

Styli and accessories





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Technical specifications and quick reference guides

Quick selection from our extensive range.



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Accuracy at the point of contact

An explanation of why it is important to choose the right stylus for your application, and an overview of the entire range of stylus types.



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M2 threaded stylus range

Styli for use with the industry-standard CMM probes TP2, TP20 and TP200.



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M3 threaded stylus range

Styli for use with manual CMM probes TP1 and TP6 and the most flexible scanning probe, SP25M.



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M4 threaded stylus range

Optimized for stiffness and weight, styli purposely designed for the high accuracy TP7M and our comprehensive range of probing for machine tools.



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M5 threaded stylus range

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



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Styli for Faro arms and Zeiss probing systems

These styli have been designed especially for use on Faro portable arm CMMs and with Zeiss probing systems.



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Accessories

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

Technical specifications

Ball material properties

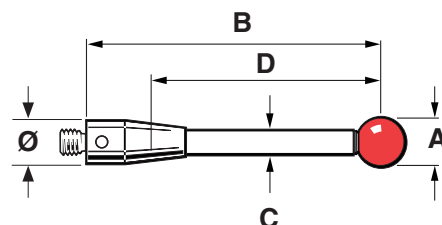
Stylus type	Material	Grade	Deviation from spherical form	Structure	Composition	Purity	Density	Hardness	Compression strength	Bending strength	Fracture toughness K1c
			(μm)	–	(wt%)	(%)	(g/cm^3)	HV	(MPa)	(MPa)	($\text{MN}/\text{m}^{3/2}$)
AL ₂ O ₃ ruby balls	Synthetic ruby monocrystalline	Grade 5*	0.13	mono	99% AL ₂ O ₃	99.90	3.90	2300	2100	400-700	1
Silicon nitride balls	Hard pressed Si ₃ N ₄	Grade 5*	0.13	poly	Si ₃ N ₄	90	3.0-3.2	1600	3000	850	6
Zirconia oxide balls	Sintered ZrO ₂	Grade 5*	0.13	poly	ZrO ₂	90-95	6.05	1200	2000	1000	10
Alumina hollow balls	White ceramic sintered alumina AL ₂ O ₃	–	1	poly	AL ₂ O ₃	99.80	3.8-3.9	1900	2500	350	3.5
Silver steel disks	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 Concentricity: Ball/cylinder 4 μm	mono	99% AL ₂ O ₃	99.90	3.99	2300	2300	400-700	1
Tungsten carbide ball ended cylinder	Tungsten carbide	–	+ 20 μm end radius	–	92-93.5% WC 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 6.5-8% CO	99.90	15	1550	6000	–	–
Aluminum 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	16x10 ⁻⁶ /°C
Tungsten carbide	5x10 ⁻⁶ /°C
White ceramic sintered alumina	8.1x10 ⁻⁶ /°C
Carbon fiber	-0.4x10 ⁻⁶ /°C
Titanium	9.2x10 ⁻⁶ /°C
Ruby	4.5x10 ⁻⁶ /°C
Silicon nitride	3.2x10 ⁻⁶ /°C
Zirconia	10.5x10 ⁻⁶ /°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

These are a selection of the most popular styli.

Ruby ball / stainless steel stem

Ball diameter	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)
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 (0.02)	0.7 (0.03)	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	SEE DRAWING	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 fiber 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 (0.80)	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 fiber	–	–	–	–	A-5003-2280	A-5003-2281	A-5003-2282	A-5003-2283

M3 styli and extensions quick reference guide

These are a selection of the most popular styli.

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 (0.02)	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 fiber stem

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

Stylus extensions

Length	10.0 (0.40)	20.0 (0.80)	35.0 (1.38)	50.0 (1.97)	70.0 (2.76)
Stainless steel	A-5004-7609	A-5004-7583	A-5004-7584	–	–
Ceramic	–	–	–	A-5003-0075	–
Carbon fiber	–	–	–	A-5003-4864	A-5003-4865

M4 styli and extensions quick reference guide

These are a selection of the most popular styli.

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	SEE DRAWING	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 fiber 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 (0.41)	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

M5 styli and extensions quick reference guide

These are a selection of the most popular styli.

Ruby ball / tungsten carbide stem

Ball diameter	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	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	SEE DRAWING	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	SEE DRAWING	SEE DRAWING
100 mm	–	–	–	–	–	–	A-5003-5254	–	–	–

Ruby ball / carbon fiber 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	–	SEE DRAWING	SEE DRAWING	SEE DRAWING
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 (0.41)	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
Aluminum tube	–	–	–	–	A-5555-0671	–	–	–	–	A-5555-0127

Length	120.0 (4.76)	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-5555-0661	A-5555-0662	A-5555-0663	A-5555-0427	A-5555-0664	A-5555-0665	A-5555-0667	A-5555-0668
Stainless steel	–	–	–	–	–	–	–	–	–
Aluminum tube	–	–	–	A-5555-0125	–	–	–	–	–

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 maximize your productivity and maintain the highest quality.

Successful gaging 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 optimized 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 gaging 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 does Renishaw use to describe its 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 five balls on the star and an overall length of 19.5 mm (from the center 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.

Disk styli

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

The above protocol describes an M2 threaded disk stylus with a spherical diameter disk of 18 mm. It is made from silver steel with a disk 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

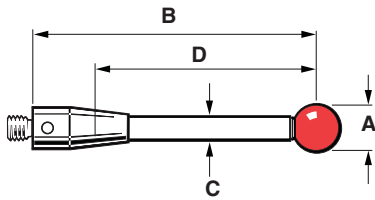
The above protocol describes an M2 threaded cylinder stylus with a critical measuring element diameter of 3 mm made from silver steel. It has an overall length of 13 mm and an EWL of 4 mm.

Extensions

M4 EXT L15 d7 SS

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

Terminology



- A Ball diameter
- B Overall length
- C Stem diameter
- D Effective working length

Overall length

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

Effective working length (EWL)

This is measured from the center 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 a stylus bends or deflects, the lower the accuracy. Probing with the minimum stylus length for your application is the best option.

Minimize 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 maximizes 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 aluminum 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 aluminum. Because the materials attract, a phenomenon known as 'adhesive wear' can occur, which involves build up of aluminum 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 aluminum 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 aluminum.

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 maximizing 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.

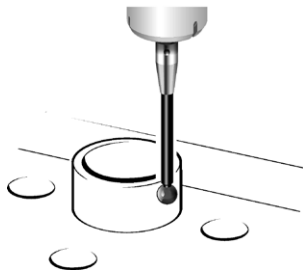
Carbon fiber (Renishaw GF)

There are many grades of carbon fiber materials, however Renishaw GF combines optimum stiffness characteristics, both longitudinally and in torsion (important in star constructions), with extremely low weight. Carbon fiber 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 maximizing stiffness while giving very low mass for styli above 50 mm in length. It is the optimum stem material for high-accuracy strain gage 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 minimized. 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 specialized carbon fiber material, “Renishaw GF” – these simple ruby ball styli are suitable for most inspection applications.

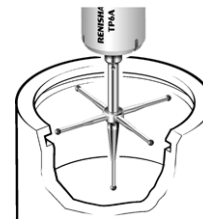
Each stylus has an effective working length (EWL) which is the penetration that can be achieved by the ball before the stem fouls against the feature.

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 gage 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 center. Three standard sizes are offered – alternatively, you can create custom-made star styli using a 5-way stylus center 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, minimizing 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 center to ball center.

Disk 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 center stylus are features of the Renishaw range of disk styli that make them particularly flexible and easy to use.

Styli and accessories

Probing with the 'spherical edge' of a simple disk 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 disks require careful angular alignment in order to ensure correct contact with the feature being probed.

A simple disk requires datuming for only one diameter (usually in a ring gage), 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 center 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 gage. Rotating and locking the disk about its center axis allows the 'radius end roller' to be positioned to suit the application.

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

Styli for specialist applications

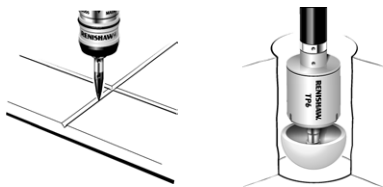
A range of specialist styli is available to enable probing of features such as thread form, thin sectioned material, tool setting and other specialist applications.

Cylinder styli



These are used for probing holes in thin sheet material. In addition, various threaded features can be probed and the centers 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 mm 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 centers can also be fitted with a tungsten carbide disk 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 centers and stylus knuckles complement the genuine Renishaw stylus range to achieve fully flexible inspection.

Stylus centers



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 specialized application M2 styli for use on larger probes.

Stylus tools

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

S7 stylus tool



The S7 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.

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 disks, 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, minimizing 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

If you cannot achieve your objectives using our extensive range of standard products, Renishaw's Styli and Custom Products Division offers a unique service by providing customers with a total solution for their probing needs for CMM, machine tool or scanning applications.

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

In many application problems, the solution lies in the choice of the stylus which influences access of the workpiece features, inspection times and probe performance. All of these aspects are considered within the design of a custom stylus, ensuring that the solution incorporates the ideal choice of materials and optimizes probe performance for your particular application.

Renishaw's Styli and Custom Products Division has supplied over 5,000 different custom styli into probing applications worldwide, so the solution to your application problem may already exist.

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

Always use genuine Renishaw styli or your probe performance will be compromised!

M2 threaded stylus range

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	
Price	\$37	\$29	\$29	\$29	\$29	\$29	\$35	\$43	\$61	
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	
Price	\$62	\$80	\$76	\$80	\$80	\$80	\$90	\$90	\$130	
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	
Price	\$80	\$80	\$80	\$80	\$80	\$80	\$90	\$90	\$130	
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 (0.03)	0.7 (0.03)	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 (0.26)	7.0 (0.28)	10.0 (0.40)	10.0 (0.40)	10.0 (0.40)	11.0 (0.44)
	Mass grams	0.3	0.3	0.3	0.3	0.4	0.4	0.7	0.9	1.5

10 mm range

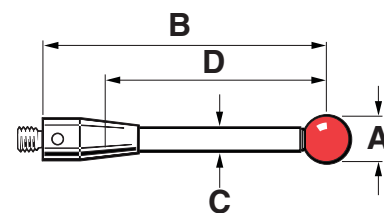
Ball material	Part number				
Ruby	A-5000-3603	A-5000-7804	A-5000-4160	A-5000-4161	
Price	\$31	\$31	\$31	\$31	
Silicon nitride	A-5003-1730**	A-5004-1923	A-5003-6691	A-5004-0236**	
Price	\$88	\$80	\$85	\$80	
Zirconia	A-5004-2916	A-5004-2917	A-5004-1057	A-5004-2918	
Price	\$80	\$80	\$80	\$80	
A	Ball dia. 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 (0.06)	1.4 (0.06)	1.5 (0.06)	1.5 (0.06)
D	EWL* mm (in.)	14.0 (0.56)	16.4 (0.65)	17.0 (0.67)	20.0 (0.79)
	Mass grams	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	
Price	\$127	\$99	\$99	\$68	
Silicon nitride	A-5004-2016**	A-5003-2020**	–	A-5004-2018	
Price	\$219	\$196	–	\$80	
Zirconia	–	A-5003-7672**	A-5004-2632**	A-5004-2919**	
Price	–	\$191	\$243	\$221	
A	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	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 (0.02)	0.7 (0.03)
D	EWL* mm (in.)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	4.0 (0.16)
	Mass grams	0.3	0.3	0.3	0.3

10 mm range

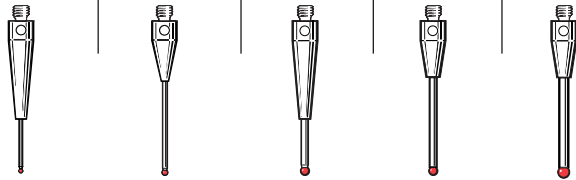


** Special * Effective working length

Ruby ball styli (tungsten carbide stems) – continued

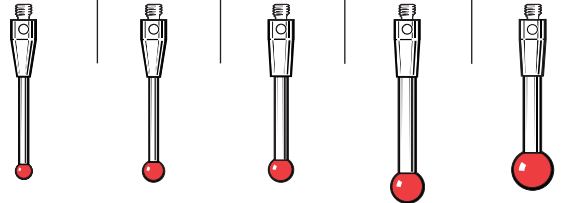
Ball material	Part number					
Ruby	A-5003-1345	A-5003-0577	A-5000-7808	A-5003-0033	A-5003-0034	
Price	\$118	\$127	\$57	\$62	\$64	
Silicon nitride	A-5004-2019**	–	A-5004-1508	A-5004-2021	A-5004-1925	
Price	\$196	–	\$100	\$100	\$100	
Zirconia	A-5004-2920	A-5004-1714**	A-5004-0435	A-5004-2921	A-5004-2922	
Price	\$251	\$138	\$100	\$100	\$100	
A	Ball dia. mm (in.)	0.5 (0.02)	0.7 (0.03)	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 (0.79)
C	Stem dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)	0.8 (0.04)	1.0 (0.04)
D	EWL* mm (in.)	7.0 (0.28)	12.0 (0.48)	7.0 (0.28)	12.5 (0.50)	12.5 (0.50)
	Mass grams	0.48	0.32	0.50	0.41	0.50

20 mm range



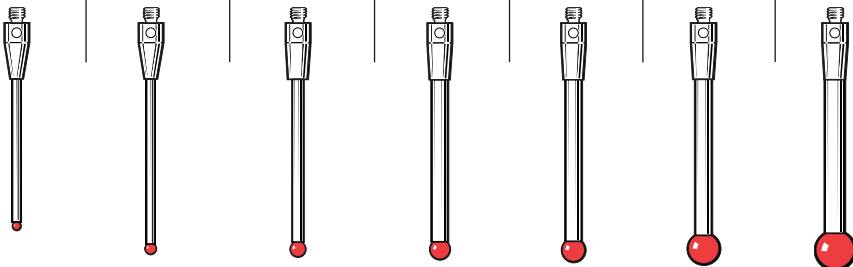
Ball material	Part number					
Ruby	A-5003-3822	A-5003-1896	A-5003-0938	A-5003-1029	A-5003-0046	
Price	\$35	\$66	\$58	\$55	\$53	
Silicon nitride	A-5004-1017**	A-5004-1928	A-5004-1021	A-5004-1929	A-5004-1930	
Price	\$125	\$100	\$100	\$100	\$110	
Zirconia	A-5004-2923	A-5004-2924	A-5004-0437	A-5004-2925	A-5004-2926	
Price	\$100	\$100	\$100	\$100	\$110	
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 grams	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
Price	\$92	\$50	\$51	\$59	\$58	\$55	\$55
Silicon nitride	A-5004-2022	A-5004-1931	A-5003-7573**	A-5004-1932	A-5004-1933	A-5004-1944	A-5004-1945
Price	\$100	\$100	\$100	\$100	\$100	\$100	\$110
Zirconia	A-5004-2927	A-5004-1711**	A-5004-1058	A-5004-2928	A-5004-0264	A-5004-2929	A-5004-2930
Price	\$121	\$100	\$100	\$100	\$100	\$100	\$110
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)
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)
C	Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.5 (0.06)	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)
	Mass grams	0.40	0.58	0.99	1.48	1.49	2.57

30 mm range



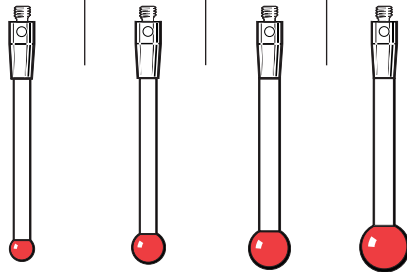
* Effective working length

** Special

Ruby ball styli (ceramic stems)

Ball material	Part number			
Ruby	A-5003-4177	A-5003-1370	A-5003-4779	A-5003-4780
Price	\$77	\$58	\$99	\$106
Silicon nitride	A-5004-1946	A-5004-1952	A-5004-1953	A-5004-1954
Price	\$120	\$120	\$130	\$141
Zirconia	A-5004-2931	A-5004-2932	A-5004-2933	A-5004-2934
Price	\$120	\$120	\$130	\$141
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 grams	0.44	0.68	0.93	1.11

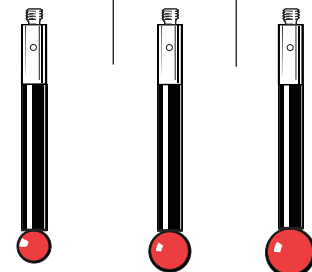
30 mm range



Ruby ball styli (carbon fiber stems)

Ball material	Part number		
Ruby	A-5003-4241**	A-5003-4781	A-5003-4782
Price	\$116	\$120	\$125
Silicon nitride	A-5004-1955	A-5004-1956	A-5004-1957
Price	\$127	\$130	\$141
Zirconia	A-5004-2935	A-5004-2936	A-5004-0618
Price	\$190	\$130	\$141
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)	3.0 (0.12)	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 grams	0.57	0.79	0.96

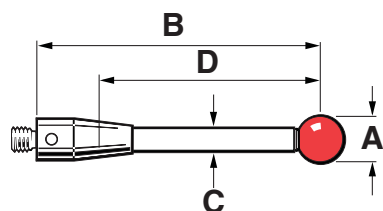
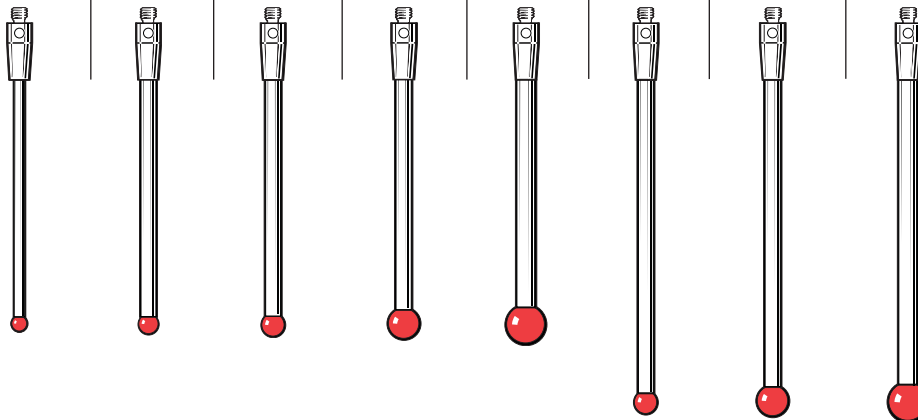
30 mm range



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
Price	\$55	\$66	\$58	\$56	\$58	\$58	\$57	\$58
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
Price	\$166	\$100	\$100	\$100	\$110	\$100	\$100	\$110
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
Price	\$100	\$100	\$100	\$100	\$110	\$100	\$100	\$110
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)	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 grams	1.29	1.95	1.97	2.04	3.17	2.44	2.52	3.75

40 mm – 50 mm range

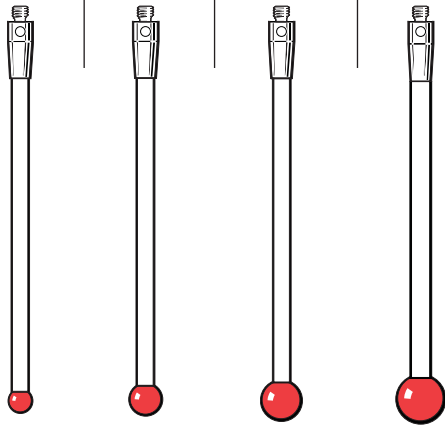


** Special * Effective working length

Ruby ball styli (ceramic stems)

Ball material	Part number			
Ruby	A-5003-0064	A-5003-0065	A-5003-0066	A-5003-0470
Price	\$86	\$81	\$105	\$110
Silicon nitride	A-5004-1967	A-5004-1519	A-5004-1968**	A-5004-1969
Price	\$120	\$133	\$130	\$233
Zirconia	A-5004-2945	A-5004-2946	A-5004-2947	A-5004-2948
Price	\$120	\$120	\$130	\$141
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 grams	0.83	0.91	1.31	1.49

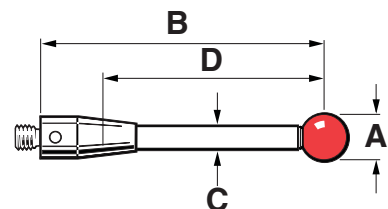
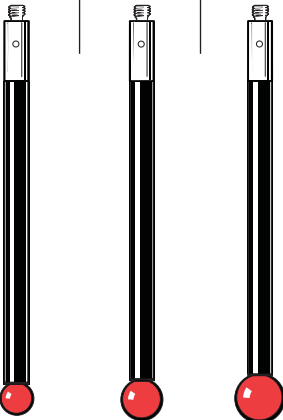
50 mm range



Ruby ball styli (carbon fiber stems)

Ball material	Part number		
Ruby	A-5003-2285	A-5003-2286	A-5003-2287
Price	\$121	\$128	\$133
Silicon nitride	A-5004-1970	A-5004-1971	A-5004-1972
Price	\$135	\$139	\$143
Zirconia	A-5004-1331	A-5004-1330	A-5004-1329
Price	\$113	\$139	\$143
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 grams	1.00	1.10	1.20

50 mm range



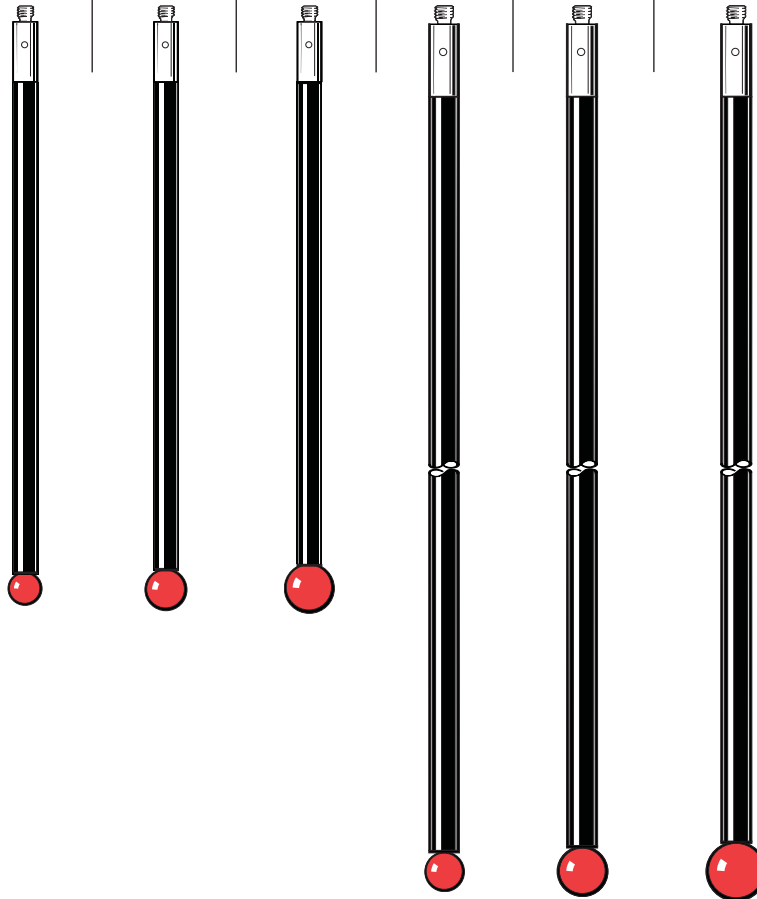
* Effective working length

** Special

Ruby ball styli (carbon fiber stems)

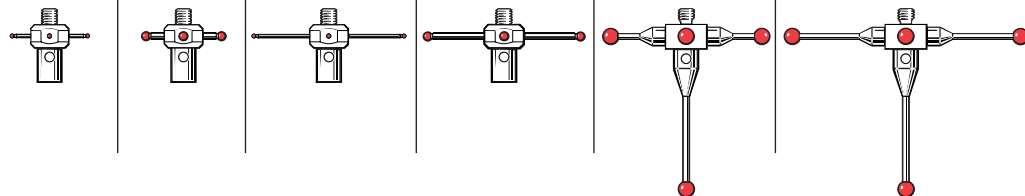
Ball material	Part number					
Ruby	A-5003-4784	A-5003-4785	A-5003-4786	A-5003-2289	A-5003-2290	A-5003-2291
Price	\$156	\$166	\$176	\$178	\$188	\$199
Silicon nitride	A-5004-1973	A-5004-1974	A-5004-1975	A-5004-1976	A-5004-1977	A-5004-1978
Price	\$165	\$176	\$182	\$184	\$193	\$209
Zirconia	A-5004-2949	A-5004-2950	A-5004-2951	A-5004-2952	A-5004-2953	A-5004-2954
Price	\$165	\$176	\$182	\$184	\$193	\$209
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 (0.08)	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 grams	0.75	1.35	1.45	1.50	1.59	1.78

75 mm – 100 mm range



Star styli (fixed)

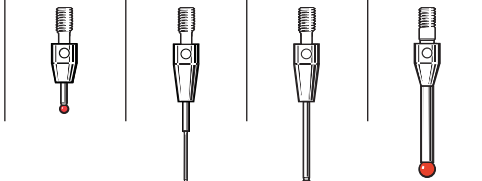
Part number	A-5003-4011	A-5000-7811	A-5003-4787	A-5003-4788	A-5000-7629	A-5000-3626
Span mm (in.)	10.0 (0.40)	10.0 (0.40)	20.0 (0.79)	20.0 (0.79)	18.0 (0.71)	30.0 (1.19)
Ball mm (in.)	0.5 (0.02)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	2.0 (0.08)	2.0 (0.08)
Stem dia. mm (in.)	0.3 (0.012)	0.7 (0.03)	0.3 (0.012)	0.7 (0.03)	1.4 (0.06)	1.4 (0.06)
EWL* mm (in.)	N/A	N/A	N/A	N/A	12.0 (0.48)	12.0 (0.48)
Mass grams	0.7	0.5	0.7	0.9	1.3	1.8
Price	\$288	\$160	\$305	\$255	\$161	\$154



* Effective working length


Star stylus centers

Part number	A-5003-4789	A-5003-4790	A-5003-4791	A-5000-3609
Ball mm (in.)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	2.0 (0.08)
Stem dia. mm (in.)	0.7 (0.03)	0.4 (0.02)	0.7 (0.03)	1.4 (0.06)
EWL* mm (in.)	3.5 (0.14)	7.0 (0.28)	11.0 (0.44)	12.0 (0.48)
Mass grams	0.31	0.43	0.45	0.44
Price	\$145	\$188	\$145	\$83




Disk styli

Part number	A-5000-3611 Ruby	A-5004-1387 Silver steel	A-5004-1395 Silver steel	A-5004-1396 Silver steel	A-5000-7809 Silver steel
Disk dia. mm (in.)	6.0 (0.24)	10.0 (0.39)	12.0 (0.47)	14.0 (0.55)	18.0 (0.71)
Disk depth mm (in.)	1.2 (0.05)	1.2 (0.05)	1.6 (0.06)	1.6 (0.06)	1.6 (0.06)
Roller depth mm (in.)	2.0 (0.08)	2.0 (0.08)	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 grams	0.6	1.0	2.0	2.5	3.0
Price	\$81	\$119	\$140	\$140	\$103

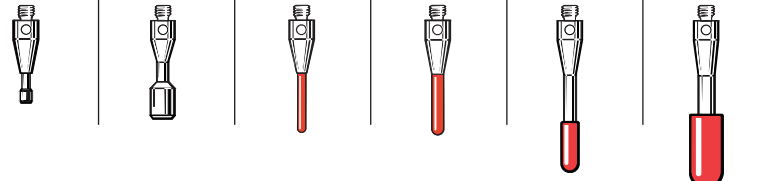


Part number	A-5000-3613 Silver steel	A-5000-7810 Silver steel	A-5000-4187 Silver steel
Disk dia. mm (in.)	18.0 (0.71)	25.0 (0.99)	25.0 (0.99)
Disk depth mm (in.)	2.3 (0.10)	1.6 (0.06)	3.1 (0.13)
Roller depth mm (in.)	3.0 (0.12)	2.5 (0.10)	N/A
Stem dia. mm (in.)	N/A	4.2 (0.17)	N/A
Mass grams	2.7	4.0	3.8
Price	\$122	\$103	\$114



Cylinder styli

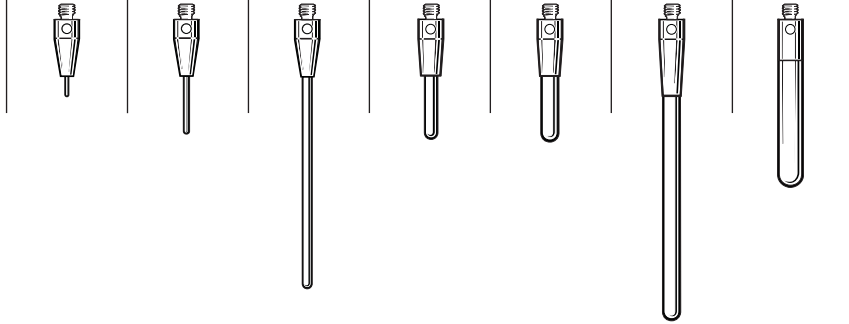
Part number	A-5004-7589 Silver steel	A-5004-7590 Silver steel	A-5000-8876 Ruby	A-5000-8877 Ruby	A-5000-7812 Ruby	A-5003-0073 Ruby
Cylinder dia. mm (in.)	1.5 (0.06)	3.0 (0.12)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	4.0 (0.16)
Overall length mm (in.)	10.75 (0.42)	12.75 (0.50)	15.0 (0.60)	15.0 (0.60)	21.2 (0.83)	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 grams	0.3	0.6	0.3	0.3	0.5	0.9
Price	\$31	\$31	\$213	\$312	\$171	\$151



* Effective working length

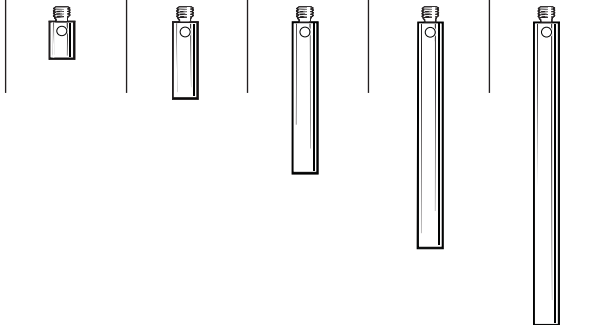
Parallel hemispherical-ended styli (tungsten carbide)

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 (0.02)	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 grams	0.3	0.3	0.7	0.6	0.8	2.0	2.0
Price	\$254	\$220	\$185	\$99	\$99	\$101	\$179



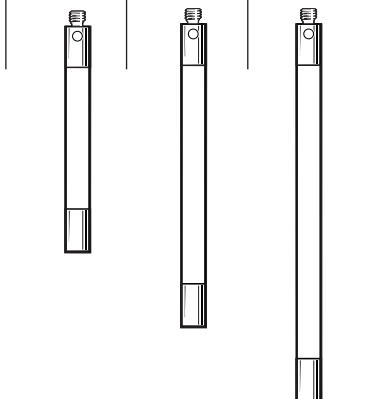
Stylus extensions (stainless steel)

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 grams	0.2	0.4	0.9	1.4	1.8
Price	\$14	\$15	\$18	\$20	\$22



Stylus extensions (ceramic)

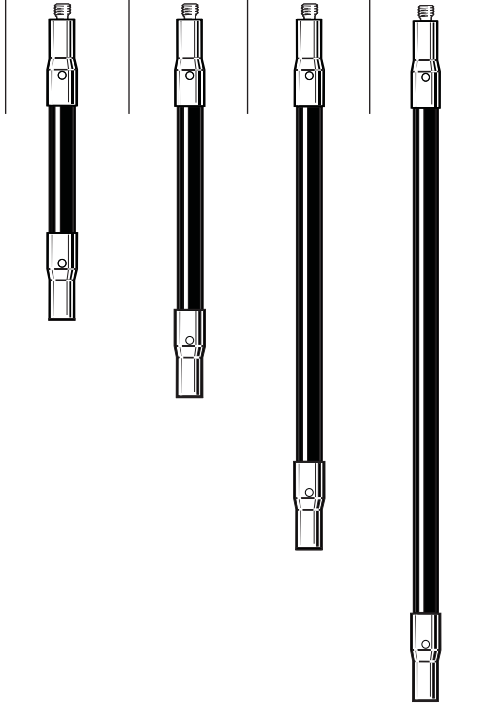
Part number	A-5003-0070	A-5003-0071	A-5003-0072
Length mm (in.)	30.0 (1.19)	40.0 (1.58)	50.0 (1.97)
Stem dia. mm (in.)	3.0 (0.12)	3.0 (0.12)	3.0 (0.12)
Mass grams	0.97	1.22	1.51
Price	\$67	\$67	\$69



** Special * Effective working length

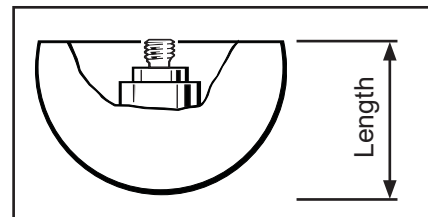
Stylus extensions (carbon fiber)

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 grams	0.9	1.0	1.3	1.5
Price	\$112	\$117	\$122	\$128



Special purpose styli

Part number	A-5004-7588 Silver steel	A-5000-7813 Tungsten carbide	A-5000-3614 Ceramic
Length mm (in.)	15.0 (0.60)	10.0 (0.40)	11.0 (0.44)
Ball dia. mm (in.)	N/A	N/A	18.0 (0.71)
End feature mm (in.)	Flat rad. 0.05 (0.002)	Spherical rad. 0.1 (0.004)	N/A
Angles	30° inclusive	30° inclusive	N/A
Mass grams	0.7	0.7	3.3
Price	\$30	\$78	\$322

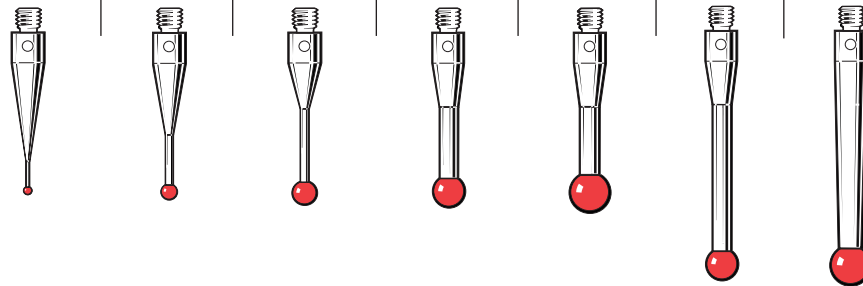


M3 threaded stylus range

Ruby ball styli (stainless steel stems)

Ball material	Part number						
Ruby	A-5000-3551	A-5000-3552	A-5000-3553	A-5000-7606	A-5000-7630	A-5000-3554	A-5000-7648
Price	\$40	\$37	\$37	\$37	\$37	\$37	\$37
Silicon nitride	A-5004-1979	A-5003-5723	A-5003-6257**	A-5003-5061	A-5003-6695**	A-5004-1980	A-5004-1981
Price	\$80	\$80	\$80	\$80	\$90	\$80	\$90
Zirconia	A-5004-2955	A-5003-5736	A-5004-2956	A-5003-5737	A-5003-9500	A-5004-2957	A-5004-2958
Price	\$98	\$98	\$98	\$98	\$109	\$98	\$109
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)	5.0 (0.20)
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)	31.0 (1.23)
C Stem dia. mm (in.)	0.7 (0.03)	1.4 (0.06)	1.5 (0.06)	2.5 (0.10)	2.5 (0.10)	2.5 (0.10)	3.5 (0.14)
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)	31.0 (1.23)
Mass grams	1.0	1.0	1.0	1.3	1.5	2.5	3.0

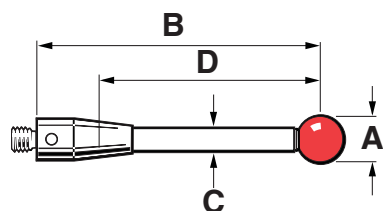
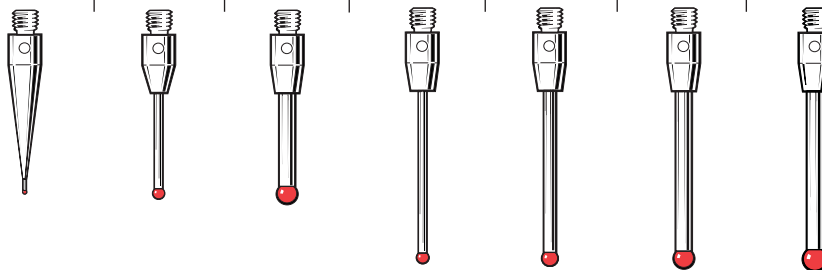
21 mm – 31 mm range



Ruby ball styli (tungsten carbide stems)

Ball material	Part number						
Ruby	A-5000-7632	A-5003-0050	A-5003-0054	A-5003-0051	A-5003-0052	A-5003-0055	A-5003-0057
Price	\$119	\$53	\$48	\$57	\$51	\$51	\$51
Silicon nitride	A-5004-2023**	A-5004-1198	A-5004-1982	A-5003-8091**	A-5003-5724	A-5004-1983	A-5004-1984**
Price	\$374	\$100	\$100	\$156	\$100	\$100	\$100
Zirconia	A-5004-2959	A-5004-2960	A-5004-2961	A-5004-2962	A-5003-5738	A-5004-2963	A-5003-6766
Price	\$266	\$121	\$121	\$121	\$121	\$121	\$121
A Ball dia. mm (in.)	0.5 (0.02)	1.5 (0.06)	2.5 (0.10)	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)	20.2 (0.80)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	0.4 (0.02)	1.0 (0.04)	2.0 (0.08)	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)	22.5 (0.89)	22.8 (0.90)	22.5 (0.89)	24.0 (0.94)
Mass grams	1.0	0.8	1.3	0.93	1.32	1.81	1.83

20 mm – 30 mm range

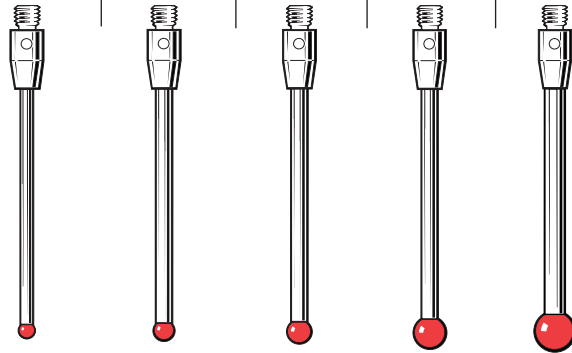


** Special * Effective working length

Ruby ball styli (tungsten carbide stems) – continued

Ball material	Part number					
Ruby	A-5003-0053	A-5003-0056	A-5003-0058	A-5003-0060	A-5003-0062	
Price	\$56	\$56	\$56	\$54	\$65	
Silicon nitride	A-5004-1985	A-5004-1986	A-5004-1987	A-5004-1195	A-5004-1718	
Price	\$100	\$100	\$100	\$100	\$222	
Zirconia	A-5003-2043**	A-5004-2964	A-5004-2965	A-5003-6767	A-5004-2966	
Price	\$121	\$121	\$121	\$121	\$133	
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.)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)
C	Stem dia. mm (in.)	1.5 (0.08)	2.0 (0.08)	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)
	Mass grams	1.58	2.28	2.30	2.38	3.50

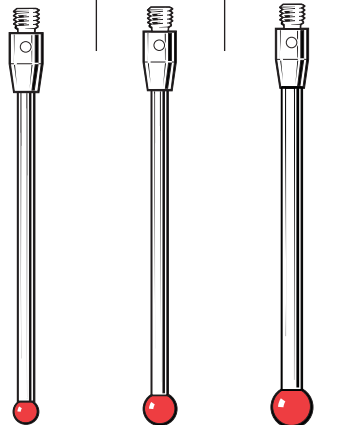
40 mm range



Ruby ball styli (tungsten carbide stems)

Ball material	Part number			
Ruby	A-5003-0059	A-5003-0061	A-5003-0063	
Price	\$62	\$62	\$66	
Silicon nitride	A-5004-1199	A-5004-1988	A-5004-1201	
Price	\$100	\$177	\$110	
Zirconia	A-5004-2968	A-5003-6768	A-5003-7665**	
Price	\$121	\$121	\$133	
A	Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B	Length mm (in.)	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)
D	EWL* mm (in.)	43.7 (1.72)	46.0 (1.82)	50.0 (1.97)
	Mass grams	2.78	2.85	4.10

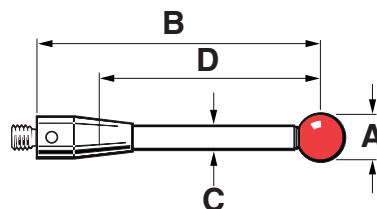
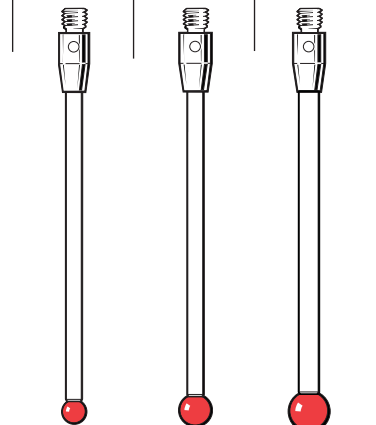
50 mm range



Ruby ball styli (ceramic stems)

Ball material	Part number			
Ruby	A-5003-0067	A-5003-0068	A-5003-0069	
Price	\$88	\$88	\$88	
Silicon nitride	A-5004-1989	A-5003-5725	A-5004-1990	
Price	\$120	\$120	\$130	
Zirconia	A-5004-2969	A-5003-5739	A-5004-2970	
Price	\$145	\$145	\$157	
A	Ball dia. mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B	Length mm (in.)	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)
D	EWL* mm (in.)	43.7 (1.72)	46.0 (1.82)	50.0 (1.97)
	Mass grams	1.17	1.24	1.33

50 mm range



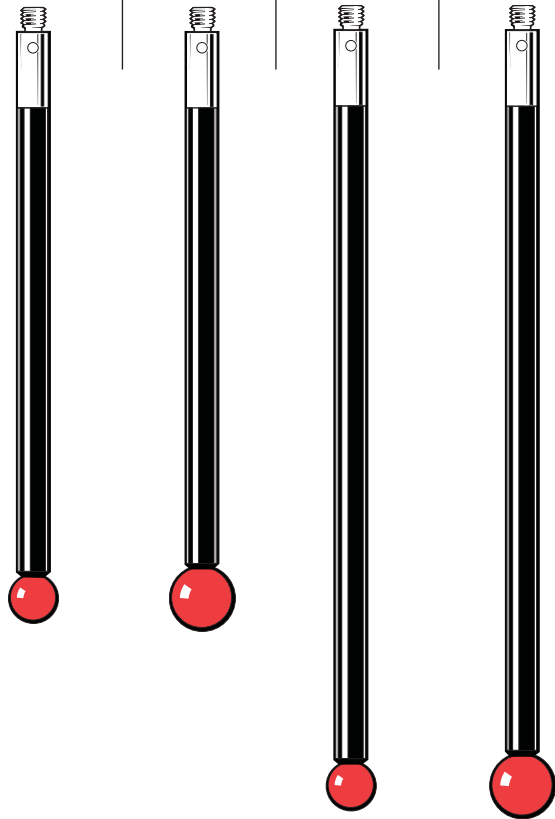
* Effective working length

** Special

Ruby ball styli (carbon fiber stems)

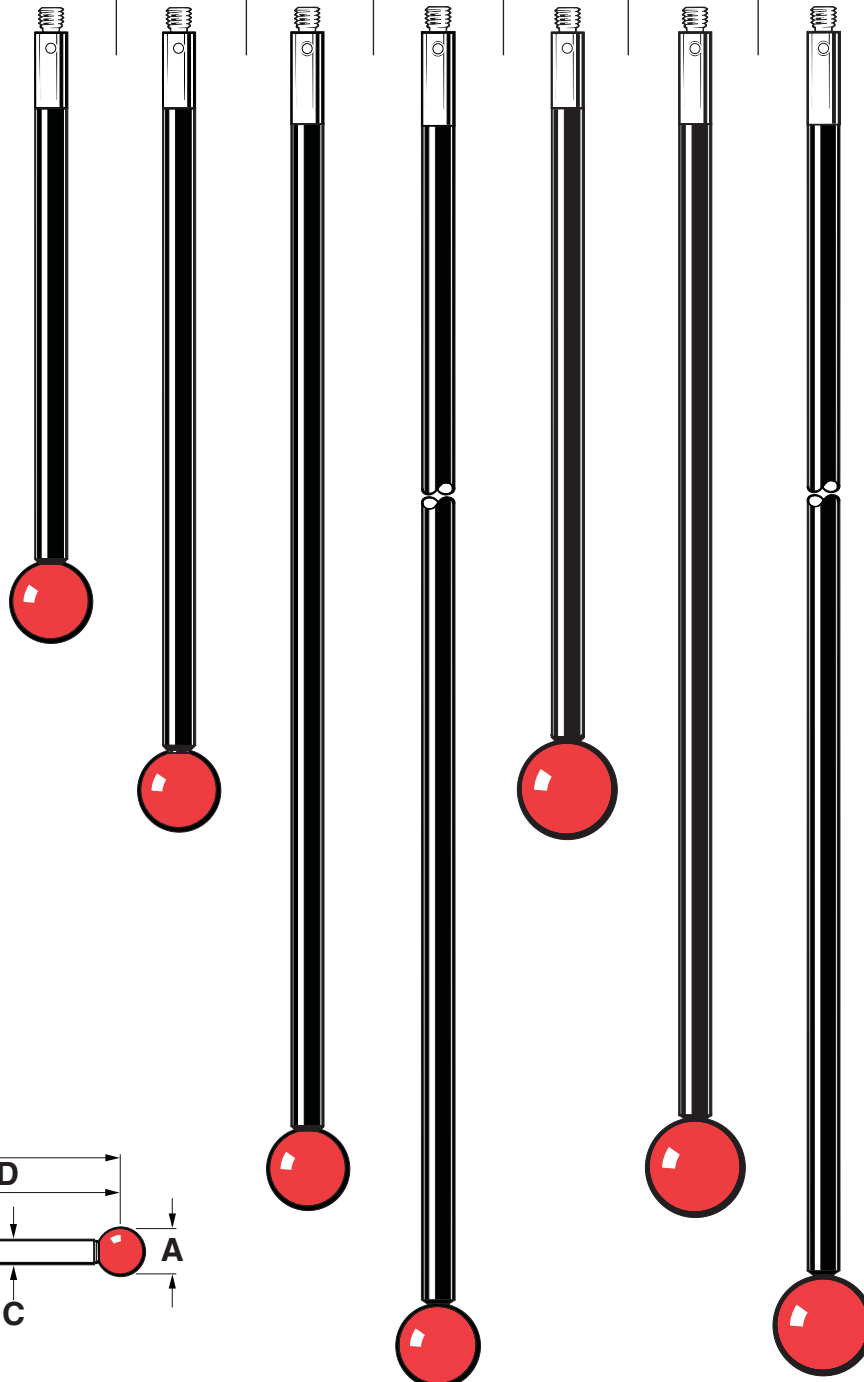
Ball material	Part number			
Ruby	A-5003-4860	A-5003-4862	A-5003-4861	A-5003-4863
Price	\$191	\$207	\$204	\$222
Silicon nitride	A-5003-5726	A-5004-1991	A-5003-5727	A-5004-5466
Price	\$198	\$215	\$215	\$179
Zirconia	A-5003-5740	A-5003-6771	A-5003-5741	A-5003-6778**
Price	\$204	\$215	\$215	\$242
A Ball 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 grams	2.40	2.98	2.89	3.47

75 mm – 100 mm range



Ruby ball styli (carbon fiber stems) – continued

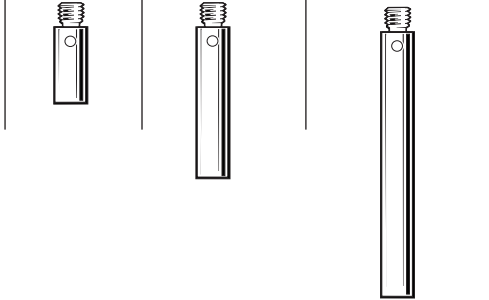
Ball material	Part number						
Ruby	A-5003-7057	A-5003-7056	A-5003-7055	A-5003-7054	A-5003-7445	A-5003-7446	A-5003-7447
Price	\$319	\$333	\$352	\$361	\$333	\$352	\$361
Silicon nitride	A-5004-1992	A-5004-1993	A-5004-1994	A-5004-1995	A-5004-1996	A-5004-1997	A-5004-1998
Price	\$339	\$347	\$363	\$374	\$341	\$341	\$341
Zirconia	A-5004-2972	A-5003-9495	A-5004-2973	A-5004-2974	A-5004-2975	A-5004-2976	A-5004-2977
Price	\$410	\$410	\$410	\$410	\$414	\$414	\$414
A 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)
B 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)
C 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)
D 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)
Mass grams	4.05	4.53	5.49	6.47	5.9	6.9	7.9



* Effective working length

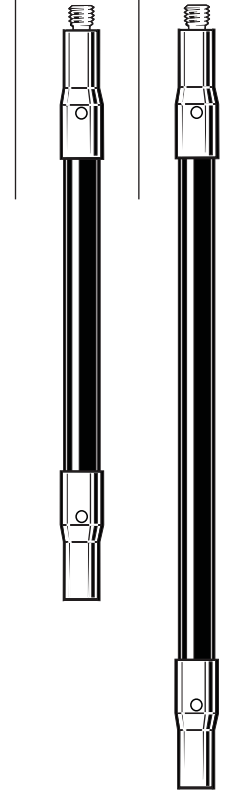
Stylus extensions (stainless steel)

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 grams	0.9	1.6	2.9
Price	\$15	\$18	\$14



Stylus extensions (carbon fiber)

Part number	A-5003-4864	A-5003-4865
Length mm (in.)	75.0 (2.96)	100.0 (3.94)
Stem dia. mm (in.)	4.0 (0.16)	4.0 (0.16)
Mass grams	2.53	3.02
Price	\$118	\$128



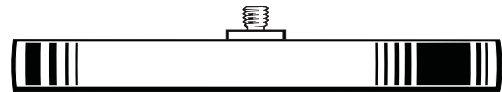
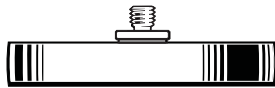
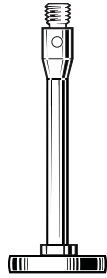
Stylus extensions (ceramic)

Part number	A-5003-0075
Length mm (in.)	50.0 (1.97)
Stem dia. mm (in.)	4.0 (0.16)
Mass grams	2.95
Price	\$67

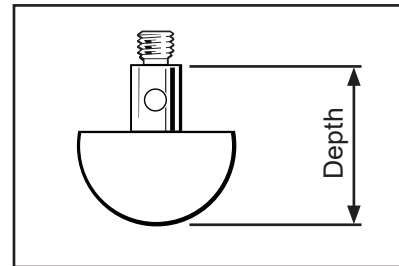
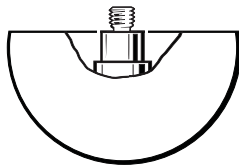


Disk and hollow ball styli

Part number	A-5000-3615 Silver steel	A-5000-7612 Silver steel	A-5000-7669 Carbon steel
Disk dia. mm (in.)	12.7 (0.50)	35.0 (1.38)	63.5 (2.51)
Disk 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 grams	4.0	10.0	45.0
Price	\$86	\$146	\$155

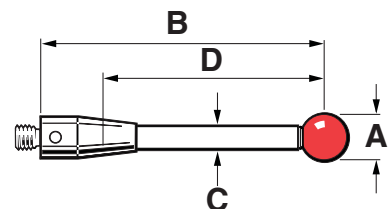
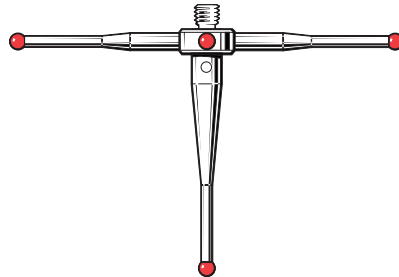
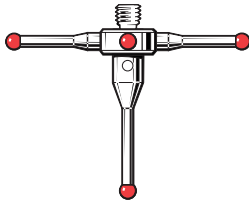


Part number	A-5000-7814 Ceramic	A-5003-7098 Ceramic
Disk dia. mm (in.)	30.0 (1.19)	30.0 (1.19)
Disk depth mm (in.)	17.0 (0.67)	1.5 (0.06)
Stem dia. mm (in.)	N/A	4.0 (0.16)
Mass grams	13.0	3.6
Price	\$396	\$347



Star styli (fixed)

Part number	A-5003-0076	A-5003-0077
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 (0.06)	1.4 (0.06)
EWL* mm (in.)	11.0 (0.44)	11.0 (0.44)
Mass grams	2.38	5.25
Price	\$162	\$162

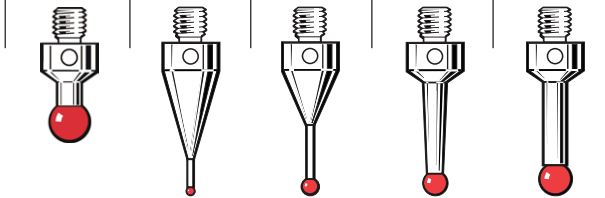


* Effective working length

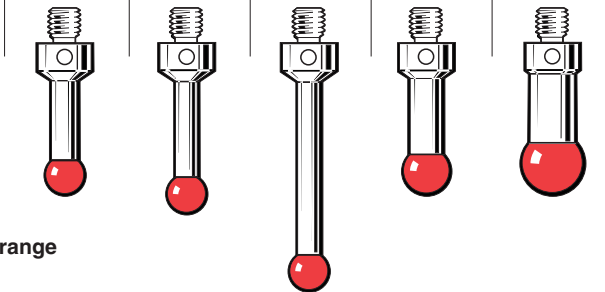
M4 threaded stylus range

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
Price	\$77	\$100	\$88	\$52	\$52
Silicon nitride	–	–	A-5003-5728	–	A-5003-5729
Price	–	–	\$96	–	\$74
Zirconia	–	–	A-5003-5742	–	A-5003-5743
Price	–	–	\$96	–	\$74
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 (0.39)	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 (0.03)	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 grams	1.9	2.5	2.3	2.0	2.1



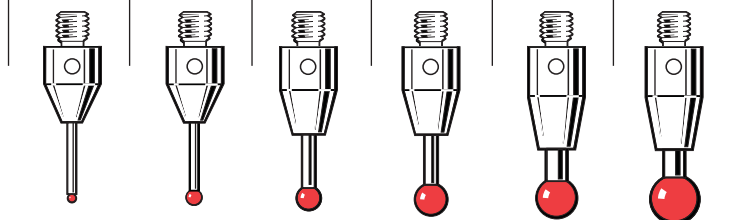
Part number	A-5000-7553	A-5000-6731	A-5000-6352	A-5000-7555	A-5000-7557
A Ball dia. mm (in.)	5.0 (0.20)	5.0 (0.20)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
B Length mm (in.)	17.5 (0.69)	20.0 (0.79)	30.0 (1.19)	17.0 (0.67)	16.0 (0.63)
C Stem dia. mm (in.)	3.5 (0.14)	3.0 (0.12)	3.0 (0.12)	4.5 (0.18)	6.0 (0.24)
D EWL* mm (in.)	13.6 (0.54)	15.89 (0.63)	26.0 (1.03)	13.3 (0.52)	16.0 (0.63)
Mass grams	2.3	2.4	3.0	3.0	3.9
Price	\$77	\$77	\$79	\$58	\$77



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 (0.03)	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 grams	2.39	3.01	3.53	3.53	4.52	4.66
Price	\$90	\$97	\$100	\$100	\$105	\$107



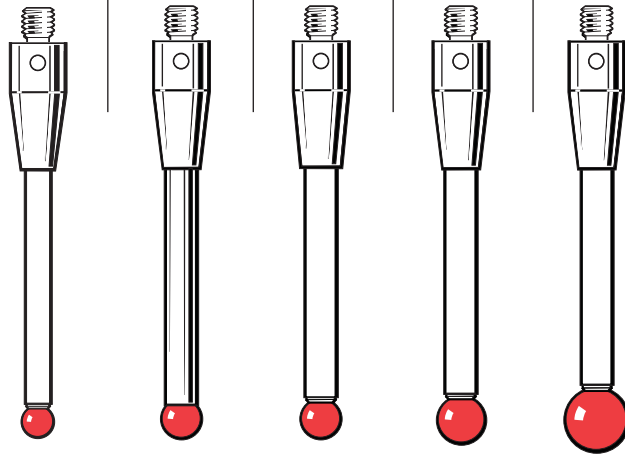
20 mm range

* Effective working length

Ruby ball styli

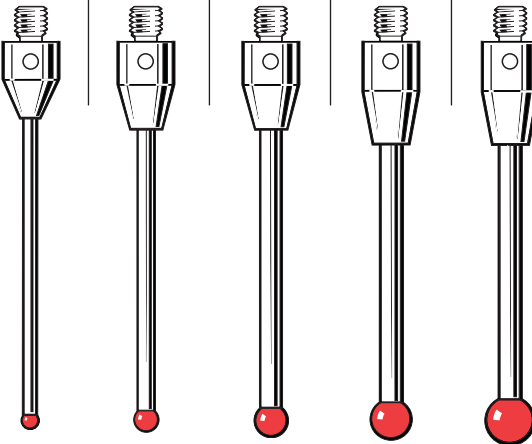
Part number	A-5003-0233 Ceramic	A-5000-7521 Stainless steel	A-5003-0235 Ceramic	A-5000-3709 Ceramic	A-5000-7795 Ceramic	
A	Ball dia. mm (in.)	4.0 (0.16)	5.0 (0.20)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
B	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C	Stem dia. mm (in.)	3.0 (0.12)	4.5 (0.18)	3.8 (0.15)	4.5 (0.18)	4.5 (0.18)
D	EWL* mm (in.)	33.5 (1.32)	33.5 (1.32)	33.5 (1.32)	38.5 (1.52)	50.0 (1.97)
	Mass grams	3.9	5.8	5.0	4.8	5.4
	Price	\$80	\$80	\$99	\$111	\$124

50 mm range



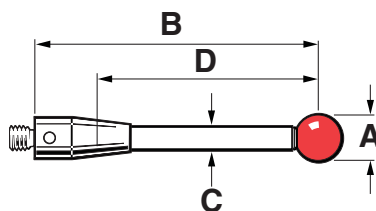
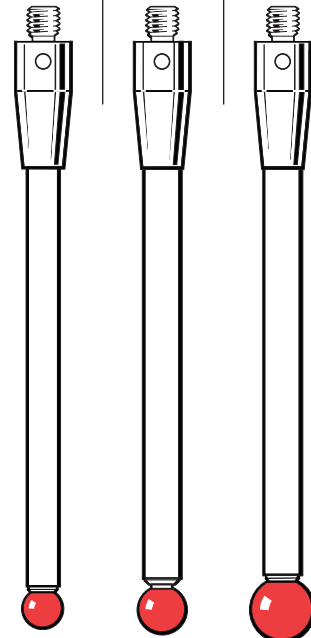
Part number	A-5003-4797 Tungsten carbide	A-5003-3680 Tungsten carbide	A-5003-4799 Tungsten Carbide	A-5003-4800 Tungsten carbide	A-5003-4801 Tungsten carbide	
A	Ball dia. mm (in.)	2.0 (0.08)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)	6.0 (0.24)
B	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C	Stem dia. mm (in.)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)
D	EWL* mm (in.)	40.0 (1.58)	38.5 (1.52)	38.5 (1.52)	37.9 (1.49)	40.7 (1.60)
	Mass grams	3.80	4.94	4.99	6.72	6.86
	Price	\$107	\$111	\$111	\$113	\$116

50 mm range



Part number	A-5003-0236 Ceramic	A-5003-2764 Ceramic	A-5003-4802 Ceramic	
A	Ball dia. mm (in.)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)
B	Length mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
C	Stem dia. mm (in.)	3.8 (0.15)	4.5 (0.18)	4.5 (0.18)
D	EWL* mm (in.)	58.5 (2.30)	63.5 (2.51)	75.0 (2.96)
	Mass grams	5.63	5.64	6.20
	Price	\$103	\$119	\$132

75 mm range



* Effective working length

Additive manufacturing solutions



Why metal AM?

Metal additive manufacturing (AM) is helping innovators create new product designs and develop new business opportunities. Deciding if AM has a part to play in your business requires a thorough evaluation of your products, supply chains, operational capability and business needs. For maximum benefit, parts need to be designed to exploit the advantages of AM. Some of the areas below are where metal AM is already delivering exceptional value for our customers:

Design freedom

- Produce geometries with hollow and hidden features
- Build complex structures and lattices

Part performance

- Consolidate parts into single objects to improve reliability
- Use conformal channels to improve thermal management

Supply chain

- Geometry-independent raw materials
- Reduce inventory, manufacture on demand

Production flexibility

- Increased customization possibilities
- Minimum batch size of one

Materials

- Process alloys that are difficult to form
- Waste reduction, as material is only used where it is needed

RenAM 500 series additive manufacturing systems



RenAM 500S Flex / RenAM 500S / RenAM 500S Ultra

RenAM 500D Flex / RenAM 500D / RenAM 500D Ultra

RenAM 500Q Flex / RenAM 500Q / RenAM 500Q Ultra

System description

The RenAM 500 series is Renishaw’s range of high-productivity laser powder bed fusion (LPBF) additive manufacturing (AM) systems. All versions of the RenAM 500 series feature a digital control system and a vacuum chamber for quickly preparing low-oxygen build atmospheres. The RenAM 500 series can be configured with one (500S), two (500D) or four (500Q) high-power 500 W lasers, each able to access the whole powder bed surface.

The RenAM 500 and RenAM 500 Ultra systems feature automated powder and waste handling systems that automatically sieve and cycle powder back into the machine without user intervention. The RenAM 500 Flex systems feature a total loss powder management system designed for external sieving, which allows for greater flexibility when it comes to powder choice.

RenAM 500 Ultra systems come equipped with additional features designed to maximize laser-on time during a build, allowing for even faster production rates. As standard, RenAM 500 Ultra systems have Renishaw’s TEMPUS™ technology installed – an innovation that synchronizes the lasers with the powder recoater to reduce build times by up to 50%.

Renishaw’s latest process monitoring tools are also included as standard for RenAM 500 Ultra systems. These tools provide live feedback on powder dosing, laser energy input and melt-pool characteristics, which can be analyzed to monitor build quality and reduce post-build inspection costs. The process monitoring tools packaged with RenAM 500 Ultra systems include:

- LaserVIEW hardware module
- MeltVIEW hardware module
- CameraVIEW hardware module
- 12-month license for InfiniAM Camera software
- 12-month license for InfiniAM Spectral software
- A Renishaw Central AM connector.

Model configurations

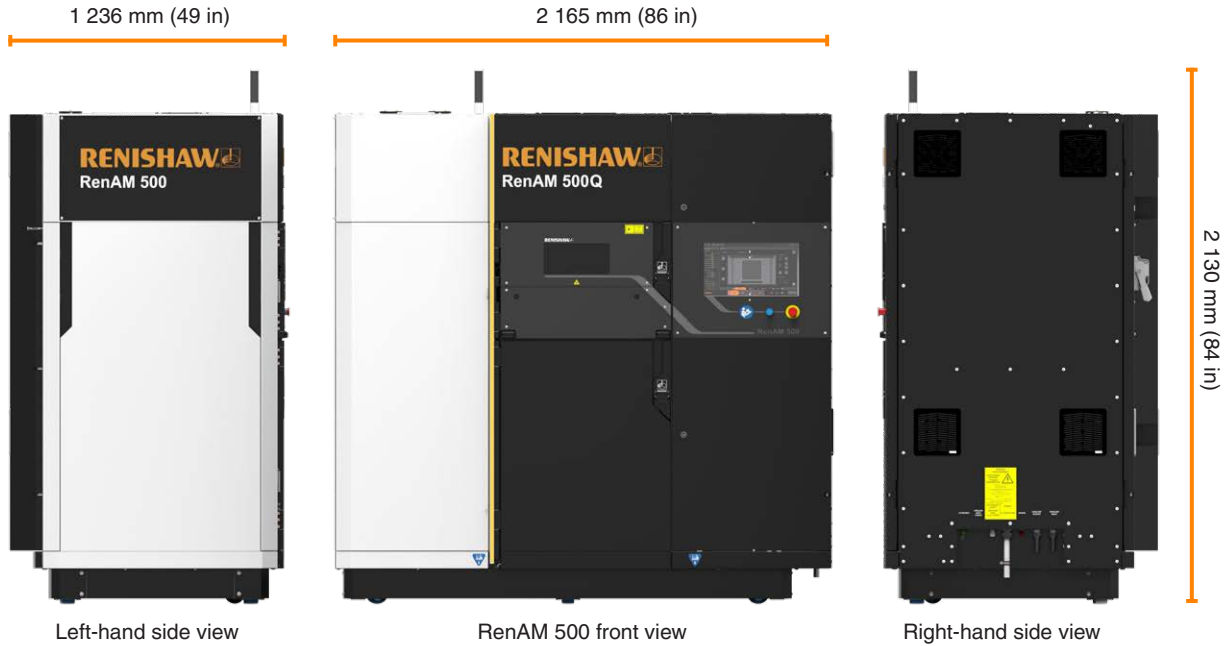
Model	Number of lasers	Powder recirculation	CameraVIEW	LaserVIEW and MeltVIEW	TEMPUS technology	RBV and OSV compatible **
RenAM 500S Flex	1	*	✓	*	*	✓
RenAM 500S	1	✓	✓	*	*	✓
RenAM 500S Ultra	1	✓	✓	✓	✓	✓
RenAM 500D Flex	2	*	✓	*	*	✓
RenAM 500D	2	✓	✓	*	*	✓
RenAM 500D Ultra	2	✓	✓	✓	✓	✓
RenAM 500Q Flex	4	*	✓	*	*	✓
RenAM 500Q	4	✓	✓	*	*	✓
RenAM 500Q Ultra	4	✓	✓	✓	✓	✓

* Model can be upgraded to support this technology post-purchase

** The Reduced Build Volume (RBV) and Optical System Verification (OSV) kits are optional ancillaries designed for the RenAM 500 series systems that enhance their capabilities. Contact Renishaw for further information.

System dimensions

RenAM 500Q



NOTE: The dimensions shown for the RenAM 500Q are identical to the dimensions of the RenAM 500S, RenAM 500D, and RenAM 500 Ultra models. Dimensions shown are for the RenAM 500Q without external accessories.

RenAM 500Q Flex



NOTE: The dimensions shown for the RenAM 500Q Flex are identical to the dimensions of the RenAM 500S Flex and RenAM 500D Flex. Dimensions shown are for the RenAM 500Q Flex with the flask arm and large feed hopper fitted, without external accessories.

Specification

Processable materials		Weldable metals in powder form. Examples include stainless and tool steels, aluminum alloys, nickel-based alloys and titanium alloys. For more information on materials, visit www.renishaw.com/additivemanufacturing
Weight (net)	RenAM 500 Flex	Q (quad laser): 1 960 kg (4 321 lb) D (dual laser): 1 900 kg (4 189 lb) S (single laser): 1 870 kg (4 122 lb)
	RenAM 500	Q (quad laser): 2 040 kg (4 498 lb) D (dual laser): 1 980 kg (4 365 lb) S (single laser): 1 950 kg (4 300 lb)
	RenAM 500 Ultra	Q (quad laser): 2 070 kg (4 564 lb) D (dual laser): 2 010 kg (4 416 lb) S (single laser): 1 970 kg (4 343 lb)
Build rate ¹		Up to 254 cm ³ /h (15.5 in ³ /h)
Maximum scanning and positioning speed		10 m/s (32.8 ft/s)
Typical processing speed ²		2 m/s (6.6 ft/s)
Number of lasers, laser power and type of laser		Q (quad laser): 4 × 500 W – ytterbium fibre lasers D (dual laser): 2 × 500 W – ytterbium fibre lasers S (single laser): 1 × 500 W – ytterbium fibre laser
Beam focus diameter		80 µm (3 µin) with dynamic focus
Dynamic focus diameter		Up to 500 µm (20 µin)
Beam wavelength		1 070 nm to 1 080 nm
Laser modulation frequency		20 kHz
Time to prepare build chamber atmosphere		15 minutes (to < 1 000 ppm oxygen)
Minimum pressure in chambers (vacuum)		–950 mbar-gauge or 5 kPa-abs (–13.8 psi-gauge)
Working pressure (above atmosphere)		10 mbar-gauge to 20 mbar-gauge (0.15 psi-gauge to 0.3 psi-gauge)
Running argon consumption (after initial fill)		< 0.8 L/min (1.8 ft ³ /h)
Maximum argon consumption (during fill)		400 L/min (14.12 ft ³ /min)
System fill/purge consumption		< 1 200 L (43 ft ³)
Argon gas supply connection		3/8 in BSP male cone fitting
Argon quality (greatest permissible impurities)		20 ppm or better (99.998% pure)
Power supply ³		380 V to 480 V AC, 63 A, 50 Hz to 60 Hz, 3-phase
Data connections ⁴		Standard network connection RJ45. Renishaw recommends using Cat6 cabling.
Chilled water connection ⁵		From HRSH090-AF-40 chiller
Clearance under RenAM 500 series with no plinth		146 mm (5.75 in)
Optical module sealing		IP5X
Continuous noise level		≤ 70 dB
Maximum noise level (temporary)		≤ 71 dB
Compatible software		QuantAM, InfiniAM Camera, InfiniAM Spectral, Renishaw Central

¹ Maximum build rate does not include recoater time and is dependent upon parameters, part geometry and material.

² Typical processing speed is dependent upon parameters, part geometry and material.

³ Maximum calculated load of machine is 50 A, nominal operating current is 32 A.

⁴ The user has the option to configure the network using their own control software. Refer to the *RenAM 500 series additive manufacturing system* user guide, Renishaw part no. H-5800-3693, for more information.

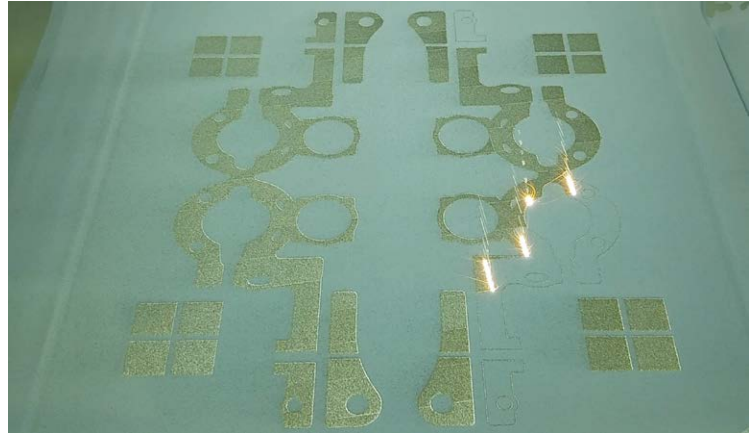
⁵ Due to differences in electrical requirements across countries, the part numbers of ancillary equipment may vary. Consult your local service department if you have questions in this regard.

High-precision dynamic optical control

High-performance laser guiding technology

To deliver accuracy at the powder bed takes expert optical and control engineering, something Renishaw has spent years perfecting for products like our REVO® 5-axis measurement system for co-ordinate measuring machines. A critical component in the RenAM 500 series is the new innovative multi-laser optical system which has been designed, developed and manufactured in-house.

Each ytterbium fiber laser enters the optical system and is guided by a pair of mirrors driven by precision galvanometers which rotate to steer the laser beam across the build plate. The optical system focuses the laser dynamically, continually adjusting its focal length to maintain a consistent spot size as the beam angles change.



Renishaw patented galvanometer housing

Achieving and maintaining a precise relationship between each laser requires an integrated approach. Whilst other multi-laser AM systems combine separate optical systems, the RenAM 500 series is different. Renishaw uses a single water cooled additively manufactured galvanometer (galvo) mounting to ensure tight thermal control and unmatched precision.

Using AM to produce the galvo mount component is a key enabler, and has allowed Renishaw to achieve tighter packaging of the guiding mirrors and the incorporation of internal conformal cooling channels to maintain precise thermal stability. This has led to a class-leading compact high performance multi-laser system.



High precision z-axis

The z-axis is equipped with a Renishaw RESOLUTE™ optical encoder with a 1 nm resolution for high-accuracy positional sensing. Maintaining a precise relationship between the optical system and the working plane as the machine indexes through each layer is vital to ensure precise beam-to-beam interaction is maintained.



Kinematic recoater with flexible blade

A kinematic recoater mounting for rapid and precise recoater changes reduces operator error and improves turn-around time. Fitted with Renishaw's flexible recoater blade, the recoater can be removed without special tools and refitted to a precise and repeatable location to maintain a precise relationship between the working plane and the optical system. A flexible blade offers an excellent compromise, and allows both solid and lattice geometries to be built.



Optical System Verification (OSV)

Optical System Verification (OSV) is a process designed to measure and calibrate the lasers in your RenAM 500 series metal additive manufacturing (AM) system. The OSV toolset allows you to check laser focal point and positional accuracy, and test laser power using the Ophir® Ariel (sold externally). These three tests can be completed in under 90 minutes, streamlining your quality control processes to make sure you meet industry standards.



Controlled powder management

Cyclone pre-filter separator

The use of multiple lasers increases the rate at which process emissions are generated.

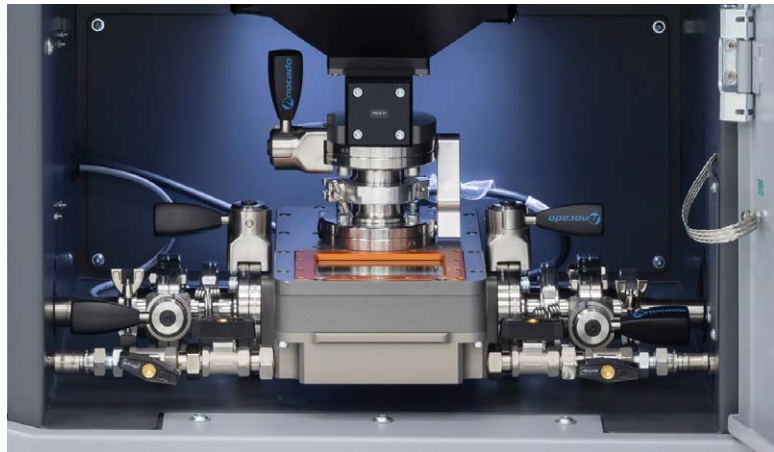
The RenAM 500 series multi-laser systems feature high volume intelligent gas flow control to remove process emissions safely and efficiently. To allow high volumes of gas at a high velocity to be used, a pre-filter cyclone separator captures larger process emissions from the gas stream before they reach the SafeChange™ filters. This extends the life of the filters and allows surplus powder to be recovered. The larger sized particles are collected directly from the cyclone in a separate flask. These can be re-processed and classified for re-use if required.



Built-in sieve and powder recirculation system

The built-in sieve and powder recirculation system ensures all powder handling is automated and under a safe argon gas atmosphere. Unused powder passes through the on-board sieve and any oversize particles are collected and removed from the machine via a metal flask. Sieve meshes to suit different materials are available.

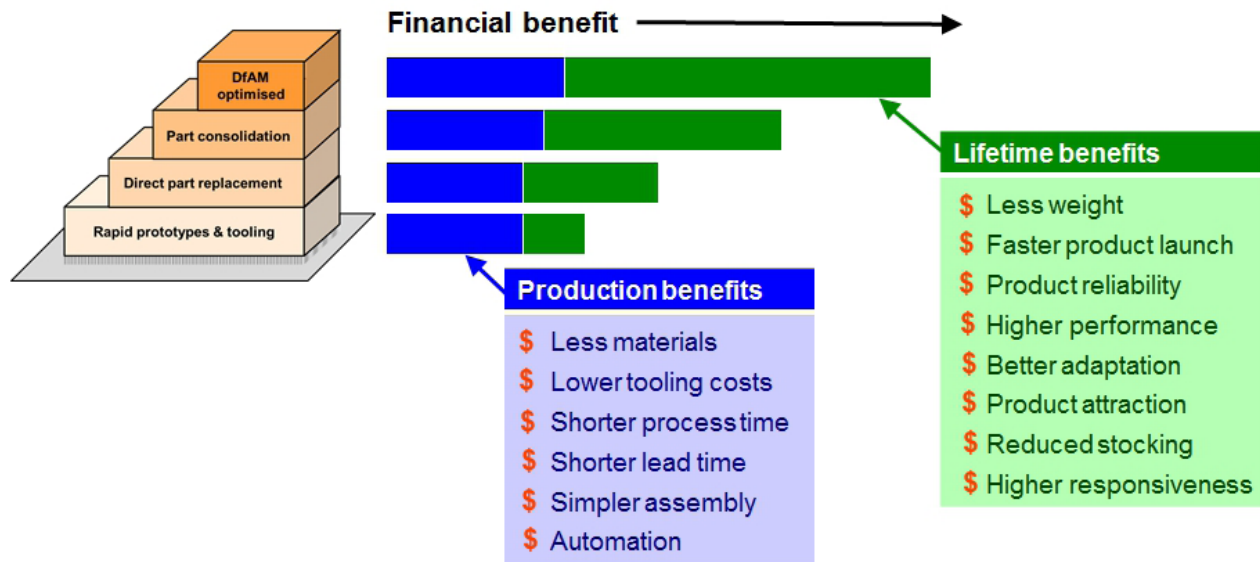
Options for external powder handling are available, should working methods require it.



The benefits of metal additive manufacturing

Metal additive manufacturing opens up significant production and financial benefits across the manufacturing process, first from shortening the design and development cycle, through rapid prototyping and lower tooling costs, to easier direct part replacement (especially legacy parts) in maintenance, overhaul and repair operations. With the latest 500 series multi-laser systems, metal AM is now also increasingly being used for serial production of parts.

Moreover, truly significant value-add and financial benefits arise through the ability to design and grow complex parts that simply cannot be manufactured through traditional means.



Applications

Healthcare – dental and medical

Thin wall dental copings are manufactured in production volumes. The highly complex, tailored parts are ideally suited to additive manufacturing – where intricate parts with a low overall volume are competitive when compared with traditional methods.

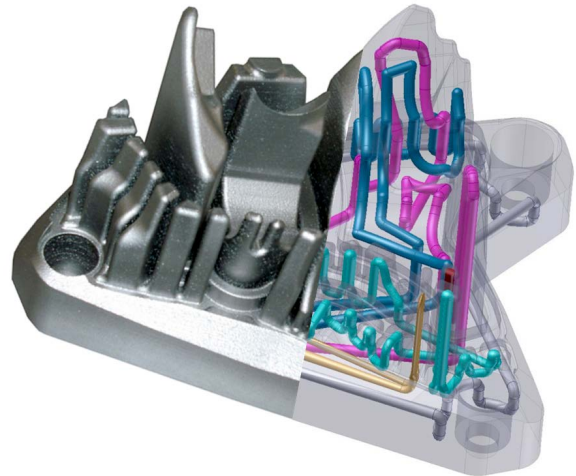
Early adopters of metal additive manufacturing for medical orthopedics benefit from manufacturing complex geometries and structures in high grade materials such as titanium.



Mold tooling and conformal cooling channels

Metal additive manufacturing can be used to help improve production cycle times and productivity in injection molding.

Metal mold tools used for injection moldings contain channels to cool the mold. With conventional tool making methods, these cooling channels are drilled into the tool in straight lines. Metal additive manufacturing allows cooling channels to be designed and built to contour the mold. This helps to improve cooling performance, extend the life of the mold and reduce waste.



Automotive

The motor sport industry has adopted metal additive manufacturing to produce customized parts, for example cooling ducts.

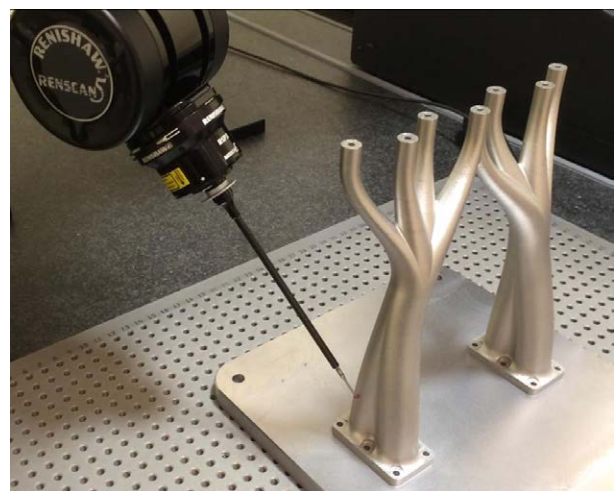
Development contributes to a high proportion of the work in this industry and speed of turnaround of prototyped parts is key to competitive advantage. Functional metal parts can be rapidly produced and performance tested.



Aerospace

Metal additive manufactured parts are used in the aerospace industry for functional parts including engine turbine blades, fuel systems and guide vanes.

The topological optimization of parts can improve functionality and reduce weight. Lighter parts can contribute to lighter aircraft and reduce fuel consumption.

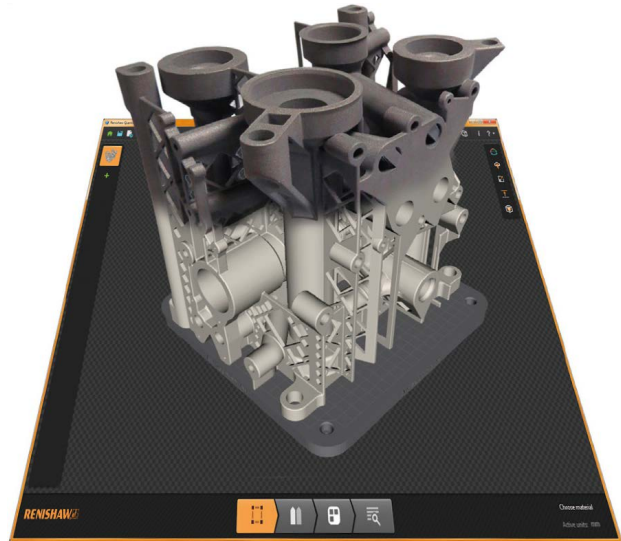


Integrated process control software

QuantAM build preparation software

QuantAM is a dedicated file preparation software tool for Renishaw additive manufacturing (AM) systems. With an intuitive workflow and easy navigation, QuantAM accepts CAD exports in the form of STL data and allows you to prepare your model for the AM process.

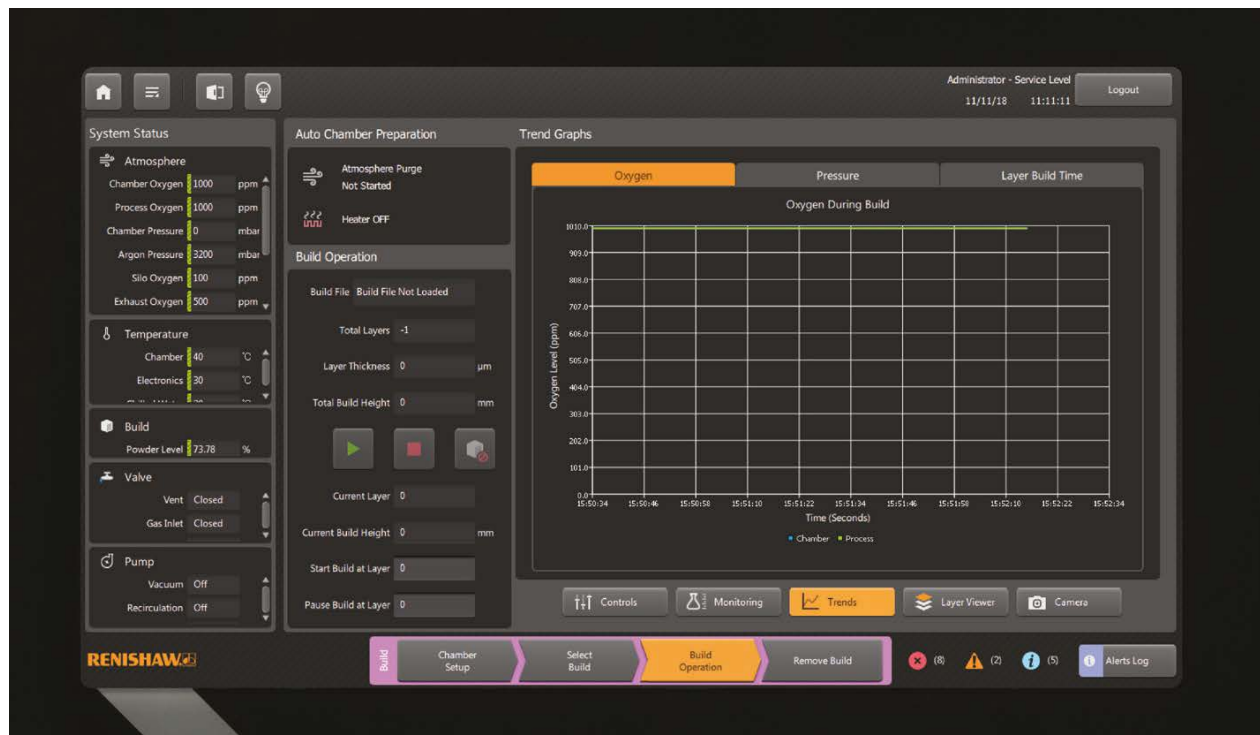
QuantAM is designed specifically for Renishaw AM platforms, allowing tighter integration into the machine control software and the ability to accurately and rapidly review all build files for Renishaw AM systems, including files from third-party software packages. QuantAM can also be used as a tool to guide your Design for Additive Manufacturing (DfAM) process, helping you unlock the benefits of additive manufacturing.



RenAMP operating software

At the heart of the RenAM 500 series is the RenAMP operating software. RenAMP controls all aspects of how the AM system operates, from the laser firing sequence to the oxygen levels in the build chamber. RenAMP has been designed and built in-house as a modular platform to enable easy updates when new features become available.

RenAMP's graphic rich user interface is operated from an industrial grade 480 mm (19 in) touch screen and features user configurable access controls and password protection.



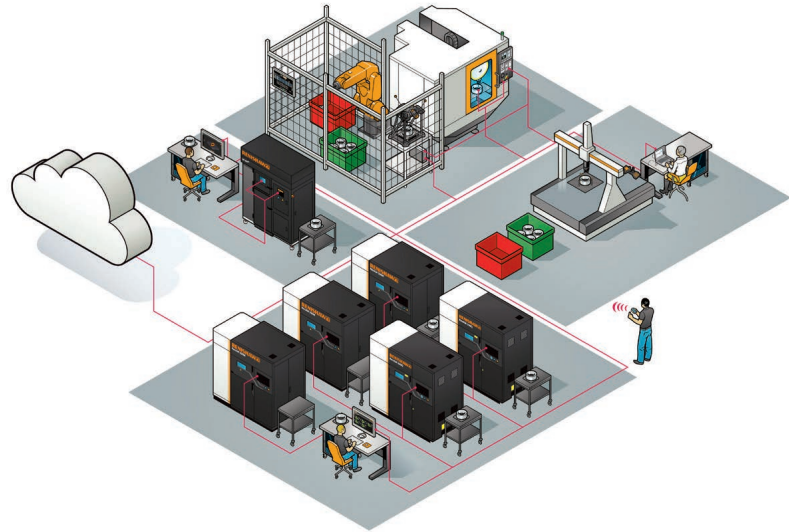
Connected and intelligent sensing technologies

Smart manufacturing with Industry 4.0 technologies

Intelligent manufacturing processes are critical to companies that want to exploit the full benefits of Industry 4.0. Smart factory concepts require connected systems that are easy to use and generate data sets immediately.

Renishaw additive manufacturing systems support a digital workflow from inventory and part design to traceable high-quality functional components. Embedding AM into smart factories requires an integrated data driven approach that connects manufacturing systems and processes together to deliver exceptional value.

Renishaw Central and InfiniAM Spectral software allows users to capture view and manage key process performance data.

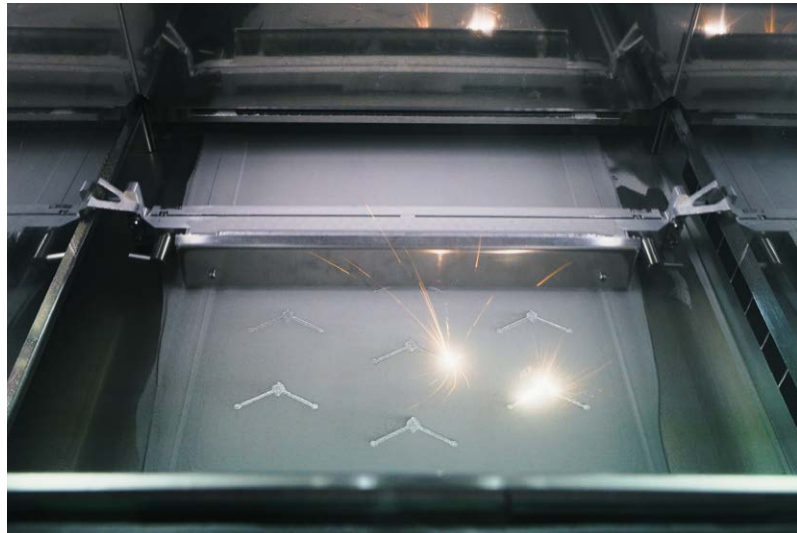


TEMPUS™ technology

This patented technology employs seamless communication between advanced software and hardware components to synchronize the system lasers with the recoater.

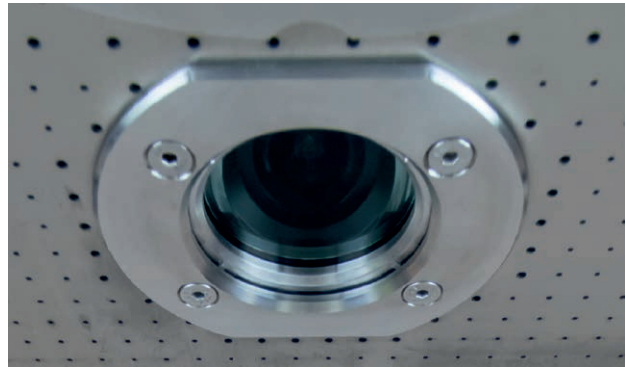
While traditional powder bed systems require the recoater to fully distribute powder before the layer can be consolidated, with TEMPUS technology the lasers can fire at the same time as the recoater is moving – delivering up to 100% increase in AM productivity without compromising on part quality.

For every layer of the AM process, TEMPUS technology enables faster processing and maximum laser utilization – boosting productivity and reducing part costs.



Build chamber camera

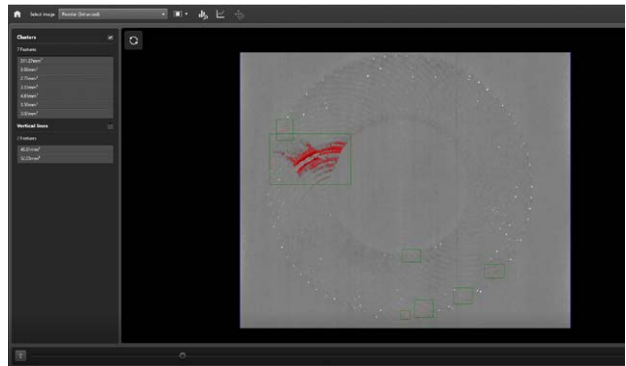
A process monitoring build chamber camera enables visual monitoring and recording pre- and post-layer. Images can be downloaded from the machine for sequential viewing via image viewing software. For maximum benefit, camera images can be imported into InfiniAM Spectral and viewed in combination with other process sensor data, either as a 2D image or 3D render.



InfiniAM Camera

InfiniAM Camera uses a high-resolution camera placed inside the build chamber to take images of the powder bed. Two images are taken for every layer of your build; one of the powder bed after dosing and another after melting. The software can analyze these images to offer a visual representation of how your build is progressing, and highlight key moments during the build that may require investigation.

These anomalies can provide an indication of potential wiper damage, short-dosing or bare metal exposure. When notified early, engineers can analyze these anomalies and intervene before they compromise build integrity. This enables tighter quality control, minimal material waste, and enhanced system reliability.



InfiniAM Spectral software

InfiniAM Spectral is designed to operate with Renishaw's LaserVIEW and MeltVIEW hardware. It provides feedback on laser energy input, optical and acoustic emissions from the AM build process, and is licensed on a subscription basis. Raw sensor data is captured alongside high-accuracy galvanometer actual position data and streamed directly to a layer-specific data file. Volumes of data can be viewed offline almost immediately using the viewing tools in InfiniAM Spectral software.

MeltVIEW monitors the optical emissions from the AM process across a wide spectral range within the visible and infrared (IR) fields.

LaserVIEW measures the energy contained in every laser pulse during a build.



For further information, pricing, or to request a demo license, please call Renishaw direct at: 847-286-9953 or go to www.renishaw.com/additive

Renishaw Central

Accurate actionable process data

Renishaw Central – Smart manufacturing data platform

Renishaw Central provides a clear view of a manufacturing facility's process and metrology data.

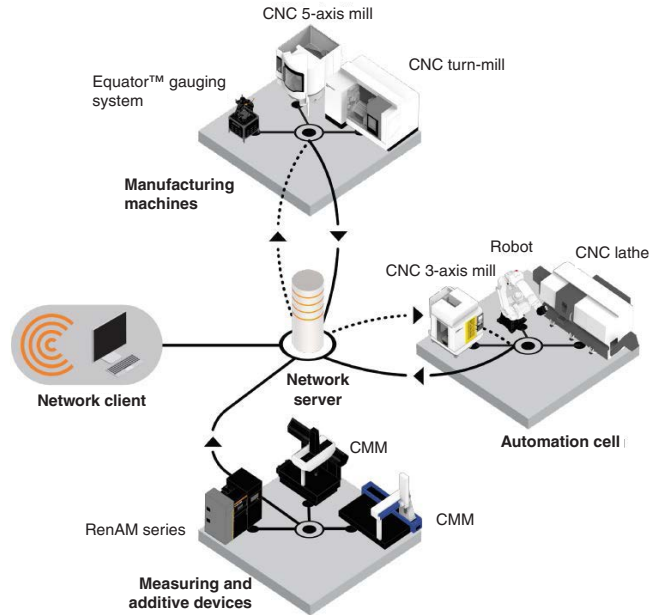
It can do this by collecting process, machine and part data from across the machine shop, including additive manufacturing (AM) systems, on-machine measurements, shop floor gauging and co-ordinate measuring machines (CMMs).

We support our global customers with their smart manufacturing ambitions by helping them to operate their 'factories of the future' today.

Renishaw Central

Renishaw Central is a manufacturing connectivity and data platform that collects, and provides visibility of, manufacturing process data. Renishaw Central enables users to monitor and update machining and quality control systems. Its features also allow for manufacturing process parameters to be updated automatically using its IPC (Intelligent Process Control) functionality.

For Renishaw Central pricing, see "Renishaw Central licenses" on page 2-58 of this catalog. If you have any questions, please contact Renishaw's Inside Sales Team at: InsideSales.USA@renishaw.com



Additive Manufacturing Solutions Center



Located within Renishaw's new 133,000 sq. ft. facility in West Dundee, IL, USA is our 5000 sq. ft. Additive Manufacturing Solution Center.

Renishaw Solutions Centers provide a secure development environment in which you can build your knowledge and confidence using AM technology. Equipped with the latest AM systems and staffed with knowledgeable engineers, our Solutions Center offers you a fast and accessible way to rapidly deploy this exciting technology in your business.

Renishaw will support you throughout your investigation and business case development process, helping you to optimize your design, build your confidence in the AM process, and gain the evidence you need to make investment decisions, all at predictable and manageable costs.

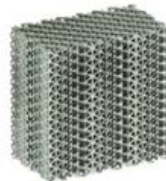
Whilst AM can create complex geometries in a single process step, some level of finishing is generally required to produce functional products. Our world-leading knowledge and expertise in metrology, machining and finishing processes will assist you to develop an integrated manufacturing solution for your AM parts.



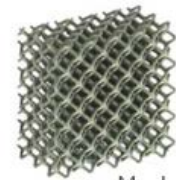
Satellite bracket



Intercooler cut-away



Mesh cube



Mesh cube



Heat exchanger



Rocket chamber nozzle



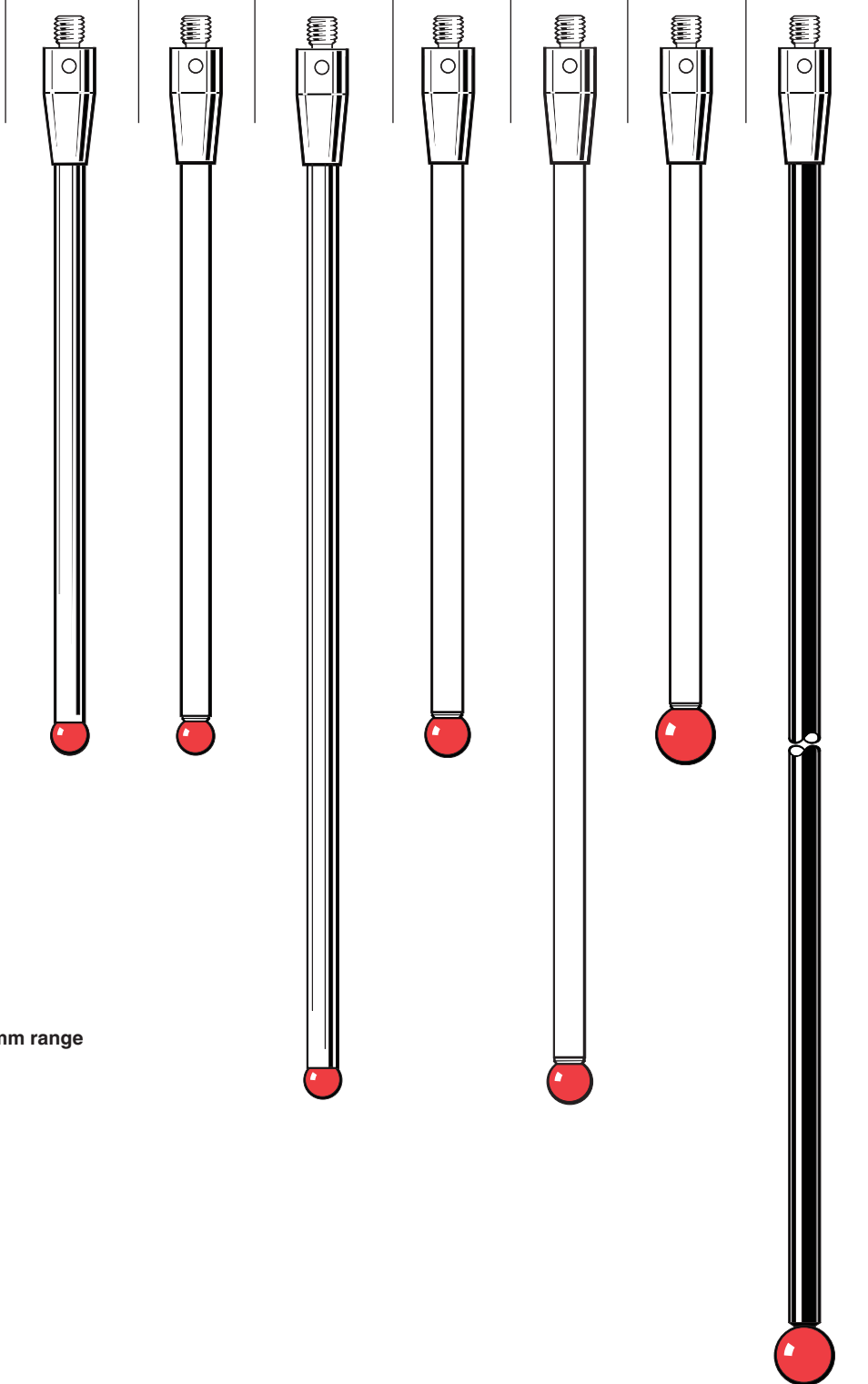
Manifold



Conformal cooling Insert

Ruby ball styli

Part number	A-5000-7522 Stainless steel	A-5000-9761 Ceramic	A-5000-7523 Stainless steel	A-5000-3712 Ceramic	A-5000-8156 Ceramic	A-5000-7796 Ceramic	A-5003-3461 Carbon fiber
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 (3.38)	83.5 (3.29)	133.00 (5.24)	88.5 (3.48)	135.0 (5.31)	100.0 (3.94)	300.0 (11.82)
Mass grams	11.3	6.3	17.4	6.3	7.9	7.5	10.4
Price	\$91	\$165	\$101	\$125	\$195	\$155	\$480



100 mm – 300 mm range

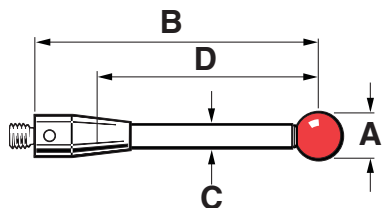
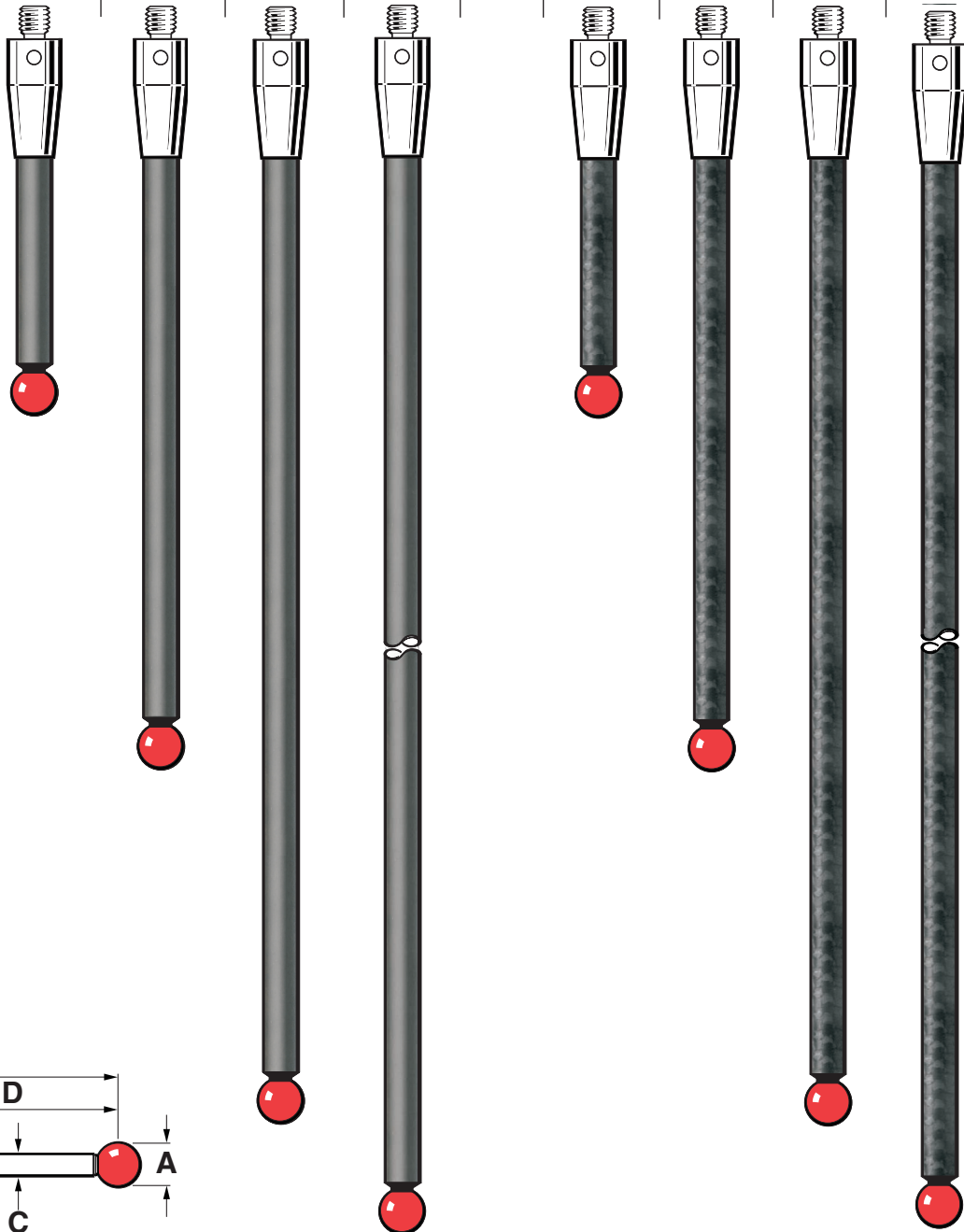
* Effective working length

Ruby ball styli (carbon fiber stems)

Recommended for use with OMP400 and RMP600

Ball material	Part number			
Ruby	A-5003-7306	A-5003-6510	A-5003-6511	A-5003-6512
Price	\$147	\$166	\$308	\$325
Silicon nitride	A-5003-5730	A-5003-5731	-	-
Price	\$256	\$275	-	-
Zirconia	A-5003-5744	A-5003-5745	-	-
Price	\$256	\$275	-	-
A Ball dia. mm (in)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
B Length mm (in)	50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
C Stem dia mm (in)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
D EWL* mm (in)	38.5 (1.52)	88.5 (3.48)	138.5 (5.45)	188.5 (7.42)
Mass grams	4.1	6.2	7.5	8.7

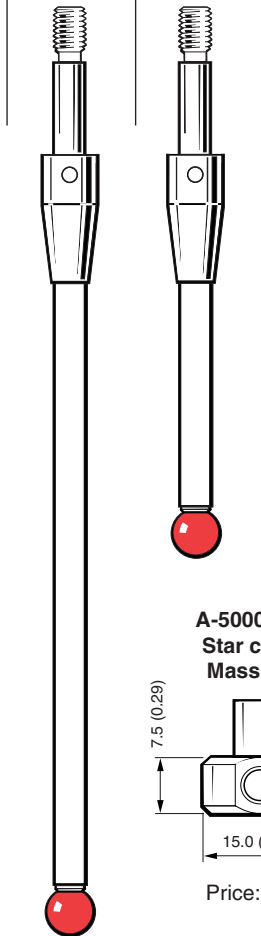
A-5003-1436	A-5003-1358	A-5003-1255	A-5003-1075
\$147	\$166	\$308	\$325
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
6.0 (0.24)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	200.0 (7.88)
4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
38.5 (1.52)	88.5 (3.58)	138.5 (5.46)	188.5 (7.42)
4.1	6.2	7.5	8.7



* Effective working length

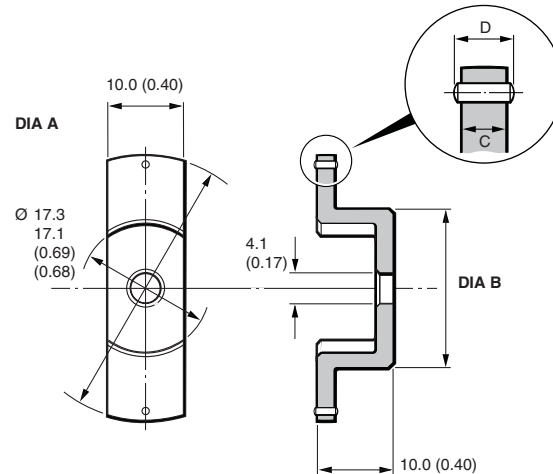
Star styli

Part number	A-5000-6462 Ceramic	A-5000-7098 Ceramic
Ball mm (in.)	6.0 (0.24)	6.0 (0.24)
Length mm (in.)	100.0 (3.94)	50.0 (1.97)
Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)
EWL* mm (in.)	88.5 (3.48)	38.5 (1.52)
Mass grams	7.5	6.0
Price	\$108	\$102

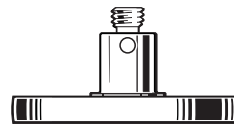


Disk styli

Part number	A-5000-7596	A-5000-7597	A-5000-7598
Diameter A mm (in.)	30.0 (1.19)	35.0 (1.38)	50.0 (1.97)
Diameter B mm (in.)	21.0 (0.83)	21.0 (0.83)	23.0 (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 grams	8.01	9.57	13.55
Price	\$132	\$255	\$253

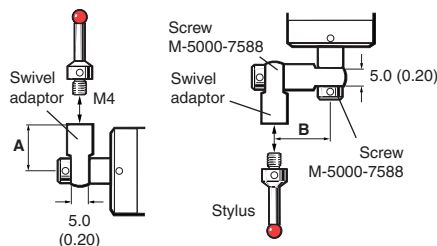


Part number	A-5000-6351 Silver steel
Disk dia. mm (in.)	30.0 (1.18)
Disk depth mm (in.)	3.0 (0.12)
Length mm (in.)	10.0 (0.39)
Rollers	NO
Mass grams	7.9
Price	\$182



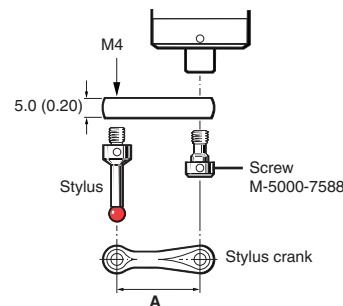
Swivel adaptor

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 grams	2.76	3.70
Price	\$58	\$58



Stylus crank

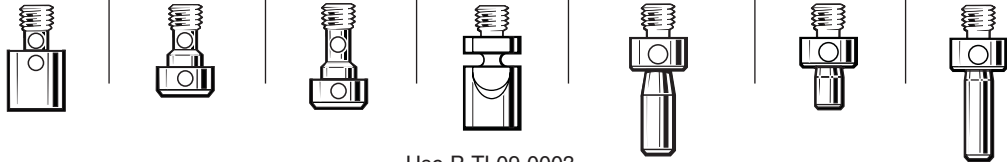
Part number	A-5004-7605	A-5004-7606
Length A mm (in.)	21.9 (0.86)	27.6 (1.09)
Mass grams	6.07	6.94
Price	\$66	\$66



* Effective working length

Crash protection devices

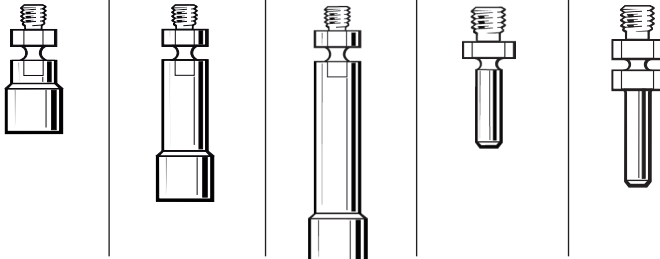
Part number	A-5004-7598	A-5004-7603	A-5004-7604	A-5004-7621	* A-5004-7443	A-5004-7624	A-5004-6723
	Stainless steel	Stainless steel	Stainless steel	Silver steel	Silver steel	Silver steel	Silver steel
Price	\$10	\$6	\$6	\$30	\$30	\$30	\$30
For pack of ten	-	-	-	-	A-5004-1865	A-5004-1867	A-5004-1869
Price	-	-	-	-	\$191	\$191	\$191
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 grams	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

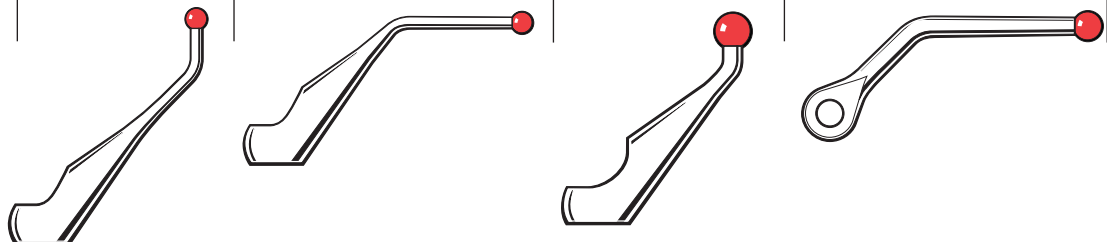
* Please note: If you require the full TS27R break stem kit, please order A-5003-5171.

Part number	A-5004-7616	A-5004-7618	A-5004-7619	A-5004-7620	A-5004-7622
	M3	M3	M3	M4	M4
	Silver steel	Silver steel	Silver steel	Silver steel	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 grams	2.43	3.6	4.5	1.37	2.2
Price	\$30	\$30	\$30	\$30	\$30
For use on	TS20	TS20	TS20	RP1/RP2	TSA



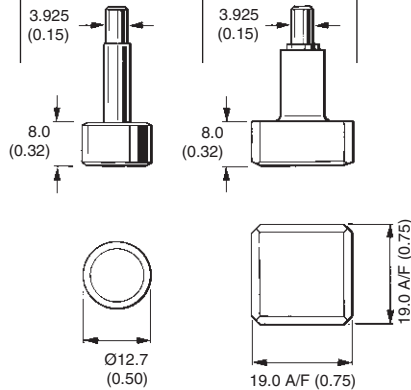
Cranked styli

Part number	A-5000-5302	A-5000-5307	A-5000-6620	A-5000-7580
	M4	M4	M4	M4
	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel
Length mm (in.)	32.0 (1.26)	21.6 (0.85)	27.4 (1.08)	38.8 (1.53)
Mass grams	3.8	3.85	4.7	2.5
For use on	LP2	LP2	LP2	LP2
Price	\$141	\$141	\$141	\$61



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

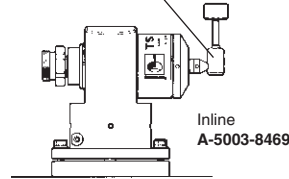
Part number	A-2008-0382 Tungsten carbide	A-2008-0384 Ceramic
Overall length mm (in.)	23.0 (0.91)	22.0 (0.87)
Mass grams	12.1	7.1
Price	\$129	\$300



Stylus conversion kit for TS27R to allow horizontal machining applications (**A-2008-0448**)

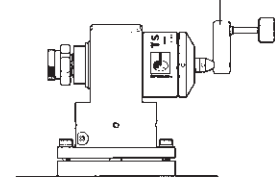
Price: \$132

Stylus holder assembly
A-2008-0389
Price: \$30



Vertical machining applications

Stylus holder
A-5004-7617*
Price: \$105

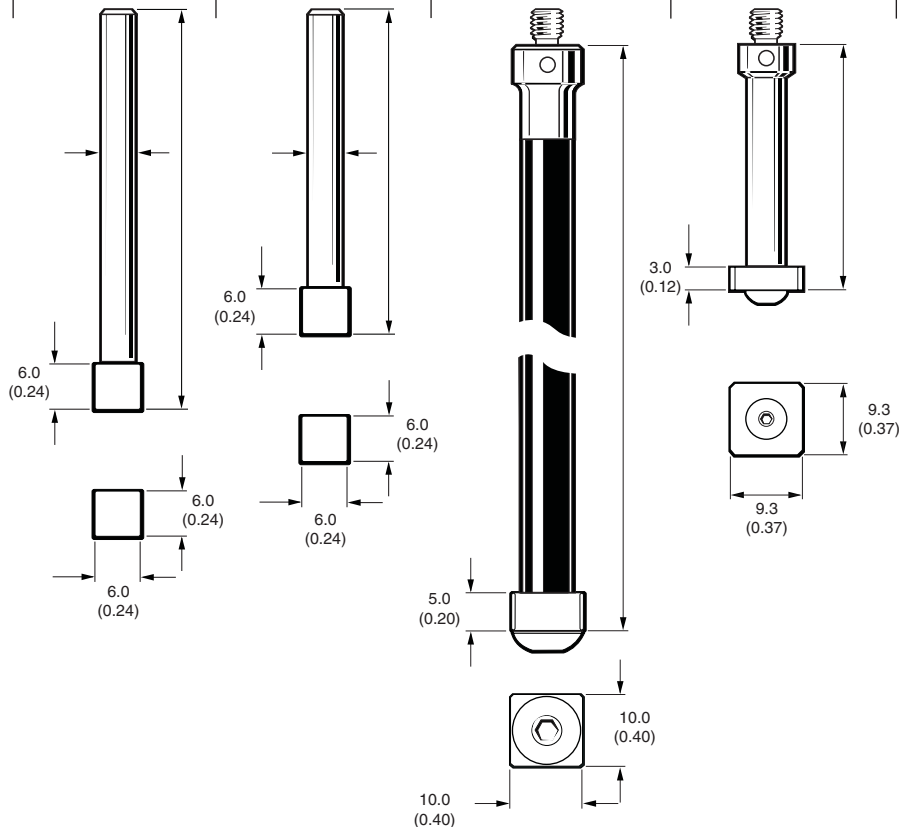


Horizontal machining applications

* Order also requires 2 x P-SC13-0404

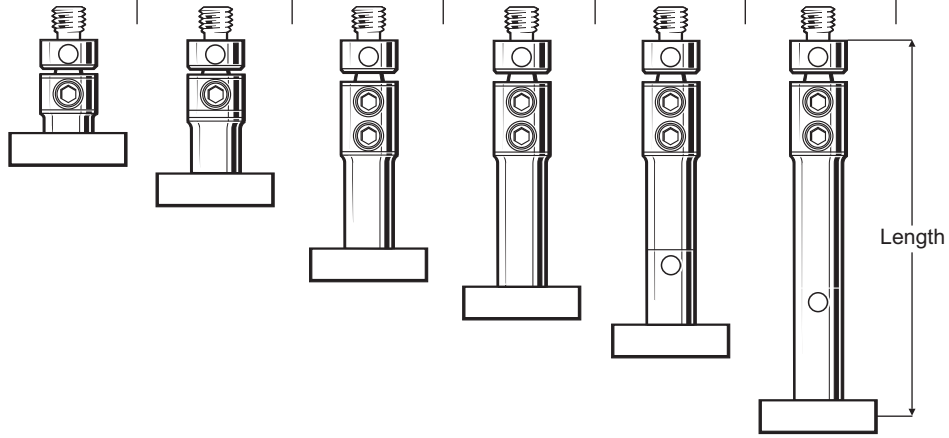
Tool datuming styli

Part number	A-5000-3212 Stainless steel	A-5000-6701 Stainless steel	A-5000-6713 Aluminum	A-5000-6403 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 grams	4.5	4.3	21.9	11.0
Price	\$124	\$124	\$149	\$124

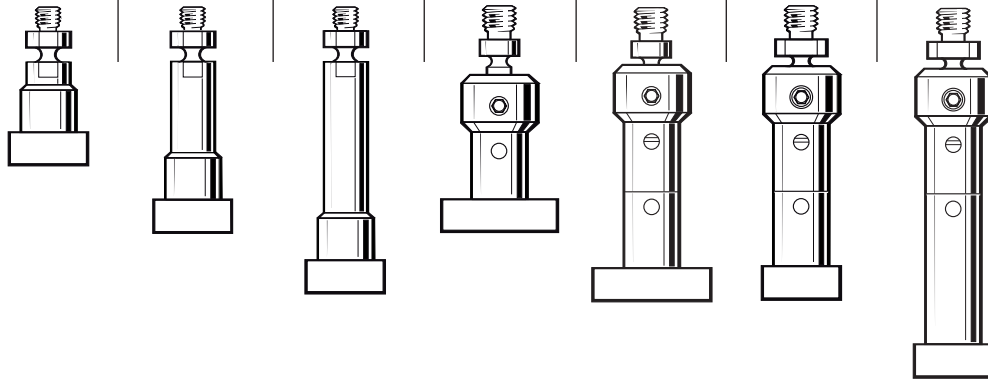


Tool datuming styli – continued

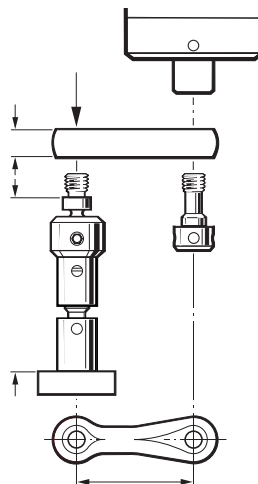
Part number	A-2197-0157 Tungsten steel	A-2197-0158 Tungsten steel	A-2197-0159 Tungsten steel	A-2197-0160 Tungsten steel	A-2197-0161 Tungsten steel	A-2197-0162 Tungsten steel
Length mm (in.)	14.2 (0.56)	19.5 (0.77)	29.5 (1.16)	34.5 (1.36)	39.5 (1.55)	49.5 (1.95)
Mass grams	14.86	16.0	20.0	20.7	21.8	23.5
Price	\$134	\$134	\$134	\$134	\$134	\$134
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



Part number	A-2008-0601 M3	A-2008-0602 M3	A-2008-0603 M3	A-2048-2050 M4	A-2048-2051 M4	A-2116-0140 M4	A-2116-0141 M4
	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel	Tungsten steel
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 grams	9.1	8.0	8.95	18.14	20.64	13.56	16.05
Price	\$134	\$134	\$134	\$158	\$151	\$127	\$147
For use on	TS20	TS20	TS20	HPA (M6 MTG)	HPA (M6 MTG)	TSA	TSA

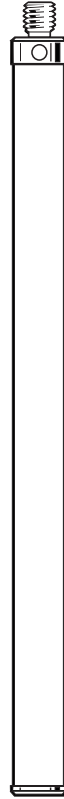
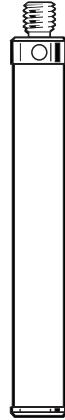


Part number	A-2116-0142
Length mm (in.)	30.3 (0.40)
Mass grams	22.6
Price	\$183
For use on	TSA



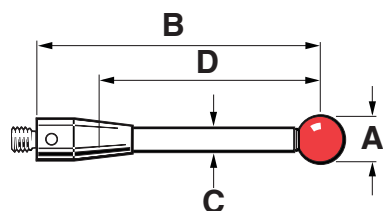
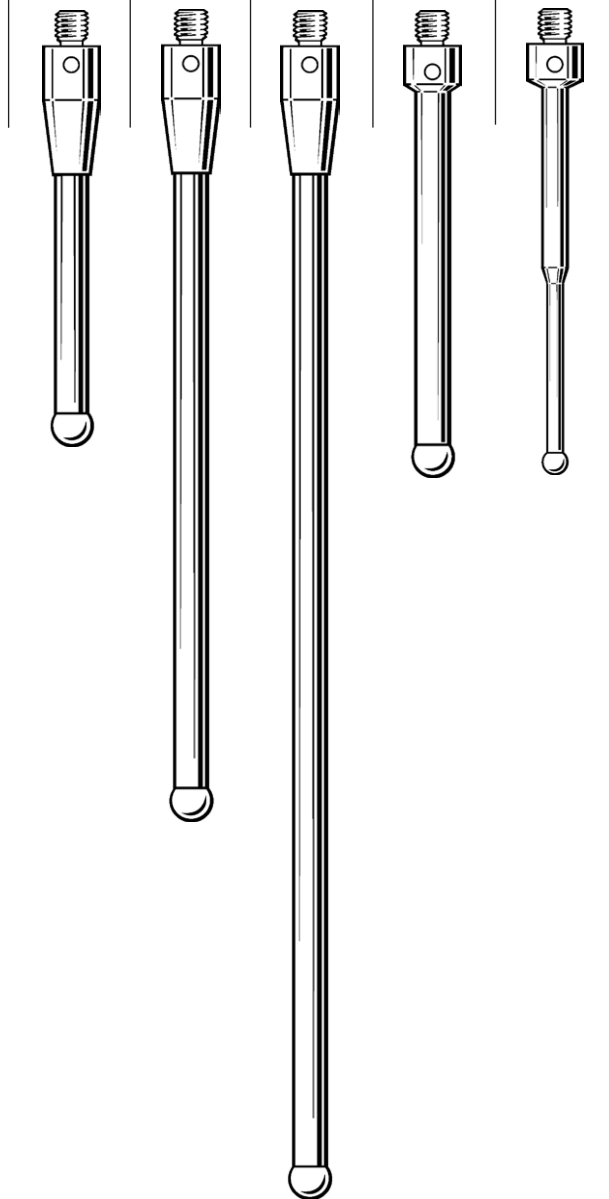
Stylus extensions

Part number	A-5004-7599 Stainless steel	A-5004-7600 Stainless steel	A-5004-7601 Stainless steel	A-5004-7602 Stainless steel	A-5000-7754 Ceramic	A-5000-7755 Ceramic	A-5000-7727 Ceramic	A-5003-0587 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 (0.29)	7.4 (0.29)	7.4 (0.29)	7.4 (0.29)
Mass grams	2.4	3.7	4.8	7.4	5.1	6.7	10.6	18.4
Price	\$42	\$42	\$42	\$42	\$59	\$69	\$178	\$190



Tungsten carbide styli (stainless steel stems)

Part number	A-5000-7670	A-5003-7103	A-5003-7104	A-5000-9685	A-5000-9697
A 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 Length mm (in.)	50.0 (1.97)	100.0 (3.94)	150.0 (5.91)	54.0 (2.12)	55.0 (2.17)
C Stem dia. mm (in.)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	3.9 (0.15)	1.9 (0.07)
D EWL* mm (in.)	35.0 (1.38)	85.0 (3.35)	135.0 (5.31)	50.0 (1.97)	25.0 (0.99)
Mass grams	6.2	11.9	18.2	6.9	3.8
Price	\$81	\$87	\$97	\$184	\$171



* Effective working length

M4 styli

Walter styli

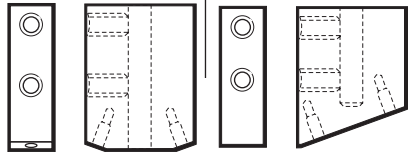
M1.4 thread styli

Part number	A-5003-3814	A-5003-3045	A-5003-3042	A-5000-9860	A-5003-1699
	M1.4	M1.4	M1.4	M1.4	M1.4
Stem material	Tungsten carbide	Stainless steel	Tungsten carbide	Tungsten carbide	Stainless steel
Ball material	Tungsten carbide	Tungsten carbide	Ruby	Tungsten carbide	Tungsten carbide
A Ball dia. mm (in.)	0.5 (0.02)	1.0 (0.04)	0.5 (0.02)	1.0 (0.04)	0.6 (0.02)
B Length mm (in.)	12.5 (0.49)	25.0 (0.98)	12.5 (0.49)	13.0 (0.51)	12.75 (0.50)
D EWL* mm (in.)	1.5 (0.059)	1.5 (0.059)	3.0 (0.12)	1.0 (0.04)	1.0 (0.04)
Mass grams	0.2	1.1	0.19	0.22	0.41
Price	\$285	\$189	\$285	\$142	\$285



Adaptors

Part number	A-5003-1448	A-5000-9724
D3 MTG	2 x M1.4 adaptor 20°	M1.4 adaptor 20°
Mass grams	9.73	8.31
Price	\$189	\$189

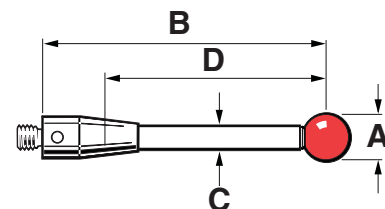


Crash protection device

Part number	A-5004-7615
Length mm (in.)	16.0 (0.63)
Mass grams	2
Price	\$66



* Effective working length

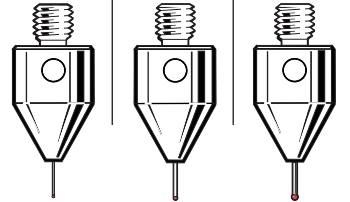


M5 threaded stylus range

Ruby micro ball styli (tungsten carbide stems)

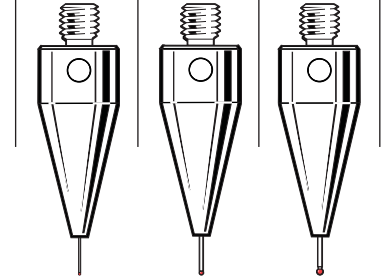
Part number	A-5003-5201	A-5003-5202	A-5003-5203	
A	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
B	Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
C	Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
D	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grams	6.5	6.5	6.5
	Price	\$101	\$87	\$87

20 mm range



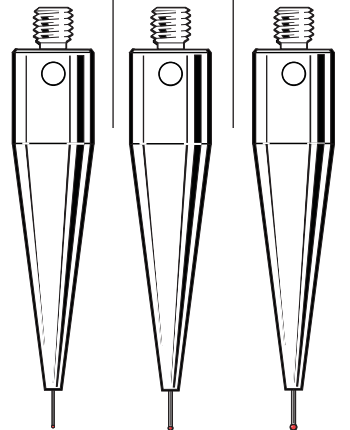
Part number	A-5003-5211	A-5003-5212	A-5003-5213	
	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
	Length mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
	Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grams	8.95	8.95	8.98
	Price	\$106	\$95	\$95

30 mm range



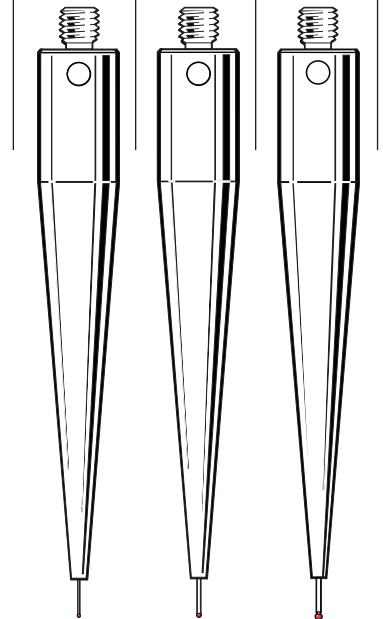
Part number	A-5003-5225	A-5003-5226	A-5003-5227	
A	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
B	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
C	Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
D	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grams	15.79	15.79	15.79
	Price	\$138	\$127	\$127

50 mm range



Part number	A-5003-5240	A-5003-5241	A-5003-5242	
	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.02)	0.7 (0.03)
	Length mm (in.)	75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
	Stem dia. mm (in.)	0.2 (0.01)	0.4 (0.02)	0.5 (0.02)
	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grams	23.84	23.84	23.84
	Price	\$147	\$138	\$127

75 mm range

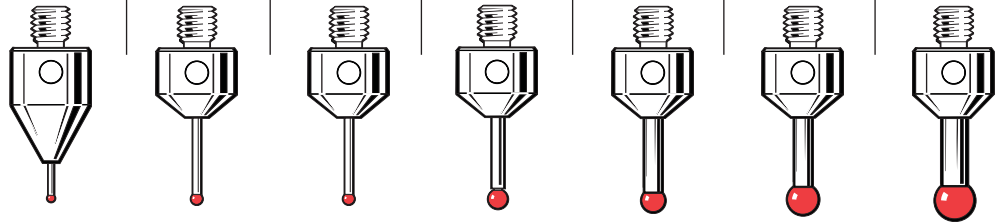


* Effective working length

Ruby ball styli (tungsten carbide stems)

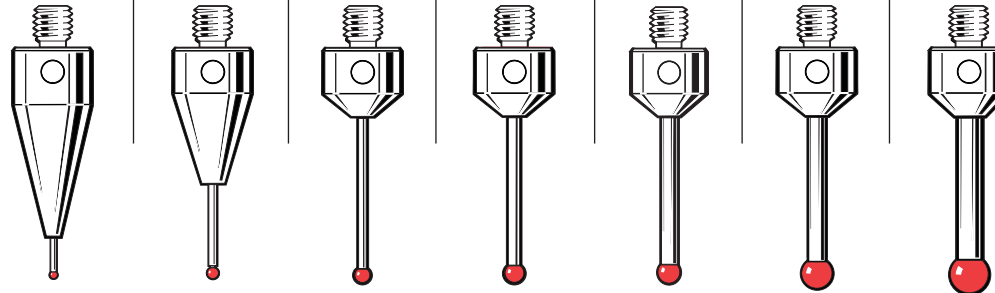
Ball material	Part number						
Ruby	A-5003-5204	A-5003-5205	A-5003-5206	A-5003-5207	A-5003-5208	A-5003-5209	A-5003-5210
Price	\$78	\$67	\$67	\$67	\$67	\$74	\$74
Silicon nitride	–	–	A-5003-5732	–	–	A-5003-5733	–
Price	–	–	\$100	–	–	\$109	–
Zirconia	–	–	A-5003-5746	–	–	A-5003-5747	–
Price	–	–	\$100	–	–	\$109	–
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.)	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)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)
D 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 grams	6.52	4.68	4.70	4.84	5.12	5.19	6.06

20 mm range



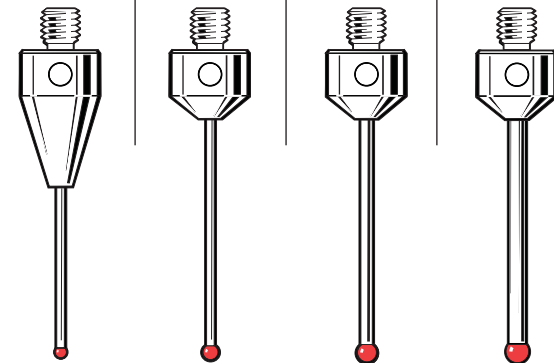
Part number	A-5003-5214	A-5003-5215	A-5003-5216	A-5003-5217	A-5003-5218	A-5003-5219	A-5003-5220
A Ball dia. mm (in.)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
B Length mm (in.)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
C Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	3.0 (0.12)
D 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 grams	9.01	7.28	4.81	5.14	5.58	5.64	7.10
Price	\$85	\$51	\$74	\$74	\$74	\$79	\$85

30 mm range



Part number	A-5003-5221	A-5003-5222	A-5003-5223	A-5003-5224
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.)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)	40.0 (1.58)
C Stem dia. mm (in.)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)
D EWL* mm (in.)	22.0 (0.87)	31.0 (1.23)	31.0 (1.23)	31.0 (1.23)
Mass grams	7.39	4.93	5.40	6.04
Price	\$106	\$95	\$95	\$95

40 mm range

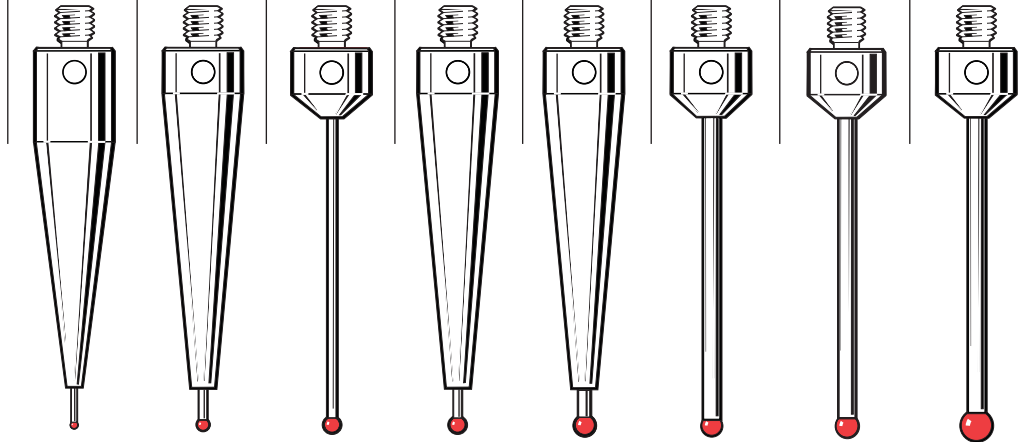


* Effective working length

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

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 (0.03)	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 grams	15.81	14.82	5.05	14.85	14.94	6.48	6.50	6.55
Price	\$120	\$116	\$106	\$85	\$85	\$95	\$95	\$95

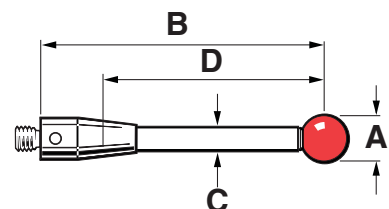
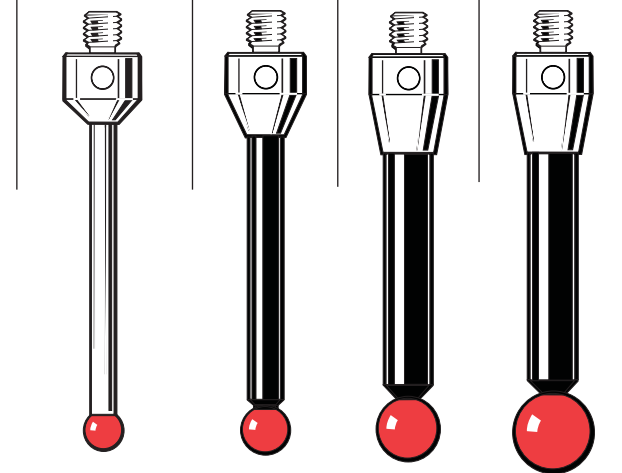
50 mm range



Ruby ball styli (≥ 5 mm ball diameter)

Ball material	Part number			
Ruby	A-5003-5236	A-5003-5237	A-5003-5238	A-5003-5239
Price	\$95	\$117	\$128	\$140
Silicon nitride	–	A-5003-5734	–	–
Price	–	\$155	–	–
	Tungsten carbide	Carbon fiber	Carbon fiber	Carbon fiber
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 (1.56)	39.5 (1.56)	44.5 (1.75)
Mass grams	9.19	6.10	7.96	8.91

50 mm range

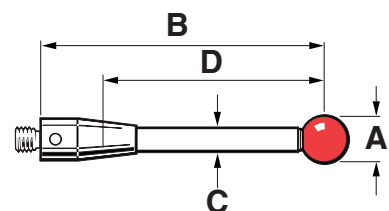
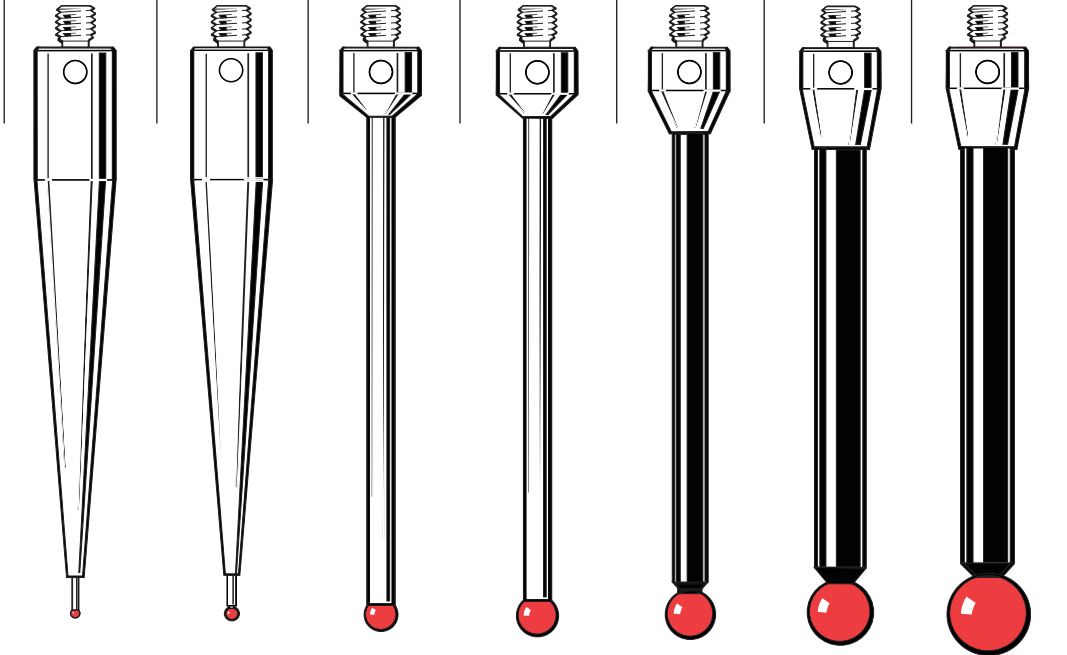


* Effective working length

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

Part number	A-5003-5243 Tungsten carbide	A-5003-5244 Tungsten carbide	A-5003-5248 Tungsten carbide	A-5003-5249 Tungsten carbide	A-5003-5250 Carbon fiber	A-5003-5251 Carbon fiber	A-5003-5252 Carbon fiber	
A	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	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)
C	Stem dia. mm (in.)	0.7 (0.03)	1.0 (0.04)	3.0 (0.12)	3.0 (0.12)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D	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 grams	23.86	23.90	11.61	11.80	6.59	9.06	10.01
	Price	\$127	\$116	\$106	\$116	\$152	\$140	\$152

75 mm range

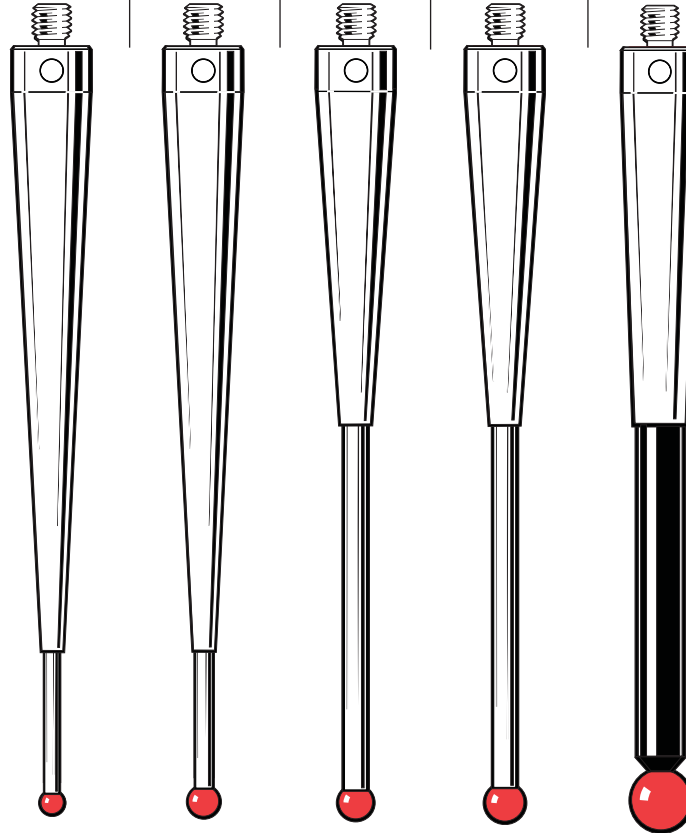


* Effective working length

Ruby ball styli (≤ 50 mm EWL)

Part number	A-5003-5253 Tungsten carbide	A-5003-5255 Tungsten carbide	A-5003-5256 Tungsten carbide	A-5003-5257 Tungsten carbide	A-5003-5261 Carbon fiber
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 grams	25.71	25.75	23.07	23.31	22.97
Price	\$138	\$138	\$158	\$138	\$175

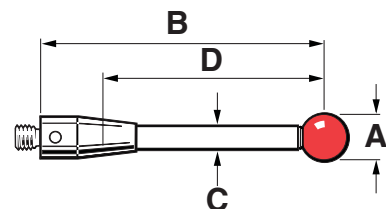
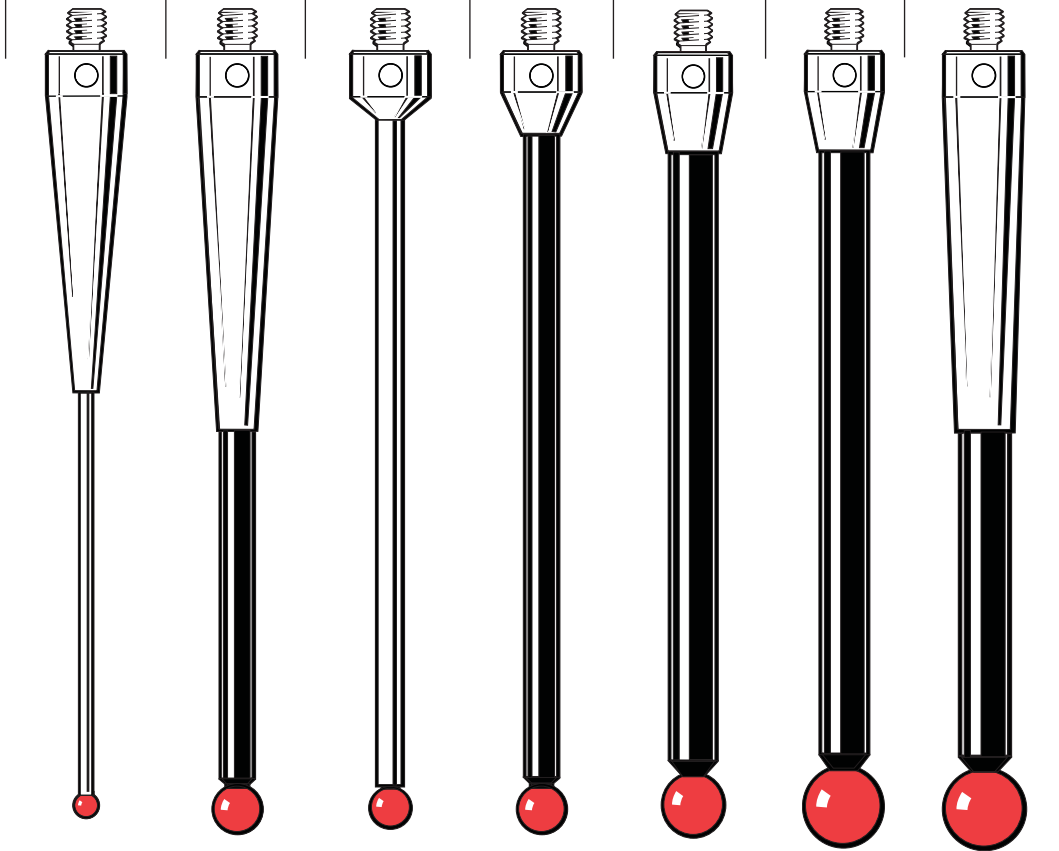
100 mm range



Ruby ball styli (> 50 mm EWL)

Ball material	Part number						
Ruby	A-5003-5254	A-5003-5259	A-5003-5258	A-5003-5260	A-5003-5262	A-5003-5264	A-5003-5263
Price	\$158	\$147	\$158	\$186	\$179	\$210	\$186
Silicon nitride	–	A-5003-5735	–	–	–	–	–
Price	–	\$218	–	–	–	–	–
Zirconia	–	A-5003-5749	–	–	–	–	–
Price	–	\$218	–	–	–	–	–
	Tungsten carbide	Carbon fiber	Tungsten carbide	Carbon fiber	Carbon fiber	Carbon fiber	Carbon fiber
A Ball dia. mm (in.)	3.0 (0.12)	6.0 (0.24)	5.0 (0.20)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)	10.0 (0.40)
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)
C Stem dia. mm (in.)	1.5 (0.06)	4.0 (0.16)	3.0 (0.12)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	55.0 (2.17)	58.9 (2.32)	91.0 (3.59)	90.1 (3.55)	89.5 (3.52)	94.5 (3.72)	95.5 (3.76)
Mass grams	16.30	19.66	14.40	7.08	10.17	11.11	23.91

100 mm range



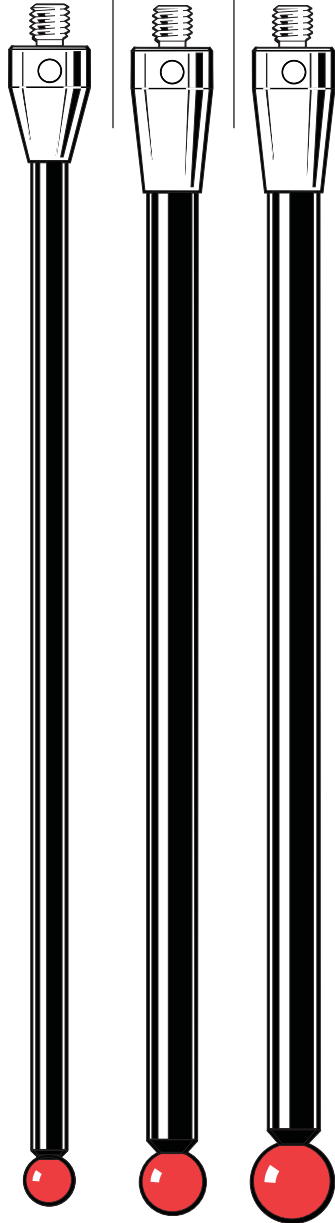
* Effective working length

M5 styli

Ruby ball styli (carbon fiber stems)

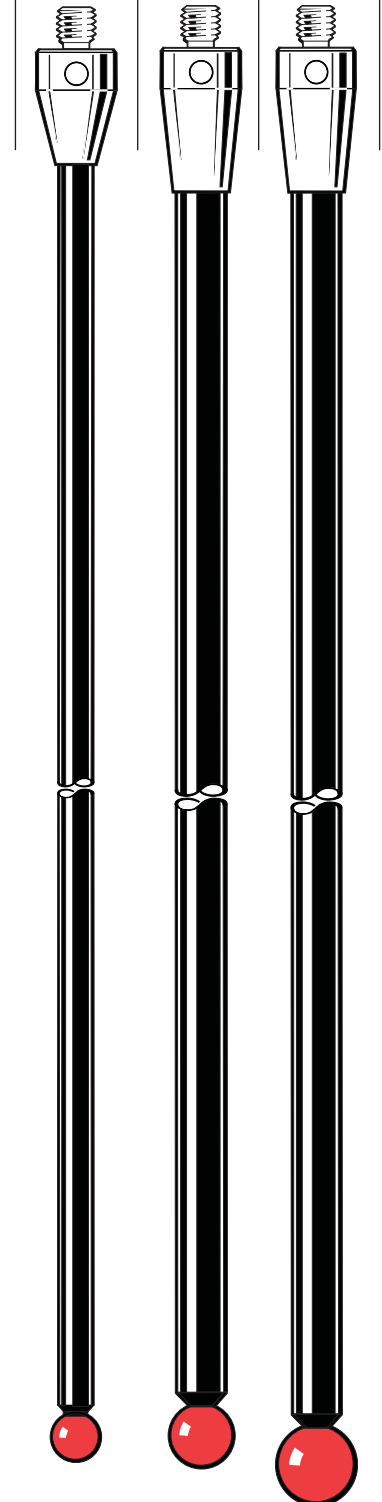
Part number	A-5003-5265	A-5003-5266	A-5003-5267
A Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B Length mm (in.)	150.0 (5.91)	150.0 (5.91)	150.0 (5.91)
C Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D EWL* mm (in.)	137.0 (5.39)	135.0 (5.31)	144.5 (5.69)
Mass grams	9.09	13.71	14.66
Price	\$278	\$274	\$296

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
\$395	\$380	\$400

200 mm range

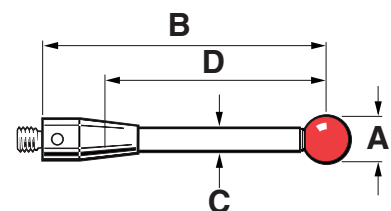
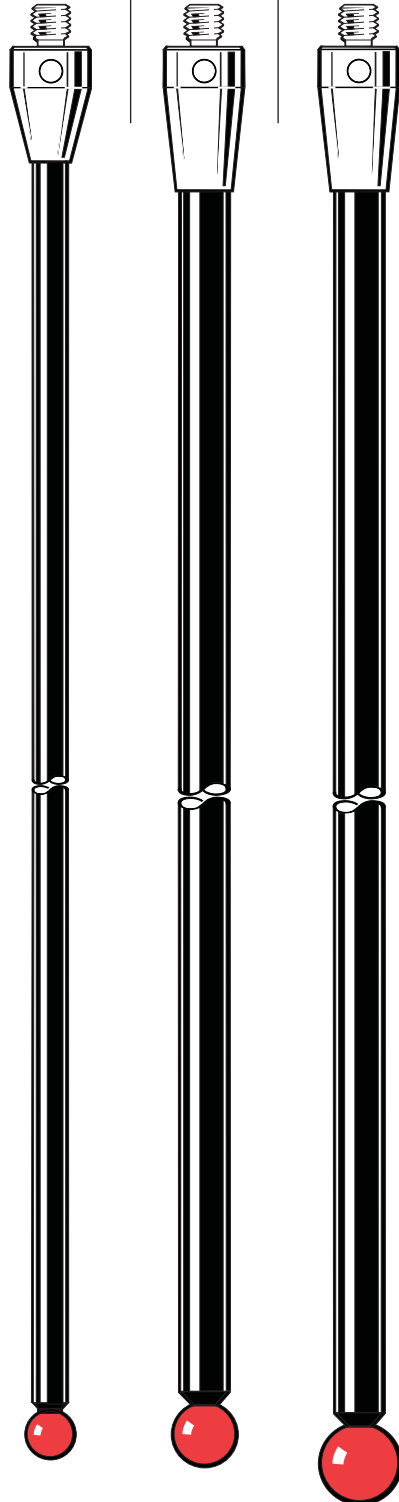


* Effective working length

Ruby ball styli (carbon fiber stems)

Part number	A-5003-5271	A-5003-5272	A-5003-5273	
A	Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
B	Length mm (in.)	300.0 (11.82)	300.0 (11.82)	300.0 (11.82)
C	Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
D	EWL* mm (in.)	287.0 (11.30)	280.0 (11.03)	294.5 (11.59)
	Mass grams	12.02	20.33	21.28
	Price	\$464	\$485	\$506

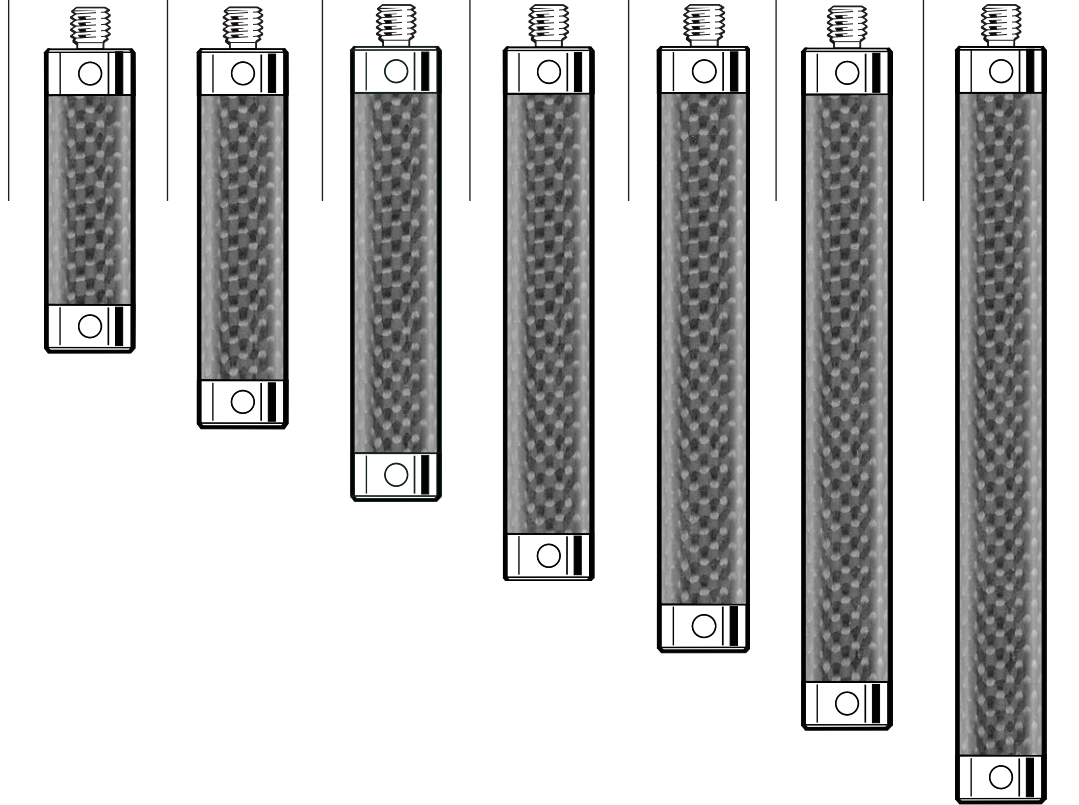
300 mm range



* Effective working length

Stylus extensions – thermo stable carbon fiber stems, titanium ends

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 grams	7.6	8.3	9.0	9.7	10.4	11.1	11.8
Price	\$182**	\$184**	\$187**	\$193**	\$197**	\$210**	\$217**

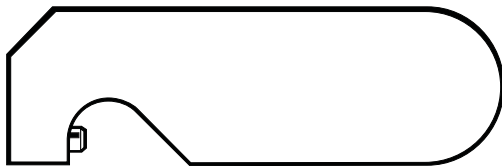


M5 extension tools

A-5003-6134

For M5 threaded extensions with
11 mm (0.44 mm stem diameter

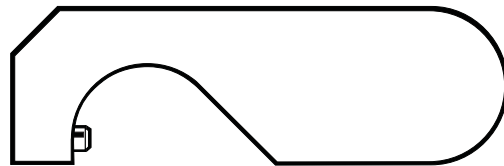
Price: \$25



A-5003-6135

For M5 threaded extensions with
20 mm (0.79 in) stem diameter

Price: \$25

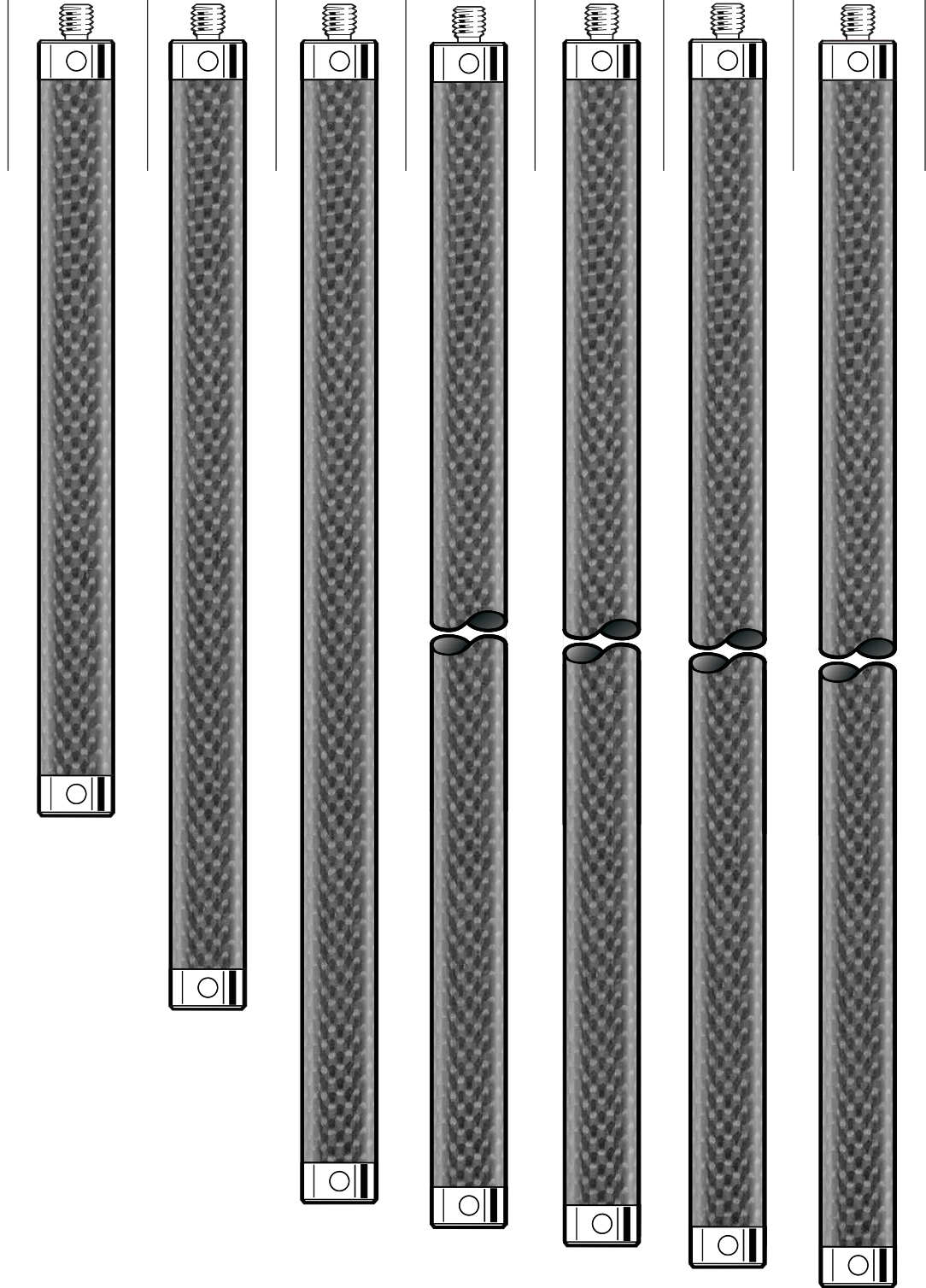


Note: These tools are designed to fit stylus extensions for Renishaw probes without causing any internal damage.

** Special

Stylus extensions – thermo stable carbon fiber stems, titanium ends

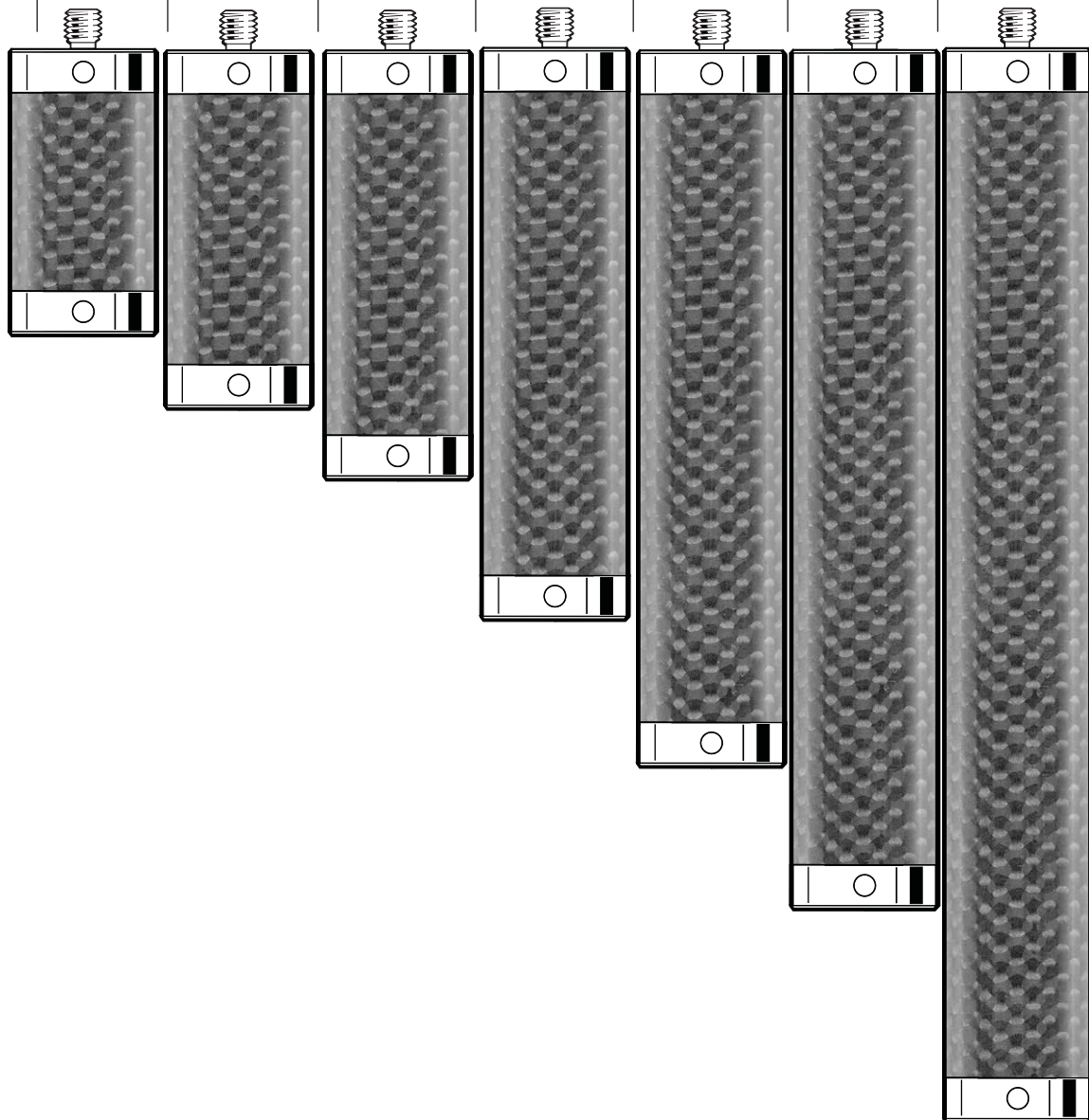
Part number	A-5555-0425	A-5555-0424	A-5555-0653	A-5555-0654	A-5555-0655	A-5555-0642	A-5555-0656
Length mm (in.)	120.0 (4.73)	150.0 (5.91)	180.0 (7.09)	200.0 (7.88)	250.0 (9.85)	300.0 (11.82)	400.0 (15.76)
Stem dia. mm (in.)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)
Mass grams	13.2	15.4	17.5	18.9	22.4	25.9	33.0
Price	\$221**	\$232**	\$241**	\$255**	\$275**	\$323**	\$385**



** Special

Stylus extensions – thermo stable carbon fiber stems, titanium ends

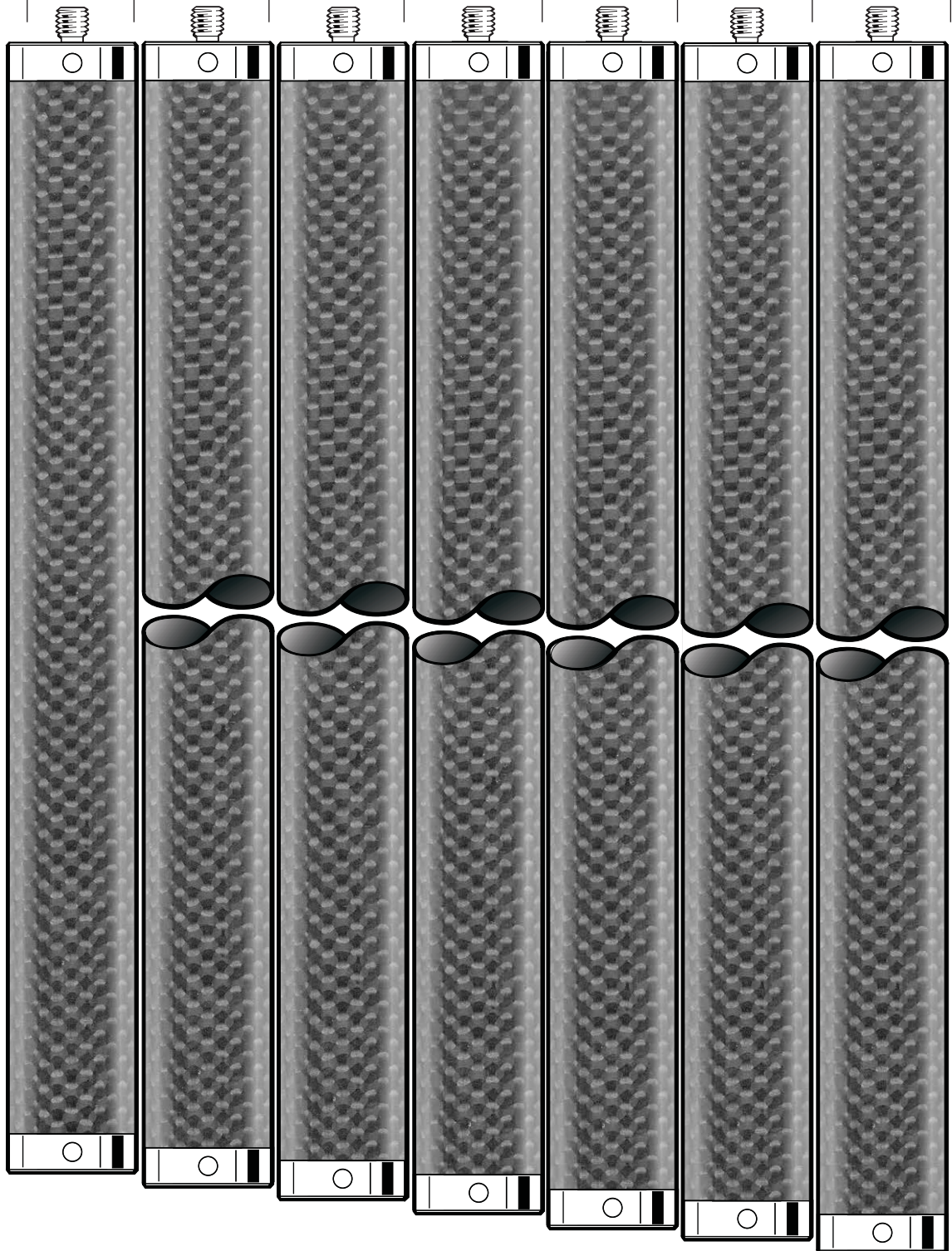
Part number	A-5555-0620	A-5555-0657	A-5555-0658	A-5555-0621	A-5555-0659	A-5555-0660	A-5555-0661
Length mm (in.)	40.0 (1.58)	50.0 (1.97)	60.0 (2.37)	80.0 (3.15)	100.0 (3.94)	120.0 (4.73)	150.0 (5.91)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	23.8	25.1	26.5	29.3	32.1	34.9	39.0
Price	\$178**	\$184**	\$187**	\$197**	\$222**	\$234**	\$248**



** Special

Stylus extensions – thermo stable carbon fiber stems, titanium ends

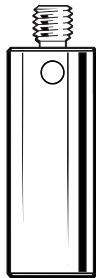
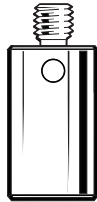
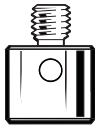
Part number	A-5555-0662	A-5555-0663	A-5555-0427	A-5555-0664	A-5555-0665	A-5555-0667	A-5555-0668
Length mm (in.)	180.0 (7.09)	200.0 (7.88)	250.0 (9.85)	300.0 (11.82)	400.0 (15.76)	500.0 (19.70)	600.0 (23.64)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	43.2	46.0	52.9	59.9	73.8	87.7	101.5
Price	\$265**	\$275**	\$307**	\$344**	\$404**	\$485**	\$323**



** Special

Stylus extensions – stainless steel

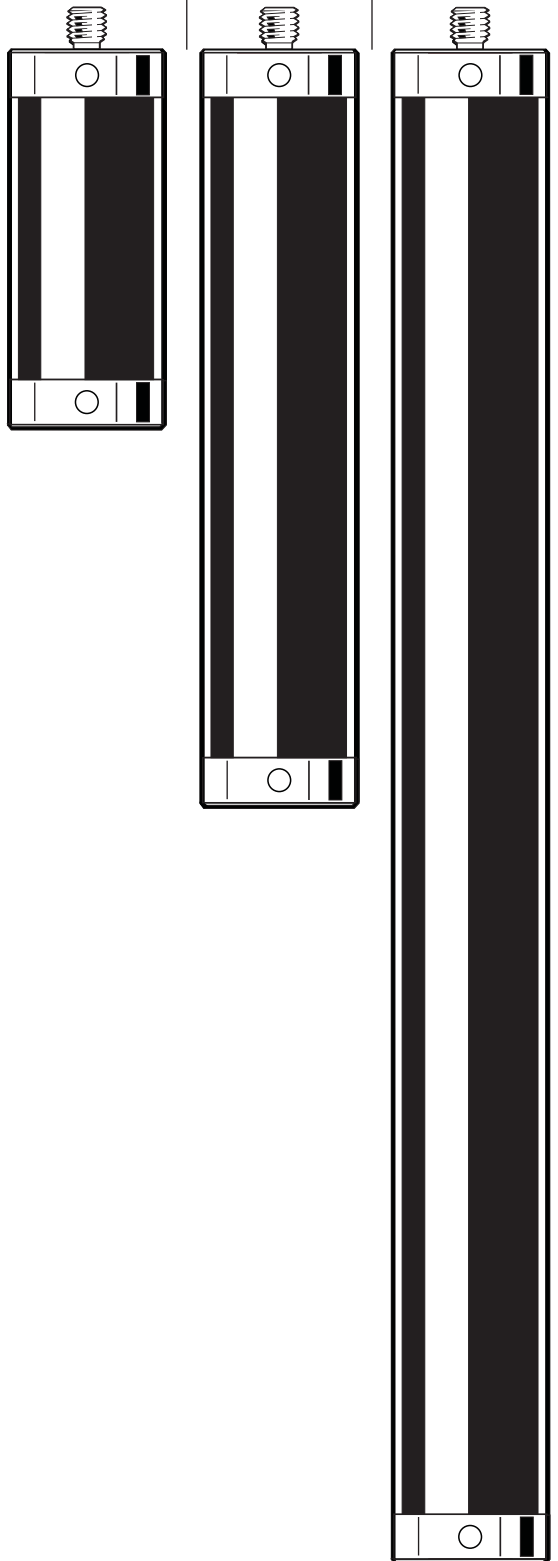
Part number	A-5555-0142	A-5555-0140	A-5555-0669	A-5555-0670	A-5555-0136
Length mm (in.)	10.0 (0.40)	20.0 (0.79)	30.0 (1.19)	50.0 (1.97)	100.0 (3.94)
Stem dia. mm (in.)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)	11.0 (0.44)
Mass grams	6.0	13.0	20.0	34.8	73.0
Price	\$30**	\$30**	\$30**	\$32**	\$34**



** Special

Stylus extensions – aluminum

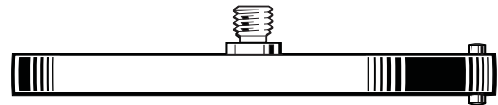
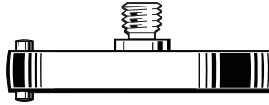
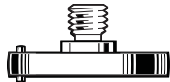
Part number	A-5555-0671	A-5555-0127	A-5555-0125
Length mm (in.)	50.0 (1.97)	100.0 (3.94)	200.0 (7.88)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
Mass grams	47.2	50.0	85.0
Price	\$83**	\$85**	\$107**



** Special

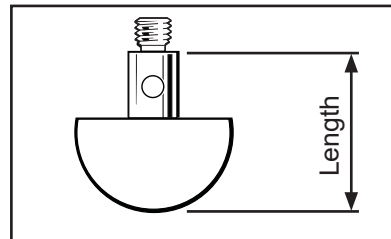
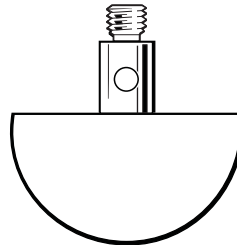
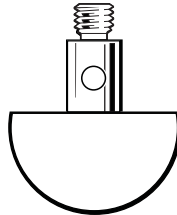
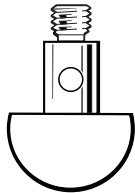
Disk styli

Part number	A-5003-5288 Silver steel	A-5003-5289 Silver steel	A-5003-5290 Silver steel	A-5003-5291 Silver steel
Disk diameter mm (in.)	12.0 (0.48)	21.0 (0.83)	35.0 (1.38)	63.5 (2.51)
Disk 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 (0.32)	8.0 (0.32)
Mass grams	2.52	5.23	14.00	51.00
Price	\$145	\$155	\$166	\$188



Hemispherical styli

Part number	A-5003-5275 Ceramic	A-5003-5276 Ceramic	A-5003-5277 Ceramic
Ball diameter mm (in.)	16.0 (0.63)	22.0 (0.87)	30.0 (1.19)
Length mm (in.)	19.5 (0.77)	20.5 (0.81)	24.5 (0.96)
Mass grams	7.0	14.0	19.7
Price	\$260	\$260	\$347

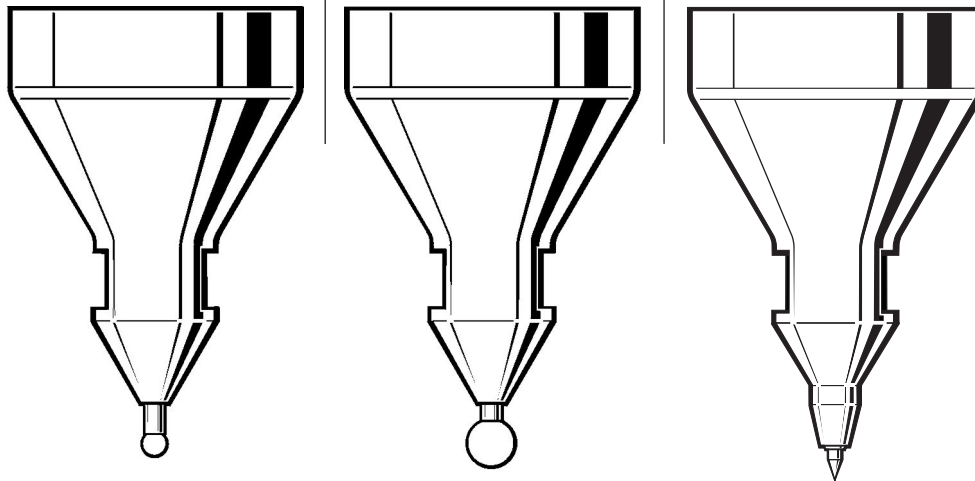


Styli for FARO® arms

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.

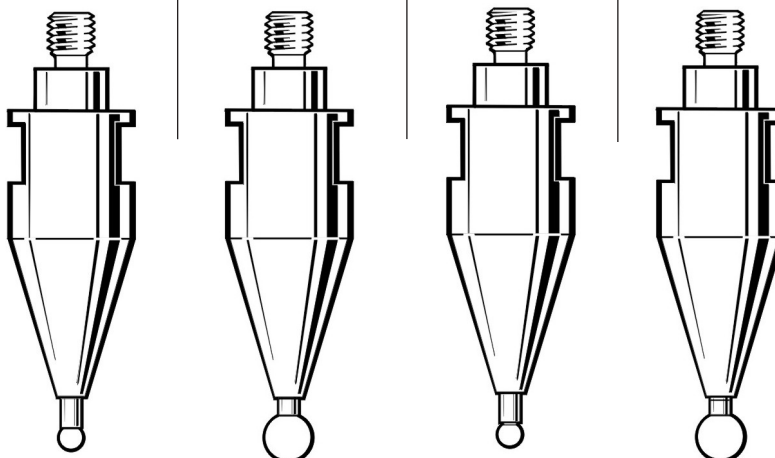
1¼–20 UN thread styli

Part number	A-5003-7673	A-5003-7674	A-5003-7675
Ball dia (mm)	3	6	N/A
Length (mm)	57	57	57
Price	\$174	\$174	\$174



M6 styli

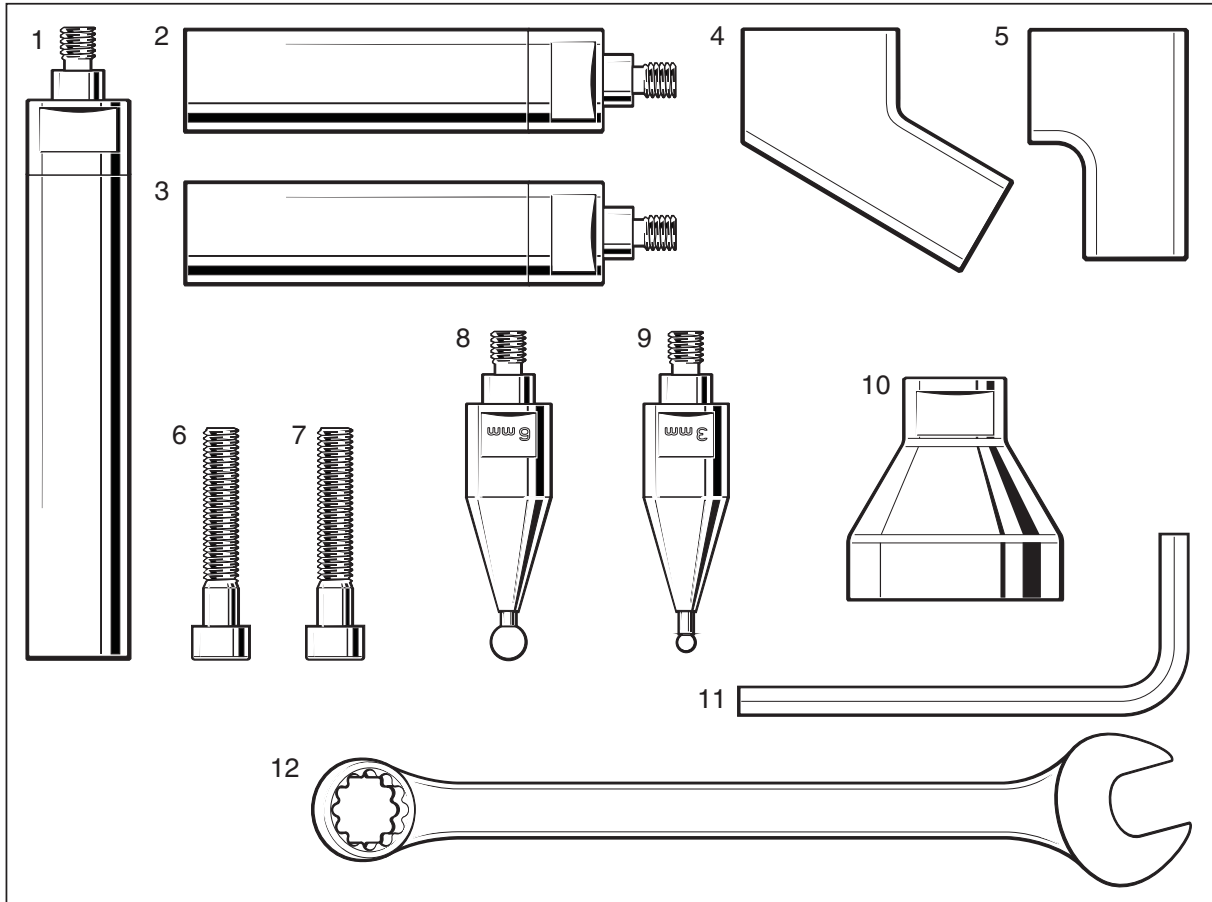
Part number	A-5003-7676	A-5003-7677	A-5003-7678	A-5003-7679
Ball dia	1/8 in	1/4 in	3 mm	6 mm
Length (mm)	43	43	43	43
Price	\$174	\$174	\$174	\$174



FARO® kit

A-5003-9190 FARO® probe kit 0073 12 piece

Price: \$1,195



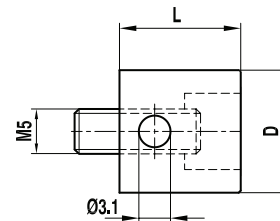
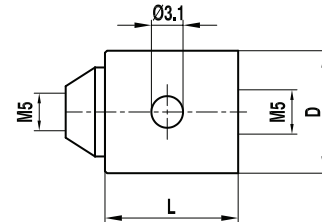
Position	Part number	Description
1	A-5003-9127	M6M - M6F EXT L101.6 (4.0) D18 AL
2 and 3	A-5003-9126	M6M - M6F EXT L76.2 (3.0) D18 AL
4	A-5003-9186	M6F FARO EXT 60 DEG ADAPTOR
5	A-5003-9187	M6F FARO EXT 90 DEG ADAPTOR
6 and 7	P-SC08-0635	SCREW HEX SKT CAPHD M6X35 STST
8	A-5003-7679	STYLUS M6 DIA 6 MM 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 5MM A/F
12	P-TL09-0012	12 MM A/F OPEN/RING SPANNER

M5 adaptors and accessories for Zeiss analog probe systems

Schematics not shown to scale

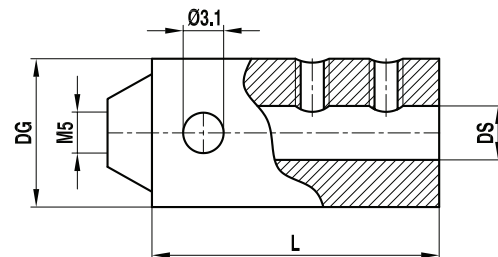
Adaptor with thread/conical stem base, stainless steel

Part number	A-5555-0013	A-5555-0014
Zeiss order number	600331-0001	602030-0018
D (mm)	18	18
L (mm)	10	12
Weight (g)	12	10
Price	\$40	\$30



Conical holder, stainless steel

Part number	A-5555-0015	A-5555-0016	A-5555-0017
Zeiss order number	602030-8350	602030-8351	602030-8352
DS (mm)	2	3.5	6
L (mm)	24	24	24
DG (mm)	19	19	19
Weight (g)	29	29	29
Price	\$70	\$66	\$63



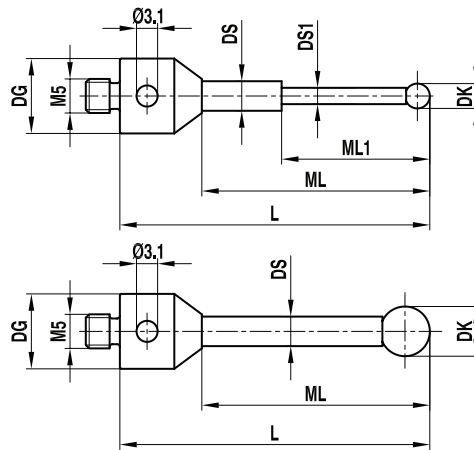
Tungsten carbide styli, titanium base, tungsten carbide stem, ruby ball

Schematics not shown to scale

Part number	A-5555-0018	A-5555-0019	A-5555-0020	A-5555-0021	A-5555-0022	A-5555-0023	A-5555-0024	A-5555-0025
Zeiss order number	602030-9010	600342-8020	602030-9011	600342-8021	600342-8025	602030-9012	602030-9013	600342-8022
DK (mm)	3	3	3	3	4	4	5	5
L (mm)	25	33.5	50	58	33.5	64	50	53
DG (mm)	11	11	11	11	11	11	11	11
ML (mm)	15	23.5	40	48	23.5	54	40	43
DS (mm)	2	2	2	2	2	2	3.5	3.5
Weight (g)	4	4.5	5.2	5.5	4.5	5.9	9	9.8
Price	\$50	\$50	\$50	\$50	\$63	\$66	\$58	\$55

Part number	A-5555-0026	A-5555-0027	A-5555-0028	A-5555-0029	A-5555-0030	A-5555-0031	A-5555-0032	A-5555-0033
Zeiss order number	602030-9015	600342-8026	600342-8027	600342-8023	600342-8123	602030-9014	602030-9016	602030-9017
DK (mm)	5	6	7	8	8	8	8	8
L (mm)	75	54	55	63.5	63.5	74	75	100
DG (mm)	11	11	11	11	19	11	11	11
ML (mm)	65	44	45	50.5	41.5	61	62	87
DS (mm)	3.5	3.5	3.5	6	6	6	6	6
Weight (g)	12.5	10	10	24.8	36.7	29.5	30	40
Price	\$63	\$63	\$66	\$70	\$76	\$73	\$73	\$73

Part number	A-5555-0034	A-5555-0035	A-5555-0036	A-5555-0037	A-5555-0038	A-5555-0039	A-5555-0040
Zeiss order number	600342-8024	600342-8124	600342-8028	600342-8128	600342-8029	600342-8129	602030-9018
DK (mm)	8	8	9	9	10	10	10
L (mm)	114.5	114.5	64.5	64.5	65.5	65.5	118
DG (mm)	11	19	11	19	11	19	11
ML (mm)	101.5	92.5	51.5	42.5	52.5	43.5	105
DS (mm)	6	6	6	6	6	6	6
Weight (g)	45.8	57.5	26.3	36.8	25.8	37.5	47.3
Price	\$73	\$91	\$74	\$89	\$80	\$103	\$80



Tungsten carbide styli, titanium base, tungsten carbide stem, silicon nitride ball

Schematics not shown to scale

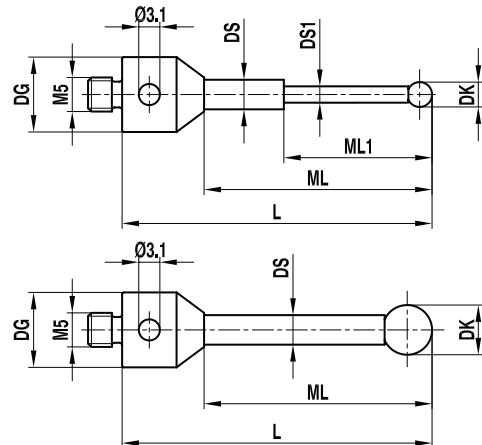
Part number	A-5555-3777	A-5555-3778	A-5555-3779	A-5555-3780	A-5555-3781	A-5555-3782	A-5555-3783	A-5555-3784
Zeiss order number	-	-	-	-	-	-	-	-
DK (mm)	1	1	1	1.5	2	2	2	2
L (mm)	20	25	30	30	20	25	30	40
DG (mm)	11	11	11	11	11	11	11	11
ML1 (mm)	5	5	5	8	-	-	-	-
ML (mm)	10	15	20	20	10	15	20	30
DS1 (mm)	0.8	0.8	0.8	1	-	-	-	-
DS (mm)	1	1	1	1.5	1	1	1.5	1.5
Weight (g)	3.5	3.5	3.8	3.5	3.5	3.5	3.8	4
Price	\$61	\$61	\$61	\$61	\$61	\$61	\$61	\$61

Part number	A-5555-3785	A-5555-3786	A-5555-3787	A-5555-3734	A-5555-3788	A-5555-3789
Zeiss order number	626115-0303-025	626115-0300-033	626115-0302-050	626115-0300-058	626115-0400-034	6262115-0401-064
DK (mm)	3	3	3	3	4	4
L (mm)	25	33.5	50	58	33.5	64
DG (mm)	11	11	11	11	11	11
ML (mm)	15	23.5	40	48	23.5	54
DS (mm)	2	2	2	2	2	2
Weight (g)	4	4.5	5.3	5.5	4.5	5.9
Price	\$62	\$62	\$62	\$62	\$63	\$74

Part number	A-5555-3790	A-5555-3791	A-5555-3792	A-5555-3793	A-5555-3794	A-5555-3795
Zeiss order number	-	626115-0501-050	626115-0501-053	626115-0500-075	-	-
DK (mm)	5	5	5	5	5	6
L (mm)	30	50	53	75	100	54
DG (mm)	11	11	11	11	11	11
ML (mm)	20	40	43	65	90	44
DS (mm)	3.5	3.5	3.5	3.5	3.5	3.5
Weight (g)	8	9	9.8	12.5	18	10
Price	\$72	\$74	\$74	\$78	\$88	\$77

Part number	A-5555-3796	A-5555-3797	A-5555-3798	A-5555-3799	A-5555-3800	A-5555-3801
Zeiss order number	-	626115-0800-064	626115-0800-075	626115-0801-100	626115-0800-115	-
DK (mm)	7	8	8	8	8	9
L (mm)	55	63.5	75	100	114.5	64.5
DG (mm)	11	11	11	11	11	11
ML (mm)	45	50.5	62	87	101.5	51.5
DS (mm)	3.5	6	6	6	6	6
Weight (g)	10	36.6	29.4	39.9	45.7	26.3
Price	\$86	\$86	\$99	\$103	\$109	\$101

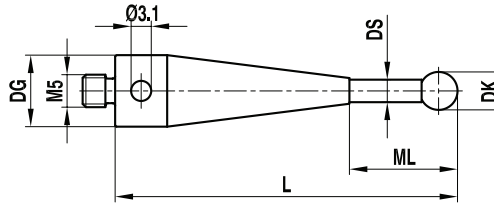
Part number	A-5555-3802	A-5555-3803	A-5555-3804
Zeiss order number	-	-	-
DK (mm)	10	10	10
L (mm)	65.5	118	150
DG (mm)	11	11	11
ML (mm)	52.5	105	135
DS (mm)	6	6	6
Weight (g)	25.8	47.3	60
Price	\$112	\$125	\$129



Reference styli (red dot), high-strength stainless steel base and stem, ruby ball

Schematics not shown to scale

Part number	A-5555-3805
Zeiss order number	600342-8023-010
DK (mm)	8
L (mm)	63.5
DG (mm)	11
ML (mm)	50.5
DS (mm)	6
Weight (g)	24.8
Price	\$123



Thermo stable carbon fiber styli, titanium base, thermo stable carbon fiber stem, ruby ball

Part number	A-5555-1916	A-5555-1847	A-5555-0730	A-5555-3806	A-5555-1917	A-5555-0731
Zeiss order number	626105-0300-025	626105-0300-033	626105-0300-050	626105-0300-058	626105-0400-033	626105-0400-064
DK (mm)	3	3	3	3	4	4
L (mm)	25	33.5	50	58	33.5	64
DG (mm)	11	11	11	11	11	11
ML (mm)	15	23.5	40	48	23.5	54
DS (mm)	2	2	2	2	2	2
Weight (g)	4	4.2	4.5	4.9	4.2	4.6
Price	\$84	\$87	\$89	\$101	\$88	\$112

Part number	A-5555-0732	A-5555-2013	A-5555-0735	A-5555-0410	A-5555-0733	A-5555-0734
Zeiss order number	626105-0510-050	–	626105-0510-075	626105-0510-100	626105-0610-054	626105-0710-055
DK (mm)	5	5	5	5	6	7
L (mm)	50	53	75	100	54	55
DG (mm)	11	11	11	11	11	11
ML (mm)	40	43	65	90	44	45
DS (mm)	3.5	3.5	3.5	3.5	3.5	3.5
Weight (g)	4.8	4.9	5	5.4	4.9	4.9
Price	\$103	\$103	\$106	\$120	\$109	\$127

Part number	A-5555-3807	A-5555-2011	A-5555-1918	A-5555-3808	A-5555-9361	A-5555-1112
Zeiss order number	626105-0820-063	626105-0820-075	626105-0820-100	626105-0820-114	626105-0820-150	626105-0820-200
DK (mm)	8	8	8	8	8	8
L (mm)	63.5	75	100	114.5	150	200
DG (mm)	11	11	11	11	11	11
ML (mm)	50.5	62	87	101.5	137	187
DS (mm)	6	6	6	6	6	6
Weight (g)	7	7.3	7.5	9.5	11	13
Price	\$135	\$127	\$179	\$151	\$220	\$231

Part number	A-5555-3809	A-5555-3810	A-5555-3811	A-5555-0643	A-5555-0644
Zeiss order number	–	626105-1020-065	626105-1020-118	626105-1020-150	626105-1020-200
DK (mm)	9	10	10	10	10
L (mm)	64.5	65.5	118	150	200
DG (mm)	11	11	11	11	11
ML (mm)	51.5	52.5	105	137	187
DS (mm)	6	6	6	6	6
Weight (g)	7.2	8	14.5	16	19
Price	\$142	\$162	\$182	\$264	\$297

Thermo stable carbon fiber styli, titanium base, thermo stable carbon fiber stem, silicon nitride ball

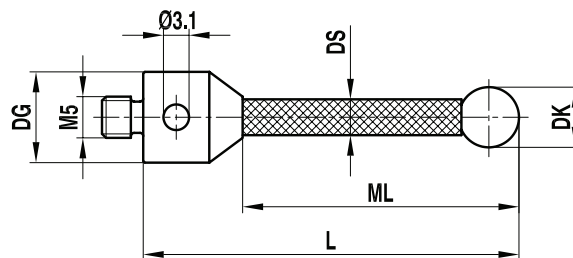
Schematics not shown to scale

Part number	A-5555-3812	A-5555-1828	A-5555-3813	A-5555-3814	A-5555-3815	A-5555-3816
Zeiss order number	-	626105-0301-033	-	626103-0301-058	-	-
DK (mm)	3	3	3	3	4	4
L (mm)	25	33.5	50	58	33.5	64
DG (mm)	11	11	11	11	11	11
ML (mm)	15	23.5	40	48	23.5	54
DS (mm)	2	2	2	2	2	2
Weight (g)	4	4.2	4.5	4.9	4.2	4.6
Price	\$111	\$112	\$114	\$128	\$133	\$130

Part number	A-5555-3817	A-5555-0759	A-5555-2012	A-5555-9045	A-5555-3818	A-5555-3819
Zeiss order number	626105-0511-050	-	626105-0511-075	626105-0511-100	-	-
DK (mm)	5	5	5	5	6	7
L (mm)	50	53	75	100	54	55
DG (mm)	11	11	11	11	11	11
ML (mm)	40	43	65	90	44	45
DS (mm)	3.5	3.5	3.5	3.5	3.5	3.5
Weight (g)	4.8	4.9	5	5.4	4.9	4.9
Price	\$129	\$122	\$131	\$144	\$129	\$144

Part number	A-5555-0720	A-5555-2010	A-5555-3820	A-5555-3821	A-5555-1169	A-5555-1179
Zeiss order number	626105-0821-063	-	626105-0821-100	626105-0821-114	626105-0821-150	626105-0821-200
DK (mm)	8	8	8	8	8	8
L (mm)	63.5	75	100	114.5	150	200
DG (mm)	11	11	11	11	11	11
ML (mm)	50.5	62	87	101.5	137	187
DS (mm)	6	6	6	6	6	6
Weight (g)	7	7.3	7.5	9.5	11	13
Price	\$162	\$155	\$171	\$174	\$212	\$230

Part number	A-5555-3822	A-5555-2403	A-5555-3824	A-5555-3825	A-5555-1171
Zeiss order number	-	-	626105-1021-118	626105-1021-150	626105-1021-200
DK (mm)	9	10	10	10	10
L (mm)	64.5	65.5	118	150	200
DG (mm)	11	11	11	11	11
ML (mm)	51.5	52.5	105	137	187
DS (mm)	6	6	6	6	6
Weight (g)	7.2	8	14.5	16	19
Price	\$157	\$130	\$205	\$245	\$267

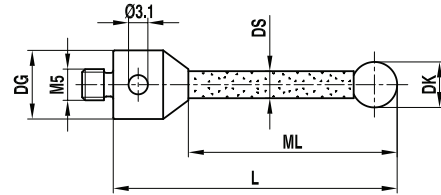


Ceramic styli, titanium base, ruby ball

Schematics not shown to scale

Part number	A-5555-0041	A-5555-0042	A-5555-0043	A-5555-0044	A-5555-0045	A-5555-0046	A-5555-0047	A-5555-0048
Zeiss order number	600342-8013	600342-8016	600342-8017	600342-8014	600342-8018	600342-8118	600342-8019	600342-8119
DK (mm)	5	6	7	8	9	9	10	10
L (mm)	53	54	55	63.5	64.5	64.5	65.5	65.5
DG (mm)	11	11	11	11	11	19	11	19
ML (mm)	43	44	45	50.5	51.5	42.5	52.5	43.5
DS (mm)	3.5	3.5	3.5	6	6	6	6	6
Weight (g)	4.6	4.7	5	8.3	8.4	21	9	38
Price	\$61	\$66	\$74	\$80	\$89	\$99	\$105	\$116

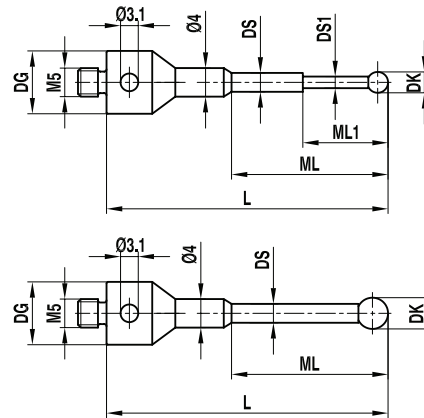
Part number	A-5555-0049	A-5555-0050	A-5555-0051
Zeiss order number	600342-8114	600342-8015	600342-8115
DK (mm)	8	8	8
L (mm)	63.5	114.5	114.5
DG (mm)	19	11	19
ML (mm)	41.5	101.5	92.5
DS (mm)	6	6	6
Weight (g)	33	11.8	38
Price	\$83	\$92	\$94



Small ball styli, stepped stem, stainless steel base, tungsten carbide stem, ruby ball

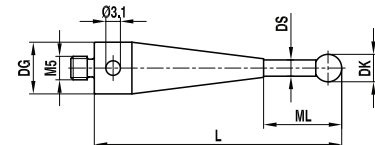
Part number	A-5555-0052	A-5555-0053	A-5555-0054	A-5555-0055	A-5555-0056	A-5555-0057	A-5555-0058	A-5555-0059
Zeiss order number	602030-8060	602030-8061	602030-8062	602030-8063	602030-8064	602030-8065	602030-8066	602030-8067
DK (mm)	0.8	1	1.35	1.35	1.5	1.5	2	2
L (mm)	32	32	32	44	32	44	32	44
DG (mm)	11	11	11	11	11	11	11	11
ML (mm)	12	12	12	19	12	19	12	19
ML1 (mm)	4.8	5.0	-	-	-	-	-	-
DS (mm)	1	1	1	1	1	1	1.5	1.5
DS1 (mm)	0.6	0.8	-	-	-	-	-	-
Weight (g)	6.8	6.8	6.9	7.5	6.5	7.5	7.3	8
Price	\$86	\$74	\$73	\$76	\$73	\$76	\$73	\$76

Part number	A-5555-0060	A-5555-0061	A-5555-0062	A-5555-0063
Zeiss order number	602030-8068	602030-8069	602030-8070	602030-8071
DK (mm)	2	2.5	2.5	2.5
L (mm)	58	32	44	58
DG (mm)	11	11	11	11
ML (mm)	33	12	19	33
DS (mm)	1.5	1.5	1.5	1.5
Weight (g)	8	7.3	8	8
Price	\$78	\$73	\$76	\$80



Small ball styli, titanium base, tungsten carbide stem, ruby ball

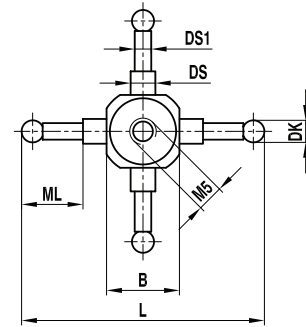
Part number	A-5555-0064	A-5555-0065	A-5555-0066	A-5555-0067	A-5555-0068
Zeiss order number	602030-9019	602030-9020	602030-9021	602030-9022	602030-9023
DK (mm)	1	1.5	2	2.5	3.5
L (mm)	55	55	55	55	55
DG (mm)	11	11	11	11	11
ML (mm)	5	5	5	5	10
DS (mm)	0.8	1	1.5	2	2.5
Weight (g)	11.9	11.9	11.9	11.9	11.9
Price	\$154	\$144	\$140	\$144	\$144



Cube star, titanium base, tungsten carbide stem, ruby ball

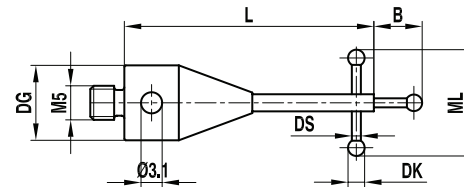
Schematics not shown to scale

Part number	A-5555-0069	A-5555-0070	A-5555-0071	A-5555-0072	A-5555-0073
Zeiss order number	602030-9024	602030-9025	602030-9026	602030-9027	602030-9028
DK (mm)	1	1.5	2	2.5	3.5
L (mm)	45	45	45	45	45
ML (mm)	7	7.5	7.5	8	15
DS (mm)	2	2	2	2	2
DS1 (mm)	0.8	1	1.5	1.5	–
B (mm)	15	15	15	15	15
Weight (g)	17.3	17.3	17.3	17.3	17.3
Price	\$221	\$221	\$221	\$240	\$256



Styli for thread measurement, stainless steel base, tungsten carbide stem, ruby ball

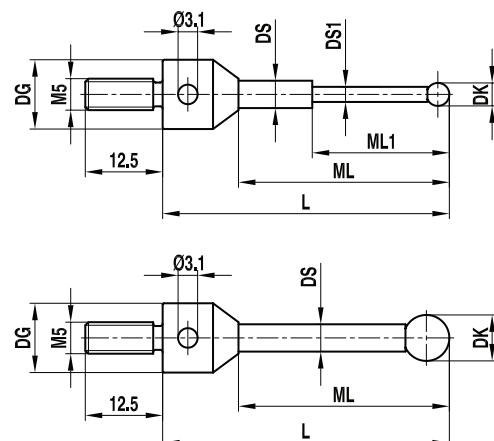
Part number	A-5555-0074	A-5555-0075	A-5555-0076	A-5555-0077
Zeiss order number	602030-9070	602030-9071	602030-9072	602030-9073
DK (mm)	1.35	2.3	1.8	0.8
L (mm)	40	40	40	40
DG (mm)	11	11	11	11
ML (mm)	9	12	10	5
DS (mm)	1	1	1	0.6
B (mm)	2	2.5	2	1.9
Weight (g)	11	13	12	7
Price	\$119	\$143	\$155	\$230



Long threaded styli, thread length 12.5 mm, stainless steel base, tungsten carbide stem, ruby ball

Part number	A-5555-0078	A-5555-0079	A-5555-0080	A-5555-0081	A-5555-0082	A-5555-0083	A-5555-0084
Zeiss order number	600342-8200	600342-8201	600342-8202	600342-8203	600342-8221	600342-8222	600342-8250
DK (mm)	1.35	1.5	2	2.5	3	5	0.3
L (mm)	32.85	33	33.5	34	34.5	43.5	21.8
DG (mm)	11	11	11	11	19	19	11
ML (mm)	23.85	24	24.5	25	16.5	25.5	12.8
ML1 (mm)	–	–	–	–	–	–	2.3
DS (mm)	1	1	1.5	1.5	2	3.5	1
DS1 (mm)	–	–	–	–	–	–	0.2
Weight (g)	6	7	7	7	20	23	6
Price	\$54	\$54	\$48	\$51	\$61	\$70	\$92

Part number	A-5555-0085	A-5555-0086	A-5555-0087	A-5555-0088
Zeiss order number	600342-8251	600342-8252	600342-8253	600342-8254
DK (mm)	0.5	0.6	0.8	1
L (mm)	22	22.1	22.3	22.5
DG (mm)	11	11	11	11
ML (mm)	13	13.1	13.3	13.5
ML1 (mm)	2.5	4.6	4.8	5.0
DS (mm)	1	1	1	1
DS1 (mm)	0.3	0.4	0.6	0.8
Weight (g)	6	6	6	6
Price	\$74	\$74	\$72	\$64



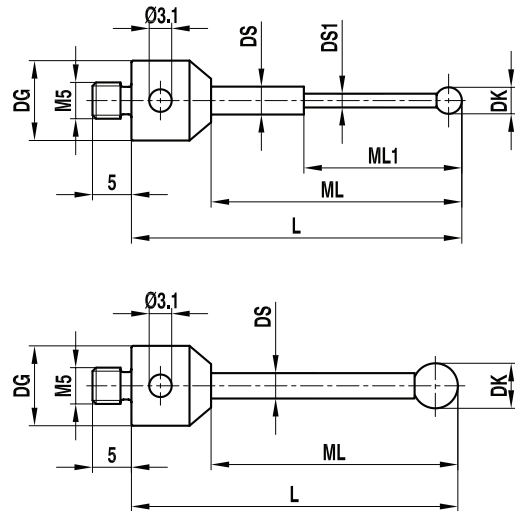
Long threaded styli, thread length 5 mm, stainless steel base, tungsten carbide stem, ruby ball

Schematics not shown to scale

Part number	A-5555-0799	A-5555-0329	A-5555-3826	A-5555-3827	A-5555-0686	A-5555-3828
Zeiss order number	626115-0140-033	626115-0150-033	626115-0200-034	–	626115-0250-034	–
DK (mm)	1.35	1.5	2	2.5	2.5	3
L (mm)	32.85	33	33.5	34	34	25.5
DG (mm)	11	11	11	11	11	11
ML (mm)	23.85	24	24.5	25	25	16.5
DS (mm)	1	1	1.5	1	1.5	2
Weight (g)	6	7	7	7	7	9
Price	\$51	\$51	\$45	\$45	\$47	\$57

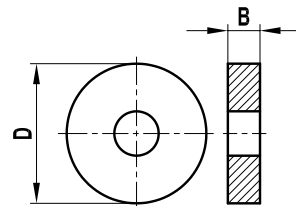
Part number	A-5555-3829	A-5555-0331	A-5555-1157	A-5555-1842	A-5555-1844	A-5555-1843
Zeiss order number	–	626115-0030-022	626115-0050-022	626115-0060-022	626115-0080-022	626115-0100-022
DK (mm)	5	0.3	0.5	0.6	0.8	1
L (mm)	34.5	21.8	22	22.1	22.3	22.5
DG (mm)	11	11	11	11	11	11
ML (mm)	25.5	12.8	13	13.1	13.3	13.5
ML1 (mm)	–	2.3	2.5	4.6	4.8	1.5
DS (mm)	3.5	1	1	1	1	1
DS1 (mm)	–	0.2	0.3	0.4	0.6	0.8
Weight (g)	9	6	6	6	6	6
Price	\$66	\$88	\$70	\$70	\$68	\$61

Part number	A-5555-1873
Zeiss order number	–
DK (mm)	1.5
L (mm)	33
DG (mm)	11
ML (mm)	24
ML1 (mm)	7
DS (mm)	1.5
DS1 (mm)	1
Weight (g)	7
Price	\$68



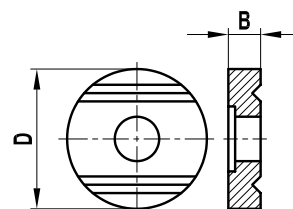
Flat washer for star styli, stainless steel

Part number	A-5555-0089	A-5555-0090
Zeiss order number	600341-0140	600341-0141
D (mm)	11	19
B (mm)	1.5	2
Weight (g)	1	4
Price	\$18	\$19



Grooved washer for star styli, stainless steel

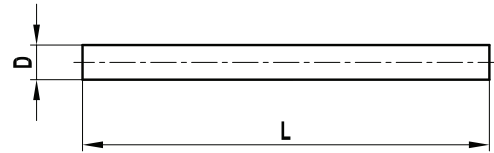
Part number	A-5555-0091	A-5555-0092
Zeiss order number	600341-0150	600341-0151
D (mm)	11	19
B (mm)	2	4
Weight (g)	1	7
Price	\$54	\$56



Tungsten carbide pin for star styli

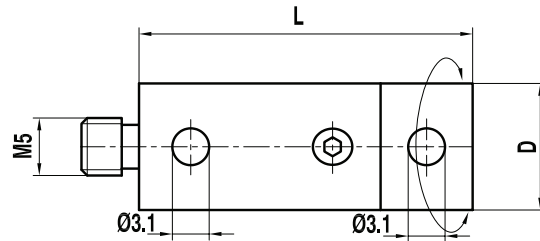
Schematics not shown to scale

Part number	A-5555-0093	A-5555-0094	A-5555-0095	A-5555-0096
Zeiss order number	600341-0520	600341-0521	600341-0522	600341-0523
L (mm)	10	10	18	18
D (mm)	1	1.5	2	3.5
Weight (g)	1	1	1	3
Price	\$8	\$8	\$10	\$10



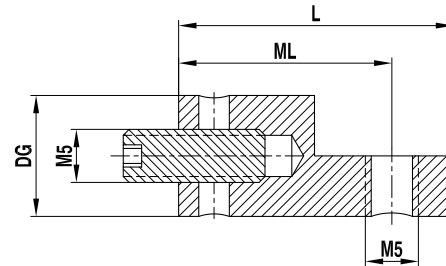
Rotary adaptor, titanium

Part number	A-5555-0099	A-5555-0713
Zeiss order number	602030-9095	612030-9737
L (mm)	30	29
D (mm)	18	11
Weight (g)	43	13
Price	\$197	\$197



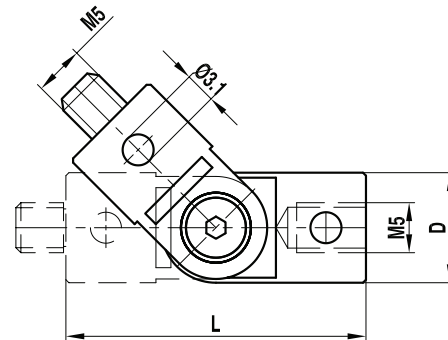
Holder, 90 degree offset, titanium

Part number	A-5555-1097
Zeiss order number	626105-6901-001
ML (mm)	17
DG (mm)	11
L (mm)	22.5
Weight (g)	6
Price	\$62



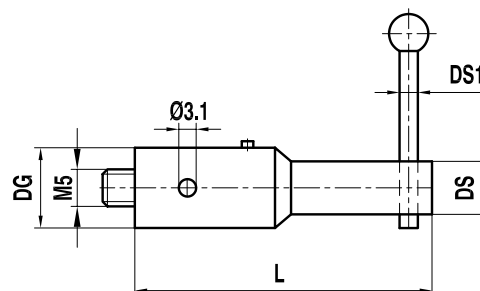
Rotary knuckle, slewing range 360 degrees, swing range 180 degrees, titanium

Part number	A-5003-5278	A-5555-3841
Zeiss order number	-	-
L (mm)	51	58
D (mm)	11	18
Weight (g)	19	58
Price	\$286	\$337



Holder, 90 degrees, stainless steel

Part number	A-5555-0104
Zeiss order number	600341-8160
DS1 (mm)	1-1.5
L (mm)	45
DG (mm)	11
DS (mm)	6
Weight (g)	16
Price	\$74

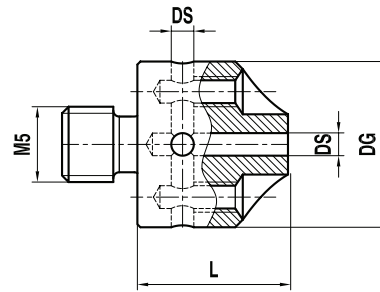


Fits with styli A-5555-0107 to A-5555-0115

5-way holder, stainless steel

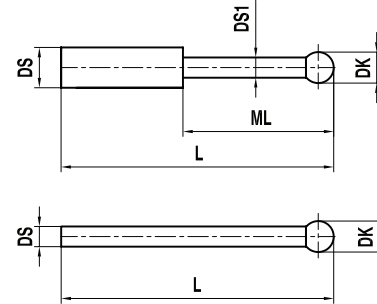
Schematics not shown to scale

Part number	A-5555-0105	A-5555-0106	A-5555-1245
Zeiss order number	600341-8367	600341-8368	626115-5000-199
DS (mm)	1	1.5	2
L (mm)	10	10	10
DG (mm)	11	11	11
Weight (g)	3.2	3.2	3.2
Price	\$74	\$74	\$74



Styli for holder, tungsten carbide stem, ruby ball

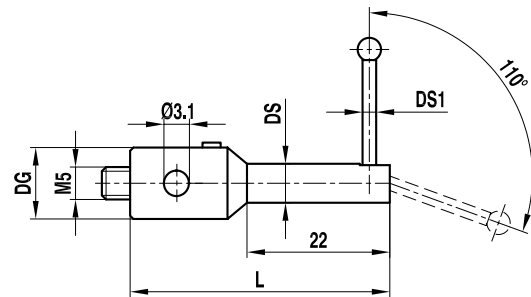
Part number	A-5555-0107	A-5555-0108	A-5555-0109	A-5555-0110	A-5555-0111
Zeiss order number	600341-8454	600341-8450	600341-8451	600341-8452	600341-8453
DK (mm)	1	0.3	0.5	0.6	0.8
L (mm)	16	15.3	15.5	15.6	15.8
DS (mm)	1	1	1	1	1
DS1 (mm)	0.8	0.2	0.3	0.4	0.6
ML (mm)	5	2.3	2.5	4.6	4.8
Weight (g)	1	1	1	1	1
Price	\$56	\$74	\$191	\$56	\$54



Part number	A-5555-0112	A-5555-0113	A-5555-0114	A-5555-0115	A-5555-0116	A-5555-0117
Zeiss order number	600341-8500	600341-8501	600341-8502	600341-8503	600341-8510	600341-8511
DK (mm)	1.35	1.5	2	2.5	3	5
L (mm)	26.35	26.5	27	27.5	38	45
DS (mm)	1	1	1.5	1.5	2	3.5
Weight (g)	1	1	1	1	2	6
Price	\$56	\$45	\$53	\$54	\$53	\$58

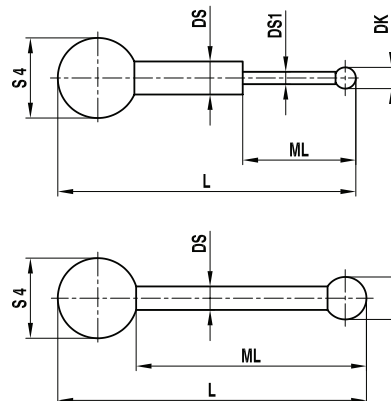
Holder for swivel styli, stainless steel

Part number	A-5555-0118
Zeiss order number	600341-8180
L (mm)	40
DG (mm)	11
DS (mm)	6
DS1 (mm)	1-1.5
Weight (g)	15
Price	\$92



Styli for swiveling components, S4 steel ball, tungsten carbide stem, ruby ball

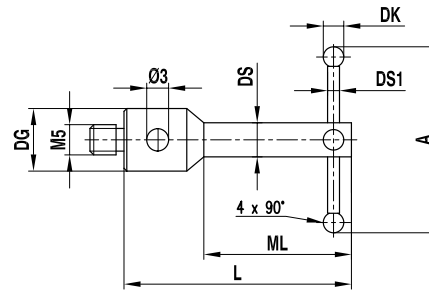
Part number	A-5555-0119	A-5555-0120
Zeiss order number	600341-8183	600341-8185
DK (mm)	1	2
L (mm)	17.5	28.5
DS (mm)	1	1.5
DS1 (mm)	0.8	-
ML (mm)	5	24.5
Weight (g)	1	1
Price	\$80	\$77



Star styli, stainless steel base, tungsten carbide stem, ruby ball

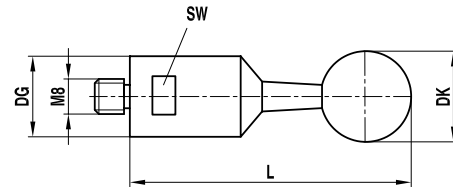
Part number	A-5555-1153	A-5555-1135	A-5555-3839
Zeiss order number	-	-	-
DK (mm)	0.6	0.8	1
L (mm)	40	40	40
DG (mm)	11	11	11
DS (mm)	4	4	4
DS1 (mm)	0.4	0.6	0.8
ML (mm)	30	30	30
A (mm)	8	8	8
Weight (g)	9	9	9
Price	\$810	\$729	\$662

Schematics not shown to scale



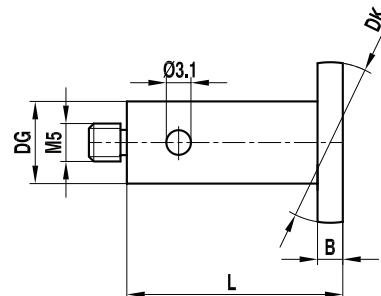
Reference sphere with stem, M8 thread, stainless steel, ceramic ball including certificate

Part number	A-5555-3842	A-5555-3843	A-5555-3844	A-1034-0124
Zeiss order number	-	-	-	-
DK (mm)	15	20	25	30
L (mm)	130	135	140	145
DG (mm)	24	24	24	24
SW (mm)	22	22	22	22
Price	\$459	\$580	\$606	\$636



Spherical disk styli, aluminum base, high-strength steel disk

Part number	A-5555-0121	A-5555-0122	A-5555-0123	A-5555-0124
Zeiss order number	600341-8090	600341-8095	602030-8091	000000-1165-629
DK (mm)	10	15	20	15
L (mm)	21.5	21.5	60	40
DG (mm)	7	10	7	7
B (mm)	1.5	1.5	1	1
Weight (g)	3	6	8	5
Price	\$193	\$195	\$286	\$245



Extensions

Schematics not shown to scale

Aluminum, stainless steel ends

Part number	A-5555-0125	A-5555-0126	A-5555-0127	A-5555-0128	A-5555-0129	A-5555-0130	A-5555-0131	A-5555-0132
Zeiss order number	600341-8420	600341-8421	600341-8422	600341-8423	600341-8424	600341-8425	600341-8265	600341-8264
L (mm)	200	150	100	80	60	40	120	100
D (mm)	20	20	20	20	20	20	11	11
Weight (g)	84.7	67.4	50.7	44.8	37.7	29	30.9	25.6
Price	\$107	\$94	\$85	\$83	\$83	\$78	\$56	\$54

Part number	A-5555-0133	A-5555-0134	A-5555-0135
Zeiss order number	600341-8263	600341-8262	600341-8261
L (mm)	80	60	40
D (mm)	11	11	11
Weight (g)	20.6	15.4	10.3
Price	\$53	\$48	\$45

Stainless steel

Part number	A-5555-0136	A-5555-0137	A-5555-0138	A-5555-0139	A-5555-0140	A-5555-0141	A-5555-0142
Zeiss order number	600341-0260	600341-0258	600341-0256	600341-0254	600341-0252	600341-0251	600341-0250
L (mm)	100	80	60	40	20	15	10
D (mm)	11	11	11	11	11	11	11
Weight (g)	73	58	42	28	13	9	6
Price	\$34	\$34	\$32	\$30	\$30	\$30	\$30

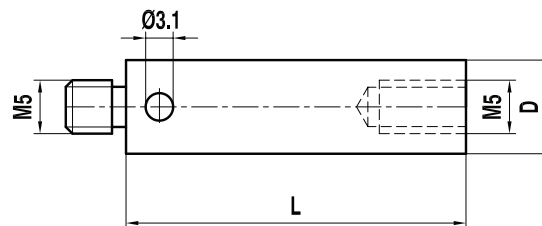
Titanium

Part number	A-5555-0143	A-5555-0144	A-5555-0145	A-5555-0146	A-5555-0147	A-5555-0148	A-5555-0149	A-5555-0150
Zeiss order number	602030-9044	602030-9045	602030-9046	602030-9047	602030-9048	602030-9049	602030-9050	602030-9051
L (mm)	10	15	20	25	25	40	40	50
D (mm)	11	11	11	11	18	11	18	11
Weight (g)	3.9	5.7	7.5	9.5	24.6	12.6	31.5	13.2
Price	\$35	\$40	\$42	\$43	\$45	\$45	\$56	\$72

Part number	A-5555-0151	A-5555-0152	A-5555-0153	A-5555-0154	A-5555-0155	A-5555-0156	A-5555-0157	A-5555-0158
Zeiss order number	602030-9052	602030-9053	602030-9054	602030-9055	602030-9056	602030-9057	602030-9058	602030-9059
L (mm)	50	60	60	75	75	80	80	90
D (mm)	18	11	18	11	18	11	18	11
Weight (g)	33.3	14.2	35.1	15.3	37.9	15.6	38.8	16.5
Price	\$83	\$74	\$86	\$78	\$90	\$85	\$92	\$85

Part number	A-5555-0159	A-5555-0160	A-5555-0161	A-5555-0162	A-5555-0163	A-5555-0164	A-5555-0165	A-5555-0166
Zeiss order number	602030-9060	602030-9061	602030-9062	602030-9063	602030-9064	602030-9065	602030-9066	602030-9067
L (mm)	90	100	100	120	120	150	150	200
D (mm)	18	11	18	11	18	11	18	18
Weight (g)	40.6	17.2	42.5	19.8	46.1	22.5	51.6	61
Price	\$99	\$85	\$103	\$90	\$112	\$99	\$123	\$133

Part number	A-5555-0167	A-5555-0168
Zeiss order number	602030-9068	602030-9069
L (mm)	250	300
D (mm)	18	18
Weight (g)	70	79
Price	\$147	\$165



Black thermo stable carbon fiber, titanium ends

Schematics not shown to scale

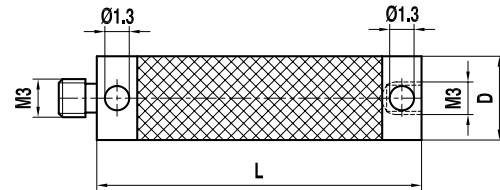
Part number	A-5555-0647	A-5555-0648	A-5555-0649	A-5555-0623	A-5555-0650	A-5555-0651
Zeiss order number	626107-1040-100	626107-1050-100	626107-1060-100	626107-1070-100	626107-1080-100	626107-1090-100
L (mm)	40	50	60	70	80	90
D (mm)	11	11	11	11	11	11
Weight (g)	9	10	11	10	12	13
Price	\$182	\$184	\$187	\$193	\$197	\$210

Part number	A-5555-0652	A-5555-0425	A-5555-0424	A-5555-0653	A-5555-0654	A-5555-0655
Zeiss order number	626107-1100-100	626107-1120-100	626107-1150-100	626107-1180-100	626107-1200-100	626107-1250-100
L (mm)	100	120	150	180	200	250
D (mm)	11	11	11	11	11	11
Weight (g)	14	15	17	19	21	24
Price	\$217	\$221	\$232	\$241	\$255	\$275

Part number	A-5555-0642	A-5555-0656	A-5555-0620	A-5555-0657	A-5555-0658	A-5555-0621
Zeiss order number	626107-1300-100	626107-1400-100	626107-2040-100	626107-2050-100	626107-2060-100	626107-2080-100
L (mm)	300	400	40	50	60	80
D (mm)	11	11	21	20	21	21
Weight (g)	27	34	26	28	29	32
Price	\$323	\$385	\$178	\$184	\$187	\$197

Part number	A-5555-0659	A-5555-0661	A-5555-0663	A-5555-0427	A-5555-0664	A-5555-0665
Zeiss order number	626107-2100-100	626107-2150-100	626107-2200-100	626107-2250-100	626107-2300-100	626107-2400-100
L (mm)	100	150	200	250	300	400
D (mm)	21	21	21	21	21	20
Weight (g)	34	41	48	55	62	75
Price	\$222	\$248	\$275	\$307	\$344	\$404

Part number	A-5555-0667	A-5555-0668
Zeiss order number	626107-2500-100	626107-2600-100
L (mm)	500	600
D (mm)	20	20
Weight (g)	89	103
Price	\$485	\$323



Adaptor plate extension for MT/VAST. Black thermo stable carbon fiber, titanium cube and plate adaptor

Schematics not shown to scale

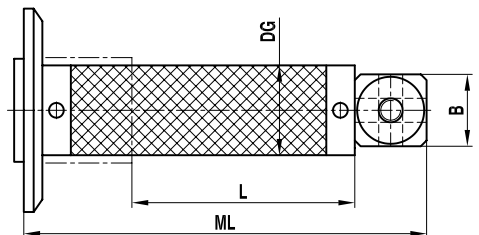
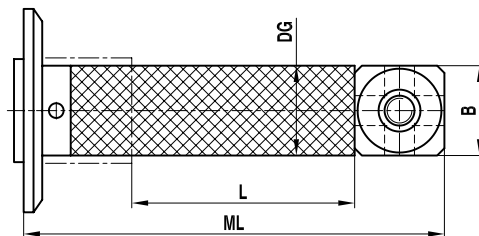
Part number	A-5555-3845	A-5555-3846	A-5555-3847	A-5555-3848	A-5555-3849	A-5555-3850
Zeiss order number	-	-	-	-	-	-
L (mm)	25	40	50	60	80	100
DG (mm)	11	11	11	11	11	11
ML (mm)	66.5	81.5	91.5	101.5	121.5	141.5
B (mm)	15	15	15	15	15	15
Weight (g)	60	62	64	66	68	70
Price	\$299	\$308	\$316	\$326	\$344	\$358

Part number	A-5555-3851	A-5555-3740	A-5555-3852	A-5555-0699	A-5555-1985	A-5555-1986
Zeiss order number	-	-	-	625107-2025-130	625107-2040-130	625107-2050-130
L (mm)	120	150	200	25	40	50
DG (mm)	11	11	11	20	20	20
ML (mm)	161.5	191.5	241.5	66.5	81.5	91.5
B (mm)	15	15	15	15	15	15
Weight (g)	72	77	84	60	62	64
Price	\$371	\$417	\$432	\$320	\$328	\$337

Part number	A-5555-1987	A-5555-0700	A-5555-1988	A-5555-1989	A-5555-0701	A-5555-1990
Zeiss order number	626107-2060-130	626107-2080-130	626107-2100-130	625107-2120-130	625107-2150-130	625107-2200-130
L (mm)	60	80	100	120	150	200
DG (mm)	20	20	20	20	20	20
ML (mm)	101.5	121.5	141.5	161.5	191.5	241.5
B (mm)	15	15	15	15	15	15
Weight (g)	66	68	70	72	77	84
Price	\$347	\$366	\$387	\$404	\$435	\$483

Part number	A-5555-1979	A-5555-1980	A-5555-1855	A-5555-1981	A-5555-1982	A-5555-1983
Zeiss order number	626107-2025-110	626107-2040-110	626107-2050-110	625107-2060-110	625107-2080-110	625107-2100-110
L (mm)	25	40	50	60	80	100
DG (mm)	20	20	20	20	20	20
ML (mm)	71.5	86.5	96.6	106.5	126.5	146.5
B (mm)	20	20	20	20	20	20
Weight (g)	74	76	78	80	82	84
Price	\$306	\$328	\$339	\$349	\$369	\$389

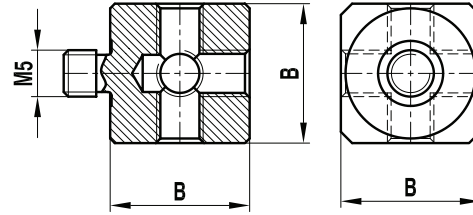
Part number	A-5555-1938	A-5555-1937	A-5555-1984
Zeiss order number	626107-2120-110	626107-2150-110	626107-2200-110
L (mm)	120	150	200
DG (mm)	20	20	20
ML (mm)	166.5	196.5	246.5
B (mm)	20	20	20
Weight (g)	86	91	98
Price	\$404	\$435	\$483



Cube, titanium

Schematics not shown to scale

Part number	A-5555-0189	A-5555-0190
Zeiss order number	600341-8361	600341-8002
B (mm)	15	20
Weight (g)	12.6	31.5
Price	\$58	\$69

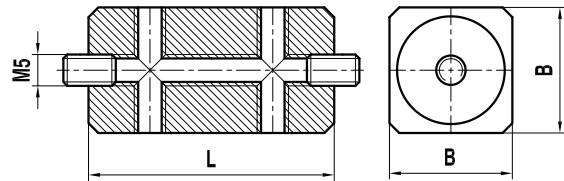


Cube, aluminum

Part number	A-5555-0191	A-5555-0192
Zeiss order number	602030-8363	602030-8362
B (mm)	15	20
Weight (g)	7.5	20
Price	\$80	\$101

Double cube (titanium)

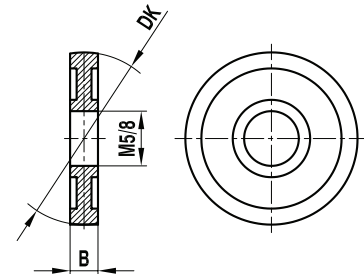
Part number	A-5555-0194
Zeiss order number	600342-8103
B (mm)	20
L (mm)	40
Weight (g)	64
Price	\$125



Spherical disk, high-strength steel

Part number	A-5555-0196	A-5555-0197	A-5555-0198	A-5555-0199	A-5555-0200	A-5555-0201	A-5555-0203
Zeiss order number	602030-0004	602030-0005	602030-0006	602030-0007	602030-0008	602030-0009	602030-0011
B (mm)	4	4	4	5	5	5	4
DK (mm)	15	20	30	40	50	60	20
M5/8 (mm)	M5	M5	M5	M5	M5	M5	8
Weight (g)	5	9	21	42	64	89	8
Price	\$155	\$155	\$157	\$168	\$168	\$172	\$171

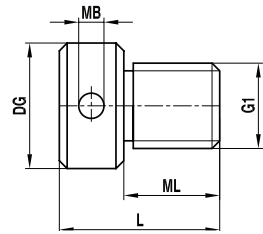
Part number	A-5555-0204	A-5555-0205	A-5555-0206	A-5555-0207	A-5555-0208
Zeiss order number	600341-0200	600341-0203	600341-0204	600341-0205	600341-0206
B (mm)	2	4	4	5	6
DK (mm)	20	30	40	50	60
M5/8 (mm)	8	8	8	8	8
Weight (g)	4	10	21	36	59
Price	\$160	\$160	\$162	\$178	\$184



Hole location gage, stainless steel

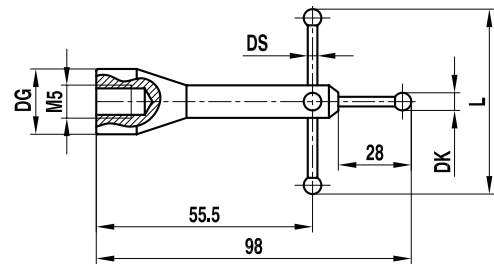
Schematics not shown to scale

Part number	A-5555-0209	A-5555-0210	A-5555-0211	A-5555-0212	A-5555-0213	A-5555-0214
Zeiss order number	602030-0012	602030-0013	600203-0014	602030-0015	602030-0016	600203-0017
G1	M4	M5	M6	M8	M10	M12
L (mm)	16	16	18	20	25	25
DG (mm)	10	10	12	15	18	20
ML (mm)	10	10	12	12	15	15
MB (mm)	1.8	1.8	1.8	3	3	3
Weight (g)	4	4	7	13	25	33
Price	\$85	\$85	\$83	\$86	\$86	\$88



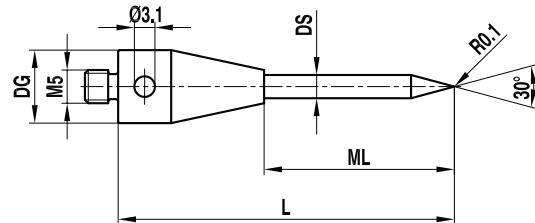
Star stylus, stainless steel base, tungsten carbide stem, ruby ball

Part number	A-5555-0215
Zeiss order number	600331-8093
DK (mm)	5
L (mm)	80
DG (mm)	19
DS (mm)	3.5
Weight (g)	70
Price	\$505



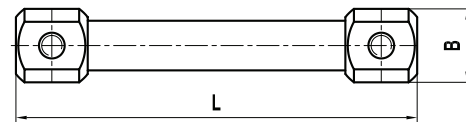
Pointed stylus, titanium base, tungsten carbide stem

Part number	A-5555-0216
Zeiss order number	600342-8051
L (mm)	61
DG (mm)	11
ML (mm)	39
DS (mm)	3.5
Weight (g)	12
Price	\$80



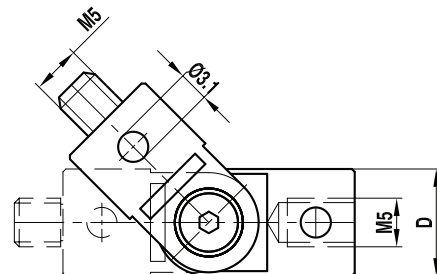
Cube extension, titanium

Part number	A-5555-0217
Zeiss order number	602030-0019
L (mm)	120
B (mm)	20
Weight (g)	87
Price	\$307



Knuckle, swing range 180 degrees, titanium

Part number	A-5555-0218	A-5555-0219
Zeiss order number	600342-9002	600342-9003
L (mm)	30	36
D (mm)	11	18
Weight (g)	11.2	37.2
Price	\$141	\$162

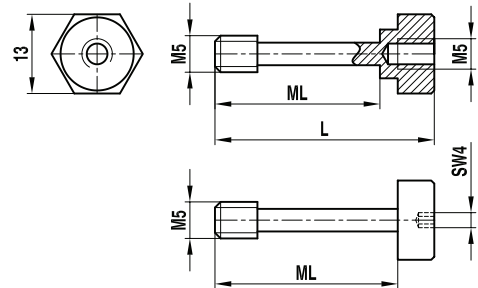


M5 styli for Zeiss probing systems

Bolts for spherical disk and cube, stainless steel

Schematics not shown to scale

Part number	A-5555-0221	A-5555-0222	A-5555-0223
Zeiss order number	600341-0210	600341-0211	600341-0212
L (mm)	35	30	17.5
ML (mm)	26	21	9
Weight (g)	9	9	7
Price	\$22	\$20	\$18

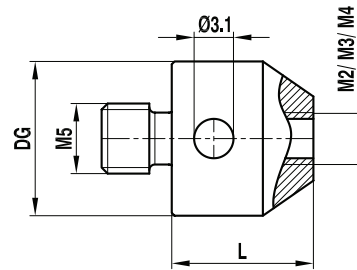


Bolts for cubes, stainless steel

Part number	A-5555-0224	A-5555-0225
Zeiss order number	600341-0220	600341-0221
ML (mm)	26	21
Weight (g)	4	3
Price	\$11	\$11

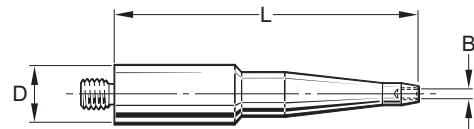
Adaptor, stainless steel

Part number	A-5555-0226	A-5555-0227	A-5555-0228
Zeiss order number	602030-0215	602030-0315	602030-0318
Threads	M5/M2	M5/M3	M5/M4
L (mm)	10	10	10
DG (mm)	11	11	11
Weight (g)	5.2	5.2	5.2
Price	\$23	\$23	\$22



Holder for digitalization styli, stainless steel

Part number	A-5555-0231	A-5555-0232
Zeiss order number	602030-9113	602030-9115
L (mm)	119	127
D (mm)	15.81	9.52
B	M2	M2
Weight (g)	126	87
Price	\$309	\$349

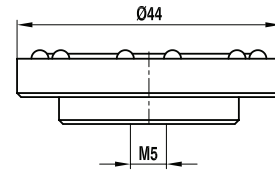


Adaptor plates for Zeiss probe heads

Adaptor plate for dynamic systems (ST), aluminum

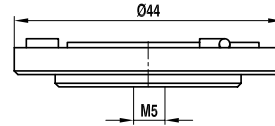
Part number	A-5555-0322	A-5555-0251
Zeiss order number	600660-8240	600660-8251
Quantity in kit	1	2
Weight (g)	72	144
Price	\$347	\$692

Schematics not shown to scale



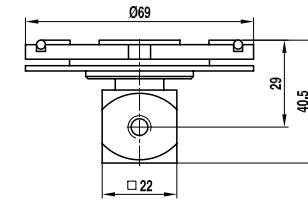
Adaptor plate for Prismo dynamic systems (ST), aluminum

Part number	A-5555-0253	A-5555-3900
Zeiss order number	620660-8251-000	–
Quantity in kit	2	1
Weight (g)	144	72
Price	\$692	\$347



Adaptor plate for measuring systems MT/Vast, aluminum, with active ID chip

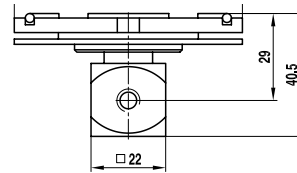
Part number	A-5555-0255	A-5555-0256	A-5555-0258*
Zeiss order number	600667-9601	600667-9611	600667-8571
Quantity in kit	1	2	1
Weight (g)	153	306	130
Price	\$509	\$1,018	\$509



* adaptor plate without cube

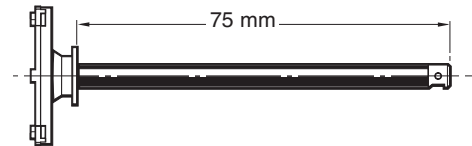
Adaptor plate for XXT TL1, reference plate for XXT TL1

Part number	A-5555-1235	A-5555-1236
Zeiss order number	620161-8055-000	620161-8058-000
Weight (g)	4.6	4.6
Price	\$451	\$361



Adaptor plate for VAST XXT TL2, reference plate for XXT TL2

Part number	A-5555-1237	A-5555-1238
Zeiss order number	620161-8065-000	620161-8068-000
Weight (g)	5.4	5.4
Price	\$427	\$427



Adaptor plate for VAST XXT TL3, reference plate for XXT TL3

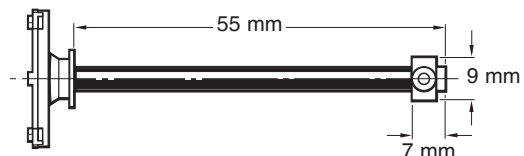
Part number	A-5555-1239	A-5555-1240
Zeiss order number	620161-8075-000	620161-8078-000
Weight (g)	4.6	4.6
Price	\$427	\$427

VAST XXT TL1 with star adaptor

Part number	A-5555-1241
Zeiss order number	626103-8031-055
Weight (g)	6.3
Price	\$393

VAST XXT TL3 with star adaptor

Part number	A-5555-1242
Zeiss order number	626103-8033-055
Weight (g)	6.3
Price	\$393



M3 styli, adaptors and accessories for Zeiss analog probe systems

Schematics not shown to scale

Carbide styli XXT, titanium base, tungsten carbide stem, ruby ball

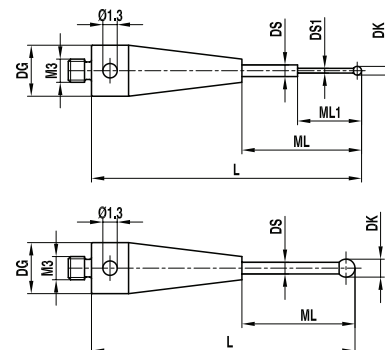
Part number	A-5004-3176	A-5004-2185	A-5004-1702	A-5004-2186	A-5555-3853	A-5004-3179
Zeiss order number	626113-0030-013	626113-0030-020	626113-0050-013	626113-0050-020	626113-0060-014	626113-0060-020
DK (mm)	0.3	0.3	0.5	0.5	0.6	0.6
L (mm)	13	20	13	20	14	20
DG (mm)	5	5	5	5	5	5
ML (mm)	4	11	4	11	5	1
ML1 (mm)	2.3	2.3	2.3	2.3	4.6	4.6
DS (mm)	1	1	1	1	1	1
DS1 (mm)	0.2	0.2	0.3	0.3	0.4	0.4
Weight (g)	0.62	0.69	0.61	0.69	0.61	0.68
Price	\$94	\$94	\$89	\$89	\$69	\$73

Part number	A-5004-3273	A-5004-3274	A-5004-1883	A-5004-3187	A-5555-3854	A-5004-1863
Zeiss order number	626113-0080-014	626113-0080-020	626113-0080-034	626113-0100-014	626113-0101-020	626113-0100-020
DK (mm)	0.8	0.8	0.8	1	1	1
L (mm)	14	20	34	14	20	20
DG (mm)	5	5	5	5	5	5
ML (mm)	5	11	25	5	11	11
ML1 (mm)	-	4.8	4.1	-	5.1	5
DS (mm)	0.6	1	1	0.8	1	1
DS1 (mm)	-	0.6	0.6	-	0.6	0.8
Weight (g)	0.62	0.69	0.8	0.63	0.7	0.69
Price	\$69	\$69	\$76	\$65	\$78	\$73

Part number	A-5004-3519	A-5004-3427	A-5555-9341	A-5004-3272	A-5004-1862	A-5555-9339
Zeiss order number	626113-0130-020	626113-0100-030	626113-0100-040	626113-0150-014	626113-0150-020	626113-0151-030
DK (mm)	1	1	1	1.5	1.5	1.5
L (mm)	20	30	40	14	20	30
DG (mm)	5	5	5	5	5	5
ML (mm)	11	21	31	5	11	21
ML1 (mm)	-	5	5	-	-	-
DS (mm)	0.8	1	1	1	1	1
DS1 (mm)	-	0.8	0.8	-	-	-
Weight (g)	0.7	0.8	1.5	0.65	0.72	0.84
Price	\$66	\$70	\$80	\$69	\$66	\$70

Part number	A-5555-9340	A-5004-1779	A-5004-3188	A-5004-1861	A-5004-0656	A-5555-3855
Zeiss order number	626113-0150-030	626113-0151-040	626113-0200-014	626113-0200-020	626113-0200-030	626113-0021-040
DK (mm)	1.5	1.5	2	2	2	2
L (mm)	30	40	14	20	30	40
DG (mm)	5	5	5	5	5	5
ML (mm)	22.5	31	5	11	21	31
DS (mm)	1	1	1	1	1	1.5
Weight (g)	0.9	1.6	0.66	0.72	0.83	1.7
Price	\$74	\$76	\$72	\$76	\$73	\$78

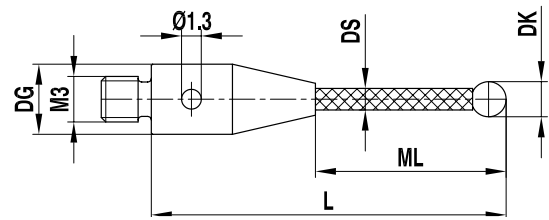
Part number	A-5555-3856	A-5555-3857	A-5004-3428
Zeiss order number	626113-0250-020	626113-0250-030	626113-0250-040
DK (mm)	2.5	2.5	2.5
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	1.5	1.5	1.5
Weight (g)	1	1.5	2
Price	\$73	\$76	\$78



Reference styli XXT (red dot), titanium base, thermo stable carbon fiber stem, ruby ball

Schematics not shown to scale

Part number	A-5555-2033	A-5555-3858
Zeiss order number	626103-0501-030	626103-0501-050
DK (mm)	5	5
L (mm)	30	50
DG (mm)	5	5
ML (mm)	21	41
DS (mm)	3.5	3.5
Weight (g)	1.1	1.4
Price	\$133	\$143



Thermo stable carbon fiber styli XXT, titanium base, thermo stable carbon fiber stem, ruby ball

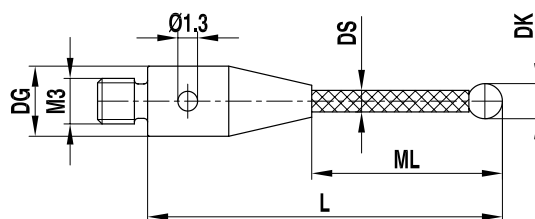
Schematics not shown to scale

Part number	A-5555-3859	A-5004-0802	A-5555-1251	A-5004-1884	A-5004-0803	A-5555-3860
Zeiss order number	626103-0300-025	626103-0300-033	626103-0300-040	626103-0300-042	626103-0300-050	626103-0300-058
DK (mm)	3	3	3	3	3	3
L (mm)	25	33	40	42	50	58
DG (mm)	5	5	5	5	5	5
ML (mm)	16	24	31	33	41	49
DS (mm)	2	2	2	2	2	2
Weight (g)	0.65	0.7	0.8	0.8	0.8	1
Price	\$116	\$119	\$123	\$123	\$129	\$138

Part number	A-5555-3861	A-5555-3862	A-5004-2786	A-5004-2108	A-5003-0062	A-5004-0806
Zeiss order number	626103-0300-059	626103-0300-075	626103-0401-050	626103-0500-030	626103-0500-040	626103-0500-050
DK (mm)	3	3	4	5	5	5
L (mm)	59	75	50	30	40	50
DG (mm)	5	5	5	5	5	5
ML (mm)	50	66	41	21	31	41
DS (mm)	2	2	2	3.5	3.5	3.5
Weight (g)	1	1	1	1.1	1.2	1.4
Price	\$136	\$143	\$120	\$133	\$65	\$143

Part number	A-5555-3864	A-5555-1114	A-5004-3429	A-5555-3865	A-5555-1115	A-5555-3866
Zeiss order number	626103-0500-060	626103-0501-075	626103-0600-050	626103-0610-070	626103-0600-100	626103-0800-030
DK (mm)	5	5	6	6	6	8
L (mm)	60	75	50	70	100	30
DG (mm)	5	5	5	5	5	5
ML (mm)	51	66	40	61	91	30
DS (mm)	3.5	3.5	3.5	3.5	3.5	5
Weight (g)	1.5	1.8	1.5	1.8	2.4	1.86
Price	\$145	\$154	\$153	\$160	\$165	\$167

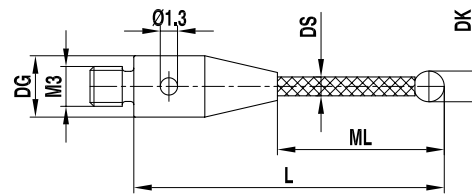
Part number	A-5555-3867	A-5555-3868	A-5555-3869	A-5004-0808
Zeiss order number	626103-0830-050	626103-0830-070	626103-0830-100	626103-0800-125
DK (mm)	8	8	8	8
L (mm)	50	70	100	125
DG (mm)	5	5	5	5
ML (mm)	50	70	100	125
DS (mm)	5	5	5	5
Weight (g)	2.1	2.6	2.7	2.9
Price	\$175	\$179	\$193	\$197



Thermo stable carbon fiber styli XXT, titanium base, thermo stable carbon fiber stem, silicon nitride ball

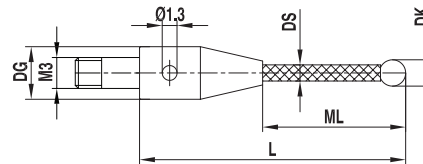
Schematics not shown to scale

Part number	A-5555-3870	A-5555-3871	A-5555-3872	A-5004-1858	A-5004-4635	A-5555-3874
Zeiss order number	626103-0301-033	626103-0301-050	626103-0502-050	626103-0500-075	626103-0801-070	626103-0801-125
DK (mm)	3	3	5	5	8	8
L (mm)	33	50	50	75	70	125
DG (mm)	5	5	5	5	5	5
ML (mm)	24	41	41	66	70	125
DS (mm)	2	2	3.5	3.5	5	5
Weight (g)	0.7	0.8	1.4	1.8	2.6	2.9
Price	\$141	\$146	\$155	\$160	\$168	\$245



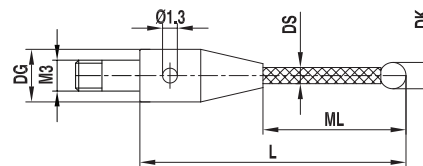
Thermo stable carbon fiber clamping styli XXT, titanium base, thermo stable carbon fiber stem, ruby ball

Part number	A-5555-3875	A-5555-3876	A-5004-3282
Zeiss order number	626103-0301-020	626103-0301-030	626103-0301-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	0.7	0.75	0.8
Price	\$116	\$119	\$123



Thermo stable carbon fiber clamping styli XXT, titanium base, thermo stable carbon fiber stem, silicon nitride ball

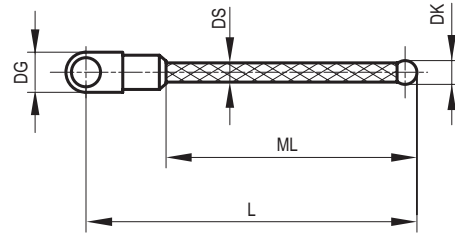
Part number	A-5555-3877	A-5555-3878	A-5555-3879
Zeiss order number	626103-0311-020	626103-0311-030	626103-0311-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	0.7	0.75	0.8
Price	\$120	\$121	\$124



¼ star styli, thermo stable carbon fiber XXT, titanium base, thermo stable carbon fiber stem, ruby ball

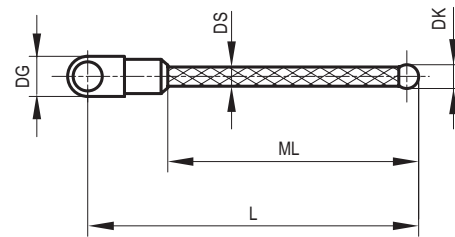
Schematics not shown to scale

Part number	A-5555-1273	A-5555-1274	A-5555-1275
Zeiss order number	626103-0302-020	626103-0302-030	626103-0302-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	0.8	0.9	1
Price	\$182	\$187	\$195



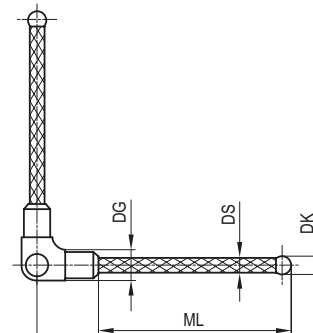
¼ star styli, thermo stable carbon fiber XXT, titanium base, thermo stable carbon fiber stem, silicon nitride ball

Part number	A-5555-3880	A-5555-3881	A-5555-3901
Zeiss order number	626103-0312-020	626103-0312-030	626103-0312-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	0.8	0.9	1
Price	\$182	\$187	\$195



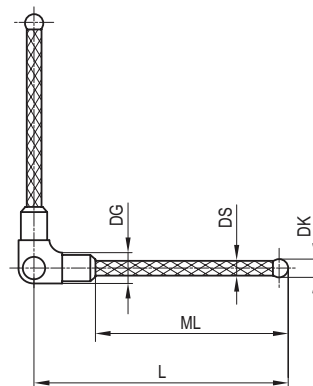
½ star styli, thermo stable carbon fiber XXT, 90 degrees, titanium base, thermo stable carbon fiber stem, ruby ball

Part number	A-5555-3882	A-5555-3883	A-5004-3284
Zeiss order number	626103-0303-020	626103-0303-030	626103-0303-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	1.4	1.5	1.6
Price	\$358	\$363	\$369



½ star styli, thermo stable carbon fiber XXT, 90 degrees, titanium base, thermo stable carbon fiber stem, silicon nitride ball

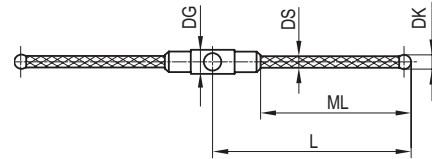
Part number	A-5555-3884	A-5555-3885	A-5555-3886
Zeiss order number	626103-0313-020	626103-0313-030	626103-0313-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	1.4	1.5	1.6
Price	\$358	\$363	\$369



½ star styli, thermo stable carbon fiber XXT, 180 degrees, titanium base, thermo stable carbon fiber stem, ruby ball

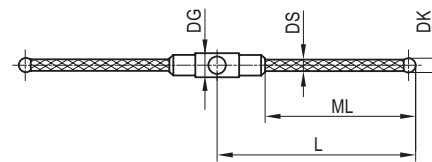
Schematics not shown to scale

Part number	A-5555-3887	A-5555-3888	A-5004-0654
Zeiss order number	626103-0304-020	626103-0304-030	626103-0304-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	1.4	1.5	1.6
Price	\$358	\$363	\$321



½ star styli, thermo stable carbon fiber XXT, 180 degrees, titanium base, thermo stable carbon fiber stem, silicon nitride ball

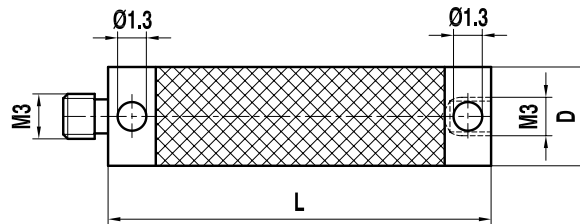
Part number	A-5555-3889	A-5555-3890	A-5555-3891
Zeiss order number	626103-0314-020	626103-0314-030	626103-0314-040
DK (mm)	3	3	3
L (mm)	20	30	40
DG (mm)	5	5	5
ML (mm)	11	21	31
DS (mm)	2	2	2
Weight (g)	1.4	1.5	1.6
Price	\$358	\$363	\$369



Extension XXT, thermo stable black carbon fiber, titanium ends

Part number	A-5555-3892	A-5555-1947	A-5004-3430	A-5555-3893	A-5004-0002	A-5555-3894
Zeiss order number	626103-5020-000	626103-5025-000	626103-5030-000	626103-5040-000	626103-5050-000	626103-5060-000
D (mm)	5	5	5	5	5	5
L (mm)	20	25	30	40	50	60
Weight (g)	1.2	1.25	1.3	1.4	1.5	1.7
Price	\$85	\$136	\$94	\$83	\$114	\$123

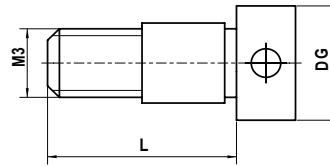
Part number	A-5555-1948	A-5004-2001	A-5004-1859	A-5555-3895	A-5555-1276
Zeiss order number	626103-5075-000	626103-5080-000	626103-5100-000	626103-5130-000	626103-5150-000
D (mm)	5	5	5	5	5
L (mm)	75	80	100	130	150
Weight (g)	1.7	1.8	2	2.5	2.7
Price	\$139	\$143	\$162	\$193	\$210



Clamping screw XXT, titanium

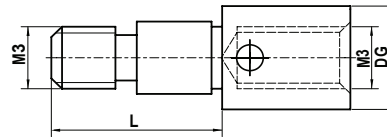
Schematics not shown to scale

Part number	A-5004-1856
Zeiss order number	626103-6110-004
DG (mm)	5
L (mm)	8
Weight (g)	0.5
Price	\$21



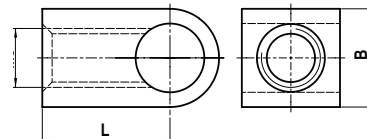
Clamping screw XXT with internal M3 thread, titanium

Part number	A-5004-1857
Zeiss order number	626103-6110-005
DG (mm)	5
L (mm)	8
Weight (g)	0.7
Price	\$21



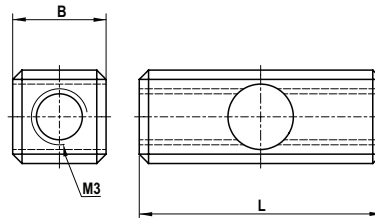
Cube XXT 90 degrees, 1 way, titanium

Part number	A-5004-3437
Zeiss order number	626103-6110-001
B (mm)	5
L (mm)	6.5
Weight (g)	0.64
Price	\$83



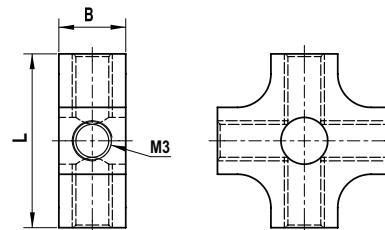
Cube XXT 180 degrees, 2 way, titanium

Part number	A-5555-3896
Zeiss order number	626103-6110-002
B (mm)	5
L (mm)	13
Weight (g)	1.05
Price	\$94



Cube star XXT, titanium

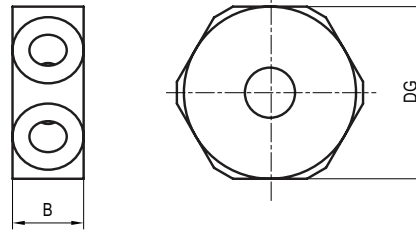
Part number	A-5004-3185
Zeiss order number	626103-6110-003
B (mm)	5
L (mm)	13
Weight (g)	1.8
Price	\$28



Cube XXT, 6 star, titanium

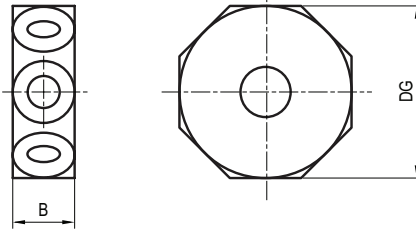
Schematics not shown to scale

Part number	A-5555-3898
Zeiss order number	626103-6110-006
B (mm)	5
DG (mm)	12
Weight (g)	1.8
Price	\$131



Cube XXT, 8 star, titanium

Part number	A-5555-3899
Zeiss order number	626103-6110-007
B (mm)	5
DG (mm)	14
Weight (g)	2.3
Price	\$152



Knuckle XXT, titanium

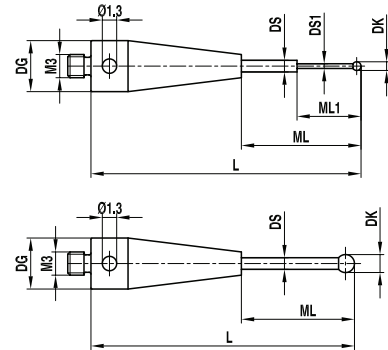
Part number	A-5004-3285
Zeiss order number	626103-6180-001
B (mm)	5
L (mm)	10
Weight (g)	1.65
Price	\$195

Tungsten carbide styli, stainless steel base, tungsten carbide stem, ruby ball

Schematics not shown to scale

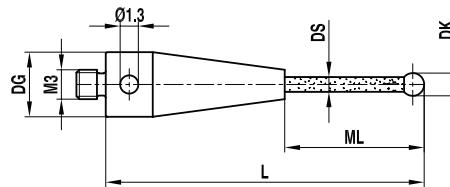
Part number	A-5555-0261	A-5555-0263	A-5555-0265	A-5555-0267	A-5555-0268	A-5555-0269	A-5555-0270	A-5555-0271
Zeiss order number	602030-8104	602030-8113	602030-8112	602030-8115	602030-8116	602030-8117	602030-8118	602030-8119
DK (mm)	2	3	4	0.5	0.6	0.8	1	1.5
L (mm)	22	40	33	22	22	22	22	22
DG (mm)	4	5.5	4	4	4	4	4	4
ML (mm)	9	21.5	23	9	9	9	9	9
ML1 (mm)	-	-	-	2.5	4.6	4.8	5	-
DS (mm)	1	2	2.5	1	1	1	1	1
DS1 (mm)	-	-	-	0.3	0.4	0.6	0.8	-
Weight (g)	1	4	2.5	1	1	1	1	1
Price	\$37	\$47	\$47	\$67	\$61	\$57	\$58	\$47

Part number	A-5555-0272	A-5555-0273	A-5555-0274	A-5555-0276	A-5555-0277
Zeiss order number	602030-8120	602030-8121	602030-8023	602030-8021	602030-8106
DK (mm)	1	0.3	2	3	3
L (mm)	10.5	22	21	21.5	21
DG (mm)	4	4	4	4	4
ML (mm)	5.5	9	15	15.5	13
ML1 (mm)	5	2.3	-	-	-
DS (mm)	10	1	1	1.5	2
DS1 (mm)	0.8	.02	-	-	-
Weight (g)	1	1	1	1	1
Price	\$62	\$94	\$40	\$51	\$43



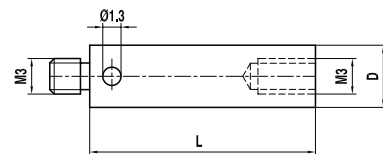
Ceramic styli, stainless steel base, ceramic stem, ruby ball

Part number	A-5555-0264	A-5555-0266	A-5555-0275
Zeiss order number	602030-8102	602030-8101	602030-8020
DK (mm)	4	5	6
L (mm)	32	32	13
DG (mm)	4	4	4
ML (mm)	26	19	9
DS (mm)	2	2	2
Weight (g)	1	1	1
Price	\$80	\$80	\$58



Stainless steel extensions

Part number	A-5004-7609	A-5004-7583	A-5555-0286	A-5555-0287	A-5555-0288
Zeiss order number	602030-8301	602030-8302	602030-8303	602030-8304	602030-8305
L (mm)	10	20	30	40	50
D (mm)	4	4	4	4	4
Weight (g)	0.7	1.6	2.6	3.7	4.7
Price	\$15	\$18	\$21	\$28	\$28

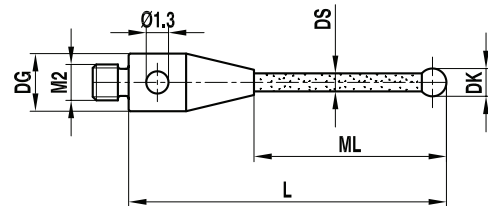


M2 styli, adaptors and accessories for Zeiss analog probe systems

Schematics not shown to scale

Ceramic styli, stainless steel base, ceramic stem, ruby ball

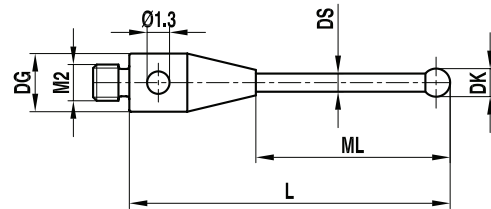
Part number	A-5555-0278	A-5555-0279
Zeiss order number	602030-8002	602030-8004
DK (mm)	6	5
L (mm)	13	22.5
DG (mm)	3	3
ML (mm)	9	16.5
DS (mm)	2	2
Weight (g)	1	1
Price	\$73	\$55



Tungsten carbide styli, stainless steel base, tungsten carbide stem, ruby ball

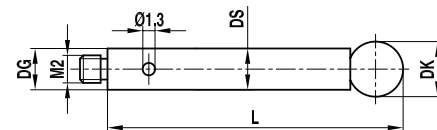
Part number	A-5555-0308	A-5555-0309	A-5555-0282	A-5555-0310	A-5555-0311	A-5003-3822	A-5003-0938	A-5555-0312
Zeiss order number	602030-8006	602030-8007	602030-8001	602030-8008	602030-8009	602030-8005	602030-8003	602030-8015
DK (mm)	1	1	2	2	2	2	3	4
L (mm)	10.5	15.5	11	11	16	21	21.5	12
DG (mm)	3	3	3	3	3	3	3	3
ML (mm)	6.5	11.5	5	7	12	15	15.5	8
DS (mm)	0.8	0.8	1	1	1	1	1.5	2.5
Weight (g)	0.3	0.3	1	1	1	1	1	1
Price	\$58	\$58	\$35	\$35	\$35	\$35	\$58	\$50

Part number	A-5555-0313	A-5555-0283
Zeiss order number	602030-8016	602030-8034
DK (mm)	4	5
L (mm)	22	22.5
DG (mm)	3	3
ML (mm)	18	16.5
DS (mm)	2.5	2
Weight (g)	1	1
Price	\$55	\$55



Steel styli, stainless steel base and stem, ruby ball

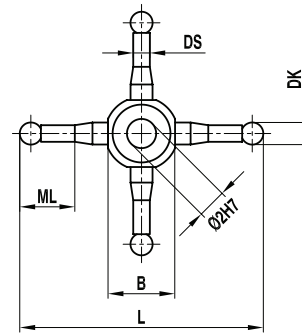
Part number	A-5555-0314	A-5555-0315	A-5555-0316
Zeiss order number	602030-8017	602030-8018	602030-8019
DK (mm)	6	6	8
L (mm)	13	28	13
DS (mm)	3	3	3
DG (mm)	3	3	3
Weight (g)	0.9	1.8	2
Price	\$43	\$43	\$61



Star styli, stainless steel cube base and stem, ruby ball

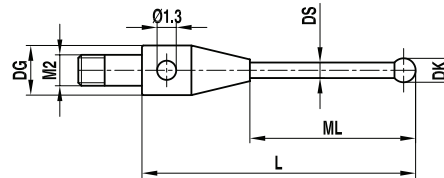
Schematics not shown to scale.

Part number	A-5555-0294	A-5555-0295
Zeiss order number	602030-8011	602030-8010
DK (mm)	2	2
L (mm)	32	22
ML (mm)	9.5	4.5
DS (mm)	1.4	1.4
B (mm)	5.5	5.5
Weight (g)	1	1
Price	\$146	\$154



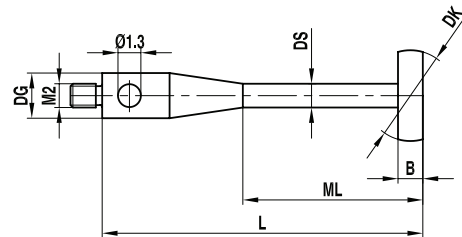
Styli for star configuration, stainless steel base and stem, ruby ball

Part number	A-5555-0296
Zeiss order number	602030-8012
DK (mm)	2
L (mm)	19.5
DG (mm)	3
ML (mm)	13.5
DS (mm)	1.5
Weight (g)	1
Price	\$50



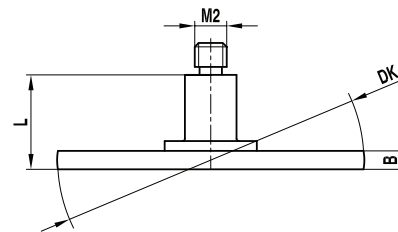
Spherical disk styli, stainless steel base, tungsten carbide stem, ceramic disk

Part number	A-5555-0297	A-5555-0298
Zeiss order number	602030-8201	602030-8202
DK (mm)	8	4
L (mm)	32	32
DG (mm)	3	3
ML (mm)	19	19
DS (mm)	1.5	1
B (mm)	1.5	1
Weight (g)	1	1
Price	\$135	\$101



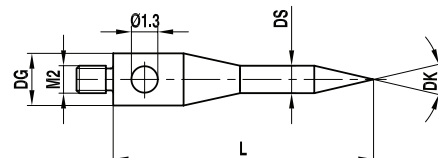
Spherical disk styli, stainless steel base and stem, ceramic disk

Part number	A-5555-0299	A-5555-0300
Zeiss order number	602030-8203	602030-8204
DK (mm)	14	20
L (mm)	5.5	5.5
B (mm)	2	2.5
Weight (g)	1	3
Price	\$182	\$217



Pointer styli, stainless steel base, cone point, tungsten carbide

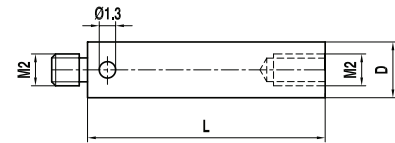
Part number	A-5555-0317	A-5555-0318
Zeiss order number	602030-8342	602030-8343
L (mm)	10	10
DG (mm)	3	3
DS (mm)	1.5	1.5
DK	30°	60°
Weight (g)	1	1
Price	\$31	\$31



Stainless steel extension

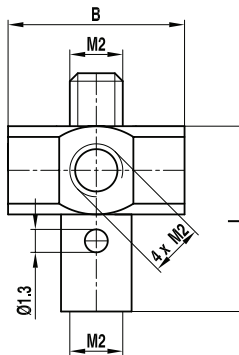
Schematics not shown to scale

Part number	A-5004-7610	A-5004-7585	A-5004-7586	A-5004-7591	A-5004-7611
Zeiss order number	602030-8321	602030-8322	602030-8323	602030-8324	602030-8325
L (mm)	5	10	20	30	40
D (mm)	3	3	3	3	3
Weight (g)	0.2	0.5	1	1.4	2.2
Price	\$14	\$15	\$18	\$20	\$22



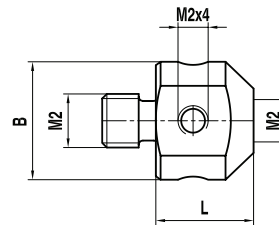
5-way holder, rotary, stainless steel

Part number	A-5000-3627
Zeiss order number	602030-8381
L (mm)	7.5
B (mm)	7
Weight (g)	1.2
Price	\$56



5-way holder, stainless steel

Part number	A-5555-0319	A-5555-0320
Zeiss order number	602030-9104	602030-9103
L (mm)	9.1	5.4
D (mm)	10.5	7
Weight (g)	3.4	1
Price	\$94	\$45



Renishaw tools and accessories for the assembly of M2, M3 and M5 styli to Zeiss measuring probe heads

Schematics not shown to scale

Stylus tool (M2 and M3 styli)

Part number	A-5555-0233
Zeiss order number	602030-0001
DK (mm)	1.2
L (mm)	23
Weight (g)	1
Price	\$12



Allen keys DIN 911

Part number	A-5555-0234	A-5555-0235	A-5555-0236
Zeiss order number	602030-0002	602030-0042	602030-0021
B (mm)	SW1.5	SW0.9	SW2.5
Weight (g)	1	1	2
Price	\$1	\$1	\$1



Tool kit

consisting of:

Part number	A-5555-0237
Zeiss order number	600341-8595
Price	\$33

	1 x offset screwdriver DIN 911-2	1 x offset screwdriver DIN 911-3	1 x offset screwdriver DIN 911-4	2 x pin-type spanner 2.9 mm	1 x single-headed spanner DIN 894
DK (mm)	–	–	–	2.9	–
L (mm)	–	–	–	70	–
D (mm)	–	–	–	5	–
B	SW2	SW3	SW4	–	SW13
Weight (g)	1	5	10	15 each	39

Stylus tool kit (2 x pin-type spanners 2.9 mm for M5)

Part number	A-5555-0238
Zeiss order number	600341-8596
DK (mm)	2.9
L (mm)	70
D (mm)	5
Weight (g)	15
Price	\$28

Stylus tool 1.7 mm for M5

Part number	A-5555-0239
Zeiss order number	602030-0027
DK (mm)	1.7
L (mm)	49
D (mm)	2.5
Weight (g)	1
Price	\$11

Pin-type spanner 2.9 mm for M5

Part number	A-5555-0240
Zeiss order number	602030-0222
DK (mm)	2.9
L (mm)	70
D (mm)	5
Weight (g)	7.5
Price	\$14

Assortment of screws

Part number	A-5555-0241
Zeiss order number	600341-8590
Weight (g)	27
Price	\$31

Includes:

- 10 spring-lock washers FS 5x7
- 2 cheese-head screws M5x12
- 2 cheese-head screws M5x20
- 4 grub screws 10 mm long
- 2 grub screws 25 mm long

Spring-lock washers

Part number	A-5555-0242
Zeiss order number	600341-0042
Price	\$6

Includes:

- 10 x FS 5.7 spring-lock washers

C spanners DIN 1810

Part number	A-5555-0243	A-5555-0244
Zeiss order number	602030-0045	602030-0044
DK (mm)	11	21
Price	\$15	\$19

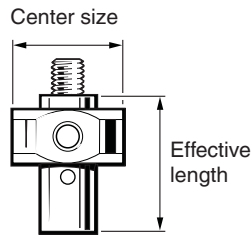
Accessories

Stylus knuckles

Part number	A-5000-7534	A-5003-4697	A-5000-9902 Rotary	A-5000-7616	A-5003-4686 Rotary	A-5003-4689 Rotary	* A-5003-5278 Rotary	A-5003-5279 Rotary
Thread size	M2	M2	M2	M3	M3	M4	M5	M5
Effective length mm (in.)	8.0 (0.32)	13.5 (0.54)	16.5 (0.65)	12.0 (0.48)	17.0 (0.67)	33.0 (1.30)	36.5 (1.44)	46.5 (1.84)
Center offset mm (in.)	4.5 (0.18)	N/A	N/A	6.0 (0.24)	N/A	N/A	N/A	N/A
Mass grams	1.6	1.1	1.3	3.7	1.5	9.8	16.5	64.9
Price	\$83	\$125	\$94	\$83	\$151	\$162	\$286	\$189

* Not for use with SP80

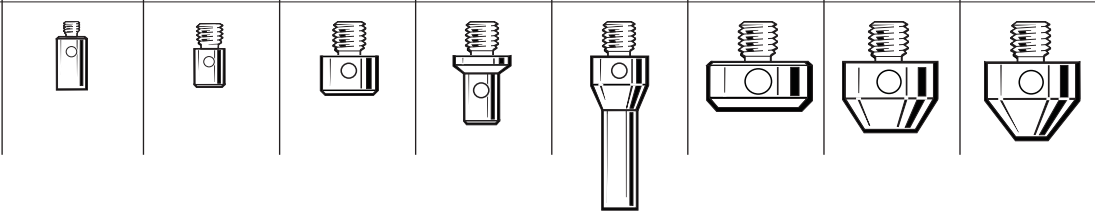
Stylus centers



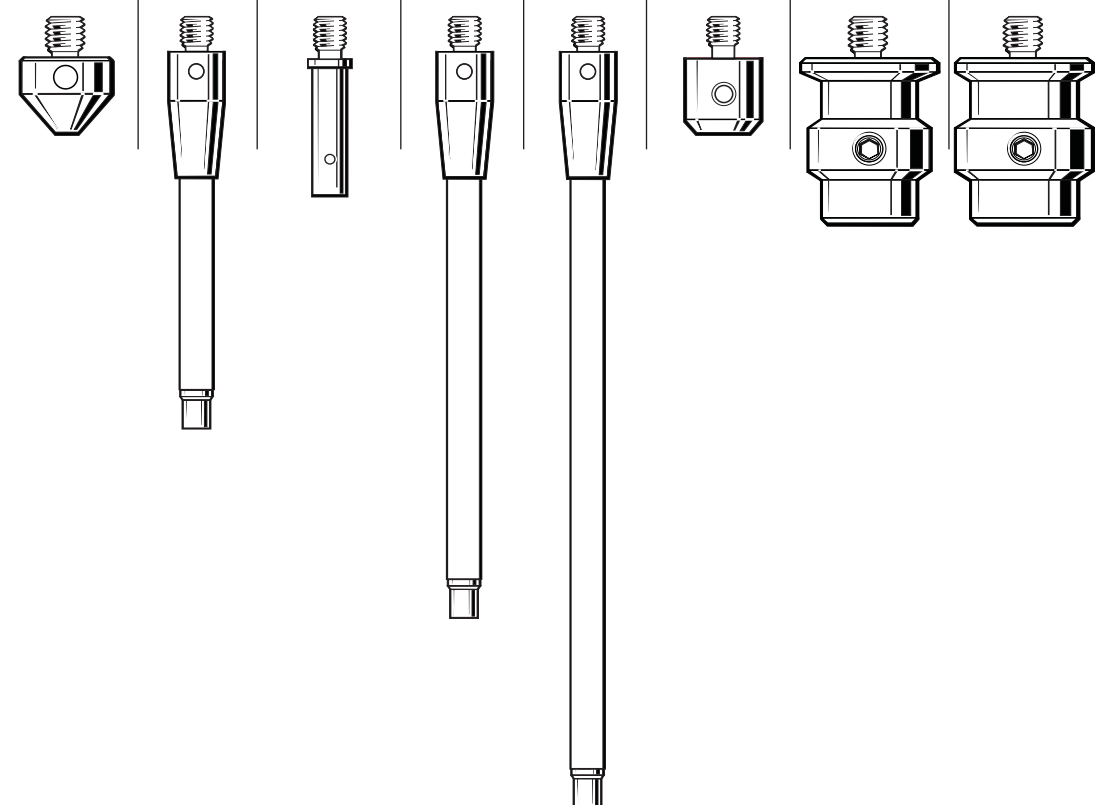
Part number	A-5000-8395 4-way	A-5000-3627 5-way	A-5000-7610 5-way	A-5000-7792 5-way
Thread size	M2	M2	M3	M4
Effective length mm (in.)	7.5 (0.30)	7.5 (0.30)	13.0 (0.52)	18.0 (0.71)
Center size mm (in.)	7.5 (0.30)	7.0 (0.28)	10.0 (0.40)	15.0 (0.60)
Mass grams	1.1	0.8	3.6	12.1
Price	\$74	\$56	\$58	\$69

Adaptors

Part number	A-5004-7593 Stainless steel	A-5004-7592 Stainless steel	A-5004-7595 Stainless steel	A-5004-7597 Stainless steel	A-5004-7596 Stainless steel	A-5004-7613 Stainless steel	A-5003-0856 Stainless steel	A-5555-0227 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 grams	0.4	0.6	1.5	1.4	3.2	6.0	4.6	5.0
Price	\$14	\$17	\$37	\$37	\$23	\$37	\$34	\$23

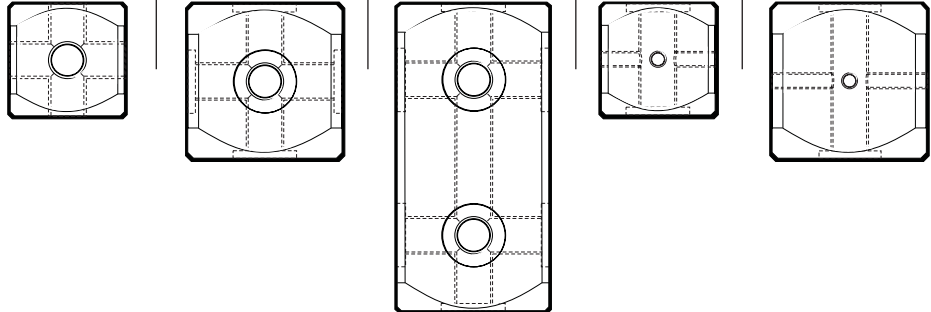


Part number	A-5555-0226 Stainless steel	A-5000-7751 Ceramic	A-5004-7612 Stainless steel	A-5000-7752 Ceramic	A-5000-7753 Ceramic	A-2054-4657 Stainless steel	A-5000-9302 Stainless steel	A-5000-9303 Stainless steel
Male/female thread	M5/M2	M4/M3	TF6/M3	M4/M3	M4/M3	M4/Ø4.5	M5/Ø8.0	M5/Ø10.0
Length mm (in.)	10.0 (0.40)	50.0 (1.97)	18.0 (0.71)	75.0 (2.96)	100.0 (3.94)	10.0 (0.40)	22.0 (0.87)	22.0 (0.87)
Mass grams	5.0	4.4	1.9	5.2	6.3	5.0	18.0	20.0
Price	\$23	\$69	\$41	\$106	\$120	\$40	\$68	\$68

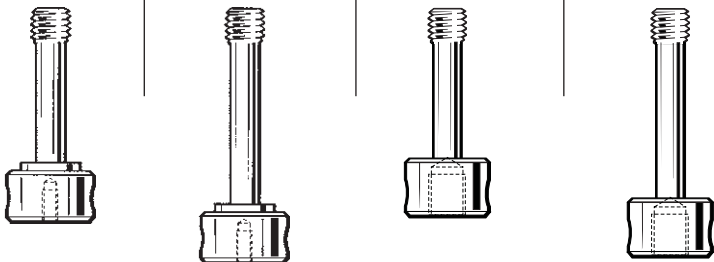


Cubes and bolts

Part number	A-5555-0189 Titanium	A-5555-0190 Titanium	A-5555-0194 Titanium	A-5003-5683 Titanium	A-5003-5684 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 grams	12.85	32.55	63.50	13.75	35.18
Price	\$58	\$69	\$125	\$100	\$117

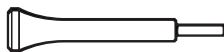


Part number	A-5003-5679 Stainless steel	A-5003-5678 Stainless steel	A-5003-5677 Stainless steel	A-5003-5676 Stainless steel
Thread size	M5 – M2	M5 – M2	M5	M5
Length mm (in.)	28.0 (1.11)	33.0 (1.30)	28.0 (1.11)	33.0 (1.30)
Mass grams	6.7	7.1	6.0	6.4
Price	\$21	\$21	\$21	\$21

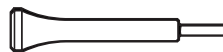


Stylus tools

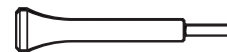
A-5004-7582
For M2 and M3
threaded styli
Price: \$11



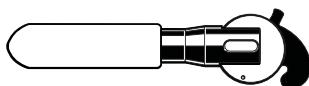
A-5004-7587
For M4
threaded styli
Price: \$14



A-5004-7614
For M5
threaded styli
Price: \$18



A-5003-2300
For the M2 carbon fiber
range of styli
Price: \$56



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

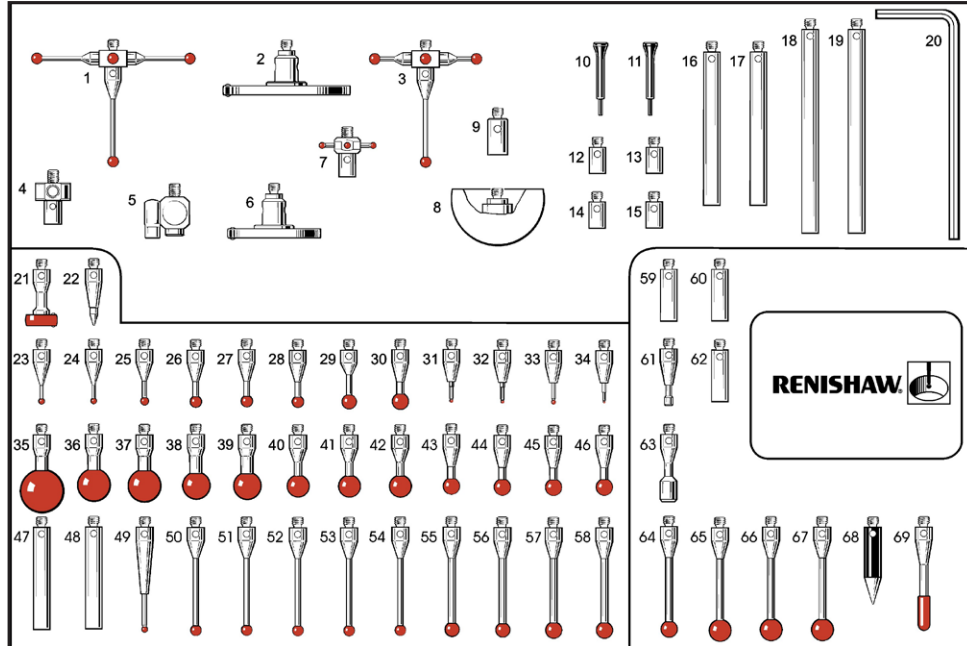
Stylus kits

M2 comprehensive stylus kit

A-5000-0001

Price: \$3,243

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Position	Part number	Description
1	A-5000-3626	M2 STR D2 5BALL L19.2 S30
2	A-5000-7810	M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5
3	A-5000-7629	M2 STR D2 5BALL L19.2 S18
4	A-5000-3627	M2 ACC CENTER 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 L7.5T 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 EWL7.5 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 EWL16.5 D1.4SS
57-58	A-5000-4160	M2 STY D3R L20 EWL17.5 D1.5SS
59-60	A-5004-7585	M2 EXT L10 D3SS
61	A-5004-7589	M2 CYL D1.5SLVS L11 EWL1.5
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 EWL17.5 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

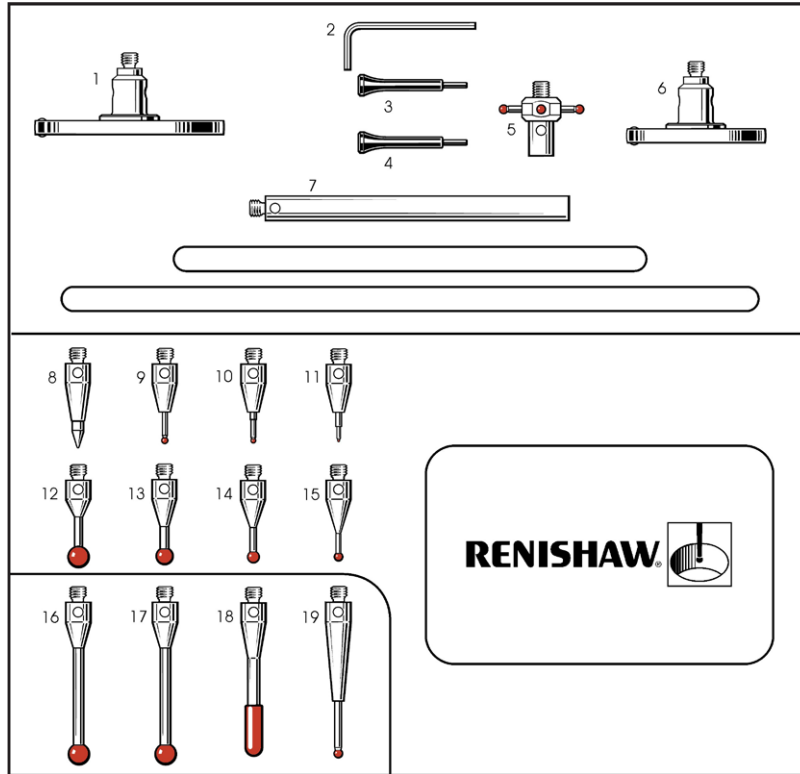
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M2 stylus enhancement kit

A-5000-0002

Price: \$1,192

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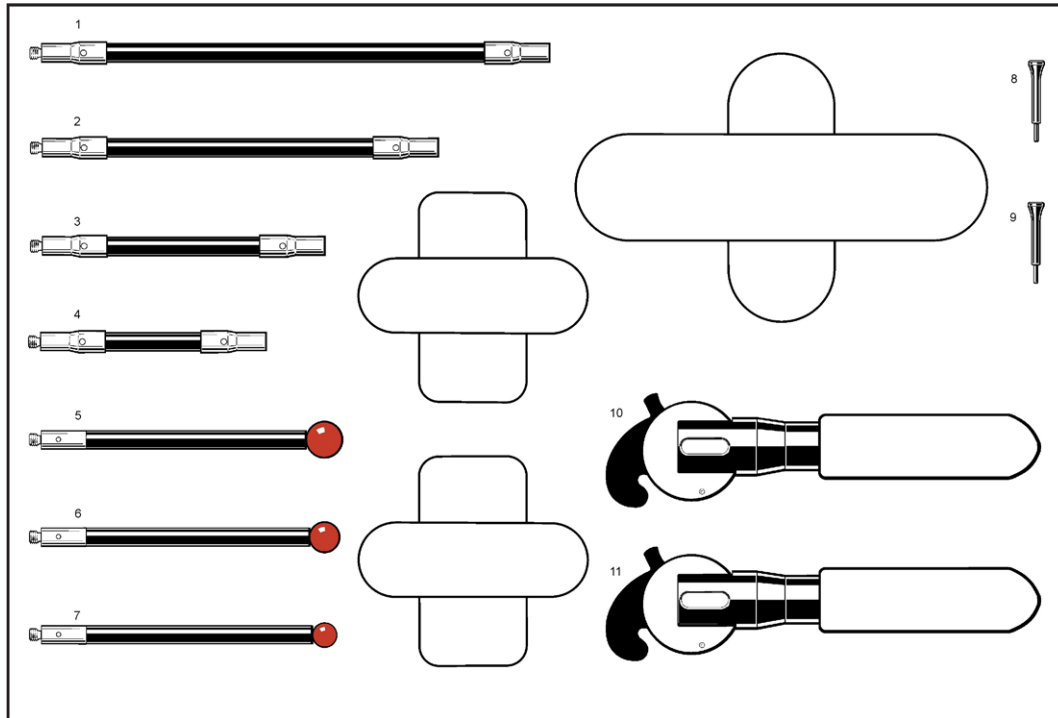
Position	Part number	Description
1	A-5000-7810	M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5
2	P-TL01-0150	S3 HEX WRENCH 1.5 MM A/F
3-4	A-5004-7582	M2-M3 STYLUS TOOL
5	A-5000-7811	M2 STR D1 4BALL L7.5T S10
6	A-5000-7809	M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5
7	A-5004-7611	M2 EXT L40 d3SS
8	A-5000-7813	M2 PNT D1.4TC 30deg 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 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 EWL16.5 d1.4SS
18	A-5000-7812	M2 SPH D2R L20 EWL7.2 SS
19	A-5000-7808	M2 STY D1R L20 EWL7 d0.7TC

M2 high performance kit

A-5003-2310

Price: \$821

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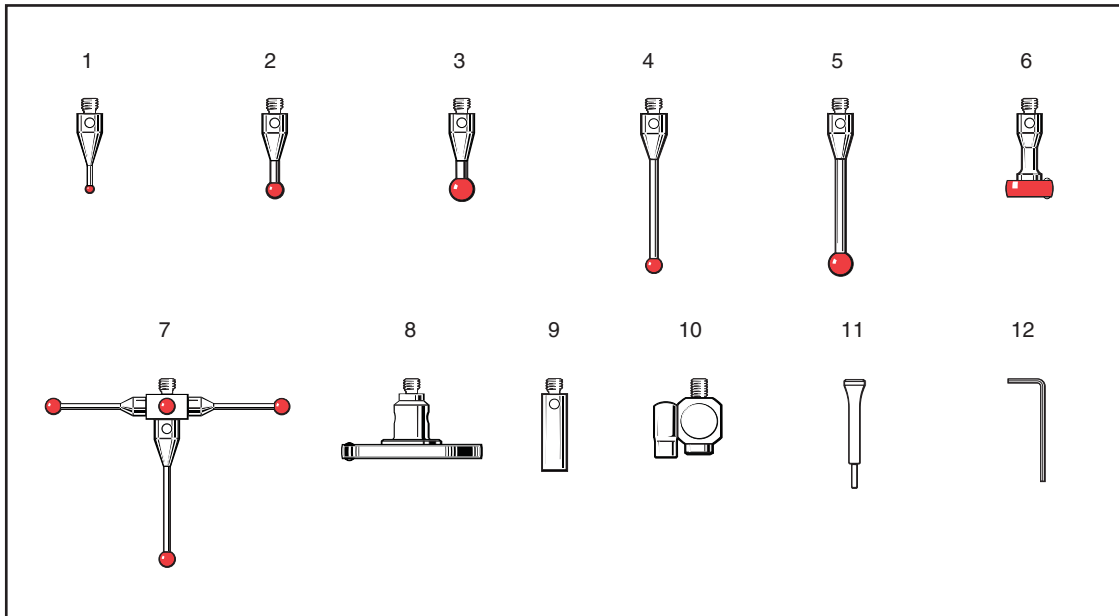
Position	Part number	Description
1	A-5003-2283	M2 EXT L90 d3CF
2	A-5003-2282	M2 EXT L70 d3CF
3	A-5003-2281	M2 EXT L50 d3CF
4	A-5003-2280	M2 EXT L40 d3CF
5	A-5003-2287	M2 STY D6R L50 EWL50 d3CF
6	A-5003-2286	M2 STY D5R L50 EWL50 d3CF
7	A-5003-2285	M2 STY D4R L50 EWL50 d3CF
8-9	A-5004-7582	M2-M3 STYLUS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

Stylus kit for M2 probes

A-6560-7522

Price: \$693

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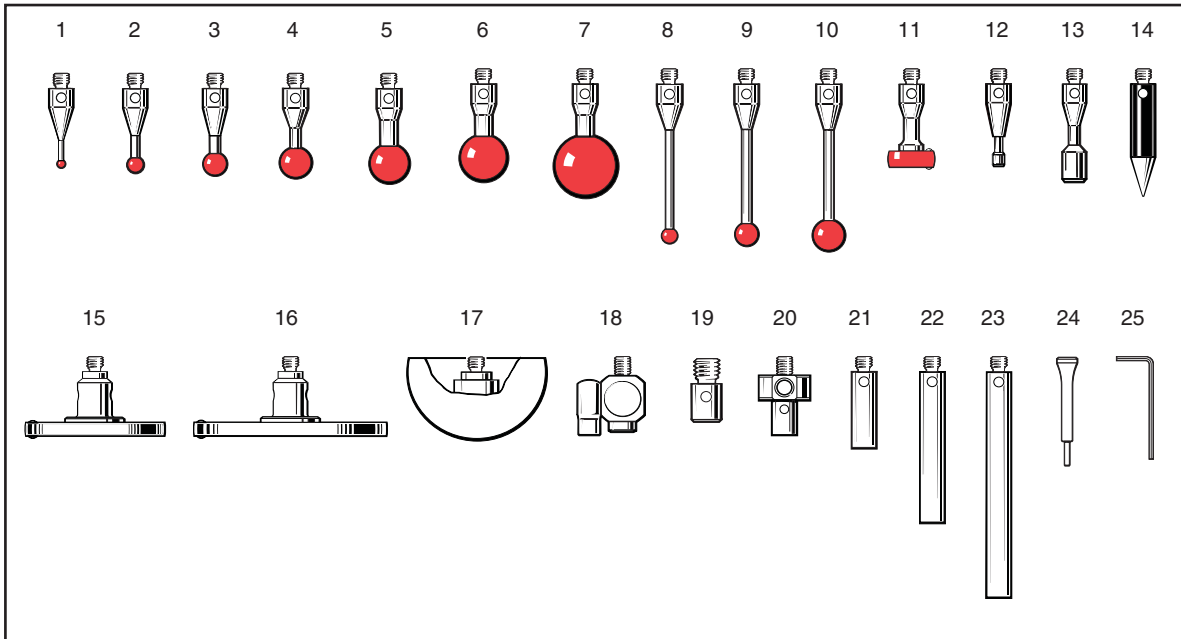
Position	Part number	Quantity	Description
1	A-5000-7806	1	M2 STY D1R L10 EWL4.5 d0.7SS
2	A-5000-7807	1	M2 STY D2R L10 EWL6 d1SS
3	A-5000-3604	1	M2 STY D3R L10 EWL7.5 d1.5SS
4	A-5000-3603	1	M2 STY D2R L20 EWL14 d1.4SS
5	A-5000-4160	1	M2 STY D3R L20 EWL17.5 d1.5SS
6	A-5000-3611	1	M2 DSC D6R T1.2 L10 BR-Y2
7	A-5000-3626	1	M2 STR D2 5BALL L19.2 S30
8	A-5000-7809	1	M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5
9	A-5004-7585	2	M2 EXT L10 d3SS
10	A-5000-7534	1	M2 ACC KNUCKLE OFFSET
11	A-5004-7582	2	M2-M3 STYLUS TOOL
12	P-TL01-0150	1	S3 HEX WRENCH 1.5 MM A/F
13	M-5000-3541	1	S8 TP2 SPANNER (not pictured)
14	A-1015-7658	1	TP2 & STYLI BOX (not pictured)

Stylus kit for M2 probes

A-6560-7565

Price: \$1,419

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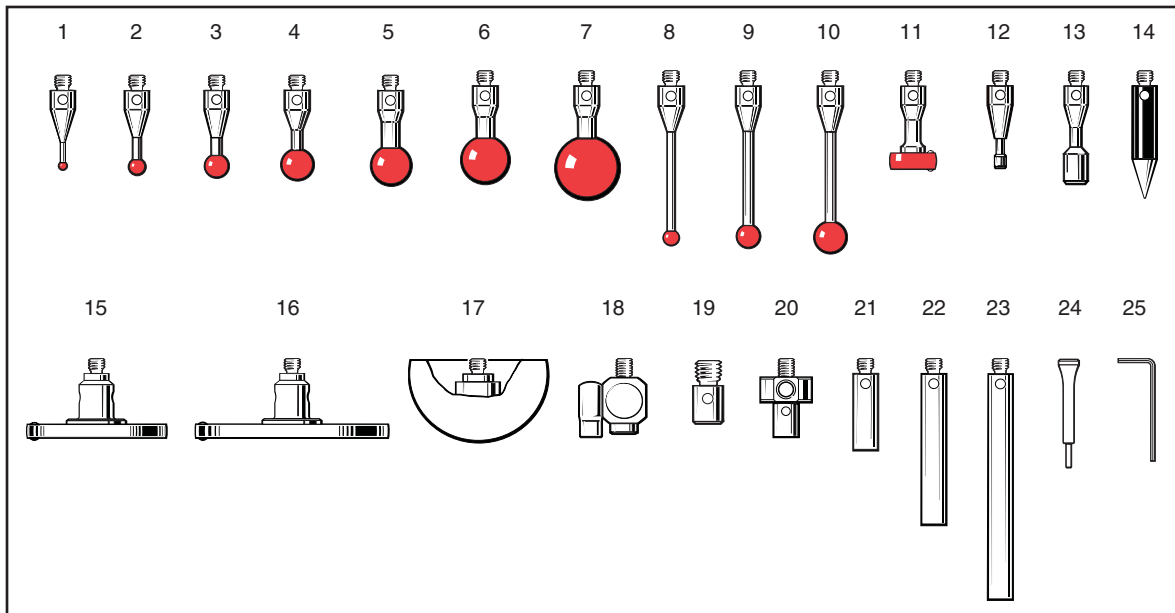
Position	Part number	Quantity	Description
1	A-5000-7806	1	M2 STY D1R L10 EWL4.5 d0.7SS
2	A-5000-7807	1	M2 STY D2R L10 EWL6 d1SS
3	A-5000-3604	1	M2 STY D3R L10 EWL7.5 d1.5SS
4	A-5000-4154	1	M2 STY D4R L10 EWL10 d1.5SS
5	A-5000-4155	1	M2 STY D5R L10 EWL10 d2.5SS
6	A-5000-4156	1	M2 STY D6R L10 EWL10 d2.5SS
7	A-5000-4158	1	M2 STY D8R L11 EWL11 d2.5SS
8	A-5000-3603	1	M2 STY D2R L20 EWL14 d1.4SS
9	A-5000-4160	1	M2 STY D3R L20 EWL17.5 d1.5SS
10	A-5000-4161	1	M2 STY D4R L20 EWL20 d1.5SS
11	A-5000-3611	1	M2 DSC D6R T1.2 L10 BR-Y2
12	A-5004-7589	1	M2 CYL D1.5SLVS L11 EWL1.5
13	A-5004-7590	1	M2 CYL D3SLVS L13 EWL3.8
14	A-5004-7588	1	M2 PNT D3SLVS 30deg L15
15	A-5000-7809	1	M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5
16	A-5000-7810	1	M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5
17	A-5000-3614	1	M2 HEM D18CE
18	A-5000-7534	1	M2 ACC KNUCKLE OFFSET
19	A-5004-7592	1	M3-M2 EXT L5SS
20	A-5000-3627	1	M2 ACC Center 5WAY
21	A-5004-7585	2	M2 EXT L10 d3SS
22	A-5004-7586	2	M2 EXT L20 d3SS
23	A-5004-7591	2	M2 EXT L30 d3SS
24	A-5004-7582	2	M2-M3 STYLUS TOOL
25	P-TL01-0150	1	S3 HEX WRENCH 1.5 MM A/F
26	M-5000-3541	1	S8 TP2 SPANNER (not pictured)
27	A-1015-7749	1	COMP BOX ASSEMBLY (not pictured)

Stylus kit for M2 probes

A-6560-7524

Price: \$2,169

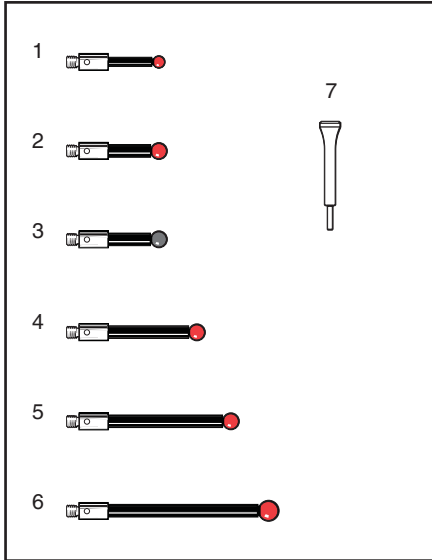
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Position	Part number	Quantity	Description
1	A-5000-7806	5	M2 STY D1R L10 EWL4.5 d0.7SS
2	A-5000-7807	3	M2 STY D2R L10 EWL6 d1SS
3	A-5000-3604	5	M2 STY D3R L10 EWL7.5 d1.5SS
4	A-5000-4154	3	M2 STY D4R L10 EWL10 d1.5SS
5	A-5000-4155	2	M2 STY D5R L10 EWL10 d2.5SS
6	A-5000-4156	2	M2 STY D6R L10 EWL10 d2.5SS
7	A-5000-4158	1	M2 STY D8R L11 EWL11 d2.5SS
8	A-5000-3603	5	M2 STY D2R L20 EWL14 d1.4SS
9	A-5000-4160	3	M2 STY D3R L20 EWL17.5 d1.5SS
10	A-5000-4161	3	M2 STY D4R L20 EWL20 d1.5SS
11	A-5000-3611	1	M2 DSC D6R T1.2 L10 BR-Y2
12	A-5004-7589	1	M2 CYL D1.5SLVS L11 EWL1.5
13	A-5004-7590	1	M2 CYL D3SLVS L13 EWL3.8
14	A-5004-7588	1	M2 PNT D3SLVS 30deg L15
15	A-5000-7809	1	M2 DSC D18SLVS T1.5 L8.6 BR-Y2.5
16	A-5000-7810	1	M2 DSC D25SLVS T1.5 L8.6 BR-Y2.5
17	A-5000-3614	1	M2 HEM D18CE
18	A-5000-7534	1	M2 ACC KNUCKLE OFFSET
19	A-5004-7592	1	M3-M2 EXT L5SS
20	A-5000-3627	3	M2 ACC Center 5WAY
21	A-5004-7585	3	M2 EXT L10 d3SS
22	A-5004-7586	2	M2 EXT L20 d3SS
23	A-5004-7591	2	M2 EXT L30 d3SS
24	A-5004-7582	2	M2-M3 STYLUS TOOL
25	P-TL01-0150	1	S3 HEX WRENCH 1.5 MM A/F
26	M-5000-3541	1	S8 TP2 SPANNER (not pictured)
27	A-1015-7749	1	COMP BOX ASSEMBLY (not pictured)

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

Price: \$503

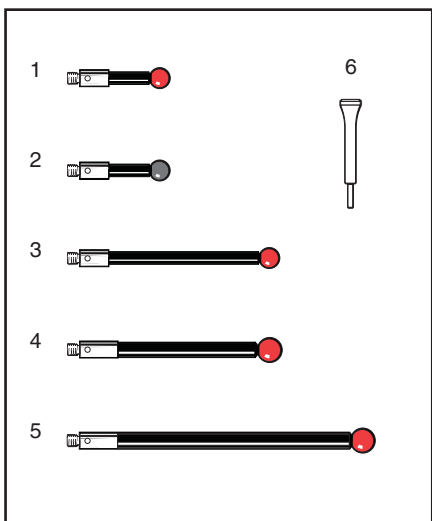


Position	Part number	Description
1	A-5003-5970	M3 STY D3R L21 EWL13.5 d2CF
2	A-5003-5971	M3 STY D4R L21 EWL13.5 d3CF
3	A-5003-5977	M3 STY D4SIN L21 EWL13.5 d3CF
4	A-5003-5972	M3 STY D4R L31 EWL23.5 d3CF
5	A-5003-5973	M3 STY D4R L40 EWL32.5 d3CF
6	A-5003-5974	M3 STY D5R L50 EWL42.5 d3CF
7	A-5004-7582	M2-M3 STYLUS TOOL

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

Price: \$526

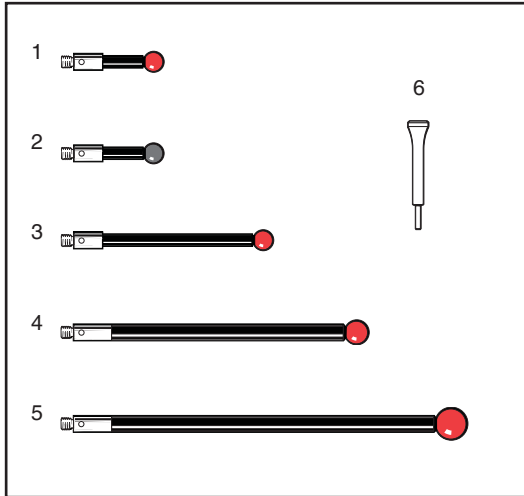


Position	Part number	Description
1	A-5003-5975	M3 STY D5R L21 EWL13.5 d3CF
2	A-5003-5978	M3 STY D5SIN L21 EWL13.5 d3CF
3	A-5003-5974	M3 STY D5F L50 EWL42.5 d3CF
4	A-5003-5976	M3 STY D6R L50 EWL50 d4CF
5	A-5003-4860	M3 STY D6R L75 EWL75 d4CF
6	A-5004-7582	M2-M3 STYLUS TOOL

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

Price: \$595

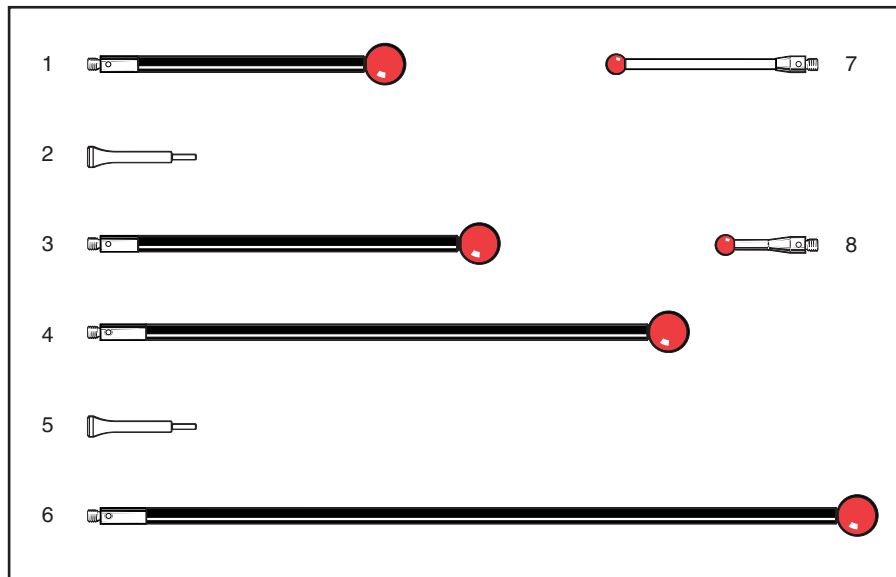


Position	Part number	Description
1	A-5003-5975	M3 STY D5R L21 EWL13.5 d3C/F
2	A-5003-5978	M3 STY D5SIN L21 EWL13.5 d3C/F
3	A-5003-5974	M3 STY D5R L50 EWL42.5 d3C/F
4	A-5003-4860	M3 STY D6R L75 EWL75 d4C/F
5	A-5003-4863	M3 STY D8R L100 EWL100 d4C/F
6	A-5004-7582	M2-M3 STYLUS TOOL

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A-5003-8124 M3 stylus kit for SP25M/SM25-4/SH25-4

Price: \$1,320



Position	Part number	Description
1	A-5003-7057	M3 STY D10R L25 EWL75 d4C/F
2	A-5004-7582	M2-M3 STYLUS TOOL
3	A-5003-7056	M3 STY D10R L100 EWL100 d4C/F
4	A-5003-7055	M3 STY D10R L150 EWL150 d4C/F
5	A-5004-7582	M2-M3 STYLUS TOOL
6	A-5003-7054	M3 STY D10R L200 EWL200 d4C/F
7	A-5003-0069	M3 STY D5R L50 EWL50 d2.5CER
8	A-5000-7630	M3 STY D5R L21 EWL21 d2.5SS

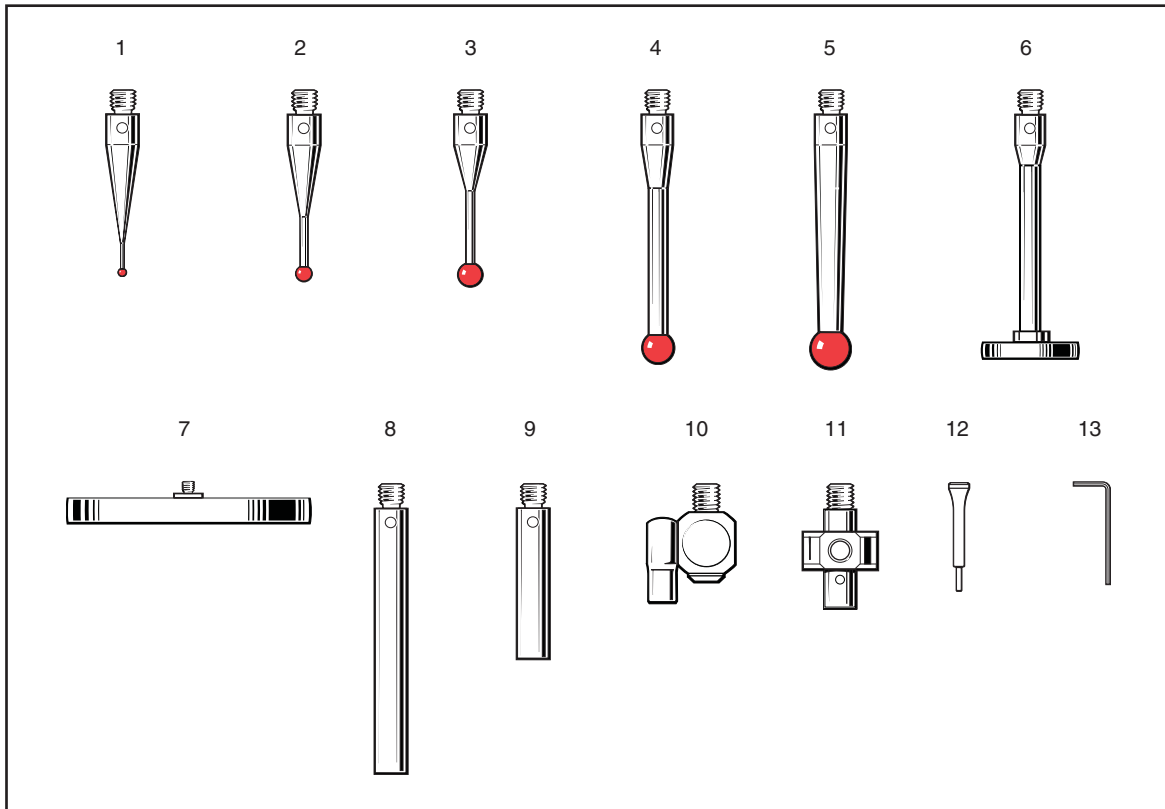
www.renishaw.com

Stylus kit for M3 probes

A-6560-7523

Price: \$886

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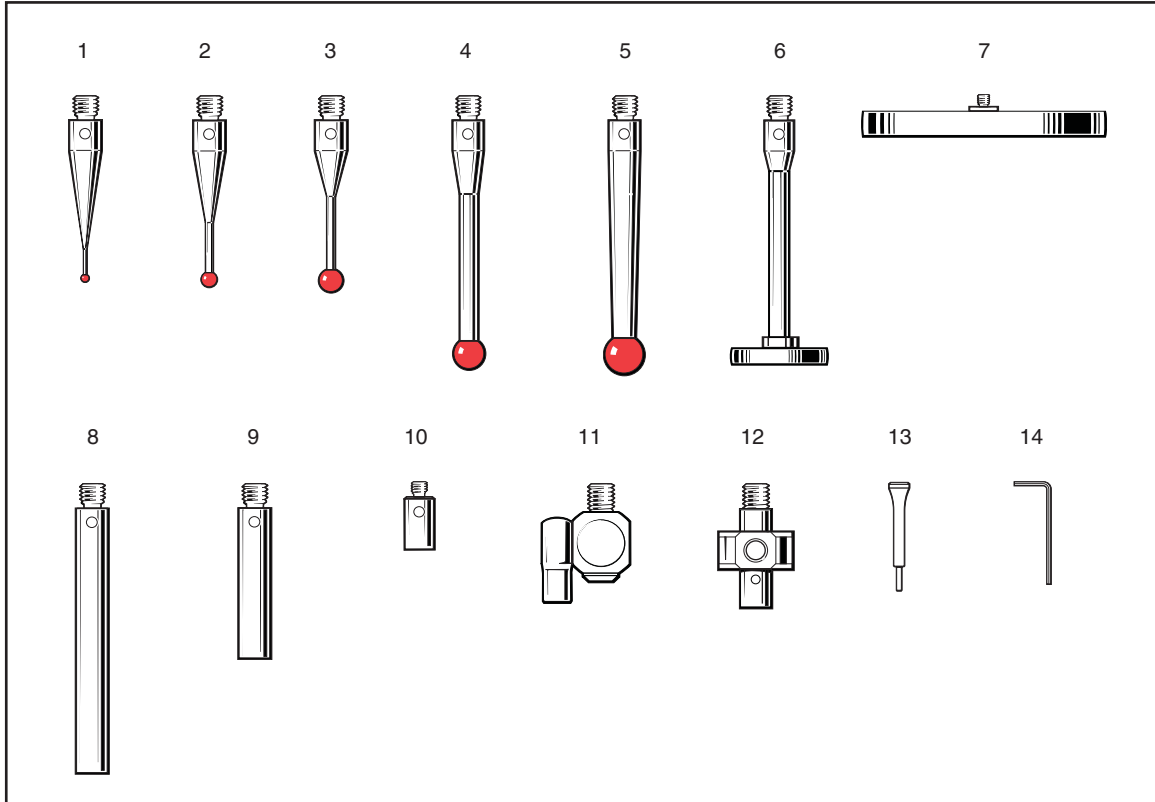


Position	Part number	Quantity	Description
1	A-5000-3551	1	M3 STY D1R L21 EWL4 d0.6SS
2	A-5000-3552	1	M3 STY D2R L21 EWL8 d1.4SS
3	A-5000-3553	1	M3 STY D3R L21 EWL12 d1.5SS
4	A-5000-3554	5	M3 STY D4R L31 EWL27 d2.5SS
5	A-5000-7648	1	M3 STY D5R L31 EWL31 d3.5SS
6	A-5000-3615	1	M3 DSC D12.7SLVS T2 L30.8 BR-N
7	A-5000-7669	1	M3 DSC D63.5CS T6 L4 BR-N
8	A-5004-7584	1	M3 EXT L35 d4SS
9	A-5004-7583	1	M3 EXT L20 d4SS
10	A-5000-7616	1	M3 ACC KNUCKLE OFFSET
11	A-5000-7610	1	M3 ACC Center 5WAY
12	A-5004-7582	2	M2-M3 STYLUS TOOL
13	P-TL01-0150	1	S3 HEX WRENCH 1.5 MM A/F
14	A-1041-7569	1	SA7 ADAPTOR (not pictured)
15	M-5000-3571	2	STYLUS SHANK ADAPTOR (not pictured)
16	A-1015-7650	1	TP1 STYLI BOX (not pictured)

Stylus kit 102 for M3 probes



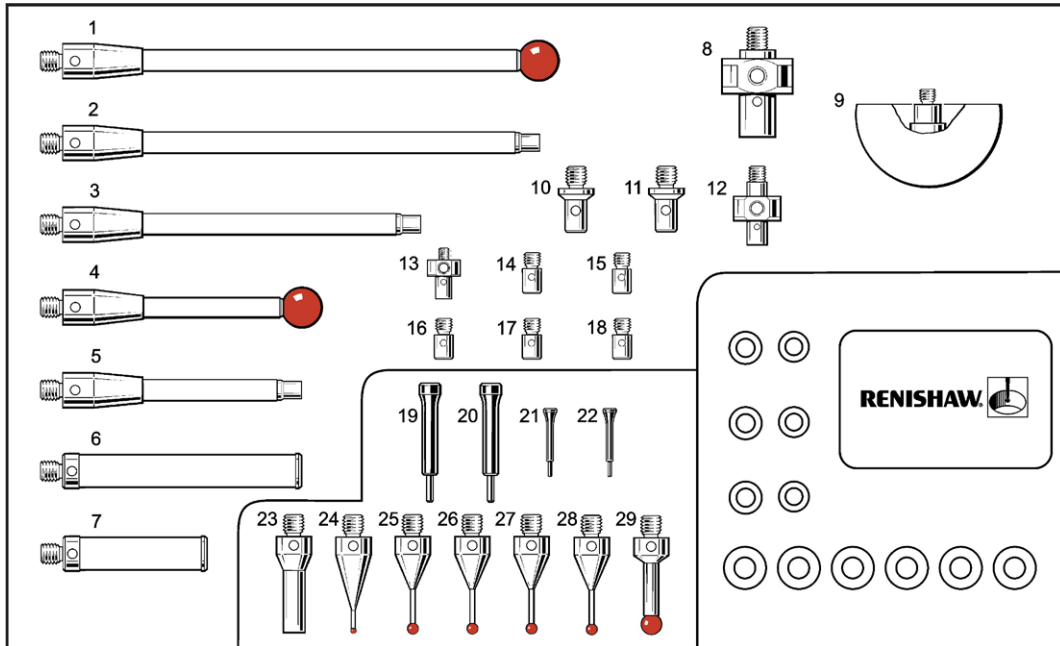
Price: \$1,330



Position	Part number	Quantity	Description
1	A-5000-3551	3	M3 STY D1R L21 EWL4 d0.6SS
2	A-5000-3552	5	M3 STY D2R L21 EWL8 d1.4SS
3	A-5000-3553	3	M3 STY D3R L21 EWL12 d1.5SS
4	A-5000-3554	7	M3 STY D4R L31 EWL27 d2.5SS
5	A-5000-7648	1	M3 STY D5R L31 EWL31 d3.5SS
6	A-5000-3615	1	M3 DSC D12.7SLVS T2 L30.8 BR-N
7	A-5000-7669	1	M3 DSC D63.5CS T6 L4 BR-N
8	A-5004-7584	2	M3 EXT L35 d4SS
9	A-5004-7583	2	M3 EXT L20 d4SS
10	A-5004-7593	1	M2-M3 EXT L7SS
11	A-5000-7616	1	M3 ACC KNUCKLE OFFSET
12	A-5000-7610	2	M3 ACC Center 5WAY
13	A-5004-7582	2	M2-M3 STYLUS TOOL
14	P-TL01-0150	1	S3 HEX WRENCH 1.5 MM A/F
15	A-1041-7569	1	SA7 ADAPTOR (not pictured)
16	M-5000-3571	2	STYLUS SHANK ADAPTOR (not pictured)
17	A-1015-7650	1	TP1 STYLUS BOX (not pictured)

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

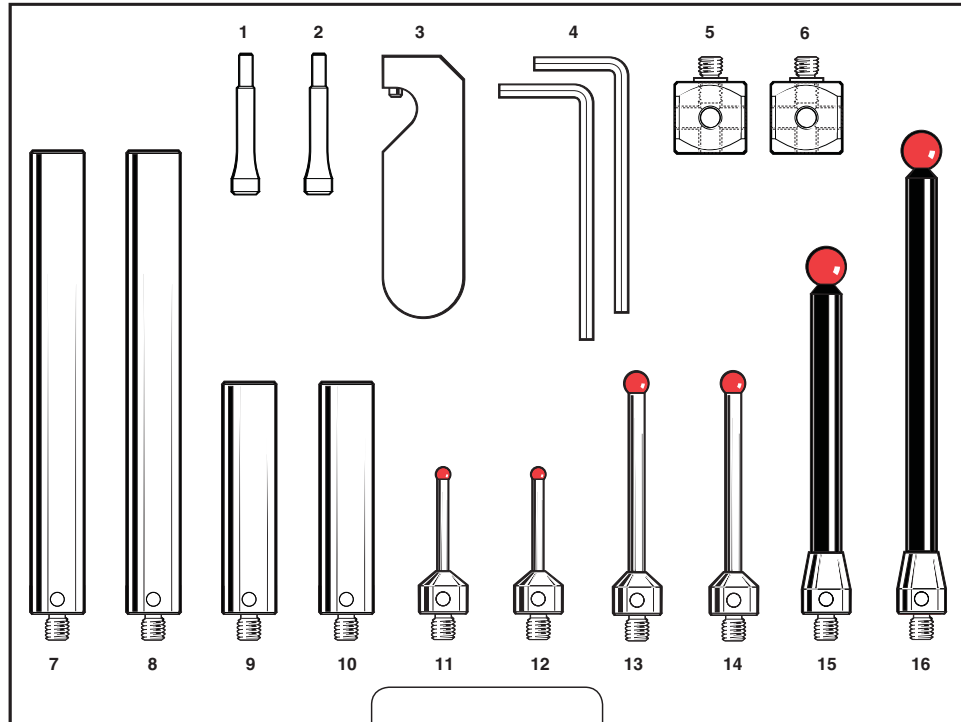
Price: \$1,865



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 L50C
6	A-5000-7755	M4 EXT L50 d7.4CE
7	A-5000-7754	M4 EXT L30 d7.4CE
8	A-5000-7792	M4 ACC Center 5WAY
9	A-5000-7814	M3 HEM D30CE
10-11	A-5004-7597	M4-M3 EXT L9SS
12	A-5000-7610	M3 ACC Center 5WAY
13	A-5000-3627	M2 ACC Center 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 d0.7SS
25-28	A-5000-7547	M4 STY D2R L19 EWL8 d1.4SS
29	A-5000-7551	M4 STY D4R L18 EWL13 d3SS

A-5003-6168 M5 stylus kit SP80

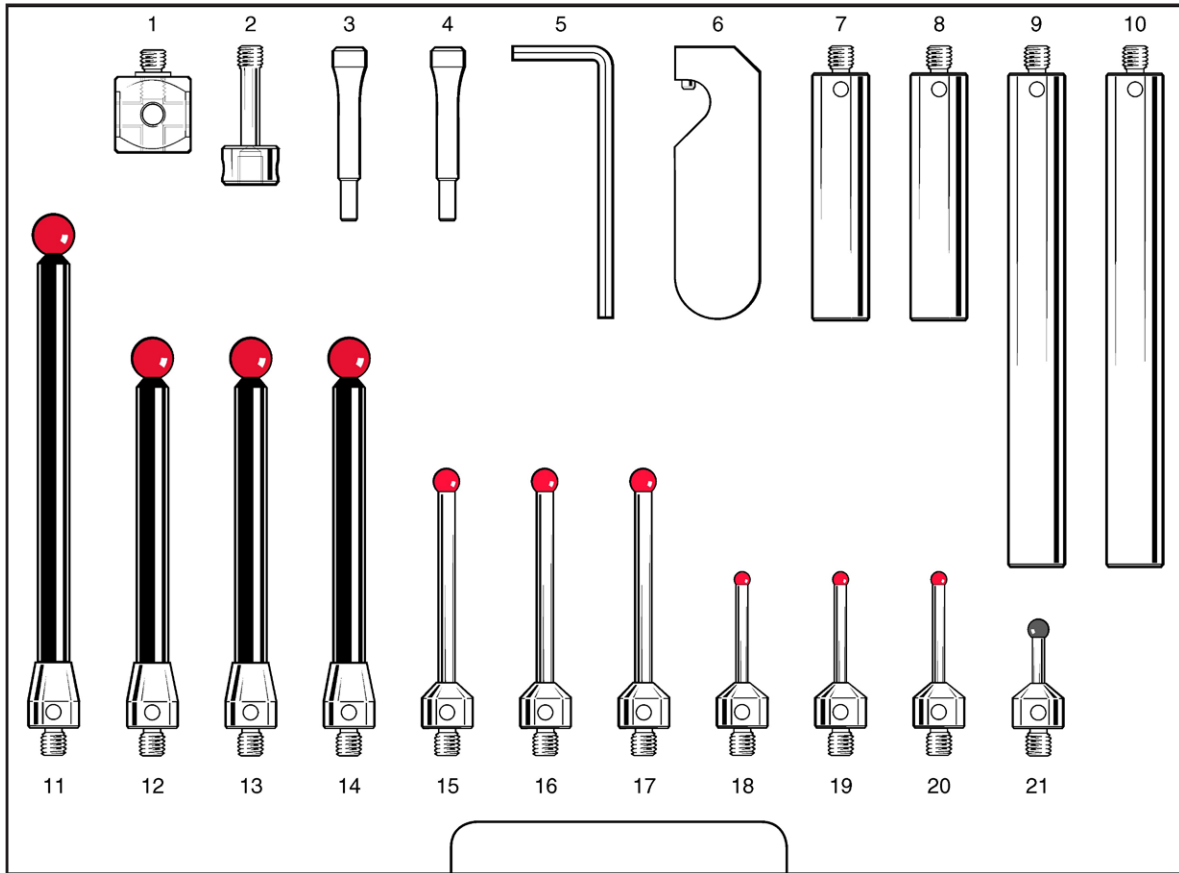
Price: \$1,040



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 15X15 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

Price: \$1,428

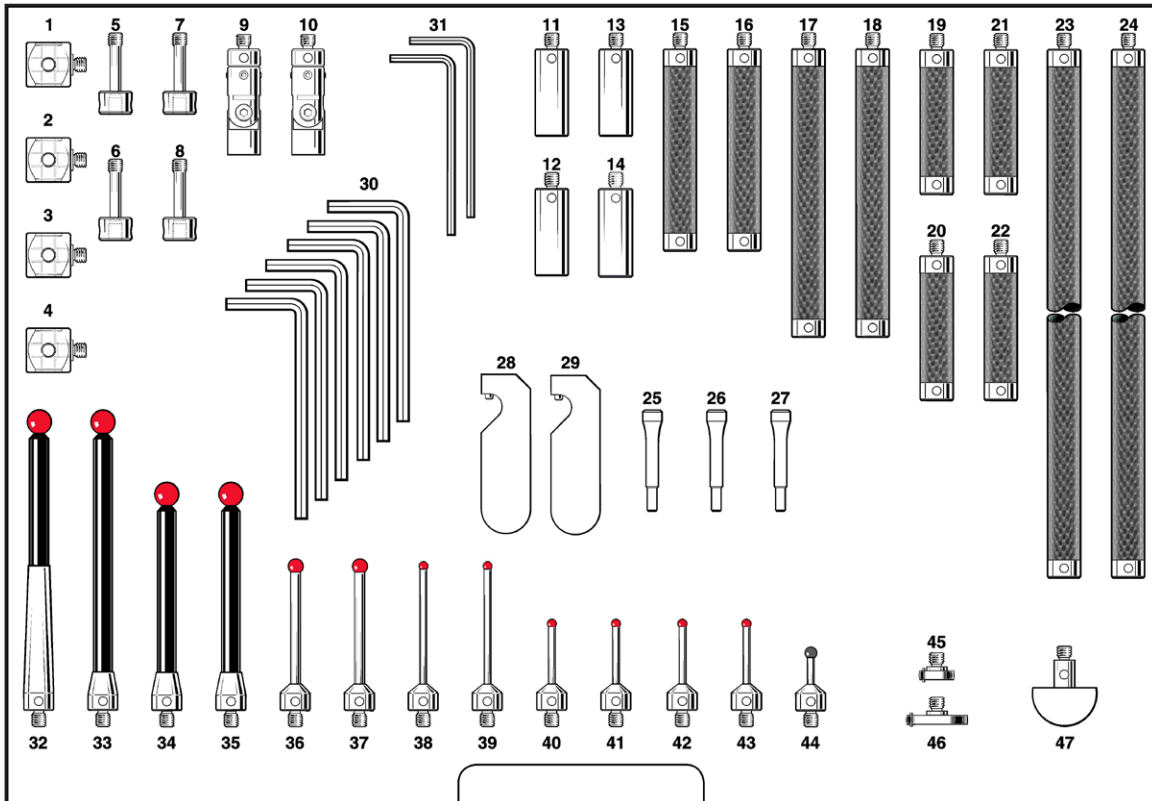


Position	Part number	Description
1	A-5555-0189	M5 ACC 15X15 CUBE
2	A-5003-5677	M5 ACC CUBE BOLT L28
3-4	A-5004-7614	M5 STYLUS TOOL
5	P-TL01-0250	S3 HEX WRENCH 2.5 MM A/F
6	A-5003-6134	M5 ACC D11 EXTENSION TOOL
7-8	A-5555-0670	M5 EXT L50 d11SS
9-10	A-5555-0136	M5 EXT L100 d11SS
11	A-5003-5262	M5 STY D8R L100 EWL87 d6CF
12-14	A-5003-5251	M5 STY D8R L75 EWL62 d6CF
15-17	A-5003-5236	M5 STY D5R L50 EWL41 d3TC
18-20	A-5003-5218	M5 STY D3R L30 EWL21 d2TC
21	A-5003-5733	M5 STY D4SN L20 EWL11 d2TC

A-5003-5909 M5 stylus kit – comprehensive

Price: \$4,343

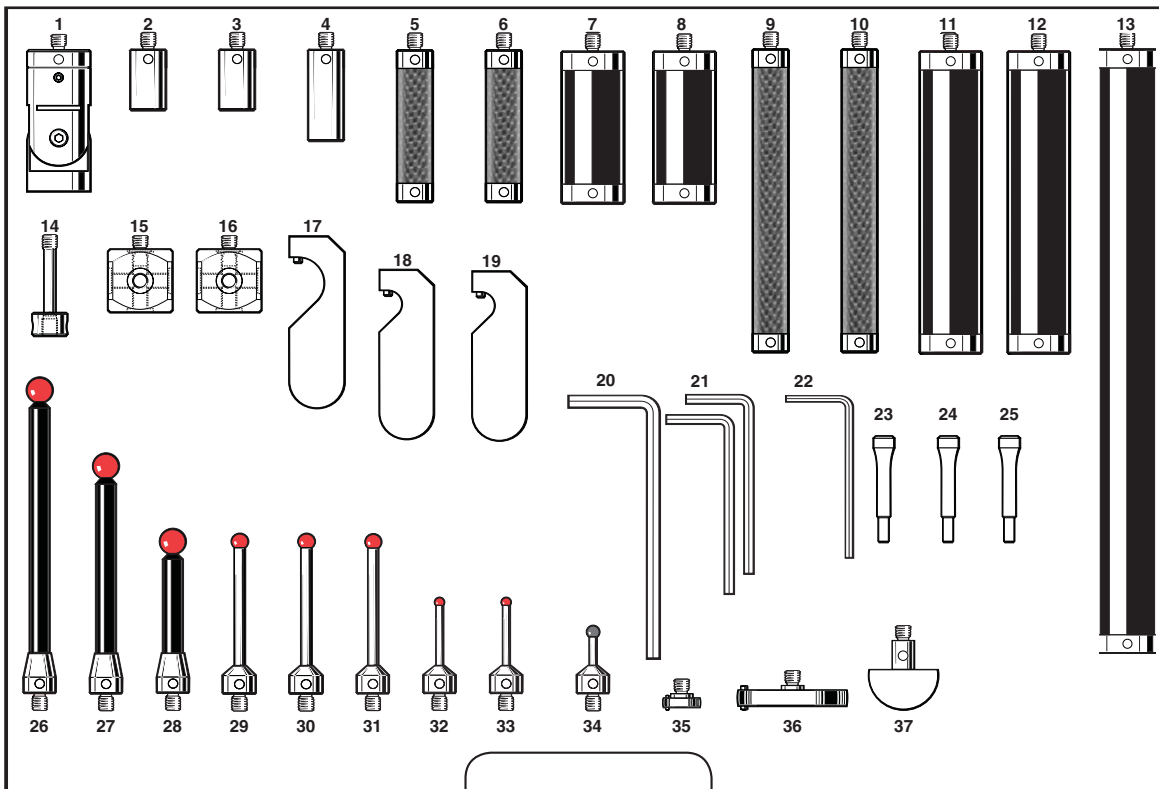
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Position	Part number	Description
1-4	A-5555-0189	M5 ACC 15X15 CUBE
5-8	A-5003-5677	M5 ACC CUBE BOLT L28
9-10	A-5003-5278	M5 ACC KNUCKLE d11 ROTARY
11-14	A-5555-0669	M5 EXT L30 d11SS
15-16	A-5555-0623	M5 EXT L70 d11CF
17-18	A-5555-0652	M5 EXT L100 d11CF
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 EWL87 d6CF
34-35	A-5003-5251	M5 STY D8R L75 EWL62 d6CF
36-37	A-5003-5236	M5 STY D5R L50 EWL41 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 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

Price: \$2,973

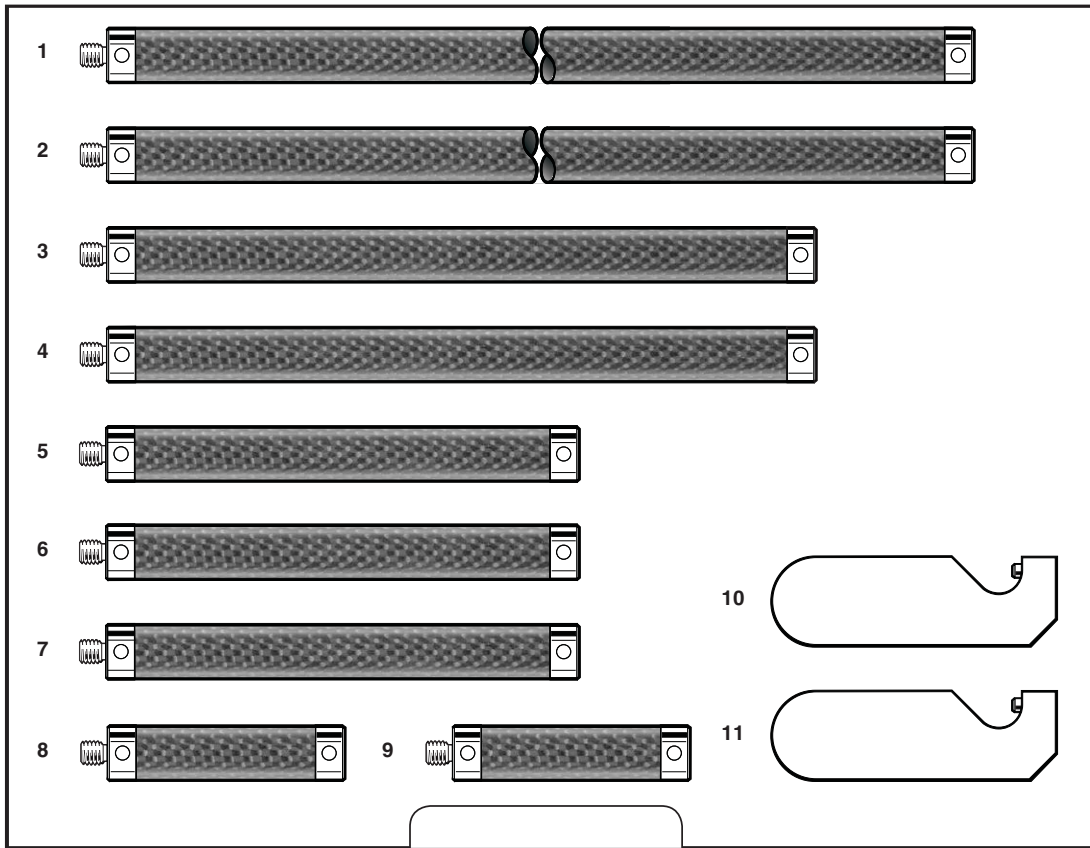


Position	Part number	Description
1	A-5003-5279	M5 ACC KNUCKLE d20 ROTARY
2-3	A-5555-0140	M5 EXT L20 d11SS
4	A-5555-0669	M5 EXT L30 d11SS
5-6	A-5555-0648	M5 EXT L50 d11CF
7-8	A-5555-0671	M5 EXT L50 d20AL
9-10	A-5555-0652	M5 EXT L100 d11CF
11-12	A-5555-0127	M5 EXT L100 d20AL
13	A-5555-0125	M5 EXT L200 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	S3 HEX WRENCH 3.0 MM A/F
21	P-TL01-0250	S3 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 EWL87 d6CF
27	A-5003-5251	M5 STY D8R L75 EWL62 d6CF
28	A-5003-5238	M5 STY D8R L50 EWL37 d6CF
29-31	A-5003-5236	M5 STY D5R L50 EWL41 d3TC
32-33	A-5003-5218	M5 STY D3R L30 EWL21 d2TC
34	A-5003-5733	M5 STY D4SN L20 EWL11 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



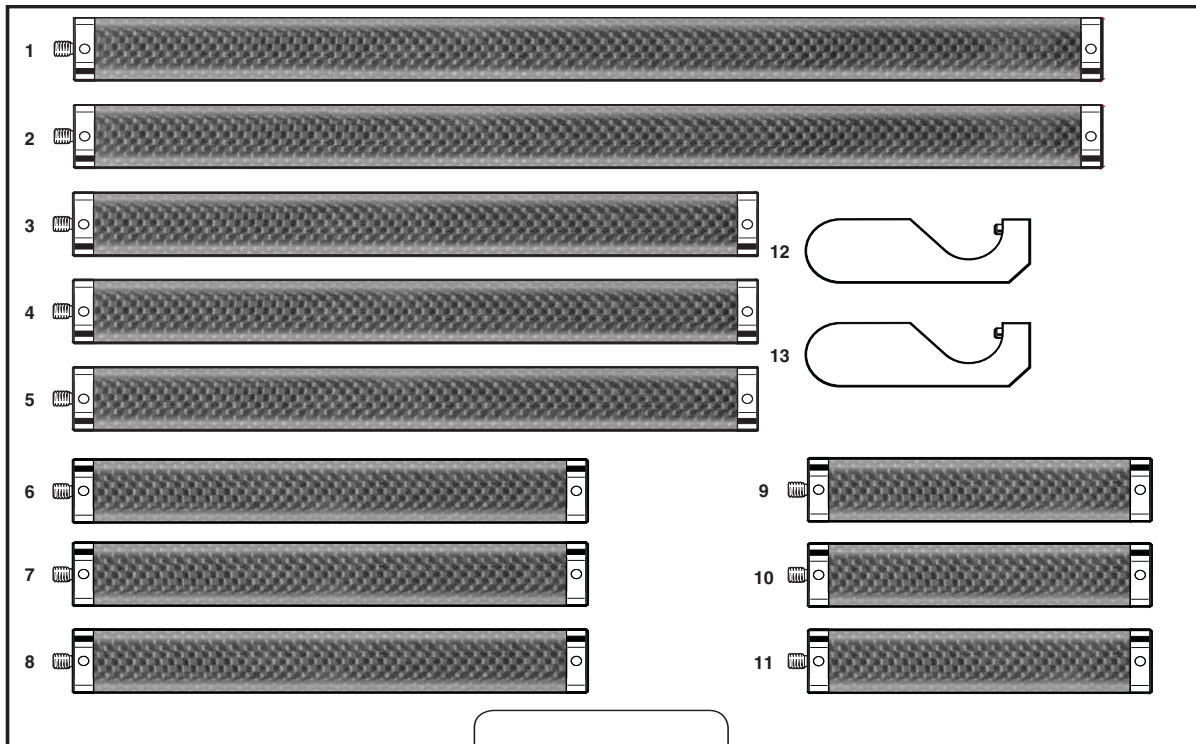
Price: \$1,704



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

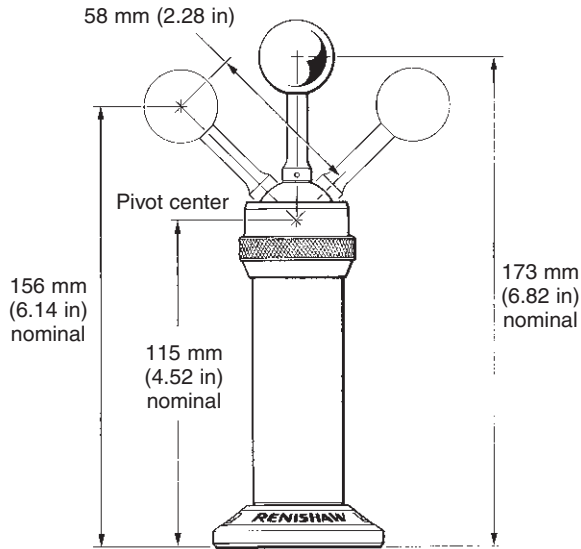
Price: \$2,385



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

Datum balls

Datum spheres are made from hard-wearing tungsten carbide and come supplied with individual certificates stating ball diameter and roundness. All sphere measurements are performed on equipment traceable to UK (NPL) standards. Grade 3 sphericity balls are used.



Datum sphere kit	Part number	Price
Ø12 mm datum ball	A-1034-0028	\$600
Ø19 mm datum ball	A-1034-0027	\$600
Ø25 mm datum ball	A-1034-0026	\$600
Ø¾ in datum ball	A-1034-0031	\$600
Ø1 in datum ball	A-1034-0035	\$600

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

Thread size	Part number	Price
M6 x 1	A-1034-0352	\$30
M8 x 1.25	A-1034-0351	\$30
M10 x 1.5	A-1034-0350	\$30
5/16 - 18 x UNC	A-1034-0354	\$30
3/8 - 16 x UNC	A-1034-0353	\$30

Optional extras

Datum ball	Part number	Price
Ø12 mm	A-1034-0005	\$369
Ø19 mm	A-1034-0023	\$369
Ø25 mm	A-1034-0002	\$369
Ø¾ in	A-1034-0032	\$369
Ø1 in	A-1034-0036	\$369

Adaptors/extension	Part number	Price
2 way adaptor	A-1034-0356	\$90
3 way adaptor	A-1034-0357	\$205
Pillar extension 75 mm (2.96 in) long	A-1034-0355	\$90

Gram gage

The gram gage allows the optimum trigger force to be set to maximize probe performance on all standard Renishaw touch trigger probes.

Part number: P-GA01-0001 **Price:** \$550



Overall length	95 mm
Needle length	41 mm
Depth	27 mm
Width	43 mm
Range	4 gram to 35 gram range with 1 gram graduations

Custom stylus fax back form

Fax to: (847) 286 9974

Please fill in your stylus requirements in the space provided and fax back to us. Our design team will carry out a feasibility study and present you with a solution to your application problem.

Thread size	Length	EWL	Ball diameter	Ball material	Stem material	Quantity required

Thread size	Length	EWL	Cylinder diameter	Cylinder material	Quantity required

Thread size	Length	Disk diameter	Disk thickness	Disk material	Disk roller Y or N?	Quantity required

Notes

Probe head: _____ Probing orientation: _____

Application (what are you measuring?) _____

Company name: _____ Date: _____

Address: _____

Telephone: _____

Contact name: _____ Fax: _____

Department: _____ Email: _____

