

# CARBIDE



Being the best through innovation



# JET-POWER

## JET-POWER FRÄSER

- Exotic materials like Stainless Steels, Nickel alloys and Titanium
- Für zähe Werkstoffe, wie rostfreier Stahl, Titan und Nickellegierungen

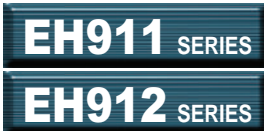
# SELECTION GUIDE

| ITEM  | MODEL   | DESCRIPTION  | SIZE |       | PAGE       |
|---|---|--|------|-------|------------|
|   |   |  | MIN  | MAX   |            |
| <b>EH911</b><br><b>EH912</b>                                    |    | CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH<br>VOLLHARTMETALL, 2 SCHNEIDEN 35° RECHTSSPIRALE KURZ  | D1.0 | D25.0 | <b>682</b> |
| <b>EH913</b><br><b>EH914</b>                                    |    | CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH<br>VOLLHARTMETALL, 4 SCHNEIDEN 35° RECHTSSPIRALE KURZ  | D2.0 | D25.0 | <b>683</b> |
| <b>EH830</b><br><b>EH840</b>                                    |    | CARBIDE, 3&4 FLUTE 50° HELIX LONG LENGTH<br>VOLLHARTMETALL, 3&4 SCHNEIDEN 50° RECHTSSPIRALE LANG   | D6.0 | D25.0 | <b>684</b> |
| <b>EH915</b><br><b>EH916</b>                                    |    | CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH (Positive Rake Angle)<br>VOLLHARTMETALL, 6&8 SCHNEIDEN 45° RECHTSSPIRALE LANG                               | D6.0 | D25.0 | <b>685</b> |
| <b>EE515</b>  |    | PREMIUM HSS-PM, 4&6 FLUTE SHORT LENGTH<br>PREMIUM HSS-PM, 4&6 SCHNEIDEN KURZ   | D3.0 | D25.0 | <b>686</b> |
| <b>EH852</b><br><b>EH862</b>                                    |    | CARBIDE, MULTI FLUTE SHORT LENGTH ROUGHING - FINE<br>VOLLHARTMETALL, MULTI SCHNEIDEN KURZ SCHRUPPFRÄSER - FEIN                                       | D6.0 | D25.0 | <b>687</b> |
| <b>EH831</b><br><b>EH841</b>                                    |   | CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - FINE<br>VOLLHARTMETALL, MULTI SCHNEIDEN LANG SCHRUPPFRÄSER - FEIN  | D6.0 | D25.0 | <b>688</b> |
| <b>EH917</b><br><b>EH918</b>                                    |  | CARBIDE, MULTI FLUTE 45° HELIX SHORT LENGTH ROUGHING - FINE<br>VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE KURZ SCHRUPPFRÄSER - FEIN           | D6.0 | D20.0 | <b>689</b> |
| <b>EH919</b><br><b>EH920</b>                                    |  | CARBIDE, MULTI FLUTE 45° HELIX LONG LENGTH ROUGHING - FINE<br>VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE LANG SCHRUPPFRÄSER - FEIN            | D4.0 | D25.0 | <b>690</b> |
| <b>EH921</b><br><b>EH942</b>                                    |  | CARBIDE, MULTI FLUTE 45° HELIX LONG REACH ROUGHING - FINE<br>VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE GROÛE REICHWEITE SCHRUPPFRÄSER - FEIN | D6.0 | D20.0 | <b>691</b> |
| RECOMMENDED CUTTING CONDITIONS<br>EMPFOHLENE SCHNEIDKONDITIONEN |   |  |      |       | <b>692</b> |

# JET-POWER END MILLS

◎ : Excellent, ○ : Good

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



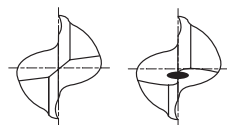
PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, 2 FLUTE 35° HELIX SHORT LENGTH VOLLHARTMETALL, 2 SCHNEIDEN 35° RECHTSSPIRALE KURZ

- ▶ Ultra micro grain carbide
- ▶ Reduces chipping of corner edges
- ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

- ▶ Ultra Feinstkorn - Vollhartmetall.
- ▶ Verstärkte Schneidkante.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen.



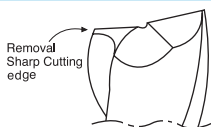
up to Ø3mm over Ø3mm



Unit : mm

| EDP No.  | Mill Diameter | Shank Diameter | Length of Cut | Overall Length |
|----------|---------------|----------------|---------------|----------------|
|          |               |                |               |                |
| EH911010 | 1.0           | 4              | 2.5           | 40             |
| EH911901 | 1.0           | 6              | 2.5           | 40             |
| EH911015 | 1.5           | 4              | 4             | 40             |
| EH911902 | 1.5           | 6              | 4             | 40             |
| EH911020 | 2.0           | 4              | 6             | 40             |
| EH911903 | 2.0           | 6              | 6             | 40             |
| EH911025 | 2.5           | 4              | 8             | 40             |
| EH911904 | 2.5           | 6              | 8             | 40             |
| EH911030 | 3.0           | 6              | 8             | 45             |
| EH911035 | 3.5           | 6              | 10            | 45             |
| EH911040 | 4.0           | 6              | 11            | 45             |
| EH911045 | 4.5           | 6              | 11            | 45             |
| EH911050 | 5.0           | 6              | 13            | 50             |
| EH911055 | 5.5           | 6              | 13            | 50             |
| EH911060 | 6.0           | 6              | 13            | 50             |
| EH911065 | 6.5           | 8              | 16            | 60             |
| EH911070 | 7.0           | 8              | 16            | 60             |
| EH911075 | 7.5           | 8              | 16            | 60             |
| EH911080 | 8.0           | 8              | 19            | 60             |
| EH911085 | 8.5           | 10             | 19            | 70             |
| EH911090 | 9.0           | 10             | 19            | 70             |
| EH911095 | 9.5           | 10             | 19            | 70             |
| EH911100 | 10.0          | 10             | 22            | 70             |
| EH911110 | 11.0          | 12             | 22            | 75             |
| EH911120 | 12.0          | 12             | 26            | 75             |
| EH911140 | 14.0          | 16             | 26            | 85             |
| EH911160 | 16.0          | 16             | 32            | 100            |
| EH911180 | 18.0          | 16             | 32            | 100            |
| EH911200 | 20.0          | 20             | 38            | 105            |
| EH911220 | 22.0          | 20             | 38            | 105            |
| EH911250 | 25.0          | 25             | 45            | 120            |

| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
|-------------------------|----------------------|
| 0~-0.03                 | h6                   |



◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        |         |

**CARBIDE, 4 FLUTE 35° HELIX SHORT LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN 35° RECHTSSPIRALE KURZ**

- ▶ Ultra micro grain carbide
- ▶ Reduces chipping of corner edges
- ▶ Suitable for low hardness materials (under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

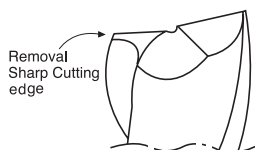
- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Verstärkte Schneidkante.
- ▶ Für die Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen.



Unit : mm

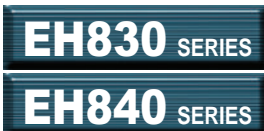
| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length |
|----------|----------|---------------|----------------|---------------|----------------|
| PLAIN    | FLAT     |               |                |               |                |
| EH913020 | -        | 2.0           | 4              | 6             | 40             |
| EH913901 | EH914901 | 2.0           | 6              | 6             | 40             |
| EH913025 | -        | 2.5           | 4              | 8             | 40             |
| EH913902 | EH914902 | 2.5           | 6              | 8             | 40             |
| EH913030 | EH914030 | 3.0           | 6              | 8             | 45             |
| EH913035 | EH914035 | 3.5           | 6              | 10            | 45             |
| EH913040 | EH914040 | 4.0           | 6              | 11            | 45             |
| EH913045 | EH914045 | 4.5           | 6              | 11            | 45             |
| EH913050 | EH914050 | 5.0           | 6              | 13            | 50             |
| EH913055 | EH914055 | 5.5           | 6              | 13            | 50             |
| EH913060 | EH914060 | 6.0           | 6              | 13            | 50             |
| EH913065 | EH914065 | 6.5           | 8              | 16            | 60             |
| EH913070 | EH914070 | 7.0           | 8              | 16            | 60             |
| EH913075 | EH914075 | 7.5           | 8              | 16            | 60             |
| EH913080 | EH914080 | 8.0           | 8              | 19            | 60             |
| EH913085 | EH914085 | 8.5           | 10             | 19            | 70             |
| EH913090 | EH914090 | 9.0           | 10             | 19            | 70             |
| EH913095 | EH914095 | 9.5           | 10             | 19            | 70             |
| EH913100 | EH914100 | 10.0          | 10             | 22            | 70             |
| EH913110 | EH914110 | 11.0          | 12             | 22            | 75             |
| EH913120 | EH914120 | 12.0          | 12             | 26            | 75             |
| EH913140 | EH914140 | 14.0          | 16             | 26            | 85             |
| EH913160 | EH914160 | 16.0          | 16             | 32            | 100            |
| EH913180 | EH914180 | 18.0          | 16             | 32            | 100            |
| EH913200 | EH914200 | 20.0          | 20             | 38            | 105            |
| EH913220 | EH914220 | 22.0          | 20             | 38            | 105            |
| EH913250 | EH914250 | 25.0          | 25             | 45            | 120            |

|                         |                      |
|-------------------------|----------------------|
| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
| 0~-0.03                 | h6                   |



◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        |         |



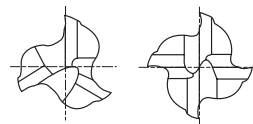
PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, 3&4 FLUTE 50° HELIX LONG LENGTH VOLLHARTMETALL, 3&4 SCHNEIDEN 50° RECHTSSPIRALE LANG

- ▶ Ultra micro grain carbide
- ▶ Reduces chipping of corner edges
- ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

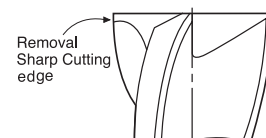
- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Verstärkte Schneidkante.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen.



Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     |               |                |               |                |              |
| EH830060 | EH840060 | 6.0           | 6              | 13            | 50             | 3            |
| EH830080 | EH840080 | 8.0           | 8              | 19            | 60             | 3            |
| EH830100 | EH840100 | 10.0          | 10             | 22            | 70             | 3            |
| EH830120 | EH840120 | 12.0          | 12             | 25            | 75             | 3            |
| EH830160 | EH840160 | 16.0          | 16             | 32            | 90             | 3            |
| EH830180 | EH840180 | 18.0          | 18             | 32            | 90             | 3            |
| EH830200 | EH840200 | 20.0          | 20             | 38            | 100            | 4            |
| EH830250 | EH840250 | 25.0          | 25             | 45            | 120            | 4            |

| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
|-------------------------|----------------------|
| 0~-0.03                 | h6                   |



| 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |

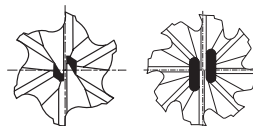
◎ : Excellent ○ : Good

# CARBIDE, 6&8 FLUTE 45° HELIX LONG LENGTH (Positive Rake Angle)

## VOLLHARTMETALL, 6&8 SCHNEIDEN 45° RECHTSSPIRALE LANG

- ▶ Ultra micro grain carbide
- ▶ Reduces chipping of corner edges
- ▶ Suitable for low hardness materials (under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

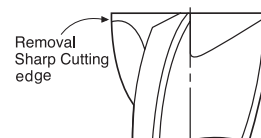
- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Verstärkte Schneidkante.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen.



Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     |               |                |               |                |              |
| EH915060 | EH916060 | 6.0           | 6              | 13            | 57             | 6            |
| EH915070 | EH916070 | 7.0           | 8              | 16            | 63             | 6            |
| EH915080 | EH916080 | 8.0           | 8              | 19            | 63             | 6            |
| EH915090 | EH916090 | 9.0           | 10             | 19            | 72             | 6            |
| EH915100 | EH916100 | 10.0          | 10             | 22            | 72             | 6            |
| EH915120 | EH916120 | 12.0          | 12             | 26            | 83             | 6            |
| EH915140 | EH916140 | 14.0          | 14             | 26            | 83             | 6            |
| EH915160 | EH916160 | 16.0          | 16             | 32            | 92             | 6            |
| EH915180 | EH916180 | 18.0          | 18             | 32            | 92             | 8            |
| EH915200 | EH916200 | 20.0          | 20             | 38            | 104            | 8            |
| EH915250 | EH916250 | 25.0          | 25             | 44            | 104            | 8            |

| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
|-------------------------|----------------------|
| 0~-0.03                 | h6                   |



| 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |

◎ : Excellent ○ : Good



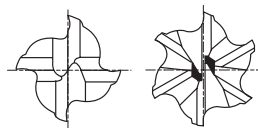
**EE515** SERIES

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

**PREMIUM HSS-PM, 4&6 FLUTE SHORT LENGTH**  
**PREMIUM HSS-PM, 4&6 SCHNEIDEN KURZ**

- ▶ Excellent performance on Low hardness materials (under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, Stainless Steel, Titanium, Inconel.
- ▶ High chemical stability prevents built-up edge, micro cracks and crater wear.
- ▶ Superior workpiece finish.

- ▶ Ausgezeichnete Eignung zur Bearbeitung von weichen Materialien (bis HRc45), Legierten Stählen, kraterbildung, vorgehärtetem Stahl, rostfreiem Stahl, Titanium und Inconel.
- ▶ Hohe chemische Stabilität verhindert Kantenbildung, Mikrorisse und Krateraufzug.
- ▶ Höhere Oberflächengüte.



YPM
4&6
30°
FLAT
P.695

Unit : mm

| EDP No.<br>FLAT | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|-----------------|---------------|----------------|---------------|----------------|--------------|
| EE515030        | 3.0           | 6              | 8             | 52             | 4            |
| EE515040        | 4.0           | 6              | 11            | 55             | 4            |
| EE515050        | 5.0           | 6              | 13            | 57             | 4            |
| EE515060        | 6.0           | 6              | 13            | 57             | 4            |
| EE515080        | 8.0           | 10             | 19            | 69             | 4            |
| EE515100        | 10.0          | 10             | 22            | 72             | 4            |
| EE515120        | 12.0          | 12             | 26            | 83             | 4            |
| EE515140        | 14.0          | 12             | 26            | 83             | 4            |
| EE515160        | 16.0          | 16             | 32            | 92             | 6            |
| EE515180        | 18.0          | 16             | 32            | 92             | 6            |
| EE515200        | 20.0          | 20             | 38            | 104            | 6            |
| EE515250        | 25.0          | 25             | 45            | 121            | 6            |

| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
|-------------------------|----------------------|
| 0~+0.03                 | h6                   |

◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |



# CARBIDE, MULTI FLUTE SHORT LENGTH ROUGHING - FINE

## VOLLHARTMETALL, MULTI SCHNEIDEN KURZ SCHRUPPFÄRER - FEIN

- ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc
- ▶ High velocity milling operation.
- ▶ Fast chip ejection.

- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen..
- ▶ Hochgeschwindigkeitsfräsen.
- ▶ Schnelle Spanausfuhr.



P.696

Unit : mm

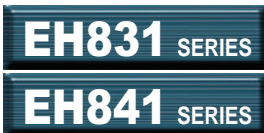
| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     | h10           | h6             |               |                |              |
| EH852060 | EH862060 | 6.0           | 6              | 7             | 54             | 3            |
| EH852070 | EH862070 | 7.0           | 8              | 8             | 58             | 3            |
| EH852080 | EH862080 | 8.0           | 8              | 9             | 58             | 3            |
| EH852090 | EH862090 | 9.0           | 10             | 13            | 66             | 4            |
| EH852100 | EH862100 | 10.0          | 10             | 14            | 66             | 4            |
| EH852120 | EH862120 | 12.0          | 12             | 16            | 73             | 4            |
| EH852140 | EH862140 | 14.0          | 14             | 18            | 75             | 4            |
| EH852160 | EH862160 | 16.0          | 16             | 22            | 82             | 4            |
| EH852180 | EH862180 | 18.0          | 18             | 24            | 84             | 4            |
| EH852200 | EH862200 | 20.0          | 20             | 26            | 92             | 4            |
| EH852250 | EH862250 | 25.0          | 25             | 25            | 110            | 5            |

**Tolerances according to DIN 7160 & 7161**  
**Toleranzen nach DIN 7160 & 7161**

| Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$ |                            |                             |                               |                                 |                                 |
|---|----------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------|
| Nominal-Diameter in mm / Nennmaßbereich in mm                     |                            |                             |                               |                                 |                                 |
|   | from 1 to 3<br>von 1 bis 3 | over 3 to 6<br>über 3 bis 6 | over 6 to 10<br>über 6 bis 10 | over 10 to 18<br>über 10 bis 18 | over 18 to 30<br>über 18 bis 30 |
| <b>h10</b>  | 0<br>- 40                  | 0<br>- 48                   | 0<br>- 58                     | 0<br>- 70                       | 0<br>- 84                       |
| <b>h6</b>   | 0<br>- 6                   | 0<br>- 8                    | 0<br>- 9                      | 0<br>- 11                       | 0<br>- 13                       |

◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |



PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - FINE VOLLHARTMETALL, MULTI SCHNEIDEN LANG SCHRUPPFRÄSER - FEIN

- ▶ Longer flute length than EH852, EH862.
  - ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc.
  - ▶ High velocity milling operation.
  - ▶ Fast chip ejection.
- ▶ Längere Schneiden als bei EH852 und EH862.
  - ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen..
  - ▶ Hochgeschwindigkeitsfräsen.
  - ▶ Schnelle Spanausfuhr.



Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     | h10           | h6             |               |                |              |
| EH831060 | EH841060 | 6.0           | 6              | 16            | 57             | 3            |
| EH831070 | EH841070 | 7.0           | 8              | 16            | 63             | 3            |
| EH831080 | EH841080 | 8.0           | 8              | 16            | 63             | 3            |
| EH831090 | EH841090 | 9.0           | 10             | 19            | 72             | 4            |
| EH831100 | EH841100 | 10.0          | 10             | 22            | 72             | 4            |
| EH831120 | EH841120 | 12.0          | 12             | 26            | 83             | 4            |
| EH831140 | EH841140 | 14.0          | 14             | 26            | 83             | 4            |
| EH831160 | EH841160 | 16.0          | 16             | 32            | 92             | 4            |
| EH831180 | EH841180 | 18.0          | 18             | 32            | 92             | 4            |
| EH831200 | EH841200 | 20.0          | 20             | 38            | 104            | 4            |
| EH831250 | EH841250 | 25.0          | 25             | 45            | 121            | 5            |

### Tolerances according to DIN 7160 & 7161 Toleranzen nach DIN 7160 & 7161

| Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$ |                            |                             |                               |                                 |                                 |
|---|----------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------|
| Nominal-Diameter in mm / Nennmaßbereich in mm                     |                            |                             |                               |                                 |                                 |
|   | from 1 to 3<br>von 1 bis 3 | over 3 to 6<br>über 3 bis 6 | over 6 to 10<br>über 6 bis 10 | over 10 to 18<br>über 10 bis 18 | over 18 to 30<br>über 18 bis 30 |
| h10   | 0<br>- 40                  | 0<br>- 48                   | 0<br>- 58                     | 0<br>- 70                       | 0<br>- 84                       |
| h6  | 0<br>- 6                   | 0<br>- 8                    | 0<br>- 9                      | 0<br>- 11                       | 0<br>- 13                       |

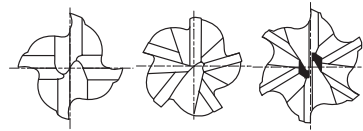
◎ : Excellent ○ : Good

| 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |

**CARBIDE, MULTI FLUTE 45° HELIX SHORT LENGTH ROUGHING - FINE**  
**VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE KURZ SCHRUPPFRÄSER - FEIN**

- ▶ Ultra micro grain carbide
- ▶ High chip removal and minimizing breakages of cutting edges.
- ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Schnelle Spanausfuhr und Minimierung von Abbrechen von Schneidkanten.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen..



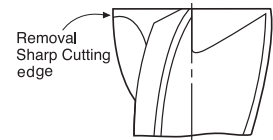
P.696

Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     | h10           | h6             |               |                |              |
| EH917060 | EH918060 | 6.0           | 6              | 7             | 54             | 4            |
| EH917080 | EH918080 | 8.0           | 8              | 9             | 58             | 4            |
| EH917100 | EH918100 | 10.0          | 10             | 14            | 66             | 4            |
| EH917120 | EH918120 | 12.0          | 12             | 16            | 73             | 4            |
| EH917160 | EH918160 | 16.0          | 16             | 22            | 82             | 5            |
| EH917200 | EH918200 | 20.0          | 20             | 26            | 92             | 6            |

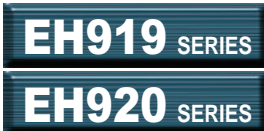
**Tolerances according to DIN 7160 & 7161**  
**Toleranzen nach DIN 7160 & 7161**

| Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$ |                            |                             |                               |                                 |                                 |
|---|----------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------|
| Nominal-Diameter in mm / Nennmaßbereich in mm                     |                            |                             |                               |                                 |                                 |
|   | from 1 to 3<br>von 1 bis 3 | over 3 to 6<br>über 3 bis 6 | over 6 to 10<br>über 6 bis 10 | over 10 to 18<br>über 10 bis 18 | over 18 to 30<br>über 18 bis 30 |
| <b>h10</b>  | 0<br>- 40                  | 0<br>- 48                   | 0<br>- 58                     | 0<br>- 70                       | 0<br>- 84                       |
| <b>h6</b>   | 0<br>- 6                   | 0<br>- 8                    | 0<br>- 9                      | 0<br>- 11                       | 0<br>- 13                       |



◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |



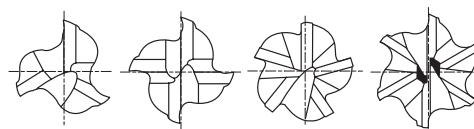
PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

**CARBIDE, MULTI FLUTE 45° HELIX LONG LENGTH ROUGHING - FINE**  
**VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE LANG SCHRUPPFRÄSER - FEIN**

- ▶ Ultra micro grain carbide
- ▶ High chip removal and minimizing breakages of cutting edges.
- ▶ Suitable for low hardness materials (under HRc45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Schnelle Spanausfuhr und Minimierung von Abbrechen von Schneidkanten.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRc, rostfreien Stählen, Titan und Nickellegierungen..



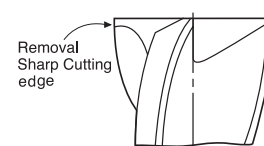
P.696

Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|----------|----------|---------------|----------------|---------------|----------------|--------------|
| PLAIN    | FLAT     | h10           | h6             |               |                |              |
| EH919040 | EH920040 | 4.0           | 6              | 11            | 57             | 3            |
| EH919050 | EH920050 | 5.0           | 6              | 13            | 57             | 4            |
| EH919060 | EH920060 | 6.0           | 6              | 16            | 57             | 4            |
| EH919070 | EH920070 | 7.0           | 8              | 16            | 63             | 4            |
| EH919080 | EH920080 | 8.0           | 8              | 16            | 63             | 4            |
| EH919090 | EH920090 | 9.0           | 10             | 19            | 72             | 4            |
| EH919100 | EH920100 | 10.0          | 10             | 22            | 72             | 4            |
| EH919120 | EH920120 | 12.0          | 12             | 26            | 83             | 4            |
| EH919140 | EH920140 | 14.0          | 14             | 26            | 83             | 5            |
| EH919160 | EH920160 | 16.0          | 16             | 32            | 92             | 5            |
| EH919200 | EH920200 | 20.0          | 20             | 38            | 104            | 6            |
| EH919250 | EH920250 | 25.0          | 25             | 45            | 121            | 6            |

**Tolerances according to DIN 7160 & 7161**  
**Toleranzen nach DIN 7160 & 7161**

| Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$ |                            |                             |                               |                                 |                                 |
|---|----------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------|
| Nominal-Diameter in mm / Nennmaßbereich in mm                     |                            |                             |                               |                                 |                                 |
|   | from 1 to 3<br>von 1 bis 3 | over 3 to 6<br>über 3 bis 6 | over 6 to 10<br>über 6 bis 10 | over 10 to 18<br>über 10 bis 18 | over 18 to 30<br>über 18 bis 30 |
| <b>h10</b>  | 0<br>- 40                  | 0<br>- 48                   | 0<br>- 58                     | 0<br>- 70                       | 0<br>- 84                       |
| <b>h6</b>   | 0<br>- 6                   | 0<br>- 8                    | 0<br>- 9                      | 0<br>- 11                       | 0<br>- 13                       |



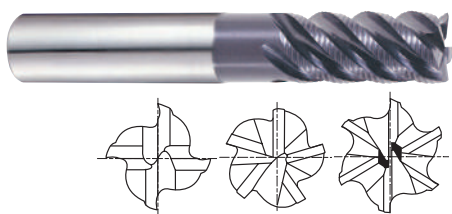
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels |          | High Hardened Steels | Copper | Graphite | Cast Iron | Aluminum | Stainless Steels | Titanium | Inconel |
|---------------|--------------|--------------------|-----------------|----------|----------------------|--------|----------|-----------|----------|------------------|--------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

◎ : Excellent ○ : Good

**CARBIDE, MULTI FLUTE 45° HELIX LONG REACH ROUGHING - FINE**  
**VOLLHARTMETALL, MULTI SCHNEIDEN 45° RECHTSSPIRALE GROÙE REICHWEITE SCHRUPPFÄRER - FEIN**

- ▶ Ultra micro grain carbide
- ▶ High chip removal and minimizing breakages of cutting edges.
- ▶ Suitable for low hardness materials (under HRC45), alloy steels, tool steels, carbon steels, prehardened steels, stainless steels, etc

- ▶ Ultra Feinstkorn - Vollhartmetall
- ▶ Schnelle Spanausfuhr und Minimierung von Abbrechen von Schneidkanten.
- ▶ zur Bearbeitung von: Werkstoffen bis 45 HRC, rostfreien Stählen, Titan und Nickellegierungen..

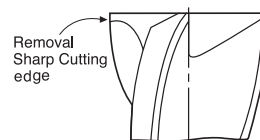


Unit : mm

| EDP No.  |          | Mill Diameter | Shank Diameter | Length of Cut | Length Below Shank | Overall Length | Neck Diameter | No. of Flute |
|----------|----------|---------------|----------------|---------------|--------------------|----------------|---------------|--------------|
| PLAIN    | FLAT     | D1(h10)       | D2(h6)         | L1            | L3                 | L2             | D3            |              |
| EH921060 | EH942060 | 6.0           | 6              | 16            | 20                 | 57             | 5.5           | 4            |
| EH921080 | EH942080 | 8.0           | 8              | 16            | 26                 | 63             | 7.5           | 4            |
| EH921100 | EH942100 | 10.0          | 10             | 22            | 31                 | 72             | 9.5           | 4            |
| EH921120 | EH942120 | 12.0          | 12             | 26            | 37                 | 83             | 11.5          | 4            |
| EH921160 | EH942160 | 16.0          | 16             | 32            | 51                 | 100            | 15.5          | 5            |
| EH921200 | EH942200 | 20.0          | 20             | 38            | 59                 | 110            | 19.2          | 6            |

**Tolerances according to DIN 7160 & 7161**  
**Toleranzen nach DIN 7160 & 7161**

| Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$ |                            |                             |                               |                                 |                                 |
|---|----------------------------|-----------------------------|-------------------------------|---------------------------------|---------------------------------|
| Nominal-Diameter in mm / Nennmaßbereich in mm                     |                            |                             |                               |                                 |                                 |
|   | from 1 to 3<br>von 1 bis 3 | over 3 to 6<br>über 3 bis 6 | over 6 to 10<br>über 6 bis 10 | over 10 to 18<br>über 10 bis 18 | over 18 to 30<br>über 18 bis 30 |
| <b>h10</b>  | 0<br>- 40                  | 0<br>- 48                   | 0<br>- 58                     | 0<br>- 70                       | 0<br>- 84                       |
| <b>h6</b>   | 0<br>- 6                   | 0<br>- 8                    | 0<br>- 9                      | 0<br>- 11                       | 0<br>- 13                       |



◎ : 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             |        |          |           |          |                  |          |         |
| ○             | ◎            | ◎                  | ◎               |          |                      |        |          |           |          | ◎                | ◎        | ○       |

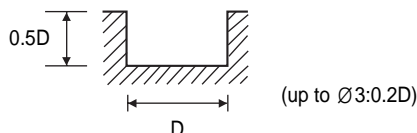


**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 2 FLUTE SHORT - SLOTTING**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ - NUTENFRÄSEN**

**EH911, EH912 SERIES**

| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |     |
|----------|--|------|--|------|------------------------------------|-----|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |     |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |     |
| DIAMETER | RPM  | FEED | RPM  | FEED |                                    |     |
| 2.0      | 11560  | 190  | 7560   | 120  | 6300                               | 90  |
| 3.0      | 8920   | 210  | 5560   | 140  | 4620                               | 120 |
| 4.0      | 7560   | 300  | 4620   | 180  | 3880                               | 150 |
| 5.0      | 6300   | 320  | 3780   | 190  | 3160                               | 160 |
| 6.0      | 5560   | 350  | 3360   | 220  | 2840                               | 180 |
| 8.0      | 4200   | 380  | 2520   | 200  | 2100                               | 180 |
| 10.0     | 3260   | 330  | 2000   | 160  | 1680                               | 160 |
| 12.0     | 2740   | 280  | 1680   | 130  | 1360                               | 130 |
| 16.0     | 2200   | 220  | 1360   | 110  | 1060                               | 110 |
| 20.0     | 1680   | 170  | 1060   | 80   | 840                                | 80  |
| 25.0     | 1360   | 130  | 840  | 70   | 680                                | 60  |

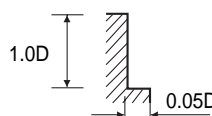


RPM = rev./min.  
FEED = mm/min.

**CARBIDE, 4 FLUTE SHORT - SIDE CUTTING**  
**VOLLHARTMETALL, 4 SCHNEIDEN KURZ - SEITENFRÄSEN**

**EH913, EH914 SERIES**

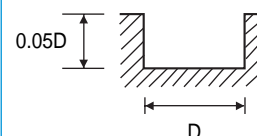
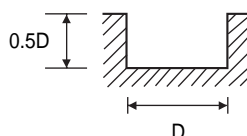
| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |     |
|----------|--|------|--|------|------------------------------------|-----|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |     |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |     |
| DIAMETER | RPM  | FEED | RPM  | FEED |                                    |     |
| 2.0      | 11560  | 280  | 7560   | 170  | 6300                               | 140 |
| 3.0      | 8920   | 320  | 5560   | 200  | 4620                               | 170 |
| 4.0      | 7560   | 570  | 4620   | 350  | 3880                               | 280 |
| 5.0      | 6300   | 600  | 3780   | 360  | 3160                               | 300 |
| 6.0      | 5560   | 660  | 3360   | 410  | 2840                               | 330 |
| 8.0      | 4200   | 710  | 2520   | 380  | 2100                               | 350 |
| 10.0     | 3260   | 610  | 2000   | 300  | 1680                               | 300 |
| 12.0     | 2740   | 520  | 1680   | 250  | 1360                               | 240 |
| 16.0     | 2200   | 410  | 1360   | 200  | 1060                               | 200 |
| 20.0     | 1680   | 320  | 1060   | 160  | 840                                | 150 |
| 25.0     | 1360   | 250  | 840  | 130  | 680                                | 120 |



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

**CARBIDE, 3&4 FLUTE 50° HELIX LONG - SLOTTING**  
**VOLLHARTMETALL, 3&4 SCHNEIDEN 50° RECHTSSPIRALE LANG - NUTENFRÄSEN**
**EH830, EH840 SERIES**

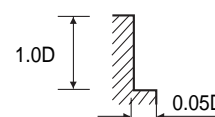
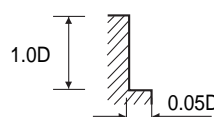
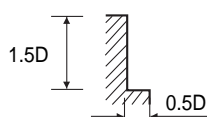
| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------|--|------|--|------|------------------------------------|------|---------|------|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |      |         |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |      |         |      |
| DIAMETER | RPM  | FEED | RPM  | FEED | RPM                                | FEED | RPM     | FEED |
| 6.0      | 5560   | 310  | 3360   | 200  | 2840                               | 160  | 1160    | 40   |
| 8.0      | 4200   | 340  | 2520   | 180  | 2100                               | 160  | 840     | 40   |
| 10.0     | 3260   | 300  | 2000   | 140  | 1680                               | 140  | 670     | 40   |
| 12.0     | 2740   | 250  | 1680   | 120  | 1370                               | 120  | 560     | 30   |
| 16.0     | 2200   | 200  | 1360   | 100  | 1050                               | 100  | 420     | 25   |
| 18.0     | 1940   | 175  | 1210   | 85   | 950                                | 85   | 370     | 20   |
| 20.0     | 1680   | 150  | 1060   | 70   | 840                                | 70   | 320     | 20   |
| 25.0     | 1360   | 115  | 840  | 60   | 670                                | 60   | 270     | 15   |



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

**CARBIDE, 3&4 FLUTE 50° HELIX - SIDE CUTTING**  
**VOLLHARTMETALL, 3&4 SCHNEIDEN 50° RECHTSSPIRALE - SEITENFRÄSEN**
**EH830, EH840 SERIES**

| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------|--|------|--|------|------------------------------------|------|---------|------|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |      |         |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |      |         |      |
| DIAMETER | RPM  | FEED | RPM  | FEED | RPM                                | FEED | RPM     | FEED |
| 6.0      | 5560   | 400  | 3360   | 250  | 2840                               | 250  | 1050    | 55   |
| 8.0      | 4200   | 420  | 2520   | 230  | 2100                               | 265  | 840     | 50   |
| 10.0     | 3260   | 370  | 2000   | 180  | 1680                               | 230  | 680     | 50   |
| 12.0     | 2740   | 310  | 1680   | 150  | 1370                               | 180  | 560     | 45   |
| 16.0     | 2200   | 250  | 1360   | 120  | 1050                               | 150  | 420     | 35   |
| 18.0     | 1940   | 220  | 1210   | 110  | 950                                | 130  | 370     | 30   |
| 20.0     | 1680   | 190  | 1060   | 95   | 840                                | 115  | 340     | 30   |
| 25.0     | 1360   | 150  | 840  | 75   | 670                                | 90   | 270     | 25   |



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



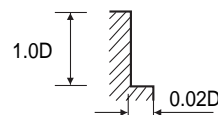
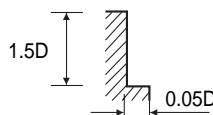
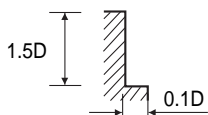
RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 6&8 FLUTE 45° HELIX LONG - SIDE CUTTING  
VOLLHARTMETALL, 6&8 SCHNEIDEN 45° RECHTSSPIRALE LANG - SEITENFRÄSEN

**EH915, EH916** SERIES

■ NORMAL SPEED

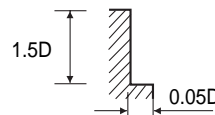
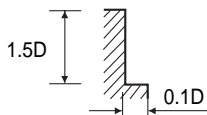
| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------|--|------|--|------|------------------------------------|------|---------|------|
|          | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |      |         |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |      |         |      |
| DIAMETER | RPM  | FEED | RPM  | FEED | RPM                                | FEED | RPM     | FEED |
| 6.0      | 5560   | 2000 | 3880   | 1370 | 3370                               | 1100 | 1350    | 280  |
| 8.0      | 4200   | 2000 | 2940   | 1370 | 2490                               | 1100 | 1000    | 280  |
| 10.0     | 3360   | 2000 | 2320   | 1370 | 1920                               | 1100 | 440     | 280  |
| 12.0     | 2840   | 1680 | 2000   | 1160 | 1610                               | 1000 | 400     | 250  |
| 16.0     | 2100   | 1260 | 1480   | 880  | 1160                               | 770  | 310     | 190  |
| 20.0     | 1680   | 1010 | 1160   | 690  | 900                                | 620  | 250     | 155  |
| 25.0     | 1500   | 900  | 1100   | 600  | 850                                | 540  | 220     | 135  |



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

■ HIGH SPEED

| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      |
|----------|--|------|--|------|
|          | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |
| DIAMETER | RPM  | FEED | RPM  | FEED |
| 6.0      | 22200  | 8000 | 16800  | 6090 |
| 8.0      | 16800  | 8000 | 12600  | 6090 |
| 10.0     | 13400  | 8000 | 9980   | 5990 |
| 12.0     | 11350  | 6720 | 8400   | 5040 |
| 16.0     | 8400   | 5040 | 6300   | 3780 |
| 20.0     | 6700   | 4040 | 5040   | 3050 |
| 25.0     | 6000   | 3600 | 4500   | 2700 |



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



**PREMIUM HSS-PM, 4&6 FLUTE SHORT- SIDE CUTTING**  
**PREMIUM HSS-PM, 4&6 SCHNEIDEN KURZ - SEITENFRÄSEN**
**CARBIDE**
**HSS**

 CBN  
END MILLS

 i-Xmill  
END MILLS

 X5070  
END MILLS

 X-POWER  
END MILLS

**JET-POWER  
END MILLS**

 V7 INOX  
END MILLS

 V7 STEEL  
END MILLS

 ALU-POWER  
END MILLS

 D-POWER  
END MILLS

 K-2  
END MILLS

 GENERAL  
CARBIDE  
END MILLS

 TANK-POWER  
END MILLS

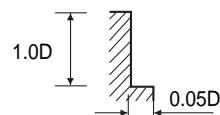
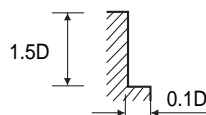
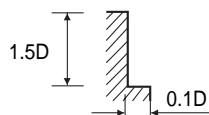
 GENERAL  
HSS  
END MILLS

 MILLING  
CUTTERS

 TECHNICAL  
DATA

**EE515** SERIES

| MATERIAL<br>HARDNESS<br>DIAMETER | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>~ HRc30 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>HRc30 ~ HRc45 |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------------------------------|---|------|---|------|------------------------------------|------|---------|------|
|                                  | RPM   | FEED | RPM   | FEED | RPM                                | FEED | RPM     | FEED |
| 3.0                              | 4400  | 185  | 1100  | 23   | 2200                               | 110  | 880     | 28   |
| 4.0                              | 3600  | 210  | 900   | 31   | 1800                               | 125  | 720     | 37   |
| 5.0                              | 3000  | 225  | 750   | 30   | 1500                               | 135  | 600     | 36   |
| 6.0                              | 2600  | 235  | 600   | 29   | 1300                               | 140  | 480     | 35   |
| 8.0                              | 2000  | 250  | 500   | 28   | 1000                               | 150  | 400     | 34   |
| 10.0                             | 1600  | 285  | 410   | 30   | 800                                | 170  | 330     | 36   |
| 12.0                             | 1320  | 250  | 340   | 29   | 660                                | 150  | 270     | 35   |
| 14.0                             | 1160  | 235  | 290   | 27   | 580                                | 140  | 230     | 32   |
| 16.0                             | 1000  | 225  | 250   | 26   | 500                                | 135  | 200     | 31   |
| 18.0                             | 900   | 210  | 225   | 23   | 450                                | 125  | 180     | 28   |
| 20.0                             | 800   | 200  | 200   | 17   | 400                                | 120  | 160     | 21   |
| 25.0                             | 640   | 165  | 165   | 15   | 320                                | 100  | 130     | 18   |


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

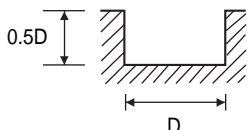


RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN

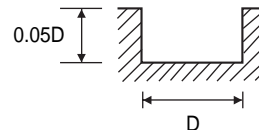
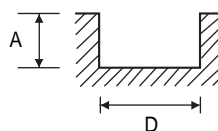
CARBIDE, MULTI FLUTE ROUGHING - SLOTTING  
VOLLHARTMETALL, MULTI SCHNEIDEN SCHRUPPFÄRER

EH917, EH918, EH919, EH920, EH921, EH942, EH852, EH862, EH831, EH841 SERIES

| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------|--|------|--|------|------------------------------------|------|---------|------|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |      |         |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |      |         |      |
| DIAMETER | RPM  | FEED | RPM  | FEED | RPM                                | FEED | RPM     | FEED |
| 4.0      | 23400  | 2320 | 18600  | 840  | 12600                              | 570  | 3600    | 190  |
| 6.0      | 15600  | 2320 | 12400  | 840  | 8400                               | 570  | 2400    | 190  |
| 8.0      | 11600  | 2320 | 9200   | 840  | 6300                               | 570  | 1800    | 180  |
| 10.0     | 9200   | 2320 | 7600   | 840  | 5100                               | 570  | 1300    | 190  |
| 12.0     | 8000   | 2400 | 6000   | 800  | 4200                               | 570  | 1200    | 190  |
| 14.0     | 6800   | 2400 | 5200   | 840  | 3600                               | 570  | 900     | 130  |
| 16.0     | 6000   | 2400 | 4800   | 760  | 3300                               | 510  | 800     | 110  |
| 18.0     | 5200   | 2320 | 4400   | 720  | 2700                               | 420  | 700     | 100  |
| 20.0     | 4800   | 2160 | 3600   | 560  | 2400                               | 360  | 660     | 100  |
| 25.0     | 4300   | 2150 | 3200   | 620  | 2160                               | 410  | 600     | 110  |



A:  $\varnothing 4\text{-}\varnothing 10:0.25 \times D$   
 $\varnothing 12\text{-}\varnothing 16:0.15 \times D$   
 $\varnothing 18\text{-}\varnothing 25:0.10 \times D$

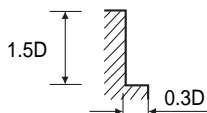


RPM = rev./min.  
FEED = mm/min.

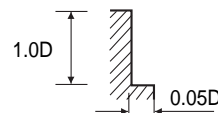
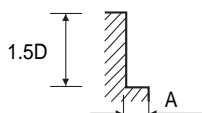
CARBIDE, MULTI FLUTE ROUGHING - SIDE CUTTING  
VOLLHARTMETALL, MULTI SCHNEIDEN SCHRUPPFÄRER

EH917, EH918, EH919, EH920, EH921, EH942, EH852, EH862, EH831, EH841 SERIES

| MATERIAL | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS |      | STAINLESS STEELS<br>TITANIUM ALLOY |      | INCONEL |      |
|----------|--|------|--|------|------------------------------------|------|---------|------|
| HARDNESS | ~ HRC30                                      |      | HRC30 ~ HRC45                                |      |                                    |      |         |      |
| STRENGTH | 1000N/mm <sup>2</sup>                        |      | 1000 ~ 1500N/mm <sup>2</sup>                 |      |                                    |      |         |      |
| DIAMETER | RPM  | FEED | RPM  | FEED | RPM                                | FEED | RPM     | FEED |
| 4.0      | 23400  | 2320 | 18600  | 840  | 12600                              | 570  | 3600    | 190  |
| 6.0      | 15600  | 2320 | 12400  | 840  | 8400                               | 570  | 2400    | 190  |
| 8.0      | 11600  | 2320 | 9200   | 840  | 6300                               | 570  | 1800    | 180  |
| 10.0     | 9200   | 2320 | 7600   | 840  | 5100                               | 570  | 1300    | 190  |
| 12.0     | 8000   | 2400 | 6000   | 800  | 4200                               | 570  | 1200    | 190  |
| 14.0     | 6800   | 2400 | 5200   | 840  | 3600                               | 570  | 900     | 130  |
| 16.0     | 6000   | 2400 | 4800   | 760  | 3300                               | 510  | 800     | 110  |
| 18.0     | 5200   | 2320 | 4400   | 720  | 2700                               | 420  | 700     | 100  |
| 20.0     | 4800   | 2160 | 3600   | 560  | 2400                               | 360  | 660     | 100  |
| 25.0     | 4300   | 2150 | 3200   | 620  | 2160                               | 410  | 600     | 110  |



A:  $\varnothing 4\text{-}\varnothing 10:0.15 \times D$   
 $\varnothing 12\text{-}\varnothing 16:0.10 \times D$   
 $\varnothing 18\text{-}\varnothing 25:0.05 \times D$



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