

M4 threaded stylus range

5.1



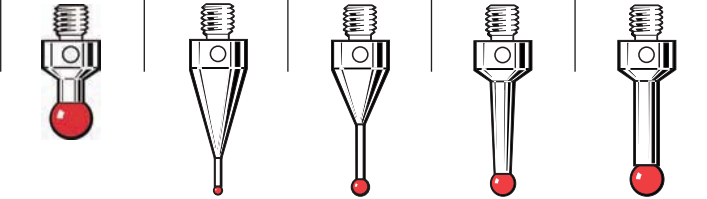
OMP40-2 is a compact probe suited to small machining centres

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

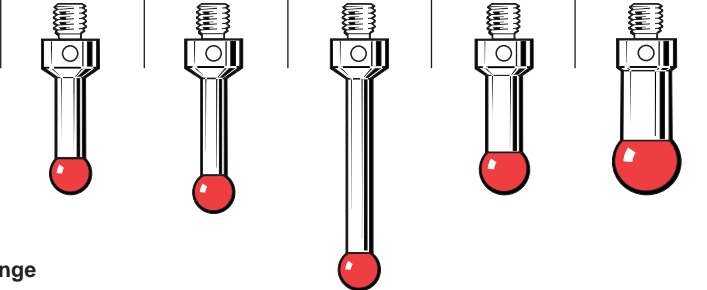
| CMM | Machine tool | |
|---------|--------------|----------|
| • TP7 | • MP1 | • RLP40 |
| • SP600 | • MP3 | • OLP40 |
| • TP800 | • MP11 | • OMP60 |
| | • MP700 | • OTS |
| | • LP2 | • RMP600 |
| | • TS27R | • MP250 |
| | • OMP40-2 | • HPRA |
| | • OMP400 | • HPPA |
| | • RMP60 | • HPMA |
| | • RP3 | |
| | • RMP40 | |

Ruby ball styli (stainless steel stems)

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



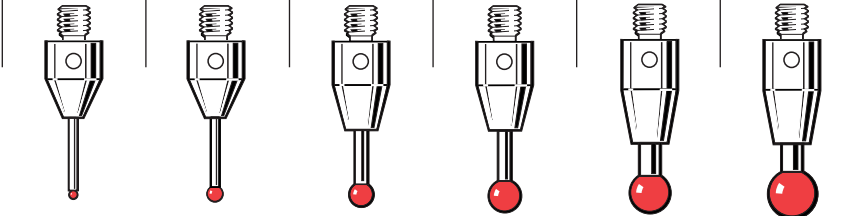
| Part number | A-5000-7553 | A-5000-6731 | A-5000-6352 | A-5000-7555 | A-5000-7557 |
|-----------------------------|-------------|--------------|-------------|-------------|-------------|
| A Ball dia. mm (in.) | 5.0 (0.20) | 5.0 (0.20) | 5.0 (0.20) | 6.0 (0.24) | 8.0 (0.32) |
| B Length mm (in.) |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



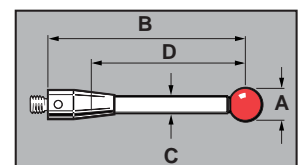
10 mm - 30 mm range

Ruby ball styli (Tungsten carbide stems)

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



20 mm range

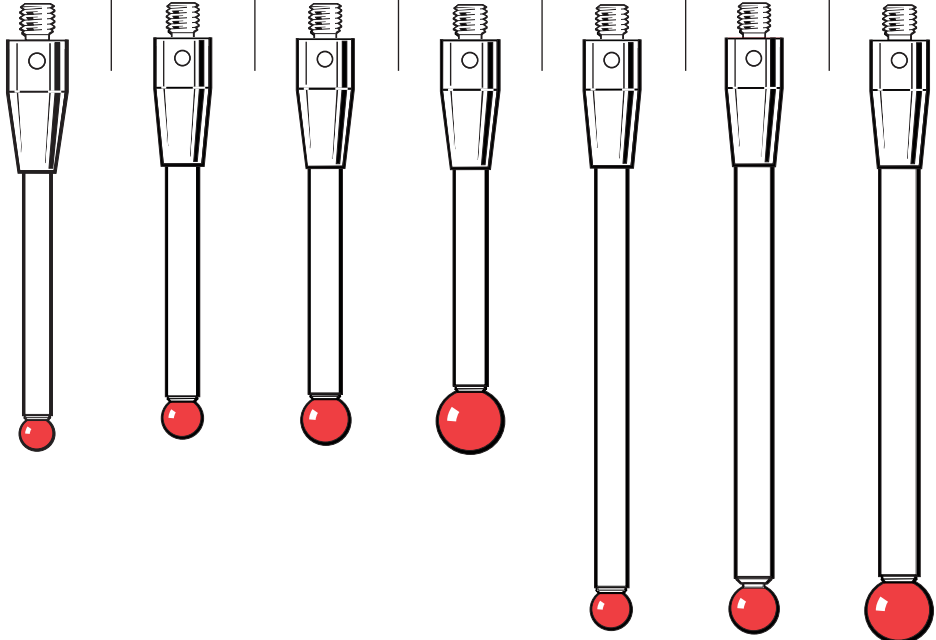


Ruby ball styli

Ceramic stems

| Part number | | A-5003-0233 | A-5003-0235 | A-5000-3709 | A-5000-7795 | A-5003-0236 | A-5003-2764 | A-5003-4802 |
|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | Ceramic | Ceramic | Ceramic | Ceramic | Ceramic | Ceramic | Ceramic |
| A | Ball dia. mm (in.) | 4.0 (0.16) | 5.0 (0.20) | 6.0 (0.24) | 8.0 (0.32) | 5.0 (0.20) | 6.0 (0.24) | 8.0 (0.32) |
| B | Length mm (in.) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 50.0 (1.97) | 75.0 (2.96) | 75.0 (2.96) | 75.0 (2.96) |
| C | Stem dia. mm (in.) | 3.0 (0.12) | 3.8 (0.15) | 4.5 (0.18) | 4.5 (0.18) | 3.8 (0.15) | 4.5 (0.18) | 4.5 (0.18) |
| D | EWL* mm (in.) | 33.5 (1.32) | 33.5 (1.32) | 38.5 (1.50) | 50.0 (1.97) | 58.5 (2.30) | 63.5 (2.51) | 75.0 (2.96) |
| | Mass grammes | 3.9 | 5.0 | 4.8 | 5.4 | 5.63 | 5.64 | 6.20 |

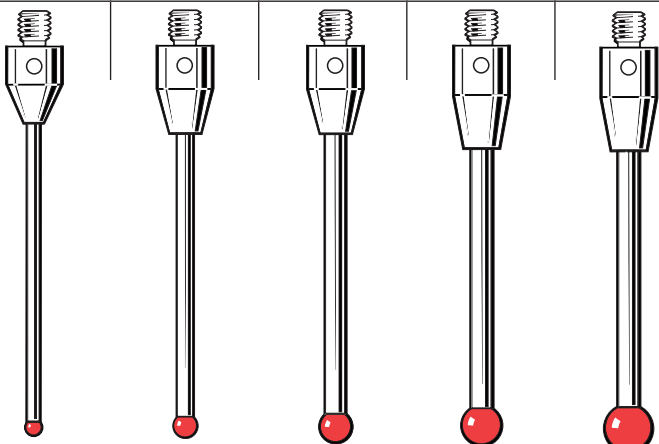
50 mm - 75 mm range



Tungsten carbide stems

| Part number | | A-5003-4797 | A-5003-3680 | A-5003-4799 | A-5003-4800 | A-5003-4801 |
|-------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| | | Tungsten carbide | Tungsten carbide | Tungsten carbide | Tungsten carbide | Tungsten carbide |
| 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 (1.51) | 38.5 (1.51) | 37.9 (1.49) | 40.7 (1.60) |
| | Mass grammes | 3.80 | 4.94 | 4.99 | 6.72 | 6.86 |

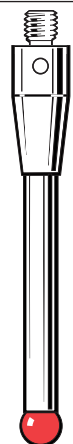
50 mm range



Stainless steel stems

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

50 mm range

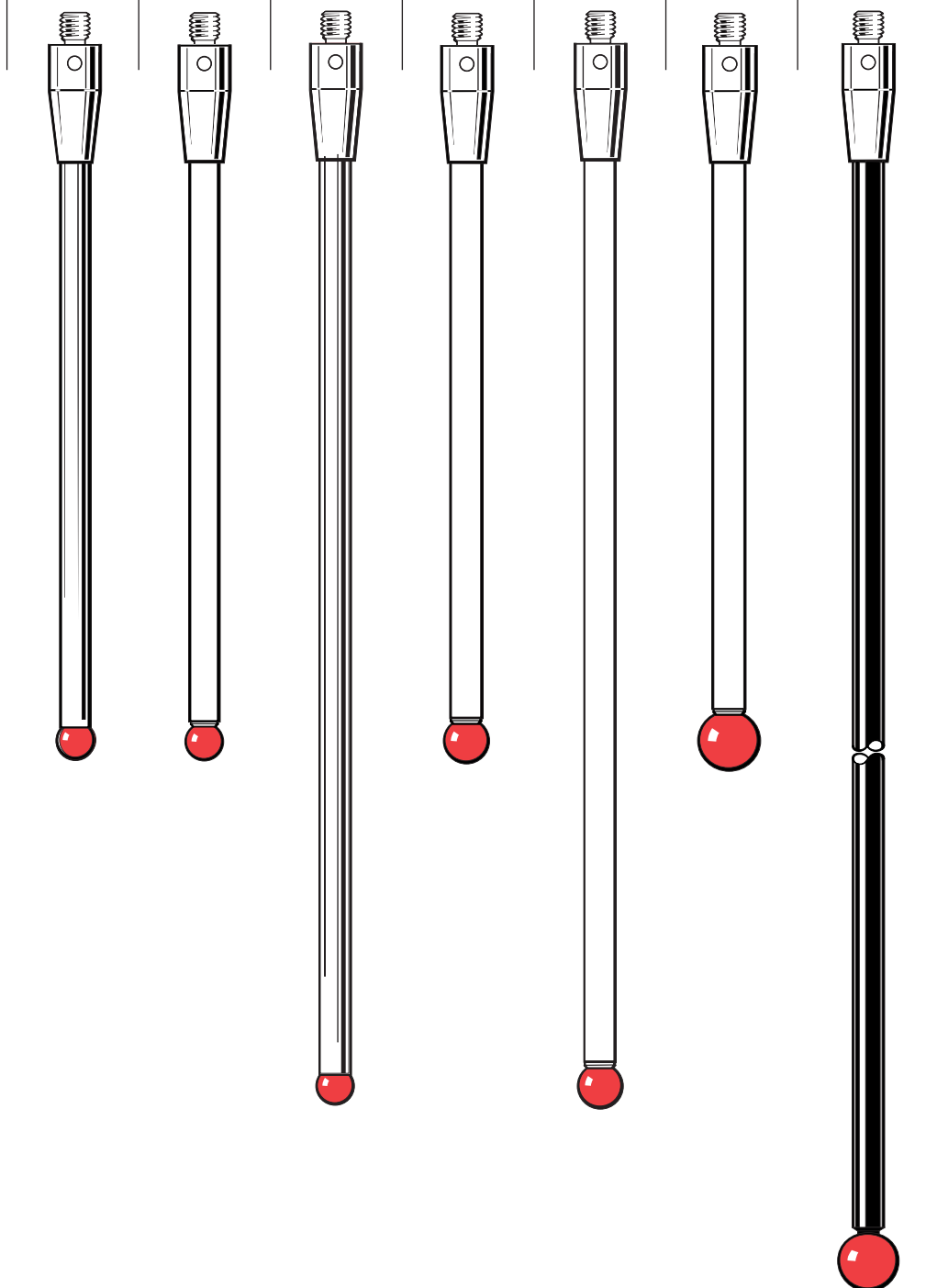


*Effective working length

Styli and accessories

Ruby ball styli

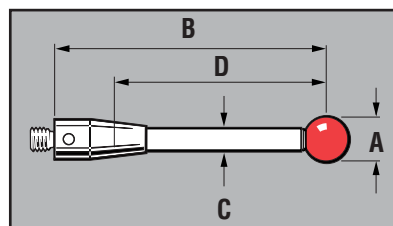
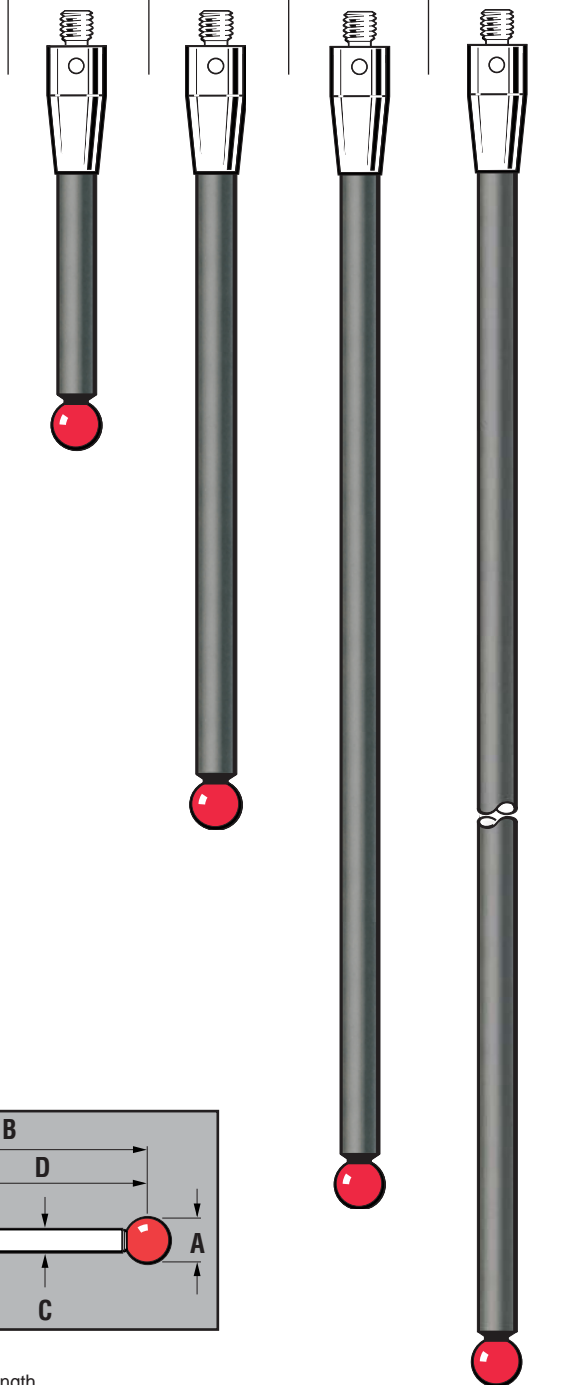
| Part number | A-5000-7522 | A-5000-9761 | A-5000-7523 | A-5000-3712 | A-5000-8156 | A-5000-7796 | A-5003-3461 |
|-----------------------------|-----------------|--------------|-----------------|--------------|--------------|--------------|---------------|
| | Stainless steel | Ceramic | Stainless steel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



100 mm – 300 mm range

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

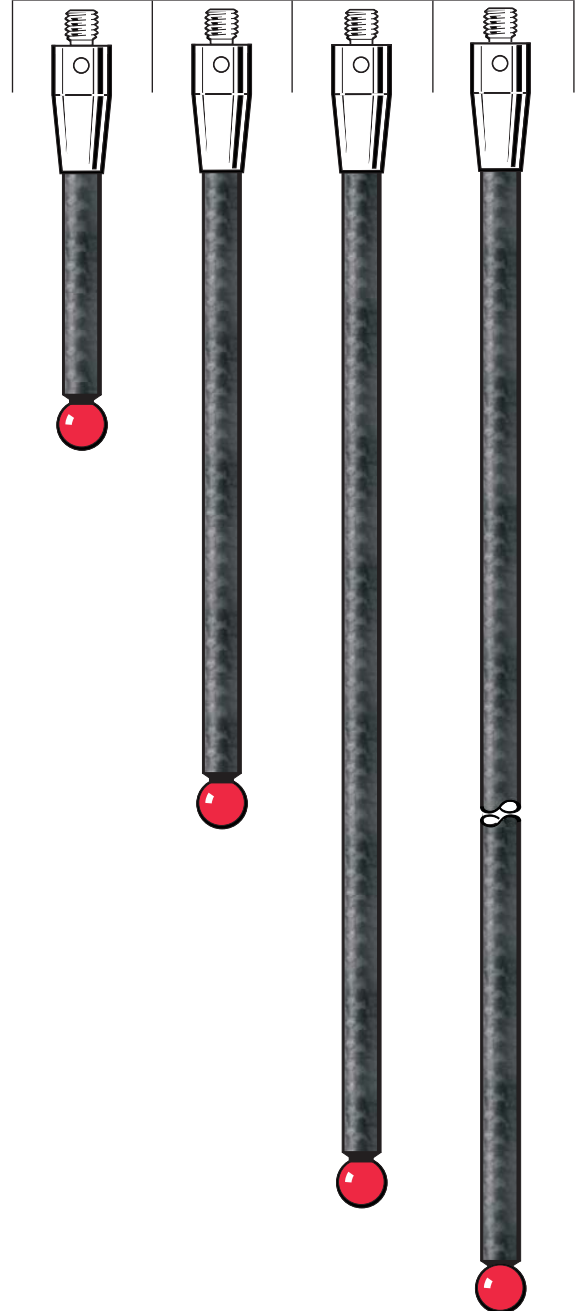
| Ball material | Part number | | | |
|-----------------------------|--------------|--------------|--------------|--------------|
| Ruby | A-5003-7306 | A-5003-6510 | A-5003-6511 | A-5003-6512 |
| Silicon nitride | A-5003-5730 | A-5003-5731 | | |
| Zirconia | A-5003-5744 | A-5003-5745 | | |
| | Carbon fibre | Carbon fibre | Carbon fibre | Carbon fibre |
| 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 grammes | 4.1 | 6.2 | 7.5 | 8.7 |



*Effective working length

Ruby ball styli
(recommended for use with MP700)

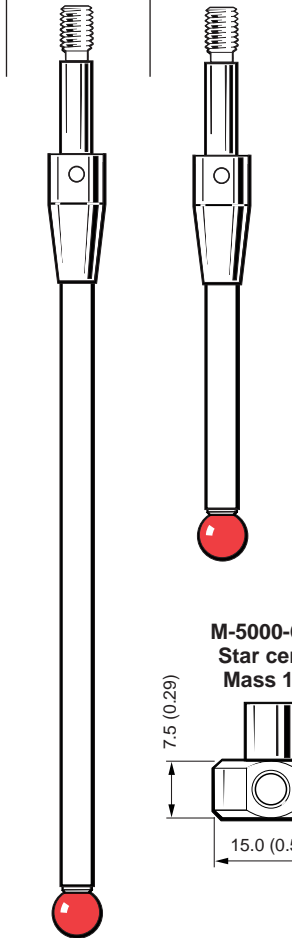
| A-5003-1436 | A-5003-1358 | A-5003-1255 | A-5003-1075 |
|--------------|--------------|--------------|--------------|
| Carbon fibre | Carbon fibre | Carbon fibre | Carbon fibre |
| 6.0 (0.24) | 6.0 (0.24) | 6.0 (0.24) | 6.0 (0.24) |
| 50.0 (1.97) | 100.0 (3.94) | 150.0 (5.91) | 200.0 (7.88) |
| 4.5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



M4 threaded
styli range
5.5

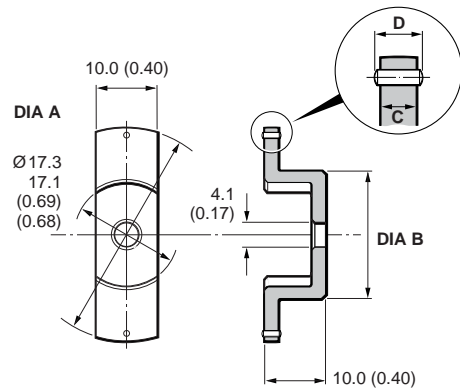
M4 star styli

| Part number | A-5000-6462 Ceramic | A-5000-7098 Ceramic |
|--------------------|------------------------|------------------------|
| Ball dia. 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 grammes | 7.5 | 6.0 |

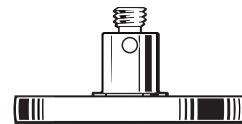


Disc styli

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

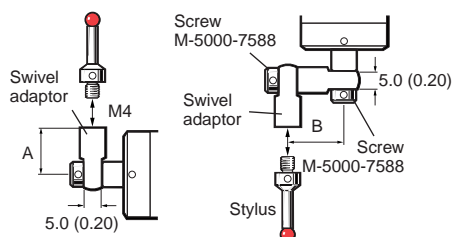


| Part number | A-5000-6351 Silver steel |
|---------------------|-----------------------------|
| Disc dia. mm (in.) | Ø30.0 (1.19) |
| Disc depth mm (in.) | 3.0 (0.12) |
| Length mm (in.) | 10.0 (0.40) |
| Rollers | N/A |
| Mass grammes | 7.9 |



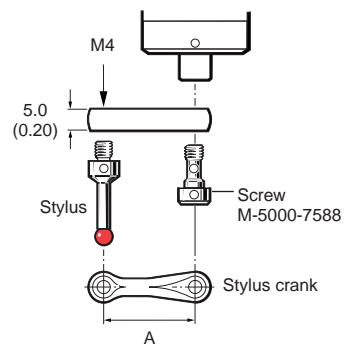
Swivel adaptor

| Part number | M-5000-7591 | M-5000-7592 |
|-------------------|-------------|-------------|
| Length A mm (in.) | 10.0 (0.40) | 13.5 (0.54) |
| Length B mm (in.) | 12.5 (0.50) | 16.0 (0.63) |
| Mass grammes | 2.76 | 3.70 |










Styli crank

| Part number | M-5000-7589 | M-5000-7590 |
|-------------------|-------------|-------------|
| Length A mm (in.) | 21.9 (0.86) | 27.6 (1.09) |
| Mass grammes | 6.07 | 6.94 |




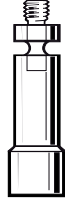



*Effective working length

Crash protection devices

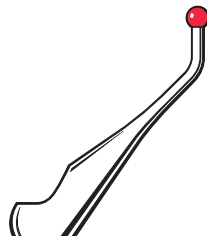
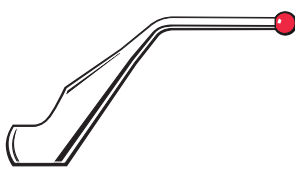
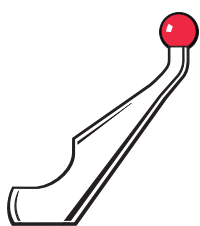
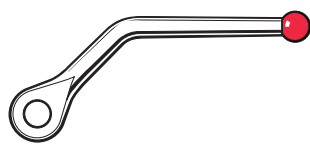
| Part number For pack of ten | M-5000-7582 | M-5000-7587 | M-5000-7588 | M-2085-0069 | A-5003-0661* | M-2197-0156 | M-2197-0150 |
|-----------------------------------|---|---|---|---|---|---|---|
| | Stainless steel | Stainless steel | Stainless steel | Silver steel | A-5004-1865 Silver steel | A-5004-1867 Silver steel | A-5004-1869 Silver steel |
| Length mm (in.) | 8.0 (0.32) | 8.0 (0.32) | 10.0 (0.40) | 12.0 (0.48) | 15.2 (0.60) | 9.0 (0.36) | 16.0 (0.63) |
| Mass grammes | 1.8 | 1.4 | 1.5 | 2.7 | 4.6 | 1.5 | 2.1 |
| For use on | LP2 | LP2 | LP2 | MP10 MP12 RMP60 OMP60 MP3 MP11 | TS27R | HPMA HPRA HPPA | HPMA HPRA HPPA |
| |  |  |  |  |  |  |  |

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

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

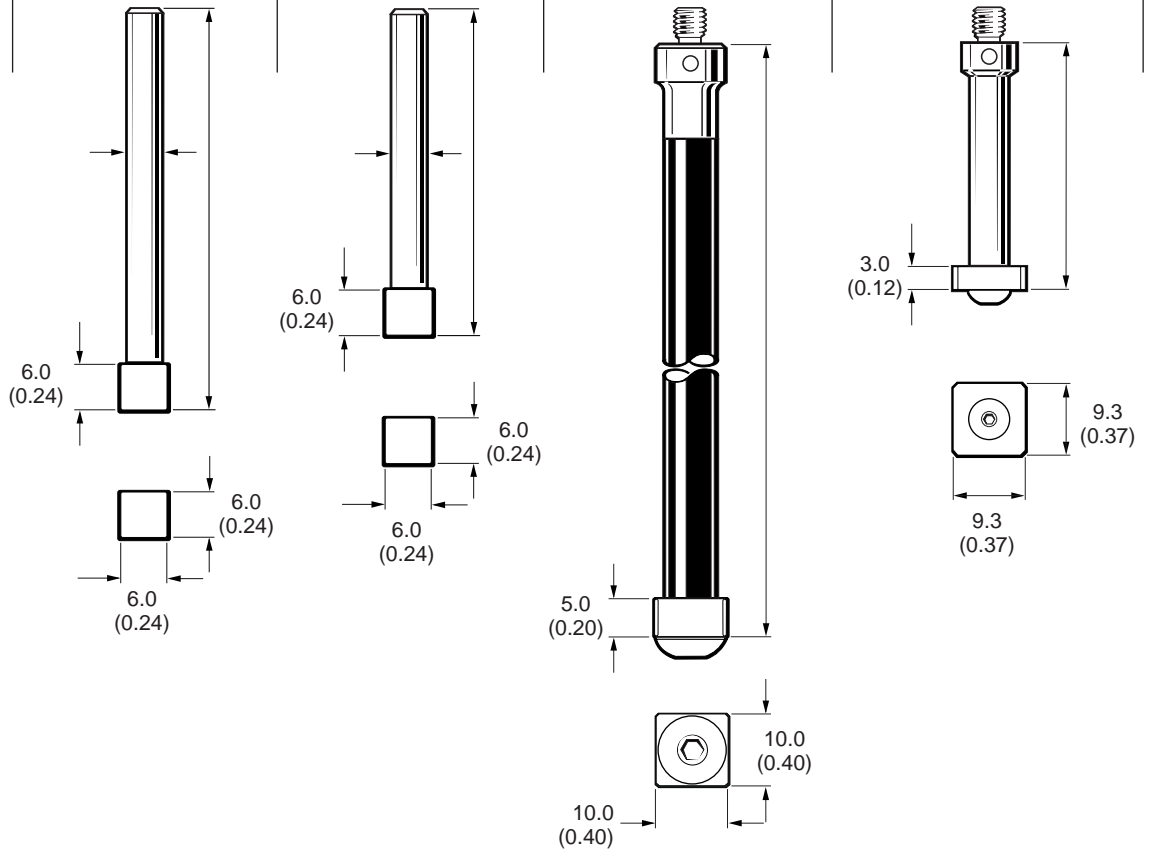
| Part number | M-2008-0333 M3 Silver steel | M-2008-0604 M3 Silver steel | M-2008-0605 M3 Silver steel | M-2048-2093 M4 Silver steel | M-2116-0127 M4 Silver steel |
|-----------------|---|---|---|---|---|
| Length mm (in.) | 13.3 (0.52) | 22.3 (0.88) | 30.3 (1.19) | 13.5 (0.53) | 19.0 (0.75) |
| Mass grammes | 2.43 | 3.6 | 4.5 | 1.37 | 2.2 |
| For use on | TS20 | TS20 | TS20 | RP1/2 | TSA |
| |  |  |  |  |  |

Cranked styli

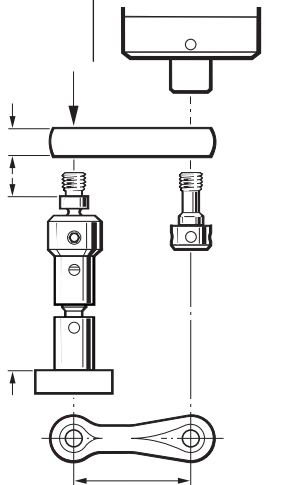
| Part number | A-5000-5302 M4 Tungsten steel | A-5000-5307 M4 Tungsten steel | A-5000-6620 M4 Tungsten steel | A-5000-7580 M4 Tungsten steel |
|-----------------|---|---|--|---|
| Length mm (in.) | 32.0 (1.26) | 21.6 (0.85) | 27.4 (1.08) | 38.8 (1.53) |
| Mass grammes | 3.8 | 3.85 | 4.7 | 2.5 |
| For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

Tool datuming styli

| Part number | A-5000-3212 Stainless steel | A-5000-6701 Stainless steel | A-5000-6713 Aluminium | 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 grammes | 4.5 | 4.3 | 21.9 | 11.0 |

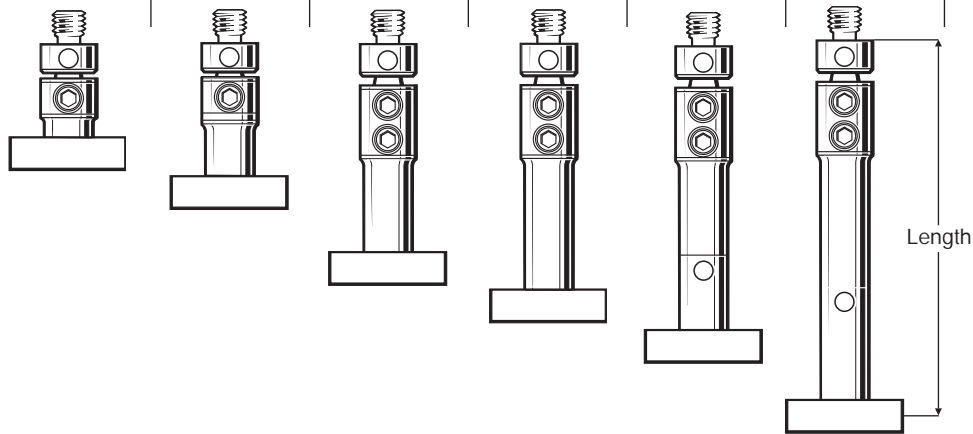


| Part number | A-2116-0142 |
|------------------|-------------|
| Length mm (inch) | 30.3 (0.40) |
| Mass grammes | 22.6 |
| For use on | TSA |

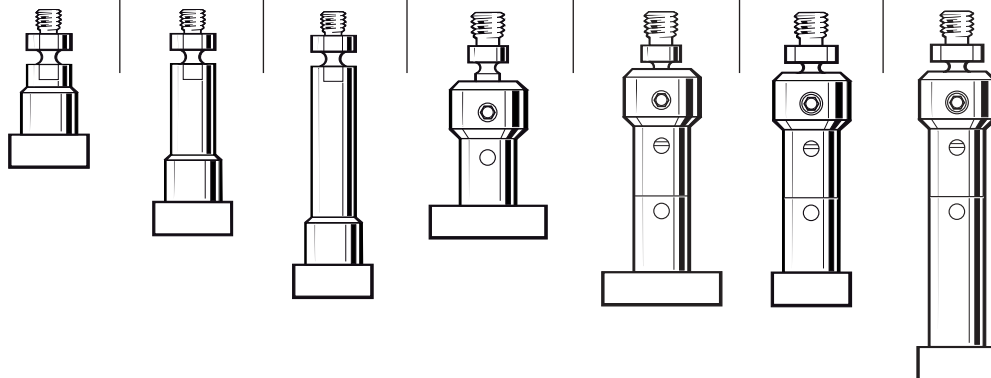


Tool datuming styli (continued)

| 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) | 19.57 (0.77) | 29.5 (1.16) | 34.5 (1.36) | 39.5 (1.55) | 49.5 (1.95) |
| Mass grammes | 14.86 | 16.0 | 20.0 | 20.7 | 21.8 | 23.5 |
| For use on | HPPA HPMA HPRA RP3 | HPPA HPMA HPRA RP3 | HPPA HPMA HPRA RP3 | HPPA HPMA HPRA RP3 | HPPA HPMA HPRA RP3 | HPPA HPMA HPRA RP3 |



| Part number | A-2008-0601 M3 Tungsten steel | A-2008-0602 M3 Tungsten steel | A-2008-0603 M3 Tungsten steel | A-2048-2050 M4 Tungsten steel | A-2048-2051 M4 Tungsten steel | A-2116-0140 M4 Tungsten steel | A-2116-0141 M4 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 grammes | 9.1 | 8.0 | 8.95 | 18.14 | 20.64 | 13.56 | 16.05 |
| For use on | TS20 | TS20 | TS20 | HPA (M6 MTG) | HPA (M6 MTG) | TSA | TSA |

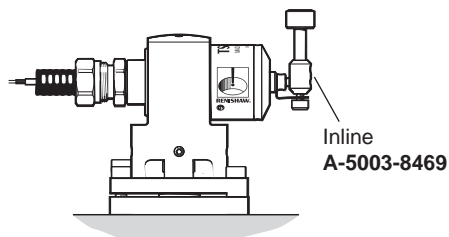


Styli and accessories

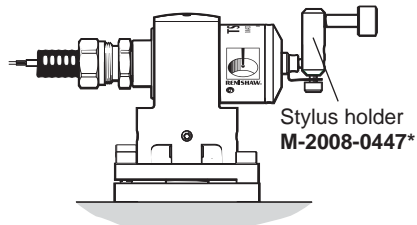
TS27R styli – parallel shafted (not M4) – Not compatible with TS27 probes

| Part number | A-2008-0382 Tungsten carbide | A-2008-0384 Ceramic |
|-------------------------|---------------------------------|------------------------|
| Overall length mm (in.) | 23.0 (0.91) | 22.0 (0.87) |
| Mass grammes | 12.1 | 7.1 |

Stylus conversion kit for TS27R to allow Horizontal M/C applications (**A-2008-0448**)



Vertical M/C applications

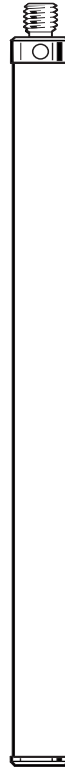
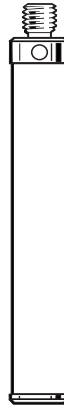


Horizontal M/C applications

*Order also requires 2 x P-SC11-0404






Stylus extensions

| Part number | M-5000-7583 Stainless steel | M-5000-7584 Stainless steel | M-5000-7585 Stainless steel | M-5000-7586 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 (0.30) | 7.4 (0.30) | 7.4 (0.30) | 7.4 (0.30) |
| Mass grammes | 2.4 | 3.7 | 4.8 | 7.4 | 5.1 | 6.7 | 10.6 | 18.4 |

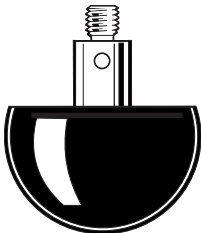
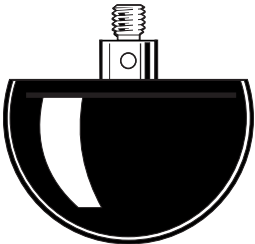



M4 digitising styli



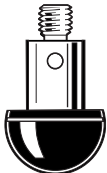


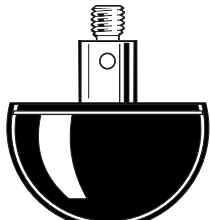
Hemispherical anodised aluminium ball styli (metric)

| Part number | A-5000-7718 | A-5000-7719 | A-5000-7720 | A-5000-7721 | A-5000-7722 |
|--------------------|---|---|---|---|---|
| Ball dia. mm (in.) | 8.0 (0.32) | 10.0 (0.40) | 12.0 (0.48) | 16.0 (0.63) | 20.0 (0.79) |
| Length mm (in.) | 10.5 (0.42) | 10.5 (0.42) | 10.5 (0.42) | 11.5 (0.46) | 11.5 (0.46) |
| Mass grammes | 3.4 | 3.9 | 4.6 | 7.2 | 10.9 |
| |  |  |  |  |  |

Complete stylus kit available – Part number A-5000-7676

| Part number | A-5000-7723 | A-5000-7724 | A-5000-7725 |
|--------------------|---|---|--|
| Ball dia. mm (in.) | 25.0 (0.99) | 32.0 (1.26) | 38.0 (1.50) |
| Length mm (in.) | 12.5 (0.50) | 9.5 (0.38) | 9.5 (0.38) |
| Mass grammes | 18.7 | 19.6 | 28.5 |
| |  |  |  |

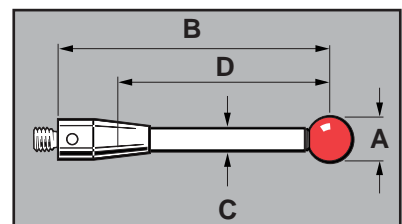
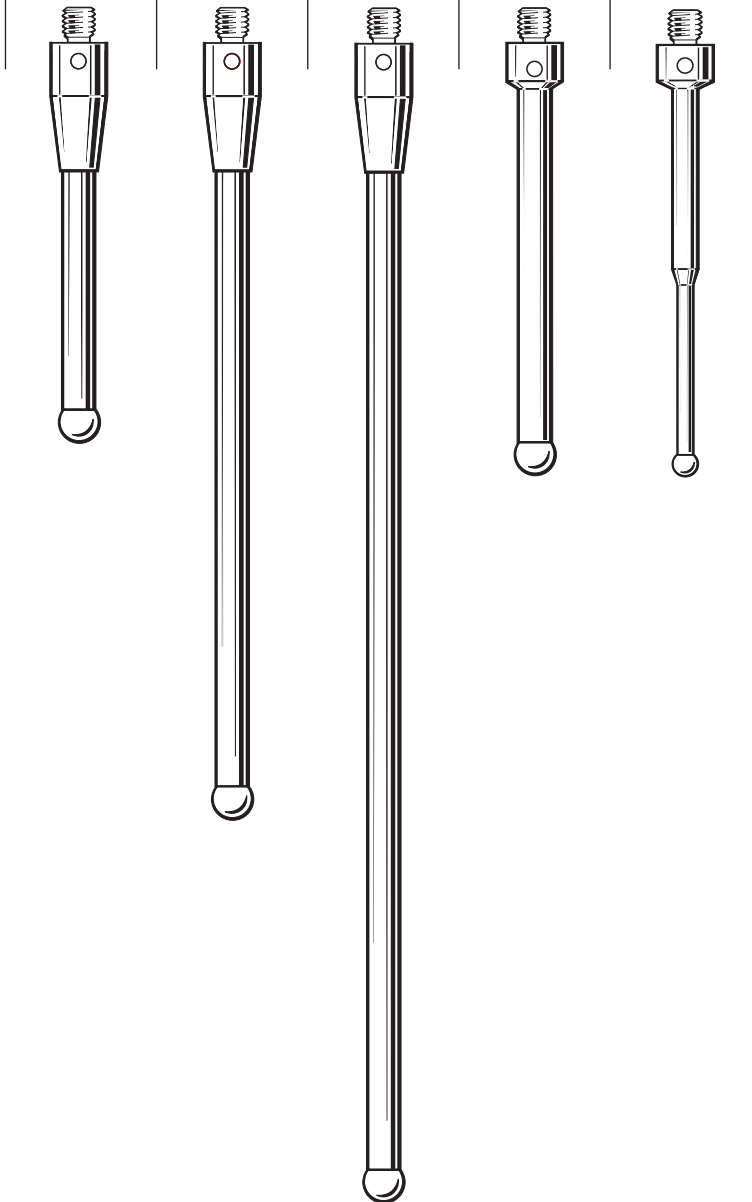
Hemispherical anodised aluminium ball styli (imperial)

| Part number | A-5000-7710 | A-5000-7711 | A-5000-7712 | A-5000-7713 | A-5000-7714 | A-5000-7715 |
|---------------------|---|---|---|---|---|---|
| Ball dia. inch (mm) | 5/16 (8.0) | 3/8 (9.6) | 1/2 (12.7) | 5/8 (15.9) | 3/4 (19.1) | 1 (25.4) |
| Length mm (in.) | 10.5 (0.42) | 10.5 (0.42) | 10.5 (0.42) | 11.5 (0.46) | 11.5 (0.46) | 12.5 (0.50) |
| Mass grammes | 3.4 | 3.8 | 4.9 | 7.1 | 9.9 | 19.6 |
| |  |  |  |  |  |  |

Complete stylus kit available – Part number A-5000-7677

Tungsten carbide styli (stainless steel stems)

| Part number | A-5000-7670 | A-5000-7671 | A-5000-7672 | 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 grammes | 6.2 | 11.9 | 18.2 | 6.9 | 3.8 |

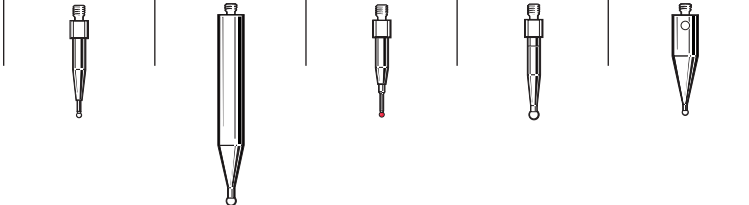


*Effective working length

Walter styli

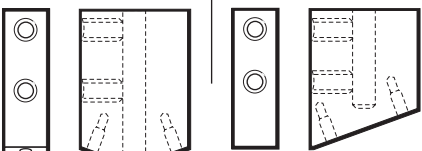
M1.4 thread styli

| Part number | A-5003-3814 M1.4 | A-5003-3045 M1.4 | A-5003-3042 M1.4 | A-5000-9860 M1.4 | A-5003-1699 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 (0.020) | 1.0 (0.04) | 0.5 (0.020) | 1.0 (0.04) | 0.6 (0.024) |
| 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 grammes | 0.2 | 1.1 | 0.19 | 0.22 | 0.41 |




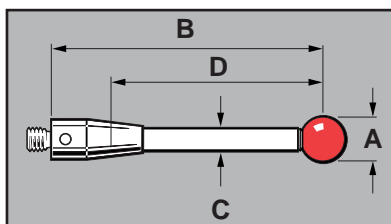
Adaptors

| Part number | A-5003-1448 | A-5000-9724 |
|--------------|----------------------|------------------|
| D3 MTG | 2 x M1.4 adaptor 20° | M1.4 adaptor 20° |
| Mass grammes | 9.73 | 8.31 |



Break stem

| Part number | M-5000-9712 M4 stylus break stem |
|--------------|-------------------------------------|
| Mass grammes | 2.0 |

*Effective working length