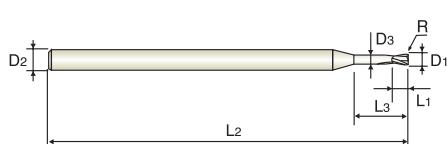



**D-POWER GRAPHITE  
END MILLS**
**EI996** SERIES

**PLAIN SHANK  
GLATTER ZYLINDERSCHAFT**
**CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS with NECK  
VOLLHARTMETALL, 2 SCHNEIDEN MINI ECKENRADIUS mit ABGESETZTEM SCHAFTTEIL**

- Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.

- Höhere Härte der Beschichtung und ausgezeichnete Verschleißfestigkeit verlängern die Standzeit beachtlich.
- Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schafträser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne Silicon, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - beschichtete Hartmetall Schafträser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



P.1016

Unit : mm

| EDP No.       | Corner Radius | Mill Diameter | Shank Diameter | Length of Cut | Length Below Shank | Overall Length | Neck Diameter |
|---------------|---------------|---------------|----------------|---------------|--------------------|----------------|---------------|
|               | R             | D1            | D2             | L1            | L3                 | L2             | D3            |
| EI99600200000 | -             | 0.2           | 3              | 0.3           | -                  | 40             | -             |
| EI99600300000 | -             | 0.3           | 3              | 0.5           | -                  | 40             | -             |
| EI99600400000 | -             | 0.4           | 3              | 0.6           | -                  | 40             | -             |
| EI99600505025 | RO.05         | 0.5           | 3              | 0.7           | 2.5                | 40             | 0.45          |
| EI99600505040 | RO.05         | 0.5           | 3              | 0.7           | 4                  | 40             | 0.45          |
| EI996006      | RO.05         | 0.6           | 3              | 0.9           | 3                  | 40             | 0.55          |
| EI99600605050 | RO.05         | 0.6           | 3              | 0.9           | 5                  | 40             | 0.55          |
| EI996008      | RO.05         | 0.8           | 3              | 1.2           | 4                  | 40             | 0.75          |
| EI99600805070 | RO.05         | 0.8           | 3              | 1.2           | 7                  | 40             | 0.75          |
| EI996010      | RO.1          | 1.0           | 3              | 1.5           | 5                  | 40             | 0.95          |
| EI996904      | RO.1          | 1.0           | 3              | 1.5           | 8.5                | 40             | 0.95          |
| EI99601010120 | RO.1          | 1.0           | 3              | 1.5           | 12                 | 40             | 0.95          |
| EI996012      | RO.1          | 1.2           | 3              | 1.8           | 6                  | 50             | 1.15          |
| EI99601210100 | RO.1          | 1.2           | 3              | 1.8           | 10                 | 50             | 1.15          |
| EI996015      | RO.15         | 1.5           | 3              | 2.2           | 7.5                | 50             | 1.4           |
| EI996907      | RO.15         | 1.5           | 3              | 2.2           | 12                 | 50             | 1.4           |
| EI99601515180 | RO.15         | 1.5           | 3              | 2.2           | 18                 | 50             | 1.4           |
| EI996020      | RO.15         | 2.0           | 3              | 2.2           | 10                 | 60             | 1.9           |
| EI996909      | RO.15         | 2.0           | 3              | 2.2           | 16                 | 60             | 1.9           |
| EI99602015250 | RO.15         | 2.0           | 3              | 2.2           | 25                 | 60             | 1.9           |
| EI99603020100 | RO.2          | 3.0           | 4              | 3             | 10                 | 65             | 2.9           |
| EI99603020150 | RO.2          | 3.0           | 4              | 3             | 15                 | 65             | 2.9           |
| EI99603020200 | RO.2          | 3.0           | 4              | 3             | 20                 | 65             | 2.9           |
| EI99603020250 | RO.2          | 3.0           | 4              | 3             | 25                 | 75             | 2.9           |
| EI99603020300 | RO.2          | 3.0           | 4              | 3             | 30                 | 75             | 2.9           |
| EI99604020200 | RO.2          | 4.0           | 6              | 4             | 20                 | 65             | 3.9           |
| EI99604020300 | RO.2          | 4.0           | 6              | 4             | 30                 | 75             | 3.9           |
| EI99604020400 | RO.2          | 4.0           | 6              | 4             | 40                 | 90             | 3.9           |

◎ : Excellent    ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | High Hardened Steels | Copper   | Graphite | Cast Iron | Aluminum | Stainless Steels | Titanium | Inconel | Acrylic | CFRP |
|---------------|--------------|--------------------|-----------------|----------------------|----------|----------|-----------|----------|------------------|----------|---------|---------|------|
| ~HB225        | HB225~325    | HRc30~40           | HRc40~45        | HRc45~55             | HRc55~70 |          |           |          | ◎                | ○        |         |         | ○    |
|               |              |                    |                 |                      |          |          |           |          |                  |          |         |         |      |

HSS

CBN  
END MILLSi-Xmill  
END MILLSi-HS mill  
END MILLSX5070  
END MILLS4G MILL  
END MILLSX-SPEED  
ROUGHER  
END MILLSJET-POWER  
END MILLSTN MILL  
END MILLSV7 Mill  
END MILLSALU-POWER  
END MILLSCRX S  
END MILLSD-POWER  
GRAPHITE  
END MILLSD-POWER  
CFRP  
END MILLS

ROUTERS

K-2 CARBIDE  
END MILLSGENERAL  
CARBIDE  
END MILLSTANK-POWER  
END MILLSGENERAL  
HSS  
END MILLSMILLING  
CUTTERSTECHNICAL  
DATA

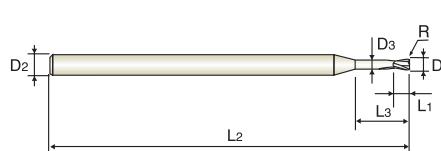
D-POWER GRAPHITE  
END MILLS

EI996 SERIES

PLAIN SHANK  
GLATTER ZYLINDERSCHAFTCARBIDE, 2 FLUTE MINIATURE CORNER RADIUS with NECK  
VOLLHARTMETALL, 2 SCHNEIDEN MINI ECKENRADIUS mit ABGESETZTEM SCHAFTTTEL

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MG  
HM

30°



PLAIN



P.1016

Unit : mm

| EDP No.       | Corner Radius | Mill Diameter | Shank Diameter | Length of Cut | Length Below Shank | Overall Length | Neck Diameter |
|---------------|---------------|---------------|----------------|---------------|--------------------|----------------|---------------|
|               |               |               |                |               |                    |                |               |
| EI99605030200 | RO.3          | 5.0           | 6              | 5             | 20                 | 75             | 4.9           |
| EI99605030300 | RO.3          | 5.0           | 6              | 5             | 30                 | 75             | 4.9           |
| EI99605030400 | RO.3          | 5.0           | 6              | 5             | 40                 | 90             | 4.9           |
| EI99605030500 | RO.3          | 5.0           | 6              | 5             | 50                 | 90             | 4.9           |
| EI99606030300 | RO.3          | 6.0           | 6              | 6             | 30                 | 75             | 5.9           |
| EI99606030400 | RO.3          | 6.0           | 6              | 6             | 40                 | 90             | 5.9           |
| EI99606030500 | RO.3          | 6.0           | 6              | 6             | 50                 | 90             | 5.9           |
| EI99606030600 | RO.3          | 6.0           | 6              | 6             | 60                 | 100            | 5.9           |

| Mill Dia.<br>Tolerance(mm) | Shank Dia.<br>Tolerance |
|----------------------------|-------------------------|
| 0~-0.02                    | h6                      |

◎ : Excellent    ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | High Hardened Steels | Copper   | Graphite | Cast Iron | Aluminum | Stainless Steels | Titanium | Inconel | Acrylic | CFRP |
|---------------|--------------|--------------------|-----------------|----------------------|----------|----------|-----------|----------|------------------|----------|---------|---------|------|
| ~HB225        | HB225~325    | HRc30~40           | HRc40~45        | HRc45~55             | HRc55~70 |          |           |          |                  |          |         |         |      |
|               |              |                    |                 |                      |          | ◎        |           | ○        |                  |          |         |         | ○    |

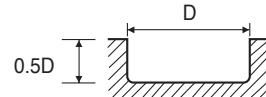


## D-POWER GRAPHITE END MILLS

### CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS VOLLHARTMETALL, 2 SCHNEIDEN MINI ECKENRADIUS

#### EI996, EIB86 SERIES

| MATERIAL | GRAPHITE |      |      |       |    |
|----------|----------|------|------|-------|----|
|          | DIAMETER | RPM  | FEED | Vc    | fz |
| 0.4      | 40000    | 640  | 50   | 0.008 |    |
| 0.6      | 40000    | 640  | 75   | 0.008 |    |
| 0.8      | 40000    | 800  | 100  | 0.010 |    |
| 1.0      | 40000    | 960  | 125  | 0.012 |    |
| 1.2      | 40000    | 1200 | 150  | 0.015 |    |
| 1.5      | 40000    | 1440 | 190  | 0.018 |    |
| 2.0      | 40000    | 1600 | 250  | 0.020 |    |
| 3.0      | 27000    | 1900 | 255  | 0.035 |    |
| 4.0      | 20000    | 2300 | 250  | 0.058 |    |
| 5.0      | 16000    | 2300 | 250  | 0.072 |    |
| 6.0      | 14000    | 2300 | 265  | 0.082 |    |

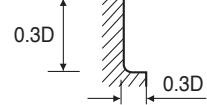


RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t

### CARBIDE, 3 FLUTE 40° HELIX CORNER RADIUS VOLLHARTMETALL, 3 SCHNEIDEN 40° RECHTSSPIRALE ECKENRADIUS

#### EIA13, EIA14 SERIES

| MATERIAL | GRAPHITE |      |      |       |    |
|----------|----------|------|------|-------|----|
|          | DIAMETER | RPM  | FEED | Vc    | fz |
| 2.0      | 40000    | 3000 | 250  | 0.025 |    |
| 3.0      | 40000    | 4200 | 375  | 0.035 |    |
| 4.0      | 40000    | 6000 | 505  | 0.050 |    |
| 5.0      | 40000    | 7200 | 630  | 0.060 |    |
| 6.0      | 40000    | 8400 | 755  | 0.070 |    |
| 8.0      | 32000    | 8400 | 805  | 0.088 |    |
| 10.0     | 26000    | 8600 | 815  | 0.110 |    |
| 12.0     | 21000    | 8200 | 790  | 0.130 |    |



\* The FEED, in long & long reach types,  
should be reduced by around 50%

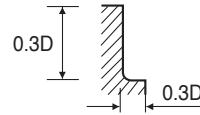
RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

### CARBIDE, 4 FLUTE CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN ECKENRADIUS

#### EIB88 SERIES

| MATERIAL | GRAPHITE |      |      |       |    |
|----------|----------|------|------|-------|----|
|          | DIAMETER | RPM  | FEED | Vc    | fz |
| 6.0      | 40000    | 5600 | 755  | 0.035 |    |
| 8.0      | 32000    | 5600 | 805  | 0.044 |    |
| 10.0     | 26000    | 5700 | 815  | 0.055 |    |
| 12.0     | 21000    | 5450 | 790  | 0.065 |    |



RPM = rev./min.  
FEED = mm/min.  
Vc = m/min.  
fz = mm/t