

High Performance Taps

Thread Mills

Synchro Chucks



Where **high performance** is the **standard**®



Threading Tools

M.A.**FORDMAX**
RANGE

Performance, Precision, Economy

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Where **high performance** is the **standard**®



For almost 100 years, M.A.FORD has been at the cutting edge of tooling design and manufacture, and has developed an enviable global reputation for performance and precision in solid carbide tooling serving over 60 countries worldwide.

To expand our range of integrated manufacturing solutions to our

customers, we are now launching our brand new range of high performance tap and synchro chucks.

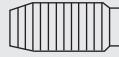
This new programme will provide a cost effective solution for companies that are looking to improve threading applications on their work-pieces.



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Technical Information

| Coating | Flute types | Material | | | |
|---|---|--|-----------------------------|--|--|
| TA TIALN TN TIN TC TIN+TiCN |  RT Roll taps | HSS High speed molybdenum steel HSSW High speed cobalt steel HSSE PM High speed powder steel VHM Micrograin solid carbide | High speed molybdenum steel | | |
| | | | High speed cobalt steel | | |
| |  SP Straight flutes with spiral point | | High speed powder steel | | |
| | | | Micrograin solid carbide | | |

| | | | | |
|------------------------|----|--|--|--|
| Annealed | A | | | |
| Tempered | QT | | | |
| Hardened and tempered | HT | | | |
| Precipitation hardened | PH | | | |

| | | | | |
|-------|--|--|----|----|
| Group | | | Rm | HB |
|-------|--|--|----|----|

| Steel | | | | |
|--------------------------|--|----------------------|----------------|--------------|
| P1 | | Free cutting steel | A | 750 220 P1 |
| P2 | | C ≤ 0,55 % | A | 650 190 P2 |
| P3 | Non-alloyed steel | C > 0,55 % | A | 650 190 P3 |
| P4 | | C ≤ 0,55 % | QT | 700 210 P4 |
| P5 | | C > 0,55 % | QT | 1000 300 P5 |
| P6 | | | A | 600 175 P6 |
| P7 | | | QT | 1000 300 P7 |
| P8 | Low-alloyed steel | | QT | 1200 380 P8 |
| P9 | | | QT | 1400 420 P9 |
| P10 | | | A | 700 210 P10 |
| P11 | High-alloyed steel and high-alloyed tool steel | | A | 1000 300 P11 |
| P12 | | | HT | 1400 420 P12 |
| P13 | Stainless steel | Ferritic/martensitic | A | 700 210 P13 |
| P14 | | Martensitic | QT | 1100 330 P14 |
| Stainless steel | | | | |
| M1 | | Austenitic | 700 210 M1 | |
| M2 | Stainless steel | Austenitic | PH 1000 300 M2 | |
| M3 | | Duplex | 800 240 M3 | |
| Cast iron | | | | |
| K1 | Grey cast iron | Ferritic | 600 180 K1 | |
| K2 | | Pearlitic | 820 240 K2 | |
| K3 | Malleable cast iron | Ferritic | 675 200 K3 | |
| K4 | | Pearlitic | 870 260 K4 | |
| K5 | Cast iron with spheroidal graphite | Ferritic | 520 155 K5 | |
| K6 | | Pearlitic | 900 270 K6 | |
| Non-ferrous metals | | | | |
| N1 | Aluminium wrought alloys | | - 30 N1 | |
| N2 | | | PH 345 10 N2 | |
| N3 | Cast aluminium alloys | Si ≤ 12% | 260 75 N3 | |
| N4 | | Si ≤ 12% | PH 300 90 N4 | |
| N5 | | Si > 12 % | 450 130 N5 | |
| N6 | Magnesium alloys | | 250 70 N6 | |
| N7 | | | 350 100 N7 | |
| N8 | Copper and copper alloys | Non-alloyed Brass | 300 90 N8 | |
| N9 | | bronze Cu-alloys | 400 110 N9 | |
| N10 | | short-chipping | 1000 300 N10 | |
| | | High-strength | | |
| Superalloys and titanium | | | | |
| S1 | Heat-resistant alloys | Fe-based | A 675 200 S1 | |
| S2 | | | PH 950 280 S2 | |
| S3 | | | A 850 250 S3 | |
| S4 | | Ni / Co base | PH 1200 350 S4 | |
| S5 | | | C 1100 320 S5 | |
| S6 | Titanium alloys | Pure titanium | 675 200 S6 | |
| S7 | | α and β alloys | 1250 375 S7 | |
| S8 | | β alloys | 1400 410 S8 | |
| Hard materials | | | | |
| H1 | | | HT 50 HRC H1 | |
| H2 | Hardened steel | | HT 55 HRC H2 | |
| H3 | | | HT 60 HRC H3 | |
| H4 | Hardened cast iron | | HT 55 HRC H4 | |

Universal HP Tap

| | | | | | | | | | |
|-------------------------|----------------------------------|------------------|-----------|----------|------------|------------|---------|---------|-------|
| HSSE PM | | | | | | | | | |
| | | | | | | | | | |
| Material groups | P 1-14 | P 1-14 | P 1-8 | P 1-8 | P 1-8 | P 1-8 | P 1-8 | P 1-8 | |
| | M 1-3 | M 1-3 | M 1-3 | M 1-3 | M 1-3 | M 1-3 | M 1-3 | M 1-3 | |
| | K 1-6 | K 1-6 | K 1-6 | K 1-6 | K 1-6 | K 1-6 | K 1-6 | K 1-6 | |
| | N 1-10 | N 1-10 | N 1-10 | N 1-10 | N 1-10 | N 1-10 | N 1-10 | N 1-10 | |
| | S 1-3 6 | S 1-3 6 | S 1-3 6 | S 1-3 6 | S 1-3 6 | S 1-3 6 | S 1-3 6 | S 1-3 6 | |
| Hole type | < 3d | < 3d | < 2.5d | < 2.5d | < 2.5d | < 2.5d | < 2.5d | < 2.5d | |
| Coating | TA | TA | TA | TA | TA | TA | TA | TA | |
| Chamfer | B / 4-5P | B / 4-5P | C / 2-3P | C / 2-3P | E / 1.5-2P | E / 1.5-2P | | | |
| Tolerance | 6HX | 6HX | 6HX | 6HX | 6HX | 6HX | 6HX | 6HX | |
| M | M Ød1 | P L1 L2 L3 Ød2 a | | MTSP | MTSPC | MTSF | MTSFC-C | MTSFC-E | MTSFC |
| | | | | | | | | | |
| | DIN 371 | | | | | | | | |
| | M2 0.4 45 8 12 2.8 2.1 1.6 | | | | | | | | |
| | M2.5 0.45 50 5 14 2.8 2.1 2.5 | | | | | | | | |
| | M3 0.5 56 5 18 3.5 2.7 2.5 | | | | | | | | |
| | M4 0.7 63 7 21 4.5 3.4 3.3 | | | | | | | | |
| | M5 0.8 70 8 25 6 4.9 4.2 | | | | | | | | |
| | M6 1 80 10 30 6 4.9 5 | | | | | | | | |
| | M8 1.25 90 13 35 8 6.2 6.8 | | | | | | | | |
| | M10 1.5 100 15 39 10 8 8.5 | | | | | | | | |
| | DIN 376 | | | | | | | | |
| | M12 1.75 110 18 9 7 10.2 | | | | | | | | |
| | M14 2 110 20 11 9 12 | | | | | | | | |
| | M16 2 110 20 12 9 14 | | | | | | | | |
| | M20 2.5 140 25 16 12 17.5 | | | | | | | | |
| | M24 3.0 160 30 18 14.5 21 | | | | | | | | |
| | M30 3.5 180 35 22 18 26.5 | | | | | | | | |
| MF | MF Ød1 | P L1 L2 Ød2 a | | | | | | | |
| | | | | | | | | | |
| | DIN 374 | | | | | | | | |
| | M8 x 1 1 90 10 6 4.9 7.0 | | | | | | | | |
| | M10 x 1 1 90 10 7 5.5 9.0 | | | | | | | | |
| | M10 x 1.25 1.25 100 15 7 5.5 8.8 | | | | | | | | |
| | M12 x 1.5 1.5 100 15 9 7 10.5 | | | | | | | | |
| | M14 x 1.5 1.5 100 15 11 9 12.5 | | | | | | | | |
| | M16 x 1.5 1.5 100 15 12 9 14.5 | | | | | | | | |
| | Vc (m/min) | | | | | | | | |
| Example of order | | P | Rm < 1200 | 10-40 | 20-50 | 10-40 | 20-50 | 10-40 | 20-50 |
| MTSP - M2 X 0.4 | | | Rm < 1400 | 5-15 | 5-15 | | | | |
| | | M | | 5-15 | 5-25 | 5-15 | 5-25 | 5-15 | 5-25 |
| | | K | | 10-30 | 10-50 | 10-30 | 10-50 | 10-30 | 10-50 |
| | | N | | 10-30 | 10-50 | 10-30 | 10-30 | 10-30 | 10-50 |
| | | S | Rm < 1200 | 1-8 | 1-8 | 1-8 | 1-8 | 1-8 | 1-8 |

Materials $\leq 800 \text{ MPa}^{-2}$

| | | |
|-------------------------------------|---|--|
| HSSE TN | | |
| | | |
| | | |
| Material groups | P 1-7 10 13-14 M 1-3 1-5 N 3-5 7-8 | P 1-7 10 13-14 M 1-3 K 1-5 N 3-5 7-8 |
| Hole type | | |
| Coating | TN | TN |
| Chamfer | B / 4-5P | C / 2-3P |
| Tolerance | ISO2(6H) | ISO2(6H) |
| M | M Ød1 P L1 L2 L2 R40 L3 Ød2 a | 800SP-BT 800SF-CT |
| DIN 371 | | |
| M3 0.5 56 11 5 18 3.5 2.7 2.5 | | |
| M4 0.7 63 13 7 21 4.5 3.4 3.3 | | |
| M5 0.8 70 15 8 25 6 4.9 4.2 | | |
| M6 1 80 17 10 30 6 4.9 5 | | |
| M8 1.25 90 20 13 35 8 6.2 6.8 | | |
| M10 1.5 100 20 15 39 10 8 8.5 | | |
| DIN 376 | | |
| M12 1.75 110 29 18 9 7 10.2 | | |
| M14 2 110 30 20 11 9 12 | | |
| M16 2 110 32 20 12 9 14 | | |
| MF | MF Ød1 P L1 L2 L2 R40 Ød2 a | |
| DIN 374 | | |
| M8 x 1 1 90 20 10 6 4.9 7.0 | | |
| M10 x 1 1 90 20 10 7 5.5 9.0 | | |
| M10 x 1.25 1.25 100 20 15 7 5.5 8.8 | | |
| M12 x 1.5 1.5 100 20 15 9 7 10.5 | | |
| M14 x 1.5 1.5 100 20 15 11 9 12.5 | | |
| M16 x 1.5 1.5 100 20 15 12 9 14.5 | | |

Vc (m/min)

| | | | |
|---|-----------|-------|-------|
| P | Rm < 800 | 10-35 | 10-35 |
| | Rm < 1000 | 5-20 | 5-20 |
| M | | 5-15 | 5-15 |
| K | | 5-15 | 5-15 |
| N | | 10-30 | 10-30 |
| S | | | |

Example of order

800SP-BT - M3 X 0.5

Stainless Steel - INOX

| | | | | |
|-------------------------------------|------------------------|----------------|--|--|
| HSSE TA | | | | |
| | | | | |
| | Material groups | | P 13-14 M 1-3 | P 13-14 M 1-3 |
| M | DIN 371 | < 3d | | |
| MF | DIN 374 | | | |
| Hole type | | TA | TA | |
| Coating | | B / 4-5P | C / 2-3P | |
| Chamfer | | ISO2 (6H) | ISO2 (6H) | |
| Tolerance | | INOXSP-BA | INOXSF-CA | |
| DIN 371 | | M3 X 0.5 | M3 X 0.5 | |
| M3 0.5 56 10 5 18 3.5 2.7 2.5 | | M4 X 0.7 | M4 X 0.7 | |
| M4 0.7 63 12 7 21 4.5 3.4 3.3 | | M5 X 0.8 | M5 X 0.8 | |
| M5 0.8 70 14 8 25 6 4.9 4.2 | | M6 X 1.0 | M6 X 1.0 | |
| M6 1 80 18 10 30 6 4.9 5 | | M8 X 1.25 | M8 X 1.25 | |
| M8 1.25 90 20 13 35 8 6.2 6.8 | | M10 X 1.5 | M10 X 1.5 | |
| M10 1.5 100 20 15 39 10 8 8.5 | | M12 X 1.75 | M12 X 1.75 | |
| DIN 376 | | M14 X 2.0 | M14 X 2.0 | |
| M12 1.75 110 29 18 9 7 10.2 | | M16 X 2.0 | M16 X 2.0 | |
| M14 2 110 30 18 11 9 12 | | | | |
| M16 2 110 32 20 12 9 14 | | | | |
| DIN 374 | | | | |
| M8 x 1 1 90 20 10 6 4.9 7.0 | | M8 X 1.0 | M8 X 1.0 | |
| M10 x 1 1 90 20 10 7 5.5 9.0 | | M10 X 1.0 | M10 X 1.0 | |
| M10 x 1.25 1.25 100 20 15 7 5.5 8.8 | | M10 X 1.25 | M10 X 1.25 | |
| M12 x 1.5 1.5 100 20 15 9 7 10.5 | | M12 X 1.5 | M12 X 1.5 | |
| M14 x 1.5 1.5 100 20 15 11 9 12.5 | | M14 X 1.5 | M14 X 1.5 | |
| M16 x 1.5 1.5 100 20 15 12 9 16.5 | | M16 X 1.5 | M16 X 1.5 | |

Vc (m/min)

| Example of order | |
|-------------------------|--|
| INOXSP-BA - M3 X 0.5 | |

| | | |
|---|------|------|
| P | 5-15 | 5-15 |
| M | 5-20 | 5-20 |
| K | | |
| N | | |
| S | | |

Materials $\leq 1200 \text{ MPa}^{-2}$ / $\leq 1400 \text{ MPa}^{-2}$

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------------|----------------------|---|--|---|-----|--|--|----|-------|--|---|-----|--|--|---|---|--|--|---|-----|--|--|---|---|---|-----|--|--|----|-------|--|---|-----|--|--|---|---|--|--|---|-----|--|
| HSSE PM TC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Material groups | | <table border="1"> <tr><td>P</td><td>5</td><td>7-8</td><td></td></tr> <tr><td></td><td>11</td><td>13-14</td><td></td></tr> <tr><td>M</td><td>2-3</td><td></td><td></td></tr> <tr><td>K</td><td>5</td><td></td><td></td></tr> <tr><td>N</td><td>3-5</td><td></td><td></td></tr> </table> | P | 5 | 7-8 | | | 11 | 13-14 | | M | 2-3 | | | K | 5 | | | N | 3-5 | | | <table border="1"> <tr><td>P</td><td>5</td><td>7-8</td><td></td></tr> <tr><td></td><td>11</td><td>13-14</td><td></td></tr> <tr><td>M</td><td>2-3</td><td></td><td></td></tr> <tr><td>K</td><td>5</td><td></td><td></td></tr> <tr><td>N</td><td>3-5</td><td></td><td></td></tr> </table> | P | 5 | 7-8 | | | 11 | 13-14 | | M | 2-3 | | | K | 5 | | | N | 3-5 | |
| P | 5 | 7-8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | 13-14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | 2-3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | 3-5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 5 | 7-8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | 13-14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | 2-3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | 3-5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hole type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coating | TC | TC | TC | TC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chamfer | B / 4-5P | C / 2-3P | B / 4-5P | C / 2-3P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tolerance | ISO2 (6H) | ISO2 (6H) | 6HX | 6HX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | M Ød1 | P L1 L2 R40 | L3 Ød2 a | 1200SP-BC 1200SF-CC 1400SP-BC 1400SF-CC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIN 371 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M3 | 0.5 | 56 | 10 | M3 X 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M4 | 0.7 | 63 | 12 | M4 X 0.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M5 | 0.8 | 70 | 14 | M5 X 0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M6 | 1 | 80 | 18 | M6 X 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M8 | 1.25 | 90 | 20 | M8 X 1.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M10 | 1.5 | 100 | 20 | M10 X 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIN 376 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M12 | 1.75 | 110 | 29 | M12 X 1.75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M14 | 2 | 110 | 30 | M14 X 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16 | 2 | 110 | 32 | M16 X 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MF | MF Ød1 | P L1 L2 R40 | Ød2 a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIN 374 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M8 x 1 | 1 | 90 | 20 | M8 X 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M10 x 1 | 1 | 90 | 20 | M10 X 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M10 x 1.25 | 1.25 | 100 | 20 | M10 X 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M12 x 1.5 | 1.5 | 100 | 20 | M12 X 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M14 x 1.5 | 1.5 | 100 | 20 | M14 X 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16 x 1.5 | 1.5 | 100 | 20 | M16 X 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Example of order | |
|----------------------|--|
| 1200SP-BA - M3 X 0.5 | |

| Vc (m/min) | | | | |
|------------|-----------|-------|-------|-------|
| P | Rm < 1200 | 5-20 | 5-20 | 5-20 |
| M | Rm < 1400 | | | 1-5 |
| K | | 10-25 | 10-25 | 10-20 |
| N | | 10-30 | 10-30 | 10-20 |
| S | | | | |

Roll Taps

| | | | | | | | | | | |
|--|------------------------|----------|----|----|-----------|-------|---|------------|------------|------------|
| HSSE PM TN TC | | | | | | | | | | |
| | Material groups | | | | | | | | | |
| | Hole type | | | | | | | $< 3d$ | $< 3d$ | $< 3d$ |
| | Coating | | | | | | | TN | TC | TC |
| Chamfer | | C / 2-3P | | | | | | | C / 2-3P | E / 1.5-2P |
| Tolerance | | 6HX | | | | | | | 6HX | 6HX |
| M | M Ød1 | P | L1 | L2 | L3 | Ød2 | a | FRTG-CT | FRTG-CC | FRTG-CCC |
| DIN 371 | | | | | | | | | | |
| M2 0.4 45 8 12 2.8 2.1 1.83 | | | | | | | | | | |
| M2.5 0.45 50 9 14 2.8 2.1 2.3 | | | | | | | | | | |
| M3 0.5 56 10 18 3.5 2.7 2.8 | | | | | | | | | | |
| M4 0.7 63 7 21 4.5 3.4 3.7 | | | | | | | | | | |
| M5 0.8 70 8 25 6 4.9 4.65 | | | | | | | | | | |
| M6 1 80 10 30 6 4.9 5.6 | | | | | | | | | | |
| M8 1.25 90 13 35 8 6.2 7.45 | | | | | | | | | | |
| M10 1.5 100 15 39 10 8 9.35 | | | | | | | | | | |
| DIN 376 | | | | | | | | | | |
| M12 1.75 110 18 9 7 11.25 | | | | | | | | | | |
| M14 2 110 20 11 9 13 | | | | | | | | | | |
| M16 2 110 20 12 9 15 | | | | | | | | | | |
| MF | MF Ød1 | P | L1 | L2 | Ød2 | a | | | | |
| DIN 374 | | | | | | | | | | |
| M8 x 1 1 90 10 6 4.9 7.6 | | | | | | | | | | |
| M10 x 1 1 90 10 7 5.5 9.6 | | | | | | | | | | |
| M10 x 1.25 1.25 100 15 7 5.5 9.45 | | | | | | | | | | |
| M12 x 1.5 1.5 100 15 9 7 11.35 | | | | | | | | | | |
| M14 x 1.5 1.5 100 15 11 9 13.35 | | | | | | | | | | |
| M16 x 1.5 1.5 100 15 12 9 15.35 | | | | | | | | | | |
| Vc (m/min) | | | | | | | | | | |
| Example of order | | | | P | Rm < 1000 | 10-30 | | | | |
| FRTG-T - M2 X 0.4 | | | | M | | 10-25 | | | | |
| | | | | K | | | | | | |
| | | | | N | | 20-40 | | | | |
| | | | | S | | | | | | |

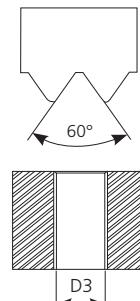
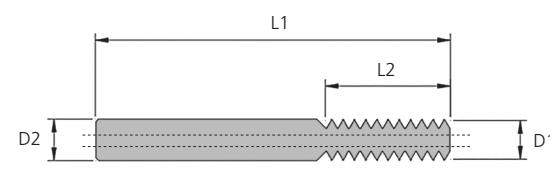
Carbide Thread Mills Series STMS Solid Series STMC / HTMC With Central Coolant



Series STMS



Series STMC / HTMC



| Tool No. | Metric Size x Pitch | Tapping Drill D ³ | D1 | D2 | L1 | L2 | No. of futes (Z) | Type |
|--------------|---------------------|------------------------------|------|------|-------|------|------------------|-----------------|
| STMS 03-0.5 | M3 x 0.5 | 2.5 | 2.1 | 4.0 | 38.0 | 4.5 | 3 Straight | Solid |
| STMC 04-0.7 | M4 x 0.7 | 3.3 | 2.6 | 4.0 | 38.0 | 6.3 | 3 Straight | Central Coolant |
| HTMC 05-0.8 | M5 x 0.8 | 4.2 | 3.4 | 4.0 | 50.0 | 8.0 | 3 Helical | Central Coolant |
| HTMC 06-1.0 | M6 x 1.0 | 5.0 | 4.0 | 6.0 | 58.0 | 10.0 | 3 Helical | Central Coolant |
| HTMC 08-1.25 | M8 x 1.25 | 6.8 | 5.5 | 6.0 | 58.0 | 13.8 | 3 Helical | Central Coolant |
| HTMC 10-1.5 | M10 x 1.5 | 8.5 | 7.1 | 8.0 | 64.0 | 16.5 | 3 Helical | Central Coolant |
| HTMC 12-1.75 | M12 x 1.75 | 10.2 | 8.6 | 10.0 | 73.0 | 21.0 | 3 Helical | Central Coolant |
| HTMC 16-2.0 | M14 x 2.0 | 12.0 | 9.9 | 10.0 | 73.0 | 26.0 | 3 Helical | Central Coolant |
| | M16 x 2.0 | 14.0 | | | | | | |
| HTMC 20-2.5 | M18 x 2.5 | 15.5 | 13.4 | 14.0 | 80.0 | 35.0 | 4 Helical | Central Coolant |
| | M20 x 2.5 | 17.5 | | | | | | |
| | M22 x 2.5 | 19.5 | | | | | | |
| HTMC 24-3.0 | M24 x 3.0 | 21.0 | 15.9 | 16.0 | 100.0 | 39.0 | 4 Helical | Central Coolant |

Carbide Thread Mills Recommended cutting data

| Material Groups | Cutting Speed Vc |
|--|------------------|
| Low Carbon Steels | 120 |
| Structural & Heat Treated Steels Up To 800 N/mm ² | 100 |
| Alloy Steels | 60 |
| Austenitic Stainless Steels | 70 |
| Titanium Alloys | 40 |
| Cast Iron | 75 |
| Aluminium Alloys (Si < 10%) | 100 |
| Aluminium (Unalloyed) | 100 |
| Copper (Unalloyed) | 100 |

Synchro Tap Chucks

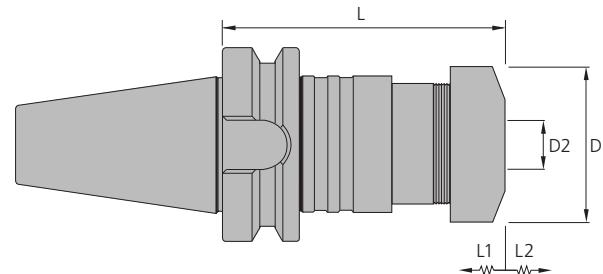
Product Advantages

- Designed for modern or conventional machining centres
- Compensates for deviation in rotating and feeding tapping motions
- Can improve life of tap by more than 50%
- Reduced cycle times due to stable threading process
- Increased surface finish and tap accuracy
- Through coolant tap capability



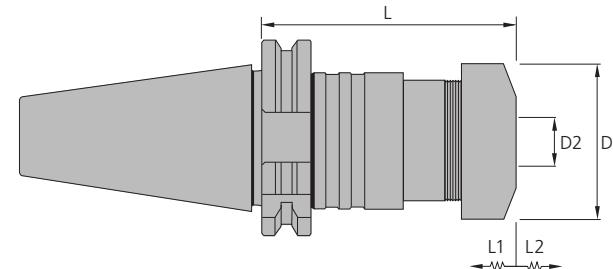
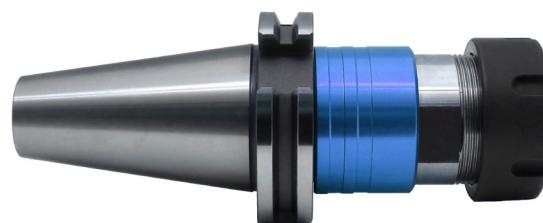
Synchro Tap Chuck

BT40 JIS B6339



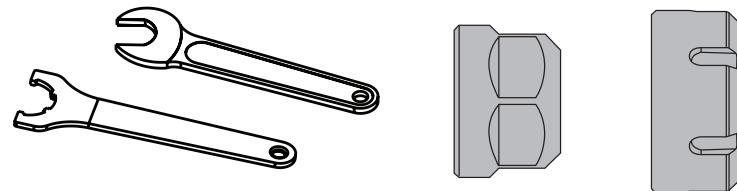
| Tool No. | Stock | Shank | Dimensions | | | | | Collet | | |
|----------------|-------|-------|--------------------|--|----|------|-----|--------|-----|------|
| | | | Tap Range | | D1 | D2 | L | | | |
| BT30-FSC20-80 | ○ | BT30 | M4-M12 & No.8-7/16 | | 34 | 3-10 | 80 | 0.5 | 0.5 | ER20 |
| BT40-FSC20-85 | ● | BT40 | M4-M12 & No.8-7/16 | | 34 | 3-10 | 85 | 0.5 | 0.5 | ER20 |
| BT50-FSC20-100 | ○ | BT50 | M4-M12 & No.8-7/16 | | 34 | 3-10 | 100 | 0.5 | 0.5 | ER20 |
| BT40-FSC32-100 | ○ | BT40 | M4-M24 & No.8-3/4 | | 50 | 3-16 | 100 | 0.5 | 0.5 | ER32 |
| BT50-FSC32-115 | ● | BT50 | M4-M24 & No.8-3/4 | | 50 | 3-16 | 115 | 0.5 | 0.5 | ER33 |

SK - DIN 68971



| Tool No. | Stock | Shank | Dimensions | | | | | Collet | | |
|---------------|-------|-------|--------------------|--|----|------|----|--------|-----|------|
| | | | Tap Range | | D1 | D2 | L | | | |
| SK40-FSC20-80 | ● | SK40 | M4-M12 & No.8-7/16 | | 34 | 3-10 | 80 | 0.5 | 0.5 | ER20 |
| SK50-FSC20-80 | ○ | SK50 | M4-M12 & No.8-7/16 | | 34 | 3-10 | 80 | 0.5 | 0.5 | ER20 |
| SK40-FSC32-95 | ○ | SK40 | M4-M24 & No.8-3/4 | | 34 | 3-16 | 95 | 0.5 | 0.5 | ER32 |
| SK50-FSC32-95 | ● | SK50 | M4-M24 & No.8-3/4 | | 50 | 3-16 | 95 | 0.5 | 0.5 | ER32 |

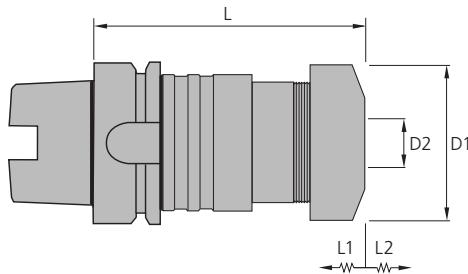
Accessories



| Spares | ER20 | ER32 |
|---------------------------|------------|------------|
| Standard clamping nut | FSC20-SCN | FSC32-SCN |
| Sealing disc clamping nut | FSC20-SDCN | FSC32-SDCN |
| Wrench | FSC20-NTW | FSC32-NTW |

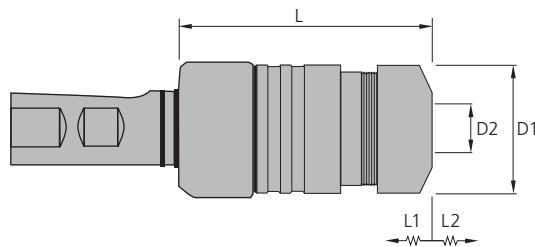
Synchro Tap Chuck

HSK - DIN 69893



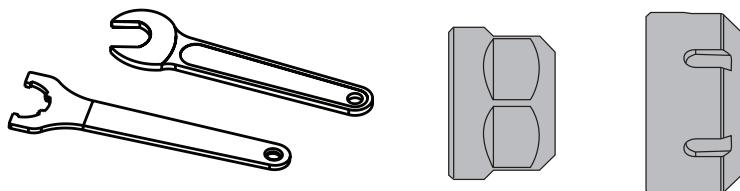
| Tool No. | Stock | Shank | Dimensions | | | | | Collet | |
|-------------------|-------|---------|--------------------|----|------|-----|-----|--------|------|
| | | | Tap Range | D1 | D2 | L | L1 | | |
| HSK63A-FSC20-100 | ● | HSK63A | M4-M12 & No.8-7/16 | 34 | 3-10 | 100 | 0.5 | 0.5 | ER20 |
| HSK100A-FSC20-110 | ○ | HSK100A | M4-M12 & No.8-7/16 | 34 | 3-10 | 110 | 0.5 | 0.5 | ER20 |
| HSK63A-FSC32-120 | ○ | HSK63A | M4-M24 & No.8-3/4 | 50 | 3-16 | 120 | 0.5 | 0.5 | ER32 |
| HSK100A-FSC32-130 | ● | HSK100A | M4-M24 & No.8-3/4 | 50 | 3-16 | 130 | 0.5 | 0.5 | ER32 |

Weldon - DIN 1835



| Tool No. | Stock | Shank | Dimensions | | | | | Collet | |
|--------------|-------|-------|--------------------|----|------|----|-----|--------|------|
| | | | Tap Range | D1 | D2 | L | L1 | | |
| C20-FSC20-75 | ● | 20 | M4-M12 & No.8-7/16 | 34 | 3-10 | 75 | 0.5 | 0.5 | ER20 |
| C25-FSC20-75 | ○ | 25 | M4-M12 & No.8-7/16 | 34 | 3-10 | 75 | 0.5 | 0.5 | ER20 |
| C25-FSC2-95 | ● | 25 | M4-M24 & No.8-3/4 | 50 | 3-16 | 95 | 0.5 | 0.5 | ER32 |

Accessories



| Spares | ER20 | ER32 |
|---------------------------|------------|------------|
| Standard clamping nut | FSC20-SCN | FSC32-SCN |
| Sealing disc clamping nut | FSC20-SDCN | FSC32-SDCN |
| Wrench | FSC20-NTW | FSC32-NTW |

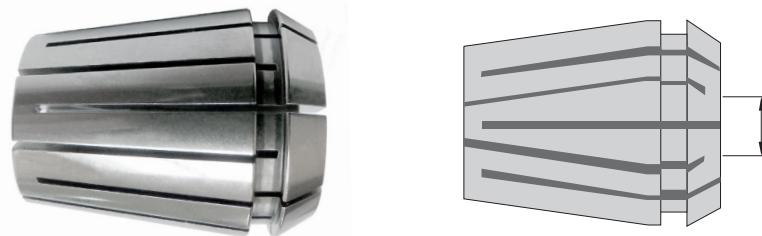
Synchro Tap Chuck

Sealing Discs



| Model | | Stock | D (mm) | ISO | | JIS | DIN | |
|------------|-------------|-------|-----------|--------|-------------------|-------|--------|------------------|
| | | | | ISO529 | ISO529 ISO2283 | | DIN371 | DIN374 DIN376 |
| DER20C-6 | DER32C-6 | ○ | | | M6 | M5/M6 | M8 | |
| DER20C-6.5 | DER32C-6.5 | ○ | 6.5 | M6 | M8 | M8 | | |
| DER20C-7 | DER32C-7 | ○ | | | M10 | | M10 | |
| DER20C-8 | DER32C-8 | ○ | M8 | M10 | | M8 | | |
| DER20C-8.5 | DER32C-8.5 | ○ | 8.5 | | | M12 | | |
| DER20C-9 | DER32C-9 | ○ | | M12 | | | M12 | |
| DER20C-10 | DER32C-10 | ○ | 10 | M10 | | | M10 | |
| | DER32C-12 | ○ | 12 | | | | | M16 |
| | DER32C-12.5 | ○ | 12.5 | | M16 | M16 | | |
| | DER32C-14 | ○ | 14 | | M18/M20 | M18 | | M18 |
| | DER32C-15 | ○ | 15 | | | M20 | | |
| | DER32C-16 | ○ | 16 | | M22 | | | M20 |

Collets



| Model | | Stock | D (mm) | ISO | | DIN | | JIS |
|--------------|--------------|-------|-----------|--------|------------------|--------|-----------------|-------|
| | | | | ISO529 | ISO529 / ISO2283 | DIN371 | DIN374 / DIN376 | |
| ER20-6.3B5 | ER32-6.3B5 | ● | 6.0 | M6 | M8 | M5/M6 | M8 | M6/M8 |
| ER20-7B5.5 | ER32-7B5.5 | ● | | | | | M10 | M10 |
| ER20-7B5.5 | ER32-7B5.5 | ● | 7.0 | M8 | M10 | M8 | | |
| ER20-8.5B6.5 | ER32-8.5B6.5 | ● | 8.0 | | | | | M12 |
| ER20-9B7.1 | ER32-9B7.1 | ● | 9.0 | | M12 | | M12 | |
| ER20-10B8 | ER32-10B8 | ● | 10.0 | M10 | | M10 | | |
| | ER32-12B9 | ● | | | | M16 | | |
| | ER32-12.5B10 | ● | | M16 | | | | M16 |
| | ER32-14B11.2 | ● | 14.0 | | M18/M20 | | M18 | M18 |
| | ER32-15B12 | ● | | | | M20 | | |
| | ER32-16B12 | ● | 16.0 | | | M20 | | |

Notes



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