

NEW PRODUCT NEWS

CHASEALU



New XEVT Line for Excellence in Aluminum Machining



To ensure excellence in aluminum machining across all industries, TaeguTec's CHASEALU line now comes in two new offerings: the XEVT 16 which is an upgraded version of the current XECT 16 and the XEVT 22.

With high-speed machining requirements as the XEVT's focus, both types are designed with a stable "V" shape bottom as well as a unique "stopper" for rigid clamping and stability.

Both sizes guarantee high precision and excellent surface roughness in aluminum and non-ferrous machining due to their high positive helical cutting edges and polished insert surfaces. As such, both the XEVT 16 and XEVT 22 inserts always deliver outstanding productivity in demanding applications such as helical ramping, straight ramping and step down milling as well as other high-speed milling applications.

Moreover, both XEVT types are available in several corner radii and the XEVT 16 inserts are interchangeable with the current TE90XE and TFM90XE cutters in order to enhance the productivity of current XECT 16 insert in the markets.

FEATURES

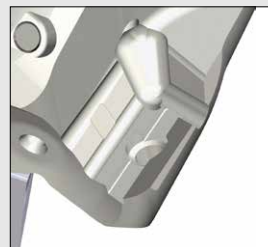
- XEVT 16, an improved XECT 16, and the XEVT 22 are specifically dedicated to aluminum and non-ferrous material machining.
- Wide application range:
 - Shouldering
 - Slotting
 - Face milling
 - Step down milling
 - Profiling
 - Straight ramping
 - Helical ramping
- Stronger insert design including a "V" shape bottom and unique stopper system mean higher performance under high-speed cutting conditions.



Stable "V" shape



Safe stopper design



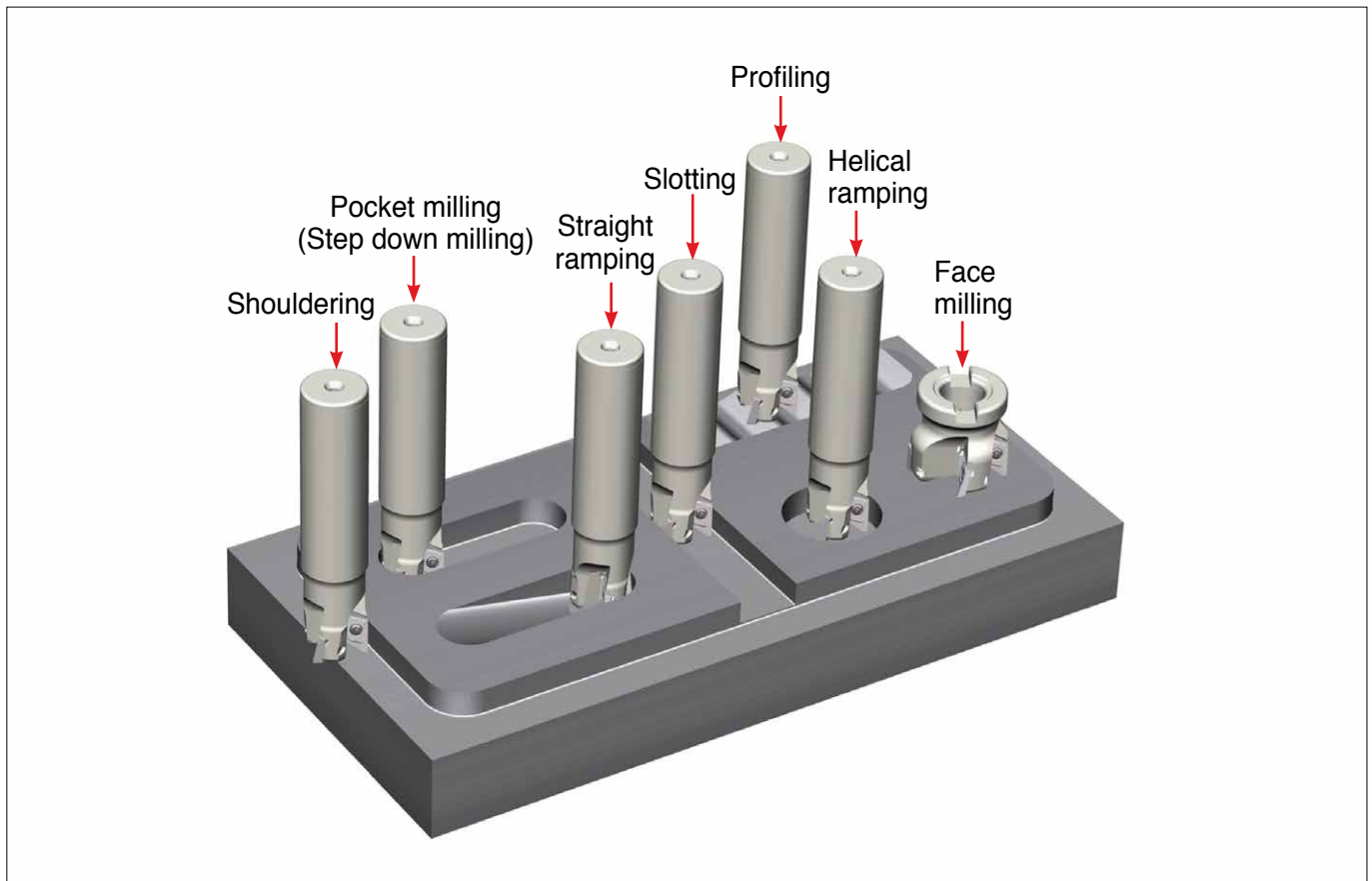
- Cutter's simple screw clamping design ensures proper seating and rigidity during machining.
- XEVT 16 inserts are interchangeable with the current TE90XE and TFM90XE tool holders.
- High positive helical cutting edge and polished surface finish enable high precision and excellent surface roughness.
- Available in several cutter types:
 - End mills
 - Modular types
 - Face mills
 - HSK type face mills
- Available in several corner "R" options.



XEVT 1605□□: R 0.4 - R 5.0

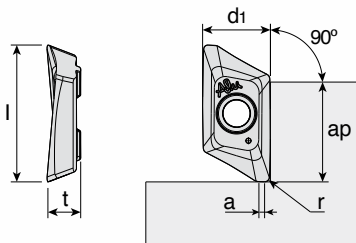
XEVT 2206□□: R 0.5 - R 6.4

CHASEALU applications



XEVT 16/22-AL

Insert



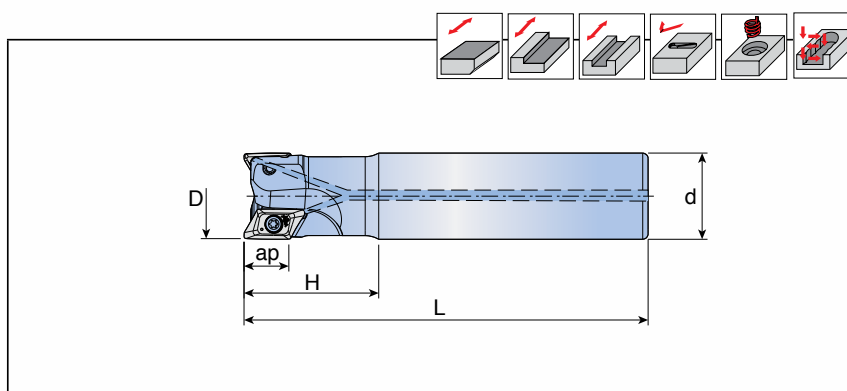
| Size | Dimension (mm) | | | | | |
|-----------|----------------|------|---------|---------|---------|---------|
| | l | d1 | t | ap | a | r |
| 16 | 18.3-22.2 | 11.2 | 5.1-5.5 | 14-16 | 0.6-1.5 | 0.4-5.0 |
| 22 | 22.4-28 | 13.6 | 6.8-7.4 | 18.5-21 | 1.2-1.7 | 0.5-6.4 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Insert | Designation | Recommended machining conditions | | Uncoated |
|--------|------------------------|----------------------------------|----------|----------|
| | | Feed (mm/tooth) | ap (mm) | K10 |
| | XEVT 160504R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160508R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160512R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160516R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160520R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160524R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160530R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160532R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160540R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 160550R-AL | 0.1-0.4 | 3.5-12.0 | ● |
| | 220605R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220608R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220616R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220620R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220630R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220640R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220650R-AL | 0.1-0.6 | 3.5-18.0 | ● |
| | 220664R-AL | 0.1-0.6 | 3.5-18.0 | ● |

● : Standard items

TE90XEV-16/22

End mill



| Designation | ✳ | Dimension (mm) | | | | | Max RPM | Insert |
|--------------------------|---|----------------|----|-----|-----|----|---------|--------------|
| | | D | d | L | H | ap | | |
| TE90XEV 225-25-16 | 2 | 25 | 25 | 125 | 55 | 16 | 52,000 | XEVT 1605... |
| 225-25-16-L170 | 2 | 25 | 25 | 170 | 70 | 16 | 52,000 | |
| 232-32-16 | 2 | 32 | 32 | 150 | 50 | 16 | 46,000 | |
| 232-32-16-L200 | 2 | 32 | 32 | 200 | 80 | 16 | 46,000 | |
| 332-32-16 | 3 | 32 | 32 | 150 | 50 | 16 | 46,000 | |
| 332-32-16-L200 | 3 | 32 | 32 | 200 | 80 | 16 | 46,000 | |
| 340-32-16 | 3 | 40 | 32 | 170 | 55 | 16 | 41,200 | |
| 340-32-16-L250 | 3 | 40 | 32 | 250 | 55 | 16 | 41,200 | |
| TE90XEV 232-32-22 | 2 | 32 | 32 | 160 | 100 | 21 | 37,500 | XEVT 2206... |
| 340-40-22 | 3 | 40 | 40 | 160 | 80 | 21 | 35,100 | |

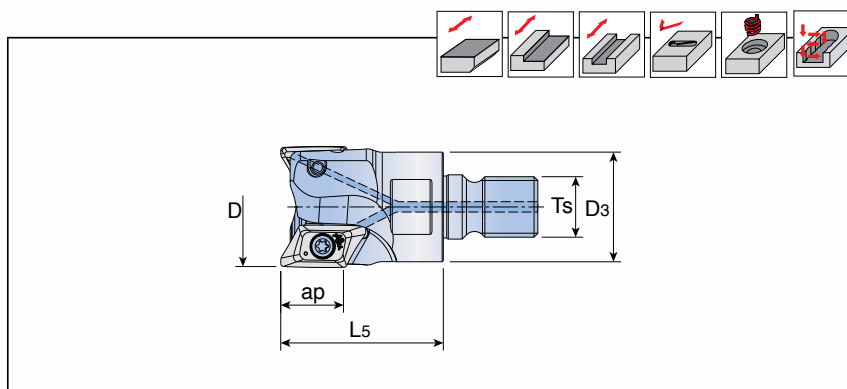
- Coolant through type
- Cutter body for inserts with corner radii more than 3.2mm (XEVT 16) and 3.0mm (XEVT 22) should be modified as follows:
body "R"=insert "R"-0.3mm
- Table's ap refers to XEVT 160504 and XEVT 220605 insert.

Spare parts

| Designation | Screw | Wrench | | | |
|-------------------------------|--------------|--------|--|--|--|
| | | | | | |
| TE90XEV 225-16 | TS 40085I/HG | T-T 15 | | | |
| TE90XEV 232/332/340-16 | TS 40093I/HG | T-T 15 | | | |
| TE90XEV 232-32-22 | TS 50105I | T-T 20 | | | |
| TE90XEV 340-40-22 | TS 50115I | T-T 20 | | | |
| | | | | | |

TE90XEV...-M...-16

Modular



| Designation | | Dimension (mm) | | | | | Max RPM | Insert |
|---------------------------|---|----------------|----------------|----------------|----------------|----------------|---------|--------------|
| | | D | D ₃ | L ₅ | T _s | a _p | | |
| TE90XEV 225-M12-16 | 2 | 25 | 21 | 43 | 12 | 16 | 52,000 | XEVT 1605... |
| 232-M16-16 | 2 | 32 | 29 | 43 | 16 | 16 | 46,000 | |
| 332-M16-16 | 3 | 32 | 29 | 43 | 16 | 16 | 46,000 | |
| 340-M16-16 | 3 | 40 | 29 | 43 | 16 | 16 | 41,200 | |

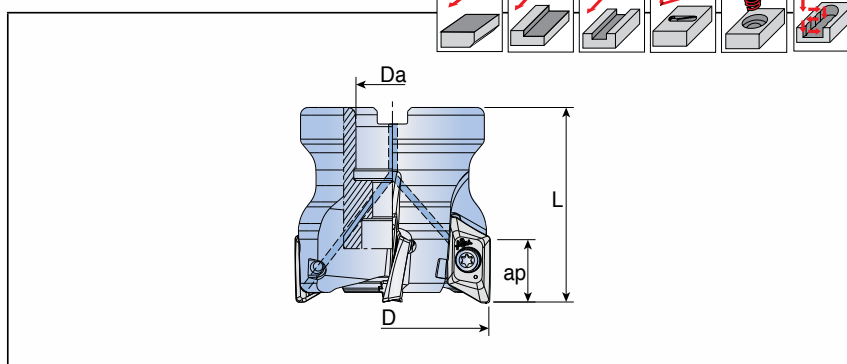
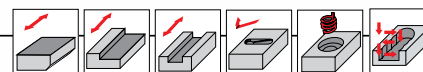
- Coolant through type
- Cutter body for inserts with corner radii more than 3.2mm (XEVT 16) should be modified as follows: body "R"=insert "R"-0.3mm
- Table's ap refers to XEVT 160504 insert.

Spare parts

| Designation | Screw | Wrench | | | |
|-------------------------------|--------------|--------|--|--|--|
| | | | | | |
| TE90XEV 225-16 | TS 40085I/HG | T-T 15 | | | |
| TE90XEV 232/332/340-16 | TS 40093I/HG | T-T 15 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

TFM90XEV-16/22

Face mill



| Designation | | Dimension (mm) | | | | Arbor style | Max RPM | Kg | Mounting bolt | Insert |
|----------------------------|----|----------------|----|----|----|-------------|---------|-----|------------------|--------------|
| | | D | Da | L | ap | | | | | |
| TFM90XEV 340-16R-16 | 3 | 40 | 16 | 50 | 16 | A | 41,200 | 0.2 | SH M8x1.25x35-C | XEVT 1605... |
| 450-22R-16 | 4 | 50 | 22 | 50 | 16 | A | 36,800 | 0.3 | SH M10x1.5x30-C | |
| 563-22R-16 | 5 | 63 | 22 | 50 | 16 | A | 32,700 | 0.5 | SH M10x1.5x30-C | |
| 580-27R-16 | 5 | 80 | 27 | 50 | 16 | A | 29,000 | 0.9 | LH M12x1.75x30-C | |
| 680-27R-16 | 6 | 80 | 27 | 50 | 16 | A | 29,000 | 0.8 | LH M12x1.75x30-C | |
| 6100-32R-16 | 6 | 100 | 32 | 63 | 16 | A | 26,000 | 1.6 | SH M16Xx2x35-C | |
| 7125-40R-16 | 7 | 125 | 40 | 63 | 16 | A | 23,200 | 2.5 | SH M20x2.5x40-C | |
| 8160-40R-16 | 8 | 160 | 40 | 63 | 16 | C | 20,000 | 3.8 | - | |
| 10200-60R-16 | 10 | 200 | 60 | 63 | 16 | C | 18,300 | 5.3 | - | |
| TFM90XEV 350-22R-22 | 3 | 50 | 22 | 55 | 21 | A | 31,400 | 0.4 | SH M10x1.5x30-C | XEVT 2206... |
| 463-22R-22 | 4 | 63 | 22 | 55 | 21 | A | 28,000 | 0.6 | SH M10x1.5x30-C | |
| 580-27R-22 | 5 | 80 | 27 | 55 | 21 | A | 24,800 | 1.0 | LH M12x1.75x30-C | |
| 6100-32R-22 | 6 | 100 | 32 | 63 | 21 | A | 22,200 | 2.1 | SH M16x2x35-C | |
| 7125-40R-22 | 7 | 125 | 40 | 63 | 21 | A | 19,900 | 2.8 | SH M20x2.5x40-C | |
| 10200-60R-22 | 10 | 200 | 60 | 63 | 21 | C | 15,700 | 5.9 | - | |

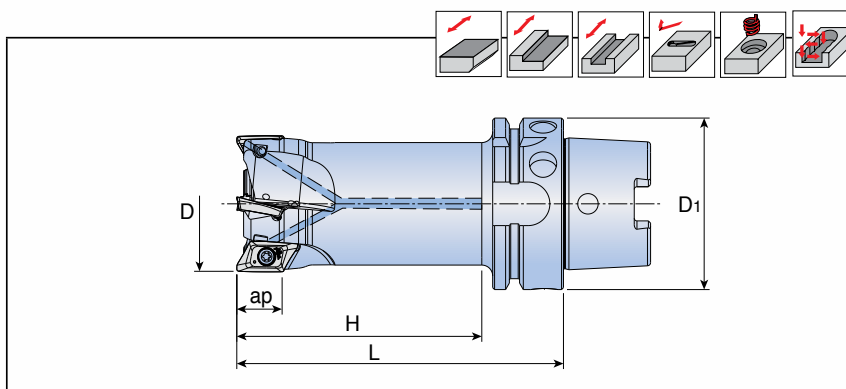
- Coolant through type
- Cutter body for inserts with corner radii more than 3.2mm (XEVT 16) and 3.0mm (XEVT 22) should be modified as follows:
body "R"=insert "R"-0.3mm
- Table's ap refers to XEVT 160504 and XEVT 220605 insert.

Spare parts

| Designation | Screw | Wrench | | | |
|--------------------|--------------|--------|--|--|--|
| | | | | | |
| TFM90XEV-16 | TS 40093I/HG | T-T15 | | | |
| TFM90XEV-22 | TS 50115I | T-T20 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

TE90XEV-HSK63A-16

Face mill



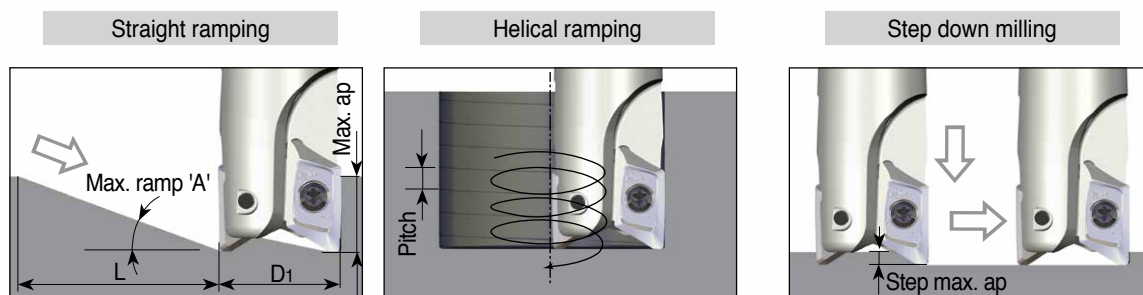
| Designation | Symbol | Dimension (mm) | | | | | | Max RPM | Kg | Insert |
|----------------------------------|--------|----------------|----|-----|----|----|--------|---------|--------------|--------|
| | | D | D1 | L | H | ap | | | | |
| TE90XEV 225-100-HSK63A-16 | 2 | 25 | 63 | 100 | 70 | 16 | 52,000 | 0.8 | XEVT 1605... | |
| 232-125-HSK63A-16 | 2 | 32 | 63 | 125 | 95 | 16 | 46,000 | 1.1 | | |
| 332-90-HSK63A-16 | 3 | 32 | 63 | 90 | 60 | 16 | 46,000 | 0.9 | | |
| 340-105-HSK63A-16 | 3 | 40 | 63 | 105 | 75 | 16 | 41,200 | 1.1 | | |
| 450-105-HSK63A-16 | 4 | 50 | 63 | 105 | 75 | 16 | 36,800 | 1.5 | | |
| 450-120-HSK63A-16 | 4 | 50 | 63 | 120 | 90 | 16 | 36,800 | 1.7 | | |

- Coolant through type
- Cutter body for inserts with corner radii more than 3.2mm (XEVT 16) should be modified as follows: body "R"=insert "R"-0.3mm
- Table's ap refers to XEVT 160504 insert.

Spare parts

| Designation | Screw | Wrench | | | |
|-----------------------------------|--------------|--------|--|--|--|
| | | | | | |
| TE90XEV 225-16 | TS 40085I/HG | T-T15 | | | |
| TE90XEV 232/332/340/450-16 | TS 40093I/HG | T-T15 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Ramping Data



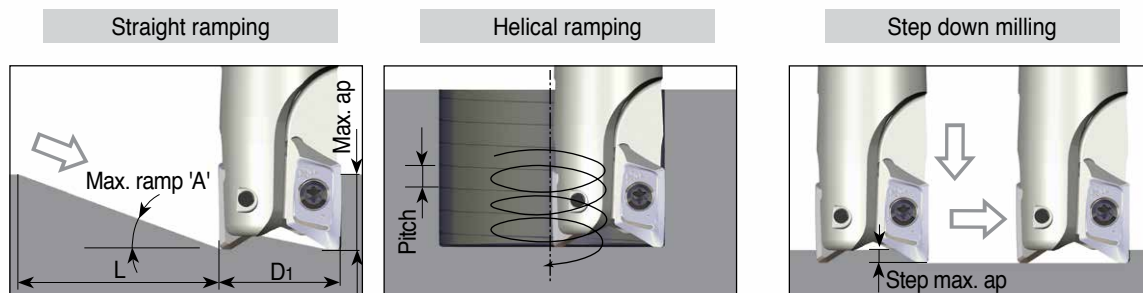
XEVT 16: 0.4R-1.6R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø25 | 23.5 | 16 | 37 | 29.1 | 50 | 4.8 | 4 |
| | | | | | | 13.6 | 4 |
| Ø32 | 14.5 | 16 | 62 | 43.1 | 64 | 7.7 | 4 |
| | | | | | | 13.6 | 4 |
| Ø40 | 10.0 | 16 | 91 | 59.1 | 80 | 9.0 | 4 |
| | | | | | | 13.6 | 4 |
| Ø50 | 7.5 | 16 | 122 | 79.1 | 100 | 10.2 | 4 |
| | | | | | | 13.6 | 4 |
| Ø63 | 5.5 | 16 | 166 | 105.1 | 126 | 10.8 | 4 |
| | | | | | | 13.6 | 4 |
| Ø80 | 4.5 | 16 | 203 | 139.1 | 160 | 12.4 | 4 |
| | | | | | | 13.6 | 4 |
| Ø100 | 3.3 | 16 | 278 | 179.1 | 200 | 12.2 | 4 |
| | | | | | | 13.6 | 4 |
| Ø125 | 2.5 | 16 | 367 | 229.1 | 250 | 12.1 | 4 |
| | | | | | | 13.6 | 4 |
| Ø160 | 1.5 | 16 | 611 | 299.1 | 320 | 9.7 | 4 |
| | | | | | | 11.2 | 4 |
| Ø200 | 1.0 | 16 | 917 | 379.1 | 400 | 8.3 | 4 |
| | | | | | | 9.3 | 4 |

XEVT 16: 2.0R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø25 | 23.5 | 15.5 | 36 | 29.1 | 50 | 4.8 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø32 | 14.5 | 15.5 | 60 | 43.1 | 64 | 7.7 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø40 | 10.0 | 15.5 | 88 | 59.1 | 80 | 9.0 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø50 | 7.5 | 15.5 | 118 | 79.1 | 100 | 10.2 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø63 | 5.5 | 15.5 | 161 | 105.1 | 126 | 10.8 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø80 | 4.5 | 15.5 | 197 | 139.1 | 160 | 12.4 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø100 | 3.3 | 15.5 | 269 | 179.1 | 200 | 12.2 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø125 | 2.5 | 15.5 | 355 | 229.1 | 250 | 12.1 | 3.5 |
| | | | | | | 13.2 | 3.5 |
| Ø160 | 1.5 | 15.5 | 592 | 299.1 | 320 | 9.7 | 3.5 |
| | | | | | | 11.2 | 3.5 |
| Ø200 | 1.0 | 15.5 | 888 | 379.1 | 400 | 8.3 | 3.5 |
| | | | | | | 9.3 | 3.5 |

Ramping Data



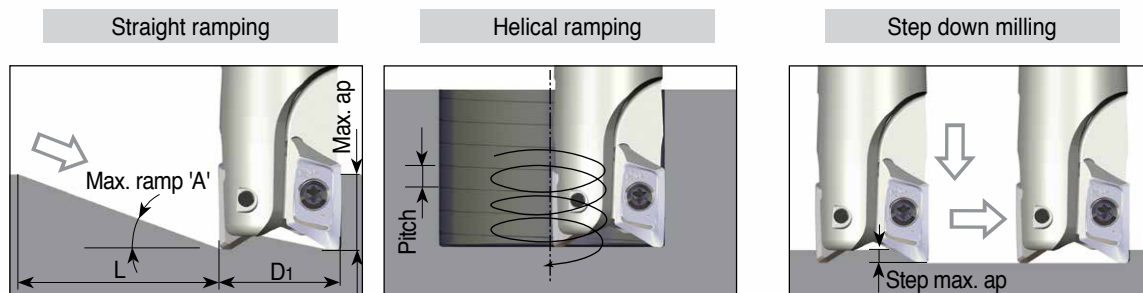
XEVT 16: 3.0R-3.2R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø25 | 22.5 | 14.5 | 35 | 29.1 | 50 | 4.5 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø32 | 13.5 | 14.5 | 60 | 43.1 | 64 | 7.1 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø40 | 9.0 | 14.5 | 92 | 59.1 | 80 | 8.1 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø50 | 6.5 | 14.5 | 127 | 79.1 | 100 | 8.8 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø63 | 5.0 | 14.5 | 166 | 105.1 | 126 | 9.8 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø80 | 4.0 | 14.5 | 207 | 139.1 | 160 | 11.0 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø100 | 3.0 | 14.5 | 277 | 179.1 | 200 | 11.1 | 2.8 |
| | | | | | | 12.3 | 2.8 |
| Ø125 | 2.0 | 14.5 | 415 | 229.1 | 250 | 9.7 | 2.8 |
| | | | | | | 11.6 | 2.8 |
| Ø160 | 1.1 | 14.5 | 756 | 299.1 | 320 | 7.1 | 2.8 |
| | | | | | | 8.2 | 2.8 |
| Ø200 | 0.8 | 14.5 | 1039 | 379.1 | 400 | 6.7 | 2.8 |
| | | | | | | 7.4 | 2.8 |

XEVT 16: 4.0R-5.0R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø25 | 20.0 | 14.5 | 40 | 29.1 | 50 | 4.0 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø32 | 12.0 | 14.5 | 68 | 43.1 | 64 | 6.3 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø40 | 7.5 | 14.5 | 110 | 59.1 | 80 | 6.7 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø50 | 5.5 | 14.5 | 151 | 79.1 | 100 | 7.5 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø63 | 4.5 | 14.5 | 184 | 105.1 | 126 | 8.8 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø80 | 3.5 | 14.5 | 237 | 139.1 | 160 | 9.6 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø100 | 3.0 | 14.5 | 277 | 179.1 | 200 | 11.1 | 2.4 |
| | | | | | | 12.3 | 2.4 |
| Ø125 | 2.0 | 14.5 | 415 | 229.1 | 250 | 9.7 | 2.4 |
| | | | | | | 11.6 | 2.4 |
| Ø160 | 1.0 | 14.5 | 831 | 299.1 | 320 | 6.5 | 2.4 |
| | | | | | | 7.5 | 2.4 |
| Ø200 | 0.7 | 14.5 | 1187 | 379.1 | 400 | 5.8 | 2.4 |
| | | | | | | 6.5 | 2.4 |

Ramping Data



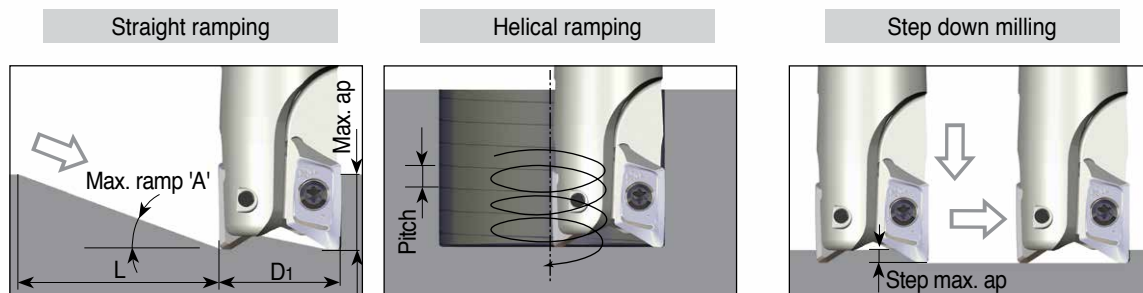
XEVT 22: 0.5R-0.8R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø32 | 20.0 | 21 | 58 | 38.5 | 64 | 6.3 | 4.7 |
| | | | | | | 17.9 | 4.7 |
| Ø40 | 14.0 | 21 | 84 | 54.5 | 80 | 9.6 | 4.7 |
| | | | | | | 17.9 | 4.7 |
| Ø50 | 9.5 | 21 | 126 | 74.5 | 100 | 10.9 | 4.7 |
| | | | | | | 17.9 | 4.7 |
| Ø63 | 7.0 | 21 | 171 | 100.5 | 126 | 12.3 | 4.7 |
| | | | | | | 17.9 | 4.7 |
| Ø80 | 5.0 | 21 | 240 | 134.5 | 160 | 12.7 | 4.7 |
| | | | | | | 17.9 | 4.7 |
| Ø100 | 3.7 | 21 | 325 | 174.5 | 200 | 12.9 | 4.7 |
| | | | | | | 17.3 | 4.7 |
| Ø125 | 2.6 | 21 | 463 | 224.5 | 250 | 12.1 | 4.7 |
| | | | | | | 15.1 | 4.7 |
| Ø200 | 1.6 | 21 | 752 | 374.5 | 400 | 13.0 | 4.7 |
| | | | | | | 14.9 | 4.7 |

XEVT 22: 1.6R-2.0R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø32 | 19.5 | 20.3 | 57 | 38.5 | 64 | 6.1 | 4.2 |
| | | | | | | 17.3 | 4.2 |
| Ø40 | 13.5 | 20.3 | 85 | 54.5 | 80 | 9.3 | 4.2 |
| | | | | | | 17.3 | 4.2 |
| Ø50 | 9.5 | 20.3 | 121 | 74.5 | 100 | 10.9 | 4.2 |
| | | | | | | 17.3 | 4.2 |
| Ø63 | 6.7 | 20.3 | 173 | 100.5 | 126 | 11.8 | 4.2 |
| | | | | | | 17.3 | 4.2 |
| Ø80 | 4.7 | 20.3 | 247 | 134.5 | 160 | 12.0 | 4.2 |
| | | | | | | 17.3 | 4.2 |
| Ø100 | 3.5 | 20.3 | 332 | 174.5 | 200 | 12.2 | 4.2 |
| | | | | | | 16.3 | 4.2 |
| Ø125 | 2.5 | 20.3 | 465 | 224.5 | 250 | 11.6 | 4.2 |
| | | | | | | 14.6 | 4.2 |
| Ø200 | 1.5 | 20.3 | 776 | 374.5 | 400 | 12.2 | 4.2 |
| | | | | | | 14.0 | 4.2 |

Ramping Data



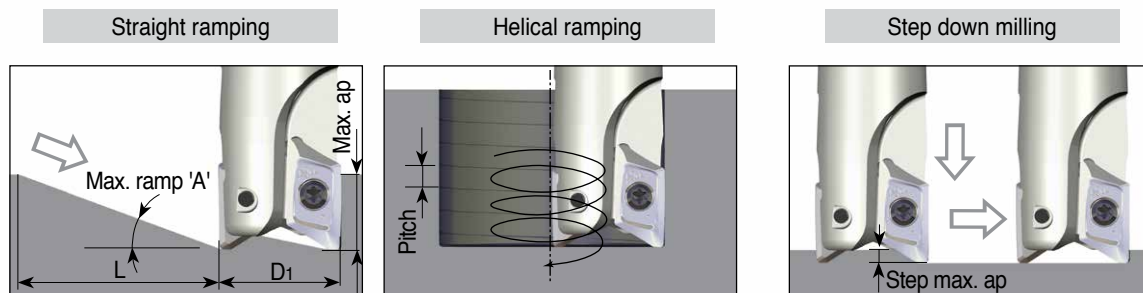
XEVT 22: 3.0R-4.0R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø32 | 18.5 | 19.5 | 58 | 38.5 | 64 | 5.8 | 3.3 |
| | | | | | | 16.6 | 3.3 |
| Ø40 | 12.5 | 19.5 | 88 | 54.5 | 80 | 8.6 | 3.3 |
| | | | | | | 16.6 | 3.3 |
| Ø50 | 8.5 | 19.5 | 131 | 74.5 | 100 | 9.8 | 3.3 |
| | | | | | | 16.6 | 3.3 |
| Ø63 | 5.5 | 19.5 | 203 | 100.5 | 126 | 9.6 | 3.3 |
| | | | | | | 16.2 | 3.3 |
| Ø80 | 4.0 | 19.5 | 279 | 134.5 | 160 | 10.2 | 3.3 |
| | | | | | | 14.9 | 3.3 |
| Ø100 | 3.0 | 19.5 | 372 | 174.5 | 200 | 10.4 | 3.3 |
| | | | | | | 14.0 | 3.3 |
| Ø125 | 2.0 | 19.5 | 559 | 224.5 | 250 | 9.3 | 3.3 |
| | | | | | | 11.6 | 3.3 |
| Ø200 | 1.0 | 19.5 | 1118 | 374.5 | 400 | 8.1 | 3.3 |
| | | | | | | 9.3 | 3.3 |

XEVT 22: 5.0R

| Cutter dia.(D1) | Straight ramp down | | | Helical ramp down | | | Step down |
|-----------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø32 | 17.5 | 19 | 60 | 38.5 | 64 | 5.5 | 2.8 |
| | | | | | | 16.2 | 2.8 |
| Ø40 | 11.5 | 19 | 93 | 54.5 | 80 | 7.9 | 2.8 |
| | | | | | | 16.2 | 2.8 |
| Ø50 | 7.5 | 19 | 144 | 74.5 | 100 | 8.6 | 2.8 |
| | | | | | | 16.2 | 2.8 |
| Ø63 | 5.0 | 19 | 217 | 100.5 | 126 | 8.8 | 2.8 |
| | | | | | | 14.7 | 2.8 |
| Ø80 | 3.5 | 19 | 311 | 134.5 | 160 | 8.9 | 2.8 |
| | | | | | | 13.1 | 2.8 |
| Ø100 | 2.5 | 19 | 435 | 174.5 | 200 | 8.7 | 2.8 |
| | | | | | | 11.6 | 2.8 |
| Ø125 | 1.7 | 19 | 641 | 224.5 | 250 | 7.9 | 2.8 |
| | | | | | | 9.9 | 2.8 |
| Ø200 | 0.8 | 19 | 1361 | 374.5 | 400 | 6.5 | 2.8 |
| | | | | | | 7.4 | 2.8 |

Ramping Data



XEVT 22: 6.4R

| Cutter dia. (D ₁) | Straight ramp down | | | Helical ramp down | | | Step down |
|-------------------------------|--------------------|--------------|-----------------|-------------------|-----------|-----------------|-----------|
| | Max. ramp (A°) | Max. ap (mm) | Min. length (L) | Min. dia. | Max. dia. | Max. pitch/rev. | Max. ap |
| Ø32 | 16.0 | 18.2 | 64 | 38.5 | 64 | 5.0 | 2.1 |
| | | | | | | 15.5 | 2.1 |
| Ø40 | 10.0 | 18.2 | 103 | 54.5 | 80 | 6.8 | 2.1 |
| | | | | | | 15.5 | 2.1 |
| Ø50 | 6.5 | 18.2 | 160 | 74.5 | 100 | 7.4 | 2.1 |
| | | | | | | 15.2 | 2.1 |
| Ø63 | 4.5 | 18.2 | 231 | 100.5 | 126 | 7.9 | 2.1 |
| | | | | | | 13.2 | 2.1 |
| Ø80 | 3.0 | 18.2 | 347 | 134.5 | 160 | 7.6 | 2.1 |
| | | | | | | 11.2 | 2.1 |
| Ø100 | 2.0 | 18.2 | 521 | 174.5 | 200 | 6.9 | 2.1 |
| | | | | | | 9.3 | 2.1 |
| Ø125 | 1.5 | 18.2 | 695 | 224.5 | 250 | 7.0 | 2.1 |
| | | | | | | 8.7 | 2.1 |
| Ø200 | 0.7 | 18.2 | 1490 | 374.5 | 400 | 5.7 | 2.1 |
| | | | | | | 6.5 | 2.1 |

Recommended Cutting Conditions

| ISO | Material | Condition | Tensile strength (N/mm ²) | Hardness HB | Material No. | Cutting speed Vc(m/min) | | |
|-----|--|------------------------|---------------------------------------|-------------|--------------|-------------------------|---------|---------|
| | | | | | | Uncoated | | |
| | | | | | | K10 | | |
| P | Non-alloy steel, cast steel, free cutting steel | < 0.25%C | Annealed | 420 | 125 | 1 | | |
| | | >= 0.25%C | Annealed | 650 | 190 | 2 | | |
| | | < 0.55%C | Quenched and tempered | 850 | 250 | 3 | | |
| | | >= 0.55%C | Annealed | 750 | 220 | 4 | | |
| | | | Quenched and tempered | 1000 | 300 | 5 | | |
| | Low alloy steel and cast steel (less than 5% of alloying elements) | Annealed | | 600 | 200 | 6 | | |
| | | | | 930 | 275 | 7 | | |
| | | Quenched and tempered | | 1000 | 300 | 8 | | |
| | | | | 1200 | 350 | 9 | | |
| | High alloy steel, cast steel and tool steel | Annealed | | 680 | 200 | 10 | | |
| | | Quenched and tempered | | 1100 | 325 | 11 | | |
| M | Stainless steel and cast steel | Ferritic / martensitic | | 680 | 200 | 12 | | |
| | | Martensitic | | 820 | 240 | 13 | | |
| | | Austenitic | | 600 | 180 | 14 | | |
| K | Gray cast iron (GG) | Ferritic | | | 160 | 15 | | |
| | | Pearlitic | | | 250 | 16 | | |
| | Cast iron nodular (GGG) | Ferritic | | | 180 | 17 | | |
| | | Pearlitic | | | 260 | 18 | | |
| | Malleable cast iron | Ferritic | | | 130 | 19 | | |
| | | Pearlitic | | | 230 | 20 | | |
| N | Aluminum - wrought alloy | Not cureable | | | 60 | 21 | 550-700 | |
| | | Cured | | | 100 | 22 | 600-750 | |
| | Aluminum-cast, alloyed | <=12% Si | Not cureable | | | 75 | 23 | 800-900 |
| | | | Cured | | | 90 | 24 | 650-800 |
| | | >12% Si | High temp. | | | 130 | 25 | 250-320 |
| | Copper alloys | >1% Pb | Free cutting | | | 110 | 26 | 300-400 |
| | | | Brass | | | 90 | 27 | 300-400 |
| | | | Electrolitic copper | | | 100 | 28 | 210-280 |
| | Non-metallic | | Duroplastics, fiber plastics | | | | 29 | |
| | | | Hard rubber | | | | 30 | |
| S | High temp. alloys | Fe based | Annealed | | | 200 | 31 | |
| | | | Cured | | | 280 | 32 | |
| | | Ni or Co based | Annealed | | | 250 | 33 | |
| | | | Cured | | | 350 | 34 | |
| | | | Cast | | | 320 | 35 | |
| | Titanium, Ti alloys | | | Rm 400 | | | 36 | |
| | | | Alpha+beta alloys cured | | Rm 1050 | | | 37 |
| H | Hardened steel | Hardened | | | 55HRC | 38 | | |
| | | Hardened | | | 60HRC | 39 | | |
| | Chilled cast iron | Cast | | | 400 | 40 | | |
| | Cast iron nodular | Hardened | | | 55HRC | 41 | | |

■ Steel
 ■ Stainless steel
 ■ Cast iron
 ■ Nonferrous
 ■ High temp. alloys
 ■ Hardened steel