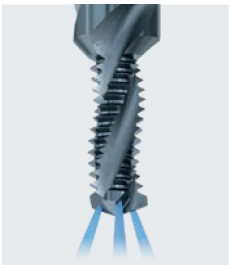
Gewindefräser
Thread Milling Cutters

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

BGF-Z2

Bohrgewindefräser
- Zur Herstellung von Kernloch, Senkfase und Innengewinde in einem Arbeitsgang
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden

Drill thread mills
- For the production of thread hole, chamfer and internal thread in one work process
- A premachined thread hole is not necessary
- For one thread size only



BGF-Z3

Bohrgewindefräser
- Zur Herstellung von Kernloch, Senkfase und Innengewinde in einem Arbeitsgang
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Speziell für vorgegossene Kernlöcher

Drill thread mills
- For the production of thread hole, chamfer and internal thread in one work process
- A premachined thread hole is not necessary
- For one thread size only
- Especially for pre-cast thread holes

BGF-Z4

Bohrgewindefräser
- Zur Herstellung von Kernloch, Senkfase und Innengewinde in einem Arbeitsgang
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Kurze Bearbeitungszeit durch 4 Nuten

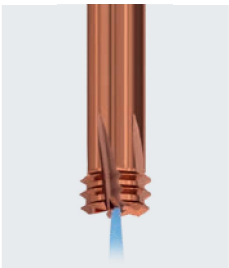
Drill thread mills
- For the production of thread hole, chamfer and internal thread in one work process
- A premachined thread hole is not necessary
- For one thread size only
- Short machining time due to 4 flutes

369 - 388

ZBGF

Zirkular-Bohrgewindefräser
- Zur Herstellung von Kernloch und Innengewinde in einem Arbeitsgang
- Anfasen des Kernlochs mit Stirnfase möglich
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden

Circular drill thread mills
- For the production of thread hole, chamfer and internal thread in one work process
- Chamfering the thread hole with face chamfer possible
- A premachined thread hole is not necessary
- For one thread size only



ZBGF-S-CUT

Zirkular-Bohrgewindefräser
- Zur Herstellung von Kernloch und Innengewinde in einem Arbeitsgang
- Anfasen des Kernlochs mit Stirnfase möglich
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Für nichtrostende Stahlwerkstoffe und Spezialwerkstoffe wie Inconel oder Titan

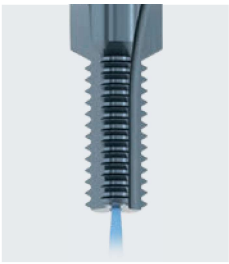
Circular drill thread mills
- For the production of thread hole and internal thread in one work process
- Chamfering the thread hole with face chamfer possible
- A premachined thread hole is not necessary
- For one thread size only
- For stainless steel materials and special materials such as Inconel or titanium

ZBGF-HCUT

Zirkular-Bohrgewindefräser
- Zur Herstellung von Kernloch und Innengewinde in einem Arbeitsgang
- Anfasen des Kernlochs mit Stirnfase möglich
- Kein vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Für harte Werkstoffe ab 44 HRC

Circular drill thread mills
- For the production of thread hole and internal thread in one work process
- Chamfering the thread hole with face chamfer possible
- A premachined thread hole is not necessary
- For one thread size only
- For hard materials from 44 HRC

389 - 404

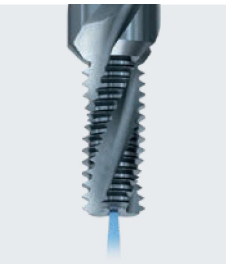


GSF

Gewindefräser mit Senkfase
- Zur Herstellung von Senkfase und Innengewinde in einem Arbeitsgang
- Vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden

Thread milling cutters with countersinking step
- For the production of countersunk chamfer and internal thread in one work process
- A premachined thread hole is necessary
- For one thread size only

405 - 426



GSF-R30

Gewindefräser mit Senkfase

- Zur Herstellung von Senkfase und Innengewinde in einem Arbeitsgang
- Vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Ruhiges Fräsen durch Nuten mit 30° Drallwinkel

Thread milling cutters with countersinking step

- For the production of countersunk chamfer and internal thread in one work process
- A premachined thread hole is necessary
- For one thread size only
- Smooth milling thanks to flutes with 30° helix angle

GSF-Z

Gewindefräser mit Senkfase

- Zur Herstellung von Senkfase und Innengewinde in einem Arbeitsgang
- Vorgearbeitetes Kernloch notwendig
- Abmessungsgebunden
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel
- Kurze Bearbeitungszeit durch mehr Nuten

Thread milling cutters with countersinking step

- For the production of countersunk chamfer and internal thread in one work process
- A premachined thread hole is necessary
- For one thread size only
- Smooth milling thanks to flutes with 15° helix angle
- Short machining time due to increased number of flutes

405 - 426

GF

Gewindefräser

- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend

Thread milling cutters

- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes

GF-R30

Gewindefräser

- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 30° Drallwinkel

Thread milling cutters

- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 30° helix angle

GF-R30-Long

Gewindefräser

- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 30° Drallwinkel
- Langes Gewindeteil für tiefe Gewinde

Thread milling cutters

- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 30° helix angle
- Long thread part for deep threads

427 - 441

GF-Z

Gewindefräser

- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel
- Kurze Bearbeitungszeit durch mehr Nuten

Thread milling cutters

- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 15° helix angle
- Short machining time due to increased number of flutes

GF-Z-Extern

Gewindefräser

- Zur Herstellung von Außengewinden
- Vorgearbeiteter Bolzen notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel

Thread milling cutters

- For the production of external threads
- A premachined bolt is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 15° helix angle

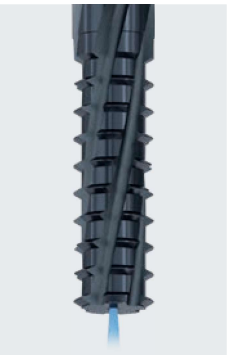
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Seite · Page

GF-Vario-Z

Gewindefräser
- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel
- Kurze Bearbeitungszeit durch mehr Nuten
- Zum Entfernen des unvollständigen Ganges am Gewindeanfang

Thread milling cutters
- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 15° helix angle
- Short machining time due to increased number of flutes
- For removing the incomplete thread at the start of the thread

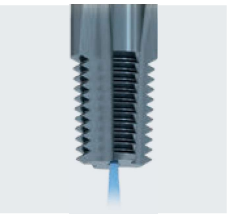


GF-Vario-Z-AZR1

Gewindefräser
- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel
- Kurze Bearbeitungszeit durch mehr Nuten
- Zum Entfernen des unvollständigen Ganges am Gewindeanfang
- Stark reduzierte Axialkräfte durch ausgesetzte Zahnreihen

Thread milling cutters
- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 15° helix angle
- Short machining time due to increased number of flutes
- For removing the incomplete thread at the start of the thread
- Significantly reduced radial forces due to alternating tooth rows

442 - 448



GF-KEG

Gewindefräser
- Zur Herstellung von kegeligen Innengewinden
- Zylindrisch oder besser kegelig vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend

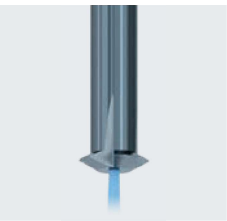
Thread milling cutters
- For the production of tapered internal threads
- A premachined cylindrical, or preferably, a tapered thread hole is necessary
- For one pitch only
- For different thread sizes

GF-KEG-R15-Long

Gewindefräser
- Zur Herstellung von kegeligen Innengewinden
- Zylindrisch oder besser kegelig vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Ruhiges Fräsen durch Nuten mit 15° Drallwinkel
- Langes Gewindeteil für tiefe Gewinde

Thread milling cutters
- For the production of tapered internal threads
- A premachined cylindrical, or preferably, a tapered thread hole is necessary
- For one pitch only
- For different thread sizes
- Smooth milling thanks to flutes with 15° helix angle
- Long thread part for deep threads

449 - 462



ZGF

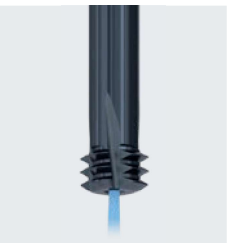
Zirkular-Gewindefräser
- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsübergreifend
- Abmessungsübergreifend
- Anfasen des Kernlochs mit Stirnfase möglich

Circular thread milling cutters
- For the production of internal threads
- A premachined thread hole is necessary
- For different thread pitches
- For different thread sizes
- Chamfering the thread hole with face chamfer possible

ZGF-Z

Zirkular-Gewindefräser
- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsübergreifend
- Abmessungsübergreifend
- Anfasen des Kernlochs mit Stirnfase möglich
- Kurze Bearbeitungszeit durch mehr Nuten

Circular thread milling cutters
- For the production of internal threads
- A premachined thread hole is necessary
- For different thread pitches
- For different thread sizes
- Chamfering the thread hole with face chamfer possible
- Short machining time due to increased number of flutes



ZGF-S-CUT

Zirkular-Gewindefräser
- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Für nichtrostende Stahlwerkstoffe und Spezialwerkstoffe wie Inconel oder Titan

Circular thread milling cutters
- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- For stainless steel materials and special materials such as Inconel or titanium

463 - 378

ZGF-HCUT

Zirkular-Gewindefräser

- Zur Herstellung von Innengewinden
- Vorgearbeitetes Kernloch notwendig
- Steigungsgebunden
- Abmessungsübergreifend
- Für harte Werkstoffe ab 44 HRC

Circular thread milling cutters

- For the production of internal threads
- A premachined thread hole is necessary
- For one pitch only
- For different thread sizes
- For hard materials from 44 HRC

463 - 378

ZIRK-GF

Zirkular-Gewindefräskörper
mit einer oder zwei Mehrzahn-Wechselplatten (MZP)

- Zur Herstellung von Innen- oder Außengewinden
- Vorgearbeitetes Kernloch oder vorgearbeiteter Bolzen notwendig
- Steigungsgebunden
- Abmessungsübergreifend

Circular thread milling bodies
with one or two multi-tooth exchangeable inserts (MZP)

- For the production of internal or external threads
- A premachined thread hole or a premachined bolt is necessary
- For one pitch only
- For different thread sizes

ZIRK-GF

Zirkular-Gewindefräskörper
mit 3-Zahn-Wechselplatte (3ZP)

- Zur Herstellung von Innen- oder Außengewinden
- Vorgearbeitetes Kernloch oder vorgearbeiteter Bolzen notwendig
- Steigungsübergreifend
- Abmessungsübergreifend

Circular thread milling bodies
with 3-tooth exchangeable inserts (3ZP)

- For the production of internal or external threads
- A premachined thread hole or a premachined bolt is necessary
- For different thread pitches
- For different thread sizes

ZIRK-GF

Zirkular-Gewindefräskörper
mit Stirn-Wechselplatte (SWP)

- Zur Herstellung von Innen- oder Außengewinden
- Vorgearbeitetes Kernloch oder vorgearbeiteter Bolzen notwendig
- Steigungsübergreifend
- Abmessungsübergreifend
- Kurze Bearbeitungszeit durch mehr Nuten

Circular thread milling bodies
with exchangeable face insert (SWP)

- For the production of internal or external threads
- A premachined thread hole or a premachined bolt is necessary
- For different thread pitches
- For different thread sizes
- Short machining time due to increased number of flutes

479 - 490

Gigant

Zirkular-Gewindefräskörper
mit 2-Zahn- oder 4-Zahn-Wendeplatten

- Zur Herstellung von Innen- oder Außengewinden
- Vorgearbeitetes Kernloch oder vorgearbeiteter Bolzen notwendig
- Steigungsübergreifend
- Abmessungsübergreifend

Circular thread milling bodies
with 2-tooth or 4-tooth indexable inserts

- For the production of internal or external threads
- A premachined thread hole or a premachined bolt is necessary
- For different thread pitches
- For different thread sizes

Gigant

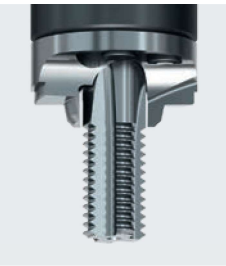
Fräsringe
für Gigant Zirkular-Gewindefräskörper

- Zum Entfernen des unvollständigen Ganges am Gewindeanfang
- Kein zeitlicher Mehraufwand

Milling rings
for Gigant circular thread milling bodies

- For removing the incomplete thread at the start of the thread
- No additional time required

491 - 509



MoSys

Kombinierbares Plan- und Stufensenk-System

- Zur Komplettbearbeitung von z.B. Bohrung, Gewinde und Plansenkung

Counterbore and stepped bore system for free combination

- For the complete machining of thread hole, thread and spot face

510 - 512

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Mögliche Modifikationen an Gewindefräsern

Possible modifications on thread milling cutters

Stirnfase (ohne oder mit Stirnschnitt)

Geeignet für:

- Alle Typen GF und GSF
- Alle Typen BGF (Stirnfase am Bohrteil)

Bemerkung:

- Stirnfase für zirkulares Anfasen des Kernloches
- Zusätzlicher Stirnschnitt für zirkulares Planfräsen

Face chamfer (with or without cutting face)

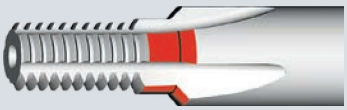
Suitable for:

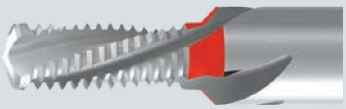
- All types GF and GSF
- All types BGF (face chamfer on the drilling part)

Note:

- Face chamfer for circular chamfering of the thread hole
- Additional cutting face for circular face milling

Unvollständigen Gang entfernen





Geeignet für:

- Alle Typen GF, GSF und BGF

Bemerkung:

- Am schaftseitigen Ende des Frästeils wird eine Stufe mit einer Länge von min. 1 x P hinterschliffen
- Bei entsprechender Eintauchtiefe wird beim Gewindefräsen der unvollständige, gratbehaftete Gewindeauslauf abgefräst (entfernt)

Removal of incomplete thread

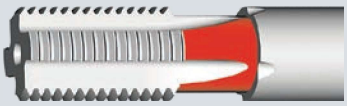
Suitable for:

- All types GF, GSF and BGF

Note:

- At the rear end of the thread part, a step with a length of min. 1 x P is relief-ground
- If the tool plunges to a correct depth during the thread milling process, the incomplete thread run-out with its burr is milled off (removed)

Halsfreischliff



Geeignet für:

- Alle Typen GF und GSF (Senkfase entfällt)

Bemerkung:

- Für größere Gewindetiefen (gesamte Gewindetiefe setzt sich aus zwei Fräsdurchläufen zusammen)
- Für einen konstanten Schnittdruck wird die Frästeillänge und die Halslänge im Verhältnis 1:1 aufgeteilt!
- Die Frästeillänge und der Versatz für einen zweiten Fräsdurchlauf sind immer ein ganzzahliges Vielfaches der Profilteilung

Recessed neck

Suitable for:

- All types GF and GSF (no countersinking step)

Note:

- For larger thread depths (total thread depth is achieved by a double milling process)
- For constant cutting pressure, the thread part length and the neck length are arranged in a ratio of 1:1!
- The thread part length and the offset for a second milling process are always a whole-number multiple of the thread pitch

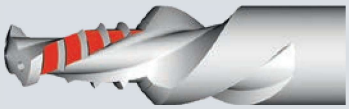
Mögliche Modifikationen an Gewindefräsern

Possible modifications on thread milling cutters

AZR

Radial ausgesetzte Zahnreihen

Radially alternating tooth rows



Geeignet für:

- Alle Typen GF, GSF und BGF

Bemerkung:

- Durch radial ausgesetzte Zahnreihen werden die Seitenkräfte beim Gewindefräsen reduziert; die zyklisch fehlenden Gewindelücken werden durch zusätzliche zirkulare Fräsumläufe gefräst

Suitable for:

- All types GF, GSF and BGF

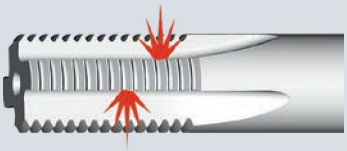
Note:

- Radially alternating tooth rows help to reduce lateral forces in thread milling; the alternating missing gaps in the thread are produced by additional circular milling orbits

IKZN

Innere Kühlschmierstoff-Zufuhr mit Austritt in den Nuten

Internal coolant supply exiting in the flutes



Geeignet für:

- Alle Typen GF und GSF

Bemerkung:

- Stirnseitig verschlossene Axialbohrung für die Bearbeitung von Durchgangslöchern
- Für maximale Stabilität des Frästeils sind die seitlichen Austrittsbohrungen axial versetzt angeordnet

Suitable for:

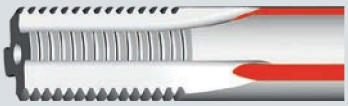
- All types GF and GSF

Note:

- Axial coolant bore closed up at the tool face for the production of through hole threads
- For maximum stability of the cutting part, the lateral coolant holes are axially staggered

Schaftkühlnuten

Coolant grooves along the shank



Geeignet für:

- Alle Typen GF, GSF und BGF

Bemerkung:

- Für die Bearbeitung von Durchgangslöchern
- Zusätzlich oder ersatzweise zu IKZ oder IKZN
- Ggf. unterstützend zur Kühlung der Senkfase bei GSF und BGF oder des Plansenkers bei MoSys-Anwendungen

Suitable for:

- All types GF, GSF and BGF

Note:

- For the production of through hole threads
- In addition or as an alternative to IKZ or IKZN
- Possible support in the cooling of the countersinking step of GSF and BGF type tools, or of the plane milling head in MoSys applications

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
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EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Einsatzempfehlungen und Schnittwerte

Bitte beachten:
Die in den jeweiligen Spalten angegebenen Schnittwerte sind Richtwerte, welche je nach Einsatzbedingungen (Werkzeugspannung, Werkstückspannung, Gewindetiefe, usw.) angepasst werden müssen.

v_c = Schnittgeschwindigkeit [m/min]

f_z = Vorschub pro Zahn [mm]

f_b = Vorschub beim Bohren [mm/U]

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Application recommendation and cutting data

Please note:
The cutting values listed in the respective columns are standard values which have to be adjusted to individual work conditions (tool clamping, workpiece clamping, thread depth, etc.).

v_c = Cutting speed [m/min]

f_z = Feed per tooth [mm]

f_b = Drilling feed [mm/rev.]

International comparison of materials, see page 764 - 785

		Einsatzgebiete – Material Applications – material			Material-Beispiele Material examples	Material-Nummern Material numbers
P		**Stahlwerkstoffe**	**Steel materials**			
	1.1	Kaltfließpressstähle, Baustähle, Automatenstähle, u.a.	Cold-extrusion steels, Construction steels, Free-cutting steels, etc.	≤ 600 N/mm²	Cq15	1.1132
					S235JR (St37-2)	1.0037
					10SPb20	1.0722
	2.1	Baustähle, Einsatzstähle, Stahlguss, u.a.	Construction steels, Cementation steels, Steel castings, etc.	≤ 800 N/mm²	E360 (St70-2)	1.0070
					16MnCr5	1.7131
					GS-25CrMo4	1.7218
	3.1	Einsatzstähle, Vergütungsstähle, Kaltarbeitsstähle, u.a.	Cementation steels, Heat-treatable steels, Cold work steels, etc.	≤ 1000 N/mm²	20MoCr3	1.7320
					42CrMo4	1.7225
					102Cr6	1.2067
	4.1	Vergütungsstähle, Kaltarbeitsstähle, Nitrierstähle, u.a.	Heat-treatable steels, Cold work steels, Nitriding steels, etc.	≤ 1200 N/mm²	50CrMo4	1.7228
					X45NiCrMo4	1.2767
					31CrMo12	1.8515
	5.1	Hochlegierte Stähle, Kaltarbeitsstähle, Warmarbeitsstähle, u.a.	High-alloyed steels, Cold work steels, Hot work steels, etc.	≤ 1400 N/mm²	X38CrMoV5-3	1.2367
					X100CrMoV8-1-1	1.2990
					X40CrMoV5-1	1.2344
M		**Nichtrostende Stahlwerkstoffe**	**Stainless steel materials**			
	1.1	Ferritisch, martensitisch	Ferritic, martensitic	≤ 950 N/mm²	X2CrTi12	1.4512
	2.1	Austenitisch	Austenitic	≤ 950 N/mm²	X6CrNiMoTi17-12-2	1.4571
	3.1	Austenitisch-ferritisch (Duplex)	Austenitic-ferritic (Duplex)	≤ 1100 N/mm²	X2CrNiMoN22-5-3	1.4462
	4.1	Austenitisch-ferritisch hitzebeständig (Super Duplex)	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm²	X2CrNiMoN25-7-4	1.4410
K		**Gusswerkstoffe**	**Cast materials**			
	1.1	Gusseisen mit Lamellengrafit (GJL)	Cast iron with lamellar graphite (GJL)	100-250 N/mm²	EN-GJL-200 (GG20)	EN-JL-1030
	1.2			250-450 N/mm²	EN-GJL-300 (GG30)	EN-JL-1050
	2.1	Gusseisen mit Kugelgrafit (GJS)	Cast iron with nodular graphite (GJS)	350-500 N/mm²	EN-GJS-400-15 (GGG40)	EN-JS-1030
	2.2			500-900 N/mm²	EN-GJS-700-2 (GGG70)	EN-JS-1070
	3.1	Gusseisen mit Vermiculargrafit (GJV)	Cast iron with vermicular graphite (GJV)	300-400 N/mm²	GJV 300	
	3.2			400-500 N/mm²	GJV 450	
	4.1	Temperguss (GTMW, GTMB)	Malleable cast iron (GTMW, GTMB)	250-500 N/mm²	EN-GJMW-350-4 (GTW-35)	EN-JM-1010
	4.2			500-800 N/mm²	EN-GJMB-450-6 (GTS-45)	EN-JM-1140
N		**Nichteisenwerkstoffe**	**Non ferrous materials**			
		Aluminium-Legierungen	**Aluminium alloys**			
	1.1	Aluminium-Knetlegierungen	Aluminium wrought alloys	≤ 200 N/mm²	EN AW-AlMn1	EN AW-3103
	1.2			≤ 350 N/mm²	EN AW-AlMgSi	EN AW-6060
	1.3			≤ 550 N/mm²	EN AW-AlZn5Mg3Cu	EN AW-7022
	1.4	Aluminium-Gusslegierungen	Aluminium cast alloys	Si ≤ 7%	EN AC-AlMg5	EN AC-51300
	1.5			7% < Si ≤ 12%	EN AC-AlSi9Cu3	EN AC-46500
	1.6			12% < Si ≤ 17%	GD-AlSi17Cu4FeMg	
		Kupfer-Legierungen	**Copper alloys**			
	2.1	Reinkupfer, niedriglegiertes Kupfer	Pure copper, low-alloyed copper	≤ 400 N/mm²	E-Cu 57	EN CW 004 A
	2.2	Kupfer-Zink-Legierungen (Messing, langspanend)	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm²	CuZn37 (Ms63)	EN CW 508 L
	2.3	Kupfer-Zink-Legierungen (Messing, kurzspanend)	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm²	CuZn36Pb3 (Ms58)	EN CW 603 N
	2.4	Kupfer-Aluminium-Legierungen (Alubronze, langspanend)	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm²	CuAl10Ni5Fe4	EN CW 307 G
	2.5	Kupfer-Zinn-Legierungen (Zinnbronze, langspanend)	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm²	CuSn8P	EN CW 459 K
	2.6	Kupfer-Zinn-Legierungen (Zinnbronze, kurzspanend)	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm²	CuSn7 ZnPb (Rg7)	2.1090
	2.7	Kupfer-Sonderlegierungen	Special copper alloys	≤ 600 N/mm²	(AMPCO® 8)	
	2.8			≤ 1400 N/mm²	(AMPCO® 45)	
		Magnesium-Legierungen	**Magnesium alloys**			
	3.1	Magnesium-Knetlegierungen	Magnesium wrought alloys	≤ 500 N/mm²	MgAl6Zn	3.5612
	3.2	Magnesium-Gusslegierungen	Magnesium cast alloys	≤ 500 N/mm²	EN-MCMgAl9Zn1	EN-MC21120
		Kunststoffe	**Synthetics**			
	4.1	Duroplaste (kurzspanend)	Duroplastics (short-chipping)		Bakelit, Pertinax	
	4.2	Thermoplaste (langspanend)	Thermoplastics (long-chipping)		PMMA, POM, PVC	
	4.3	Faserverstärkte Kunststoffe (Faseranteil ≤ 30%)	Fibre-reinforced synthetics (fibre content ≤ 30%)		GFK, CFK, AFK	
	4.4	Faserverstärkte Kunststoffe (Faseranteil > 30%)	Fibre-reinforced synthetics (fibre content > 30%)		GFK, CFK, AFK	
		Besondere Werkstoffe	**Special materials**			
	5.1	Grafit	Graphite		C 8000	
	5.2	Wolfram-Kupfer-Legierungen	Tungsten-copper alloys		W-Cu 80/20	
	5.3	Verbundwerkstoffe	Composite materials		Hylite, Alucobond	
S		**Spezialwerkstoffe**	**Special materials**			
		Titan-Legierungen	**Titanium alloys**			
	1.1	Reintitan	Pure titanium	≤ 450 N/mm²	Ti1	3.7025
	1.2	Titan-Legierungen	Titanium alloys	≤ 900 N/mm²	TiAl6V4	3.7165
	1.3			≤ 1250 N/mm²	TiAl4Mo4Sn2	3.7185
		Nickel-, Kobalt- und Eisen-Legierungen	**Nickel alloys, cobalt alloys and iron alloys**			
	2.1	Reinnickel	Pure nickel	≤ 600 N/mm²	Ni 99,6	2.4060
	2.2	Nickel-Basis-Legierungen	Nickel-base alloys	≤ 1000 N/mm²	Monel 400	2.4360
	2.3			≤ 1600 N/mm²	Inconel 718	2.4668
	2.4	Kobalt-Basis-Legierungen	Cobalt-base alloys	≤ 1000 N/mm²	Udimet 605	
	2.5			≤ 1600 N/mm²	Haynes 25	2.4964
	2.6	Eisen-Basis-Legierungen	Iron-base alloys	≤ 1500 N/mm²	Incoloy 800	1.4958
H		**Harte Werkstoffe**	**Hard materials**			
	1.1	Hochfeste Stähle, gehärtete Stähle, Hartguss	High strength steels, hardened steels, hard castings	44 - 50 HRC	Weldox 1100	
	1.2			50 - 55 HRC	Hardox 550	
	1.3			55 - 60 HRC	Armox 600T	
	1.4			60 - 63 HRC	Ferro-Titanit	
	1.5			63 - 66 HRC	HSSE	

BGF-Z2		BGF-Z3		BGF-Z4					
									
Unbeschichtet Uncoated	**TICN**	**Unbeschichtet** Uncoated	**TICN**	**TICN**	**TIALN-T3**				
v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	f_b [mm/U · mm/rev.] min. **empf. rec.** max.	f_z [mm] min. **empf. rec.** max.		
								1.1	P
								2.1	
								3.1	
								4.1	
								5.1	
								1.1	M
								2.1	
								3.1	
								4.1	
70 **100** 130	84 **120** 156	70 **100** 130	84 **120** 156	70 **100** 130	84 **120** 156	0,018 **0,030** 0,042 **x d_1**	0,006 **0,010** 0,014 **x d_F**	1.1	K
70 **100** 130	84 **120** 156	70 **100** 130	84 **120** 156	70 **100** 130	84 **120** 156	0,018 **0,030** 0,042 **x d_1**	0,006 **0,010** 0,014 **x d_F**	1.2	
70 **100** 130	84 **120** 156					0,012 **0,020** 0,028 **x d_1**	0,006 **0,010** 0,014 **x d_F**	2.1	
70 **100** 130	84 **120** 156					0,012 **0,020** 0,028 **x d_1**	0,006 **0,010** 0,014 **x d_F**	2.2	
70 **100** 130	84 **120** 156					0,018 **0,030** 0,042 **x d_1**	0,006 **0,010** 0,014 **x d_F**	3.1	
70 **100** 130	84 **120** 156					0,018 **0,030** 0,042 **x d_1**	0,006 **0,010** 0,014 **x d_F**	3.2	
								4.1	
								4.2	
126 **180** 234	126 **180** 234					0,012 **0,020** 0,028 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.1	N
126 **180** 234	126 **180** 234					0,012 **0,020** 0,028 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.2	
126 **180** 234	126 **180** 234					0,012 **0,020** 0,028 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.3	
126 **180** 234	126 **180** 234					0,018 **0,030** 0,042 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.4	
126 **180** 234	175 **250** 325	70 **100** 130	175 **250** 325	175 **250** 325	175 **250** 325	0,018 **0,030** 0,042 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.5	
	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,018 **0,030** 0,042 **x d_1**	0,007 **0,012** 0,017 **x d_F**	1.6	
								2.1	
126 **180** 234	175 **250** 325					0,015 **0,025** 0,035 **x d_1**	0,007 **0,012** 0,017 **x d_F**	2.2	
126 **180** 234	175 **250** 325	126 **180** 234	175 **250** 325	175 **250** 325	175 **250** 325	0,015 **0,025** 0,035 **x d_1**	0,007 **0,012** 0,017 **x d_F**	2.3	
								2.4	
								2.5	
105 **150** 195	126 **180** 234					0,018 **0,030** 0,042 **x d_1**	0,007 **0,012** 0,017 **x d_F**	2.6	
								2.7	
								2.8	
126 **180** 234	175 **250** 325					0,018 **0,030** 0,042 **x d_1**	0,007 **0,012** 0,017 **x d_F**	3.1	
126 **180** 234	175 **250** 325					0,021 **0,035** 0,049 **x d_1**	0,007 **0,012** 0,017 **x d_F**	3.2	
70 **100** 130	175 **250** 325					0,021 **0,035** 0,049 **x d_1**	0,007 **0,012** 0,017 **x d_F**	4.1	
								4.2	
								4.3	
								4.4	
								5.1	
								5.2	
								5.3	
								1.1	S
								1.2	
								1.3	
								2.1	
								2.2	
								2.3	
								2.4	
								2.5	
								2.6	
								1.1	H
								1.2	
								1.3	
								1.4	
								1.5	

		ZBGF				ZBGF-S-CUT				ZBGF-HCUT			
		 TIALN-86				 ALCR-89				 TIALN-T46			
		v_c [m/min] min.	empf. rec.	max.	f_z [mm] min. empf. rec. max.	v_c [m/min] min.	empf. rec.	max.	f_z [mm] min. empf. rec. max.	v_c [m/min] min.	empf. rec.	max.	f_z [mm] min. empf. rec. max.
P	1.1	126	**180**	234	0,006 **0,010** 0,014 x d_F	126	**180**	234	0,006 **0,010** 0,014 x d_F				
P	2.1	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
P	3.1	84	**120**	156	0,005 **0,008** 0,011 x d_F	84	**120**	156	0,005 **0,008** 0,011 x d_F				
P	4.1	70	**100**	130	0,004 **0,007** 0,010 x d_F	70	**100**	130	0,004 **0,007** 0,010 x d_F				
P	5.1	56	**80**	104	0,004 **0,006** 0,008 x d_F	56	**80**	104	0,004 **0,006** 0,008 x d_F				
M	1.1	63	**90**	117	0,005 **0,008** 0,011 x d_F	63	**90**	117	0,005 **0,008** 0,011 x d_F				
M	2.1	63	**90**	117	0,005 **0,008** 0,011 x d_F	63	**90**	117	0,005 **0,008** 0,011 x d_F				
M	3.1	42	**60**	78	0,004 **0,007** 0,010 x d_F	42	**60**	78	0,004 **0,007** 0,010 x d_F				
M	4.1	35	**50**	65	0,004 **0,006** 0,008 x d_F	35	**50**	65	0,004 **0,006** 0,008 x d_F				
K	1.1	112	**160**	208	0,005 **0,009** 0,013 x d_F	112	**160**	208	0,005 **0,009** 0,013 x d_F				
K	1.2	112	**160**	208	0,005 **0,009** 0,013 x d_F	112	**160**	208	0,005 **0,009** 0,013 x d_F				
K	2.1	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
K	2.2	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
K	3.1	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
K	3.2	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
K	4.1	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
K	4.2	105	**150**	195	0,005 **0,009** 0,013 x d_F	105	**150**	195	0,005 **0,009** 0,013 x d_F				
N	1.1	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	1.2	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	1.3	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	1.4	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	1.5	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	1.6	105	**150**	195	0,007 **0,012** 0,017 x d_F	105	**150**	195	0,007 **0,012** 0,017 x d_F				
N	2.1	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	2.2	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	2.3	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	2.4	126	**180**	234	0,006 **0,010** 0,014 x d_F	126	**180**	234	0,006 **0,010** 0,014 x d_F				
N	2.5	126	**180**	234	0,006 **0,010** 0,014 x d_F	126	**180**	234	0,006 **0,010** 0,014 x d_F				
N	2.6	126	**180**	234	0,006 **0,010** 0,014 x d_F	126	**180**	234	0,006 **0,010** 0,014 x d_F				
N	2.7	42	**60**	78	0,005 **0,008** 0,011 x d_F	42	**60**	78	0,005 **0,008** 0,011 x d_F	35	**50**	65	0,002 **0,004** 0,006 x d_F
N	2.8	35	**50**	65	0,005 **0,008** 0,011 x d_F	35	**50**	65	0,005 **0,008** 0,011 x d_F	35	**50**	65	0,002 **0,004** 0,006 x d_F
N	3.1	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	3.2	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	4.1	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	4.2	196	**280**	364	0,007 **0,012** 0,017 x d_F	196	**280**	364	0,007 **0,012** 0,017 x d_F				
N	4.3	105	**150**	195	0,007 **0,012** 0,017 x d_F	105	**150**	195	0,007 **0,012** 0,017 x d_F				
N	4.4	105	**150**	195	0,007 **0,012** 0,017 x d_F	105	**150**	195	0,007 **0,012** 0,017 x d_F				
N	5.1	105	**150**	195	0,007 **0,012** 0,017 x d_F	105	**150**	195	0,007 **0,012** 0,017 x d_F				
N	5.2	35	**50**	65	0,004 **0,007** 0,010 x d_F	35	**50**	65	0,004 **0,007** 0,010 x d_F				
N	5.3	105	**150**	195	0,007 **0,012** 0,017 x d_F	105	**150**	195	0,007 **0,012** 0,017 x d_F				
S	1.1					42	**60**	78	0,004 **0,006** 0,008 x d_F				
S	1.2					42	**60**	78	0,004 **0,006** 0,008 x d_F				
S	1.3					35	**50**	65	0,002 **0,004** 0,006 x d_F				
S	2.1					32	**45**	59	0,002 **0,004** 0,006 x d_F				
S	2.2					32	**45**	59	0,002 **0,004** 0,006 x d_F				
S	2.3					21	**30**	39	0,002 **0,004** 0,006 x d_F				
S	2.4					32	**45**	59	0,002 **0,004** 0,006 x d_F				
S	2.5					21	**30**	39	0,002 **0,004** 0,006 x d_F				
S	2.6					21	**30**	39	0,002 **0,004** 0,006 x d_F				
H	1.1									42	**60**	78	0,004 **0,007** 0,010 x d_F
H	1.2									35	**50**	65	0,004 **0,006** 0,008 x d_F
H	1.3									32	**45**	59	0,003 **0,005** 0,007 x d_F
H	1.4									21	**30**	39	0,002 **0,004** 0,006 x d_F
H	1.5									18	**25**	33	0,002 **0,003** 0,004 x d_F

GSF		GSF-R30		GSF-Z				
								
Unbeschichtet Uncoated	**TICN**	**Unbeschichtet** Uncoated	**TICN**	**Unbeschichtet** Uncoated	**TICN**			
v_c [m/min] min. **empf.** rec. max.	v_c [m/min] min. **empf.** rec. max.	v_c [m/min] min. **empf.** rec. max.	v_c [m/min] min. **empf.** rec. max.	v_c [m/min] min. **empf.** rec. max.	v_c [m/min] min. **empf.** rec. max.	f_z [mm] min. **empf.** rec. max.		
63 **90** 117	126 **180** 234	63 **90** 117	126 **180** 234	63 **90** 117	126 **180** 234	0,006 **0,010** 0,014 x d_F	1.1	P
53 **75** 98	105 **150** 195	53 **75** 98	105 **150** 195	53 **75** 98	105 **150** 195	0,005 **0,009** 0,013 x d_F	2.1	P
42 **60** 78	84 **120** 156	42 **60** 78	84 **120** 156	42 **60** 78	84 **120** 156	0,005 **0,008** 0,011 x d_F	3.1	P
35 **50** 65	70 **100** 130			35 **50** 65	70 **100** 130	0,004 **0,007** 0,010 x d_F	4.1	P
28 **40** 52	56 **80** 104			28 **40** 52	56 **80** 104	0,004 **0,006** 0,008 x d_F	5.1	P
	63 **90** 117		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F	1.1	M
	63 **90** 117		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F	2.1	M
	42 **60** 78				42 **60** 78	0,004 **0,007** 0,010 x d_F	3.1	M
	35 **50** 65				35 **50** 65	0,004 **0,006** 0,008 x d_F	4.1	M
70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F	1.1	K
70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F	1.2	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	2.1	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	2.2	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	3.1	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	3.2	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	4.1	K
63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F	4.2	K
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	1.1	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	1.2	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	1.3	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	1.4	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	1.5	N
	105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F	1.6	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	2.1	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	2.2	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	2.3	N
77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F	2.4	N
77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F	2.5	N
105 **150** 195	126 **180** 234	105 **150** 195	126 **180** 234	105 **150** 195	126 **180** 234	0,006 **0,010** 0,014 x d_F	2.6	N
	42 **60** 78		42 **60** 78		42 **60** 78	0,005 **0,008** 0,011 x d_F	2.7	N
	35 **50** 65				35 **50** 65	0,005 **0,008** 0,011 x d_F	2.8	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	3.1	N
126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F	3.2	N
77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F	4.1	N
77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F	4.2	N
	105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F	4.3	N
	105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F	4.4	N
70 **100** 130	105 **150** 195	70 **100** 130	105 **150** 195	70 **100** 130	105 **150** 195	0,007 **0,012** 0,017 x d_F	5.1	N
21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	0,004 **0,007** 0,010 x d_F	5.2	N
	105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F	5.3	N
28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F	1.1	S
28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F	1.2	S
21 **30** 39	35 **50** 65			21 **30** 39	35 **50** 65	0,002 **0,004** 0,006 x d_F	1.3	S
	32 **45** 59		35 **50** 65		32 **45** 59	0,002 **0,004** 0,006 x d_F	2.1	S
	32 **45** 59				32 **45** 59	0,002 **0,004** 0,006 x d_F	2.2	S
	21 **30** 39				21 **30** 39	0,002 **0,004** 0,006 x d_F	2.3	S
	32 **45** 59				32 **45** 59	0,002 **0,004** 0,006 x d_F	2.4	S
	21 **30** 39				21 **30** 39	0,002 **0,004** 0,006 x d_F	2.5	S
	21 **30** 39				21 **30** 39	0,002 **0,004** 0,006 x d_F	2.6	S
	32 **45** 59				32 **45** 59	0,002 **0,004** 0,006 x d_F	1.1	H
	28 **40** 52				28 **40** 52	0,002 **0,004** 0,006 x d_F	1.2	H
							1.3	H
							1.4	H
							1.5	H

		GF		GF-R30		GF-R30-Long		
								
		Unbeschichtet Uncoated	**TICN**	**Unbeschichtet** Uncoated	**TICN**	**Unbeschichtet** Uncoated	**TICN**	
		v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	f_z [mm] min. **empf. rec.** max.
P	1.1	63 **90** 117	126 **180** 234	63 **90** 117	126 **180** 234	63 **90** 117	126 **180** 234	0,006 **0,010** 0,014 x d_F
P	2.1	53 **75** 98	105 **150** 195	53 **75** 98	105 **150** 195	53 **75** 98	105 **150** 195	0,005 **0,009** 0,013 x d_F
P	3.1	42 **60** 78	84 **120** 156	42 **60** 78	84 **120** 156	42 **60** 78	84 **120** 156	0,005 **0,008** 0,011 x d_F
P	4.1	35 **50** 65	70 **100** 130					0,004 **0,007** 0,010 x d_F
P	5.1	28 **40** 52	56 **80** 104					0,004 **0,006** 0,008 x d_F
M	1.1		63 **90** 117		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F
M	2.1		63 **90** 117		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F
M	3.1		42 **60** 78					0,004 **0,007** 0,010 x d_F
M	4.1		35 **50** 65					0,004 **0,006** 0,008 x d_F
K	1.1	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F
K	1.2	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F
K	2.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	2.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	3.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	3.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	4.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	4.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
N	1.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.3	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.4	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.5	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.6		105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	2.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.3	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.4	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.5	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.6	105 **150** 195	126 **180** 234	105 **150** 195	126 **180** 234	105 **150** 195	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.7		42 **60** 78		42 **60** 78		42 **60** 78	0,005 **0,008** 0,011 x d_F
N	2.8		35 **50** 65					0,005 **0,008** 0,011 x d_F
N	3.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	3.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.1	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.2	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.3		105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	4.4		105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	5.1	70 **100** 130	105 **150** 195	70 **100** 130	105 **150** 195	70 **100** 130	105 **150** 195	0,007 **0,012** 0,017 x d_F
N	5.2	21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	0,004 **0,007** 0,010 x d_F
N	5.3		105 **150** 195		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
S	1.1	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F
S	1.2	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F
S	1.3	21 **30** 39	35 **50** 65					0,002 **0,004** 0,006 x d_F
S	2.1		32 **45** 59		35 **50** 65		35 **50** 65	0,002 **0,004** 0,006 x d_F
S	2.2		32 **45** 59					0,002 **0,004** 0,006 x d_F
S	2.3		21 **30** 39					0,002 **0,004** 0,006 x d_F
S	2.4		32 **45** 59					0,002 **0,004** 0,006 x d_F
S	2.5		21 **30** 39					0,002 **0,004** 0,006 x d_F
S	2.6		21 **30** 39					0,002 **0,004** 0,006 x d_F
H	1.1		32 **45** 59					0,002 **0,004** 0,006 x d_F
H	1.2		28 **40** 52					0,002 **0,004** 0,006 x d_F
H	1.3							
H	1.4							
H	1.5							

GF-Z			GF-Z-Extern	GF-Vario-Z	GF-Vario-Z-AZR1			
								
Unbeschichtet Uncoated	TICN		TIALN-86	TIALN-86	TIALN-86			
v_c [m/min] min. empf. rec. max.	v_c [m/min] min. empf. rec. max.		v_c [m/min] min. empf. rec. max.	v_c [m/min] min. empf. rec. max.	v_c [m/min] min. empf. rec. max.	f_z [mm] min. empf. rec. max.		
63 **90** 117	126 **180** 234		126 **180** 234	126 **180** 234	126 **180** 234	0,006 **0,010** 0,014	x d_F	1.1	P
53 **75** 98	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	2.1	P
42 **60** 78	84 **120** 156		84 **120** 156	84 **120** 156	84 **120** 156	0,005 **0,008** 0,011	x d_F	3.1	P
35 **50** 65	70 **100** 130		70 **100** 130	70 **100** 130	70 **100** 130	0,004 **0,007** 0,010	x d_F	4.1	P
28 **40** 52	56 **80** 104		56 **80** 104	56 **80** 104	56 **80** 104	0,004 **0,006** 0,008	x d_F	5.1	P
	63 **90** 117		63 **90** 117	63 **90** 117	63 **90** 117	0,005 **0,008** 0,011	x d_F	1.1	M
	63 **90** 117		63 **90** 117	63 **90** 117	63 **90** 117	0,005 **0,008** 0,011	x d_F	2.1	M
	42 **60** 78		42 **60** 78	42 **60** 78	42 **60** 78	0,004 **0,007** 0,010	x d_F	3.1	M
	35 **50** 65		35 **50** 65	35 **50** 65	35 **50** 65	0,004 **0,006** 0,008	x d_F	4.1	M
70 **100** 130	112 **160** 208		112 **160** 208	112 **160** 208	112 **160** 208	0,005 **0,009** 0,013	x d_F	1.1	K
70 **100** 130	112 **160** 208		112 **160** 208	112 **160** 208	112 **160** 208	0,005 **0,009** 0,013	x d_F	1.2	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	2.1	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	2.2	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	3.1	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	3.2	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	4.1	K
63 **90** 117	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,005 **0,009** 0,013	x d_F	4.2	K
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	1.1	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	1.2	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	1.3	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	1.4	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	1.5	N
	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,007 **0,012** 0,017	x d_F	1.6	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	2.1	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	2.2	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	2.3	N
77 **110** 143	126 **180** 234		126 **180** 234	126 **180** 234	126 **180** 234	0,006 **0,010** 0,014	x d_F	2.4	N
77 **110** 143	126 **180** 234		126 **180** 234	126 **180** 234	126 **180** 234	0,006 **0,010** 0,014	x d_F	2.5	N
105 **150** 195	126 **180** 234		126 **180** 234	126 **180** 234	126 **180** 234	0,006 **0,010** 0,014	x d_F	2.6	N
	42 **60** 78		42 **60** 78	42 **60** 78	42 **60** 78	0,005 **0,008** 0,011	x d_F	2.7	N
	35 **50** 65		35 **50** 65	35 **50** 65	35 **50** 65	0,005 **0,008** 0,011	x d_F	2.8	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	3.1	N
126 **180** 234	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	3.2	N
77 **110** 143	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	4.1	N
77 **110** 143	196 **280** 364		196 **280** 364	196 **280** 364	196 **280** 364	0,007 **0,012** 0,017	x d_F	4.2	N
	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,007 **0,012** 0,017	x d_F	4.3	N
	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,007 **0,012** 0,017	x d_F	4.4	N
70 **100** 130	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,007 **0,012** 0,017	x d_F	5.1	N
21 **30** 39	35 **50** 65		35 **50** 65	35 **50** 65	35 **50** 65	0,004 **0,007** 0,010	x d_F	5.2	N
	105 **150** 195		105 **150** 195	105 **150** 195	105 **150** 195	0,007 **0,012** 0,017	x d_F	5.3	N
28 **40** 52	42 **60** 78		42 **60** 78	42 **60** 78	42 **60** 78	0,004 **0,006** 0,008	x d_F	1.1	S
28 **40** 52	42 **60** 78		42 **60** 78	42 **60** 78	42 **60** 78	0,004 **0,006** 0,008	x d_F	1.2	S
21 **30** 39	35 **50** 65		35 **50** 65	35 **50** 65	35 **50** 65	0,002 **0,004** 0,006	x d_F	1.3	S
	32 **45** 59		32 **45** 59	32 **45** 59	32 **45** 59	0,002 **0,004** 0,006	x d_F	2.1	S
	32 **45** 59		32 **45** 59	32 **45** 59	32 **45** 59	0,002 **0,004** 0,006	x d_F	2.2	S
	21 **30** 39		21 **30** 39	21 **30** 39	21 **30** 39	0,002 **0,004** 0,006	x d_F	2.3	S
	32 **45** 59		32 **45** 59	32 **45** 59	32 **45** 59	0,002 **0,004** 0,006	x d_F	2.4	S
	21 **30** 39		21 **30** 39	21 **30** 39	21 **30** 39	0,002 **0,004** 0,006	x d_F	2.5	S
	21 **30** 39		21 **30** 39	21 **30** 39	21 **30** 39	0,002 **0,004** 0,006	x d_F	2.6	S
	32 **45** 59		32 **45** 59	32 **45** 59	32 **45** 59	0,002 **0,004** 0,006	x d_F	1.1	H
	28 **40** 52		28 **40** 52	28 **40** 52	28 **40** 52	0,002 **0,004** 0,006	x d_F	1.2	H
								1.3	H
								1.4	H
								1.5	H

		GF-KEG		GF-KEG-R15-Long		
		 Unbeschichtet Uncoated	 TICN	 Unbeschichtet Uncoated	 TICN	
		v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	v_c [m/min] min. **empf. rec.** max.	f_z [mm] min. **empf. rec.** max.
P	1.1	63 **90** 117	126 **180** 234	63 **90** 117	126 **180** 234	0,006 **0,010** 0,014 x d_F
P	2.1	53 **75** 98	105 **150** 195	53 **75** 98	105 **150** 195	0,005 **0,009** 0,013 x d_F
P	3.1	42 **60** 78	84 **120** 156	42 **60** 78	84 **120** 156	0,005 **0,008** 0,011 x d_F
P	4.1	35 **50** 65	70 **100** 130	35 **50** 65	70 **100** 130	0,004 **0,007** 0,010 x d_F
P	5.1	28 **40** 52	56 **80** 104	28 **40** 52	56 **80** 104	0,004 **0,006** 0,008 x d_F
M	1.1		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F
M	2.1		63 **90** 117		63 **90** 117	0,005 **0,008** 0,011 x d_F
M	3.1		42 **60** 78		42 **60** 78	0,004 **0,007** 0,010 x d_F
M	4.1		35 **50** 65		35 **50** 65	0,004 **0,006** 0,008 x d_F
K	1.1	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F
K	1.2	70 **100** 130	112 **160** 208	70 **100** 130	112 **160** 208	0,005 **0,009** 0,013 x d_F
K	2.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	2.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	3.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	3.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	4.1	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
K	4.2	63 **90** 117	105 **150** 195	63 **90** 117	105 **150** 195	0,005 **0,009** 0,013 x d_F
N	1.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.3	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.4	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.5	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	1.6		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	2.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.3	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	2.4	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.5	77 **110** 143	126 **180** 234	77 **110** 143	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.6	105 **150** 195	126 **180** 234	105 **150** 195	126 **180** 234	0,006 **0,010** 0,014 x d_F
N	2.7		42 **60** 78		42 **60** 78	0,005 **0,008** 0,011 x d_F
N	2.8		35 **50** 65		35 **50** 65	0,005 **0,008** 0,011 x d_F
N	3.1	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	3.2	126 **180** 234	196 **280** 364	126 **180** 234	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.1	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.2	77 **110** 143	196 **280** 364	77 **110** 143	196 **280** 364	0,007 **0,012** 0,017 x d_F
N	4.3		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	4.4		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
N	5.1	70 **100** 130	105 **150** 195	70 **100** 130	105 **150** 195	0,007 **0,012** 0,017 x d_F
N	5.2	21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	0,004 **0,007** 0,010 x d_F
N	5.3		105 **150** 195		105 **150** 195	0,007 **0,012** 0,017 x d_F
S	1.1	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F
S	1.2	28 **40** 52	42 **60** 78	28 **40** 52	42 **60** 78	0,004 **0,006** 0,008 x d_F
S	1.3	21 **30** 39	35 **50** 65	21 **30** 39	35 **50** 65	0,002 **0,004** 0,006 x d_F
S	2.1		32 **45** 59		32 **45** 59	0,002 **0,004** 0,006 x d_F
S	2.2		32 **45** 59		32 **45** 59	0,002 **0,004** 0,006 x d_F
S	2.3		21 **30** 39		21 **30** 39	0,002 **0,004** 0,006 x d_F
S	2.4		32 **45** 59		32 **45** 59	0,002 **0,004** 0,006 x d_F
S	2.5		21 **30** 39		21 **30** 39	0,002 **0,004** 0,006 x d_F
S	2.6		21 **30** 39		21 **30** 39	0,002 **0,004** 0,006 x d_F
H	1.1		32 **45** 59		32 **45** 59	0,002 **0,004** 0,006 x d_F
H	1.2		28 **40** 52		28 **40** 52	0,002 **0,004** 0,006 x d_F
H	1.3					
H	1.4					
H	1.5					

ZGF			ZGF-Z					
								
Unbeschichtet Uncoated			**TICN**			**TICN**		
v_c [m/min]			v_c [m/min]			v_c [m/min]		
min.	**empf. rec.**	max.	min.	**empf. rec.**	max.	min.	**empf. rec.**	max.
63	**90**	117	126	**180**	234	126	**180**	234
53	**75**	98	105	**150**	195	105	**150**	195
42	**60**	78	84	**120**	156	84	**120**	156
35	**50**	65	70	**100**	130	70	**100**	130
28	**40**	52	56	**80**	104	56	**80**	104
			63	**90**	117	63	**90**	117
			63	**90**	117	63	**90**	117
			42	**60**	78	42	**60**	78
			35	**50**	65	35	**50**	65
70	**100**	130	112	**160**	208	112	**160**	208
70	**100**	130	112	**160**	208	112	**160**	208
63	**90**	117	105	**150**	195	105	**150**	195
63	**90**	117	105	**150**	195	105	**150**	195
63	**90**	117	105	**150**	195	105	**150**	195
63	**90**	117	105	**150**	195	105	**150**	195
63	**90**	117	105	**150**	195	105	**150**	195
63	**90**	117	105	**150**	195	105	**150**	195
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
			105	**150**	195	105	**150**	195
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
77	**110**	143	126	**180**	234	126	**180**	234
77	**110**	143	126	**180**	234	126	**180**	234
105	**150**	195	126	**180**	234	126	**180**	234
			42	**60**	78	42	**60**	78
			35	**50**	65	35	**50**	65
126	**180**	234	196	**280**	364	196	**280**	364
126	**180**	234	196	**280**	364	196	**280**	364
77	**110**	143	196	**280**	364	196	**280**	364
77	**110**	143	196	**280**	364	196	**280**	364
			105	**150**	195	105	**150**	195
			105	**150**	195	105	**150**	195
70	**100**	130	105	**150**	195	105	**150**	195
21	**30**	39	35	**50**	65	35	**50**	65
			105	**150**	195	105	**150**	195
28	**40**	52	42	**60**	78	42	**60**	78
28	**40**	52	42	**60**	78	42	**60**	78
21	**30**	39	35	**50**	65	35	**50**	65
			32	**45**	59	32	**45**	59
			32	**45**	59	32	**45**	59
			21	**30**	39	21	**30**	39
			32	**45**	59	32	**45**	59
			21	**30**	39	21	**30**	39
			21	**30**	39	21	**30**	39
			32	**45**	59	32	**45**	59
			28	**40**	52	28	**40**	52

f_z [mm] min.	**empf. rec.**	max.			
0,006	**0,010**	0,014	x d_F	1.1	P
0,005	**0,009**	0,013	x d_F	2.1	P
0,005	**0,008**	0,011	x d_F	3.1	P
0,004	**0,007**	0,010	x d_F	4.1	P
0,004	**0,006**	0,008	x d_F	5.1	P
0,005	**0,008**	0,011	x d_F	1.1	M
0,005	**0,008**	0,011	x d_F	2.1	M
0,004	**0,007**	0,010	x d_F	3.1	M
0,004	**0,006**	0,008	x d_F	4.1	M
0,005	**0,009**	0,013	x d_F	1.1	K
0,005	**0,009**	0,013	x d_F	1.2	K
0,005	**0,009**	0,013	x d_F	2.1	K
0,005	**0,009**	0,013	x d_F	2.2	K
0,005	**0,009**	0,013	x d_F	3.1	K
0,005	**0,009**	0,013	x d_F	3.2	K
0,005	**0,009**	0,013	x d_F	4.1	K
0,005	**0,009**	0,013	x d_F	4.2	K
0,007	**0,012**	0,017	x d_F	1.1	N
0,007	**0,012**	0,017	x d_F	1.2	N
0,007	**0,012**	0,017	x d_F	1.3	N
0,007	**0,012**	0,017	x d_F	1.4	N
0,007	**0,012**	0,017	x d_F	1.5	N
0,007	**0,012**	0,017	x d_F	1.6	N
0,007	**0,012**	0,017	x d_F	2.1	N
0,007	**0,012**	0,017	x d_F	2.2	N
0,007	**0,012**	0,017	x d_F	2.3	N
0,006	**0,010**	0,014	x d_F	2.4	N
0,006	**0,010**	0,014	x d_F	2.5	N
0,006	**0,010**	0,014	x d_F	2.6	N
0,005	**0,008**	0,011	x d_F	2.7	N
0,005	**0,008**	0,011	x d_F	2.8	N
0,007	**0,012**	0,017	x d_F	3.1	N
0,007	**0,012**	0,017	x d_F	3.2	N
0,007	**0,012**	0,017	x d_F	4.1	N
0,007	**0,012**	0,017	x d_F	4.2	N
0,007	**0,012**	0,017	x d_F	4.3	N
0,007	**0,012**	0,017	x d_F	4.4	N
0,007	**0,012**	0,017	x d_F	5.1	N
0,004	**0,007**	0,010	x d_F	5.2	N
0,007	**0,012**	0,017	x d_F	5.3	N
0,004	**0,006**	0,008	x d_F	1.1	S
0,004	**0,006**	0,008	x d_F	1.2	S
0,002	**0,004**	0,006	x d_F	1.3	S
0,002	**0,004**	0,006	x d_F	2.1	S
0,002	**0,004**	0,006	x d_F	2.2	S
0,002	**0,004**	0,006	x d_F	2.3	S
0,002	**0,004**	0,006	x d_F	2.4	S
0,002	**0,004**	0,006	x d_F	2.5	S
0,002	**0,004**	0,006	x d_F	2.6	S
0,002	**0,004**	0,006	x d_F	1.1	H
0,002	**0,004**	0,006	x d_F	1.2	H
				1.3	H
				1.4	H
				1.5	H

		ZGF-S-CUT						ZGF-HCUT					
		 TIALN-T46						 TIALN-T46					
		v_c [m/min]			f_z [mm]			v_c [m/min]			f_z [mm]		
		min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.
P	1.1	126	**180**	234	0,006	**0,010**	0,014						
P	2.1	105	**150**	195	0,005	**0,009**	0,013						
P	3.1	84	**120**	156	0,005	**0,008**	0,011						
P	4.1	70	**100**	130	0,004	**0,007**	0,010						
P	5.1	56	**80**	104	0,004	**0,006**	0,008						
M	1.1	63	**90**	117	0,005	**0,008**	0,011						
M	2.1	63	**90**	117	0,005	**0,008**	0,011						
M	3.1	42	**60**	78	0,004	**0,007**	0,010						
M	4.1	35	**50**	65	0,004	**0,006**	0,008						
K	1.1	112	**160**	208	0,005	**0,009**	0,013						
K	1.2	112	**160**	208	0,005	**0,009**	0,013						
K	2.1	105	**150**	195	0,005	**0,009**	0,013						
K	2.2	105	**150**	195	0,005	**0,009**	0,013						
K	3.1	105	**150**	195	0,005	**0,009**	0,013						
K	3.2	105	**150**	195	0,005	**0,009**	0,013						
K	4.1	105	**150**	195	0,005	**0,009**	0,013						
K	4.2	105	**150**	195	0,005	**0,009**	0,013						
N	1.1	196	**280**	364	0,007	**0,012**	0,017						
N	1.2	196	**280**	364	0,007	**0,012**	0,017						
N	1.3	196	**280**	364	0,007	**0,012**	0,017						
N	1.4	196	**280**	364	0,007	**0,012**	0,017						
N	1.5	196	**280**	364	0,007	**0,012**	0,017						
N	1.6	105	**150**	195	0,007	**0,012**	0,017						
N	2.1	196	**280**	364	0,007	**0,012**	0,017						
N	2.2	196	**280**	364	0,007	**0,012**	0,017						
N	2.3	196	**280**	364	0,007	**0,012**	0,017						
N	2.4	126	**180**	234	0,006	**0,010**	0,014						
N	2.5	126	**180**	234	0,006	**0,010**	0,014						
N	2.6	126	**180**	234	0,006	**0,010**	0,014						
N	2.7	42	**60**	78	0,005	**0,008**	0,011	35	**50**	65	0,002	**0,004**	0,006
N	2.8	35	**50**	65	0,005	**0,008**	0,011	35	**50**	65	0,002	**0,004**	0,006
N	3.1	196	**280**	364	0,007	**0,012**	0,017						
N	3.2	196	**280**	364	0,007	**0,012**	0,017						
N	4.1	196	**280**	364	0,007	**0,012**	0,017						
N	4.2	196	**280**	364	0,007	**0,012**	0,017						
N	4.3	105	**150**	195	0,007	**0,012**	0,017						
N	4.4	105	**150**	195	0,007	**0,012**	0,017						
N	5.1	105	**150**	195	0,007	**0,012**	0,017						
N	5.2	35	**50**	65	0,004	**0,007**	0,010						
N	5.3	105	**150**	195	0,007	**0,012**	0,017						
S	1.1	42	**60**	78	0,004	**0,006**	0,008						
S	1.2	42	**60**	78	0,004	**0,006**	0,008						
S	1.3	35	**50**	65	0,002	**0,004**	0,006						
S	2.1	32	**45**	59	0,002	**0,004**	0,006						
S	2.2	32	**45**	59	0,002	**0,004**	0,006						
S	2.3	21	**30**	39	0,002	**0,004**	0,006						
S	2.4	32	**45**	59	0,002	**0,004**	0,006						
S	2.5	21	**30**	39	0,002	**0,004**	0,006						
S	2.6	21	**30**	39	0,002	**0,004**	0,006						
H	1.1	32	**45**	59	0,002	**0,004**	0,006	42	**60**	78	0,004	**0,007**	0,010
H	1.2	28	**40**	52	0,002	**0,004**	0,006	35	**50**	65	0,004	**0,006**	0,008
H	1.3							32	**45**	59	0,003	**0,005**	0,007
H	1.4							21	**30**	39	0,002	**0,004**	0,006
H	1.5							18	**25**	33	0,002	**0,003**	0,004

$x\ d_F$

ZIRK-GF (MZP)						ZIRK-GF (3ZP)						ZIRK-GF (SWP)							
																			
TIALN-T4						TIALN-T4						ALCR-T42							
v_c [m/min]			f_z [mm]			v_c [m/min]			f_z [mm]			v_c [m/min]			f_z [mm]				
min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.		
126	**180**	234	0,066	**0,110**	0,165	126	**180**	234	0,066	**0,110**	0,165	126	**180**	234	0,006	**0,010**	0,014	x d_F	1.1
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	2.1
84	**120**	156	0,054	**0,090**	0,135	84	**120**	156	0,054	**0,090**	0,135	84	**120**	156	0,005	**0,008**	0,011	x d_F	3.1
70	**100**	130	0,048	**0,080**	0,120	70	**100**	130	0,048	**0,080**	0,120	70	**100**	130	0,004	**0,007**	0,010	x d_F	4.1
56	**80**	104	0,042	**0,070**	0,105	56	**80**	104	0,042	**0,070**	0,105	56	**80**	104	0,004	**0,006**	0,008	x d_F	5.1
																			P
63	**90**	117	0,048	**0,080**	0,120	63	**90**	117	0,048	**0,080**	0,120	63	**90**	117	0,005	**0,008**	0,011	x d_F	1.1
63	**90**	117	0,048	**0,080**	0,120	63	**90**	117	0,048	**0,080**	0,120	63	**90**	117	0,005	**0,008**	0,011	x d_F	2.1
42	**60**	78	0,042	**0,070**	0,105	42	**60**	78	0,042	**0,070**	0,105	42	**60**	78	0,004	**0,007**	0,010	x d_F	3.1
35	**50**	65	0,036	**0,060**	0,090	35	**50**	65	0,036	**0,060**	0,090	35	**50**	65	0,004	**0,006**	0,008	x d_F	4.1
																			M
112	**160**	208	0,060	**0,100**	0,150	112	**160**	208	0,060	**0,100**	0,150	112	**160**	208	0,005	**0,009**	0,013	x d_F	1.1
112	**160**	208	0,060	**0,100**	0,150	112	**160**	208	0,060	**0,100**	0,150	112	**160**	208	0,005	**0,009**	0,013	x d_F	1.2
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	2.1
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	2.2
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	3.1
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	3.2
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	4.1
105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,060	**0,100**	0,150	105	**150**	195	0,005	**0,009**	0,013	x d_F	4.2
																			K
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	1.1
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	1.2
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	1.3
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	1.4
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	1.5
105	**150**	195	0,072	**0,120**	0,180	105	**150**	195	0,072	**0,120**	0,180	105	**150**	195	0,007	**0,012**	0,017	x d_F	1.6
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	2.1
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	2.2
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	2.3
126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,006	**0,010**	0,014	x d_F	2.4
126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,006	**0,010**	0,014	x d_F	2.5
126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,060	**0,100**	0,150	126	**180**	234	0,006	**0,010**	0,014	x d_F	2.6
42	**60**	78	0,048	**0,080**	0,120	42	**60**	78	0,048	**0,080**	0,120	42	**60**	78	0,005	**0,008**	0,011	x d_F	2.7
35	**50**	65	0,048	**0,080**	0,120	35	**50**	65	0,048	**0,080**	0,120	35	**50**	65	0,005	**0,008**	0,011	x d_F	2.8
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	3.1
196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,072	**0,120**	0,180	196	**280**	364	0,007	**0,012**	0,017	x d_F	3.2
196	**280**	364	0,078	**0,130**	0,195	196	**280**	364	0,078	**0,130**	0,195	196	**280**	364	0,007	**0,012**	0,017	x d_F	4.1
196	**280**	364	0,078	**0,130**	0,195	196	**280**	364	0,078	**0,130**	0,195	196	**280**	364	0,007	**0,012**	0,017	x d_F	4.2
105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,007	**0,012**	0,017	x d_F	4.3
105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,007	**0,012**	0,017	x d_F	4.4
105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,007	**0,012**	0,017	x d_F	5.1
35	**50**	65	0,036	**0,060**	0,090	35	**50**	65	0,036	**0,060**	0,090	35	**50**	65	0,004	**0,007**	0,010	x d_F	5.2
105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,078	**0,130**	0,195	105	**150**	195	0,007	**0,012**	0,017	x d_F	5.3
																			N
42	**60**	78	0,036	**0,060**	0,090	42	**60**	78	0,036	**0,060**	0,090	42	**60**	78	0,004	**0,006**	0,008	x d_F	1.1
42	**60**	78	0,036	**0,060**	0,090	42	**60**	78	0,036	**0,060**	0,090	42	**60**	78	0,004	**0,006**	0,008	x d_F	1.2
35	**50**	65	0,030	**0,050**	0,075	35	**50**	65	0,030	**0,050**	0,075	35	**50**	65	0,002	**0,004**	0,006	x d_F	1.3
32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,002	**0,004**	0,006	x d_F	2.1
32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,002	**0,004**	0,006	x d_F	2.2
21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,002	**0,004**	0,006	x d_F	2.3
32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,002	**0,004**	0,006	x d_F	2.4
21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,002	**0,004**	0,006	x d_F	2.5
21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,030	**0,050**	0,075	21	**30**	39	0,002	**0,004**	0,006	x d_F	2.6
																			S
32	**45**	59	0,030	**0,050**	0,075	32	**45**	59	0,030	**0,050**	0,075								1.1
28	**40**	52	0,030	**0,050**	0,075	28	**40**	52	0,030	**0,050**	0,075								1.2
																			1.3
																			1.4
																			1.5
																			H

Gigant

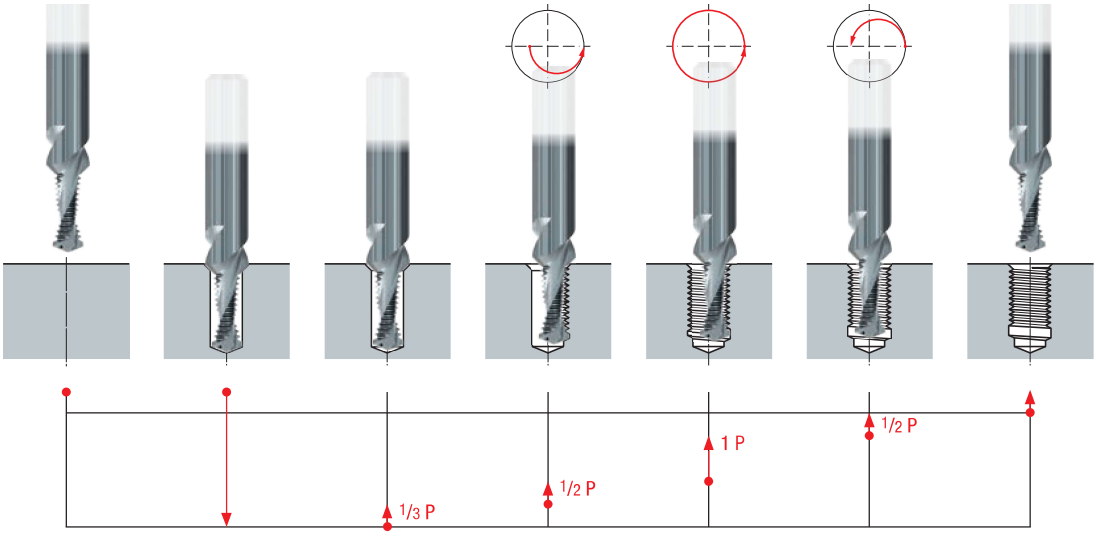
TIN
TIALN-T4

		v_c [m/min] min.	empf. rec.	max.	f_z [mm] min.	empf. rec.	max.
P	1.1	231	**330**	495	0,140	**0,200**	0,260
P	2.1	210	**300**	450	0,126	**0,180**	0,234
P	3.1	140	**200**	300	0,112	**0,160**	0,208
P	4.1	119	**170**	255	0,098	**0,140**	0,182
P	5.1	105	**150**	225	0,084	**0,120**	0,156
M	1.1	70	**100**	150	0,084	**0,120**	0,156
M	2.1	70	**100**	150	0,084	**0,120**	0,156
M	3.1	56	**80**	120	0,070	**0,100**	0,130
M	4.1	49	**70**	105	0,063	**0,090**	0,117
K	1.1	189	**270**	405	0,140	**0,200**	0,260
K	1.2	189	**270**	405	0,140	**0,200**	0,260
K	2.1	175	**250**	375	0,140	**0,200**	0,260
K	2.2	175	**250**	375	0,140	**0,200**	0,260
K	3.1	175	**250**	375	0,140	**0,200**	0,260
K	3.2	175	**250**	375	0,140	**0,200**	0,260
K	4.1	175	**250**	375	0,140	**0,200**	0,260
K	4.2	175	**250**	375	0,140	**0,200**	0,260
N	1.1	231	**330**	495	0,161	**0,230**	0,299
N	1.2	231	**330**	495	0,161	**0,230**	0,299
N	1.3	231	**330**	495	0,161	**0,230**	0,299
N	1.4	231	**330**	495	0,161	**0,230**	0,299
N	1.5	231	**330**	495	0,161	**0,230**	0,299
N	1.6	119	**170**	255	0,161	**0,230**	0,299
N	2.1	231	**330**	495	0,140	**0,200**	0,260
N	2.2	231	**330**	495	0,140	**0,200**	0,260
N	2.3	231	**330**	495	0,140	**0,200**	0,260
N	2.4	119	**170**	255	0,126	**0,180**	0,234
N	2.5	119	**170**	255	0,126	**0,180**	0,234
N	2.6	119	**170**	255	0,126	**0,180**	0,234
N	2.7	70	**100**	150	0,105	**0,150**	0,195
N	2.8	70	**100**	150	0,105	**0,150**	0,195
N	3.1	231	**330**	495	0,161	**0,230**	0,299
N	3.2	231	**330**	495	0,161	**0,230**	0,299
N	4.1	189	**270**	405	0,140	**0,200**	0,260
N	4.2	189	**270**	405	0,140	**0,200**	0,260
N	4.3	84	**120**	180	0,140	**0,200**	0,260
N	4.4	84	**120**	180	0,140	**0,200**	0,260
N	5.1	42	**60**	90	0,084	**0,120**	0,156
N	5.2	42	**60**	90	0,084	**0,120**	0,156
N	5.3	35	**50**	75	0,084	**0,120**	0,156
S	1.1	56	**80**	120	0,070	**0,100**	0,130
S	1.2	56	**80**	120	0,070	**0,100**	0,130
S	1.3	49	**70**	105	0,056	**0,080**	0,104
S	2.1	42	**60**	90	0,056	**0,080**	0,104
S	2.2	42	**60**	90	0,056	**0,080**	0,104
S	2.3	32	**45**	68	0,056	**0,080**	0,104
S	2.4	42	**60**	90	0,056	**0,080**	0,104
S	2.5	32	**45**	68	0,056	**0,080**	0,104
S	2.6	32	**45**	68	0,056	**0,080**	0,104
H	1.1	35	**50**	75	0,056	**0,080**	0,104
H	1.2	32	**45**	68	0,056	**0,080**	0,104
H	1.3						
H	1.4						
H	1.5						

BGF-Z2	BGF-Z3	BGF-Z4	
			
Seite · Page			
370 - 371	372 - 373	374 - 375	**M**
376 - 377		378 - 379	**MF**
380 - 381			**UNC**
382 - 383			**UNF**
384 - 385			**G (BSP)**
386 - 387			**EG M (STI)**

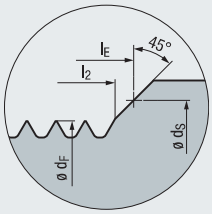
Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

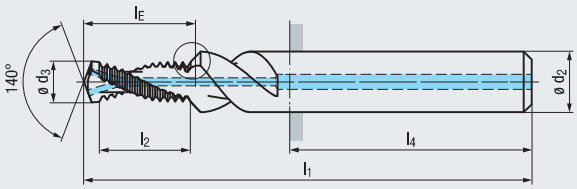
Gewindefräszyklus · Thread milling cycle



M

DIN 13





VHM Carbide	
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1

BGF-Z2

Einsatzgebiete – Material
Applications – material
358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
M	4	0,7	3,16	6	3,3	4,2	49	5,6	36	7,4	2	GF422801.0040	GF422201.0040
	5	0,8	4,04	6	4,2	5,3	55	7,2	36	9,4	2	GF422801.0050	GF422201.0050
	6	1	4,8	8	5	6,3	62	9,1	36	11,7	2	GF422801.0060	GF422201.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	2	GF422801.0080	GF422201.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	2	GF422801.0100	GF422201.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	2	GF422801.0112	GF422201.0112
	14	2	11,6	16	12	14,7	102	20,1	48	25,8	2	GF422801.0114	GF422201.0114
	16	2	13,6	18	14	16,8	102	24,1	48	30,3	2	GF422801.0116	GF422201.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
M	4	0,7	3,16	6	3,3	4,2	49	7,7	36	9,5	2	GF432801.0040	GF432201.0040
	5	0,8	4,04	6	4,2	5,3	55	9,6	36	11,8	2	GF432801.0050	GF432201.0050
	6	1	4,8	8	5	6,3	62	12,1	36	14,7	2	GF432801.0060	GF432201.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	2	GF432801.0080	GF432201.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	2	GF432801.0100	GF432201.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	2	GF432801.0112	GF432201.0112
	14	2	11,6	16	12	14,7	102	28,1	48	33,8	2	GF432801.0114	GF432201.0114
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	2	GF432801.0116	GF432201.0116

Gewindetiefe
Thread depth

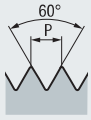
2,5 x d_1

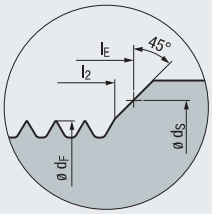
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2,5xd_1 R30-IKZ-HA	BGF-Z2 2,5xd_1 R30-IKZ-HB
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	2	GF442801.0060	GF442201.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	2	GF442801.0080	GF442201.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	2	GF442801.0100	GF442201.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	2	GF442801.0112	GF442201.0112

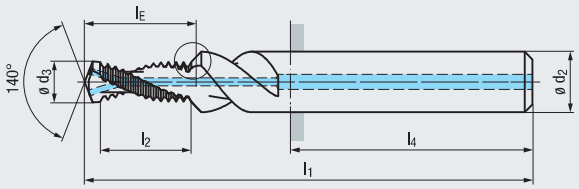
Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13







VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d1

BGF-Z2

Einsatzgebiete – Material
Applications – material 358

K 1.1-3.2 | N 1.1-1.6
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
M	4	0,7	3,16	6	3,3	4,2	49	5,6	36	7,4	2	GF422806.0040	GF422206.0040
	5	0,8	4,04	6	4,2	5,3	55	7,2	36	9,4	2	GF422806.0050	GF422206.0050
	6	1	4,8	8	5	6,3	62	9,1	36	11,7	2	GF422806.0060	GF422206.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	2	GF422806.0080	GF422206.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	2	GF422806.0100	GF422206.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	2	GF422806.0112	GF422206.0112
	14	2	11,6	16	12	14,7	102	20,1	48	25,8	2	GF422806.0114	GF422206.0114
	16	2	13,6	18	14	16,8	102	24,1	48	30,3	2	GF422806.0116	GF422206.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
M	4	0,7	3,16	6	3,3	4,2	49	7,7	36	9,5	2	GF432806.0040	GF432206.0040
	5	0,8	4,04	6	4,2	5,3	55	9,6	36	11,8	2	GF432806.0050	GF432206.0050
	6	1	4,8	8	5	6,3	62	12,1	36	14,7	2	GF432806.0060	GF432206.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	2	GF432806.0080	GF432206.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	2	GF432806.0100	GF432206.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	2	GF432806.0112	GF432206.0112
	14	2	11,6	16	12	14,7	102	28,1	48	33,8	2	GF432806.0114	GF432206.0114
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	2	GF432806.0116	GF432206.0116

Gewindetiefe
Thread depth

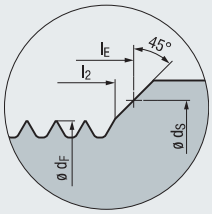
2,5 x d_1

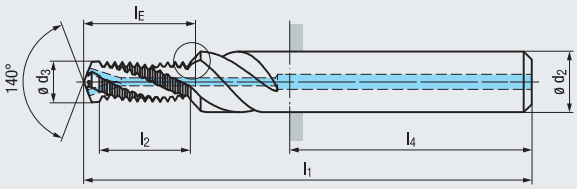
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2,5xd_1 R30-IKZ-HA TICN	BGF-Z2 2,5xd_1 R30-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	2	GF442806.0060	GF442206.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	2	GF442806.0080	GF442206.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	2	GF442806.0100	GF442206.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	2	GF442806.0112	GF442206.0112

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	
R30	RH + LH
Z3	DIN 6535 HA HB
90°	ø d_1

BGF-Z3

Einsatzgebiete – Material
Applications – material
358

K 1.1-1.2
N 1.5, 2.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 1,5xd_1 R30-IKZ-HA	BGF-Z3 1,5xd_1 R30-IKZ-HB
M	6	1	4,8	8	5	6,3	62	9,1	36	11,7	3	GF422851.0060	GF422251.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	3	GF422851.0080	GF422251.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	3	GF422851.0100	GF422251.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	3	GF422851.0112	GF422251.0112
	16	2	13,6	18	14	16,8	102	24,1	48	30,3	3	GF422851.0116	GF422251.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 2xd_1 R30-IKZ-HA	BGF-Z3 2xd_1 R30-IKZ-HB
M	6	1	4,8	8	5	6,3	62	12,1	36	14,7	3	GF432851.0060	GF432251.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	3	GF432851.0080	GF432251.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	3	GF432851.0100	GF432251.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	3	GF432851.0112	GF432251.0112
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	3	GF432851.0116	GF432251.0116

Gewindetiefe
Thread depth

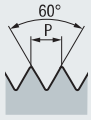
2,5 x d_1

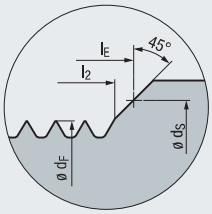
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 2,5xd_1 R30-IKZ-HA	BGF-Z3 2,5xd_1 R30-IKZ-HB
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	3	GF442851.0060	GF442251.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	3	GF442851.0080	GF442251.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	3	GF442851.0100	GF442251.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	3	GF442851.0112	GF442251.0112
	16	2	13,6	18	14	16,8	110	40,1	48	46,3	3	GF442851.0116	GF442251.0116

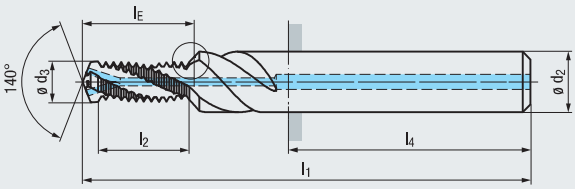
Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13







VHM Carbide	TICN
R30	RH + LH
Z3	DIN 6535 HA HB
90°	ø d1

BGF-Z3

Einsatzgebiete – Material
Applications – material 358

K 1.1-1.2
N 1.5-1.6, 2.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 1,5xd_1 R30-IKZ-HA TICN	BGF-Z3 1,5xd_1 R30-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	62	9,1	36	11,7	3	GF422856.0060	GF422256.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	3	GF422856.0080	GF422256.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	3	GF422856.0100	GF422256.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	3	GF422856.0112	GF422256.0112
	16	2	13,6	18	14	16,8	102	24,1	48	30,3	3	GF422856.0116	GF422256.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 2xd_1 R30-IKZ-HA TICN	BGF-Z3 2xd_1 R30-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	62	12,1	36	14,7	3	GF432856.0060	GF432256.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	3	GF432856.0080	GF432256.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	3	GF432856.0100	GF432256.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	3	GF432856.0112	GF432256.0112
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	3	GF432856.0116	GF432256.0116

Gewindetiefe
Thread depth

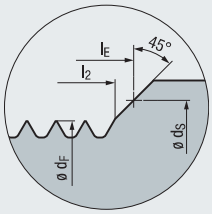
2,5 x d_1

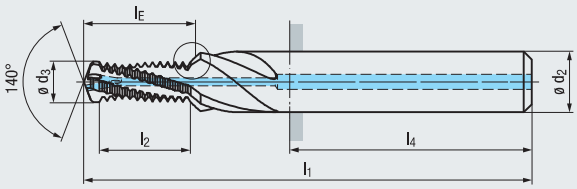
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z3 2,5xd_1 R30-IKZ-HA TICN	BGF-Z3 2,5xd_1 R30-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	3	GF442856.0060	GF442256.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	3	GF442856.0080	GF442256.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	3	GF442856.0100	GF442256.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	3	GF442856.0112	GF442256.0112
	16	2	13,6	18	14	16,8	110	40,1	48	46,3	3	GF442856.0116	GF442256.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	TICN
R20	RH + LH
Z4	DIN 6535 HA HB
90°	ø d_1

BGF-Z4

Einsatzgebiete – Material
Applications – material
358

K 1.1-1.2
N 1.5-1.6, 2.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 1,5xd_1 R20-IKZ-HA TICN	BGF-Z4 1,5xd_1 R20-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	62	9,1	36	11,7	4	GF429846.0060	GF429246.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	4	GF429846.0080	GF429246.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	4	GF429846.0100	GF429246.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	4	GF429846.0112	GF429246.0112

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2xd_1 R20-IKZ-HA TICN	BGF-Z4 2xd_1 R20-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	62	12,1	36	14,7	4	GF439846.0060	GF439246.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	4	GF439846.0080	GF439246.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	4	GF439846.0100	GF439246.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	4	GF439846.0112	GF439246.0112
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	4	GF439846.0116	GF439246.0116

Gewindetiefe
Thread depth

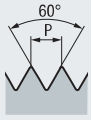
2,5 x d_1

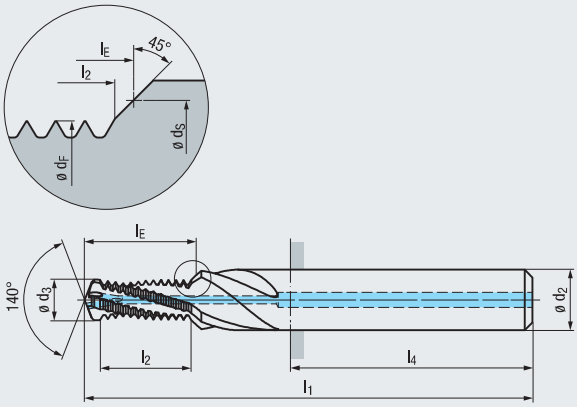
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2,5xd_1 R20-IKZ-HA TICN	BGF-Z4 2,5xd_1 R20-IKZ-HB TICN
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	4	GF449846.0060	GF449246.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	4	GF449846.0080	GF449246.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	4	GF449846.0100	GF449246.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	4	GF449846.0112	GF449246.0112
	16	2	13,6	18	14	16,8	110	40,1	48	46,3	4	GF449846.0116	GF449246.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	TIALN T3
R20	RH + LH
Z4	DIN 6535 HA HB
90°	ø d1

BGF-Z4

Einsatzgebiete – Material
Applications – material ▸▸ 358

K 1.1-1.2
N 1.5-1.6, 2.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 1,5xd_1 R20-IKZ-HA TIALN-T3	BGF-Z4 1,5xd_1 R20-IKZ-HB TIALN-T3
M	6	1	4,8	8	5	6,3	62	9,1	36	11,7	4	GF429848.0060	GF429248.0060
	8	1,25	6,5	10	6,75	8,4	74	11,3	40	14,7	4	GF429848.0080	GF429248.0080
	10	1,5	8,2	12	8,5	10,5	79	15,1	45	19,3	4	GF429848.0100	GF429248.0100
	12	1,75	9,9	14	10,25	12,6	89	17,6	45	22,5	4	GF429848.0112	GF429248.0112

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2xd_1 R20-IKZ-HA TIALN-T3	BGF-Z4 2xd_1 R20-IKZ-HB TIALN-T3
M	6	1	4,8	8	5	6,3	62	12,1	36	14,7	4	GF439848.0060	GF439248.0060
	8	1,25	6,5	10	6,75	8,4	74	15,1	40	18,5	4	GF439848.0080	GF439248.0080
	10	1,5	8,2	12	8,5	10,5	79	19,6	45	23,8	4	GF439848.0100	GF439248.0100
	12	1,75	9,9	14	10,25	12,6	89	22,9	45	27,8	4	GF439848.0112	GF439248.0112
	16	2	13,6	18	14	16,8	102	32,1	48	38,3	4	GF439848.0116	GF439248.0116

Gewindetiefe
Thread depth

2,5 x d_1

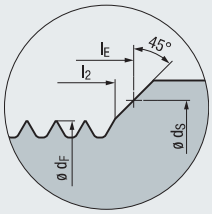
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2,5xd_1 R20-IKZ-HA TIALN-T3	BGF-Z4 2,5xd_1 R20-IKZ-HB TIALN-T3
M	6	1	4,8	8	5	6,3	65	15,1	36	17,7	4	GF449848.0060	GF449248.0060
	8	1,25	6,5	10	6,75	8,4	80	20,1	40	23,5	4	GF449848.0080	GF449248.0080
	10	1,5	8,2	12	8,5	10,5	85	25,6	45	29,8	4	GF449848.0100	GF449248.0100
	12	1,75	9,9	14	10,25	12,6	95	29,9	45	34,8	4	GF449848.0112	GF449248.0112
	16	2	13,6	18	14	16,8	110	40,1	48	46,3	4	GF449848.0116	GF449248.0116

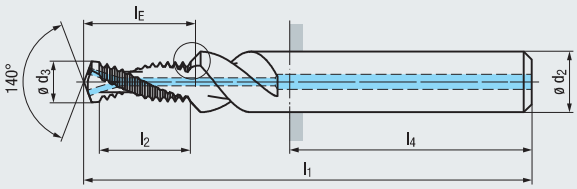
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

MF

DIN 13





VHM Carbide

R30 | RH + LH

Z2 | DIN 6535 HA HB

90° | ø d_1

BGF-Z2

Einsatzgebiete – Material
Applications – material

358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
M	6	x	0,75	5,05	8	5,25	6,3	62	9,1	36	11,4	2	GF422801.0229	GF422201.0229
	8	x	1	6,75	10	7	8,4	74	12,1	40	15,2	2	GF422801.0251	GF422201.0251
	10	x	1	8,7	12	9	10,5	79	15,1	45	18,6	2	GF422801.0276	GF422201.0276
	10	x	1,25	8,4	12	8,75	10,5	79	15,1	45	19	2	GF422801.0277	GF422201.0277
	12	x	1,25	10,4	14	10,75	12,6	89	18,9	45	23,2	2	GF422801.0302	GF422201.0302
	12	x	1,5	10,15	14	10,5	12,6	89	18,1	45	22,7	2	GF422801.0303	GF422201.0303
	14	x	1,5	12,1	16	12,5	14,7	102	21,1	48	26,2	2	GF422801.0331	GF422201.0331
	16	x	1,5	14,1	18	14,5	16,8	102	24,1	48	29,6	2	GF422801.0359	GF422201.0359

Gewindetiefe
Thread depth

2 x d_1

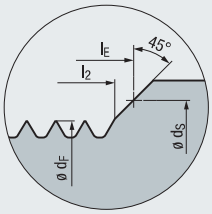
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
M	6	x	0,75	5,05	8	5,25	6,3	62	12,1	36	14,4	2	GF432801.0229	GF432201.0229
	8	x	1	6,75	10	7	8,4	74	16,1	40	19,2	2	GF432801.0251	GF432201.0251
	10	x	1	8,7	12	9	10,5	79	20,1	45	23,6	2	GF432801.0276	GF432201.0276
	10	x	1,25	8,4	12	8,75	10,5	79	20,1	45	24	2	GF432801.0277	GF432201.0277
	12	x	1,25	10,4	14	10,75	12,6	89	23,9	45	28,2	2	GF432801.0302	GF432201.0302
	12	x	1,5	10,15	14	10,5	12,6	89	24,1	45	28,7	2	GF432801.0303	GF432201.0303
	14	x	1,5	12,1	16	12,5	14,7	102	27,1	48	32,2	2	GF432801.0331	GF432201.0331
	16	x	1,5	14,1	18	14,5	16,8	102	31,6	48	37,1	2	GF432801.0359	GF432201.0359

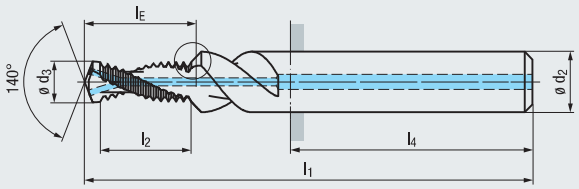
Weitere Ausführungen auf Anfrage
Further designs upon request

MF

DIN 13

VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1





BGF-Z2

Einsatzgebiete – Material
Applications – material 358

K 1.1-3.2 | N 1.1-1.6
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

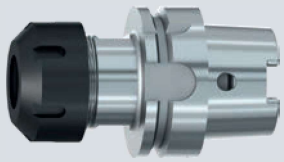
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
M	6	x	0,75	5,05	8	5,25	6,3	62	9,1	36	11,4	2	GF422806.0229	GF422206.0229
	8	x	1	6,75	10	7	8,4	74	12,1	40	15,2	2	GF422806.0251	GF422206.0251
	10	x	1	8,7	12	9	10,5	79	15,1	45	18,6	2	GF422806.0276	GF422206.0276
	10	x	1,25	8,4	12	8,75	10,5	79	15,1	45	19	2	GF422806.0277	GF422206.0277
	12	x	1,25	10,4	14	10,75	12,6	89	18,9	45	23,2	2	GF422806.0302	GF422206.0302
	12	x	1,5	10,15	14	10,5	12,6	89	18,1	45	22,7	2	GF422806.0303	GF422206.0303
	14	x	1,5	12,1	16	12,5	14,7	102	21,1	48	26,2	2	GF422806.0331	GF422206.0331
	16	x	1,5	14,1	18	14,5	16,8	102	24,1	48	29,6	2	GF422806.0359	GF422206.0359

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
M	6	x	0,75	5,05	8	5,25	6,3	62	12,1	36	14,4	2	GF432806.0229	GF432206.0229
	8	x	1	6,75	10	7	8,4	74	16,1	40	19,2	2	GF432806.0251	GF432206.0251
	10	x	1	8,7	12	9	10,5	79	20,1	45	23,6	2	GF432806.0276	GF432206.0276
	10	x	1,25	8,4	12	8,75	10,5	79	20,1	45	24	2	GF432806.0277	GF432206.0277
	12	x	1,25	10,4	14	10,75	12,6	89	23,9	45	28,2	2	GF432806.0302	GF432206.0302
	12	x	1,5	10,15	14	10,5	12,6	89	24,1	45	28,7	2	GF432806.0303	GF432206.0303
	14	x	1,5	12,1	16	12,5	14,7	102	27,1	48	32,2	2	GF432806.0331	GF432206.0331
	16	x	1,5	14,1	18	14,5	16,8	102	31,6	48	37,1	2	GF432806.0359	GF432206.0359

Weitere Ausführungen auf Anfrage
Further designs upon request



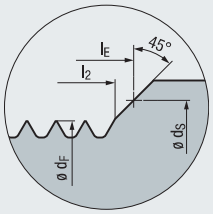
Spannzangen-Aufnahmen
Typ KSN/Synchro
siehe Seite 675 - 676

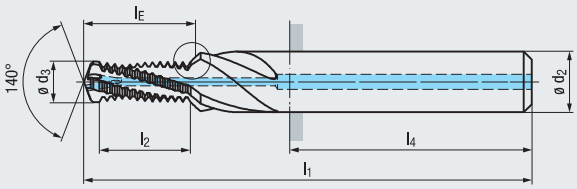
Collet holders
type KSN/Synchro,
see page 675 - 676

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

MF

DIN 13





VHM Carbide	TICN
R20	RH + LH
Z4	DIN 6535 HA HB
90°	ø d_1

BGF-Z4

Einsatzgebiete – Material
Applications – material
358

K 1.1-1.2
N 1.5-1.6, 2.3

Gewindetiefe
Thread depth

2 x d_1

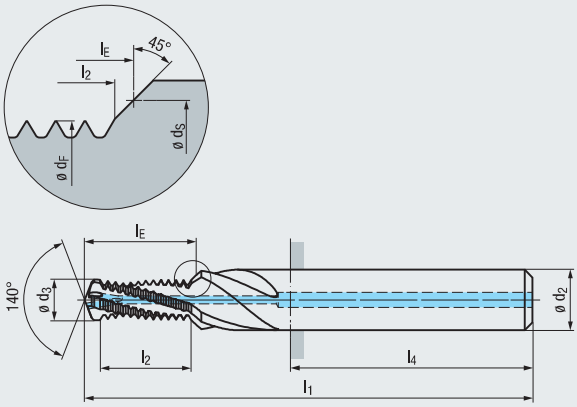
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2xd_1 R20-IKZ-HA TICN	BGF-Z4 2xd_1 R20-IKZ-HB TICN
M	8	x	1	6,75	10	7	8,4	74	16,1	40	19,2	4	GF439846.0251	GF439246.0251
	10	x	1	8,7	12	9	10,5	79	20,1	45	23,6	4	GF439846.0276	GF439246.0276
	12	x	1,5	10,15	14	10,5	12,6	89	24,1	45	28,7	4	GF439846.0303	GF439246.0303
	16	x	1,5	14,1	18	14,5	16,8	102	31,6	48	37,1	4	GF439846.0359	GF439246.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

MF

DIN 13

VHM Carbide	TIALN T3
R20	RH + LH
Z4	DIN 6535 HA HB



BGF-Z4

Einsatzgebiete – Material
Applications – material
358

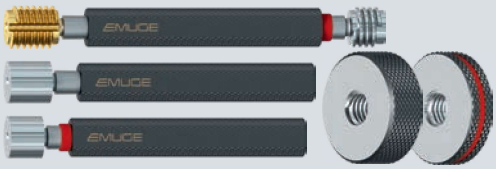
K 1.1-1.2
N 1.5-1.6, 2.3

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z4 2xd_1 R20-IKZ-HA TIALN-T3	BGF-Z4 2xd_1 R20-IKZ-HB TIALN-T3
M	8	x	1	6,75	10	7	8,4	74	16,1	40	19,2	4	GF439848.0251	GF439248.0251
	10	x	1	8,7	12	9	10,5	79	20,1	45	23,6	4	GF439848.0276	GF439248.0276
	12	x	1,5	10,15	14	10,5	12,6	89	24,1	45	28,7	4	GF439848.0303	GF439248.0303
	16	x	1,5	14,1	18	14,5	16,8	102	31,6	48	37,1	4	GF439848.0359	GF439248.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

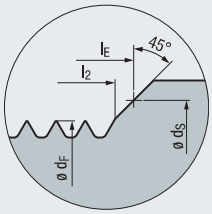


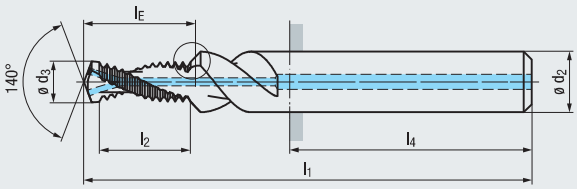
Gewindelehren
siehe Seite 541 - 594

Thread gauges,
see page 541 - 594

UNC

ASME B1.1

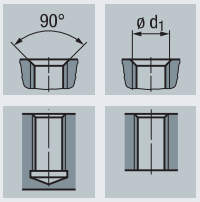




VHM Carbide

R30 | RH + LH

Z2 | DIN 6535 HA HB



BGF-Z2

Einsatzgebiete – Material
Applications – material
358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
1/4	20	4,85	8	5,2	6,7	62	9	36	12,1	2	GF422801.5009	GF422201.5009
5/16	18	6,25	10	6,6	8,3	74	11,4	40	15	2	GF422801.5010	GF422201.5010
3/8	16	7,65	12	8	10	79	14,4	45	18,6	2	GF422801.5011	GF422201.5011
7/16	14	9	12	9,4	11,7	79	16,5	45	21,3	2	GF422801.5012	GF422201.5012
1/2	13	10,35	14	10,8	13,3	89	17,7	45	23,1	2	GF422801.5013	GF422201.5013
9/16	12	11,8	16	12,25	15	102	21,3	48	27,2	2	GF422801.5014	GF422201.5014
5/8	11	13,1	18	13,5	16,7	102	23,2	48	29,7	2	GF422801.5015	GF422201.5015

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
1/4	20	4,85	8	5,2	6,7	62	12,8	36	15,9	2	GF432801.5009	GF432201.5009
5/16	18	6,25	10	6,6	8,3	74	15,6	40	19,2	2	GF432801.5010	GF432201.5010
3/8	16	7,65	12	8	10	79	19,2	45	23,3	2	GF432801.5011	GF432201.5011
7/16	14	9	12	9,4	11,7	79	21,9	45	26,7	2	GF432801.5012	GF432201.5012
1/2	13	10,35	14	10,8	13,3	89	25,5	45	30,9	2	GF432801.5013	GF432201.5013
9/16	12	11,8	16	12,25	15	102	27,7	48	33,6	2	GF432801.5014	GF432201.5014
5/8	11	13,1	18	13,5	16,7	102	30,1	48	36,7	2	GF432801.5015	GF432201.5015

Gewindetiefe
Thread depth

2,5 x d_1

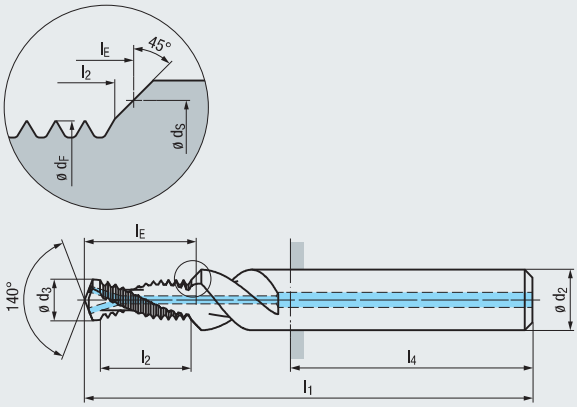
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2,5xd_1 R30-IKZ-HA	BGF-Z2 2,5xd_1 R30-IKZ-HB
3/8	16	7,65	12	8	10	85	23,9	45	28,1	2	GF442801.5011	GF442201.5011
7/16	14	9	12	9,4	11,7	85	27,3	45	32,2	2	GF442801.5012	GF442201.5012
1/2	13	10,35	14	10,8	13,3	95	31,4	45	36,7	2	GF442801.5013	GF442201.5013
9/16	12	11,8	16	12,25	15	110	34	48	39,9	2	GF442801.5014	GF442201.5014

Weitere Ausführungen auf Anfrage
Further designs upon request

UNC

ASME B1.1

VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1



BGF-Z2

Einsatzgebiete – Material
Applications – material

▸▸ 358

K 1.1-3.2 | N 1.1-1.6
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
1/4	20	4,85	8	5,2	6,7	62	9	36	12,1	2	GF422806.5009	GF422206.5009
5/16	18	6,25	10	6,6	8,3	74	11,4	40	15	2	GF422806.5010	GF422206.5010
3/8	16	7,65	12	8	10	79	14,4	45	18,6	2	GF422806.5011	GF422206.5011
7/16	14	9	12	9,4	11,7	79	16,5	45	21,3	2	GF422806.5012	GF422206.5012
1/2	13	10,35	14	10,8	13,3	89	17,7	45	23,1	2	GF422806.5013	GF422206.5013
9/16	12	11,8	16	12,25	15	102	21,3	48	27,2	2	GF422806.5014	GF422206.5014
5/8	11	13,1	18	13,5	16,7	102	23,2	48	29,7	2	GF422806.5015	GF422206.5015

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
1/4	20	4,85	8	5,2	6,7	62	12,8	36	15,9	2	GF432806.5009	GF432206.5009
5/16	18	6,25	10	6,6	8,3	74	15,6	40	19,2	2	GF432806.5010	GF432206.5010
3/8	16	7,65	12	8	10	79	19,2	45	23,3	2	GF432806.5011	GF432206.5011
7/16	14	9	12	9,4	11,7	79	21,9	45	26,7	2	GF432806.5012	GF432206.5012
1/2	13	10,35	14	10,8	13,3	89	25,5	45	30,9	2	GF432806.5013	GF432206.5013
9/16	12	11,8	16	12,25	15	102	27,7	48	33,6	2	GF432806.5014	GF432206.5014
5/8	11	13,1	18	13,5	16,7	102	30,1	48	36,7	2	GF432806.5015	GF432206.5015

Gewindetiefe
Thread depth

2,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2,5xd_1 R30-IKZ-HA TICN	BGF-Z2 2,5xd_1 R30-IKZ-HB TICN
3/8	16	7,65	12	8	10	85	23,9	45	28,1	2	GF442806.5011	GF442206.5011
7/16	14	9	12	9,4	11,7	85	27,3	45	32,2	2	GF442806.5012	GF442206.5012
1/2	13	10,35	14	10,8	13,3	95	31,4	45	36,7	2	GF442806.5013	GF442206.5013
9/16	12	11,8	16	12,25	15	110	34	48	39,9	2	GF442806.5014	GF442206.5014

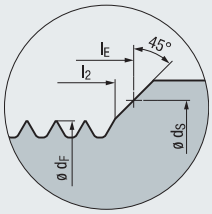
Weitere Ausführungen auf Anfrage
Further designs upon request

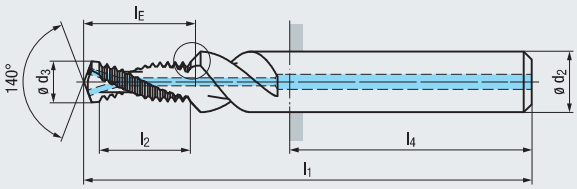
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNF

ASME B1.1

VHM Carbide	
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1





BGF-Z2

Einsatzgebiete – Material
Applications – material

358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
1/4	28	5,26	8	5,5	6,7	62	9,2	36	11,8	2	GF422801.5043	GF422201.5043
5/16	24	6,6	10	6,9	8,3	74	11,7	40	14,9	2	GF422801.5044	GF422201.5044
3/8	24	8,2	12	8,5	10	79	13,9	45	17,3	2	GF422801.5045	GF422201.5045
7/16	20	9,55	12	9,9	11,7	79	17,9	45	22	2	GF422801.5046	GF422201.5046
1/2	20	11,1	14	11,5	13,3	89	19,2	45	23,6	2	GF422801.5047	GF422201.5047
9/16	18	12,5	16	12,9	15	102	21,3	48	26,3	2	GF422801.5048	GF422201.5048
5/8	18	14,1	18	14,5	16,7	102	22,7	48	28,1	2	GF422801.5049	GF422201.5049

Gewindetiefe
Thread depth

2 x d_1

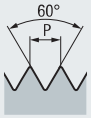
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
1/4	28	5,26	8	5,5	6,7	62	12,8	36	15,4	2	GF432801.5043	GF432201.5043
5/16	24	6,6	10	6,9	8,3	74	16	40	19,1	2	GF432801.5044	GF432201.5044
3/8	24	8,2	12	8,5	10	79	19,2	45	22,6	2	GF432801.5045	GF432201.5045
7/16	20	9,55	12	9,9	11,7	79	21,7	45	25,8	2	GF432801.5046	GF432201.5046
1/2	20	11,1	14	11,5	13,3	89	25,6	45	30	2	GF432801.5047	GF432201.5047
9/16	18	12,5	16	12,9	15	102	28,4	48	33,4	2	GF432801.5048	GF432201.5048
5/8	18	14,1	18	14,5	16,7	102	31,2	48	36,5	2	GF432801.5049	GF432201.5049

Weitere Ausführungen auf Anfrage
Further designs upon request

Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

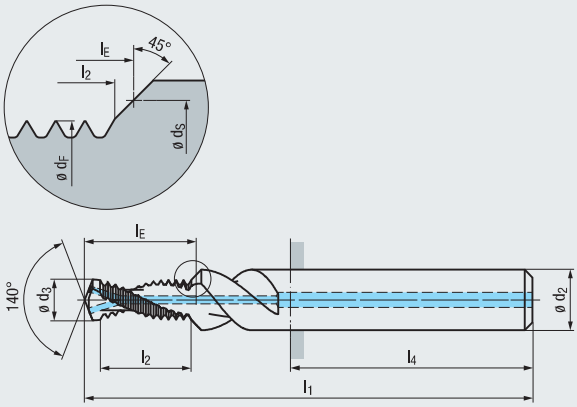
Thread depth plug gauges,
see page 588 - 591

UNF



ASME B1.1

VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1



BGF-Z2

Einsatzgebiete – Material
Applications – material

358

K 1.1-3.2 | N 1.1-1.6
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
1/4	28	5,26	8	5,5	6,7	62	9,2	36	11,8	2	GF422806.5043	GF422206.5043
5/16	24	6,6	10	6,9	8,3	74	11,7	40	14,9	2	GF422806.5044	GF422206.5044
3/8	24	8,2	12	8,5	10	79	13,9	45	17,3	2	GF422806.5045	GF422206.5045
7/16	20	9,55	12	9,9	11,7	79	17,9	45	22	2	GF422806.5046	GF422206.5046
1/2	20	11,1	14	11,5	13,3	89	19,2	45	23,6	2	GF422806.5047	GF422206.5047
9/16	18	12,5	16	12,9	15	102	21,3	48	26,3	2	GF422806.5048	GF422206.5048
5/8	18	14,1	18	14,5	16,7	102	22,7	48	28,1	2	GF422806.5049	GF422206.5049

Gewindetiefe
Thread depth

2 x d_1

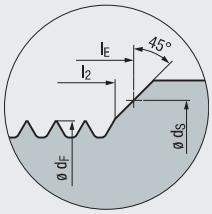
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
1/4	28	5,26	8	5,5	6,7	62	12,8	36	15,4	2	GF432806.5043	GF432206.5043
5/16	24	6,6	10	6,9	8,3	74	16	40	19,1	2	GF432806.5044	GF432206.5044
3/8	24	8,2	12	8,5	10	79	19,2	45	22,6	2	GF432806.5045	GF432206.5045
7/16	20	9,55	12	9,9	11,7	79	21,7	45	25,8	2	GF432806.5046	GF432206.5046
1/2	20	11,1	14	11,5	13,3	89	25,6	45	30	2	GF432806.5047	GF432206.5047
9/16	18	12,5	16	12,9	15	102	28,4	48	33,4	2	GF432806.5048	GF432206.5048
5/8	18	14,1	18	14,5	16,7	102	31,2	48	36,5	2	GF432806.5049	GF432206.5049

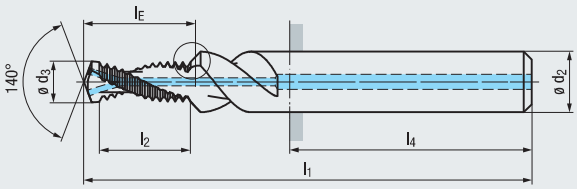
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

G (BSP)

DIN EN ISO 228





VHM Carbide	
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1

BGF-Z2

Einsatzgebiete – Material
Applications – material

358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
G	1/8	28	8,5	12	8,8	10,2	79	14,6	45	17,9	2	GF422801.4035	GF422201.4035
	1/4	19	11,4	16	11,8	13,8	102	18,8	48	23,4	2	GF422801.4036	GF422201.4036
	3/8	19	14,85	18	15,25	17,5	102	25,5	48	30,9	2	GF422801.4037	GF422201.4037

Gewindetiefe
Thread depth

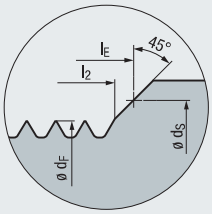
2 x d_1

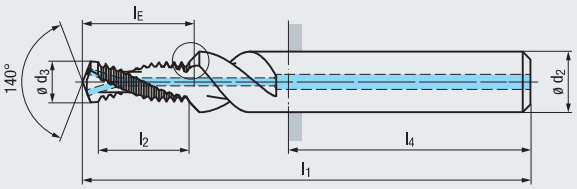
	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
G	1/8	28	8,5	12	8,8	10,2	79	19,1	45	22,4	2	GF432801.4035	GF432201.4035
	1/4	19	11,4	16	11,8	13,8	102	25,5	48	30,1	2	GF432801.4036	GF432201.4036
	3/8	19	14,85	18	15,25	17,5	102	33,5	48	38,9	2	GF432801.4037	GF432201.4037

Weitere Ausführungen auf Anfrage
Further designs upon request

G (BSP)

DIN EN ISO 228





VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d1

BGF-Z2

Einsatzgebiete – Material
Applications – material 358

K	1.1-3.2	N	1.1-1.6
N	2.2-2.3, 2.6	N	3.1-4.1

Gewindetiefe
Thread depth: **1,5 x d_1**

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
G	1/8	28	8,5	12	8,8	10,2	79	14,6	45	17,9	2	GF422806.4035	GF422206.4035
	1/4	19	11,4	16	11,8	13,8	102	18,8	48	23,4	2	GF422806.4036	GF422206.4036
	3/8	19	14,85	18	15,25	17,5	102	25,5	48	30,9	2	GF422806.4037	GF422206.4037

Gewindetiefe
Thread depth: **2 x d_1**

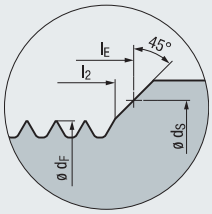
	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
G	1/8	28	8,5	12	8,8	10,2	79	19,1	45	22,4	2	GF432806.4035	GF432206.4035
	1/4	19	11,4	16	11,8	13,8	102	25,5	48	30,1	2	GF432806.4036	GF432206.4036
	3/8	19	14,85	18	15,25	17,5	102	33,5	48	38,9	2	GF432806.4037	GF432206.4037

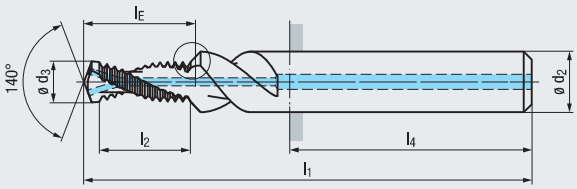
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

EG M (STI)

DIN 8140-2

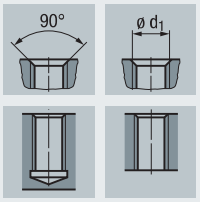




VHM Carbide

R30 | RH + LH

Z2 | DIN 6535 HA HB



BGF-Z2

Einsatzgebiete – Material
Applications – material

358

K 1.1-3.2 | N 1.1-1.5
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth

1,5 x d_1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA	BGF-Z2 1,5xd_1 R30-IKZ-HB
EG M 6	1	6	10	6,3	7,7	74	10,1	40	13,1	2	GF422801.0971	GF422201.0971
8	1,25	8,1	12	8,4	10,1	79	12,6	45	16,4	2	GF422801.0973	GF422201.0973
10	1,5	10	14	10,4	12,5	89	16,6	45	21,3	2	GF422801.0975	GF422201.0975
12	1,75	12,1	16	12,5	15	102	19,4	48	24,8	2	GF422801.0977	GF422201.0977
14	2	14,1	18	14,5	17,4	102	22,1	48	28,4	2	GF422801.0978	GF422201.0978
16	2	16	20	16,5	19,5	115	26,1	50	32,9	2	GF422801.0979	GF422201.0979

Gewindetiefe
Thread depth

2 x d_1

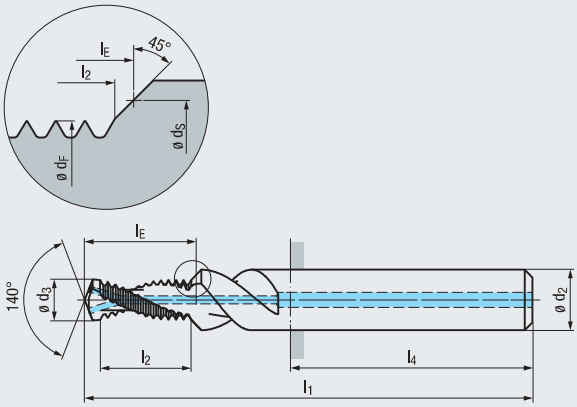
Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA	BGF-Z2 2xd_1 R30-IKZ-HB
EG M 6	1	6	10	6,3	7,7	74	13,1	40	16,1	2	GF432801.0971	GF432201.0971
8	1,25	8,1	12	8,4	10,1	79	16,3	45	20,1	2	GF432801.0973	GF432201.0973
10	1,5	10	14	10,4	12,5	89	21,1	45	25,8	2	GF432801.0975	GF432201.0975
12	1,75	12,1	16	12,5	15	102	24,6	48	30,1	2	GF432801.0977	GF432201.0977
14	2	14,1	18	14,5	17,4	102	30,1	48	36,4	2	GF432801.0978	GF432201.0978
16	2	16	20	16,5	19,5	115	34,1	50	40,9	2	GF432801.0979	GF432201.0979

Weitere Ausführungen auf Anfrage
Further designs upon request

EG M (STI)

DIN 8140-2

VHM Carbide	TICN
R30	RH + LH
Z2	DIN 6535 HA HB
90°	ø d_1



BGF-Z2

Einsatzgebiete – Material
Applications – material 358

K 1.1-3.2 | N 1.1-1.6
N 2.2-2.3, 2.6 | N 3.1-4.1

Gewindetiefe
Thread depth: **1,5 x d_1**

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 1,5xd_1 R30-IKZ-HA TICN	BGF-Z2 1,5xd_1 R30-IKZ-HB TICN
EG M	6	1	6	10	6,3	7,7	74	10,1	40	13,1	2	GF422806.0971	GF422206.0971
	8	1,25	8,1	12	8,4	10,1	79	12,6	45	16,4	2	GF422806.0973	GF422206.0973
	10	1,5	10	14	10,4	12,5	89	16,6	45	21,3	2	GF422806.0975	GF422206.0975
	12	1,75	12,1	16	12,5	15	102	19,4	48	24,8	2	GF422806.0977	GF422206.0977
	14	2	14,1	18	14,5	17,4	102	22,1	48	28,4	2	GF422806.0978	GF422206.0978
	16	2	16	20	16,5	19,5	115	26,1	50	32,9	2	GF422806.0979	GF422206.0979

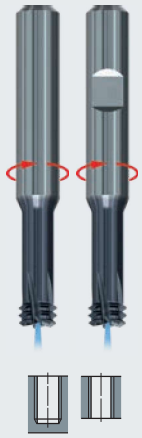
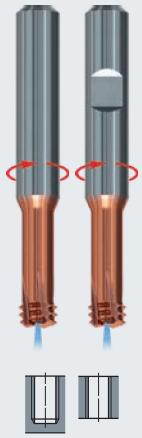
Gewindetiefe
Thread depth: **2 x d_1**

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_3	ø d_S	l_1	l_2	l_4	l_E	Z (Flutes)	BGF-Z2 2xd_1 R30-IKZ-HA TICN	BGF-Z2 2xd_1 R30-IKZ-HB TICN
EG M	6	1	6	10	6,3	7,7	74	13,1	40	16,1	2	GF432806.0971	GF432206.0971
	8	1,25	8,1	12	8,4	10,1	79	16,3	45	20,1	2	GF432806.0973	GF432206.0973
	10	1,5	10	14	10,4	12,5	89	21,1	45	25,8	2	GF432806.0975	GF432206.0975
	12	1,75	12,1	16	12,5	15	102	24,6	48	30,1	2	GF432806.0977	GF432206.0977
	14	2	14,1	18	14,5	17,4	102	30,1	48	36,4	2	GF432806.0978	GF432206.0978
	16	2	16	20	16,5	19,5	115	34,1	50	40,9	2	GF432806.0979	GF432206.0979

Weitere Ausführungen auf Anfrage
Further designs upon request

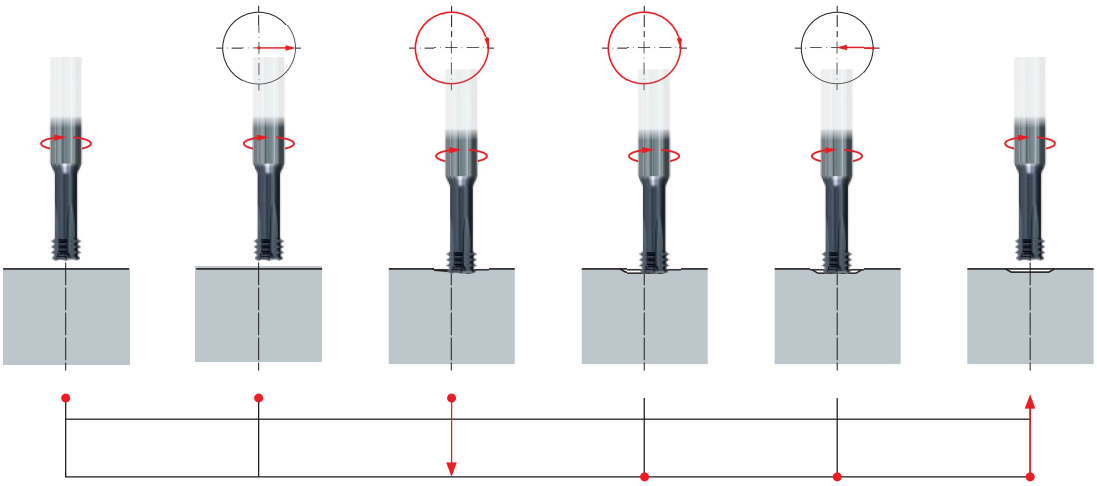
Gewindebohrer für Metrisches EG-Gewinde siehe Seite 280 - 283

Taps for Metric STI thread, see page 280 - 283

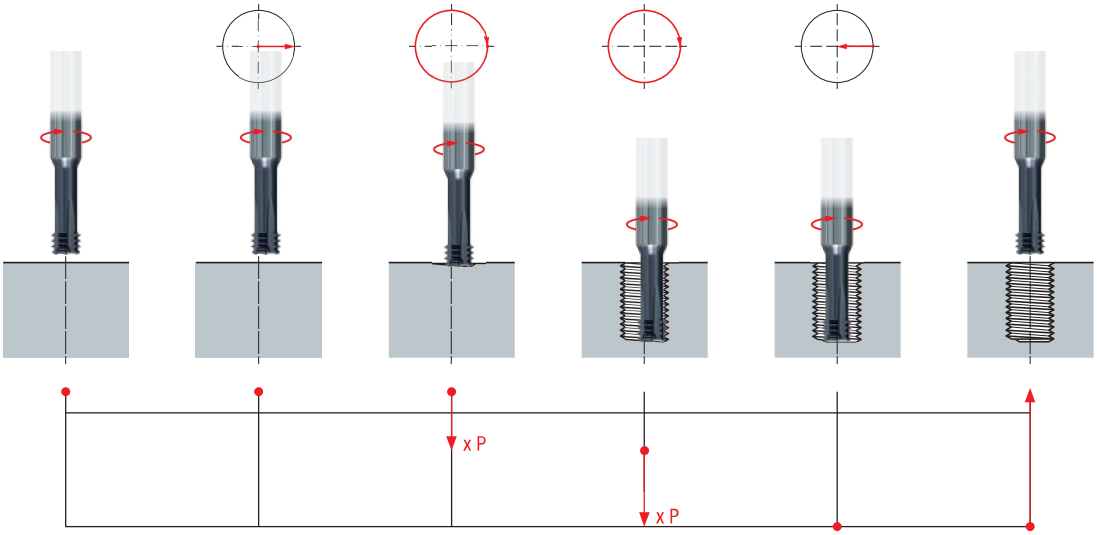
ZBGF	ZBGF-S-CUT	ZBGF-HCUT	
			
Seite · Page			
390	394	401	**M**
391	395		**MF**
392	396	402	**UNC**
393	397	403	**UNF**
	398		**MJ**
	399		**UNJC**
	400		**UNJF**

Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

Zirkulares Anfasen · Circular chamfering



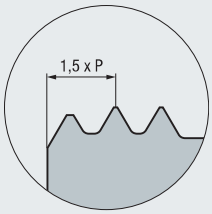
Gewindefräszyklus · Thread milling cycle

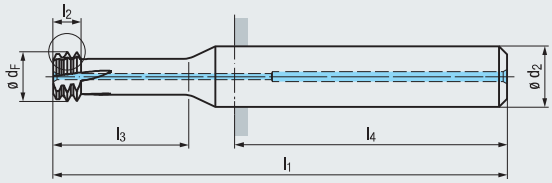


Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M

DIN 13

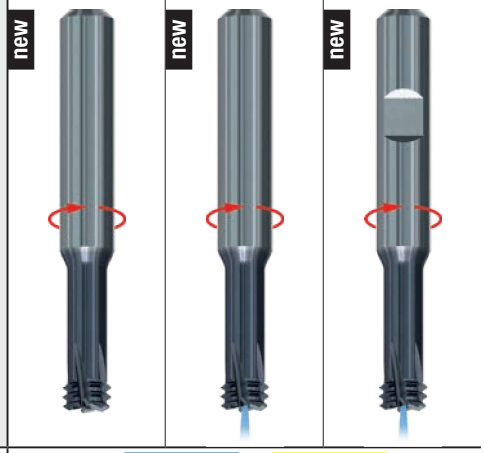




VHM Carbide	TIALN 86
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF



Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1
K	1.1-4.2	N	1.1-5.3

Gewindetiefe
Thread depth

2,5 x d_1

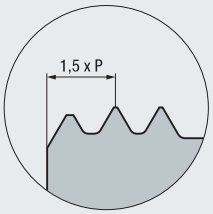
	ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF 2,5xd_1 L10-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HB TIALN-86
M	3	0,5	2,25	3	39	1,5	8,3	28	4	GF74682C.0030		
	4	0,7	2,95	4	42	2,1	11,1	28	4	GF74682C.0040		
	5	0,8	3,8	6	55	2,4	13,7	36	4		GF74682C.0050	GF74622C.0050
	6	1	4,5	6	58	3	16,5	36	4		GF74682C.0060	GF74622C.0060
	8	1,25	6,13	8	63	3,8	21,9	36	4		GF74682C.0080	GF74622C.0080
	10	1,5	7,75	10	74	4,5	27,3	40	4		GF74682C.0100	GF74622C.0100
	12	1,75	9,38	10	78	5,3	32,6	40	5		GF74682C.0112	GF74622C.0112
	14	2	11	12	88	6	38	45	5		GF74682C.0114	GF74622C.0114
	16	2	13	14	95	6	43	45	5		GF74682C.0116	GF74622C.0116
	20	2,5	16,25	18	110	7,5	53,8	48	5		GF74682C.0120	GF74622C.0120
	24	3	19,5	20	123	9	64,5	50	5		GF74682C.0124	GF74622C.0124

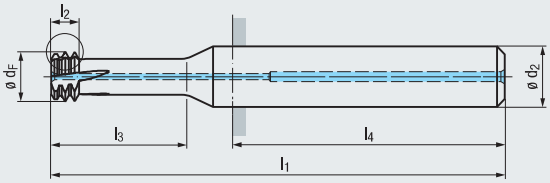
Weitere Ausführungen auf Anfrage
Further designs upon request

Kühlschmierstoffe siehe Seite 300 - 301 Coolant-lubricants, see page 300 - 301

MF

DIN 13





VHM Carbide	TIALN 86
RH + LH	LH-rot.
L10	Z5
DIN 6535 HA HB	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF

new

new

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 M 1.1-4.1
K 1.1-4.2 N 1.1-5.3

Gewindetiefe
Thread depth

2,5 x d_1

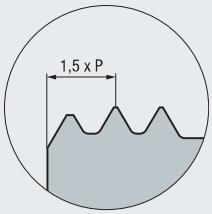
	ø d_1 mm		P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF 2,5xd_1 L10-IKZ-HA TiALN-86	ZBGF 2,5xd_1 L10-IKZ-HB TiALN-86
M	8	x	1	6,5	8	63	3	21,5	36	5	GF74682C.0251	GF74622C.0251
	10	x	1	8,5	10	74	3	26,5	40	5	GF74682C.0276	GF74622C.0276
	10	x	1,25	8,13	10	74	3,8	26,9	40	5	GF74682C.0277	GF74622C.0277
	12	x	1	10,5	12	83	3	31,5	45	5	GF74682C.0301	GF74622C.0301
	12	x	1,25	10,13	12	83	3,8	31,9	45	5	GF74682C.0302	GF74622C.0302
	12	x	1,5	9,75	12	83	4,5	32,3	45	5	GF74682C.0303	GF74622C.0303
	14	x	1,5	11,75	12	85	4,5	37,3	45	5	GF74682C.0331	GF74622C.0331
	16	x	1,5	13,75	14	93	4,5	42,3	45	5	GF74682C.0359	GF74622C.0359

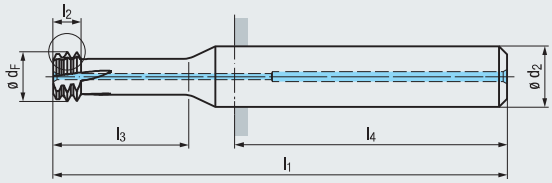
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNC

ASME B1.1

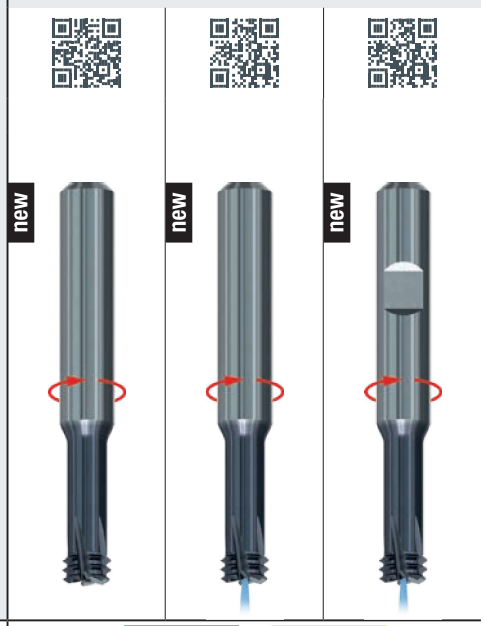




VHM Carbide	TIALN 86
RH + LH	LH-rot.
L10	Z3 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF



Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 M 1.1-4.1
K 1.1-4.2 N 1.1-5.3

Gewindetiefe
Thread depth

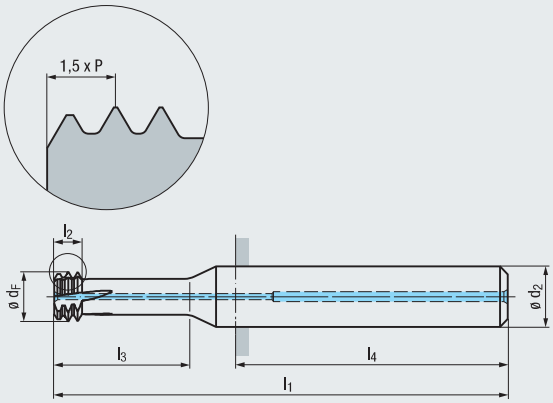
2,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF 2,5xd_1 L10-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HB TIALN-86
Nr. 6	32	2,45	3	41	2,4	10	28	3	GF74682C.5005		
Nr. 8	32	3,1	4	43	2,4	11,6	28	3	GF74682C.5006		
Nr.10	24	3,37	4	45	3,2	13,7	28	3	GF74682C.5007		
1/4	20	4,47	6	58	3,8	17,8	36	3		GF74682C.5009	GF74622C.5009
5/16	18	5,89	8	64	4,2	22	36	4		GF74682C.5010	GF74622C.5010
3/8	16	7,21	8	67	4,8	26,2	36	4		GF74682C.5011	GF74622C.5011
7/16	14	8,49	10	77	5,4	30,5	40	4		GF74682C.5012	GF74622C.5012
1/2	13	9,82	12	85	5,9	34,7	45	4		GF74682C.5013	GF74622C.5013
9/16	12	11,14	12	89	6,4	38,9	45	5		GF74682C.5014	GF74622C.5014
5/8	11	12,35	14	95	6,9	43,2	45	5		GF74682C.5015	GF74622C.5015
3/4	10	15,23	16	106	7,6	51,4	48	5		GF74682C.5016	GF74622C.5016

Weitere Ausführungen auf Anfrage
Further designs upon request

UNF

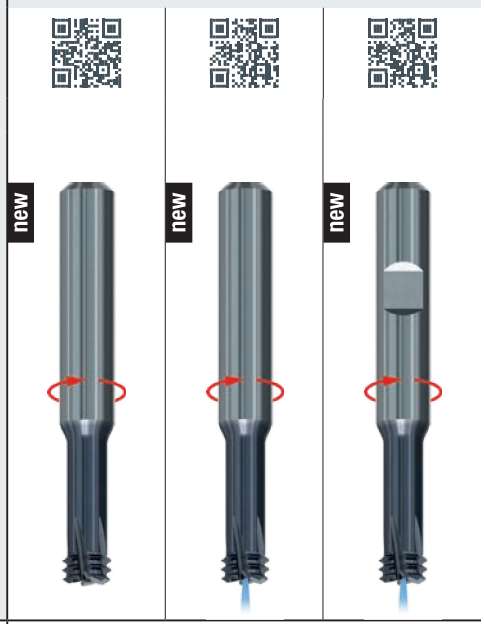
ASME B1.1



VHM Carbide	TIALN 86
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF



Einsatzgebiete – Material
Applications – material

358

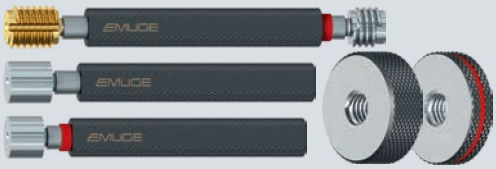
P 1.1-5.1 M 1.1-4.1
K 1.1-4.2 N 1.1-5.3

Gewindetiefe
Thread depth

2,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF 2,5xd_1 L10-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HA TIALN-86	ZBGF 2,5xd_1 L10-IKZ-HB TIALN-86
Nr. 6	40	2,63	3	40	1,9	9,7	28	4	GF74682C.5039		
Nr. 8	36	3,15	4	43	2,1	11,5	28	4	GF74682C.5040		
Nr.10	32	3,7	4	45	2,4	13,3	28	4	GF74682C.5041		
1/4	28	5,05	6	58	2,7	17,2	36	4		GF74682C.5043	GF74622C.5043
5/16	24	6,37	8	62	3,2	21,4	36	5		GF74682C.5044	GF74622C.5044
3/8	24	7,97	8	65	3,2	25,4	36	5		GF74682C.5045	GF74622C.5045
7/16	20	9,27	10	74	3,8	29,7	40	5		GF74682C.5046	GF74622C.5046
1/2	20	10,87	12	84	3,8	33,7	45	5		GF74682C.5047	GF74622C.5047
9/16	18	11,9	12	87	4,2	37,8	45	5		GF74682C.5048	GF74622C.5048
5/8	18	13,51	14	91	4,2	41,8	45	5		GF74682C.5049	GF74622C.5049
3/4	16	15,9	16	102	4,8	50	48	5		GF74682C.5050	GF74622C.5050

Weitere Ausführungen auf Anfrage
Further designs upon request

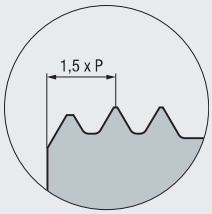


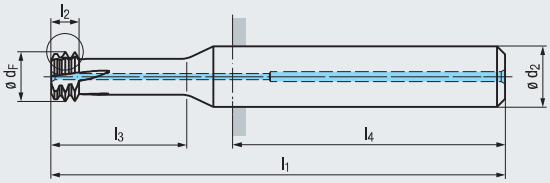
Gewindelehren
siehe Seite 541 - 594

Thread gauges,
see page 541 - 594

M

DIN 13

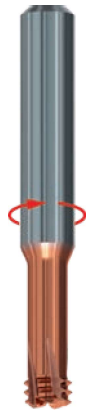


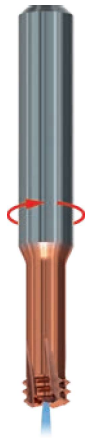


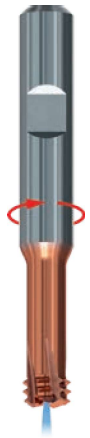
VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT







Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
M	3	0,5	2,25	3	39	1,5	6,8	28	4	GF7B682B.0030		
	4	0,7	2,95	4	42	2,1	9,1	28	4	GF7B682B.0040		
	5	0,8	3,8	6	52	2,4	11,2	36	4		GF7B682B.0050	GF7B622B.0050
	6	1	4,5	6	55	3	13,5	36	4		GF7B682B.0060	GF7B622B.0060
	8	1,25	6,13	8	60	3,8	17,9	36	4		GF7B682B.0080	GF7B622B.0080
	10	1,5	7,75	10	70	4,5	22,3	40	4		GF7B682B.0100	GF7B622B.0100
	12	1,75	9,38	10	74	5,3	26,6	40	5		GF7B682B.0112	GF7B622B.0112
	14	2	11	12	80	6	31	45	5		GF7B682B.0114	GF7B622B.0114
	16	2	13	14	85	6	35	45	5		GF7B682B.0116	GF7B622B.0116
	20	2,5	16,25	18	100	7,5	43,8	48	5		GF7B682B.0120	GF7B622B.0120
	24	3	19,5	20	110	9	52,5	50	5		GF7B682B.0124	GF7B622B.0124

new new new

Gewindetiefe
Thread depth

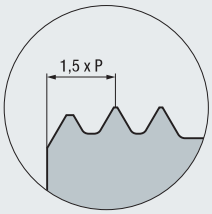
2,5 x d_1

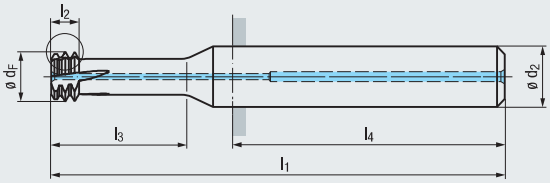
	ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
M	3	0,5	2,25	3	39	1,5	8,3	28	4	GF7C682B.0030		
	4	0,7	2,95	4	42	2,1	11,1	28	4	GF7C682B.0040		
	5	0,8	3,8	6	55	2,4	13,7	36	4		GF7C682B.0050	GF7C622B.0050
	6	1	4,5	6	58	3	16,5	36	4		GF7C682B.0060	GF7C622B.0060
	8	1,25	6,13	8	63	3,8	21,9	36	4		GF7C682B.0080	GF7C622B.0080
	10	1,5	7,75	10	74	4,5	27,3	40	4		GF7C682B.0100	GF7C622B.0100
	12	1,75	9,38	10	78	5,3	32,6	40	5		GF7C682B.0112	GF7C622B.0112
	14	2	11	12	88	6	38	45	5		GF7C682B.0114	GF7C622B.0114
	16	2	13	14	95	6	43	45	5		GF7C682B.0116	GF7C622B.0116
	20	2,5	16,25	18	110	7,5	53,8	48	5		GF7C682B.0120	GF7C622B.0120
	24	3	19,5	20	123	9	64,5	50	5		GF7C682B.0124	GF7C622B.0124

Weitere Ausführungen auf Anfrage
Further designs upon request

MF

DIN 13

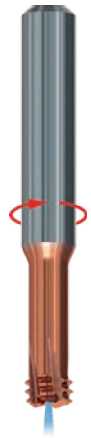


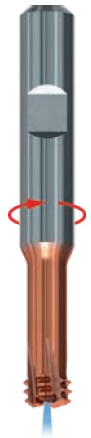


VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z5
DIN 6535 HA HB	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT





Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6

Gewindetiefe
Thread depth: **2 x d_1**

	ø d_1 mm		P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
M	8	x	1	6,5	8	60	3	17,5	36	5	GF7B682B.0251	GF7B622B.0251
	10	x	1	8,5	10	70	3	21,5	40	5	GF7B682B.0276	GF7B622B.0276
	10	x	1,25	8,13	10	70	3,8	21,9	40	5	GF7B682B.0277	GF7B622B.0277
	12	x	1	10,5	12	80	3	25,5	45	5	GF7B682B.0301	GF7B622B.0301
	12	x	1,25	10,13	12	80	3,8	25,9	45	5	GF7B682B.0302	GF7B622B.0302
	12	x	1,5	9,75	12	80	4,5	26,3	45	5	GF7B682B.0303	GF7B622B.0303
	14	x	1,5	11,75	12	80	4,5	30,3	45	5	GF7B682B.0331	GF7B622B.0331
	16	x	1,5	13,75	14	84	4,5	34,3	45	5	GF7B682B.0359	GF7B622B.0359

new | new

Gewindetiefe
Thread depth: **2,5 x d_1**

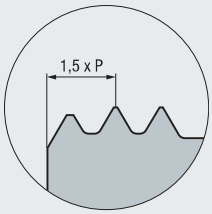
	ø d_1 mm		P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
M	8	x	1	6,5	8	63	3	21,5	36	5	GF7C682B.0251	GF7C622B.0251
	10	x	1	8,5	10	74	3	26,5	40	5	GF7C682B.0276	GF7C622B.0276
	10	x	1,25	8,13	10	74	3,8	26,9	40	5	GF7C682B.0277	GF7C622B.0277
	12	x	1	10,5	12	83	3	31,5	45	5	GF7C682B.0301	GF7C622B.0301
	12	x	1,25	10,13	12	83	3,8	31,9	45	5	GF7C682B.0302	GF7C622B.0302
	12	x	1,5	9,75	12	83	4,5	32,3	45	5	GF7C682B.0303	GF7C622B.0303
	14	x	1,5	11,75	12	85	4,5	37,3	45	5	GF7C682B.0331	GF7C622B.0331
	16	x	1,5	13,75	14	93	4,5	42,3	45	5	GF7C682B.0359	GF7C622B.0359

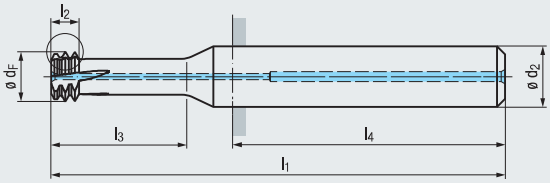
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNC

ASME B1.1

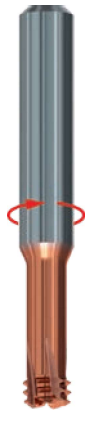
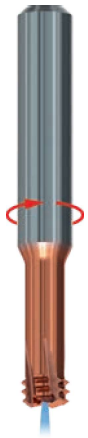
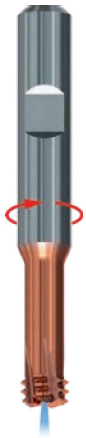




VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z3 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
Nr. 6	32	2,45	3	39	2,4	8,2	28	3	GF7B682B.5005		
Nr. 8	32	3,1	4	40	2,4	9,5	28	3	GF7B682B.5006		
Nr.10	24	3,37	4	42	3,2	11,2	28	3	GF7B682B.5007		
1/4	20	4,47	6	55	3,8	14,6	36	3		GF7B682B.5009	GF7B622B.5009
5/16	18	5,89	8	62	4,2	18	36	4		GF7B682B.5010	GF7B622B.5010
3/8	16	7,21	8	62	4,8	21,4	36	4		GF7B682B.5011	GF7B622B.5011
7/16	14	8,49	10	70	5,4	25	40	4		GF7B682B.5012	GF7B622B.5012
1/2	13	9,82	12	80	5,9	28,3	45	4		GF7B682B.5013	GF7B622B.5013
9/16	12	11,14	12	82	6,4	31,8	45	5		GF7B682B.5014	GF7B622B.5014
5/8	11	12,35	14	87	6,9	35,2	45	5		GF7B682B.5015	GF7B622B.5015
3/4	10	15,23	16	96	7,6	41,9	48	5		GF7B682B.5016	GF7B622B.5016

new new new

Gewindetiefe
Thread depth

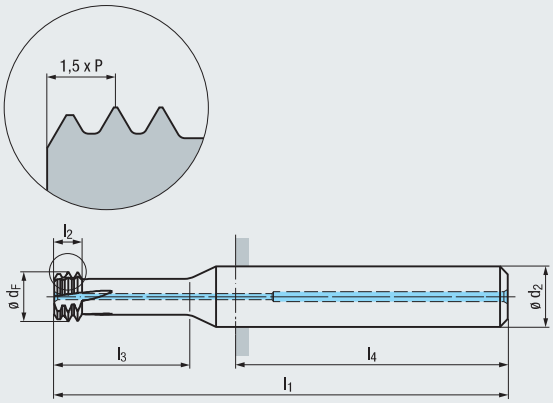
2,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
Nr. 6	32	2,45	3	41	2,4	10	28	3	GF7C682B.5005		
Nr. 8	32	3,1	4	43	2,4	11,6	28	3	GF7C682B.5006		
Nr.10	24	3,37	4	45	3,2	13,7	28	3	GF7C682B.5007		
1/4	20	4,47	6	58	3,8	17,8	36	3		GF7C682B.5009	GF7C622B.5009
5/16	18	5,89	8	64	4,2	22	36	4		GF7C682B.5010	GF7C622B.5010
3/8	16	7,21	8	67	4,8	26,2	36	4		GF7C682B.5011	GF7C622B.5011
7/16	14	8,49	10	77	5,4	30,5	40	4		GF7C682B.5012	GF7C622B.5012
1/2	13	9,82	12	85	5,9	34,7	45	4		GF7C682B.5013	GF7C622B.5013
9/16	12	11,14	12	89	6,4	38,9	45	5		GF7C682B.5014	GF7C622B.5014
5/8	11	12,35	14	95	6,9	43,2	45	5		GF7C682B.5015	GF7C622B.5015
3/4	10	15,23	16	106	7,6	51,4	48	5		GF7C682B.5016	GF7C622B.5016

Weitere Ausführungen auf Anfrage
Further designs upon request

UNF

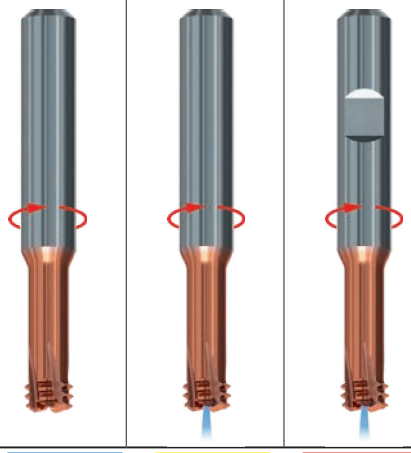
ASME B1.1



VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT



Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6		

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
Nr. 6	40	2,63	3	39	1,9	8	28	4	GF7B682B.5039		
Nr. 8	36	3,15	4	40	2,1	9,4	28	4	GF7B682B.5040		
Nr.10	32	3,7	4	42	2,4	10,8	28	4	GF7B682B.5041		
1/4	28	5,05	6	55	2,7	14,1	36	4		GF7B682B.5043	GF7B622B.5043
5/16	24	6,37	8	58	3,2	17,5	36	5		GF7B682B.5044	GF7B622B.5044
3/8	24	7,97	8	62	3,2	20,6	36	5		GF7B682B.5045	GF7B622B.5045
7/16	20	9,27	10	70	3,8	24,1	40	5		GF7B682B.5046	GF7B622B.5046
1/2	20	10,87	12	80	3,8	27,3	45	5		GF7B682B.5047	GF7B622B.5047
9/16	18	11,9	12	80	4,2	30,7	45	5		GF7B682B.5048	GF7B622B.5048
5/8	18	13,51	14	83	4,2	33,9	45	5		GF7B682B.5049	GF7B622B.5049
3/4	16	15,9	16	93	4,8	40,5	48	5		GF7B682B.5050	GF7B622B.5050

new new new

Gewindetiefe
Thread depth

2,5 x d_1

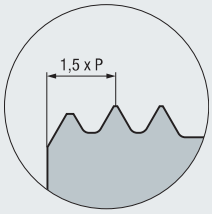
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
Nr. 6	40	2,63	3	40	1,9	9,7	28	4	GF7C682B.5039		
Nr. 8	36	3,15	4	43	2,1	11,5	28	4	GF7C682B.5040		
Nr.10	32	3,7	4	45	2,4	13,3	28	4	GF7C682B.5041		
1/4	28	5,05	6	58	2,7	17,2	36	4		GF7C682B.5043	GF7C622B.5043
5/16	24	6,37	8	62	3,2	21,4	36	5		GF7C682B.5044	GF7C622B.5044
3/8	24	7,97	8	65	3,2	25,4	36	5		GF7C682B.5045	GF7C622B.5045
7/16	20	9,27	10	74	3,8	29,7	40	5		GF7C682B.5046	GF7C622B.5046
1/2	20	10,87	12	84	3,8	33,7	45	5		GF7C682B.5047	GF7C622B.5047
9/16	18	11,9	12	87	4,2	37,8	45	5		GF7C682B.5048	GF7C622B.5048
5/8	18	13,51	14	91	4,2	41,8	45	5		GF7C682B.5049	GF7C622B.5049
3/4	16	15,9	16	102	4,8	50	48	5		GF7C682B.5050	GF7C622B.5050

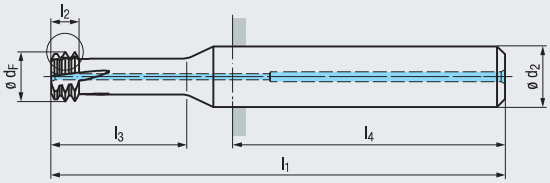
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

MJ

DIN ISO 5855

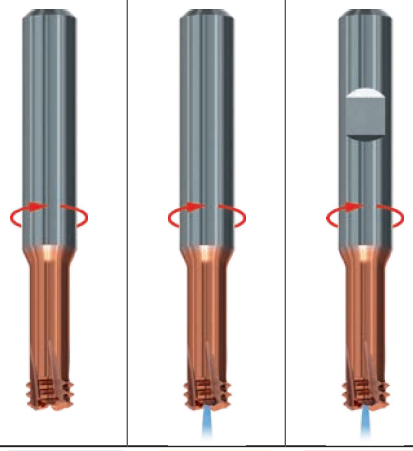




VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT



Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1	M 1.1-4.1	K 1.1-4.2	
N 1.1-5.3	S 1.1-2.6		

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
MJ	3	x	0,5	2,25	3	39	1,5	6,8	28	4	GF7B682B.1229		
	4	x	0,7	2,95	4	42	2,1	9,1	28	4	GF7B682B.1231		
	5	x	0,8	3,8	6	52	2,4	11,2	36	4		GF7B682B.1232	GF7B622B.1232
	6	x	1	4,5	6	55	3	13,5	36	4		GF7B682B.1233	GF7B622B.1233
	8	x	1	6,5	8	60	3	17,5	36	5		GF7B682B.1235	GF7B622B.1235
	8	x	1,25	6,13	8	60	3,8	17,9	36	4		GF7B682B.2026	GF7B622B.2026
	10	x	1	8,5	10	70	3	21,5	40	5		GF7B682B.1764	GF7B622B.1764
	10	x	1,25	8,13	10	70	3,8	21,9	40	5		GF7B682B.1236	GF7B622B.1236
	10	x	1,5	7,75	10	70	4,5	22,3	40	4		GF7B682B.2308	GF7B622B.2308
	12	x	1	10,5	12	80	3	25,5	45	5		GF7B682B.2310	GF7B622B.2310
	12	x	1,25	10,13	12	80	3,8	25,9	45	5		GF7B682B.1237	GF7B622B.1237
	12	x	1,5	9,75	12	80	4,5	26,3	45	5		GF7B682B.2056	GF7B622B.2056
	12	x	1,75	9,38	10	74	5,3	26,6	40	5		GF7B682B.1912	GF7B622B.1912
	14	x	1,5	11,75	12	80	4,5	30,3	45	5		GF7B682B.1238	GF7B622B.1238
	14	x	2	11	12	80	6	31	45	5		GF7B682B.2505	GF7B622B.2505
	16	x	1,5	13,75	14	84	4,5	34,3	45	5		GF7B682B.1239	GF7B622B.1239
	16	x	2	13	14	85	6	35	45	5		GF7B682B.1955	GF7B622B.1955
	20	x	2,5	16,25	18	100	7,5	43,8	48	5		GF7B682B.1954	GF7B622B.1954
	24	x	3	19,5	20	110	9	52,5	50	5		GF7B682B.9222	GF7B622B.9222

new

Gewindetiefe
Thread depth

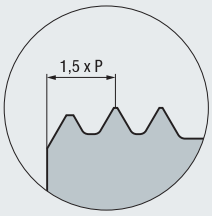
2,5 x d_1

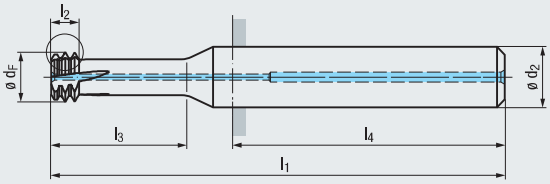
	ø d_1 mm		P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
MJ	3	x	0,5	2,25	3	39	1,5	8,3	28	4	GF7C682B.1229		
	4	x	0,7	2,95	4	42	2,1	11,1	28	4	GF7C682B.1231		
	5	x	0,8	3,8	6	55	2,4	13,7	36	4		GF7C682B.1232	GF7C622B.1232
	6	x	1	4,5	6	58	3	16,5	36	4		GF7C682B.1233	GF7C622B.1233
	8	x	1	6,5	8	63	3	21,5	36	5		GF7C682B.1235	GF7C622B.1235
	8	x	1,25	6,13	8	63	3,8	21,9	36	4		GF7C682B.2026	GF7C622B.2026
	10	x	1	8,5	10	74	3	26,5	40	5		GF7C682B.1764	GF7C622B.1764
	10	x	1,25	8,13	10	74	3,8	26,9	40	5		GF7C682B.1236	GF7C622B.1236
	10	x	1,5	7,75	10	74	4,5	27,3	40	4		GF7C682B.2308	GF7C622B.2308
	12	x	1	10,5	12	83	3	31,5	45	5		GF7C682B.2310	GF7C622B.2310
	12	x	1,25	10,13	12	83	3,8	31,9	45	5		GF7C682B.1237	GF7C622B.1237
	12	x	1,5	9,75	12	83	4,5	32,3	45	5		GF7C682B.2056	GF7C622B.2056
	12	x	1,75	9,38	10	78	5,3	32,6	40	5		GF7C682B.1912	GF7C622B.1912
	14	x	1,5	11,75	12	85	4,5	37,3	45	5		GF7C682B.1238	GF7C622B.1238
	14	x	2	11	12	88	6	38	45	5		GF7C682B.2505	GF7C622B.2505
	16	x	1,5	13,75	14	93	4,5	42,3	45	5		GF7C682B.1239	GF7C622B.1239
	16	x	2	13	14	95	6	43	45	5		GF7C682B.1955	GF7C622B.1955
	20	x	2,5	16,25	18	110	7,5	53,8	48	5		GF7C682B.1954	GF7C622B.1954
	24	x	3	19,5	20	123	9	64,5	50	5		GF7C682B.9222	GF7C622B.9222

Weitere Ausführungen auf Anfrage
Further designs upon request

UNJC

ASME B1.1 [1)]





VHM Carbide | ALCR 89

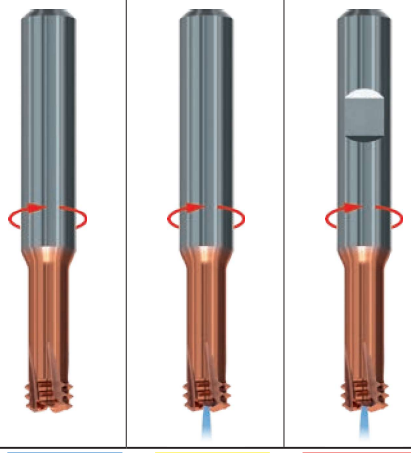
RH + LH | LH-rot.

L10 | Z3 - Z5

DIN 6535 HA HB | ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT



Einsatzgebiete – Material
Applications – material

▸▸ 358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
Nr. 6	32	2,45	3	39	2,4	8,2	28	3	GF7B682B.5481		
Nr. 8	32	3,1	4	40	2,4	9,5	28	3	GF7B682B.5482		
Nr.10	24	3,37	4	42	3,2	11,2	28	3	GF7B682B.5483		
1/4	20	4,47	6	55	3,8	14,6	36	3		GF7B682B.5485	GF7B622B.5485
5/16	18	5,89	8	62	4,2	18	36	4		GF7B682B.5486	GF7B622B.5486
3/8	16	7,21	8	62	4,8	21,4	36	4		GF7B682B.5487	GF7B622B.5487
7/16	14	8,49	10	70	5,4	25	40	4		GF7B682B.5488	GF7B622B.5488
1/2	13	9,82	12	80	5,9	28,3	45	4		GF7B682B.5489	GF7B622B.5489
9/16	12	11,14	12	82	6,4	31,8	45	5		GF7B682B.5490	GF7B622B.5490
5/8	11	12,35	14	87	6,9	35,2	45	5		GF7B682B.5491	GF7B622B.5491
3/4	10	15,23	16	96	7,6	41,9	48	5		GF7B682B.5492	GF7B622B.5492

new | new | new

Gewindetiefe
Thread depth

2,5 x d_1

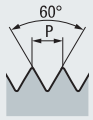
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
Nr. 6	32	2,45	3	41	2,4	10	28	3	GF7C682B.5481		
Nr. 8	32	3,1	4	43	2,4	11,6	28	3	GF7C682B.5482		
Nr.10	24	3,37	4	45	3,2	13,7	28	3	GF7C682B.5483		
1/4	20	4,47	6	58	3,8	17,8	36	3		GF7C682B.5485	GF7C622B.5485
5/16	18	5,89	8	64	4,2	22	36	4		GF7C682B.5486	GF7C622B.5486
3/8	16	7,21	8	67	4,8	26,2	36	4		GF7C682B.5487	GF7C622B.5487
7/16	14	8,49	10	77	5,4	30,5	40	4		GF7C682B.5488	GF7C622B.5488
1/2	13	9,82	12	85	5,9	34,7	45	4		GF7C682B.5489	GF7C622B.5489
9/16	12	11,14	12	89	6,4	38,9	45	5		GF7C682B.5490	GF7C622B.5490
5/8	11	12,35	14	95	6,9	43,2	45	5		GF7C682B.5491	GF7C622B.5491
3/4	10	15,23	16	106	7,6	51,4	48	5		GF7C682B.5492	GF7C622B.5492

1) früher ASME B1.15
formerly ASME B1.15

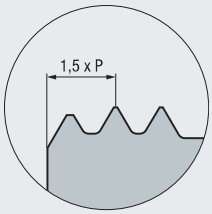
Weitere Ausführungen auf Anfrage
Further designs upon request

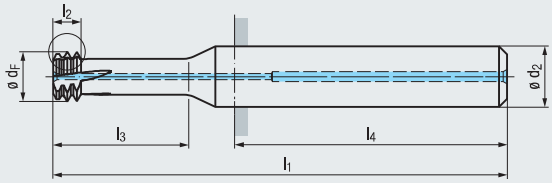
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNJF



ASME B1.1 1)

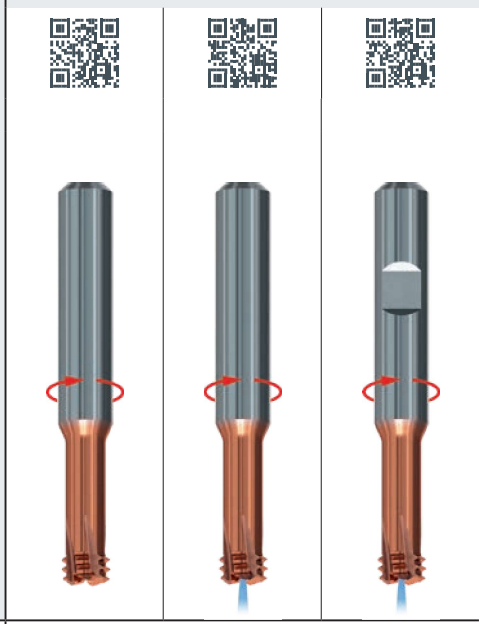




VHM Carbide	ALCR 89
RH + LH	LH-rot.
L10	Z4 - Z5
DIN 6535 HA HB	ø d_1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-S-CUT



Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6		

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2xd_1 L10-IKZ-HB ALCR-89
Nr. 6	40	2,63	3	39	1,9	8	28	4	GF7B682B.5507		
Nr. 8	36	3,15	4	40	2,1	9,4	28	4	GF7B682B.5508		
Nr.10	32	3,7	4	42	2,4	10,8	28	4	GF7B682B.5509		
1/4	28	5,05	6	55	2,7	14,1	36	4		GF7B682B.5511	GF7B622B.5511
5/16	24	6,37	8	58	3,2	17,5	36	5		GF7B682B.5512	GF7B622B.5512
3/8	24	7,97	8	62	3,2	20,6	36	5		GF7B682B.5513	GF7B622B.5513
7/16	20	9,27	10	70	3,8	24,1	40	5		GF7B682B.5514	GF7B622B.5514
1/2	20	10,87	12	80	3,8	27,3	45	5		GF7B682B.5515	GF7B622B.5515
9/16	18	11,9	12	80	4,2	30,7	45	5		GF7B682B.5516	GF7B622B.5516
5/8	18	13,51	14	83	4,2	33,9	45	5		GF7B682B.5517	GF7B622B.5517
3/4	16	15,9	16	93	4,8	40,5	48	5		GF7B682B.5518	GF7B622B.5518

new new new

Gewindetiefe
Thread depth

2,5 x d_1

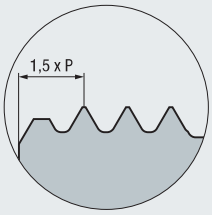
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-S-CUT 2,5xd_1 L10-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HA ALCR-89	ZBGF-S-CUT 2,5xd_1 L10-IKZ-HB ALCR-89
Nr. 6	40	2,63	3	40	1,9	9,7	28	4	GF7C682B.5507		
Nr. 8	36	3,15	4	43	2,1	11,5	28	4	GF7C682B.5508		
Nr.10	32	3,7	4	45	2,4	13,3	28	4	GF7C682B.5509		
1/4	28	5,05	6	58	2,7	17,2	36	4		GF7C682B.5511	GF7C622B.5511
5/16	24	6,37	8	62	3,2	21,4	36	5		GF7C682B.5512	GF7C622B.5512
3/8	24	7,97	8	65	3,2	25,4	36	5		GF7C682B.5513	GF7C622B.5513
7/16	20	9,27	10	74	3,8	29,7	40	5		GF7C682B.5514	GF7C622B.5514
1/2	20	10,87	12	84	3,8	33,7	45	5		GF7C682B.5515	GF7C622B.5515
9/16	18	11,9	12	87	4,2	37,8	45	5		GF7C682B.5516	GF7C622B.5516
5/8	18	13,51	14	91	4,2	41,8	45	5		GF7C682B.5517	GF7C622B.5517
3/4	16	15,9	16	102	4,8	50	48	5		GF7C682B.5518	GF7C622B.5518

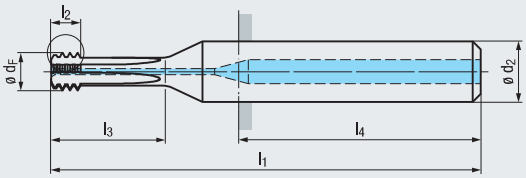
1) früher ASME B1.15
formerly ASME B1.15

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z4 - Z5	
DIN 6535 HA	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-HCUT

new

new

Einsatzgebiete – Material
Applications – material

▸▸ 358

N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2xd_1 HA TIALN-T46	ZBGF-HCUT 2xd_1 IKZ-HA TIALN-T46
M	3	0,5	2,3	6	51	2	7	36	4	GF733709.0030	
	4	0,7	3	6	51	2,8	9,4	36	4	GF733709.0040	
	5	0,8	3,8	6	53	3,2	11,6	36	4	GF733709.0050	
	6	1	4,6	6	55	4	14	36	4		GF733709.0060
	8	1,25	6,2	8	60	5	18,5	36	4		GF733709.0080
	10	1,5	7,8	8	64	6	23	36	4		GF733709.0100
	12	1,75	9,5	10	74	7	27,5	40	4		GF733709.0112
	14	2	11,1	12	83	8	32	45	4		GF733709.0114
	16	2	13,1	14	88	8	36	45	5		GF733709.0116

new

new

Gewindetiefe
Thread depth

2,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2,5xd_1 HA TIALN-T46	ZBGF-HCUT 2,5xd_1 IKZ-HA TIALN-T46
M	3	0,5	2,3	6	51	2	8,5	36	4	GF743709.0030	
	4	0,7	3	6	55	2,8	11,4	36	4	GF743709.0040	
	5	0,8	3,8	6	55	3,2	14,1	36	4	GF743709.0050	
	6	1	4,6	6	58	4	17	36	4		GF743709.0060
	8	1,25	6,2	8	65	5	22,5	36	4		GF743709.0080
	10	1,5	7,8	8	68	6	28	36	4		GF743709.0100
	12	1,75	9,5	10	78	7	33,5	40	4		GF743709.0112
	14	2	11,1	12	90	8	39	45	4		GF743709.0114
	16	2	13,1	14	95	8	44	45	5		GF743709.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

Thread depth plug gauges,
see page 588 - 591

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNC

ASME B1.1

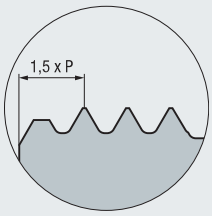
VHM Carbide | TIALN T46

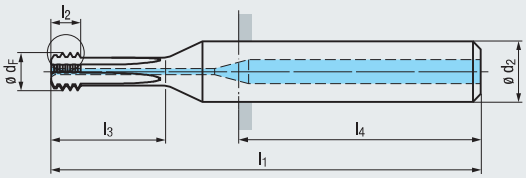
RH + LH | LH-rot.

Z3 - Z5

DIN 6535 HA | ø d_1

Zum Anfasen geeignet
Suitable for chamfering

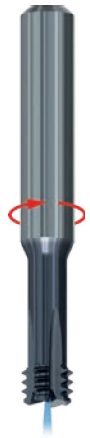




ZBGF-HCUT

new

new



Einsatzgebiete – Material
Applications – material
358

N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2xd_1 HA TIALN-T46	ZBGF-HCUT 2xd_1 IKZ-HA TIALN-T46
Nr.10	24	3,3	6	55	4,2	11,8	36	3	GF733709.5007	
1/4	20	4,5	6	56	5,1	15,2	36	3	GF733709.5009	
5/16	18	5,9	6	58	5,6	18,7	36	4		GF733709.5010
3/8	16	7,2	8	64	6,4	22,2	36	4		GF733709.5011
7/16	14	8,5	10	72	7,3	25,9	40	4		GF733709.5012
1/2	13	9,9	10	74	7,8	29,3	40	4		GF733709.5013
5/8	11	12,5	14	88	9,2	36,4	45	4		GF733709.5015
3/4	10	15,4	16	98	10,2	43,2	48	5		GF733709.5016

new

new

Gewindetiefe
Thread depth

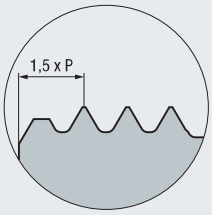
2,5 x d_1

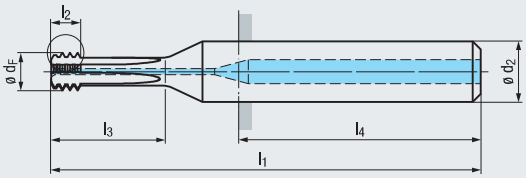
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2,5xd_1 HA TIALN-T46	ZBGF-HCUT 2,5xd_1 IKZ-HA TIALN-T46
Nr.10	24	3,3	6	55	4,2	14,2	36	3	GF743709.5007	
1/4	20	4,5	6	60	5,1	18,4	36	3	GF743709.5009	
5/16	18	5,9	6	62	5,6	22,7	36	4		GF743709.5010
3/8	16	7,2	8	68	6,4	27	36	4		GF743709.5011
7/16	14	8,5	10	78	7,3	31,4	40	4		GF743709.5012
1/2	13	9,9	10	82	7,8	35,7	40	4		GF743709.5013
5/8	11	12,5	14	98	9,2	44,3	45	4		GF743709.5015
3/4	10	15,4	16	110	10,2	52,7	48	5		GF743709.5016

Weitere Ausführungen auf Anfrage
Further designs upon request

UNF

ASME B1.1





VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z4 - Z5	
DIN 6535 HA	ø d1

Zum Anfasen geeignet
Suitable for chamfering

ZBGF-HCUT

new

new

Einsatzgebiete – Material
Applications – material 358

N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2xd_1 HA TIALN-T46	ZBGF-HCUT 2xd_1 IKZ-HA TIALN-T46
Nr.10	32	3,5	6	52	3,2	11,2	36	4	GF733709.5041	
1/4	28	4,8	6	55	3,6	14,5	36	4		GF733709.5043
5/16	24	6,2	8	60	4,2	18	36	4		GF733709.5044
3/8	24	7,7	8	62	4,2	21,2	36	4		GF733709.5045
7/16	20	8,9	10	70	5,1	24,8	40	4		GF733709.5046
1/2	20	10,5	12	80	5,1	27,9	45	4		GF733709.5047
9/16	18	11,8	12	80	5,6	31,4	45	4		GF733709.5048
5/8	18	13,3	14	85	5,6	34,6	45	5		GF733709.5049
3/4	16	15,9	16	95	6,4	41,3	48	5		GF733709.5050

new

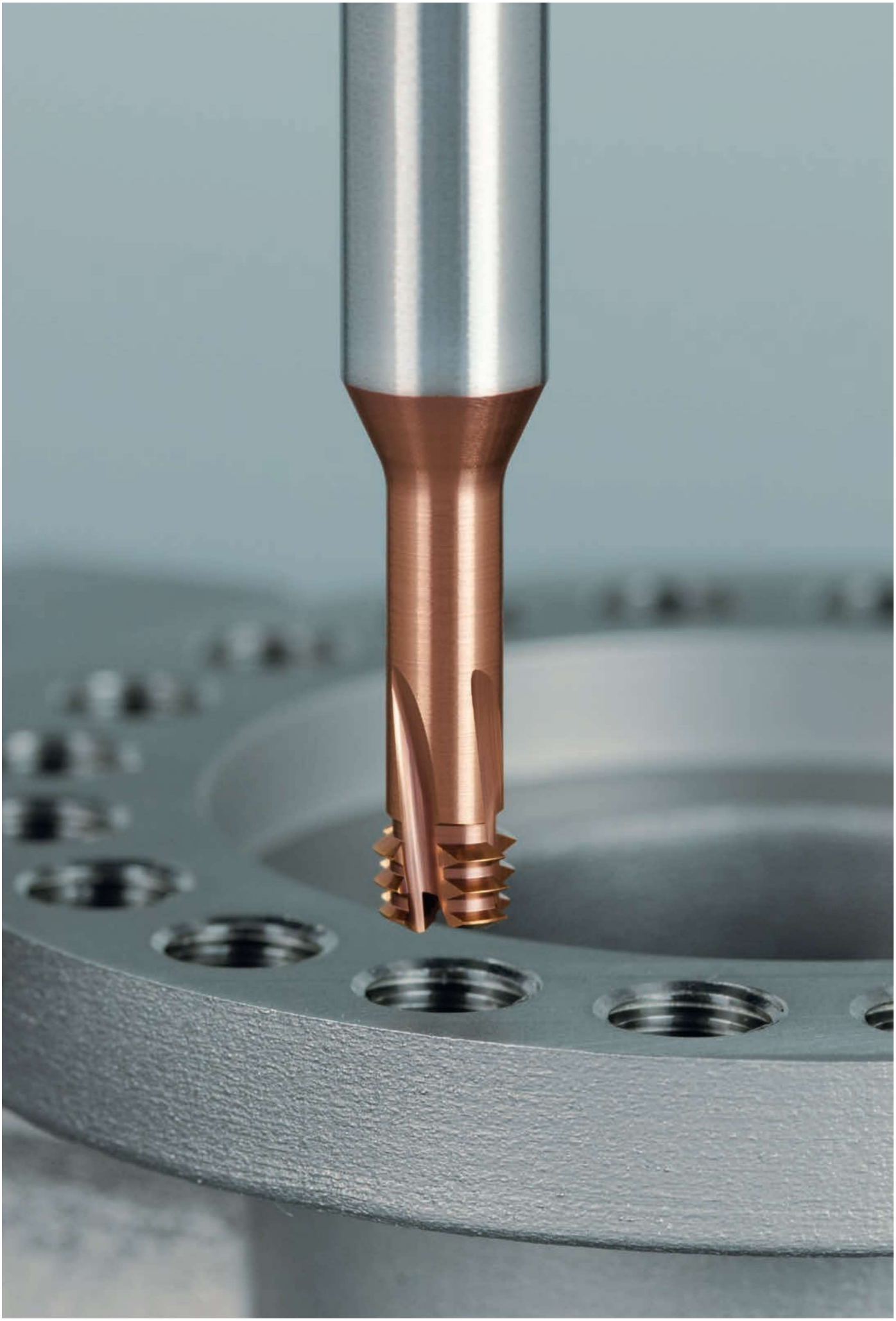
new

Gewindetiefe
Thread depth

2,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZBGF-HCUT 2,5xd_1 HA TIALN-T46	ZBGF-HCUT 2,5xd_1 IKZ-HA TIALN-T46
Nr.10	32	3,5	6	55	3,2	13,7	36	4	GF743709.5041	
1/4	28	4,8	6	58	3,6	17,7	36	4		GF743709.5043
5/16	24	6,2	8	64	4,2	22	36	4		GF743709.5044
3/8	24	7,7	8	66	4,2	25,9	36	4		GF743709.5045
7/16	20	8,9	10	76	5,1	30,3	40	4		GF743709.5046
1/2	20	10,5	12	85	5,1	34,3	45	4		GF743709.5047
9/16	18	11,8	12	90	5,6	38,5	45	4		GF743709.5048
5/8	18	13,3	14	93	5,6	42,5	45	5		GF743709.5049
3/4	16	15,9	16	105	6,4	50,8	48	5		GF743709.5050

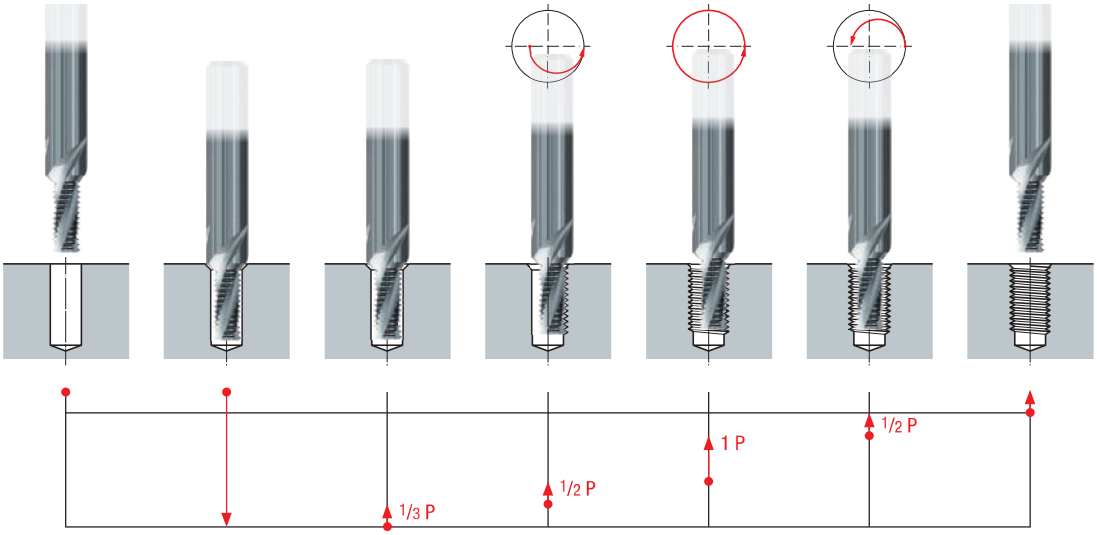
Weitere Ausführungen auf Anfrage
Further designs upon request



GSF	GSF-R30	GSF-Z	
			
Seite · Page			
406 - 407	408 - 409	410 - 411	**M**
412 - 413	414 - 415	416 -417	**MF**
	418 - 419		**UNC**
	420 - 421		**UNF**
	422 - 423		**G (BSP)**
424 - 425			**LK-M**

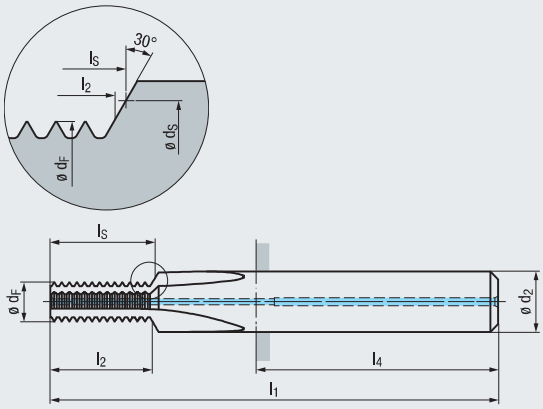
Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

Gewindefräszyklus · Thread milling cycle



M

DIN 13



VHM Carbide

RH + LH

Z3 - Z4

DIN 6535 HA HB

120°

ø d_1

GSF



Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 HA	GSF 1,5xd_1 IKZ-HA	GSF 1,5xd_1 IKZ-HB
M	3	0,5	2,4	4	3,2	42	4,7	28	5	3	GF303701.0030		
	4	0,7	3,15	6	4,2	55	5,9	36	6,2	3		GF323701.0040	GF323101.0040
	5	0,8	4	6	5,3	55	7,6	36	8	3		GF323701.0050	GF323101.0050
	6	1	4,8	8	6,3	62	9,5	36	9,9	3		GF323701.0060	GF323101.0060
	8	1,25	6,5	10	8,4	74	13,1	40	13,7	3		GF323701.0080	GF323101.0080
	10	1,5	8,2	12	10,5	80	15,7	45	16,4	3		GF323701.0100	GF323101.0100
	12	1,75	9,9	14	12,6	90	18,3	45	19,1	4		GF323701.0112	GF323101.0112
	14	2	11,6	16	14,7	100	23	48	23,9	4		GF323701.0114	GF323101.0114
	16	2	13,6	18	16,8	102	25	48	25,9	4		GF323701.0116	GF323101.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 HA	GSF 2xd_1 IKZ-HA	GSF 2xd_1 IKZ-HB
M	3	0,5	2,4	4	3,2	42	6,2	28	6,5	3	GF313701.0030		
	4	0,7	3,15	6	4,2	55	8,7	36	9	3		GF333701.0040	GF333101.0040
	5	0,8	4	6	5,3	55	10,8	36	11,2	3		GF333701.0050	GF333101.0050
	6	1	4,8	8	6,3	62	12,5	36	12,9	3		GF333701.0060	GF333101.0060
	8	1,25	6,5	10	8,4	74	16,8	40	17,4	3		GF333701.0080	GF333101.0080
	10	1,5	8,2	12	10,5	80	20,2	45	20,9	3		GF333701.0100	GF333101.0100
	12	1,75	9,9	14	12,6	90	25,3	45	26,1	4		GF333701.0112	GF333101.0112
	14	2	11,6	16	14,7	100	29	48	29,9	4		GF333701.0114	GF333101.0114
	16	2	13,6	18	16,8	102	33	48	33,9	4		GF333701.0116	GF333101.0116

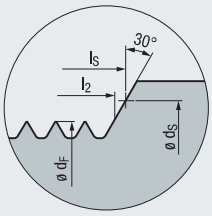
Weitere Ausführungen auf Anfrage
Further designs upon request

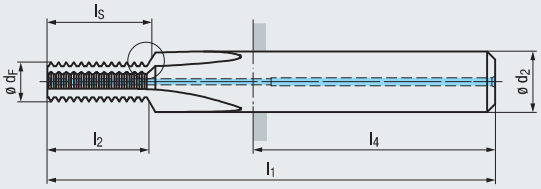
Spannzangen-Aufnahmen
Typ KSN/Synchro
siehe Seite 675 - 676

Collet holders
type KSN/Synchro,
see page 675 - 676

M

DIN 13





VHM Carbide | TICN | RH + LH | Z3 - Z4 | DIN 6535 HA HB | 120° | ø d1

GSF



Einsatzgebiete – Material
Applications – material
▸▸ 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 HA TICN	GSF 1,5xd_1 IKZ-HA TICN	GSF 1,5xd_1 IKZ-HB TICN
M	3	0,5	2,4	4	3,2	42	4,7	28	5	3	GF303706.0030		
	4	0,7	3,15	6	4,2	55	5,9	36	6,2	3		GF323706.0040	GF323106.0040
	5	0,8	4	6	5,3	55	7,6	36	8	3		GF323706.0050	GF323106.0050
	6	1	4,8	8	6,3	62	9,5	36	9,9	3		GF323706.0060	GF323106.0060
	8	1,25	6,5	10	8,4	74	13,1	40	13,7	3		GF323706.0080	GF323106.0080
	10	1,5	8,2	12	10,5	80	15,7	45	16,4	3		GF323706.0100	GF323106.0100
	12	1,75	9,9	14	12,6	90	18,3	45	19,1	4		GF323706.0112	GF323106.0112
	14	2	11,6	16	14,7	100	23	48	23,9	4		GF323706.0114	GF323106.0114
	16	2	13,6	18	16,8	102	25	48	25,9	4		GF323706.0116	GF323106.0116

Gewindetiefe
Thread depth

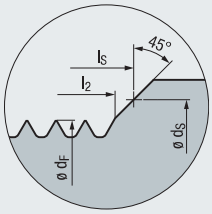
2 x d_1

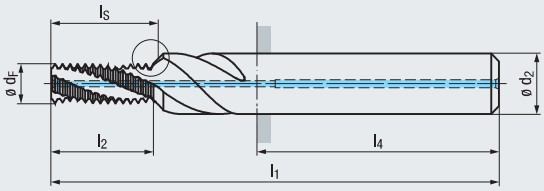
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 HA TICN	GSF 2xd_1 IKZ-HA TICN	GSF 2xd_1 IKZ-HB TICN
M	3	0,5	2,4	4	3,2	42	6,2	28	6,5	3	GF313706.0030		
	4	0,7	3,15	6	4,2	55	8,7	36	9	3		GF333706.0040	GF333106.0040
	5	0,8	4	6	5,3	55	10,8	36	11,2	3		GF333706.0050	GF333106.0050
	6	1	4,8	8	6,3	62	12,5	36	12,9	3		GF333706.0060	GF333106.0060
	8	1,25	6,5	10	8,4	74	16,8	40	17,4	3		GF333706.0080	GF333106.0080
	10	1,5	8,2	12	10,5	80	20,2	45	20,9	3		GF333706.0100	GF333106.0100
	12	1,75	9,9	14	12,6	90	25,3	45	26,1	4		GF333706.0112	GF333106.0112
	14	2	11,6	16	14,7	100	29	48	29,9	4		GF333706.0114	GF333106.0114
	16	2	13,6	18	16,8	102	33	48	33,9	4		GF333706.0116	GF333106.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	
R30	RH + LH
Z3 - Z4	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material
358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA	GSF 1,5xd_1 R30-IKZ-HB
M	5	0,8	4	6	5,3	55	7,6	36	8,2	3	GF322701.0050	GF322101.0050
	6	1	4,8	8	6,3	62	9,5	36	10,2	3	GF322701.0060	GF322101.0060
	8	1,25	6,5	10	8,4	74	13,2	40	14	3	GF322701.0080	GF322101.0080
	10	1,5	8,2	12	10,5	80	15,8	45	16,8	3	GF322701.0100	GF322101.0100
	12	1,75	9,9	14	12,6	90	18,4	45	19,6	4	GF322701.0112	GF322101.0112
	14	2	11,6	16	14,7	100	23,1	48	24,4	4	GF322701.0114	GF322101.0114
	16	2	13,6	18	16,8	102	25,1	48	26,5	4	GF322701.0116	GF322101.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA	GSF 2xd_1 R30-IKZ-HB
M	5	0,8	4	6	5,3	55	10,8	36	11,4	3	GF332701.0050	GF332101.0050
	6	1	4,8	8	6,3	62	12,5	36	13,2	3	GF332701.0060	GF332101.0060
	8	1,25	6,5	10	8,4	74	16,9	40	17,8	3	GF332701.0080	GF332101.0080
	10	1,5	8,2	12	10,5	80	20,3	45	21,3	3	GF332701.0100	GF332101.0100
	12	1,75	9,9	14	12,6	90	25,4	45	26,6	4	GF332701.0112	GF332101.0112
	14	2	11,6	16	14,7	100	29,1	48	30,4	4	GF332701.0114	GF332101.0114
	16	2	13,6	18	16,8	102	33,1	48	34,5	4	GF332701.0116	GF332101.0116

Gewindetiefe
Thread depth

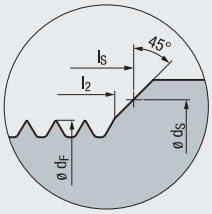
2,5 x d_1

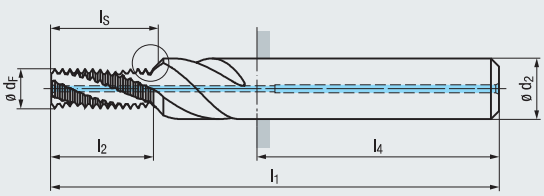
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2,5xd_1 R30-IKZ-HA	GSF 2,5xd_1 R30-IKZ-HB
M	5	0,8	4	6	5,3	58	13,2	36	13,8	3	GF342701.0050	GF342101.0050
	6	1	4,8	8	6,3	65	15,5	36	16,2	3	GF342701.0060	GF342101.0060
	8	1,25	6,5	10	8,4	78	20,7	40	21,5	3	GF342701.0080	GF342101.0080
	10	1,5	8,2	12	10,5	85	26,3	45	27,3	3	GF342701.0100	GF342101.0100
	12	1,75	9,9	14	12,6	95	30,7	45	31,9	4	GF342701.0112	GF342101.0112
	16	2	13,6	18	16,8	110	41,1	48	42,5	4	GF342701.0116	GF342101.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	TICN
R30	RH + LH
Z3 - Z4	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material
▸▸ 358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA TICN	GSF 1,5xd_1 R30-IKZ-HB TICN
M	5	0,8	4	6	5,3	55	7,6	36	8,2	3	GF322706.0050	GF322106.0050
	6	1	4,8	8	6,3	62	9,5	36	10,2	3	GF322706.0060	GF322106.0060
	8	1,25	6,5	10	8,4	74	13,2	40	14	3	GF322706.0080	GF322106.0080
	10	1,5	8,2	12	10,5	80	15,8	45	16,8	3	GF322706.0100	GF322106.0100
	12	1,75	9,9	14	12,6	90	18,4	45	19,6	4	GF322706.0112	GF322106.0112
	14	2	11,6	16	14,7	100	23,1	48	24,4	4	GF322706.0114	GF322106.0114
	16	2	13,6	18	16,8	102	25,1	48	26,5	4	GF322706.0116	GF322106.0116

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA TICN	GSF 2xd_1 R30-IKZ-HB TICN
M	5	0,8	4	6	5,3	55	10,8	36	11,4	3	GF332706.0050	GF332106.0050
	6	1	4,8	8	6,3	62	12,5	36	13,2	3	GF332706.0060	GF332106.0060
	8	1,25	6,5	10	8,4	74	16,9	40	17,8	3	GF332706.0080	GF332106.0080
	10	1,5	8,2	12	10,5	80	20,3	45	21,3	3	GF332706.0100	GF332106.0100
	12	1,75	9,9	14	12,6	90	25,4	45	26,6	4	GF332706.0112	GF332106.0112
	14	2	11,6	16	14,7	100	29,1	48	30,4	4	GF332706.0114	GF332106.0114
	16	2	13,6	18	16,8	102	33,1	48	34,5	4	GF332706.0116	GF332106.0116

Gewindetiefe
Thread depth

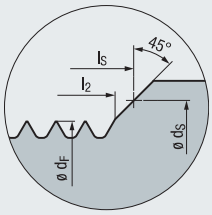
2,5 x d_1

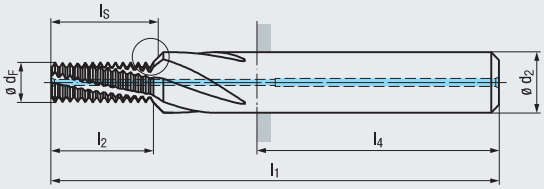
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2,5xd_1 R30-IKZ-HA TICN	GSF 2,5xd_1 R30-IKZ-HB TICN
M	5	0,8	4	6	5,3	58	13,2	36	13,8	3	GF342706.0050	GF342106.0050
	6	1	4,8	8	6,3	65	15,5	36	16,2	3	GF342706.0060	GF342106.0060
	8	1,25	6,5	10	8,4	78	20,7	40	21,5	3	GF342706.0080	GF342106.0080
	10	1,5	8,2	12	10,5	85	26,3	45	27,3	3	GF342706.0100	GF342106.0100
	12	1,75	9,9	14	12,6	95	30,7	45	31,9	4	GF342706.0112	GF342106.0112
	16	2	13,6	18	16,8	110	41,1	48	42,5	4	GF342706.0116	GF342106.0116

Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13





VHM Carbide	
R15	RH + LH
Z4 - Z5	DIN 6535 HA HB
90°	ø d_1

GSF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material 358

P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

Gewindetiefe
Thread depth

2 x d_1

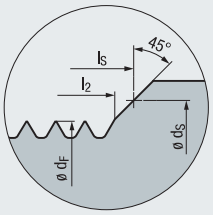
	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF-Z 2xd_1 R15-IKZ-HA	GSF-Z 2xd_1 R15-IKZ-HB
M	6	1	4,8	8	6,3	62	12,5	36	13,2	4	GF335721.0060	GF335121.0060
	8	1,25	6,5	10	8,4	74	16,9	40	17,7	4	GF335721.0080	GF335121.0080
	10	1,5	8,2	12	10,5	80	20,3	45	21,3	5	GF335721.0100	GF335121.0100
	12	1,75	9,9	14	12,6	90	25,4	45	26,6	5	GF335721.0112	GF335121.0112

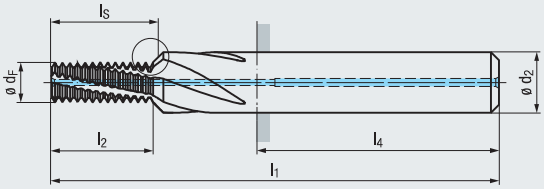
Weitere Ausführungen auf Anfrage
Further designs upon request

M

DIN 13

VHM Carbide	TICN
R15	RH + LH
Z4 - Z5	DIN 6535 HA HB
90°	ø d_1





GSF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material 358

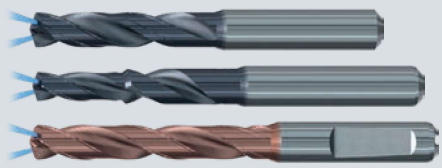
P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF-Z 2xd_1 R15-IKZ-HA TICN	GSF-Z 2xd_1 R15-IKZ-HB TICN
M	6	1	4,8	8	6,3	62	12,5	36	13,2	4	GF335726.0060	GF335126.0060
	8	1,25	6,5	10	8,4	74	16,9	40	17,7	4	GF335726.0080	GF335126.0080
	10	1,5	8,2	12	10,5	80	20,3	45	21,3	5	GF335726.0100	GF335126.0100
	12	1,75	9,9	14	12,6	90	25,4	45	26,6	5	GF335726.0112	GF335126.0112

Weitere Ausführungen auf Anfrage
Further designs upon request



Spiralbohrer siehe Seite 11 - 70

Twist drills, see page 11 - 70

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

MF

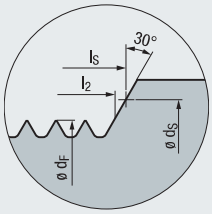
DIN 13

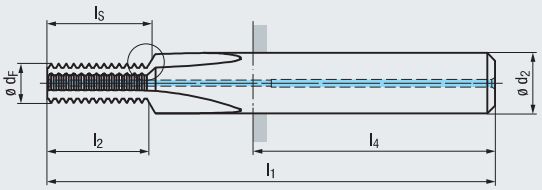
VHM Carbide

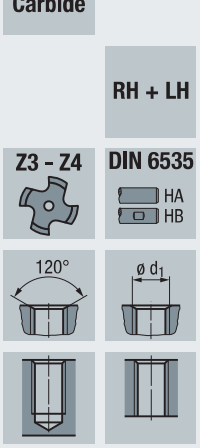
RH + LH

Z3 - Z4

DIN 6535 HA HB







GSF

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1	K 1.1-4.2	N 1.1-1.5, 2.1-2.6
N 3.1-4.2	N 5.1-5.2	S 1.1-1.3

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 IKZ-HA	GSF 1,5xd_1 IKZ-HB
M	6	x	0,75	5	8	6,3	62	9,4	36	9,7	3	GF323701.0229	GF323101.0229
	8	x	1	6,7	10	8,4	74	12,5	40	13	3	GF323701.0251	GF323101.0251
	10	x	1	8,7	12	10,5	80	15,5	45	16	3	GF323701.0276	GF323101.0276
	10	x	1,25	8,4	12	10,5	80	15,6	45	16,2	3	GF323701.0277	GF323101.0277
	12	x	1	10,6	14	12,6	90	18,5	45	19,1	4	GF323701.0301	GF323101.0301
	12	x	1,25	10,4	14	12,6	90	18,1	45	18,7	4	GF323701.0302	GF323101.0302
	12	x	1,5	10,1	14	12,6	90	18,7	45	19,4	4	GF323701.0303	GF323101.0303
	14	x	1,5	12,1	16	14,7	100	21,7	48	22,5	4	GF323701.0331	GF323101.0331
	16	x	1,5	14	18	16,8	102	24,7	48	25,5	4	GF323701.0359	GF323101.0359

Gewindetiefe
Thread depth

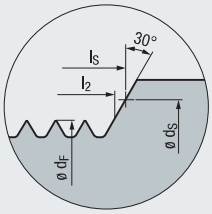
2 x d_1

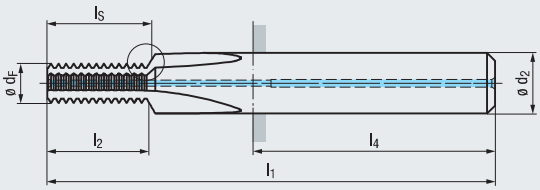
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 IKZ-HA	GSF 2xd_1 IKZ-HB
M	6	x	0,75	5	8	6,3	62	12,4	36	12,7	3	GF333701.0229	GF333101.0229
	8	x	1	6,7	10	8,4	74	16,5	40	17	3	GF333701.0251	GF333101.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21	3	GF333701.0276	GF333101.0276
	10	x	1,25	8,4	12	10,5	80	20,6	45	21,2	3	GF333701.0277	GF333101.0277
	12	x	1	10,6	14	12,6	90	24,5	45	25,1	4	GF333701.0301	GF333101.0301
	12	x	1,25	10,4	14	12,6	90	24,3	45	25	4	GF333701.0302	GF333101.0302
	12	x	1,5	10,1	14	12,6	90	24,7	45	25,4	4	GF333701.0303	GF333101.0303
	14	x	1,5	12,1	16	14,7	100	29,2	48	30	4	GF333701.0331	GF333101.0331
	16	x	1,5	14	18	16,8	102	32,2	48	33	4	GF333701.0359	GF333101.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

MF

DIN 13





VHM Carbide | TICN | RH + LH | Z3 - Z4 | DIN 6535 HA HB | 120° | ø d1

GSF

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 IKZ-HA TICN	GSF 1,5xd_1 IKZ-HB TICN
M	6	x	0,75	5	8	6,3	62	9,4	36	9,7	3	GF323706.0229	GF323106.0229
	8	x	1	6,7	10	8,4	74	12,5	40	13	3	GF323706.0251	GF323106.0251
	10	x	1	8,7	12	10,5	80	15,5	45	16	3	GF323706.0276	GF323106.0276
	10	x	1,25	8,4	12	10,5	80	15,6	45	16,2	3	GF323706.0277	GF323106.0277
	12	x	1	10,6	14	12,6	90	18,5	45	19,1	4	GF323706.0301	GF323106.0301
	12	x	1,25	10,4	14	12,6	90	18,1	45	18,7	4	GF323706.0302	GF323106.0302
	12	x	1,5	10,1	14	12,6	90	18,7	45	19,4	4	GF323706.0303	GF323106.0303
	14	x	1,5	12,1	16	14,7	100	21,7	48	22,5	4	GF323706.0331	GF323106.0331
	16	x	1,5	14	18	16,8	102	24,7	48	25,5	4	GF323706.0359	GF323106.0359

Gewindetiefe
Thread depth

2 x d_1

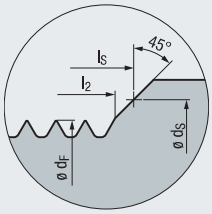
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 IKZ-HA TICN	GSF 2xd_1 IKZ-HB TICN
M	6	x	0,75	5	8	6,3	62	12,4	36	12,7	3	GF333706.0229	GF333106.0229
	8	x	1	6,7	10	8,4	74	16,5	40	17	3	GF333706.0251	GF333106.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21	3	GF333706.0276	GF333106.0276
	10	x	1,25	8,4	12	10,5	80	20,6	45	21,2	3	GF333706.0277	GF333106.0277
	12	x	1	10,6	14	12,6	90	24,5	45	25,1	4	GF333706.0301	GF333106.0301
	12	x	1,25	10,4	14	12,6	90	24,3	45	25	4	GF333706.0302	GF333106.0302
	12	x	1,5	10,1	14	12,6	90	24,7	45	25,4	4	GF333706.0303	GF333106.0303
	14	x	1,5	12,1	16	14,7	100	29,2	48	30	4	GF333706.0331	GF333106.0331
	16	x	1,5	14	18	16,8	102	32,2	48	33	4	GF333706.0359	GF333106.0359

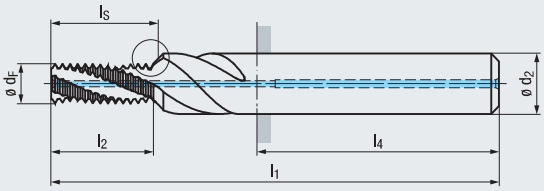
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

MF

DIN 13

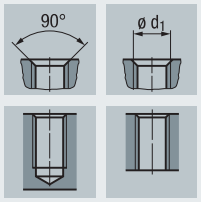




VHM Carbide

R30 | RH + LH

Z3 - Z4 | DIN 6535 HA HB



GSF-R30

Einsatzgebiete – Material
Applications – material

358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA	GSF 1,5xd_1 R30-IKZ-HB
M	6	x	0,75	5	8	6,3	62	9,4	36	10	3	GF322701.0229	GF322101.0229
	8	x	1	6,7	10	8,4	74	12,5	40	13,3	3	GF322701.0251	GF322101.0251
	10	x	1	8,7	12	10,5	80	15,5	45	16,3	3	GF322701.0276	GF322101.0276
	10	x	1,25	8,4	12	10,5	80	15,7	45	16,6	3	GF322701.0277	GF322101.0277
	12	x	1	10,6	14	12,6	90	18,6	45	19,4	4	GF322701.0301	GF322101.0301
	12	x	1,25	10,4	14	12,6	90	18,2	45	19,1	4	GF322701.0302	GF322101.0302
	12	x	1,5	10,1	14	12,6	90	18,8	45	19,9	4	GF322701.0303	GF322101.0303
	14	x	1,5	12,1	16	14,7	100	21,8	48	23	4	GF322701.0331	GF322101.0331
	16	x	1,5	14	18	16,8	102	24,8	48	26,1	4	GF322701.0359	GF322101.0359

Gewindetiefe
Thread depth

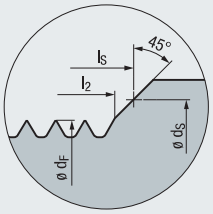
2 x d_1

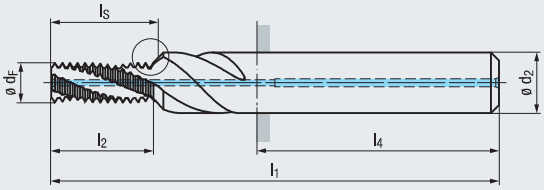
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA	GSF 2xd_1 R30-IKZ-HB
M	6	x	0,75	5	8	6,3	62	12,4	36	13	3	GF332701.0229	GF332101.0229
	8	x	1	6,7	10	8,4	74	16,5	40	17,3	3	GF332701.0251	GF332101.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21,3	3	GF332701.0276	GF332101.0276
	10	x	1,25	8,4	12	10,5	80	20,7	45	21,6	3	GF332701.0277	GF332101.0277
	12	x	1	10,6	14	12,6	90	24,6	45	25,4	4	GF332701.0301	GF332101.0301
	12	x	1,25	10,4	14	12,6	90	24,4	45	25,4	4	GF332701.0302	GF332101.0302
	12	x	1,5	10,1	14	12,6	90	24,8	45	25,9	4	GF332701.0303	GF332101.0303
	14	x	1,5	12,1	16	14,7	100	29,3	48	30,5	4	GF332701.0331	GF332101.0331
	16	x	1,5	14	18	16,8	102	32,3	48	33,6	4	GF332701.0359	GF332101.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

MF

DIN 13





VHM Carbide	TICN
R30	RH + LH
Z3 - Z4	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material

358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Gewindetiefe
Thread depth

1,5 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA TICN	GSF 1,5xd_1 R30-IKZ-HB TICN
M	6	x	0,75	5	8	6,3	62	9,4	36	10	3	GF322706.0229	GF322106.0229
	8	x	1	6,7	10	8,4	74	12,5	40	13,3	3	GF322706.0251	GF322106.0251
	10	x	1	8,7	12	10,5	80	15,5	45	16,3	3	GF322706.0276	GF322106.0276
	10	x	1,25	8,4	12	10,5	80	15,7	45	16,6	3	GF322706.0277	GF322106.0277
	12	x	1	10,6	14	12,6	90	18,6	45	19,4	4	GF322706.0301	GF322106.0301
	12	x	1,25	10,4	14	12,6	90	18,2	45	19,1	4	GF322706.0302	GF322106.0302
	12	x	1,5	10,1	14	12,6	90	18,8	45	19,9	4	GF322706.0303	GF322106.0303
	14	x	1,5	12,1	16	14,7	100	21,8	48	23	4	GF322706.0331	GF322106.0331
	16	x	1,5	14	18	16,8	102	24,8	48	26,1	4	GF322706.0359	GF322106.0359

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA TICN	GSF 2xd_1 R30-IKZ-HB TICN
M	6	x	0,75	5	8	6,3	62	12,4	36	13	3	GF332706.0229	GF332106.0229
	8	x	1	6,7	10	8,4	74	16,5	40	17,3	3	GF332706.0251	GF332106.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21,3	3	GF332706.0276	GF332106.0276
	10	x	1,25	8,4	12	10,5	80	20,7	45	21,6	3	GF332706.0277	GF332106.0277
	12	x	1	10,6	14	12,6	90	24,6	45	25,4	4	GF332706.0301	GF332106.0301
	12	x	1,25	10,4	14	12,6	90	24,4	45	25,4	4	GF332706.0302	GF332106.0302
	12	x	1,5	10,1	14	12,6	90	24,8	45	25,9	4	GF332706.0303	GF332106.0303
	14	x	1,5	12,1	16	14,7	100	29,3	48	30,5	4	GF332706.0331	GF332106.0331
	16	x	1,5	14	18	16,8	102	32,3	48	33,6	4	GF332706.0359	GF332106.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

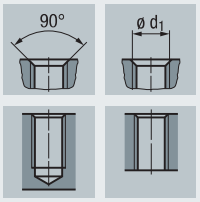
MF

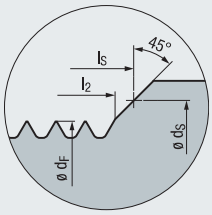
DIN 13

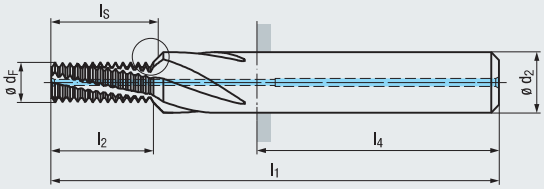
VHM Carbide

R15 | RH + LH

Z4 - Z5 | DIN 6535 HA HB







GSF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF-Z 2xd_1 R15-IKZ-HA	GSF-Z 2xd_1 R15-IKZ-HB
M	8	x	1	6,7	10	8,4	74	16,5	40	17,3	4	GF335721.0251	GF335121.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21,3	5	GF335721.0276	GF335121.0276
	12	x	1,25	10,4	14	12,6	90	24,4	45	25,4	5	GF335721.0302	GF335121.0302

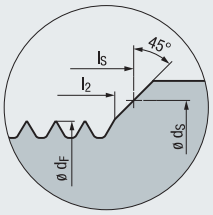
Weitere Ausführungen auf Anfrage
Further designs upon request

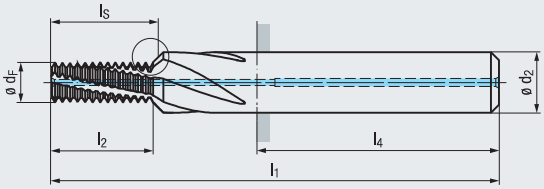
Kühlschmierstoffe siehe Seite 300 - 301 Coolant-lubricants, see page 300 - 301

MF

DIN 13

VHM Carbide	TICN
R15	RH + LH
Z4 - Z5	DIN 6535 HA HB
90°	ø d_1





GSF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

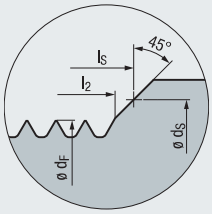
2 x d_1

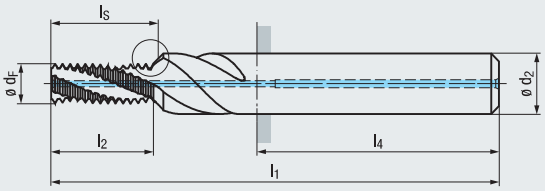
	ø d_1 mm		P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF-Z 2xd_1 R15-IKZ-HA TICN	GSF-Z 2xd_1 R15-IKZ-HB TICN
M	8	x	1	6,7	10	8,4	74	16,5	40	17,3	4	GF335726.0251	GF335126.0251
	10	x	1	8,7	12	10,5	80	20,5	45	21,3	5	GF335726.0276	GF335126.0276
	12	x	1,25	10,4	14	12,6	90	24,4	45	25,4	5	GF335726.0302	GF335126.0302

Weitere Ausführungen auf Anfrage
Further designs upon request

UNC

ASME B1.1





VHM Carbide	
R30	RH + LH
Z3 - Z5	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material
358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA	GSF 1,5xd_1 R30-IKZ-HB
1/4	20	4,7	8	6,7	62	10,8	36	11,7	3	GF322701.5009	GF322101.5009
5/16	18	6,15	10	8,3	74	13,4	40	14,4	3	GF322701.5010	GF322101.5010
3/8	16	7,65	12	10	80	15,1	45	16,2	3	GF322701.5011	GF322101.5011
7/16	14	9	12	11,7	80	17,3	45	18,5	3	GF322701.5012	GF322101.5012
1/2	13	10,35	14	13,3	90	20,6	45	21,9	4	GF322701.5013	GF322101.5013
9/16	12	11,8	16	15	100	22,3	48	23,7	4	GF322701.5014	GF322101.5014
5/8	11	13,1	18	16,7	102	24,3	48	25,9	4	GF322701.5015	GF322101.5015
3/4	10	16	20	20	110	29,3	50	31,1	5	GF322701.5016	GF322101.5016

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA	GSF 2xd_1 R30-IKZ-HB
1/4	20	4,7	8	6,7	62	13,4	36	14,3	3	GF332701.5009	GF332101.5009
5/16	18	6,15	10	8,3	74	16,3	40	17,2	3	GF332701.5010	GF332101.5010
3/8	16	7,65	12	10	80	19,9	45	20,9	3	GF332701.5011	GF332101.5011
7/16	14	9	12	11,7	80	22,7	45	23,9	3	GF332701.5012	GF332101.5012
1/2	13	10,35	14	13,3	90	26,4	45	27,8	4	GF332701.5013	GF332101.5013
9/16	12	11,8	16	15	100	30,8	48	32,2	4	GF332701.5014	GF332101.5014
5/8	11	13,1	18	16,7	102	33,5	48	35,2	4	GF332701.5015	GF332101.5015
3/4	10	16	20	20	110	39,4	50	41,2	5	GF332701.5016	GF332101.5016

Gewindetiefe
Thread depth

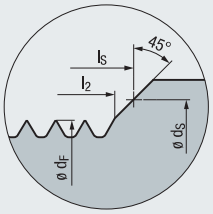
2,5 x d_1

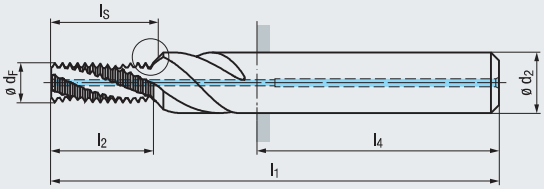
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2,5xd_1 R30-IKZ-HA	GSF 2,5xd_1 R30-IKZ-HB
3/8	16	7,65	12	10	85	24,7	45	25,7	3	GF342701.5011	GF342101.5011
7/16	14	9	12	11,7	85	28,2	45	29,4	3	GF342701.5012	GF342101.5012
1/2	13	10,35	14	13,3	96	32,3	45	33,6	4	GF342701.5013	GF342101.5013
9/16	12	11,8	16	15	107	37,1	48	38,5	4	GF342701.5014	GF342101.5014
5/8	11	13,1	18	16,7	110	40,5	48	42,1	4	GF342701.5015	GF342101.5015

Weitere Ausführungen auf Anfrage
Further designs upon request

UNC

ASME B1.1





VHM Carbide	TICN
R30	RH + LH
Z3 - Z5	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA TICN	GSF 1,5xd_1 R30-IKZ-HB TICN
1/4	20	4,7	8	6,7	62	10,8	36	11,7	3	GF322706.5009	GF322106.5009
5/16	18	6,15	10	8,3	74	13,4	40	14,4	3	GF322706.5010	GF322106.5010
3/8	16	7,65	12	10	80	15,1	45	16,2	3	GF322706.5011	GF322106.5011
7/16	14	9	12	11,7	80	17,3	45	18,5	3	GF322706.5012	GF322106.5012
1/2	13	10,35	14	13,3	90	20,6	45	21,9	4	GF322706.5013	GF322106.5013
9/16	12	11,8	16	15	100	22,3	48	23,7	4	GF322706.5014	GF322106.5014
5/8	11	13,1	18	16,7	102	24,3	48	25,9	4	GF322706.5015	GF322106.5015
3/4	10	16	20	20	110	29,3	50	31,1	5	GF322706.5016	GF322106.5016

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA TICN	GSF 2xd_1 R30-IKZ-HB TICN
1/4	20	4,7	8	6,7	62	13,4	36	14,3	3	GF332706.5009	GF332106.5009
5/16	18	6,15	10	8,3	74	16,3	40	17,2	3	GF332706.5010	GF332106.5010
3/8	16	7,65	12	10	80	19,9	45	20,9	3	GF332706.5011	GF332106.5011
7/16	14	9	12	11,7	80	22,7	45	23,9	3	GF332706.5012	GF332106.5012
1/2	13	10,35	14	13,3	90	26,4	45	27,8	4	GF332706.5013	GF332106.5013
9/16	12	11,8	16	15	100	30,8	48	32,2	4	GF332706.5014	GF332106.5014
5/8	11	13,1	18	16,7	102	33,5	48	35,2	4	GF332706.5015	GF332106.5015
3/4	10	16	20	20	110	39,4	50	41,2	5	GF332706.5016	GF332106.5016

Gewindetiefe
Thread depth

2,5 x d_1

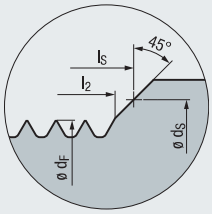
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2,5xd_1 R30-IKZ-HA TICN	GSF 2,5xd_1 R30-IKZ-HB TICN
3/8	16	7,65	12	10	85	24,7	45	25,7	3	GF342706.5011	GF342106.5011
7/16	14	9	12	11,7	85	28,2	45	29,4	3	GF342706.5012	GF342106.5012
1/2	13	10,35	14	13,3	96	32,3	45	33,6	4	GF342706.5013	GF342106.5013
9/16	12	11,8	16	15	107	37,1	48	38,5	4	GF342706.5014	GF342106.5014
5/8	11	13,1	18	16,7	110	40,5	48	42,1	4	GF342706.5015	GF342106.5015

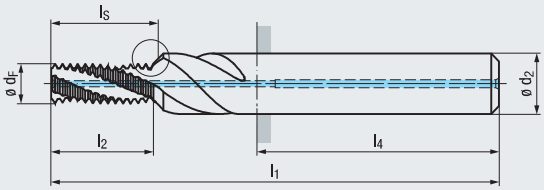
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNF

ASME B1.1

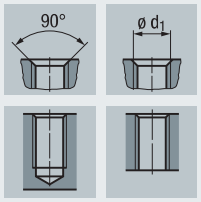




VHM Carbide

R30 | RH + LH

Z3 - Z5 | DIN 6535 HA HB



GSF-R30

Einsatzgebiete – Material
Applications – material

358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA	GSF 1,5xd_1 R30-IKZ-HB
Nr.10	32	3,8	6	5,1	55	7,6	36	8,1	3	GF322701.5041	GF322101.5041
1/4	28	5,15	8	6,7	62	10,5	36	11,1	3	GF322701.5043	GF322101.5043
5/16	24	6,6	10	8,3	74	12,2	40	13	3	GF322701.5044	GF322101.5044
3/8	24	8,2	12	10	80	14,3	45	15,1	3	GF322701.5045	GF322101.5045
7/16	20	9,55	12	11,7	80	17,2	45	18,1	3	GF322701.5046	GF322101.5046
1/2	20	11,1	14	13,3	90	19,7	45	20,7	4	GF322701.5047	GF322101.5047
9/16	18	12,5	16	15	100	21,9	48	23	4	GF322701.5048	GF322101.5048
5/8	18	14,1	18	16,7	102	24,8	48	25,9	4	GF322701.5049	GF322101.5049

Gewindetiefe
Thread depth

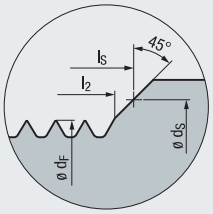
2 x d_1

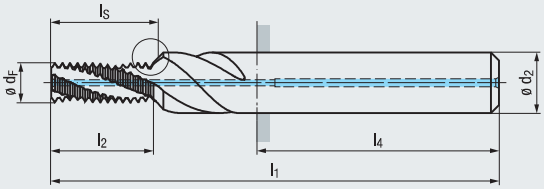
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA	GSF 2xd_1 R30-IKZ-HB
Nr.10	32	3,8	6	5,1	55	10	36	10,5	3	GF332701.5041	GF332101.5041
1/4	28	5,15	8	6,7	62	13,2	36	13,9	3	GF332701.5043	GF332101.5043
5/16	24	6,6	10	8,3	74	16,4	40	17,2	3	GF332701.5044	GF332101.5044
3/8	24	8,2	12	10	80	19,6	45	20,4	3	GF332701.5045	GF332101.5045
7/16	20	9,55	12	11,7	80	22,3	45	23,2	3	GF332701.5046	GF332101.5046
1/2	20	11,1	14	13,3	90	26,1	45	27	4	GF332701.5047	GF332101.5047
9/16	18	12,5	16	15	100	29	48	30,1	4	GF332701.5048	GF332101.5048
5/8	18	14,1	18	16,7	102	33,2	48	34,4	4	GF332701.5049	GF332101.5049
3/4	16	17	20	20	110	39	50	40,3	5	GF332701.5050	GF332101.5050

Weitere Ausführungen auf Anfrage
Further designs upon request

UNF

ASME B1.1





VHM Carbide	TICN
R30	RH + LH
Z3 - Z5	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Gewindetiefe
Thread depth

1,5 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA TICN	GSF 1,5xd_1 R30-IKZ-HB TICN
Nr.10	32	3,8	6	5,1	55	7,6	36	8,1	3	GF322706.5041	GF322106.5041
1/4	28	5,15	8	6,7	62	10,5	36	11,1	3	GF322706.5043	GF322106.5043
5/16	24	6,6	10	8,3	74	12,2	40	13	3	GF322706.5044	GF322106.5044
3/8	24	8,2	12	10	80	14,3	45	15,1	3	GF322706.5045	GF322106.5045
7/16	20	9,55	12	11,7	80	17,2	45	18,1	3	GF322706.5046	GF322106.5046
1/2	20	11,1	14	13,3	90	19,7	45	20,7	4	GF322706.5047	GF322106.5047
9/16	18	12,5	16	15	100	21,9	48	23	4	GF322706.5048	GF322106.5048
5/8	18	14,1	18	16,7	102	24,8	48	25,9	4	GF322706.5049	GF322106.5049

Gewindetiefe
Thread depth

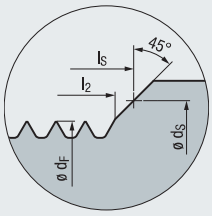
2 x d_1

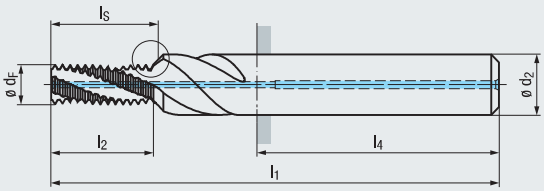
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA TICN	GSF 2xd_1 R30-IKZ-HB TICN
Nr.10	32	3,8	6	5,1	55	10	36	10,5	3	GF332706.5041	GF332106.5041
1/4	28	5,15	8	6,7	62	13,2	36	13,9	3	GF332706.5043	GF332106.5043
5/16	24	6,6	10	8,3	74	16,4	40	17,2	3	GF332706.5044	GF332106.5044
3/8	24	8,2	12	10	80	19,6	45	20,4	3	GF332706.5045	GF332106.5045
7/16	20	9,55	12	11,7	80	22,3	45	23,2	3	GF332706.5046	GF332106.5046
1/2	20	11,1	14	13,3	90	26,1	45	27	4	GF332706.5047	GF332106.5047
9/16	18	12,5	16	15	100	29	48	30,1	4	GF332706.5048	GF332106.5048
5/8	18	14,1	18	16,7	102	33,2	48	34,4	4	GF332706.5049	GF332106.5049
3/4	16	17	20	20	110	39	50	40,3	5	GF332706.5050	GF332106.5050

Weitere Ausführungen auf Anfrage
Further designs upon request

G (BSP)

DIN EN ISO 228





VHM Carbide	
R30	RH + LH
Z3 - Z4	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material
358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Gewindetiefe
Thread depth

1,5 x d_1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA	GSF 1,5xd_1 R30-IKZ-HB
G 1/8	28	8,2	12	10,2	80	15	45	15,9	3	GF322701.4035	GF322101.4035
1/4	19	11	16	13,8	100	20,7	48	22	4	GF322701.4036	GF322101.4036
3/8	19	14,5	18	17,5	102	26,1	48	27,4	4	GF322701.4037	GF322101.4037

Gewindetiefe
Thread depth

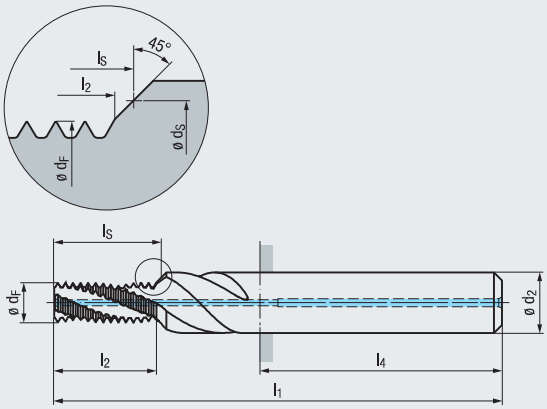
2 x d_1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA	GSF 2xd_1 R30-IKZ-HB
G 1/8	28	8,2	12	10,2	80	20,4	45	21,3	3	GF332701.4035	GF332101.4035
1/4	19	11	16	13,8	100	27,4	48	28,7	4	GF332701.4036	GF332101.4036
3/8	19	14,5	18	17,5	102	34,1	48	35,4	4	GF332701.4037	GF332101.4037

Weitere Ausführungen auf Anfrage
Further designs upon request

G (BSP)

DIN EN ISO 228



VHM Carbide	TICN
R30	RH + LH
Z3 - Z4	DIN 6535 HA HB
90°	ø d_1

GSF-R30

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Gewindetiefe
Thread depth: **1,5 x d_1**

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 1,5xd_1 R30-IKZ-HA TICN	GSF 1,5xd_1 R30-IKZ-HB TICN
G 1/8	28	8,2	12	10,2	80	15	45	15,9	3	GF322706.4035	GF322106.4035
1/4	19	11	16	13,8	100	20,7	48	22	4	GF322706.4036	GF322106.4036
3/8	19	14,5	18	17,5	102	26,1	48	27,4	4	GF322706.4037	GF322106.4037

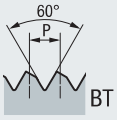
Gewindetiefe
Thread depth: **2 x d_1**

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 R30-IKZ-HA TICN	GSF 2xd_1 R30-IKZ-HB TICN
G 1/8	28	8,2	12	10,2	80	20,4	45	21,3	3	GF332706.4035	GF332106.4035
1/4	19	11	16	13,8	100	27,4	48	28,7	4	GF332706.4036	GF332106.4036
3/8	19	14,5	18	17,5	102	34,1	48	35,4	4	GF332706.4037	GF332106.4037

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

LK-M



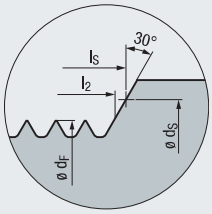
EMUGE-Norm · EMUGE Standard

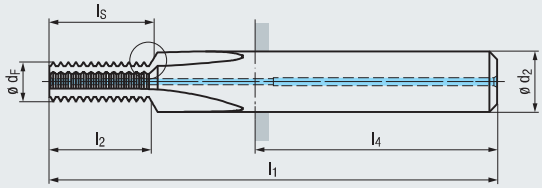
VHM Carbide

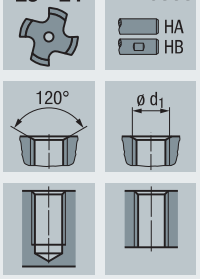
RH + LH

Z3 - Z4

DIN 6535 HA HB







GSF

Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

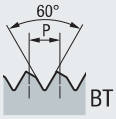
Gewindetiefe
Thread depth

2 x d_1

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 IKZ-HA	GSF 2xd_1 IKZ-HB
LK-M	5	0,8	4	6	5,3	55	10,7	36	11,1	3	GF333701.1050	GF333101.1050
	6	1	4,8	8	6,3	62	12,4	36	12,8	3	GF333701.1052	GF333101.1052
	8	1,25	6,5	10	8,4	74	16,7	40	17,3	3	GF333701.1054	GF333101.1054
	10	1,5	8,2	12	10,5	80	20,1	45	20,8	3	GF333701.1056	GF333101.1056
	12	1,75	9,9	14	12,6	90	25,2	45	26	4	GF333701.1058	GF333101.1058

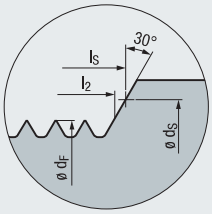
Weitere Ausführungen auf Anfrage
Further designs upon request

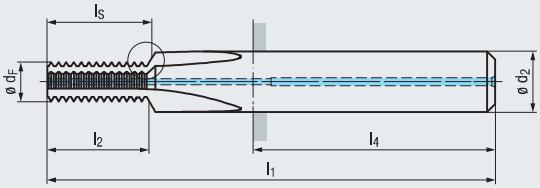
LK-M



EMUGE-Norm · EMUGE Standard

VHM Carbide | TICN | RH + LH | Z3 - Z4 | DIN 6535 HA HB





GSF



Einsatzgebiete – Material Applications – material	▸▸ 358	P 1.1-5.1	M 1.1-4.1	K 1.1-4.2
		N 1.1-5.3	S 1.1-2.6	H 1.1-1.2
Gewindetiefe Thread depth		2 x d_1		

	ø d_1 mm	P mm	ø d_F mm	ø d_2	ø d_S	l_1	l_2	l_4	l_S	Z (Flutes)	GSF 2xd_1 IKZ-HA TICN	GSF 2xd_1 IKZ-HB TICN
LK-M	5	0,8	4	6	5,3	55	10,7	36	11,1	3	GF333706.1050	GF333106.1050
	6	1	4,8	8	6,3	62	12,4	36	12,8	3	GF333706.1052	GF333106.1052
	8	1,25	6,5	10	8,4	74	16,7	40	17,3	3	GF333706.1054	GF333106.1054
	10	1,5	8,2	12	10,5	80	20,1	45	20,8	3	GF333706.1056	GF333106.1056
	12	1,75	9,9	14	12,6	90	25,2	45	26	4	GF333706.1058	GF333106.1058

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Gewindebohrer für Metrisches SELF-LOCK-Gewinde
siehe Seite 290 - 293

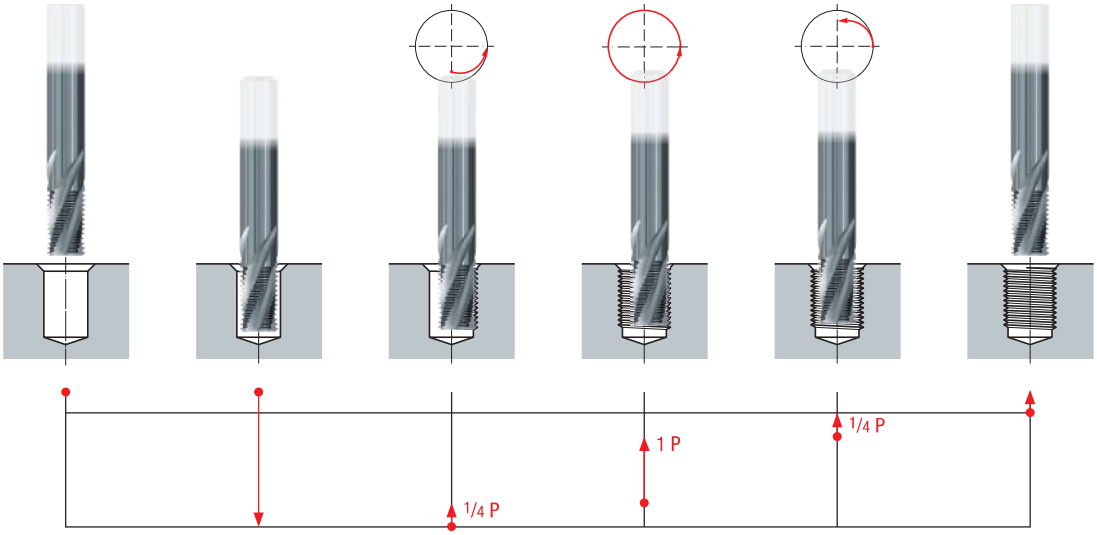
Taps for Metric SELF-LOCK thread,
see page 290 - 293

GF	GF-R30	GF-R30-Long	GF-Z	GF-Z-Extern
				

Seite · Page					
428	429	430	431	432	**M**
428	429	430	431	432	**MF**
433		434		435	**UN**
436	437		438		**G (BSP), Rp (BSPP), W**
439					**LK-M**
439					**LK-MF**
440	441				**Pg**

Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

Gewindefräszyklus · Thread milling cycle



Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

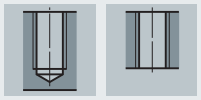
DIN 13

VHM Carbide

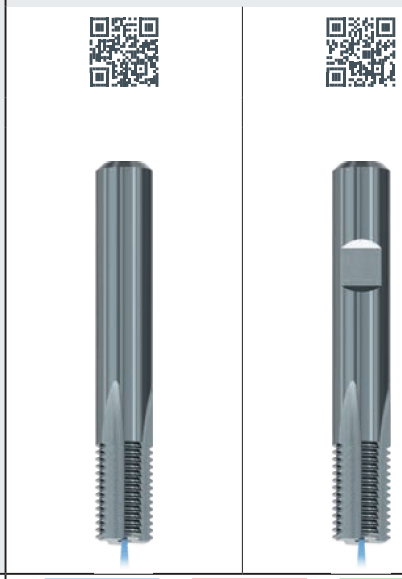
RH + LH

Z3 - Z5

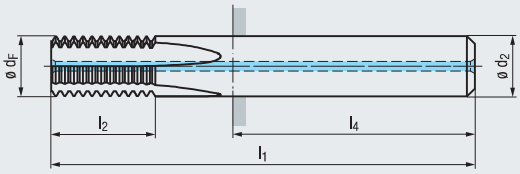
DIN 6535 HA HB



GF



Für Innengewinde
For internal threads

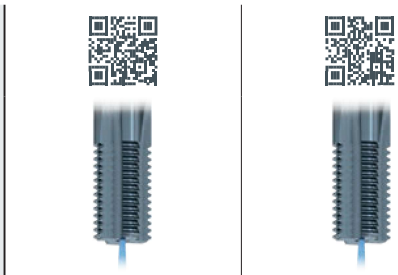


Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA	GF IKZ-HB
0,5	≥ M10	7,9	8	63	12,2	36	3	GF163701.9506	GF163101.9506
0,5	≥ M12	9,9	10	70	16,2	40	4	GF163811.9506	GF163211.9506
0,75	≥ M11	7,9	8	63	12,3	36	3	GF163701.9509	GF163101.9509
0,75	≥ M13	9,9	10	70	16,8	40	4	GF163811.9509	GF163211.9509
1	≥ M14	9,9	10	70	16,4	40	4	GF163811.9512	GF163211.9512
1	≥ M16	11,9	12	80	20,4	45	4	GF163721.9512	GF163121.9512
1	≥ M22	15,9	16	90	25,4	48	5	GF163731.9512	GF163131.9512
1	≥ M27	19,9	20	105	32,4	50	5	GF163751.9512	GF163151.9512
1,5	≥ M14	9,9	10	70	17,2	40	4	GF163811.9514	GF163211.9514
1,5	≥ M16	11,9	12	80	21,7	45	4	GF163721.9514	GF163121.9514
1,5	≥ M22	15,9	16	90	26,2	48	5	GF163731.9514	GF163131.9514
1,5	≥ M27	19,9	20	105	33,7	50	5	GF163751.9514	GF163151.9514
2	≥ M22	15,9	16	90	26,9	48	5	GF163731.9516	GF163131.9516
2	≥ M27	19,9	20	105	32,9	50	5	GF163751.9516	GF163151.9516
3	≥ M24	15,9	16	90	28,3	48	5	GF163731.9518	GF163131.9518
3	≥ M30	19,9	20	105	34,3	50	5	GF163751.9518	GF163151.9518

TICN



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA TICN	GF IKZ-HB TICN
0,5	≥ M10	7,9	8	63	12,2	36	3	GF163706.9506	GF163106.9506
0,5	≥ M12	9,9	10	70	16,2	40	4	GF163816.9506	GF163216.9506
0,75	≥ M11	7,9	8	63	12,3	36	3	GF163706.9509	GF163106.9509
0,75	≥ M13	9,9	10	70	16,8	40	4	GF163816.9509	GF163216.9509
1	≥ M14	9,9	10	70	16,4	40	4	GF163816.9512	GF163216.9512
1	≥ M16	11,9	12	80	20,4	45	4	GF163726.9512	GF163126.9512
1	≥ M22	15,9	16	90	25,4	48	5	GF163736.9512	GF163136.9512
1	≥ M27	19,9	20	105	32,4	50	5	GF163756.9512	GF163156.9512
1,5	≥ M14	9,9	10	70	17,2	40	4	GF163816.9514	GF163216.9514
1,5	≥ M16	11,9	12	80	21,7	45	4	GF163726.9514	GF163126.9514
1,5	≥ M22	15,9	16	90	26,2	48	5	GF163736.9514	GF163136.9514
1,5	≥ M27	19,9	20	105	33,7	50	5	GF163756.9514	GF163156.9514
2	≥ M22	15,9	16	90	26,9	48	5	GF163736.9516	GF163136.9516
2	≥ M27	19,9	20	105	32,9	50	5	GF163756.9516	GF163156.9516
3	≥ M24	15,9	16	90	28,3	48	5	GF163736.9518	GF163136.9518
3	≥ M30	19,9	20	105	34,3	50	5	GF163756.9518	GF163156.9518

Weitere Ausführungen auf Anfrage
Further designs upon request

M, MF

DIN 13

VHM Carbide

R30

RH + LH

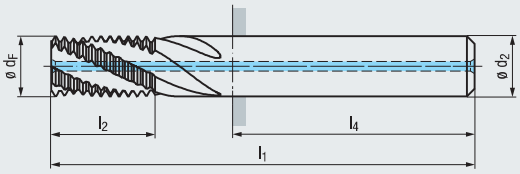
Z3 - Z5

DIN 6535

HA
HB

ø d_1

Für Innengewinde
For internal threads



GF-R30

Einsatzgebiete – Material
Applications – material

358

P 1.1-3.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.2

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA	GF R30-IKZ-HB
0,5	≥ M10	7,9	8	63	12,2	36	3	GF162701.9506	GF162101.9506
0,75	≥ M11	7,9	8	63	12,3	36	3	GF162701.9509	GF162101.9509
1	≥ M14	9,9	10	70	16,4	40	4	GF162811.9512	GF162211.9512
1	≥ M16	11,9	12	80	20,4	45	4	GF162721.9512	GF162121.9512
1	≥ M22	15,9	16	90	25,4	48	5	GF162731.9512	GF162131.9512
1	≥ M27	19,9	20	105	32,4	50	5	GF162751.9512	GF162151.9512
1,5	≥ M14	9,9	10	70	17,2	40	4	GF162811.9514	GF162211.9514
1,5	≥ M16	11,9	12	80	21,7	45	4	GF162721.9514	GF162121.9514
1,5	≥ M22	15,9	16	90	26,2	48	5	GF162731.9514	GF162131.9514
1,5	≥ M27	19,9	20	105	33,7	50	5	GF162751.9514	GF162151.9514
2	≥ M18	11,9	12	80	20,9	45	4	GF162721.9516	GF162121.9516
2	≥ M22	15,9	16	90	26,9	48	5	GF162731.9516	GF162131.9516
2	≥ M27	19,9	20	105	32,9	50	5	GF162751.9516	GF162151.9516
3	≥ M24	15,9	16	90	28,3	48	5	GF162731.9518	GF162131.9518
3	≥ M30	19,9	20	105	34,3	50	5	GF162751.9518	GF162151.9518

TICN

Einsatzgebiete – Material
Applications – material

358

P 1.1-3.1 | M 1.1-2.1 | K 1.1-4.2
N 1.1-2.7 | N 3.1-5.3 | S 1.1-1.2, 2.1

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA TICN	GF R30-IKZ-HB TICN
0,5	≥ M10	7,9	8	63	12,2	36	3	GF162706.9506	GF162106.9506
0,75	≥ M11	7,9	8	63	12,3	36	3	GF162706.9509	GF162106.9509
1	≥ M14	9,9	10	70	16,4	40	4	GF162816.9512	GF162216.9512
1	≥ M16	11,9	12	80	20,4	45	4	GF162726.9512	GF162126.9512
1	≥ M22	15,9	16	90	25,4	48	5	GF162736.9512	GF162136.9512
1	≥ M27	19,9	20	105	32,4	50	5	GF162756.9512	GF162156.9512
1,5	≥ M14	9,9	10	70	17,2	40	4	GF162816.9514	GF162216.9514
1,5	≥ M16	11,9	12	80	21,7	45	4	GF162726.9514	GF162126.9514
1,5	≥ M22	15,9	16	90	26,2	48	5	GF162736.9514	GF162136.9514
1,5	≥ M27	19,9	20	105	33,7	50	5	GF162756.9514	GF162156.9514
2	≥ M18	11,9	12	80	20,9	45	4	GF162726.9516	GF162126.9516
2	≥ M22	15,9	16	90	26,9	48	5	GF162736.9516	GF162136.9516
2	≥ M27	19,9	20	105	32,9	50	5	GF162756.9516	GF162156.9516
3	≥ M24	15,9	16	90	28,3	48	5	GF162736.9518	GF162136.9518
3	≥ M30	19,9	20	105	34,3	50	5	GF162756.9518	GF162156.9518

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

DIN 13

VHM Carbide

R30

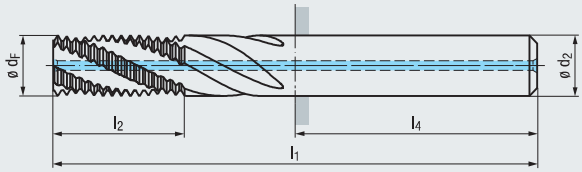
RH + LH

Z4 - Z5

DIN 6535 HA HB

ø d_1

Für Innengewinde
For internal threads



GF-R30-Long

Einsatzgebiete – Material
Applications – material
358

P 1.1-3.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.2

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-Long-IKZ-HA	GF R30-Long-IKZ-HB
1	≥ M14	9,9	10	80	20,4	40	4	GF162911.9512	GF162311.9512
1	≥ M16	11,9	12	90	25,4	45	4	GF162921.9512	GF162321.9512
1	≥ M22	15,9	16	100	32,4	48	5	GF162931.9512	GF162331.9512
1,5	≥ M14	9,9	10	80	21,7	40	4	GF162911.9514	GF162311.9514
1,5	≥ M16	11,9	12	90	26,2	45	4	GF162921.9514	GF162321.9514
1,5	≥ M22	15,9	16	100	33,7	48	5	GF162931.9514	GF162331.9514
1,5	≥ M27	19,9	20	115	41,2	50	5	GF162951.9514	GF162351.9514
2	≥ M18	11,9	12	90	26,9	45	4	GF162921.9516	GF162321.9516
2	≥ M22	15,9	16	100	32,9	48	5	GF162931.9516	GF162331.9516
2	≥ M27	19,9	20	115	40,9	50	5	GF162951.9516	GF162351.9516
3	≥ M24	15,9	16	100	34,3	48	5	GF162931.9518	GF162331.9518
3	≥ M30	19,9	20	115	43,3	50	5	GF162951.9518	GF162351.9518

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-3.1 | M 1.1-2.1 | K 1.1-4.2
N 1.1-2.7 | N 3.1-5.3 | S 1.1-1.2, 2.1

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-Long-IKZ-HA TICN	GF R30-Long-IKZ-HB TICN
1	≥ M14	9,9	10	80	20,4	40	4	GF162916.9512	GF162316.9512
1	≥ M16	11,9	12	90	25,4	45	4	GF162926.9512	GF162326.9512
1	≥ M22	15,9	16	100	32,4	48	5	GF162936.9512	GF162336.9512
1,5	≥ M14	9,9	10	80	21,7	40	4	GF162916.9514	GF162316.9514
1,5	≥ M16	11,9	12	90	26,2	45	4	GF162926.9514	GF162326.9514
1,5	≥ M22	15,9	16	100	33,7	48	5	GF162936.9514	GF162336.9514
1,5	≥ M27	19,9	20	115	41,2	50	5	GF162956.9514	GF162356.9514
2	≥ M18	11,9	12	90	26,9	45	4	GF162926.9516	GF162326.9516
2	≥ M22	15,9	16	100	32,9	48	5	GF162936.9516	GF162336.9516
2	≥ M27	19,9	20	115	40,9	50	5	GF162956.9516	GF162356.9516
3	≥ M24	15,9	16	100	34,3	48	5	GF162936.9518	GF162336.9518
3	≥ M30	19,9	20	115	43,3	50	5	GF162956.9518	GF162356.9518

Weitere Ausführungen auf Anfrage
Further designs upon request

M, MF

DIN 13

VHM Carbide

R15

RH + LH

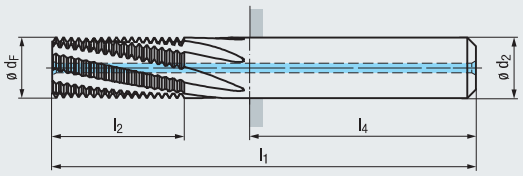
Z6

DIN 6535

HA
HB

ø d_1

Für Innengewinde
For internal threads



GF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-IKZ-HA	GF-Z R15-IKZ-HB
1	≥ M14	9,9	10	70	20,4	40	6	GF165961.9512	GF165361.9512
1,5	≥ M16	11,9	12	80	26,2	45	6	GF165971.9514	GF165371.9514
2	≥ M22	15,9	16	90	32,9	48	6	GF165981.9516	GF165381.9516
3	≥ M30	19,9	20	105	43,3	50	6	GF165991.9518	GF165391.9518

TICN

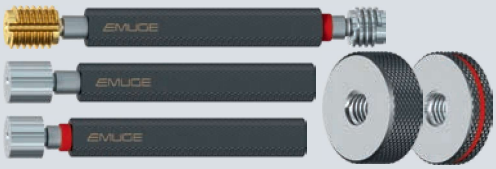
Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-IKZ-HA TICN	GF-Z R15-IKZ-HB TICN
1	≥ M14	9,9	10	70	20,4	40	6	GF165966.9512	GF165366.9512
1,5	≥ M16	11,9	12	80	26,2	45	6	GF165976.9514	GF165376.9514
2	≥ M22	15,9	16	90	32,9	48	6	GF165986.9516	GF165386.9516
3	≥ M30	19,9	20	105	43,3	50	6	GF165996.9518	GF165396.9518

Weitere Ausführungen auf Anfrage
Further designs upon request



Gewindelehren
siehe Seite 541 - 594

Thread gauges,
see page 541 - 594

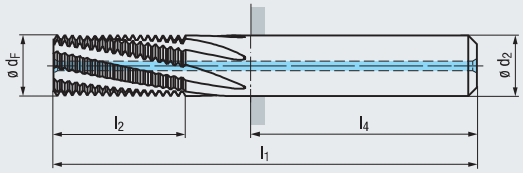
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

DIN 13

VHM Carbide	TIALN 86
R15	RH + LH
Z5 - Z9	DIN 6535 HA HB

Für Außengewinde
For external threads



GF-Z-Extern

Mit höherer Nutzahl
With increased number of flutes

new

new

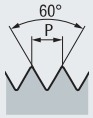
Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-Extern-IKZ-HA TIALN-86	GF-Z R15-Extern-IKZ-HB TIALN-86
0,5	≥ M 5	5,9	6	55	12,3	36	9	GF1649CC.9506	GF1643CC.9506
0,75	≥ M 5	5,9	6	55	12,4	36	6	GF1649CC.9509	GF1643CC.9509
1	≥ M 6	7,9	8	63	16,5	36	6	GF1649BC.9512	GF1643BC.9512
0,8	≥ M 5	5,9	6	55	12,4	36	6	GF1649CC.9510	GF1643CC.9510
1	≥ M 8	9,9	10	70	20,5	40	8	GF16496C.9512	GF16436C.9512
1,25	≥ M 8	9,9	10	70	20,6	40	6	GF16496C.9513	GF16436C.9513
1,5	≥ M 8	9,9	10	70	21,8	40	5	GF16496C.9514	GF16436C.9514
1,5	≥ M 10	11,9	12	80	26,3	45	6	GF16497C.9514	GF16437C.9514
2	≥ M 10	11,9	12	80	27	45	5	GF16497C.9516	GF16437C.9516
2	≥ M 14	15,9	16	90	33	48	6	GF16498C.9516	GF16438C.9516
2,5	≥ M 14	15,9	16	90	33,8	48	5	GF16498C.9517	GF16438C.9517

Weitere Ausführungen auf Anfrage
Further designs upon request

UN



ASME B1.1

VHM Carbide

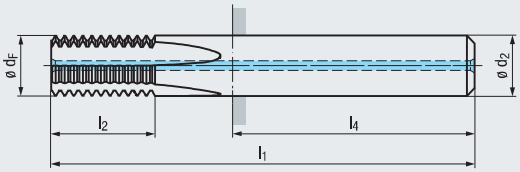
RH + LH

Z4 - Z5

DIN 6535 HA HB

ø d_1

Für Innengewinde
For internal threads



GF

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA	GF IKZ-HB
24	≥ 1/2	9,9	10	70	16,3	40	4	GF163811.9579	GF163211.9579
20	≥ 1/2	9,9	10	70	17,1	40	4	GF163811.9580	GF163211.9580
20	≥ 11/16	11,9	12	80	20,9	45	4	GF163721.9580	GF163121.9580
20	≥ 7/8	15,9	16	90	26	48	5	GF163731.9580	GF163131.9580
20	≥ 1"	19,9	20	105	32,3	50	5	GF163751.9580	GF163151.9580
18	≥ 1/2	9,9	10	70	17,6	40	4	GF163811.9581	GF163211.9581
16	≥ 1/2	9,9	10	70	16,6	40	4	GF163811.9582	GF163211.9582
16	≥ 11/16	11,9	12	80	21,3	45	4	GF163721.9582	GF163121.9582
16	≥ 7/8	15,9	16	90	26,1	48	5	GF163731.9582	GF163131.9582
16	≥ 1"	19,9	20	105	32,5	50	5	GF163751.9582	GF163151.9582
14	≥ 7/8	15,9	16	90	26,2	48	5	GF163731.9583	GF163131.9583
12	≥ 11/16	11,9	12	80	22,1	45	4	GF163721.9585	GF163121.9585
12	≥ 7/8	15,9	16	90	26,3	48	5	GF163731.9585	GF163131.9585
12	≥ 1"	19,9	20	105	32,7	50	5	GF163751.9585	GF163151.9585
10	≥ 11/16	11,9	12	80	21,4	45	4	GF163721.9587	GF163121.9587
9	≥ 11/16	11,9	12	80	21	45	4	GF163721.9588	GF163121.9588
8	≥ 7/8	15,9	16	90	26,8	48	5	GF163731.9589	GF163131.9589
8	≥ 1"	19,9	20	105	33,2	50	5	GF163751.9589	GF163151.9589
6	≥ 1"	19,9	20	105	35,8	50	5	GF163751.9591	GF163151.9591

TICN

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA TICN	GF IKZ-HB TICN
24	≥ 1/2	9,9	10	70	16,3	40	4	GF163816.9579	GF163216.9579
20	≥ 1/2	9,9	10	70	17,1	40	4	GF163816.9580	GF163216.9580
20	≥ 11/16	11,9	12	80	20,9	45	4	GF163726.9580	GF163126.9580
20	≥ 7/8	15,9	16	90	26	48	5	GF163736.9580	GF163136.9580
20	≥ 1"	19,9	20	105	32,3	50	5	GF163756.9580	GF163156.9580
18	≥ 1/2	9,9	10	70	17,6	40	4	GF163816.9581	GF163216.9581
16	≥ 1/2	9,9	10	70	16,6	40	4	GF163816.9582	GF163216.9582
16	≥ 11/16	11,9	12	80	21,3	45	4	GF163726.9582	GF163126.9582
16	≥ 7/8	15,9	16	90	26,1	48	5	GF163736.9582	GF163136.9582
16	≥ 1"	19,9	20	105	32,5	50	5	GF163756.9582	GF163156.9582
14	≥ 7/8	15,9	16	90	26,2	48	5	GF163736.9583	GF163136.9583
12	≥ 11/16	11,9	12	80	22,1	45	4	GF163726.9585	GF163126.9585
12	≥ 7/8	15,9	16	90	26,3	48	5	GF163736.9585	GF163136.9585
12	≥ 1"	19,9	20	105	32,7	50	5	GF163756.9585	GF163156.9585
10	≥ 11/16	11,9	12	80	21,4	45	4	GF163726.9587	GF163126.9587
9	≥ 11/16	11,9	12	80	21	45	4	GF163726.9588	GF163126.9588
8	≥ 7/8	15,9	16	90	26,8	48	5	GF163736.9589	GF163136.9589
8	≥ 1"	19,9	20	105	33,2	50	5	GF163756.9589	GF163156.9589
6	≥ 1"	19,9	20	105	35,8	50	5	GF163756.9591	GF163156.9591

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UN

ASME B.1.1

VHM Carbide

R30

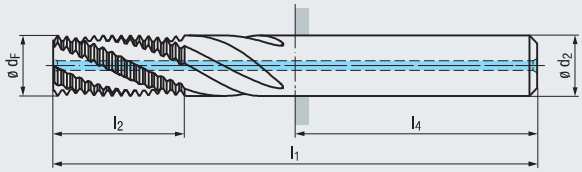
RH + LH

Z4 - Z5

DIN 6535 HA HB

ø d_1

Für Innengewinde
For internal threads



GF-R30-Long

Einsatzgebiete – Material
Applications – material
358

P 1.1-3.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-Long-IKZ-HA	GF R30-Long-IKZ-HB
24	≥ 1/2	9,9	10	80	20,6	40	4	GF162911.9579	GF162311.9579
20	≥ 1/2	9,9	10	80	20,9	40	4	GF162911.9580	GF162311.9580
20	≥ 11/16	11,9	12	90	26	45	4	GF162921.9580	GF162321.9580
20	≥ 7/8	15,9	16	100	32,3	48	5	GF162931.9580	GF162331.9580
20	≥ 1"	19,9	20	115	41,2	50	5	GF162951.9580	GF162351.9580
18	≥ 1/2	9,9	10	80	20,4	40	4	GF162911.9581	GF162311.9581
16	≥ 1/2	9,9	10	80	21,3	40	4	GF162911.9582	GF162311.9582
16	≥ 11/16	11,9	12	90	26,1	45	4	GF162921.9582	GF162321.9582
16	≥ 7/8	15,9	16	100	32,5	48	5	GF162931.9582	GF162331.9582
16	≥ 1"	19,9	20	115	40,4	50	5	GF162951.9582	GF162351.9582
14	≥ 7/8	15,9	16	100	33,4	48	5	GF162931.9583	GF162331.9583
12	≥ 11/16	11,9	12	90	26,3	45	4	GF162921.9585	GF162321.9585
12	≥ 7/8	15,9	16	100	32,7	48	5	GF162931.9585	GF162331.9585
12	≥ 1"	19,9	20	115	41,2	50	5	GF162951.9585	GF162351.9585
10	≥ 11/16	11,9	12	90	26,5	45	4	GF162921.9587	GF162321.9587
9	≥ 11/16	11,9	12	90	26,6	45	4	GF162921.9588	GF162321.9588
8	≥ 7/8	15,9	16	100	33,1	48	5	GF162931.9589	GF162331.9589
8	≥ 1"	19,9	20	115	42,7	50	5	GF162951.9589	GF162351.9589
6	≥ 1"	19,9	20	115	44,3	50	5	GF162951.9591	GF162351.9591

TICN

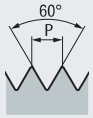
Einsatzgebiete – Material
Applications – material
358

P 1.1-3.1 | M 1.1-2.1 | K 1.1-4.2
N 1.1-2.7 | N 3.1-5.3 | S 1.1-1.2, 2.1

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-Long-IKZ-HA TICN	GF R30-Long-IKZ-HB TICN
24	≥ 1/2	9,9	10	80	20,6	40	4	GF162916.9579	GF162316.9579
20	≥ 1/2	9,9	10	80	20,9	40	4	GF162916.9580	GF162316.9580
20	≥ 11/16	11,9	12	90	26	45	4	GF162926.9580	GF162326.9580
20	≥ 7/8	15,9	16	100	32,3	48	5	GF162936.9580	GF162336.9580
20	≥ 1"	19,9	20	115	41,2	50	5	GF162956.9580	GF162356.9580
18	≥ 1/2	9,9	10	80	20,4	40	4	GF162916.9581	GF162316.9581
16	≥ 1/2	9,9	10	80	21,3	40	4	GF162916.9582	GF162316.9582
16	≥ 11/16	11,9	12	90	26,1	45	4	GF162926.9582	GF162326.9582
16	≥ 7/8	15,9	16	100	32,5	48	5	GF162936.9582	GF162336.9582
16	≥ 1"	19,9	20	115	40,4	50	5	GF162956.9582	GF162356.9582
14	≥ 7/8	15,9	16	100	33,4	48	5	GF162936.9583	GF162336.9583
12	≥ 11/16	11,9	12	90	26,3	45	4	GF162926.9585	GF162326.9585
12	≥ 7/8	15,9	16	100	32,7	48	5	GF162936.9585	GF162336.9585
12	≥ 1"	19,9	20	115	41,2	50	5	GF162956.9585	GF162356.9585
10	≥ 11/16	11,9	12	90	26,5	45	4	GF162926.9587	GF162326.9587
9	≥ 11/16	11,9	12	90	26,6	45	4	GF162926.9588	GF162326.9588
8	≥ 7/8	15,9	16	100	33,1	48	5	GF162936.9589	GF162336.9589
8	≥ 1"	19,9	20	115	42,7	50	5	GF162956.9589	GF162356.9589
6	≥ 1"	19,9	20	115	44,3	50	5	GF162956.9591	GF162356.9591

Weitere Ausführungen auf Anfrage
Further designs upon request

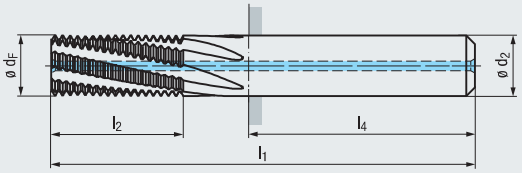
UN



ASME B.1.1

VHM Carbide	TIALN 86
R15	RH + LH
Z4 - Z7	DIN 6535 HA HB

Für Außengewinde
For external threads



GF-Z-Extern

Mit höherer Nutenzahl
With increased number of flutes

new

new

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-Extern-IKZ-HA TIALN-86	GF-Z R15-Extern-IKZ-HB TIALN-86
32	≥ Nr.10	5,9	6	55	12,3	36	6	GF1649CC.9577	GF1643CC.9577
28	≥ Nr.12	7,9	8	63	16,8	36	7	GF1649BC.9578	GF1643BC.9578
24	≥ Nr.12	7,9	8	63	16,4	36	6	GF1649BC.9579	GF1643BC.9579
20	≥ 1/4	7,9	8	63	17,1	36	5	GF1649BC.9580	GF1643BC.9580
18	≥ 5/16	9,9	10	70	20,5	40	5	GF16496C.9581	GF16436C.9581
16	≥ 3/8	9,9	10	70	21,4	40	5	GF16496C.9582	GF16436C.9582
16	≥ 7/16	11,9	12	80	26,2	45	6	GF16497C.9582	GF16437C.9582
14	≥ 7/16	11,9	12	80	26,3	45	5	GF16497C.9583	GF16437C.9583
12	≥ 9/16	11,9	12	80	26,5	45	4	GF16497C.9585	GF16437C.9585
12	≥ 9/16	15,9	16	90	32,8	48	6	GF16498C.9585	GF16438C.9585
10	≥ 3/4	15,9	16	90	34,3	48	5	GF16498C.9587	GF16438C.9587

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

G (BSP), Rp (BSPP), W

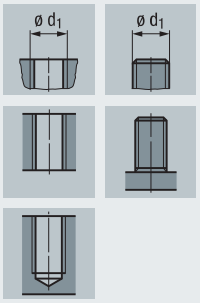
DIN EN ISO 228, DIN EN 10226-1, ISO 7/1, BS 84

VHM Carbide

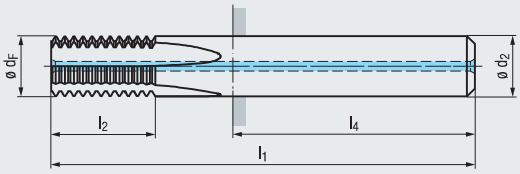
RH + LH

Z4 - Z5

DIN 6535 HA HB



Für Innen- und Außengewinde
For internal and external threads



GF

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA	GF IKZ-HB
19	≥ 1/4	9,9	10	70	16,7	40	4	GF163811.9545	GF163211.9545
14	≥ 1/2	15,9	16	90	26,3	48	5	GF163731.9548	GF163131.9548
11	≥ 1"	15,9	16	90	26,6	48	5	GF163731.9550	GF163131.9550
11	≥ 1"	19,9	20	105	33,5	50	5	GF163751.9550	GF163151.9550

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA TICN	GF IKZ-HB TICN
19	≥ 1/4	9,9	10	70	16,7	40	4	GF163816.9545	GF163216.9545
14	≥ 1/2	15,9	16	90	26,3	48	5	GF163736.9548	GF163136.9548
11	≥ 1"	15,9	16	90	26,6	48	5	GF163736.9550	GF163136.9550
11	≥ 1"	19,9	20	105	33,5	50	5	GF163756.9550	GF163156.9550

1) Durchmesser bezogen auf Rohr-Innengewinde bzw. Rohr-Außengewinde
Diameter related to internal pipe thread resp. external pipe thread

Weitere Ausführungen auf Anfrage
Further designs upon request

G (BSP), Rp (BSPP), W

DIN EN ISO 228, DIN EN 10226-1, ISO 7/1, BS 84

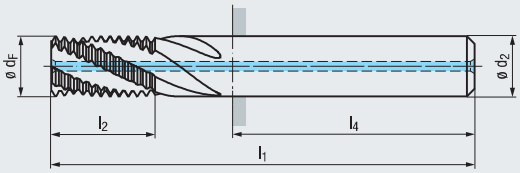
VHM Carbide

R30 | RH + LH

Z4 - Z5 | DIN 6535 HA HB

ø d_1 | ø d_1

Für Innen- und Außengewinde
For internal and external threads



GF-R30

Einsatzgebiete – Material
Applications – material
▸▸ 358

P 1.1-3.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA	GF R30-IKZ-HB
19	≥ 1/4	9,9	10	70	16,7	40	4	GF162811.9545	GF162211.9545
14	≥ 1/2	11,9	12	80	20,9	45	4	GF162721.9548	GF162121.9548
14	≥ 1/2	15,9	16	90	26,3	48	5	GF162731.9548	GF162131.9548
11	≥ 1"	15,9	16	90	26,6	48	5	GF162731.9550	GF162131.9550
11	≥ 1"	19,9	20	105	33,5	50	5	GF162751.9550	GF162151.9550

TICN

Einsatzgebiete – Material
Applications – material
▸▸ 358

P 1.1-3.1 | M 1.1-2.1 | K 1.1-4.2
N 1.1-2.7 | N 3.1-5.3 | S 1.1-1.2, 2.1

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA TICN	GF R30-IKZ-HB TICN
19	≥ 1/4	9,9	10	70	16,7	40	4	GF162816.9545	GF162216.9545
14	≥ 1/2	11,9	12	80	20,9	45	4	GF162726.9548	GF162126.9548
14	≥ 1/2	15,9	16	90	26,3	48	5	GF162736.9548	GF162136.9548
11	≥ 1"	15,9	16	90	26,6	48	5	GF162736.9550	GF162136.9550
11	≥ 1"	19,9	20	105	33,5	50	5	GF162756.9550	GF162156.9550

1) Durchmesser bezogen auf Rohr-Innengewinde bzw. Rohr-Außengewinde
Diameter related to internal pipe thread resp. external pipe thread

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

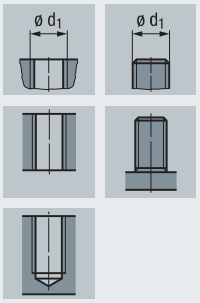
G (BSP), Rp (BSPP), W

DIN EN ISO 228, DIN EN 10226-1, ISO 7/1, BS 84

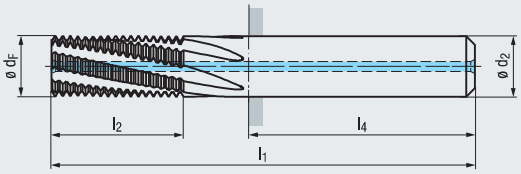
VHM Carbide

R15 | RH + LH

Z5 - Z8 | DIN 6535 HA HB



Für Innen- und Außengewinde
For internal and external threads



GF-Z

Mit höherer Nutenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-IKZ-HA	GF-Z R15-IKZ-HB
19	≥ 1/4	9,9	10	70	20,7	40	6	GF165961.9545	GF165361.9545
14	≥ 1/2	11,9	12	80	26,3	45	5	GF165971.9548	GF165371.9548
14	≥ 1/2	15,9	16	90	33,6	48	6	GF165981.9548	GF165381.9548
14	≥ 3/4	19,9	20	105	40,8	50	8	GF165991.9548	GF165391.9548
11	≥ 1"	15,9	16	90	33,5	48	5	GF165981.9550	GF165381.9550
11	≥ 1"	19,9	20	105	42,7	50	6	GF165991.9550	GF165391.9550

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-Z R15-IKZ-HA TICN	GF-Z R15-IKZ-HB TICN
19	≥ 1/4	9,9	10	70	20,7	40	6	GF165966.9545	GF165366.9545
14	≥ 1/2	11,9	12	80	26,3	45	5	GF165976.9548	GF165376.9548
14	≥ 1/2	15,9	16	90	33,6	48	6	GF165986.9548	GF165386.9548
14	≥ 3/4	19,9	20	105	40,8	50	8	GF165996.9548	GF165396.9548
11	≥ 1"	15,9	16	90	33,5	48	5	GF165986.9550	GF165386.9550
11	≥ 1"	19,9	20	105	42,7	50	6	GF165996.9550	GF165396.9550

1) Durchmesser bezogen auf Rohr-Innengewinde bzw. Rohr-Außengewinde
Diameter related to internal pipe thread resp. external pipe thread

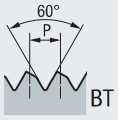
Weitere Ausführungen auf Anfrage
Further designs upon request

Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

Thread depth plug gauges,
see page 588 - 591

LK-M, LK-MF

EMUGE-Norm · EMUGE Standard



VHM Carbide

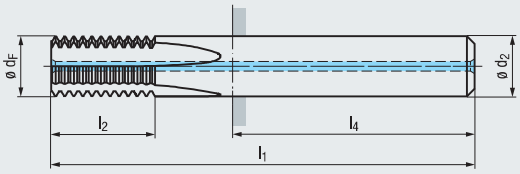
RH + LH

Z4 - Z5

DIN 6535 HA HB

ø d_1

Für Innengewinde
For internal threads



GF

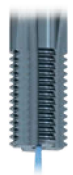
Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA	GF IKZ-HB
1	≥ LK-M14	9,9	10	70	16,4	40	4	GF163811.9757	GF163211.9757
1	≥ LK-M16	11,9	12	80	20,4	45	4	GF163721.9757	GF163121.9757
1,5	≥ LK-M14	9,9	10	70	17,1	40	4	GF163811.9664	GF163211.9664
1,5	≥ LK-M16	11,9	12	80	21,6	45	4	GF163721.9664	GF163121.9664
2	≥ LK-M22	15,9	16	90	26,7	48	5	GF163731.9705	GF163131.9705
3	≥ LK-M30	19,9	20	105	34,1	50	5	GF163751.9767	GF163151.9767

TICN



Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

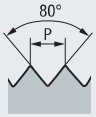
P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA TICN	GF IKZ-HB TICN
1	≥ LK-M14	9,9	10	70	16,4	40	4	GF163816.9757	GF163216.9757
1	≥ LK-M16	11,9	12	80	20,4	45	4	GF163726.9757	GF163126.9757
1,5	≥ LK-M14	9,9	10	70	17,1	40	4	GF163816.9664	GF163216.9664
1,5	≥ LK-M16	11,9	12	80	21,6	45	4	GF163726.9664	GF163126.9664
2	≥ LK-M22	15,9	16	90	26,7	48	5	GF163736.9705	GF163136.9705
3	≥ LK-M30	19,9	20	105	34,1	50	5	GF163756.9767	GF163156.9767

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Pg

DIN 40430

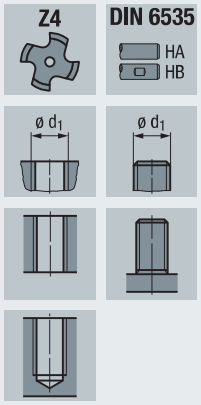


VHM Carbide

RH + LH

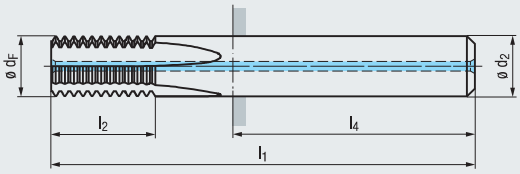
Z4

DIN 6535



GF

Für Innen- und Außengewinde
For internal and external threads



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1 1)	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA	GF IKZ-HB
Pg 7	20	9,9	10	70	17,1	40	4	GF163811.9661	GF163211.9661
9	18	11,9	12	80	20,5	45	4	GF163721.9662	GF163121.9662
21	16	11,9	12	80	21,4	45	4	GF163721.9663	GF163121.9663

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

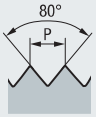
Nenngröße Nom. size ø d_1 1)	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF IKZ-HA TICN	GF IKZ-HB TICN
Pg 7	20	9,9	10	70	17,1	40	4	GF163816.9661	GF163216.9661
9	18	11,9	12	80	20,5	45	4	GF163726.9662	GF163126.9662
21	16	11,9	12	80	21,4	45	4	GF163726.9663	GF163126.9663

1) Durchmesser bezogen auf Rohr-Innengewinde bzw. Rohr-Außengewinde
Diameter related to internal pipe thread resp. external pipe thread

Weitere Ausführungen auf Anfrage
Further designs upon request

Pg

DIN 40430



VHM Carbide

R30

RH + LH

Z4

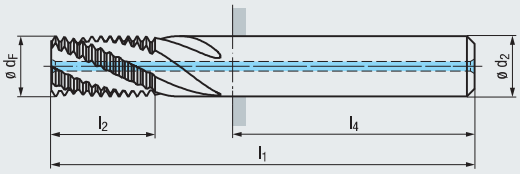
DIN 6535

HA
HB

ø d_1

ø d_1

Für Innen- und Außengewinde
For internal and external threads



GF-R30

Einsatzgebiete – Material
Applications – material

358

P	1.1-3.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.2

Nenngröße Nom. size ø d_1 1)	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA	GF R30-IKZ-HB
Pg 7	20	9,9	10	70	17,1	40	4	GF162811.9661	GF162211.9661
9	18	11,9	12	80	20,5	45	4	GF162721.9662	GF162121.9662
21	16	11,9	12	80	21,4	45	4	GF162721.9663	GF162121.9663

TICN

Einsatzgebiete – Material
Applications – material

358

P	1.1-3.1	M	1.1-2.1	K	1.1-4.2
N	1.1-2.7	N	3.1-5.3	S	1.1-1.2, 2.1

Nenngröße Nom. size ø d_1 1)	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF R30-IKZ-HA TICN	GF R30-IKZ-HB TICN
Pg 7	20	9,9	10	70	17,1	40	4	GF162816.9661	GF162216.9661
9	18	11,9	12	80	20,5	45	4	GF162726.9662	GF162126.9662
21	16	11,9	12	80	21,4	45	4	GF162726.9663	GF162126.9663

1) Durchmesser bezogen auf Rohr-Innengewinde bzw. Rohr-Außengewinde
Diameter related to internal pipe thread resp. external pipe thread

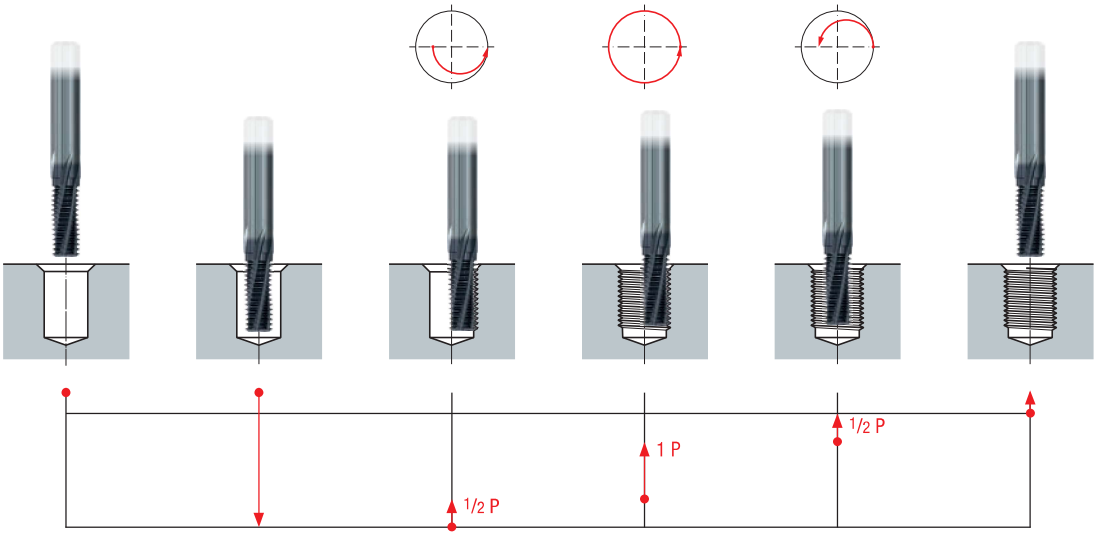
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

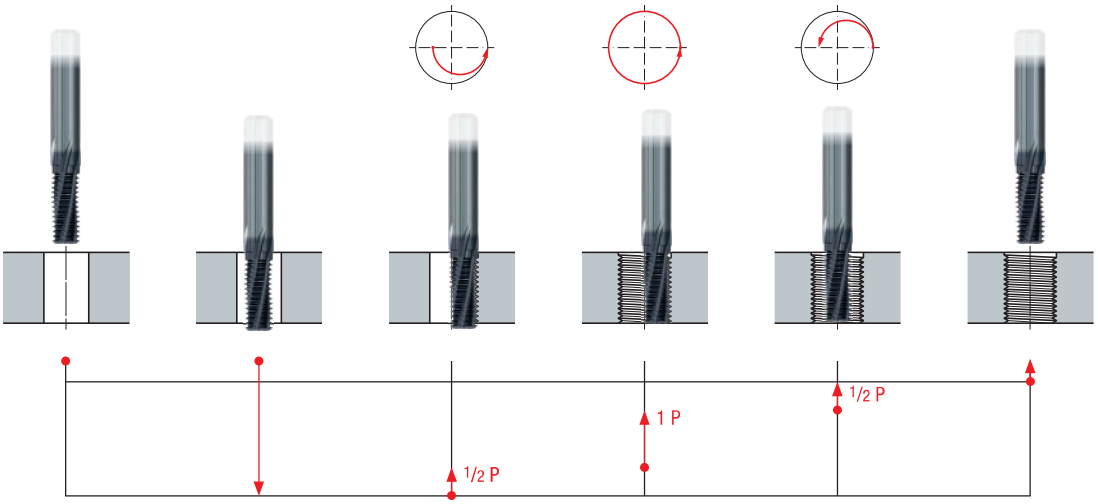
GF-Vario-Z

Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

Gewindefräszyklus · Thread milling cycle



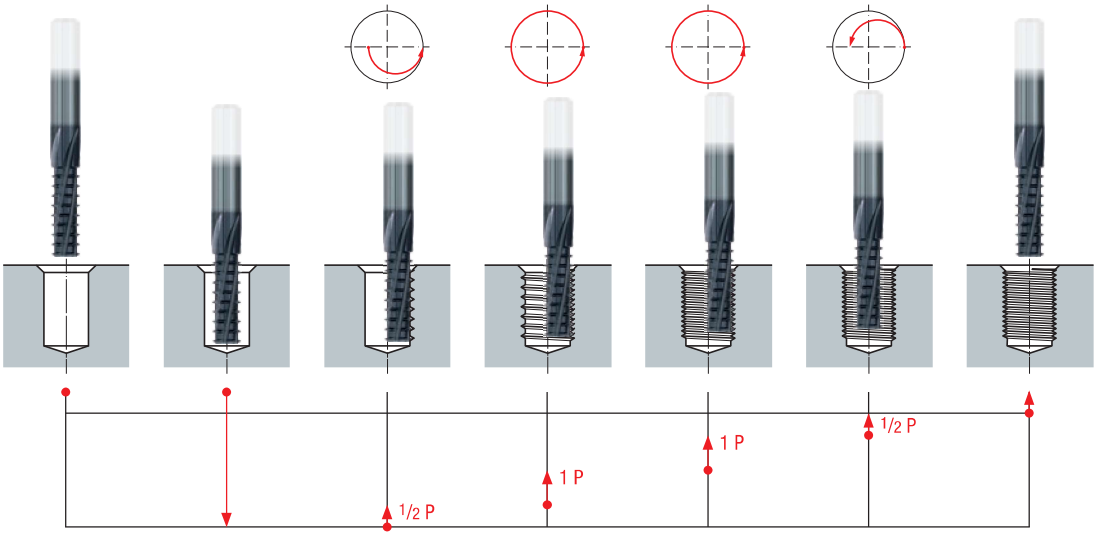
Gewindefräszyklus mit Entfernen des unvollständigen Ganges · Thread milling cycle with removal of incomplete thread



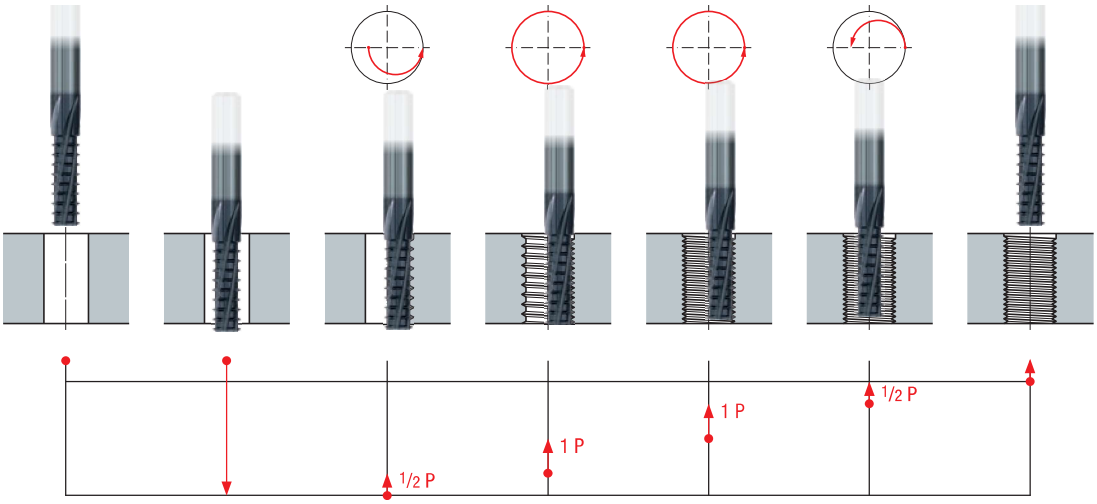
GF-Vario-Z-AZR1

Seite · Page	
446	M
446	MF
447	UNC
447	UNF
447	UN

Gewindefräszyklus · Thread milling cycle



Gewindefräszyklus mit Entfernen des unvollständigen Ganges · Thread milling cycle with removal of incomplete thread



Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

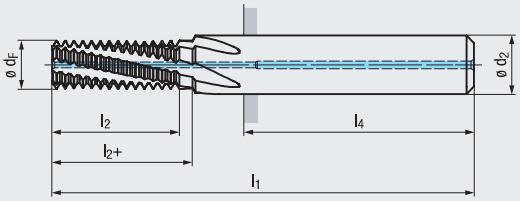
M, MF

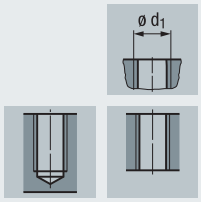
DIN 13

VHM Carbide	TIALN 86
R15	RH + LH
Z4 - Z7	DIN 6535 HA HB

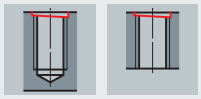
Für Innengewinde
For internal threads

Mit Option zum Entfernen des unvollständigen Ganges
With option to remove the incomplete thread





Unvollständigen Gang entfernen
Removal of incomplete thread



GF-Vario-Z

Mit höherer Nutzenzahl
With increased number of flutes

Einsatzgebiete – Material
Applications – material

358

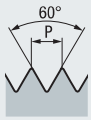
P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2 x d_1

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2xd_1 R15-HA TIALN-86	GF-Vario-Z 2xd_1 R15-IKZ-HA TIALN-86	GF-Vario-Z 2xd_1 R15-IKZ-HB TIALN-86
0,5	≥ M 3	2,4	6	51	6,3	7	36	4	GFB3572C.0030		
0,7	≥ M 4	3,15	6	55	8,7	9,8	36	4		GFB3572C.0040	GFB3512C.0040
0,8	≥ M 5	4	6	55	10,8	12	36	4		GFB3572C.0050	GFB3512C.0050
1	≥ M 6	4,8	6	58	12,5	14	36	4		GFB3572C.0060	GFB3512C.0060
1,25	≥ M 8	6,5	8	62	16,9	18,7	36	4		GFB3572C.0080	GFB3512C.0080
1,5	≥ M10	8,2	10	72	21,7	24	40	5		GFB3572C.0100	GFB3512C.0100
1,75	≥ M12	9,9	10	78	25,3	28	40	5		GFB3572C.0112	GFB3512C.0112
2	≥ M14	11,6	12	88	29	32	45	5		GFB3572C.0114	GFB3512C.0114
2	≥ M16	13,6	14	95	33	36	45	5		GFB3572C.0116	GFB3512C.0116
2,5	≥ M18	15	16	103	38,7	42,4	48	5		GFB3572C.0118	GFB3512C.0118
2,5	≥ M20	17	18	108	41,2	44,9	48	6		GFB3572C.0120	GFB3512C.0120
3	≥ M24	19,9	20	120	49,4	53,9	50	6		GFB3572C.0124	GFB3512C.0124

MF



DIN 13

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2xd_1 R15-IKZ-HA TIALN-86	GF-Vario-Z 2xd_1 R15-IKZ-HB TIALN-86
1	≥ M 8	6,7	8	62	16,5	18	36	4	GFB3572C.0251	GFB3512C.0251
1	≥ M10	8,7	10	72	20,5	22	40	5	GFB3572C.0276	GFB3512C.0276
1	≥ M12	10,6	12	82	24,5	26	45	7	GFB3572C.0301	GFB3512C.0301
1,25	≥ M10	8,4	10	74	20,6	22,5	40	6	GFB3572C.0277	GFB3512C.0277
1,25	≥ M12	10,4	12	82	24,4	26,2	45	6	GFB3572C.0302	GFB3512C.0302
1,5	≥ M12	10,1	12	82	24,7	27	45	5	GFB3572C.0303	GFB3512C.0303
1,5	≥ M14	12,1	14	90	29,2	31,5	45	6	GFB3572C.0331	GFB3512C.0331
1,5	≥ M16	14,1	16	100	33,7	36	48	5	GFB3572C.0359	GFB3512C.0359

Weitere Ausführungen auf Anfrage
Further designs upon request

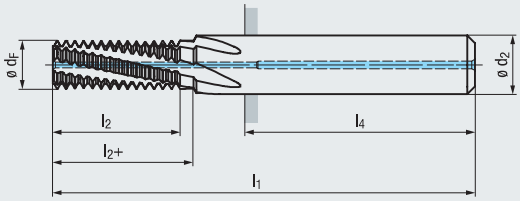
UNC, UNF, UN

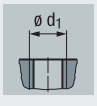
ASME B1.1

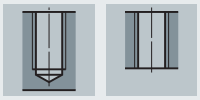
VHM Carbide	TIALN 86
R15	RH + LH
Z4 - Z8	DIN 6535 HA HB

Für Innengewinde
For internal threads

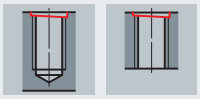
Mit Option zum Entfernen des unvollständigen Ganges
With option to remove the incomplete thread







Unvollständigen Gang entfernen
Removal of incomplete thread



GF-Vario-Z

Mit höherer Nutenzahl
With increased number of flutes

new

new

Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2 x d_1

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2xd_1 R15-IKZ-HA TIALN-86	GF-Vario-Z 2xd_1 R15-IKZ-HB TIALN-86
24	≥ Nr.10	3,7	6	55	10	11,6	36	4	GFB3572C.5007	GFB3512C.5007
20	≥ 1/4	4,85	6	58	13,3	15,2	36	4	GFB3572C.5009	GFB3512C.5009
18	≥ 5/16	6,3	8	62	16,2	18,3	36	4	GFB3572C.5010	GFB3512C.5010
16	≥ 3/8	7,65	8	65	19,8	22,2	36	5	GFB3572C.5011	GFB3512C.5011
14	≥ 7/16	9	10	74	22,6	25,4	40	5	GFB3572C.5012	GFB3512C.5012
13	≥ 1/2	10,4	12	85	26,3	29,3	45	5	GFB3572C.5013	GFB3512C.5013
12	≥ 9/16	11,8	12	88	30,6	33,8	45	5	GFB3572C.5014	GFB3512C.5014
11	≥ 5/8	13	14	94	33,4	36,9	45	5	GFB3572C.5015	GFB3512C.5015
10	≥ 3/4	15,9	16	105	39,3	43,1	48	5	GFB3572C.5016	GFB3512C.5016

UNF, UN

ASME B1.1

new

new

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2xd_1 R15-IKZ-HA TIALN-86	GF-Vario-Z 2xd_1 R15-IKZ-HB TIALN-86
32	≥ Nr.10	3,9	6	55	9,9	11,1	36	4	GFB3572C.5041	GFB3512C.5041
28	≥ Nr.12	4,45	6	56	11,3	12,7	36	4	GFB3572C.5042	GFB3512C.5042
28	≥ 1/4	5,25	6	58	13,1	14,5	36	4	GFB3572C.5043	GFB3512C.5043
24	≥ 5/16	6,6	8	62	16,4	18	36	5	GFB3572C.5044	GFB3512C.5044
24	≥ 3/8	8,2	10	71	19,6	21,1	40	6	GFB3572C.5045	GFB3512C.5045
20	≥ 7/16	9,55	10	74	22,2	24,1	40	6	GFB3572C.5046	GFB3512C.5046
20	≥ 1/4	11,1	12	84	26	27,9	45	7	GFB3572C.5047	GFB3512C.5047
18	≥ 9/16	12,5	14	90	28,9	31	45	7	GFB3572C.5048	GFB3512C.5048
18	≥ 5/8	13,9	14	95	33,1	35,2	45	8	GFB3572C.5049	GFB3512C.5049
16	≥ 3/4	17	18	105	38,9	41,3	48	8	GFB3572C.5050	GFB3512C.5050

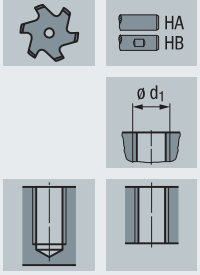
Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

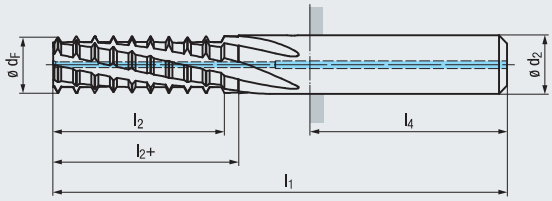
DIN 13

VHM Carbide	TIALN 86
R15	RH + LH
Z4 - Z7	DIN 6535 HA HB

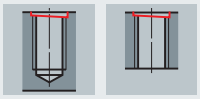


Für Innengewinde
For internal threads

Mit Option zum Entfernen des unvollständigen Ganges
With option to remove the incomplete thread



Unvollständigen Gang entfernen
Removal of incomplete thread



GF-Vario-Z-AZR1

Mit höherer Nutzenzahl
With increased number of flutes

new

new

Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2,5 x d_1

P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HA TIALN-86	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HB TIALN-86
0,7	≥ M 4	3,15	6	55	10,1	11,2	36	4	GFB4573C.0040	GFB4513C.0040
0,8	≥ M 5	4	6	58	13,2	14,4	36	4	GFB4573C.0050	GFB4513C.0050
1	≥ M 6	4,8	6	61	15,5	17	36	4	GFB4573C.0060	GFB4513C.0060
1,25	≥ M 8	6,5	8	68	20,6	22,5	36	4	GFB4573C.0080	GFB4513C.0080
1,5	≥ M10	8,2	10	78	26,2	28,5	40	5	GFB4573C.0100	GFB4513C.0100
1,75	≥ M12	9,9	10	84	30,6	33,2	40	5	GFB4573C.0112	GFB4513C.0112
2	≥ M14	11,6	12	98	37	40	45	5	GFB4573C.0114	GFB4513C.0114
2	≥ M16	13,6	14	102	41	44	45	5	GFB4573C.0116	GFB4513C.0116
2,5	≥ M18	15	16	115	46,2	49,9	48	5	GFB4573C.0118	GFB4513C.0118
2,5	≥ M20	17	18	120	51,2	54,9	48	6	GFB4573C.0120	GFB4513C.0120
3	≥ M24	19,9	20	135	61,4	65,9	50	6	GFB4573C.0124	GFB4513C.0124

MF

DIN 13

new

new

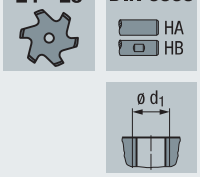
P mm	ø d_1 mm	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HA TIALN-86	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HB TIALN-86
1	≥ M 8	6,7	8	68	20,5	22	36	4	GFB4573C.0251	GFB4513C.0251
1	≥ M10	8,7	10	78	25,5	27	40	5	GFB4573C.0276	GFB4513C.0276
1	≥ M12	10,6	12	88	30,5	32	45	7	GFB4573C.0301	GFB4513C.0301
1,25	≥ M10	8,4	10	78	25,6	27,5	40	6	GFB4573C.0277	GFB4513C.0277
1,25	≥ M12	10,4	12	88	30,6	32,5	45	6	GFB4573C.0302	GFB4513C.0302
1,5	≥ M12	10,1	12	88	30,7	33	45	5	GFB4573C.0303	GFB4513C.0303
1,5	≥ M14	12,1	14	95	35,2	37,5	45	6	GFB4573C.0331	GFB4513C.0331
1,5	≥ M16	14,1	16	110	41,2	43,5	48	5	GFB4573C.0359	GFB4513C.0359

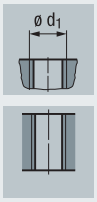
Weitere Ausführungen auf Anfrage
Further designs upon request

UNC, UNF, UN

ASME B1.1

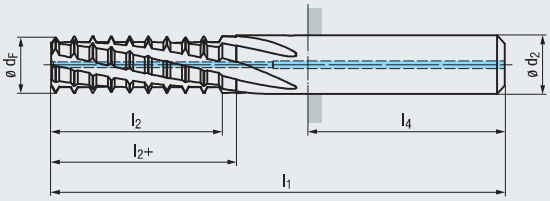
VHM Carbide	TIALN 86
R15	RH + LH
Z4 - Z8	DIN 6535 HA HB

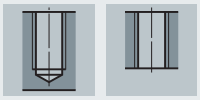




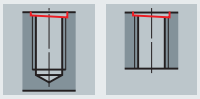
Für Innengewinde
For internal threads

Mit Option zum Entfernen des unvollständigen Ganges
With option to remove the incomplete thread





Unvollständigen Gang entfernen
Removal of incomplete thread



GF-Vario-Z-AZR1

Mit höherer Nutenzahl
With increased number of flutes

new

new

Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

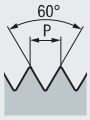
Gewindetiefe
Thread depth

2,5 x d_1

P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HA TIALN-86	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HB TIALN-86
24	≥ Nr.10	3,7	6	58	12,2	13,7	36	4	GFB4573C.5007	GFB4513C.5007
20	≥ 1/4	4,85	6	64	17,1	19	36	4	GFB4573C.5009	GFB4513C.5009
18	≥ 5/16	6,3	8	68	20,4	22,5	36	4	GFB4573C.5010	GFB4513C.5010
16	≥ 3/8	7,65	8	72	24,6	27	36	5	GFB4573C.5011	GFB4513C.5011
14	≥ 7/16	9	10	82	28,1	30,8	40	5	GFB4573C.5012	GFB4513C.5012
13	≥ 1/2	10,4	12	93	32,2	35,1	45	5	GFB4573C.5013	GFB4513C.5013
12	≥ 9/16	11,8	12	98	37	40,2	45	5	GFB4573C.5014	GFB4513C.5014
11	≥ 5/8	13	14	102	40,3	43,8	45	5	GFB4573C.5015	GFB4513C.5015
10	≥ 3/4	15,9	16	117	49,5	53,3	48	5	GFB4573C.5016	GFB4513C.5016

UNF, UN

ASME B1.1

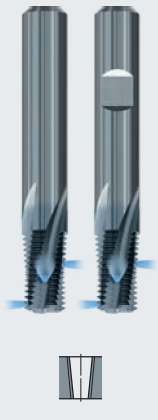


new

new

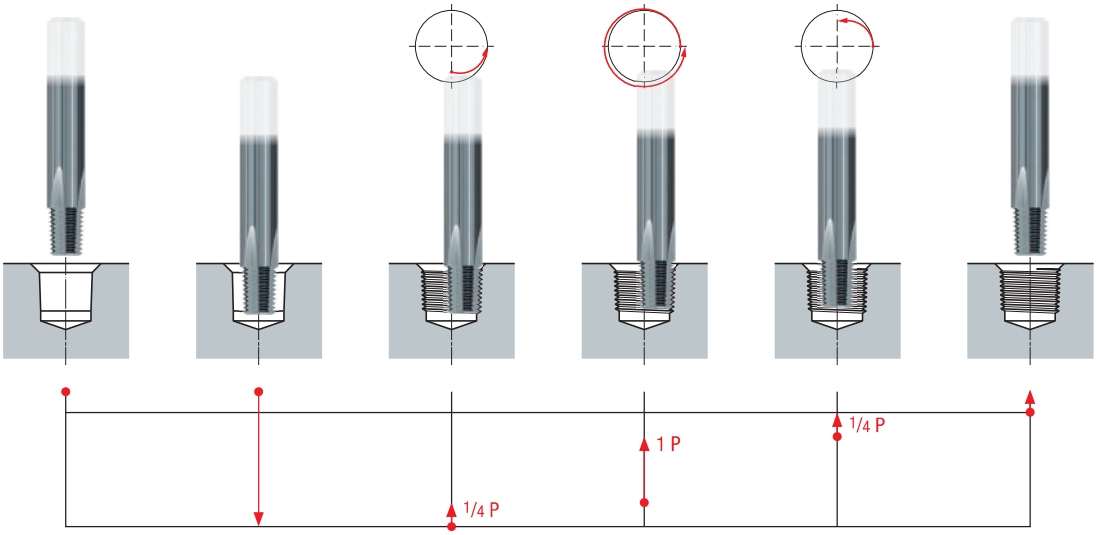
P Gg/1" (tpi)	ø d_1 inch	ø d_F mm	ø d_2	l_1	l_2	mit Option with option l_2+	l_4	Z (Flutes)	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HA TIALN-86	GF-Vario-Z 2,5xd_1 AZR1-R15-IKZ-HB TIALN-86
32	≥ Nr.10	3,9	6	58	12,3	13,5	36	4	GFB4573C.5041	GFB4513C.5041
28	≥ Nr.12	4,45	6	60	14	15,4	36	4	GFB4573C.5042	GFB4513C.5042
28	≥ 1/4	5,25	6	64	16,8	18,1	36	4	GFB4573C.5043	GFB4513C.5043
24	≥ 5/16	6,6	8	68	20,6	22,2	36	5	GFB4573C.5044	GFB4513C.5044
20	≥ 7/16	9,55	10	82	28,6	30,5	40	6	GFB4573C.5046	GFB4513C.5046
18	≥ 9/16	12,5	14	98	36	38,1	45	7	GFB4573C.5048	GFB4513C.5048
18	≥ 5/8	13,9	14	102	40,2	42,3	45	8	GFB4573C.5049	GFB4513C.5049
16	≥ 3/4	17	18	115	48,4	50,8	48	8	GFB4573C.5050	GFB4513C.5050

Weitere Ausführungen auf Anfrage
Further designs upon request

GF-KEG	GF-KEG	GF-KEG-R15-Long	GF-KEG-R15-Long	
				
Seite · Page				
451	452			**NPT**
		453	454	**NPT (API-LP)**
456	457	458	459	**NPTF**
461	462			**Rc (BSPT)**

Mögliche Modifikationen siehe Seite 356 - 357
Possible modifications, see pages 356 - 357

Gewindefräszyklus · Thread milling cycle



Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

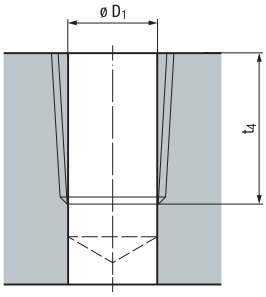
NPT

ANSI/ASME B1.20.1

EMUGE NPT-Gewindefräser sind für die Lochformen a) und b) geeignet.

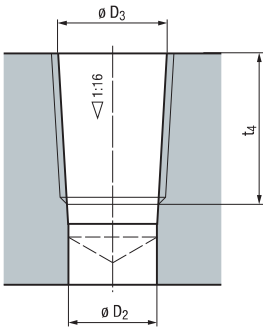
EMUGE NPT thread milling cutters are suited for the hole forms a) and b).

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_4
1/16	27	6,15	8,30
1/8	27	8,50	8,30
1/4	18	11,00	12,15
3/8	18	14,40	12,45
1/2	14	17,80	16,30
3/4	14	23,15	16,30
1"	11 1/2	29,05	19,55
1 1/4	11 1/2	37,80	20,05
1 1/2	11 1/2	43,85	20,05
2"	11 1/2	55,85	20,45

b) Kegelig vorarbeiten
Tapered preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 +0,05	t_4
1/16	27	5,95	6,39	8,30
1/8	27	8,30	8,74	8,30
1/4	18	10,75	11,36	12,15
3/8	18	14,15	14,80	12,45
1/2	14	17,45	18,32	16,30
3/4	14	22,80	23,67	16,30
1"	11 1/2	28,65	29,69	19,55
1 1/4	11 1/2	37,35	38,45	20,05
1 1/2	11 1/2	43,45	44,52	20,05
2"	11 1/2	55,45	56,56	20,45

NPT

ANSI/ASME B1.20.1

VHM Carbide

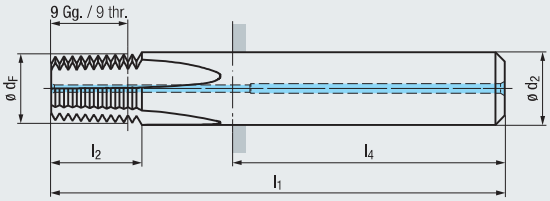
RH + LH

Z3 - Z5

DIN 6535 HA HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG

Einsatzgebiete – Material
Applications – material ▸▸ 358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA	GF-KEG IKZ-HB
1/16	27	5,9	8	55	9,9	36	3	GF173701.5763	GF173101.5763
1/8	27	7,65	8	55	9,9	36	3	GF173701.5764	GF173101.5764
1/4	18	10,15	12	75	14,8	45	4	GF173711.5765	GF173111.5765
3/8	18	11,15	12	75	14,8	45	4	GF173711.5766	GF173111.5766
1/2 - 3/4	14	14,25	16	80	19	48	4	GF173731.9678	GF173131.9678
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF173751.9679	GF173151.9679

TICN

Einsatzgebiete – Material
Applications – material ▸▸ 358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA TICN	GF-KEG IKZ-HB TICN
1/16	27	5,9	8	55	9,9	36	3	GF173706.5763	GF173106.5763
1/8	27	7,65	8	55	9,9	36	3	GF173706.5764	GF173106.5764
1/4	18	10,15	12	75	14,8	45	4	GF173716.5765	GF173116.5765
3/8	18	11,15	12	75	14,8	45	4	GF173716.5766	GF173116.5766
1/2 - 3/4	14	14,25	16	80	19	48	4	GF173736.9678	GF173136.9678
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF173756.9679	GF173156.9679

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

Gewindebohrer für kegelige Innengewinde siehe Seite 248 - 263

Taps for internal tapered threads, see page 248 - 263

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

NPT

ANSI/ASME B1.20.1

VHM Carbide

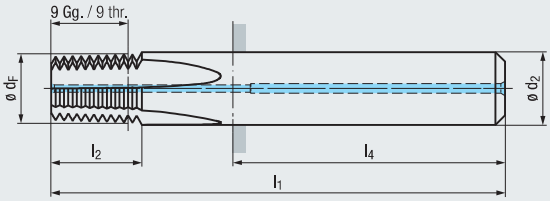
RH + LH

Z3 - Z5

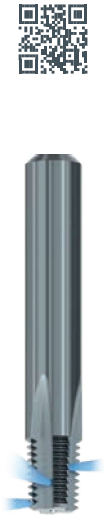
DIN 6535 HA HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA	GF-KEG IKZN-HB
1/16	27	5,9	8	55	9,9	36	3	GF193701.5763	GF193101.5763
1/8	27	7,65	8	55	9,9	36	3	GF193701.5764	GF193101.5764
1/4	18	10,15	12	75	14,8	45	4	GF193711.5765	GF193111.5765
3/8	18	11,15	12	75	14,8	45	4	GF193711.5766	GF193111.5766
1/2 - 3/4	14	14,25	16	80	19	48	4	GF193731.9678	GF193131.9678
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF193751.9679	GF193151.9679

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA TICN	GF-KEG IKZN-HB TICN
1/16	27	5,9	8	55	9,9	36	3	GF193706.5763	GF193106.5763
1/8	27	7,65	8	55	9,9	36	3	GF193706.5764	GF193106.5764
1/4	18	10,15	12	75	14,8	45	4	GF193716.5765	GF193116.5765
3/8	18	11,15	12	75	14,8	45	4	GF193716.5766	GF193116.5766
1/2 - 3/4	14	14,25	16	80	19	48	4	GF193736.9678	GF193136.9678
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF193756.9679	GF193156.9679

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

NPT (API-LP)

ANSI/ASME B1.20.1

VHM Carbide

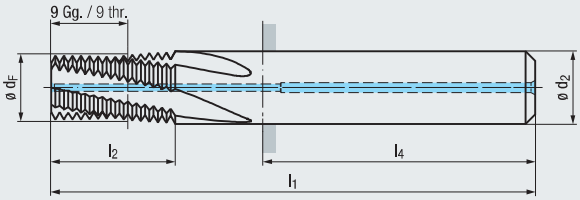
R15

RH + LH

Z3 - Z5

DIN 6535 HA HB

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG-R15-Long

Einsatzgebiete – Material
Applications – material 358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZ-HA	GF-KEG R15-Long-IKZ-HB
1/16	27	5,9	8	60	13,6	36	3	GF175901.5763	GF175301.5763
1/8	27	7,65	8	60	13,6	36	3	GF175901.5764	GF175301.5764
1/4	18	10,15	12	80	20,4	45	4	GF175911.5765	GF175311.5765
3/8	18	11,15	12	80	20,4	45	4	GF175911.5766	GF175311.5766
1/2 - 3/4	14	14,25	16	85	26,3	48	4	GF175931.9678	GF175331.9678
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF175951.9679	GF175351.9679

TICN

Einsatzgebiete – Material
Applications – material 358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZ-HA TICN	GF-KEG R15-Long-IKZ-HB TICN
1/16	27	5,9	8	60	13,6	36	3	GF175906.5763	GF175306.5763
1/8	27	7,65	8	60	13,6	36	3	GF175906.5764	GF175306.5764
1/4	18	10,15	12	80	20,4	45	4	GF175916.5765	GF175316.5765
3/8	18	11,15	12	80	20,4	45	4	GF175916.5766	GF175316.5766
1/2 - 3/4	14	14,25	16	85	26,3	48	4	GF175936.9678	GF175336.9678
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF175956.9679	GF175356.9679

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

NPT (API-LP)

ANSI/ASME B1.20.1

VHM Carbide

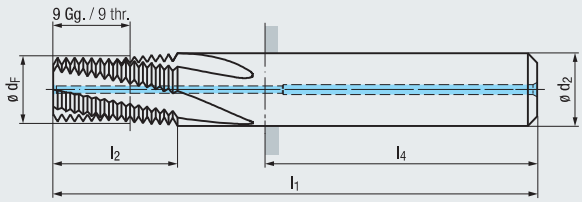
R15 | RH + LH

Z3 - Z5 | DIN 6535 HA HB

ø d_1

GF-KEG-R15-Long

Für kegeliges Innengewinde
For internal tapered threads



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZN-HA	GF-KEG R15-Long-IKZN-HB
1/16	27	5,9	8	60	13,6	36	3	GF195901.5763	GF195301.5763
1/8	27	7,65	8	60	13,6	36	3	GF195901.5764	GF195301.5764
1/4	18	10,15	12	80	20,4	45	4	GF195911.5765	GF195311.5765
3/8	18	11,15	12	80	20,4	45	4	GF195911.5766	GF195311.5766
1/2 - 3/4	14	14,25	16	85	26,3	48	4	GF195931.9678	GF195331.9678
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF195951.9679	GF195351.9679

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZN-HA TICN	GF-KEG R15-Long-IKZN-HB TICN
1/16	27	5,9	8	60	13,6	36	3	GF195906.5763	GF195306.5763
1/8	27	7,65	8	60	13,6	36	3	GF195906.5764	GF195306.5764
1/4	18	10,15	12	80	20,4	45	4	GF195916.5765	GF195316.5765
3/8	18	11,15	12	80	20,4	45	4	GF195916.5766	GF195316.5766
1/2 - 3/4	14	14,25	16	85	26,3	48	4	GF195936.9678	GF195336.9678
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF195956.9679	GF195356.9679

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

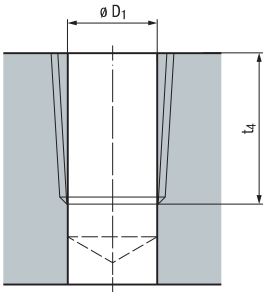
NPTF

ANSI B1.20.3

EMUGE NPTF-Gewindefräser sind für die Lochformen a) und b) geeignet.

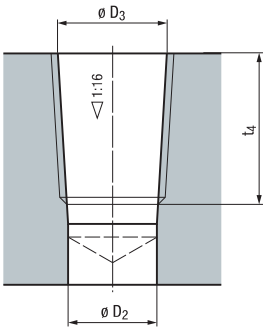
EMUGE NPTF thread milling cutters are suited for the hole forms a) and b).

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_4
1/16	27	6,10	8,30
1/8	27	8,45	8,30
1/4	18	10,90	12,15
3/8	18	14,30	12,45
1/2	14	17,60	16,30
3/4	14	23,00	16,30
1"	11 1/2	28,75	19,55
1 1/4	11 1/2	37,50	20,05
1 1/2	11 1/2	43,75	20,05
2"	11 1/2	55,75	20,45

b) Kegelig vorarbeiten
Tapered preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 +0,05	t_4
1/16	27	5,95	6,41	8,30
1/8	27	8,30	8,76	8,30
1/4	18	10,75	11,40	12,15
3/8	18	14,15	14,84	12,45
1/2	14	17,45	18,33	16,30
3/4	14	22,80	23,68	16,30
1"	11 1/2	28,65	29,72	19,55
1 1/4	11 1/2	37,35	38,48	20,05
1 1/2	11 1/2	43,45	44,55	20,05
2"	11 1/2	55,45	56,59	20,45

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

NPTF

ANSI B1.20.3

VHM Carbide

RH + LH

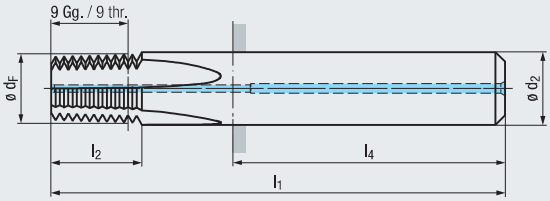
Z3 - Z5

DIN 6535 HA HB

ø d_1

GF-KEG

Für kegeliges Innengewinde
For internal tapered threads



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA	GF-KEG IKZ-HB
1/16	27	5,9	8	55	9,8	36	3	GF173701.5782	GF173101.5782
1/8	27	7,65	8	55	9,8	36	3	GF173701.5783	GF173101.5783
1/4	18	10,15	12	75	14,8	45	4	GF173711.5784	GF173111.5784
3/8	18	11,15	12	75	14,8	45	4	GF173711.5785	GF173111.5785
1/2	14	14,25	16	80	19	48	4	GF173731.5786	GF173131.5786
3/4	14	14,25	16	80	19	48	4	GF173731.5787	GF173131.5787
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF173751.9684	GF173151.9684

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA TICN	GF-KEG IKZ-HB TICN
1/16	27	5,9	8	55	9,8	36	3	GF173706.5782	GF173106.5782
1/8	27	7,65	8	55	9,8	36	3	GF173706.5783	GF173106.5783
1/4	18	10,15	12	75	14,8	45	4	GF173716.5784	GF173116.5784
3/8	18	11,15	12	75	14,8	45	4	GF173716.5785	GF173116.5785
1/2	14	14,25	16	80	19	48	4	GF173736.5786	GF173136.5786
3/4	14	14,25	16	80	19	48	4	GF173736.5787	GF173136.5787
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF173756.9684	GF173156.9684

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

NPTF

ANSI B1.20.3

VHM Carbide

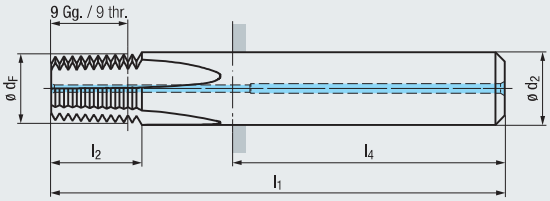
RH + LH

Z3 - Z5

DIN 6535 HA HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA	GF-KEG IKZN-HB
1/16	27	5,9	8	55	9,8	36	3	GF193701.5782	GF193101.5782
1/8	27	7,65	8	55	9,8	36	3	GF193701.5783	GF193101.5783
1/4	18	10,15	12	75	14,8	45	4	GF193711.5784	GF193111.5784
3/8	18	11,15	12	75	14,8	45	4	GF193711.5785	GF193111.5785
1/2	14	14,25	16	80	19	48	4	GF193731.5786	GF193131.5786
3/4	14	14,25	16	80	19	48	4	GF193731.5787	GF193131.5787
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF193751.9684	GF193151.9684

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA TICN	GF-KEG IKZN-HB TICN
1/16	27	5,9	8	55	9,8	36	3	GF193706.5782	GF193106.5782
1/8	27	7,65	8	55	9,8	36	3	GF193706.5783	GF193106.5783
1/4	18	10,15	12	75	14,8	45	4	GF193716.5784	GF193116.5784
3/8	18	11,15	12	75	14,8	45	4	GF193716.5785	GF193116.5785
1/2	14	14,25	16	80	19	48	4	GF193736.5786	GF193136.5786
3/4	14	14,25	16	80	19	48	4	GF193736.5787	GF193136.5787
1" - 2"	11 1/2	19,6	20	90	23,1	50	5	GF193756.9684	GF193156.9684

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

NPTF

ANSI B1.20.3

VHM Carbide

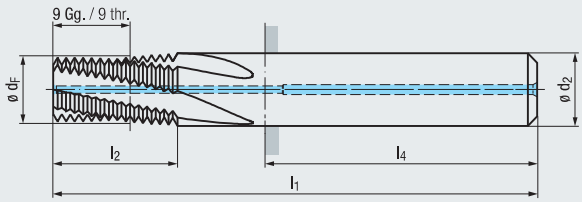
R15 | RH + LH

Z3 - Z5 | DIN 6535 HA HB

ø d_1

GF-KEG-R15-Long

Für kegeliges Innengewinde
For internal tapered threads



Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZ-HA	GF-KEG R15-Long-IKZ-HB
1/16	27	5,9	8	60	13,6	36	3	GF175901.5782	GF175301.5782
1/8	27	7,65	8	60	13,6	36	3	GF175901.5783	GF175301.5783
1/4	18	10,15	12	80	20,4	45	4	GF175911.5784	GF175311.5784
3/8	18	11,15	12	80	20,4	45	4	GF175911.5785	GF175311.5785
1/2	14	14,25	16	85	26,3	48	4	GF175931.5786	GF175331.5786
3/4	14	14,25	16	85	26,2	48	4	GF175931.5787	GF175331.5787
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF175951.9684	GF175351.9684

TICN

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZ-HA TICN	GF-KEG R15-Long-IKZ-HB TICN
1/16	27	5,9	8	60	13,6	36	3	GF175906.5782	GF175306.5782
1/8	27	7,65	8	60	13,6	36	3	GF175906.5783	GF175306.5783
1/4	18	10,15	12	80	20,4	45	4	GF175916.5784	GF175316.5784
3/8	18	11,15	12	80	20,4	45	4	GF175916.5785	GF175316.5785
1/2	14	14,25	16	85	26,3	48	4	GF175936.5786	GF175336.5786
3/4	14	14,25	16	85	26,2	48	4	GF175936.5787	GF175336.5787
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF175956.9684	GF175356.9684

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

NPTF

ANSI B1.20.3

VHM Carbide

R15

RH + LH

Z3 - Z5

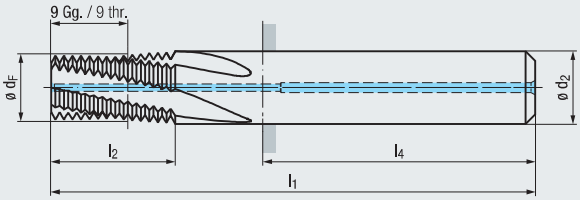
DIN 6535

HA

HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG-R15-Long

Einsatzgebiete – Material
Applications – material

▸▸ 358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZN-HA	GF-KEG R15-Long-IKZN-HB
1/16	27	5,9	8	60	13,6	36	3	GF195901.5782	GF195301.5782
1/8	27	7,65	8	60	13,6	36	3	GF195901.5783	GF195301.5783
1/4	18	10,15	12	80	20,4	45	4	GF195911.5784	GF195311.5784
3/8	18	11,15	12	80	20,4	45	4	GF195911.5785	GF195311.5785
1/2	14	14,25	16	85	26,3	48	4	GF195931.5786	GF195331.5786
3/4	14	14,25	16	85	26,2	48	4	GF195931.5787	GF195331.5787
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF195951.9684	GF195351.9684

TICN

Einsatzgebiete – Material
Applications – material

▸▸ 358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG R15-Long-IKZN-HA TICN	GF-KEG R15-Long-IKZN-HB TICN
1/16	27	5,9	8	60	13,6	36	3	GF195906.5782	GF195306.5782
1/8	27	7,65	8	60	13,6	36	3	GF195906.5783	GF195306.5783
1/4	18	10,15	12	80	20,4	45	4	GF195916.5784	GF195316.5784
3/8	18	11,15	12	80	20,4	45	4	GF195916.5785	GF195316.5785
1/2	14	14,25	16	85	26,3	48	4	GF195936.5786	GF195336.5786
3/4	14	14,25	16	85	26,2	48	4	GF195936.5787	GF195336.5787
1" - 2"	11 1/2	19,6	20	95	32	50	5	GF195956.9684	GF195356.9684

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

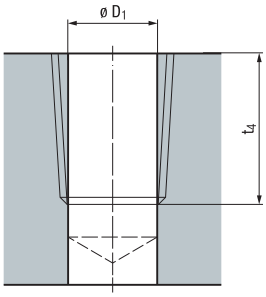
Rc (BSPT)

DIN EN 10226-2, ISO 7-1

EMUGE Rc-Gewindefräser sind für die Lochformen a) und b) geeignet.

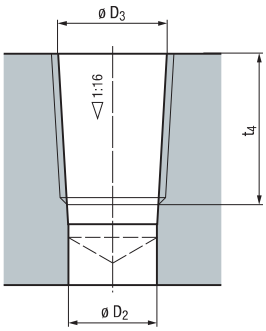
EMUGE Rc thread milling cutters are suited for the hole forms a) and b).

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_4
1/16	28	6,15	7,85
1/8	28	8,15	7,85
1/4	19	10,85	11,65
3/8	19	14,3	12,05
1/2	14	17,8	15,9
3/4	14	23,2	16,75
1"	11	29,2	19,65
1 1/4	11	37,8	21,95
1 1/2	11	43,7	21,95
2"	11	55,2	26,25

b) Kegelig vorarbeiten
Tapered preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 (JS11)	t_4
1/16	28	6,1	6,56	7,85
1/8	28	8,1	8,57	7,85
1/4	19	10,75	11,45	11,65
3/8	19	14,25	14,95	12,05
1/2	14	17,7	18,63	15,9
3/4	14	23,1	24,12	16,75
1"	11	29,1	30,29	19,65
1 1/4	11	37,6	38,95	21,95
1 1/2	11	43,5	44,85	21,95
2"	11	55	56,66	26,25

Rc (BSPT)

DIN EN 10226-2, ISO 7-1

VHM Carbide

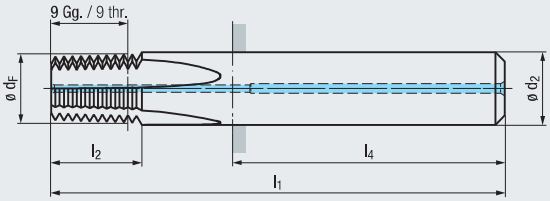
RH + LH

Z3 - Z5

DIN 6535 HA HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA	GF-KEG IKZ-HB
1/8	28	7,65	8	55	8,6	36	3	GF173701.4115	GF173101.4115
1/4	19	10,15	12	75	14	45	4	GF173711.4116	GF173111.4116
3/8	19	11,15	12	75	13,9	45	4	GF173711.4117	GF173111.4117
1/2 - 3/4	14	14,25	16	80	19,1	48	4	GF173731.9561	GF173131.9561
1" - 1 1/2	11	19,6	20	90	24,3	50	5	GF173751.9562	GF173151.9562

TICN

Einsatzgebiete – Material
Applications – material

358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZ-HA TICN	GF-KEG IKZ-HB TICN
1/8	28	7,65	8	55	8,6	36	3	GF173706.4115	GF173106.4115
1/4	19	10,15	12	75	14	45	4	GF173716.4116	GF173116.4116
3/8	19	11,15	12	75	13,9	45	4	GF173716.4117	GF173116.4117
1/2 - 3/4	14	14,25	16	80	19,1	48	4	GF173736.9561	GF173136.9561
1" - 1 1/2	11	19,6	20	90	24,3	50	5	GF173756.9562	GF173156.9562

Weitere Ausführungen auf Anfrage
Further designs upon request

Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile

Schneideisen für kegelige Außengewinde siehe Seite 533 - 535

Dies for external tapered threads, see page 533 - 535

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Rc (BSPT)

DIN EN 10226-2, ISO 7-1

VHM Carbide

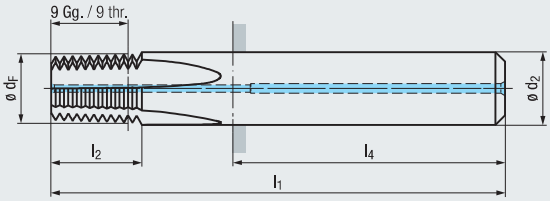
RH + LH

Z3 - Z5

DIN 6535 HA HB

ø d_1

Für kegeliges Innengewinde
For internal tapered threads



GF-KEG

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA	GF-KEG IKZN-HB
1/8	28	7,65	8	55	8,6	36	3	GF193701.4115	GF193101.4115
1/4	19	10,15	12	75	14	45	4	GF193711.4116	GF193111.4116
3/8	19	11,15	12	75	13,9	45	4	GF193711.4117	GF193111.4117
1/2 - 3/4	14	14,25	16	80	19,1	48	4	GF193731.9561	GF193131.9561
1" - 1 1/2	11	19,6	20	90	24,3	50	5	GF193751.9562	GF193151.9562

TICN

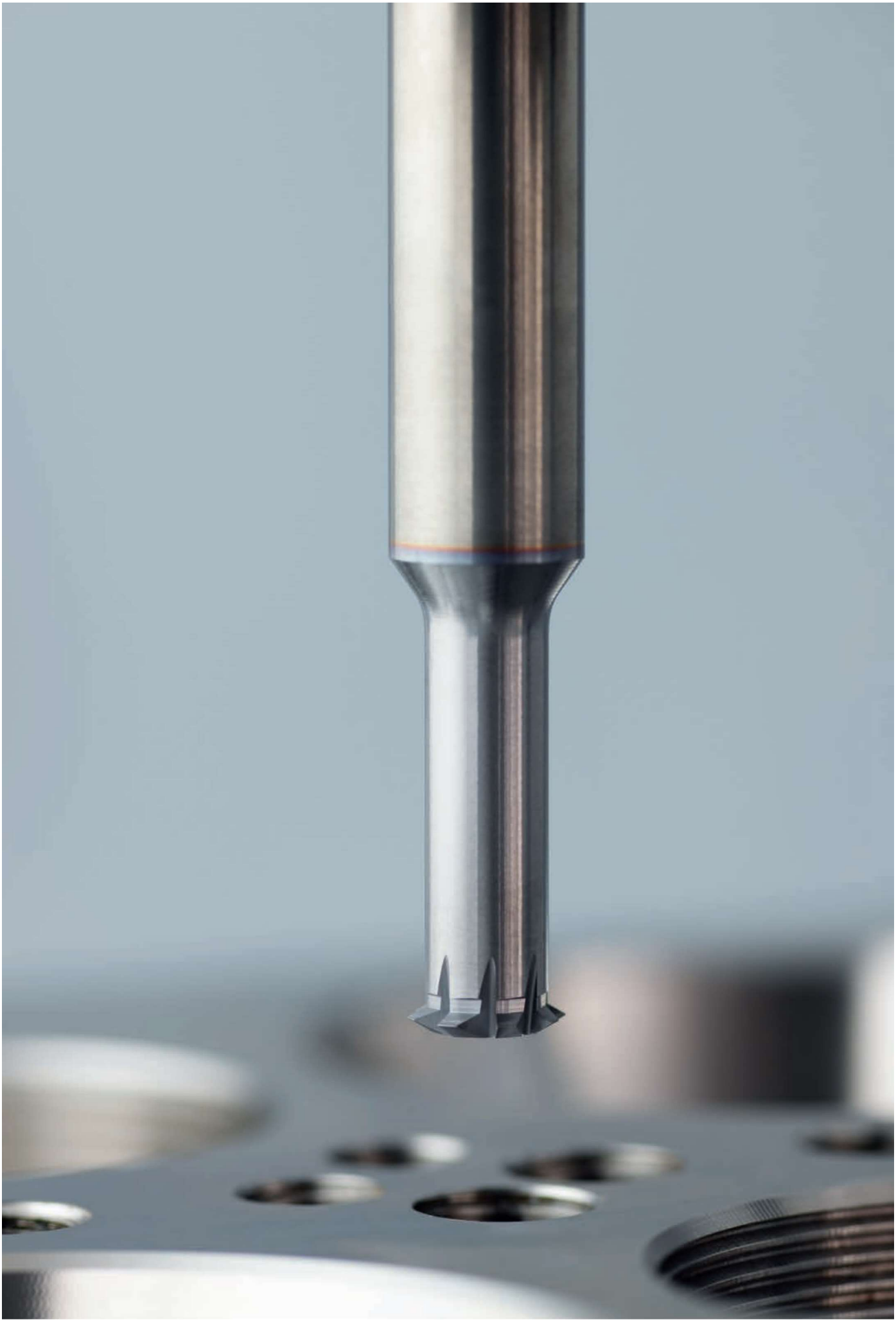
Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

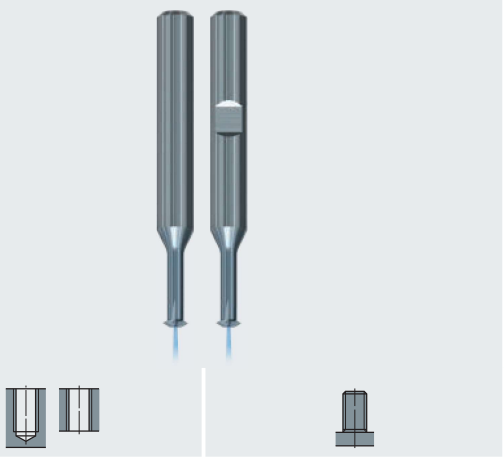
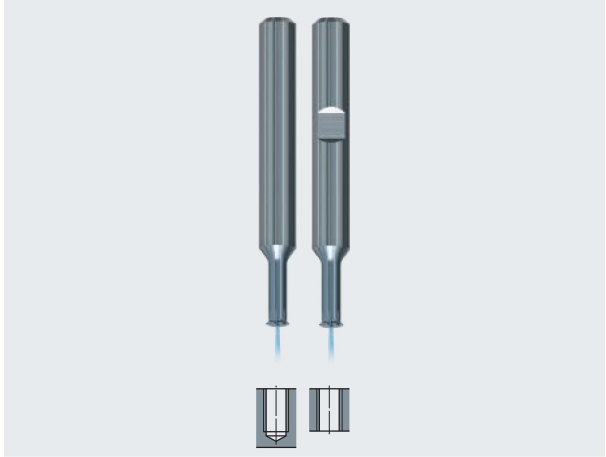
Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_4	Z (Flutes)	GF-KEG IKZN-HA TICN	GF-KEG IKZN-HB TICN
1/8	28	7,65	8	55	8,6	36	3	GF193706.4115	GF193106.4115
1/4	19	10,15	12	75	14	45	4	GF193716.4116	GF193116.4116
3/8	19	11,15	12	75	13,9	45	4	GF193716.4117	GF193116.4117
1/2 - 3/4	14	14,25	16	80	19,1	48	4	GF193736.9561	GF193136.9561
1" - 1 1/2	11	19,6	20	90	24,3	50	5	GF193756.9562	GF193156.9562

Weitere Ausführungen auf Anfrage
Further designs upon request

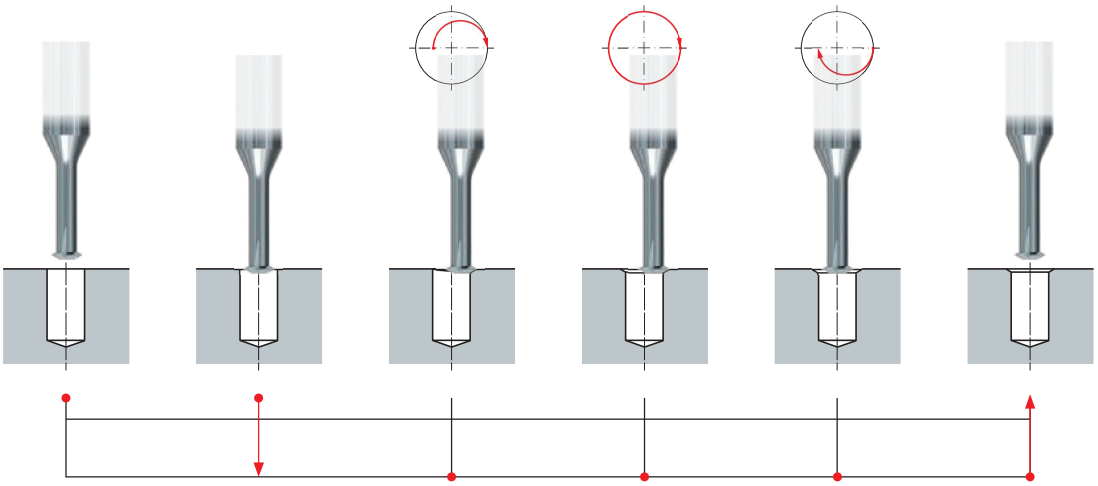
Anwendungshinweis: Es wird ein NC-Programm für schneckenförmiges Wendelnutfräsen benötigt, da sonst ein Absatz im gefrästen Gewinde entsteht
Application recommendation: You must have an NC programme for spiral-worm keyway milling, otherwise the finished thread will have a stepped profile



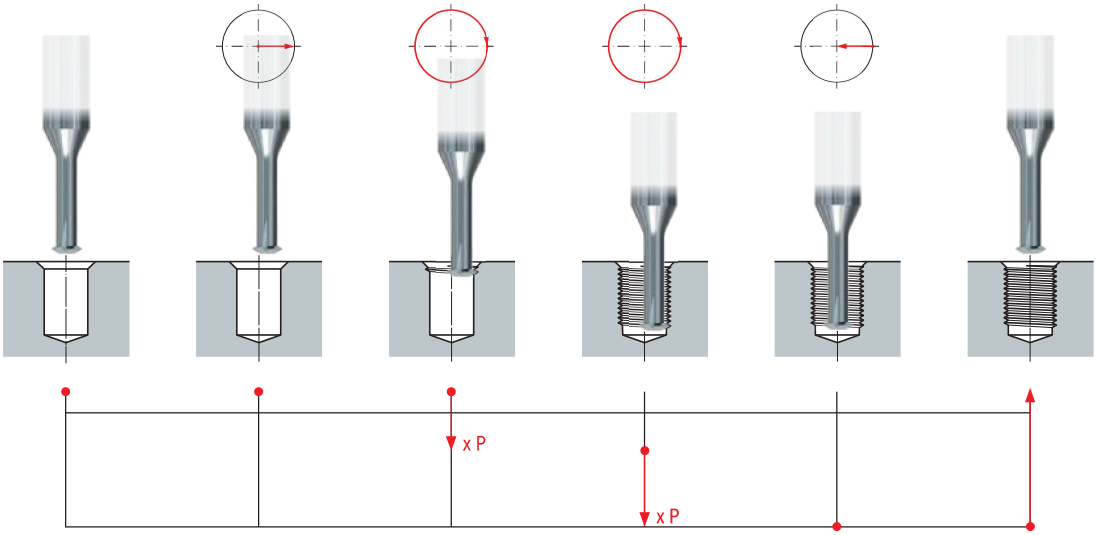
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

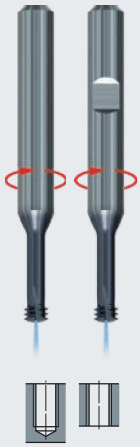
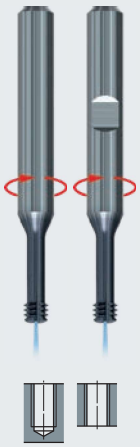
	ZGF		ZGF-Z
			
	Seite · Page		
M	466 - 468		469
MF	466 - 468		469
UNC	470 - 471		
UNF	470 - 471		
G (BSP)	472	472	

Zirkulares Anfasen · Circular chamfering



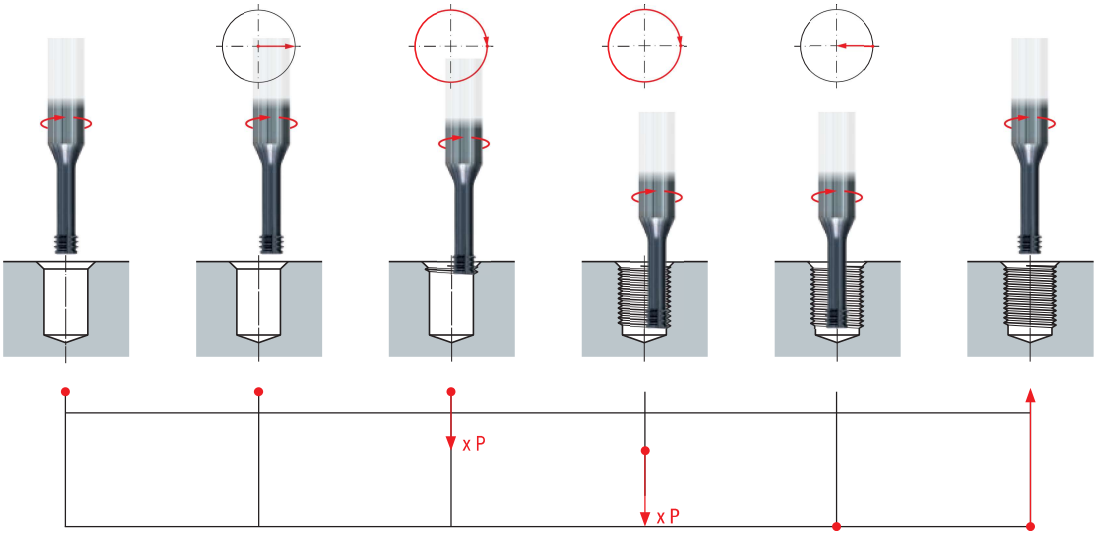
Gewindefräszyklus · Thread milling cycle



ZGF-S-CUT	ZGF-HCUT
	

Seite · Page		
473	476	**M**
473	476	**MF**
474	477	**UNC**
474 - 475	477 - 478	**UNF**
		G (BSP)

Gewindefräszyklus · Thread milling cycle



Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

DIN 13

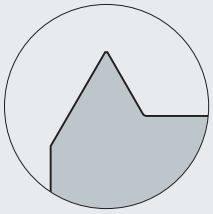
Für Innengewinde
For internal threads

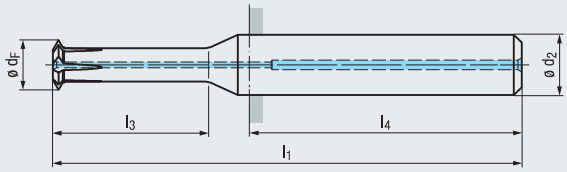
VHM Carbide

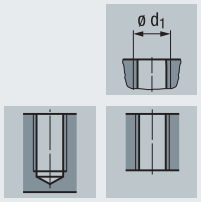
RH + LH

Z3 - Z5

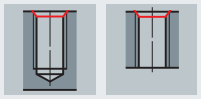
DIN 6535
HA
HB



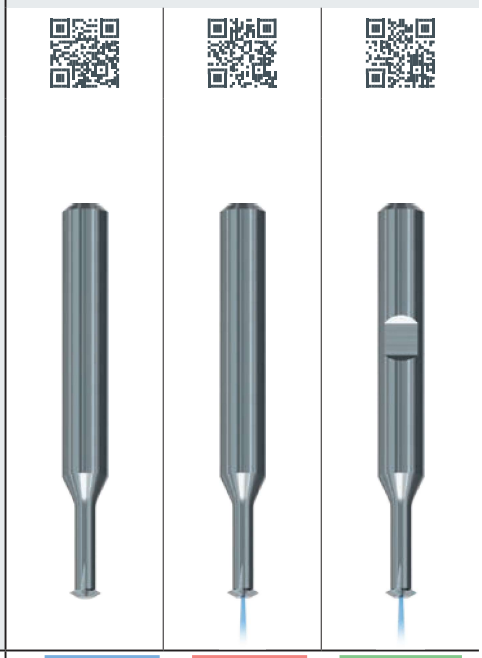




Zum Anfasen geeignet
Suitable for chamfering



ZGF



Einsatzgebiete – Material
Applications – material
358

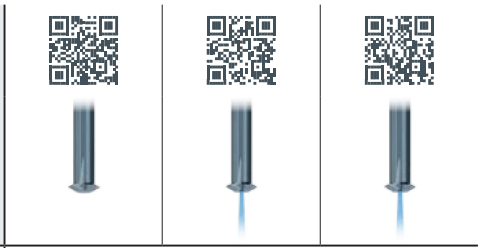
P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

Gewindetiefe
Thread depth

2 x d_1

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 2xd_1 HA	ZGF 2xd_1 IKZ-HA	ZGF 2xd_1 IKZ-HB
≥ M 1	0,1 - 0,25	0,7	3	39	3,3	28	3	GF253701.0010		
≥ M 1,4	0,12 - 0,35	1,04	3	39	3,7	28	3	GF253701.0014		
≥ M 2	0,15 - 0,45	1,52	3	39	5	28	3	GF253701.0020		
≥ M 2,5	0,17 - 0,5	1,95	3	39	6,3	28	3	GF253701.0025		
≥ M 3,5	0,22 - 0,75	2,78	4	42	9,4	28	3	GF253701.0035		
≥ M 5	0,3 - 1	4	6	55	14,5	36	4	GF253701.0050		
≥ M 8	0,43 - 1,5	6,5	8	62	20,6	36	5		GF253701.0080	GF253101.0080
≥ M12	0,6 - 2	9,9	10	78	32,8	40	5		GF253701.0112	GF253101.0112

TICN



Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

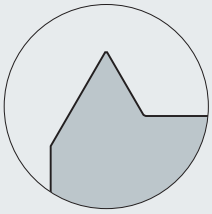
ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 2xd_1 HA TICN	ZGF 2xd_1 IKZ-HA TICN	ZGF 2xd_1 IKZ-HB TICN
≥ M 1	0,1 - 0,25	0,7	3	39	3,3	28	3	GF253706.0010		
≥ M 1,4	0,12 - 0,35	1,04	3	39	3,7	28	3	GF253706.0014		
≥ M 2	0,15 - 0,45	1,52	3	39	5	28	3	GF253706.0020		
≥ M 2,5	0,17 - 0,5	1,95	3	39	6,3	28	3	GF253706.0025		
≥ M 3,5	0,22 - 0,75	2,78	4	42	9,4	28	3	GF253706.0035		
≥ M 5	0,3 - 1	4	6	55	14,5	36	4	GF253706.0050		
≥ M 8	0,43 - 1,5	6,5	8	62	20,6	36	5		GF253706.0080	GF253106.0080
≥ M12	0,6 - 2	9,9	10	78	32,8	40	5		GF253706.0112	GF253106.0112

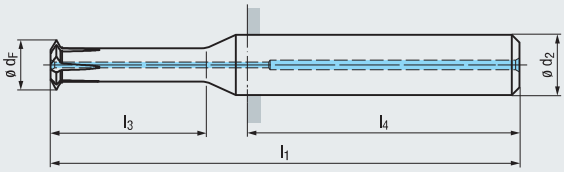
Weitere Ausführungen auf Anfrage
Further designs upon request

M, MF

DIN 13

Für Innengewinde
For internal threads



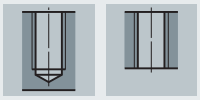


VHM Carbide

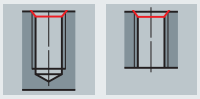
RH + LH

Z3 - Z5

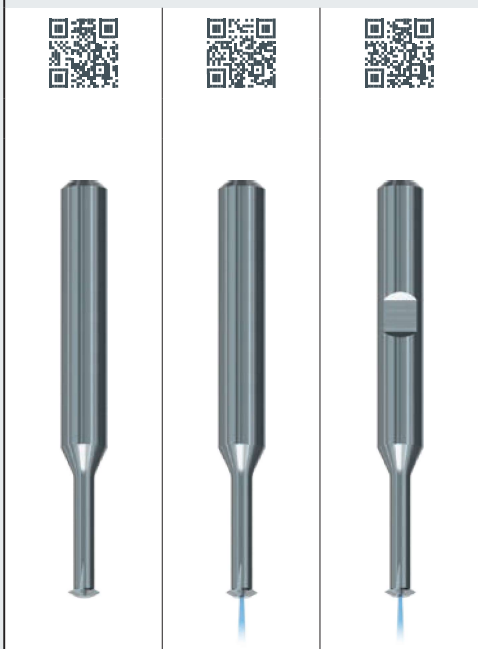
DIN 6535



Zum Anfasen geeignet
Suitable for chamfering



ZGF



Einsatzgebiete – Material
Applications – material

▸▸ 358

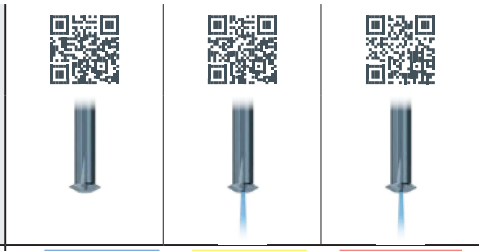
P	1.1-5.1	K	1.1-4.2	N	1.1-1.5, 2.1-2.6
N	3.1-4.2	N	5.1-5.2	S	1.1-1.3

Gewindetiefe
Thread depth

3 x d_1

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 3xd_1 HA	ZGF 3xd_1 IKZ-HA	ZGF 3xd_1 IKZ-HB
≥ M 1	0,1 - 0,25	0,7	3	39	3,3	28	3	GF273701.0010		
≥ M 1,6	0,14 - 0,35	1,18	3	39	5,2	28	3	GF273701.0016		
≥ M 2	0,15 - 0,4	1,52	3	39	6,4	28	3	GF273701.0020		
≥ M 2,5	0,17 - 0,45	1,96	3	39	8	28	3	GF273701.0025		
≥ M 3	0,18 - 0,5	2,4	3	41	9,5	28	3	GF273701.0030		
≥ M 4	0,26 - 0,7	3,15	4	44	12,7	28	3	GF273701.0040		
≥ M 5	0,28 - 0,8	4,04	6	56	15,8	36	4	GF273701.0050		
≥ M 6	0,35 - 1	4,8	6	59	19	36	4	GF273701.0060		
≥ M 8	0,43 - 1,25	6,5	8	65	25,3	36	5		GF273701.0080	GF273101.0080
≥ M10	0,51 - 1,5	8,2	10	77	31,5	40	5		GF273701.0100	GF273101.0100
≥ M12	0,6 - 1,75	9,9	10	82	37,8	40	5		GF273701.0112	GF273101.0112
≥ M14	0,68 - 2	11,6	12	94	44	45	5		GF273701.0114	GF273101.0114
≥ M16	0,68 - 2	13,6	14	100	50	45	5		GF273701.0116	GF273101.0116

TICN



Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 3xd_1 HA TICN	ZGF 3xd_1 IKZ-HA TICN	ZGF 3xd_1 IKZ-HB TICN
≥ M 1	0,1 - 0,25	0,7	3	39	3,3	28	3	GF273706.0010		
≥ M 1,6	0,14 - 0,35	1,18	3	39	5,2	28	3	GF273706.0016		
≥ M 2	0,15 - 0,4	1,52	3	39	6,4	28	3	GF273706.0020		
≥ M 2,5	0,17 - 0,45	1,96	3	39	8	28	3	GF273706.0025		
≥ M 3	0,18 - 0,5	2,4	3	41	9,5	28	3	GF273706.0030		
≥ M 4	0,26 - 0,7	3,15	4	44	12,7	28	3	GF273706.0040		
≥ M 5	0,28 - 0,8	4,04	6	56	15,8	36	4	GF273706.0050		
≥ M 6	0,35 - 1	4,8	6	59	19	36	4	GF273706.0060		
≥ M 8	0,43 - 1,25	6,5	8	65	25,3	36	5		GF273706.0080	GF273106.0080
≥ M10	0,51 - 1,5	8,2	10	77	31,5	40	5		GF273706.0100	GF273106.0100
≥ M12	0,6 - 1,75	9,9	10	82	37,8	40	5		GF273706.0112	GF273106.0112
≥ M14	0,68 - 2	11,6	12	94	44	45	5		GF273706.0114	GF273106.0114
≥ M16	0,68 - 2	13,6	14	100	50	45	5		GF273706.0116	GF273106.0116

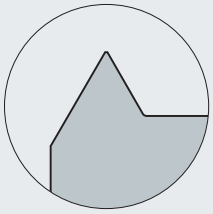
Weitere Ausführungen auf Anfrage
Further designs upon request

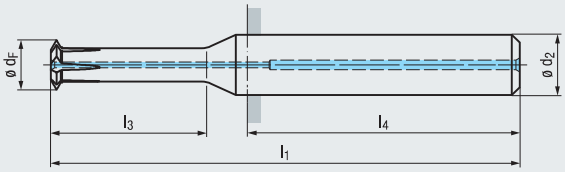
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

M, MF

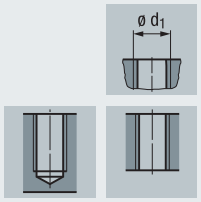
DIN 13

Für Innengewinde
For internal threads

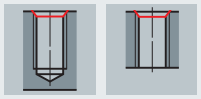




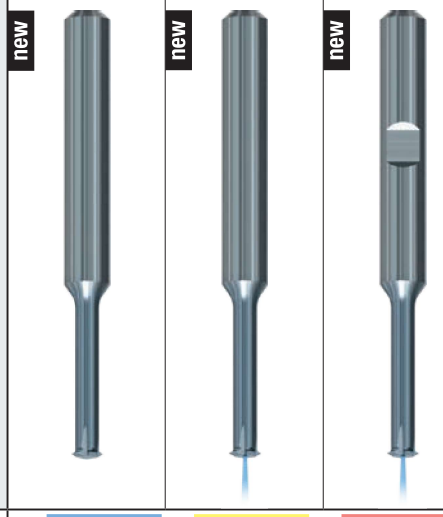
VHM Carbide | TICN | RH + LH | Z2 - Z5 | DIN 6535 HA HB



Zum Anfasen geeignet
Suitable for chamfering



ZGF



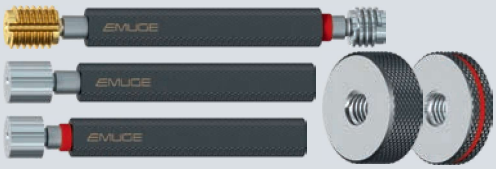
Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth: 4 x d_1

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 4xd_1 HA TICN	ZGF 4xd_1 IKZ-HA TICN	ZGF 4xd_1 IKZ-HB TICN
≥ M 1,6	0,14 - 0,35	1,18	3	39	6,8	28	2	GF2A3706.0016		
≥ M 2	0,15 - 0,4	1,52	3	39	8,4	28	3	GF2A3706.0020		
≥ M 2,5	0,17 - 0,45	1,96	3	40	10,5	28	3	GF2A3706.0025		
≥ M 3	0,18 - 0,5	2,4	3	42	12,5	28	3	GF2A3706.0030		
≥ M 4	0,26 - 0,7	3,15	4	46	16,7	28	3	GF2A3706.0040		
≥ M 5	0,28 - 0,8	4,04	6	59	20,8	36	4	GF2A3706.0050		
≥ M 6	0,35 - 1	4,8	6	63	25	36	4	GF2A3706.0060		
≥ M 8	0,43 - 1,25	6,5	8	72	33,3	36	5		GF2A3706.0080	GF2A3106.0080
≥ M10	0,51 - 1,5	8,2	10	84	41,5	40	5		GF2A3706.0100	GF2A3106.0100
≥ M12	0,6 - 1,75	9,9	10	92	49,8	40	5		GF2A3706.0112	GF2A3106.0112
≥ M14	0,68 - 2	11,6	12	105	58	45	5		GF2A3706.0114	GF2A3106.0114
≥ M16	0,68 - 2	13,6	14	113	66	45	5		GF2A3706.0116	GF2A3106.0116

Weitere Ausführungen auf Anfrage
Further designs upon request



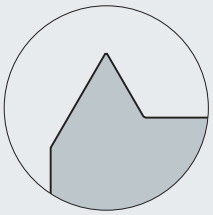
Gewindelehren
siehe Seite 541 - 594

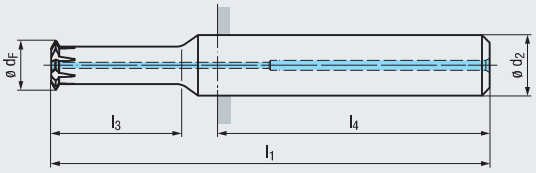
Thread gauges,
see page 541 - 594

M, MF

DIN 13

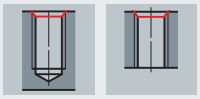
Für Innengewinde
For internal threads



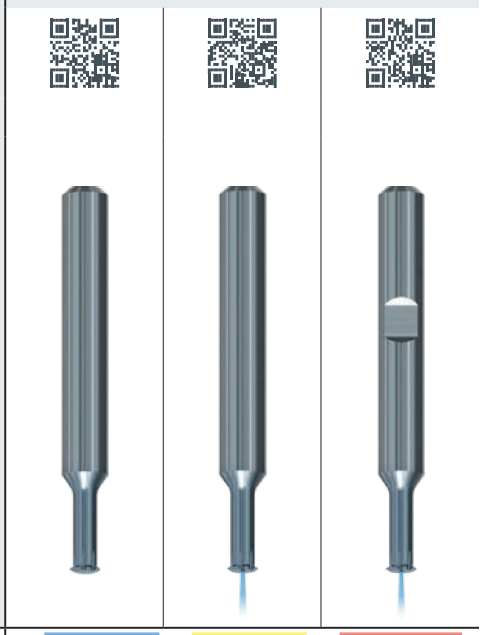


VHM Carbide | TICN | RH + LH | Z5 - Z8 | DIN 6535 HA HB

Zum Anfasen geeignet
Suitable for chamfering



ZGF-Z



P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Einsatzgebiete – Material
Applications – material ▸▸ 358

Gewindetiefe
Thread depth: **2 x d_1**

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF-Z 2xd_1 HA TICN	ZGF-Z 2xd_1 IKZ-HA TICN	ZGF-Z 2xd_1 IKZ-HB TICN
≥ M 1,6	0,14 - 0,35	1,18	3	39	3,6	28	5	GF293746.0016		
≥ M 2	0,15 - 0,4	1,52	3	39	4,4	28	6	GF293746.0020		
≥ M 2,5	0,17 - 0,45	1,96	3	39	5,5	28	6	GF293746.0025		
≥ M 3	0,18 - 0,5	2,4	3	39	6,5	28	6	GF293746.0030		
≥ M 4	0,26 - 0,7	3,15	4	41	8,7	28	6	GF293746.0040		
≥ M 5	0,28 - 0,8	4,04	6	51	10,8	36	7	GF293746.0050		
≥ M 6	0,36 - 1	4,8	6	53	13	36	7	GF293746.0060		
≥ M 8	0,44 - 1,25	6,5	8	58	17,3	36	7		GF293746.0080	GF293146.0080
≥ M10	0,52 - 1,5	8,2	10	67	21,5	40	8		GF293746.0100	GF293146.0100
≥ M12	0,6 - 1,75	9,9	10	70	25,8	40	8		GF293746.0112	GF293146.0112

Weitere Ausführungen auf Anfrage
Further designs upon request

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNC, UNF

ASME B1.1

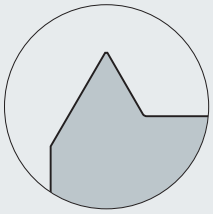
Für Innengewinde
For internal threads

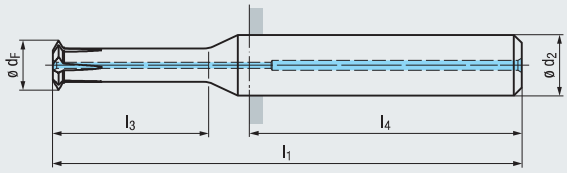
VHM Carbide

RH + LH

Z3

DIN 6535 HA





Zum Anfasen geeignet
Suitable for chamfering

ZGF

Einsatzgebiete – Material Applications – material	358
Gewindetiefe Thread depth	2 x d_1

P 1.1-5.1 | K 1.1-4.2 | N 1.1-1.5, 2.1-2.6
N 3.1-4.2 | N 5.1-5.2 | S 1.1-1.3

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 2xd_1 HA
≥ Nr. 4	80 - 40	2,06	3	39	6,7	28	3	GF253701.5003
≥ Nr. 6	80 - 40	2,55	3	39	7,4	28	3	GF253701.5005
≥ Nr. 8	80 - 32	3,21	4	42	8,8	28	3	GF253701.5006

TICN

Einsatzgebiete – Material Applications – material	358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 2xd_1 HA TICN
≥ Nr. 4	80 - 40	2,06	3	39	6,7	28	3	GF253706.5003
≥ Nr. 6	80 - 40	2,55	3	39	7,4	28	3	GF253706.5005
≥ Nr. 8	80 - 32	3,21	4	42	8,8	28	3	GF253706.5006

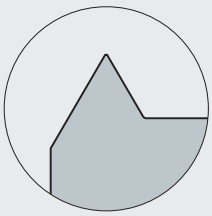
Weitere Ausführungen auf Anfrage
Further designs upon request

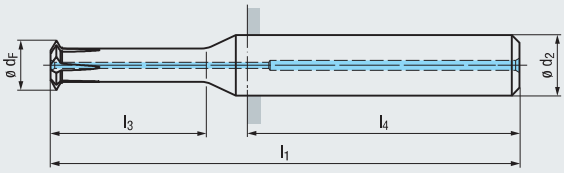
UNC, UNF

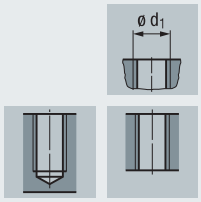
ASME B1.1

Für Innengewinde
For internal threads

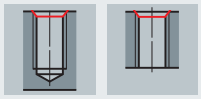
VHM Carbide | TICN | RH + LH | Z3 - Z6 | DIN 6535 HA HB



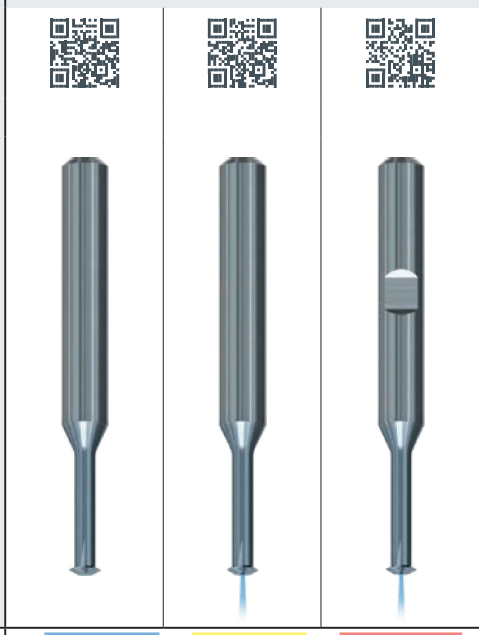




Zum Anfasen geeignet
Suitable for chamfering



ZGF



Einsatzgebiete – Material
Applications – material
358

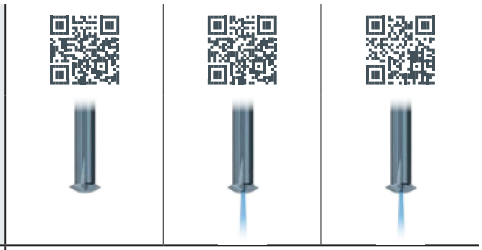
P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth: **3 x d_1**

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 3xd_1 HA TICN	ZGF 3xd_1 IKZ-HA TICN	ZGF 3xd_1 IKZ-HB TICN
≥ Nr. 2	80-56	1,7	3	39	7	28	3	GF273706.5001		
≥ Nr. 4	80-40	2,15	3	40	9,2	28	3	GF273706.5003		
≥ Nr. 6	80-32	2,7	3	42	11,3	28	3	GF273706.5005		
≥ Nr. 8	80-32	3,21	4	44	13,3	28	3	GF273706.5006		
≥ Nr.10	72-24	3,7	4	46	15,5	28	3	GF273706.5007		
≥ 1/4	56-20	4,95	6	59	20,3	36	4	GF273706.5009		
≥ 5/16	48-18	6,3	8	65	25,2	36	4		GF273706.5010	GF273106.5010
≥ 3/8	48-16	7,7	8	68	30,2	36	5		GF273706.5011	GF273106.5011
≥ 7/16	40-14	9	10	78	35,2	40	5		GF273706.5012	GF273106.5012
≥ 1/2	36-12	10,35	12	90	40,1	45	5		GF273706.5013	GF273106.5013

UNF

ASME B1.1



Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 3xd_1 HA TICN	ZGF 3xd_1 IKZ-HA TICN	ZGF 3xd_1 IKZ-HB TICN
≥ Nr. 2	80-64	1,76	3	39	7	28	4	GF273706.5035		
≥ Nr. 4	80-48	2,27	3	39	9,1	28	3	GF273706.5037		
≥ Nr. 6	80-40	2,79	3	42	11,2	28	4	GF273706.5039		
≥ Nr. 8	80-36	3,34	4	45	13,2	28	4	GF273706.5040		
≥ Nr.10	80-32	3,9	4	46	15,3	28	4	GF273706.5041		
≥ 1/4	80-28	5,25	6	59	20	36	4	GF273706.5043		
≥ 5/16	64-24	6,6	8	65	24,9	36	5		GF273706.5044	GF273106.5044
≥ 3/8	64-24	8,2	10	74	29,6	40	5		GF273706.5045	GF273106.5045
≥ 7/16	60-20	9,55	10	77	34,6	40	5		GF273706.5046	GF273106.5046
≥ 1/2	60-20	11,1	12	90	39,4	45	6		GF273706.5047	GF273106.5047

Weitere Ausführungen auf Anfrage
Further designs upon request

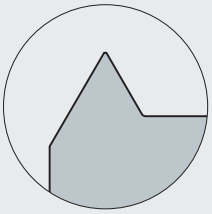
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

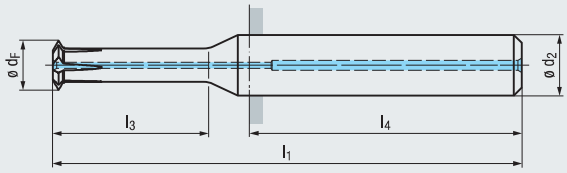
G (BSP)

DIN EN ISO 228

Für Innen- und Außengewinde
For internal and external threads

VHM Carbide | TICN | RH + LH | Z5 | DIN 6535 HA HB





Zum Anfasen geeignet
Suitable for chamfering

ZGF

Einsatzgebiete – Material
Applications – material
358

P 1.1-5.1 | M 1.1-4.1 | K 1.1-4.2
N 1.1-5.3 | S 1.1-2.6 | H 1.1-1.2

Gewindetiefe
Thread depth: 2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_3	l_4	Z (Flutes)	ZGF 2xd_1 IKZ-HA TICN	ZGF 2xd_1 IKZ-HB TICN
G 1/8	28	7,9	8	62	20,4	36	5	GF253706.4035	GF253106.4035
G 1/4 - G 3/8	19	9,9	10	78	34,6	40	5	GF253706.4036	GF253106.4036

Weitere Ausführungen auf Anfrage
Further designs upon request

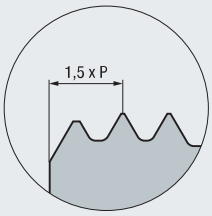
Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

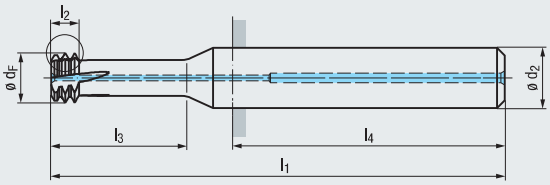
Thread depth plug gauges,
see page 588 - 591

M, MF

DIN 13

Für Innengewinde
For internal threads





VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z3 - Z6	DIN 6535 HA HB
L10	ø d1

ZGF-S-CUT



Einsatzgebiete – Material
Applications – material 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth: **2 x d_1**

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 2xd_1 HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HB TIALN-T46
≥ M 1,6	0,35	1,18	3	39	1,1	3,7	28	3	GF26A729.0016		
≥ M 2	0,4	1,52	3	39	1,2	4,6	28	3	GF26A729.0020		
≥ M 2,5	0,45	1,95	3	39	1,4	5,7	28	3	GF26A729.0025		
≥ M 3	0,5	2,4	3	39	1,5	6,8	28	4	GF26A729.0030		
≥ M 4	0,7	3,15	4	42	2,1	9,1	28	4	GF26A729.0040		
≥ M 5	0,8	4,04	6	52	2,4	11,2	36	4		GF26A729.0050	GF26A129.0050
≥ M 6	1	4,8	6	55	3	13,5	36	4		GF26A729.0060	GF26A129.0060
≥ M 8	1,25	6,5	8	60	3,8	17,9	36	4		GF26A729.0080	GF26A129.0080
≥ M10	1,5	8,2	10	70	4,5	22,3	40	5		GF26A729.0100	GF26A129.0100
≥ M12	1,75	9,9	10	74	5,3	26,6	40	5		GF26A729.0112	GF26A129.0112
≥ M14	2	11,6	12	80	6	31	45	5		GF26A729.0114	GF26A129.0114
≥ M16	2	13,6	14	85	6	35	45	6		GF26A729.0116	GF26A129.0116
≥ M20	2,5	17	18	102	7,5	43,8	48	6		GF26A729.0120	GF26A129.0120
≥ M24	3	19,9	20	110	9	52,5	50	6		GF26A729.0124	GF26A129.0124

Gewindetiefe
Thread depth: **3 x d_1**

ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 3xd_1 HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HB TIALN-T46
≥ M 1,6	0,35	1,18	3	39	1,1	5,3	28	3	GF2BA729.0016		
≥ M 2	0,4	1,52	3	39	1,2	6,6	28	3	GF2BA729.0020		
≥ M 2,5	0,45	1,95	3	39	1,4	8,2	28	3	GF2BA729.0025		
≥ M 3	0,5	2,4	3	41	1,5	9,8	28	4	GF2BA729.0030		
≥ M 4	0,7	3,15	4	44	2,1	13,1	28	4	GF2BA729.0040		
≥ M 5	0,8	4,04	6	57	2,4	16,2	36	4		GF2BA729.0050	GF2BA129.0050
≥ M 6	1	4,8	6	60	3	19,5	36	4		GF2BA729.0060	GF2BA129.0060
≥ M 8	1,25	6,5	8	67	3,8	25,9	36	4		GF2BA729.0080	GF2BA129.0080
≥ M10	1,5	8,2	10	78	4,5	32,3	40	5		GF2BA729.0100	GF2BA129.0100
≥ M12	1,75	9,9	10	83	5,3	38,6	40	5		GF2BA729.0112	GF2BA129.0112
≥ M14	2	11,6	12	95	6	45	45	5		GF2BA729.0114	GF2BA129.0114
≥ M16	2	13,6	14	101	6	51	45	6		GF2BA729.0116	GF2BA129.0116
≥ M20	2,5	17	18	120	7,5	63,8	48	6		GF2BA729.0120	GF2BA129.0120
≥ M24	3	19,9	20	135	9	76,5	50	6		GF2BA729.0124	GF2BA129.0124

Weitere Ausführungen auf Anfrage
Further designs upon request

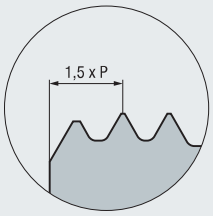
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

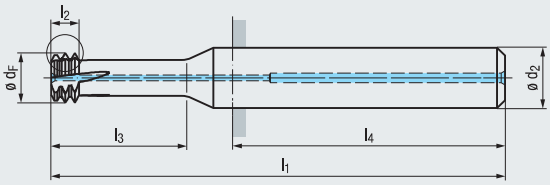
UNC, UNF

ASME B1.1

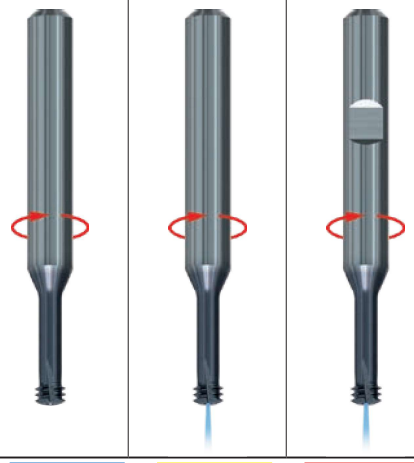
Für Innengewinde
For internal threads

VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z3 - Z5	DIN 6535 HA HB
L10	ø d_1





ZGF-S-CUT



Einsatzgebiete – Material
Applications – material
358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 2xd_1 HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	56	1,7	3	39	1,4	5,1	28	3	GF26A729.5001		
≥ Nr. 4	40	2,15	3	39	1,9	6,6	28	3	GF26A729.5003		
≥ Nr. 6	32	2,7	3	39	2,4	8,2	28	3	GF26A729.5005		
≥ Nr. 8	32	3,35	4	40	2,4	9,5	28	3	GF26A729.5006		
≥ Nr.10	24	3,7	4	42	3,2	11,2	28	3	GF26A729.5007		
≥ 1/4	20	4,95	6	55	3,8	14,6	36	3		GF26A729.5009	GF26A129.5009
≥ 5/16	18	6,3	8	58	4,2	18	36	4		GF26A729.5010	GF26A129.5010
≥ 3/8	16	7,7	8	62	4,8	21,4	36	4		GF26A729.5011	GF26A129.5011
≥ 7/16	14	9	10	70	5,4	25	40	4		GF26A729.5012	GF26A129.5012
≥ 1/2	13	10,4	12	80	5,9	28,3	45	4		GF26A729.5013	GF26A129.5013
≥ 9/16	12	11,8	12	83	6,4	31,8	45	4		GF26A729.5014	GF26A129.5014
≥ 5/8	11	13	14	88	6,9	35,2	45	5		GF26A729.5015	GF26A129.5015
≥ 3/4	10	15,9	16	97	7,6	41,9	48	5		GF26A729.5016	GF26A129.5016

Gewindetiefe
Thread depth

3 x d_1

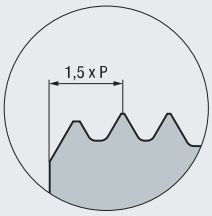
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 3xd_1 HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	56	1,7	3	39	1,4	7,2	28	3	GF2BA729.5001		
≥ Nr. 4	40	2,15	3	41	1,9	9,5	28	3	GF2BA729.5003		
≥ Nr. 6	32	2,7	3	43	2,4	11,7	28	3	GF2BA729.5005		
≥ Nr. 8	32	3,35	4	45	2,4	13,7	28	3	GF2BA729.5006		
≥ Nr.10	24	3,7	4	48	3,2	16,1	28	3	GF2BA729.5007		
≥ 1/4	20	4,95	6	61	3,8	21	36	3		GF2BA729.5009	GF2BA129.5009
≥ 5/16	18	6,3	8	67	4,2	25,9	36	4		GF2BA729.5010	GF2BA129.5010
≥ 3/8	16	7,7	8	71	4,8	31	36	4		GF2BA729.5011	GF2BA129.5011
≥ 7/16	14	9	10	81	5,4	36,1	40	4		GF2BA729.5012	GF2BA129.5012
≥ 1/2	13	10,4	12	92	5,9	41	45	4		GF2BA729.5013	GF2BA129.5013
≥ 9/16	12	11,8	12	96	6,4	46	45	4		GF2BA729.5014	GF2BA129.5014
≥ 5/8	11	13	14	102	6,9	51,1	45	5		GF2BA729.5015	GF2BA129.5015
≥ 3/4	10	15,9	16	115	7,6	61	48	5		GF2BA729.5016	GF2BA129.5016

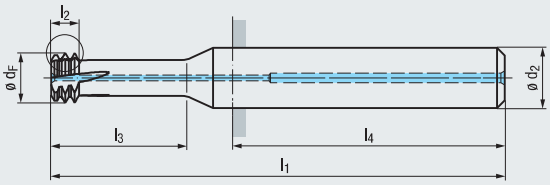
Weitere Ausführungen auf Anfrage
Further designs upon request

UNF

ASME B1.1

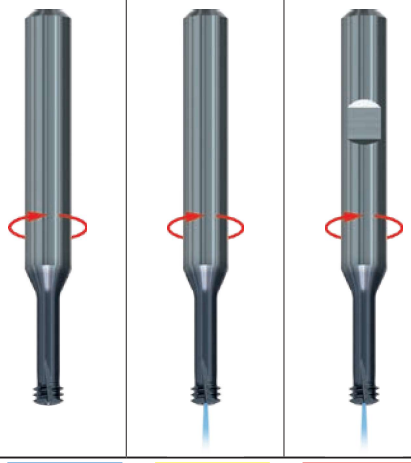
Für Innengewinde
For internal threads





VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z3 - Z9	DIN 6535 HA HB
L10	ø d1

ZGF-S-CUT



Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-5.1	M	1.1-4.1	K	1.1-4.2
N	1.1-5.3	S	1.1-2.6	H	1.1-1.2

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 2xd_1 HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 2xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	64	1,76	3	39	1,2	5	28	4	GF26A729.5035		
≥ Nr. 4	48	2,27	3	39	1,6	6,5	28	3	GF26A729.5037		
≥ Nr. 6	40	2,79	3	39	1,9	8	28	4	GF26A729.5039		
≥ Nr. 8	36	3,34	4	42	2,1	9,4	28	4	GF26A729.5040		
≥ Nr.10	32	3,9	4	42	2,4	10,8	28	4	GF26A729.5041		
≥ 1/4	28	5,25	6	55	2,7	14,1	36	5		GF26A729.5043	GF26A129.5043
≥ 5/16	24	6,6	8	58	3,2	17,5	36	5		GF26A729.5044	GF26A129.5044
≥ 3/8	24	8,2	10	67	3,2	20,6	40	6		GF26A729.5045	GF26A129.5045
≥ 7/16	20	9,55	10	74	3,8	24,1	40	6		GF26A729.5046	GF26A129.5046
≥ 1/2	20	11,1	12	78	3,8	27,3	45	7		GF26A729.5047	GF26A129.5047
≥ 9/16	18	12,5	14	80	4,2	30,7	45	7		GF26A729.5048	GF26A129.5048
≥ 5/8	18	13,9	14	85	4,2	33,9	45	8		GF26A729.5049	GF26A129.5049
≥ 3/4	16	17	18	95	4,8	40,5	48	9		GF26A729.5050	GF26A129.5050

Gewindetiefe
Thread depth

3 x d_1

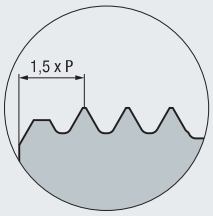
ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-S-CUT 3xd_1 HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HA TIALN-T46	ZGF-S-CUT 3xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	64	1,76	3	39	1,2	7,2	28	4	GF2BA729.5035		
≥ Nr. 4	48	2,27	3	39	1,6	9,3	28	3	GF2BA729.5037		
≥ Nr. 6	40	2,79	3	42	1,9	11,5	28	4	GF2BA729.5039		
≥ Nr. 8	36	3,34	4	45	2,1	13,6	28	4	GF2BA729.5040		
≥ Nr.10	32	3,9	4	46	2,4	15,7	28	4	GF2BA729.5041		
≥ 1/4	28	5,25	6	60	2,7	20,4	36	5		GF2BA729.5043	GF2BA129.5043
≥ 5/16	24	6,6	8	66	3,2	25,4	36	5		GF2BA729.5044	GF2BA129.5044
≥ 3/8	24	8,2	10	75	3,2	30,2	40	6		GF2BA729.5045	GF2BA129.5045
≥ 7/16	20	9,55	10	79	3,8	35,2	40	6		GF2BA729.5046	GF2BA129.5046
≥ 1/2	20	11,1	12	90	3,8	40	45	7		GF2BA729.5047	GF2BA129.5047
≥ 9/16	18	12,5	14	95	4,2	45	45	7		GF2BA729.5048	GF2BA129.5048
≥ 5/8	18	13,9	14	100	4,2	49,7	45	8		GF2BA729.5049	GF2BA129.5049
≥ 3/4	16	17	18	115	4,8	59,5	48	9		GF2BA729.5050	GF2BA129.5050

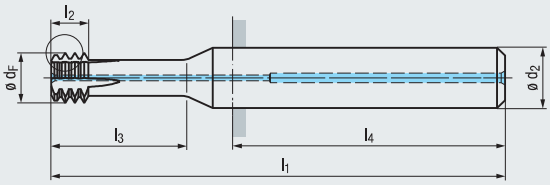
Weitere Ausführungen auf Anfrage
Further designs upon request

M, MF

DIN 13

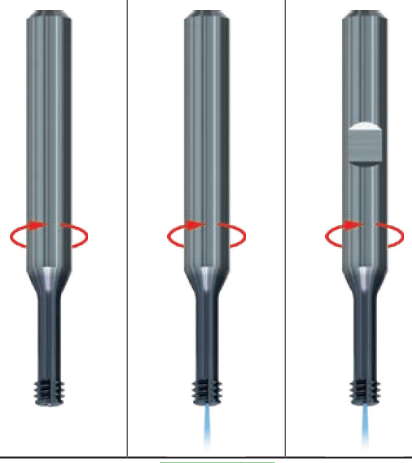
Für Innengewinde
For internal threads





VHM Carbide | TIALN T46 | RH + LH | LH-rot. | Z4 - Z6 | DIN 6535 HA HB | ø d_1

ZGF-HCUT



Einsatzgebiete – Material
Applications – material
358

N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

2 x d_1

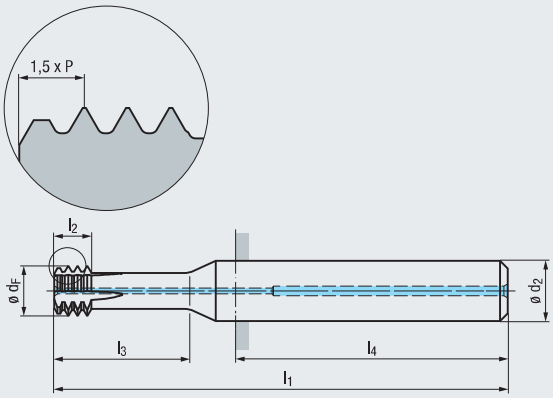
ø d_1 mm	P mm	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-HCUT 2xd_1 HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HB TIALN-T46
≥ M 3	0,5	2,4	6	51	2	6,8	36	4	GF283729.0030		
≥ M 4	0,7	3,15	6	51	2,8	9,1	36	4	GF283729.0040		
≥ M 5	0,8	4,04	6	52	3,2	11,2	36	4		GF283729.0050	GF283129.0050
≥ M 6	1	4,8	6	55	3,9	13,3	36	4		GF283729.0060	GF283129.0060
≥ M 8	1,25	6,5	8	60	4,9	17,9	36	4		GF283729.0080	GF283129.0080
≥ M10	1,5	8,2	10	70	5,9	22,3	40	5		GF283729.0100	GF283129.0100
≥ M12	1,75	9,9	10	74	6,8	26,6	40	5		GF283729.0112	GF283129.0112
≥ M14	2	11,6	12	85	7,8	31	45	5		GF283729.0114	GF283129.0114
≥ M16	2	13,6	14	90	7,8	35	45	5		GF283729.0116	GF283129.0116
≥ M20	2,5	17	18	102	9,7	43,8	48	6		GF283729.0120	GF283129.0120

Weitere Ausführungen auf Anfrage
Further designs upon request

UNC, UNF

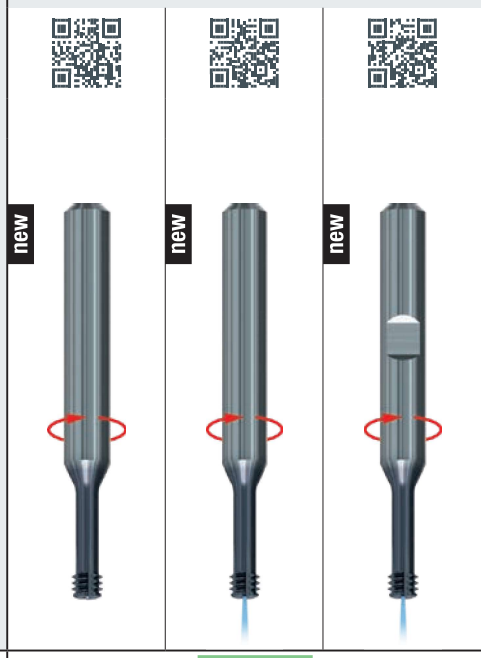
ASME B1.1

Für Innengewinde
For internal threads



VHM Carbide	TIALN T46
RH + LH	LH-rot.
Z3 - Z5	DIN 6535 HA HB
ø d1	

ZGF-HCUT



Einsatzgebiete – Material
Applications – material 358

N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-HCUT 2xd_1 HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	56	1,7	3	39	1,8	5,1	28	3	GF283729.5001		
≥ Nr. 4	40	2,15	3	39	2,5	6,6	28	3	GF283729.5003		
≥ Nr. 6	32	2,7	3	39	3,1	8,2	28	3	GF283729.5005		
≥ Nr. 8	32	3,21	4	42	3,1	9,5	28	3	GF283729.5006		
≥ Nr.10	24	3,7	4	42	4,1	11,2	28	3	GF283729.5007		
≥ 1/4	20	4,95	6	55	5	14,6	36	3		GF283729.5009	GF283129.5009
≥ 5/16	18	6,3	8	58	5,5	18	36	4		GF283729.5010	GF283129.5010
≥ 3/8	16	7,65	8	62	6,2	21,4	36	4		GF283729.5011	GF283129.5011
≥ 7/16	14	9	10	70	7,1	25	40	4		GF283729.5012	GF283129.5012
≥ 1/2	13	10,4	12	80	7,6	28,3	45	4		GF283729.5013	GF283129.5013
≥ 9/16	12	11,8	12	82	8,2	31,8	45	4		GF283729.5014	GF283129.5014
≥ 5/8	11	13	14	87	9	35,2	45	5		GF283729.5015	GF283129.5015
≥ 3/4	10	15,9	16	95	9,9	41,9	48	5		GF283729.5016	GF283129.5016

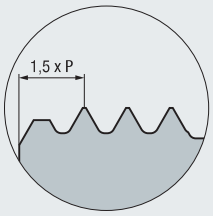
Weitere Ausführungen auf Anfrage
Further designs upon request

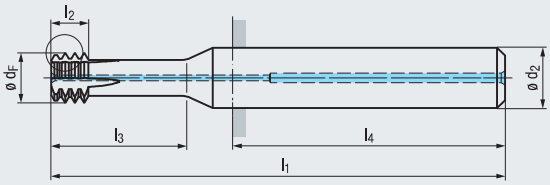
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

UNF

ASME B1.1

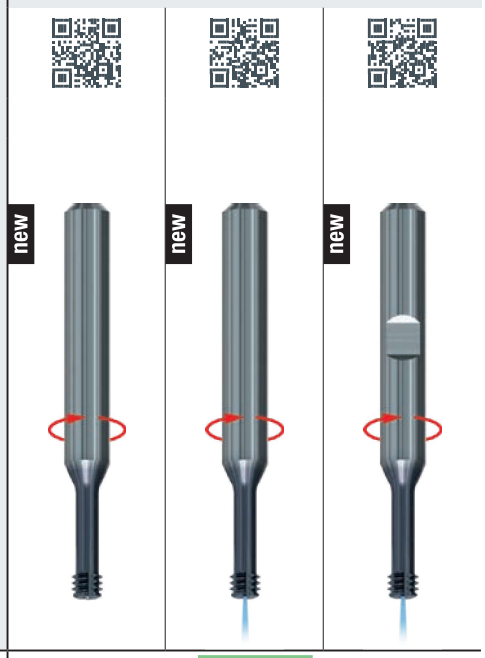
Für Innengewinde
For internal threads





VHM Carbide | TIALN T46 | RH + LH | LH-rot. | Z3 - Z8 | DIN 6535 HA HB | ø d1

ZGF-HCUT



Einsatzgebiete – Material
Applications – material
358

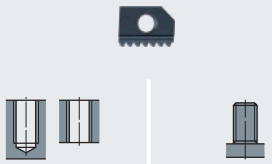
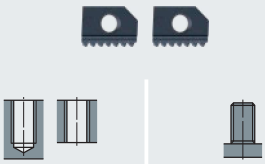
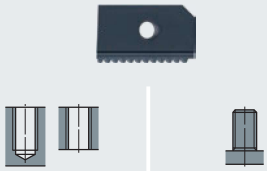
N 2.7-2.8
H 1.1-1.5

Gewindetiefe
Thread depth

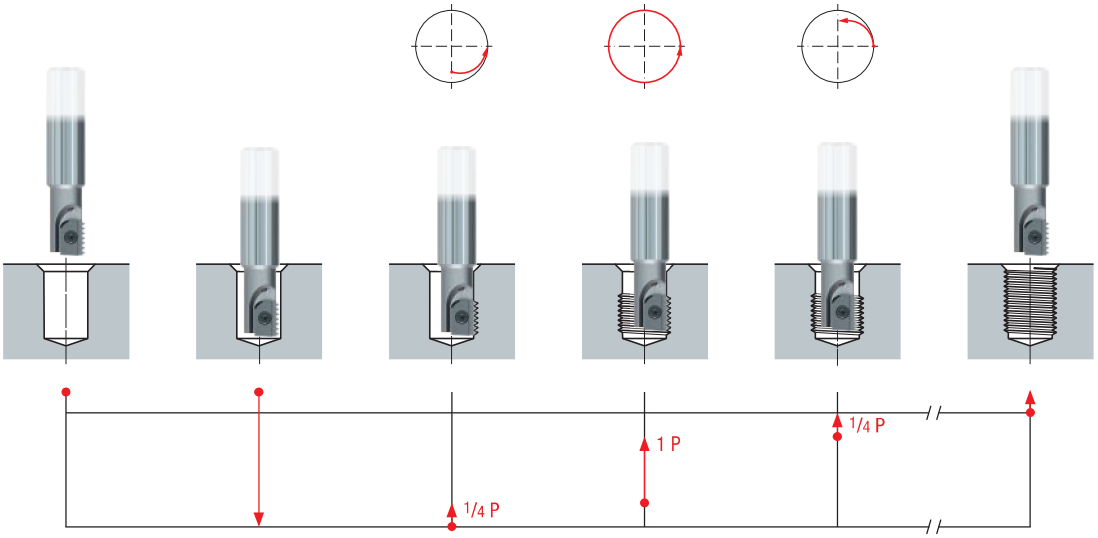
2 x d_1

ø d_1 inch	P Gg/1" (tpi)	ø d_F mm	ø d_2	l_1	l_2	l_3	l_4	Z (Flutes)	ZGF-HCUT 2xd_1 HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HA TIALN-T46	ZGF-HCUT 2xd_1 IKZ-HB TIALN-T46
≥ Nr. 2	64	1,76	3	39	1,6	5	28	3	GF283729.5035		
≥ Nr. 4	48	2,27	3	39	2,1	6,5	28	3	GF283729.5037		
≥ Nr. 6	40	2,79	3	39	2,5	8	28	3	GF283729.5039		
≥ Nr. 8	36	3,34	4	42	2,8	9,4	28	4	GF283729.5040		
≥ Nr.10	32	3,9	4	42	3,1	10,8	28	4	GF283729.5041		
≥ 1/4	28	5,25	6	55	3,6	14,1	36	5		GF283729.5043	GF283129.5043
≥ 5/16	24	6,6	8	58	4,1	17,5	36	5		GF283729.5044	GF283129.5044
≥ 3/8	24	7,9	8	60	4,1	20,6	36	6		GF283729.5045	GF283129.5045
≥ 7/16	20	9,55	10	70	5	24,1	40	6		GF283729.5046	GF283129.5046
≥ 1/2	20	11,1	12	78	5	27,3	45	7		GF283729.5047	GF283129.5047
≥ 9/16	18	12,5	14	82	5,5	30,7	45	7		GF283729.5048	GF283129.5048
≥ 5/8	18	13,9	14	85	5,5	33,9	45	8		GF283729.5049	GF283129.5049
≥ 3/4	16	17	18	95	6,2	40,5	48	8		GF283729.5050	GF283129.5050

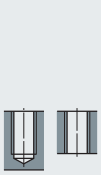
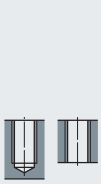
Weitere Ausführungen auf Anfrage
Further designs upon request

	ZIRK-GF Für eine Mehrzahn-Wechselplatte 15 mm For one multi-tooth exchangeable insert 15 mm	**ZIRK-GF** Für zwei Mehrzahn-Wechselplatten 15 mm For two multi-tooth exchangeable inserts 15 mm	**ZIRK-GF** Für eine Mehrzahn-Wechselplatte 26 mm For one multi-tooth exchangeable insert 26 mm
			
Seite · Page	482	482	484
			
Seite · Page			
M	483	483	485
MF	483	483	485
UN	483	483	
G (BSP), BSW, BSF, W	483	483	483	483	485	485
NPT			

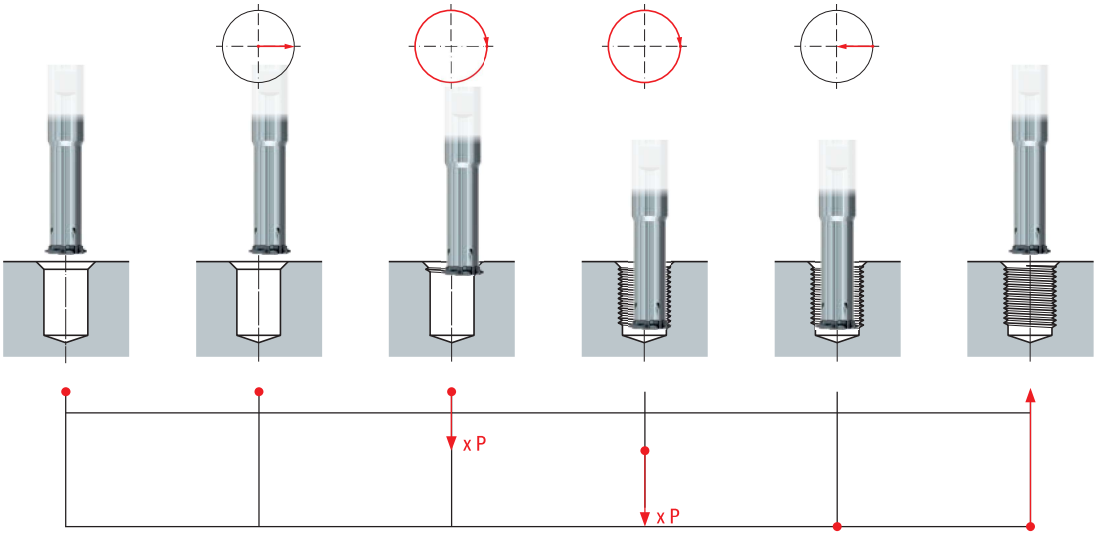
Gewindefräszyklus · Thread milling cycle



ZIRK-GF Für 3-Zahn-Wechselplatte For 3-tooth exchangeable insert	ZIRK-GF Für Stirn-Wechselplatte For exchangeable face insert
	
Seite · Page	
486	488

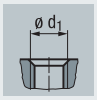
				
Seite · Page				
487		489	489	**M**
487		489	489	**MF**
487		489	489	**UN**
487	487	489	489	**G (BSP), BSW, BSF, W**
		490		**NPT**

Gewindefräszyklus · Thread milling cycle



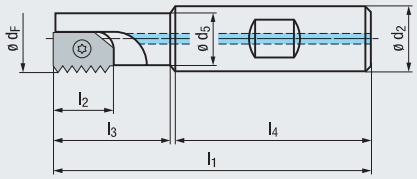
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

DIN 1835 B



ZIRK-GF

Für eine Mehrzahn-Wechselplatte 15 mm
For one multi-tooth exchangeable insert 15 mm



Kurze Ausführung · Short design

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_2	l_3	l_4	Z (Inserts)	ZIRK-GF MZP-15mm-Z1 IKZN	
0,5 - 2,5	20 - 11	≥ 21,3	16	16	13	78	15	28,5	48	1	GZ301110	

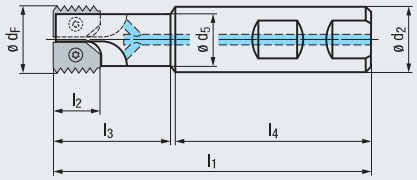
Lange Ausführung · Long design

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_2	l_3	l_4	Z (Inserts)		ZIRK-GF MZP-15mm-Z1 IKZN
0,5 - 2,5	20 - 11	≥ 21,3	16	16	13	98	15	48,5	48	1		GZ301310 [2]
0,5 - 2,5	20 - 11	≥ 27	20	20	17	110	15	58,5	50	1		GZ301320
3 - 3,5 [1]	–	≥ 29,3	22	20	17	110	15	58,5	50	1		GZ301340

DIN 1835 B

ZIRK-GF

Für zwei Mehrzahn-Wechselplatten 15 mm
For two multi-tooth exchangeable inserts 15 mm



Kurze Ausführung · Short design

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_2	l_3	l_4	Z (Inserts)	ZIRK-GF MZP-15mm-Z2 IKZN	
0,5 - 2,5	20 - 11	≥ 33,3	25	25	21	106	15	48	56	2	GZ301130	
3 - 3,5 [1]	–	≥ 36	27	25	21	106	15	48	56	2	GZ301140	

Lange Ausführung · Long design

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_2	l_3	l_4	Z (Inserts)		ZIRK-GF MZP-15mm-Z2 IKZN
0,5 - 2,5	20 - 11	≥ 33,3	25	25	21	150	15	92	56	2		GZ301330 [2]

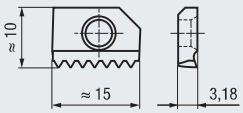
Lieferumfang: ohne Mehrzahn-Wechselplatten, mit Spannschrauben
Delivery: without multi-tooth exchangeable inserts, with clamping screws

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **3,0 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 3.0 Nm** must be used

[1] Verstärkte Ausführung
Reinforced design

[2] Aus Schwermetall, schwingungsgedämpft
Of vibration-absorbing heavy metal

Mehrzahn-Wechselplatten 15 mm
Multi-tooth exchangeable inserts 15 mm



HM Carbide | TIALN T4 | RH + LH

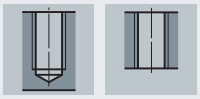
ZIRK-GF

Einsatzgebiete – Material
Applications – material

▸▸ 358

P	1.1-5.1
M	1.1-4.1
K	1.1-4.2
N	1.1-5.3
S	1.1-2.6
H	1.1-1.2

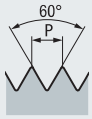
M, MF
DIN 13

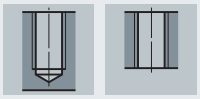


Für Innengewinde
For internal threads

P mm	MZP 15 mm TIALN-T4
0,5	GF603117.9506
0,75	GF603117.9509
1	GF603117.9512
1,25	GF603117.9513
1,5	GF603117.9514
1,75	GF603117.9515
2	GF603117.9516
2,5	GF603117.9517
3 1)	GF603117.9518
3,5 1)	GF603117.9519

UN
ASME B1.1





Für Innengewinde
For internal threads

P Gg/1" (tpi)	MZP 15 mm TIALN-T4
20	GF603117.9580
16	GF603117.9582
14	GF603117.9583
12	GF603117.9585

G (BSP), BSW, BSF, W
DIN EN ISO 228, BS 84

Für Innen- und Außengewinde
For internal and external threads

P Gg/1" (tpi)	MZP 15 mm TIALN-T4
16	GF603117.9547
14	GF603117.9548
11	GF603117.9550

1) Verstärkte Ausführung
Reinforced design

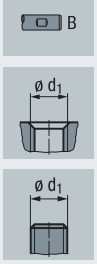
Ersatzschraube M4 x 7; Torx T15
Spare screw M4 x 7; Torx T15 } **GZ309010**

Schraubendreher Torx T15
Screw driver Torx T15 } **GZ309020**

Drehmoment-Schraubendreher Torx T15
Torque screw driver Torx T15 } **GZ349043**

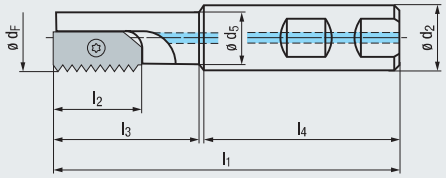
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

DIN 1835



ZIRK-GF

Für eine Mehrzahn-Wechselplatte 26 mm
For one multi-tooth exchangeable insert 26 mm



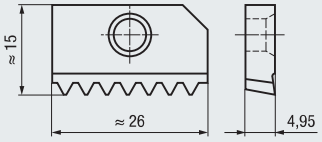
Kurze Ausführung · Short design

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_2	l_3	l_4	Z (Inserts)	ZIRK-GF MZP-26mm-Z1 IKZN
1 - 4	14 - 11	≥ 33,3	25	25	20	107	26	45,5	56	1	GZ303010

Lieferumfang: ohne Mehrzahn-Wechselplatten, mit Spannschrauben
Delivery: without multi-tooth exchangeable inserts, with clamping screws

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **3,0 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 3.0 Nm** must be used

Mehrzahn-Wechselplatten 26 mm
Multi-tooth exchangeable inserts 26 mm



HM Carbide | TIALN T4 | RH + LH

ZIRK-GF

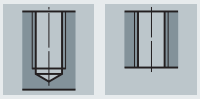
Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1
M	1.1-4.1
K	1.1-4.2
N	1.1-5.3
S	1.1-2.6
H	1.1-1.2

M, MF

DIN 13



Für Innengewinde
For internal threads

P mm	MZP 26 mm TIALN-T4
1	GF603147.9512
1,5	GF603147.9514
2	GF603147.9516
2,5	GF603147.9517
3	GF603147.9518
3,5	GF603147.9519
4	GF603147.9520

G (BSP), BSW, BSF, W

DIN EN ISO 228, BS 84

Für Innen- und Außengewinde
For internal and external threads

P Gg/1" (tpi)	MZP 26 mm TIALN-T4
14	GF603147.9548
11	GF603147.9550

Ersatzschraube M4 x 13; Torx T15
Spare screw M4 x 13; Torx T15 } **GZ309210**

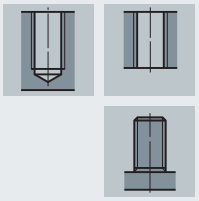
Schraubendreher Torx T15
Screw driver Torx T15 } **GZ309020**

Drehmoment-Schraubendreher Torx T15
Torque screw driver Torx T15 } **GZ349043**

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

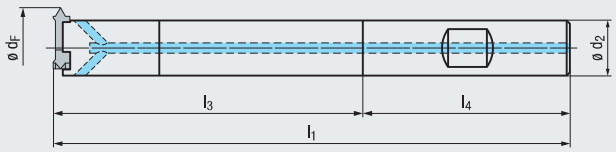
HM Carbide

DIN 6535 HB



ZIRK-GF

Für 3-Zahn-Wechselplatte
For 3-tooth exchangeable insert



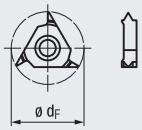
Kurze Ausführung · Short design

P mm	P Gg/1" (tpi)	ø d_2	l_1	l_3	l_4	Z (teeth)	ZIRK-GF 3ZP IKZN
1 - 3,5	24 - 7	12	112	67	45	3	GZ311330

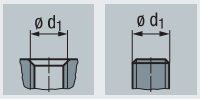
Lieferumfang: ohne 3-Zahn-Wechselplatte, mit Spannschraube
Delivery: without 3-tooth exchangeable insert, with clamping screw

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **3,0 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 3.0 Nm** must be used

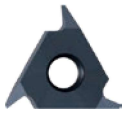
3-Zahn-Wechselplatten
3-tooth exchangeable inserts



HM Carbide	TIALN T4
	RH + LH



ZIRK-GF



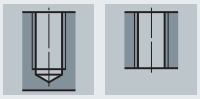
Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1
M	1.1-4.1
K	1.1-4.2
N	1.1-5.3
S	1.1-2.6
H	1.1-1.2

M, MF, UN

DIN 13, ASME B1.1



Für Innengewinde
For internal threads

P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	Z (teeth)	3ZP TIALN-T4
1 - 3,5	24 - 7	≥ 24	17,5	3	GF613127.9512
3	–	≥ 24	17,5	3	GF613127.9518
2,5	–	M20	16	3	GF613127.0120

G (BSP), BSW, BSF, W

DIN EN ISO 228, BS 84

Für Innen- und Außengewinde
For internal and external threads

P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	Z (teeth)	3ZP TIALN-T4
14	≥ 24	17,5	3	GF613127.9548
11	≥ 24	17,5	3	GF613127.9550

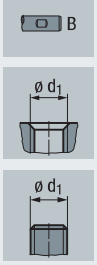
Ersatzschraube M4 x 11; Torx T15
Spare screw M4 x 11; Torx T15 } **GZ319020**

Schraubendreher Torx T15
Screw driver Torx T15 } **GZ319060**

Drehmoment-Schraubendreher Torx T15
Torque screw driver Torx T15 } **GZ349043**

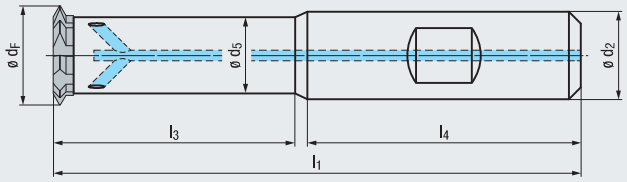
Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

DIN 1835



ZIRK-GF

Für Stirn-Wechselplatte
For exchangeable face insert



Max. nutzbare Gewindetiefe l_3
Max. usable thread depth l_3

2 x d_1

Größe Size	P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (teeth)	Empf. Anzugsdrehmoment Rec. tightening torque [Nm]	ZIRK-GF SWP 2xd_1 IKZN
A	1 - 2	24 - 12	≥ 12	10	7,2	68	24	40	6	0,9	GZ38100A
B	1 - 2,5	24 - 10	≥ 14	10	8,6	71,5	28	40	7	1,4	GZ38100B
G	1 - 2,5	24 - 10	≥ 16	12	10,5	80,5	32	45	8	1,4	GZ38100G
C	1,5 - 3	16 - 8	≥ 20	14	12,2	88	40	45	8	3,0	GZ38100C
D	1,5 - 3,5	16 - 7	≥ 24	16	15,2	99	48	48	8	5,0	GZ38100D
E	2 - 4	12 - 6	≥ 30	20	19,5	115	60	50	9	5,0	GZ38100E
F	3 - 4	8 - 6	≥ 36	25	23,7	133	72	56	10	5,0	GZ38100F

Max. nutzbare Gewindetiefe l_3
Max. usable thread depth l_3

2,5 x d_1

Größe Size	P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (teeth)	Empf. Anzugsdrehmoment Rec. tightening torque [Nm]	ZIRK-GF SWP 2,5xd_1 IKZN
A	1 - 2	24 - 12	≥ 12	10	7,2	74	30	40	6	0,9	GZ38110A
B	1 - 2,5	24 - 10	≥ 14	10	8,6	78,5	35	40	7	1,4	GZ38110B
G	1 - 2,5	24 - 10	≥ 16	12	10,5	88,5	40	45	8	1,4	GZ38110G
C	1,5 - 3	16 - 8	≥ 20	14	12,2	98	50	45	8	3,0	GZ38110C
D	1,5 - 3,5	16 - 7	≥ 24	16	15,2	111	60	48	8	5,0	GZ38110D
E	2 - 4	12 - 6	≥ 30	20	19,5	130	75	50	9	5,0	GZ38110E
F	3 - 4	8 - 6	≥ 36	25	23,7	151	90	56	10	5,0	GZ38110F

Max. nutzbare Gewindetiefe l_3
Max. usable thread depth l_3

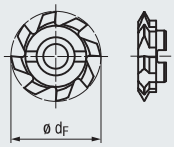
3 x d_1

Größe Size	P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (teeth)	Empf. Anzugsdrehmoment Rec. tightening torque [Nm]	ZIRK-GF SWP 3xd_1 IKZN
A	1 - 2	24 - 12	≥ 12	10	7,2	80	36	40	6	0,9	GZ38120A
B	1 - 2,5	24 - 10	≥ 14	10	8,6	85,5	42	40	7	1,4	GZ38120B
G	1 - 2,5	24 - 10	≥ 16	12	10,5	96,5	48	45	8	1,4	GZ38120G
C	1,5 - 3	16 - 8	≥ 20	14	12,2	108	60	45	8	3,0	GZ38120C
D	1,5 - 3,5	16 - 7	≥ 24	16	15,2	123	72	48	8	5,0	GZ38120D
E	2 - 4	12 - 6	≥ 30	20	19,5	145	90	50	9	5,0	GZ38120E
F	3 - 4	8 - 6	≥ 36	25	23,7	169	108	56	10	5,0	GZ38120F

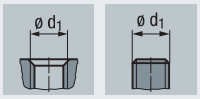
Lieferumfang: ohne Stirn-Wechselplatte, mit Spannschraube
Delivery: without exchangeable face insert, with clamping screw

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque** must be used

Stirn-Wechselplatten
Exchangeable face inserts



HM Carbide	ALCR T42
	RH + LH



ZIRK-GF

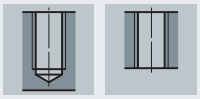
Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1
M	1.1-4.1
K	1.1-4.2
N	1.1-5.3
S	1.1-2.6

M, MF, UN

DIN 13, ASME B1.1



Für Innengewinde
For internal threads

Größe Size	P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	Z (teeth)	SWP ALCR-T42
A	1 - 1,75	24 - 13	≥ 12	9,9	6	GF65310A.9512
	1,75 - 2	14 - 12	≥ 14	9,9	6	GF65310A.0114
B	1 - 2	24 - 12	≥ 14	11,6	7	GF65320A.9512
	2 - 2,5	12 - 10	≥ 16	11,9	7	GF65320A.0118
G	1 - 2	24 - 12	≥ 16	13,6	8	GF65370A.9512
	2 - 2,5	12 - 10	≥ 18	13,9	8	GF65370A.0118
C	1,5 - 2,5	16 - 10	≥ 20	15,9	8	GF65330A.9514
	2,5 - 3	10 - 8	≥ 24	15,9	8	GF65330A.0124
D	1,5 - 3	16 - 8	≥ 24	19,9	8	GF65340A.9514
	3 - 3,5	8 - 7	≥ 30	19,9	8	GF65340A.0130
E	2 - 3,5	12 - 7	≥ 30	24,9	9	GF65350A.9516
	3,5 - 4	7 - 6	≥ 36	24,9	9	GF65350A.0136
F	3 - 4	8 - 6	≥ 36	29,9	10	GF65360A.9518

M, MF, UN

DIN 13, ASME B1.1

Für Außengewinde
For external threads

Größe Size	P mm	P Gg/1" (tpi)	ø d_1 mm	ø d_F mm	Z (teeth)	SWP-Extern ALCR-T42
C	1	24	≥ 6	15,9	8	GF65130A.9512
	1,25	20	≥ 8	15,9	8	GF65130A.9513
	1,5	18 - 16	≥ 10	15,9	8	GF65130A.9514
	1,75	14	≥ 12	15,9	8	GF65130A.9515
	2	12	≥ 14	15,9	8	GF65130A.9516
	2,5	11 - 10	≥ 18	15,9	8	GF65130A.9517

G (BSP), BSW, BSF, W

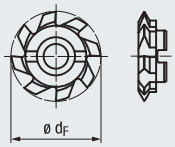
DIN EN ISO 228, BS 84

Für Innen- und Außengewinde
For internal and external threads

Größe Size	P Gg/1" (tpi)	Gewinde Thread	ø d_1 mm	ø d_F mm	Z (teeth)	SWP ALCR-T42
A	19 - 32	G 1/4	≥ 12	9,9	6	GF65310A.9545
B	16 - 26	G 3/8	≥ 14	11,9	7	GF65320A.9545
G	16 - 26	G 3/8	≥ 16	13,9	8	GF65370A.9545
C	14 - 20	G 1/2, G 5/8	≥ 20	15,9	8	GF65330A.9548
D	10 - 14	≥ G 3/4	≥ 24	19,9	8	GF65340A.9550
E	8 - 14	≥ G 7/8	≥ 30	24,9	9	GF65350A.9550
F	7 - 11	≥ G 1 1/8	≥ 36	29,9	10	GF65360A.9550

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

Stirn-Wechselplatten
Exchangeable face inserts



HM Carbide | ALCR T42 | RH + LH

ZIRK-GF

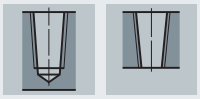
Einsatzgebiete – Material
Applications – material

358

P	1.1-5.1
M	1.1-4.1
K	1.1-4.2
N	1.1-5.3
S	1.1-2.6

NPT

ANSI/ASME B1.20.1



Für kegeliges Innengewinde
For internal tapered threads

Größe Size	P Gg/1" (tpi)	Gewinde Thread	ø d_1 mm	ø d_F mm	Z (teeth)	SWP ALCR-T42
A	18	1/4, 3/8	≥ 12	9,9	5	GF65310A.9677
C	14	1/2, 3/4	≥ 20	15,9	5	GF65330A.9678
E	11 1/2	1" - 2"	≥ 30	24,9	6	GF65350A.9679
F	8	2 1/2 - 8"	≥ 36	29,9	9	GF65360A.9680

Ersatz-Spannschrauben
Spare clamping screws

Größe Size		Empf. Anzugsdrehmoment Rec. tightening torque [Nm]	
A	M2,5 x 8,5; Torx T7	0,9	GZ349011
B	M3 x 11; Torx T9	1,4	GZ349012
G	M3 x 11; Torx T9	1,4	GZ349012
C	M4 x 13; Torx T15	3,0	GZ349013
D	M5 x 15; Torx T20	5,0	GZ349014
E	M5 x 15; Torx T20	5,0	GZ349014
F	M5 x 15; Torx T20	5,0	GZ349014

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque** must be used

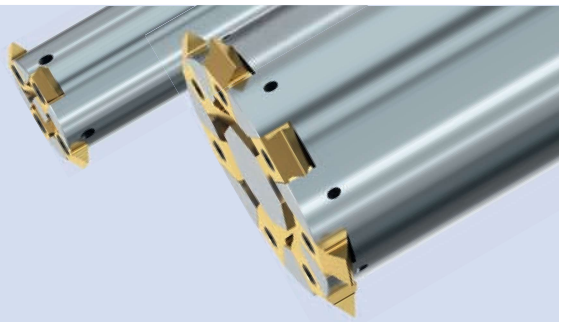
Schraubendreher
Screw driver

Größe Size		
A	Torx T7	GZ349021
B	Torx T9	GZ349022
G	Torx T9	GZ349022
C	Torx T15	GZ349023
D	Torx T20	GZ349024
E	Torx T20	GZ349024
F	Torx T20	GZ349024

Drehmoment-Schraubendreher
Torque screw driver

Größe Size		
A	Torx T7	GZ349041
B	Torx T9	GZ349042
G	Torx T9	GZ349042
C	Torx T15	GZ349043
D	Torx T20	GZ349044
E	Torx T20	GZ349044
F	Torx T20	GZ349044

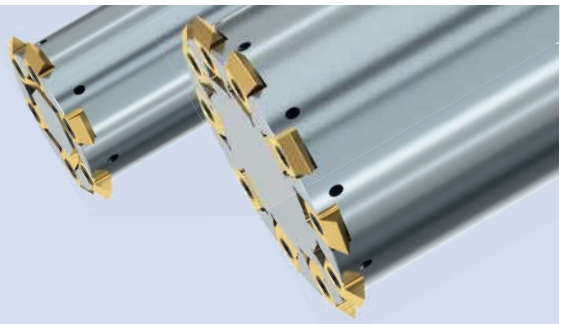
Gigant-ic



Vorteile:
- Flexibilität

Advantages:
- Flexibility

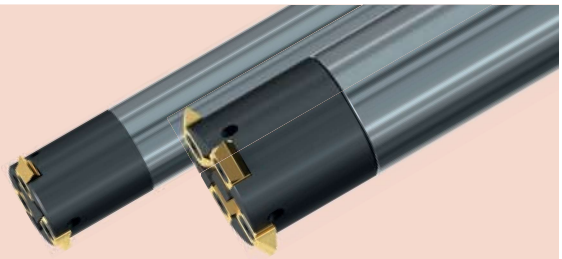
Gigant sprinter



Vorteile:
- Schnelligkeit

Advantages:
- Fast operation

Gigant soft run



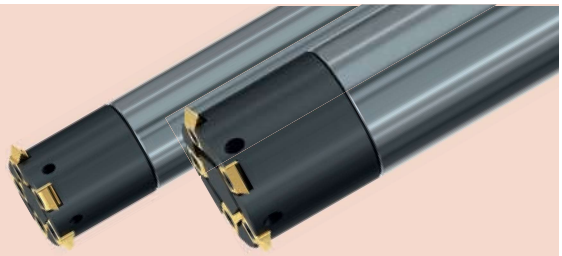
Hartmetall-Träger

Carbide tool body

Vorteile:
- Laufruhe
- Stabilität

Advantages:
- Smooth operation
- Stability

Gigant soft run sprinter



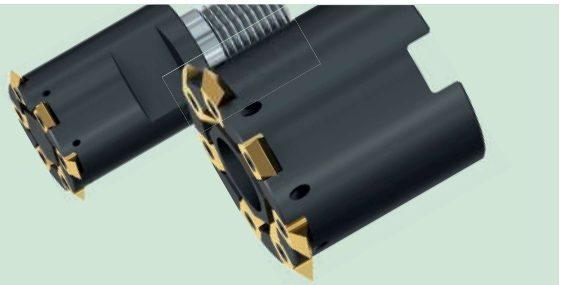
Hartmetall-Träger

Carbide tool body

Vorteile:
- Schnelligkeit
- Laufruhe
- Stabilität

Advantages:
- Fast operation
- Smooth operation
- Stability

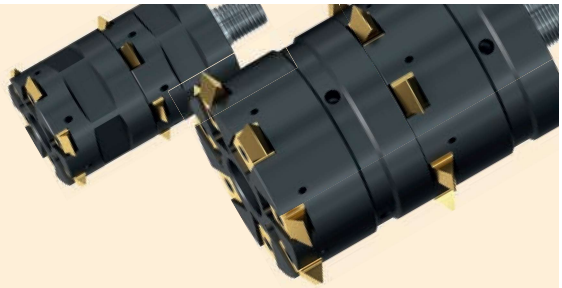
Gigant modular



Vorteile:
- Modularer Aufbau

Advantages:
- Modular construction

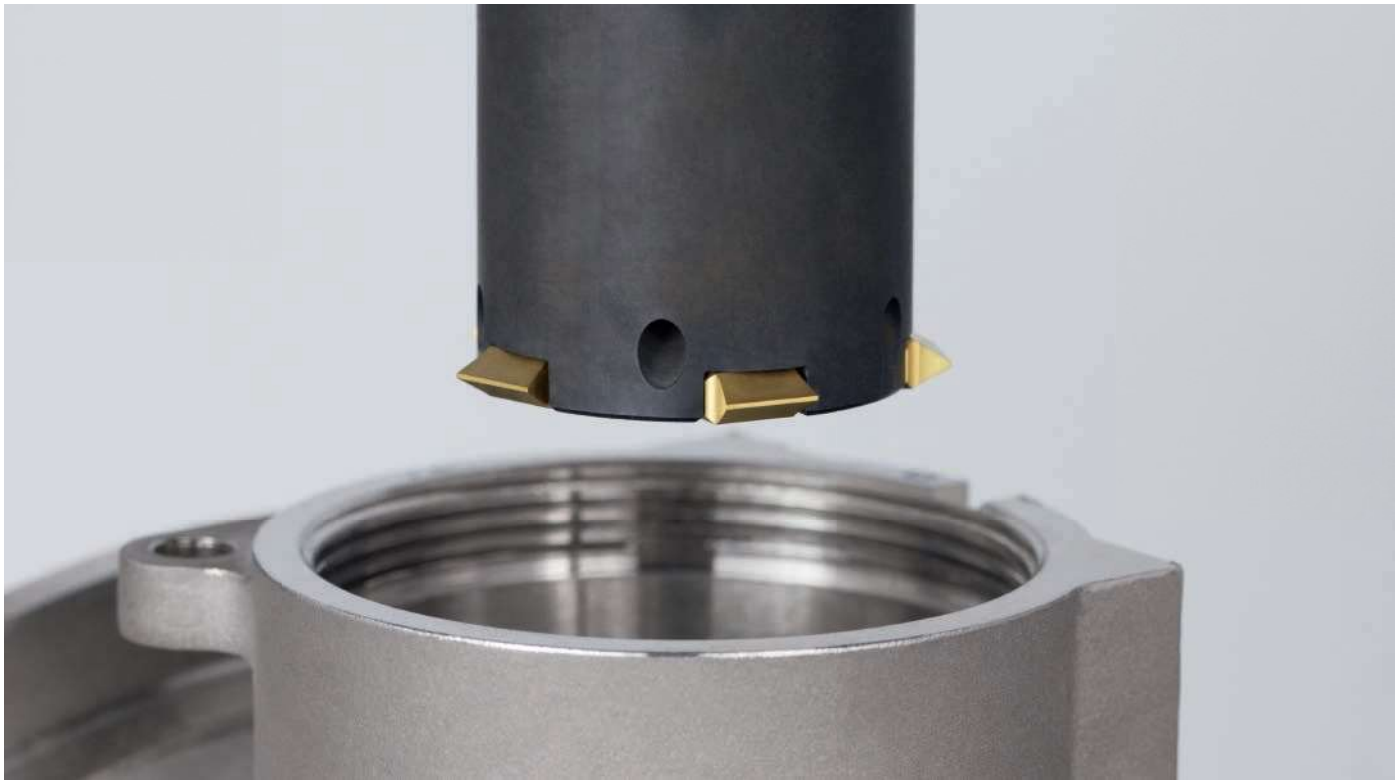
Gigant modular sprinter



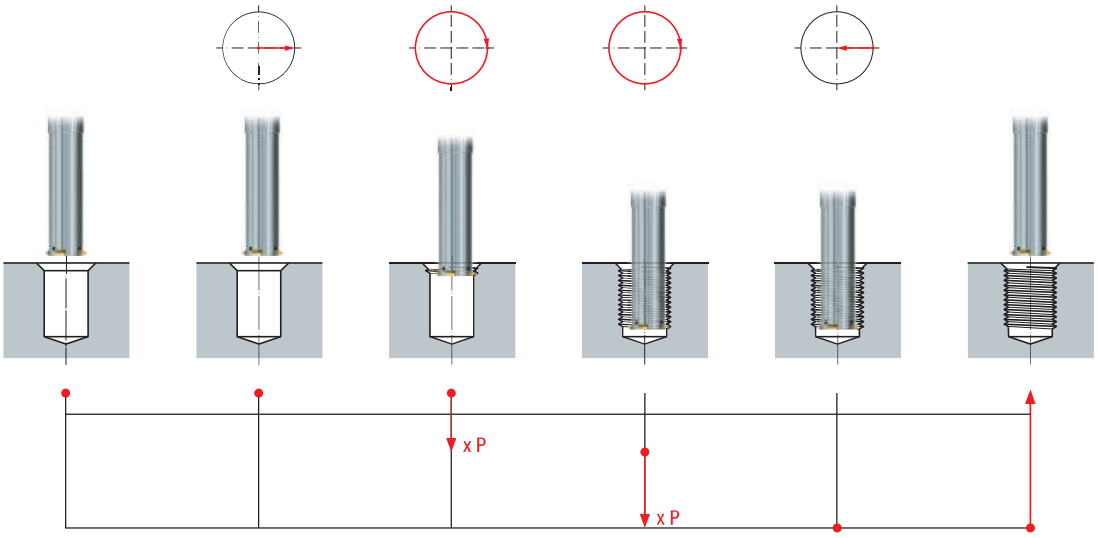
Vorteile:
- Flexible Längen
- Kürzere Bearbeitungszeit

Advantages:
- Flexible lenghts
- Reduced machining times

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

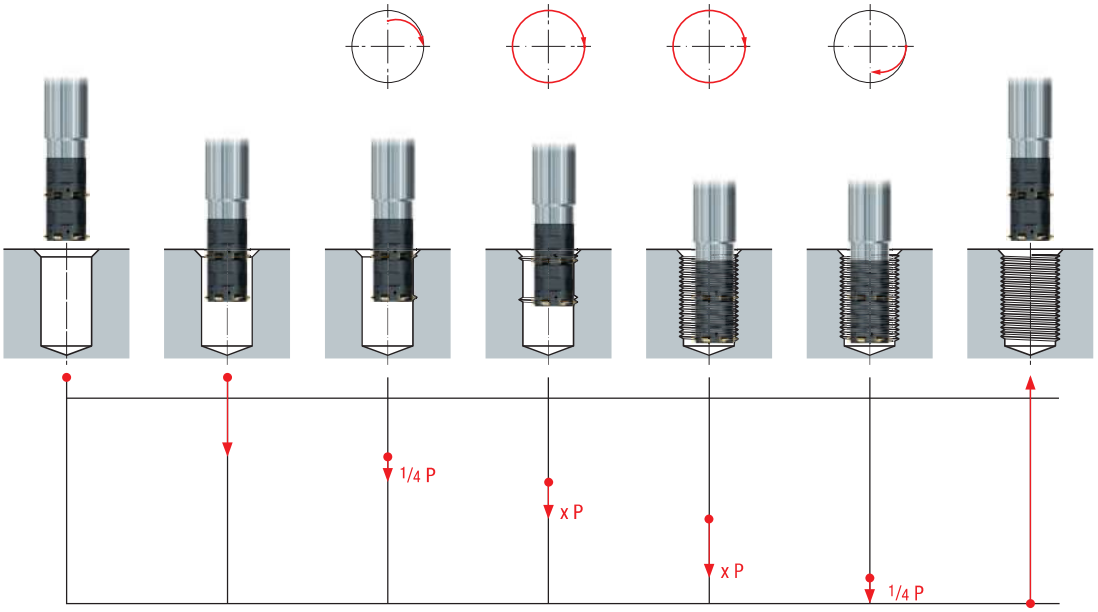


Gewindefräszyklus · Thread milling cycle



Gewindefräszyklus · Thread milling cycle

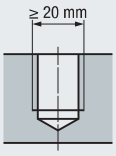
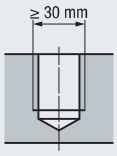
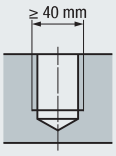
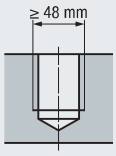
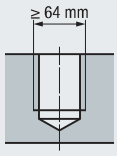
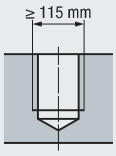
Gigant modular sprinter



Gigant





Größe · Size 10	Größe · Size 11	Größe · Size 12	Größe · Size 13	Größe · Size 14	Größe · Size 15
≥ 20 mm	≥ 30 mm	≥ 40 mm	≥ 48 mm	≥ 64 mm	≥ 115 mm
					

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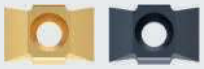
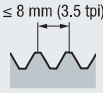
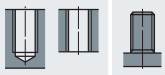
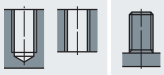
494	496	498	500	502	504

Größe · Size 10		Größe · Size 11		Größe · Size 12		Größe · Size 13		Größe · Size 14		Größe · Size 15		
≤ 3 mm (8 tpi)		≤ 4 mm (6 tpi)		≤ 5,5 mm (4.5 tpi)		≤ 6 mm (4 tpi)		≤ 8 mm (3.5 tpi)		≤ 12 mm (4 tpi)		
												
												

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495	495	497	497	499	499	501	501	503	503	505		**M**
495	495	497	497	499	499	501	501	503	503	505		**MF**
495		497		499		501		503		505		**UN**
495	495	497	497	499	499	501	501	503	503			**G (BSP), BSW, BSF, W**
		497	497	499	499							**NPT**
495	495	497	497	499	499	501	501	503	503	505	505	**Tr**

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

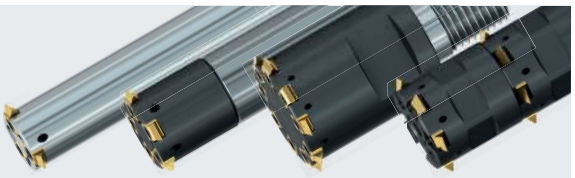
Seite · Page

Fräsringe zum Entfernen des unvollständigen Ganges
Milling rings for removal of the incomplete thread — 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter
Holders and extensions for Gigant modular and Gigant modular sprinter — 508 - 509

10

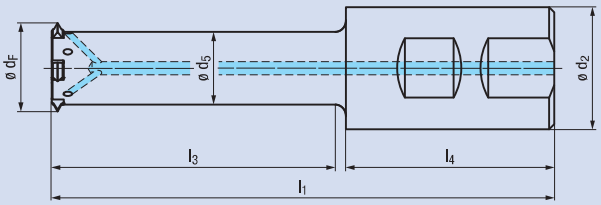
Für Abmessungen ab Gewindedurchmesser 20 mm
For thread sizes from thread diameter 20 mm



Gigant-ic / Gigant sprinter

DIN 1835 B | ø d_1 | Z2 - Z5

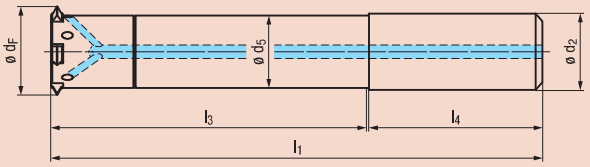
ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant-ic Gr.10-IKZN	Gigant sprinter Gr.10-IKZN
≥ 20	17	12	12	87	40	45	2	GZ341000	
≥ 24	20,5	16	15,9	100	50	48	3	GZ341040	
≥ 24	20,5	16	15,9	115	65	48	3	GZ341050	
≥ 30	23,85	32	19	145	80	60	5		GZ341200



Gigant soft run / Gigant soft run sprinter

DIN 6535 HA | ø d_1 | Z2 - Z8

ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant soft run Gr.10-IKZN	Gigant soft run sprinter Gr.10-IKZN
≥ 20	17	12	12	97	50	45	2	GZ34A010	
≥ 24	20,5	16	15,9	115	65	48	3	GZ34A000	
≥ 30	23,85	20	19	142	90	50	5		GZ34C000
≥ 36	30	25	25	153	95	56	7		GZ34C010
≥ 40	32,85	32	27,7	178	115	60	8		GZ34C020



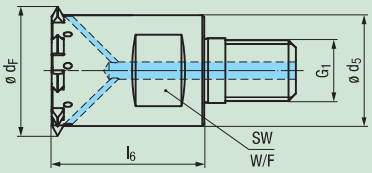
Mit variabler Länge auf Anfrage
With variable length upon request

Gigant modular

M | ø d_1 | Z9

ø d_1 mm	ø d_F mm	ø d_5	l_6	G_1	SW (W/F)	Z (Inserts)	Gigant modular Gr.10-IKZN
≥ 40	34,25	28,8	38	M16	22	9	GZ351000

Nur einzeln einsetzbar
Can only be used individually



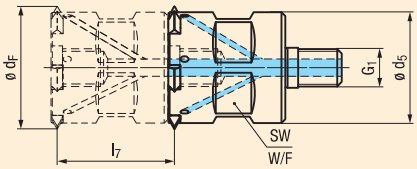
Gigant modular sprinter

MF | ø d_1 | Z6

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	SW (W/F)	Z (Inserts)	Gigant modular sprinter Gr.10-IKZN
≥ 32	27	22,15	24	M8 x 1	19	6	GZ353000

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

Lieferumfang: ohne 2-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 2-tooth indexable inserts, with clamping screws

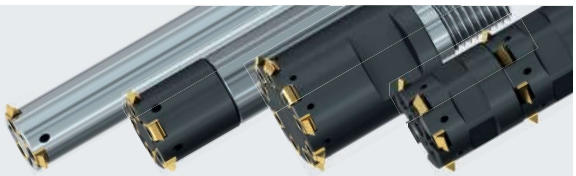
Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **0,9 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 0.9 Nm** must be used

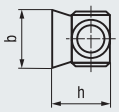
Fräsringe zum Entfernen des unvollständigen Ganges siehe Seite 506
Milling rings for removal of the incomplete thread, see page 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

10

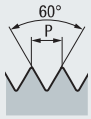
2-Zahn-Wendeplatten für Steigungsbereich bis 3 mm (8 Gg/1")
2-tooth indexable inserts for a pitch range up to 3 mm (8 tpi)

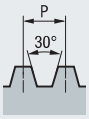




HM Carbide | **RH + LH**

				Beschichtung · Coating	TIN	TIALN-T4
Einsatzgebiete – Material Applications – material	▸▸ 358				P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-5.3 S 1.1-2.6 H 1.1-1.2	
P mm	P Gg/1" (tpi)	b	h		**WP-Z2 Gr.10 TIN**	**WP-Z2 Gr.10 TIALN-T4**
M, MF, UN DIN 13, ASME B1.1						
1 - 2,5	24 - 10	5	7		**GF643005.9512**	**GF643007.9512**
1,5 - 3	16 - 8	5	7		**GF643005.9514**	**GF643007.9514**
M, MF DIN 13						
1,5		5	7			**GF641007.9514**
2		5	7			**GF641007.9516**
G (BSP), BSW, BSF, W DIN EN ISO 228, BS 84						
(1,814)	14 (9 - 28)	5	7		**GF643005.9548**	**GF643007.9548**
Tr DIN 103						
1,5		5	7	ø $d_{1\ min.} = d_F + 11$		**GF643007.9597**
2		5	7	ø $d_{1\ min.} = d_F + 14$		**GF643007.9599**





Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.


ACME-Gewinde
ACME thread


Rundgewinde
Round thread


Sägengewinde
Buttress thread


Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

Zubehör
Accessories


Ersatzschraube M2,5 x 8,5; Torx T7
Spare screw M2.5 x 8.5; Torx T7 — **GZ349010**


Schraubendreher Torx T7
Screw driver Torx T7 — **GZ349020**


Drehmoment-Schraubendreher Torx T7
Torque screw driver Torx T7 — **GZ349040**


Verschluss-Schraube M8x1 x 10; SW4
Screw plug M8x1 x 10; SW4 — **GZ359310**

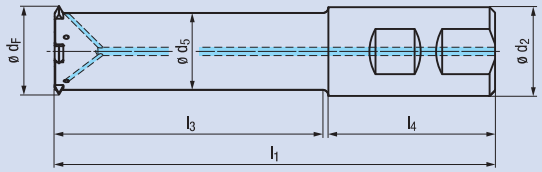
11

Für Abmessungen ab Gewindedurchmesser 30 mm
For thread sizes from thread diameter 30 mm

Gigant-ic / Gigant sprinter

DIN 1835 B · ø d_1 · Z3 - Z8

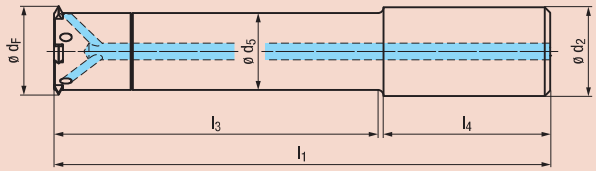
ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant-ic Gr.11-IKZN	Gigant sprinter Gr.11-IKZN
≥ 30	23,85	32	19	122	60	60	3	GZ341121	
≥ 30	23,85	25	19	138	80	56	3	GZ341021	
≥ 30	23,85	32	19	142	80	60	3	GZ341001	
≥ 30	23,85	32	19	152	90	60	3	GZ341101	
≥ 34	28	32	23	153	90	60	5		GZ341211
≥ 36	29,5	32	24,5	157	95	60	3	GZ341131	
≥ 40	32,85	32	27,7	159	95	60	5		GZ341201
≥ 40	34	32	28,8	124	60	60	6		GZ341221
≥ 48	40,25	32	35	144	80	60	8		GZ341231



Gigant soft run / Gigant soft run sprinter

DIN 6535 HA · ø d_1 · Z3 - Z5

ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant soft run Gr.11-IKZN	Gigant soft run sprinter Gr.11-IKZN
≥ 30	23,85	20	19	142	90	50	3	GZ34A001	
≥ 40	32,85	32	27,7	179	115	60	5		GZ34C001



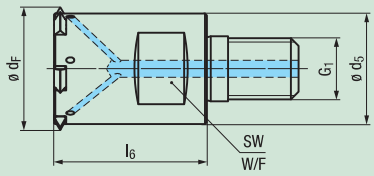
Mit variabler Länge auf Anfrage
With variable length upon request

Gigant modular

M · ø d_1 · Z6

ø d_1 mm	ø d_F mm	ø d_5	l_6	G_1	SW (W/F)	Z (Inserts)	Gigant modular Gr.11-IKZN
≥ 42	34,25	28,8	38	M16	22	6	GZ351001

Nur einzeln einsetzbar
Can only be used individually



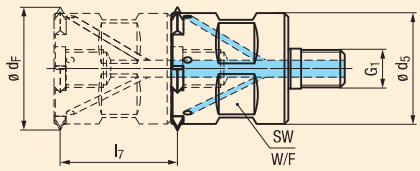
Gigant modular sprinter

MF · ø d_1 · Z6

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	SW (W/F)	Z (Inserts)	Gigant modular sprinter Gr.11-IKZN
≥ 42	34,25	29,15	24	M10 x 1	25	6	GZ353001

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

Lieferumfang: ohne 4-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 4-tooth indexable inserts, with clamping screws

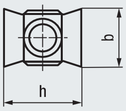
Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **0,9 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 0.9 Nm** must be used

Fräsringe zum Entfernen des unvollständigen Ganges siehe Seite 506
Milling rings for removal of the incomplete thread, see page 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

11

4-Zahn-Wendeplatten für Steigungsbereich bis 4 mm (6 Gg/1")
4-tooth indexable inserts for a pitch range up to 4 mm (6 tpi)



HM Carbide

RH + LH

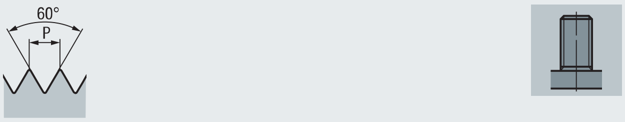
						
				Beschichtung · Coating	TIN	TIALN-T4
Einsatzgebiete – Material Applications – material	▸▸ 358				**P** 1.1-5.1 **M** 1.1-4.1 **K** 1.1-4.2 **N** 1.1-5.3 **S** 1.1-2.6 **H** 1.1-1.2	
P mm	P Gg/1" (tpi)	b	h		**WP-Z4 Gr.11 TIN**	**WP-Z4 Gr.11 TIALN-T4**

M, MF, UN

DIN 13, ASME B1.1

P mm	P Gg/1" (tpi)	b	h		TIN	TIALN-T4
1 - 2,5	24 - 10	6,35	9,52		**GF643105.9512**	**GF643107.9512**
1,5 - 2,5	16 - 10	6,35	9,52		**GF643105.9514**	**GF643107.9514**
2,5 - 4	10 - 6	6,35	9,52		**GF643105.9517**	**GF643107.9517**

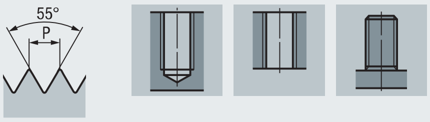
M, MF



DIN 13

P mm	P Gg/1" (tpi)	b	h		TIN	TIALN-T4
2,5		6,35	9,52			**GF641107.9517**
3		6,35	9,52			**GF641107.9518**

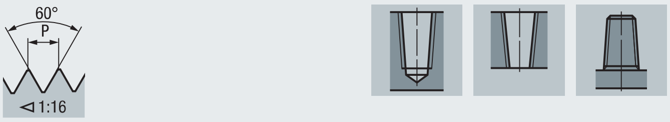
G (BSP), BSW, BSF, W



DIN EN ISO 228, BS 84

P mm	P Gg/1" (tpi)	b	h		TIN	TIALN-T4
(2,309)	11 (9 - 28)	6,35	9,52		**GF643105.9550**	**GF643107.9550**

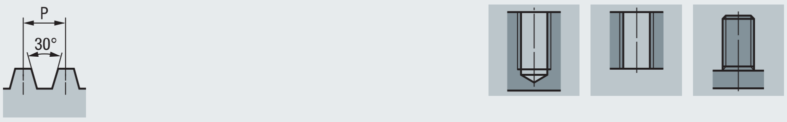
NPT



ANSI/ASME B1.20.1

P mm	P Gg/1" (tpi)	b	h		TIN	TIALN-T4
(2,209)	11 1/2	6,35	9,52			**GF643107.9679**

Tr



DIN 103

P mm	P Gg/1" (tpi)	b	h		TIN	TIALN-T4
3		6,35	9,52	ø $d_{1\ min.} = d_F + $ **23**		**GF643107.9601**
4		6,35	9,52	ø $d_{1\ min.} = d_F + $ **32**		**GF643107.9603**

Zubehör
Accessories

Ersatzschraube M2,5 x 8,5; Torx T7
Spare screw M2.5 x 8.5; Torx T7 } **GZ349011**

Schraubendreher Torx T7
Screw driver Torx T7 } **GZ349021**

Drehmoment-Schraubendreher Torx T7
Torque screw driver Torx T7 } **GZ349041**

Verschluss-Schraube M10x1 x 12; SW5
Screw plug M10x1 x 12; SW5 } **GZ359311**

Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.

ACME-Gewinde
ACME thread

Rundgewinde
Round thread

Sägengewinde
Buttress thread

Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

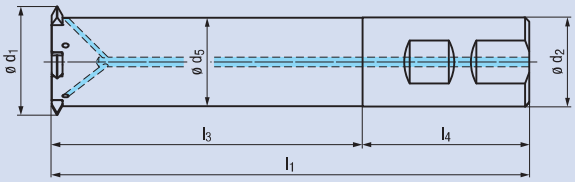
12

Für Abmessungen ab Gewindedurchmesser 40 mm
For thread sizes from thread diameter 40 mm

Gigant-ic / Gigant sprinter

DIN 1835 B | ø d_1 | Z3 - Z5

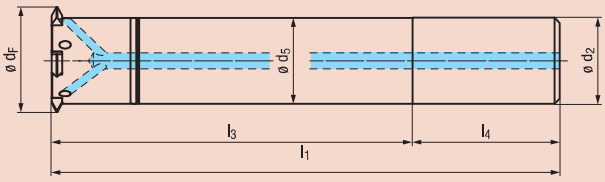
ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant-ic Gr.12-IKZN	Gigant sprinter Gr.12-IKZN
≥ 40	32,85	25	24,5	153	95	56	3	GZ341032	
≥ 40	32,85	32	24,5	158	95	60	3	GZ341012	
≥ 40	32,85	32	24,5	178	115	60	3	GZ341112	
≥ 45	36	32	27,8	194	130	60	4		GZ341212
≥ 48	40,25	32	31,9	172	110	60	5		GZ341202



Gigant soft run / Gigant soft run sprinter

DIN 6535 HA | ø d_1 | Z3 - Z5

ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant soft run Gr.12-IKZN	Gigant soft run sprinter Gr.12-IKZN
≥ 40	32,85	25	24,5	173	115	56	3	GZ34A002	
≥ 48	40,25	32	31,9	207	145	60	5		GZ34C002



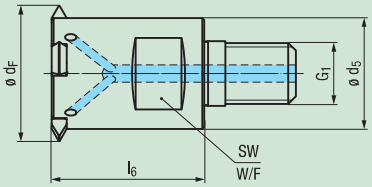
Mit variabler Länge auf Anfrage
With variable length upon request

Gigant modular

M | ø d_1 | Z4

ø d_1 mm	ø d_F mm	ø d_5	l_6	G_1	SW (W/F)	Z (Inserts)	Gigant modular Gr.12-IKZN
≥ 46	37,5	28,8	38	M16	22	4	GZ351002

Nur einzeln einsetzbar
Can only be used individually



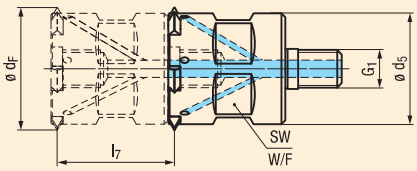
Gigant modular sprinter

MF | ø d_1 | Z6

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	SW (W/F)	Z (Inserts)	Gigant modular sprinter Gr.12-IKZN
58	46	37,65	36	M12 x 1	32	6	GZ353002

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

Lieferumfang: ohne 4-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 4-tooth indexable inserts, with clamping screws

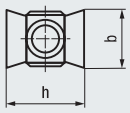
Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **1,4 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 1.4 Nm** must be used

Fräsringe zum Entfernen des unvollständigen Ganges siehe Seite 506
Milling rings for removal of the incomplete thread, see page 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

12

4-Zahn-Wendeplatten für Steigungsbereich bis 5,5 mm (4,5 Gg/1")
4-tooth indexable inserts for a pitch range up to 5.5 mm (4.5 tpi)

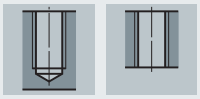


HM Carbide | RH + LH


Beschichtung · Coating	TIN	TIALN-T4
Einsatzgebiete – Material Applications – material ▸▸ 358	P 1.1-5.1, M 1.1-4.1, K 1.1-4.2 N 1.1-5.3, S 1.1-2.6, H 1.1-1.2	
P mm / P Gg/1" (tpi) / b / h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4

M, MF, UN

DIN 13, ASME B1.1



P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4
1,5 - 2,5	16 - 10	8,5	13,5	GF643205.9514	GF643207.9514
2,5 - 5,5	10 - 4,5	8,5	13,5	GF643205.9517	GF643207.9517

M, MF

DIN 13

P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4
3,5		8,5	13,5		GF641207.9519
4		8,5	13,5		GF641207.9520

G (BSP), BSW, BSF, W

DIN EN ISO 228, BS 84

P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4
(2,309)	11 (5 - 28)	8,5	13,5	GF643205.9550	GF643207.9550

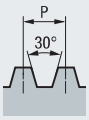
NPT

ANSI/ASME B1.20.1

P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4
(3,175)	8	8,5	13,5		GF643207.9680

Tr

DIN 103



P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.12 TIN	WP-Z4 Gr.12 TIALN-T4
4		8,5	13,5	ø $d_{1\,min.} = d_F + 32$	GF643207.9603
5		8,5	13,5	ø $d_{1\,min.} = d_F + 41$	GF643207.9604

Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.


ACME-Gewinde
ACME thread


Rundgewinde
Round thread


Sägengewinde
Buttress thread


Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

Zubehör

Accessories


Ersatzschraube M3 x 11; Torx T9
Spare screw M3 x 11; Torx T9 — **GZ349012**


Schraubendreher Torx T9
Screw driver Torx T9 — **GZ349022**


Drehmoment-Schraubendreher Torx T9
Torque screw driver Torx T9 — **GZ349042**


Verschluss-Schraube M12x1 x 16; SW6
Screw plug M12x1 x 16; SW6 — **GZ359312**

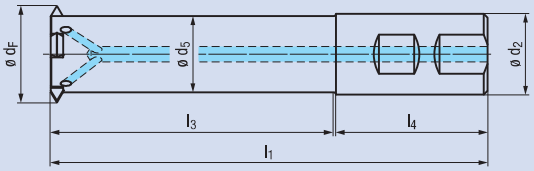
13

Für Abmessungen ab Gewindedurchmesser 48 mm
For thread sizes, from thread diameter 48 mm

Gigant-ic / Gigant sprinter

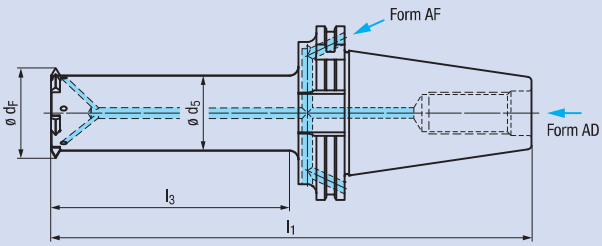
DIN 1835 B · ø d_1 · Z4 - Z5

ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant-ic Gr.13-IKZN	Gigant sprinter Gr.13-IKZN
≥ 48	40,25	32	31	173	110	60	4	GZ341153	
≥ 48	40,25	32	31	208	145	60	4	GZ341143	
≥ 60	48	40	38	245	170	70	5		GZ341203



DIN ISO 7388-1 AD/AF · ø d_1 · Z4 - Z6

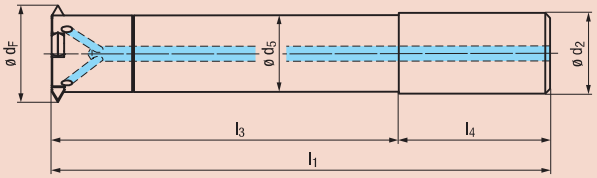
ø d_1 mm	ø d_F mm	ø d_5	l_1	l_3	SK	Z (Inserts)	Gigant-ic Gr.13-IKZN	Gigant sprinter Gr.13-IKZN
≥ 48	40,25	31	212	110	SK 40	4	GZ343003	
≥ 48	40,25	31	245	110	SK 50	4	GZ344003	
≥ 48	40,25	31	247	145	SK 40	4	GZ343103	
≥ 48	40,25	31	280	145	SK 50	4	GZ344103	
≥ 64	52,55	43,75	333	195	SK 50	6		GZ344203



Gigant soft run

DIN 6535 HA · ø d_1 · Z4

ø d_1 mm	ø d_F mm	ø d_2	ø d_5	l_1	l_3	l_4	Z (Inserts)	Gigant soft run Gr.13-IKZN
≥ 48	40,25	32	31	207	145	60	4	GZ34A003



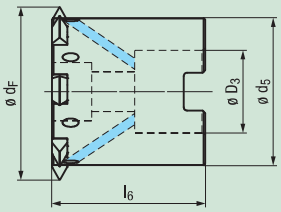
Mit variabler Länge auf Anfrage
With variable length upon request

Gigant modular

DIN 138 · ø d_1 · Z7

ø d_1 mm	ø d_F mm	ø d_5	D_3	l_6	Z (Inserts)	Gigant modular Gr.13-IKZN
≥ 66	57,5	48	27	47,5	7	GZ352003

Nur einzeln einsetzbar
Can only be used individually



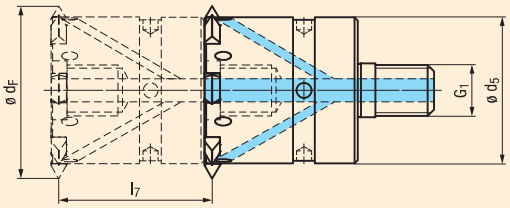
Gigant modular sprinter

MF · ø d_1 · Z7

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	Z (Inserts)	Gigant modular sprinter Gr.13-IKZN
≥ 66	57,5	48	48	M18 x 1,5	7	GZ353003

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

Lieferumfang: ohne 4-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 4-tooth indexable inserts, with clamping screws

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **3,0 Nm** zu beachten

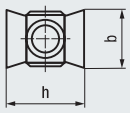
Note: When tightening the clamping screw, the **recommended tightening torque 3.0 Nm** must be used

Fräsringe zum Entfernen des unvollständigen Ganges siehe Seite 506
Milling rings for removal of the incomplete thread, see page 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

13

4-Zahn-Wendeplatten für Steigungsbereich bis 6 mm (4 Gg/1")
4-tooth indexable inserts for a pitch range up to 6 mm (4 tpi)



HM Carbide | **RH + LH**

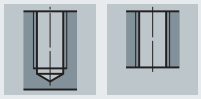
Beschichtung · Coating: TIN | TIALN-T4

Einsatzgebiete – Material
Applications – material 358

P 1.1-5.1	M 1.1-4.1	K 1.1-4.2	
N 1.1-5.3	S 1.1-2.6	H 1.1-1.2	

P mm	P Gg/1" (tpi)	b	h	WP-Z4 Gr.13 TIN	WP-Z4 Gr.13 TIALN-T4
M, MF, UN DIN 13, ASME B1.1					
1,5 - 3	16 - 9	9,5	15,5	GF643305.9514	GF643307.9514
3 - 6	9 - 4	9,5	15,5	GF643305.9518	GF643307.9518
M, MF DIN 13					
4,5		9,5	15,5		GF641307.9521
5		9,5	15,5		GF641307.9522
G (BSP), BSW, BSF, W DIN EN ISO 228, BS 84					
(2,309)	11 (4,5 - 12)	9,5	15,5	GF643305.9550	GF643307.9550
Tr DIN 103					
5		9,5	15,5	ø $d_{1\ min.} = d_F + 43$	GF643307.9604
6		9,5	15,5	ø $d_{1\ min.} = d_F + 53$	GF643307.9605

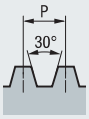
M, MF, UN



M, MF

G (BSP), BSW, BSF, W

Tr



Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.


ACME-Gewinde
ACME thread


Rundgewinde
Round thread


Sägengewinde
Buttress thread


Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

Zubehör
Accessories


Ersatzschraube M4 x 13; Torx T15
Spare screw M4 x 13; Torx T15 — **GZ349013**


Schraubendreher Torx T15
Screw driver Torx T15 — **GZ349023**


Drehmoment-Schraubendreher Torx T15
Torque screw driver Torx T15 — **GZ349043**


Hakenschlüssel mit Zapfen nach DIN 1810-B 45-50 mm
Hook wrench type B with pin acc. to DIN 1810-B 45-50 mm — **GZ349053**


Verschluss-Schraube M18x1,5 x 20; SW10
Screw plug M18x1.5 x 20; SW10 — **GZ359313**

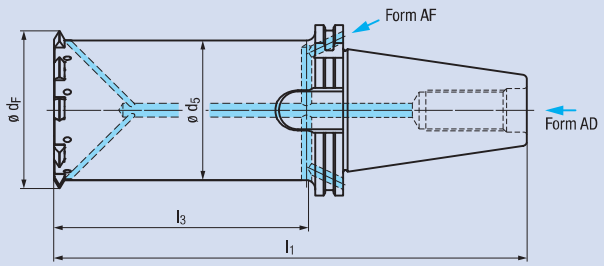
14

Für Abmessungen ab Gewindedurchmesser 64 mm
For thread sizes, from thread diameter 64 mm

Gigant-ic / Gigant sprinter

DIN ISO 7388-1 AD/AF | ø d_1 | Z4 - Z10

ø d_1 mm	ø d_F mm	ø d_5	l_1	l_3	SK	Z (Inserts)	Gigant-ic Gr.14-IKZN	Gigant sprinter Gr.14-IKZN
≥ 64	52,55	41	253	150	SK 40	4	GZ343014	
≥ 64	52,55	41	286	150	SK 50	4	GZ344014	
≥ 64	52,55	41	298	195	SK 40	4	GZ343114	
≥ 64	52,55	41	331	195	SK 50	4	GZ344114	
≥ 80	66,55	55	308	170	SK 50	7	GZ344024	
≥ 80	66,55	55	398	260	SK 50	7	GZ344124	
≥ 115	92	80	489	360	SK 50	10		GZ344204

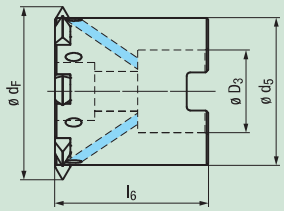


Gigant modular

DIN 138 | ø d_1 | Z7

ø d_1 mm	ø d_F mm	ø d_5	D_3	l_6	Z (Inserts)	Gigant modular Gr.14-IKZN
80	71,5	60	27	47	7	GZ352004

Nur einzeln einsetzbar
Can only be used individually



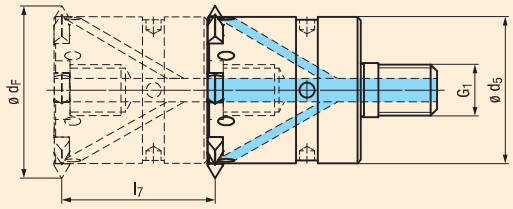
Gigant modular sprinter

MF | ø d_1 | Z7

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	Z (Inserts)	Gigant modular sprinter Gr.14-IKZN
80	71,5	60	60	M24 x 1,5	7	GZ353004

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

Lieferumfang: ohne 4-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 4-tooth indexable inserts, with clamping screws

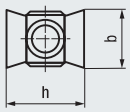
Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **5,0 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 5.0 Nm** must be used

Fräsringe zum Entfernen des unvollständigen Ganges siehe Seite 506
Milling rings for removal of the incomplete thread, see page 506

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

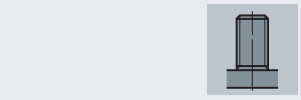
14

4-Zahn-Wendeplatten für Steigungsbereich bis 8 mm (3,5 Gg/1")
4-tooth indexable inserts for a pitch range up to 8 mm (3.5 tpi)



HM Carbide | RH + LH

					TIN	TIALN-T4
Beschichtung · Coating					TIN	TIALN-T4
Einsatzgebiete – Material Applications – material	358				P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-5.3 S 1.1-2.6 H 1.1-1.2	
P mm	P Gg/1" (tpi)	b	h		WP-Z4 Gr.14 TIN	WP-Z4 Gr.14 TIALN-T4
M, MF, UN DIN 13, ASME B1.1						
1,5 - 3	16 - 9	12,5	19		GF643405.9514	GF643407.9514
3 - 6	9 - 4	12,5	19		GF643405.9518	GF643407.9518
M, MF DIN 13						
5,5		12,5	19			GF641407.9709
6		12,5	19			GF641407.9523
G (BSP), BSW, BSF, W DIN EN ISO 228, BS 84						
(2,309)	11 (3,5 - 12)	12,5	19		GF643405.9550	GF643407.9550
Tr DIN 103						
6		12,5	19	ø $d_{1\ min.} = d_F + 61$		GF643407.9605
8		12,5	19	ø $d_{1\ min.} = d_F + 84$		GF643407.9736



Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.

ACME-Gewinde
ACME thread

Rundgewinde
Round thread

Sägengewinde
Buttress thread

Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

Zubehör
Accessories

Ersatzschraube M5 x 15; Torx T20
Spare screw M5 x 15; Torx T20 — **GZ349014**

Schraubendreher Torx T20
Screw driver Torx T20 — **GZ349024**

Drehmoment-Schraubendreher Torx T20
Torque screw driver Torx T20 — **GZ349044**

Hakenschlüssel mit Zapfen nach DIN 1810-B 58-62 mm
Hook wrench type B with pin acc. to DIN 1810-B 58-62 mm — **GZ349054**

Verschluss-Schraube M24x1,5 x 25; SW12
Screw plug M24x1.5 x 25; SW12 — **GZ359314**

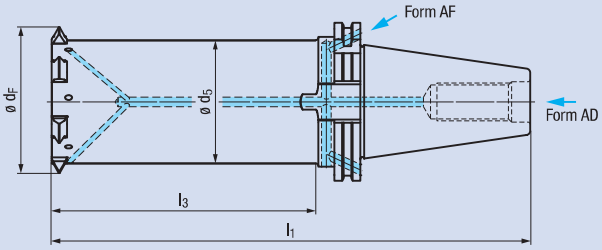
15

Für Abmessungen ab Gewindedurchmesser 115 mm
For thread sizes, from thread diameter 115 mm

Gigant-ic

DIN ISO 7388-1 AD/AF | ø d_1 | Z7

ø d_1 mm	ø d_F mm	ø d_5	l_1	l_3	SK	Z (Inserts)	Gigant-ic Gr.15-IKZN
≥ 115	92	76	341	204	SK 50	7	GZ344035
≥ 115	92	76	497	360	SK 50	7	GZ344045

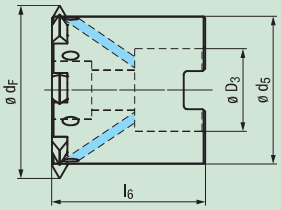


Gigant modular

DIN 138 | ø d_1 | Z7

ø d_1 mm	ø d_F mm	ø d_5	D_3	l_6	Z (Inserts)	Gigant modular Gr.15-IKZN
115	94	78	32	55	7	GZ352005

Nur einzeln einsetzbar
Can only be used individually



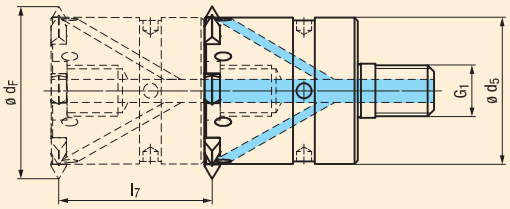
Gigant modular sprinter

MF | ø d_1 | Z7

ø d_1 mm	ø d_F mm	ø d_5	l_7	G_1	Z (Inserts)	Gigant modular sprinter Gr.15-IKZN
115	94	78	60	M24 x 1,5	7	GZ353005

Das Maß l_7 muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement l_7 must be a multiple of the pitch P of the thread to be produced

Je nach Anwendung empfehlen wir, max. 3 Gigant modular sprinter miteinander zu kombinieren
Depending on the application, we recommend to combine up to a maximum of 3 Gigant modular sprinter



Die Innensechskant-Schraube zum stirnseitigen Verschließen der Kühlmittel-Bohrung ist im Lieferumfang enthalten
The hexagon socket screw to close the coolant hole on the face side is included with the delivery

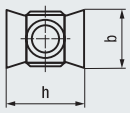
Lieferumfang: ohne 4-Zahn-Wendeplatten, mit Spannschrauben
Delivery: without 4-tooth indexable inserts, with clamping screws

Achtung: Beim Anziehen der Spannschraube ist das **empfohlene Anzugsdrehmoment** von **5,0 Nm** zu beachten
Note: When tightening the clamping screw, the **recommended tightening torque 5.0 Nm** must be used

Aufnahmen und Verlängerungen für Gigant modular und Gigant modular sprinter siehe Seite 508 - 509
Holders and extensions for Gigant modular and Gigant modular sprinter, see pages 508 - 509

15

4-Zahn-Wendeplatten für Steigungsbereich bis 12 mm (4 Gg/1")
4-tooth indexable inserts for a pitch range up to 12 mm (4 tpi)

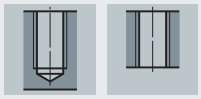


HM Carbide | **RH + LH**

				Beschichtung · Coating	TIN	TIALN-T4
Einsatzgebiete – Material Applications – material	▸▸ 358				P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-5.3 S 1.1-2.6 H 1.1-1.2	
P mm	P Gg/1" (tpi)	b	h		**WP-Z4 Gr.15 TIN**	**WP-Z4 Gr.15 TIALN-T4**

M, MF, UN

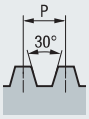
DIN 13, ASME B1.1



1,5 - 6	16 - 4	14,3	28,58	**GF643505.9514**	**GF643507.9514**
6 - 8	4	14,3	28,58	**GF643505.9523**	**GF643507.9523**

Tr

DIN 103



10	14,3	28,58	ø $d_{1\ min.} = d_F$ + **101**		**GF643507.9748**
12	14,3	28,58	ø $d_{1\ min.} = d_F$ + **122**		**GF643507.9749**

Zubehör
Accessories

Ersatzschraube M5 x 18; Torx T20
Spare screw M5 x 18; Torx T20 — **GZ349015**

Schraubendreher Torx T20
Screw driver Torx T20 — **GZ349025**

Drehmoment-Schraubendreher Torx T20
Torque screw driver Torx T20 — **GZ349045**

Hakenschlüssel mit Zapfen nach DIN 1810-B 68-75 mm
Hook wrench type B with pin acc. to DIN 1810-B 68-75 mm — **GZ349055**

Verschluss-Schraube M24x1,5 x 25; SW12
Screw plug M24x1.5 x 25; SW12 — **GZ359315**

Andere Ausführungen auf Anfrage, z.B.
Other designs upon request, e.g.

ACME-Gewinde
ACME thread

Rundgewinde
Round thread

Sägengewinde
Buttress thread

Einstechplatten in verschiedenen Ausführungen
Infeed inserts in various designs

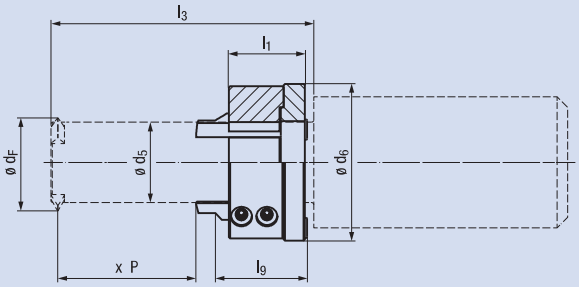
10-14

Fräsringe zum Entfernen des unvollständigen Ganges
Milling rings for removal of the incomplete thread

Gigant-ic

Z3 - Z4

Größe Size	ø d_F mm	ø d_5	ø d_6	l_1	l_9	Z (Inserts)	
10	20,5	15,9	33	18	23	3	GZ80F0C4.010040
11	23,85	19	37	18	22	3	GZ80G0C4.011040
12	32,85	24,5	47	22	24	3	GZ80H0C4.012060
13	40,25	31	55	22	24	4	GZ80I0C4.013060
14	52,55	41	65	22	23	4	GZ80J0C4.014060

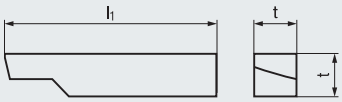


Das Maß „x P“ muss ein Vielfaches der Steigung P des herzustellenden Gewindes sein
The measurement “x P” must be a multiple of the pitch P of the thread to be produced

Die Nutztiefe l_3 des Zirkular-Gewindefräskörpers verringert sich um das Maß l_9
The usable depth l_3 of the circular thread milling body is reduced by dimension l_9

Fräsplatten für Fräsringe
Milling inserts for milling rings

HM Carbide | **RH + LH**



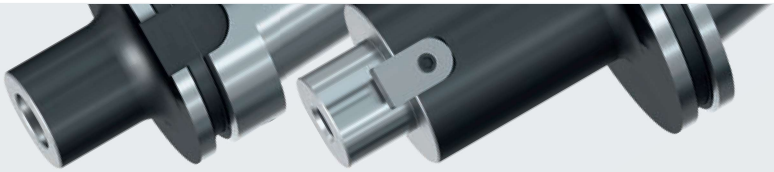
Beschichtung · Coating	TIN	TIALN-T4
Einsatzgebiete – Material Applications – material	358	P 1.1-5.1, M 1.1-4.1, K 1.1-4.2, N 1.1-5.3, S 1.1-2.6, H 1.1-1.2

Größe Size	l_1	t	FP TIN	FP TIALN-T4
10	20	4	GF663005	GF663007
11	20	4	GF663105	GF663107
12	25	6	GF663205	GF663207
13	25	6	GF663305	GF663307
14	25	6	GF663405	GF663407

Product Finder
v_c / f_z
M
MF
UNC UN, UNS
UNF UNEF
G, Rp
NPT, NPTF Rc, W
BSW, BSF
Pg
MJ UNJC, UNJF
EG (STI)
SELF-LOCK
Tr
Zubehör Accessories
BGF
ZBGF
GSF
GF
GF-VZ
GF-KEG
ZGF
ZIRK-GF
Gigant
MoSys

10-15

Aufnahmen für Gigant modular
Holders for Gigant modular



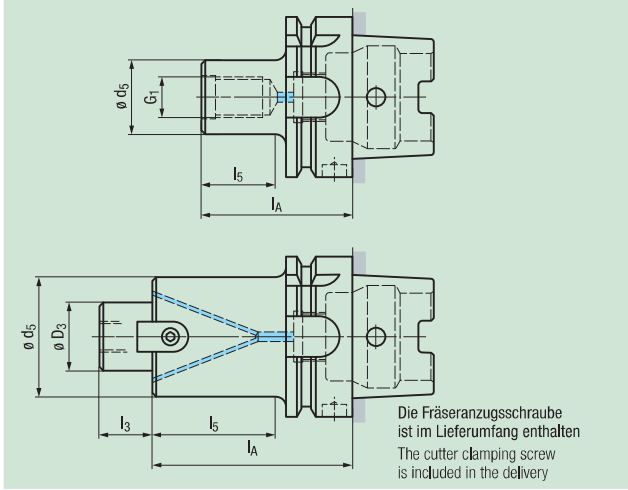
HSK-A

DIN 69893-1 · M

Größe Size	ø d_5	l_5	l_A	G_1	HSK	
10 - 12	29	29	59	M16	HSK-A63	GZ5391A4.116059

DIN 138

Größe Size	ø D_3	ø d_5	l_3	l_5	l_A	HSK	
13	27	48	21	131	160	HSK-A63	GZ5391B4.270160
14	27	60	21	131	160	HSK-A63	GZ5391B5.270160
15	32	78	24	171	200	HSK-A63	GZ5391B4.320200



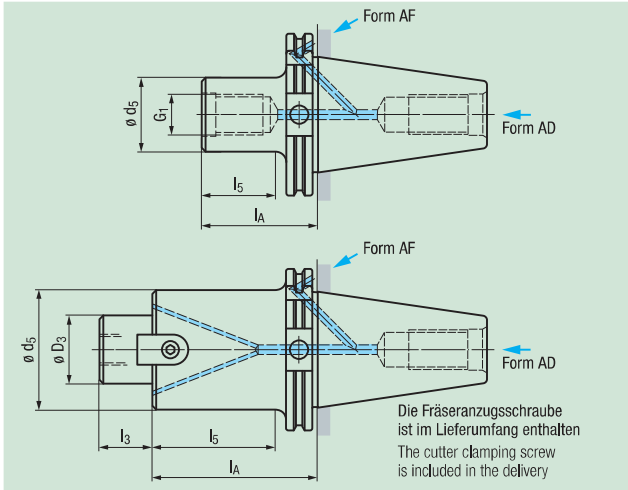
SK (ISO)

DIN ISO 7388-1 AD/AF · M

Größe Size	ø d_5	l_5	l_A	G_1	SK	
10 - 12	29	11	36	M16	SK 40	GZ5243A4.116036
10 - 12	29	11	36	M16	SK 50	GZ5263A4.116036

DIN 138

Größe Size	ø D_3	ø d_5	l_3	l_5	l_A	SK	
13	27	48	21	132	160	SK 50	GZ5263B4.270160
14	27	60	21	132	160	SK 50	GZ5263B5.270160
15	32	78	24	174	200	SK 50	GZ5263B4.320200



Kühlschmierstoffrohre und Schlüssel für HSK-Schäfte
Coolant tubes and wrenches for HSK shanks
742 - 743

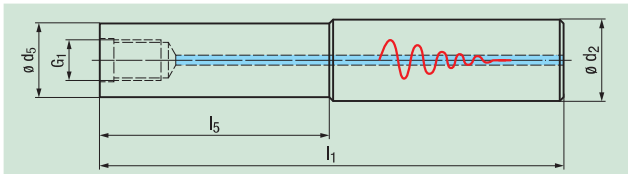
Anzugsbolzen für Steilkegel
Pull studs for ISO tapers
70

HSS-Verlängerungen für Gigant modular
HSS extensions for Gigant modular

ø32

DIN 1835 A · M

Größe Size	ø d_2 h6	ø d_5	l_1	l_5	G_1	
10 - 12	32	29,4	200	108	M16	GZ5521A4.320108



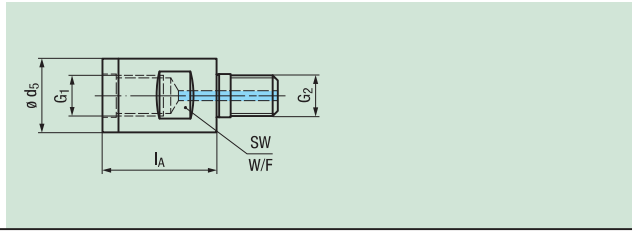
Schwingungsgedämpft, mit Hartmetall-Kern
Special design for reduced vibration, with carbide core

Zwischenadapter für Gigant modular
Intermediate adapters for Gigant modular

M16

M

Größe Size	ø d_5	l_A	G_1	G_2	SW (W/F)	
10 - 12	29	40	M16	M16	22	GZ56E1A4.116040
10 - 12	29	90	M16	M16	22	GZ56E1A4.116090



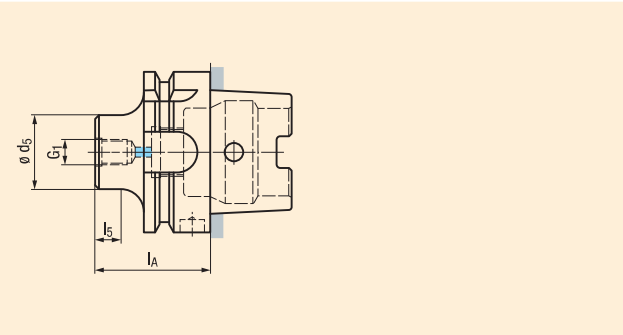
10-15

Aufnahmen für Gigant modular sprinter
Holders for Gigant modular sprinter

HSK-A

DIN 69893-1 · MF

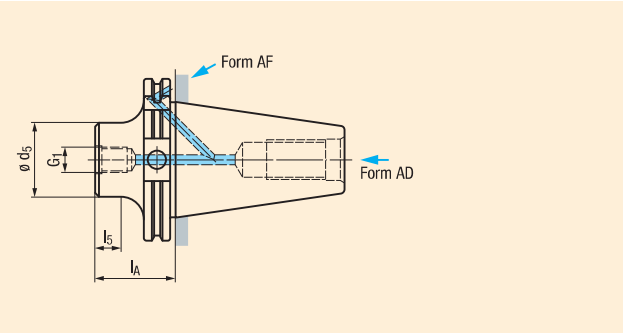
Größe Size	ø d_5	l_5	l_A	G_1	HSK	
10	22,15	10	45	M 8 x 1	HSK-A63	**GZ7391AA.251010**
11	29,15	10	45	M10 x 1	HSK-A63	**GZ7391AB.276010**
12	37,65	12	45	M12 x 1	HSK-A63	**GZ7391AC.301012**
13	48	32	60	M18 x 1,5	HSK-A63	**GZ7391AD.390032**
14	60	40	80	M24 x 1,5	HSK-A100	**GZ73A1AE.452040**
15	78	45	76	M24 x 1,5	HSK-A100	**GZ73A1AF.452045**



SK (ISO)

DIN ISO 7388-1 AD/AF · MF

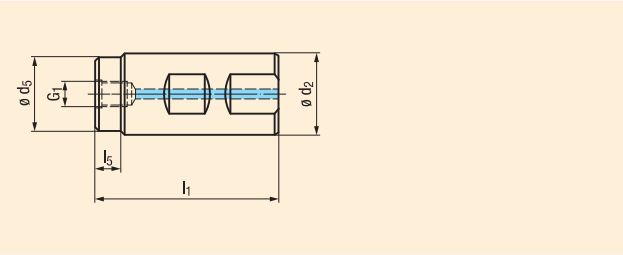
Größe Size	ø d_5	l_5	l_A	G_1	SK	
10	22,15	10	35	M 8 x 1	SK 40	**GZ7243AA.251010**
11	29,15	10	35	M10 x 1	SK 40	**GZ7243AB.276010**
12	37,65	12	35	M12 x 1	SK 40	**GZ7243AC.301012**
13	48	15	37	M18 x 1,5	SK 40	**GZ7243AD.390015**
14	60	15	40	M24 x 1,5	SK 50	**GZ7263AE.452015**
15	78	20	45	M24 x 1,5	SK 50	**GZ7263AF.452020**



ø25-ø32

DIN 1835 B · MF

Größe Size	ø d_2	ø d_5	l_1	l_5	G_1	
10	25	22,15	68	10	M 8 x 1	**GZ75D1AA.251010**
11	32	29,15	72	10	M10 x 1	**GZ7521AB.276010**
12	32	37,65	77	12	M12 x 1	**GZ7521AC.301012**



Kühlschmierstoffrohre und Schlüssel für HSK-Schäfte
Coolant tubes and wrenches for HSK shanks
▸▸ 742 - 743

Anzugsbolzen für Steilkegel
Pull studs for ISO tapers
▸▸ 70

„MoSys“ gestattet vielseitige Plan- und Stufensenkoperationen!

In einer Aufspannung erzielen Sie folgende Vorteile:
- Geringe Anzahl an Werkzeugen
- Wenig Lagerplätze und Lagerkosten
- Kurze Bearbeitungszeiten

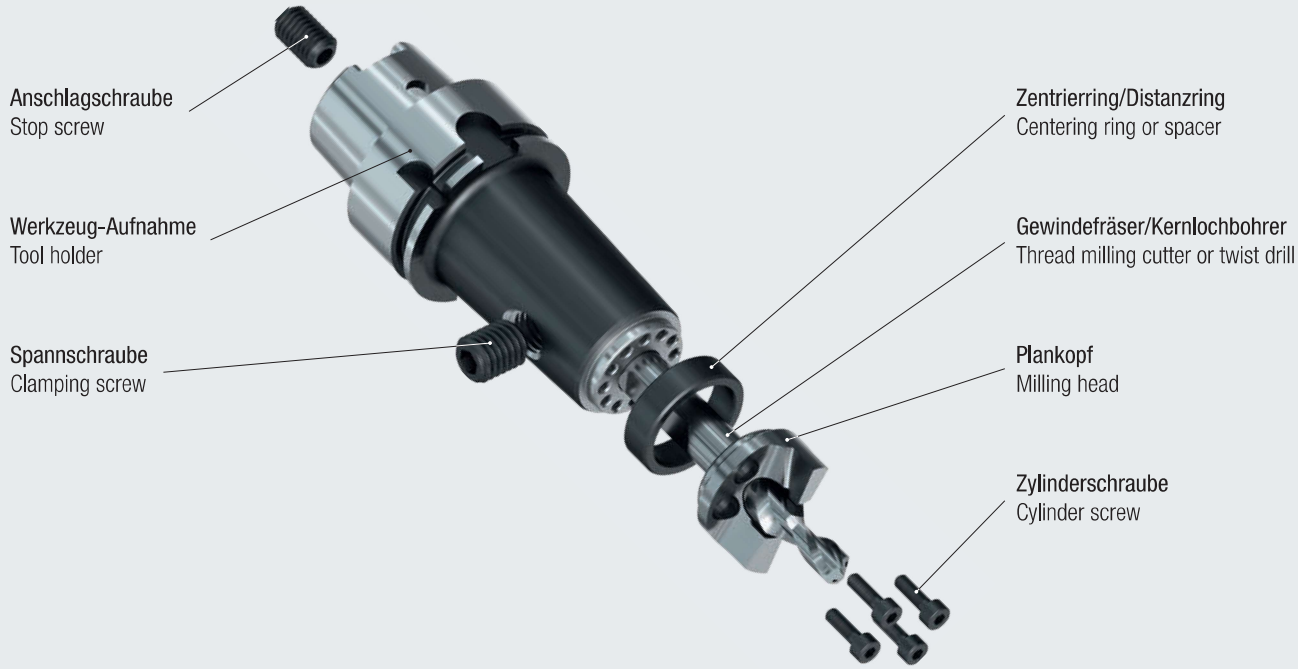
„MoSys“ erfüllt folgende Voraussetzungen:
- Einfache Montage
- Hohe Steifigkeit
- Hohe Maßgenauigkeit
- Modular aufgebaut und einsetzbar

“MoSys” makes a large number of counterbore and stepped bore operations possible!

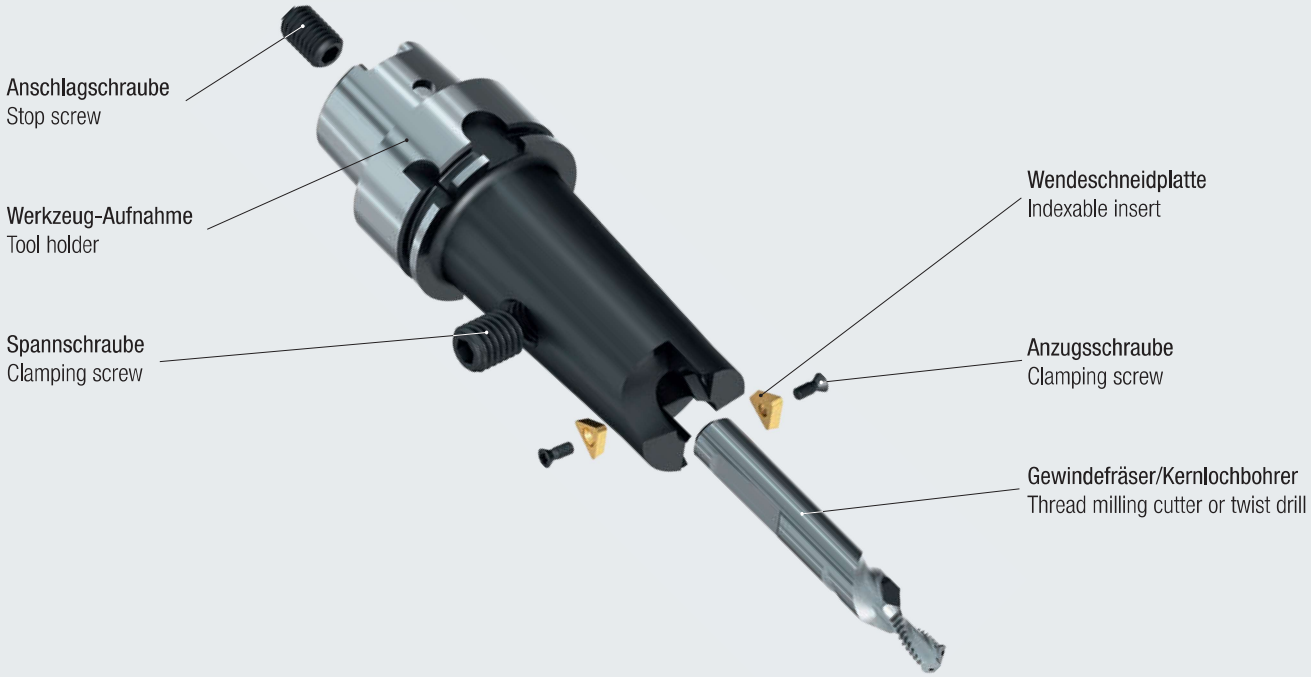
With just one clamping operation, you enjoy a number of advantages:
- Smaller tool quantities
- Fewer magazine places and reduced stocking costs
- Shorter machining times

“MoSys” answers to the following requirements:
- Easy assembly
- High degree of rigidity
- High dimensional precision
- Modular construction for universal application

MoSys mit Vollhartmetall-Kopf
MoSys with solid carbide head



MoSys mit Wendeschneidplatten
MoSys with indexable inserts

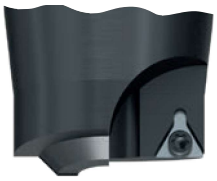


Steilkegelschäfte
ISO taper shanks

Kegel-Hohlschäfte
Hollow taper shanks

Anschluss für Plankopf
Connection for milling head

Anschluss für Wendeschneidplatten
Connection for indexable inserts

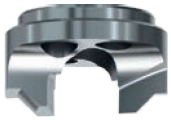


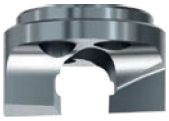
Zentrierring
Centering ring

Wendeschneidplatten
zum Planen und Fasen
Indexable inserts
for plane milling and chamfering

Wendeschneidplatten
zum Planen
Indexable inserts
for plane milling

Vollhartmetall-Planköpfe
Solid carbide milling heads





Gewindefräser oder Spiralbohrer
Thread milling cutters or twist drills

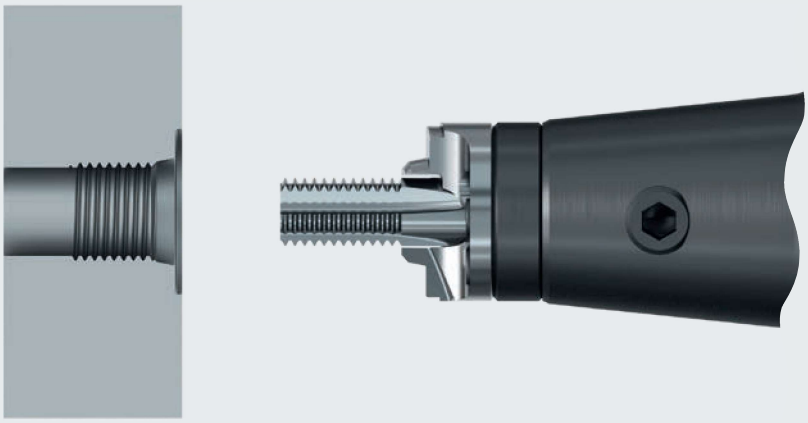
Zur Angebotsausarbeitung werden folgende Daten benötigt:

- Werkstückzeichnung mit evtl. Störkontur
- Maschinenseitige Aufnahme mit Kühlschmierstoff-Übergabe
- Detaillierte Senkkontur
- Herzustellende Gewindeabmessung einschließlich Gewindetiefe
- Bohrungsform (Durchgangsloch, Grundloch)
- Kernlochdurchmesser (falls vorhanden)
- Zu bearbeitender Werkstoff

For submitting an offer, we need the following information:

- Workpiece drawing with possible obstruction contours
- Shank connection on the machine side, with coolant supply
- Detailed countersink contour
- Size of the thread to be produced, including thread depth
- Type of hole (through hole or blind hole)
- Drilled hole diameter (if known)
- Workpiece material

Beispiel für Bearbeitung mit Vollhartmetall-Kopf
Example for machining with solid carbide head



Beispiel für Bearbeitung mit Wendeschneidplatten
Example for machining with indexable inserts