



# MASTER CATALOG **2018**

VOLUME TWO | **ROTATING TOOLS**



HOLEMAKING | TAPPING | SOLID END MILLING | INDEXABLE MILLING

## ModBORE™

One system includes highly flexible roughing and fine-boring heads to large bridge tooling with optimum amount of tooling components.

### Primary Application

This premium boring line enables roughing to fine-boring operations using one system with a large diameter range from 9,75–2,205mm (.384–86.8"). The ModBORE system can be used in most workpiece materials in metalcutting applications along with the latest Kennametal standard ISO turning inserts.

## Features and Benefits

### Complete System

- Twin blade heads for roughing to semi-finishing operations starting from diameter 23,5mm (.925").
- Fine-boring heads for finishing in diameters 9,75–2,205mm (.384–86.8").
- Bridge tooling for large diameters up to 2,205mm (86.8") standard with both roughing and fine-finishing heads.
- Through-coolant capability in all styles.

### Resolution

- Fine adjustable roughing heads.
- 0,01mm (.0004") diameter adjustment respective 2 µm (.00008") with easy-to-read large vernier scale with fine-boring heads.

**Highest versatility possible on the shop floor with the ModBORE™ roughing and fine boring systems.**



### **Product Variety**

- KM™ shanks for use in all spindles with compatible adapters.
- HSK shanks for use without adapters.
- Inch shanks are most economical to use with compatible adapters.

### **Customization**

- Engineered solutions available.
- Anti-chatter devices available.
- Cartridges can be designed into standard boring heads for added versatility.

# ➤ ModBORE™ Fine-Boring System

Based on KM™, HSK, and inch SSF couplings, match all spindle specifications direct or indirect via adapters. The ModBORE fine-boring system uses standard ISO/ANSI turning inserts for maximum performance and flexibility.

## RBHT • Twin Cutters for Rough and Semi-Finish Boring

- Diameters 23,5–153mm (.925–6.024").
- KM, HSK, and inch straight shank back end versions available.
- Preloaded serration and ground support face for stable connection, minimal vibration, and maximum accuracy, with easy diameter adjustment.
- Large selection of blades sets:
  - Staggered — efficient machining of large depths of cut.
  - 70° — for challenging applications requiring stable corner radii and full use of inserts.
  - 90° — most precise machining results.
- Generous clearance and through coolant enable free chip flow and improved tool life.
- All toolholders accept positive standard inserts. Toolholders in diameter 65,5mm (2.58") and greater for negative standard inserts.



## FBHM • Offset Boring Bar and Cartridge Heads for Fine Finishing

- Diameters 9,75–320mm (.384–12.59").
- KM-TS™, HSK, CV, DV, and BT steep taper back end styles available.
- Precision-ground micrometric screw enables fine adjustment of 2 µm (.00008"). Large TiN-coated dial is easy to adjust and read.
- Standard steel and carbide boring bars adjust in length for maximum stability.
- Aluminum diameter extender with insert cartridges and counterweight used for diameters starting at 3.38" (86mm) for maximum flexibility.
- Through coolant at the cutting edge improves tool life, surface finish, and chip evacuation.





## FBHO • Offset Boring Bar Heads for Fine Finishing

- Diameters 9,75–88,1 mm (.384–3.46").
- KM™, HSK, and inch straight shank back end styles available.
- Precision-ground micrometric screw enables fine adjustment of 2 µm (.00008") via easy-to-read vernier scale.
- Standard steel and carbide boring bars can be adjusted in length for maximum stability.
- Through coolant at the cutting edge improves tool life, surface finish, and chip evacuation.



## FBHS • Cartridge Boring Heads for Fine Finishing

- Diameters 23,5–153 mm (.925–6.024").
- KM, HSK, and inch straight shank back end styles available.
- Precision-ground micrometric screw enables fine adjustment of 2 µm (.00008") via easy-to-read vernier scale.
- Large selection of insert holders:
  - 95° — for use with wiper turning inserts.
  - 90° regular diameter — for efficient machining in large depths of cut.
  - 90° oversized diameter — for enhanced boring head diameter capabilities.
- Generous clearance and through coolant at the cutting edge improve tool life, surface finish, and chip evacuation.

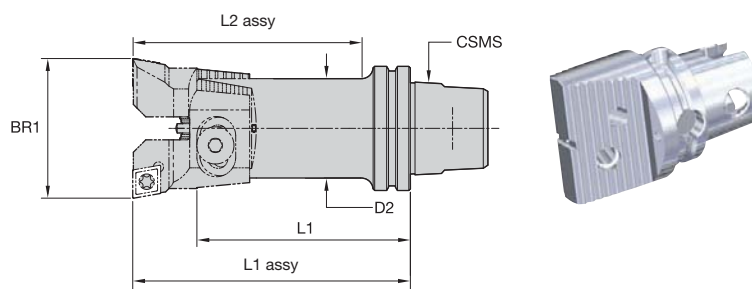
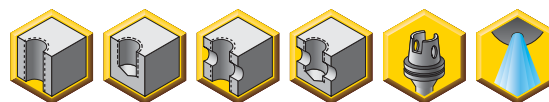


## BT • Bridge Tools for Rough and Finish Boring

- Diameters 150–2,205 mm (5.91–86.81").
- Sophisticated ground serration and T-style bolt clamping provide high cutting forces, and prevent diameter changes when heads are clamped.
- Only 10 bridge consoles are needed for diameters up to 655 mm (25.7").
- KM, HSK, and some steep taper adapters with ground serration available as standard. Through coolant at the cutting edge improves tool life and surface finish.
- Diameters 650–2,205 mm (25.5–86.81") covered by three aluminum-based consoles and two sets of steel slides for mounting rough and finish boring heads.
- 90° roughing head sets ensure precise height alignment, and negative standard inserts enable high metal removal rates.
- Counterweight for better balancing and fine-boring head with precision-ground micrometric screw for adjustments of 2 µm (.00008").



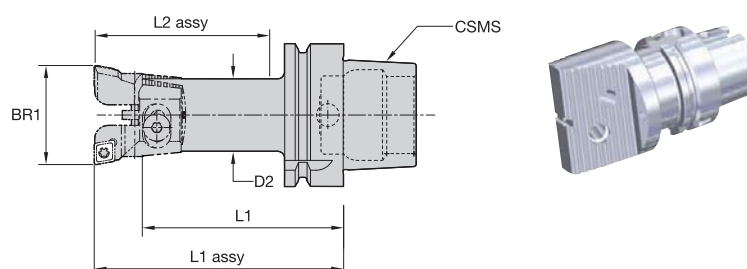
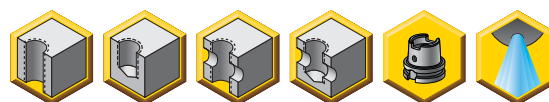
- Order blade sets separately; see page K124–K126.



## RBHT • KM™ Rough-Boring Twin Cutters

| order number | catalog number | BR1 bore range  |               | CSMS<br>system size | D2   |      | L1   |      | L1 assy |      | L2 assy |      | blade<br>screw | washer      | pin         |
|--------------|----------------|-----------------|---------------|---------------------|------|------|------|------|---------|------|---------|------|----------------|-------------|-------------|
|              |                | mm              | in            |                     | mm   | in   | mm   | in   | mm      | in   | mm      | in   |                |             |             |
| 3586519      | KM32RBHT24     | 23.500-30.500   | 0.9252-1.2008 | KM32                | 20,0 | .79  | 75,4 | 2.97 | 90,0    | 3.54 | 76,0    | 2.99 | 840.142.200    | 841.142.200 | 841.342.200 |
| 3586520      | KM32RBHT30     | 29.500-40.000   | 1.1614-1.5748 | KM32                | 25,0 | .98  | 83,8 | 3.30 | 100,0   | 3.94 | 86,0    | 3.39 | 840.142.250    | 841.142.250 | 841.342.200 |
| 3586521      | KM40RBHT40     | 39.500-50.500   | 1.5551-1.9882 | KM40                | 32,0 | 1.26 | 68,8 | 2.71 | 90,0    | 3.54 | 74,0    | 2.91 | 840.142.320    | 841.142.320 | 841.342.200 |
| 3586522      | KM50RBHT50     | 49.500-66.500   | 1.9488-2.6181 | KM50                | 42,0 | 1.65 | 62,2 | 2.45 | 90,0    | 3.54 | 70,0    | 2.76 | 840.142.420    | 841.142.200 | 841.342.420 |
| 3586543      | KM50RBHT66     | 65.500-87.500   | 2.5787-3.4449 | KM50                | 55,0 | 2.17 | 63,0 | 2.48 | 100,0   | 3.94 | 100,0   | 3.94 | 840.142.550    | 841.142.550 | 841.342.420 |
| 3586544      | KM50RBHT87     | 86.500-115.500  | 3.4055-4.5472 | KM50                | 72,0 | 2.83 | 70,5 | 2.78 | 120,0   | 4.72 | 120,0   | 4.72 | 840.142.720    | 841.142.720 | 841.342.420 |
| 3586545      | KM63UTRBHT87   | 86.500-115.500  | 3.4055-4.5472 | KM63UT              | 72,0 | 2.83 | 70,5 | 2.78 | 120,0   | 4.72 | 120,0   | 4.72 | 840.142.720    | 841.142.720 | 841.342.420 |
| 3586546      | KM63UTRBHT115  | 114.500-153.000 | 4.5079-6.0236 | KM63UT              | 94,0 | 3.70 | 83,2 | 3.28 | 150,0   | 5.91 | 150,0   | 5.91 | 840.142.940    | 841.142.940 | 841.342.420 |

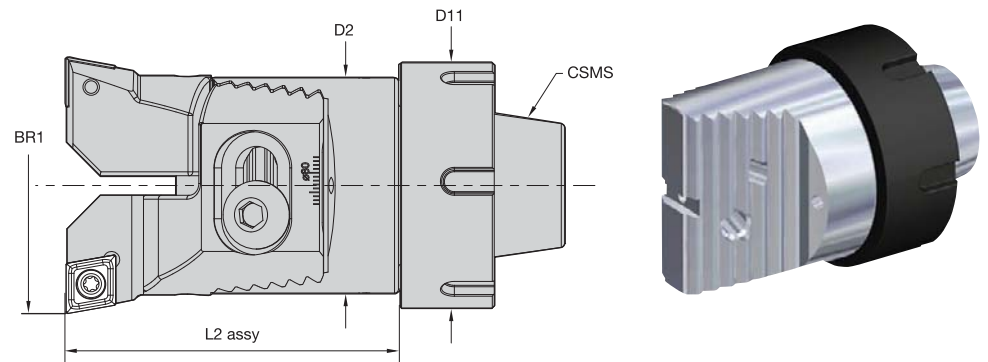
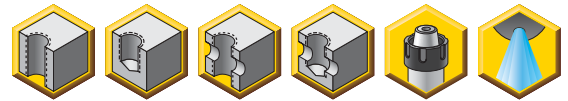
- Order blade sets separately; see page K124–K126.



## RBHT • HSK Rough-Boring Twin Cutters

| order number | catalog number | BR1 bore range |               | CSMS<br>system size | D2   |      | L1   |      | L1 assy |      | L2 assy |      | blade<br>screw | washer      | pin         |
|--------------|----------------|----------------|---------------|---------------------|------|------|------|------|---------|------|---------|------|----------------|-------------|-------------|
|              |                | mm             | in            |                     | mm   | in   | mm   | in   | mm      | in   | mm      | in   |                |             |             |
| 3586547      | HSK63RBHT24    | 23.500-30.500  | 0.9252-1.2008 | HSK63A              | 20,0 | .79  | 75,4 | 2.97 | 90,0    | 3.54 | 64,1    | 2.52 | 840.142.200    | 841.142.200 | 841.342.200 |
| 3586548      | HSK63RBHT30    | 29.500-40.000  | 1.1614-1.5748 | HSK63A              | 25,0 | .98  | 88,8 | 3.50 | 105,0   | 4.13 | 79,1    | 3.11 | 840.142.250    | 841.142.250 | 841.342.200 |
| 3586549      | HSK63RBHT40    | 39.500-50.500  | 1.5551-1.9882 | HSK63A              | 32,0 | 1.26 | 92,2 | 3.63 | 110,0   | 4.33 | 84,1    | 3.31 | 840.142.320    | 841.142.320 | 841.342.200 |
| 3586550      | HSK63RBHT50    | 49.500-66.500  | 1.9488-2.6181 | HSK63A              | 42,0 | 1.65 | 92,2 | 3.63 | 120,0   | 4.72 | 94,1    | 3.70 | 840.142.420    | 841.142.420 | 841.342.200 |
| 3586551      | HSK63RBHT66    | 65.500-87.500  | 2.5787-3.4449 | HSK63A              | 55,0 | 2.17 | 95,5 | 3.76 | 125,0   | 4.92 | 125,0   | 4.92 | 840.142.550    | 841.142.720 | 841.342.420 |
| 3586563      | HSK63RBHT87    | 86.500-115.500 | 3.4055-4.5472 | HSK63A              | 72,0 | 2.83 | 95,5 | 3.76 | 145,0   | 5.71 | 145,0   | 5.71 | 840.142.720    | 841.142.720 | 841.342.420 |

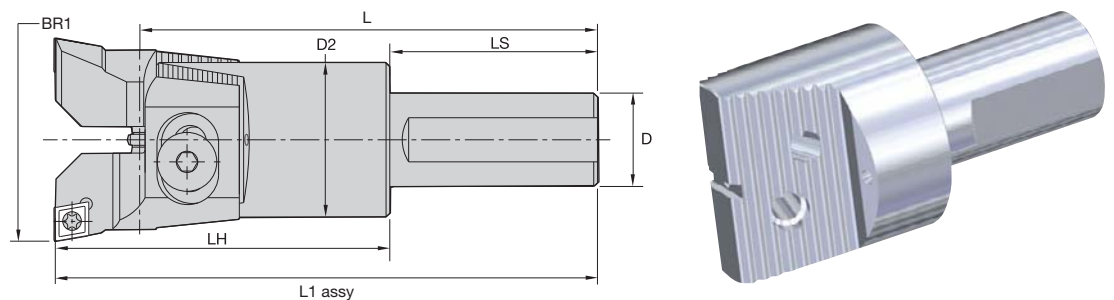
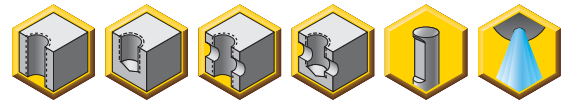
- Order blade sets separately; see page K124–K126.



### ■ RBHT • ER Rough-Boring Twin Cutters

| order number | catalog number | BR1 bore range |               | CSMS<br>system size | D11  |     | D2   |      | L2 assy |      | blade<br>screw | washer      | pin         |
|--------------|----------------|----------------|---------------|---------------------|------|-----|------|------|---------|------|----------------|-------------|-------------|
|              |                | mm             | in            |                     | mm   | in  | mm   | in   | mm      | in   |                |             |             |
| 5544148      | ER25RBHT40     | 39,500-50,500  | 1.5550-1.9880 | ER25                | 39,0 | 1.5 | 32,0 | 1.26 | 65,5    | 2.58 | 840.142.320    | 841.142.320 | 841.342.200 |
| 5544190      | ER32RBHT50     | 49,500-66,500  | 1.9480-2.6180 | ER32                | 49,5 | 1.9 | 42,0 | 1.65 | 75,5    | 2.97 | 840.142.420    | 841.142.200 | 841.342.420 |
| 5544192      | ER40RBHT66     | 65,500-87,500  | 2.5780-3.4440 | ER40                | 62,7 | 2.5 | 55,0 | 2.17 | 85,5    | 3.37 | 840.142.550    | 841.142.550 | 841.342.420 |

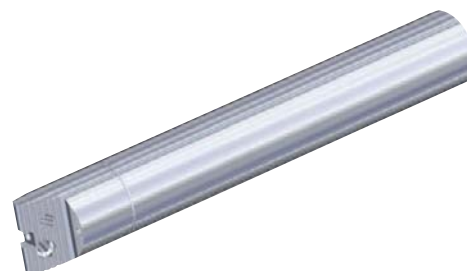
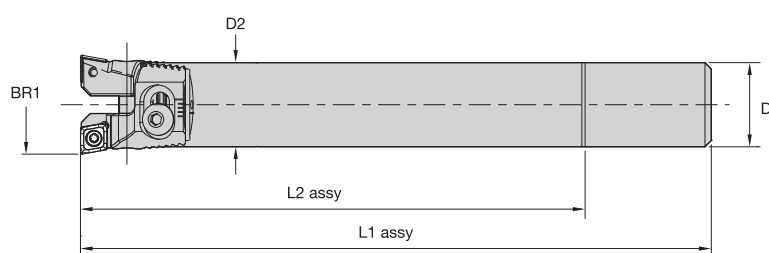
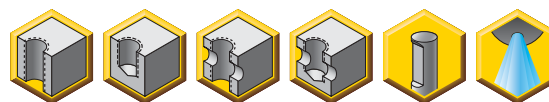
- Order blade sets separately; see page K124–K126.



### ■ RBHT • Steel Straight Shank Rough Boring Twin Cutters

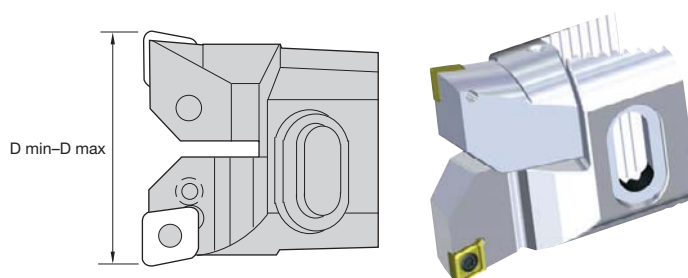
| order number | catalog number | BR1 bore range  |               | D    |      | D2   |      | L     |      | LH   |      | L1 assy |      | LS    |      | blade<br>screw | washer      | pin         |
|--------------|----------------|-----------------|---------------|------|------|------|------|-------|------|------|------|---------|------|-------|------|----------------|-------------|-------------|
|              |                | mm              | in            | mm   | in   | mm   | in   | mm    | in   | mm   | in   | mm      | in   | mm    | in   |                |             |             |
| 3586564      | SF075RBHT24    | 23,500-30,500   | 0.9252-1.2008 | 19,1 | .75  | 20,0 | .79  | 135,4 | 5.33 | 27,8 | 1.09 | 150,0   | 5.91 | 107,6 | 4.24 | 840.142.200    | 841.142.200 | 841.342.200 |
| 3586565      | SF100RBHT30    | 29,500-40,000   | 1.1614-1.5748 | 25,4 | 1.00 | 25,0 | .98  | 153,8 | 6.06 | 30,6 | 1.20 | 170,0   | 6.69 | 123,2 | 1.85 | 840.142.250    | 841.142.250 | 841.342.200 |
| 3586566      | SF125RBHT40    | 39,500-50,500   | 1.5551-1.9882 | 31,8 | 1.25 | 32,0 | 1.26 | 168,8 | 6.65 | 31,3 | 1.23 | 190,0   | 7.48 | 137,5 | 5.41 | 840.142.320    | 841.142.320 | 841.342.200 |
| 3586567      | SF100RBHT50    | 49,500-66,500   | 1.9488-2.6181 | 25,4 | 1.00 | 42,0 | 1.65 | 118,1 | 4.65 | 62,2 | 2.45 | 145,9   | 5.74 | 55,9  | 2.20 | 840.142.420    | 841.142.420 | 841.342.420 |
| 3586569      | SF125RBHT66    | 65,500-87,500   | 2.5787-3.4449 | 31,8 | 1.25 | 55,0 | 2.17 | 123,7 | 4.87 | 63,0 | 2.48 | 160,7   | 6.33 | 60,7  | 2.39 | 840.142.550    | 841.142.720 | 841.342.420 |
| 3586570      | SF150RBHT87    | 86,500-115,500  | 3.4055-4.5472 | 38,1 | 1.50 | 72,0 | 2.83 | 142,1 | 5.59 | 70,5 | 2.78 | 191,6   | 7.54 | 71,6  | 2.82 | 840.142.720    | 841.142.720 | 841.342.420 |
| 3586571      | SF200RBHT115   | 114,500-153,000 | 4.5079-6.0236 | 50,8 | 2.00 | 94,0 | 3.70 | 169,1 | 6.66 | 82,6 | 3.25 | 235,9   | 9.29 | 86,5  | 3.41 | 840.142.940    | 841.142.940 | 841.342.420 |

- Order blade sets separately; see page K124–K126.



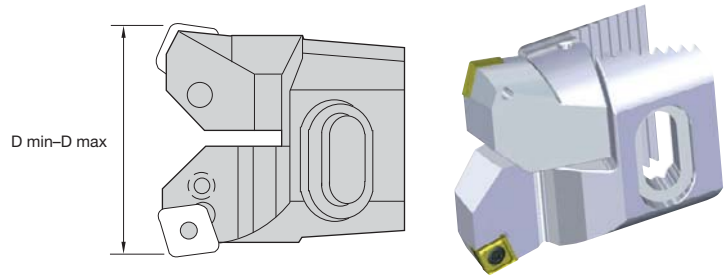
## RBHT • Straight Shank Rough-Boring Twin Cutters • Metric

| order number | catalog number | BR1 bore range |               | D    |     | D2   |     | L1 assy |      | L2 assy |      | blade screw | washer      | pin         |
|--------------|----------------|----------------|---------------|------|-----|------|-----|---------|------|---------|------|-------------|-------------|-------------|
|              |                | mm             | in            | mm   | in  | mm   | in  | mm      | in   | mm      | in   |             |             |             |
| 5544143      | SS20RBHT24     | 23,500-30,500  | 0.9250-1.2000 | 20,0 | .79 | 20,0 | .79 | 150,0   | 5.10 | 120,0   | 4.72 | 840.142.200 | 841.142.200 | 841.342.200 |
| 5544145      | SS25RBHT30     | 29,500-40,000  | 1.1610-1.5740 | 25,0 | .98 | 25,0 | .98 | 170,0   | 6.69 | 140,0   | 5.51 | 840.142.250 | 841.142.250 | 841.342.200 |



## 90° Lead Blade Sets

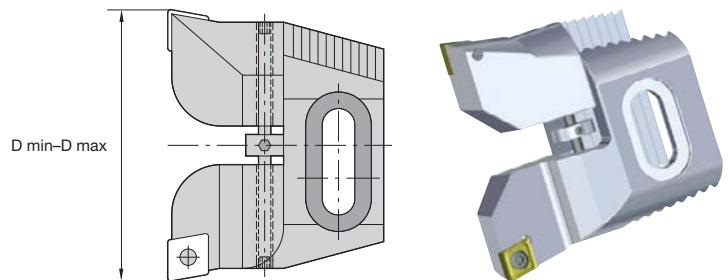
| order number | catalog number | D min  |       | D max  |       | gage insert          | adjusting screw | insert screw | shim        | shim pin    | toggle lever | Torx wrench | Torx size |
|--------------|----------------|--------|-------|--------|-------|----------------------|-----------------|--------------|-------------|-------------|--------------|-------------|-----------|
|              |                | mm     | in    | mm     | in    |                      |                 |              |             |             |              |             |           |
| 3556346      | MB24RBHT06F    | 23,50  | .925  | 30,50  | 1.201 | CC..0602../CC..215.. | 848.200.407     | 843.006.000  | —           | —           | —            | FT7         | T7        |
| 3556347      | MB30RBHT06F    | 29,50  | 1.161 | 40,10  | 1.579 | CC..0602../CC..215.. | 848.250.409     | 843.006.000  | —           | —           | —            | FT7         | T7        |
| 3556348      | MB40RBHT09F    | 39,50  | 1.555 | 50,50  | 1.988 | CC..09T3../CC..325.. | 848.320.413     | 843.009.000  | —           | —           | —            | FT15        | T15       |
| 3556349      | MB50RBHT09F    | 49,50  | 1.949 | 66,50  | 2.618 | CC..09T3../CC..325.. | 848.420.614     | 843.009.000  | —           | —           | —            | FT15        | T15       |
| 3556350      | MB66RBHT12F    | 65,50  | 2.579 | 87,50  | 3.445 | CC..1204../CC..43..  | 848.550.620     | 843.012.000  | —           | —           | —            | FT20        | T20       |
| 3556352      | MB66RBHT12LF   | 65,50  | 2.579 | 87,50  | 3.445 | CN..1204../CN..43..  | 847.012.000     | —            | 845.012.000 | 844.012.000 | 846.012.000  | —           | —         |
| 3556393      | MB87RBHT12F    | 86,50  | 3.406 | 115,50 | 4.547 | CC..1204../CC..43..  | 848.720.000     | 843.012.000  | —           | —           | —            | FT20        | T20       |
| 3556394      | MB87RBHT16LF   | 86,50  | 3.406 | 115,50 | 4.547 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  | —           | —         |
| 3556395      | MB115RBHT12F   | 114,50 | 4.508 | 153,00 | 6.024 | CC..1204../CC..43..  | 848.940.640     | 843.012.000  | —           | —           | —            | FT20        | T20       |
| 3556396      | MB115RBHT16LF  | 114,50 | 4.508 | 153,00 | 6.024 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  | —           | —         |



■ 70° Lead Blade Sets

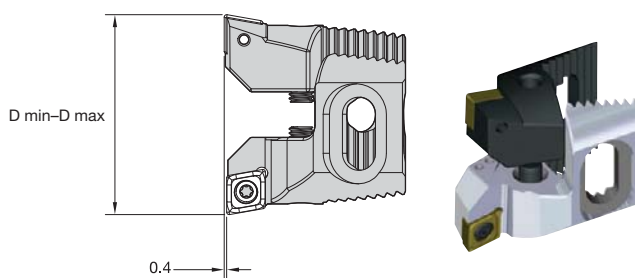
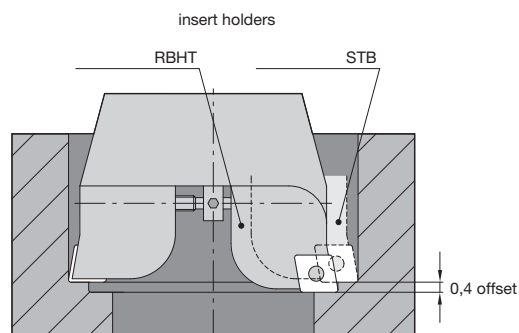
| order number | catalog number | D min  |       | D max  |       | gage insert          | adjusting screw | insert screw | shim        | shim pin    | toggle lever | Torx wrench | Torx size | hex size |
|--------------|----------------|--------|-------|--------|-------|----------------------|-----------------|--------------|-------------|-------------|--------------|-------------|-----------|----------|
|              |                | mm     | in    | mm     | in    |                      |                 |              |             |             |              |             |           |          |
| 3556397      | MB24RBHT06K    | 23,50  | .925  | 30,50  | 1.201 | CC..0602../CC..215.. | 848.200.407     | 843.006.000  | —           | —           | —            | FT7         | T7        | —        |
| 3556398      | MB30RBHT06K    | 29,50  | 1.161 | 40,10  | 1.579 | CC..0602../CC..215.. | 848.250.409     | 843.006.000  | —           | —           | —            | FT7         | T7        | —        |
| 3556399      | MB40RBHT09K    | 39,50  | 1.555 | 50,50  | 1.988 | CC..09T3../CC..325.. | 848.320.413     | 843.009.000  | —           | —           | —            | FT15        | T15       | —        |
| 3556400      | MB50RBHT09K    | 49,50  | 1.949 | 66,50  | 2.618 | CC..09T3../CC..325.. | 848.420.614     | 843.009.000  | —           | —           | —            | FT15        | T15       | —        |
| 3556401      | MB66RBHT12K    | 65,50  | 2.579 | 87,50  | 3.445 | CC..1204../CC..43..  | 848.550.620     | 843.012.000  | —           | —           | —            | FT20        | T20       | —        |
| 3556402      | MB66RBHT12LK   | 65,50  | 2.579 | 87,50  | 3.445 | CN..1204../CN..43..  | 847.012.000     | —            | 845.012.000 | 844.012.000 | 846.012.000  | —           | —         | 3 mm     |
| 3556403      | MB87RBHT12K    | 86,50  | 3.406 | 115,50 | 4.547 | CC..1204../CC..43..  | 848.720.000     | 843.012.000  | —           | —           | —            | FT20        | T20       | —        |
| 3556404      | MB87RBHT16LK   | 86,50  | 3.406 | 115,50 | 4.547 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  | —           | —         | 3 mm     |
| 3556405      | MB115RBHT16LK  | 114,50 | 4.508 | 153,00 | 6.024 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  | —           | —         | 3 mm     |

Hole Finishing



■ 90° Lead Simultaneous Adjusting Blade Sets

| order number | catalog number | D min  |       | D max  |       | gage insert          | adjusting screw | insert screw | simultaneous adj spindle | shim        | shim pin    | toggle lever |
|--------------|----------------|--------|-------|--------|-------|----------------------|-----------------|--------------|--------------------------|-------------|-------------|--------------|
|              |                | mm     | in    | mm     | in    |                      |                 |              |                          |             |             |              |
| 2652965      | SYB24RBHT06F   | 23,50  | .925  | 30,50  | 1.201 | CC..0602../CC..215.. | 848.200.407     | 843.006.000  | 848.200.005              | —           | —           | —            |
| 2652967      | SYB30RBHT06F   | 29,50  | 1.161 | 40,10  | 1.579 | CC..0602../CC..215.. | 848.250.409     | 843.006.000  | 848.250.005              | —           | —           | —            |
| 2652968      | SYB40RBHT09F   | 39,50  | 1.555 | 50,50  | 1.988 | CC..09T3../          | 848.320.413     | 843.009.000  | 848.320.005              | —           | —           | —            |
| 2652969      | SYB50RBHT09F   | 49,50  | 1.949 | 66,50  | 2.618 | CC..09T3../          | 848.420.614     | 843.009.000  | 848.420.005              | —           | —           | —            |
| 2652970      | SYB66RBHT12F   | 65,50  | 2.579 | 87,50  | 3.445 | CC..1204../CC..43..  | —               | 843.012.000  | 848.550.005              | —           | —           | —            |
| 2652971      | SYB66RBHT12LF  | 65,50  | 2.579 | 87,50  | 3.445 | CN..1204../CN..43..  | —               | 848.550.620  | 848.550.005              | 845.012.000 | 844.012.000 | 846.012.000  |
| 2652972      | SYB87RBHT12F   | 86,50  | 3.406 | 115,50 | 4.547 | CC..1204../CC..43..  | —               | 843.012.000  | 848.720.005              | —           | —           | —            |
| 2652983      | SYB87RBHT16LF  | 86,50  | 3.406 | 115,50 | 4.547 | CNMG543              | 847.016.000     | —            | 848.720.005              | 845.016.000 | 844.016.000 | 846.016.000  |
| 2652984      | SYB115RBHT16LF | 114,50 | 4.508 | 153,00 | 6.024 | CNMG543              | 847.016.000     | —            | 848.720.005              | 845.016.000 | 844.016.000 | 846.016.000  |



## 90° Lead Split Depth of Cut Blades

| order number | catalog number | D min  |       | D max  |       | gage insert          | adjusting screw | insert screw | shim        | shim pin    | toggle lever |
|--------------|----------------|--------|-------|--------|-------|----------------------|-----------------|--------------|-------------|-------------|--------------|
|              |                | mm     | in    | mm     | in    |                      |                 |              |             |             |              |
| 4063996      | SDB24RBHT06F   | 23,50  | .925  | 30,50  | 1.201 | CC..0602../CC..215.. | 848.200.407     | 843.006.000  | —           | —           | —            |
| 4063997      | SDB30RBHT06F   | 29,50  | 1.161 | 40,10  | 1.579 | CC..0602../CC..215.. | 848.250.409     | 843.006.000  | —           | —           | —            |
| 4063998      | SDB40RBHT09F   | 39,50  | 1.555 | 50,50  | 1.988 | CC..09T3../CC..325.. | 848.320.413     | 843.009.000  | —           | —           | —            |
| 4063999      | SDB50RBHT09F   | 49,50  | 1.949 | 66,50  | 2.618 | CC..09T3../CC..325.. | 848.420.614     | 843.009.000  | —           | —           | —            |
| 4064000      | SDB66RBHT12F   | 65,50  | 2.579 | 87,50  | 3.445 | CC..1204../CC..43..  | 848.550.620     | 843.012.000  | —           | —           | —            |
| 4064001      | SDB66RBHT12LF  | 65,50  | 2.579 | 87,50  | 3.445 | CN..1204../CN..43..  | 847.012.000     | —            | 845.012.000 | 844.012.000 | 846.012.000  |
| 4064002      | SDB87RBHT12F   | 86,50  | 3.406 | 115,50 | 4.547 | CC..1204../CC..43..  | 848.720.000     | 843.012.000  | —           | —           | —            |
| 4064203      | SDB87RBHT16LF  | 86,50  | 3.406 | 115,50 | 4.547 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  |
| 4064204      | SDB115RBHT16LF | 114,50 | 4.508 | 153,00 | 6.024 | CN..1606../CN..54..  | 847.016.000     | —            | 845.016.000 | 844.016.000 | 846.016.000  |
| 4064205      | SDB115RBHT12F  | 114,50 | 4.508 | 153,00 | 6.024 | CC..1204../CC..43..  | 848.940.640     | 843.012.000  | —           | —           | —            |



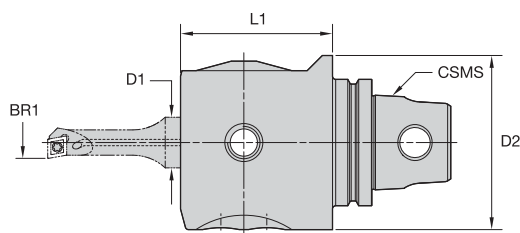
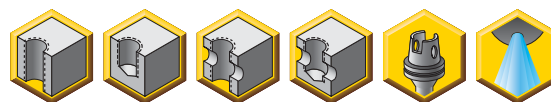
**■ FBHM • Fine-Boring Kits**

| order number | catalog number    | range      |            | contents                                                                                                                                                                            |
|--------------|-------------------|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                   | mm         | in         |                                                                                                                                                                                     |
| 4057101      | KM50TSFBHMKIT164M | 9,75-164,0 | .383-6.456 | KM50TSFBHM1677<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09 |
| 4057098      | HSK63FBHMKIT164M  | 9,75-164,0 | .383-6.456 | HSK63FBHM1696<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09  |
| 4057099      | DV40FBHMKIT164M   | 9,75-164,0 | .383-6.456 | DV40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |
| 4057100      | BT40FBHMKIT164M   | 9,75-164,0 | .383-6.456 | BT40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |
| 4167882      | CV40FBHMKIT645    | 9,75-164,0 | .383-6.456 | CV40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |

NOTE: Counterweight 886038045 is not part of the kits and needs to be ordered separately.



- Order boring bars separately for required diameter; see page K134–K135.
- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.

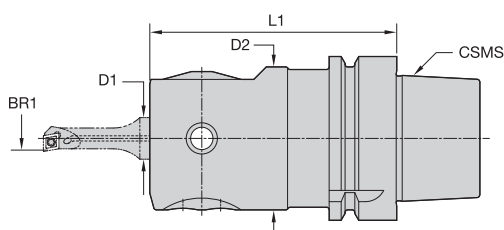
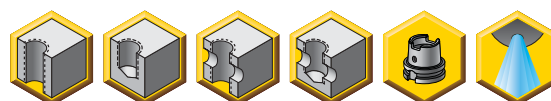


### ■ FBHO • KM™ Offset Boring Head

Hole Finishing

| order number | catalog number | BR1 bore range |               | CSMS system size | D1 |     | D2   |      | L1   |      | ModBORE FBHO parts package |
|--------------|----------------|----------------|---------------|------------------|----|-----|------|------|------|------|----------------------------|
|              |                | mm             | in            |                  | mm | in  | mm   | in   | mm   | in   |                            |
| 1131111      | KM40FBHO1660   | 9.750-53.100   | 0.3840-2.0910 | KM40             | 16 | .63 | 55,0 | 2.17 | 60,0 | 2.36 | PKG7001                    |
| 1132036      | KM50FBHO1670   | 9.750-53.100   | 0.3840-2.0910 | KM50             | 16 | .63 | 55,0 | 2.17 | 70,0 | 2.76 | PKG7001                    |

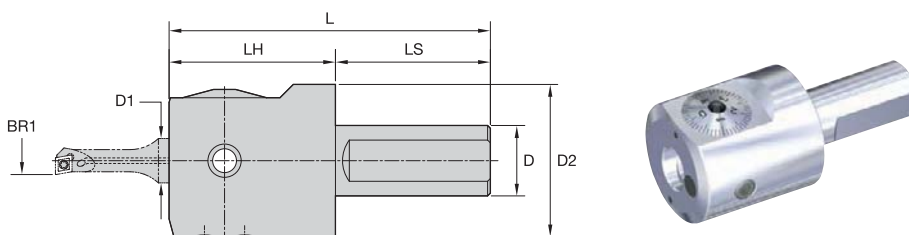
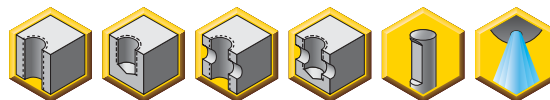
- Order boring bars separately for required diameter; see page K134–K135.
- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.



### ■ FBHO • HSK Boring Head

| order number | catalog number | BR1 bore range |               | CSMS system size | D1 |     | D2   |      | L1   |      | ModBORE FBHO parts package |
|--------------|----------------|----------------|---------------|------------------|----|-----|------|------|------|------|----------------------------|
|              |                | mm             | in            |                  | mm | in  | mm   | in   | mm   | in   |                            |
| 2651037      | HSK63FBHO1695  | 9.750-53.100   | 0.3840-2.0910 | HSK63A           | 16 | .63 | 55,0 | 2.17 | 95,0 | 3.74 | PKG7001                    |

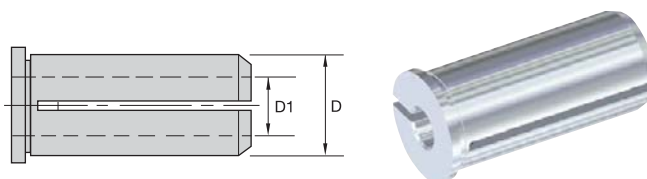
- Order boring bars separately for required diameter; see page K134–K135.



### ■ FBHO • Straight Shank Boring Head

| order number | catalog number | BR1 bore range |               | D  |       | D1 |     | D2   |      | L     |      | LH   |      | LS   |      |
|--------------|----------------|----------------|---------------|----|-------|----|-----|------|------|-------|------|------|------|------|------|
|              |                | mm             | in            | mm | in    | mm | in  | mm   | in   | mm    | in   | mm   | in   | mm   | in   |
| 3077141      | SF100FBHO1660  | 3.000-88.100   | 0.1810-3.4685 | 25 | 1.000 | 16 | .63 | 55,0 | 2.17 | 115,9 | 4.56 | 60,0 | 2.36 | 55,9 | 2.20 |
| 3077140      | SF150FBHO1660  | 3.000-88.100   | 0.1811-3.4685 | 38 | 1.500 | 16 | .63 | 55,0 | 2.17 | 131,6 | 5.18 | 60,0 | 2.36 | 71,6 | 2.82 |

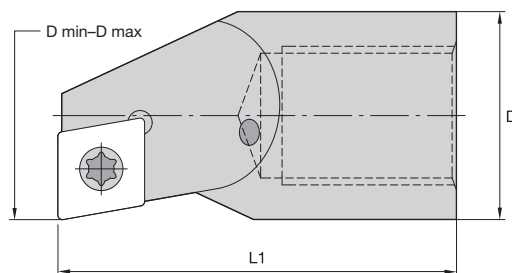
Hole Finishing



### ■ RS Series Sleeves • Metric I.D.

| order number | catalog number | D  | D1 |
|--------------|----------------|----|----|
| 2651042      | RS1605         | 16 | 5  |
| 1125092      | RS1606         | 16 | 6  |
| 1133914      | RS1608         | 16 | 8  |
| 1135642      | RS1610         | 16 | 10 |
| 1135662      | RS1612         | 16 | 12 |

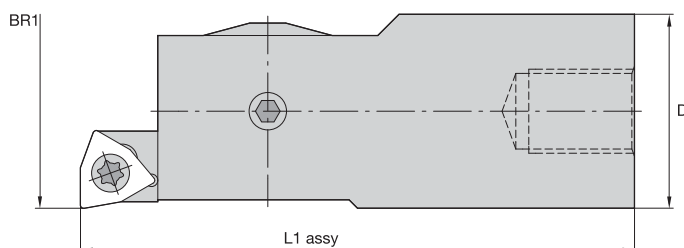
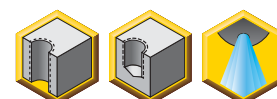
- Match boring head diameter to carbide bar diameter.
- Order inserts separately.



### Fixed Pocket Boring Head

| order number | catalog number | D min |       | D max |       | D  |     | L1 |      | gage insert          | insert screw | Torx size |
|--------------|----------------|-------|-------|-------|-------|----|-----|----|------|----------------------|--------------|-----------|
|              |                | mm    | in    | mm    | in    | mm | in  | mm | in   |                      |              |           |
| 2651168      | HFB1023SCFPR06 | 10,75 | .423  | 16,10 | .634  | 10 | .39 | 23 | 0.91 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651169      | HFB1223SCFPR06 | 12,75 | .502  | 18,10 | .713  | 12 | .47 | 23 | 0.91 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651170      | HFB1627SCFPR06 | 16,75 | .659  | 22,10 | .870  | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651171      | HFB2127SCFPR06 | 21,75 | .856  | 27,10 | 1.067 | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651172      | HFB2427SCFPR06 | 24,75 | .974  | 30,10 | 1.185 | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651173      | HFB2727SCFPR06 | 27,75 | 1.093 | 33,10 | 1.303 | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651174      | HFB3127SCFPR06 | 31,75 | 1.250 | 37,10 | 1.461 | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |
| 2651175      | HFB3427SCFPR06 | 34,75 | 1.368 | 40,10 | 1.579 | 16 | .63 | 27 | 1.06 | CC..0602../CC..215.. | PKG0011      | T7        |

- Match boring head diameter to carbide bar diameter.
- Order insert cartridge separately.



### Fine Adjustable Screw On Boring Head for Carbide Bars

| order number | catalog number | BR1 bore range |               | L1 assay |      | D  |      | cartridge mounting screw |
|--------------|----------------|----------------|---------------|----------|------|----|------|--------------------------|
|              |                | mm             | in            | mm       | in   | mm | in   |                          |
| 2651176      | HFB14FBHS1440  | 14.700-17.100  | 0.5787-0.6732 | 40,0     | 1.57 | 14 | 0.55 | PKG1402                  |
| 2651177      | HFB16FBHS1640  | 16.700-20.100  | 0.6575-0.7913 | 40,0     | 1.57 | 16 | 0.63 | PKG1602                  |
| 2651178      | HFB19FBHS1840  | 19.700-24.100  | 0.7756-0.9488 | 40,0     | 1.57 | 18 | 0.71 | PKG1802                  |

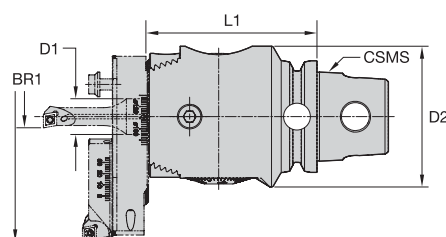
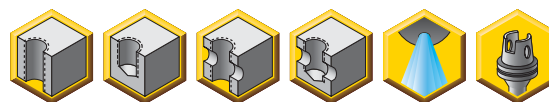
■ **FBHM Fine-Boring Kits**

| order number | catalog number    | range      |            | contents                                                                                                                                                                            |
|--------------|-------------------|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                   | mm         | in         |                                                                                                                                                                                     |
| 4057101      | KM50TSFBHMKIT164M | 9,75-164,0 | .383-6.456 | KM50TSFBHM1677<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09 |
| 4057098      | HSK63FBHMKIT164M  | 9,75-164,0 | .383-6.456 | HSK63FBHM1696<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09  |
| 4057099      | DV40FBHMKIT164M   | 9,75-164,0 | .383-6.456 | DV40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |
| 4057100      | BT40FBHMKIT164M   | 9,75-164,0 | .383-6.456 | BT40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |
| 4167882      | CV40FBHMKIT645    | 9,75-164,0 | .383-6.456 | CV40FBHM1691<br>AFB09075SCFCR06<br>AFB13085SCFCR06<br>AFB17100SCFCR06<br>AFB21110SCFCR09<br>AFB24115SCFCR09<br>AFM29115<br>AFM47115<br>EBM8015086<br>AFM29SCFPR06<br>AFM47SCFPR09   |

Hole Finishing



- Order boring bars, diameter extension bridge, and cartridges separately.
- .0004" (0,01mm) diameter adjustment  
respective .00008" (2 µm) with vernier scale.

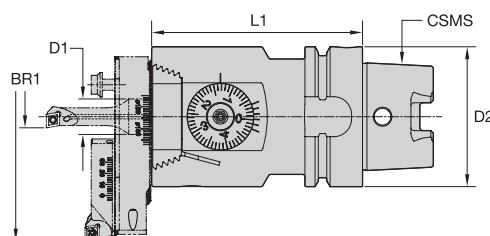
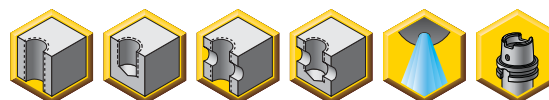


### FBHM • KM™ Boring Head

Hole Finishing

|              |                | BR1 bore range |              | CSMS system size |  | D1   |     | D2   |      | L1   |      | ModBORE FBHS parts package | kg  | lbs  |
|--------------|----------------|----------------|--------------|------------------|--|------|-----|------|------|------|------|----------------------------|-----|------|
| order number | catalog number | mm             | in           |                  |  | mm   | in  | mm   | in   | mm   | in   |                            |     |      |
| 4057060      | KM50TSFBHM1677 | 9,750-164,000  | .3838-6.4566 | KM50TS           |  | 16,0 | .63 | 63,0 | 2.48 | 76,6 | 3.02 | PKG-8001                   | 1,5 | 3.31 |

- Order boring bars, diameter extension bridge, and cartridges separately.
- .0004" (0,01mm) diameter adjustment  
respective .00008" (2 µm) with vernier scale.

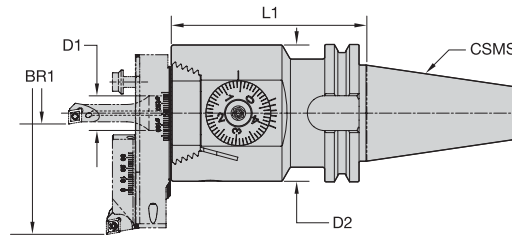
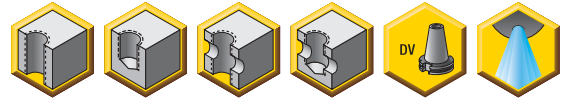


### FBHM • HSK Boring Head

|              |                | BR1 bore range |              | CSMS system size |  | D1   |     | D2   |      | L1   |      | ModBORE FBHS parts package | kg  | lbs  |
|--------------|----------------|----------------|--------------|------------------|--|------|-----|------|------|------|------|----------------------------|-----|------|
| order number | catalog number | mm             | in           |                  |  | mm   | in  | mm   | in   | mm   | in   |                            |     |      |
| 4057057      | HSK63FBHM1696  | 9,750-164,000  | .3838-6.4566 | HSK63A           |  | 16,0 | .63 | 63,0 | 2.48 | 95,0 | 3.74 | PKG-8001                   | 2,0 | 4.30 |



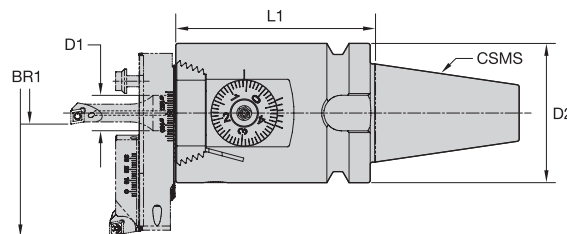
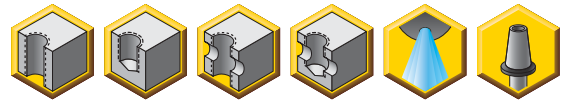
- Order boring bars, diameter extension bridge, and cartridges separately.
- .0004" (0,01mm) diameter adjustment  
respective .00008" (2 µm) with vernier scale.



### ■ FBHM • DV40 Boring Head

| order number | catalog number | BR1 bore range |              | CSMS<br>system size | D1   |       | D2   |      | L1   |      | ModBORE FBHS<br>parts package | kg  | lbs  |
|--------------|----------------|----------------|--------------|---------------------|------|-------|------|------|------|------|-------------------------------|-----|------|
|              |                | mm             | in           |                     | mm   | in    | mm   | in   | mm   | in   |                               |     |      |
| 4057058      | DV40FBHM1691   | 9,750-154,000  | .3838-6.0630 | DV40                | 16,0 | 63.00 | 63,0 | 2.48 | 90,0 | 3.54 | PKG-8001                      | 2,1 | 4.64 |

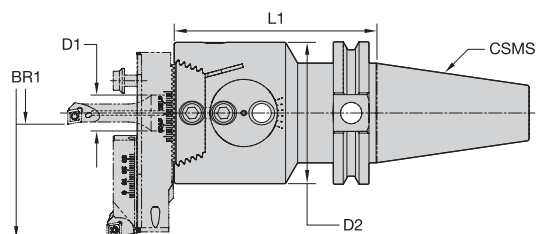
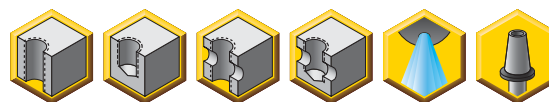
- Order boring bars, diameter extension bridge, and cartridges separately.
- .0004" (0,01mm) diameter adjustment  
respective .00008" (2 µm) with vernier scale.



### ■ FBHM • BT40 Boring Head

| order number | catalog number | BR1 bore range |              | CSMS<br>system size | D1   |     | D2   |      | L1   |      | ModBORE FBHS<br>parts package | kg  | lbs  |
|--------------|----------------|----------------|--------------|---------------------|------|-----|------|------|------|------|-------------------------------|-----|------|
|              |                | mm             | in           |                     | mm   | in  | mm   | in   | mm   | in   |                               |     |      |
| 4057059      | BT40FBHM1691   | 9,750-164,000  | .3838-6.4566 | BT40                | 16,0 | .63 | 63,0 | 2.48 | 90,0 | 3.54 | PKG-8001                      | 2,2 | 4.94 |

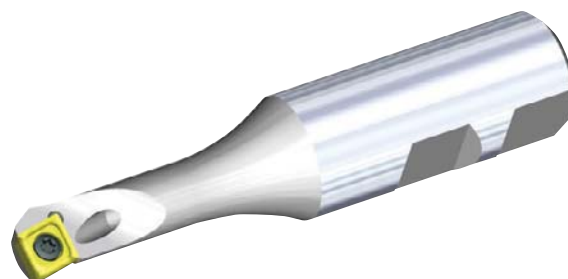
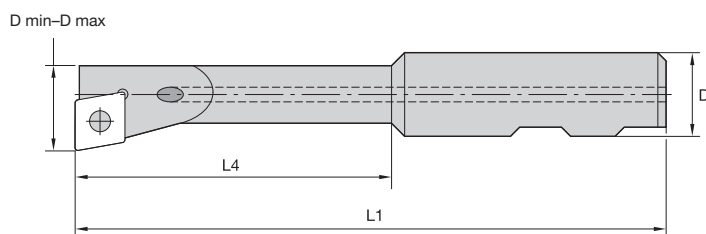
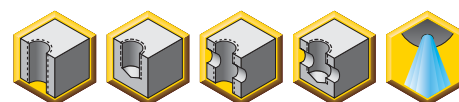
- Order boring bars, diameter extension bridge, and cartridges separately.
- .0004" (0,01mm) diameter adjustment  
respective .00008" (2 µm) with vernier scale.



### FBHM • CV40 Boring Head

| order number | catalog number | BR1 bore range |              | CSMS<br>system size | D1   |     | D2   |      | L1   |      | ModBORE FBHS<br>parts package | kg  | lbs  |
|--------------|----------------|----------------|--------------|---------------------|------|-----|------|------|------|------|-------------------------------|-----|------|
|              |                | mm             | in           |                     | mm   | in  | mm   | in   | mm   | in   |                               |     |      |
| 4167881      | CV40FBHM1691   | 9,750-164,000  | .3838-6.4566 | CV40                | 16,0 | .63 | 63,0 | 2.48 | 91,2 | 3.59 | PKG-8001                      | 2,1 | 4.52 |

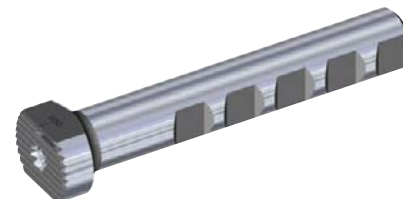
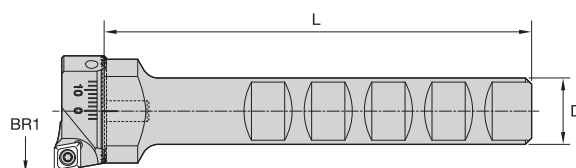
- Order inserts separately.



### FBHO/FBHM • Universal Boring Bars

| order number | catalog number  | D min |       | D max |       | D  |     | L1    |      | L4   |      | gage<br>insert       | insert<br>screw | Torx<br>size |
|--------------|-----------------|-------|-------|-------|-------|----|-----|-------|------|------|------|----------------------|-----------------|--------------|
|              |                 | mm    | in    | mm    | in    | mm | in  | mm    | in   | mm   | in   |                      |                 |              |
| 1125110      | AFB09075SCFCR06 | 9,75  | .384  | 14,75 | .581  | 16 | .63 | 75,0  | 2.95 | 30,0 | 1.18 | CC..0602../CC..215.. | PKG2025         | T7           |
| 1133883      | AFB13085SCFCR06 | 13,75 | .541  | 18,75 | .738  | 16 | .63 | 85,0  | 3.35 | 40,0 | 1.57 | CC..0602../CC..215.. | PKG2025         | T7           |
| 1133894      | AFB17100SCFCR06 | 17,75 | .699  | 22,75 | .896  | 16 | .63 | 100,0 | 3.94 | 55,0 | 2.17 | CC..0602../CC..215.. | PKG2025         | T7           |
| 1137835      | AFB21110SCFCR09 | 21,75 | .856  | 26,75 | 1.053 | 16 | .63 | 110,0 | 4.33 | 60,0 | 2.36 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 1128324      | AFB24115SCFCR09 | 24,75 | .974  | 29,75 | 1.171 | 16 | .63 | 115,0 | 4.53 | 65,0 | 2.56 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 1126838      | AFB27115SCFCR09 | 27,75 | 1.093 | 32,75 | 1.289 | 16 | .63 | 115,0 | 4.53 | 70,0 | 2.76 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 1120731      | AFB31115SCFCR09 | 31,75 | 1.250 | 36,75 | 1.447 | 16 | .63 | 115,0 | 4.53 | 70,0 | 2.76 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 1127271      | AFB34115SCFCR09 | 34,75 | 1.368 | 39,75 | 1.565 | 16 | .63 | 115,0 | 4.53 | 70,0 | 2.76 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 2651038      | AFB38115SCFPR09 | 38,75 | 1.526 | 44,10 | 1.736 | 16 | .63 | 115,0 | 4.53 | 85,0 | 3.35 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 2651039      | AFB42115SCFPR09 | 42,75 | 1.683 | 48,10 | 1.894 | 16 | .63 | 115,0 | 4.53 | 85,0 | 3.35 | CC..09T3../CC..325.. | PKG3242         | T15          |
| 2651040      | AFB47115SCFPR09 | 47,75 | 1.880 | 53,10 | 2.091 | 16 | .63 | 115,0 | 4.53 | 85,0 | 3.35 | CC..09T3../CC..325.. | PKG3242         | T15          |

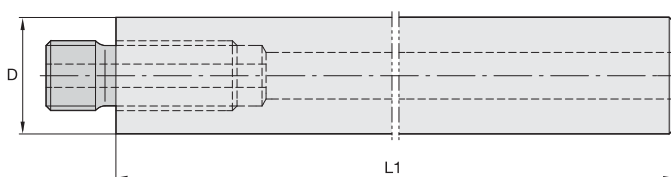
- Order AFM insert cartridge separately.



### ■ FBHO/FBHM • AFM Boring Bars

| order number | catalog number | BR1 bore range |               | D    |     | D2   |      | L       |      |
|--------------|----------------|----------------|---------------|------|-----|------|------|---------|------|
|              |                | mm             | in            | mm   | in  | mm   | in   | mm      | in   |
| 4057061      | AFM29115       | 29.750-48.100  | 1.1712-1.8940 | 16,0 | .63 | 25,0 | .98  | 103,000 | 4.06 |
| 4057062      | AFM47115       | 47.750-88.100  | 1.8800-3.4680 | 16,0 | .63 | 44,0 | 1.73 | 101,580 | 4.00 |

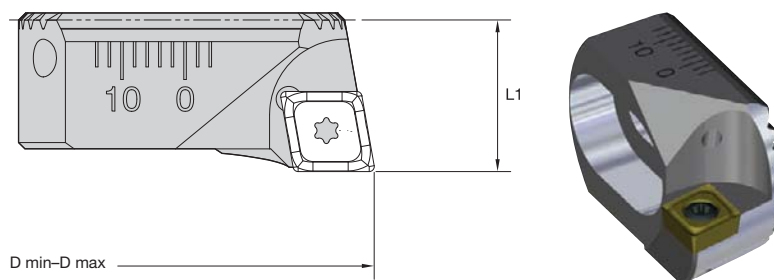
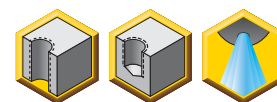
Hole Finishing



### ■ Carbide Shanks for Screw-On Boring Heads

| order number | catalog number | D  |     | L1  |      |
|--------------|----------------|----|-----|-----|------|
|              |                | mm | in  | mm  | in   |
| 2651163      | CFB10082       | 10 | .39 | 82  | 3.23 |
| 2651164      | CFB12096       | 12 | .47 | 96  | 3.78 |
| 2651165      | CFB14110       | 14 | .55 | 110 | 4.33 |
| 2651166      | CFB16120       | 16 | .63 | 120 | 4.72 |
| 2651167      | CFB18140       | 18 | .71 | 140 | 5.51 |

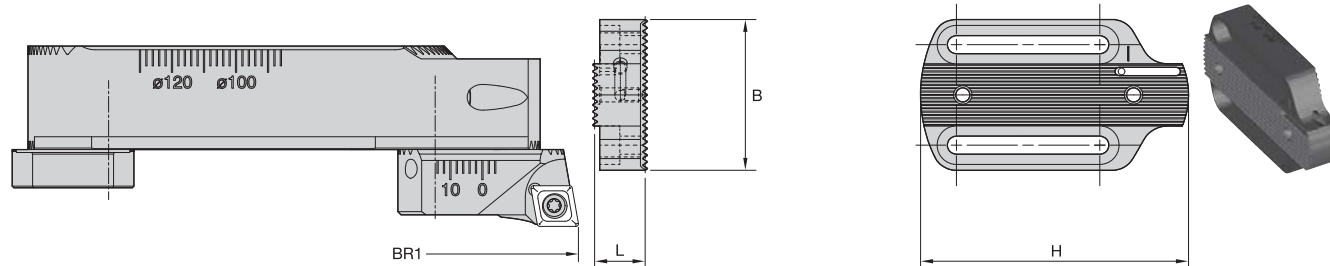
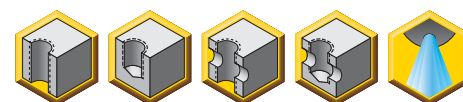
- For use with AFM boring bars.
- Order inserts separately.



### AFM • Insert Cartridges

| order number | catalog number | D min |       | D max |       | L1   |      | gage insert           | ModBORE parts package | insert screw ID drive size |
|--------------|----------------|-------|-------|-------|-------|------|------|-----------------------|-----------------------|----------------------------|
|              |                | mm    | in    | mm    | in    | mm   | in   |                       |                       |                            |
| 4057093      | AFM29SCFPR06   | 29,75 | 1.171 | 48,10 | 1.894 | 12,0 | .472 | CC..0602../CC..2151.. | PKG2025               | T7                         |
| 4057094      | AFM47SCFPR09   | 47,75 | 1.880 | 88,10 | 3.469 | 14,0 | .551 | CC..09T3../CC..3252.. | PKG3242               | T15                        |

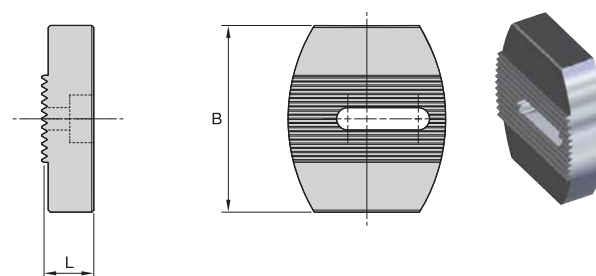
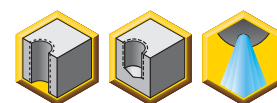
- For use with FBHM insert holders and FBHM counterweight.
- Order AFM47SCFPR09 insert cartridge separately to achieve diameter range.



### FBHM • Extension Bridge

| order number | catalog number | BR1 bore range  |                | B    |      | H     |      | L    |     |
|--------------|----------------|-----------------|----------------|------|------|-------|------|------|-----|
|              |                | mm              | in             | mm   | in   | mm    | in   | mm   | in  |
| 4057095      | EBM8015086     | 86.000-164.000  | 3.3900-6.4600  | 45,0 | 1.77 | 80,0  | 3.15 | 15,0 | .59 |
| 4168063      | EBM1580160162  | 162.000-320.000 | 6.3778-12.5984 | 45,0 | 1.77 | 158,0 | 6.22 | 16,2 | .64 |

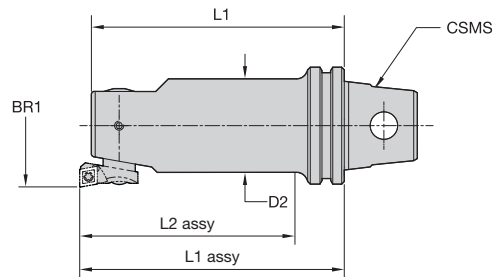
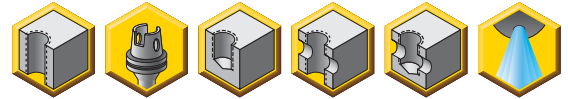
- For use with FBHM extension bridge.



### FBHM • Counterweight

| order number | catalog number | B  |      | L  |     |
|--------------|----------------|----|------|----|-----|
|              |                | mm | in   | mm | in  |
| 4057096      | 886038045      | 45 | 1.77 | 12 | .47 |

- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see page K140.



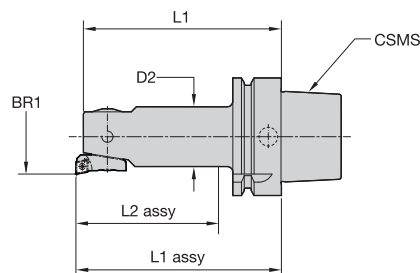
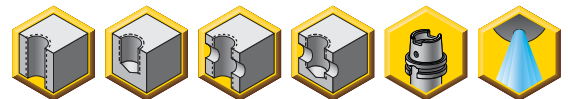
### ■ FBHS • KM™ Fine-Boring Single Cutters

| order number | catalog number | BR1 bore range  |               | CSMS system size | D2   |      | L1    |      | L1 assay |      | L2 assay |      | cartridge mounting screw | lock screw  |
|--------------|----------------|-----------------|---------------|------------------|------|------|-------|------|----------|------|----------|------|--------------------------|-------------|
|              |                | mm              | in            |                  | mm   | in   | mm    | in   | mm       | in   | mm       | in   |                          |             |
| 3586572      | KM32FBHS24     | 23,900-37,100   | 0.9409-1.4606 | KM32             | 20,0 | .79  | 86,0  | 3.39 | 90,0     | 3.54 | 76,1     | 2.99 | 880.252.200              | 881.252.200 |
| 3586573      | KM32FBHS31     | 30,900-47,100   | 1.2165-1.8543 | KM32             | 25,0 | .98  | 96,0  | 3.78 | 100,0    | 3.94 | 86,1     | 3.39 | 880.252.250              | 881.252.250 |
| 3586574      | KM40FBHS40     | 39,900-59,100   | 1.5709-2.3268 | KM40             | 32,0 | 1.26 | 86,0  | 3.39 | 90,0     | 3.54 | 74,0     | 2.92 | 880.252.320              | 881.252.320 |
| 3586575      | KM50FBHS51     | 50,900-81,100   | 2.0039-3.1929 | KM50             | 42,0 | 1.65 | 86,0  | 3.39 | 90,0     | 3.54 | 70,0     | 2.76 | 880.252.420              | 881.252.420 |
| 3586576      | KM50FBHS67     | 66,900-105,100  | 2.6339-4.1378 | KM50             | 55,0 | 2.17 | 96,0  | 3.78 | 100,0    | 3.94 | 100,0    | 3.94 | 880.252.550              | 881.252.550 |
| 3586577      | KM50FBHS87     | 86,900-134,100  | 3.4213-5.2795 | KM50             | 72,0 | 2.84 | 116,0 | 4.57 | 120,0    | 4.72 | 120,0    | 4.72 | 880.252.550              | 881.252.720 |
| 3586578      | KM63UTFBHS87   | 86,900-134,100  | 3.4213-5.2795 | KM63UT           | 72,0 | 2.84 | 116,0 | 4.57 | 120,0    | 4.72 | 120,0    | 4.72 | 880.252.550              | 881.252.720 |
| 3586579      | KM63UTFBHS116  | 115,900-191,100 | 4.5630-7.5236 | KM63UT           | 94,0 | 3.70 | 146,0 | 5.75 | 150,0    | 5.91 | 150,0    | 5.91 | 880.252.550              | 881.252.940 |



Hole Finishing

- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see page K140.

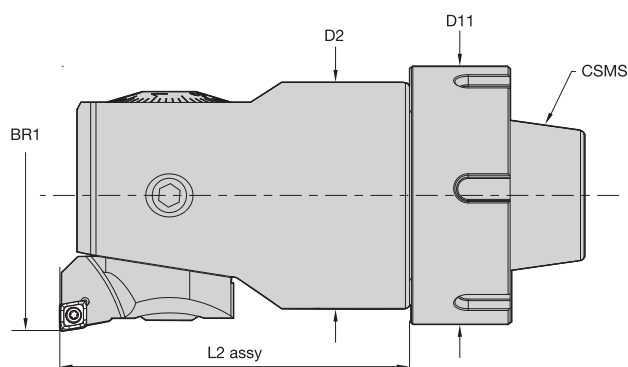
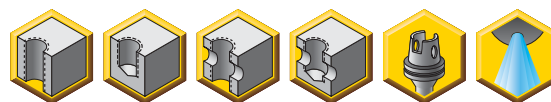


### ■ FBHS • HSK Fine-Boring Single Cutters

| order number | catalog number | BR1 bore range |               | CSMS system size | D2   |      | L1    |      | L1 assay |      | L2 assay |      | cartridge mounting screw | lock screw  |
|--------------|----------------|----------------|---------------|------------------|------|------|-------|------|----------|------|----------|------|--------------------------|-------------|
|              |                | mm             | in            |                  | mm   | in   | mm    | in   | mm       | in   | mm       | in   |                          |             |
| 3586580      | HSK63FBHS24    | 23,900-37,100  | 0.9409-1.4606 | HSK63A           | 20,0 | .79  | 86,0  | 3.39 | 90,0     | 3.54 | 61,1     | 2.40 | 880.252.200              | 881.252.200 |
| 3586581      | HSK63FBHS31    | 30,900-47,100  | 1.2165-1.8543 | HSK63A           | 25,0 | .98  | 101,0 | 3.98 | 105,0    | 4.13 | 76,1     | 2.99 | 880.252.250              | 881.252.250 |
| 3586582      | HSK63FBHS40    | 39,900-59,100  | 1.5709-2.3268 | HSK63A           | 32,0 | 1.26 | 106,0 | 4.17 | 110,0    | 4.33 | 81,1     | 3.19 | 880.252.320              | 881.252.320 |
| 3586583      | HSK63FBHS51    | 50,900-81,100  | 2.0039-3.1929 | HSK63A           | 42,0 | 1.65 | 116,0 | 4.57 | 120,0    | 4.72 | 91,1     | 3.58 | 880.252.420              | 881.252.420 |
| 3586584      | HSK63FBHS67    | 66,900-105,100 | 2.6339-4.1378 | HSK63A           | 55,0 | 2.17 | 121,0 | 4.76 | 125,0    | 4.92 | 99,1     | 3.90 | 880.252.550              | 881.252.550 |
| 3586585      | HSK63FBHS87    | 86,900-134,100 | 3.4213-5.2795 | HSK63A           | 72,0 | 2.84 | 141,0 | 5.55 | 145,0    | 5.71 | 145,0    | 5.71 | 880.252.550              | 881.252.720 |



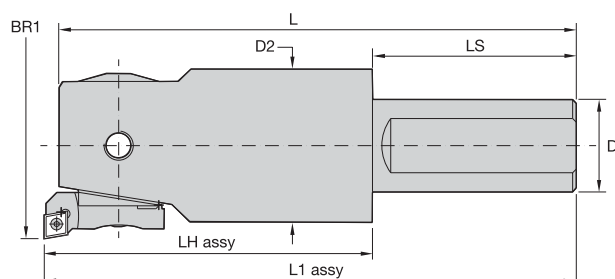
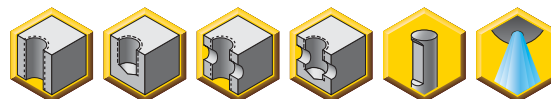
- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see page K140.



### ■ FBHS • ER Fine-Boring Single Cutters

| order number | catalog number | BR1 bore range |               | CSMS system size | D11  |      | D2   |      | L2 assy |      | cartridge mounting screw | lock screw  |
|--------------|----------------|----------------|---------------|------------------|------|------|------|------|---------|------|--------------------------|-------------|
|              |                | mm             | in            |                  | mm   | in   | mm   | in   | mm      | in   |                          |             |
| 5544149      | ER25FBHS40     | 39,900-59,100  | 1.5700-2.3260 | ER25             | 39,0 | 1.54 | 32,0 | 1.26 | 65,5    | 2.58 | 880.252.320              | 881.252.320 |
| 5544191      | ER32FBHS51     | 50,900-81,100  | 2.0030-3.1920 | ER32             | 49,5 | 1.95 | 42,0 | 1.65 | 75,5    | 2.97 | 880.252.420              | 881.252.420 |
| 5544193      | ER40FBHS67     | 66,900-105,100 | 2.6330-4.1370 | ER40             | 62,7 | 2.47 | 55,0 | 2.17 | 85,5    | 3.37 | 880.252.550              | 881.252.550 |

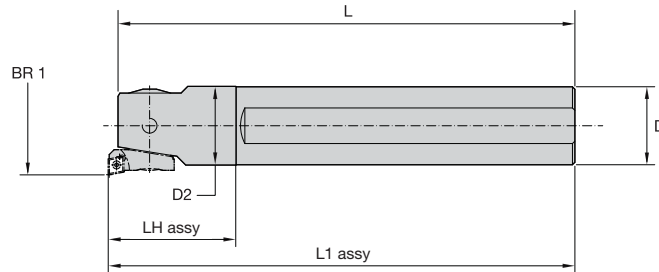
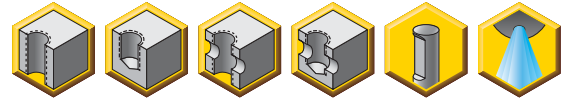
- .0004" (0.01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see page K140.



### ■ FBHS • Straight Shank Fine-Boring Single Cutters

| order number | catalog number | BR1 bore range  |               | D    | D2   | L    | LH assy | L1 assy | LS     | cartridge mounting screw | lock screw  |
|--------------|----------------|-----------------|---------------|------|------|------|---------|---------|--------|--------------------------|-------------|
|              |                | mm              | in            |      |      |      |         |         |        |                          |             |
| 3586586      | SF075FBHS24    | 23,900-37,100   | 0.9409-1.4606 | .75  | .79  | 5.75 | 1.65    | 5.91    | 4.2370 | 880.252.200              | 881.252.200 |
| 3586587      | SF100FBHS31    | 30,900-47,100   | 1.2165-1.8543 | 1.00 | .98  | 6.54 | 1.85    | 6.69    | .8940  | 880.252.250              | 881.252.250 |
| 3586588      | SF125FBHS40    | 39,900-59,100   | 1.5709-2.3268 | 1.25 | 1.26 | 7.32 | 2.05    | 7.48    | 5.4130 | 880.252.320              | 881.252.320 |
| 3586589      | SF100FBHS51    | 50,900-81,100   | 2.0039-3.1929 | 1.00 | 1.65 | 5.59 | 3.54    | 5.74    | 2.2008 | 880.252.420              | 881.252.420 |
| 3586590      | SF125FBHS67    | 66,900-105,100  | 2.6339-4.1378 | 1.25 | 2.17 | 6.17 | 3.94    | 6.33    | 2.3898 | 880.252.550              | 881.252.550 |
| 3586591      | SF150FBHS87    | 86,900-134,100  | 3.4213-5.2795 | 1.50 | 2.84 | 7.39 | 4.72    | 7.54    | 2.8189 | 880.252.550              | 881.252.720 |
| 3586592      | SF200FBHS116   | 115,900-191,100 | 4.5630-7.5236 | 2.00 | 3.70 | 9.13 | 5.91    | 9.29    | 3.3819 | 880.252.550              | 881.252.940 |

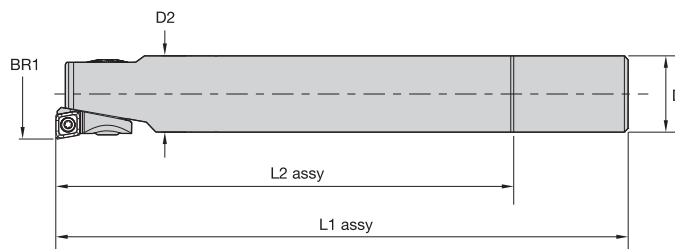
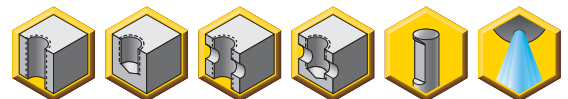
- 0.0004" (0,01mm) diameter adjustment respective 0.00008" (2 µm) with vernier scale.
- Order insert cartridges separately for required bore range, see page K140.



### ■ FBHS • Fine Boring Single Cutters • Carbide Straight Shank Series

| order number | catalog number | BR1 bore range |               | D    | D2   | L     | LH assy | L1 assy | cartridge mounting screw | lock screw  |
|--------------|----------------|----------------|---------------|------|------|-------|---------|---------|--------------------------|-------------|
|              |                | mm             | in            |      |      |       |         |         |                          |             |
| 3586593      | SSE075FBHS24   | 23,900-37,100  | 0.9409-1.4606 | .75  | .79  | 9.69  | 3.15    | 9.84    | 880.252.200              | 881.252.200 |
| 3586594      | SSE100FBHS31   | 30,900-47,100  | 1.2165-1.8543 | 1.00 | .98  | 11.89 | 3.94    | 12.05   | 880.252.250              | 881.252.250 |
| 3586595      | SSE125FBHS40   | 39,900-59,100  | 1.5709-2.3268 | 1.25 | 1.26 | 14.80 | 5.04    | 14.96   | 880.252.320              | 881.252.320 |

- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see page K140.

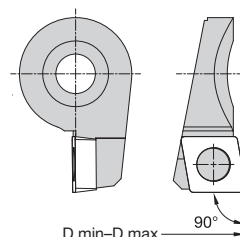


### ■ FBHS • Straight Shank Fine-Boring Single Cutters • Metric

|              |                | BR1 bore range |               |      |     |      |     |       |      |         |      |  |             |  |  |
|--------------|----------------|----------------|---------------|------|-----|------|-----|-------|------|---------|------|---------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------|--|
| order number | catalog number | mm             |               | in   |     | D    |     | D2    |      | L1 assy |      | L2 assy                                                                               |             |                                                                                       |  |
|              |                |                |               |      |     | mm   | in  | mm    | in   | mm      | in   | mm                                                                                    | in          |                                                                                       |  |
| 5544144      | SS20FBHS24     | 23,900-37,100  | 0.9400-1.4600 | 20,0 | .79 | 20,0 | .79 | 150,0 | 5.10 | 120,0   | 4.72 | 880.252.200                                                                           | 881.252.200 |                                                                                       |  |
| 5544146      | SS25FBHS31     | 30,900-47,100  | 1.2160-1.8540 | 25,0 | .98 | 25,0 | .98 | 170,0 | 6.69 | 140,0   | 5.51 | 880.252.250                                                                           | 881.252.250 |                                                                                       |  |



- Order inserts separately.



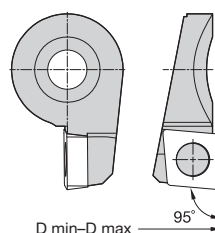
■ 90° Lead • Insert Holders for FBHS Fine-Boring Heads

Hole Finishing

| order number | catalog number | D min | D max | gage insert          | Torx size | insert screw |
|--------------|----------------|-------|-------|----------------------|-----------|--------------|
| 1137487      | R24FBHS06      | 23,9  | 31,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 2649548      | R30FBHS06      | 29,9  | 37,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 1133669      | R31FBHS06      | 30,9  | 40,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 2649549      | R38FBHS06      | 37,9  | 47,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 1135369      | R40FBHS06      | 39,9  | 51,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 2649550      | R48FBHS06      | 47,9  | 59,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 1137479      | R51FBHS06      | 50,9  | 67,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 2649551      | R65FBHS06      | 64,9  | 81,1  | CC..0602../CC..215.. | T7        | 843.006.000  |
| 1834274      | R67FBHS06      | 66,9  | 153,1 | CC..0602../CC..215.. | T7        | 843.006.000  |
| 1137505      | R67FBHS09      | 66,9  | 153,1 | CC..09T3../CC..325.. | T15       | 843.009.000  |
| 2649552      | R85FBHS06      | 84,9  | 171,1 | CC..0602../CC..215.. | T7        | 843.006.000  |
| 2649553      | R85FBHS09      | 84,9  | 171,1 | CC..09T3../CC..325.. | T15       | 843.009.000  |
| 2649554      | R125FBHS09     | 153,9 | 191,1 | CC..09T3../CC..325.. | T15       | 843.009.000  |



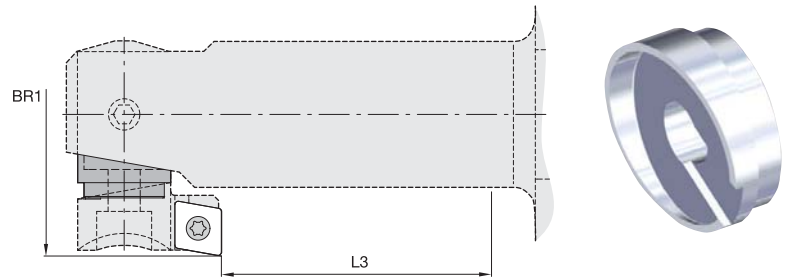
- Order inserts separately.



■ 95° Lead • Insert Holders for FBHS

| order number | catalog number | D min | D max | gage insert          | insert screw ID drive size | insert screw |
|--------------|----------------|-------|-------|----------------------|----------------------------|--------------|
| 2649555      | R24FBHS06LF    | 23,9  | 31,1  | CC..0602../CC..215.. | T7                         | 843.006.000  |
| 2649556      | R31FBHS06LF    | 30,9  | 40,1  | CC..0602../CC..215.. | T7                         | 843.006.000  |
| 2649557      | R40FBHS06LF    | 39,9  | 51,1  | CC..0602../CC..215.. | T7                         | 843.006.000  |
| 2649558      | R51FBHS06LF    | 50,9  | 67,1  | CC..0602../CC..215.. | T7                         | 843.006.000  |
| 2649559      | R67FBHS09LF    | 66,9  | 153,1 | CC..09T3../CC..325.. | T15                        | 843.009.000  |





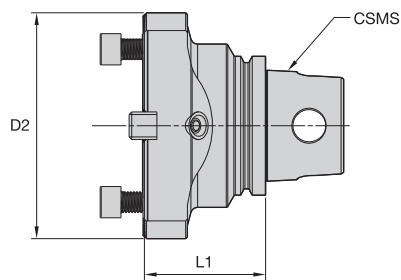
## ■ Reversal Adapters

| reversal adapter<br>catalog number | use with cartridges |           |             |                         | L3   |       |
|------------------------------------|---------------------|-----------|-------------|-------------------------|------|-------|
|                                    | 90° lead            | 90° lead  | 95° lead    | fine boring head series | mm   | inch  |
| R37FBHSRB                          | R24FBHS06           | —         | R24FBHS06LF | ..FBHS24                | 13,0 | 0.512 |
| R40FBHSRB                          | R30FBHS06           | —         | —           | ..FBHS24                | 13,0 | 0.512 |
| R44FBHSRB                          | R31FBHS06           | —         | R31FBHS06LF | ..FBHS31                | 17,6 | 0.693 |
| R51FBHSRB                          | R38FBHS06           | —         | —           | ..FBHS31                | 17,6 | 0.693 |
| R53FBHSRB                          | R40FBHS06           | —         | R40FBHS06LF | ..FBHS40                | 31,3 | 1.232 |
| R60FBHSRB                          | R48FBHS06           | —         | —           | ..FBHS40                | 31,3 | 1.232 |
| R64FBHSRB                          | R51FBHS06           | —         | R51FBHS06LF | ..FBHS51                | 49,2 | 1.937 |
| R75FBHSRB                          | R65FBHS06           | —         | —           | ..FBHS51                | 49,2 | 1.937 |
| R87FBHSRB                          | R67FBHS06           | R67FBHS09 | R67FBHS09LF | ..FBHS-67               | 62,0 | 2.441 |

NOTE: Use the chart above to match the insert holder to the reversal adapter.

## ModBORE™ Bridge Boring Systems

- Extension bridge required.
- Order extension bridge separately; see pages K143–K144.
- Match adapter and extension bridge series.

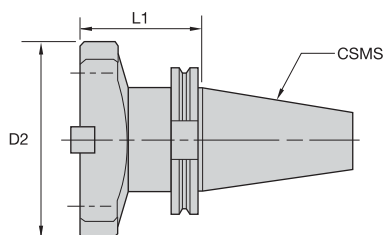


## ■ KM™ Bridge Tool Adapters

| order number | catalog number | CSMS<br>system size | extension<br>bridge series | D2    |      | L1   |      | spare parts<br>package | socket-head<br>cap screw |
|--------------|----------------|---------------------|----------------------------|-------|------|------|------|------------------------|--------------------------|
|              |                |                     |                            | mm    | in   | mm   | in   |                        |                          |
| 1135802      | KM63BT13065    | KM63                | A                          | 130,0 | 5.12 | 65,0 | 2.56 | PKG1565                | MS1085PKG                |
| 1197315      | KM80BT13070    | KM80                | B,A                        | 130,0 | 5.12 | 70,0 | 2.76 | PKG1565                | MS1085PKG                |



- Extension bridge required.
- Order extension bridge separately; see pages K143–K144.
- Order coolant cartridge set separately.
- Match adapter and extension bridge series.



### CV Bridge Tool Adapters

| order number | catalog number | CSMS<br>system size | extension<br>bridge series | D2    |      | L1   |      | spare parts<br>package | socket-head<br>cap screw |
|--------------|----------------|---------------------|----------------------------|-------|------|------|------|------------------------|--------------------------|
|              |                |                     |                            | mm    | in   | mm   | in   |                        |                          |
| 1122185      | CV50BT13069    | CV50                | A,B,C                      | 130,0 | 5.12 | 69,1 | 2.72 | PKG1565                | MS1085PKG                |



### BT Bridge Tool Adapters

| order number | catalog number | CSMS<br>system size | extension<br>bridge series | D2    |      | L1   |      | spare parts<br>package | socket-head<br>cap screw |
|--------------|----------------|---------------------|----------------------------|-------|------|------|------|------------------------|--------------------------|
|              |                |                     |                            | mm    | in   | mm   | in   |                        |                          |
| 1121711      | BT50BT13088    | BT50                | A,B,C                      | 130,0 | 5.12 | 88,0 | 3.46 | PKG1565                | MS1085PKG                |

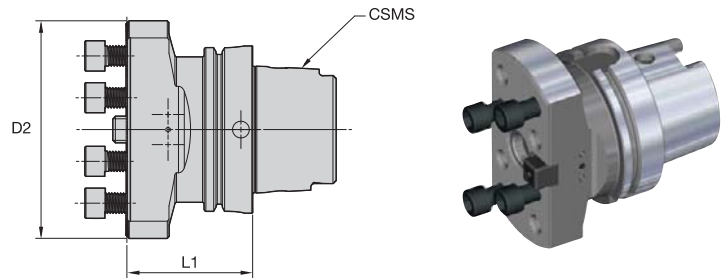


### DV Bridge Tool Adapters

| order number | catalog number | CSMS<br>system size | extension<br>bridge series | D2    |      | L1   |      | spare parts<br>package | socket-head<br>cap screw |
|--------------|----------------|---------------------|----------------------------|-------|------|------|------|------------------------|--------------------------|
|              |                |                     |                            | mm    | in   | mm   | in   |                        |                          |
| 1263825      | DV40BT13069    | DV40                | A                          | 130,0 | 5.12 | 69,1 | 2.72 | PKG1565                | MS1085PKG                |
| 1133581      | DV50BT13069    | DV50                | A,B,C                      | 130,0 | 5.12 | 69,1 | 2.72 | PKG1565                | MS1085PKG                |



- Extension bridge required.
- Order extension bridge separately; see pages K143–K144.
- Match adapter and extension bridge series.

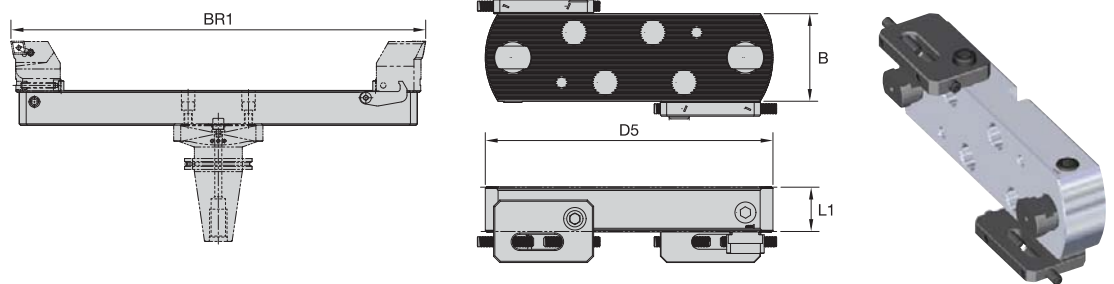


## ■ HSK Bridge Tool Adapters

| order number | catalog number | CSMS<br>system size | extension<br>bridge series | D2    |      | L1   |      | spare parts<br>package | socket-head<br>cap screw |
|--------------|----------------|---------------------|----------------------------|-------|------|------|------|------------------------|--------------------------|
|              |                |                     |                            | mm    | in   | mm   | in   |                        |                          |
| 4062112      | HSK100BT13075  | HSK100A             | A,B,C                      | 130,0 | 5.12 | 75,0 | 2.95 | PKG1565                | MS1085PKG                |

NOTE: Tool adapters combined with small-scale extension bridges cover boring range 5.91–25.79" (150–655mm).  
Tool adapters combined with large-scale extension bridge and bridge slides cover boring range from 25.59–86.81" (650–2205mm).

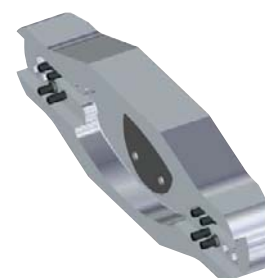
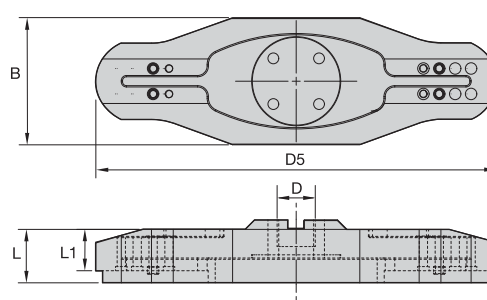
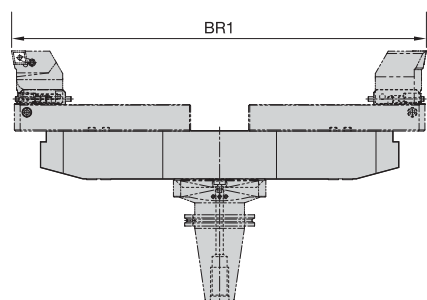
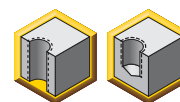
- Match extension bridge series to adapter.



## ■ Small-Scale Extension Bridges

| order number | catalog number | BR1 bore range  |                 | max<br>RPM | extension<br>bridge series | B    |      | D5    |       | L1   |      | spare parts<br>package | hex<br>size | kg    | lbs   |
|--------------|----------------|-----------------|-----------------|------------|----------------------------|------|------|-------|-------|------|------|------------------------|-------------|-------|-------|
|              |                | mm              | in              |            |                            | mm   | in   | mm    | in    | mm   | in   |                        |             |       |       |
| 1133280      | EB13030150     | 150.000-205.000 | 5.9055-8.0709   | 1250       | A                          | 70,0 | 2.76 | 130,0 | 5.12  | 30,0 | 1.18 | PKG156502              | 8 mm        | 1,95  | 4.30  |
| 1125085      | EB18030200     | 200.000-255.000 | 7.8740-10.0394  | 1000       | A                          | 70,0 | 2.76 | 180,0 | 7.09  | 30,0 | 1.18 | PKG156502              | 8 mm        | 2,77  | 6.10  |
| 1132857      | EB23035250     | 250.000-305.000 | 9.8425-12.0079  | 850        | B                          | 70,0 | 2.76 | 230,0 | 9.06  | 35,0 | 1.38 | PKG156502              | 8 mm        | 4,00  | 8.80  |
| 1126830      | EB28035300     | 300.000-355.000 | 11.8110-13.9764 | 700        | B                          | 70,0 | 2.76 | 280,0 | 11.02 | 35,0 | 1.38 | PKG156502              | 8 mm        | 5,14  | 11.30 |
| 1121703      | EB33040350     | 350.000-405.000 | 13.7795-15.9449 | 600        | B                          | 70,0 | 2.76 | 330,0 | 12.99 | 40,0 | 1.57 | PKG156502              | 8 mm        | 6,86  | 15.10 |
| 1140602      | EB38040400     | 400.000-455.000 | 15.7480-17.9134 | 530        | C                          | 70,0 | 2.76 | 380,0 | 14.96 | 40,0 | 1.57 | PKG156502              | 8 mm        | 7,95  | 17.50 |
| 1121036      | EB43040450     | 450.000-505.000 | 17.7165-19.8819 | 480        | C                          | 70,0 | 2.76 | 430,0 | 16.93 | 40,0 | 1.57 | PKG156502              | 8 mm        | 9,23  | 20.30 |
| 1270619      | EB48040500     | 500.000-550.000 | 19.6850-21.8504 | 440        | C                          | 70,0 | 2.76 | 480,0 | 18.90 | 40,0 | 1.57 | PKG156502              | 8 mm        | 10,23 | 22.50 |
| 1270620      | EB53050550     | 550.000-605.000 | 21.6535-23.8189 | 400        | C                          | 70,0 | 2.76 | 530,0 | 20.87 | 50,0 | 1.97 | PKG156502              | 8 mm        | 13,91 | 30.60 |
| 1270621      | EB58050600     | 600.000-655.000 | 23.6220-25.7874 | 370        | C                          | 70,0 | 2.76 | 580,0 | 22.84 | 50,0 | 1.97 | PKG156502              | 8 mm        | 15,32 | 33.70 |

- For use with shell mill adapters or direct connection to the machine spindle.
- Order bridge slides separately.

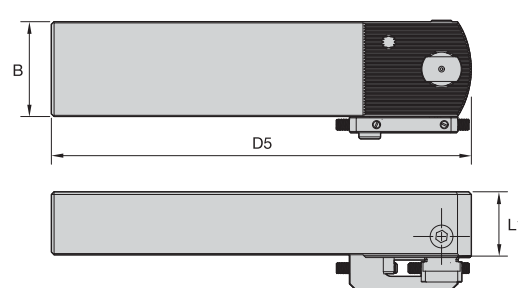
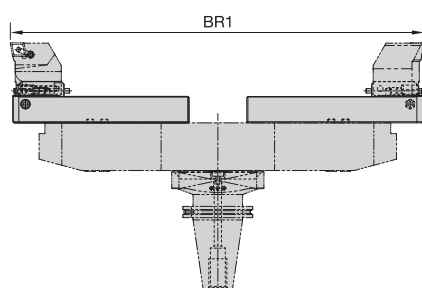


## Large Scale Extension Bridge

| order number | catalog number | BR1 bore range    |                 | D    |      | D5     |       | B     |      | L    |      | L1   |      | kg    | lbs   |
|--------------|----------------|-------------------|-----------------|------|------|--------|-------|-------|------|------|------|------|------|-------|-------|
|              |                | mm                | in              | mm   | in   | mm     | in    | mm    | in   | mm   | in   | mm   | in   |       |       |
| 4057204      | EB630128650    | 650.000-1105.000  | 25.5900-43.5000 | 60,0 | 2.36 | 630,0  | 24.80 | 200,0 | 7.87 | 99,0 | 3.90 | 84,0 | 3.31 | 17,20 | 37.84 |
| 4057205      | EB10801281100  | 1100.000-1655.000 | 43.3100-65.1600 | 60,0 | 2.36 | 1080,0 | 42.52 | 200,0 | 7.87 | 99,0 | 3.90 | 84,0 | 3.31 | 28,10 | 61.82 |
| 4057206      | EB16301281650  | 1650.000-2205.000 | 64.9600-86.8100 | 60,0 | 2.36 | 1630,0 | 64.17 | 200,0 | 7.87 | 99,0 | 3.90 | 84,0 | 3.31 | 43,00 | 94.60 |

| max RPM             |                     |             | max RPM             |                     |             | max RPM             |                     |             |
|---------------------|---------------------|-------------|---------------------|---------------------|-------------|---------------------|---------------------|-------------|
| BR1 bore range (mm) | BR1 bore range inch | maximum RPM | BR1 bore range (mm) | BR1 bore range inch | maximum RPM | BR1 bore range (mm) | BR1 bore range inch | maximum RPM |
| 650-705             | 25.59-27.76         | 300         | 1100-1155           | 43.31-45.47         | 170         | 1650-1705           | 64.96-67.13         | 95          |
| 700-755             | 27.56-29.72         | 285         | 1150-1205           | 45.28-47.44         | 163         | 1700-1755           | 66.93-69.09         | 90          |
| 750-805             | 29.53-31.69         | 270         | 1200-1255           | 47.24-49.41         | 156         | 1750-1805           | 68.90-71.06         | 85          |
| 800-855             | 31.50-33.66         | 255         | 1250-1305           | 49.21-51.38         | 149         | 1800-1855           | 70.87-73.03         | 80          |
| 850-905             | 33.46-35.63         | 240         | 1300-1355           | 51.18-53.35         | 142         | 1850-1905           | 72.83-75.00         | 75          |
| 900-955             | 35.43-37.60         | 225         | 1350-1405           | 53.15-55.31         | 135         | 1900-1955           | 74.80-76.97         | 70          |
| 950-1005            | 37.40-39.57         | 210         | 1400-1455           | 55.12-57.28         | 128         | 1950-2005           | 76.77-78.94         | 65          |
| 1000-1055           | 39.37-41.54         | 195         | 1450-1505           | 57.09-59.25         | 121         | 2000-2055           | 78.74-80.91         | 60          |
| 1050-1105           | 41.34-43.50         | 180         | 1500-1555           | 59.06-61.22         | 114         | 2050-2105           | 80.71-82.87         | 55          |
|                     |                     |             | 1550-1605           | 61.02-63.19         | 107         | 2100-2155           | 82.68-84.84         | 50          |
|                     |                     |             | 1600-1655           | 62.99-65.16         | 100         | 2150-2205           | 84.65-86.81         | 45          |

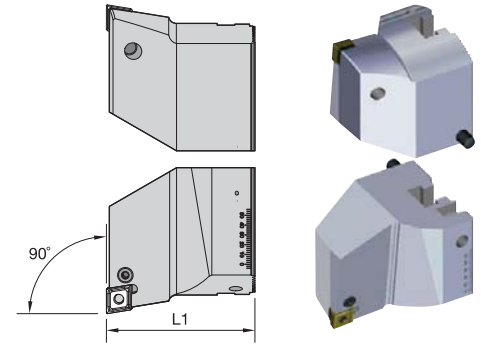
- For use with large-scale bridge extensions.
- Delivered as a set of two.



## Bridge Slides

| order number | catalog number | BR1 bore range    |                 | B    |      | D5    |       | L1   |      | spare parts package | kg   | lbs   |
|--------------|----------------|-------------------|-----------------|------|------|-------|-------|------|------|---------------------|------|-------|
|              |                | mm                | in              | mm   | in   | mm    | in    | mm   | in   |                     |      |       |
| 4057207      | EBSLD1105      | 650.000-1105.000  | 25.5900-43.5000 | 70,0 | 2.76 | 310,0 | 12.20 | 48,0 | 1.89 | PKG156502           | 7,00 | 15.40 |
| 4057208      | EBSLD2205      | 1100.000-2205.000 | 43.3100-86.8100 | 70,0 | 2.76 | 360,0 | 14.17 | 48,0 | 1.89 | PKG156502           | 7,90 | 17.38 |

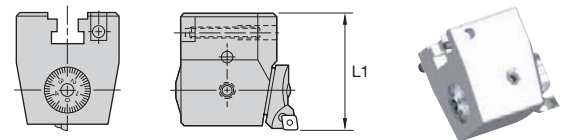
- Packaged as a matched set of two to enable twin cutting operations.



### ■ 90° Lead • Bridge Tool Rough-Boring Head

| order number | catalog number | L1   |      | gage insert         | spare parts package | insert screw ID drive size | kg   | lbs  |
|--------------|----------------|------|------|---------------------|---------------------|----------------------------|------|------|
|              |                | mm   | in   |                     |                     |                            |      |      |
| 1624878      | EBURF1975PKG   | 75,0 | 2.95 | CN..1906../CN..64.. | PKG7994             | 4 mm                       | 1,64 | 3.60 |

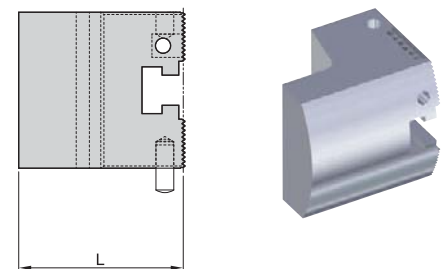
- Insert holder included.
- .0004" (0,01mm) diameter adjustment respective .00008" (2 µm) with vernier scale.
- Use with counterweight for balance.



### ■ 90° Lead • Bridge Tool Fine-Boring Head

| order number | catalog number | L1   |      | cartridge   | spare parts package | wrench size-adjusting screw | kg   | lbs  |
|--------------|----------------|------|------|-------------|---------------------|-----------------------------|------|------|
|              |                | mm   | in   |             |                     |                             |      |      |
| 1135375      | EBUFF0975      | 75,0 | 2.95 | R67-FBHS-09 | PKG0002             | 5 mm                        | 2,14 | 4.70 |

- Use to balance the extension bridge when using an EBUFF fine-boring head.



### ■ Bridge Tool Counterweight

| order number | catalog number | L    |      | kg   | lbs  |
|--------------|----------------|------|------|------|------|
|              |                | mm   | in   |      |      |
| 4062443      | EBUCW0074      | 74,0 | 2.91 | 2,10 | 4.63 |

■ ModBORE™ • Roughing • Inch

| Material Group                                                                      |   | Condition                                                                           | Geometry                                                                          |        |     | Cutting Speed SFM |                |      | Feed Rate IPR |           |           |           |
|-------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----|-------------------|----------------|------|---------------|-----------|-----------|-----------|
|                                                                                     |   |                                                                                     | -MP                                                                               | -MN    | -MF | min               | Starting Value | max  | -MP           | -MN       | -MF       |           |
| P                                                                                   | 1 |    | —                                                                                 | KCP05  | —   | 590               | 1430           | 1620 | —             | .006-.025 | —         |           |
|                                                                                     |   |    | KCP10                                                                             |        |     | 590               | 1300           | 1180 | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 590            | 1300 | 1180          | —         | .006-.025 | .004-.016 |
|                                                                                     |   |                                                                                     |  | KCP25  |     |                   | 410            | 900  | 1180          | .004-.008 | .006-.012 | .004-.008 |
|                                                                                     |   | —                                                                                   |                                                                                   | KC9125 |     |                   | 510            | 920  | 1180          | —         | .006-.012 | .004-.008 |
|                                                                                     | 2 |    | —                                                                                 | KCP05  | —   | 590               | 870            | 1310 | —             | .006-.025 | —         |           |
|                                                                                     |   |    | KCP10                                                                             |        |     | 590               | 790            | 1540 | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 590            | 820  | 1120          | —         | .006-.025 | .004-.016 |
|                                                                                     |   |                                                                                     |  | KCP25  |     |                   | 410            | 640  | 920           | .004-.008 | .006-.012 | .004-.008 |
|                                                                                     |   | —                                                                                   |                                                                                   | KC9125 |     |                   | 460            | 660  | 970           | —         | .006-.012 | .004-.008 |
|                                                                                     | 3 |    | —                                                                                 | KCP05  | —   | 590               | 670            | 900  | —             | .006-.025 | —         |           |
|                                                                                     |   |    | KCP10                                                                             |        |     | 520               | 620            | 1150 | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 510            | 620  | 770           | —         | .006-.025 | .004-.016 |
|                                                                                     |   |                                                                                     |  | KCP25  |     |                   | 440            | 510  | 740           | .004-.008 | .006-.012 | .004-.008 |
|                                                                                     |   | —                                                                                   |                                                                                   | KC9125 |     |                   | 440            | 510  | 740           | —         | .006-.012 | .004-.008 |
|                                                                                     | 4 |    | —                                                                                 | KCP05  | —   | 300               | 520            | 720  | —             | .006-.025 | —         |           |
|                                                                                     |   |    | KCP10                                                                             |        |     | 300               | 480            | 770  | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 300            | 480  | 640           | —         | .006-.025 | .004-.016 |
|                                                                                     |   |                                                                                     |  | KCP25  |     |                   | 250            | 340  | 590           | .004-.008 | .006-.012 | .004-.008 |
|                                                                                     |   | —                                                                                   |                                                                                   | KC9125 |     |                   | 250            | 360  | 570           | —         | .006-.012 | .004-.008 |
|                                                                                     | 5 |    | —                                                                                 | KCP05  | —   | 490               | 790            | 1030 | —             | .006-.025 | —         |           |
|                                                                                     |   |    | KCP10                                                                             |        |     | 490               | 710            | 980  | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 490            | 710  | 980           | —         | .006-.025 | .004-.016 |
|                                                                                     |   |                                                                                     |  | KCP25  |     |                   | 390            | 640  | 850           | .004-.008 | .006-.012 | .004-.008 |
|                                                                                     |   | —                                                                                   |                                                                                   | KC9125 |     |                   | 390            | 640  | 850           | —         | .006-.012 | .004-.008 |
|                                                                                     | 6 |    | —                                                                                 | KCP05  | —   | 460               | 660            | 980  | —             | .006-.025 | —         |           |
|                                                                                     |   |  | KCP10                                                                             |        |     | 360               | 590            | 890  | .004-.016     | .006-.025 | .004-.016 |           |
|                                                                                     |   |                                                                                     | —                                                                                 | KC9110 |     |                   | 390            | 590  | 740           | —         | .006-.025 | .004-.016 |
|  |   |                                                                                     | KCP25                                                                             |        |     | 340               | 490            | 740  | .004-.008     | .006-.012 | .004-.008 |           |
|                                                                                     |   | —                                                                                   | KC9125                                                                            |        |     | 340               | 490            | 740  | —             | .006-.012 | .004-.008 |           |

■ ModBORE™ • Roughing • Inch

| Material Group | Condition | Geometry |     |  | Cutting Speed SFM |                |     | Feed Rate IPR |           |
|----------------|-----------|----------|-----|--|-------------------|----------------|-----|---------------|-----------|
|                |           | -MP      | -MF |  | min               | Starting Value | max | -MP           | -MF       |
| M              | 1         | KCM15    |     |  | 330               | 590            | 790 | .004-.016     | .003-.012 |
|                |           | KC5010   | —   |  | 430               | 710            | 820 | .004-.016     | —         |
|                |           | KC9225   |     |  | 570               | 610            | 820 | .004-.016     | .003-.012 |
|                |           | KCM25    |     |  | 300               | 490            | 660 | .004-.008     | .003-.006 |
|                | 2         | KC9240   |     |  | 300               | 390            | 440 | .004-.008     | .003-.006 |
|                |           | KCM15    |     |  | 360               | 540            | 820 | .004-.016     | .003-.012 |
|                |           | KC5010   | —   |  | 410               | 660            | 820 | .004-.016     | —         |
|                |           | KC9225   |     |  | 360               | 560            | 750 | .004-.016     | .003-.012 |
|                | 3         | KCM25    |     |  | 300               | 490            | 740 | .004-.008     | .003-.006 |
|                |           | KC9240   |     |  | 260               | 340            | 440 | .004-.008     | .003-.006 |
|                |           | KCM15    |     |  | 360               | 490            | 820 | .004-.016     | .003-.012 |
|                |           | KC5010   | —   |  | 360               | 490            | 750 | .004-.016     | —         |
|                | 4         | KC9225   |     |  | 360               | 490            | 750 | .004-.016     | .003-.012 |
|                |           | KCM25    |     |  | 300               | 390            | 660 | .004-.008     | .003-.006 |
|                |           | KC9240   |     |  | 260               | 300            | 440 | .004-.008     | .003-.006 |



**■ ModBORE™ • Roughing • Inch**

| Material Group | Condition | Geometry |        | Cutting Speed SFM |                |      | Feed Rate IPR |           |
|----------------|-----------|----------|--------|-------------------|----------------|------|---------------|-----------|
|                |           | -MP      | -MW    | min               | Starting Value | max  | -MP           | -MW       |
| K              | 1         | KCK20    |        | 720               | 980            | 1770 | .004-.016     | .006-.039 |
|                |           | —        | KT315  | 520               | 900            | 1610 | —             | .006-.039 |
|                |           | KCK20    |        | 720               | 900            | 1150 | .004-.016     | .006-.039 |
|                |           | —        | KC9315 | 490               | 900            | 1150 | —             | .006-.039 |
|                | 2         | KCK20    |        | 460               | 690            | 1120 | .004-.008     | .006-.018 |
|                |           | —        | KC9325 | 230               | 690            | 1120 | —             | .006-.018 |
|                |           | KCK20    |        | 720               | 900            | 1150 | .004-.016     | .006-.039 |
|                |           | —        | KT315  | 590               | 900            | 1180 | —             | .006-.039 |
|                | 3         | KCK20    |        | 720               | 900            | 1150 | .004-.016     | .006-.039 |
|                |           | —        | KC9315 | 430               | 850            | 1120 | —             | .006-.039 |
|                |           | KCK20    |        | 720               | 900            | 1150 | .004-.008     | .006-.018 |
|                |           | —        | KT315  | 560               | 750            | 1180 | —             | .006-.039 |
| N              | 1         | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KT315  | 560               | 750            | 1180 | —             | .006-.039 |
|                |           | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KC9315 | 430               | 710            | 1150 | —             | .006-.039 |
|                | 2         | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KT315  | 560               | 750            | 1180 | —             | .006-.039 |
|                |           | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KC9315 | 430               | 710            | 1150 | —             | .006-.039 |
|                | 3         | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KT315  | 560               | 750            | 1180 | —             | .006-.039 |
|                |           | KCK20    |        | 360               | 490            | 750  | .004-.016     | .006-.039 |
|                |           | —        | KC9315 | 430               | 710            | 1150 | —             | .006-.039 |

**■ ModBORE™ • Roughing • Inch**

| Material Group | Condition | Geometry |        | Cutting Speed SFM |                |      | Feed Rate IPR |           |
|----------------|-----------|----------|--------|-------------------|----------------|------|---------------|-----------|
|                |           | -HP      | —      | min               | Starting Value | max  | -HP           | —         |
| N              | 1         | KC5410   | —      | 660               | 1800           | 3280 | .006-.025     | —         |
|                |           | —        | KD1400 | 1480              | 2510           | 8200 | —             | .010-.025 |
|                |           | KC5410   | —      | 660               | 1800           | 3280 | .006-.012     | —         |
|                |           | —        | KD1425 | 980               | 1710           | 2950 | —             | .010-.025 |
|                | 2         | —        | KD1425 | 980               | 1710           | 2950 | —             | .010-.016 |
|                |           | KC5410   | —      | 330               | 900            | 1640 | .006-.025     | —         |
|                |           | K313     | —      | 390               | 850            | 1610 | .006-.025     | —         |
|                |           | KC5410   | —      | 330               | 900            | 1640 | .006-.012     | —         |
|                | 3         | KC5410   | —      | 330               | 660            | 1150 | .006-.025     | —         |
|                |           | —        | —      | 330               | 660            | 1150 | .006-.012     | —         |
|                |           | KC5410   | —      | 330               | 660            | 1150 | .006-.025     | —         |
|                |           | —        | —      | 330               | 660            | 1150 | .006-.012     | —         |

**■ ModBORE™ • Roughing • Inch**

| Material Group | Condition | Geometry |     |        | Cutting Speed SFM |                |     | Feed Rate IPR |           |           |
|----------------|-----------|----------|-----|--------|-------------------|----------------|-----|---------------|-----------|-----------|
|                |           | -MP      | -FP | -UP    | min               | Starting Value | max | -MP           | -FP       | -UP       |
| S              | 1         | KCU10    |     | —      | 100               | 180            | 380 | .004-.016     | .002-.010 | —         |
|                |           | KC5010   |     |        | 100               | 180            | 380 | .004-.016     | .002-.010 | .006-.020 |
|                |           | KCU25    |     | —      | 30                | 130            | 180 | .004-.008     | .002-.005 | —         |
|                |           | KC9240   | —   | KC9240 | 30                | 130            | 200 | .004-.008     | —         | .006-.011 |
|                | 2         | KCU10    |     | —      | 100               | 200            | 390 | .004-.016     | .002-.010 | —         |
|                |           | KC5010   |     |        | 100               | 200            | 380 | .004-.016     | .002-.010 | .006-.020 |
|                |           | KCU25    |     | —      | 30                | 100            | 180 | .004-.008     | .002-.005 | —         |
|                |           | KC9240   | —   | KC9240 | 30                | 100            | 180 | .004-.008     | —         | .006-.011 |
|                | 3         | KCU10    |     | —      | 100               | 230            | 380 | .004-.016     | .002-.010 | —         |
|                |           | KC5010   |     |        | 100               | 230            | 380 | .004-.016     | .002-.010 | .006-.020 |
|                |           | KCU25    |     | —      | 70                | 130            | 180 | .004-.008     | .002-.005 | —         |
|                |           | KC9240   | —   | KC9240 | 70                | 130            | 200 | .004-.008     | —         | .006-.011 |
| S              | 4         | KCU10    |     | —      | 150               | 230            | 460 | .004-.016     | .002-.010 | —         |
|                |           | KC5010   |     |        | 150               | 230            | 560 | .004-.016     | .002-.010 | .006-.020 |
|                |           | KCU25    |     | —      | 70                | 180            | 300 | .004-.008     | .002-.005 | —         |
|                |           | KC9240   | —   | KC9240 | 50                | 180            | 300 | .004-.008     | —         | .006-.011 |

■ ModBORE™ • Roughing • Metric

| Material Group | Condition                                                                         | Geometry                                                                          |                                                                                   |        | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |           |           |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------|----------------|-----|-------------------|-----------|-----------|-----------|
|                |                                                                                   | -MP                                                                               | -MN                                                                               | -MF    | min                         | Starting Value | max | -MP               | -MN       | -MF       |           |
| P              | 1                                                                                 |  | —                                                                                 | KCP05  | —                           | 180            | 435 | 495               | —         | 0,16–0,63 | —         |
|                |                                                                                   |  | KCP10                                                                             |        |                             | 180            | 395 | 360               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 180 | 395               | 360       | —         | 0,16–0,63 |
|                |                                                                                   |  | KCP25                                                                             |        |                             | 125            | 275 | 360               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 155 | 280               | 360       | —         | 0,16–0,31 |
|                |                                                                                   | 2                                                                                 |  | —      | KCP05                       | —              | 180 | 265               | 400       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP10                                                                             |        |                             | 180            | 240 | 470               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 180 | 250               | 340       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP25                                                                             |        |                             | 125            | 195 | 280               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 140 | 200               | 295       | —         | 0,16–0,31 |
|                | 3                                                                                 |                                                                                   |  | —      | KCP05                       | —              | 180 | 205               | 275       | —         | 0,16–0,63 |
|                |                                                                                   |  | KCP10                                                                             |        |                             | 160            | 190 | 350               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 155 | 190               | 235       | —         | 0,16–0,63 |
|                |                                                                                   |  | KCP25                                                                             |        |                             | 135            | 155 | 225               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 135 | 155               | 225       | —         | 0,16–0,31 |
|                |                                                                                   | 4                                                                                 |  | —      | KCP05                       | —              | 90  | 160               | 220       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP10                                                                             |        |                             | 90             | 145 | 235               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 90  | 145               | 195       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP25                                                                             |        |                             | 75             | 105 | 180               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 75  | 110               | 175       | —         | 0,16–0,31 |
|                | 5                                                                                 |                                                                                   |  | —      | KCP05                       | —              | 150 | 240               | 315       | —         | 0,16–0,63 |
|                |                                                                                   |  | KCP10                                                                             |        |                             | 150            | 215 | 300               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 150 | 215               | 300       | —         | 0,16–0,63 |
|                |                                                                                   |  | KCP25                                                                             |        |                             | 120            | 195 | 260               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 120 | 195               | 260       | —         | 0,16–0,31 |
|                |                                                                                   | 6                                                                                 |  | —      | KCP05                       | —              | 140 | 200               | 300       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP10                                                                             |        |                             | 110            | 180 | 270               | 0,10–0,40 | 0,16–0,63 | 0,10–0,40 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9110 |                             |                | 120 | 180               | 225       | —         | 0,16–0,63 |
|                |  |                                                                                   | KCP25                                                                             |        |                             | 105            | 150 | 225               | 0,10–0,20 | 0,16–0,31 | 0,10–0,20 |
|                |                                                                                   |                                                                                   | —                                                                                 | KC9125 |                             |                | 105 | 150               | 225       | —         | 0,16–0,31 |

■ ModBORE™ • Roughing • Metric

| Material Group | Condition | Geometry |     |   | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |   |
|----------------|-----------|----------|-----|---|-----------------------------|----------------|-----|-------------------|-----------|---|
|                |           | -MP      | -MF | — | min                         | Starting Value | max | -MP               | -MF       | — |
| <b>M</b>       | 1         | KCM15    |     |   | —                           | 100            | 240 | 0,10–0,40         | 0,08–0,30 | — |
|                |           | KC5010   | —   | — | 130                         | 215            | 250 | 0,10–0,40         | —         | — |
|                |           | KC9225   |     |   | —                           | 175            | 250 | 0,10–0,40         | 0,08–0,30 | — |
|                |           | KCM25    |     |   | —                           | 90             | 150 | 0,10–0,20         | 0,08–0,15 | — |
|                | 2         | KC9240   |     |   | —                           | 90             | 120 | 0,10–0,20         | 0,08–0,15 | — |
|                |           | KCM15    |     |   | —                           | 110            | 165 | 0,10–0,40         | 0,08–0,30 | — |
|                |           | KC5010   | —   | — | 125                         | 200            | 250 | 0,10–0,40         | —         | — |
|                |           | KC9225   |     |   | —                           | 110            | 170 | 0,10–0,40         | 0,08–0,30 | — |
|                | 3         | KCM25    |     |   | —                           | 90             | 150 | 0,10–0,20         | 0,08–0,15 | — |
|                |           | KC9240   |     |   | —                           | 80             | 105 | 0,10–0,20         | 0,08–0,15 | — |
|                |           | KCM15    |     |   | —                           | 110            | 150 | 0,10–0,40         | 0,08–0,30 | — |
|                |           | KC5010   | —   | — | 110                         | 150            | 230 | 0,10–0,40         | —         | — |
|                | 4         | KC9225   |     |   | —                           | 110            | 150 | 0,10–0,40         | 0,08–0,30 | — |
|                |           | KCM25    |     |   | —                           | 90             | 120 | 0,10–0,20         | 0,08–0,15 | — |
|                |           | KC9240   |     |   | —                           | 80             | 90  | 0,10–0,20         | 0,08–0,15 | — |

**■ ModBORE™ • Roughing • Metric**

| Material Group | Condition | Geometry |        |   | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |   |
|----------------|-----------|----------|--------|---|-----------------------------|----------------|-----|-------------------|-----------|---|
|                |           | -MP      | -MW    | — | min                         | Starting Value | max | -MP               | -MW       | — |
| K              | 1         | KCK20    |        | — | 220                         | 300            | 540 | 0,10–0,40         | 0,16–1,00 | — |
|                |           | —        | KT315  | — | 160                         | 275            | 490 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 220                         | 275            | 350 | 0,10–0,40         | 0,16–1,00 | — |
|                |           | —        | KC9315 | — | 150                         | 275            | 350 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 140                         | 210            | 340 | 0,10–0,20         | 0,16–0,45 | — |
|                |           | —        | KC9325 | — | 70                          | 210            | 340 | —                 | 0,16–0,45 | — |
|                | 2         | KCK20    |        | — | 220                         | 275            | 350 | 0,10–0,40         | 0,16–1,00 | — |
|                |           | —        | KT315  | — | 180                         | 275            | 360 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 220                         | 275            | 350 | 0,10–0,40         | 0,16–1,00 | — |
|                |           | —        | KC9315 | — | 130                         | 260            | 340 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 220                         | 275            | 350 | 0,10–0,20         | 0,16–0,45 | — |
|                |           | KCK20    |        | — | 110                         | 150            | 230 | 0,10–0,40         | 0,16–1,00 | — |
|                | 3         | —        | KT315  | — | 170                         | 230            | 360 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 110                         | 150            | 230 | 0,10–0,40         | 0,16–1,00 | — |
|                |           | —        | KC9315 | — | 130                         | 215            | 350 | —                 | 0,16–1,00 | — |
|                |           | KCK20    |        | — | 110                         | 150            | 230 | 0,10–0,20         | 0,16–0,45 | — |

**■ ModBORE™ • Roughing • Metric**

| Material Group | Condition | Geometry |        |   | Cutting Speed — vc<br>m/min |                |      | Feed Rate<br>mm/r |           |   |
|----------------|-----------|----------|--------|---|-----------------------------|----------------|------|-------------------|-----------|---|
|                |           | -HP      | —      | — | min                         | Starting Value | max  | -HP               | —         | — |
| N              | 1         | KC5410   | —      | — | 200                         | 550            | 1000 | 0,16–0,63         | —         | — |
|                |           | —        | KD1400 | — | 450                         | 765            | 2500 | —                 | 0,25–0,63 | — |
|                |           | KC5410   | —      | — | 200                         | 550            | 1000 | 0,16–0,31         | —         | — |
|                | 2         | —        | KD1425 | — | 300                         | 520            | 900  | —                 | 0,25–0,63 | — |
|                |           | —        | KD1425 | — | 300                         | 520            | 900  | —                 | 0,25–0,40 | — |
|                | 3         | KC5410   | —      | — | 100                         | 275            | 500  | 0,16–0,63         | —         | — |
|                |           | K313     | —      | — | 120                         | 260            | 490  | 0,16–0,63         | —         | — |
|                |           | KC5410   | —      | — | 100                         | 275            | 500  | 0,16–0,31         | —         | — |
|                | 5         | KC5410   | —      | — | 100                         | 200            | 350  | 0,16–0,63         | —         | — |
|                |           | KC5410   | —      | — | 100                         | 200            | 350  | 0,16–0,31         | —         | — |

**■ ModBORE™ • Roughing • Metric**

| Material Group | Condition | Geometry |     |        | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |           |
|----------------|-----------|----------|-----|--------|-----------------------------|----------------|-----|-------------------|-----------|-----------|
|                |           | -MP      | -FP | -UP    | min                         | Starting Value | max | -MP               | -FP       | -UP       |
| S              | 1         | KCU10    |     | —      | 30                          | 55             | 115 | 0,10–0,40         | 0,06–0,25 | —         |
|                |           | KC5010   |     |        | 30                          | 55             | 115 | 0,10–0,40         | 0,06–0,25 | 0,16–0,50 |
|                |           | KCU25    |     | —      | 10                          | 40             | 55  | 0,10–0,20         | 0,06–0,12 | —         |
|                |           | KC9240   | —   | KC9240 | 10                          | 40             | 60  | 0,10–0,20         | —         | 0,16–0,27 |
|                |           | KCU10    |     | —      | 30                          | 60             | 120 | 0,10–0,40         | 0,06–0,25 | —         |
|                |           | KC5010   |     |        | 30                          | 60             | 115 | 0,10–0,40         | 0,06–0,25 | 0,16–0,50 |
|                | 2         | KCU25    |     | —      | 10                          | 30             | 55  | 0,10–0,20         | 0,06–0,12 | —         |
|                |           | KC9240   | —   | KC9240 | 10                          | 30             | 55  | 0,10–0,20         | —         | 0,16–0,27 |
|                |           | KCU10    |     | —      | 30                          | 70             | 115 | 0,10–0,40         | 0,06–0,25 | —         |
|                |           | KC5010   |     |        | 30                          | 70             | 115 | 0,10–0,40         | 0,06–0,25 | 0,16–0,50 |
|                |           | KCU25    |     | —      | 20                          | 40             | 55  | 0,10–0,20         | 0,06–0,12 | —         |
|                |           | KC9240   | —   | KC9240 | 20                          | 40             | 60  | 0,10–0,20         | —         | 0,16–0,27 |
|                | 3         | KCU10    |     | —      | 45                          | 70             | 140 | 0,10–0,40         | 0,06–0,25 | —         |
|                |           | KC5010   |     |        | 45                          | 70             | 170 | 0,10–0,40         | 0,06–0,25 | 0,16–0,50 |
|                |           | KCU25    |     | —      | 20                          | 55             | 90  | 0,10–0,20         | 0,06–0,12 | —         |
|                |           | KC9240   | —   | KC9240 | 15                          | 55             | 90  | 0,10–0,20         | —         | 0,16–0,27 |

■ ModBORE™ • Finishing • Inch

| Material Group | Condition | Geometry |        |     |       | Cutting Speed — vc<br>SFM |                |      | Feed Rate<br>IPR |           |           |           |
|----------------|-----------|----------|--------|-----|-------|---------------------------|----------------|------|------------------|-----------|-----------|-----------|
|                |           | -LF      | -UF    | -FP | -FW   | min                       | Starting Value | max  | -LF              | -UF       | -FP       | -FW       |
| P              | 1         | ○        | KCP05  |     | —     | 590                       | 1430           | 1620 | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 590            | 1430 | 1620             | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | —                         | 590            | 1310 | 1620             | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 590                       | 1300           | 1530 | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 590                       | 1300           | 1620 | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 460                       | 920            | 1180 | .002-.004        | .002-.003 | .002-.005 | .003-.006 |
|                | 2         | ○        | KCP05  |     | —     | 590                       | 870            | 1310 | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 590            | 870  | 1310             | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 620            | 890  | 1280             | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 590                       | 790            | 1080 | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 590                       | 790            | 1080 | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 480                       | 640            | 1050 | .002-.004        | .002-.003 | .002-.005 | .003-.006 |
|                | 3         | ○        | KCP05  |     | —     | 590                       | 670            | 900  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 590            | 670  | 900              | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 590            | 690  | 900              | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 520                       | 620            | 820  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 510                       | 620            | 790  | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 440                       | 510            | 740  | .002-.004        | .002-.003 | .002-.005 | .003-.006 |
|                | 4         | ○        | KCP05  |     | —     | 300                       | 520            | 720  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 300            | 520  | 720              | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 300            | 590  | 720              | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 300                       | 480            | 640  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 300                       | 480            | 640  | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 250                       | 340            | 590  | .002-.004        | .002-.003 | .002-.005 | .003-.006 |
|                | 5         | ○        | KCP05  |     | —     | 490                       | 790            | 1030 | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 490            | 790  | 1030             | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 490            | 820  | 1030             | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 490                       | 710            | 980  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 490                       | 710            | 980  | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 390                       | 640            | 840  | .002-.004        | .002-.003 | .002-.005 | .003-.006 |
|                | 6         | ○        | KCP05  |     | —     | 460                       | 660            | 980  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | —      | —   | KTP10 | —                         | 460            | 660  | 980              | —         | —         | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 460            | 660  | 980              | .002-.010 | —         | .003-.012 |
|                |           | ○        | KCP10  |     | —     | 390                       | 590            | 900  | .002-.010        | .002-.006 | .002-.010 | —         |
|                |           |          | KC9110 |     | —     | 390                       | 590            | 740  | .002-.010        | .002-.006 | —         | —         |
|                |           |          | KCP25  |     | —     | 340                       | 490            | 740  | .002-.004        | .002-.003 | .002-.005 | .003-.006 |

■ ModBORE™ • Finishing • Inch

| Material Group | Condition | Geometry |        |     |       | Cutting Speed — vc<br>SFM |                |     | Feed Rate<br>IPR |           |     |           |
|----------------|-----------|----------|--------|-----|-------|---------------------------|----------------|-----|------------------|-----------|-----|-----------|
|                |           | -LF      | -UF    | -FP | -FW   | min                       | Starting Value | max | -LF              | -UF       | -FP | -FW       |
| M              | 1         | ○        | —      | —   | KTP10 | —                         | 460            | 750 | 1030             | —         | —   | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 460            | 750 | 1030             | .002-.010 | —   | .003-.012 |
|                |           | ○        | KC5010 |     | —     | 430                       | 710            | 800 | .002-.010        | —         | —   | .003-.012 |
|                |           |          | KCM15  | —   | KCM15 | —                         | 340            | 590 | 790              | .002-.005 | —   | .002-.005 |
|                |           | ○        | KC9225 |     | —     | 340                       | 590            | 790 | .002-.005        | —         | —   | .003-.006 |
|                |           |          | —      | —   | —     | —                         | —              | —   | —                | —         | —   | —         |
|                | 2         | ○        | —      | —   | KTP10 | —                         | 460            | 710 | 970              | —         | —   | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 460            | 710 | 970              | .002-.010 | —   | .003-.012 |
|                |           | ○        | KC5010 |     | —     | 430                       | 660            | 800 | .002-.010        | —         | —   | .003-.012 |
|                |           |          | KCM15  | —   | KCM15 | —                         | 340            | 540 | 820              | .002-.005 | —   | .002-.005 |
|                |           | ○        | KC9225 |     | —     | 330                       | 520            | 750 | .002-.005        | —         | —   | .003-.006 |
|                |           |          | —      | —   | —     | —                         | —              | —   | —                | —         | —   | —         |
|                | 3         | ○        | —      | —   | KTP10 | —                         | 460            | 660 | 980              | —         | —   | .002-.010 |
|                |           |          | KT315  | —   | —     | KT315                     | 460            | 660 | 980              | .002-.010 | —   | .003-.012 |
|                |           | ○        | KC5010 |     | —     | 430                       | 610            | 750 | .002-.010        | —         | —   | .003-.012 |
|                |           |          | KCM15  | —   | KCM15 | —                         | 380            | 490 | 840              | .002-.005 | —   | .002-.005 |
|                |           | ○        | KC9225 |     | —     | 360                       | 490            | 750 | .002-.005        | —         | —   | .003-.006 |
|                |           |          | —      | —   | —     | —                         | —              | —   | —                | —         | —   | —         |



### Hole Finishing

## Hole Finishing

## Hole Finishing

## Hole Finishing

## Hole Finishing

■ ModBORE™ • Finishing • Metric

| Material Group | Condition | Geometry |        |     |       | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |           |           |
|----------------|-----------|----------|--------|-----|-------|-----------------------------|----------------|-----|-------------------|-----------|-----------|-----------|
|                |           | -LF      | -UF    | -FP | -FW   | min                         | Starting Value | max | -LF               | -UF       | -FP       | -FW       |
| P              | 1         | ○        | KCP05  |     | —     | 180                         | 435            | 495 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 180            | 435 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 180            | 400 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 180                         | 395            | 465 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 180                         | 395            | 495 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 140                         | 280            | 360 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 140                         | 280            | 360 | 0,06–0,10         | 0,04–0,08 | —         | —         |
|                | 2         | ○        | KCP05  |     | —     | 180                         | 265            | 400 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 180            | 265 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 190            | 270 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 180                         | 240            | 330 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 180                         | 240            | 330 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 145                         | 195            | 320 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 145                         | 195            | 320 | 0,06–0,10         | 0,04–0,08 | —         | —         |
|                | 3         | ○        | KCP05  |     | —     | 180                         | 205            | 275 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 180            | 205 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 180            | 210 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 160                         | 190            | 250 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 155                         | 190            | 240 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 135                         | 155            | 225 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 135                         | 155            | 225 | 0,06–0,10         | 0,04–0,08 | —         | —         |
|                | 4         | ○        | KCP05  |     | —     | 90                          | 160            | 220 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 90             | 160 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 90             | 180 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 90                          | 145            | 195 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 90                          | 145            | 195 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 75                          | 105            | 180 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 75                          | 105            | 180 | 0,06–0,10         | 0,04–0,08 | —         | —         |
|                | 5         | ○        | KCP05  |     | —     | 150                         | 240            | 315 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 150            | 240 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 150            | 250 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 150                         | 215            | 300 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 150                         | 215            | 300 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 120                         | 195            | 255 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 120                         | 195            | 255 | 0,06–0,10         | 0,04–0,08 | —         | —         |
|                | 6         | ○        | KCP05  |     | —     | 140                         | 200            | 300 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | —      | —   | KTP10 | —                           | 140            | 200 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KT315  | —   | —     | KT315                       | 140            | 200 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           | ○        | KCP10  |     | —     | 120                         | 180            | 275 | 0,06–0,25         | 0,04–0,16 | 0,06–0,25 | —         |
|                |           |          | KC9110 |     | —     | 120                         | 180            | 225 | 0,06–0,25         | 0,04–0,16 | —         | —         |
|                |           | ○        | KCP25  |     | —     | 105                         | 150            | 225 | 0,06–0,10         | 0,04–0,08 | 0,06–0,12 | 0,08–0,16 |
|                |           |          | KC9125 |     | —     | 105                         | 150            | 225 | 0,06–0,10         | 0,04–0,08 | —         | —         |

■ ModBORE™ • Finishing • Metric

| Material Group |                                                                                     | Condition                                                                           | Geometry |                                                                                     |        |        | Cutting Speed — vc<br>m/min |                |           | Feed Rate<br>mm/r |     |           |           |           |           |
|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------|--------|--------|-----------------------------|----------------|-----------|-------------------|-----|-----------|-----------|-----------|-----------|
|                |                                                                                     |                                                                                     | -LF      | -UF                                                                                 | -FP    | -FW    | min                         | Starting Value | max       | -LF               | -UF | -FP       | -FW       |           |           |
| M              | 1                                                                                   |  | —        | —                                                                                   | KTP10  | —      | 140                         | 230            | 315       | —                 | —   | 0,06–0,25 | —         |           |           |
|                |                                                                                     |                                                                                     | KT315    | —                                                                                   | —      | KT315  | 140                         | 230            | 315       | 0,06–0,25         | —   | —         | 0,08–0,30 |           |           |
|                |                                                                                     |  | KC5010   | —                                                                                   | —      | KC5010 | 130                         | 215            | 245       | 0,06–0,25         | —   | —         | 0,08–0,30 |           |           |
|                |                                                                                     |                                                                                     | KCM15    | —                                                                                   | KCM15  | —      | 105                         | 180            | 240       | 0,06–0,12         | —   | 0,06–0,12 | —         |           |           |
|                | 2                                                                                   |  | KC9225   | —                                                                                   | —      | KC9225 | 105                         | 180            | 240       | 0,06–0,12         | —   | —         | 0,08–0,16 |           |           |
|                |                                                                                     |                                                                                     | —        | —                                                                                   | KTP10  | —      | 140                         | 215            | 295       | —                 | —   | 0,06–0,25 | —         |           |           |
|                |                                                                                     |                                                                                     | KT315    | —                                                                                   | —      | KT315  | 140                         | 215            | 295       | 0,06–0,25         | —   | —         | 0,08–0,30 |           |           |
|                |                                                                                     |                                                                                     | KC5010   | —                                                                                   | —      | KC5010 | 130                         | 200            | 245       | 0,06–0,25         | —   | —         | 0,08–0,30 |           |           |
|                |                                                                                     |  | KCM15    | —                                                                                   | KCM15  | —      | 105                         | 165            | 250       | 0,06–0,12         | —   | 0,06–0,12 | —         |           |           |
|                |                                                                                     |                                                                                     | KC9225   | —                                                                                   | —      | KC9225 | 100                         | 160            | 230       | 0,06–0,12         | —   | —         | 0,08–0,16 |           |           |
|                |                                                                                     |                                                                                     | 3        |  | —      | —      | KTP10                       | —              | 140       | 200               | 300 | —         | —         | 0,06–0,25 | —         |
|                |                                                                                     |                                                                                     |          |                                                                                     | KT315  | —      | —                           | KT315          | 140       | 200               | 300 | 0,06–0,25 | —         | —         | 0,08–0,30 |
|                |  | KC5010                                                                              |          | —                                                                                   | —      | KC5010 | 130                         | 185            | 230       | 0,06–0,25         | —   | —         | 0,08–0,30 |           |           |
|                |                                                                                     | KCM15                                                                               |          | —                                                                                   | KCM15  | —      | 115                         | 150            | 255       | 0,06–0,12         | —   | 0,06–0,12 | —         |           |           |
|                |  | KC9225                                                                              | —        | —                                                                                   | KC9225 | 110    | 150                         | 230            | 0,06–0,12 | —                 | —   | 0,08–0,16 |           |           |           |

**■ ModBORE™ • Finishing • Metric**

| Material Group | Condition | Geometry |        |     |        | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |           |           |
|----------------|-----------|----------|--------|-----|--------|-----------------------------|----------------|-----|-------------------|-----------|-----------|-----------|
|                |           | -LF      | -UF    | -FP | -FW    | min                         | Starting Value | max | -LF               | -UF       | -FP       | -FW       |
| <b>K</b>       | 1         |          | KCK20  | —   | KCK20  | 200                         | 300            | 540 | 0,06–0,25         | —         | 0,06–0,25 | 0,08–0,30 |
|                |           |          | KT315  | —   | KT315  | 165                         | 275            | 490 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           |          | KC9315 | —   | —      | 110                         | 275            | 450 | 0,06–0,25         | —         | —         | —         |
|                |           |          | KC9320 | —   | —      | 100                         | 240            | 400 | 0,06–0,12         | —         | —         | —         |
|                | 2         |          | KCK20  | —   | KCK20  | 150                         | 240            | 420 | 0,06–0,25         | —         | 0,06–0,25 | 0,08–0,30 |
|                |           |          | KT315  | —   | KT315  | 180                         | 275            | 360 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           |          | KC5010 | —   | KC5010 | 100                         | 200            | 265 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | KC9315 | —   | —      | 145                         | 260            | 360 | 0,06–0,25         | —         | —         | —         |
|                | 3         |          | KCK20  | —   | KCK20  | 140                         | 210            | 350 | 0,06–0,25         | —         | 0,06–0,25 | 0,08–0,30 |
|                |           |          | KT315  | —   | KT315  | 180                         | 230            | 320 | 0,06–0,25         | —         | —         | 0,08–0,30 |
|                |           |          | KC5010 | —   | KC5010 | 120                         | 150            | 225 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | KC9315 | —   | —      | 145                         | 215            | 275 | 0,06–0,25         | —         | —         | —         |
|                |           |          | KC9320 | —   | —      | 140                         | 210            | 260 | 0,06–0,12         | —         | —         | —         |

**■ ModBORE™ • Finishing • Metric**

| Material Group | Condition | Geometry |        |        |   | Cutting Speed — vc<br>m/min |                |      | Feed Rate<br>mm/r |           |   |   |
|----------------|-----------|----------|--------|--------|---|-----------------------------|----------------|------|-------------------|-----------|---|---|
|                |           | -LF      | —      | —      | — | min                         | Starting Value | max  | -LF               | —         | — | — |
| <b>N</b>       | 1         |          | KC5410 | —      | — | 200                         | 550            | 1000 | 0,10–0,40         | —         | — | — |
|                |           |          | KC5410 | —      | — | 200                         | 550            | 1000 | 0,10–0,20         | —         | — | — |
|                | 2         |          | —      | KD1400 | — | 450                         | 765            | 3000 | —                 | 0,06–0,15 | — | — |
|                |           |          | —      | KD1425 | — | 375                         | 580            | 1150 | —                 | 0,06–0,25 | — | — |
|                | 3         |          | —      | KD1400 | — | 400                         | 650            | 1250 | —                 | 0,06–0,15 | — | — |
|                |           |          | KC5410 | —      | — | 125                         | 275            | 525  | 0,10–0,40         | —         | — | — |
|                | 4         |          | —      | KD1425 | — | 250                         | 500            | 875  | —                 | 0,06–0,25 | — | — |
|                |           |          | KC5410 | —      | — | 125                         | 275            | 525  | 0,10–0,20         | —         | — | — |
|                | 5         |          | —      | KD1400 | — | 375                         | 520            | 1000 | —                 | 0,06–0,12 | — | — |
|                |           |          | KC5410 | —      | — | 125                         | 200            | 375  | 0,10–0,40         | —         | — | — |
|                |           |          | KC5410 | —      | — | 125                         | 200            | 375  | 0,10–0,20         | —         | — | — |

**■ ModBORE™ • Finishing • Metric**

| Material Group | Condition | Geometry |        |     |        | Cutting Speed — vc<br>m/min |                |     | Feed Rate<br>mm/r |           |           |           |
|----------------|-----------|----------|--------|-----|--------|-----------------------------|----------------|-----|-------------------|-----------|-----------|-----------|
|                |           | -LF      | -UF    | -FP | -FW    | min                         | Starting Value | max | -LF               | -UF       | -FP       | -FW       |
| <b>S</b>       | 1         |          | —      | —   | KCU10  | 30                          | 55             | 125 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | K313   | —   | —      | 10                          | 30             | 60  | 0,06–0,25         | —         | —         | —         |
|                |           |          | KC5010 | —   | KC5010 | 30                          | 55             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU10  | 30                          | 55             | 125 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KC5010 | —   | KC5010 | 30                          | 55             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU25  | 10                          | 40             | 50  | —                 | —         | 0,06–0,12 | —         |
|                |           |          | KC5025 | —   | —      | 10                          | 40             | 50  | 0,06–0,10         | —         | —         | —         |
|                |           |          | —      | —   | KCU10  | 30                          | 35             | 125 | —                 | —         | 0,06–0,25 | —         |
|                | 2         |          | K313   | —   | —      | 10                          | 35             | 60  | 0,06–0,25         | —         | —         | —         |
|                |           |          | KC5010 | —   | KC5010 | 30                          | 60             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU10  | 30                          | 35             | 125 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KC5010 | —   | KC5010 | 30                          | 60             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU25  | 10                          | 30             | 50  | —                 | —         | 0,06–0,12 | —         |
|                |           |          | KC5025 | —   | —      | 10                          | 30             | 50  | 0,06–0,10         | —         | —         | —         |
|                |           |          | —      | —   | KCU10  | 30                          | 70             | 125 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | K313   | —   | —      | 10                          | 40             | 60  | 0,06–0,25         | —         | —         | —         |
|                | 3         |          | KC5010 | —   | KC5010 | 30                          | 70             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU10  | 30                          | 35             | 125 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KC5010 | —   | KC5010 | 30                          | 70             | 120 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU25  | 25                          | 40             | 60  | —                 | —         | 0,06–0,12 | —         |
|                |           |          | KC5025 | —   | —      | 25                          | 40             | 60  | 0,06–0,10         | —         | —         | —         |
|                |           |          | —      | —   | KCU10  | 45                          | 70             | 140 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | K313   | —   | —      | 15                          | 45             | 65  | 0,06–0,25         | —         | —         | —         |
|                |           |          | KC5010 | —   | KC5010 | 45                          | 70             | 140 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                | 4         |          | —      | —   | KCU10  | 45                          | 70             | 140 | —                 | —         | 0,06–0,25 | —         |
|                |           |          | KC5010 | —   | KC5010 | 45                          | 70             | 140 | 0,06–0,25         | 0,04–0,16 | —         | 0,08–0,30 |
|                |           |          | —      | —   | KCU25  | 25                          | 55             | 90  | —                 | —         | 0,06–0,12 | —         |
|                |           |          | KC5025 | —   | —      | 15                          | 55             | 90  | 0,06–0,10         | —         | —         | —         |