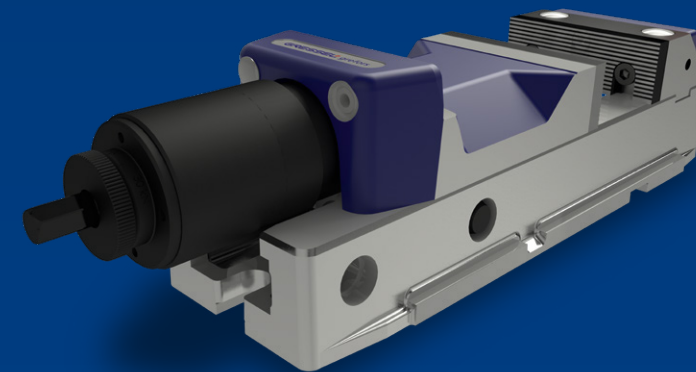


grefors

Maschinenschraubstock

Machine vice



Bewährtes Hochdruck-Spannsystem
Approved high-pressure clamping system

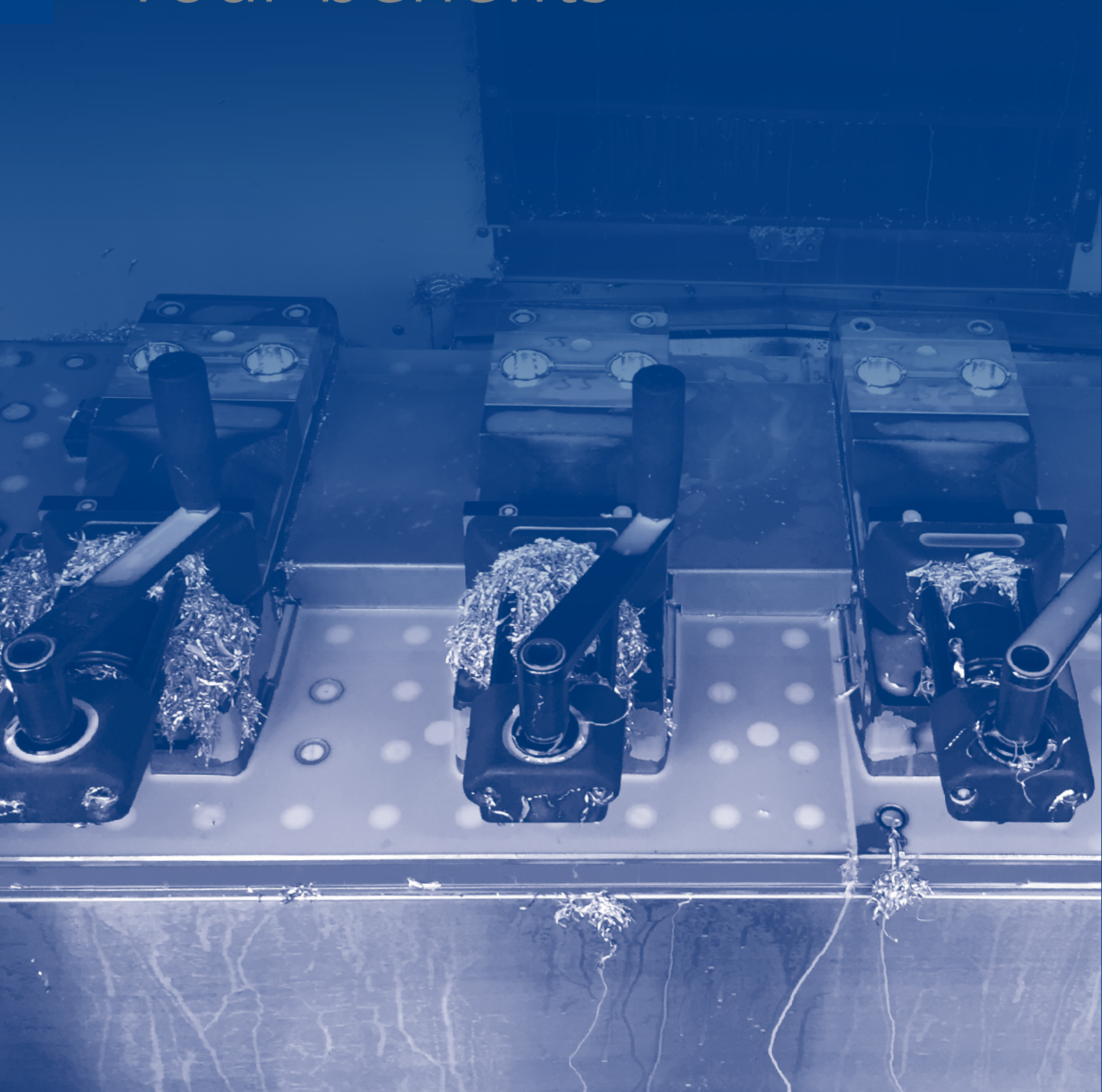
Mechanischer Maschinenschraubstock mit stufenloser Krafteinstellung von 10 % bis 100 % der Spannkraft mit nur 1 Kurbelumdrehung und immer gleicher Kurbelendstellung. Schnelle Spannbereichsverstellung über Absteckbolzen.

Mechanical machine vice with continuous force adjustment. 10 % to 100 % of the clamping force with only 1 rotation of the hand crank and always the same final crank position. Quick adjustment of the clamping range using locking pins.

Ihre Nutzen

Your benefits

7



7



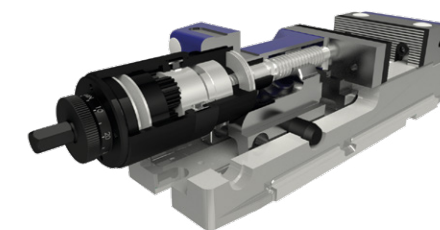
Zeit und Kraft sparen – nur 1 Kurbelumdrehung
Save time and energy – only 1 turn of the crank

- Spannzeit < 1 Sekunde
- nur eine Kurbelumdrehung für volle Spannkraft
- definierte Kurbelendlagenstellung
- kein Verlust der Spannkraft wegen mechanischer Kraftübersetzung
- Clamping < 1 second
- only one turn of the crank required for full clamping force
- defined final position of the crank
- no loss of clamping force thanks of mechanical force transmission



Einfaches Handling
Easy to handle

- stufenlose Spanneinstellung
- von Hand bis 60 kN einstellbar
- stufenlos und ohne Werkzeug
- präzise dosiert
- sicher und schnell
- continuous adjustment of clamping force
- manually adjustable up to 60 kN
- continuous adjustment, and no tool necessary
- precise clamping force regulation
- reliable and quick



Hohe Bearbeitungspräzision
High machining precision

- mechanisch Spannen
- robuste Ausführung
- hohe Wiederholgenauigkeit
- sicher verriegelt, vibrationssicher
- mechanical clamping
- robust design
- good repeat accuracy
- securely locked, resistant to vibration

Systemübersicht grefors

System overview grefors

① Modulares System Modular system

- vielseitiges Aufsatzbackensystem
- versatile top jaw system

② Komplett gekapselt Completely encapsulated

- Kraft- und Verstellmechanismus gekapselt
- Schutz vor Spänen und Flüssigkeiten
- Force and adjustment mechanism encapsulated
- Protection against chips and coolant

③ Mechanische Kraftübersetzung Mechanical force transmission

- mit Vorspannung zur Werkstückpositionierung
- Spannkraft wird mechanisch verriegelt
- vibrationssicher
- with preclamping to position the workpiece
- Mechanically locked clamping force
- resistant to vibration

④ Stufenlose Spannkrafteinstellung Continuous adjustment of the clamping force

- von Hand einstellbar, kein Werkzeug notwendig
- konstante Wiederholgenauigkeit
- manually adjustable, no tool necessary
- consistent repeatability

⑤ Nur 1 Kurbelumdrehung Only 1 turn of the crank

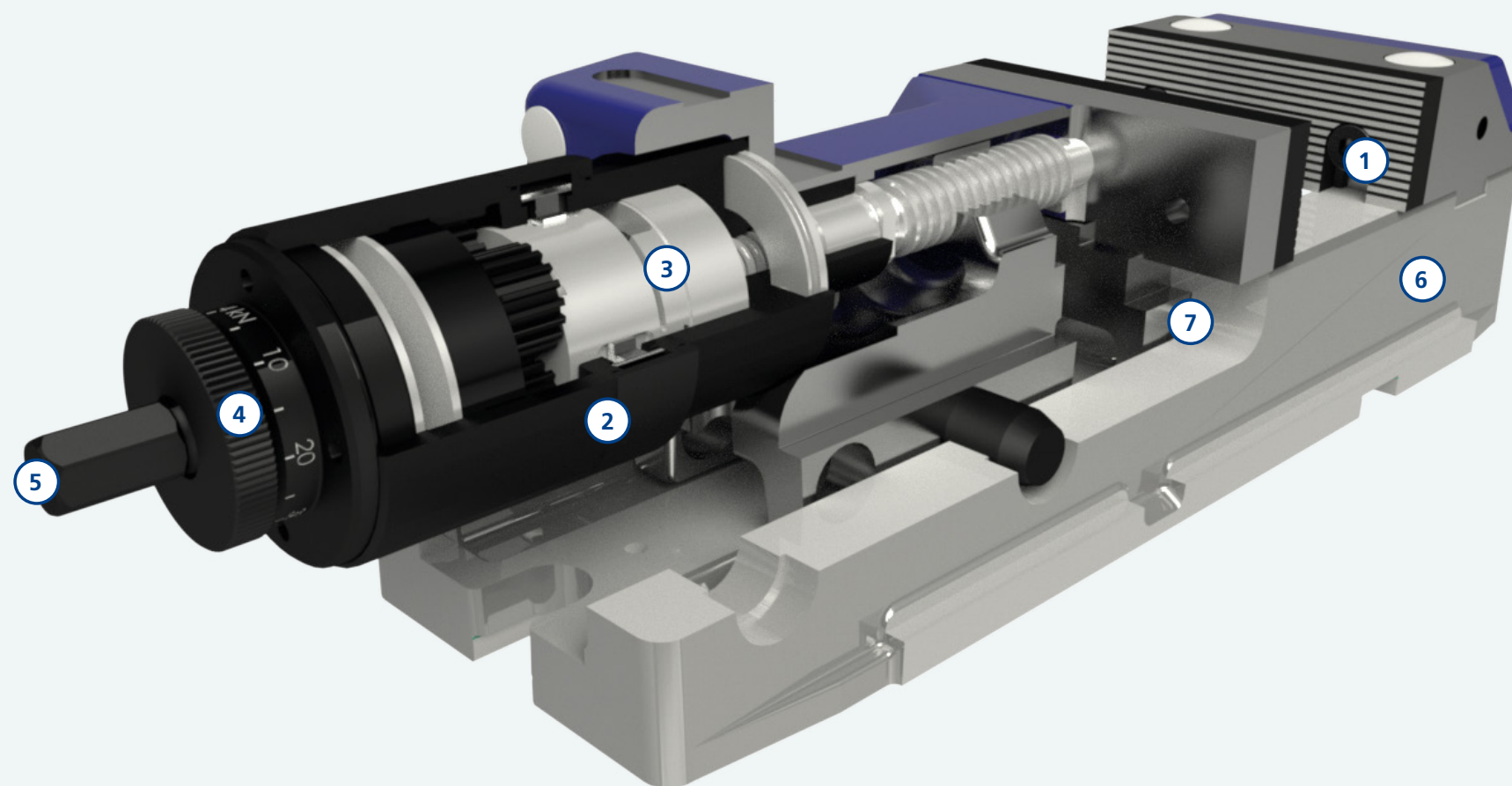
- von 10 – 100 % der Spannkraft mit nur 1 Kurbelumdrehung
- immer gleiche Kurbelendstellung
- from 10 – 100 % of the clamping force with only 1 turn of the crank
- crank always at the same final position

⑥ Niedrige Grundplatte Low base plate

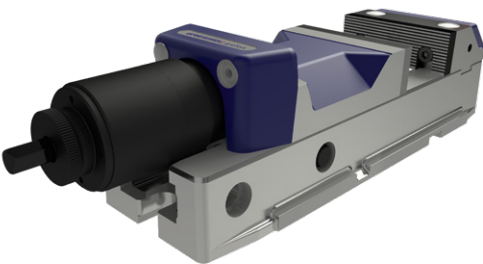
- verzugsfrei
- Sphäroguss
- distortion-free
- Spheroidal cast iron

⑦ Innenliegende Schieberführungen Internal slider guides

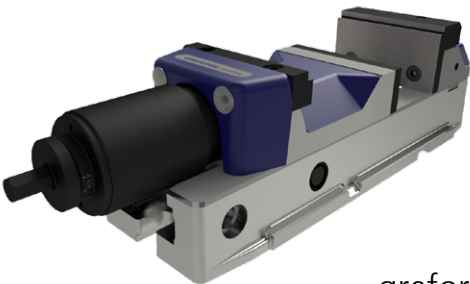
- grosse Werkstückauflage
- flammgehärtet
- large workpiece support
- flame-hardened



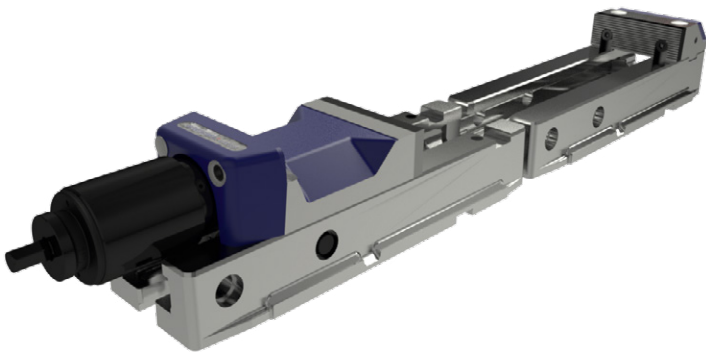
Baukasten Construction kit



grefos
Standard
Standard
[Seite/page 293](#)



grefors-VS
vergrößerte Spannweite
extended clamping range
[Seite/page 294](#)

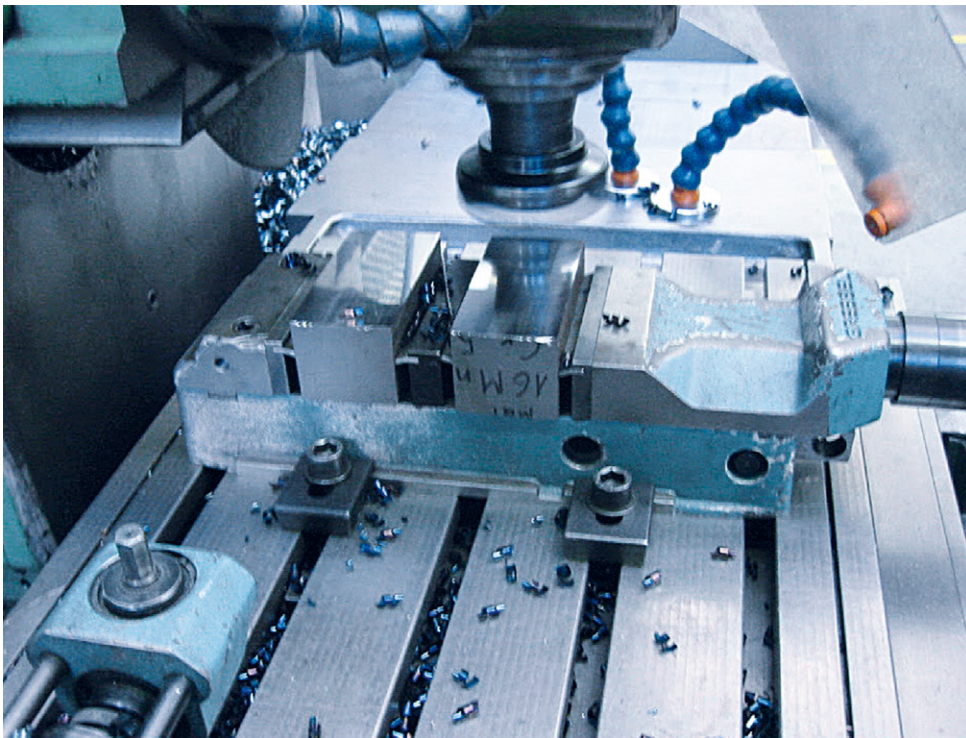


grefos
verlängert
extended
[Seite/page 295](#)

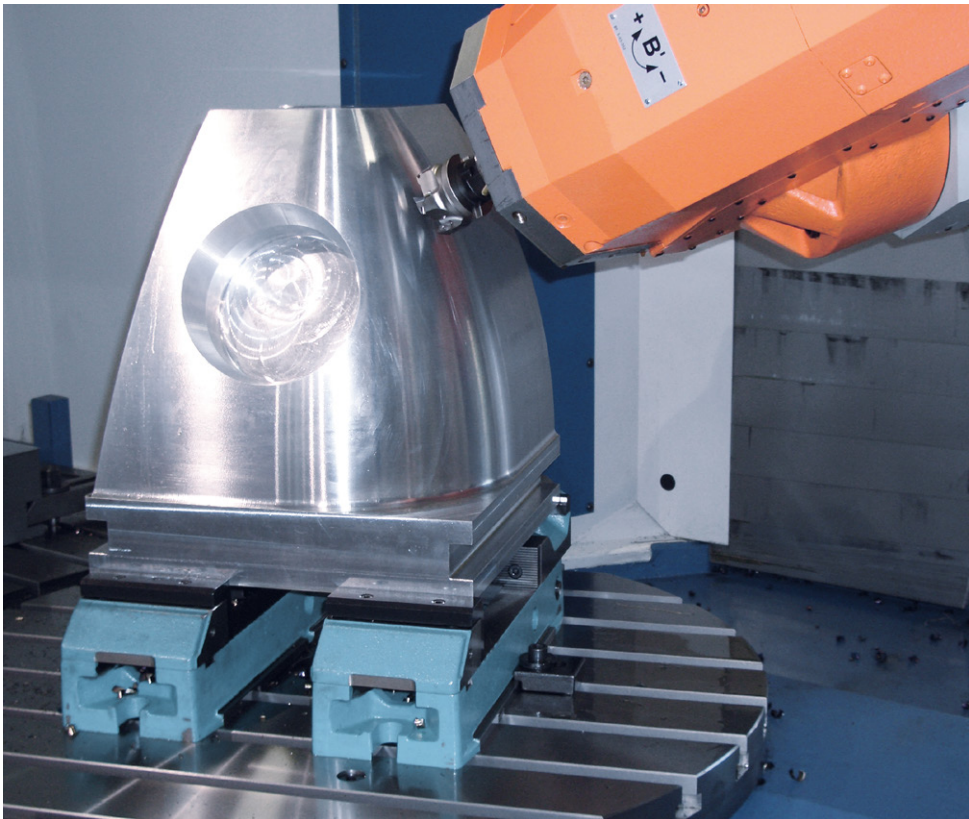
Anwendungen Applications



grefors
Mit weichen Aufsatzbacken
und eingeprägter Spannkantur
zum Spannen und Bearbeiten
von runden Werkstücken
With soft top jaws and milled
clamping contour for the clamping
and machining of round workpieces



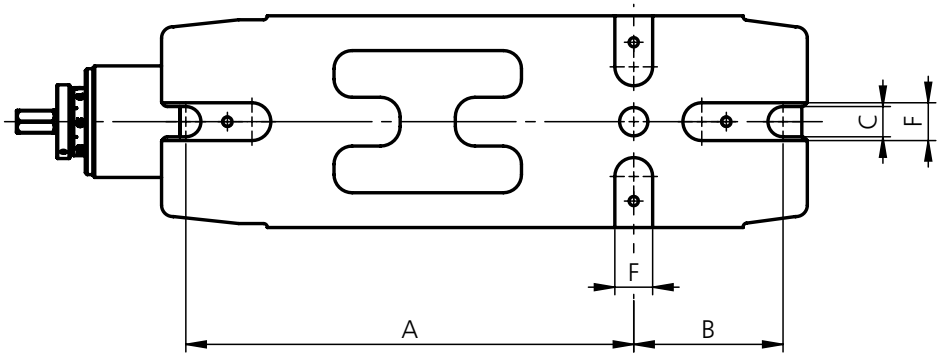
grefors
Mit Zwischenbacke und Federblatt-
Niederzugbacken zum optimalen
Planfräsen von zwei Werkstücken
in einem Maschinenschraubstock
With intermediate jaw and pull-down
jaws with spring plate for optimum
face milling of two workpieces in one
machine vice



grefors 125-VS

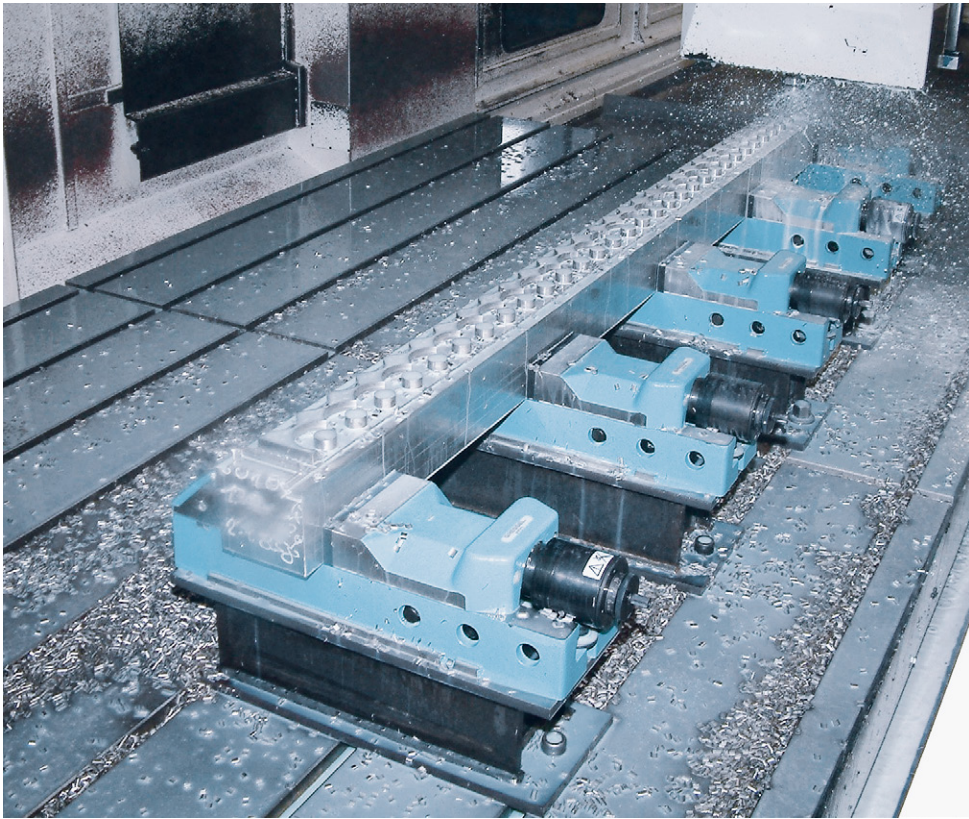
grefors 125-VS zum Spannen
grosser Werkstücke
grefors 125-VS for clamping
large workpieces

Standard Schnittstelle
Standard interface



Typ	Type	A	B	C	F _{H7}
grefors 100		240	80	15	20
grefors 125		280	100	18	20
grefors 160		380	130	22	20

Masse (mm) Dimensions (mm)



grefors

grefors mit Unterbau zum Spannen
und Bearbeiten von langen
Werkstücken
grefors with base support for the
clamping and machining of long
workpieces

Technische Informationen

Technical information

1. Funktionsprinzip grefors Functional principle of grefors

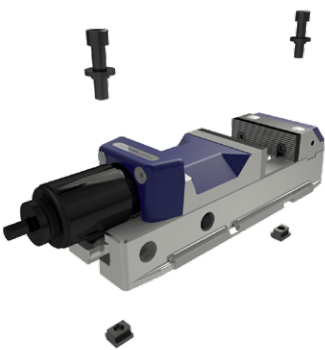
Der grefors ist für das Spannen von Rohteilen und bearbeiteten Werkstücken konzipiert. Die Vielseitigkeit wird über die Wahl des Zubehörs erreicht. Der Kraftaufbau ist rein mechanisch und wird über ein mechanisches Kraftelement realisiert. Die Krafteinstellung erfolgt stufenlos über einen Einstellring. Die eingestellte Spannkraft wird durch eine Kurbelumdrehung der Handkurbel erreicht. Der grefors kann mit wenigen Handgriffen montiert und demontiert werden.

The grefors clamping device is designed for the clamping of both blanks and machined work pieces. Versatility is achieved through the selection of accessories. The clamping force is generated entirely mechanically by means of a mechanical force element and can be continuously modified by means of the adjustment ring. The clamping force is achieved by one rotation of the crank. The grefors clamping device is very easy to mount and dismount.

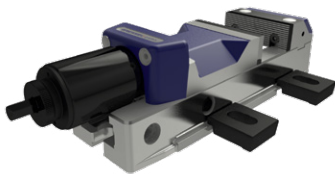
2. Spannkräfte grefors Clamping forces grefors

Baugröße Size	Spannkraft Clamp. force
grefors 100	4–30 kN
grefors 125	4–40 kN
grefors 160	5–60 kN

3. Aufspannen/Ausrichten Clamping/alignment



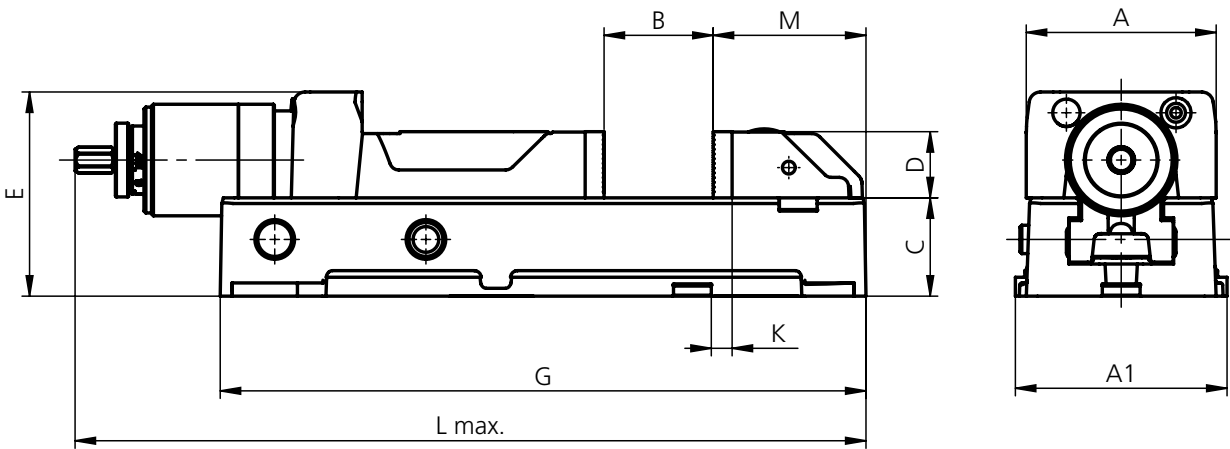
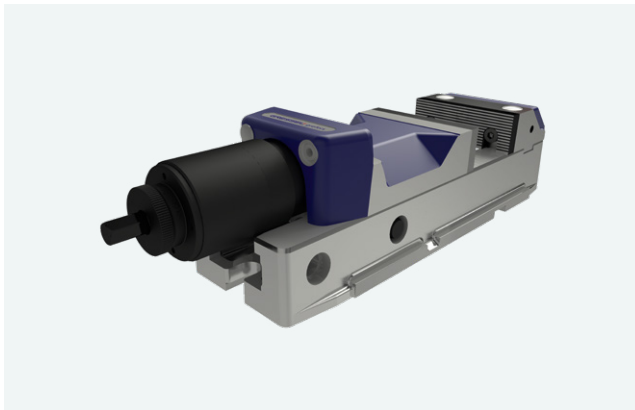
Ausrichtung durch Präzisionsnutensteine auf dem Nutentisch mit Längs- bzw. Quernut 20H7 im Grundkörper
Align using the precision slot nuts on the t-slot machine table with longitudinal or transverse slot 20H7 in the base



Aufspannen mit Schrauben durch den Grundkörper oder seitlich mit Spannpratzen
Clamp with screws in the base body or laterally with clamping claws

grefors

Maschinenschraubstock
Machine vice



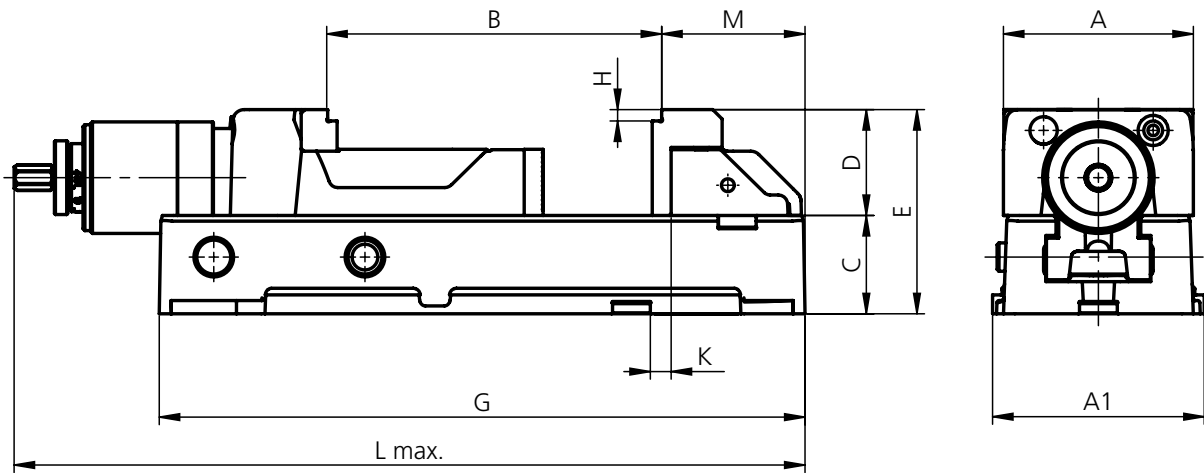
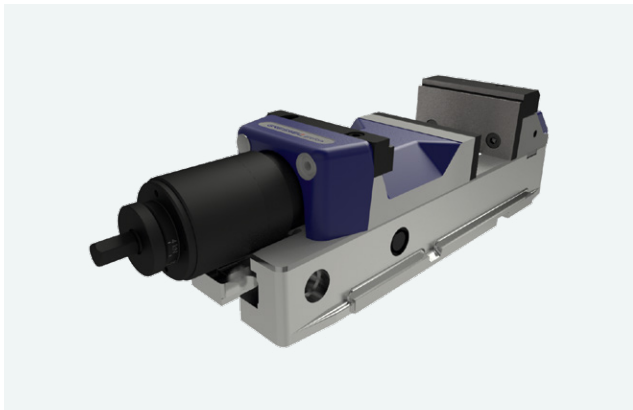
Typ Type	A	A1	B	C	D	E	G	K _{±0,015}	L _{max.}	M
grefors 100	100	112	0–159	52	35	108	342	11	521	81
grefors 125	125	140	0–201	62	40	118	400	28	584	85
grefors 160	160	176	0–300	78	50	149	544	40	784	112

Masse (mm) Dimensions (mm)

Typ Type	Beschreibung Description	Backenbreite Jaw width mm	Spannkraft Clamp. force kN	Gewicht Weight kg	Lieferumfang Delivery details	Bestell-Nr. Order No.
grefors 100	Maschinenschraubstock Machine vice	100	4–30	20	Standardbacken Oberfläche profiliert, Handkurbel, 4 Spannpratzen Standard jaws with profiled surface, hand crank, 4 clamping claws	MHS.100.500.01
grefors 125	Maschinenschraubstock Machine vice	125	4–40	27	Standardbacken Oberfläche profiliert, Handkurbel, 4 Spannpratzen Standard jaws with profiled surface, hand crank, 4 clamping claws	MHS.125.500.01
grefors 160	Maschinenschraubstock Machine vice	160	5–60	55	Standardbacken Oberfläche profiliert, Handkurbel, 4 Spannpratzen Standard jaws with profiled surface, hand crank, 4 clamping claws	MHS.160.500.01

grefors-VS

Maschinenschraubstock mit
vergrössertem Spannbereich (VS)
Machine vice with increased
clamping range (extended)



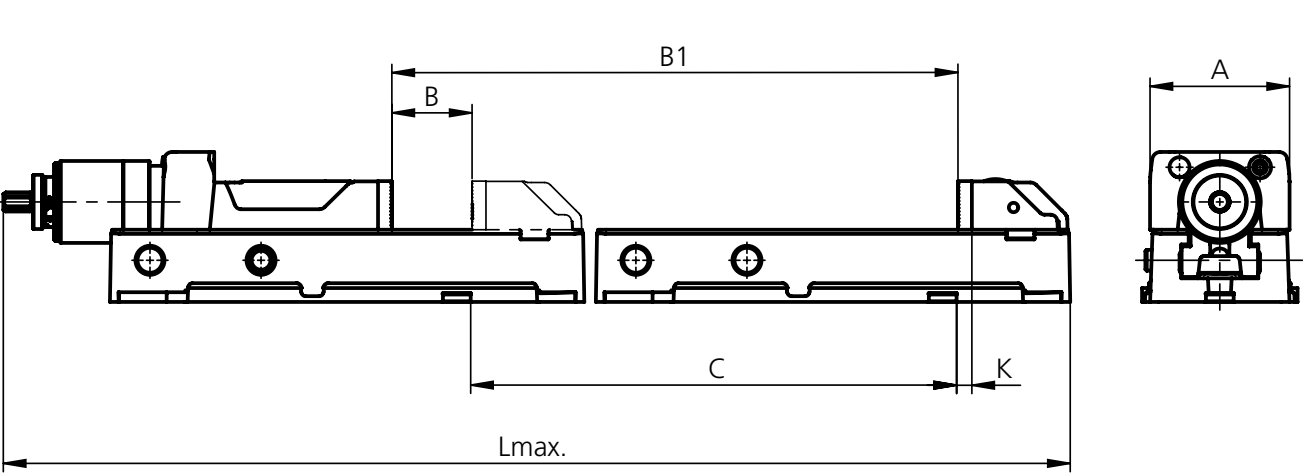
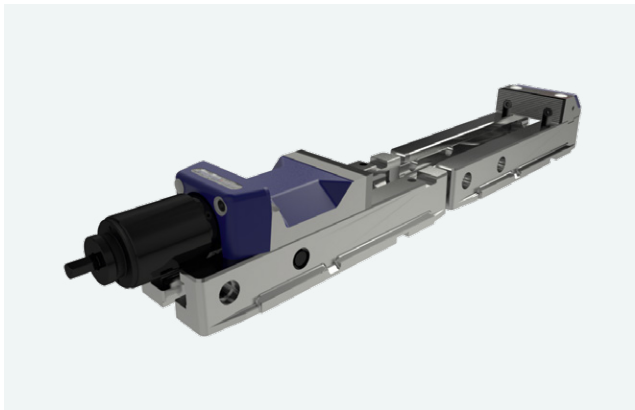
Typ	Type	A	A1	B	C	D	E	G	H	$K_{\pm 0.015}$	$L_{max.}$	M
grefors 100-VS		100	112	118–278	52	56	108	342	6	11	521	76
grefors 125-VS		125	140	137–338	62	56	118	400	6	28	584	80
grefors 160-VS		160	176	169–470	78	71	149	544	6	40	784	107

Masse (mm) Dimensions (mm)

Typ	Type	Backenbreite Jaw width mm	Bestell-Nr. Schraubstock Order No. vice	Bestell-Nr. Stufenbacken Order No. stepped jaws
grefors 100		100-VS	MHS.100.500.01	MHA.100.530.01
grefors 125		125-VS	MHS.125.500.01	MHA.125.530.01
grefors 160		160-VS	MHS.160.500.01	MHA.160.530.01

grefors

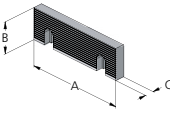
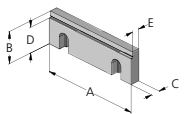
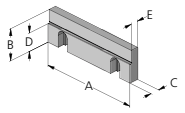
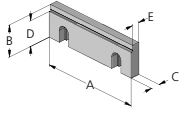
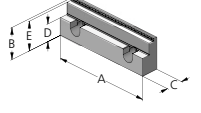
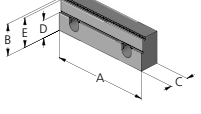
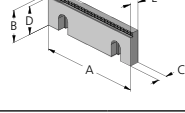
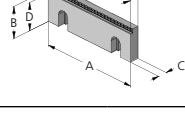
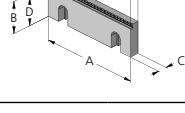
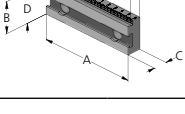
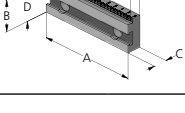
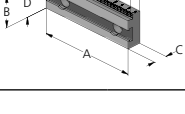
verlängert
extended

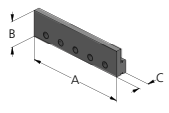
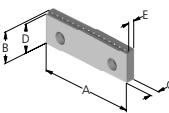
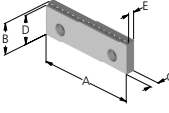
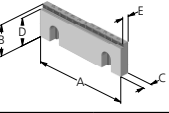
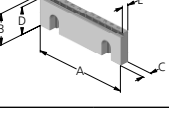
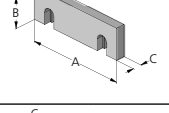
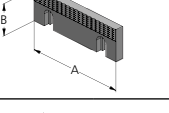
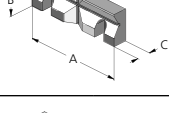
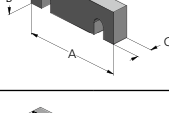
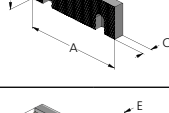
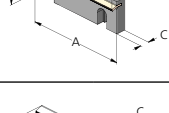
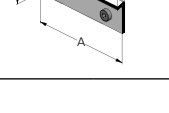


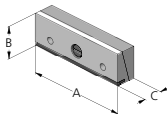
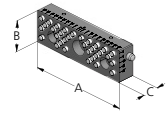
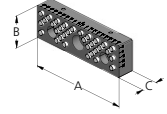
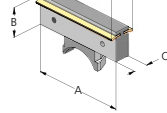
Typ	Type	A	B	B1	C	$K_{\pm 0.015}$	$L_{max.}$
grefors 100		100	0–159	350–509	350	11	871.3
grefors 125		125	0–201	410–611	410	28	994.1
grefors 160		160	0–300	550–850	550	40	1334.15

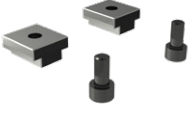
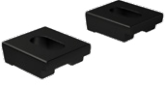
Masse (mm) Dimensions (mm)

Typ	Type	Backenbreite Jaw width mm	Bestell-Nr. Schraubstock Order No. vice	Bestell-Nr. Grundkörper Verlängerung Order No. base body extension
grefors 100		100	MHS.100.500.01	MHA.100.540.01
grefors 125		125	MHS.125.500.01	MHA.125.540.01
grefors 160		160	MHS.160.500.01	MHA.160.540.01

grefos Aufsatzbacken Top jaws								
	Bezeichnung Designation	Masse (mm) Dimensions (mm)					Passend zu Typ Suitable for type	Bestell-Nr. Order No.
		A	B	C	D	E	grefos	
	Standardbacke Oberfläche profiliert inkl. Schrauben (1 Stk.) Standard jaw profiled surface incl. screws (1 pc.)	100	35	10			X	MHS.100.545.01
		125	40	11.5			X	MHS.125.545.01
		160	50	13.5			X	MHS.160.545.01
	Stufenbacke 5 mm (100) 8 mm (125+160) inkl. Schrauben (1 Stk.) Stepped jaw 5 mm (100) 8 mm (125+160) incl. screws (1 pc.)	100	35	10	30	7.5	X	MHS.100.190.11
		125	40	11.5	32	9.5	X	MHS.125.190.11
		160	50	13.5	42	10.5	X	MHS.160.190.11
	Stufenbacke 17 mm inkl. Schrauben (1 Stk.) Stepped jaw 17 mm incl. screws (1 pc.)	125	40	11.5	23	9.5	X	MSA.125.188.11
	Stufenbacke beschichtet 5 mm inkl. Schrauben (1 Stk.) Stepped jaw coated 5 mm incl. screws (1 pc.)	100	35	10	30	7.5	X	MSA.100.189.11
		125	40	11.5	35	9.5	X	MSA.125.189.11
		160	50	13.5	45	10.5	X	MSA.160.189.11
	Stufenbacke 18 mm und 3 mm grip inkl. Schrauben (1 Stk.) Stepped jaw 18 mm and 3 mm grip incl. screws (1 pc.)	125	40	21.5	22	37	X	MSA.125.167.11
	Stufenbacke breit 18 mm und 3 mm grip inkl. Schrauben (1 Stk.) Stepped jaw width 18 mm and 3 mm grip incl. screws (1 pc.)	125	40	24	22	37	X	MSA.125.168.11
	Stufenbacke grip 3 mm inkl. Schrauben (1 Stk.) Stepped grip jaw 3 mm incl. screws (1 pc.)	100	35	10	32	7.5	X	MHS.100.172.12
		125	40	11.5	37	9	X	MHS.125.172.12
		160	50	13.5	47	11	X	MHS.160.172.12
	Stufenbacke grip 5 mm inkl. Schrauben (1 Stk.) Stepped grip jaw 5 mm incl. screws (1 pc.)	100	35	10	30	7.5	X	MHS.100.171.01
		125	40	11.5	35	9	X	MHS.125.171.01
		160	50	13.5	45	11	X	MHS.160.171.01
	Stufenbacke grip 8 mm inkl. Schrauben (1 Stk.) Stepped grip jaw 8 mm incl. screws (1 pc.)	100	35	10	27	7.5	X	MHS.100.170.12
		125	40	11.5	32	9	X	MHS.125.170.12
		160	50	13.5	42	11	X	MHS.160.170.12
	Stufenbacke grip 3 mm mit T-Nut inkl. Schrauben (1 Stk.) Stepped grip jaw 3 mm with t-slot incl. screws (1 pc.)	100	35	17.5	32	11.5	X	MSA.100.152.11
		125	40	17.5	37	11.5	X	MSA.125.152.11
	Stufenbacke grip 5 mm mit T-Nut inkl. Schrauben (1 Stk.) Stepped grip jaw 5 mm with t-slot incl. screws (1 pc.)	100	35	17.5	30	11.5	X	MSA.100.151.11
		125	40	17.5	35	11.5	X	MSA.125.151.11
		160	50	20	45	13.5	X	MSA.160.151.11
	Stufenbacke grip 8 mm mit T-Nut inkl. Schrauben (1 Stk.) Stepped grip jaw 8 mm with t-slot incl. screws (1 pc.)	100	35	10	27	7.5	X	MSA.100.170.01
		125	40	17.5	32	11.5	X	MSA.125.150.11
		160	50	20	42	13.5	X	MSA.160.150.11

grefos Aufsatzbacken Top jaws								
	Bezeichnung Designation	Masse (mm) Dimensions (mm)					Passend zu Typ Suitable for type	Bestell-Nr. Order No.
		A	B	C	D	E	grefos	
	Positionierleiste (1 Stk.) für Stufenbacke grip mit T-Nut inkl. 2 Gewindestifte M8 Positioning strip (1 pc.) for stepped grip jaw with t-slot incl. 2 threads pins M8	100	32	13.5			X	MSA.100.155.01
		125	32	13.5			X	MSA.125.155.01
		160	32	13.5			X	MSA.160.155.01
	Stufenbacke carbide-grip 3 mm (1 Stk.) Stepped carbide-grip jaw 3 mm (1 pc.)	100	35	10	32	7	X	MSA.100.160.01
		125	40	11.5	37	8	X	MSA.125.160.01
		160	50	13.5	47	10.5	X	MSA.160.160.01
	Stufenbacke carbide-grip 5 mm (1 Stk.) Stepped carbide-grip jaw 5 mm (1 pc.)	100	35	12	30	7	X	MSA.100.161.01
		125	40	11.5	35	8	X	MSA.125.161.01
		160	50	15.5	45	10.5	X	MSA.160.161.01
	Stufenbacke grip 5 mm für Aluminium und Kunststoff (1 Stk.) Stepped grip jaw 5 mm for aluminium and plastic (1 pc.)	125	40	11.5	35	8	X	MHZ.125.094.11
	Stufenbacke Prägeprofil LANG (1 Stk.) Stepped jaw pre-stamp profile LANG (1 pc.)	125	40	11.5	37		X	MSA.125.153.01
	Backe geschliffen inkl. Schrauben (1 Stk.) Ground jaw incl. screws (1 pc.)	100	35	10			X	MHS.100.198.11
		125	40	11.5			X	MHS.125.198.11
		160	50	13.5			X	MHS.160.198.11
	Backe grip inkl. Schrauben (1 Stk.) Grip jaw incl. screws (1 pc.)	100	35	10			X	MHS.100.193.11
		125	40	11.5			X	MHS.125.193.11
		160	50	13.5			X	MHS.160.193.11
	Prismabacke 125 ø14-48 mm inkl. Schrauben (1 Stk.) Prismatic jaw 125 ø14-48 mm incl. screws (1 pc.)	100	35	15.5			X	MHS.100.191.11
		125	40	17.5			X	MHS.125.191.11
		160	50	19.5			X	MHS.160.191.11
	Backe weich inkl. Schrauben (1 Stk.) Soft jaw incl. screws (1 pc.)	100	35	16			X	MHS.100.192.11
		125	40	20			X	MHS.125.192.11
		160	50	20			X	MHS.160.192.11
	Backe gehauen (Stahl) inkl. Schrauben (1 Stk.) Serrated jaw (steel) incl. screws (1 pc.)	100	35	10.7			X	MHS.100.199.11
		125	40	12.2			X	MHS.125.199.11
		160	50	14.7			X	MHS.160.199.11
	Federblatt- Niederzugbacke inkl. Schrauben (1 Stk.) Pull-down jaw with spring plate incl. screws (1 pc.)	100	35	10		18.5	X	MHS.100.196.01
		125	40	11.5		19	X	MHS.125.196.01
		160	50	13.5		21	X	MHS.160.196.01
	Federblech- Niederzugbacke inkl. Schrauben (1 Stk.) Pull-down jaw with spring plate incl. screws (1 pc.)	100	34	10			X	MSA.100.194.01
		125	35	10			X	MSA.125.194.01
		160	45	12			X	MSA.160.194.01

grefos Aufsatzbacken Top jaws								
	Bezeichnung Designation	Masse (mm) Dimensions (mm)					Passend zu Typ Suitable for type	Bestell-Nr. Order No.
		A	B	C	D	E	grefos	
	Präzisions-Niederzugbacke inkl. Schrauben (1 Stk.) Precision pull-down jaw incl. screws (1 pc.)	100	35	25			X	MSA.100.240.01
		125	40	25			X	MSA.125.240.01
		160	50	27.5			X	MSA.160.240.01
	Spannbacke mit Positionierstiften – Stift rechts inkl. Schrauben (1 Stk.) Clamping jaw with positioning pins – pen right incl. screws (1 pc.)	125	40	20			X	MSA.125.181.01
	Spannbacke mit Positionierstiften – Stift links inkl. Schrauben (1 Stk.) Clamping jaw with positioning pins – pen left incl. screws (1 pc.)	125	40	20			X	MSA.125.182.01
	Zwischenbacke mit Nut inkl. 2 Federblätter und Schrauben (1 Stk.) Intermediate jaw with slot incl. 2 spring leaves and screws (1 pc.)	100	35	28		45	X	GPZ.100.057.01
		125	40	20		35	X	MSA.125.205.01
		160	50	20		35	X	MSA.160.205.01

grefos Zubehör Accessories			
	Bezeichnung Designation	Passend zu Typ Suitable for type	Bestell-Nr. Order No.
	Werkstückunterlagen Set für grefos 125 Workpiece supports set for grefos 125		
		grefos 125	MSA.125.210.01
	Präzisions-Nutensteine mit Schrauben für T-Nut (Satz à 2 Stk.) Precision slot nuts with screws for t-slot (Set of 2 pcs.)	12 mm/M6	MAA.110.012.01
		14 mm/M6	MAA.110.014.01
		16 mm/M6	MAA.110.016.01
		18 mm/M6	MAA.110.018.01
	Aufspannschrauben für Spannpratzen für T-Nut (Satz à 2 Stk.) Clamping screws for clamping claws for t-slot (Set of 2 pcs.)	12 mm/M10	MAA.000.012.01
		14 mm/M12	MAA.000.014.01
		16 mm/M14	MAA.000.016.01
		18 mm/M16	MAA.000.018.01
	Spannpratzen (2 Stk.) Clamping claws (2 pcs.)	grefos	GPA.000.015.01
	Federblatt für Federblatt-Niederzugbacke (1 Stk.) Spring plate for spring plate pull-down jaw (1 pc.)	100	MHS.100.197.11
		125	MHS.125.197.11
		160	MHS.160.197.11

grefos Zubehör Accessories			
	Bezeichnung Designation	Passend zu Typ Suitable for type	Bestell-Nr. Order No.
	Winkeltrieb Angular drive	grefos 100	MHA.125.510.02
		grefos 125	MHA.125.510.02
		grefos 160	MHA.160.510.02
	Handkurbel Hand crank	grefos 100	MHS.125.570.02
		grefos 125	MHS.125.570.02
		grefos 160	MHS.160.570.01
	Werkstückanschlag für M8/M10 Workpiece stop for M8/M10	grefos 100	MSA.000.275.01
		grefos 125	MSA.000.275.01
		grefos 125	MSA.000.275.01
	Werkstückunterlagen für grefos 100, Höhe ... (Satz à 2 Stk.) Workpiece supports for grefos 100, height ... (Set of 2 pcs.)	11 mm	MSA.100.280.01
		16 mm	MSA.100.281.01
		25.5 mm	MSA.100.282.01
		29.5 mm	MSA.100.283.01
	Werkstückunterlagen für grefos 125, Höhe ... (Satz à 2 Stk.) Workpiece supports for grefos 125, height ... (Set of 2 pcs.)	11 mm	MSA.125.211.01
		16 mm	MSA.125.216.01
		21 mm	MSA.125.221.01
		26 mm	MSA.125.226.01
		29 mm	MSA.125.229.01
		32.5 mm	MSA.125.232.01
		36 mm	MSA.125.236.01
	Werkstückunterlagen für grefos 160, Höhe ... (Satz à 2 Stk.) Workpiece supports for grefos 160, height ... (Set of 2 pcs.)	26 mm	MSA.160.281.01
		39 mm	MSA.160.282.01
		42.5 mm	MSA.160.283.01