     | Ball stylus             | 12.0                  | Zirconia             | 100            | Carbon fibre     | 100.0       | 5.90        | 4.6            |
| A-5004-2976 | -     | M3 STY D12Z L150 EWL150 d4CF       | M3     | Ball stylus             | 12.0                  | Zirconia             | 150.0          | Carbon fibre     | 150.0       | 6.90        | 4.6            |
| A-5004-2977 | -     | M3 STY D12Z L200 EWL200 d4CF       | M3     | Ball stylus             | 12.0                  | Zirconia             | 200.0          | Carbon fibre     | 200.0       | 7.90        | 4.6            |
| A-5004-3404 | -     | M2 STY D2R L30 EWL22.5 D1.5CER     | M2     | Ball stylus             | 2.0                   | Ruby                 | 30.0           | Ceramic          | 22.5        | 0.51        | 3.9            |
| A-5004-3646 | -     | M3 STY D2R L40 EWL32.5 D1.5CER     | M3     | Ball stylus             | 2.0                   | Ruby                 | 40.0           | Ceramic          | 32.5        | 0.9         | 4.4            |
| A-5004-3728 | -     | M3 HEM D18CER L12                  | M3     | Hemispherical           | 18.0                  | Ceramic              | 12.0           | Stainless steel  | -           | 4.0         | 4.8            |
| A-5004-4447 | -     | M2 SCREW KIT                       | M2     | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.2            |
| A-5004-4472 | -     | M4 STY D6R L100 EWL83.5 D3.8CER    | M4     | Ball stylus             | 6.0                   | Ruby                 | 100.0          | Ceramic          | 83.5        | 6.5         | 5.7            |
| A-5004-4474 | -     | M4 STY D6R L150 EWL133.5 D3.8CER   | M4     | Ball stylus             | 6.0                   | Ruby                 | 150.0          | Ceramic          | 133.5       | 8.0         | 5.7            |
| A-5004-5131 | -     | M2 STARTER KIT                     | -      | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.8            |
| A-5004-5132 | -     | M4 STYLUS STARTER KIT              | M4     | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.12           |
| A-5004-5370 | -     | M4 CYL D1TC L20 EWL10              | M4     | Cylinder                | 1.0                   | Tungsten carbide     | 20.0           | Tungsten carbide | 10.0        | 2.5         | 5.10           |
| A-5004-5466 | -     | M3 STY D8SN L100 EWL100 d4CF       | M3     | Ball stylus             | 8.0                   | Silicon nitride      | 100.0          | Carbon fibre     | 100.0       | 3.47        | 4.5            |
| A-5004-6040 | -     | M3 STY D3R L40 EWL32.5 D2C         | M3     | Ball stylus             | 3.0                   | Ruby                 | 40.0           | Ceramic          | 32.5        | 1.1         | 4.4            |
| A-5004-6463 | -     | M4 STY D2R L80 EWL21.8 D1.5TC      | M4     | Ball stylus             | 2.0                   | Ruby                 | 80.0           | Ceramic/TC       | 21.8        | 5.9         | 5.8            |
| A-5004-6464 | -     | M4 STY D3R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 3.0                   | Ruby                 | 100.0          | Ceramic/TC       | 41.8        | 7.4         | 5.8            |
| A-5004-6465 | -     | M4 STY D4R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 4.0                   | Ruby                 | 100.0          | Ceramic/TC       | 41.8        | 7.4         | 5.8            |
| A-5004-6467 | -     | M4 STY D2R L80 EWL21.8 D1.5TC      | M4     | Ball stylus             | 2.0                   | Ruby                 | 80.0           | Ceramic/TC       | 21.8        | 5.9         | 5.8            |
| A-5004-6468 | -     | M4 STY D3R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 3.0                   | Ruby                 | 100.0          | Ceramic/TC       | 41.8        | 7.4         | 5.8            |
| A-5004-6469 | -     | M4 STY D4R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 4.0                   | Ruby                 | 100.0          | Ceramic/TC       | 41.8        | 7.4         | 5.8            |
| A-5004-6470 | -     | M4 STY D6SIN L100 EWL83.5 D3.8CER  | M4     | Ball stylus             | 6.0                   | Silicon nitride      | 100.0          | Ceramic          | 83.5        | 6.5         | 5.7            |
| A-5004-6471 | -     | M4 STY D6SIN L150 EWL133.5 D3.8CER | M4     | Ball stylus             | 6.0                   | Silicon nitride      | 150.0          | Ceramic          | 133.5       | 8.0         | 5.7            |
| A-5004-6723 | -     | M4 CPD L16SLVS                     | M4     | Crash protection device | -                     | -                    | 16.0           | Silver steel     | -           | 2.1         | 5.10           |
| A-5004-6735 | -     | M3 STY D5R L40 EWL40 D2.5CER       | M3     | Ball stylus             | 5.0                   | Ruby                 | 40.0           | Ceramic          | 40.0        | 1.7         | 4.4            |
| A-5004-6880 | -     | M3 STARTER KIT                     | -      | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.9            |
| A-5004-7123 | -     | M2 STY D2SN L40 EWL32.5 D1.5CR     | M2     | Ball stylus             | 2.0                   | Silicon nitride      | 40.0           | Ceramic          | 32.5        | 0.58        | 3.9            |
| A-5004-7235 | -     | STYLUS CLEANING KIT                | -      | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.22           |
| A-5004-7273 | -     | M2 STY D2SIN L30 EWL22.5 D1.5C     | M2     | Ball stylus             | 2.0                   | Silicon nitride      | 30.0           | Ceramic          | 22.5        | 0.51        | 3.9            |
| A-5004-7398 | -     | M2 STY D0.3R L20 EWL2 D0.2TC       | M2     | Ball stylus             | 0.3                   | Ruby                 | 20.0           | Tungsten carbide | 2.0         | 0.5         | 3.3            |
| A-5004-7399 | -     | M2 STY D0.3SIN L20 EWL2 D0.2TC     | M2     | Ball stylus             | 0.3                   | Silicon nitride      | 20.0           | Tungsten carbide | 2.0         | 0.5         | 3.3            |
| A-5004-7400 | -     | M2 HEM D30 CER L18                 | M2     | Hemispherical           | 30.0                  | Ceramic              | 18.0           | Stainless steel  | -           | 14.5        | 3.15           |
| A-5004-7401 | -     | M3 STY D1R L10 EWL4 SS             | M3     | Ball stylus             | 1.0                   | Ruby                 | 10.0           | Stainless steel  | 4.0         | 0.6         | 4.2            |
| A-5004-7402 | -     | M3 STY D3R L20 EWL14 D2TC          | M3     | Ball stylus             | 3.0                   | Ruby                 | 20.0           | Tungsten carbide | 14.0        | 1.4         | 4.3            |
| A-5004-7403 | -     | M3 SCREW KIT                       | M3     | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.2            |
| A-5004-7582 | -     | M2-M3 STYLUS TOOL                  | -      | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.4            |
| A-5004-7583 | SE2   | M3 EXT L20 D4SS                    | M3     | Extension               | -                     | -                    | 20.0           | Stainless steel  | -           | 1.6         | 4.7            |
| A-5004-7584 | SE3   | M3 EXT L35 D4SS                    | M3     | Extension               | -                     | -                    | 35.0           | Stainless steel  | -           | 2.9         | 4.7            |
| A-5004-7585 | SE4   | M2 EXT L10 D3SS                    | M2     | Extension               | -                     | -                    | 10.0           | Stainless steel  | -           | 0.4         | 3.14           |
| A-5004-7586 | SE5   | M2 EXT L20 D3SS                    | M2     | Extension               | -                     | -                    | 20.0           | Stainless steel  | -           | 0.9         | 3.14           |
| A-5004-7587 | -     | M4 STYLUS TOOL                     | -      | Accessory               | -                     | -                    | -              | -                | -           | -           | 8.4            |
| A-5004-7588 | PS20R | M2 PNT D3SLVS 30DEG L15            | M2     | Pointer                 | 0.1                   | Silver steel         | 15.0           | Silver steel     | -           | 0.7         | 3.15           |
| A-5004-7589 | PS18R | M2 CYL D1.5SLVS L10.75 EWL1.25     | M2     | Cylinder                | 1.5                   | Silver steel         | 10.75          | Silver steel     | 1.25        | 0.3         | 3.13           |
| A-5004-7590 | -     | M2 CYL D3SLVS L12.75 EWL3.8        | M2     | Cylinder                | 3.0                   | Silver steel         | 12.75          | Silver steel     | 3.8         | 0.6         | 3.13           |
| A-5004-7591 | SE6   | M2 EXT L30 D3SS                    | M2     | Extension               | -                     | -                    | 30.0           | Stainless steel  | -           | 1.4         | 3.14           |
| A-5004-7592 | SA3   | M3-M2 EXT L5SS                     | M3     | Extension               | -                     | -                    | 5.0            | Stainless steel  | -           | 0.6         | 8.3            |
| A-5004-7593 | SA2   | M2-M3 EXT L7SS                     | M2     | Extension               | -                     | -                    | 7.0            | Stainless steel  | -           | 0.4         | 8.3            |
| A-5004-7594 | -     | M4 STR 5WAY L15                    | M4     | Star centre             | -                     | -                    | 15.0           | -                | -           | 10.0        | 5.6            |
| A-5004-7595 | SA5   | M4-M2 EXT L5SS                     | M4     | Extension               | -                     | -                    | 5.0            | Stainless steel  | -           | 1.5         | 8.3            |
| A-5004-7596 | SE21  | M4-M3 EXT L20SS                    | M4     | Extension               | -                     | -                    | 20.0           | Stainless steel  | -           | 3.2         | 8.3            |
| A-5004-7597 | SA6   | M4-M3 EXT L9SS                     | M4     | Extension               | -                     | -                    | 9.0            | Stainless steel  | -           | 1.4         | 8.3            |
| A-5004-7598 | SA-8  | M4 CPD L8SS                        | M4     | Crash protection device | -                     | -                    | 8.0            | Stainless steel  | -           | 1.8         | 5.10           |
| A-5004-7599 | SE-9  | M4 EXT L10 d7SS                    | M4     | Extension               | -                     | -                    | 10.0           | Stainless steel  | -           | 2.4         | 5.16           |
| A-5004-7600 | -     | M4 EXT L15 d7SS                    | M4     | Extension               | -                     | -                    | 15.0           | Stainless steel  | -           | 3.7         | 5.16           |
| A-5004-7601 | SE-1  | M4 EXT L20 d7SS                    | M4     | Extension               | -                     | -                    | 20.0           | Stainless steel  | -           | 4.8         | 5.16           |
| A-5004-7602 | SE-12 | M4 EXT L30 d7SS                    | M4     | Extension               | -                     | -                    | 30.0           | Stainless steel  | -           | 7.4         | 5.16           |



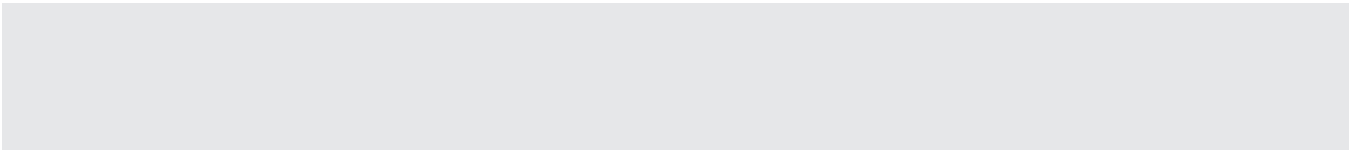
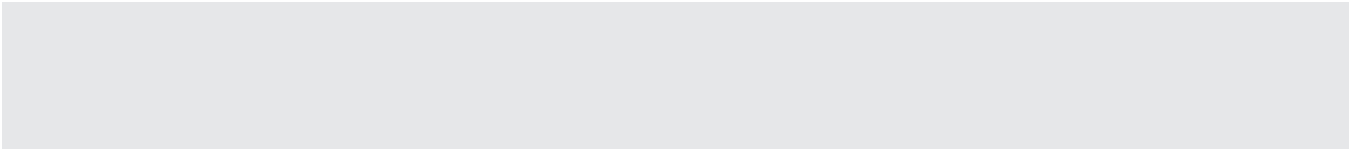
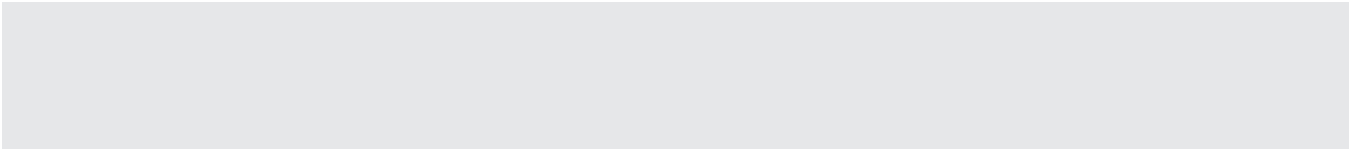
| Part no.    | PS no | Description                        | Thread | Component               | Ball/tip size (mm) | Ball/tip Material | Length (mm) | Stem material    | EWL (mm) | Mass (g) | Section no. |
|-------------|-------|------------------------------------|--------|-------------------------|--------------------|-------------------|-------------|------------------|----------|----------|-------------|
| A-5004-7603 | SS2   | M4 CPD L8 CRANK SS                 | M4     | Crash protection device | -                  | -                 | 8.0         | Stainless steel  | -        | 1.4      | 5.10        |
| A-5004-7604 | SS3   | M4 CPD L8SS SWIVEL L10             | M4     | Crash protection device | -                  | -                 | 10.0        | Stainless steel  | -        | 1.5      | 5.10        |
| A-5004-7605 | CR-1  | M4 CEX SS L1-5 L2-21.9             | M4     | Cranked extension       | -                  | -                 | 21.9        | Stainless steel  | -        | 6.07     | 5.6         |
| A-5004-7606 | CR-2  | M4 CEX SS L1-5 L2-27.6             | M4     | Cranked extension       | -                  | -                 | 27.6        | Stainless steel  | -        | 6.94     | 5.6         |
| A-5004-7607 | SW-1  | M4 ACC SWIVEL L1-10 L2-12.5        | M4     | Accessory               | -                  | -                 | 10.0        | Stainless steel  | -        | 2.76     | 5.6         |
| A-5004-7608 | SW-2  | M4 ACC SWIVEL L1-13.5 L2-16        | M4     | Accessory               | -                  | -                 | 13.5        | Stainless steel  | -        | 3.70     | 5.6         |
| A-5004-7609 | SE8   | M3 EXT L10 D4SS                    | M3     | Extension               | -                  | -                 | 10.0        | Stainless steel  | -        | 0.9      | 4.7         |
| A-5004-7610 | SE7   | M2 EXT L5 D3SS                     | M2     | Extension               | -                  | -                 | 5.0         | Stainless steel  | -        | 0.2      | 3.14        |
| A-5004-7611 | SE18  | M2 EXT L40 D3SS                    | M2     | Extension               | -                  | -                 | 40.0        | Stainless steel  | -        | 1.8      | 3.14        |
| A-5004-7612 | SATF6 | TF6-M3 EXT L18SS                   | TF6    | Extension               | -                  | -                 | 18.0        | Stainless steel  | -        | 1.9      | 8.3         |
| A-5004-7613 | -     | M5-M4 EXT L6.5SS                   | M5     | Extension               | -                  | -                 | 6.5         | Stainless steel  | -        | 6.0      | 8.3         |
| A-5004-7614 | -     | M5 STYLUS TOOL                     | -      | Accessory               | -                  | -                 | -           | -                | -        | -        | 8.4         |
| A-5004-7616 | -     | M3 CPD L13.3SLVS                   | M3     | Crash protection device | -                  | -                 | 13.35       | Silver steel     | -        | 2.43     | 5.10        |
| A-5004-7618 | -     | M3 CPD L22.3SLVS                   | M3     | Crash protection device | -                  | -                 | 22.35       | Silver steel     | -        | 3.6      | 5.10        |
| A-5004-7619 | -     | M3 CPD L30.3 SLVS                  | M3     | Crash protection device | -                  | -                 | 30.35       | Silver steel     | -        | 4.5      | 5.10        |
| A-5004-7620 | -     | STYLUS BREAK STEM                  | M4     | Crash protection device | -                  | -                 | 13.50       | Silver steel     | -        | 1.37     | 5.10        |
| A-5004-7621 | -     | M4 CPD L12SLVS                     | M4     | Crash protection device | -                  | -                 | 12.0        | Silver steel     | -        | 2.7      | 5.10        |
| A-5004-7622 | -     | BREAK STEM                         | M4     | Crash protection device | -                  | -                 | 19.0        | Silver steel     | -        | 2.2      | 5.10        |
| A-5004-7624 | -     | M4 CPD L9SLVS                      | M4     | Crash protection device | -                  | -                 | 9.0         | Silver steel     | -        | 1.5      | 5.10        |
| A-5465-5001 | -     | M4 STY D2R L80 EWL21.8 D1.5TC      | M4     | Ball stylus             | 2.0                | Ruby              | 80.0        | Ceramic/TC       | 21.8     | 5.9      | 5.8         |
| A-5465-5002 | -     | M4 STY D3R L100 EWL 41.8 D2TC      | M4     | Ball stylus             | 3.0                | Ruby              | 100.0       | Ceramic/TC       | 41.8     | 7.4      | 5.8         |
| A-5465-5003 | -     | M4 STY D4R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 4.0                | Ruby              | 100.0       | Ceramic/TC       | 41.8     | 7.4      | 5.8         |
| A-5465-5005 | -     | M4 STY D2R L80 EWL21.8 D1.5TC      | M4     | Ball stylus             | 2.0                | Ruby              | 80.0        | Ceramic/TC       | 21.8     | 5.9      | 5.8         |
| A-5465-5006 | -     | M4 STY D3R L100 EWL 41.8 D2TC      | M4     | Ball stylus             | 3.0                | Ruby              | 100.0       | Ceramic/TC       | 41.8     | 7.4      | 5.8         |
| A-5465-5007 | -     | M4 STY D4R L100 EWL41.8 D2TC       | M4     | Ball stylus             | 4.0                | Ruby              | 100.0       | Ceramic/TC       | 41.8     | 7.4      | 5.8         |
| A-5465-5008 | -     | M4 STY D6SIN L100 EWL83.5 D3.8CER  | M4     | Ball stylus             | 6.0                | Silicon nitride   | 100.0       | Ceramic          | 83.5     | 6.5      | 5.7         |
| A-5465-5009 | -     | M4 STY D6SIN L150 EWL133.5 D3.8CER | M4     | Ball stylus             | 6.0                | Silicon nitride   | 150.0       | Ceramic          | 133.5    | 8.0      | 5.7         |
| A-5465-8576 | -     | M4 STY D6R L100 EWL83.5 D3.8CER    | M4     | Ball stylus             | 6.0                | Ruby              | 100.0       | Ceramic          | 83.5     | 6.5      | 5.7         |
| A-5465-8577 | -     | M4 STY D6R L150 EWL133.5 D3.8CER   | M4     | Ball stylus             | 6.0                | Ruby              | 150.0       | Ceramic          | 133.5    | 8.0      | 5.7         |
| A-5472-3000 | -     | 3D TOOL SETTER DISC STYLUS KIT     | M4     | Tool setter             | -                  | -                 | -           | -                | -        | 34.0     | 5.9         |
| A-5504-0281 | -     | EQUATOR STY KIT BASIC              | -      | Accessory               | -                  | -                 | -           | -                | -        | -        | 8.19        |
| A-5504-0282 | -     | EQUATOR STY KIT INTERMEDIATE       | -      | Accessory               | -                  | -                 | -           | -                | -        | -        | 8.20        |
| A-5504-0283 | -     | EQUATOR STYLI KIT ADVANCED         | -      | Accessory               | -                  | -                 | -           | -                | -        | -        | 8.21        |
| A-5555-0125 | -     | M5 EXT L200 d20AL                  | M5     | Extension               | -                  | -                 | 200.0       | Aluminium        | -        | 85.0     | 6.15        |
| A-5555-0127 | -     | M5 EXT L100 d20AL                  | M5     | Extension               | -                  | -                 | 100.0       | Aluminium        | -        | 50.0     | 6.15        |
| A-5555-0136 | -     | M5 EXT L100 d11SS                  | M5     | Extension               | -                  | -                 | 100.0       | Stainless steel  | -        | 73.0     | 6.14        |
| A-5555-0140 | -     | M5 EXT L20 d11SS                   | M5     | Extension               | -                  | -                 | 20.0        | Stainless steel  | -        | 13.0     | 6.14        |
| A-5555-0142 | -     | M5 EXT L10 d11SS                   | M5     | Extension               | -                  | -                 | 10.0        | Stainless steel  | -        | 6.0      | 6.14        |
| A-5555-0189 | -     | M5 ACC 15×15 CUBE                  | M5     | Accessory               | -                  | -                 | 15.0        | Titanium         | -        | 12.85    | 8.4         |
| A-5555-0190 | -     | M5 ACC 20×20 CUBE                  | M5     | Accessory               | -                  | -                 | 20.0        | Titanium         | -        | 32.55    | 8.4         |
| A-5555-0194 | -     | M5 ACC 40×20 DOUBLE CUBE           | M5     | Accessory               | -                  | -                 | 40.0        | Titanium         | -        | 63.50    | 8.4         |
| A-5555-0226 | -     | M5M-M2F L10 D11                    | M5     | Adaptor                 | -                  | -                 | 10.0        | Stainless steel  | -        | 5.0      | 8.3         |
| A-5555-0227 | -     | M5M-M3F L10 D11                    | M5     | Adaptor                 | -                  | -                 | 10.0        | Stainless steel  | -        | 5.0      | 8.3         |
| A-5555-0297 | -     | M2 DSC D8 B1.5 L32 ML19 DS1.5      | M2     | Disc                    | -                  | Ceramic           | 32.0        | Tungsten carbide | -        | 1.0      | 3.12        |
| A-5555-0298 | -     | M2 DSC D4 B1 L32 ML19 DS1          | M2     | Disc                    | -                  | Ceramic           | 32.0        | Tungsten carbide | -        | 1.0      | 3.12        |
| A-5555-0299 | -     | M2 DSC SD14CER B2 L5               | M2     | Disc                    | -                  | Ceramic           | 5.0         | Stainless Steel  | -        | 1.0      | 3.12        |
| A-5555-0300 | -     | M2 DSC SD20CER B2.5 L5             | M2     | Disc                    | -                  | Ceramic           | 5.0         | Stainless steel  | -        | 3.8      | 3.12        |
| A-5555-0424 | -     | M5 EXT L150 d11CF                  | M5     | Extension               | -                  | -                 | 150.0       | Carbon fibre     | -        | 15.4     | 6.11        |
| A-5555-0425 | -     | M5 EXT L120 d11CF                  | M5     | Extension               | -                  | -                 | 120.0       | Carbon fibre     | -        | 13.2     | 6.11        |
| A-5555-0427 | -     | M5 EXT L250 d20CF                  | M5     | Extension               | -                  | -                 | 250.0       | Carbon fibre     | -        | 52.9     | 6.13        |
| A-5555-0620 | -     | M5 EXT L40 d20CF                   | M5     | Extension               | -                  | -                 | 40.0        | Carbon fibre     | -        | 23.8     | 6.12        |
| A-5555-0621 | -     | M5 EXT L80 d20CF                   | M5     | Extension               | -                  | -                 | 80.0        | Carbon fibre     | -        | 29.3     | 6.12        |
| A-5555-0623 | -     | M5 EXT L70 d11CF                   | M5     | Extension               | -                  | -                 | 70.0        | Carbon fibre     | -        | 9.7      | 6.10        |
| A-5555-0642 | -     | M5 EXT L300 d11CF                  | M5     | Extension               | -                  | -                 | 300.0       | Carbon fibre     | -        | 25.9     | 6.11        |
| A-5555-0647 | -     | M5 EXT L40 d11CF                   | M5     | Extension               | -                  | -                 | 40.0        | Carbon fibre     | -        | 7.6      | 6.10        |
| A-5555-0648 | -     | M5 EXT L50 d11CF                   | M5     | Extension               | -                  | -                 | 50.0        | Carbon fibre     | -        | 8.3      | 6.10        |
| A-5555-0649 | -     | M5 EXT L60 d11CF                   | M5     | Extension               | -                  | -                 | 60.0        | Carbon fibre     | -        | 9.0      | 6.10        |
| A-5555-0650 | -     | M5 EXT L80 d11CF                   | M5     | Extension               | -                  | -                 | 80.0        | Carbon fibre     | -        | 10.4     | 6.10        |
| A-5555-0651 | -     | M5 EXT L90 d11CF                   | M5     | Extension               | -                  | -                 | 90.0        | Carbon fibre     | -        | 11.1     | 6.10        |
| A-5555-0652 | -     | M5 EXT L100 d11CF                  | M5     | Extension               | -                  | -                 | 100.0       | Carbon fibre     | -        | 11.8     | 6.10        |

Styli and accessories

Product range listing  
by part number

9.14

| Part no.    | PS no | Description               | Thread | Component | Ball/tip<br>size (mm) | Ball/tip<br>Material | Length<br>(mm) | Stem<br>material | EWL<br>(mm) | Mass<br>(g) | Section<br>no. |
|-------------|-------|---------------------------|--------|-----------|-----------------------|----------------------|----------------|------------------|-------------|-------------|----------------|
| A-5555-0653 | -     | M5 EXT L180 d11CF         | M5     | Extension | -                     | -                    | 180.0          | Carbon fibre     | -           | 17.5        | 6.11           |
| A-5555-0654 | -     | M5 EXT L200 d11CF         | M5     | Extension | -                     | -                    | 200.0          | Carbon fibre     | -           | 18.9        | 6.11           |
| A-5555-0655 | -     | M5 EXT L250 d11CF         | M5     | Extension | -                     | -                    | 250.0          | Carbon fibre     | -           | 22.4        | 6.11           |
| A-5555-0656 | -     | M5 EXT L400 d11CF         | M5     | Extension | -                     | -                    | 400.0          | Carbon fibre     | -           | 33.0        | 6.11           |
| A-5555-0657 | -     | M5 EXT L50 d20CF          | M5     | Extension | -                     | -                    | 50.0           | Carbon fibre     | -           | 25.1        | 6.12           |
| A-5555-0658 | -     | M5 EXT L60 d20CF          | M5     | Extension | -                     | -                    | 60.0           | Carbon fibre     | -           | 26.5        | 6.12           |
| A-5555-0659 | -     | M5 EXT L100 d20CF         | M5     | Extension | -                     | -                    | 100.0          | Carbon fibre     | -           | 32.1        | 6.12           |
| A-5555-0660 | -     | M5 EXT L120 d20CF         | M5     | Extension | -                     | -                    | 120.0          | Carbon fibre     | -           | 34.9        | 6.12           |
| A-5555-0661 | -     | M5 EXT L150 d20CF         | M5     | Extension | -                     | -                    | 150.0          | Carbon fibre     | -           | 39.0        | 6.12           |
| A-5555-0662 | -     | M5 EXT L180 d20CF         | M5     | Extension | -                     | -                    | 180.0          | Carbon fibre     | -           | 43.2        | 6.13           |
| A-5555-0663 | -     | M5 EXT L200 d20CF         | M5     | Extension | -                     | -                    | 200.0          | Carbon fibre     | -           | 46.0        | 6.13           |
| A-5555-0664 | -     | M5 EXT L300 d20CF         | M5     | Extension | -                     | -                    | 300.0          | Carbon fibre     | -           | 59.9        | 6.13           |
| A-5555-0665 | -     | M5 EXT L400 d20CF         | M5     | Extension | -                     | -                    | 400.0          | Carbon fibre     | -           | 73.8        | 6.13           |
| A-5555-0667 | -     | M5 EXT L500 d20CF         | M5     | Extension | -                     | -                    | 500.0          | Carbon fibre     | -           | 87.7        | 6.13           |
| A-5555-0668 | -     | M5 EXT L600 d20CF         | M5     | Extension | -                     | -                    | 600.0          | Carbon fibre     | -           | 101.5       | 6.13           |
| A-5555-0669 | -     | M5 EXT L30 d11SS          | M5     | Extension | -                     | -                    | 30.0           | Stainless steel  | -           | 20.0        | 6.14           |
| A-5555-0670 | -     | M5 EXT L50 d11SS          | M5     | Extension | -                     | -                    | 50.0           | Stainless steel  | -           | 34.8        | 6.14           |
| A-5555-0671 | -     | M5 EXT L50 d20AL          | M5     | Extension | -                     | -                    | 50.0           | Aluminium        | -           | 47.2        | 6.15           |
| P-GA01-0001 | -     | GRAM GAUGE                | -      | Accessory | -                     | -                    | -              | -                | -           | -           | 8.24           |
| P-SC11-0404 | -     | GRUBSCREW FLAT END M4 X 4 | M4     | Accessory | -                     | -                    | 4.0            | -                | -           | -           | 5.14           |
| P-TL09-0003 | -     | SPANNER 5 MM A/F          | -      | Accessory | -                     | -                    | -              | -                | -           | -           | 5.10           |





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- Styli for CMM and machine tool probe applications

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