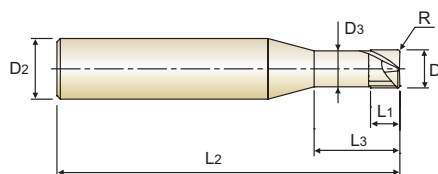


CBN, 2 FLUTE CORNER RADIUS

CBN, 2 SCHNEIDEN ECKENRADIUS

- ▶ Achieve stable machining and higher accuracy for the duration.
- ▶ Save the setting time and cost due to reducing of frequent tool change.
- ▶ Improve repeatability in performance.
- ▶ Special designed geometry improves tool rigidity at High Speed Cutting.
- ▶ Tighter Radius Tolerance $\pm 0.005\text{mm}$ higher accuracy and longer tool life.

- ▶ **Sichert dauerhaft stabile Bearbeitung und höhere Genauigkeit.**
- ▶ **Spart Rüstzeit und -kosten durch weniger Werkzeugwechsel.**
- ▶ **Verbessert die Wiederholgenauigkeit.**
- ▶ **Eine besondere Werkzeuggeometrie verbessert die Steifigkeit bei HSC-Bearbeitung.**
- ▶ **Engere Radiustoleranz ± 0.005 , höhere Genauigkeit und längere Werkzeuglebenszeit.**



CBN
2
0°
R ±0.005
PLAIN
P.558

Unit : mm

| EDP No. | Corner Radius | Mill Diameter | Shank Diameter | Length of Cut | Length Below Shank | Overall Length | Neck Diameter |
|-------------|-------------------|---------------|----------------|---------------|--------------------|----------------|---------------|
| | R (± 0.005) | D1 | D2 | L1 | L3 | L2 | D3 |
| ESD02005052 | RO.05 | 0.5 | 4 | 0.3 | 2 | 50 | 0.46 |
| ESD02005053 | RO.05 | 0.5 | 4 | 0.3 | 3 | 50 | 0.46 |
| ESD02010053 | RO.05 | 1.0 | 4 | 0.7 | 3 | 50 | 0.95 |
| ESD02010055 | RO.05 | 1.0 | 4 | 0.7 | 5 | 50 | 0.95 |
| ESD02010103 | RO.1 | 1.0 | 4 | 0.7 | 3 | 50 | 0.95 |
| ESD02010105 | RO.1 | 1.0 | 4 | 0.7 | 5 | 50 | 0.95 |
| ESD02015105 | RO.1 | 1.5 | 4 | 1.0 | 5 | 50 | 1.45 |
| ESD02015108 | RO.1 | 1.5 | 4 | 1.0 | 8 | 50 | 1.45 |
| ESD02015205 | RO.2 | 1.5 | 4 | 1.0 | 5 | 50 | 1.45 |
| ESD02015208 | RO.2 | 1.5 | 4 | 1.0 | 8 | 50 | 1.45 |
| ESD02020106 | RO.1 | 2.0 | 4 | 1.2 | 6 | 50 | 1.95 |
| ESD02020100 | RO.1 | 2.0 | 4 | 1.2 | 10 | 50 | 1.95 |
| ESD02020206 | RO.2 | 2.0 | 4 | 1.2 | 6 | 50 | 1.95 |
| ESD02020200 | RO.2 | 2.0 | 4 | 1.2 | 10 | 50 | 1.95 |

| | |
|-----------------------------|----------------------|
| Corner Radius Tolerance(mm) | Shank Dia. Tolerance |
| ± 0.005 | h5 |

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | High Hardened Steels | Copper | Graphite | Cast Iron | Aluminum | Stainless Steels | Titanium | Inconel |
|---------------|--------------|--------------------|-----------------|----------|----------------------|--------|----------|-----------|----------|------------------|----------|---------|
| ~HB225 | HB225~325 | HRC30~40 | HRc40~45 | HRc45~55 | HRC55~70 | | | | | | | |
| | | | | ◎ | ◎ | | | | | | | |


**CBN, 2 FLUTE BALL NOSE
CBN, 2 SCHNEIDEN STIRNRADIUS**
ESB94 SERIES

| MATERIAL HARDNESS DIAMETER | HARDENED STEELS | | HIGH HARDENED STEELS | |
|----------------------------------|-----------------|-------|----------------------|-------|
| | HRc50 ~ HRc60 | | HRc60 ~ HRc70 | |
| | RPM | FEED | RPM | FEED |
| R0.2 × 0.4 | 50,000 | 1,200 | 50,000 | 1,200 |
| R0.25 × 0.5 | 50,000 | 1,500 | 50,000 | 1,500 |
| R0.3 × 0.6 | 50,000 | 2,000 | 50,000 | 2,000 |
| R0.4 × 0.8 | 50,000 | 2,000 | 50,000 | 2,000 |
| R0.5 × 1.0 | 50,000 | 3,000 | 50,000 | 3,000 |
| R0.6 × 1.2 | 50,000 | 3,000 | 50,000 | 3,000 |
| R0.75 × 1.5 | 50,000 | 3,000 | 50,000 | 3,000 |
| R1.0 × 2.0 | 40,000 | 3,200 | 32,000 | 2,500 |
| R1.5 × 3.0 | 26,500 | 2,100 | 21,500 | 1,700 |

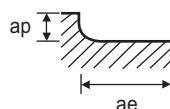
ap : R0.2 ~ R0.4 =0.005
R0.5 ~ R1.5 =0.01
ae : R0.2 ~ R0.4 =0.005
R0.5 ~ R1.5 =0.01



RPM = rev./min.
FEED = mm/min.

**CBN, 2 FLUTE CORNER RADIUS
CBN, 2 SCHNEIDEN ECKENRADIUS**
ESD02 SERIES

| MATERIAL HARDNESS DIAMETER | HARDENED STEELS | | | | HIGH HARDENED STEELS | | | |
|----------------------------------|-----------------|-------|--------------|--------|----------------------|------|--------------|-------|
| | HRc50 ~ HRc60 | | | | HRc60 ~ HRc70 | | | |
| | RPM | FEED | DEPTH OF CUT | | RPM | FEED | DEPTH OF CUT | |
| ae[mm] | | | ap[mm] | ae[mm] | | | ap[mm] | |
| 0.5 | 50,000 | 700 | 0.10 | 0.01 | 50,000 | 550 | 0.06 | 0.005 |
| 1.0 | 43,000 | 1,000 | 0.20 | 0.01 | 30,000 | 700 | 0.10 | 0.10 |
| 1.5 | 30,000 | 1,000 | 0.40 | 0.02 | 19,000 | 700 | 0.20 | 0.20 |
| 2.0 | 22,000 | 900 | 0.60 | 0.03 | 14,000 | 800 | 0.30 | 0.30 |



RPM = rev./min.
FEED = mm/min.