

GÜHRING



HSS-Kühlkanalbohrer

Vollhartmetall-Wechselplattensystem HT 800 WP

- ▶ Hervorragende Zentriereigenschaften
- ▶ Geringste Gratbildung
- ▶ Höchste Leistungen bei allen Bearbeitungsbedingungen

Bohrwerkzeuge für die Bearbeitung von Stahlträgern

GÜHRING - WELTWEIT IHR PARTNER

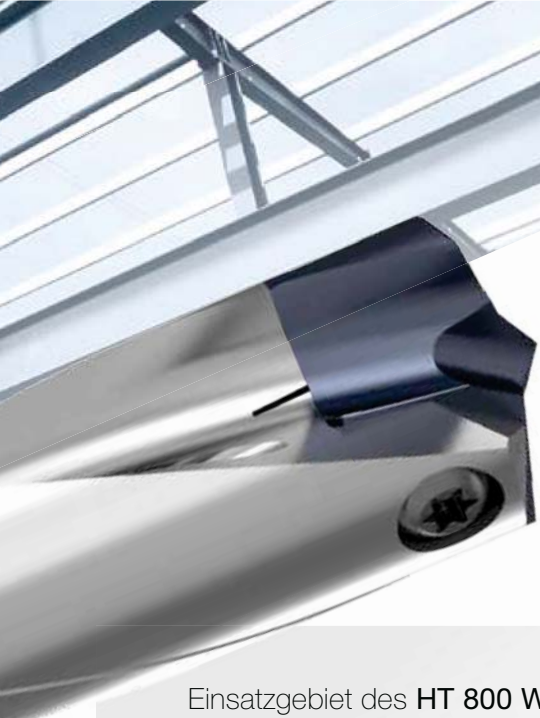


BEARBEITUNG VON STAHLTRÄGERN

Stahlträger für verschiedenste Metallkonstruktionen werden in der Regel auf speziellen Bohr- und Sägeanlagen für die Montage vorbereitet. Die Aufspannungsverhältnisse auf diesen Maschinen sind meist instabil und stellen daher besonders hohe Anforderungen an die Bohrwerkzeuge. Die Werkzeuggeometrie muss so ausgerichtet sein, dass die instabilen Verhältnisse kompensiert werden können und ein ruhiges Bohrverhalten sichergestellt ist.

Mit dem HSS-IK Bohrwerkzeug und dem neuen Hartmetall-Bohrwerkzeug auf Basis des modularen Werkzeugsystems HT 800 WP bietet Gühring optimale Lösungen für die Bearbeitung von Baustahlträgern, die durch gute Zentriereigenschaften und ruhiges Bohrverhalten punkten.





**Einsatzgebiet des HT 800 WP Systems
bei der Bearbeitung von Baustahlkomponenten:**

Die speziellen Bohrplatten, hergestellt aus Hartmetall aus eigener Fertigung, besitzen eine eigens entwickelte Spitzengeometrie, die optimales Zentrieren ermöglicht. Dadurch werden die instabilen Bearbeitungsverhältnisse bei der Stahlträgerfertigung kompensiert. Eine gute Verschleißfestigkeit der beschichteten Hartmetallbohrplatten sorgt für hohe Standzeiten und eine wirtschaftliche Bohrbearbeitung besonders bei größeren Bauteillosgrößen.



**Einsatzgebiet der
HSS-Bohrwerkzeuge mit Innenkühlung:**

Der Schneidstoff HSS eignet sich optimal für instabile Bearbeitungsverhältnisse, da er eine hohe Toleranz gegenüber stoßartigen Belastungen und Vibrationen aufweist. Daher punkten die HSS-IK-Bohrwerkzeuge besonders bei der Bearbeitung auf Maschinen mit geringerer Leistung und begrenzter Drehzahl. Hier ist ein wirtschaftlicher Einsatz von Hartmetallwerkzeugen aufgrund der limitierten Schnittwerte oftmals nicht möglich.

max. Maschinendrehzahl, Maschinenleistung
Losgröße



Bearbeitungsverhältnisse



| P | M | K | N | S | H | Werkzeug-Darstellung | Bohrtiefe | Schaftform | Typ | Norm | Schneidstoff | Oberfläche | d1/mm | Artikel-Nr. | Schnittwerte Seite | Seite |
|---|---|---|---|---|---|----------------------|-----------|------------|-----|------|--------------|------------|-------|-------------|--------------------|-------|
|---|---|---|---|---|---|----------------------|-----------|------------|-----|------|--------------|------------|-------|-------------|--------------------|-------|

Wechselplatten HT 800

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|-----------|----|-----|---|-----------------|------|----|---|
| • | | | | | | | | | | HT 800 WP | WN | VHM | F | 12,000 - 40,000 | 4229 | 26 | 6 |
|---|--|--|--|--|--|--|--|--|--|-----------|----|-----|---|-----------------|------|----|---|

Wechselplattenhalter HT 800

| | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|-------|----|--|-----------|----|----|--|--|------|----|----|
| | | | | | | | 1xD | HE | | HT 800 WP | WN | Ni | | | 4105 | 26 | 7 |
| | | | | | | | 1,5xD | HE | | HT 800 WP | WN | Ni | | | 4106 | 26 | 8 |
| | | | | | | | 3xD | HE | | HT 800 WP | WN | Ni | | | 4107 | 26 | 10 |
| | | | | | | | 5xD | HE | | HT 800 WP | WN | Ni | | | 4108 | 26 | 12 |
| | | | | | | | 7xD | HE | | HT 800 WP | WN | Ni | | | 4109 | 26 | 14 |
| | | | | | | | 10xD | HE | | HT 800 WP | WN | Ni | | | 4110 | 26 | 16 |

Senkplatten HT 800

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|--|--|--|--|--|--|----|-----|---|--|------|--|----|
| • | o | o | o | o | | | | | | | WN | VHM | S | | 7645 | | 18 |
|---|---|---|---|---|--|--|--|--|--|--|----|-----|---|--|------|--|----|

Spannschrauben

| | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|
| | | | | | | | | | | | WN | | | | 6128 | | 19 |
| | | | | | | | | | | | WN | | | | 4071 | | 19 |

Drehmomentschlüssel

| | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|
| | | | | | | | | | | | WN | | | | 4915 | | 20 |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|

Torx-Bit Einsätze

| | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|
| | | | | | | | | | | | WN | | | | 4917 | | 21 |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|

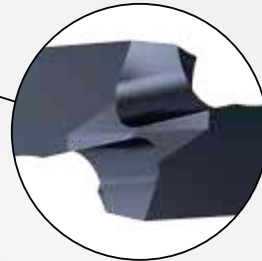
Torx-Schraubendreher

| | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|
| | | | | | | | | | | | WN | | | | 1612 | | 21 |
|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|------|--|----|

Kühlkanalbohrer, Nutlänge nach Werksnorm

| | | | | | | | | | | | | | | | | |
|---|---|---|---|--|--|--|----|---|--|----|-----|---|----------------|-----|----|----|
| • | o | • | • | | | | MK | N | | WN | HSS | ○ | 8,000 - 50,000 | 254 | 26 | 23 |
| • | o | • | • | | | | MK | N | | WN | HSS | ○ | 8,000 - 42,000 | 255 | 26 | 24 |
| • | o | • | • | | | | MK | N | | WN | HSS | ○ | 8,000 - 42,000 | 253 | 26 | 25 |

HT 800 WWP für die Bearbeitung von Stahlträgern



Die Spitzegeometrie der neuen Wendeschneidplatten sorgt für optimale Zentriereigenschaften und kompensiert dadurch die instabilen Bearbeitungsverhältnisse bei der Stahlträgerfertigung.

- ▶ neue Wendeschneidplatten speziell für die Stahlträgerbearbeitung
- ▶ reduzierte Gratbildung
- ▶ optimale Zentriereigenschaften
- ▶ ruhiges Bohrverhalten

Modulares System ermöglicht den einfachen Plattenwechsel direkt in der Maschine.

Wechselplattenhalter HT 800 Art.-Nr. 4108

Für alle HT 800 Standardhalter 1xD, 1,5xD, 3xD, 5xD, 7xD und 10xD verwendbar.



Minimierte Gratbildung durch hohen Spitzenwinkel im äußeren Bereich.

Wechselplatte zur Bearbeitung von Stahlträgern HT 800 Art.-Nr. 4229



Wechselplatten HT 800



Schneidstoff **VHM**

Oberfläche **F**

- P** • Flächenanschliff • Hauptschneidenform konkav • spezieller Spitzenanschliff mit 160° Spitzenwinkel und 125° Zentrierspitze
- M** • Spannschrauben Art.-Nr. 4071 enthalten

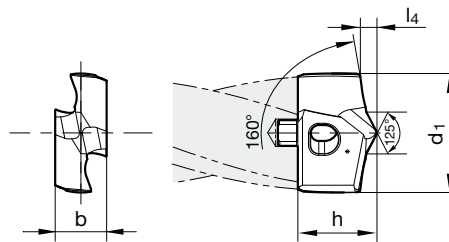


Einsatz für die Bearbeitung von Baustahlkomponenten



GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4229**

| d1 | | l4 | b | h | Code-Nr. |
|--------|-------|-------|--------|--------|----------|
| mm | inch | mm | mm | mm | |
| 12,000 | | 1,700 | 5,000 | 7,500 | 12,000 |
| 14,000 | | 2,000 | 6,000 | 9,600 | 14,000 |
| 16,000 | | 2,300 | 7,000 | 10,800 | 16,000 |
| 18,000 | | 2,600 | 8,000 | 12,300 | 18,000 |
| 20,000 | | 2,900 | 9,000 | 13,600 | 20,000 |
| 21,000 | | 3,000 | 9,000 | 13,600 | 21,000 |
| 22,000 | | 3,200 | 10,000 | 14,900 | 22,000 |
| 24,000 | | 3,500 | 11,000 | 15,500 | 24,000 |
| 25,000 | 63/64 | 3,600 | 11,000 | 15,500 | 25,000 |
| 26,000 | | 3,800 | 12,000 | 18,500 | 26,000 |
| 27,000 | | 3,900 | 12,000 | 18,600 | 27,000 |
| 28,000 | | 4,100 | 13,000 | 19,200 | 28,000 |
| 29,000 | | 4,200 | 13,000 | 19,600 | 29,000 |
| 30,000 | | 4,400 | 14,000 | 19,900 | 30,000 |
| 32,000 | | 4,600 | 15,000 | 21,300 | 32,000 |
| 33,000 | | 4,800 | 15,000 | 21,900 | 33,000 |
| 34,000 | | 4,900 | 15,000 | 22,000 | 34,000 |
| 36,000 | | 5,200 | 16,000 | 22,500 | 36,000 |
| 38,000 | | 5,500 | 16,000 | 22,700 | 38,000 |
| 40,000 | | 5,800 | 16,000 | 23,300 | 40,000 |



Wechselplattenhalter HT 800



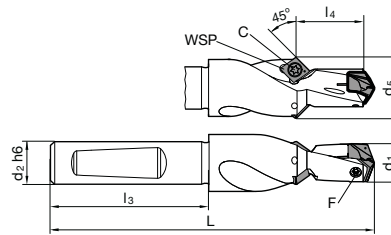
Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 und 6128 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

zum Pilotieren und Senken 45°

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4105**

| d1 | d2 h6 | d5 | L | l3 | l4 | WSP | C | F | Code-Nr. |
|-------------|--------|--------|---------|--------|--------|------------|------------|------------|----------|
| mm | mm | mm | mm | mm | mm | | | | |
| 11,00-11,99 | 12,000 | 17,000 | 81,000 | 45,000 | 12,000 | CP..0502.. | 6128 2.000 | 4071 2.200 | 11,000 |
| 11,00-11,99 | 12,700 | 17,000 | 81,000 | 45,000 | 12,000 | CP..0502.. | 6128 2.000 | 4071 2.200 | 11,005 |
| 12,00-12,99 | 12,000 | 18,000 | 84,000 | 45,000 | 13,000 | CP..0502.. | 6128 2.000 | 4071 2.201 | 12,000 |
| 12,00-12,99 | 12,700 | 18,000 | 84,000 | 45,000 | 13,000 | CP..0502.. | 6128 2.000 | 4071 2.201 | 12,005 |
| 13,00-13,99 | 14,000 | 18,000 | 86,000 | 45,000 | 14,000 | CP..0502.. | 6128 2.000 | 4071 2.500 | 13,000 |
| 13,00-13,99 | 15,875 | 18,000 | 86,000 | 45,000 | 14,000 | CP..0502.. | 6128 2.000 | 4071 2.500 | 13,005 |
| 14,00-15,99 | 16,000 | 18,000 | 93,000 | 48,000 | 16,000 | CP..0502.. | 6128 2.000 | 4071 3.000 | 14,000 |
| 14,00-15,99 | 15,875 | 18,000 | 93,000 | 48,000 | 16,000 | CP..0502.. | 6128 2.000 | 4071 3.000 | 14,005 |
| 16,00-17,99 | 18,000 | 20,000 | 99,000 | 48,000 | 18,000 | CP..0602.. | 6128 2.500 | 4071 3.500 | 16,000 |
| 16,00-17,99 | 19,050 | 20,000 | 99,000 | 48,000 | 18,000 | CP..0602.. | 6128 2.500 | 4071 3.500 | 16,005 |
| 18,00-19,99 | 20,000 | 22,000 | 106,000 | 50,000 | 20,000 | CP..0602.. | 6128 2.500 | 4071 4.000 | 18,000 |
| 18,00-19,99 | 19,050 | 22,000 | 106,000 | 50,000 | 20,000 | CP..0602.. | 6128 2.500 | 4071 4.000 | 18,005 |
| 20,00-21,99 | 25,000 | 25,000 | 117,000 | 56,000 | 22,000 | CP..0602.. | 6128 2.500 | 4071 4.500 | 20,000 |
| 20,00-21,99 | 25,400 | 25,400 | 117,000 | 56,000 | 22,000 | CP..0602.. | 6128 2.500 | 4071 4.500 | 20,005 |
| 22,00-23,99 | 25,000 | 26,000 | 122,000 | 56,000 | 24,000 | CP..0602.. | 6128 2.500 | 4071 5.000 | 22,000 |
| 22,00-23,99 | 25,400 | 26,000 | 122,000 | 56,000 | 24,000 | CP..0602.. | 6128 2.500 | 4071 5.000 | 22,005 |
| 24,00-25,99 | 25,000 | 28,000 | 128,000 | 56,000 | 26,000 | CP..0602.. | 6128 2.500 | 4071 5.001 | 24,000 |
| 24,00-25,99 | 25,400 | 28,000 | 128,000 | 56,000 | 26,000 | CP..0602.. | 6128 2.500 | 4071 5.001 | 24,005 |
| 26,00-27,99 | 32,000 | 32,000 | 142,000 | 60,000 | 28,000 | CP..0602.. | 6128 2.500 | 4071 5.003 | 26,000 |
| 26,00-27,99 | 31,750 | 32,000 | 142,000 | 60,000 | 28,000 | CP..0602.. | 6128 2.500 | 4071 5.003 | 26,005 |
| 28,00-29,99 | 32,000 | 34,000 | 147,000 | 60,000 | 30,000 | CP..0602.. | 6128 2.500 | 4071 5.003 | 28,000 |
| 28,00-29,99 | 31,750 | 34,000 | 147,000 | 60,000 | 30,000 | CP..09T3.. | 6128 2.500 | 4071 5.003 | 28,005 |
| 30,00-31,99 | 32,000 | 38,000 | 152,000 | 60,000 | 32,000 | CP..09T3.. | 6128 4.006 | 4071 6.000 | 30,000 |
| 30,00-31,99 | 31,750 | 38,000 | 152,000 | 60,000 | 32,000 | CP..09T3.. | 6128 4.006 | 4071 6.000 | 30,005 |
| 32,00-35,99 | 32,000 | 42,000 | 163,000 | 60,000 | 36,000 | CP..09T3.. | 6128 4.006 | 4071 6.001 | 32,000 |
| 32,00-35,99 | 31,750 | 42,000 | 163,000 | 60,000 | 36,000 | CP..09T3.. | 6128 4.006 | 4071 6.001 | 32,005 |
| 36,00-40,00 | 32,000 | 46,000 | 173,000 | 60,000 | 40,000 | CP..09T3.. | 6128 4.006 | 4071 6.002 | 36,000 |
| 36,00-40,00 | 31,750 | 46,000 | 173,000 | 60,000 | 40,000 | CP..09T3.. | 6128 4.006 | 4071 6.002 | 36,005 |



Wechselplattenhalter HT 800

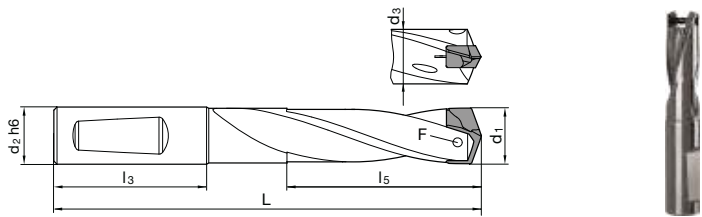


Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4106**

| d1 | d2 h6 | d3 | L | l3 | l5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|--------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 11,00-11,49 | 12,000 | 10,700 | 84,000 | 45,000 | 19,300 | 4071 2.200 | 11,000 |
| 11,00-11,49 | 12,700 | 10,700 | 84,000 | 45,000 | 19,300 | 4071 2.200 | 11,005 |
| 11,50-11,99 | 12,000 | 11,200 | 85,000 | 45,000 | 20,100 | 4071 2.200 | 11,500 |
| 11,50-11,99 | 12,700 | 11,200 | 85,000 | 45,000 | 20,100 | 4071 2.200 | 11,505 |
| 12,00-12,49 | 12,000 | 11,700 | 87,000 | 45,000 | 21,000 | 4071 2.201 | 12,000 |
| 12,00-12,49 | 12,700 | 11,700 | 87,000 | 45,000 | 21,000 | 4071 2.201 | 12,005 |
| 12,50-12,99 | 14,000 | 12,200 | 89,000 | 45,000 | 21,900 | 4071 2.201 | 12,500 |
| 12,50-12,99 | 15,875 | 12,200 | 89,000 | 45,000 | 21,900 | 4071 2.201 | 12,505 |
| 13,00-13,49 | 14,000 | 12,700 | 90,000 | 45,000 | 22,600 | 4071 2.500 | 13,000 |
| 13,00-13,49 | 15,875 | 12,700 | 90,000 | 45,000 | 22,600 | 4071 2.500 | 13,005 |
| 13,50-13,99 | 14,000 | 13,200 | 92,000 | 45,000 | 23,600 | 4071 2.500 | 13,500 |
| 13,50-13,99 | 15,875 | 13,200 | 92,000 | 45,000 | 23,600 | 4071 2.500 | 13,505 |
| 14,00-14,49 | 14,000 | 13,700 | 93,000 | 45,000 | 24,500 | 4071 3.000 | 14,000 |
| 14,00-14,49 | 15,875 | 13,700 | 93,000 | 45,000 | 24,500 | 4071 3.000 | 14,005 |
| 14,50-14,99 | 16,000 | 14,200 | 98,000 | 48,000 | 25,300 | 4071 3.000 | 14,500 |
| 14,50-14,99 | 15,875 | 14,200 | 98,000 | 48,000 | 25,300 | 4071 3.000 | 14,505 |
| 15,00-15,49 | 16,000 | 14,700 | 100,000 | 48,000 | 26,100 | 4071 3.001 | 15,000 |
| 15,00-15,49 | 15,875 | 14,700 | 100,000 | 48,000 | 26,100 | 4071 3.001 | 15,005 |
| 15,50-15,99 | 16,000 | 15,200 | 101,000 | 48,000 | 27,000 | 4071 3.001 | 15,500 |
| 15,50-15,99 | 15,875 | 15,200 | 101,000 | 48,000 | 27,000 | 4071 3.001 | 15,505 |
| 16,00-16,49 | 16,000 | 15,700 | 102,000 | 48,000 | 27,800 | 4071 3.500 | 16,000 |
| 16,00-16,49 | 15,875 | 15,700 | 102,000 | 48,000 | 27,800 | 4071 3.500 | 16,005 |
| 16,50-16,99 | 18,000 | 16,200 | 105,000 | 48,000 | 28,700 | 4071 3.500 | 16,500 |
| 16,50-16,99 | 19,050 | 16,200 | 105,000 | 48,000 | 28,700 | 4071 3.500 | 16,505 |
| 17,00-17,49 | 18,000 | 16,700 | 106,000 | 48,000 | 29,600 | 4071 3.500 | 17,000 |
| 17,00-17,49 | 19,050 | 16,700 | 106,000 | 48,000 | 29,600 | 4071 3.500 | 17,005 |
| 17,50-17,99 | 18,000 | 17,200 | 107,000 | 48,000 | 30,400 | 4071 3.500 | 17,500 |
| 17,50-17,99 | 19,050 | 17,200 | 107,000 | 48,000 | 30,400 | 4071 3.500 | 17,505 |
| 18,00-18,49 | 18,000 | 17,700 | 109,000 | 48,000 | 31,200 | 4071 4.000 | 18,000 |
| 18,00-18,49 | 19,050 | 17,700 | 109,000 | 48,000 | 31,200 | 4071 4.000 | 18,005 |
| 18,50-18,99 | 20,000 | 18,200 | 113,000 | 50,000 | 32,100 | 4071 4.000 | 18,500 |
| 18,50-18,99 | 19,050 | 18,200 | 113,000 | 50,000 | 32,100 | 4071 4.000 | 18,505 |
| 19,00-19,49 | 20,000 | 18,700 | 114,000 | 50,000 | 32,900 | 4071 4.000 | 19,000 |
| 19,00-19,49 | 19,050 | 18,700 | 114,000 | 50,000 | 32,900 | 4071 4.000 | 19,005 |
| 19,50-19,99 | 20,000 | 19,200 | 116,000 | 50,000 | 33,700 | 4071 4.000 | 19,500 |
| 19,50-19,99 | 19,050 | 19,200 | 116,000 | 50,000 | 33,700 | 4071 4.000 | 19,505 |
| 20,00-20,49 | 20,000 | 19,700 | 117,000 | 50,000 | 34,600 | 4071 4.500 | 20,000 |
| 20,00-20,49 | 19,050 | 19,700 | 117,000 | 50,000 | 34,600 | 4071 4.500 | 20,005 |
| 20,50-20,99 | 25,000 | 20,200 | 128,000 | 56,000 | 35,500 | 4071 4.500 | 20,500 |
| 20,50-20,99 | 25,400 | 20,200 | 128,000 | 56,000 | 35,500 | 4071 4.500 | 20,505 |
| 21,00-21,49 | 25,000 | 20,700 | 129,000 | 56,000 | 36,400 | 4071 4.500 | 21,000 |
| 21,00-21,49 | 25,400 | 20,700 | 129,000 | 56,000 | 36,400 | 4071 4.500 | 21,005 |



| d1 | d2 h6 | d3 | L | I3 | I5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|--------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 21,50-21,99 | 25,000 | 21,200 | 130,000 | 56,000 | 37,200 | 4071 4.500 | 21,500 |
| 21,50-21,99 | 25,400 | 21,200 | 130,000 | 56,000 | 37,200 | 4071 4.500 | 21,505 |
| 22,00-22,49 | 25,000 | 21,700 | 131,000 | 56,000 | 38,000 | 4071 5.000 | 22,000 |
| 22,00-22,49 | 25,400 | 21,700 | 131,000 | 56,000 | 38,000 | 4071 5.000 | 22,005 |
| 22,50-22,99 | 25,000 | 22,200 | 134,000 | 56,000 | 38,900 | 4071 5.000 | 22,500 |
| 22,50-22,99 | 25,400 | 22,200 | 134,000 | 56,000 | 38,900 | 4071 5.000 | 22,505 |
| 23,00-23,49 | 25,000 | 22,700 | 135,000 | 56,000 | 39,800 | 4071 5.000 | 23,000 |
| 23,00-23,49 | 25,400 | 22,700 | 135,000 | 56,000 | 39,800 | 4071 5.000 | 23,005 |
| 23,50-23,99 | 25,000 | 23,200 | 137,000 | 56,000 | 40,600 | 4071 5.000 | 23,500 |
| 23,50-23,99 | 25,400 | 23,200 | 137,000 | 56,000 | 40,600 | 4071 5.000 | 23,505 |
| 24,00-24,49 | 25,000 | 23,700 | 138,000 | 56,000 | 41,500 | 4071 5.001 | 24,000 |
| 24,00-24,49 | 25,400 | 23,700 | 138,000 | 56,000 | 41,500 | 4071 5.001 | 24,005 |
| 24,50-24,99 | 25,000 | 24,200 | 140,000 | 56,000 | 42,300 | 4071 5.001 | 24,500 |
| 24,50-24,99 | 25,400 | 24,200 | 140,000 | 56,000 | 42,300 | 4071 5.001 | 24,505 |
| 25,00-25,49 | 25,000 | 24,700 | 142,000 | 56,000 | 43,200 | 4071 5.001 | 25,000 |
| 25,00-25,49 | 25,400 | 24,700 | 142,000 | 56,000 | 43,200 | 4071 5.001 | 25,005 |
| 25,50-25,99 | 32,000 | 25,200 | 148,000 | 60,000 | 44,000 | 4071 5.001 | 25,500 |
| 25,50-25,99 | 31,750 | 25,200 | 148,000 | 60,000 | 44,000 | 4071 5.001 | 25,505 |
| 26,00-26,49 | 32,000 | 25,700 | 151,000 | 60,000 | 44,300 | 4071 5.003 | 26,000 |
| 26,00-26,49 | 31,750 | 25,700 | 151,000 | 60,000 | 44,300 | 4071 5.003 | 26,005 |
| 26,50-26,99 | 32,000 | 26,200 | 153,000 | 60,000 | 45,100 | 4071 5.003 | 26,500 |
| 26,50-26,99 | 31,750 | 26,200 | 153,000 | 60,000 | 45,100 | 4071 5.003 | 26,505 |
| 27,00-27,49 | 32,000 | 26,700 | 155,000 | 60,000 | 46,000 | 4071 5.003 | 27,000 |
| 27,00-27,49 | 31,750 | 26,700 | 155,000 | 60,000 | 46,000 | 4071 5.003 | 27,005 |
| 27,50-27,99 | 32,000 | 27,200 | 156,000 | 60,000 | 46,800 | 4071 5.003 | 27,500 |
| 27,50-27,99 | 31,750 | 27,200 | 156,000 | 60,000 | 46,800 | 4071 5.003 | 27,505 |
| 28,00-28,49 | 32,000 | 27,700 | 157,000 | 60,000 | 47,700 | 4071 5.003 | 28,000 |
| 28,00-28,49 | 31,750 | 27,700 | 157,000 | 60,000 | 47,700 | 4071 5.003 | 28,005 |
| 28,50-28,99 | 32,000 | 28,200 | 159,000 | 60,000 | 48,500 | 4071 5.003 | 28,500 |
| 28,50-28,99 | 31,750 | 28,200 | 159,000 | 60,000 | 48,500 | 4071 5.003 | 28,505 |
| 29,00-29,49 | 32,000 | 28,700 | 161,000 | 60,000 | 49,400 | 4071 5.003 | 29,000 |
| 29,00-29,49 | 31,750 | 28,700 | 161,000 | 60,000 | 49,400 | 4071 5.003 | 29,005 |
| 29,50-29,99 | 32,000 | 29,200 | 162,000 | 60,000 | 50,200 | 4071 5.003 | 29,500 |
| 29,50-29,99 | 31,750 | 29,200 | 162,000 | 60,000 | 50,200 | 4071 5.003 | 29,505 |
| 30,00-30,49 | 32,000 | 29,700 | 164,000 | 60,000 | 50,900 | 4071 6.000 | 30,000 |
| 30,00-30,49 | 31,750 | 29,700 | 164,000 | 60,000 | 50,900 | 4071 6.000 | 30,005 |
| 30,50-30,99 | 32,000 | 30,200 | 166,000 | 60,000 | 51,700 | 4071 6.000 | 30,500 |
| 30,50-30,99 | 31,750 | 30,200 | 166,000 | 60,000 | 51,700 | 4071 6.000 | 30,505 |
| 31,00-31,49 | 32,000 | 30,700 | 167,000 | 60,000 | 52,600 | 4071 6.000 | 31,000 |
| 31,00-31,49 | 31,750 | 30,700 | 167,000 | 60,000 | 52,600 | 4071 6.000 | 31,005 |
| 31,50-31,99 | 32,000 | 31,200 | 168,000 | 60,000 | 53,400 | 4071 6.000 | 31,500 |
| 31,50-31,99 | 31,750 | 31,200 | 168,000 | 60,000 | 53,400 | 4071 6.000 | 31,505 |
| 32,00-32,99 | 32,000 | 31,700 | 172,000 | 60,000 | 55,100 | 4071 6.001 | 32,000 |
| 32,00-32,99 | 31,750 | 31,700 | 172,000 | 60,000 | 55,100 | 4071 6.001 | 32,005 |
| 33,00-33,99 | 32,000 | 32,700 | 175,000 | 60,000 | 56,800 | 4071 6.001 | 33,000 |
| 33,00-33,99 | 31,750 | 32,700 | 175,000 | 60,000 | 56,800 | 4071 6.001 | 33,005 |
| 34,00-34,99 | 32,000 | 33,700 | 178,000 | 60,000 | 58,500 | 4071 6.001 | 34,000 |
| 34,00-34,99 | 31,750 | 33,700 | 178,000 | 60,000 | 58,500 | 4071 6.001 | 34,005 |
| 35,00-35,99 | 32,000 | 34,700 | 181,000 | 60,000 | 60,200 | 4071 6.001 | 35,000 |
| 35,00-35,99 | 31,750 | 34,700 | 181,000 | 60,000 | 60,200 | 4071 6.001 | 35,005 |
| 36,00-36,99 | 32,000 | 35,700 | 184,000 | 60,000 | 61,800 | 4071 6.002 | 36,000 |
| 36,00-36,99 | 31,750 | 35,700 | 184,000 | 60,000 | 61,800 | 4071 6.002 | 36,005 |
| 37,00-37,99 | 32,000 | 36,700 | 188,000 | 60,000 | 63,500 | 4071 6.002 | 37,000 |
| 37,00-37,99 | 31,750 | 36,700 | 188,000 | 60,000 | 63,500 | 4071 6.002 | 37,005 |
| 38,00-38,99 | 32,000 | 37,700 | 191,000 | 60,000 | 65,200 | 4071 6.002 | 38,000 |
| 38,00-38,99 | 31,750 | 37,700 | 191,000 | 60,000 | 65,200 | 4071 6.002 | 38,005 |
| 39,00-40,00 | 32,000 | 38,700 | 194,000 | 60,000 | 66,900 | 4071 6.002 | 39,000 |
| 39,00-40,00 | 31,750 | 38,700 | 194,000 | 60,000 | 66,900 | 4071 6.002 | 39,005 |



Wechselplattenhalter HT 800

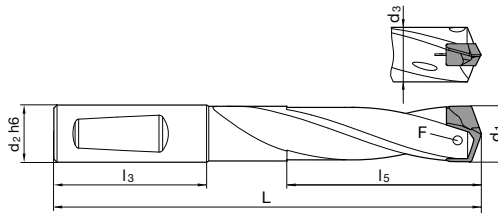


Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4107**

| d1 | d2 h6 | d3 | L | l3 | l5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|--------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 11,00-11,49 | 12,000 | 10,700 | 101,000 | 45,000 | 36,600 | 4071 2.200 | 11,000 |
| 11,00-11,49 | 12,700 | 10,700 | 101,000 | 45,000 | 36,600 | 4071 2.200 | 11,005 |
| 11,50-11,99 | 12,000 | 11,200 | 103,000 | 45,000 | 38,100 | 4071 2.200 | 11,500 |
| 11,50-11,99 | 12,700 | 11,200 | 103,000 | 45,000 | 38,100 | 4071 2.200 | 11,505 |
| 12,00-12,49 | 12,000 | 11,700 | 106,000 | 45,000 | 39,700 | 4071 2.201 | 12,000 |
| 12,00-12,49 | 12,700 | 11,700 | 106,000 | 45,000 | 39,700 | 4071 2.201 | 12,005 |
| 12,50-12,99 | 14,000 | 12,200 | 108,000 | 45,000 | 41,300 | 4071 2.201 | 12,500 |
| 12,50-12,99 | 15,875 | 12,200 | 108,000 | 45,000 | 41,300 | 4071 2.201 | 12,505 |
| 13,00-13,49 | 14,000 | 12,700 | 110,000 | 45,000 | 42,900 | 4071 2.500 | 13,000 |
| 13,00-13,49 | 15,875 | 12,700 | 110,000 | 45,000 | 42,900 | 4071 2.500 | 13,005 |
| 13,50-13,99 | 14,000 | 13,200 | 113,000 | 45,000 | 44,600 | 4071 2.500 | 13,500 |
| 13,50-13,99 | 15,875 | 13,200 | 113,000 | 45,000 | 44,600 | 4071 2.500 | 13,505 |
| 14,00-14,49 | 14,000 | 13,700 | 115,000 | 45,000 | 46,200 | 4071 3.000 | 14,000 |
| 14,00-14,49 | 15,875 | 13,700 | 115,000 | 45,000 | 46,200 | 4071 3.000 | 14,005 |
| 14,50-14,99 | 16,000 | 14,200 | 120,000 | 48,000 | 47,800 | 4071 3.000 | 14,500 |
| 14,50-14,99 | 15,875 | 14,200 | 120,000 | 48,000 | 47,800 | 4071 3.000 | 14,505 |
| 15,00-15,49 | 16,000 | 14,700 | 123,000 | 48,000 | 49,300 | 4071 3.001 | 15,000 |
| 15,00-15,49 | 15,875 | 14,700 | 123,000 | 48,000 | 49,300 | 4071 3.001 | 15,005 |
| 15,50-15,99 | 16,000 | 15,200 | 125,000 | 48,000 | 50,900 | 4071 3.001 | 15,500 |
| 15,50-15,99 | 15,875 | 15,200 | 125,000 | 48,000 | 50,900 | 4071 3.001 | 15,505 |
| 16,00-16,49 | 16,000 | 15,700 | 127,000 | 48,000 | 52,900 | 4071 3.500 | 16,000 |
| 16,00-16,49 | 15,875 | 15,700 | 127,000 | 48,000 | 52,900 | 4071 3.500 | 16,005 |
| 16,50-16,99 | 18,000 | 16,200 | 130,000 | 48,000 | 54,100 | 4071 3.500 | 16,500 |
| 16,50-16,99 | 19,050 | 16,200 | 130,000 | 48,000 | 54,100 | 4071 3.500 | 16,505 |
| 17,00-17,49 | 18,000 | 16,700 | 132,000 | 48,000 | 55,800 | 4071 3.500 | 17,000 |
| 17,00-17,49 | 19,050 | 16,700 | 132,000 | 48,000 | 55,800 | 4071 3.500 | 17,005 |
| 17,50-17,99 | 18,000 | 17,200 | 134,000 | 48,000 | 57,400 | 4071 3.500 | 17,500 |
| 17,50-17,99 | 19,050 | 17,200 | 134,000 | 48,000 | 57,400 | 4071 3.500 | 17,505 |
| 18,00-18,49 | 18,000 | 17,700 | 137,000 | 48,000 | 58,900 | 4071 4.000 | 18,000 |
| 18,00-18,49 | 19,050 | 17,700 | 137,000 | 48,000 | 58,900 | 4071 4.000 | 18,005 |
| 18,50-18,99 | 20,000 | 18,200 | 141,000 | 50,000 | 60,500 | 4071 4.000 | 18,500 |
| 18,50-18,99 | 19,050 | 18,200 | 141,000 | 50,000 | 60,500 | 4071 4.000 | 18,505 |
| 19,00-19,49 | 20,000 | 18,700 | 143,000 | 50,000 | 62,100 | 4071 4.000 | 19,000 |
| 19,00-19,49 | 19,050 | 18,700 | 143,000 | 50,000 | 62,100 | 4071 4.000 | 19,005 |
| 19,50-19,99 | 20,000 | 19,200 | 146,000 | 50,000 | 63,700 | 4071 4.000 | 19,500 |
| 19,50-19,99 | 19,050 | 19,200 | 146,000 | 50,000 | 63,700 | 4071 4.000 | 19,505 |
| 20,00-20,49 | 20,000 | 19,700 | 148,000 | 50,000 | 65,300 | 4071 4.500 | 20,000 |
| 20,00-20,49 | 19,050 | 19,700 | 148,000 | 50,000 | 65,300 | 4071 4.500 | 20,005 |
| 20,50-20,99 | 25,000 | 20,200 | 159,000 | 56,000 | 67,000 | 4071 4.500 | 20,500 |
| 20,50-20,99 | 25,400 | 20,200 | 159,000 | 56,000 | 67,000 | 4071 4.500 | 20,505 |
| 21,00-21,49 | 25,000 | 20,700 | 161,000 | 56,000 | 68,600 | 4071 4.500 | 21,000 |
| 21,00-21,49 | 25,400 | 20,700 | 161,000 | 56,000 | 68,600 | 4071 4.500 | 21,005 |



| d1 | d2 h6 | d3 | L | I3 | I5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 21,50-21,99 | 25,000 | 21,200 | 163,000 | 56,000 | 70,100 | 4071 4.500 | 21,500 |
| 21,50-21,99 | 25,400 | 21,200 | 163,000 | 56,000 | 70,100 | 4071 4.500 | 21,505 |
| 22,00-22,49 | 25,000 | 21,700 | 165,000 | 56,000 | 71,700 | 4071 5.000 | 22,000 |
| 22,00-22,49 | 25,400 | 21,700 | 165,000 | 56,000 | 71,700 | 4071 5.000 | 22,005 |
| 22,50-22,99 | 25,000 | 22,200 | 168,000 | 56,000 | 73,300 | 4071 5.000 | 22,500 |
| 22,50-22,99 | 25,400 | 22,200 | 168,000 | 56,000 | 73,300 | 4071 5.000 | 22,505 |
| 23,00-23,49 | 25,000 | 22,700 | 170,000 | 56,000 | 74,900 | 4071 5.000 | 23,000 |
| 23,00-23,49 | 25,400 | 22,700 | 170,000 | 56,000 | 74,900 | 4071 5.000 | 23,005 |
| 23,50-23,99 | 25,000 | 23,200 | 173,000 | 56,000 | 76,500 | 4071 5.000 | 23,500 |
| 23,50-23,99 | 25,400 | 23,200 | 173,000 | 56,000 | 76,500 | 4071 5.000 | 23,505 |
| 24,00-24,49 | 25,000 | 23,700 | 175,000 | 56,000 | 78,100 | 4071 5.001 | 24,000 |
| 24,00-24,49 | 25,400 | 23,700 | 175,000 | 56,000 | 78,100 | 4071 5.001 | 24,005 |
| 24,50-24,99 | 25,000 | 24,200 | 177,000 | 56,000 | 79,700 | 4071 5.001 | 24,500 |
| 24,50-24,99 | 25,400 | 24,200 | 177,000 | 56,000 | 79,700 | 4071 5.001 | 24,505 |
| 25,00-25,49 | 25,000 | 24,700 | 180,000 | 56,000 | 81,300 | 4071 5.001 | 25,000 |
| 25,00-25,49 | 25,400 | 24,700 | 180,000 | 56,000 | 81,300 | 4071 5.001 | 25,005 |
| 25,50-25,99 | 32,000 | 25,200 | 187,000 | 60,000 | 82,900 | 4071 5.001 | 25,500 |
| 25,50-25,99 | 31,750 | 25,200 | 187,000 | 60,000 | 82,900 | 4071 5.001 | 25,505 |
| 26,00-26,49 | 32,000 | 25,700 | 191,000 | 60,000 | 84,000 | 4071 5.003 | 26,000 |
| 26,00-26,49 | 31,750 | 25,700 | 191,000 | 60,000 | 84,000 | 4071 5.003 | 26,005 |
| 26,50-26,99 | 32,000 | 26,200 | 193,000 | 60,000 | 86,100 | 4071 5.003 | 26,500 |
| 26,50-26,99 | 31,750 | 26,200 | 193,000 | 60,000 | 86,100 | 4071 5.003 | 26,505 |
| 27,00-27,49 | 32,000 | 26,700 | 196,000 | 60,000 | 87,200 | 4071 5.003 | 27,000 |
| 27,00-27,49 | 31,750 | 26,700 | 196,000 | 60,000 | 87,200 | 4071 5.003 | 27,005 |
| 27,50-27,99 | 32,000 | 27,200 | 198,000 | 60,000 | 88,900 | 4071 5.003 | 27,500 |
| 27,50-27,99 | 31,750 | 27,200 | 198,000 | 60,000 | 88,900 | 4071 5.003 | 27,505 |
| 28,00-28,49 | 32,000 | 27,700 | 200,000 | 60,000 | 90,400 | 4071 5.003 | 28,000 |
| 28,00-28,49 | 31,750 | 27,700 | 200,000 | 60,000 | 90,400 | 4071 5.003 | 28,005 |
| 28,50-28,99 | 32,000 | 28,200 | 202,000 | 60,000 | 92,500 | 4071 5.003 | 28,500 |
| 28,50-28,99 | 31,750 | 28,200 | 202,000 | 60,000 | 92,500 | 4071 5.003 | 28,505 |
| 29,00-29,49 | 32,000 | 28,700 | 205,000 | 60,000 | 94,600 | 4071 5.003 | 29,000 |
| 29,00-29,49 | 31,750 | 28,700 | 205,000 | 60,000 | 94,600 | 4071 5.003 | 29,005 |
| 29,50-29,99 | 32,000 | 29,200 | 207,000 | 60,000 | 95,100 | 4071 5.003 | 29,500 |
| 29,50-29,99 | 31,750 | 29,200 | 207,000 | 60,000 | 95,100 | 4071 5.003 | 29,505 |
| 30,00-30,49 | 32,000 | 29,700 | 210,000 | 60,000 | 96,700 | 4071 6.000 | 30,000 |
| 30,00-30,49 | 31,750 | 29,700 | 210,000 | 60,000 | 96,700 | 4071 6.000 | 30,005 |
| 30,50-30,99 | 32,000 | 30,200 | 212,000 | 60,000 | 98,300 | 4071 6.000 | 30,500 |
| 30,50-30,99 | 31,750 | 30,200 | 212,000 | 60,000 | 98,300 | 4071 6.000 | 30,505 |
| 31,00-31,49 | 32,000 | 30,700 | 214,000 | 60,000 | 99,800 | 4071 6.000 | 31,000 |
| 31,00-31,49 | 31,750 | 30,700 | 214,000 | 60,000 | 99,800 | 4071 6.000 | 31,005 |
| 31,50-31,99 | 32,000 | 31,200 | 216,000 | 60,000 | 101,400 | 4071 6.000 | 31,500 |
| 31,50-31,99 | 31,750 | 31,200 | 216,000 | 60,000 | 101,400 | 4071 6.000 | 31,505 |
| 32,00-32,99 | 32,000 | 31,700 | 221,000 | 60,000 | 104,600 | 4071 6.001 | 32,000 |
| 32,00-32,99 | 31,750 | 31,700 | 221,000 | 60,000 | 104,600 | 4071 6.001 | 32,005 |
| 33,00-33,99 | 32,000 | 32,700 | 226,000 | 60,000 | 107,800 | 4071 6.001 | 33,000 |
| 33,00-33,99 | 31,750 | 32,700 | 226,000 | 60,000 | 107,800 | 4071 6.001 | 33,005 |
| 34,00-34,99 | 32,000 | 33,700 | 230,000 | 60,000 | 111,000 | 4071 6.001 | 34,000 |
| 34,00-34,99 | 31,750 | 33,700 | 230,000 | 60,000 | 111,000 | 4071 6.001 | 34,005 |
| 35,00-35,99 | 32,000 | 34,700 | 235,000 | 60,000 | 114,200 | 4071 6.001 | 35,000 |
| 35,00-35,99 | 31,750 | 34,700 | 235,000 | 60,000 | 114,200 | 4071 6.001 | 35,005 |
| 36,00-36,99 | 32,000 | 35,700 | 240,000 | 60,000 | 117,300 | 4071 6.002 | 36,000 |
| 36,00-36,99 | 31,750 | 35,700 | 240,000 | 60,000 | 117,300 | 4071 6.002 | 36,005 |
| 37,00-37,99 | 32,000 | 36,700 | 245,000 | 60,000 | 120,500 | 4071 6.002 | 37,000 |
| 37,00-37,99 | 31,750 | 36,700 | 245,000 | 60,000 | 120,500 | 4071 6.002 | 37,005 |
| 38,00-38,99 | 32,000 | 37,700 | 249,000 | 60,000 | 123,700 | 4071 6.002 | 38,000 |
| 38,00-38,99 | 31,750 | 37,700 | 249,000 | 60,000 | 123,700 | 4071 6.002 | 38,005 |
| 39,00-40,00 | 32,000 | 38,700 | 254,000 | 60,000 | 126,900 | 4071 6.002 | 39,000 |
| 39,00-40,00 | 31,750 | 38,700 | 254,000 | 60,000 | 126,900 | 4071 6.002 | 39,005 |



Wechselplattenhalter HT 800

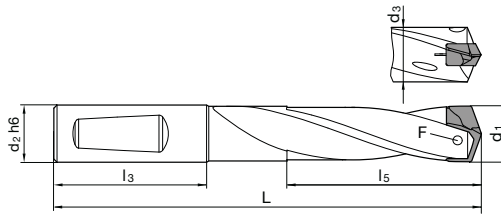


Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4108**

| d1 | d2 h6 | d3 | L | l3 | l5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 11,00-11,49 | 12,000 | 10,700 | 124,000 | 45,000 | 59,600 | 4071 2.200 | 11,000 |
| 11,00-11,49 | 12,700 | 10,700 | 124,000 | 45,000 | 59,600 | 4071 2.200 | 11,005 |
| 11,50-11,99 | 12,000 | 11,200 | 127,000 | 45,000 | 62,100 | 4071 2.200 | 11,500 |
| 11,50-11,99 | 12,700 | 11,200 | 127,000 | 45,000 | 62,100 | 4071 2.200 | 11,505 |
| 12,00-12,49 | 12,000 | 11,700 | 131,000 | 45,000 | 64,700 | 4071 2.201 | 12,000 |
| 12,00-12,49 | 12,700 | 11,700 | 131,000 | 45,000 | 64,700 | 4071 2.201 | 12,005 |
| 12,50-12,99 | 14,000 | 12,200 | 134,000 | 45,000 | 67,300 | 4071 2.201 | 12,500 |
| 12,50-12,99 | 15,875 | 12,200 | 134,000 | 45,000 | 67,300 | 4071 2.201 | 12,505 |
| 13,00-13,49 | 14,000 | 12,700 | 137,000 | 45,000 | 69,900 | 4071 2.500 | 13,000 |
| 13,00-13,49 | 15,875 | 12,700 | 137,000 | 45,000 | 69,900 | 4071 2.500 | 13,005 |
| 13,50-13,99 | 14,000 | 13,200 | 141,000 | 45,000 | 72,600 | 4071 2.500 | 13,500 |
| 13,50-13,99 | 15,875 | 13,200 | 141,000 | 45,000 | 72,600 | 4071 2.500 | 13,505 |
| 14,00-14,49 | 14,000 | 13,700 | 144,000 | 45,000 | 75,200 | 4071 3.000 | 14,000 |
| 14,00-14,49 | 15,875 | 13,700 | 144,000 | 45,000 | 75,200 | 4071 3.000 | 14,005 |
| 14,50-14,99 | 16,000 | 14,200 | 150,000 | 48,000 | 77,800 | 4071 3.000 | 14,500 |
| 14,50-14,99 | 15,875 | 14,200 | 150,000 | 48,000 | 77,800 | 4071 3.000 | 14,505 |
| 15,00-15,49 | 16,000 | 14,700 | 154,000 | 48,000 | 80,300 | 4071 3.001 | 15,000 |
| 15,00-15,49 | 15,875 | 14,700 | 154,000 | 48,000 | 80,300 | 4071 3.001 | 15,005 |
| 15,50-15,99 | 16,000 | 15,200 | 157,000 | 48,000 | 82,900 | 4071 3.001 | 15,500 |
| 15,50-15,99 | 15,875 | 15,200 | 157,000 | 48,000 | 82,900 | 4071 3.001 | 15,505 |
| 16,00-16,49 | 16,000 | 15,700 | 160,000 | 48,000 | 85,900 | 4071 3.500 | 16,000 |
| 16,00-16,49 | 15,875 | 15,700 | 160,000 | 48,000 | 85,900 | 4071 3.500 | 16,005 |
| 16,50-16,99 | 18,000 | 16,200 | 164,000 | 48,000 | 88,100 | 4071 3.500 | 16,500 |
| 16,50-16,99 | 19,050 | 16,200 | 164,000 | 48,000 | 88,100 | 4071 3.500 | 16,505 |
| 17,00-17,49 | 18,000 | 16,700 | 167,000 | 48,000 | 90,800 | 4071 3.500 | 17,000 |
| 17,00-17,49 | 19,050 | 16,700 | 167,000 | 48,000 | 90,800 | 4071 3.500 | 17,005 |
| 17,50-17,99 | 18,000 | 17,200 | 170,000 | 48,000 | 93,400 | 4071 3.500 | 17,500 |
| 17,50-17,99 | 19,050 | 17,200 | 170,000 | 48,000 | 93,400 | 4071 3.500 | 17,505 |
| 18,00-18,49 | 18,000 | 17,700 | 174,000 | 48,000 | 95,900 | 4071 4.000 | 18,000 |
| 18,00-18,49 | 19,050 | 17,700 | 174,000 | 48,000 | 95,900 | 4071 4.000 | 18,005 |
| 18,50-18,99 | 20,000 | 18,200 | 179,000 | 50,000 | 98,500 | 4071 4.000 | 18,500 |
| 18,50-18,99 | 19,050 | 18,200 | 179,000 | 50,000 | 98,500 | 4071 4.000 | 18,505 |
| 19,00-19,49 | 20,000 | 18,700 | 182,000 | 50,000 | 101,100 | 4071 4.000 | 19,000 |
| 19,00-19,49 | 19,050 | 18,700 | 182,000 | 50,000 | 101,100 | 4071 4.000 | 19,005 |
| 19,50-19,99 | 20,000 | 19,200 | 186,000 | 50,000 | 103,700 | 4071 4.000 | 19,500 |
| 19,50-19,99 | 19,050 | 19,200 | 186,000 | 50,000 | 103,700 | 4071 4.000 | 19,505 |
| 20,00-20,49 | 20,000 | 19,700 | 189,000 | 50,000 | 106,300 | 4071 4.500 | 20,000 |
| 20,00-20,49 | 19,050 | 19,700 | 189,000 | 50,000 | 106,300 | 4071 4.500 | 20,005 |
| 20,50-20,99 | 25,000 | 20,200 | 201,000 | 56,000 | 109,000 | 4071 4.500 | 20,500 |
| 20,50-20,99 | 25,400 | 20,200 | 201,000 | 56,000 | 109,000 | 4071 4.500 | 20,505 |
| 21,00-21,49 | 25,000 | 20,700 | 204,000 | 56,000 | 111,600 | 4071 4.500 | 21,000 |
| 21,00-21,49 | 25,400 | 20,700 | 204,000 | 56,000 | 111,600 | 4071 4.500 | 21,005 |



| d1 | d2 h6 | d3 | L | I3 | I5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 21,50-21,99 | 25,000 | 21,200 | 207,000 | 56,000 | 114,100 | 4071 4.500 | 21,500 |
| 21,50-21,99 | 25,400 | 21,200 | 207,000 | 56,000 | 114,100 | 4071 4.500 | 21,505 |
| 22,00-22,49 | 25,000 | 21,700 | 210,000 | 56,000 | 116,700 | 4071 5.000 | 22,000 |
| 22,00-22,49 | 25,400 | 21,700 | 210,000 | 56,000 | 116,700 | 4071 5.000 | 22,005 |
| 22,50-22,99 | 25,000 | 22,200 | 214,000 | 56,000 | 119,300 | 4071 5.000 | 22,500 |
| 22,50-22,99 | 25,400 | 22,200 | 214,000 | 56,000 | 119,300 | 4071 5.000 | 22,505 |
| 23,00-23,49 | 25,000 | 22,700 | 217,000 | 56,000 | 121,900 | 4071 5.000 | 23,000 |
| 23,00-23,49 | 25,400 | 22,700 | 217,000 | 56,000 | 121,900 | 4071 5.000 | 23,005 |
| 23,50-23,99 | 25,000 | 23,200 | 221,000 | 56,000 | 124,500 | 4071 5.000 | 23,500 |
| 23,50-23,99 | 25,400 | 23,200 | 221,000 | 56,000 | 124,500 | 4071 5.000 | 23,505 |
| 24,00-24,49 | 25,000 | 23,700 | 224,000 | 56,000 | 127,100 | 4071 5.001 | 24,000 |
| 24,00-24,49 | 25,400 | 23,700 | 224,000 | 56,000 | 127,100 | 4071 5.001 | 24,005 |
| 24,50-24,99 | 25,000 | 24,200 | 227,000 | 56,000 | 129,700 | 4071 5.001 | 24,500 |
| 24,50-24,99 | 25,400 | 24,200 | 227,000 | 56,000 | 129,700 | 4071 5.001 | 24,505 |
| 25,00-25,49 | 25,000 | 24,700 | 231,000 | 56,000 | 132,300 | 4071 5.001 | 25,000 |
| 25,00-25,49 | 25,400 | 24,700 | 231,000 | 56,000 | 132,300 | 4071 5.001 | 25,005 |
| 25,50-25,99 | 32,000 | 25,200 | 239,000 | 60,000 | 134,900 | 4071 5.001 | 25,500 |
| 25,50-25,99 | 31,750 | 25,200 | 239,000 | 60,000 | 134,900 | 4071 5.001 | 25,505 |
| 26,00-26,49 | 32,000 | 25,700 | 244,000 | 60,000 | 137,000 | 4071 5.003 | 26,000 |
| 26,00-26,49 | 31,750 | 25,700 | 244,000 | 60,000 | 137,000 | 4071 5.003 | 26,005 |
| 26,50-26,99 | 32,000 | 26,200 | 247,000 | 60,000 | 140,000 | 4071 5.003 | 26,500 |
| 26,50-26,99 | 31,750 | 26,200 | 247,000 | 60,000 | 140,000 | 4071 5.003 | 26,505 |
| 27,00-27,49 | 32,000 | 26,700 | 251,000 | 60,000 | 142,200 | 4071 5.003 | 27,000 |
| 27,00-27,49 | 31,750 | 26,700 | 251,000 | 60,000 | 142,200 | 4071 5.003 | 27,005 |
| 27,50-27,99 | 32,000 | 27,200 | 254,000 | 60,000 | 144,800 | 4071 5.003 | 27,500 |
| 28,00-28,49 | 32,000 | 27,700 | 257,000 | 60,000 | 147,400 | 4071 5.003 | 28,000 |
| 28,00-28,49 | 31,750 | 27,700 | 257,000 | 60,000 | 147,400 | 4071 5.003 | 28,005 |
| 28,50-28,99 | 32,000 | 28,200 | 260,000 | 60,000 | 150,400 | 4071 5.003 | 28,500 |
| 28,50-28,99 | 31,750 | 28,200 | 260,000 | 60,000 | 150,400 | 4071 5.003 | 28,505 |
| 29,00-29,49 | 32,000 | 28,700 | 264,000 | 60,000 | 153,500 | 4071 5.003 | 29,000 |
| 29,00-29,49 | 31,750 | 28,700 | 264,000 | 60,000 | 153,500 | 4071 5.003 | 29,005 |
| 29,50-29,99 | 32,000 | 29,200 | 267,000 | 60,000 | 155,100 | 4071 5.003 | 29,500 |
| 30,00-30,49 | 32,000 | 29,700 | 271,000 | 60,000 | 157,600 | 4071 6.000 | 30,000 |
| 30,00-30,49 | 31,750 | 29,700 | 271,000 | 60,000 | 157,600 | 4071 6.000 | 30,005 |
| 30,50-30,99 | 32,000 | 30,200 | 274,000 | 60,000 | 160,200 | 4071 6.000 | 30,500 |
| 31,00-31,49 | 32,000 | 30,700 | 277,000 | 60,000 | 162,800 | 4071 6.000 | 31,000 |
| 31,50-31,99 | 32,000 | 31,200 | 280,000 | 60,000 | 165,400 | 4071 6.000 | 31,500 |
| 32,00-32,99 | 32,000 | 31,700 | 287,000 | 60,000 | 170,600 | 4071 6.001 | 32,000 |
| 32,00-32,99 | 31,750 | 31,700 | 287,000 | 60,000 | 170,600 | 4071 6.001 | 32,005 |
| 33,00-33,99 | 32,000 | 32,700 | 294,000 | 60,000 | 175,800 | 4071 6.001 | 33,000 |
| 33,00-33,99 | 31,750 | 32,700 | 294,000 | 60,000 | 175,800 | 4071 6.001 | 33,005 |
| 34,00-34,99 | 32,000 | 33,700 | 300,000 | 60,000 | 181,000 | 4071 6.001 | 34,000 |
| 34,00-34,99 | 31,750 | 33,700 | 300,000 | 60,000 | 181,000 | 4071 6.001 | 34,005 |
| 35,00-35,99 | 32,000 | 34,700 | 307,000 | 60,000 | 186,200 | 4071 6.001 | 35,000 |
| 35,00-35,99 | 31,750 | 34,700 | 307,000 | 60,000 | 186,200 | 4071 6.001 | 35,005 |
| 36,00-36,99 | 32,000 | 35,700 | 314,000 | 60,000 | 191,300 | 4071 6.002 | 36,000 |
| 37,00-37,99 | 32,000 | 36,700 | 321,000 | 60,000 | 196,500 | 4071 6.002 | 37,000 |
| 37,00-37,99 | 31,750 | 36,700 | 321,000 | 60,000 | 196,500 | 4071 6.002 | 37,005 |
| 38,00-38,99 | 32,000 | 37,700 | 327,000 | 60,000 | 201,700 | 4071 6.002 | 38,000 |
| 38,00-38,99 | 31,750 | 37,700 | 327,000 | 60,000 | 201,700 | 4071 6.002 | 38,005 |
| 39,00-40,00 | 32,000 | 38,700 | 334,000 | 60,000 | 206,900 | 4071 6.002 | 39,000 |



Wechselplattenhalter HT 800

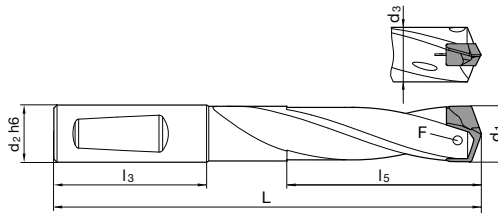


Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4109**

| d1 | d2 h6 | d3 | L | l3 | l5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 11,00-11,49 | 12,000 | 10,700 | 147,000 | 45,000 | 82,600 | 4071 2.200 | 11,000 |
| 11,00-11,49 | 12,700 | 10,700 | 147,000 | 45,000 | 82,600 | 4071 2.200 | 11,005 |
| 11,50-11,99 | 12,000 | 11,200 | 151,000 | 45,000 | 86,100 | 4071 2.200 | 11,500 |
| 11,50-11,99 | 12,700 | 11,200 | 151,000 | 45,000 | 86,100 | 4071 2.200 | 11,505 |
| 12,00-12,49 | 12,000 | 11,700 | 156,000 | 45,000 | 89,700 | 4071 2.201 | 12,000 |
| 12,00-12,49 | 12,700 | 11,700 | 156,000 | 45,000 | 89,700 | 4071 2.201 | 12,005 |
| 12,50-12,99 | 14,000 | 12,200 | 160,000 | 45,000 | 93,300 | 4071 2.201 | 12,500 |
| 12,50-12,99 | 15,875 | 12,200 | 160,000 | 45,000 | 93,300 | 4071 2.201 | 12,505 |
| 13,00-13,49 | 14,000 | 12,700 | 164,000 | 45,000 | 96,900 | 4071 2.500 | 13,000 |
| 13,00-13,49 | 15,875 | 12,700 | 164,000 | 45,000 | 96,900 | 4071 2.500 | 13,005 |
| 13,50-13,99 | 14,000 | 13,200 | 169,000 | 45,000 | 100,600 | 4071 2.500 | 13,500 |
| 13,50-13,99 | 15,875 | 13,200 | 169,000 | 45,000 | 100,600 | 4071 2.500 | 13,505 |
| 14,00-14,49 | 14,000 | 13,700 | 173,000 | 45,000 | 104,200 | 4071 3.000 | 14,000 |
| 14,00-14,49 | 15,875 | 13,700 | 173,000 | 45,000 | 104,200 | 4071 3.000 | 14,005 |
| 14,50-14,99 | 16,000 | 14,200 | 180,000 | 48,000 | 107,800 | 4071 3.000 | 14,500 |
| 14,50-14,99 | 15,875 | 14,200 | 180,000 | 48,000 | 107,800 | 4071 3.000 | 14,505 |
| 15,00-15,49 | 16,000 | 14,700 | 185,000 | 48,000 | 111,300 | 4071 3.001 | 15,000 |
| 15,00-15,49 | 15,875 | 14,700 | 185,000 | 48,000 | 111,300 | 4071 3.001 | 15,005 |
| 15,50-15,99 | 16,000 | 15,200 | 189,000 | 48,000 | 114,900 | 4071 3.001 | 15,500 |
| 15,50-15,99 | 15,875 | 15,200 | 189,000 | 48,000 | 114,900 | 4071 3.001 | 15,505 |
| 16,00-16,49 | 16,000 | 15,700 | 193,000 | 48,000 | 118,900 | 4071 3.500 | 16,000 |
| 16,00-16,49 | 15,875 | 15,700 | 193,000 | 48,000 | 118,900 | 4071 3.500 | 16,005 |
| 16,50-16,99 | 18,000 | 16,200 | 198,000 | 48,000 | 122,100 | 4071 3.500 | 16,500 |
| 16,50-16,99 | 19,050 | 16,200 | 198,000 | 48,000 | 122,100 | 4071 3.500 | 16,505 |
| 17,00-17,49 | 18,000 | 16,700 | 202,000 | 48,000 | 125,800 | 4071 3.500 | 17,000 |
| 17,00-17,49 | 19,050 | 16,700 | 202,000 | 48,000 | 125,800 | 4071 3.500 | 17,005 |
| 17,50-17,99 | 18,000 | 17,200 | 206,000 | 48,000 | 129,400 | 4071 3.500 | 17,500 |
| 17,50-17,99 | 19,050 | 17,200 | 206,000 | 48,000 | 129,400 | 4071 3.500 | 17,505 |
| 18,00-18,49 | 18,000 | 17,700 | 211,000 | 48,000 | 132,900 | 4071 4.000 | 18,000 |
| 18,00-18,49 | 19,050 | 17,700 | 211,000 | 48,000 | 132,900 | 4071 4.000 | 18,005 |
| 18,50-18,99 | 20,000 | 18,200 | 217,000 | 50,000 | 136,500 | 4071 4.000 | 18,500 |
| 18,50-18,99 | 19,050 | 18,200 | 217,000 | 50,000 | 136,500 | 4071 4.000 | 18,505 |
| 19,00-19,49 | 20,000 | 18,700 | 221,000 | 50,000 | 140,100 | 4071 4.000 | 19,000 |
| 19,00-19,49 | 19,050 | 18,700 | 221,000 | 50,000 | 140,100 | 4071 4.000 | 19,005 |
| 19,50-19,99 | 20,000 | 19,200 | 226,000 | 50,000 | 143,700 | 4071 4.000 | 19,500 |
| 19,50-19,99 | 19,050 | 19,200 | 226,000 | 50,000 | 143,700 | 4071 4.000 | 19,505 |
| 20,00-20,49 | 20,000 | 19,700 | 230,000 | 50,000 | 147,300 | 4071 4.500 | 20,000 |
| 20,00-20,49 | 19,050 | 19,700 | 230,000 | 50,000 | 147,300 | 4071 4.500 | 20,005 |
| 20,50-20,99 | 25,000 | 20,200 | 243,000 | 56,000 | 151,000 | 4071 4.500 | 20,500 |
| 20,50-20,99 | 25,400 | 20,200 | 243,000 | 56,000 | 151,000 | 4071 4.500 | 20,505 |
| 21,00-21,49 | 25,000 | 20,700 | 247,000 | 56,000 | 154,600 | 4071 4.500 | 21,000 |
| 21,00-21,49 | 25,400 | 20,700 | 247,000 | 56,000 | 154,600 | 4071 4.500 | 21,005 |



| d1 | d2 h6 | d3 | L | I3 | I5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 21,50-21,99 | 25,000 | 21,200 | 251,000 | 56,000 | 158,100 | 4071 4.500 | 21,500 |
| 21,50-21,99 | 25,400 | 21,200 | 251,000 | 56,000 | 158,100 | 4071 4.500 | 21,505 |
| 22,00-22,49 | 25,000 | 21,700 | 255,000 | 56,000 | 161,700 | 4071 5.000 | 22,000 |
| 22,00-22,49 | 25,400 | 21,700 | 255,000 | 56,000 | 161,700 | 4071 5.000 | 22,005 |
| 22,50-22,99 | 25,000 | 22,200 | 260,000 | 56,000 | 165,300 | 4071 5.000 | 22,500 |
| 22,50-22,99 | 25,400 | 22,200 | 260,000 | 56,000 | 165,300 | 4071 5.000 | 22,505 |
| 23,00-23,49 | 25,000 | 22,700 | 264,000 | 56,000 | 168,900 | 4071 5.000 | 23,000 |
| 23,00-23,49 | 25,400 | 22,700 | 264,000 | 56,000 | 168,900 | 4071 5.000 | 23,005 |
| 23,50-23,99 | 25,000 | 23,200 | 269,000 | 56,000 | 172,500 | 4071 5.000 | 23,500 |
| 23,50-23,99 | 25,400 | 23,200 | 269,000 | 56,000 | 172,500 | 4071 5.000 | 23,505 |
| 24,00-24,49 | 25,000 | 23,700 | 273,000 | 56,000 | 176,100 | 4071 5.001 | 24,000 |
| 24,00-24,49 | 25,400 | 23,700 | 273,000 | 56,000 | 176,100 | 4071 5.001 | 24,005 |
| 24,50-24,99 | 25,000 | 24,200 | 277,000 | 56,000 | 179,700 | 4071 5.001 | 24,500 |
| 24,50-24,99 | 25,400 | 24,200 | 277,000 | 56,000 | 179,700 | 4071 5.001 | 24,505 |
| 25,00-25,49 | 25,000 | 24,700 | 282,000 | 56,000 | 183,300 | 4071 5.001 | 25,000 |
| 25,00-25,49 | 25,400 | 24,700 | 282,000 | 56,000 | 183,300 | 4071 5.001 | 25,005 |
| 25,50-25,99 | 32,000 | 25,200 | 291,000 | 60,000 | 186,900 | 4071 5.001 | 25,500 |
| 25,50-25,99 | 31,750 | 25,200 | 291,000 | 60,000 | 186,900 | 4071 5.001 | 25,505 |
| 26,00-26,49 | 32,000 | 25,700 | 297,000 | 60,000 | 190,000 | 4071 5.003 | 26,000 |
| 26,00-26,49 | 31,750 | 25,700 | 297,000 | 60,000 | 190,000 | 4071 5.003 | 26,005 |
| 26,50-26,99 | 32,000 | 26,200 | 301,000 | 60,000 | 194,000 | 4071 5.003 | 26,500 |
| 26,50-26,99 | 31,750 | 26,200 | 301,000 | 60,000 | 194,000 | 4071 5.003 | 26,505 |
| 27,00-27,49 | 32,000 | 26,700 | 306,000 | 60,000 | 197,200 | 4071 5.003 | 27,000 |
| 27,00-27,49 | 31,750 | 26,700 | 306,000 | 60,000 | 197,200 | 4071 5.003 | 27,005 |
| 27,50-27,99 | 32,000 | 27,200 | 310,000 | 60,000 | 200,800 | 4071 5.003 | 27,500 |
| 27,50-27,99 | 31,750 | 27,200 | 310,000 | 60,000 | 200,800 | 4071 5.003 | 27,505 |
| 28,00-28,49 | 32,000 | 27,700 | 314,000 | 60,000 | 204,400 | 4071 5.003 | 28,000 |
| 28,00-28,49 | 31,750 | 27,700 | 314,000 | 60,000 | 204,400 | 4071 5.003 | 28,005 |
| 28,50-28,99 | 32,000 | 28,200 | 318,000 | 60,000 | 208,400 | 4071 5.003 | 28,500 |
| 28,50-28,99 | 31,750 | 28,200 | 318,000 | 60,000 | 208,400 | 4071 5.003 | 28,505 |
| 29,00-29,49 | 32,000 | 28,700 | 323,000 | 60,000 | 212,500 | 4071 5.003 | 29,000 |
| 29,00-29,49 | 31,750 | 28,700 | 323,000 | 60,000 | 212,500 | 4071 5.003 | 29,005 |
| 29,50-29,99 | 32,000 | 29,200 | 327,000 | 60,000 | 215,100 | 4071 5.003 | 29,500 |
| 29,50-29,99 | 31,750 | 29,200 | 327,000 | 60,000 | 215,100 | 4071 5.003 | 29,505 |
| 30,00-30,49 | 32,000 | 29,700 | 332,000 | 60,000 | 218,600 | 4071 6.000 | 30,000 |
| 30,00-30,49 | 31,750 | 29,700 | 332,000 | 60,000 | 218,600 | 4071 6.000 | 30,005 |
| 30,50-30,99 | 32,000 | 30,200 | 336,000 | 60,000 | 222,200 | 4071 6.000 | 30,500 |
| 30,50-30,99 | 31,750 | 30,200 | 336,000 | 60,000 | 222,200 | 4071 6.000 | 30,505 |
| 31,00-31,49 | 32,000 | 30,700 | 340,000 | 60,000 | 225,800 | 4071 6.000 | 31,000 |
| 31,00-31,49 | 31,750 | 30,700 | 340,000 | 60,000 | 225,800 | 4071 6.000 | 31,005 |
| 31,50-31,99 | 32,000 | 31,200 | 344,000 | 60,000 | 229,400 | 4071 6.000 | 31,500 |
| 31,50-31,99 | 31,750 | 31,200 | 344,000 | 60,000 | 229,400 | 4071 6.000 | 31,505 |
| 33,00-33,99 | 32,000 | 32,700 | 362,000 | 60,000 | 244,600 | 4071 6.001 | 33,000 |
| 39,00-40,00 | 32,000 | 38,700 | 413,000 | 60,000 | 287,400 | 4071 6.002 | 39,000 |



Wechselplattenhalter HT 800

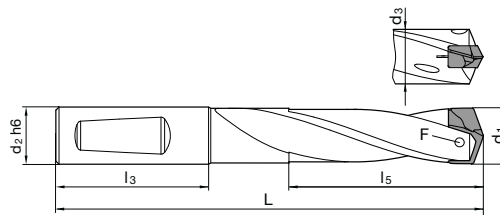


Oberfläche **(Ni)**
Schaffform HE

vernickelt • besonders hohe Verschleißfestigkeit • optimierter Nutquerschnitt • optimierter Kühlkanalaustritt • Spannschrauben Art.-Nr. 4071 enthalten • Schraubendreher Art.-Nr. 1612 enthalten

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **4110**

| d1 | d2 h6 | d3 | L | l3 | l5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 11,00-11,49 | 12,000 | 10,700 | 182,000 | 45,000 | 117,100 | 4071 2.200 | 11,000 |
| 11,00-11,49 | 12,700 | 10,700 | 182,000 | 45,000 | 117,100 | 4071 2.200 | 11,005 |
| 11,50-11,99 | 12,000 | 11,200 | 187,000 | 45,000 | 122,100 | 4071 2.200 | 11,500 |
| 11,50-11,99 | 12,700 | 11,200 | 187,000 | 45,000 | 122,100 | 4071 2.200 | 11,505 |
| 12,00-12,49 | 12,000 | 11,700 | 194,000 | 45,000 | 127,200 | 4071 2.201 | 12,000 |
| 12,00-12,49 | 12,700 | 11,700 | 194,000 | 45,000 | 127,200 | 4071 2.201 | 12,005 |
| 12,50-12,99 | 14,000 | 12,200 | 199,000 | 45,000 | 132,300 | 4071 2.201 | 12,500 |
| 12,50-12,99 | 15,875 | 12,200 | 199,000 | 45,000 | 132,300 | 4071 2.201 | 12,505 |
| 13,00-13,49 | 14,000 | 12,700 | 205,000 | 45,000 | 137,500 | 4071 2.500 | 13,000 |
| 13,00-13,49 | 15,875 | 12,700 | 205,000 | 45,000 | 137,500 | 4071 2.500 | 13,005 |
| 13,50-13,99 | 14,000 | 13,200 | 211,000 | 45,000 | 142,500 | 4071 2.500 | 13,500 |
| 13,50-13,99 | 15,875 | 13,200 | 211,000 | 45,000 | 142,500 | 4071 2.500 | 13,505 |
| 14,00-14,49 | 14,000 | 13,700 | 217,000 | 45,000 | 147,700 | 4071 3.000 | 14,000 |
| 14,00-14,49 | 15,875 | 13,700 | 217,000 | 45,000 | 147,700 | 4071 3.000 | 14,005 |
| 14,50-14,99 | 16,000 | 14,200 | 225,000 | 48,000 | 152,800 | 4071 3.000 | 14,500 |
| 14,50-14,99 | 15,875 | 14,200 | 225,000 | 48,000 | 152,800 | 4071 3.000 | 14,505 |
| 15,00-15,49 | 16,000 | 14,700 | 232,000 | 48,000 | 157,800 | 4071 3.001 | 15,000 |
| 15,00-15,49 | 15,875 | 14,700 | 232,000 | 48,000 | 157,800 | 4071 3.001 | 15,005 |
| 15,50-15,99 | 16,000 | 15,200 | 237,000 | 48,000 | 162,900 | 4071 3.001 | 15,500 |
| 15,50-15,99 | 15,875 | 15,200 | 237,000 | 48,000 | 162,900 | 4071 3.001 | 15,505 |
| 16,00-16,49 | 16,000 | 15,700 | 243,000 | 48,000 | 168,000 | 4071 3.500 | 16,000 |
| 16,00-16,49 | 15,875 | 15,700 | 243,000 | 48,000 | 168,000 | 4071 3.500 | 16,005 |
| 16,50-16,99 | 18,000 | 16,200 | 249,000 | 48,000 | 170,000 | 4071 3.500 | 16,500 |
| 16,50-16,99 | 19,050 | 16,200 | 249,000 | 48,000 | 170,000 | 4071 3.500 | 16,505 |
| 17,00-17,49 | 18,000 | 16,700 | 255,000 | 48,000 | 178,300 | 4071 3.500 | 17,000 |
| 17,00-17,49 | 19,050 | 16,700 | 255,000 | 48,000 | 178,300 | 4071 3.500 | 17,005 |
| 17,50-17,99 | 18,000 | 17,200 | 260,000 | 48,000 | 183,500 | 4071 3.500 | 17,500 |
| 17,50-17,99 | 19,050 | 17,200 | 260,000 | 48,000 | 183,500 | 4071 3.500 | 17,505 |
| 18,00-18,49 | 18,000 | 17,700 | 267,000 | 48,000 | 188,400 | 4071 4.000 | 18,000 |
| 18,00-18,49 | 19,050 | 17,700 | 267,000 | 48,000 | 188,400 | 4071 4.000 | 18,005 |
| 18,50-18,99 | 20,000 | 18,200 | 274,000 | 50,000 | 193,500 | 4071 4.000 | 18,500 |
| 18,50-18,99 | 19,050 | 18,200 | 274,000 | 50,000 | 193,500 | 4071 4.000 | 18,505 |
| 19,00-19,49 | 20,000 | 18,700 | 280,000 | 50,000 | 198,700 | 4071 4.000 | 19,000 |
| 19,00-19,49 | 19,050 | 18,700 | 280,000 | 50,000 | 198,700 | 4071 4.000 | 19,005 |
| 19,50-19,99 | 20,000 | 19,200 | 286,000 | 50,000 | 203,700 | 4071 4.000 | 19,500 |
| 19,50-19,99 | 19,050 | 19,200 | 286,000 | 50,000 | 203,700 | 4071 4.000 | 19,505 |
| 20,00-20,49 | 20,000 | 19,700 | 292,000 | 50,000 | 208,900 | 4071 4.500 | 20,000 |
| 20,00-20,49 | 19,050 | 19,700 | 292,000 | 50,000 | 208,900 | 4071 4.500 | 20,005 |
| 20,50-20,99 | 25,000 | 20,200 | 306,000 | 56,000 | 214,000 | 4071 4.500 | 20,500 |
| 20,50-20,99 | 25,400 | 20,200 | 306,000 | 56,000 | 214,000 | 4071 4.500 | 20,505 |
| 21,00-21,49 | 25,000 | 20,700 | 312,000 | 56,000 | 219,100 | 4071 4.500 | 21,000 |
| 21,00-21,49 | 25,400 | 20,700 | 312,000 | 56,000 | 219,100 | 4071 4.500 | 21,005 |



| d1 | d2 h6 | d3 | L | I3 | I5 | F | Code-Nr. |
|-------------|--------|--------|---------|--------|---------|------------|----------|
| mm | mm | mm | mm | mm | mm | | |
| 21,50-21,99 | 25,000 | 21,200 | 317,000 | 56,000 | 224,200 | 4071 4.500 | 21,500 |
| 21,50-21,99 | 25,400 | 21,200 | 317,000 | 56,000 | 224,200 | 4071 4.500 | 21,505 |
| 22,00-22,49 | 25,000 | 21,700 | 323,000 | 56,000 | 229,300 | 4071 5.000 | 22,000 |
| 22,00-22,49 | 25,400 | 21,700 | 323,000 | 56,000 | 229,300 | 4071 5.000 | 22,005 |
| 22,50-22,99 | 25,000 | 22,200 | 329,000 | 56,000 | 234,400 | 4071 5.000 | 22,500 |
| 22,50-22,99 | 25,400 | 22,200 | 329,000 | 56,000 | 234,400 | 4071 5.000 | 22,505 |
| 23,00-23,49 | 25,000 | 22,700 | 335,000 | 56,000 | 239,500 | 4071 5.000 | 23,000 |
| 23,00-23,49 | 25,400 | 22,700 | 335,000 | 56,000 | 239,500 | 4071 5.000 | 23,005 |
| 23,50-23,99 | 25,000 | 23,200 | 341,000 | 56,000 | 244,600 | 4071 5.000 | 23,500 |
| 23,50-23,99 | 25,400 | 23,200 | 341,000 | 56,000 | 244,600 | 4071 5.000 | 23,505 |
| 24,00-24,49 | 25,000 | 23,700 | 347,000 | 56,000 | 249,700 | 4071 5.001 | 24,000 |
| 24,00-24,49 | 25,400 | 23,700 | 347,000 | 56,000 | 249,700 | 4071 5.001 | 24,005 |
| 24,50-24,99 | 25,000 | 24,200 | 352,000 | 56,000 | 254,800 | 4071 5.001 | 24,500 |
| 24,50-24,99 | 25,400 | 24,200 | 352,000 | 56,000 | 254,800 | 4071 5.001 | 24,505 |
| 25,00-25,49 | 25,000 | 24,700 | 359,000 | 56,000 | 259,900 | 4071 5.001 | 25,000 |
| 25,00-25,49 | 25,400 | 24,700 | 359,000 | 56,000 | 259,900 | 4071 5.001 | 25,005 |
| 25,50-25,99 | 32,000 | 25,200 | 369,000 | 60,000 | 265,000 | 4071 5.001 | 25,500 |
| 25,50-25,99 | 31,750 | 25,200 | 369,000 | 60,000 | 265,000 | 4071 5.001 | 25,505 |
| 26,00-26,49 | 32,000 | 25,700 | 377,000 | 60,000 | 270,000 | 4071 5.003 | 26,000 |
| 26,00-26,49 | 31,750 | 25,700 | 377,000 | 60,000 | 270,000 | 4071 5.003 | 26,005 |
| 26,50-26,99 | 32,000 | 26,200 | 382,000 | 60,000 | 275,000 | 4071 5.003 | 26,500 |
| 26,50-26,99 | 31,750 | 26,200 | 382,000 | 60,000 | 275,000 | 4071 5.003 | 26,505 |
| 27,00-27,49 | 32,000 | 26,700 | 388,000 | 60,000 | 280,100 | 4071 5.003 | 27,000 |
| 27,00-27,49 | 31,750 | 26,700 | 388,000 | 60,000 | 280,100 | 4071 5.003 | 27,005 |
| 27,50-27,99 | 32,000 | 27,200 | 394,000 | 60,000 | 285,200 | 4071 5.003 | 27,500 |
| 27,50-27,99 | 31,750 | 27,200 | 394,000 | 60,000 | 285,200 | 4071 5.003 | 27,505 |
| 28,00-28,49 | 32,000 | 27,700 | 400,000 | 60,000 | 290,300 | 4071 5.003 | 28,000 |
| 28,00-28,49 | 31,750 | 27,700 | 400,000 | 60,000 | 290,300 | 4071 5.003 | 28,005 |
| 28,50-28,99 | 32,000 | 28,200 | 405,000 | 60,000 | 295,400 | 4071 5.003 | 28,500 |
| 28,50-28,99 | 31,750 | 28,200 | 405,000 | 60,000 | 295,400 | 4071 5.003 | 28,505 |
| 29,00-29,49 | 32,000 | 28,700 | 412,000 | 60,000 | 300,500 | 4071 5.003 | 29,000 |
| 29,00-29,49 | 31,750 | 28,700 | 412,000 | 60,000 | 300,500 | 4071 5.003 | 29,005 |
| 29,50-29,99 | 32,000 | 29,200 | 418,000 | 60,000 | 305,600 | 4071 5.003 | 29,500 |
| 29,50-29,99 | 31,750 | 29,200 | 418,000 | 60,000 | 305,600 | 4071 5.003 | 29,505 |
| 30,00-30,49 | 32,000 | 29,700 | 424,000 | 60,000 | 310,600 | 4071 6.000 | 30,000 |
| 30,00-30,49 | 31,750 | 29,700 | 424,000 | 60,000 | 310,600 | 4071 6.000 | 30,005 |
| 30,50-30,99 | 32,000 | 30,200 | 429,000 | 60,000 | 315,700 | 4071 6.000 | 30,500 |
| 30,50-30,99 | 31,750 | 30,200 | 429,000 | 60,000 | 315,700 | 4071 6.000 | 30,505 |
| 31,00-31,49 | 32,000 | 30,700 | 435,000 | 60,000 | 320,800 | 4071 6.000 | 31,000 |
| 31,00-31,49 | 31,750 | 30,700 | 435,000 | 60,000 | 320,800 | 4071 6.000 | 31,005 |
| 31,50-31,99 | 32,000 | 31,200 | 441,000 | 60,000 | 325,900 | 4071 6.000 | 31,500 |
| 31,50-31,99 | 31,750 | 31,200 | 441,000 | 60,000 | 325,900 | 4071 6.000 | 31,505 |



Senkplatten HT 800



Schneidstoff **VHM**

Oberfläche **S**

P • Spannschrauben Art.-Nr. 6128 nicht enthalten

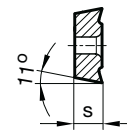
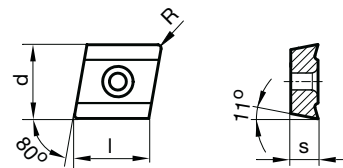
M ○

K ○

N ○

S ○ Stahl und Stahlguss (legiert und unleg.)

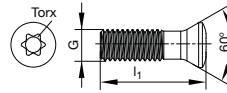
H ○



Artikel-Nr. **7645**

| ISO | d mm | s mm | R mm | l mm | Code-Nr. |
|----------------|---------|---------|---------|---------|----------|
| CPGT050204FR-P | 5,560 | 2,380 | 0,400 | 5,640 | 52,040 |
| CPGT060204FR-P | 6,350 | 2,380 | 0,400 | 6,450 | 62,040 |
| CPGT09T308FR-P | 9,525 | 3,970 | 0,800 | 9,670 | 93,080 |

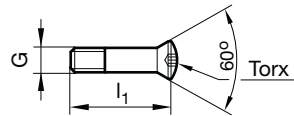
Spannschrauben



Artikel-Nr. **6128**

| G | l1 | Torx | Code-Nr. |
|----------|-------|------|----------|
| | mm | | |
| M2 x 5,5 | 5,500 | T6 | 2,000 |
| M2 x 5,3 | 5,300 | T7 | 2,500 |
| M4 x 9,5 | 9,500 | T15 | 4,006 |

Spannschrauben

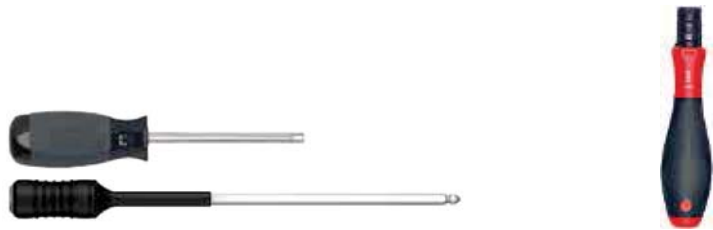


Artikel-Nr. **4071**

| G | l1 | Torx | Code-Nr. |
|------|--------|------|----------|
| | mm | | |
| M2,2 | 9,500 | T7 | 2,200 |
| M2,2 | 10,500 | T7 | 2,201 |
| M2,5 | 11,400 | T8 | 2,500 |
| M3 | 12,100 | T9 | 3,000 |
| M3 | 13,100 | T9 | 3,001 |
| M3,5 | 14,250 | T10 | 3,500 |
| M4 | 16,000 | T15 | 4,000 |
| M4,5 | 18,000 | T15 | 4,500 |
| M5 | 19,750 | T20 | 5,000 |
| M5 | 21,750 | T20 | 5,001 |
| M5 | 23,400 | T20 | 5,003 |
| M6 | 27,000 | T25 | 6,000 |
| M6 | 28,500 | T25 | 6,001 |
| M6 | 32,500 | T25 | 6,002 |



Drehmomentschlüssel

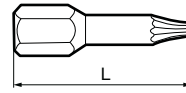


Artikel-Nr. **4915**

| Antrieb | | Nm | Typ | Code-Nr. |
|---------|--------|-------|-----|----------|
| 1/4" | 6-kant | 0,8-2 | A | 2,000 |
| 1/4" | 6-kant | 2-8 | A | 8,000 |
| 1/4" | 6-kant | 5-14 | D | 14,000 |



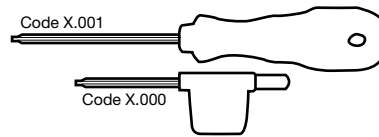
Torx-Bit Einsätze



Artikel-Nr. **4917**

| Antrieb | | Torx | L mm | Code-Nr. |
|---------|--------|------|---------|----------|
| 1/4 | 6-kant | T7 | 25,000 | 7,000 |
| 1/4 | 6-kant | T8 | 25,000 | 8,000 |
| 1/4 | 6-kant | T9 | 25,000 | 9,000 |
| 1/4 | 6-kant | T10 | 25,000 | 10,000 |
| 1/4 | 6-kant | T15 | 25,000 | 15,000 |
| 1/4 | 6-kant | T20 | 25,000 | 20,000 |
| 1/4 | 6-kant | T25 | 25,000 | 25,001 |

Torx-Schraubendreher



Artikel-Nr. **1612**

| Torx | Code-Nr. |
|------|----------|
| T6 | 6,000 |
| T7 | 7,000 |
| T7 | 7,001 |
| T8 | 8,001 |
| T9 | 9,001 |
| T10 | 10,001 |
| T15 | 15,000 |
| T15 | 15,001 |
| T20 | 20,001 |
| T25 | 25,001 |



Ausführung mit 170°-Spitzenwinkel und 90°-Zentrierspitze, Art.-Nr. 255 und 253

Ausführung mit 118°-Spitzenwinkel Art.-Nr. 254



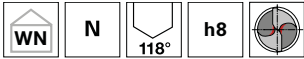
HSS

HSS Kühlkanalbohrer für die Bearbeitung von Stahlträgern

- ▶ optimale Kühlung für hohe Standzeiten
- ▶ axiale und radiale Kühlmittelzufuhr
- ▶ geringste Gratbildung
- ▶ hohe Leistung auch bei schwierigen Bedingungen



Kühlkanalbohrer, Nutlänge nach Werksnorm



- P** • Ausspitzung $\geq \varnothing 8,000$ • Kegelmantelschliff • Kühlmittelzufuhr axial und radial durch den Morsekegel (ähnlich DIN 228 Form BK) • Öffnen und Schließen der benötigten Kühlmittelzufuhr mittels mitgeliefertem Gewindestift möglich
- M** ○
- K** •
- N** • optimiert für die Bearbeitung von Stahlträgern auf Bohr-Säge-Anlagen
- S** • Blechpakete • Stahl und Stahlguss, Grauguss • austenitische Stähle bis 800 N/mm²
- H**

Schneidstoff **HSS**

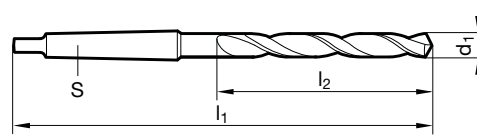
Oberfläche

Schneidrichtung



GÜHRINGNAVIGATOR

Schnittwerte siehe Seite 26

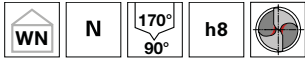


Artikel-Nr. **254**

| d1 | | S | l1 | l2 | d1 | | S | l1 | l2 |
|--------|-------|------|---------|---------|--------|------|------|---------|---------|
| mm | inch | | mm | mm | mm | inch | | mm | mm |
| 8,000 | | MK-2 | 268,000 | 116,000 | 29,000 | | MK-4 | 410,000 | 225,000 |
| 9,000 | | MK-2 | 268,000 | 116,000 | 30,000 | | MK-4 | 410,000 | 225,000 |
| 10,000 | | MK-3 | 268,000 | 116,000 | 31,000 | | MK-4 | 410,000 | 225,000 |
| 10,500 | | MK-3 | 268,000 | 116,000 | 32,000 | | MK-4 | 410,000 | 225,000 |
| 11,000 | | MK-3 | 278,000 | 125,000 | 33,000 | | MK-4 | 410,000 | 225,000 |
| 12,000 | | MK-3 | 287,000 | 134,000 | 34,000 | | MK-4 | 410,000 | 225,000 |
| 13,000 | | MK-3 | 287,000 | 134,000 | 35,000 | | MK-4 | 410,000 | 225,000 |
| 13,500 | | MK-3 | 285,000 | 142,000 | 36,000 | | MK-4 | 410,000 | 225,000 |
| 14,000 | | MK-3 | 285,000 | 142,000 | 37,000 | | MK-4 | 410,000 | 225,000 |
| 15,000 | | MK-3 | 300,000 | 147,000 | 38,000 | | MK-4 | 410,000 | 225,000 |
| 16,000 | | MK-3 | 306,000 | 153,000 | 39,000 | | MK-4 | 410,000 | 225,000 |
| 17,000 | | MK-3 | 311,000 | 159,000 | 40,000 | | MK-4 | 410,000 | 225,000 |
| 17,500 | | MK-3 | 318,000 | 165,000 | 41,000 | | MK-4 | 410,000 | 225,000 |
| 18,000 | | MK-3 | 318,000 | 165,000 | 42,000 | | MK-4 | 410,000 | 225,000 |
| 19,000 | | MK-3 | 324,000 | 171,000 | 43,000 | | MK-4 | 410,000 | 225,000 |
| 20,000 | | MK-3 | 330,000 | 177,000 | 44,000 | | MK-4 | 410,000 | 225,000 |
| 21,000 | | MK-3 | 343,000 | 184,000 | 45,000 | | MK-4 | 410,000 | 225,000 |
| 22,000 | | MK-3 | 350,000 | 191,000 | 46,000 | | MK-4 | 410,000 | 225,000 |
| 23,000 | | MK-3 | 357,000 | 198,000 | 47,000 | | MK-4 | 410,000 | 225,000 |
| 24,000 | | MK-3 | 365,000 | 206,000 | 48,000 | | MK-4 | 410,000 | 225,000 |
| 25,000 | 63/64 | MK-3 | 365,000 | 206,000 | 49,000 | | MK-4 | 410,000 | 225,000 |
| 26,000 | | MK-3 | 373,000 | 214,000 | 50,000 | | MK-4 | 410,000 | 225,000 |
| 27,000 | | MK-4 | 407,000 | 222,000 | | | | | |
| 28,000 | | MK-4 | 407,000 | 222,000 | | | | | |



Kühlkanalbohrer, Nutlänge nach Werksnorm

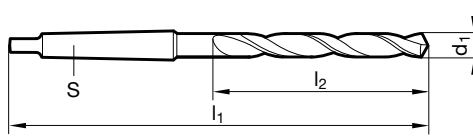


- P** • Ausspitzung $\geq \varnothing 8,000$ • Kegelmantelschliff • spezieller Spitzenanschliff mit 170° Spitzenwinkel und 90° Zentrierspitze • sehr
- M** ◦ gute Eigenzentrierung • Kühlmittelzufuhr axial und radial durch den Morsekegel (ähnlich DIN 228 Form BK) • Öffnen und Schließen der benötigten Kühlmittelzufuhr mittels mitgeliefertem Gewindestift möglich
- K** •
- N** • optimiert für die Bearbeitung von Stahlträgern auf Bohr-Säge-Anlagen
- S** • Stahl und Stahlguss, Grauguss • austenitische Stähle bis 800 N/mm^2
- H**

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26

| | |
|-----------------|------------|
| Schneidstoff | HSS |
| Oberfläche | ● |
| Schneidrichtung | Ⓜ |

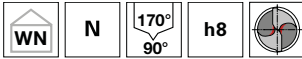


Artikel-Nr. **255**

| d1 | | S | l1 | l2 | d1 | | S | l1 | l2 |
|--------|-------|------|---------|---------|--------|------|------|---------|---------|
| mm | inch | | mm | mm | mm | inch | | mm | mm |
| 8,000 | | MK-2 | 268,000 | 116,000 | 29,000 | | MK-4 | 375,000 | 193,000 |
| 9,000 | | MK-2 | 268,000 | 116,000 | 30,000 | | MK-4 | 375,000 | 193,000 |
| 10,000 | | MK-3 | 268,000 | 116,000 | 31,000 | | MK-4 | 375,000 | 193,000 |
| 10,500 | | MK-3 | 268,000 | 116,000 | 32,000 | | MK-4 | 375,000 | 193,000 |
| 11,000 | | MK-3 | 278,000 | 125,000 | 33,000 | | MK-4 | 375,000 | 193,000 |
| 12,000 | | MK-3 | 287,000 | 134,000 | 34,000 | | MK-4 | 375,000 | 193,000 |
| 13,000 | | MK-3 | 287,000 | 134,000 | 35,000 | | MK-4 | 375,000 | 193,000 |
| 13,500 | | MK-3 | 285,000 | 142,000 | 36,000 | | MK-4 | 375,000 | 193,000 |
| 14,000 | | MK-3 | 285,000 | 142,000 | 37,000 | | MK-4 | 375,000 | 193,000 |
| 15,000 | | MK-3 | 300,000 | 147,000 | 38,000 | | MK-4 | 375,000 | 193,000 |
| 16,000 | | MK-3 | 306,000 | 153,000 | 39,000 | | MK-4 | 375,000 | 193,000 |
| 17,000 | | MK-3 | 311,000 | 159,000 | 40,000 | | MK-4 | 375,000 | 193,000 |
| 17,500 | | MK-3 | 318,000 | 165,000 | 41,000 | | MK-4 | 375,000 | 193,000 |
| 18,000 | | MK-3 | 318,000 | 165,000 | 42,000 | | MK-4 | 375,000 | 193,000 |
| 19,000 | | MK-3 | 324,000 | 171,000 | | | | | |
| 20,000 | | MK-3 | 330,000 | 177,000 | | | | | |
| 21,000 | | MK-3 | 343,000 | 184,000 | | | | | |
| 22,000 | | MK-3 | 350,000 | 191,000 | | | | | |
| 23,000 | | MK-3 | 357,000 | 198,000 | | | | | |
| 24,000 | | MK-3 | 365,000 | 206,000 | | | | | |
| 25,000 | 63/64 | MK-3 | 365,000 | 206,000 | | | | | |
| 26,000 | | MK-3 | 373,000 | 214,000 | | | | | |
| 27,000 | | MK-4 | 375,000 | 193,000 | | | | | |
| 28,000 | | MK-4 | 375,000 | 193,000 | | | | | |



Kühlkanalbohrer, Nutlänge nach Werksnorm



Schneidstoff **HSS**

Oberfläche



Schneidrichtung

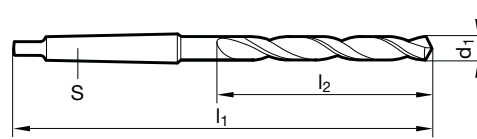


SEMI-STANDARD

- P** • Kegelmantelschliff • spezieller Spitzenanschliff mit 170° Spitzenwinkel und 90° Zentrierspitze • sehr gute Eigenzentrierung • Kühlmittelzufuhr axial und radial durch den Morsekegel (ähnlich DIN 228 Form BK)
- M** ○
- K** • Öffnen und Schließen der benötigten Kühlmittelzufuhr mittels mitgeliefertem Gewindestift möglich
- N** • optimiert für die Bearbeitung von Stahlträgern auf Bohr-Säge-Anlagen
- S** • Stahl und Stahlguss, Grauguss • austenitische Stähle bis 800 N/mm²
- H**

GÜHRING NAVIGATOR

Schnittwerte siehe Seite 26



Artikel-Nr. **253**

| d1 | | S | l1 | l2 | d1 | | S | l1 | l2 |
|--------|-------|------|---------|---------|--------|------|------|---------|---------|
| mm | inch | | mm | mm | mm | inch | | mm | mm |
| 8,000 | | MK-2 | 181,000 | 64,000 | 29,000 | | MK-4 | 349,000 | 167,000 |
| 9,000 | | MK-2 | 188,000 | 71,000 | 30,000 | | MK-4 | 349,000 | 167,000 |
| 10,000 | | MK-3 | 233,000 | 81,000 | 31,000 | | MK-4 | 349,000 | 167,000 |
| 10,500 | | MK-3 | 233,000 | 81,000 | 32,000 | | MK-4 | 349,000 | 167,000 |
| 11,000 | | MK-3 | 242,000 | 89,000 | 33,000 | | MK-4 | 349,000 | 167,000 |
| 12,000 | | MK-3 | 251,000 | 98,000 | 34,000 | | MK-4 | 349,000 | 167,000 |
| 13,000 | | MK-3 | 251,000 | 98,000 | 35,000 | | MK-4 | 349,000 | 167,000 |
| 13,500 | | MK-3 | 259,000 | 116,000 | 36,000 | | MK-4 | 349,000 | 167,000 |
| 14,000 | | MK-3 | 259,000 | 116,000 | 37,000 | | MK-4 | 349,000 | 167,000 |
| 15,000 | | MK-3 | 264,000 | 111,000 | 38,000 | | MK-4 | 349,000 | 167,000 |
| 16,000 | | MK-3 | 270,000 | 117,000 | 39,000 | | MK-4 | 349,000 | 167,000 |
| 17,000 | | MK-3 | 275,000 | 123,000 | 40,000 | | MK-4 | 349,000 | 167,000 |
| 17,500 | | MK-3 | 282,000 | 129,000 | 41,000 | | MK-4 | 349,000 | 167,000 |
| 18,000 | | MK-3 | 282,000 | 129,000 | 42,000 | | MK-4 | 349,000 | 167,000 |
| 19,000 | | MK-3 | 306,000 | 153,000 | | | | | |
| 20,000 | | MK-3 | 306,000 | 153,000 | | | | | |
| 21,000 | | MK-3 | 306,000 | 147,000 | | | | | |
| 22,000 | | MK-3 | 306,000 | 147,000 | | | | | |
| 23,000 | | MK-3 | 306,000 | 147,000 | | | | | |
| 24,000 | | MK-3 | 306,000 | 147,000 | | | | | |
| 25,000 | 63/64 | MK-3 | 306,000 | 147,000 | | | | | |
| 26,000 | | MK-3 | 349,000 | 190,000 | | | | | |
| 27,000 | | MK-4 | 349,000 | 167,000 | | | | | |
| 28,000 | | MK-4 | 349,000 | 167,000 | | | | | |



GÜHRINGNAVIGATOR

Alle Angaben sind Richtwerte. Die tatsächlich erreichbaren Schnittgeschwindigkeiten und Vorschübe hängen von den jeweiligen Bearbeitungsbedingungen ab. Wir empfehlen entsprechende Bohrversuche.

Zur Auswahl des optimalen Werkzeugs und der empfohlenen Schnittwerte für Ihre Anwendung steht Ihnen unter www.guehring.de auch eine elektronische Version des GühringNavigator zur Verfügung.

- Artikel-Nr.
- Norm/DIN
- Schneidstoff
- HM-Anwendungsgruppe
- kombiniert mit Halter/Typ
- Bohrtiefe
- Oberfläche

| Bohrer-Ø mm | Vorschubreihen-Code | | | | | | | | |
|----------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | f (mm/U) | | | | | | | | |
| 5,00 | 0,040 | 0,050 | 0,063 | 0,080 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 |
| 6,30 | 0,050 | 0,063 | 0,080 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 |
| 8,00 | 0,063 | 0,080 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 | 0,315 |
| 10,00 | 0,080 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,400 |
| 12,50 | 0,080 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 |
| 16,00 | 0,100 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 | 0,630 |
| 20,00 | 0,125 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 | 0,630 | 0,630 |
| 25,00 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 | 0,630 | 0,800 | 0,800 |
| 31,50 | 0,160 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 | 0,630 | 0,800 | 1,000 |
| 40,00 | 0,200 | 0,250 | 0,315 | 0,400 | 0,500 | 0,630 | 0,800 | 1,000 | 1,250 |
| 50,00 | 0,250 | 0,310 | 0,400 | 0,500 | 0,630 | 0,800 | 1,000 | 1,250 | 1,250 |
| 63,00 | 0,315 | 0,400 | 0,500 | 0,630 | 0,800 | 1,000 | 1,250 | 1,600 | 1,600 |
| 80,00 | 0,400 | 0,500 | 0,630 | 0,800 | 1,000 | 1,250 | 1,600 | 1,600 | 2,000 |

Werkstoffbezogene Kühlmittel:

- Luft
- Öl
- Emulsion

| Werkstoffgruppe | Werkstoffbeispiele, neue Bezeichnung (in Klammern alte Bezeichnung) Fettgedruckte Zahlen = Werkstoff-Nr. nach DIN EN | Zugfestigkeit MPa (N/mm ²) | Härte | Kühl- mittel |
|--|---|---|--------------------|-----------------|
| Allgemeine Baustähle | 1.0035 S185(St33), 1.0486 P275N(StE285), 1.0345 P235GH(H1), 1.0425 P265GH(H2) 1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (WStE500) | ≤500 ≤1000 | | ○ |
| Automatenstähle | 1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36) 1.0727 46S20 (45S20), 1.0728 (60S20), 1.0757 46SPb20 (45SPb20) | ≤850 ≤1000 | | ○ |
| Unlegierte Vergütungsstähle | 1.0402 C22, 1.1178 C30E (Ck30) 1.0503 C45, 1.1191 C45E (Ck45) 1.0601 C60, 1.1221 C60E (Ck60) | ≤700 ≤850 ≤1000 | | ○ |
| Legierte Vergütungsstähle | 1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4 1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4 | ≤1000 ≤1400 | | ○ |
| Unlegierte Einsatzstähle | 1.0301 (C10), 1.1121 C10E (Ck10) | ≤850 | | ○ |
| Legierte Einsatzstähle | 1.7276 10CrMo11, 1.5125 11MnSi6 1.5752 15NiCr13, 1.7131 16MnCr5, 1.7264 20CrMo5 | ≤1000 ≤1400 | | ● |
| Nitrierstähle | 1.8504 34CrAl6 1.8519 31CrMoV9, 1.8550 34CrAlNi7 | ≤1000 ≤1400 | | ● |
| Werkzeugstähle | 1.1750 C75W, 1.2067 102Cr6, 1.2307 29CrMoV9 1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4 | ≤850 ≤1400 | | ○ |
| Schnellarbeitsstähle | 1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3 | ≤1400 | | ● |
| Federstähle | 1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4) | | ≤350 HB | ● |
| Gehärtete Stähle | - | | ≤48 HRC ≤66 HRC | ● |
| Rostfreie Stähle, geschwefelt austenitisch martensitisch | 1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9 1.4301 X5CrNi18-10 (V2A), 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi 17-12-2 (V4A) 1.4057 X20CrNi172 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2 | ≤900 ≤1100 ≤1500 | | ● |
| Gusseisen | 0.6010 EN-GJL-100 (GG10), 0.6020 EN-GJL-200 (GG20) 0.6025 EN-GJL-250 (GG25), 0.6035 EN-GJL-350 (GG35) | | ≤240 HB ≤350 HB | ○ |
| Kugelgraphit- und Temperguss | 0.7050 EN-GJS-500-7 (GGG50), 0.8035 EN-GJMW-350-4 (GTW35) 0.7070 EN-GJS-700-2 (GGG70), 0.8170 EN-GJMB-700-2 (GTS70) | | ≤240 HB ≤350 HB | ○ |
| Hartguss | - | | ≤350 HB | ○ |
| Neue Gusswerkstoffe GGV | EN-GJV250 (GGV25), EN-GJV350 (GGV35) EN-GJV400 (GGV40), EN-GJV500 (GGV50), SiMo 6 | | ≤220 HB ≤300 HB | ○ |
| Neue Gusswerkstoffe ADI | EN-GJS-800-8 (ADI800), EN-GJS-1000-5 (ADI1000) EN-GJS-1200-2 (ADI1200), EN-GJS-1400-1 (ADI1400) | ≤1000 ≤1400 | | ○ |
| Sonderlegierungen | Nimonic, Inconel, Monel, Hastelloy | ≤2000 | | ● |
| Titan und Titan-Legierungen | 3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7124 TiCu2 3.7154 TiAl6Zr5, 3.7165 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl8Mo1V1 | ≤850 ≤1400 | | ● |
| Aluminium und Al-Legierungen | 3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1 | ≤400 | | ○ |
| Al-Knetlegierungen | 3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5 | ≤650 | | ○ |
| Al-Gusslegierungen ≤ 10 % Si | 3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9 | ≤600 | | ○ |
| ≤ 24 % Si | 3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg | ≤600 | | ○ |
| Magnesium-Legierungen | 3.5200 MgMn2, 3.5812.05 G-MgAl8Zn1, 3.5612.05 G-MgAl6Zn1 | ≤400 | | ○ |
| Kupfer, niedriglegiert | 2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb | ≤500 | | ○ |
| Messing, kurzspanend | 2.0380 CuZn39Pb2, 2.0401 CuZn39Pb3, 2.0410 CuZn43Pb2 | ≤600 | | ○ |
| langspanend | 2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5 | ≤600 | | ○ |
| Bronzen, kurzspanend | 2.1090 CuSn7ZnPb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn 2.0790 CuNi18Zn19Pb | ≤600 ≤850 | | ○ |
| Bronzen, langspanend | 2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10 2.0980 CuAl11Ni, 2.1247 CuBe2 | ≤850 ≤1000 | | ○ |
| Kunststoffe, duroplastisch | Bakelit, Resopal, Pertinax, Moltopren | ≤150 | | ○ |
| thermoplastisch | Plexiglas, Hostalen, Novodur, Makralon | ≤100 | | ○ |
| aramidfaserverstärkt | Kevlar | ≤1000 | | ○ |
| glas-/kohlefaserverstärkt | GFK/CFK | ≤1000 | | ○ |



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