

NPN

New Product News

expansion

STAR MILL

SED 7 Solid Carbide End Mill Line Expanded to 4xD Long Type and Chip Splitter Type



KEY POINT

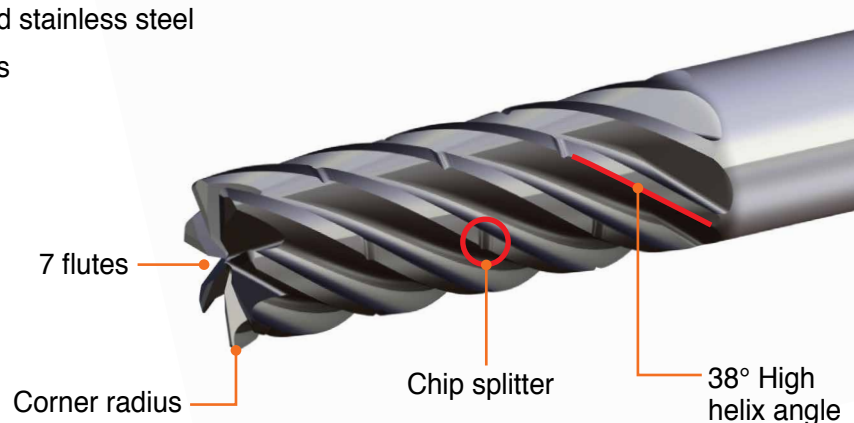
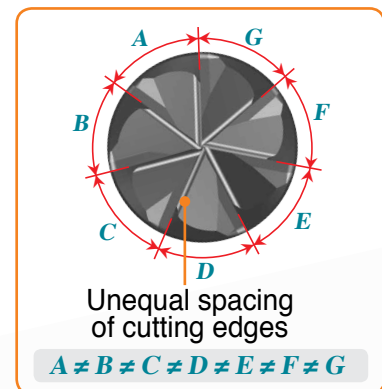
TaeguTec has expanded long type (-4D) and chip splitter type (-N) to the SED 7 solid carbide end mill line for machining difficult-to-cut materials.

TaeguTec's SED 7 solid carbide end mill has provided customers with high productivity and excellent performance when machining titanium alloy and stainless steel.

The line has been expanded with two new products: 4xD depth of cut type as well as chip splitter type, both ideal for trochoidal machining.

Features

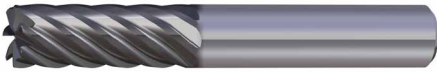
- **4xD long type end mill (SED 7...-4D)**
 - Applicable to higher depth of cut
- **Chip splitter type end mill (SED 7...-N)**
 - Low cutting force and excellent chip evacuation
 - Minimized chip volume
 - Ideal for rough machining
- 7 flutes design
- Unequal spacing of cutting edges for vibration reduction
- Optimized helix angle for titanium alloy and stainless steel
- High productivity with trochoidal operations



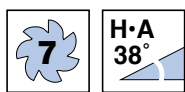
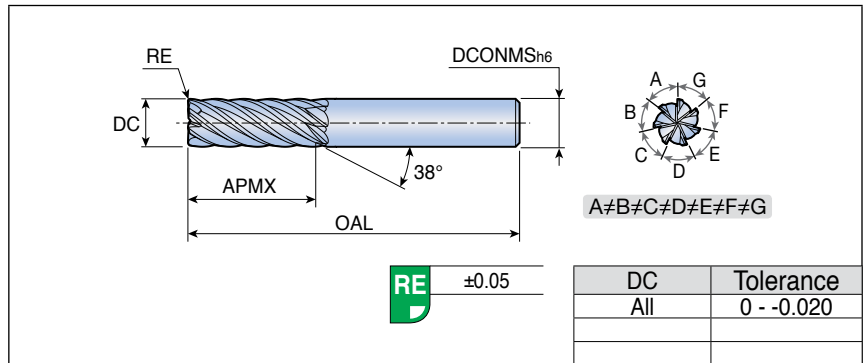
SED 7...



7 flute medium corner radius (Unequal spacing of cutting edges)



- Excellent chatter damping credit to unequal spacing of cutting edges
- For trochoidal operation



| Designation | Feed (mm/tooth) | Dimension (mm) | | | | | Grade |
|---|-----------------|----------------|-----|-----|------|--------|-------|
| | | DC | RE | OAL | APMX | DCONMS | |
| SED 7060 | 0.02-0.04 | 6 | 0.5 | 57 | 15 | 6 | • |
| 7060-4D new | 0.02-0.04 | 6 | 0.5 | 70 | 24 | 6 | • |
| 7080 | 0.02-0.05 | 8 | 0.5 | 70 | 25 | 8 | • |
| 7080-4D new | 0.02-0.05 | 8 | 0.5 | 90 | 32 | 8 | • |
| 7100 | 0.03-0.07 | 10 | 0.5 | 72 | 25 | 10 | • |
| 7100-4D new | 0.03-0.07 | 10 | 0.5 | 100 | 40 | 10 | • |
| 7120 | 0.03-0.09 | 12 | 0.5 | 83 | 30 | 12 | • |
| 7120-4D new | 0.03-0.09 | 12 | 0.5 | 110 | 48 | 12 | • |
| 7140 | 0.04-0.10 | 14 | 0.5 | 90 | 35 | 14 | • |
| 7160 | 0.04-0.11 | 16 | 0.5 | 100 | 42 | 16 | • |
| 7160-4D new | 0.04-0.11 | 16 | 0.5 | 125 | 64 | 16 | • |
| 7200 | 0.05-0.12 | 20 | 0.5 | 104 | 48 | 20 | • |
| 7200-4D new | 0.05-0.12 | 20 | 0.5 | 150 | 80 | 20 | • |

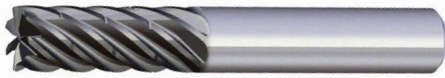
• 4D: 4xD depth of cut

•: Standard items

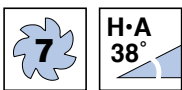
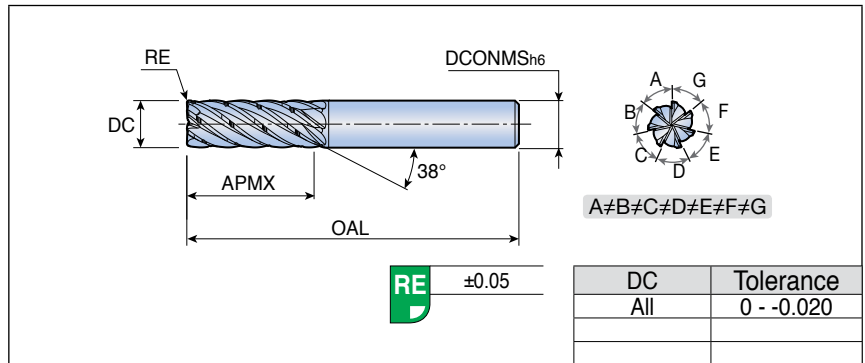
SED 7...N new



7 flute medium corner radius (Unequal spacing of cutting edges, with chip splitters)



- Excellent chatter damping credit to unequal spacing of cutting edges
- For trochoidal operation



| Designation | Feed (mm/tooth) | Dimension (mm) | | | | | Grade |
|-------------------|-----------------|----------------|-----|-----|------|--------|-------|
| | | DC | RE | OAL | APMX | DCONMS | |
| SED 7060-N | 0.02-0.04 | 6 | 0.5 | 57 | 15 | 6 | ● |
| 7060-4D-N | 0.02-0.04 | 6 | 0.5 | 70 | 24 | 6 | ● |
| 7080-N | 0.02-0.05 | 8 | 0.5 | 70 | 25 | 8 | ● |
| 7080-4D-N | 0.02-0.05 | 8 | 0.5 | 90 | 32 | 8 | ● |
| 7100-N | 0.03-0.07 | 10 | 0.5 | 72 | 25 | 10 | ● |
| 7100-4D-N | 0.03-0.07 | 10 | 0.5 | 100 | 40 | 10 | ● |
| 7120-N | 0.03-0.09 | 12 | 0.5 | 83 | 30 | 12 | ● |
| 7120-4D-N | 0.03-0.09 | 12 | 0.5 | 110 | 48 | 12 | ● |
| 7160-N | 0.04-0.11 | 16 | 0.5 | 100 | 42 | 16 | ● |
| 7160-4D-N | 0.04-0.11 | 16 | 0.5 | 125 | 64 | 16 | ● |
| 7200-N | 0.05-0.12 | 20 | 0.5 | 104 | 48 | 20 | ● |
| 7200-4D-N | 0.05-0.12 | 20 | 0.5 | 150 | 80 | 20 | ● |

• N: chip splitter type

●: Standard items

Recommended Cutting Conditions

■ Medium · Finishing

| Material | Side milling | | | f (mm/tooth) | | | | | |
|-------------------------|--------------|-----------|-------------------|--------------|------------|------------|------------|------------|-----------|
| | ap | ae | Speed V(m/min) | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 |
| Alloy steel (≤HRC45) | 2D Max | 0.3D Max | 80-130 | 0.02-0.035 | 0.03-0.045 | 0.04-0.06 | 0.05-0.08 | 0.06-0.1 | 0.06-0.11 |
| | 4D Max | 0.15D Max | | | | | | | |
| Stainless steel | 2D Max | 0.3D Max | 50-100 | 0.025-0.04 | 0.03-0.05 | 0.04-0.07 | 0.05-0.09 | 0.06-0.11 | 0.06-0.12 |
| | 4D Max | 0.15D Max | | | | | | | |
| Titanium | 2D Max | 0.3D Max | 50-120 | 0.02-0.035 | 0.025-0.04 | 0.03-0.05 | 0.03-0.06 | 0.04-0.07 | 0.05-0.08 |
| | 4D Max | 0.15D Max | | | | | | | |
| Inconel 718 | 2D Max | 0.3D Max | 30-60 | 0.015-0.025 | 0.02-0.03 | 0.025-0.04 | 0.03-0.045 | 0.04-0.055 | 0.05-0.06 |
| | 4D Max | 0.15D Max | | | | | | | |

• When trochoidal machining under the above conditions, the recommended ae value is 0.05-0.1D

■ Finishing

| Material | Side milling | | | f (mm/tooth) | | | | | |
|-------------------------|--------------|-----------|-------------------|--------------|------------|------------|------------|------------|-----------|
| | ap | ae | Speed V(m/min) | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 |
| Alloy steel (≤HRC45) | 2D Max | 0.05D Max | 120-200 | 0.02-0.035 | 0.03-0.045 | 0.04-0.06 | 0.05-0.08 | 0.06-0.1 | 0.06-0.11 |
| | 4D Max | 0.03D Max | | | | | | | |
| Stainless steel | 2D Max | 0.05D Max | 75-150 | 0.025-0.04 | 0.03-0.05 | 0.04-0.07 | 0.05-0.09 | 0.06-0.11 | 0.06-0.12 |
| | 4D Max | 0.03D Max | | | | | | | |
| Titanium | 2D Max | 0.05D Max | 75-180 | 0.02-0.035 | 0.025-0.04 | 0.03-0.05 | 0.03-0.06 | 0.04-0.07 | 0.05-0.08 |
| | 4D Max | 0.03D Max | | | | | | | |
| Inconel 718 | 2D Max | 0.05D Max | 45-90 | 0.015-0.025 | 0.02-0.03 | 0.025-0.04 | 0.03-0.045 | 0.04-0.055 | 0.05-0.06 |
| | 4D Max | 0.03D Max | | | | | | | |