



BERLIN CARBIDE
sintered by **GELIT**



KATALOG
CATALOGUE

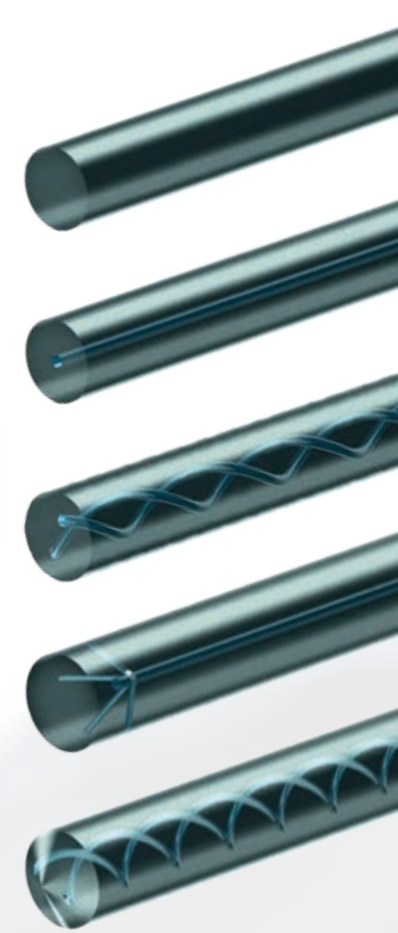
HARTMETALLE
FÜR PRÄZISIONSWERKZEUGE

CARBIDES
FOR PRECISION CUTTING TOOLS



Inhalt | Content

| | |
|--|---------|
| Hartmetall aus Berlin – Tradition und Innovation vereint <i>Carbide from Berlin – tradition and innovation combined</i> | 04 – 05 |
| Meilensteine <i>Milestones</i> | 06 – 07 |
| Vom Pulver zum Hartmetall-Rohling <i>From the powder to the carbide blank</i> | 08 – 09 |
| Technische Daten <i>Technical data</i> | 10 |
| Anwendungen <i>Applications</i> | 11 |
| Rundstäbe ohne Kühlkanal roh und geschliffen <i>Rods without coolant ducts raw and ground</i> | 14 – 17 |
| Rundstäbe mit Kühlkanal, zentral / parallel roh und geschliffen <i>Rods with central / parallel coolant ducts raw and ground</i> | 18 – 23 |
| Rundstäbe mit Kühlkanal, verdreht roh und geschliffen <i>Rods with helical twisted coolant ducts raw and ground</i> | 24 – 37 |
| Fräserrohlinge mit und ohne Kühlkanal <i>Milling cutter blanks with and without coolant ducts</i> | 38 – 46 |
| Bohrerrohlinge mit und ohne Kühlkanal <i>Drill blanks with and without coolant ducts</i> | 47 – 51 |
| Unsere Sonderteile <i>Our customised parts</i> | 52 – 53 |
| Zertifizierte Qualität <i>Certified quality</i> | 54 – 55 |
| Weltweit vertreten <i>Represented worldwide</i> | 58 – 59 |
| Toleranzen <i>Tolerances</i> | 60 |



Hartmetall aus Berlin – Tradition und Innovation vereint *Carbide from Berlin – tradition and innovation combined*

Die Marke „BERLIN CARBIDE sintered by G-ELIT“ liefert höchste Hartmetallqualität aus der deutschen Hauptstadt für Kundenansprüche aus der ganzen Welt.

Als Teil des größten deutschen Werkzeugherstellers – der „Gühring KG“ – produziert der Geschäftsbereich Hartstoffe der „G-ELIT Präzisionswerkzeuge GmbH“ verschiedenste Hartmetallqualitäten für die Anwendungsbereiche Luftfahrt, Automobil, Maschinenbau und Unterhaltungselektronik.

In unseren denkmalgeschützten Hallen produzieren wir als eines der 200 größten Berliner Unternehmen mitten in der Hauptstadt mit einem Team von rund 400 Mitarbeitern ca. 1.600 Tonnen Hartmetall pro Jahr. Die vollverglaste Fassade im Bauhausstil geben unserer Produktionsstätte dabei ihren eigenen, unvergleichlichen Charme.

The brand "BERLIN CARBIDE sintered by G-ELIT" delivers the highest carbide grade quality to meet customer demands worldwide directly from Germany's capital.

As part of "Gühring KG", the largest German tool manufacturer, the carbide division of "G-ELIT Präzisionswerkzeuge GmbH" produces a wide range of cemented carbide grades for applications in the area of aerospace, automotive, engineering and consumer electronics.

In our heritage-protected production hall as one of the 200 largest Berlin companies, we produce in the middle of the capital with a team of around 400 employees about 1,600 tonnes of carbide per year. The fully glazed facades in Bauhaus style give our production facility its own incomparable charm.

Mit „Blick aufs Grüne“ in den historischen Fabrikgarten setzen wir die Tradition des Geländes und der Gebäude fort, stellen uns aber gleichzeitig für die Zukunft und Ihre Anforderungen auf.

Egal, ob Rohlinge für rotierende Werkzeuge oder speziell auf Ihre Bedürfnisse zugeschnittene Geometrien: Dank unserer modernen, fortschrittlichen und teilautomatisierten Strang- und Trockenpressen in Verbindung mit der flexiblen Formgebung ermöglichen wir selbst anspruchsvollste Form- und Bauteile.

Gerne können Sie sich vor Ort von unserer Leistung überzeugen und uns dazu in der Bundeshauptstadt Berlin besuchen!

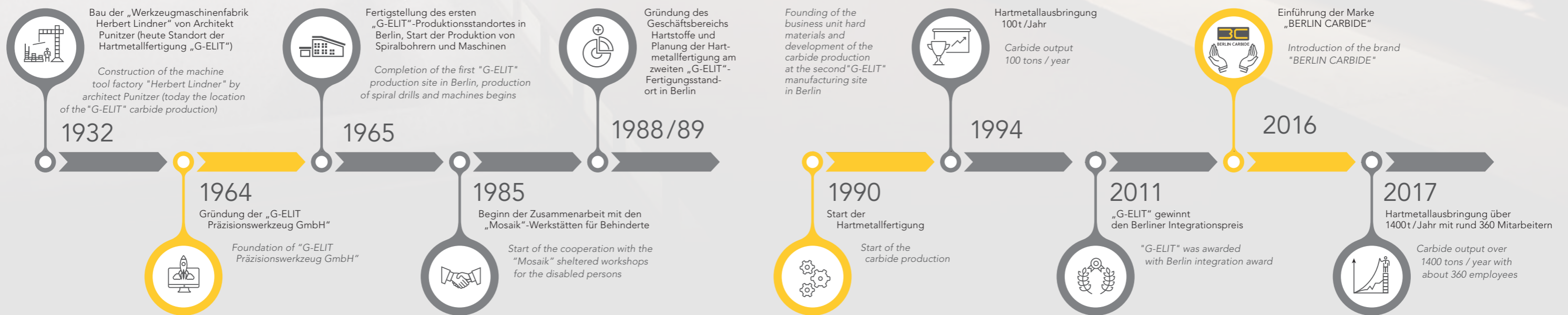
With a view of the countryside into the historical factory garden, we pursue on the one hand the tradition of the terrain and the buildings, but on the other hand at the same time we stand up for the future and your demands.

Whether blanks for rotating cutting tools or customised geometries, our state-of-the-art, advanced and semi-automated extrusion and dry presses, combined with the flexible preforming department, allow us to create even the most challenging moulded and component parts.

You are invited to convince yourself of our performance on site and visit us in the federal capital Berlin!

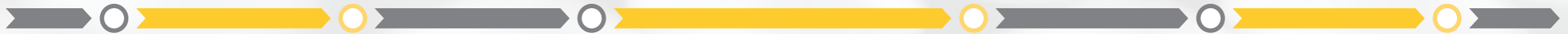
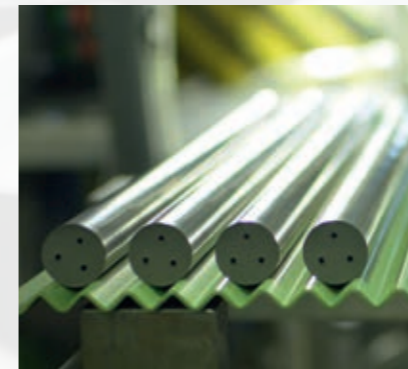


Meilensteine | Milestones



Vom Pulver zum Hartmetall-Rohling

From the powder to the carbide blank



MISCHEN & MAHLEN

Zunächst werden Wolframkarbid, Kobalt, und Dotierkarbide nach speziellen Rezepturen verwoogen. Diese Mischungen werden mehrere Stunden in Attritoren gemahlen und danach gesiebt bzw. sprühgetrocknet, um Pulver oder Granulate für die verschiedenen Fertigungstechnologien zu erhalten.

MIXING & MILLING

Firstly tungsten carbide, cobalt and doping elements are mixed according to our special recipes. This mixture is then ball-milled for several hours and afterwards sieved or spray-dried to get powder or granulate for our different production technologies.

KNETEN

Durch Hinzugabe organischer Additive wird die Mischung in unseren Knetern zu einer extrusionsfähigen Masse weiterverarbeitet.

KNEADING

With the help of organic additives, the powder is plasticised in our kneaders into a clay-like dough that can be extruded.

STRANGPRESSEN

Mittels unserer innovativen Presstechnik können aus dem plastifizierten Material anschließend die unterschiedlichsten Innen- und Außengeometrien hergestellt werden.

EXTRUDING

Through our innovative pressing technology different inner and outer geometries can be realized out of the plasticised mixture.

TROCKNEN

Danach wird ein Teil der zugebenen Flüssigkeit unter streng kontrollierten Bedingungen in der Klimakammer und speziellen Trocknungsöfen langsam aus den Produkten entfernt. Die Trocknungsdauer ist dabei abhängig vom Außendurchmesser des Stabes.

DRYING

Subsequently, part of the added liquids must be slowly removed from the product under strictly controlled conditions in our climate chamber and special drying furnaces. The drying time depends on the outer diameter.

SINTERN

Bei ca. 1380 °C schmilzt das Kobalt und fließt in die Lücken zwischen den Wolframkarbid-Körnern. Der Sinter-HIP-Prozess führt zu porenfreien Formteilen und der Schwund kann bei den Produkten bis zu 25% betragen.

SINTERING

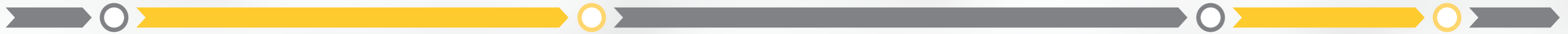
The cobalt melts at about 1380 °C and flows into the free spaces between the tungsten carbide grains. Sinter-HIP process results in non-porous molded parts and shrinkage of the products amounts up to 25%.

SCHLEIFEN

Nach umfassenden Qualitätskontrollen wandern die Stäbe entweder in unser modernes Logistikzentrum oder werden in der Centerless-Schleiferei veredelt.

GRINDING

After passing a last rigorous inspection the rods are then either stocked in our warehouse or refined in our centerless-grinding department.



TROCKENPRESSEN

Vom Pulver zum Grünling: In Sekunden-schnelle pressen Stempel und Matrize Teile verschiedenster Geometrien in Form – bis zu 10 Teile pro Minute.

DRY-PRESSING

From the powder to the green body: Within seconds punches and dies press parts of different geometries into shape - up to 10 pieces per minute.

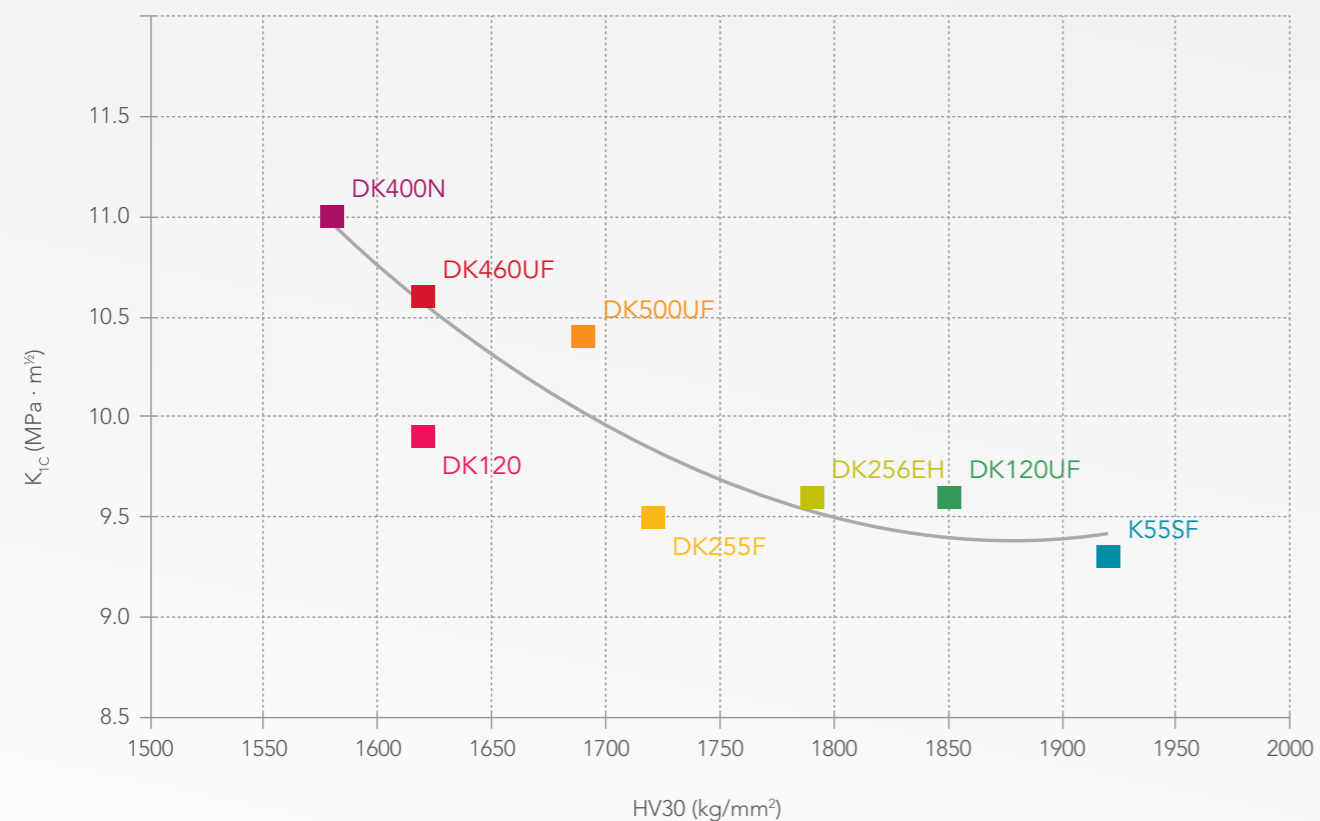
Technische Daten

Technical data

| Sorte Grade | | DK400N | DK120 | DK460UF | DK500UF | DK255F | DK256EH | DK120UF | K55SF |
|--|------------------------|---------|---------|---------|---------|--------|---------|---------|---------|
| Klassifizierung Classification | | K20-K40 | K15-K20 | K20-K40 | K20-K30 | K20 | K20 | K10 | K05-K10 |
| Co | % | 10.0 | 6.0 | 10.0 | 12.0 | 8.0 | 8.0 | 7.0 | 9.0 |
| WC inkl. Dotierung WC incl. doping | % | 90.0 | 94.0 | 90.0 | 88.0 | 92.0 | 92.0 | 93.0 | 91.0 |
| Dichte Density | g/cm ³ | 14.50 | 14.95 | 14.45 | 14.05 | 14.55 | 14.60 | 14.70 | 14.35 |
| Härte HV30 Hardness HV30 | kg/mm ² | 1580 | 1620 | 1620 | 1690 | 1720 | 1790 | 1850 | 1920 |
| Bruchzähigkeit K _{IC} Fracture toughness | MPa · m ^{1/2} | 11.0 | 9.9 | 10.6 | 10.4 | 9.5 | 9.6 | 9.6 | 9.3 |
| Biegebruchfestigkeit Transverse rupture strength | N/mm ² | 4100 | 3200 | 4100 | 4200 | 3800 | 3700 | 3500 | 3800 |
| Mittlere Korngröße Average grain size | µm | 0.70 | 1.20 | 0.60 | 0.50 | 0.70 | 0.60 | 0.70 | 0.20 |

Auf Grund der Abhängigkeit der gemessenen Werte des kritischen Intensitätsfaktors K_{IC} von der Probengeometrie und der Probenpräparation sind die gemessenen Werte nur mit Werten vergleichbar, die unter gleichen Bedingungen ermittelt wurden. Gültige Porosität für alle Sorten: A <02 / B 00 / C 00.
Due to the dependence of the fracture toughness K_{IC} on sample dimensions and sample finishing, the specified values can only be compared with values measured under the same conditions. Valid porosity for all grades: A <02 / B 00 / C 00.

Bruchzähigkeit gg. Härte Fracture toughness vs. hardness



Anwendungen

Applications

| Sorte Grade | | DK400N | DK120 | DK460UF | DK500UF | DK255F | DK256EH | DK120UF | K55SF |
|--|-----|--------|-------|---------|---------|--------|---------|---------|-------|
| | ISO | | | | | | | | |
| Bohren Drilling | | • | • | • | • | • | • | • | • |
| Fräsen End Milling | | • | | • | • | • | • | | • |
| Reiben Reaming | | | | | | | | • | |
| Gewindeschneiden Tapping | | • | • | • | • | | | • | |
| reine, unlegierte Stähle carbon steel | P | • | | • | | | | | |
| niedriglegierte Stähle low-alloyed steel | P | • | | • | • | | | | |
| hochlegierte Stähle (Werkzeug- und Formbaustähle) high-alloyed steel (tool and sectional steel) | P | | | | • | | • | • | • |
| Edelstähle – Austenitisch austenitic stainless steel | M | • | | • | • | • | • | • | |
| Edelstähle – Ferritisch & Martensitisch ferritic & martensitic stainless steel | M | | | • | • | | • | • | |
| Grauguss grey cast iron | K | | | • | • | • | | | |
| Temperguss malleable cast iron | K | | | • | • | • | | | |
| Gusseisen mit Kugelgraphit spheroidal graphite cast iron | K | | | | | | | | |
| Aluminiumlegierungen aluminium alloys | N | | | | | • | | | • |
| Kupferlegierungen copper alloys | N | | | • | | | | | |
| Superlegierungen (auf Fe-/Ni-/Co-/Ti-Basis) superalloys (Fe-/Ni-/Co-/Ti-based) | S | • | | • | • | | • | • | |
| gehärtete Metalle (weißes/gehärtetes Gusseisen) hardened metals (white/chilled cast iron) | H | | | | • | • | • | | • |
| GFK GRP | | | | | • | | • | • | • |
| CFK CFRP | | | | | • | | • | • | • |
| Verbundwerkstoffe composite materials | | | | • | • | | | • | • |
| Kunststoffe plastics | | | | • | | | | | • |
| Buntmetalle non-ferrous metals | | | | | | • | | | |
| Holz wood | | | | • | | • | | | |
| Graphit graphite | | | •* | | | | | • | • |

* Diamantbeschichtung | * Diamond Coating

Luftfahrt, Automobil, Maschinenbau oder Unterhaltungselektronik – wir bieten die richtige Lösung für jede Ihrer Anwendungen.

Aerospace, automotive, engineering or consumer electronics – we provide the right solution for each of your applications.



Rundstäbe, roh

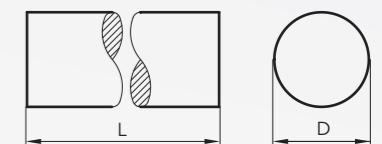
Rods, raw



| D mm | Code | DK120 | DK460UF | | DK500UF | DK255F | DK120UF | K55SF |
|------------|--------|-------|---------|-------|---------|--------|---------|-------|
| | | 7021 | 7014 | 7352 | 7367 | 7022 | 7016 | 7187 |
| | | 330mm | 330mm | 415mm | 330mm | 330mm | 330mm | 330mm |
| 1.2 +0.30 | 1.200 | | • | | | | | • |
| 1.7 +0.30 | 1.700 | | • | | | | | • |
| 2.2 +0.30 | 2.200 | • | • | | | • | • | • |
| 2.7 +0.30 | 2.700 | • | • | | | • | • | • |
| 3.2 +0.30 | 3.200 | • | • | | • | • | • | • |
| 3.7 +0.30 | 3.700 | • | • | | | • | • | • |
| 4.2 +0.30 | 4.200 | • | • | | • | • | • | • |
| 4.7 +0.30 | 4.700 | • | • | | | • | • | • |
| 5.2 +0.30 | 5.200 | • | • | | • | • | • | • |
| 5.7 +0.30 | 5.700 | • | • | | | • | • | • |
| 6.2 +0.30 | 6.200 | • | • | • | • | • | • | • |
| 6.7 +0.30 | 6.700 | • | • | | | • | • | • |
| 7.2 +0.30 | 7.200 | • | • | | | • | • | • |
| 7.7 +0.30 | 7.700 | | • | | | | | • |
| 8.2 +0.30 | 8.200 | • | • | • | • | • | • | • |
| 8.7 +0.30 | 8.700 | • | • | | | • | • | • |
| 9.2 +0.30 | 9.200 | • | • | | | • | • | • |
| 9.7 +0.30 | 9.700 | • | • | | | | | • |
| 10.2 +0.40 | 10.200 | • | • | • | • | • | • | • |
| 10.7 +0.40 | 10.700 | | • | | | • | | • |
| 11.2 +0.40 | 11.200 | • | • | | | • | • | • |
| 11.7 +0.40 | 11.700 | | • | | | | | • |
| 12.2 +0.50 | 12.200 | • | • | • | • | • | • | • |
| 12.7 +0.50 | 12.700 | | • | | | • | | • |
| 13.2 +0.50 | 13.200 | • | • | | | • | • | • |
| 13.7 +0.50 | 13.700 | | • | | | | | • |
| 14.2 +0.60 | 14.200 | • | • | • | • | • | • | • |
| 14.7 +0.60 | 14.700 | | • | | | | | • |
| 15.2 +0.60 | 15.200 | • | • | | | • | | • |
| 15.7 +0.60 | 15.700 | | • | | | | | • |
| 16.2 +0.60 | 16.200 | • | • | • | • | • | • | • |
| 16.7 +0.60 | 16.700 | • | • | | | | | • |
| 17.2 +0.60 | 17.200 | • | • | | | | | • |
| 17.7 +0.60 | 17.700 | | • | | | | | • |
| 18.2 +0.60 | 18.200 | • | • | • | • | • | • | • |
| 18.7 +0.60 | 18.700 | | • | | | | | • |

| D mm | Code | DK120 | DK460UF | | DK500UF | DK255F | DK120UF | K55SF |
|------------|--------|-------|---------|-------|---------|--------|---------|-------|
| | | 7021 | 7014 | 7352 | 7367 | 7022 | 7016 | 7187 |
| | | 330mm | 330mm | 415mm | 330mm | 330mm | 330mm | 330mm |
| 19.2 +0.60 | 19.200 | | • | | | | | • |
| 19.7 +0.60 | 19.700 | | • | | | | | |
| 20.2 +0.60 | 20.200 | • | • | • | • | • | • | |
| 20.7 +0.60 | 20.700 | | • | | | | | |
| 21.2 +0.60 | 21.200 | • | • | | | | | |
| 22.2 +0.60 | 22.200 | • | • | | | | | |
| 23.2 +0.60 | 23.200 | | • | | | | | |
| 24.2 +0.70 | 24.200 | | • | | | | | |
| 25.2 +0.70 | 25.200 | • | • | • | • | • | • | • |
| 26.2 +0.70 | 26.200 | | • | | | • | | |
| 27.2 +0.70 | 27.200 | | • | | | | | |
| 28.2 +0.80 | 28.200 | | • | | | | | |
| 29.2 +0.80 | 29.200 | | • | | | | | |
| 30.2 +0.80 | 30.200 | | • | • | | | | |
| 32.2 +0.80 | 32.200 | • | • | • | | • | | |
| 34.2 +0.80 | 34.200 | | • | | | | | |
| 35.2 +0.80 | 35.200 | | • | | | | | |
| 36.2 +0.80 | 36.200 | | • | | | | | |
| 38.2 +0.80 | 38.200 | | • | | | | | |
| 40.2 +0.80 | 40.200 | | • | | | | | |

Bemaßung | Dimensioning



Rundstäbe, geschliffen h6

Rods, ground to tolerance h6



| D h6 mm | Code | DK120 | 7075 | DK460UF | 7085 | DK500UF | DK255F | K555F |
|------------|--------|-------|-------|---------|-------|---------|--------|-------|
| | | 7031 | | 7354 | | 7372 | 7032 | 7187 |
| | | 330mm | 330mm | 415mm | 100mm | 330mm | 330mm | 330mm |
| 1.0 | 1.000 | | • | | | | | |
| 1.5 | 1.500 | | • | | | | | |
| 2.0 | 2.000 | | • | | | | | |
| 3.0 | 3.000 | • | • | | • | • | • | • |
| 3.5 | 3.500 | • | • | | | | | |
| 4.0 | 4.000 | • | • | | • | • | • | • |
| 4.5 | 4.500 | | • | | | | | |
| 5.0 | 5.000 | • | • | | • | • | • | • |
| 5.5 | 5.500 | • | • | | | | | |
| 6.0 | 6.000 | • | • | • | • | • | • | • |
| 6.5 | 6.500 | | • | | | | | |
| 7.0 | 7.000 | | • | | • | | | • |
| 7.5 | 7.500 | | • | | | | | |
| 8.0 | 8.000 | • | • | • | • | • | • | • |
| 8.5 | 8.500 | | • | | | | | |
| 9.0 | 9.000 | | • | | • | | • | • |
| 9.5 | 9.500 | | • | | | | | • |
| 10.0 | 10.000 | • | • | • | • | • | • | • |
| 10.5 | 10.500 | | • | | | | | |
| 11.0 | 11.000 | | • | | | | | |
| 11.5 | 11.500 | | • | | | | | |
| 12.0 | 12.000 | • | • | • | • | • | • | • |
| 12.5 | 12.500 | | • | | | | | |
| 13.0 | 13.000 | • | • | | | | | • |
| 14.0 | 14.000 | • | • | • | • | • | • | • |
| 15.0 | 15.000 | | • | | • | | | |
| 16.0 | 16.000 | • | • | • | • | • | • | • |
| 17.0 | 17.000 | | • | | | | | |
| 18.0 | 18.000 | • | • | • | • | • | • | • |
| 19.0 | 19.000 | | • | | | | | |
| 20.0 | 20.000 | • | • | • | • | • | • | • |
| 21.0 | 21.000 | | • | | | | | |
| 22.0 | 22.000 | | • | | | | | |
| 23.0 | 23.000 | | • | | | | | |
| 24.0 | 24.000 | | • | | | | | |
| 25.0 | 25.000 | • | • | | • | • | • | • |

| D h6 mm | Code | DK120 | 7075 | DK460UF | 7085 | DK500UF | DK255F | K555F |
|------------|--------|-------|-------|---------|-------|---------|--------|-------|
| | | 7031 | | 7354 | | 7372 | 7032 | 7187 |
| | | 330mm | 330mm | 415mm | 100mm | 330mm | 330mm | 330mm |
| 26.0 | 26.000 | | • | | | | | |
| 27.0 | 27.000 | | • | | | | | |
| 28.0 | 28.000 | | • | | | | | |
| 30.0 | 30.000 | | • | | | | | |
| 31.0 | 31.000 | | • | | | | | |
| 32.0 | 32.000 | | • | | | | • | |
| 34.0 | 34.000 | | • | | | | | |
| 35.0 | 35.000 | | • | | | | | |
| 36.0 | 36.000 | | • | | | | | |
| 40.0 | 40.000 | | • | | | | | |

Rundstäbe, geschliffen h6

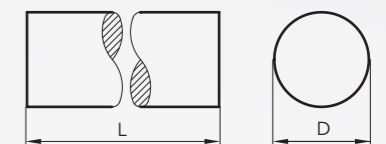
■ in Zoll

Rods, ground to tolerance h6

■ in inches

| D h6 inches/mm | Code | DK460UF | |
|-------------------|--------|----------------|---|
| | | 7932 | |
| | | 330mm/13inches | |
| 1/8 | 3.175 | 3.170 | • |
| 3/16 | 4.763 | 4.760 | • |
| 1/4 | 6.350 | 6.350 | • |
| 5/16 | 7.938 | 7.930 | • |
| 3/8 | 9.525 | 9.520 | • |
| 7/16 | 11.113 | 11.110 | • |
| 1/2 | 12.700 | 12.700 | • |
| 9/16 | 14.288 | 14.280 | • |
| 5/8 | 15.875 | 15.870 | • |
| 3/4 | 19.050 | 19.050 | • |
| 7/8 | 22.225 | 22.220 | • |
| 1 | 25.400 | 25.400 | • |

Bemaßung | Dimensioning



Rundstäbe, roh

■ mit 1 Zentralbohrung

Rods, raw

■ with 1 central coolant duct

| D mm | d mm | a mm | Code | DK460UF | DK460UF | DK120UF |
|------------|------------|---------|--------|---------|---------|---------|
| | | | | 7387 | 7987 | 7380 |
| | | | | 330mm | 415mm | 330mm |
| 4.5 +0.30 | 0.60 ±0.10 | 0.07 | 4.500 | • | | |
| 6.3 +0.30 | 1.00 ±0.15 | 0.07 | 6.300 | • | • | |
| 6.3 +0.30 | 1.80 ±0.15 | 0.07 | 6.301 | • | | |
| 8.3 +0.30 | 1.30 ±0.15 | 0.07 | 8.300 | • | • | |
| 8.3 +0.30 | 2.50 ±0.20 | 0.07 | 8.301 | • | | |
| 10.3 +0.40 | 2.00 ±0.20 | 0.10 | 10.300 | • | • | |
| 10.3 +0.40 | 3.00 ±0.25 | 0.10 | 10.301 | • | | |
| 12.3 +0.40 | 2.00 ±0.20 | 0.10 | 12.300 | • | • | |
| 12.3 +0.40 | 3.00 ±0.25 | 0.10 | 12.301 | • | | |
| 13.3 +0.40 | 2.00 ±0.20 | 0.12 | 13.300 | • | | |
| 14.3 +0.40 | 2.00 ±0.20 | 0.12 | 14.300 | • | • | |
| 14.3 +0.40 | 3.00 ±0.25 | 0.12 | 14.301 | • | | |
| 14.3 +0.40 | 1.50 ±0.20 | 0.12 | 14.302 | • | | |
| 16.3 +0.50 | 2.00 ±0.20 | 0.12 | 16.300 | • | • | |
| 16.3 +0.50 | 2.50 ±0.20 | 0.12 | 16.301 | • | | |
| 16.3 +0.50 | 4.00 ±0.30 | 0.12 | 16.302 | • | | |
| 16.3 +0.50 | 3.00 ±0.25 | 0.12 | 16.304 | • | • | |
| 18.3 +0.50 | 3.00 ±0.25 | 0.15 | 18.300 | • | • | |
| 20.3 +0.50 | 3.00 ±0.25 | 0.15 | 20.300 | • | • | |
| 22.3 +0.50 | 3.00 ±0.25 | 0.15 | 22.300 | • | | |
| 24.3 +0.50 | 4.00 ±0.30 | 0.15 | 24.300 | • | | |
| 25.3 +0.50 | 4.00 ±0.30 | 0.15 | 25.300 | • | • | |
| 25.3 +0.50 | 3.00 ±0.25 | 0.15 | 25.301 | • | • | |
| 26.3 +0.50 | 4.00 ±0.30 | 0.15 | 26.300 | • | | |
| 28.3 +0.50 | 4.00 ±0.30 | 0.15 | 28.300 | • | | |
| 30.3 +0.50 | 5.00 ±0.35 | 0.15 | 30.300 | • | | |
| 32.3 +0.50 | 5.00 ±0.35 | 0.15 | 32.300 | • | • | |
| 4.5 +0.30 | 1.00 ±0.10 | 0.07 | 4.500 | | | • |
| 6.3 +0.30 | 1.30 ±0.15 | 0.07 | 6.300 | | | • |
| 8.3 +0.30 | 2.00 ±0.20 | 0.07 | 8.300 | | | • |
| 10.3 +0.40 | 2.50 ±0.25 | 0.10 | 10.300 | | | • |
| 12.3 +0.40 | 3.00 ±0.25 | 0.10 | 12.300 | | | • |
| 14.3 +0.40 | 3.00 ±0.25 | 0.12 | 14.300 | | | • |
| 16.3 +0.50 | 3.50 ±0.30 | 0.12 | 16.300 | | | • |
| 18.3 +0.50 | 3.50 ±0.30 | 0.15 | 18.300 | | | • |
| 20.3 +0.50 | 4.00 ±0.30 | 0.15 | 20.300 | | | • |

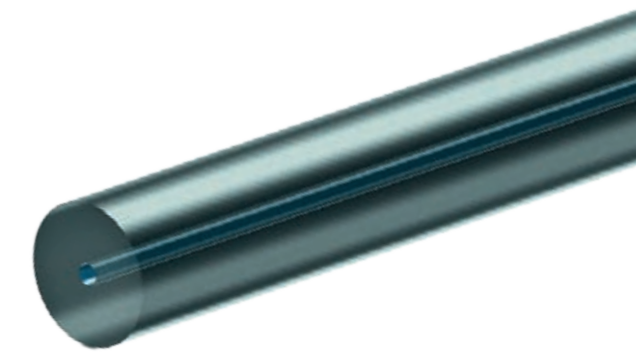
Rundstäbe, geschliffen h6

■ mit 1 Zentralbohrung

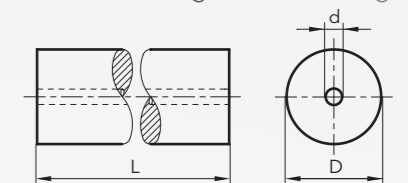
Rods, ground to tolerance h6

■ with 1 central coolant duct

| D h6 mm | d mm | a mm | Code | DK460UF |
|------------|------------|---------|--------|---------|
| | | | | 7339 |
| | | | | 330mm |
| 4.0 | 0.60 ±0.10 | 0.07 | 4.000 | • |
| 6.0 | 1.00 ±0.15 | 0.07 | 6.000 | • |
| 6.0 | 1.80 ±0.15 | 0.07 | 6.001 | • |
| 8.0 | 1.30 ±0.15 | 0.07 | 8.000 | • |
| 8.0 | 2.50 ±0.20 | 0.07 | 8.001 | • |
| 10.0 | 2.00 ±0.20 | 0.10 | 10.000 | • |
| 10.0 | 3.00 ±0.25 | 0.10 | 10.001 | • |
| 12.0 | 2.00 ±0.20 | 0.10 | 12.000 | • |
| 12.0 | 3.00 ±0.25 | 0.10 | 12.001 | • |
| 14.0 | 2.00 ±0.20 | 0.12 | 14.000 | • |
| 14.0 | 3.00 ±0.25 | 0.12 | 14.001 | • |
| 16.0 | 2.00 ±0.20 | 0.12 | 16.000 | • |
| 16.0 | 2.50 ±0.20 | 0.12 | 16.001 | • |
| 16.0 | 4.00 ±0.30 | 0.12 | 16.002 | • |
| 16.0 | 3.00 ±0.25 | 0.12 | 16.004 | • |
| 18.0 | 3.00 ±0.25 | 0.15 | 18.000 | • |
| 20.0 | 3.00 ±0.25 | 0.15 | 20.000 | • |
| 22.0 | 3.00 ±0.25 | 0.15 | 22.000 | • |
| 24.0 | 4.00 ±0.30 | 0.15 | 24.000 | • |
| 25.0 | 4.00 ±0.30 | 0.15 | 25.000 | • |
| 25.0 | 3.00 ±0.30 | 0.15 | 25.001 | • |
| 26.0 | 4.00 ±0.30 | 0.15 | 26.000 | • |
| 28.0 | 4.00 ±0.30 | 0.15 | 28.000 | • |
| 30.0 | 5.00 ±0.35 | 0.15 | 30.000 | • |
| 32.0 | 5.00 ±0.35 | 0.15 | 32.000 | • |



Bemaßung / Dimensioning

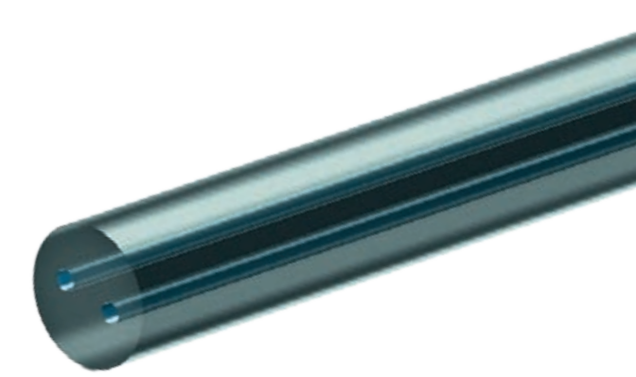


Rundstäbe, roh

■ mit 2 parallelen Kühlkanälen

Rods, raw

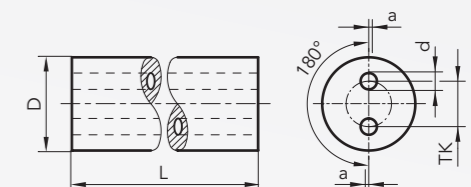
■ with 2 parallel coolant ducts



| D mm | TK BC mm | d mm | a mm | Code | DK460UF | |
|------------|---------------|------------|---------|--------|---------|-------|
| | | | | | 7301 | 7309 |
| | | | | | 330mm | 415mm |
| 4.2 +0.30 | 1.80 -0.15 | 0.80 ±0.10 | 0.10 | 4.200 | • | |
| 4.2 +0.30 | 2.25 -0.15 | 0.60 -0.05 | 0.10 | 4.201 | • | |
| 5.2 +0.30 | 2.00 -0.15 | 0.80 ±0.10 | 0.13 | 5.200 | • | |
| 6.3 +0.30 | 1.50 -0.20 | 0.80 ±0.10 | 0.15 | 6.300 | • | |
| 6.3 +0.30 | 3.00 -0.20 | 1.00 ±0.10 | 0.15 | 6.301 | • | • |
| 6.3 +0.30 | 1.50 -0.20 | 0.60 ±0.10 | 0.15 | 6.302 | • | |
| 6.3 +0.30 | 1.55 -0.20 | 0.65 ±0.15 | 0.08 | 6.303 | • | |
| 6.3 +0.30 | 1.70 -0.10 | 0.70 ±0.10 | 0.15 | 6.304 | • | |
| 6.3 +0.30 | 2.00 -0.15 | 0.80 ±0.05 | 0.15 | 6.305 | • | |
| 6.3 +0.30 | 2.40 -0.30 | 1.00 ±0.15 | 0.15 | 6.306 | • | |
| 7.3 +0.30 | 1.80 -0.20 | 0.80 ±0.10 | 0.15 | 7.300 | • | |
| 7.3 +0.30 | 3.50 -0.20 | 1.00 ±0.15 | 0.15 | 7.301 | • | |
| 8.3 +0.30 | 1.50 -0.20 | 0.80 ±0.15 | 0.15 | 8.300 | • | • |
| 8.3 +0.30 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 8.301 | • | • |
| 8.3 +0.30 | 4.00 -0.30 | 1.00 ±0.15 | 0.15 | 8.302 | • | • |
| 8.3 +0.30 | 2.00 -0.30 | 0.80 ±0.15 | 0.15 | 8.303 | • | |
| 9.3 +0.30 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 9.300 | • | |
| 9.3 +0.30 | 4.00 -0.30 | 1.40 ±0.15 | 0.20 | 9.301 | • | |
| 10.3 +0.30 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 10.300 | • | • |
| 10.3 +0.30 | 5.00 -0.30 | 1.40 ±0.15 | 0.20 | 10.301 | • | • |
| 10.3 +0.30 | 3.50 -0.20 | 1.20 ±0.15 | 0.15 | 10.302 | • | |
| 11.3 +0.40 | 3.50 -0.30 | 1.20 ±0.15 | 0.28 | 11.300 | • | |
| 11.3 +0.40 | 5.00 -0.30 | 1.40 ±0.15 | 0.28 | 11.301 | • | |
| 12.3 +0.40 | 3.50 -0.30 | 1.20 ±0.15 | 0.30 | 12.300 | • | • |
| 12.3 +0.40 | 6.00 -0.30 | 1.75 ±0.15 | 0.30 | 12.301 | • | • |
| 13.3 +0.40 | 3.50 -0.30 | 1.20 ±0.15 | 0.34 | 13.300 | • | |
| 13.3 +0.40 | 6.00 -0.30 | 1.75 ±0.15 | 0.34 | 13.301 | • | |
| 14.3 +0.40 | 5.00 -0.30 | 1.50 ±0.15 | 0.37 | 14.300 | • | • |
| 14.3 +0.40 | 7.00 -0.30 | 1.75 ±0.15 | 0.37 | 14.301 | • | • |
| 15.3 +0.40 | 5.00 -0.30 | 1.50 ±0.15 | 0.40 | 15.300 | • | |
| 15.3 +0.40 | 7.00 -0.30 | 2.00 ±0.20 | 0.40 | 15.301 | • | |
| 16.3 +0.40 | 5.00 -0.30 | 1.50 ±0.15 | 0.40 | 16.300 | • | • |
| 16.3 +0.40 | 8.00 -0.30 | 2.00 ±0.20 | 0.40 | 16.301 | • | • |
| 17.3 +0.50 | 6.20 -0.30 | 2.00 ±0.20 | 0.47 | 17.300 | • | |
| 17.3 +0.50 | 8.00 -0.30 | 2.00 ±0.20 | 0.47 | 17.301 | • | |

| D mm | TK BC mm | d mm | a mm | Code | DK460UF | |
|------------|---------------|------------|---------|--------|---------|-------|
| | | | | | 7301 | 7309 |
| | | | | | 330mm | 415mm |
| 18.3 +0.50 | 6.20 -0.30 | 2.00 ±0.20 | 0.50 | 18.300 | • | • |
| 18.3 +0.50 | 9.00 -0.30 | 2.00 ±0.20 | 0.50 | 18.301 | • | • |
| 19.3 +0.50 | 6.20 -0.30 | 2.00 ±0.20 | 0.50 | 19.300 | • | |
| 19.3 +0.50 | 9.00 -0.30 | 2.00 ±0.20 | 0.50 | 19.301 | • | |
| 20.4 +0.50 | 3.50 -0.30 | 1.50 ±0.15 | 0.34 | 20.402 | • | |
| 20.4 +0.50 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 20.400 | • | • |
| 20.4 +0.50 | 10.00 -0.40 | 2.50 ±0.25 | 0.50 | 20.401 | • | • |
| 21.4 +0.50 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 21.400 | • | |
| 21.4 +0.50 | 10.00 -0.40 | 2.50 ±0.25 | 0.50 | 21.401 | • | |
| 22.4 +0.50 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 22.400 | • | |
| 22.4 +0.50 | 11.00 -0.40 | 2.50 ±0.25 | 0.50 | 22.401 | • | |
| 23.4 +0.50 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 23.400 | • | |
| 23.4 +0.50 | 11.00 -0.40 | 2.50 ±0.25 | 0.50 | 23.401 | • | |
| 24.4 +0.50 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 24.400 | • | |
| 24.4 +0.50 | 12.00 -0.50 | 3.00 ±0.25 | 0.50 | 24.401 | • | |
| 25.4 +0.50 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 25.400 | • | • |
| 25.4 +0.50 | 12.00 -0.50 | 3.00 ±0.25 | 0.50 | 25.401 | • | • |
| 26.4 +0.50 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 26.400 | • | |
| 26.4 +0.50 | 13.00 -0.50 | 3.00 ±0.25 | 0.50 | 26.401 | • | |
| 28.4 +0.50 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 28.400 | • | |
| 28.4 +0.50 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 28.401 | • | |
| 30.4 +0.50 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 30.401 | • | |
| 30.4 +0.50 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 30.400 | • | |
| 32.4 +0.50 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 32.400 | • | • |
| 32.4 +0.50 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 32.401 | • | • |

Bemaßung | Dimensioning

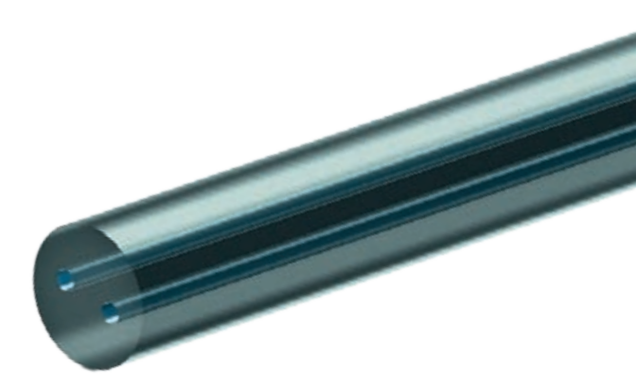


Rundstäbe, geschliffen h6

■ mit 2 parallelen Kühlkanälen

Rods, ground to tolerance h6

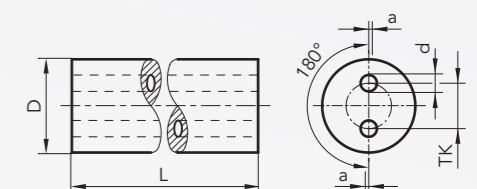
■ with 2 parallel coolant ducts



| D h6 mm | TK BC mm | d mm | a mm | Code | DK460UF 7302 |
|------------|-------------|------------|---------|--------|-----------------|
| 330mm | | | | | |
| 4.0 | 1.80 -0.15 | 0.80 ±0.10 | 0.10 | 4.000 | • |
| 5.0 | 2.00 -0.15 | 0.80 ±0.10 | 0.13 | 5.000 | • |
| 6.0 | 1.50 -0.20 | 0.80 ±0.10 | 0.15 | 6.000 | • |
| 6.0 | 3.00 -0.20 | 1.00 ±0.10 | 0.15 | 6.001 | • |
| 6.0 | 2.00 -0.15 | 0.80 ±0.05 | 0.15 | 6.005 | • |
| 6.0 | 2.40 -0.30 | 1.00 ±0.10 | 0.15 | 6.006 | • |
| 7.0 | 1.80 -0.20 | 0.80 ±0.10 | 0.15 | 7.000 | • |
| 7.0 | 3.50 -0.20 | 1.00 ±0.15 | 0.15 | 7.001 | • |
| 8.0 | 1.50 -0.20 | 0.80 ±0.15 | 0.15 | 8.000 | • |
| 8.0 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 8.001 | • |
| 8.0 | 4.00 -0.30 | 1.00 ±0.15 | 0.15 | 8.002 | • |
| 8.0 | 2.00 -0.30 | 0.80 ±0.15 | 0.15 | 8.003 | • |
| 9.0 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 9.000 | • |
| 9.0 | 4.00 -0.30 | 1.40 ±0.15 | 0.20 | 9.001 | • |
| 9.525 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 9.520 | • |
| 9.525 | 5.00 -0.30 | 1.40 ±0.15 | 0.20 | 9.521 | • |
| 10.0 | 2.60 -0.30 | 1.00 ±0.15 | 0.20 | 10.000 | • |
| 10.0 | 5.00 -0.30 | 1.40 ±0.15 | 0.20 | 10.001 | • |
| 10.0 | 3.50 -0.20 | 1.20 ±0.15 | 0.15 | 10.002 | • |
| 11.0 | 3.50 -0.30 | 1.20 ±0.15 | 0.28 | 11.000 | • |
| 11.0 | 5.00 -0.30 | 1.40 ±0.15 | 0.28 | 11.001 | • |
| 12.0 | 3.50 -0.30 | 1.20 ±0.15 | 0.30 | 12.000 | • |
| 12.0 | 6.00 -0.30 | 1.75 ±0.15 | 0.30 | 12.001 | • |
| 12.700 | 3.50 -0.30 | 1.20 ±0.15 | 0.30 | 12.700 | • |
| 12.700 | 6.00 -0.30 | 1.75 ±0.15 | 0.30 | 12.701 | • |
| 13.0 | 3.50 -0.30 | 1.20 ±0.15 | 0.34 | 13.000 | • |
| 13.0 | 6.00 -0.30 | 1.75 ±0.15 | 0.34 | 13.001 | • |
| 14.0 | 5.00 -0.30 | 1.50 ±0.15 | 0.37 | 14.000 | • |
| 14.0 | 7.00 -0.30 | 1.75 ±0.15 | 0.37 | 14.001 | • |
| 15.0 | 5.00 -0.30 | 1.50 ±0.15 | 0.40 | 15.000 | • |
| 15.0 | 7.00 -0.30 | 2.00 ±0.20 | 0.40 | 15.001 | • |
| 15.875 | 5.00 -0.30 | 1.50 ±0.15 | 0.40 | 15.870 | • |
| 15.875 | 8.00 -0.30 | 2.00 ±0.20 | 0.40 | 15.871 | • |
| 16.0 | 5.00 -0.30 | 1.50 ±0.15 | 0.40 | 16.000 | • |
| 16.0 | 8.00 -0.30 | 2.00 ±0.20 | 0.40 | 16.001 | • |

| D h6 mm | TK BC mm | d mm | a mm | Code | DK460UF 7302 |
|------------|-------------|------------|---------|--------|-----------------|
| 330mm | | | | | |
| 17.0 | 6.20 -0.30 | 2.00 ±0.20 | 0.47 | 17.000 | • |
| 17.0 | 8.00 -0.30 | 2.00 ±0.20 | 0.47 | 17.001 | • |
| 18.0 | 6.20 -0.30 | 2.00 ±0.20 | 0.50 | 18.000 | • |
| 18.0 | 9.00 -0.30 | 2.00 ±0.20 | 0.50 | 18.001 | • |
| 19.0 | 9.00 -0.30 | 2.00 ±0.20 | 0.50 | 19.001 | • |
| 19.050 | 6.20 -0.30 | 2.00 ±0.20 | 0.50 | 19.050 | • |
| 19.050 | 9.00 -0.30 | 2.00 ±0.20 | 0.50 | 19.051 | • |
| 20.0 | 3.50 -0.30 | 1.50 ±0.15 | 0.34 | 20.002 | • |
| 20.0 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 20.000 | • |
| 20.0 | 10.00 -0.40 | 2.50 ±0.25 | 0.50 | 20.001 | • |
| 21.0 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 21.000 | • |
| 21.0 | 10.00 -0.40 | 2.50 ±0.25 | 0.50 | 21.001 | • |
| 22.0 | 6.20 -0.40 | 2.00 ±0.20 | 0.50 | 22.000 | • |
| 22.0 | 11.00 -0.40 | 2.50 ±0.25 | 0.50 | 22.001 | • |
| 23.0 | 11.00 -0.40 | 2.50 ±0.25 | 0.50 | 23.000 | • |
| 24.0 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 24.000 | • |
| 24.0 | 12.00 -0.50 | 2.00 ±0.25 | 0.50 | 24.001 | • |
| 25.0 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 25.000 | • |
| 25.0 | 12.00 -0.50 | 3.00 ±0.25 | 0.50 | 25.001 | • |
| 25.400 | 7.50 -0.40 | 2.00 ±0.20 | 0.50 | 25.402 | • |
| 26.0 | 13.00 -0.50 | 3.00 ±0.25 | 0.50 | 26.000 | • |
| 28.0 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 28.000 | • |
| 28.0 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 28.001 | • |
| 30.0 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 30.000 | • |
| 30.0 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 30.001 | • |
| 32.0 | 9.00 -0.40 | 2.50 ±0.25 | 0.50 | 32.000 | • |
| 32.0 | 14.00 -0.50 | 3.00 ±0.25 | 0.50 | 32.001 | • |

Bemaßung | Dimensioning



Rundstäbe, roh

■ mit 2 Kühlkanälen, 15° verdreht

Rods, raw

■ with 2 coolant ducts, 15° helix

| D mm | TK BC mm | d mm | a mm | 15° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|---------|----------------------|--------|---------|-------|
| | | | | | | 7945 | 7947 |
| | | | | | | 330mm | 415mm |
| 4.3 +0.30 | 2.10 ±0.10 | 0.60 ±0.10 | 0.10 | 46.90 +1.69/-1.59 | 4.300 | • | |
| 5.3 +0.30 | 2.60 ±0.15 | 0.70 ±0.10 | 0.13 | 58.62 +2.12/-1.98 | 5.300 | • | |
| 6.3 +0.30 | 2.60 -0.40 | 0.70 ±0.10 | 0.15 | 70.35 +2.54/-2.38 | 6.300 | • | • |
| 8.3 +0.30 | 3.60 -0.40 | 1.25 ±0.15 | 0.15 | 93.80 +3.38/-3.17 | 8.300 | • | • |
| 10.3 +0.30 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 117.25 +4.23/-3.96 | 10.300 | • | • |
| 12.3 +0.40 | 6.25 -0.80 | 1.55 ±0.15 | 0.30 | 140.70 +5.08/-4.76 | 12.300 | • | • |
| 14.3 +0.40 | 6.70 -0.80 | 1.90 ±0.20 | 0.37 | 164.14 +5.92/-5.55 | 14.300 | • | • |
| 16.3 +0.40 | 8.00 -0.80 | 2.10 ±0.25 | 0.40 | 187.59 +6.77/-6.34 | 16.300 | • | • |
| 18.3 +0.40 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 211.04 +7.61/-7.13 | 18.300 | • | |
| 20.3 +0.50 | 10.00 -1.00 | 2.50 ±0.30 | 0.50 | 234.49 +8.46/-7.93 | 20.300 | • | |
| 23.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 269.67 +9.73/-9.12 | 23.300 | • | |
| 26.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 304.84 +11.00/-10.31 | 26.300 | • | |

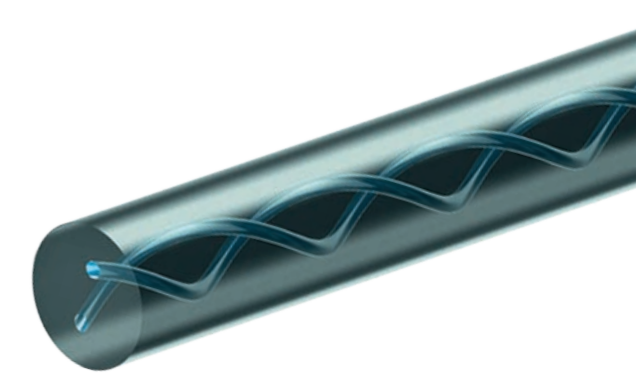
Rundstäbe, geschliffen h6

■ mit 2 Kühlkanälen, 15° verdreht

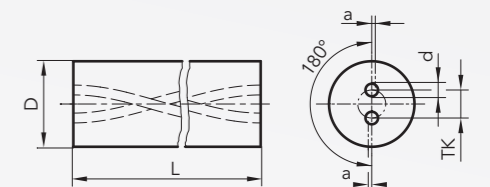
Rods, raw, ground to tolerance h6

■ with 2 coolant ducts, 15° helix

| D h6 mm | TK BC mm | d mm | a mm | 15° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|---------|--------------------|--------|---------|--|
| | | | | | | 7583 | |
| | | | | | | 330mm | |
| 6.0 | 2.60 -0.40 | 0.70 ±0.10 | 0.15 | 70.35 +2.54/-2.38 | 6.000 | • | |
| 8.0 | 3.60 -0.40 | 1.25 ±0.15 | 0.15 | 93.80 +3.38/-3.17 | 8.000 | • | |
| 10.0 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 117.25 +4.23/-3.96 | 10.000 | • | |
| 12.0 | 6.25 -0.80 | 1.55 ±0.15 | 0.30 | 140.70 +5.08/-4.76 | 12.000 | • | |
| 14.0 | 6.70 -0.80 | 1.90 ±0.20 | 0.37 | 164.14 +5.92/-5.55 | 14.000 | • | |
| 16.0 | 8.00 -0.80 | 2.10 ±0.25 | 0.40 | 187.59 +6.77/-6.34 | 16.000 | • | |
| 18.0 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 211.04 +7.61/-7.13 | 18.000 | • | |
| 20.0 | 10.00 -1.00 | 2.50 ±0.30 | 0.50 | 234.49 +8.46/-7.93 | 20.000 | • | |



Bemaßung | Dimensioning

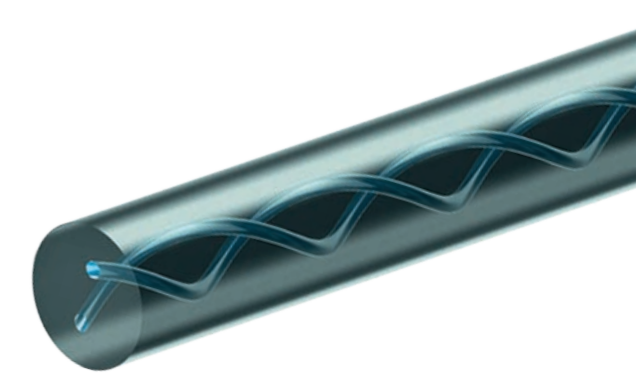


Rundstäbe, roh

■ mit 2 Kühlkanälen, 30° verdreht

Rods, raw

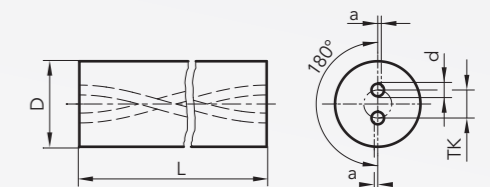
■ with 2 coolant ducts, 30° helix



| D mm | TK BC mm | d mm | a mm | 30° ±0.5° mm | Code | DK460UF | | DK255F |
|------------|-------------|------------|---------|-------------------|--------|---------|-------|--------|
| | | | | | | 7940 | 7353 | 7370 |
| | | | | | | 330mm | 415mm | 330mm |
| 3.3 +0.30 | 1.60 ±0.10 | 0.40 ±0.10 | 0.08 | 16.32 +0.33/-0.32 | 3.300 | • | | |
| 3.8 +0.30 | 1.80 ±0.10 | 0.50 ±0.10 | 0.09 | 19.04 +0.39/-0.38 | 3.800 | • | | |
| 4.3 +0.30 | 2.10 ±0.10 | 0.60 ±0.10 | 0.10 | 21.77 +0.45/-0.43 | 4.300 | • | | |
| 4.8 +0.30 | 2.30 ±0.10 | 0.70 ±0.10 | 0.10 | 24.49 +0.50/-0.49 | 4.800 | • | | |
| 5.3 +0.30 | 2.60 ±0.15 | 0.70 ±0.10 | 0.13 | 27.21 +0.56/-0.54 | 5.300 | • | | |
| 5.8 +0.30 | 2.60 -0.40 | 0.70 ±0.10 | 0.14 | 29.93 +0.61/-0.59 | 5.800 | • | | |
| 6.3 +0.30 | 2.60 -0.40 | 0.70 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.300 | • | • | • |
| 6.3 +0.30 | 2.00 -0.20 | 0.80 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.301 | • | | |
| 6.3 +0.30 | 2.60 -0.40 | 0.90 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.302 | • | | |
| 6.8 +0.30 | 3.50 -0.40 | 1.00 ±0.15 | 0.15 | 35.37 +0.72/-0.70 | 6.800 | • | | |
| 7.3 +0.30 | 3.50 -0.40 | 1.00 ±0.15 | 0.15 | 38.09 +0.78/-0.76 | 7.300 | • | | |
| 7.8 +0.30 | 3.50 -0.40 | 1.00 ±0.15 | 0.15 | 40.81 +0.84/-0.81 | 7.800 | • | | |
| 8.3 +0.30 | 3.60 -0.40 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.300 | • | • | • |
| 8.3 +0.30 | 3.50 -0.40 | 0.90 ±0.10 | 0.15 | 43.53 +0.89/-0.86 | 8.301 | • | | |
| 8.8 +0.30 | 3.60 -0.40 | 1.25 ±0.15 | 0.20 | 46.25 +0.95/-0.92 | 8.800 | • | | |
| 9.3 +0.30 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 48.97 +1.00/-0.97 | 9.300 | • | | |
| 9.8 +0.30 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 51.69 +1.06/-1.03 | 9.800 | • | | |
| 10.3 +0.30 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.300 | • | • | • |
| 10.3 +0.30 | 4.80 -0.60 | 0.90 ±0.10 | 0.20 | 54.41 +1.11/-1.08 | 10.301 | • | | |
| 10.8 +0.40 | 4.80 -0.60 | 1.40 ±0.15 | 0.28 | 57.13 +1.17/-1.13 | 10.800 | • | | |
| 11.3 +0.40 | 5.30 -0.80 | 1.40 ±0.15 | 0.28 | 59.86 +1.22/-1.19 | 11.300 | • | • | |
| 11.8 +0.40 | 5.80 -0.80 | 1.40 ±0.15 | 0.30 | 62.58 +1.28/-1.24 | 11.800 | • | | |
| 12.3 +0.40 | 6.25 -0.80 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.300 | • | • | • |
| 12.3 +0.40 | 5.40 -0.80 | 1.50 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.301 | • | | |
| 12.8 +0.40 | 6.25 -0.80 | 1.55 ±0.15 | 0.33 | 68.02 +1.39/-1.35 | 12.800 | • | | |
| 13.3 +0.40 | 6.50 -0.80 | 1.75 ±0.20 | 0.34 | 70.74 +1.45/-1.40 | 13.300 | • | | |
| 13.8 +0.40 | 6.50 -0.80 | 1.75 ±0.20 | 0.35 | 73.46 +1.50/-1.46 | 13.800 | • | | |
| 14.3 +0.40 | 6.70 -0.80 | 1.90 ±0.20 | 0.37 | 76.18 +1.56/-1.51 | 14.300 | • | • | • |
| 14.8 +0.40 | 6.70 -0.80 | 1.90 ±0.20 | 0.39 | 78.90 +1.61/-1.57 | 14.800 | • | | |
| 15.3 +0.40 | 7.40 -0.80 | 1.90 ±0.20 | 0.40 | 81.62 +1.67/-1.62 | 15.300 | • | | |
| 15.8 +0.40 | 7.40 -0.80 | 1.90 ±0.20 | 0.40 | 84.34 +1.73/-1.67 | 15.800 | • | | |
| 16.3 +0.40 | 8.00 -0.80 | 2.10 ±0.25 | 0.40 | 87.06 +1.78/-1.73 | 16.300 | • | • | • |
| 16.8 +0.50 | 8.00 -0.80 | 2.10 ±0.25 | 0.45 | 89.78 +1.84/-1.78 | 16.800 | • | | |
| 17.3 +0.50 | 8.00 -0.80 | 2.10 ±0.25 | 0.47 | 92.50 +1.89/-1.84 | 17.300 | • | | |
| 17.8 +0.50 | 8.00 -0.80 | 2.10 ±0.25 | 0.48 | 95.22 +1.95/-1.89 | 17.800 | • | | |

| D mm | TK BC mm | d mm | a mm | 30° ±0.5° mm | Code | DK460UF | | DK255F |
|------------|-------------|------------|---------|--------------------|--------|---------|-------|--------|
| | | | | | | 7940 | 7353 | 7370 |
| | | | | | | 330mm | 415mm | 330mm |
| 18.3 +0.50 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 97.95 +2.00/-1.94 | 18.300 | • | • | • |
| 18.8 +0.50 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 100.67 +2.06/-2.00 | 18.800 | • | | |
| 19.3 +0.50 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 103.39 +2.12/-2.05 | 19.300 | • | | |
| 19.8 +0.50 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 106.11 +2.17/-2.11 | 19.800 | • | | |
| 20.3 +0.50 | 10.00 -1.00 | 2.50 ±0.30 | 0.50 | 108.83 +2.23/-2.16 | 20.300 | • | • | • |
| 21.3 +0.50 | 10.00 -1.00 | 2.50 ±0.30 | 0.50 | 114.27 +2.34/-2.27 | 21.300 | • | | |
| 22.3 +0.50 | 10.00 -1.00 | 2.50 ±0.30 | 0.50 | 119.71 +2.45/-2.38 | 22.300 | • | | • |
| 23.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 125.15 +2.56/-2.48 | 23.300 | • | | |
| 24.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 130.59 +2.67/-2.59 | 24.300 | • | | |
| 25.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 136.03 +2.78/-2.70 | 25.300 | • | • | • |
| 26.3 +0.50 | 12.00 -1.00 | 2.50 ±0.30 | 0.50 | 141.48 +2.90/-2.81 | 26.300 | • | | |
| 27.3 +0.50 | 14.30 -1.20 | 2.50 ±0.30 | 0.60 | 146.92 +3.01/-2.92 | 27.300 | • | | |
| 28.3 +0.50 | 14.80 -1.20 | 2.50 ±0.30 | 0.60 | 152.36 +3.12/-3.02 | 28.300 | • | | |
| 29.3 +0.50 | 15.40 -1.20 | 2.50 ±0.30 | 0.60 | 157.80 +3.23/-3.13 | 29.300 | • | | |
| 30.3 +0.50 | 16.00 -1.20 | 2.50 ±0.30 | 0.70 | 163.24 +3.34/-3.24 | 30.300 | • | | |
| 32.3 +0.50 | 17.20 -1.20 | 3.00 ±0.30 | 0.80 | 174.12 +3.56/-3.46 | 32.300 | • | • | • |
| 33.3 +0.50 | 17.80 -1.20 | 3.00 ±0.30 | 0.80 | 179.57 +3.67/-3.57 | 33.300 | • | | |

Bemaßung | Dimensioning



Rundstäbe, roh

■ mit 2 Kühlkanälen, 30° verdreht

Rods, raw

■ with 2 coolant ducts, 30° helix

| D mm | TK BC mm | d mm | a mm | Steigung Pitch mm | Code | DK460UF 7074 |
|------------|---------------|------------|---------|------------------------|--------|-----------------|
| | | | | | | 700mm |
| 12.8 +0.40 | 6.10 -0.80 | 1.40 ±0.15 | 0.30 | 57.40 ±1.94 | 12.301 | • |
| 12.8 +0.40 | 6.60 -0.80 | 1.50 ±0.15 | 0.30 | 62.80 ±2.19 | 12.300 | • |
| 14.8 +0.40 | 7.40 -0.80 | 1.70 ±0.20 | 0.37 | 71.00 ±2.44 | 14.300 | • |
| 16.8 +0.40 | 8.60 -0.80 | 1.90 ±0.25 | 0.40 | 81.90 ±2.94 | 16.300 | • |
| 18.8 +0.50 | 9.70 -0.80 | 2.20 ±0.25 | 0.40 | 92.80 ±3.33 | 18.300 | • |
| 20.8 +0.50 | 10.80 -1.00 | 2.50 ±0.30 | 0.40 | 103.70 ±3.66 | 20.300 | • |
| 25.8 +0.50 | 12.80 -1.00 | 2.70 ±0.30 | 0.40 | 122.70 ±4.84 | 25.300 | • |
| 30.8 +0.50 | 15.60 -1.20 | 3.30 ±0.30 | 0.40 | 149.90 ±6.04 | 30.300 | • |
| 32.8 +0.50 | 17.50 -1.20 | 3.70 ±0.30 | 0.40 | 169.00 ±6.93 | 32.300 | • |

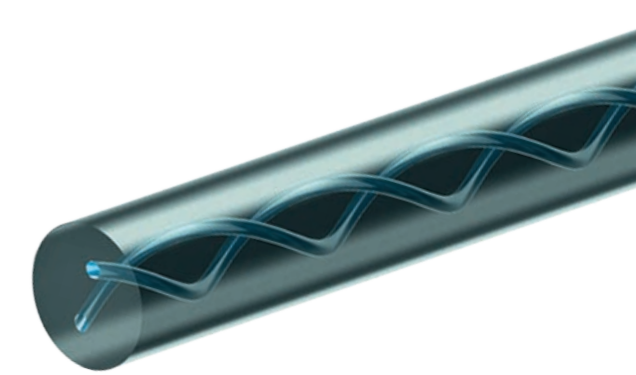
Rundstäbe, geschliffen h6

■ mit 2 Kühlkanälen, 30° verdreht

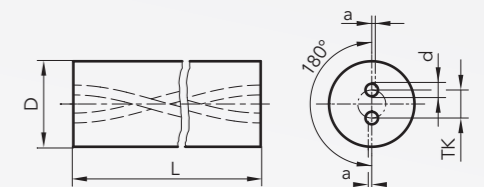
Rods, ground to tolerance h6

■ with 2 coolant ducts, 30° helix

| D h6 mm | TK BC mm | d mm | a mm | 30° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|---------|--------------------|--------|---------|-------|
| | | | | | | 7328 | 7355 |
| | | | | | | 330mm | 415mm |
| 6.0 | 2.60 -0.40 | 0.70 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.000 | • | • |
| 7.0 | 3.50 -0.40 | 1.00 ±0.15 | 0.15 | 38.09 +0.78/-0.76 | 7.000 | • | |
| 8.0 | 3.60 -0.40 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.000 | • | • |
| 9.0 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 48.97 +1.00/-0.97 | 9.000 | • | |
| 10.0 | 4.80 -0.60 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.000 | • | • |
| 11.0 | 5.30 -0.80 | 1.40 ±0.15 | 0.28 | 59.86 +1.22/-1.19 | 11.000 | • | |
| 12.0 | 6.25 -0.80 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.000 | • | • |
| 13.0 | 6.50 -0.80 | 1.75 ±0.20 | 0.34 | 70.74 +1.45/-1.40 | 13.000 | • | |
| 14.0 | 6.70 -0.80 | 1.90 ±0.20 | 0.37 | 76.18 +1.56/-1.51 | 14.000 | • | • |
| 15.0 | 7.40 -0.80 | 1.90 ±0.20 | 0.40 | 81.62 +1.67/-1.62 | 15.000 | • | |
| 16.0 | 8.00 -0.80 | 2.10 ±0.20 | 0.40 | 87.06 +1.78/-1.73 | 16.000 | • | • |
| 17.0 | 8.00 -0.80 | 2.10 ±0.20 | 0.47 | 92.50 +1.89/-1.84 | 17.000 | • | |
| 18.0 | 9.00 -0.80 | 2.30 ±0.25 | 0.50 | 97.95 +2.00/-1.94 | 18.000 | • | • |
| 20.0 | 10.00 -1.00 | 2.50 ±0.25 | 0.50 | 108.83 +2.23/-2.16 | 20.000 | • | • |
| 21.0 | 10.00 -1.00 | 2.50 ±0.25 | 0.50 | 114.27 +2.34/-2.27 | 21.000 | • | |
| 22.0 | 10.00 -1.00 | 2.50 ±0.25 | 0.50 | 119.71 +2.45/-2.38 | 22.000 | • | |
| 24.0 | 12.00 -1.00 | 2.50 ±0.25 | 0.50 | 130.59 +2.67/-2.59 | 24.000 | • | |
| 25.0 | 12.00 -1.00 | 2.50 ±0.25 | 0.50 | 136.03 +2.78/-2.70 | 25.000 | • | |
| 26.0 | 12.00 -1.00 | 2.50 ±0.25 | 0.50 | 141.48 +2.90/-2.81 | 26.000 | • | |
| 28.0 | 14.80 -1.20 | 2.50 ±0.30 | 0.60 | 152.36 +3.12/-3.02 | 28.000 | • | |
| 30.0 | 16.00 -1.20 | 2.50 ±0.30 | 0.70 | 163.24 +3.34/-3.24 | 30.000 | • | |
| 32.0 | 17.20 -1.20 | 3.00 ±0.30 | 0.80 | 174.12 +3.56/-3.46 | 32.000 | • | |



Bemaßung | Dimensioning

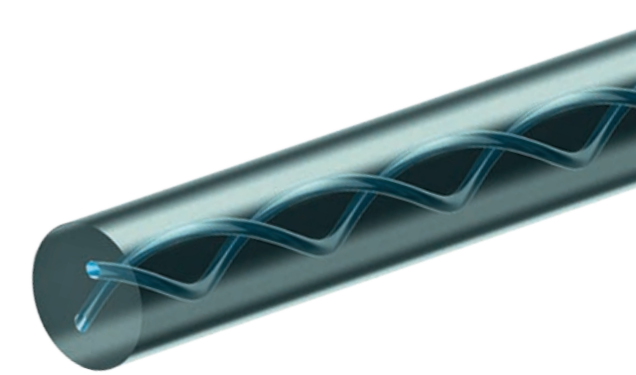


Rundstäbe, roh

■ mit 2 Kühlkanälen, 40° verdreht

Rods, raw

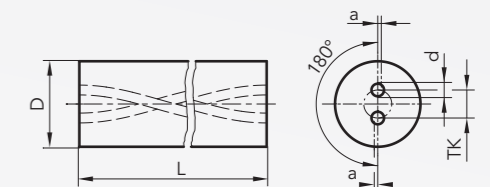
■ with 2 coolant ducts, 40° helix



| D mm | TK BC mm | d mm | a mm | 40° ±0.5° mm | Code | DK460UF | | DK255F |
|------------|-------------|------------|---------|-------------------|--------|---------|-------|--------|
| | | | | | | 7935 | 7385 | 7397 |
| | | | | | | 330mm | 415mm | 330mm |
| 6.3 +0.30 | 2.20 -0.40 | 0.50 ±0.15 | 0.15 | 22.46 +0.40/-0.39 | 6.300 | • | | • |
| 6.3 +0.30 | 1.30 -0.20 | 0.30 ±0.05 | 0.10 | 22.46 +0.40/-0.39 | 6.301 | • | | |
| 6.3 +0.30 | 1.40 -0.40 | 0.40 ±0.15 | 0.15 | 22.46 +0.40/-0.39 | 6.302 | • | | |
| 6.8 +0.30 | 2.30 -0.40 | 0.50 ±0.15 | 0.15 | 24.34 +0.44/-0.43 | 6.800 | • | | |
| 7.3 +0.30 | 2.40 -0.40 | 0.65 ±0.15 | 0.15 | 26.21 +0.47/-0.46 | 7.300 | • | | |
| 7.8 +0.30 | 2.50 -0.40 | 0.65 ±0.15 | 0.15 | 28.08 +0.50/-0.49 | 7.800 | • | | |
| 8.3 +0.30 | 2.70 -0.60 | 0.65 ±0.15 | 0.15 | 29.95 +0.54/-0.53 | 8.300 | • | | • |
| 8.3 +0.30 | 1.70 -0.20 | 0.40 ±0.10 | 0.10 | 29.95 +0.54/-0.53 | 8.301 | • | | |
| 8.8 +0.30 | 2.90 -0.60 | 0.65 ±0.15 | 0.20 | 31.82 +0.57/-0.56 | 8.800 | • | | |
| 9.3 +0.30 | 3.20 -0.60 | 0.75 ±0.15 | 0.20 | 33.70 +0.60/-0.59 | 9.300 | • | | |
| 9.8 +0.30 | 3.50 -0.60 | 0.75 ±0.15 | 0.20 | 35.57 +0.64/-0.62 | 9.800 | • | | |
| 10.3 +0.40 | 3.50 -0.80 | 0.80 ±0.15 | 0.20 | 37.44 +0.67/-0.66 | 10.300 | • | • | • |
| 10.3 +0.40 | 2.10 -0.20 | 0.50 ±0.10 | 0.20 | 37.44 +0.67/-0.66 | 10.301 | • | | |
| 10.3 +0.40 | 3.00 -0.40 | 1.00 ±0.20 | 0.20 | 37.44 +0.67/-0.66 | 10.302 | • | | |
| 10.8 +0.40 | 3.50 -0.80 | 0.80 ±0.15 | 0.28 | 39.31 +0.70/-0.69 | 10.800 | • | | |
| 11.3 +0.40 | 3.70 -0.80 | 0.80 ±0.15 | 0.28 | 41.18 +0.74/-0.72 | 11.300 | • | | |
| 11.8 +0.40 | 4.00 -0.80 | 0.85 ±0.15 | 0.30 | 43.06 +0.77/-0.76 | 11.800 | • | | |
| 12.3 +0.40 | 4.20 -0.80 | 0.90 ±0.20 | 0.30 | 44.93 +0.80/-0.79 | 12.300 | • | • | • |
| 12.3 +0.40 | 2.50 -0.40 | 0.60 ±0.10 | 0.20 | 44.93 +0.80/-0.79 | 12.301 | • | | |
| 12.8 +0.40 | 4.35 -0.80 | 0.90 ±0.20 | 0.33 | 46.80 +0.84/-0.82 | 12.800 | • | | |
| 13.3 +0.40 | 4.40 -0.80 | 0.90 ±0.20 | 0.34 | 48.67 +0.87/-0.85 | 13.300 | • | | |
| 14.3 +0.40 | 4.70 -0.80 | 1.00 ±0.20 | 0.37 | 52.42 +0.94/-0.92 | 14.300 | • | • | • |
| 14.3 +0.40 | 2.90 -0.40 | 0.70 ±0.10 | 0.20 | 52.42 +0.94/-0.92 | 14.301 | • | | |
| 14.8 +0.40 | 4.90 -0.80 | 1.10 ±0.20 | 0.39 | 54.29 +0.97/-0.95 | 14.800 | • | | |
| 15.3 +0.50 | 5.10 -0.80 | 1.10 ±0.20 | 0.40 | 56.16 +1.01/-0.99 | 15.300 | • | | |
| 16.3 +0.50 | 5.50 -0.80 | 1.20 ±0.20 | 0.40 | 59.90 +1.07/-1.05 | 16.300 | • | • | • |
| 16.3 +0.50 | 3.30 -0.40 | 0.80 ±0.10 | 0.20 | 59.90 +1.07/-1.05 | 16.301 | • | | |
| 16.8 +0.50 | 5.75 -0.80 | 1.20 ±0.20 | 0.45 | 61.78 +1.11/-1.08 | 16.800 | • | | |
| 17.3 +0.50 | 5.90 -0.80 | 1.20 ±0.25 | 0.47 | 63.65 +1.14/-1.12 | 17.300 | • | | |
| 18.3 +0.50 | 6.30 -0.80 | 1.40 ±0.25 | 0.50 | 67.39 +1.21/-1.18 | 18.300 | • | | |
| 18.3 +0.50 | 3.70 -0.40 | 0.90 ±0.15 | 0.20 | 67.39 +1.21/-1.18 | 18.301 | • | | |

| D mm | TK BC mm | d mm | a mm | 40° ±0.5° mm | Code | DK460UF | | DK255F |
|------------|-------------|------------|---------|--------------------|--------|---------|-------|--------|
| | | | | | | 7935 | 7385 | 7397 |
| | | | | | | 330mm | 415mm | 330mm |
| 19.3 +0.50 | 6.70 -1.00 | 1.40 ±0.25 | 0.50 | 71.14 +1.27/-1.25 | 19.300 | • | | |
| 20.3 +0.50 | 7.10 -1.00 | 1.50 ±0.25 | 0.50 | 74.88 +1.34/-1.31 | 20.300 | • | • | • |
| 20.3 +0.50 | 4.10 -0.40 | 1.00 ±0.15 | 0.20 | 74.88 +1.34/-1.31 | 20.301 | • | | |
| 21.3 +0.50 | 7.40 -1.00 | 1.50 ±0.25 | 0.50 | 78.62 +1.41/-1.38 | 21.300 | • | | |
| 22.3 +0.50 | 7.70 -1.00 | 1.70 ±0.25 | 0.50 | 82.37 +1.48/-1.44 | 22.300 | • | | |
| 24.3 +0.50 | 8.00 -1.00 | 1.75 ±0.25 | 0.50 | 89.86 +1.61/-1.58 | 24.300 | • | | |
| 25.3 +0.50 | 8.10 -1.00 | 1.75 ±0.25 | 0.50 | 93.60 +1.68/-1.64 | 25.300 | • | • | • |
| 25.3 +0.50 | 5.10 -0.60 | 1.30 ±0.15 | 0.20 | 93.60 +1.68/-1.64 | 25.301 | • | | |
| 26.3 +0.50 | 8.20 -1.00 | 1.75 ±0.25 | 0.50 | 97.34 +1.74/-1.71 | 26.300 | • | | |
| 28.3 +0.50 | 9.00 -1.20 | 2.00 ±0.30 | 0.50 | 104.83 +1.88/-1.84 | 28.300 | • | | |
| 30.3 +0.50 | 10.00 -1.20 | 2.00 ±0.30 | 0.50 | 112.32 +2.01/-1.97 | 30.300 | • | | |
| 32.3 +0.50 | 11.00 -1.20 | 2.00 ±0.30 | 0.50 | 119.81 +2.15/-2.10 | 32.300 | • | • | |
| 32.3 +0.50 | 6.50 -0.80 | 1.60 ±0.20 | 0.25 | 119.81 +2.15/-2.10 | 32.301 | • | | |

Bemaßung | Dimensioning



Rundstäbe, geschliffen h6

■ mit 2 Kühlkanälen, 40° verdreht

Rods, ground to tolerance h6

■ with 2 coolant ducts, 40° helix

| D h6 mm | TK BC mm | d mm | a mm | 40° ±0.5° mm | Code | DK460UF 7330 |
|------------|---------------|------------|---------|-------------------|--------|-----------------|
| 330mm | | | | | | |
| 6.0 | 2.20 -0.40 | 0.50 ±0.15 | 0.15 | 22.46 +0.40/-0.39 | 6.000 | • |
| 6.0 | 1.30 -0.20 | 0.30 ±0.05 | 0.10 | 22.46 +0.40/-0.39 | 6.001 | • |
| 6.0 | 1.40 -0.40 | 0.40 ±0.15 | 0.15 | 22.46 +0.40/-0.39 | 6.002 | • |
| 7.0 | 2.40 -0.40 | 0.65 ±0.15 | 0.15 | 26.21 +0.47/-0.46 | 7.000 | • |
| 8.0 | 2.70 -0.60 | 0.65 ±0.15 | 0.15 | 29.95 +0.54/-0.53 | 8.000 | • |
| 8.0 | 1.70 -0.20 | 0.40 ±0.10 | 0.10 | 29.95 +0.54/-0.53 | 8.001 | • |
| 9.0 | 3.20 -0.60 | 0.75 ±0.15 | 0.20 | 33.70 +0.60/-0.59 | 9.000 | • |
| 10.0 | 3.50 -0.80 | 0.80 ±0.15 | 0.20 | 37.44 +0.67/-0.66 | 10.000 | • |
| 10.0 | 2.10 -0.20 | 0.50 ±0.10 | 0.20 | 37.44 +0.67/-0.66 | 10.001 | • |
| 11.0 | 3.70 -0.80 | 0.80 ±0.15 | 0.28 | 41.18 +0.74/-0.72 | 11.000 | • |
| 12.0 | 4.20 -0.80 | 0.90 ±0.20 | 0.30 | 44.93 +0.80/-0.79 | 12.000 | • |
| 12.0 | 2.50 -0.40 | 0.60 ±0.10 | 0.20 | 44.93 +0.80/-0.79 | 12.001 | • |
| 13.0 | 4.40 -0.80 | 0.90 ±0.20 | 0.34 | 48.67 +0.87/-0.85 | 13.000 | • |
| 14.0 | 4.70 -0.80 | 1.00 ±0.20 | 0.37 | 52.42 +0.94/-0.92 | 14.000 | • |
| 14.0 | 2.90 -0.40 | 0.70 ±0.10 | 0.20 | 52.42 +0.94/-0.92 | 14.001 | • |
| 15.0 | 5.10 -0.80 | 1.10 ±0.20 | 0.40 | 56.16 +1.01/-0.99 | 15.000 | • |
| 16.0 | 5.50 -0.80 | 1.20 ±0.20 | 0.47 | 59.90 +1.07/-1.05 | 16.000 | • |
| 16.0 | 3.30 -0.40 | 0.80 ±0.10 | 0.20 | 59.90 +1.07/-1.05 | 16.001 | • |
| 18.0 | 6.30 -0.80 | 1.40 ±0.25 | 0.50 | 67.39 +1.21/-1.18 | 18.000 | • |
| 18.0 | 3.70 -0.40 | 0.90 ±0.15 | 0.20 | 67.39 +1.21/-1.18 | 18.001 | • |
| 20.0 | 7.10 -1.00 | 1.50 ±0.25 | 0.50 | 74.88 +1.34/-1.31 | 20.000 | • |
| 20.0 | 4.10 -1.00 | 1.00 ±0.15 | 0.20 | 74.88 +1.34/-1.31 | 20.001 | • |
| 22.0 | 7.70 -1.00 | 1.70 ±0.25 | 0.50 | 82.37 +1.48/-1.44 | 22.000 | • |
| 25.0 | 8.10 -1.00 | 1.75 ±0.25 | 0.50 | 93.60 +1.68/-1.64 | 25.000 | • |
| 25.0 | 5.10 -0.60 | 1.30 ±0.15 | 0.20 | 93.60 +1.68/-1.64 | 25.001 | • |
| 26.0 | 8.20 -1.00 | 1.75 ±0.25 | 0.50 | 97.34 +1.74/-1.71 | 26.000 | • |

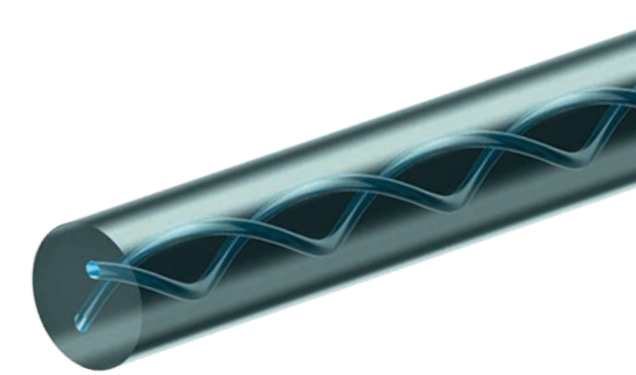
Rundstäbe, roh

■ mit 2 Kühlkanälen, kleinstverdreht

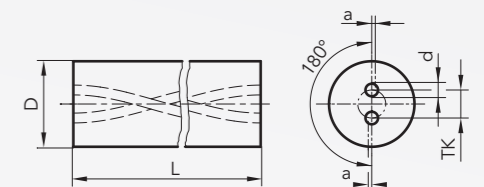
Rods, raw

■ with 2 coolant ducts, microtwisted

| D mm | TK BC mm | d mm | a mm | Steigung Pitch mm | Code | DK460UF 7039 |
|-----------|---------------|------------|---------|------------------------|-------|-----------------|
| 330mm | | | | | | |
| 4.3 +0.30 | 0.50 ±0.1 | 0.23 ±0.05 | 0.10 | 10.79 ±0.2 | 4.125 | • |
| 4.3 +0.30 | 0.80 ±0.1 | 0.23 ±0.05 | 0.10 | 11.12 ±0.2 | 4.165 | • |
| 4.3 +0.30 | 1.00 ±0.2 | 0.30 ±0.05 | 0.10 | 10.61 ±0.2 | 4.195 | • |
| 6.3 +0.30 | 1.00 ±0.2 | 0.45 ±0.05 | 0.15 | 12.79 ±0.3 | 6.225 | • |
| 6.3 +0.30 | 1.20 ±0.2 | 0.50 ±0.06 | 0.15 | 15.24 ±0.3 | 6.275 | • |
| 6.3 +0.30 | 1.50 ±0.2 | 0.55 ±0.07 | 0.15 | 17.68 ±0.3 | 6.325 | • |
| 6.3 +0.30 | 1.70 ±0.2 | 0.60 ±0.08 | 0.15 | 20.41 ±0.3 | 6.375 | • |
| 6.3 +0.30 | 2.00 ±0.2 | 0.70 ±0.10 | 0.15 | 23.13 ±0.3 | 6.425 | • |
| 6.3 +0.30 | 2.30 ±0.2 | 0.80 ±0.10 | 0.15 | 25.85 ±0.3 | 6.475 | • |
| 6.3 +0.30 | 2.60 ±0.2 | 0.90 ±0.10 | 0.15 | 28.57 ±0.3 | 6.525 | • |
| 6.3 +0.30 | 2.80 ±0.2 | 1.00 ±0.10 | 0.15 | 31.29 ±0.3 | 6.575 | • |



Bemaßung | Dimensioning



Rundstäbe, roh

■ mit 3 Kühlkanälen, 30° verdreht

Rods, raw

■ with 3 coolant ducts, 30° helix

| D mm | TK BC mm | d mm | a | 30° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|-----|--------------------|--------|---------|-------|
| | | | | | | 7933 | 7383 |
| | | | | | | 330mm | 415mm |
| 6.3 +0.30 | 2.90 -0.30 | 0.50 ±0.10 | ±4° | 32.65 +0.67/-0.65 | 6.300 | • | |
| 6.8 +0.30 | 2.90 -0.30 | 0.50 ±0.10 | ±4° | 35.37 +0.72/-0.70 | 6.800 | • | |
| 8.3 +0.30 | 4.00 -0.30 | 0.70 ±0.10 | ±4° | 43.53 +0.89/-0.86 | 8.300 | • | |
| 8.8 +0.30 | 4.00 -0.30 | 0.70 ±0.10 | ±4° | 46.25 +0.95/-0.92 | 8.800 | • | |
| 9.3 +0.30 | 5.10 -0.30 | 0.85 ±0.15 | ±4° | 48.97 +1.00/-0.97 | 9.300 | • | |
| 10.3 +0.30 | 5.10 -0.30 | 0.85 ±0.15 | ±4° | 54.41 +1.11/-1.08 | 10.300 | • | |
| 10.8 +0.40 | 5.10 -0.50 | 0.85 ±0.15 | ±4° | 57.13 +1.17/-1.13 | 10.800 | • | |
| 11.3 +0.40 | 5.70 -0.50 | 1.10 ±0.15 | ±4° | 59.86 +1.22/-1.19 | 11.300 | • | |
| 11.8 +0.40 | 6.10 -0.50 | 1.10 ±0.15 | ±4° | 62.58 +1.28/-1.24 | 11.800 | • | |
| 12.3 +0.40 | 6.30 -0.50 | 1.10 ±0.15 | ±4° | 65.30 +1.34/-1.30 | 12.300 | • | • |
| 12.8 +0.40 | 6.30 -0.50 | 1.10 ±0.15 | ±4° | 68.02 +1.39/-1.35 | 12.800 | • | |
| 13.3 +0.40 | 6.80 -0.50 | 1.20 ±0.15 | ±4° | 70.74 +1.45/-1.40 | 13.300 | • | |
| 14.3 +0.40 | 7.30 -0.50 | 1.40 ±0.15 | ±4° | 76.18 +1.56/-1.51 | 14.300 | • | • |
| 14.8 +0.40 | 7.60 -0.50 | 1.40 ±0.15 | ±4° | 78.90 +1.61/-1.57 | 14.800 | • | |
| 15.3 +0.40 | 7.80 -0.50 | 1.40 ±0.15 | ±4° | 81.62 +1.67/-1.62 | 15.300 | • | |
| 16.3 +0.40 | 8.30 -0.50 | 1.60 ±0.15 | ±4° | 87.06 +1.78/-1.73 | 16.300 | • | • |
| 16.8 +0.50 | 8.30 -0.50 | 1.60 ±0.20 | ±4° | 89.78 +1.84/-1.78 | 16.800 | • | |
| 17.3 +0.50 | 8.60 -0.50 | 1.60 ±0.20 | ±4° | 92.50 +1.89/-1.84 | 17.300 | • | |
| 18.3 +0.50 | 9.50 -0.50 | 1.70 ±0.20 | ±4° | 97.95 +2.00/-1.94 | 18.300 | • | • |
| 20.3 +0.50 | 10.20 -0.70 | 1.90 ±0.25 | ±4° | 108.83 +2.23/-2.16 | 20.300 | • | • |
| 21.3 +0.50 | 11.10 -0.70 | 2.00 ±0.25 | ±4° | 114.27 +2.34/-2.27 | 21.300 | • | |
| 22.3 +0.50 | 11.50 -0.70 | 2.00 ±0.25 | ±4° | 119.71 +2.45/-2.38 | 22.300 | • | |
| 23.3 +0.50 | 11.80 -0.70 | 2.00 ±0.25 | ±4° | 125.15 +2.56/-2.48 | 23.300 | • | |
| 24.3 +0.50 | 12.10 -0.70 | 2.00 ±0.25 | ±4° | 130.59 +2.67/-2.59 | 24.300 | • | |
| 25.3 +0.50 | 12.50 -0.70 | 2.00 ±0.25 | ±4° | 136.03 +2.78/-2.70 | 25.300 | • | • |
| 26.3 +0.50 | 13.10 -0.70 | 2.00 ±0.25 | ±4° | 141.48 +2.90/-2.81 | 26.300 | • | |
| 27.3 +0.50 | 13.60 -0.90 | 2.50 ±0.30 | ±4° | 146.92 +3.01/-2.92 | 27.300 | • | |
| 28.3 +0.50 | 14.10 -0.90 | 2.50 ±0.30 | ±4° | 152.36 +3.12/-3.02 | 28.300 | • | |
| 29.3 +0.50 | 14.60 -0.90 | 2.50 ±0.30 | ±4° | 157.80 +3.23/-3.13 | 29.300 | • | |
| 32.3 +0.50 | 16.10 -1.20 | 3.00 ±0.30 | ±4° | 174.12 +3.56/-3.46 | 32.300 | • | • |
| 33.3 +0.50 | 16.60 -1.20 | 3.00 ±0.30 | ±4° | 179.57 +3.67/-3.57 | 33.300 | • | |

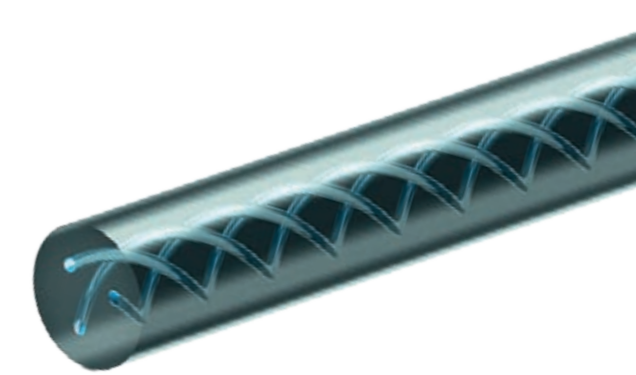
Rundstäbe, geschliffen h6

■ mit 3 Kühlkanälen, 30° verdreht

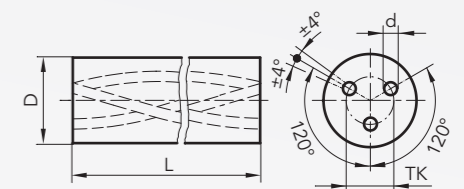
Rods, ground to tolerance h6

■ with 3 coolant ducts, 30° helix

| D h6 mm | TK BC mm | d mm | a | 30° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|-----|--------------------|--------|---------|------|
| | | | | | | 7933 | 7358 |
| | | | | | | 330mm | |
| 6.0 | 2.90 -0.30 | 0.50 ±0.10 | ±4° | 32.65 +0.67/-0.65 | 6.000 | • | |
| 8.0 | 4.00 -0.30 | 0.70 ±0.10 | ±4° | 43.53 +0.89/-0.86 | 8.000 | • | |
| 10.0 | 5.10 -0.30 | 0.85 ±0.15 | ±4° | 54.41 +1.11/-1.08 | 10.000 | • | |
| 12.0 | 6.30 -0.50 | 1.10 ±0.15 | ±4° | 65.30 +1.34/-1.30 | 12.000 | • | |
| 14.0 | 7.30 -0.50 | 1.40 ±0.15 | ±4° | 76.18 +1.56/-1.51 | 14.000 | • | |
| 16.0 | 8.30 -0.50 | 1.60 ±0.15 | ±4° | 87.06 +1.78/-1.73 | 16.000 | • | |
| 18.0 | 9.50 -0.50 | 1.70 ±0.20 | ±4° | 97.95 +2.00/-1.94 | 18.000 | • | |
| 20.0 | 10.20 -0.70 | 1.90 ±0.25 | ±4° | 108.83 +2.23/-2.16 | 20.000 | • | |
| 22.0 | 11.50 -0.70 | 2.00 ±0.25 | ±4° | 119.71 +2.45/-2.38 | 22.000 | • | |
| 25.0 | 12.50 -0.70 | 2.00 ±0.25 | ±4° | 136.03 +2.78/-2.70 | 25.000 | • | |
| 26.0 | 13.10 -0.70 | 2.00 ±0.25 | ±4° | 141.48 +2.90/-2.81 | 26.000 | • | |
| 28.0 | 14.10 -0.90 | 2.50 ±0.30 | ±4° | 152.36 +3.12/-3.02 | 28.000 | • | |
| 32.0 | 16.10 -1.20 | 3.00 ±0.30 | ±4° | 174.12 +3.56/-3.46 | 32.000 | • | |



Bemaßung | Dimensioning



Rundstäbe, roh

■ mit 3 Kühlkanälen, 40° verdreht

Rods, raw

■ with 3 coolant ducts, 40° helix

| D mm | TK BC mm | d mm | a | 40° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|-----|--------------------|--------|---------|-------|
| | | | | | | 7934 | 7384 |
| | | | | | | 330mm | 415mm |
| 6.3 +0.30 | 2.20 -0.30 | 0.50 ±0.15 | ±4° | 22.46 +0.40/-0.39 | 6.300 | • | |
| 8.3 +0.30 | 2.70 -0.30 | 0.65 ±0.15 | ±4° | 29.95 +0.54/-0.53 | 8.300 | • | • |
| 8.8 +0.30 | 2.90 -0.30 | 0.65 ±0.15 | ±4° | 31.82 +0.57/-0.56 | 8.800 | • | |
| 10.3 +0.40 | 3.50 -0.30 | 0.80 ±0.15 | ±4° | 37.44 +0.67/-0.66 | 10.300 | • | • |
| 12.3 +0.40 | 4.20 -0.50 | 0.90 ±0.20 | ±4° | 44.93 +0.80/-0.79 | 12.300 | • | |
| 12.8 +0.40 | 4.35 -0.50 | 0.90 ±0.20 | ±4° | 46.80 +0.84/-0.82 | 12.800 | • | |
| 14.3 +0.40 | 4.70 -0.50 | 1.00 ±0.20 | ±4° | 52.42 +0.94/-0.92 | 14.300 | • | • |
| 15.3 +0.50 | 5.10 -0.50 | 1.10 ±0.20 | ±4° | 56.16 +1.01/-0.99 | 15.300 | • | |
| 15.8 +0.50 | 5.30 -0.50 | 1.10 ±0.20 | ±4° | 58.03 +1.04/-1.02 | 15.800 | • | |
| 16.3 +0.50 | 5.50 -0.50 | 1.20 ±0.20 | ±4° | 59.90 +1.07/-1.05 | 16.300 | • | • |
| 16.8 +0.50 | 5.75 -0.50 | 1.20 ±0.20 | ±4° | 61.78 +1.11/-1.08 | 16.800 | • | |
| 18.3 +0.50 | 6.30 -0.50 | 1.40 ±0.25 | ±4° | 67.39 +1.21/-1.18 | 18.300 | • | |
| 18.8 +0.50 | 6.50 -0.50 | 1.40 ±0.25 | ±4° | 69.26 +1.24/-1.21 | 18.800 | • | |
| 19.3 +0.50 | 6.70 -0.70 | 1.40 ±0.25 | ±4° | 71.14 +1.27/-1.25 | 19.300 | • | |
| 20.3 +0.50 | 7.10 -0.70 | 1.50 ±0.25 | ±4° | 74.88 +1.34/-1.31 | 20.300 | • | |
| 21.3 +0.50 | 7.40 -0.70 | 1.50 ±0.25 | ±4° | 78.62 +1.41/-1.38 | 21.300 | • | |
| 22.3 +0.50 | 7.70 -0.70 | 1.70 ±0.25 | ±4° | 82.37 +1.48/-1.44 | 22.300 | • | |
| 24.3 +0.50 | 8.00 -0.90 | 1.75 ±0.25 | ±4° | 89.86 +1.61/-1.58 | 24.300 | • | |
| 25.3 +0.50 | 8.10 -0.90 | 1.75 ±0.25 | ±4° | 93.60 +1.68/-1.64 | 25.300 | • | |
| 26.3 +0.50 | 8.20 -0.90 | 1.75 ±0.25 | ±4° | 97.34 +1.74/-1.71 | 26.300 | • | |
| 28.3 +0.50 | 9.00 -0.90 | 2.00 ±0.30 | ±4° | 104.83 +1.88/-1.84 | 28.300 | • | |
| 30.3 +0.50 | 10.00 -1.10 | 2.00 ±0.30 | ±4° | 112.32 +2.01/-1.97 | 30.300 | • | |
| 32.3 +0.50 | 11.00 -1.10 | 2.00 ±0.30 | ±4° | 119.81 +2.15/-2.10 | 32.300 | • | • |

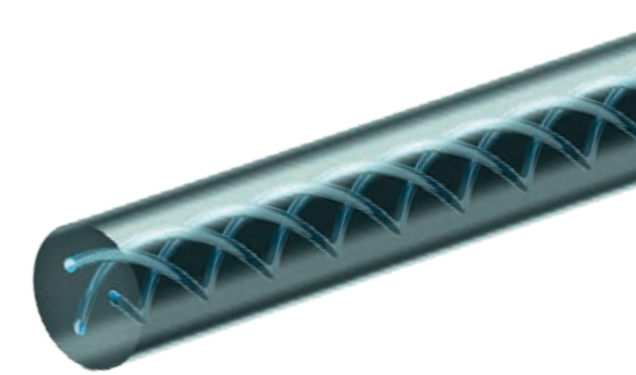
Rundstäbe, geschliffen h6

■ mit 3 Kühlkanälen, 40° verdreht

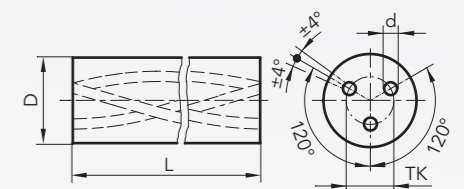
Rods, ground to tolerance h6

■ with 3 coolant ducts, 40° helix

| D h6 mm | TK BC mm | d mm | a | 40° ±0.5° mm | Code | DK460UF | |
|------------|---------------|------------|-----|-------------------|--------|---------|------|
| | | | | | | 7934 | 7359 |
| | | | | | | 330mm | |
| 6.0 | 2.20 -0.30 | 0.50 ±0.15 | ±4° | 22.46 +0.40/-0.39 | 6.000 | • | |
| 8.0 | 2.70 -0.30 | 0.65 ±0.15 | ±4° | 29.95 +0.54/-0.53 | 8.000 | • | |
| 10.0 | 3.50 -0.30 | 0.80 ±0.15 | ±4° | 37.44 +0.67/-0.66 | 10.000 | • | |
| 12.0 | 4.20 -0.50 | 0.90 ±0.20 | ±4° | 44.93 +0.80/-0.79 | 12.000 | • | |
| 14.0 | 4.70 -0.50 | 1.00 ±0.20 | ±4° | 52.42 +0.94/-0.92 | 14.000 | • | |
| 16.0 | 5.50 -0.50 | 1.20 ±0.20 | ±4° | 59.90 +1.07/-1.05 | 16.000 | • | |
| 18.0 | 6.30 -0.50 | 1.40 ±0.25 | ±4° | 67.39 +1.21/-1.18 | 18.000 | • | |
| 20.0 | 7.10 -0.70 | 1.50 ±0.25 | ±4° | 74.88 +1.34/-1.31 | 20.000 | • | |
| 22.0 | 7.70 -0.70 | 1.70 ±0.25 | ±4° | 82.37 +1.48/-1.44 | 22.000 | • | |
| 25.0 | 8.10 -0.90 | 1.75 ±0.25 | ±4° | 93.60 +1.68/-1.64 | 25.000 | • | |



Bemaßung | Dimensioning



Fräserrohlinge, geschliffen h6

■ mit einseitiger Fase, nach Werknorm

Milling cutter blanks, ground to tolerance h6

■ chamfered one end, to internal standard

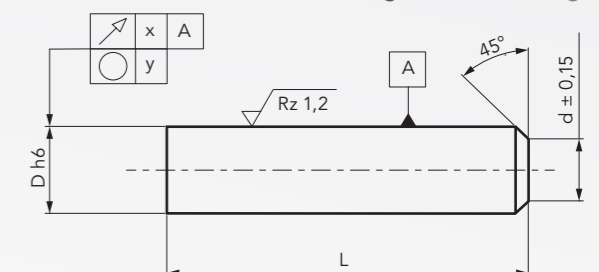


| D h6 mm | d mm | L mm | x mm | y mm | Code | DK460UF 7540 |
|------------|---------|------------|---------|---------|-------|-----------------|
| 2.0 | | 32.5 +0.60 | 0.004 | 0.003 | 2.000 | • |
| 2.5 | | 32.5 +0.60 | 0.004 | 0.003 | 2.500 | • |
| 3.0 | 2.4 | 32.5 +0.60 | 0.004 | 0.002 | 3.000 | • |
| *3.0 | 2.4 | 39.5 +0.60 | 0.004 | 0.002 | 3.001 | • |
| 3.0 | 2.4 | 76.2 +0.90 | 0.008 | 0.002 | 3.002 | • |
| 3.0 | 2.4 | 38.3 +0.60 | 0.004 | 0.002 | 3.003 | • |
| 3.0 | 2.4 | 47.3 +0.70 | 0.005 | 0.002 | 3.004 | • |
| 3.0 | 2.4 | 52.3 +0.70 | 0.005 | 0.002 | 3.005 | • |
| 3.0 | 2.4 | 45.0 +0.70 | 0.005 | 0.002 | 3.007 | • |
| 3.5 | 2.9 | 32.5 +0.60 | 0.005 | 0.002 | 3.500 | • |
| *4.0 | 3.4 | 51.0 +0.70 | 0.005 | 0.002 | 4.000 | • |
| *4.0 | 3.4 | 40.5 +0.60 | 0.005 | 0.002 | 4.001 | • |
| 4.0 | 3.4 | 32.5 +0.60 | 0.005 | 0.002 | 4.002 | • |
| 4.0 | 3.4 | 76.2 +0.90 | 0.008 | 0.002 | 4.003 | • |
| 4.0 | 3.4 | 59.3 +0.80 | 0.008 | 0.002 | 4.004 | • |
| 4.0 | 3.4 | 63.5 +0.80 | 0.008 | 0.002 | 4.005 | • |
| 4.0 | 3.4 | 67.5 +0.80 | 0.008 | 0.002 | 4.006 | • |
| *4.5 | 3.9 | 51.2 +0.70 | 0.005 | 0.002 | 4.500 | • |
| *5.0 | 4.0 | 51.2 +0.70 | 0.005 | 0.002 | 5.000 | • |
| 5.0 | 4.0 | 76.2 +0.90 | 0.006 | 0.002 | 5.001 | • |
| 5.5 | 4.5 | 51.2 +0.70 | 0.005 | 0.002 | 5.500 | • |
| *5.5 | 4.5 | 58.2 +0.80 | 0.006 | 0.002 | 5.501 | • |
| *6.0 | 5.0 | 51.2 +0.70 | 0.006 | 0.002 | 6.000 | • |
| *6.0 | 5.0 | 55.0 +0.70 | 0.006 | 0.002 | 6.001 | • |
| *6.0 | 5.0 | 58.2 +0.80 | 0.006 | 0.002 | 6.002 | • |
| 6.0 | 5.0 | 39.0 +0.60 | 0.004 | 0.002 | 6.003 | • |
| 6.0 | 5.0 | 76.2 +0.90 | 0.008 | 0.002 | 6.004 | • |
| 6.0 | 5.0 | 37.2 +0.60 | 0.004 | 0.002 | 6.005 | • |
| 6.0 | 5.0 | 40.2 +0.60 | 0.005 | 0.002 | 6.006 | • |
| 6.0 | 5.0 | 46.2 +0.70 | 0.005 | 0.002 | 6.007 | • |
| *6.0 | 5.0 | 66.2 +0.80 | 0.006 | 0.002 | 6.008 | • |
| 6.0 | 5.0 | 60.5 +0.80 | 0.006 | 0.003 | 6.009 | • |
| 6.0 | 5.0 | 63.0 +0.80 | 0.006 | 0.002 | 6.013 | • |
| *6.5 | 4.5 | 61.5 +0.80 | 0.006 | 0.003 | 6.500 | • |
| *7.0 | 5.0 | 61.5 +0.80 | 0.006 | 0.003 | 7.000 | • |
| 7.5 | 5.5 | 61.5 +0.80 | 0.006 | 0.003 | 7.500 | • |
| *7.5 | 5.5 | 64.2 +0.80 | 0.006 | 0.003 | 7.501 | • |

| D h6 mm | d mm | L mm | x mm | y mm | Code | DK460UF 7540 |
|------------|---------|-------------|---------|---------|--------|-----------------|
| *8.0 | 6.0 | 59.0 +0.80 | 0.006 | 0.003 | 8.000 | • |
| *8.0 | 6.0 | 64.2 +0.80 | 0.006 | 0.003 | 8.001 | • |
| 8.0 | 6.0 | 44.0 +0.70 | 0.005 | 0.003 | 8.002 | • |
| 8.0 | 6.0 | 62.0 +0.80 | 0.006 | 0.003 | 8.003 | • |
| 8.0 | 6.0 | 76.2 +0.90 | 0.007 | 0.003 | 8.004 | • |
| 8.0 | 6.0 | 101.2 +1.00 | 0.008 | 0.003 | 8.005 | • |
| 8.0 | 6.0 | 56.2 +0.80 | 0.006 | 0.003 | 8.006 | • |
| 8.0 | 6.0 | 82.0 +0.90 | 0.008 | 0.003 | 8.007 | • |
| 8.0 | 6.0 | 87.2 +0.90 | 0.008 | 0.003 | 8.008 | • |
| 8.0 | 6.0 | 73.5 +0.90 | 0.008 | 0.003 | 8.015 | • |
| 8.5 | 6.5 | 62.0 +0.80 | 0.006 | 0.003 | 8.500 | • |
| *8.5 | 6.5 | 68.2 +0.80 | 0.007 | 0.003 | 8.501 | • |
| 9.0 | 7.0 | 62.0 +0.80 | 0.006 | 0.003 | 9.000 | • |
| *9.0 | 7.0 | 68.2 +0.80 | 0.007 | 0.003 | 9.001 | • |
| *9.5 | 7.5 | 73.2 +0.90 | 0.008 | 0.003 | 9.501 | • |
| *10.0 | 8.0 | 67.2 +0.80 | 0.007 | 0.003 | 10.000 | • |
| 10.0 | 8.0 | 71.0 +0.80 | 0.008 | 0.003 | 10.001 | • |
| *10.0 | 8.0 | 73.2 +0.90 | 0.008 | 0.003 | 10.002 | • |
| 10.0 | 8.0 | 51.0 +0.70 | 0.005 | 0.003 | 10.003 | • |
| 10.0 | 8.0 | 101.2 +1.00 | 0.008 | 0.003 | 10.004 | • |
| 10.0 | 8.0 | 49.2 +0.70 | 0.005 | 0.003 | 10.005 | • |
| 10.0 | 8.0 | 56.2 +0.80 | 0.006 | 0.003 | 10.006 | • |
| 10.0 | 8.0 | 77.0 +0.90 | 0.008 | 0.003 | 10.007 | • |
| *10.0 | 8.0 | 81.2 +0.90 | 0.008 | 0.003 | 10.008 | • |
| 10.0 | 8.0 | 91.2 +1.00 | 0.008 | 0.003 | 10.009 | • |
| 10.0 | 8.0 | 84.0 +0.90 | 0.008 | 0.003 | 10.012 | • |
| 11.0 | 9.0 | 72.0 +0.90 | 0.008 | 0.003 | 11.000 | • |
| *11.0 | 9.0 | 84.2 +0.90 | 0.008 | 0.003 | 11.001 | • |

*für Fräser nach DIN 6527/6528
*for milling cutters in accordance with DIN 6527/6528

Bemaßung | Dimensioning



Fräserrohlinge, geschliffen h6

■ mit einseitiger Fase, nach Werksnorm

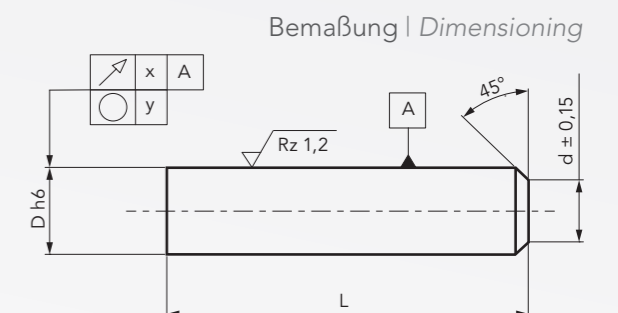
Milling cutter blanks, ground to tolerance h6

■ chamfered one end, to internal standard



| D h6 mm | d mm | L mm | x mm | y mm | Code | DK460UF 7540 |
|------------|---------|-------------|---------|---------|--------|-----------------|
| *12.0 | 12.0 | 74.2 +0.90 | 0.008 | 0.003 | 12.000 | • |
| *12.0 | 12.0 | 84.2 +0.90 | 0.008 | 0.003 | 12.001 | • |
| 12.0 | 12.0 | 70.0 +0.80 | 0.008 | 0.003 | 12.002 | • |
| 12.0 | 12.0 | 72.0 +0.90 | 0.008 | 0.003 | 12.003 | • |
| 12.0 | 12.0 | 101.2 +1.00 | 0.008 | 0.003 | 12.004 | • |
| 12.0 | 12.0 | 151.2 +1.50 | 0.010 | 0.003 | 12.005 | • |
| 12.0 | 12.0 | 56.2 +0.80 | 0.006 | 0.003 | 12.006 | • |
| *12.0 | 12.0 | 94.2 +1.00 | 0.008 | 0.003 | 12.007 | • |
| 12.0 | 12.0 | 121.0 +1.20 | 0.010 | 0.003 | 12.008 | • |
| 12.0 | 10.0 | 110.0 +1.10 | 0.010 | 0.003 | 12.013 | • |
| 13.0 | 11.0 | 77.0 +0.90 | 0.008 | 0.003 | 13.000 | • |
| *13.0 | 11.0 | 84.2 +0.90 | 0.008 | 0.003 | 13.001 | • |
| *14.0 | 12.0 | 84.2 +0.90 | 0.008 | 0.003 | 14.000 | • |
| *14.0 | 12.0 | 76.2 +0.90 | 0.008 | 0.003 | 14.001 | • |
| 14.0 | 12.0 | 151.2 +1.50 | 0.010 | 0.003 | 14.002 | • |
| 14.0 | 12.0 | 59.2 +0.80 | 0.008 | 0.003 | 14.003 | • |
| 14.0 | 12.0 | 101.2 +1.00 | 0.008 | 0.003 | 14.004 | • |
| 15.0 | 12.0 | 77.0 +0.90 | 0.008 | 0.003 | 15.000 | • |
| *15.0 | 12.0 | 93.2 +1.00 | 0.008 | 0.003 | 15.001 | • |
| *16.0 | 13.0 | 93.2 +1.00 | 0.008 | 0.003 | 16.000 | • |
| *16.0 | 13.0 | 83.2 +0.90 | 0.008 | 0.003 | 16.001 | • |
| 16.0 | 13.0 | 75.0 +0.90 | 0.008 | 0.003 | 16.002 | • |
| 16.0 | 13.0 | 77.0 +0.90 | 0.008 | 0.003 | 16.003 | • |
| 16.0 | 13.0 | 151.2 +1.50 | 0.010 | 0.003 | 16.004 | • |
| 16.0 | 13.0 | 63.2 +0.80 | 0.008 | 0.003 | 16.005 | • |
| *16.0 | 13.0 | 109.2 +1.10 | 0.009 | 0.003 | 16.006 | • |
| 16.0 | 13.0 | 126.0 +1.20 | 0.010 | 0.003 | 16.007 | • |
| 18.0 | 15.0 | 101.0 +1.00 | 0.009 | 0.003 | 18.000 | • |
| *18.0 | 15.0 | 85.0 +0.90 | 0.008 | 0.003 | 18.001 | • |
| *18.0 | 15.0 | 93.0 +1.00 | 0.008 | 0.003 | 18.002 | • |
| 18.0 | 15.0 | 151.2 +1.50 | 0.010 | 0.003 | 18.003 | • |
| 18.0 | 15.0 | 71.2 +0.90 | 0.008 | 0.003 | 18.004 | • |

| D h6 mm | d mm | L mm | x mm | y mm | Code | DK460UF 7540 |
|------------|---------|--------------|---------|---------|--------|-----------------|
| *20.0 | 17.0 | 93.2 +1.00 | 0.008 | 0.004 | 20.000 | • |
| *20.0 | 17.0 | 105.0 +1.00 | 0.008 | 0.004 | 20.001 | • |
| 20.0 | 17.0 | 100.0 +1.00 | 0.008 | 0.004 | 20.002 | • |
| 20.0 | 17.0 | 102.0 +1.00 | 0.008 | 0.004 | 20.003 | • |
| 20.0 | 17.0 | 151.2 +1.50 | 0.010 | 0.004 | 20.004 | • |
| 20.0 | 17.0 | 76.2 +0.90 | 0.008 | 0.004 | 20.005 | • |
| 20.0 | 17.0 | 127.2 +1.20 | 0.010 | 0.004 | 20.006 | • |
| 20.0 | 17.0 | 175.7 +2.10 | 0.011 | 0.004 | 20.007 | • |
| 25.0 | 22.0 | 103.0 +1.00 | 0.010 | 0.004 | 25.000 | • |
| 25.0 | 22.0 | 123.0 +1.20 | 0.010 | 0.004 | 25.001 | • |
| 25.0 | 22.0 | 151.2 +1.60 | 0.010 | 0.004 | 25.002 | • |
| 25.0 | 22.0 | 175.7 +2.10 | 0.011 | 0.004 | 25.003 | • |
| 32.0 | 28.0 | 134.2 +1.30 | 0.010 | 0.005 | 32.000 | • |
| 32.0 | 28.0 | 187.2 +2.40 | 0.012 | 0.005 | 32.001 | • |
| 32.0 | 28.0 | 311.5 +10.00 | 0.040 | 0.005 | 32.002 | • |



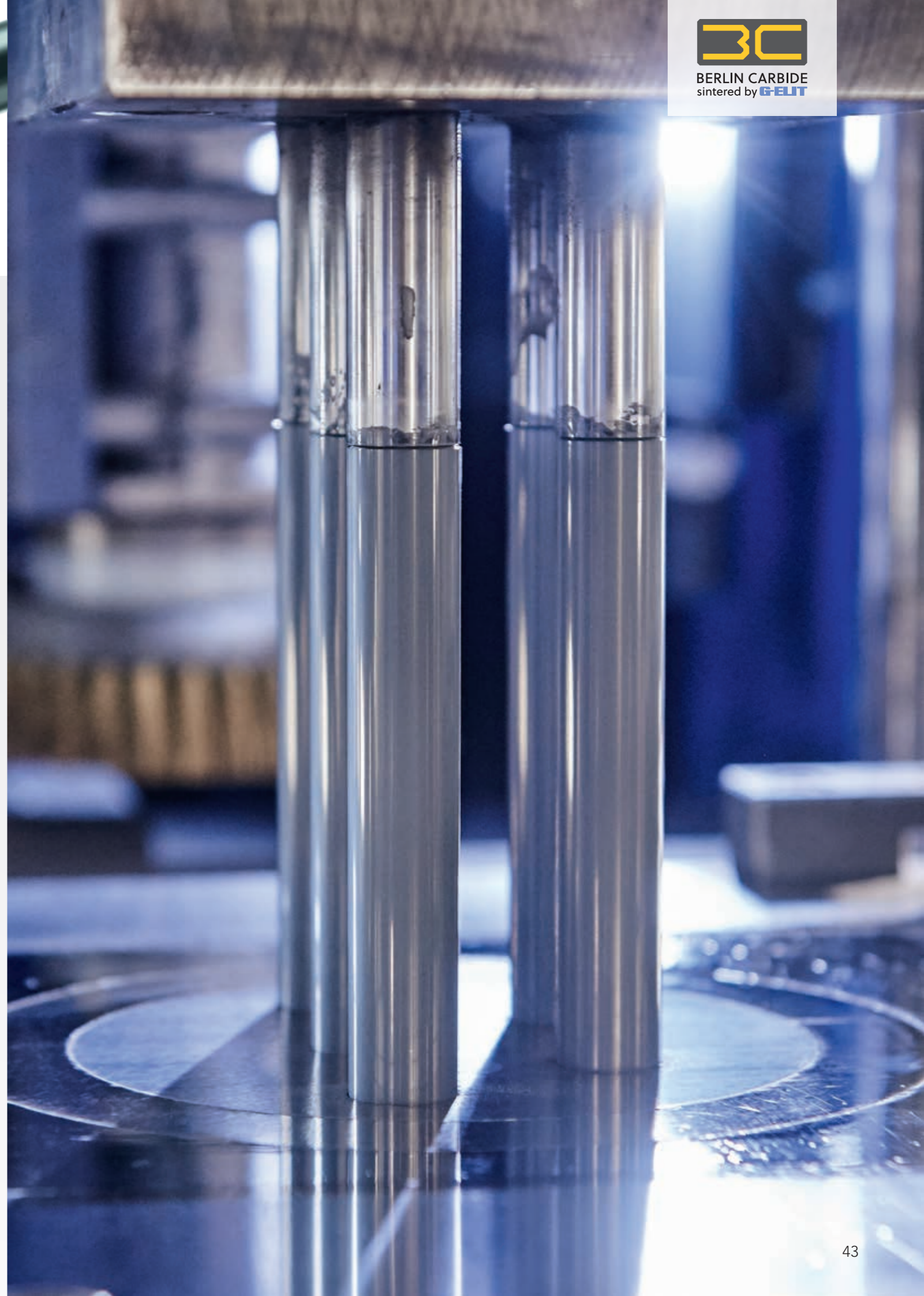
*für Fräser nach DIN 6527 / 6528
*for milling cutters in accordance with DIN 6527 / 6528

Fräserrohlinge, geschliffen h6

■ mit einseitiger Fase

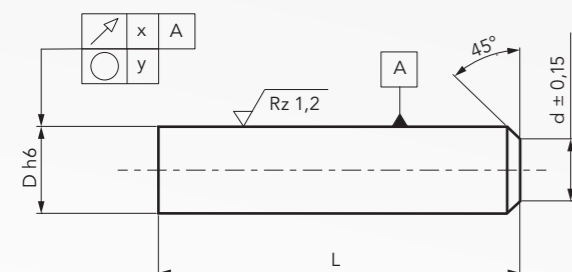
Milling cutter blanks, ground to tolerance h6

■ chamfered one end



| D h6 mm | d mm | L mm | x mm | y mm | Code | DK500UF 7556 |
|------------|---------|-------------|---------|---------|--------|-----------------|
| 3.0 | 2.4 | 39.5 +0.60 | 0.004 | 0.002 | 3.000 | • |
| 4.0 | 3.4 | 51.0 +0.70 | 0.005 | 0.002 | 4.000 | • |
| 4.0 | 3.4 | 76.2 +0.90 | 0.008 | 0.002 | 4.001 | • |
| 6.0 | 5.0 | 57.5 +0.80 | 0.006 | 0.002 | 6.000 | • |
| 6.0 | 5.0 | 76.0 +0.90 | 0.008 | 0.002 | 6.001 | • |
| 6.0 | 5.0 | 80.5 +0.90 | 0.008 | 0.002 | 6.002 | • |
| 6.0 | 5.0 | 100.5 +1.00 | 0.008 | 0.002 | 6.003 | • |
| 8.0 | 6.0 | 63.5 +0.80 | 0.007 | 0.003 | 8.000 | • |
| 8.0 | 6.0 | 100.5 +1.00 | 0.008 | 0.003 | 8.001 | • |
| 8.0 | 6.0 | 120.5 +1.20 | 0.010 | 0.003 | 8.002 | • |
| 10.0 | 8.0 | 72.5 +0.90 | 0.008 | 0.003 | 10.000 | • |
| 10.0 | 8.0 | 101.0 +1.00 | 0.008 | 0.003 | 10.001 | • |
| 10.0 | 8.0 | 120.5 +1.20 | 0.010 | 0.003 | 10.002 | • |
| 10.0 | 8.0 | 150.5 +1.60 | 0.010 | 0.003 | 10.003 | • |
| 12.0 | 10.0 | 83.5 +0.90 | 0.008 | 0.003 | 12.000 | • |
| 12.0 | 10.0 | 151.0 +1.50 | 0.010 | 0.003 | 12.001 | • |
| 12.0 | 10.0 | 120.5 +1.20 | 0.010 | 0.003 | 12.002 | • |
| 14.0 | 12.0 | 84.0 +0.90 | 0.008 | 0.003 | 14.000 | • |
| 16.0 | 13.0 | 93.0 +1.00 | 0.008 | 0.003 | 16.000 | • |
| 16.0 | 13.0 | 151.0 +1.50 | 0.010 | 0.003 | 16.001 | • |
| 20.0 | 17.0 | 105.0 +1.00 | 0.008 | 0.004 | 20.000 | • |
| 20.0 | 17.0 | 151.0 +1.50 | 0.010 | 0.004 | 20.001 | • |

Bemaßung | Dimensioning



Fräserrohlinge, geschliffen h6

■ in Zoll, mit einseitiger Fase

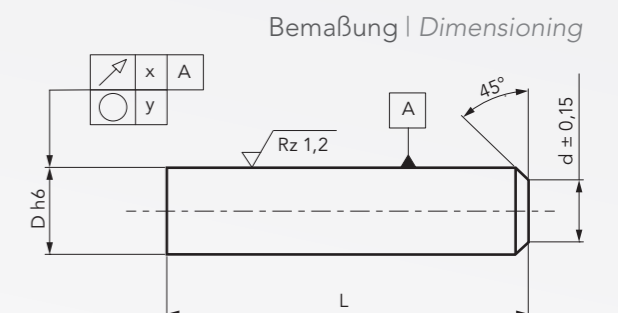
Milling cutter blanks, ground to tolerance h6

■ in inches, chamfered one end



| D h6 inches/mm | d mm | L inches/mm | x mm | y mm | Code | DK400N 7541 |
|-------------------|---------|-------------------|---------|---------|---------|----------------|
| 1/8 | 3.175 | 1 1/2 38.1 +0.60 | 0.004 | 0.002 | 18.112 | • |
| 1/8 | 3.175 | 2 50.8 +0.70 | 0.005 | 0.002 | 18.200 | • |
| 1/8 | 3.175 | 3 76.2 +0.90 | 0.008 | 0.002 | 18.300 | • |
| 1/8 | 3.175 | 4 101.6 +1.00 | 0.008 | 0.002 | 18.400 | • |
| 1/8 | 4.763 | 1 1/2 38.1 +0.60 | 0.005 | 0.002 | 316.112 | • |
| 3/16 | 4.763 | 2 50.8 +0.70 | 0.005 | 0.002 | 316.200 | • |
| 3/16 | 4.763 | 2 1/2 63.5 +0.80 | 0.006 | 0.002 | 316.212 | • |
| 3/16 | 4.763 | 3 76.2 +0.90 | 0.008 | 0.002 | 316.300 | • |
| 1/4 | 6.350 | 2 50.8 +0.70 | 0.005 | 0.003 | 14.200 | • |
| 1/4 | 6.350 | 2 1/2 63.5 +0.80 | 0.006 | 0.003 | 14.212 | • |
| 1/4 | 6.350 | 3 76.2 +0.90 | 0.008 | 0.003 | 14.300 | • |
| 1/4 | 6.350 | 3 1/4 82.6 +0.90 | 0.008 | 0.003 | 14.314 | • |
| 1/4 | 6.350 | 4 101.6 +1.00 | 0.008 | 0.003 | 14.400 | • |
| 5/16 | 7.938 | 2 50.8 +0.70 | 0.005 | 0.003 | 516.200 | • |
| 5/16 | 7.938 | 2 1/2 63.5 +0.80 | 0.006 | 0.003 | 516.212 | • |
| 5/16 | 7.938 | 3 76.2 +0.90 | 0.008 | 0.003 | 516.300 | • |
| 5/16 | 7.938 | 4 101.6 +1.00 | 0.008 | 0.003 | 516.400 | • |
| 3/8 | 9.525 | 2 50.8 +0.70 | 0.005 | 0.003 | 38.200 | • |
| 3/8 | 9.525 | 2 1/2 63.5 +0.80 | 0.006 | 0.003 | 38.212 | • |
| 3/8 | 9.525 | 3 76.2 +0.90 | 0.008 | 0.003 | 38.300 | • |
| 3/8 | 9.525 | 3 1/4 82.6 +0.90 | 0.008 | 0.003 | 38.314 | • |
| 3/8 | 9.525 | 3 1/2 88.9 +1.00 | 0.008 | 0.003 | 38.312 | • |
| 3/8 | 9.525 | 4 101.6 +1.00 | 0.008 | 0.003 | 38.400 | • |
| 3/8 | 9.525 | 6 152.4 +1.60 | 0.010 | 0.003 | 38.600 | • |
| 7/16 | 11.113 | 2 1/2 63.5 +0.80 | 0.006 | 0.003 | 716.212 | • |
| 7/16 | 11.113 | 2 3/4 69.9 +0.80 | 0.007 | 0.003 | 716.234 | • |
| 7/16 | 11.113 | 4 101.6 +1.00 | 0.008 | 0.003 | 716.400 | • |
| 7/16 | 11.113 | 4 1/2 114.3 +1.10 | 0.010 | 0.003 | 716.412 | • |
| 1/2 | 12.700 | 2 1/2 63.5 +0.80 | 0.006 | 0.003 | 12.212 | • |
| 1/2 | 12.700 | 3 76.2 +0.90 | 0.008 | 0.003 | 12.300 | • |
| 1/2 | 12.700 | 3 1/2 88.9 +1.00 | 0.008 | 0.003 | 12.312 | • |
| 1/2 | 12.700 | 4 101.6 +1.00 | 0.008 | 0.003 | 12.400 | • |
| 1/2 | 12.700 | 4 1/2 114.3 +1.10 | 0.010 | 0.003 | 12.412 | • |
| 1/2 | 12.700 | 5 127.0 +1.30 | 0.010 | 0.003 | 12.500 | • |
| 1/2 | 12.700 | 6 152.4 +1.60 | 0.010 | 0.003 | 12.600 | • |
| 5/8 | 14.288 | 3 76.2 +0.90 | 0.008 | 0.003 | 916.300 | • |

| D h6 inches/mm | d mm | L inches/mm | x mm | y mm | Code | DK400N 7541 |
|-------------------|---------|-------------------|---------|---------|---------|----------------|
| 5/8 | 15.875 | 3 76.2 +0.90 | 0.008 | 0.004 | 58.300 | • |
| 5/8 | 15.875 | 3 1/2 88.9 +1.00 | 0.008 | 0.004 | 58.312 | • |
| 5/8 | 15.875 | 4 101.6 +1.00 | 0.008 | 0.004 | 58.400 | • |
| 5/8 | 15.875 | 5 127.0 +1.30 | 0.010 | 0.004 | 58.500 | • |
| 5/8 | 15.875 | 6 152.4 +1.60 | 0.010 | 0.004 | 58.600 | • |
| 3/4 | 19.050 | 3 76.2 +0.90 | 0.008 | 0.004 | 34.300 | • |
| 3/4 | 19.050 | 3 1/2 88.9 +1.00 | 0.008 | 0.004 | 34.312 | • |
| 3/4 | 19.050 | 4 101.6 +1.00 | 0.008 | 0.004 | 34.400 | • |
| 3/4 | 19.050 | 5 127.0 +1.30 | 0.010 | 0.004 | 34.500 | • |
| 3/4 | 19.050 | 6 152.4 +1.60 | 0.010 | 0.004 | 34.600 | • |
| 7/8 | 22.225 | 4 101.6 +1.00 | 0.008 | 0.004 | 78.400 | • |
| 1 | 25.400 | 3 76.2 +0.90 | 0.008 | 0.005 | 1.300 | • |
| 1 | 25.400 | 4 101.6 +1.00 | 0.008 | 0.005 | 1.400 | • |
| 1 | 25.400 | 5 127.0 +1.30 | 0.010 | 0.005 | 1.500 | • |
| 1 | 25.400 | 6 152.4 +1.60 | 0.010 | 0.005 | 1.600 | • |
| 1 | 25.400 | 7 177.8 +2.10 | 0.010 | 0.005 | 1.700 | • |
| 1 1/4 | 31.750 | 6 152.4 +1.60 | 0.010 | 0.005 | 114.600 | • |
| 1 1/4 | 31.750 | 7 1/2 190.5 +2.50 | 0.010 | 0.005 | 114.712 | • |

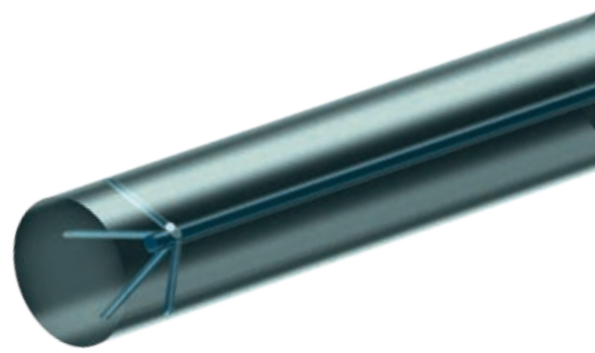


Fräserrohlinge, geschliffen h6

■ mit zentralem Kühlkanal, rad. Austritten, einseitiger Fase

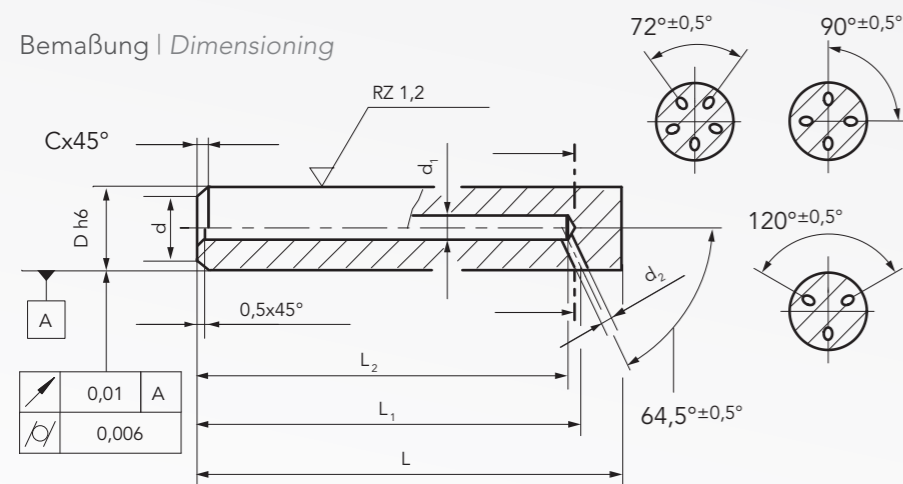
Milling cutter blanks, ground to tolerance h6

■ with axial coolant duct, lat. exits, chamfered one end



| D h6 | L | d | d ₁ | d ₂ | L ₁ | L ₂ | Code | DK460UF | | |
|------|-------------|------|----------------|----------------|----------------|----------------|--------|-----------------|-----------------|-----------------|
| | | | | | | | | 7923 3 exits | 7924 4 exits | 7925 5 exits |
| mm | mm | mm | mm | mm | mm | mm | | | | |
| 6.0 | 58.0 +0.80 | 5.0 | 1.75 | 1.0 | 55.0 | 54.6 | 6.058 | • | • | |
| 6.0 | 76.5 +0.90 | 5.0 | 1.75 | 1.0 | 73.0 | 72.6 | 6.076 | • | • | |
| 8.0 | 64.2 +0.80 | 6.0 | 1.75 | 1.2 | 60.0 | 59.1 | 8.064 | • | • | |
| 8.0 | 101.2 +1.00 | 6.0 | 1.75 | 1.2 | 97.0 | 96.1 | 8.101 | • | • | • |
| 10.0 | 67.2 +0.80 | 8.0 | 2.00 | 1.2 | 62.0 | 60.6 | 10.067 | | • | |
| 10.0 | 73.2 +0.90 | 8.0 | 2.00 | 1.2 | 68.0 | 66.6 | 10.073 | • | • | |
| 10.0 | 101.2 +1.00 | 8.0 | 2.00 | 1.2 | 96.0 | 94.6 | 10.101 | • | • | |
| 12.0 | 74.2 +0.90 | 10.0 | 2.00 | 1.5 | 68.0 | 66.1 | 12.074 | | • | |
| 12.0 | 84.2 +0.90 | 10.0 | 2.00 | 1.5 | 78.0 | 76.1 | 12.084 | • | • | • |
| 12.0 | 101.1 +1.00 | 10.0 | 2.00 | 1.5 | 95.0 | 93.1 | 12.101 | • | • | • |
| 14.0 | 84.2 +0.90 | 12.0 | 2.00 | 1.5 | 77.0 | 74.7 | 14.084 | • | • | |
| 14.0 | 101.2 +1.00 | 12.0 | 2.00 | 1.5 | 94.0 | 91.7 | 14.101 | • | • | • |
| 16.0 | 83.2 +0.90 | 13.0 | 4.00 | 1.5 | 75.0 | 72.2 | 16.083 | | • | • |
| 16.0 | 93.2 +1.00 | 13.0 | 4.00 | 1.5 | 85.0 | 82.2 | 16.093 | • | • | • |
| 16.0 | 101.2 +1.00 | 13.0 | 4.00 | 1.5 | 93.0 | 90.2 | 16.101 | • | • | • |
| 18.0 | 93.0 +1.00 | 15.0 | 4.00 | 2.0 | 84.0 | 80.7 | 18.093 | • | • | |
| 18.0 | 102.0 +1.00 | 15.0 | 4.00 | 2.0 | 93.0 | 89.7 | 18.102 | • | • | |
| 18.0 | 151.3 +1.60 | 15.0 | 4.00 | 2.0 | 142.0 | 138.7 | 18.151 | • | • | |
| 20.0 | 93.2 +1.00 | 17.0 | 4.00 | 2.0 | 83.0 | 79.2 | 20.093 | • | • | |
| 20.0 | 105.0 +1.10 | 17.0 | 4.00 | 2.0 | 95.0 | 91.2 | 20.105 | • | • | • |
| 20.0 | 151.2 +1.60 | 17.0 | 4.00 | 2.0 | 141.0 | 137.2 | 20.151 | • | • | • |
| 25.0 | 122.0 +1.20 | 22.0 | 4.00 | 2.0 | 109.5 | 104.5 | 25.122 | • | • | • |
| 25.0 | 152.0 +1.60 | 22.0 | 4.00 | 2.0 | 139.5 | 134.5 | 25.152 | • | • | • |

Bemaßung | Dimensioning

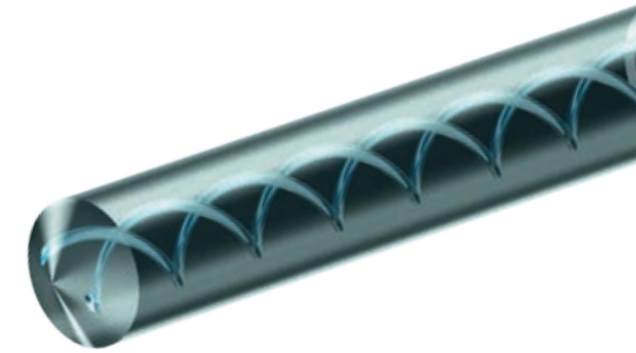


Bohrerrohlinge, geschliffen h6

■ 3 x D, mit 2 Kühlkanälen, 30° verdreht, einseitiger Fase

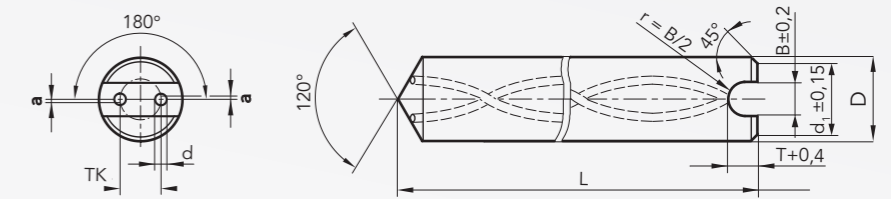
Drill blanks, ground to tolerance h6

■ 3 x D, with 2 coolant ducts, 30° helix, chamfered one end



| D h6 | d1 | L | TK BC | B | T | d | a | 30° ±0.5° | Code | 3 x D |
|------|------|-------------|-------------|-----|------|------------|------|---------------------|--------|-----------------|
| | | | | | | | | | | DK460UF 7916 |
| mm | mm | mm | mm | mm | mm | mm | mm | mm | | |
| 6.0 | 4.8 | 67.0 +1.50 | 2.60 -0.40 | 1.0 | 1.20 | 0.70 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.000 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.001 | • |
| 6.0 | 4.8 | 63.0 +1.50 | 1.50 -0.20 | 1.0 | 1.20 | 0.60 ±0.05 | 0.08 | *20.40 +0.42/-0.40 | 6.002 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.10 | **25.84 +0.54/-0.51 | 6.003 | • |
| 6.0 | 4.8 | 63.0 +1.50 | 1.75 -0.20 | 1.0 | 1.20 | 0.40 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.004 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 2.10 -0.20 | 1.0 | 1.20 | 0.50 ±0.05 | 0.15 | 25.84 +0.54/-0.51 | 6.005 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 2.60 -0.40 | 1.0 | 1.20 | 0.60 ±0.10 | 0.15 | 25.84 +0.54/-0.51 | 6.006 | • |
| 8.0 | 6.8 | 80.5 +1.50 | 3.60 -0.60 | 1.5 | 1.75 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.000 | • |
| 10.0 | 8.8 | 90.5 +1.50 | 4.80 -0.80 | 2.0 | 1.90 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.000 | • |
| 12.0 | 10.5 | 104.0 +1.50 | 6.25 -0.80 | 2.0 | 2.05 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.000 | • |
| 14.0 | 10.5 | 77.0 +0.90 | 6.25 -0.80 | 2.0 | 2.05 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.001 | • |
| 16.0 | 12.5 | 109.0 +1.50 | 6.70 -0.80 | 2.5 | 2.40 | 1.90 ±0.20 | 0.37 | 76.18 +1.56/-1.51 | 14.000 | • |
| 18.0 | 14.5 | 117.5 +1.50 | 8.00 -0.80 | 2.5 | 2.60 | 2.10 ±0.25 | 0.40 | 87.06 +1.78/-1.73 | 16.000 | • |
| 20.0 | 16.5 | 125.5 +2.00 | 9.00 -0.80 | 3.0 | 2.80 | 2.30 ±0.25 | 0.50 | 97.95 +2.00/-1.94 | 18.000 | • |
| 25.0 | 18.5 | 134.0 +2.00 | 10.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 108.83 +2.23/-2.16 | 20.000 | • |
| 25.0 | 23.0 | 150.0 +2.00 | 12.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 136.03 +2.78/-2.70 | 25.000 | • |
| 25.0 | 23.0 | 157.7 +2.00 | 12.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 136.03 +2.78/-2.70 | 25.001 | • |

Bemaßung | Dimensioning



Bohrerrohlinge, geschliffen h6

■ 5 x D, mit 2 Kühlkanälen, 30° verdreht, einseitiger Fase

Drill blanks, ground to tolerance h6

■ 5 x D, with 2 coolant ducts, 30° helix, chamfered one end

5 x D

| D h6 mm | d1 mm | L mm | TK BC mm | B mm | T mm | d mm | a mm | 30° ±0.5° mm | Code | DK460UF 7916 |
|------------|----------|-------------|-------------|---------|---------|------------|---------|---------------------|--------|-----------------|
| 6.0 | 4.8 | 83.0 +1.50 | 2.60 -0.40 | 1.0 | 1.20 | 0.70 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.000 | • |
| 6.0 | 4.8 | 75.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 32.65 +0.67/-0.65 | 6.001 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 1.50 -0.20 | 1.0 | 1.20 | 0.60 ±0.05 | 0.08 | *20.40 +0.42/-0.40 | 6.002 | • |
| 6.0 | 4.8 | 75.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.10 | **25.84 +0.54/-0.51 | 6.003 | • |
| 6.0 | 4.8 | 67.0 +1.50 | 1.75 -0.20 | 1.0 | 1.20 | 0.40 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.004 | • |
| 6.0 | 4.8 | 75.0 +1.50 | 2.10 -0.20 | 1.0 | 1.20 | 0.50 ±0.05 | 0.15 | 25.84 +0.54/-0.51 | 6.005 | • |
| 6.0 | 4.8 | 75.0 +1.50 | 2.60 -0.40 | 1.0 | 1.20 | 0.60 ±0.10 | 0.15 | 25.84 +0.54/-0.51 | 6.006 | • |
| 8.0 | 6.8 | 92.5 +1.50 | 3.60 -0.60 | 1.5 | 1.75 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.000 | • |
| 10.0 | 8.8 | 104.5 +1.50 | 4.80 -0.80 | 2.0 | 1.90 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.000 | • |
| 12.0 | 10.5 | 120.0 +2.00 | 6.25 -0.80 | 2.0 | 2.05 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.000 | • |
| 14.0 | 12.5 | 126.0 +2.00 | 6.70 -0.80 | 2.5 | 2.40 | 1.90 ±0.20 | 0.37 | 76.18 +1.56/-1.51 | 14.000 | • |
| 16.0 | 14.5 | 135.5 +2.00 | 8.00 -0.80 | 2.5 | 2.60 | 2.10 ±0.25 | 0.40 | 87.06 +1.78/-1.73 | 16.000 | • |
| 18.0 | 16.5 | 145.5 +2.00 | 9.00 -0.80 | 3.0 | 2.80 | 2.30 ±0.25 | 0.50 | 97.95 +2.00/-1.94 | 18.000 | • |
| 20.0 | 18.5 | 156.0 +2.00 | 10.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 108.83 +2.23/-2.16 | 20.000 | • |
| 25.0 | 23.0 | 169.0 +2.00 | 12.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 136.03 +2.78/-2.70 | 25.000 | • |
| 25.0 | 23.0 | 184.0 +2.00 | 12.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 136.03 +2.78/-2.70 | 25.001 | • |

Bohrerrohlinge, geschliffen h6

■ 7 x D, mit 2 Kühlkanälen, 30° verdreht, einseitiger Fase

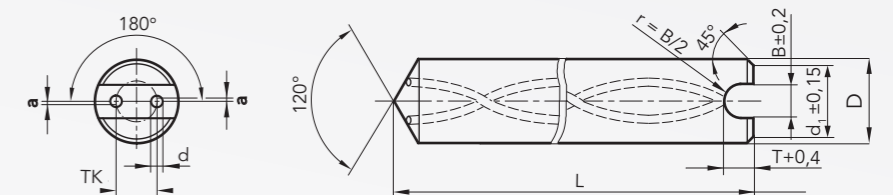
Drill blanks, ground to tolerance h6

■ 7 x D, with 2 coolant ducts, 30° helix, chamfered one end

7 x D

| D h6 mm | d1 mm | L mm | TK BC mm | B mm | T mm | d mm | a mm | 30° ±0.5° mm | Code | DK460UF 7916 |
|------------|----------|-------------|-------------|---------|---------|------------|---------|--------------------|--------|-----------------|
| 6.0 | 4.8 | 98.0 +1.50 | 2.60 -0.20 | 1.0 | 1.20 | 0.70 ±0.10 | 0.15 | 32.65 +0.54/-0.51 | 6.000 | • |
| 6.0 | 4.8 | 91.0 +1.50 | 2.60 -0.20 | 1.0 | 1.20 | 0.70 ±0.10 | 0.15 | 32.65 +0.54/-0.51 | 6.001 | • |
| 6.0 | 4.8 | 76.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 32.65 +0.54/-0.51 | 6.002 | • |
| 6.0 | 4.8 | 86.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 32.65 +0.54/-0.51 | 6.003 | • |
| 6.0 | 4.8 | 71.0 +1.50 | 1.50 -0.20 | 1.0 | 1.20 | 0.60 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.004 | • |
| 6.0 | 4.8 | 76.0 +1.50 | 1.50 -0.20 | 1.0 | 1.20 | 0.60 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.005 | • |
| 6.0 | 4.8 | 76.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 25.84 +0.42/-0.40 | 6.008 | • |
| 6.0 | 4.8 | 86.0 +1.50 | 2.00 -0.20 | 1.0 | 1.20 | 0.80 ±0.10 | 0.15 | 25.84 +0.42/-0.40 | 6.009 | • |
| 6.0 | 4.8 | 71.0 +1.50 | 1.75 -0.20 | 1.0 | 1.20 | 0.40 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.010 | • |
| 6.0 | 4.8 | 76.0 +1.50 | 1.75 -0.20 | 1.0 | 1.20 | 0.40 ±0.05 | 0.15 | 20.40 +0.42/-0.40 | 6.011 | • |
| 6.0 | 4.8 | 76.0 +1.50 | 2.10 -0.20 | 1.0 | 1.20 | 0.50 ±0.05 | 0.15 | 25.84 +0.42/-0.40 | 6.012 | • |
| 6.0 | 4.8 | 86.0 +1.50 | 2.60 -0.40 | 1.0 | 1.20 | 0.60 ±0.10 | 0.15 | 25.84 +0.42/-0.40 | 6.013 | • |
| 8.0 | 6.8 | 107.5 +1.50 | 3.60 -0.40 | 1.5 | 1.75 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.000 | • |
| 8.0 | 6.8 | 117.5 +1.50 | 3.60 -0.40 | 1.5 | 1.75 | 1.25 ±0.15 | 0.15 | 43.53 +0.89/-0.86 | 8.001 | • |
| 10.0 | 8.8 | 132.5 +1.50 | 4.80 -0.60 | 2.0 | 1.90 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.000 | • |
| 10.0 | 8.8 | 140.5 +1.50 | 4.80 -0.60 | 2.0 | 1.90 | 1.40 ±0.15 | 0.20 | 54.41 +1.11/-1.08 | 10.001 | • |
| 12.0 | 10.5 | 157.0 +2.00 | 6.25 -0.80 | 2.0 | 2.05 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.000 | • |
| 12.0 | 10.5 | 165.0 +2.00 | 6.25 -0.80 | 2.0 | 2.05 | 1.55 ±0.15 | 0.30 | 65.30 +1.34/-1.30 | 12.001 | • |
| 14.0 | 12.5 | 184.0 +2.00 | 6.70 -0.80 | 2.5 | 2.40 | 1.90 ±0.20 | 0.37 | 76.18 +1.56/-1.51 | 14.000 | • |
| 16.0 | 14.5 | 206.5 +2.00 | 8.00 -0.80 | 2.5 | 2.60 | 2.10 ±0.25 | 0.40 | 87.06 +1.78/-1.73 | 16.000 | • |
| 18.0 | 16.5 | 225.5 +2.00 | 9.00 -0.80 | 3.0 | 2.80 | 2.30 ±0.25 | 0.50 | 97.95 +2.00/-1.94 | 18.000 | • |
| 20.0 | 18.5 | 247.0 +2.00 | 10.00 -1.00 | 3.0 | 3.00 | 2.50 ±0.30 | 0.50 | 108.83 +2.23/-2.16 | 20.000 | • |

Bemaßung | Dimensioning



*30° für Fertigdurchmesser bis 3,75
 **30° für Fertigdurchmesser bis 4,75
 *30° for finished diameter up to 3.75
 **30° for finished diameter up to 4.75

Auf Anfrage

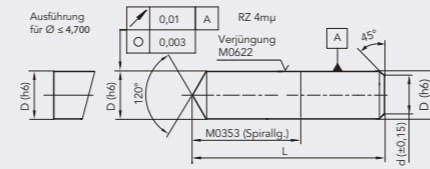
On request

Bohrerrohlinge, geschliffen h6 Drill blanks, ground to tolerance h6

DIN 338
DIN 338

DK460UF
7501

D h6: Ø 2,00–12,00 mm um 0,1 mm steigend plus Kernloch-Ø
D h6: Ø 2.00–12.00 mm in increments of 0.1 mm plus tapping hole size diameters



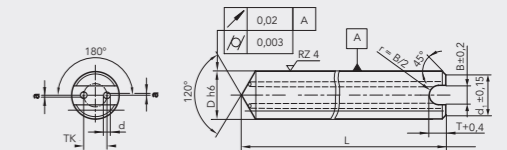
Bohrerrohlinge, geschliffen h6/h8 Drill blanks, ground to tolerance h6/h8

mit 2 parallelen Kühlkanälen, normalem Teilkreis
with 2 parallel coolant ducts, standard pitch circle

DK460UF
7537 4xD

DK460UF
7551 7xD

DK460UF
7538 10xD



Bohrerrohlinge, geschliffen h6 Drill blanks, ground to tolerance h6

DIN 1897/6539
DIN 1897/6539

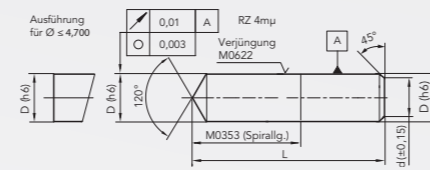
DK460UF
7502

DK460UF
7542

DK460UF
7547

DK460UF
7356

D h6: Ø 2,00–12,00 mm um 0,1 mm steigend plus Kernloch-Ø
D h6: Ø 2.00–12.00 mm in increments of 0.1 mm plus tapping hole size diameters



Bohrerrohlinge, geschliffen h6 Drill blanks, ground to tolerance h6

mit 2 Kühlkanälen, einseitiger Fase, 30° verdreht
with 2 coolant ducts, chamfered one end, 30° helix

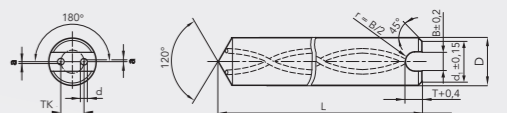
DK460UF
7943 15xD

DK460UF
7579 20xD

DK460UF
7580 25xD

DK460UF
7581 30xD

DK460UF
7598 40xD

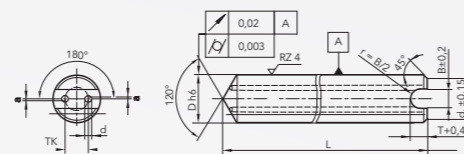


Bohrerrohlinge, geschliffen h6/h8 Drill blanks, ground to tolerance h6/h8

mit 2 parallelen Kühlkanälen, eingengtem Teilkreis
with 2 parallel coolant ducts, restricted pitch circle

DK460UF
7539 4xD

DK460UF
7546 10xD



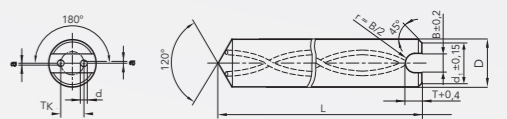
Bohrerrohlinge, geschliffen h6 Drill blanks, ground to tolerance h6

mit 2 Kühlkanälen, einseitiger Fase, 40° verdreht
with 2 coolant ducts, chamfered one end, 40° helix

DK460UF
7567 3xD

DK460UF
7568 5xD

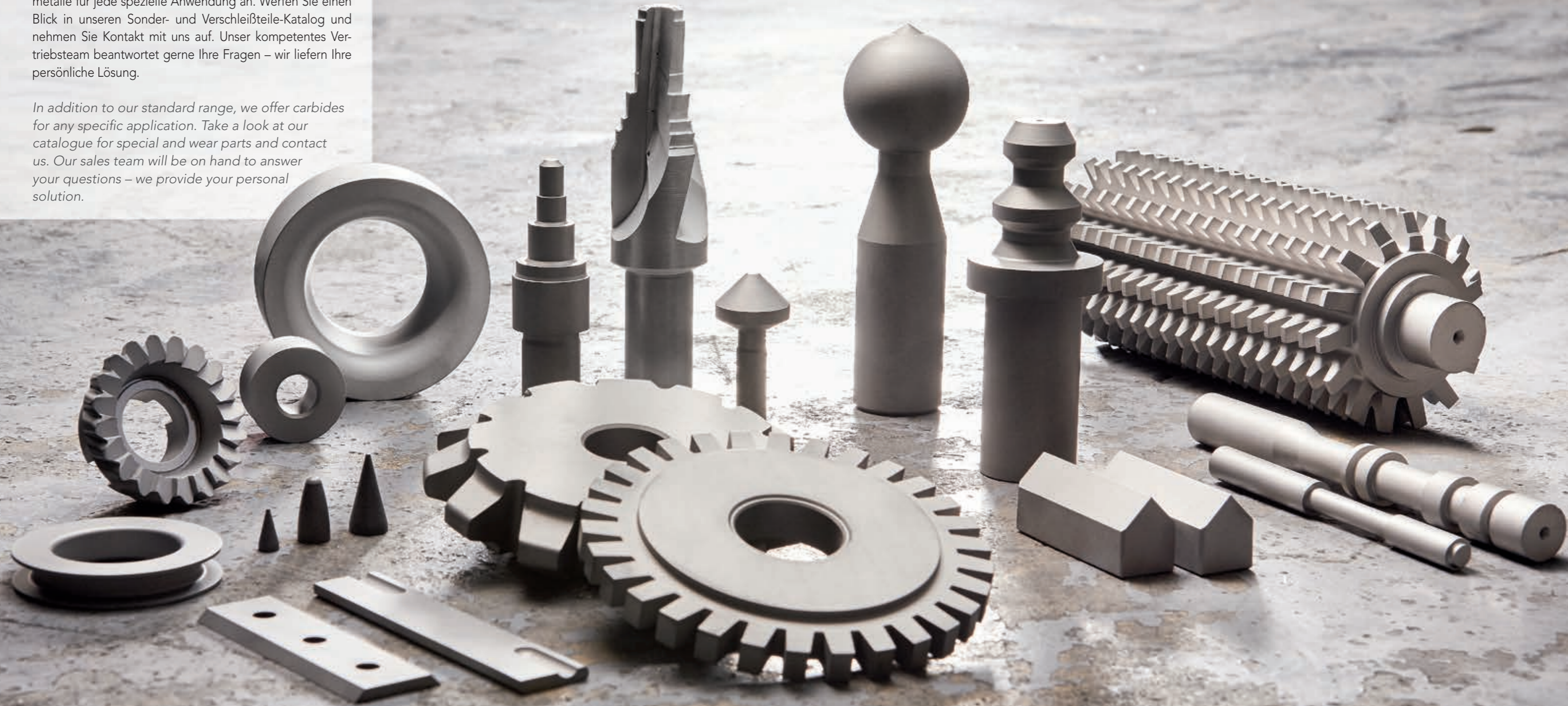
DK460UF
7569 7xD



Unsere Sonderteile *Our customised parts*

Neben unserem Standard-Programm bieten wir Ihnen Hartmetalle für jede spezielle Anwendung an. Werfen Sie einen Blick in unseren Sonder- und Verschleißteile-Katalog und nehmen Sie Kontakt mit uns auf. Unser kompetentes Vertriebsteam beantwortet gerne Ihre Fragen – wir liefern Ihre persönliche Lösung.

In addition to our standard range, we offer carbides for any specific application. Take a look at our catalogue for special and wear parts and contact us. Our sales team will be on hand to answer your questions – we provide your personal solution.



Zertifizierte Qualität *Certified quality*

Wir sind überzeugt: Qualität beginnt beim Rohstoff. Deshalb stellen wir höchste Anforderungen an unsere Lieferanten. Vom Mischen der Pulver bis hin zum Schleifen der gesinterten Hartmetallprodukte sorgen wir für eine hochwertige Herstellung Ihrer Produkte. Unser nach DIN EN ISO 9001 zertifiziertes Qualitätsmanagementsystem und unser Beitrag zum Umweltschutz durch unsere DIN EN ISO 50001 sind wegweisend für eine zukunftsorientierte und nachhaltige Produktion.

We are convinced that quality starts with the raw material. That is why we place the highest demands on our suppliers. From powder preparation to grinding of sintered carbide products, we ensure a high-quality production of your products. Our quality management system certified according to DIN ISO 9001 and our contribution to environmental protection by certification to DIN EN ISO 50001 lead the way to a future-oriented and sustainable production.

Wareneingangskontrolle *Incoming quality control*

Wir wollen Ihnen die beste Qualität bieten – und das von Anfang an. Deshalb werden unsere Rohstoffe von namhaften Herstellern bezogen. Bereits beim Wareneingang kontrolliert unser Labor die Korngrößenverteilung, die spezifische Oberfläche und den Kohlenstoffhaushalt der Pulver.

We want to offer you the best quality – right from the start. Therefore our raw materials are sourced from reputable manufacturers. As soon as the goods are received, our laboratory checks the particle size distribution, the specific surface and the carbon balance of the powders.

Metallurgische Qualitätskontrolle *Metallurgical quality control*

Die korrekte Einstellung der magnetischen und physikalischen Kennwerte und die Untersuchung der Mikrostruktur (Gefüge) der verschiedenen Hartmetallsorten während des gesamten Produktionsprozesses sichert die hohe Qualität unserer Endprodukte.

The proper setting of the magnetic and physical characteristics as well as the screening of the microstructure of the different carbide grades during the entire production process ensures high quality of our end products.

Geometrische Qualitätskontrolle *Geometrical quality control*

Im Rahmen der geometrischen Qualitätssicherung werden durch innovative Messtechniken und hochauflösende Kamerasysteme die vielfältigen geometrischen Werte kontrolliert (z. B. Außendurchmesser, Steigung, Kühlkanaldurchmesser, Teilkreisversatz usw.).

As part of geometric quality assurance, innovative measurement techniques and high-resolution camera systems are used to control the various geometric values (for example, outer diameter, pitch, cooling channel diameter, pitch offset, etc.).





BERLIN CARBIDE
sintered by **GELIT**



Weltweit vertreten

Represented worldwide



Durch unsere Zugehörigkeit zum größten deutschen Werkzeughersteller – der Gühring KG – sind wir auch Teil des weltweit bestehenden Vertriebsnetzes mit seinen zahlreichen Ländergesellschaften und Partnern. Maßgeschneiderte Lösungen für Ihre individuellen Ansprüche – nah am Kunden – immer für Sie vor Ort.

Due to our affiliation to the Gühring KG, the largest German tool manufacturer, we are also part of the worldwide existing sales network with its numerous national subsidiaries and partners. Tailor-made solutions for your individual requirements – close to the customers – always on site.

Argentinien | Argentina
Guhring Argentina S. A.
guhringargentina@guehring.de

Australien | Australia
Guhring Pty. Ltd.
guhring@guhring.com.au

Belgien | Belgium
N. V. Gühring S.A.
info@guehring.be

Brasilien | Brazil
Guhring Brasil
vendas@guhring-brasil.com

Bulgarien | Bulgaria
Gühring Bulgarien Ltd.
info@guehring-bg.net

China | China
Guhring (Changzhou)
Cutting Tools Co., Ltd.
info@guhringchina.com

Dänemark | Denmark
Gühring ApS
info@guehring.dk

Deutschland | Germany
Gühring KG -
Vertrieb Hartmetall
Division Carbides
info@berlin-carbide.com

Finnland | Finland
OY Gühring AB
myynti@guehring.fi

Frankreich | France
Gühring Alsace S. A. R. L.
info@guhring-alsace.com

Guhring France S. A. R. L.
info@guhring-france.com

Großbritannien | Great Britain
Guhring Ltd.
info@guhring.co.uk

Indien | India
Guhring India Pvt. Ltd.
info@guhring.in

Indonesien | Indonesia
PT. Guhring Indonesia
sales@guhring.co.id

Italien | Italy
German Carbide Italia
kfcarbideitalia@legalmail.it

Japan | Japan
Guhring Japan Co., Ltd.
tokyo.sales@guhring.co.jp

Kanada | Canada
Guhring Corp.
sales@guhring.com

Korea | Korea
Gühring Korea Co. Ltd.
info@guhring.co.kr

Mexiko | Mexico
Guhring Mexicana S.A. de C.V.
contacto@guehring.de

Niederlande | The Netherlands
Gühring Nederland B. V.
info@guhring.nl

Österreich | Austria
Gühring Ges. m. b. H.
verkauf@guehring.at

Philippinen | Philippines
Guhring Philippines
guehring-philippines
@guehring.de

Polen | Poland
Guhring Sp. z o. o.
handel@guehring.pl

Rumänien | Romania
Gühring s. r. l. - Romania
romania@guehring.de

Russland | Russia
German Carbide OOO
info@german-carbide.ru

Schweden | Sweden
Guhring Sweden AB
info@guehring.se

Schweiz | Switzerland
Gühring Schweiz AG
info@guehring.ch

Singapur | Singapore
Guhring (Singapore) Pte. Ltd.
admin@guhring.com.sg

Slowakei | Slovakia
Gühring Slovakia, s. r. o.
guehring@guehring.sk

Slowenien | Slovenia
Gühring d. o. o.
info@guehring.si

Spanien | Spain
Guhring S. A.
guhring@guhring.es

Gühring Cataluna S. A. U.
guhring.catalunya@guhring.es

Südafrika | South Africa
Guhring Cutting Tools (Pty)
Ltd. – Gauteng
info@guhring.co.za

Taiwan | Taiwan
Guhring Taiwan Ltd.
info@guhring.com.tw

Tschechien | Czech Republic
Guhring S. r. o.
sekretariat@guehring.de

Türkei | Turkey
Gühring Takim San. Tic.
Ltd.Sti. - Ankara Subesi
infoankara@guhring.com.tr

USA | USA
Guhring Inc.
sales@guhring.com

Ultra Carbide, LLC
sales@ultracarbide.com

Usbekistan | Uzbekistan
FE LLC GUHRING
info@guhring.uz

Ukraine | Ukraine
Guhring Ukraine
office.ukraine@guehring.de

Ungarn | Hungary
Tritán-Gühring Kft.
info@tritan.hu

Vietnam | Vietnam
Guhring Vietnam LLC
info@guhring.vn

Sorten-Spezifikationen | Grade specifications

| Sorte Grade | | DK400N | DK120 | DK460UF | DK500UF | DK255F | DK256EH | DK120UF | K55SF |
|--|--------------------|---------|---------|---------|---------|--------|---------|---------|---------|
| Klassifizierung Classification | | K20-K40 | K15-K20 | K20-K40 | K20-K30 | K20 | K20 | K10 | K05-K10 |
| Co | % | 10.0 | 6.0 | 10.0 | 12.0 | 8.0 | 8.0 | 7.0 | 9.0 |
| Härte HV30 Hardness HV30 | kg/mm ² | 1580 | 1620 | 1620 | 1690 | 1720 | 1790 | 1850 | 1920 |
| Mittlere Korngröße Average Grain Size | µm | 0.70 | 1.20 | 0.60 | 0.50 | 0.70 | 0.60 | 0.70 | 0.20 |

Toleranzen | Tolerances

| L | ↗ | ↖ |
|-----|---------|------|
| mm | mm | mm |
| 330 | $+10_0$ | 0.25 |
| 415 | $+26_0$ | 0.35 |
| 700 | $+70_0$ | 0.40 |

Rundstäbe, roh,
ohne und mit Kühlkanal
*Rods, raw,
solid or with coolant ducts*

| D h6 | ↗ | ○ |
|------|------|-------|
| mm | mm | mm |
| 6.0 | 0.10 | 0.002 |
| 8.0 | 0.06 | 0.003 |
| 10.0 | 0.06 | 0.003 |
| 12.0 | 0.03 | 0.003 |
| 14.0 | 0.03 | 0.003 |
| 16.0 | 0.03 | 0.003 |
| 18.0 | 0.02 | 0.003 |
| 20.0 | 0.03 | 0.004 |

Rundstäbe, geschliffen
h6, 415 mm $+26_0$, ohne
und mit Kühlkanal
*Rods, ground to
tolerance h6, 415 mm $+10_0$,
solid or with cool-
ant ducts*

Rundstäbe, geschliffen
h6, 330 mm $+10_0$, ohne und mit Kühlkanal
*Rods, ground to tolerance h6,
330 mm $+10_0$, solid or with coolant ducts*

| D h6 | ↗ | ○ |
|-------|------|-------|
| mm | mm | mm |
| 1.0 | 0.25 | 0.030 |
| 1.5 | 0.25 | 0.030 |
| 2.0 | 0.25 | 0.030 |
| 3.0 | 0.11 | 0.002 |
| 3.175 | 0.11 | 0.002 |
| 3.5 | 0.11 | 0.002 |
| 4.0 | 0.11 | 0.002 |
| 4.5 | 0.11 | 0.002 |
| 4.763 | 0.11 | 0.002 |
| 5.0 | 0.11 | 0.002 |
| 5.5 | 0.11 | 0.002 |
| 6.0 | 0.11 | 0.002 |
| 6.350 | 0.11 | 0.003 |
| 6.5 | 0.11 | 0.003 |
| 7.0 | 0.11 | 0.003 |
| 7.5 | 0.06 | 0.003 |
| 7.938 | 0.06 | 0.003 |
| 8.0 | 0.06 | 0.003 |
| 8.5 | 0.06 | 0.003 |
| 9.0 | 0.06 | 0.003 |
| 9.5 | 0.06 | 0.003 |
| 9.525 | 0.06 | 0.003 |

| D h6 | ↗ | ○ |
|--------|------|-------|
| mm | mm | mm |
| 10.0 | 0.06 | 0.003 |
| 10.5 | 0.05 | 0.003 |
| 11.0 | 0.05 | 0.003 |
| 11.113 | 0.05 | 0.003 |
| 11.5 | 0.05 | 0.003 |
| 12.0 | 0.05 | 0.003 |
| 12.5 | 0.05 | 0.003 |
| 12.700 | 0.05 | 0.003 |
| 13.0 | 0.05 | 0.003 |
| 13.5 | 0.05 | 0.003 |
| 14.0 | 0.04 | 0.003 |
| 14.288 | 0.04 | 0.003 |
| 14.5 | 0.04 | 0.003 |
| 15.0 | 0.04 | 0.003 |
| 15.5 | 0.04 | 0.003 |
| 15.875 | 0.04 | 0.003 |
| 16.0 | 0.04 | 0.003 |
| 16.5 | 0.04 | 0.003 |
| 17.0 | 0.02 | 0.003 |
| 17.5 | 0.02 | 0.003 |
| 18.0 | 0.02 | 0.003 |
| 18.5 | 0.02 | 0.004 |

| D h6 | ↗ | ○ |
|--------|------|-------|
| mm | mm | mm |
| 19.0 | 0.02 | 0.004 |
| 19.050 | 0.02 | 0.004 |
| 19.5 | 0.02 | 0.004 |
| 20.0 | 0.02 | 0.004 |
| 21.0 | 0.02 | 0.004 |
| 22.0 | 0.02 | 0.004 |
| 22.225 | 0.02 | 0.004 |
| 23.0 | 0.02 | 0.004 |
| 24.0 | 0.02 | 0.004 |
| 25.0 | 0.02 | 0.004 |
| 25.400 | 0.02 | 0.004 |
| 26.0 | 0.02 | 0.005 |
| 27.0 | 0.02 | 0.005 |
| 28.0 | 0.02 | 0.005 |
| 29.0 | 0.02 | 0.005 |
| 30.0 | 0.02 | 0.005 |
| 31.0 | 0.02 | 0.005 |
| 32.0 | 0.02 | 0.005 |
| 34.0 | 0.02 | 0.006 |
| 40.0 | 0.02 | 0.006 |

↗ Rundlauf | Circular run-out
○ Rundheit | Roundness

BERLIN CARBIDE in Deutschland

BERLIN CARBIDE in Germany

Deutschland
Germany

Gühring KG
Vertrieb Hartmetall
Division Carbides
info@berlin-carbide.com



Artikelübersicht | Item overview

| Sorte Grade | DK400N | DK120 | DK460UF | DK500UF | DK255F | DK256EH | DK120UF | K555F | Seite Page |
|--|--------|-------|---------|---------|--------|---------|---------|-------|---------------|
| Vollstäbe Solid rods | | | | | | | | | |
| Länge Length | 330mm | 330mm | 415mm | 100mm | 700mm | 330mm | 330mm | 330mm | 330mm |
| roh raw | | 7021 | 7014 | | | | | | 14 – 15 |
| geschliffen h6 ground h6 | | 7031 | 7075 | 7354 | 7085 | 7372 | 7032 | | 16 – 17 |
| geschliffen h6, in Zoll ground h6, in inches | | | 7932 | | | | | | 17 |
| Rundstäbe mit Kühlkanälen Rods with coolant ducts | | | | | | | | | |
| Länge Length | 330mm | 330mm | 415mm | 100mm | 700mm | 330mm | 330mm | 330mm | 330mm |
| roh, zentral raw, central | | | 7387 | 7987 | | | | 7380 | 18 |
| geschliffen h6, zentral ground h6, central | | | 7339 | | | | | | 19 |
| roh, parallel raw, parallel | | | 7301 | 7309 | | | | | 20 – 21 |
| geschliffen h6, parallel ground h6, parallel | | | 7302 | | | | | | 22 – 23 |
| roh, 2x15° raw, 2x15° | | | 7945 | 7947 | | | | | 24 |
| geschliffen h6, 2x15° ground h6, 2x15° | | | 7583 | | | | | | 25 |
| roh, 2x30° raw, 2x30° | | | 7940 | 7353 | 7074 | | 7370 | | 26 – 28 |
| geschliffen h6, 2x30° ground h6, 2x30° | | | 7328 | 7355 | | | | | 29 |
| roh, 2x40° raw, 2x40° | | | 7935 | 7385 | | | 7397 | | 30 – 31 |
| geschliffen h6, 2x40° ground h6, 2x40° | | | 7330 | | | | | | 32 |
| kleinstverdrallt microtwisted | | | 7039 | | | | | | 33 |
| roh, 3x30° raw, 3x30° | | | 7933 | 7383 | | | | | 34 |
| geschliffen h6, 3x30° ground h6, 3x30° | | | 7358 | | | | | | 35 |
| roh, 3x40° raw, 3x40° | | | 7934 | 7384 | | | | | 36 |
| geschliffen h6, 3x40° ground h6, 3x40° | | | 7359 | | | | | | 37 |
| Fräserrohlinge Milling cutter blanks | | | | | | | | | |
| geschl. h6, einseitige Fase ground h6, chamfered one end | | | 7540 | | | | | 7556 | 38 – 42 |
| geschl. h6, in Zoll, einseitige Fase ground h6, in inches, chamfered one end | 7541 | | | | | | | | 44 |
| geschl. h6, zentraler Kühlkanal + 3 rad. Austritte ground h6, axial coolant duct + 3 lat. exits | | | 7923 | | | | | | 46 |
| geschl. h6, zentraler Kühlkanal + 4 rad. Austritte ground h6, axial coolant duct + 4 lat. exits | | | 7924 | | | | | | 46 |
| geschl. h6, zentraler Kühlkanal + 5 rad. Austritte ground h6, axial coolant duct + 5 lat. exits | | | 7925 | | | | | | 46 |
| Bohrrohlinge Drill blanks | | | | | | | | | |
| geschl. h6, 3xD, 2x30°, einseitige Fase ground h6, 3xD, 2x30°, chamfered one end | | | 7915 | | | | | | 47 |
| geschl. h6, 5xD, 2x30°, einseitige Fase ground h6, 5xD, 2x30°, chamfered one end | | | 7916 | | | | | | 48 |
| geschl. h6, 7xD, 2x30°, einseitige Fase ground h6, 7xD, 2x30°, chamfered one end | | | 7349 | | | | | | 49 |
| Auf Anfrage On request | | | | | | | | | 50 – 51 |





BERLIN CARBIDE
sintered by **G-ELIT**

GÜHRING KG

Vertrieb Hartmetall
Division Carbides

Office Berlin

Lübarser Straße 10–38
13435 Berlin
Telefon +49 30 40803-31117
Fax +49 30 40803-31118

Office Albstadt

Hahnstraße 53
72461 Albstadt
Telefon +49 7431 17-25298
Fax +49 7431 17-25189

info@berlin-carbide.com
berlin-carbide.com

Eventuelle Druckfehler oder zwischenzeitlich eingetretene
Änderungen berechtigen nicht zu Ansprüchen.
Wir liefern ausschließlich zu unseren Liefer- und Zahlungsbedingungen.
Diese können bei uns angefordert werden.

*Potential misprints or changes since the day of print do not
entitle any rights for claims. Delivery is always made in accordance
with our conditions for delivery and payment,
a copy of which can be requested from us.*