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Telefax: +43 (0)7612 - 64902-8
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www.grampelhuber.at

SPEZIAL FRÄSSTIFTE

SPECIAL BURRS

GERMAN QUALITY PRODUCT



5.3



Frässtifte für GFK/CFK
Fiberglass routers

843



Mini-Frässtifte ∅ 1 + 1,5 mm
Mini-burrs ∅ 1 + 1,5 mm

844



Frässtifte + Bohrer für Schlüsseldienste
Burrs + drills for locksmiths

838-840

11 6011

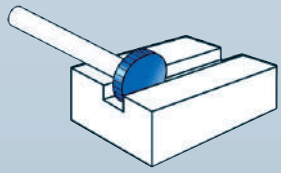
BLUETEC BESCHICHTET COATED

HP-2 VERZAHNUNG · CUT

11 4011

Scheibenform
RIM shape







Schnittdaten Cutting data
Film Movie
1395

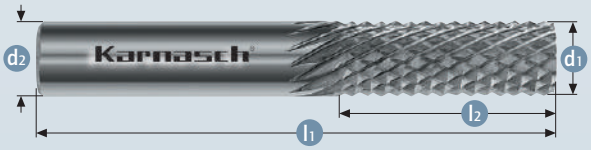
Art.	d1	l2	d2	l1	gelötet brazed	Form Shape	€
11 6011 005	● 10	1,6	3	34	✔		17,30
11 6011 010	● 12	2,6	6	48	✔		42,30
11 6011 015	● 25	5,2	8	50	✔	90°	100,15
11 6011 020	● 25	6,3	8	51	✔	Radius	103,95

Art.	d1	l2	d2	l1	gelötet brazed	Form Shape	€
11 4011 005	● 10	1,6	3	34	✔		13,95
11 4011 010	● 12	2,6	6	48	✔		37,40
11 4011 015	● 25	5,2	8	50	✔	90°	93,75
11 4011 020	● 25	6,3	8	51	✔	Radius	97,55

GFK, CFK

Für Kunststoffe, GFK, CFK, MMC

Routers for fiberglass, GFK, CFK



Schnittdaten / Cutting data 1336

Film / Movie

Toleranzen
Tolerances

d_1

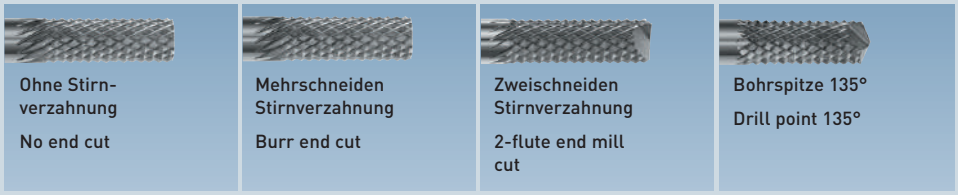
∅ 1.6 mm, 2.4 mm = +0,00/–0,10
∅ 3–12 mm = +0,00/–0,13

Diese Frässtifte sind geeignet zum Umrissfräsen, Besäumen, Nuten und Bohren der großen Bandbreite von Faserverstärkten Kunststoffen (Fiberglas, GFK CFK). Weiterhin für MMC, Metal Matrix Composites = schwer zerspanbare abrasive Verbundstoffe wie z.B. Leiterplatten, Verbindungen wie Keramik mit Glasfaser, Graphit, Carbon.

Sollten höchste Standzeiten erwünscht sein, empfehlen wir eine Diamantbeschichtung. Auf Anfrage.

These routers are for contouring, grooving, drilling of a wide range of GFK, CFK, fiberglass reinforced plastics, as well as MMC (Metal Matrix Composites). MMC material such as printed circuit boards, composites such as ceramic with glass fiber, graphite, carbon etc.

If highest lifetime is required do we recommend a diamond coating. On request.



	Ohne Stirnverzahnung No end cut	Mehrschneiden Stirnverzahnung Burr end cut	Zweischneiden Stirnverzahnung 2-flute end mill cut	Bohrspitze 135° Drill point 135°

d1	l2	d2	l1	VHM solid	11 6001 Art.	11 6001 €	11 6002 Art.	11 6002 €	11 6003 Art.	11 6003 €	11 6004 Art.	11 6004 €
● 1,6	5	3	38	✔	% 11 6001 001	5,20	11 6002 001	11,50	11 6003 001	11,55	11 6004 001	12,30
● 2,4	9,5	3	38	✔	% 11 6001 003	5,50	11 6002 003	11,50	11 6003 003	12,50	% 11 6004 003	7,20
● 3	12	3	38	✔	11 6001 005	11,00	11 6002 005	11,60	11 6003 005	13,65	11 6004 005	13,65
● 4	16	4	50	✔	% 11 6001 010	8,30	11 6002 010	16,40	11 6003 010	18,35	11 6004 010	18,35
● 4	16	6	50	✔	% 11 6001 012	9,35	11 6002 012	19,65	11 6003 012	20,95	11 6004 012	21,80
● 6	19	6	50	✔	11 6001 013	17,55	11 6002 013	19,65	11 6003 013	20,95	11 6004 013	21,80
● 6	19	6	63	✔	11 6001 015	26,05	11 6002 015	27,45	11 6003 015	29,20	11 6004 015	29,20
● 6	25	6	75	✔	11 6001 017	21,80	11 6002 017	23,70	11 6003 017	24,85	11 6004 017	25,65
● 8	25	8	63	✔	11 6001 020	36,15	11 6002 020	38,15	11 6003 020	39,80	11 6004 020	39,80
○ 10	25	10	63	✔	% 11 6001 025	25,05	-	-	-	-	-	-
● 10	25	10	75	✔	11 6001 027	45,45	11 6002 027	49,40	11 6003 027	51,30	11 6004 027	53,30
● 12	25	12	75	✔	11 6001 029	62,40	11 6002 029	68,65	11 6003 029	72,00	11 6004 029	75,30
○ 12	30	12	75	✔	% 11 6001 030	35,80	-	-	-	-	-	-

Schnittgeschwindigkeit • Cutting speed (m/min)

	450	900
∅ (mm)	Drehzahlen (min^{-1}) • Rotational speed (rpm)	
2	72.000	143.000
3	48.000	95.000
4	36.000	72.000
6	24.000	48.000
8	17.000	36.000
10	14.000	29.000
12	12.000	24.000

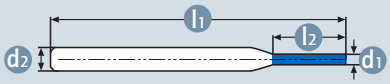
% Sonderpreis / Sale Artikel. Lieferbar solange Vorrat.
Special price / sale article. While stocks last.

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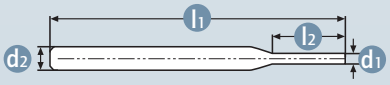
MINI-UNI

Einsatzgebiete: Feinmechanik, Schmuckindustrie, Turbinenbau, Werkzeugbau
Zu bearbeitende Werkstoffe: Edelstähle, Buntmetalle, Zinkdruckguss, weiche Keramiken, Titanlegierungen
Drehzahlempfehlung: ca. 70.000 U/min

Applications: Precision engineering, jewellery industry, turbine manufacture, tool manufacture
For use on: stainless steel, copper and copper alloys, zinc pressure die castings soft ceramics, titanium alloys
Recommended operating speed: +/- 70,000 RPM

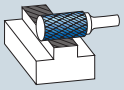
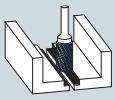
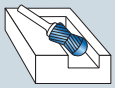
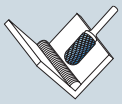
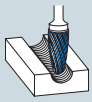
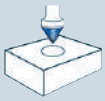
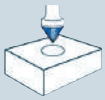






Art.	d1	l2	d2	l1	Form Shape	DIN 8033		€
11 5006 005	● 1	4	3	38	A	ZYA		13,00
11 5006 010	● 1,5	4	3	38	A	ZYA		13,00
11 5006 020	● 2	4	3	38	A	ZYA		13,00
11 5026 005	● 1	4	3	38	C	WRC		13,00
11 5026 010	● 1,5	4	3	38	C	WRC		13,00
11 5026 015	● 2	4	3	38	C	WRC		13,00
11 5036 005	● 1	1	3	38	D	KUD		13,00
11 5036 010	● 1,5	1	3	38	D	KUD		13,00
11 5036 015	● 2	2	3	38	D	KUD		13,00
11 5046 005	● 1,5	4	3	38	E	TRE		13,00
11 5056 005	● 1,5	4	3	38	F	RBF		13,00
11 5066 005	● 1,5	4	3	38	G	SPG		13,00
11 5196 005	● 1,5	4	3	38	M	SKM		13,00

Art.	d1	l2	d2	l1	Form Shape	DIN 8033		€
11 3006 005	● 1	4	3	38	A	ZYA		10,90
11 3006 010	● 1,5	4	3	38	A	ZYA		10,90
11 3006 020	● 2	4	3	38	A	ZYA		10,90
11 3026 005	● 1	4	3	38	C	WRC		10,90
11 3026 010	● 1,5	4	3	38	C	WRC		10,90
11 3026 015	● 2	4	3	38	C	WRC		10,90
11 3036 005	● 1	1	3	38	D	KUD		10,90
11 3036 010	● 1,5	1	3	38	D	KUD		10,90
11 3036 015	● 2	2	3	38	D	KUD		10,90
11 3046 005	● 1,5	4	3	38	E	TRE		10,90
11 3056 005	● 1,5	4	3	38	F	RBF		10,90
11 3066 005	● 1,5	4	3	38	G	SPG		10,90
11 3196 005	● 1,5	4	3	38	M	SKM		10,90

	COMBI	CURVE	
ZYA			848
ZYB			849
WRC			850
WRC			851
RBF			852
SKM			853
KEL			854
KSJ			855
KSK			856



Kegel SKM Form

Cone SKM shape

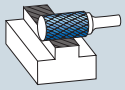
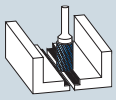
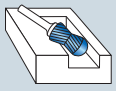
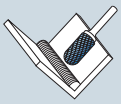
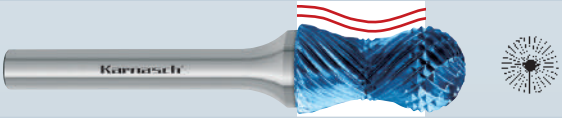
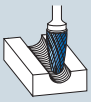
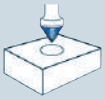
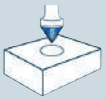
Die Schnittpunkte zwischen Winkelform (WKN) und Kegelform (SKM) ergeben das einzigartige **COMBI+CURVE Führungs-Rundungs-Entgratungssystem**

The intersecting points of the countersink (WKN) and cone shapes (SKM) form the unique **COMBI+CURVE guiding-rounding-deburring system**

Winkel WKN Form

Countersink WKN shape

COMBI+CURVE

	COMBI	CURVE	
ZYA			848
ZYB			849
WRC			850
WRC			851
RBF			852
SKM			853
KEL			854
KSJ			855
KSK			856

Die Kombination aus den gängigsten Kopfformen wie Zylinder ZYA + ZYB, Walzenrund WRC, Rundbogen RBF, Spitzbogen SPG, Rundkegel KEL, Winkel KSJ + KSK mit dem einzigartigen **COMBI+CURVE Führungs-Rundungs-Entgratungssystem** ergeben folgende Vorteile:

- Ideal zum schnellen Kantenverrunden.
- Die Kanten werden nicht einfach flach abgeschrägt, sondern erhalten durch das einzigartige **Führungs-Rundungs-Entgratungssystem** eine saubere Rundung.
- Der **COMBI+CURVE** zentriert sich selbst, immer mittig zur Kante.
- Durch die einzigartige Selbstzentrierung ist ein Abgleiten oder Verrutschen an scharfen Kanten nahezu unmöglich.
- Somit besteht eine deutlich bessere Kontrolle und garantiert einen einfachen und schnellen Materialabtrag.

Anwendbar in den verschiedensten Materialen wie: Gusseisen, Stahl < 60 HRC, Edelstahl (INOX), Nickelbasis- und Titanlegierungen, sowie Kupfer, Messing und Bronze

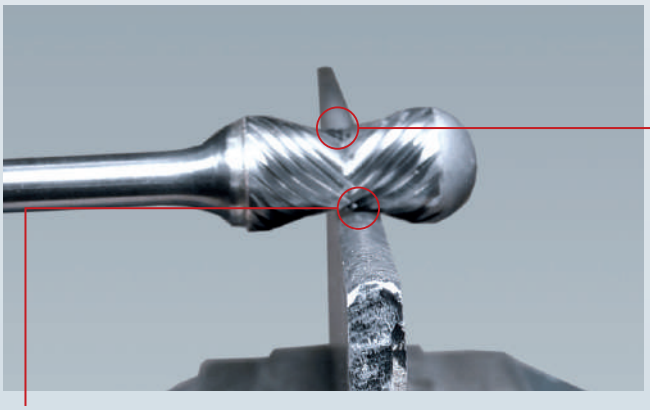
The combination of the most used head shapes as cylinder ZYA + ZYB, ball nosed cylinder WRC, ball nosed tree RBF, tree SPG, ball nosed cone KEL, countersink KSJ + KSK with the unique **COMBI+CURVE guiding-rounding-deburring system** result in the following advantages:

- The ideal tool for extremly fast chamfering. The edges are not simply bevelled, but by the unique guiding-rounding-deburring system smoothly rounded.
- **COMBI+CURVE guiding-rounding-deburring system** always centres itself on the centre of the edge.
- Slipping off the edge is almost impossible. This gives best control and guarantees faster and easier removal of material.

Can be used on a wide variety of material e.g. cast iron, steel < 60 HRC, stainless steel (INOX), nickel-based and titanium alloys, copper, brass and bronze.

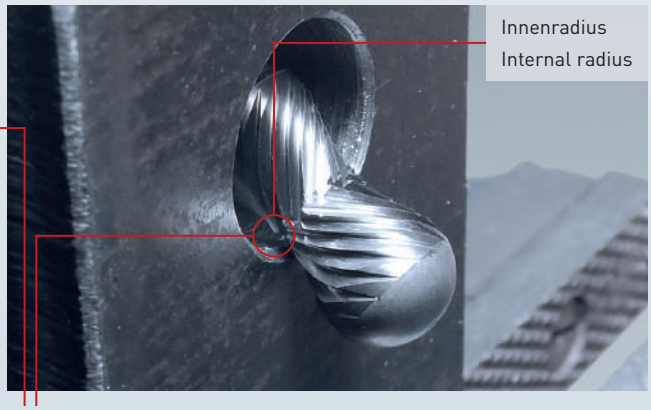
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CURVE IN ACTION



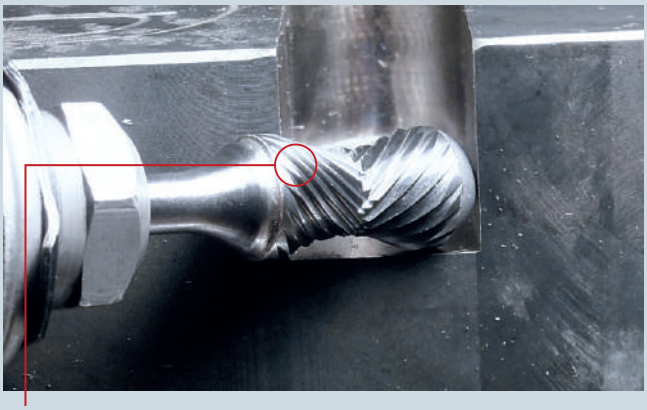
Außenradius

External radius



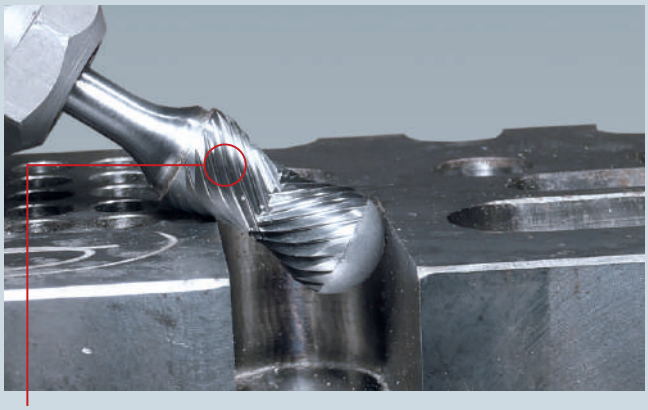
Die Schnittpunkte zwischen Winkelform (WKN) und Kegelform (SKM) ergeben das einzigartige **COMBI+CURVE Führungs-Rundungs-Entgratungssystem**

The intersecting points of the countersink (WKN) and cone shapes (SKM) form the unique **COMBI+CURVE guiding-rounding-deburring system**



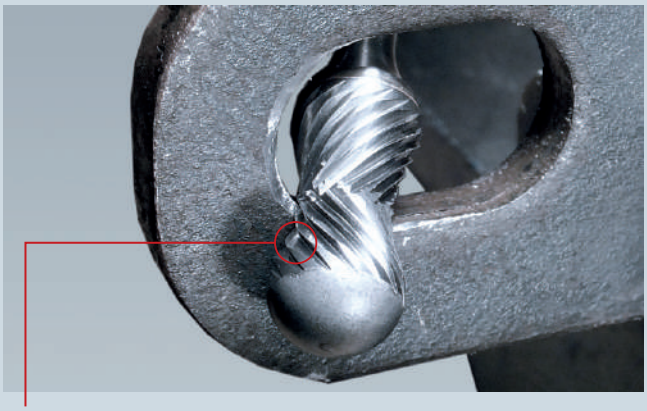
Interne Fase in SKM Form

Internal chamfer with SKM shape



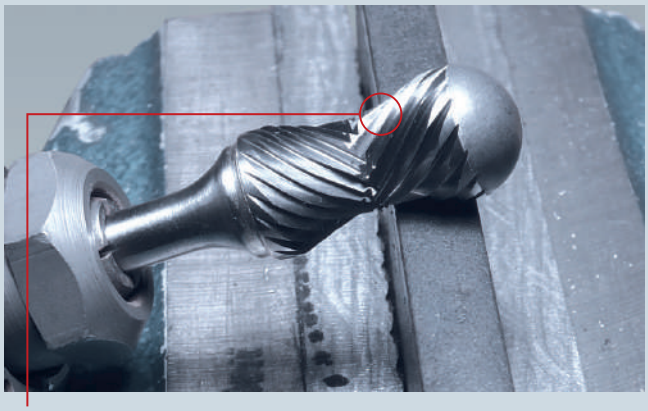
Außenfase in SKM Form

External chamfer with SKM shape



Interne Fase in WKN Form

Internal chamfer with WKN shape



Außenfase in WKN Form

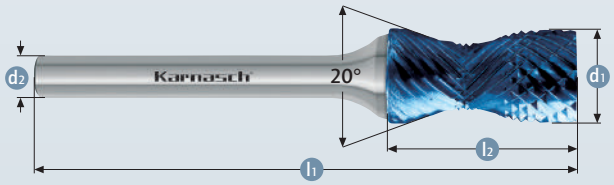
External chamfer with WKN shape

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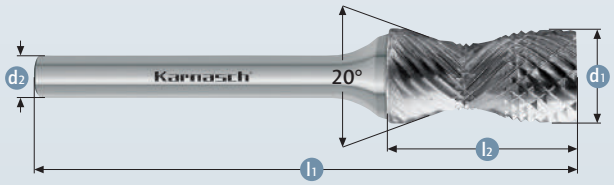
COMBI+CURVE

11 6019

BLUETEC BESCHICHTET COATED

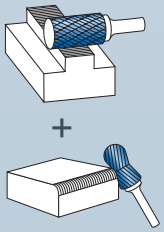


11 4019



Curve + Zylinder

Curve + Cylinder



Schnittdaten Cutting data 753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6019 100	• 12	25	6	70	✔	–	45,95

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4019 100	• 12	25	6	70	✔	–	41,05

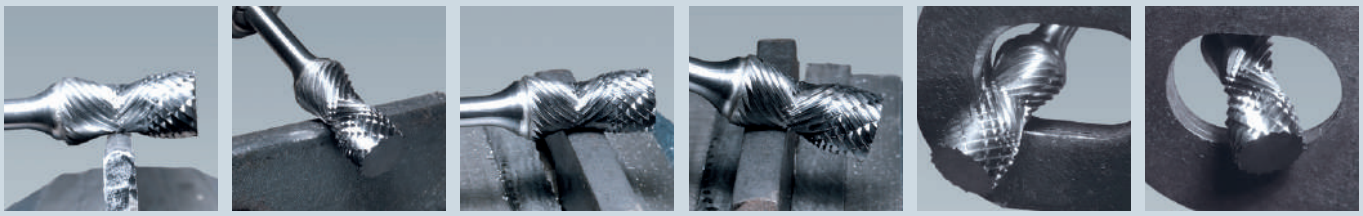
Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓

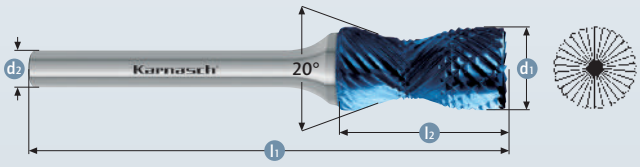


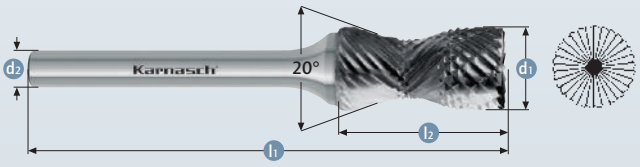
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11 6020

BLUETEC BESCHICHTET COATED

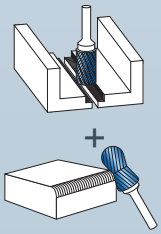
11 4020





Curve + Zylinder mit Stirnverzahnung

Curve + Cylinder with end cut



Schnittdaten Cutting data

753

Film Movie

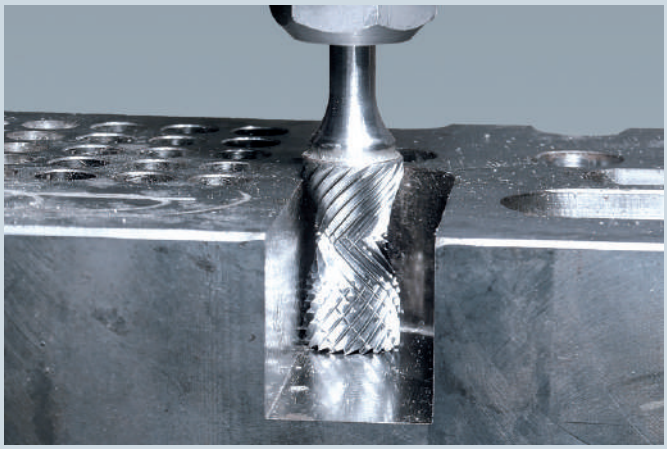
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6020 100	• 12	25	6	70	✔	–	58,05

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4020 100	• 12	25	6	70	✔	–	53,10

Anwendungsbeispiele / Application examples

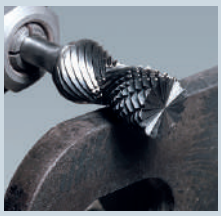
COMBI →

+



CURVE ↓



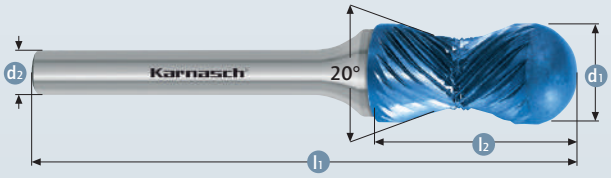


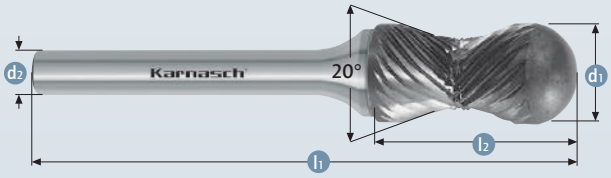
COMBI+CURVE

11 6021

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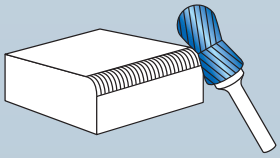
11 4021





Curve + Walzenrundform

Curve + Ball nosed cylinder



Schnittdaten Cutting data 753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6021 100	• 12	25	6	70	✔	–	50,95

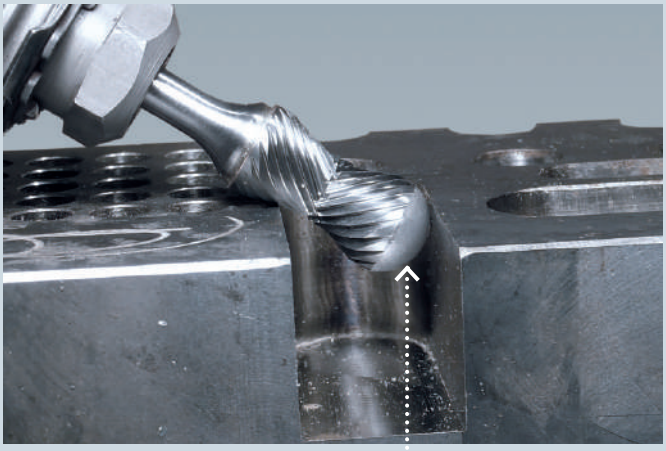
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4021 100	• 12	25	6	70	✔	–	46,05

Anwendungsbeispiele / Application examples

COMBI →

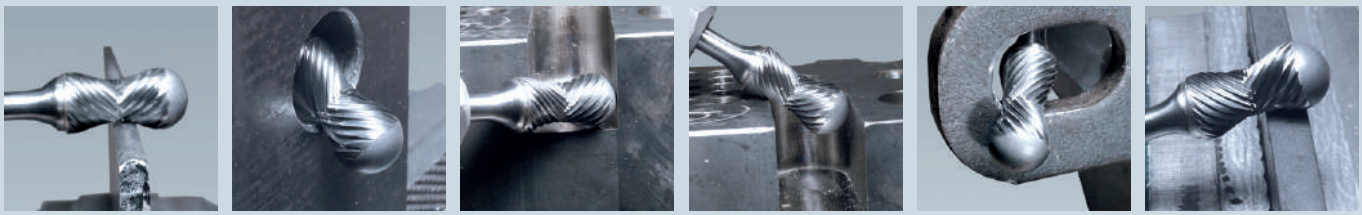
\+

CURVE ↓



Der Radius an der Spitze des Frässtifts dient als Führung und Abstützung. Beschädigungen am Werkstück werden vermieden.

The radius at the front of the burr serves as a guide and a support. Damage to the workpiece can thus be avoided.

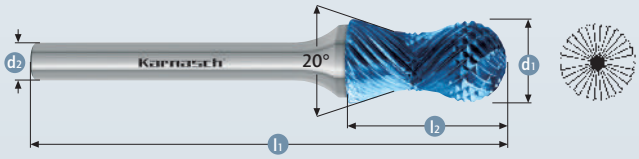


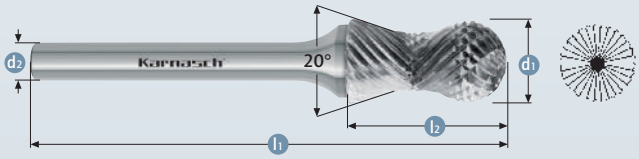
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11 6022

BLUETEC BESCHICHTET COATED

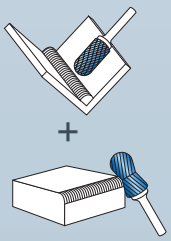
11 4022





Curve + Walzenrundform

Curve + Ball nosed cylinder



Schnittdaten Cutting data

753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6022 100	• 12	25	6	70	✔	–	50,95

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4022 100	• 12	25	6	70	✔	–	46,05

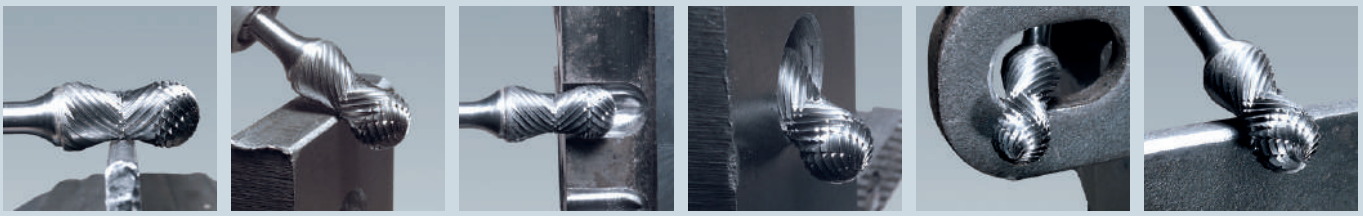
Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓



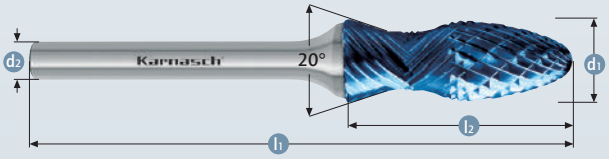
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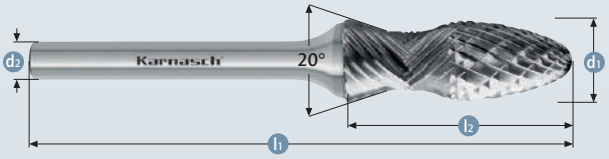
COMBI+CURVE

11 6023

BLUETEC BESCHICHTET COATED

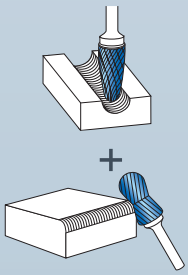
11 4023





Curve + Rundbogen

Curve + Ball nosed tree



Schnittdaten Cutting data 753

Film Movie

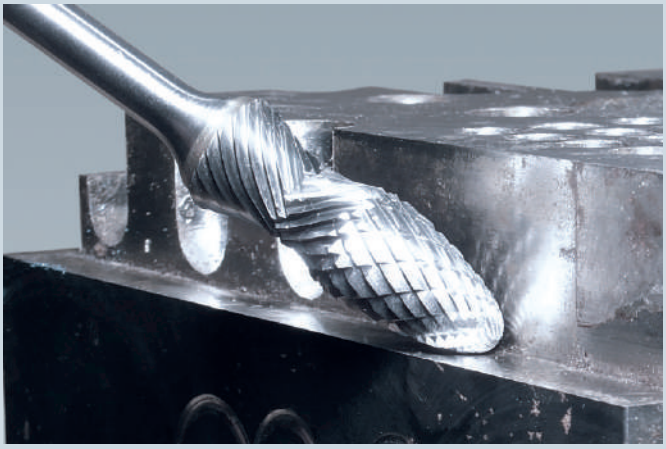
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6023 100	• 12	35	6	80	✔	–	59,75

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4023 100	• 12	35	6	80	✔	–	54,85

Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓

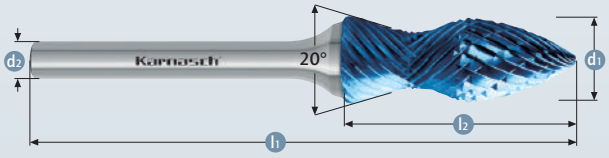


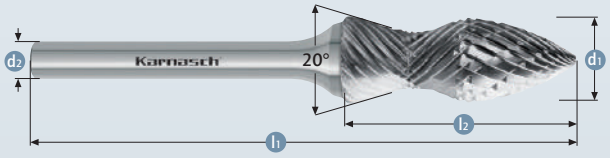




11 6024

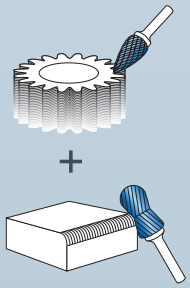
11 4024





Curve + Spitzbogen

Curve + Tree



Schnittdaten Cutting data

753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6024 100	• 12	35	6	80	✔	–	46,50

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4024 100	• 12	35	6	80	✔	–	41,60

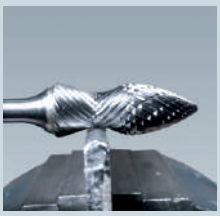
Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓









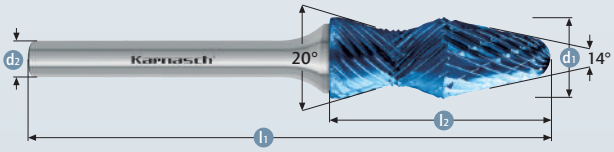
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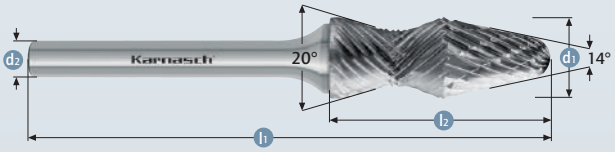
COMBI+CURVE

11 6025

BLUETEC BESCHICHTET COATED

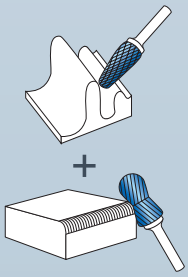
11 4025





Curve + Rundkegel

Curve + Ball nosed cone



Schnittdaten Cutting data 753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6025 100	• 12	35	6	80	✔	–	49,70

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4025 100	• 12	35	6	80	✔	–	44,75

Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓





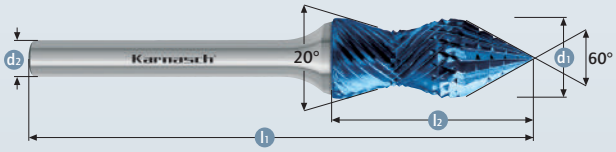


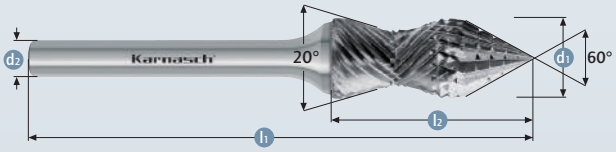
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11 6026

11 4026

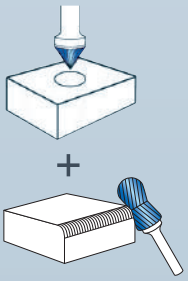
BLUETEC BESCHICHTET COATED





Curve + Kegel 60°

Curve + Countersink 60°



Schnittdaten Cutting data

753

Film Movie

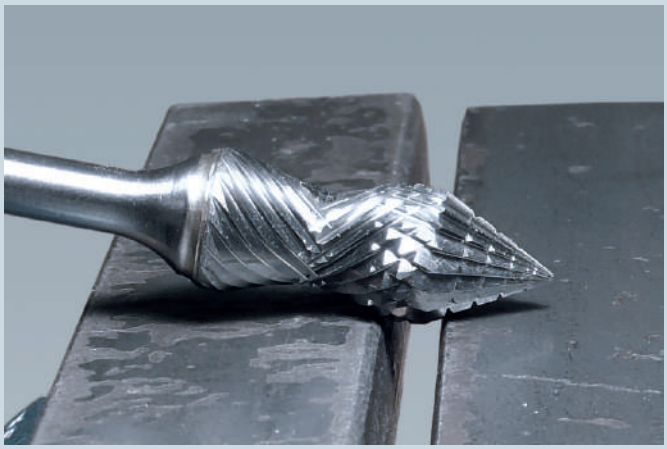
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6026 100	• 12	28	6	73	✔	–	46,05

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4026 100	• 12	28	6	73	✔	–	41,15

Anwendungsbeispiele / Application examples

COMBI →

+



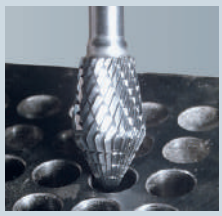
CURVE ↓









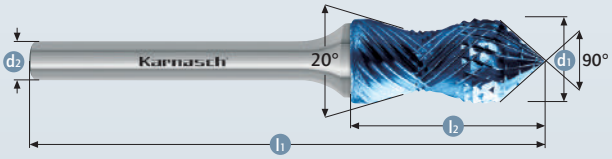


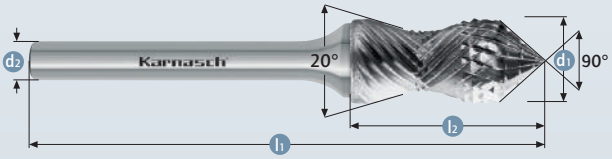
COMBI+CURVE

11 6027

11 4027

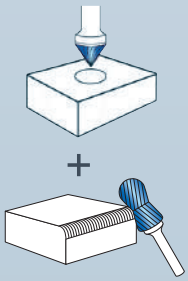
BLUETEC BESCHICHTET COATED





Curve + Kegel 90°

Curve + Countersink 90°



Schnittdaten Cutting data

Film Movie

753

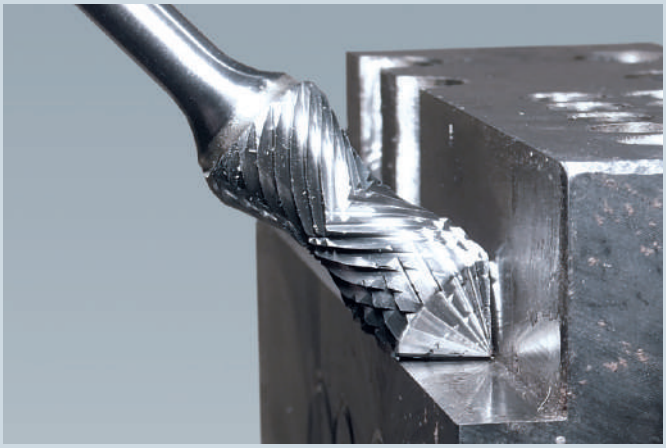
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6027 100	• 12	31	6	76	✔	–	46,05

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4027 100	• 12	31	6	76	✔	–	41,15

Anwendungsbeispiele / Application examples

COMBI →

+



CURVE ↓









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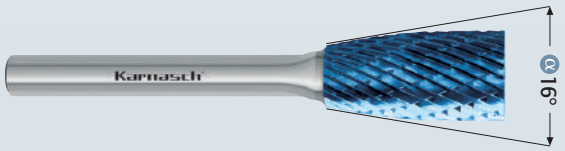
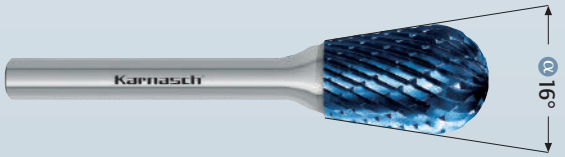
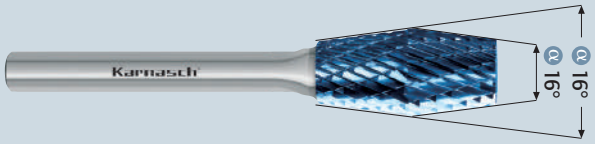
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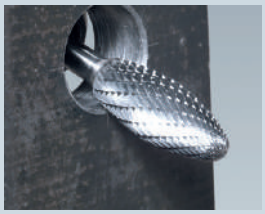
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COMBI+FORM

COMBI			FORM			
ZYA	+	WKN		Zylinder ohne Stirnverzahnung + Winkel	Cylinder without end cut + inverted cone	860
ZYB	+	WKN		Zylinder mit Stirnverzahnung + Winkel	Cylinder with end cut + inverted cone	860
WRC	+	WKN		Walzenrundform + Winkel	Ball nosed cylinder + inverted cone	861
WKN	+	WKN		Winkel + Winkel	Inverted cone + inverted cone	861
KSJ	+	ZYA		Kegel 60° + Zylinder	Countersink 60° + cylinder	862

Anwendungsbeispiele / Application examples







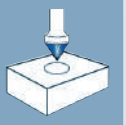
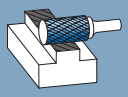
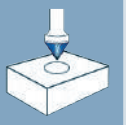
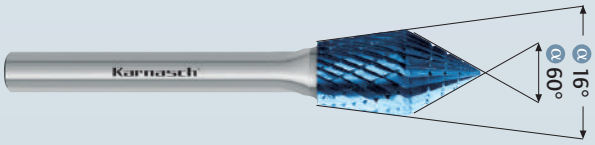
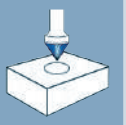
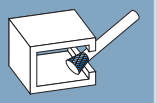
PRODUKTBESCHREIBUNG:

Die neuen **COMBI+FORM** Frässtifte bieten ein Maß an noch nie zuvor gesehener Vielseitigkeit.

COMBI+FORM Frässtifte sind hervorragend geeignet zum Nachbearbeiten vom komplexen Werkstücken.
Durch die Zusammenführung von verschiedenen Formen, werden Rüstkosten minimiert. Zeitaufwendige Werkzeugwechsel, Kauf weiterer Formen wird vermieden.
Entgraten, Kanten-, sowie verschiedenartigste Multifunktionsarbeiten sind mit nur einem Werkzeug möglich.

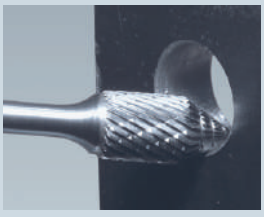
Die **COMBI+FORM** Frässtifte sind geeignet für eine Vielzahl von Metallen und Stahlsorten wie: Gusseisen, Stahl <60 HRC, Edelstahl (INOX), Nickelbasis- und Titanlegierungen, Kupfer, Messing und Bronze

Grampelhuber GmbH | A-4810 Gmunden/Österreich | T: +43 (0)7612-64902-0 | F: +43 (0)7612-64902-8 | mail: office@grampelhuber.at | www.grampelhuber.at

COMBI			FORM			
KSK 	+	ZYA 		Kegel 90° + Zylinder	Countersink 90° + cylinder	862
KSJ 	+	WKN 		Kegel 60° + Winkel	Countersink 60° + inverted cone	863
– 	–			Kegel + Kegel	Countersink + Countersink	864

Anwendungsbeispiele / Application examples







PRODUCT DESCRIPTION:

COMBI+FORM versatility to suit almost any application
Just like any multi-tool in the DIY sector, there is now high performance multipurpose burrs for the industry. The **COMBI+FORM** line has been developed to reduce downtime and cover multi-application processes for metal removal. These exclusive new shapes will cover your deburring, edging and blending work in one simple burr solution. This range is ideal for complex parts where different shapes are required. The **COMBI+FORM** will maximise your productivity.

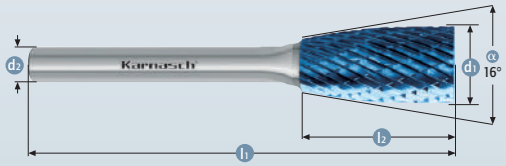
Features and benefits
- Reduced downtime for end user
- Special tooth geometry manufactured using the latest CNC machines
- The highest quality sintered tungsten carbide is used to ensure consistent performance
- A versatile burr to be used on a wide range of materials and processes

Can be used on a wide variety of material e.g. cast iron, steel <60 HRC, stainless steel (INOX), nickel-based and titanium alloys, copper, brass and bronze

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11 6051

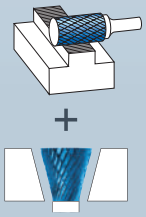
BLUETEC BESCHICHTET COATED



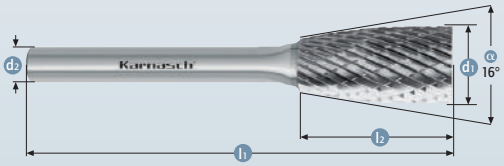
FORM / SHAPE **ZYA / WKN**

Zylinder ohne Stirnverzahnung + Winkel

Cylinder without end cut + inverted cone



11 4051



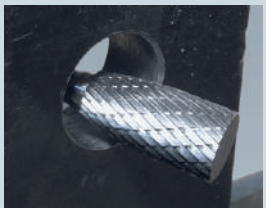
Schnittdaten Cutting data 753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6051 100	% 12	25	6	70			24,45

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4051 100	% 12	25	6	70			21,85

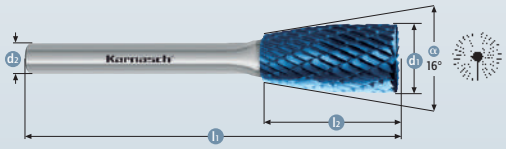
Anwendungsbeispiele
Application examples



11 6052

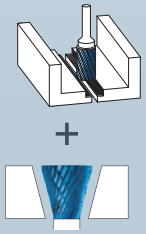
BLUETEC BESCHICHTET COATED



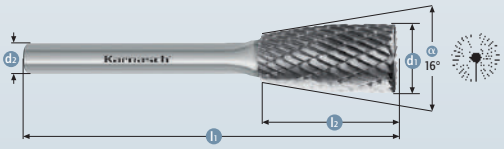
FORM / SHAPE **ZYB / WKN**

Zylinder mit Stirnverzahnung + Winkel

Cylinder with end cut + inverted cone



11 4052



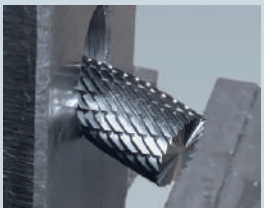
Schnittdaten Cutting data 753

Film Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6052 100	% 12	25	6	70			26,65

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4052 100	% 12	25	6	70			24,05

Anwendungsbeispiele
Application examples

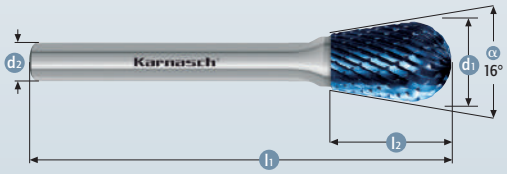





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11 6053

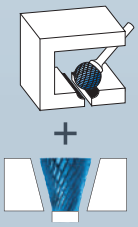
BLUETEC BESCHICHTET COATED



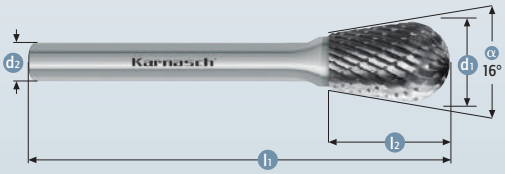
FORM / SHAPE **WRC / WKN**

Walzenrundform + Winkel

Ball nosed cylinder + inverted cone



11 4053



Schnittdaten / Cutting data — Film / Movie

753

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6053 100	% 12	20	6	65			19,85

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4053 100	% 12	20	6	65			17,30

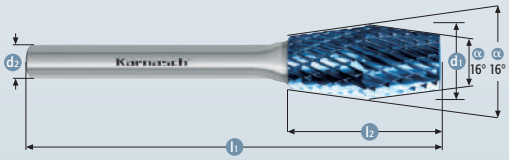
Anwendungsbeispiele
Application examples






11 6058

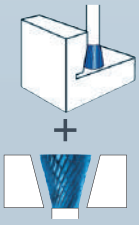
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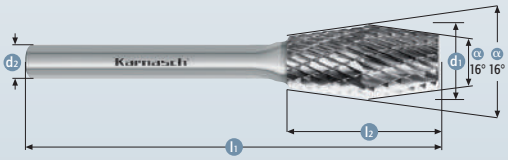
FORM / SHAPE **WKN / WKN**

Winkel + Winkel

Inverted cone + inverted cone



11 4058



Schnittdaten / Cutting data — Film / Movie

753

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6058 100	% 12	25	6	70			31,30

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4058 100	% 12	25	6	70			28,70

Anwendungsbeispiele
Application examples



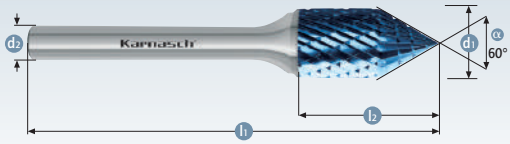



% Sonderpreis / Sale Artikel. Lieferbar solange Vorrat.
Special price / sale article. While stocks last.

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11 6059

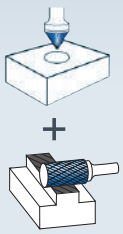
BLUETEC BESCHICHTET COATED



FORM / SHAPE **KSJ / ZYA**

Kegel 60° + Zylinder

Countersink 60° + cylinder



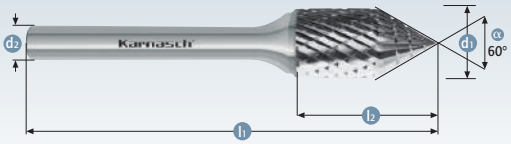
Schnittdaten Cutting data

Film Movie

753

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6059 100	% 12	25	6	70			21,50

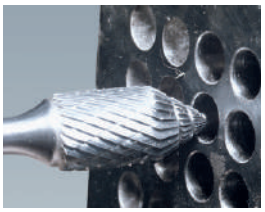
11 4059



Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4059 100	% 12	25	6	70			18,95

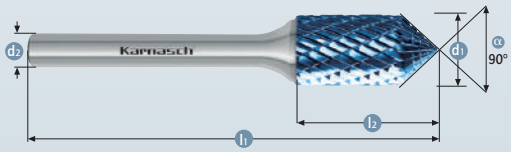
Anwendungsbeispiele Application examples



11 6060

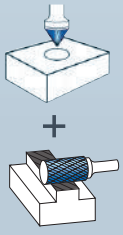
BLUETEC BESCHICHTET COATED



FORM / SHAPE **KSK / ZYA**

Kegel 90° + Zylinder

Countersink 90° + cylinder



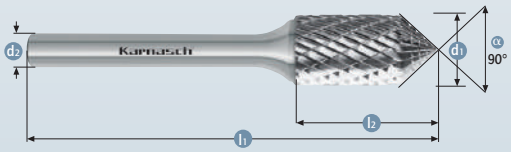
Schnittdaten Cutting data

Film Movie

753

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6060 100	% 12	25	6	70			19,55

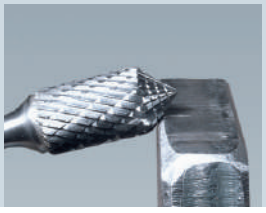
11 4060



Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4060 100	% 12	25	6	70			16,95

Anwendungsbeispiele Application examples





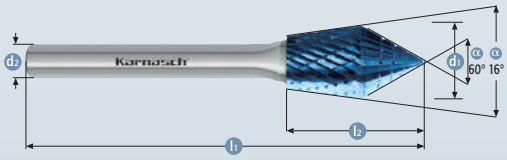

COMBI+FORM

Karnasch®

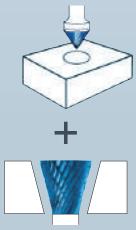
11 6061

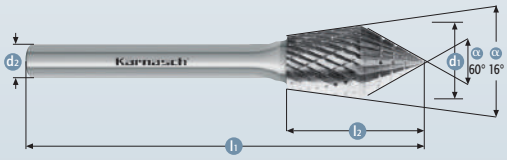
11 4061

BLUETEC BESCHICHTET COATED



FORM / SHAPE	KSJ / WKN
Kegel 60° + Winkel	
Countersink 60° + inverted cone	





Schnittdaten Cutting data

753

Film Movie

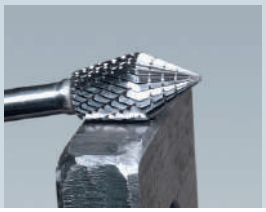
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6061 100	% 12	23	6	68			19,55

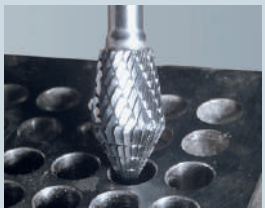
Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4061 100	% 12	23	6	68			16,95

Anwendungsbeispiele
Application examples









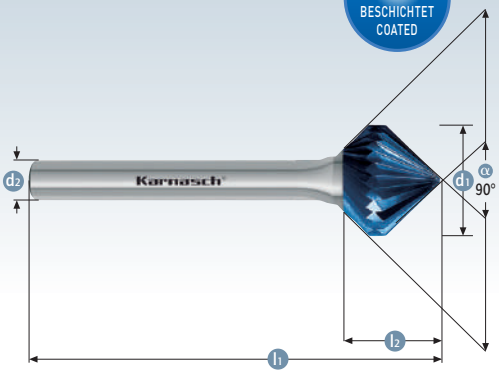
Qualitätsprodukte für die Metallbearbeitung.
Quality products for metalworking.

Karnasch® PROFESSIONAL TOOLS

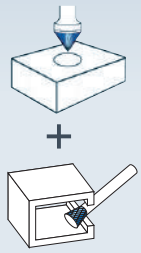


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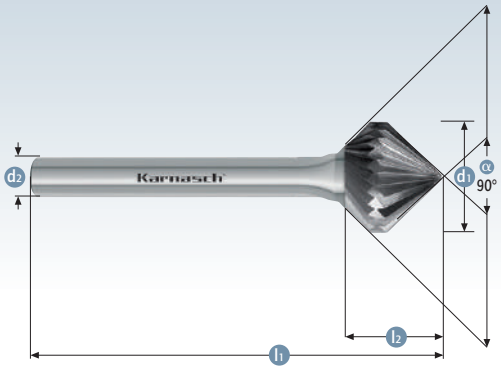
11 6063



FORM / SHAPE	KSK / KSK
Kegel 90° + Kegel 90°	
Countersink 90° + countersink 90°	



11 4063



Schnittdaten
Cutting data

753

Film
Movie

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 6063 100	• 16	15	6	60			52,30

Art.	d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 4063 100	• 16	15	6	60			47,40

Anwendungsbeispiele
Application examples






Qualitätsprodukte für die Metallbearbeitung.
Quality products for metalworking.

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PROFESSIONAL TOOLS



Anwendungsbeispiele / Application examples







Reifenreparatur

Frässtifte für exakte Schadensbearbeitung an Radial und Diagonalreifen.

Geeignet für Reparaturen an Autoreifen, LKW Reifen, Reifen für Fahrzeuge in der Landwirtschaft sowie Baufahrzeugreifen.

Die speziell angepasste Schneidgeometrie ermöglicht eine saubere und Professionelle Bearbeitung des Lochkanals.

Vorgehensweise – Bearbeiten des Lochkanals

Mit einem Vorstecher ist der Verlauf des Lochkanals von innen nach außen festzustellen. Somit wird die Schadensgröße innen und außen am Reifen gemessen (max. 6 mm).

Der Lochkanal wird mit einem **passenden Frässtift** zuerst von innen nach außen und dann von außen nach innen bearbeitet und gesäubert.

Hierbei ist besonders darauf zu achten, dass der Schadenskanal genau durchdrungen wird, ohne den Schaden zu vergrößern, intakte Cordseile nicht verletzt werden und eine Aufweitung/Lösung des umliegenden Gewerbes vermieden wird.

Werden hierbei weiterreichende Schäden wie Rostbildung oder Lösung festgestellt, muss der Reifen einer nochmaligen Prüfung auf die Reparaturfähigkeit mit vorgefertigten Reparaturkörpern unterzogen werden.

Tyre repair

Rotating mills for precise damage processing at radial and diagonal tyres.

Suitable for repairs to car tyres, truck tyres, tyres for agricultural vehicles and construction vehicle tyres.

The specifically adjusted cutting geometry permits clean and professional processing of the hole channel.

Procedure – Processing the hole channel

The course of the hole channel from the inside out is to be determined with a pricking awl. This measures the damage size on the inside and the outside of the tyre (max. 6 mm).

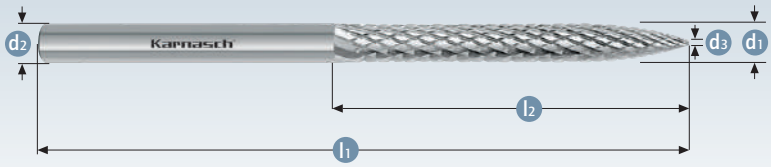
The hole channel is first processed and cleaned with a **matching rotating mill** from the inside outwards and then from the outside inwards.

For this, it must be particularly observed that the damage channel is penetrated precisely without enlarging the damage, that intact cord ropes are not damaged and that expansion/loosening of the surrounding tissue is avoided.

If further damage such as rust formation or loosening is found, the tyre must be inspected again for the possibility of repair with prefabricated repair elements.

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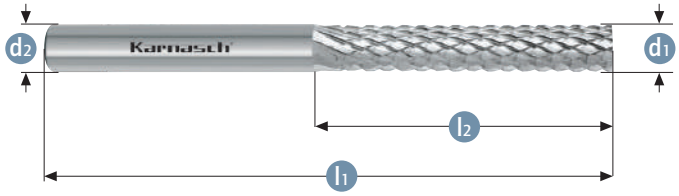
11 4070



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	2500 U/min

Art.	d1	d3	l2	d2	l1	gelötet brazed	VHM solid	€
11 4070 100	3	0,4	25	3	50		✔	9,05

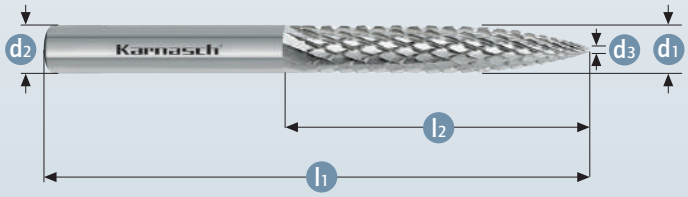
11 4071



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	2500 U/min

Art.	d1	d3	l2	d2	l1	gelötet brazed	VHM solid	€
11 4071 100	6	–	35	6	65		✔	17,20

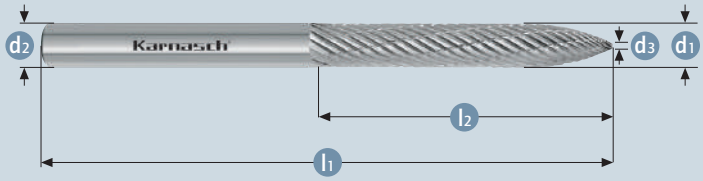
11 4072



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min

Art.	d1	d3	l2	d2	l1	gelötet brazed	VHM solid	€
11 4072 100	6	0,5	36	6	65		✔	18,35

11 4073

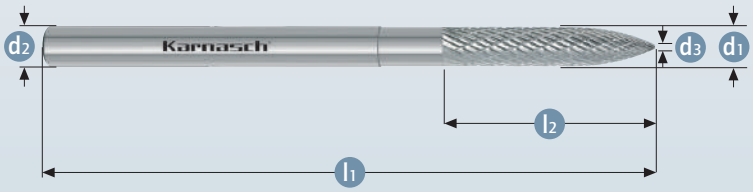


Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min

Art.	d1	d3	l2	d2	l1	gelötet brazed	VHM solid	€
11 4073 100	8	1	50	8	110		✔	36,55

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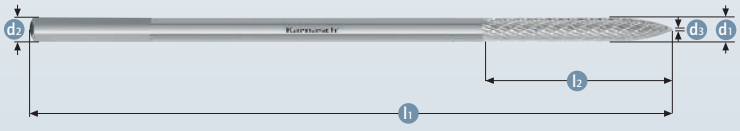
11 4074



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	2500 U/min

Art.	d1	d3	l2	d2	l1	gelötet brazed	VHM solid	€
11 4074 100	% 10	0,75	50	10	110	✔		32,10

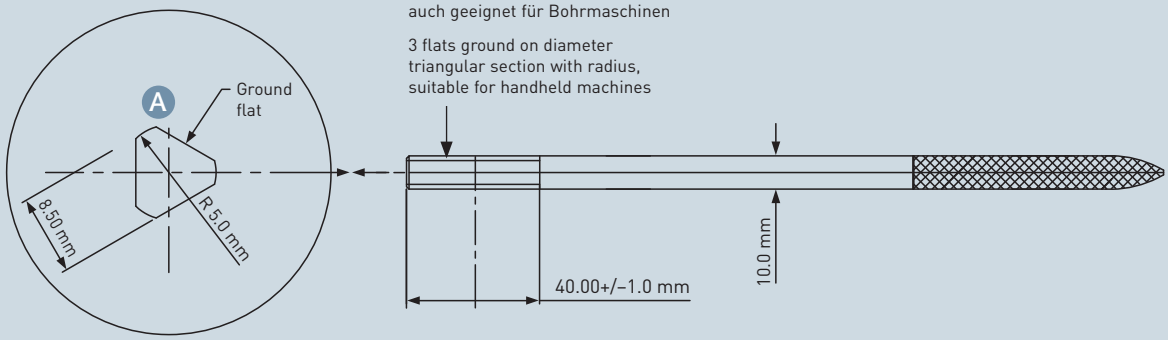
11 4075



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	2500 U/min

3 Flächen am Schaftende, dreieckiger Querschnitt mit Radius, auch geeignet für Bohrmaschinen

3 flats ground on diameter triangular section with radius, suitable for handheld machines

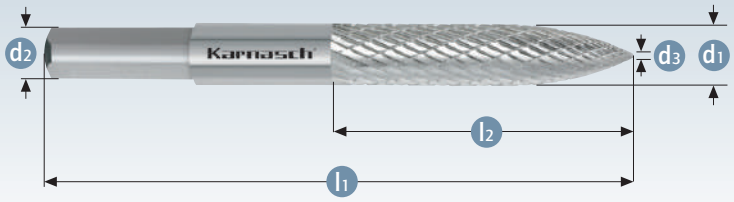


Art.	d1	d3	l2	d2 + A	l1	gelötet brazed	VHM solid	€
11 4075 100	% 10	0,75	75	10 + 3 Flächen + 3 flats	250	✔		94,35

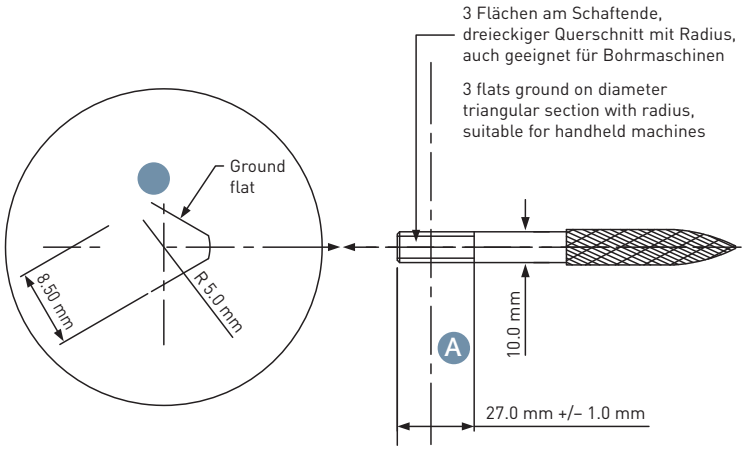
% Sonderpreis / Sale Artikel. Lieferbar solange Vorrat.
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11 4076

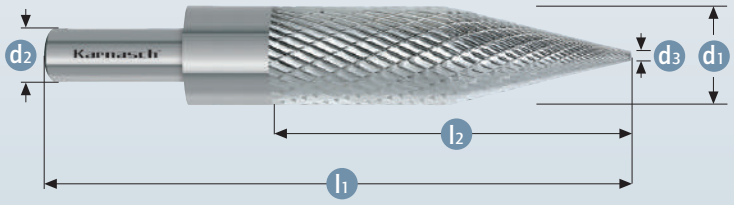


Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min

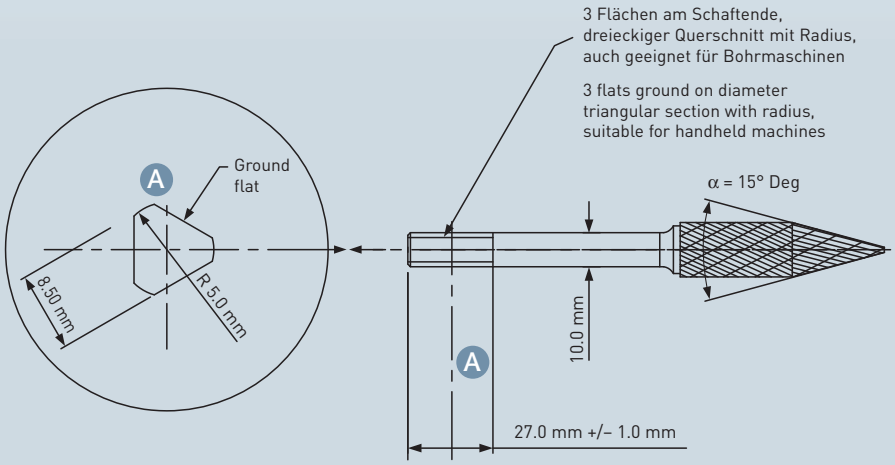


Art.		d1	d3	l2	d2 + A	l1	gelötet brazed	VHM solid	€
11 4076 100	%	12	0,8	55	10 + 3 Flächen + 3 flats	110	✔		57,25

11 4077



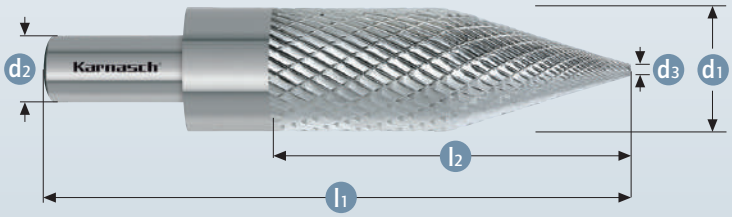
Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min



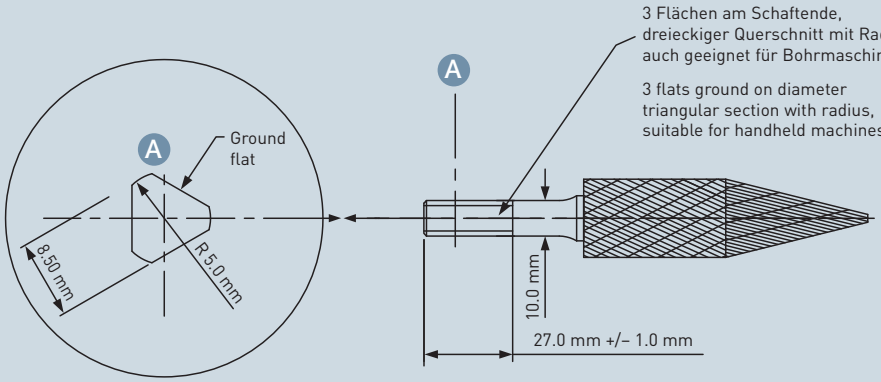
Art.		d1	d3	l2	d2 + A	l1	gelötet brazed	VHM solid	€
11 4077 100	%	16	1,5	60	10 + 3 Flächen + 3 flats	140	✔		134,05

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11 4078



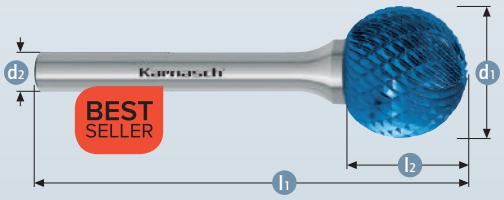
Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min



Art.		d1	d3	l2	d2 + A	l1	gelötet brazed	VHM solid	€
11 4078 100	%	22	2,2	80	10 + 3 Flächen + 3 flats	125	✔		203,55

11 5031

BLUETEC BESCHICHTET COATED

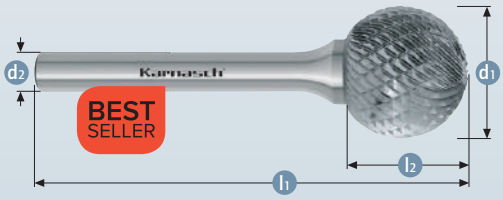


D FORM / SHAPE **KUD**

Kugel

Ball

11 3031



Geeignet für: Suitable for:	
Drehzahl: Rotational speed:	max. 2500 U/min

Schnittdaten Cutting data 753 | Film Movie

Bestseller – preisreduziert · Bestseller – price reduced

Art.		d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 5031 105	•	20	16,5	6	62	✔		29,85

Bestseller – preisreduziert · Bestseller – price reduced

Art.		d1	l2	d2	l1	gelötet brazed	VHM solid	€
11 3031 105	•	20	16,5	6	62	✔		24,35

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