

# M5 threaded stylus range

6.1



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

Renishaw's probing systems are designed to give optimum performance using styli from its comprehensive range.

The following probes all use M5 threaded styli, however with suitable adaptors, other thread sizes may be used.

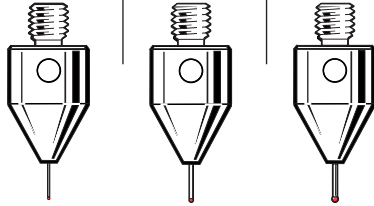
- SP80
- SP2
- SP2-1

## Styli and accessories

### Ruby micro ball styli (Tungsten carbide stems)

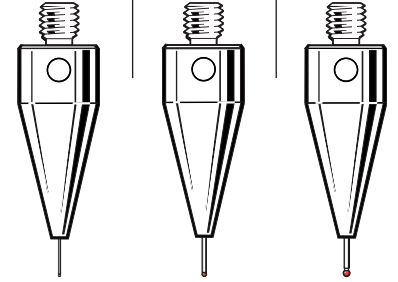
Part number		A-5003-5201	A-5003-5202	A-5003-5203
<b>A</b>	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.020)	0.7 (0.028)
<b>B</b>	Length mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)
<b>C</b>	Stem dia. mm (in.)	0.2 (0.008)	0.4 (0.016)	0.5 (0.020)
<b>D</b>	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grammes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

20 mm range



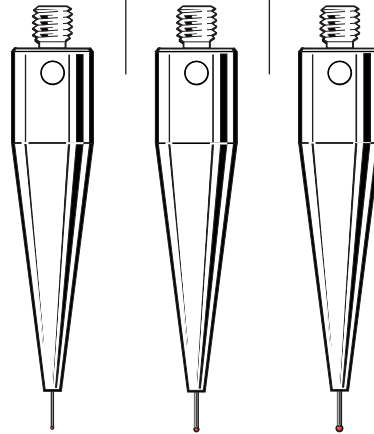
A-5003-5211	A-5003-5212	A-5003-5213
0.3 (0.012)	0.5 (0.020)	0.7 (0.028)
30.0 (1.19)	30.0 (1.19)	30.0 (1.19)
0.2 (0.008)	0.4 (0.016)	0.5 (0.020)
3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
8.95	8.95	8.98

30 mm range



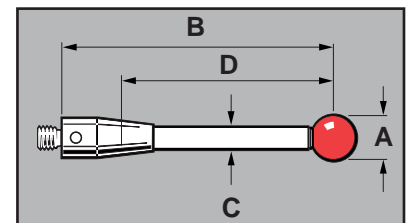
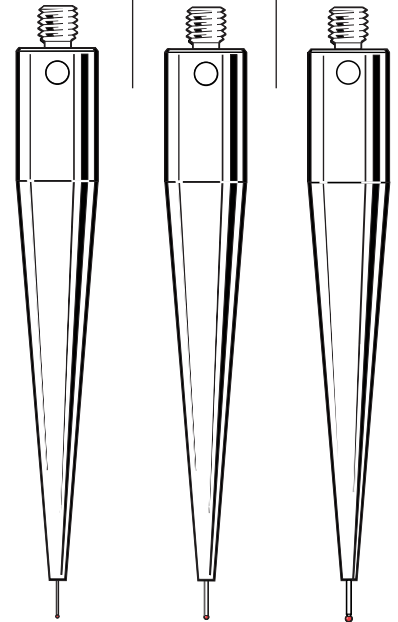
Part number		A-5003-5225	A-5003-5226	A-5003-5227
<b>A</b>	Ball dia. mm (in.)	0.3 (0.012)	0.5 (0.020)	0.7 (0.028)
<b>B</b>	Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
<b>C</b>	Stem dia. mm (in.)	0.2 (0.008)	0.4 (0.016)	0.5 (0.020)
<b>D</b>	EWL* mm (in.)	3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
	Mass grammes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

50 mm range

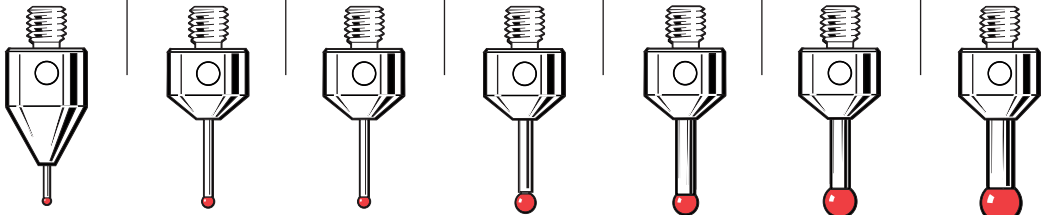


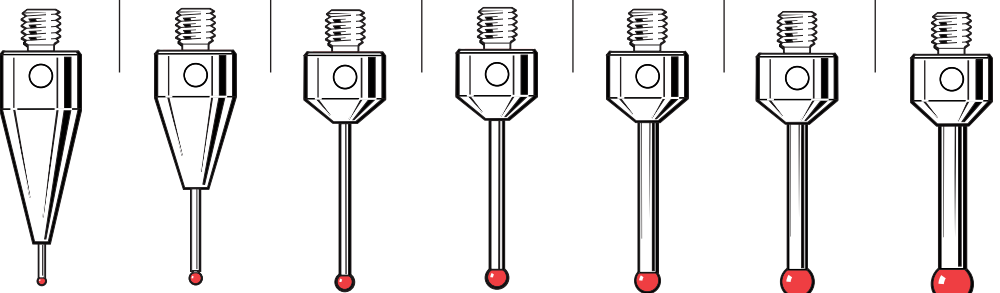
A-5003-5240	A-5003-5241	A-5003-5242
0.3 (0.012)	0.5 (0.020)	0.7 (0.028)
75.0 (2.96)	75.0 (2.96)	75.0 (2.96)
0.2 (0.008)	0.4 (0.016)	0.5 (0.020)
3.0 (0.12)	4.0 (0.16)	5.0 (0.20)
23.84	23.84	23.84

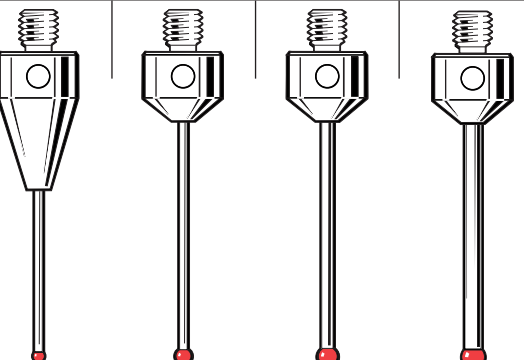
75 mm range



## Ruby ball styli (tungsten carbide stems)

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

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

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

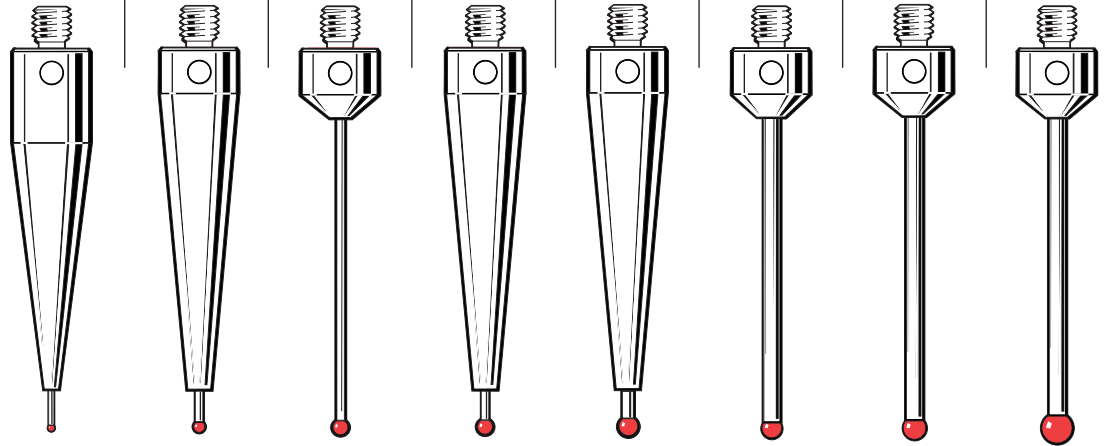
\*Effective working length

Styli and accessories

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

Part number	A-5003-5228	A-5003-5229	A-5003-5230	A-5003-5231	A-5003-5233	A-5003-5232	A-5003-5234	A-5003-5235
<b>A</b> 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>B</b> Length mm (in.)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)	50.0 (1.97)
<b>C</b> Stem dia. mm (in.)	0.7 (0.028)	1.0 (0.04)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	2.0 (0.08)	2.0 (0.08)	2.0 (0.08)
<b>D</b> EWL* mm (in.)	5.0 (0.20)	5.0 (0.20)	41.0 (1.62)	5.0 (0.20)	5.0 (0.20)	41.0 (1.62)	41.0 (1.62)	41.9 (1.65)
Mass grammes	15.81	14.82	5.05	14.85	14.94	6.48	6.50	6.55

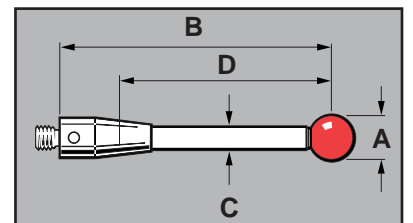
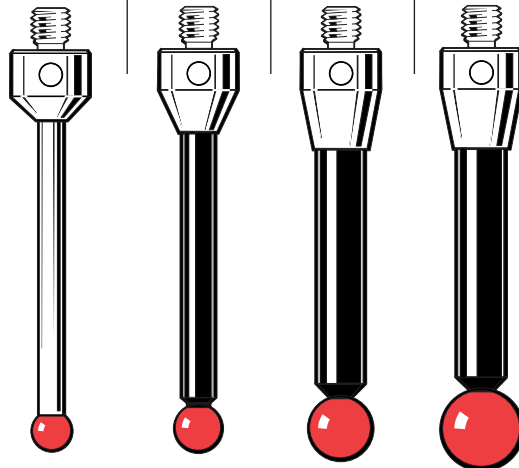
50 mm range



Ruby ball styli (≥5 mm ball diameter)

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

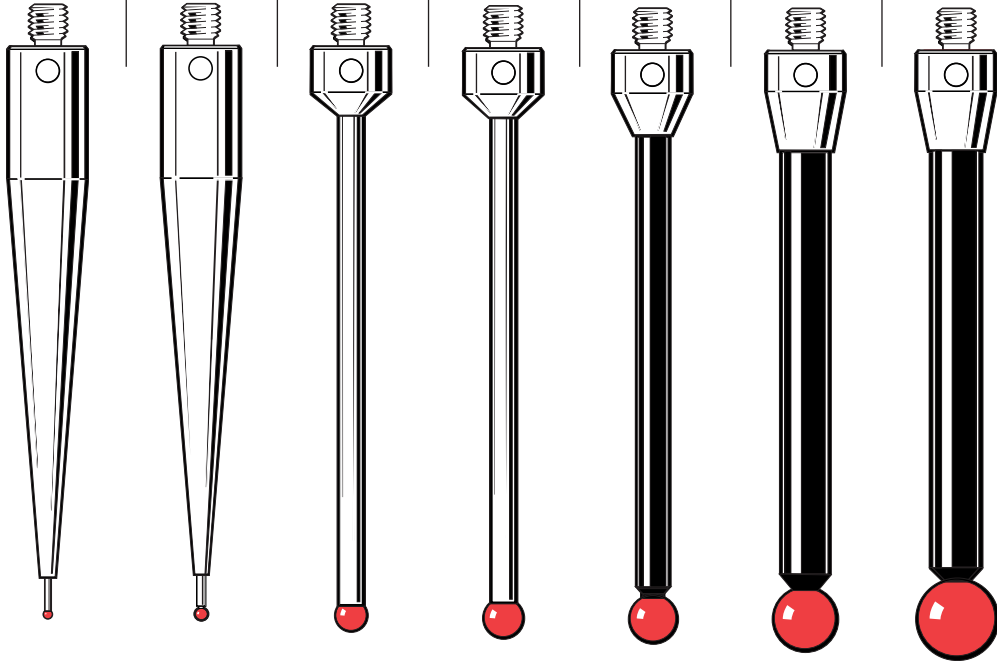
50 mm range



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

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

75 mm range



\*Effective working length

## Styli and accessories

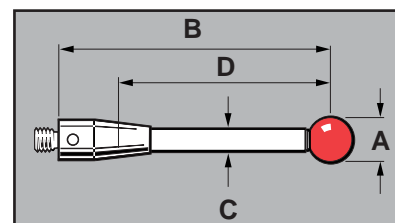
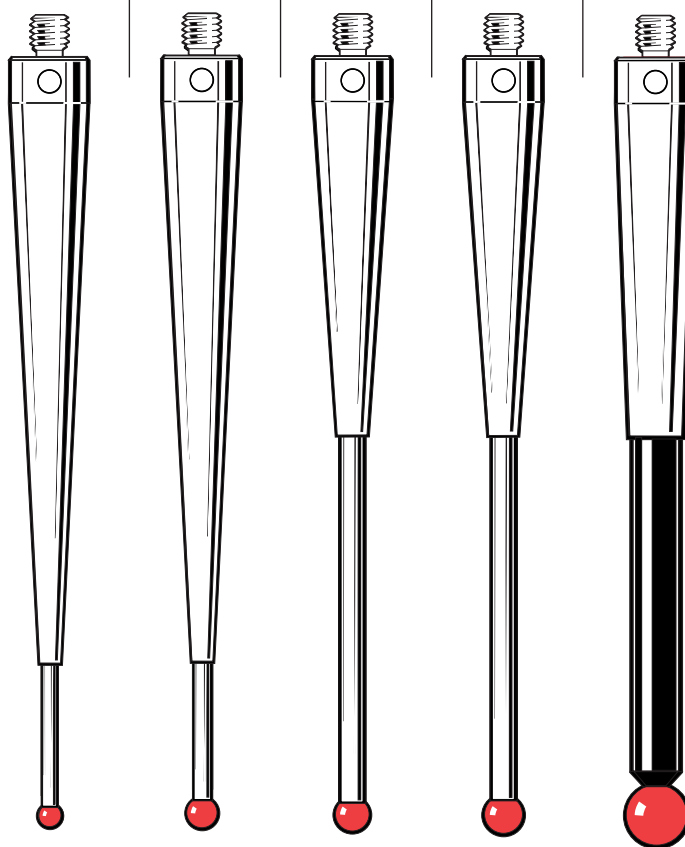
### Ruby ball styli ( $\leq 50$ mm EWL)

M5 threaded  
stylus range

6.6

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

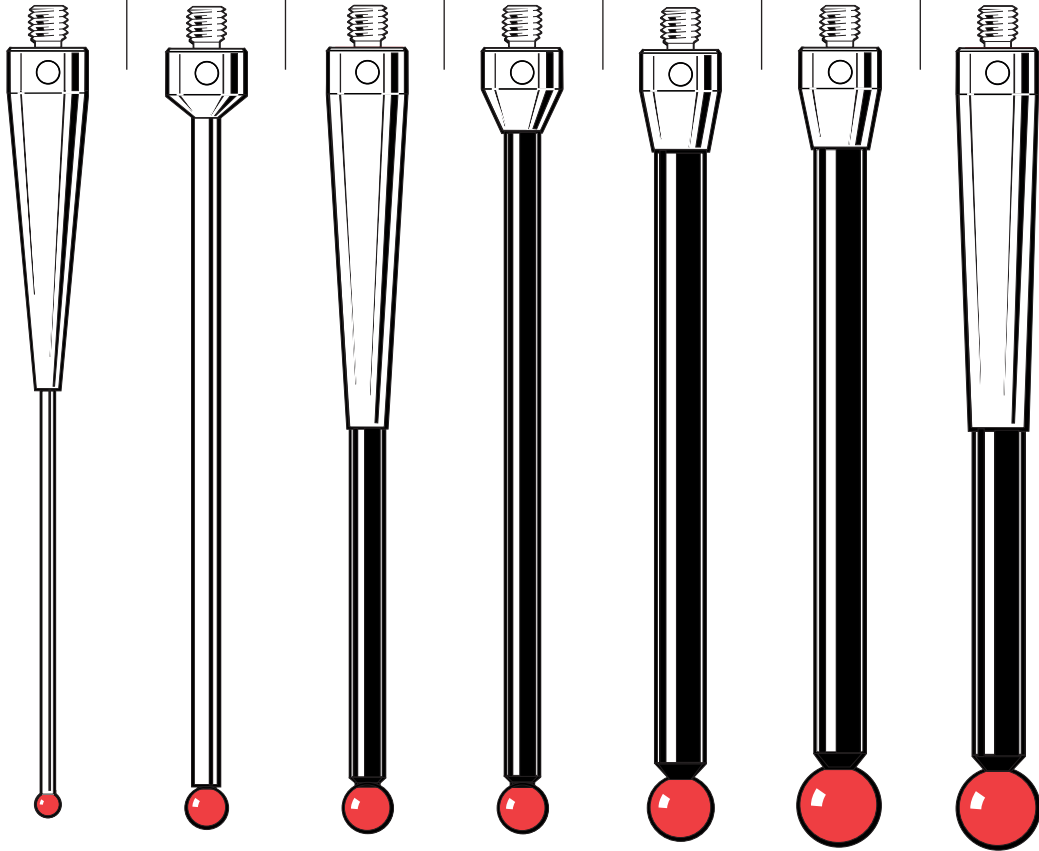
100 mm range



## Ruby ball styli (>50 mm EWL)

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

100 mm range



\*Effective working length

## Styli and accessories

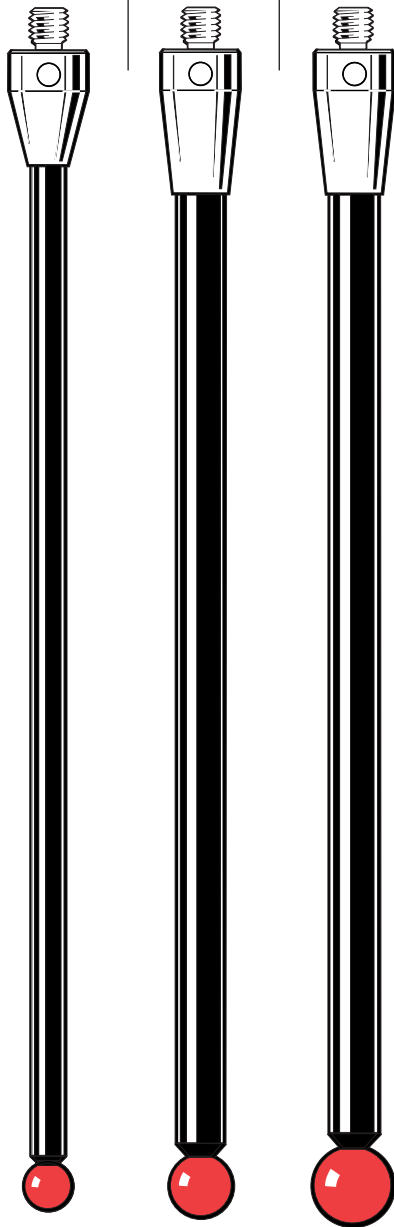
M5 threaded  
stylus range

6.8

### Ruby ball styli (carbon fibre stems)

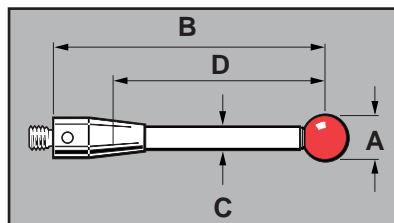
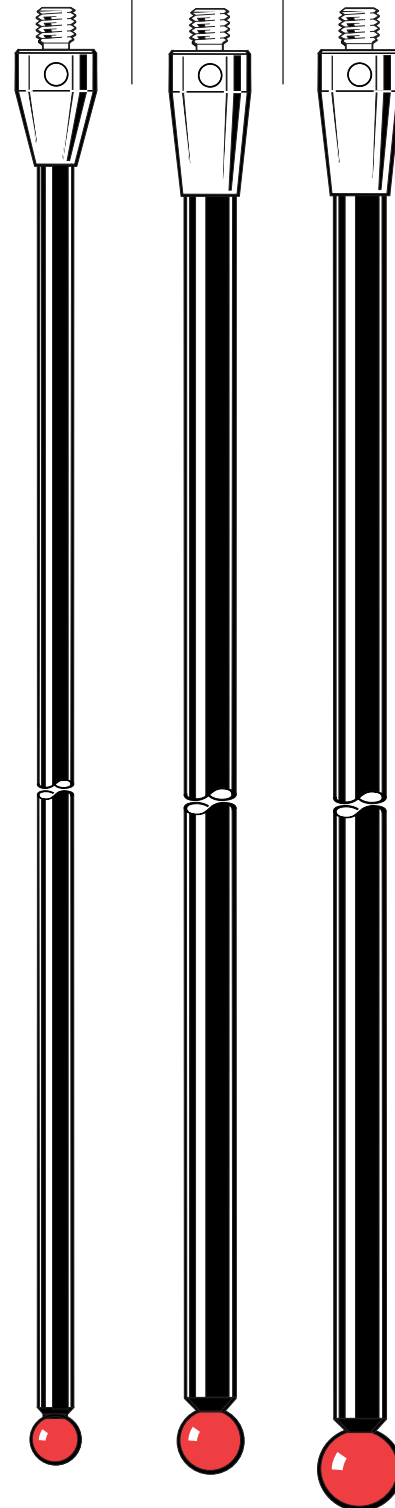
Part number	A-5003-5265	A-5003-5266	A-5003-5267
<b>A</b> Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
<b>B</b> Length mm (in.)	150.0 (5.91)	150.0 (5.91)	150.0 (5.91)
<b>C</b> Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
<b>D</b> EWL* mm (in.)	137.0 (5.39)	135.0 (5.31)	144.5 (5.69)
Mass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

150 mm range



Part number	A-5003-5268	A-5003-5269	A-5003-5270
Ball dia. mm (in.)	6.0 (0.24)	8.0 (0.32)	10.0 (0.40)
Length mm (in.)	200.0 (7.88)	200.0 (7.88)	200.0 (7.88)
Stem dia. mm (in.)	4.0 (0.16)	6.0 (0.24)	6.0 (0.24)
EWL* mm (in.)	187.0 (7.36)	180.0 (7.09)	194.5 (7.66)
Mass grammes	10.07	15.92	16.87

200 mm range

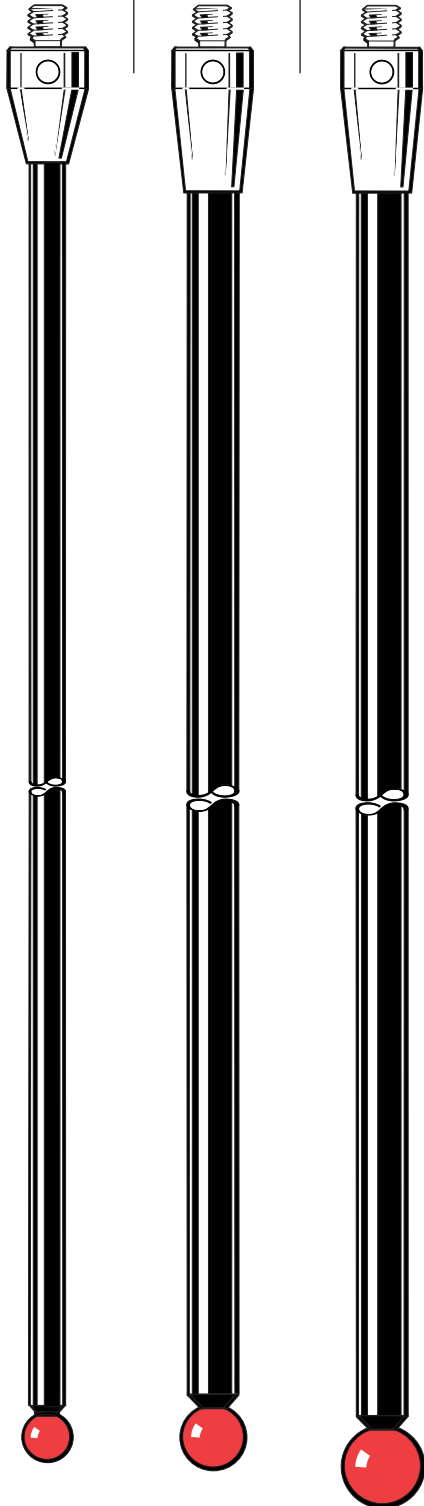




**Ruby ball styli (carbon fibre stems)**

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

300 mm range



M5 threaded  
 stylus range

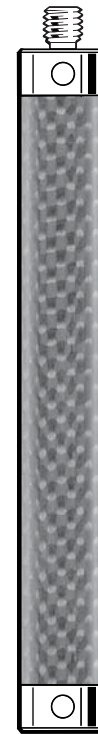
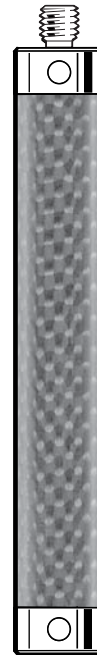
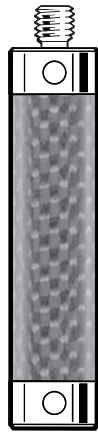
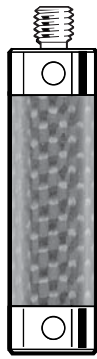
6.9

\* Effective working length

## Styli and accessories

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

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

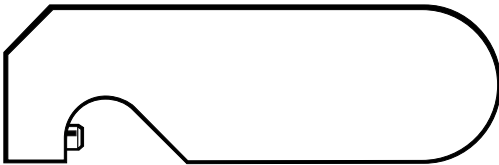


\*\* Special

## M5 extension tools

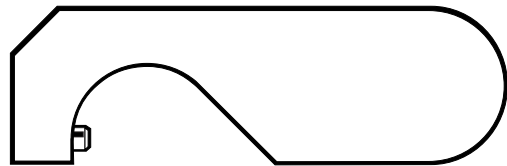
### A-5003-6134

For M5 threaded extensions with  
11 mm (0.44 in.) stem diameter



### A-5003-6135

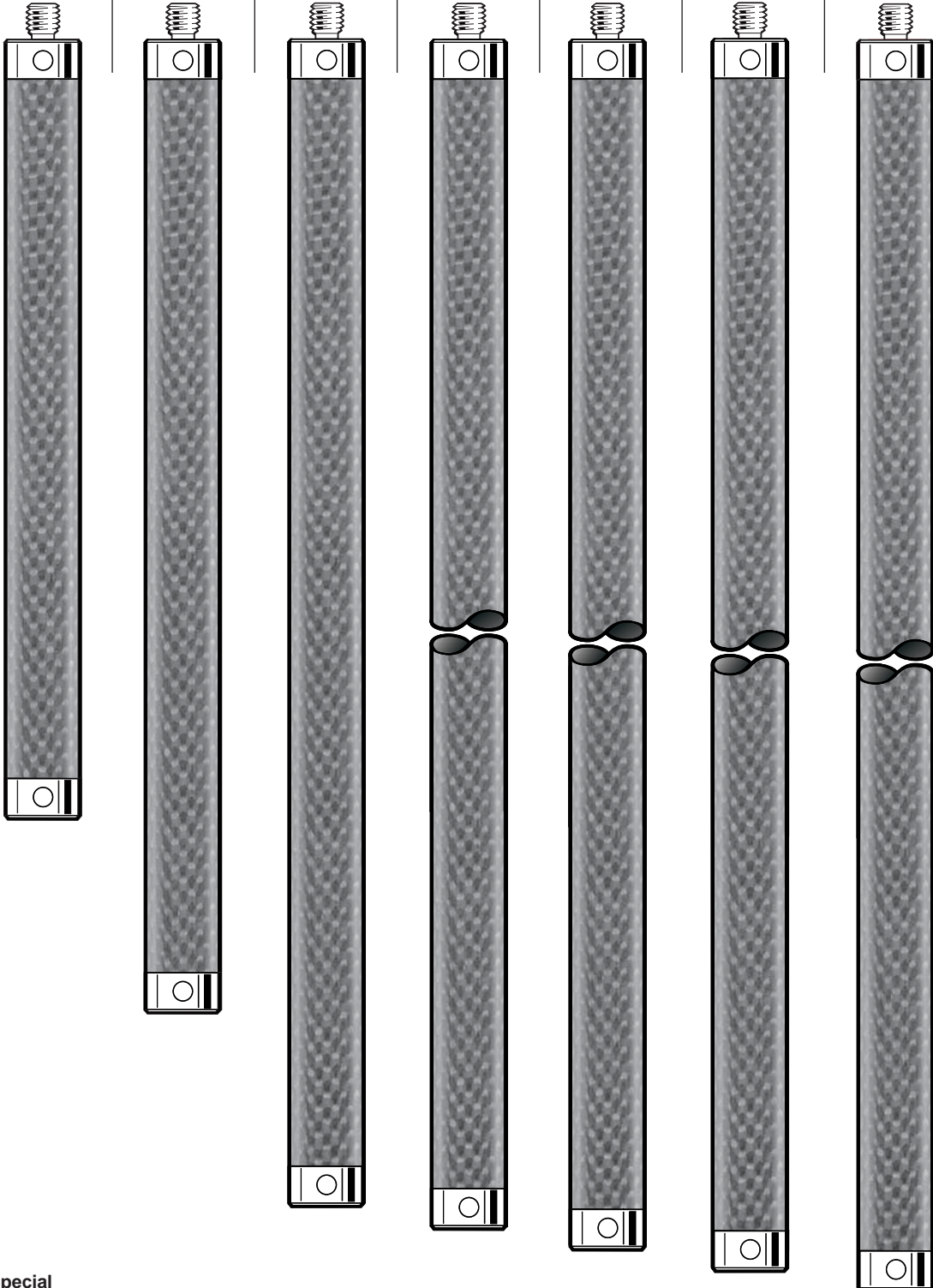
For M5 threaded extensions with  
20 mm (0.79 in.) stem diameter



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

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

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

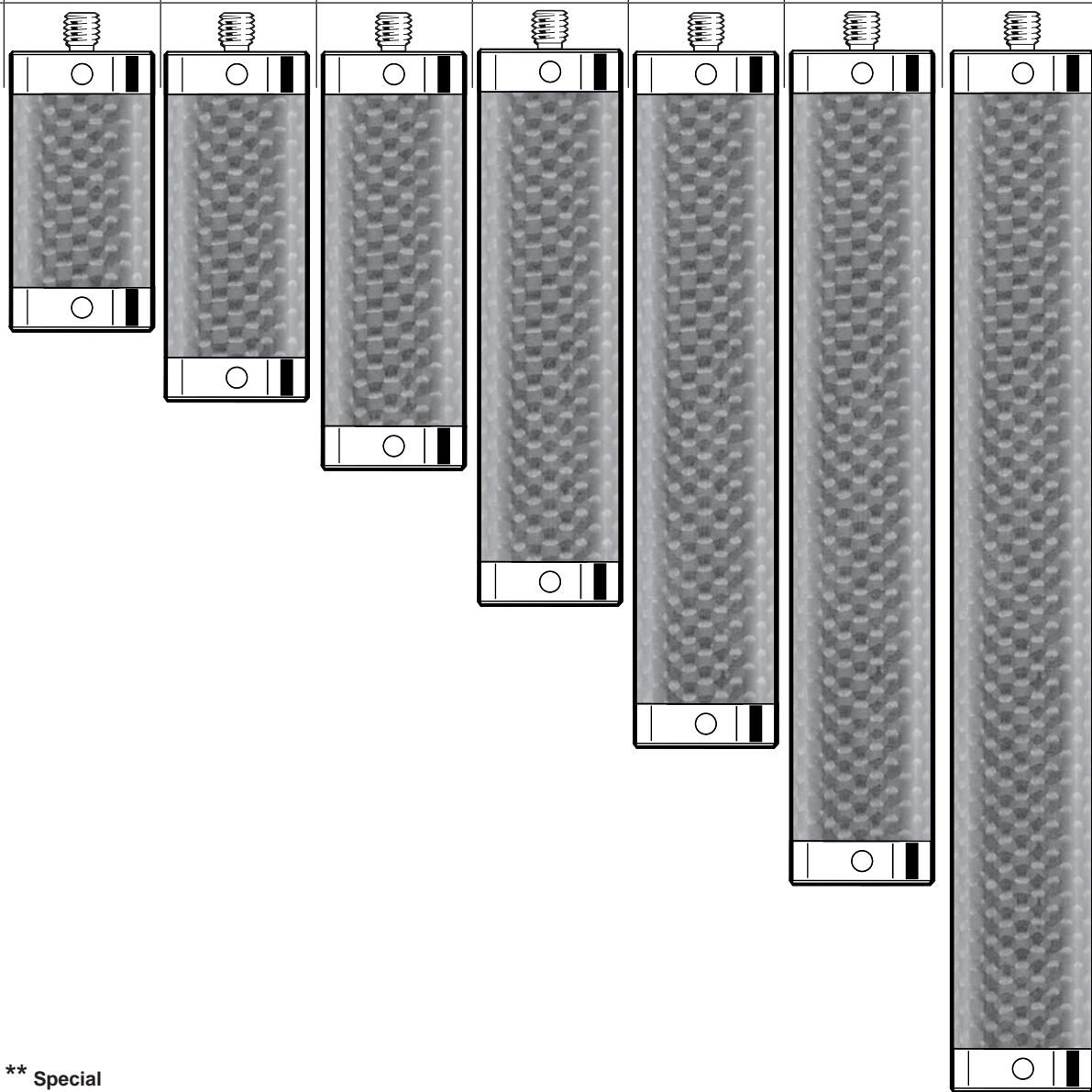


\*\* Special

Styli and accessories

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

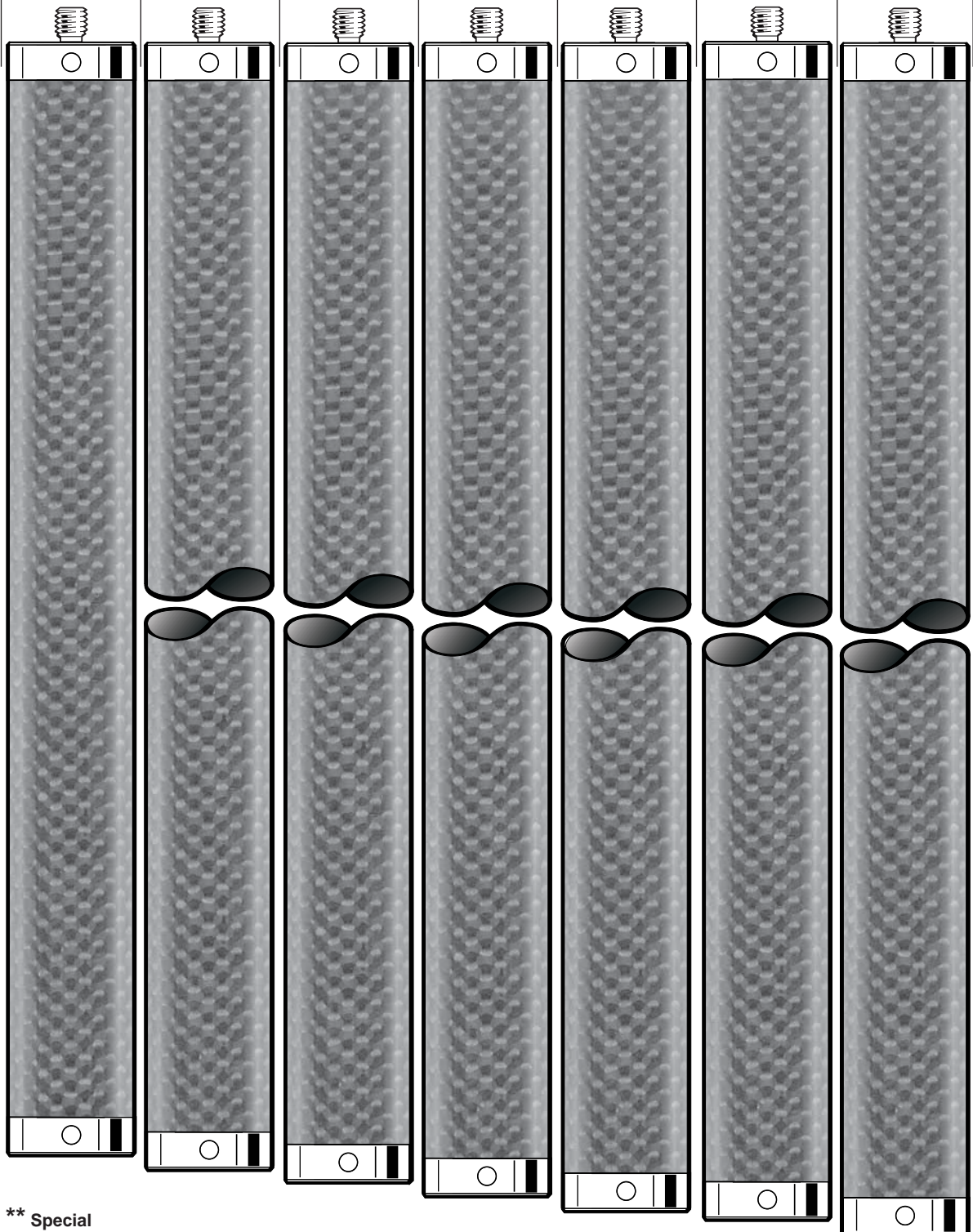
Part number	A-5555-0620**	A-5555-0657**	A-5555-0658**	A-5555-0621**	A-5555-0659**	A-5555-0660**	A-5555-0661**
Length mm (in.)	40.0 (1.58)	50.0 (1.97)	60.0 (2.37)	80.0 (3.15)	100.0 (3.94)	120.0 (4.73)	150.0 (5.91)
Stem dia. mm (in.)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)	20.0 (0.79)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



\*\* Special

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

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

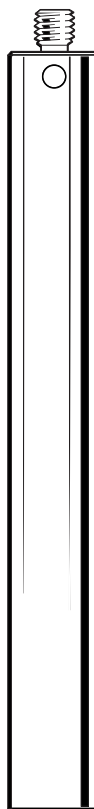
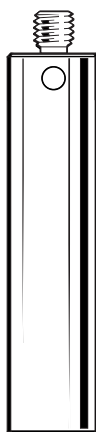
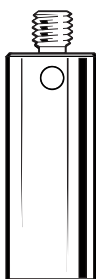
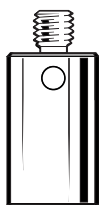
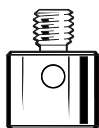


\*\* Special

**Styli and accessories**

**Stylus extensions – stainless steel**

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




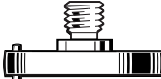
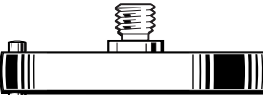
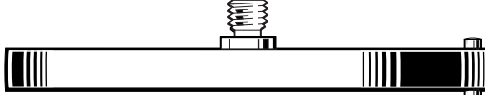
## Stylus extensions – aluminium

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



## Styli and accessories

### Disc styli – silver steel

Part number	A-5003-5288	A-5003-5289	A-5003-5290	A-5003-5291
Disc dia. mm (in.)	12.0 (0.48)	21.0 (0.83)	35.0 (1.38)	63.5 (2.51)
Disc depth mm (in.)	3.0 (0.12)	3.0 (0.12)	5.0 (0.20)	5.0 (0.20)
Roller depth mm (in.)	5.0 (0.20)	5.0 (0.20)	8.0 (0.32)	8.0 (0.32)
Mass grammes	2.52	5.23	14.00	51.00
				

### Hemispherical styli - ceramic

Part number	A-5003-5275	A-5003-5276	A-5003-5277
Length mm (in.)	16.0 (0.63)	22.0 (0.87)	30.0 (1.19)
Stem dia. mm (in.)	19.5 (0.77)	20.5 (0.81)	24.5 (0.96)
Mass grammes	7.0	14.0	19.7
	