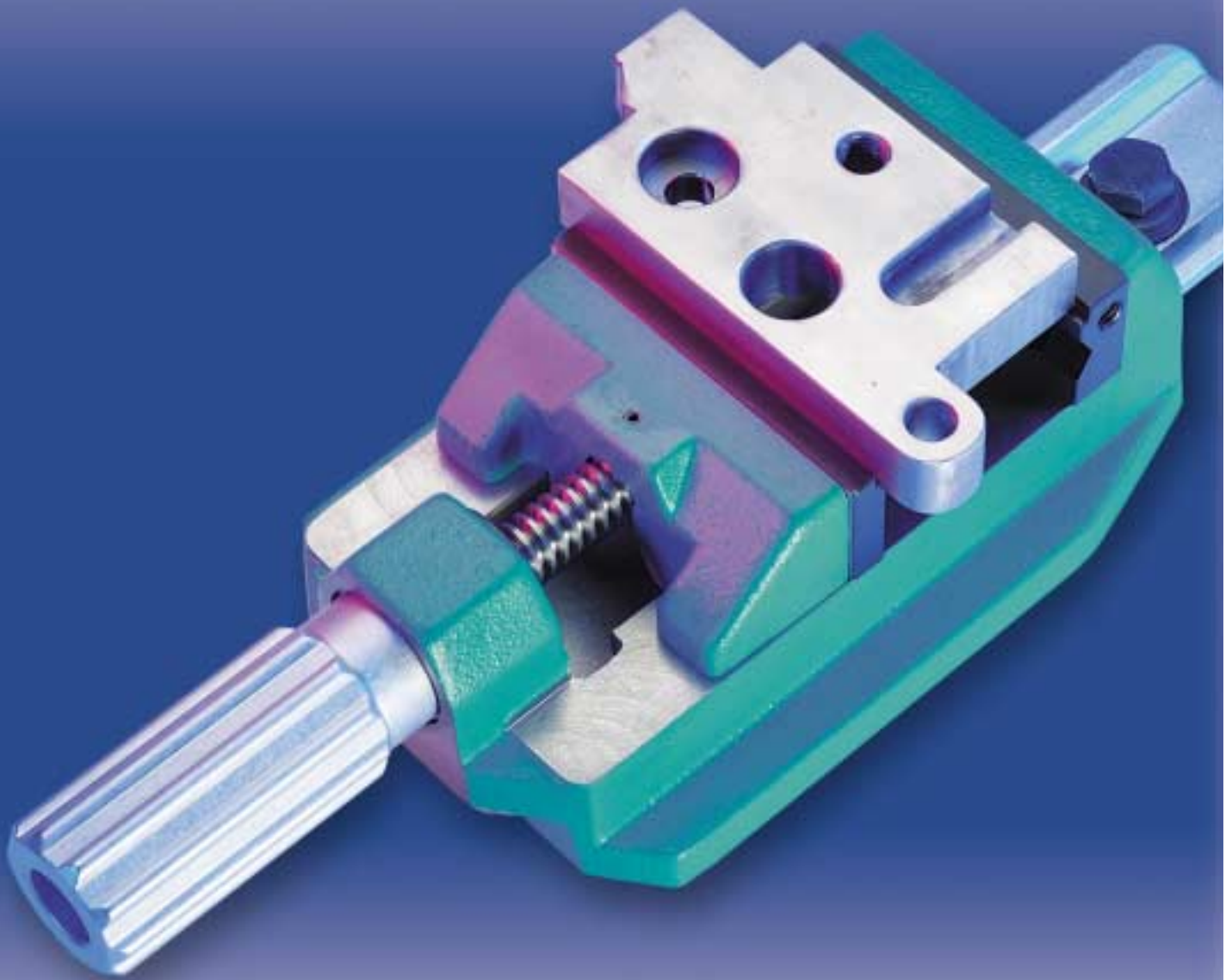


ecopos[®] Machine Vices
***Freedom in positioning without
risk of accident***



Uniquely protected against drag spin and lift

Secured at the pivot point of the guide rail, the ecopos[®], together with the workpiece, can be swivelled and slid to any position.

ecopos[®] machine vices with a firm grip on safety

Total working safety

- Freely positionable workpiece that is always securely clamped (and stays so)
- One-handed manipulation
- No risk of injury, even when short of time
- For drilling and light milling work

Fields / areas of application

- Workshop
- Production
- Metal-working
- Test workshops
- Sanitation and plumbing



Without ecopos[®]



With ecopos[®]

Without risk of accident

No injuries, no work accidents, no consequential costs - a firm grip on accident protection, in spite of maximum speed and freedom of movement.

Unique worldwide

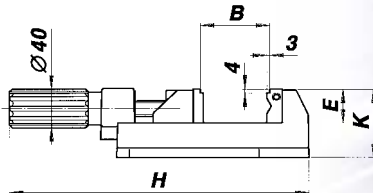
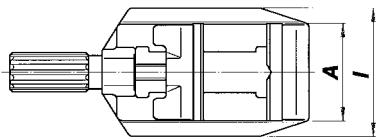
Secured at the pivot point of the guide rail, the ecopos[®], together with the workpiece, can be swivelled and slid to any position within a working area of 120 x 150 mm. Secure and protected against drag spin and lift.



On every machine work-table ecopos[®] - set up everywhere thanks to guide rail or patented positioning clamps.



ecopos® - M



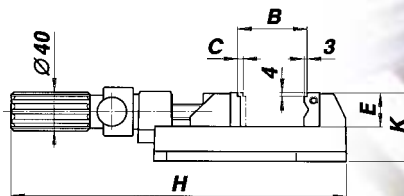
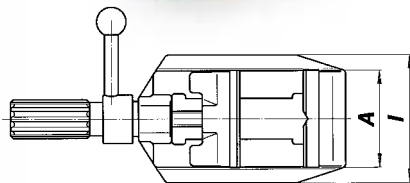
Drilling machine vice ecopos®-M

Handy, versatile. Wide clamping range. Stepped jaws, horizontal and vertical recesses for workpieces of all shapes.

Types	Dimensions (mm)							
	A	B	E	H	I	K		
ecopos® 80-M	80	80	35	285	112	71		
ecopos® 100-M	100	100	35	305	132	71		
ecopos® 125-M	125	130	40	385	156	84		

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 80-M	Drilling machine vice	80	--	4.5	1 prism jaw	ECM.080.000.01
ecopos® 100-M	with one prism jaw and one smooth jaw	100	--	5.6	1 smooth jaw	ECM.100.000.01
ecopos® 125-M	stepped (pc.)	125	--	11.2		ECM.125.000.01
ecopos® 80-M	Drilling machine vice	80	--	5.2	1 prism jaw	ECM.080.000.05
ecopos® 100-M	additionally with guide rail and	100	--	6.3	1 smooth jaw	ECM.100.000.05
ecopos® 125-M	1 each fixture bolt for T-slot 12 + 14 (pc.)	125	--	11.9		ECM.125.000.05

ecopos® - R



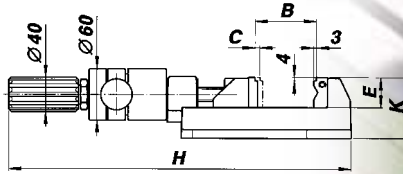
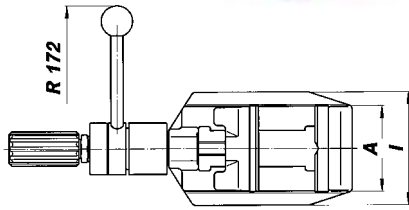
Drilling machine vice with clamping aid ecopos®-R

Rough setting of the jaw opening with directly acting spindle. Secure and rapid clamping with engageable clamping lever. Suitable for series work.

Types	Dimensions (mm)							
	A	B	C	E	H	I	K	
ecopos® 100-R	100	100	1.5	35	340	132	71	
ecopos® 125-R	125	130	1.5	40	405	156	84	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 100-R	Drilling machine vice	100	--	6.1	1 prism jaw	ECR.100.000.01
ecopos® 125-R	with clamping aid, one prism jaw and one smooth jaw	125	--	11.7	1 smooth jaw	ECR.125.000.01
ecopos® 100-R	Drilling machine vice	100	--	6.8	1 prism jaw	ECR.100.000.05
ecopos® 125-R	with clamping aid, additionally with guide rail and 1 each fixture bolt for T-slot 12 + 14 (pc.)	125	--	12.4	1 smooth jaw	ECR.125.000.05

ecopos® - S



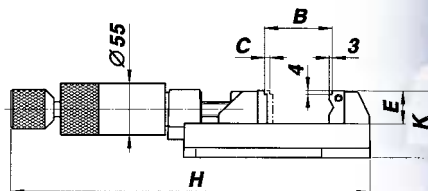
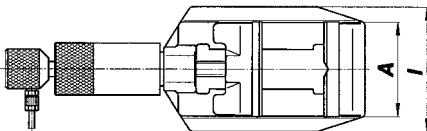
Rapid action vice ecopos®-S

Optimized clamping pressure from 3 kN to 8 kN specific to type. Pre-selectable mechanical force amplification. Peak repeatability accuracy. Ideal for series work and light milling.

Types	Dimensions (mm)							
	A	B	C	E	H	I	K	
ecopos® 100-S	100	95	3.5	35	393	132	71	
ecopos® 125-S	125	130	3.5	40	457	156	84	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 100-S	Rapid action vice	100	3 - 6	7.3	1 prism jaw	ECS.100.000.01
ecopos® 125-S	with pre-selectable controlled clamping force, one prism jaw and one smooth jaw (pc.)	125	3 - 8	12.8	1 smooth jaw	ECS.125.000.01

ecopos® - P

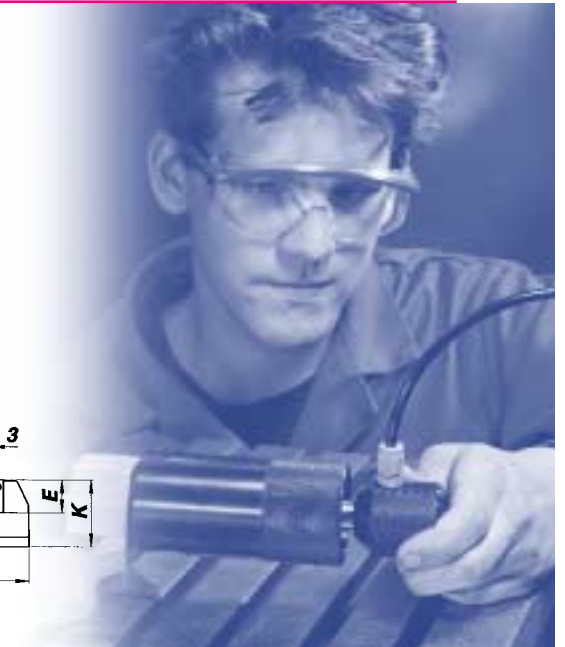


Pneumatic machine vice ecopos®-P

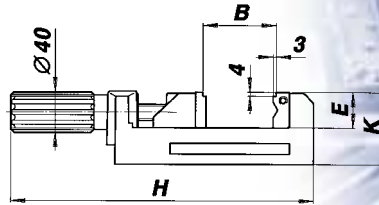
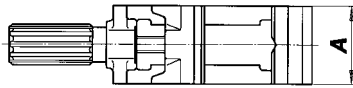
Rough setting of jaw opening via knurled grip. Clamping pressure up to 5.5 kN pre-settable via air pressure adjustment. Hand actuation of clamping stroke via slide valve. Foot valve or programmable servo-control possible.

Types	Dimensions (mm)							
	A	B	C	E	H	I	K	
ecopos® 80-P	80	75	4	35	347	112	71	
ecopos® 100-P	100	95	4	35	367	132	71	
ecopos® 125-P	125	130	4	40	466	156	84	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 80-P	Pneumatic machine vice	80	0.8 - 4	6.3	1 prism jaw	ECP.080.000.01
ecopos® 100-P	with one prism jaw and one smooth jaw	100	0.8 - 4	7.3	1 smooth jaw	ECP.100.000.01
ecopos® 125-P	and 2 m air hose (pc.)	125	1 - 5.5	13.3	2 m air hose	ECP.125.000.01



ecopos® 72-M



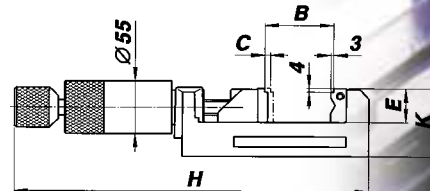
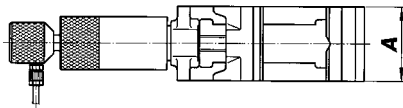
Small machine vice ecopos® 72-M

Fine milled on four sides for use in various positions. Compact dimensions. Directly acting spindle analogous to type ecopos®-M.

Types	Dimensions (mm)					
	A	B	C	E	H	K
ecopos® 72-M	72	80		35	282	71

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 72-M	Small machine vice with one prism jaw and one smooth jaw (pc.)	72	--	3.5	1 prism jaw 1 smooth jaw	EKM.072.000.01

ecopos® 72-P



Small pneumatic machine vice ecopos® 72-P

With pneumatic drive. Clamping pressure up to 4 kN pre-settable via pressure adjustment. Hand actuation of clamping stroke via slide valve. Foot valve or programmable servo-control possible.

Types	Dimensions (mm)					
	A	B	C	E	H	K
ecopos® 72-P	72	75	4	35	344	71

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
ecopos® 72-P	Small pneumatic machine vice with one prism jaw and one smooth jaw and 2 m air hose (pc.)	72	0.8 - 4	5.3	1 prism jaw 1 smooth jaw 2 m air hose	EKP.072.000.01

Fig.	Type	Description/Application/Dimensions (mm)	For vice type						Order No.
			ecopos®-M	ecopos®-R	ecopos®-S	ecopos®-P	ecopos®-72M	ecopos®-72P	
Jaw assortment									
	Prism jaw stepped, with screws	D 35 Q 16 Z 31 Jaw width 72	◆	◆		◆	◆	ECA.072.013.01	
		D 35 Q 16 Z 31 Jaw width 80						ECA.080.013.01	
	Prism jaw stepped, with screws	D 35 Q 16 Z 31 Jaw width 100	◆	◆	◆	◆		ECA.100.013.01	
		D 40 Q 18 Z 36 Jaw width 125	◆	◆	◆	◆		ECA.125.013.01	
	Smooth jaw stepped, with screws	D 35 Q 10 Z 31 Jaw width 72	◆	◆		◆	◆	ECA.072.014.01	
		D 35 Q 10 Z 31 Jaw width 80						ECA.080.014.01	
	Smooth jaw stepped, with screws	D 35 Q 10 Z 31 Jaw width 100	◆	◆	◆	◆		ECA.100.014.01	
		D 40 Q 12 Z 36 Jaw width 125	◆	◆	◆	◆		ECA.125.014.01	
	Precision stepped jaws set 2 pc.	D 35 Q 11.5 Z 30 Jaw width 100	◆	◆	◆	◆		MSA.100.190.01	
		D 40 Q 13.5 Z 32 Jaw width 125	◆	◆	◆	◆		MSA.125.190.01	
Positioning and fixture									
	Positioning clamps incl. 2 each fixture bolts for T-slot 12 + 14 mm	For vice set up for series work. Any desired set-up positions on machine work-tables with various T-slot configurations possible.	◆	◆	◆	◆	◆	ECA.000.050.01	
	Guide rail incl. 1 each fixture bolt for T-slot 12 + 14 mm	Fixture via bolt in T-slot of machine work-table. Allows freedom of swivel without lift or drag spin of vice within working area of 120 x 150 mm.	◆	◆	◆	◆		ECA.000.060.01	
Further accessories									
	Material stop	For optional fixture on left, right or on both sides of vice head. Length adjustment of stop pin quick and easy via screw.	◆	◆	◆	◆	◆	ECA.000.065.01	
	Foot valve	Used instead of hand valve.				◆	◆	ECA.000.045.01	
	Conditioning unit incl. connection material	For constantly flawlessly conditioned compressed air. Clamping pressure adjustable via built-in regulator.				◆	◆	ECA.000.035.01	

ecopos® synopsis	ecopos®-M	ecopos®-M	ecopos®-R	ecopos®-R	ecopos®-S	ecopos®-P	ecopos®-M	ecopos®-P
Jaw width 72 mm						◆	◆	
Jaw width 80 mm	◆	◆	◆	◆		◆		
Jaw width 100, 125 mm	◆	◆	◆	◆	◆	◆		
Basic body of GG 25								
With inside guideway for sliding on guide rail, and outside ledge for positioner clamps	◆	◆	◆	◆	◆			
Milled sides for side set-up						◆	◆	
Clamping mechanism								
Thrust spindle	◆	◆	◆	◆	◆	◆	◆	
Rapid clamping aid			◆	◆				
Pre-selectable clamping pressure				◆	◆		◆	
Pneumatic drive				◆			◆	
Fixture								
Inside slot and outer ledge	◆	◆	◆	◆	◆			
Outside slot						◆	◆	
Guide rail	◆	◆	◆	◆	◆			

◆ standard ◆ optional

Distributor:

Mechanisch Spannen mit Gefühl

grefors[®]

GRESSEL



*Stufenlos mit Sensokraft
Feinste Spannkraftvoreinstellung.
Spielend leichtes, kraftvolles
Spannen.*

*Schnell, sicher und
komfortabel
Nur einmal kurbeln. Dank
mechanischer Verriegelung
kein Spannkraftverlust.
Einfachste Handhabung.*

*Ideal für Werkzeug- und
Maschinenbau
grefors[®] Sensokraftspanner packt
zu und hält.*



Sensitives Spannen...

grefors®

Spannen mit Sensokraft
Mechanisch spannen mit stufenloser
Feinabstimmung, wie bisher nur pneu-
matisch oder hydraulisch möglich.

Nur eine Kurbelumdrehung
10% bis 100% der Spannkraft mit nur
einer Kurbelumdrehung. Und das mit
immer gleicher Kurbelendstellung.



Gekapselte
Kraftübertragungskassette
Kraft- und Einstellmechanik
vollständig geschützt vor Staub und
Flüssigkeiten.
Daher kein Verschleiss und kein
Service.

Stufenlose Spannkraft-
Voreinstellung
Von Hand einstellbar bis 60 kN.
Mechanische Kraftverriegelung hält
gewünschte Spannkraft sicher und
mit höchster Wiederholgenauigkeit.
Auch bei Vibrationen.

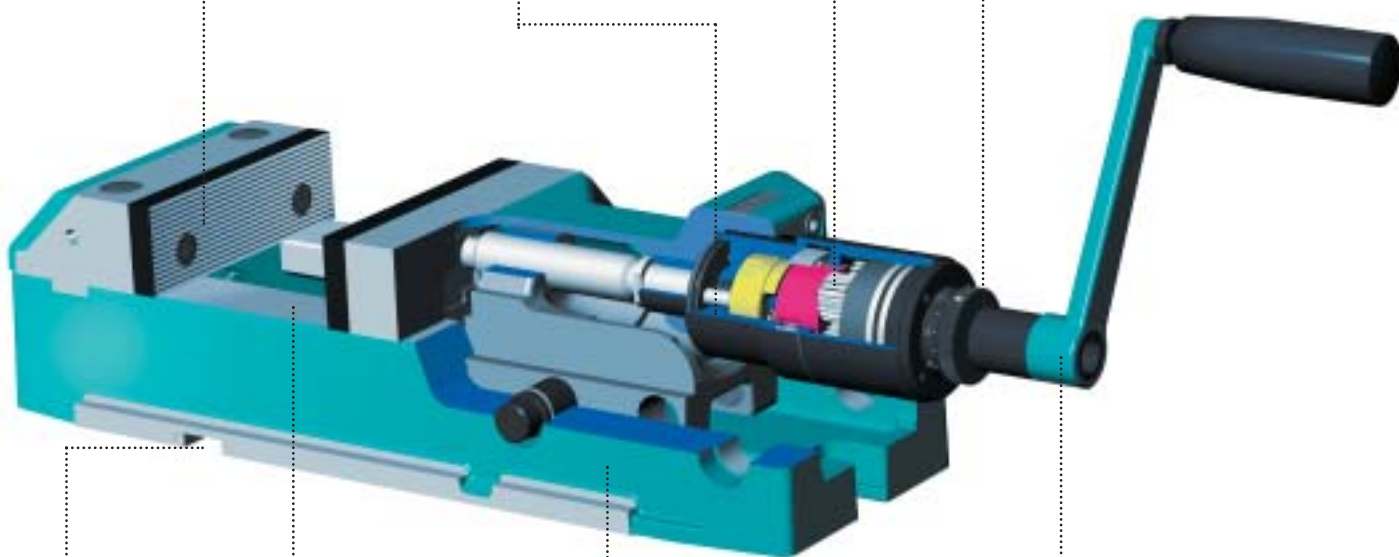
Backen
- breites Backen-
sortiment
- Backen-Schnell-
wechsel-System
zur Steigerung der
Flexibilität



**Verkapselte
Kraft- und
Verstellmechanik**
- Schutz vor Staub
und Flüssigkeit
- kein Verschleiss
- kein Service

**Mechanische
Kraftübersetzung**
- mit Vorspannung
zur Werkstück-
positionierung
- Spannkraft mech.
verriegelt
- vibrationsicher

**Stufenlose
Voreinstellung**
- von Hand
- ohne Werkzeug
- höchste Wieder-
holgenauigkeit



Aufspannen
- einfache
Positionierung
- Präzisions-Nuten
für Quer- oder
Längsaufspannung

**Innenliegende
Schieberführung**
- weite Werkstück-
auflage
- flammgehärtet

**Niedrige
Grundplatte**
- stark, verzugsfrei
- Sphäroguss

**Nur eine Kurbel-
umdrehung**
- immer gleiche
Kurbelendstellung
- 10% bis 100%
Spannkraft

*GRESSEL Spannsysteme
Durch Innovation und Erfahrung
wurden GRESSEL Spannsysteme
zum Inbegriff für Cleverness,
Präzision und Sicherheit. Weltweit
geschätzt werden sie zudem dank
ihrer hohen Wirtschaftlichkeit,
Langlebigkeit und Flexibilität.*



*Winkeltrieb mit
Schnellbefestigung
Die stabile Kraftumlenkung für die
Platzierung mitten auf dem
Maschinentisch.*



*Grosse Spannweite
Modellreihe VS mit Stufenbacken.
Für grosse Spannweiten bei kleinster
Baugrösse*



*Integrierter Kühlmittelabfluss
Verhindert unkontrolliertes Abfließen
des Kühlwassers über die
Bedienelemente.*

*Backensortiment und
Schnellwechsel-System
Breite Auswahl an Backen für alle
Anwendungen. Raffiniertes
Backenschnellwechselsystem mit
Niederzugeffekt macht Spannen
präziser, einfach und schneller*

*Gekapselte
Kraftübersetzungskassette
Kraft- und Einstellmechanik voll-
ständig verkapselt und geschützt vor
unerwünschten Einflüssen.
Daher kein Verschleiss und kein
Service.*



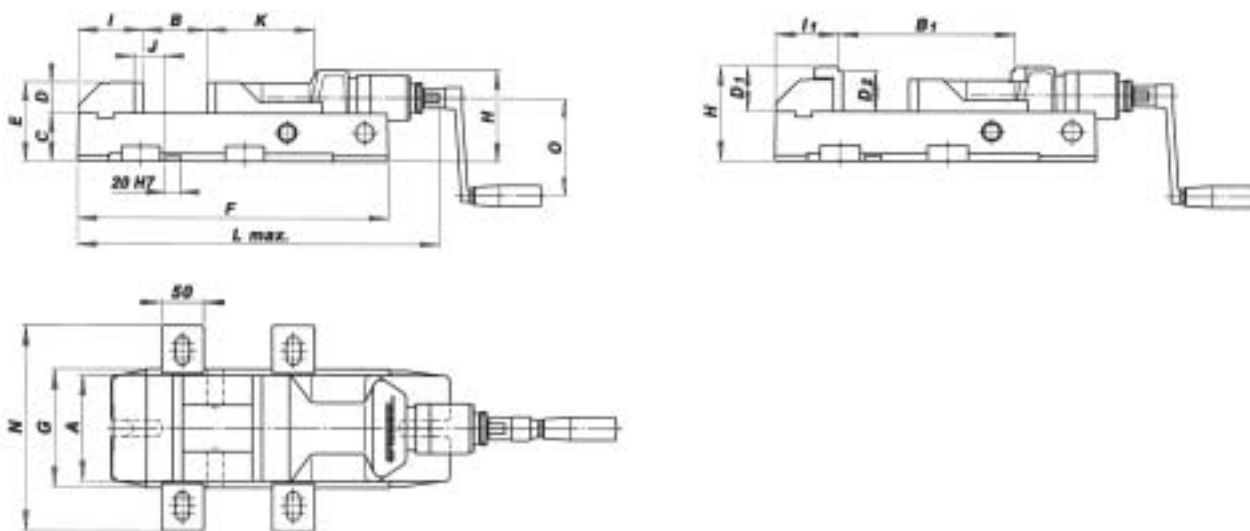
*Schnellwechsel-System
– rein mechanisch, ohne Magnet
– sicherer Halt
– geführte Position
– selbsttätiger Spielausgleich durch
Niederzugeffekt
– Schmutzabstreifer verhindert
Einklemmen von Spänen
– Adapterbacke für gesamtes
Backensortiment*

*Grösste Sicherheit
Mechanische Verriegelung hält einge-
stellte Spannkraft sicher und mit
höchster Wiederholgenauigkeit.
Auch bei Vibrationen.
Garantiert gegen Werkstückabwurf.*

*Werkstückunterlagen mit
Schwenkklick-Halterung
Ohne Magnet, einfach von Hand
einrastbar. Auch vertikal und mitten
im Spannbereich.*



*... in Werkzeug- und Maschinenbau.
Fein dosiert und kraftvoll, sicher und schnell.*

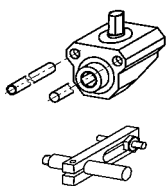


Typen	Masse (mm)												
	A	B	C	D	E	F	G	H	I	J	K	L max.	N
grefors® 100	100	0-161	52	35	87	340	112	108	81	11	113	522	216
grefors® 125	125	0-203	62	40	102	400	140	118	84	28	135	585	242
grefors® 160	160	0-302	78	50	128	540	176	149	110	40	169	782	278
grefors® 100-M	100	0-161	52	35	87	340	112	108	81	11	113	467	216
grefors® 125-M	125	0-203	62	40	102	400	140	118	84	28	135	530	242
grefors® 160-M	160	0-302	78	50	128	540	176	149	110	40	169	713	278
	A	B1	D1	D2	I1								
grefors® 100-VS/-MVS	100	120-280	56	50	76								
grefors® 125-VS/-MVS	125	138-340	56	50	79								
grefors® 160-VS/-MVS	160	170-472	71	65	105								

Typenübersicht

Typ	Beschreibung	Backenbreite (mm)	Spannkraft (kN)	Gewicht (kg)	Lieferumfang	Bestell-Nr.
grefors® 100	Sensokraftspanner	100	4-30	20	2 Backen profiliert,	MHS.100.500.01
grefors® 125	Standard	125	4-40	27	4 Briden, 1 Kurbel	MHS.125.500.01
grefors® 160		160	5-60	55	4 Briden, 1 Kurbel	MHS.125.500.01
grefors® 100-VS	Sensokraftspanner	100	4-30	21	2 Backen profiliert,	MHS.100.550.01
grefors® 125-VS	mit vergrösserter	125	4-40	28	4 Briden, 1 Kurbel	MHS.125.550.01
grefors® 160-VS	Spannweite	160	5-60	57	4 Briden, 1 Kurbel	MHS.125.550.01

Zubehör



Typ	Beschreibung	Lieferumfang	Bestell-Nr.
Winkeltrieb	zu Sensokraftspanner 100	Stück	MHA.125.510.01
	zu Sensokraftspanner 125		MHA.125.510.01
	zu Sensokraftspanner 160		MHA.160.510.01
Werkstückanschlag	zu Sensokraftspanner 100	Stück	MSA.000.275.01
	zu Sensokraftspanner 125 zu Sensokraftspanner 160		

Vertrieb

GRESSEL AG
Spanntechnik
Schützenstrasse 25
CH-8355 Aadorf
Schweiz
Tel. +41 (0)52 368 16 16
Fax +41 (0)52 368 16 17

info@gressel.ch

www.gressel.ch

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 10% bis 100% der Spannkraft mit nur
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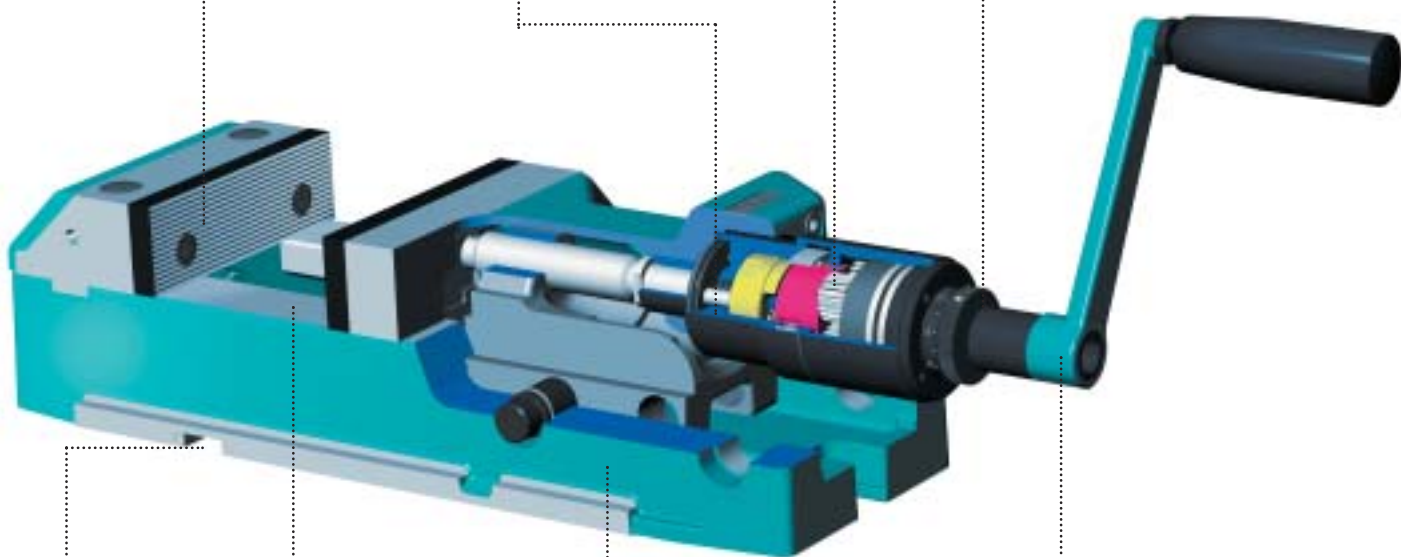
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 - Backen-Schnell-
 wechsel-System
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 Verstellmechanik**
 - Schutz vor Staub
 und Flüssigkeit
 - kein Verschleiss
 - kein Service

**Mechanische
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 - mit Vorspannung
 zur Werkstück-
 positionierung
 - Spannkraft mech.
 verriegelt
 - vibrationsicher

**Stufenlose
 Voreinstellung**
 - von Hand
 - ohne Werkzeug
 - höchste Wieder-
 holgenauigkeit



Aufspannen
 - einfache
 Positionierung
 - Präzisions-Nuten
 für Quer- oder
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Kraftübersetzungskassette
Kraft- und Einstellmechanik voll-
ständig verkapselt und geschützt vor
unerwünschten Einflüssen.
Daher kein Verschleiss und kein
Service.*



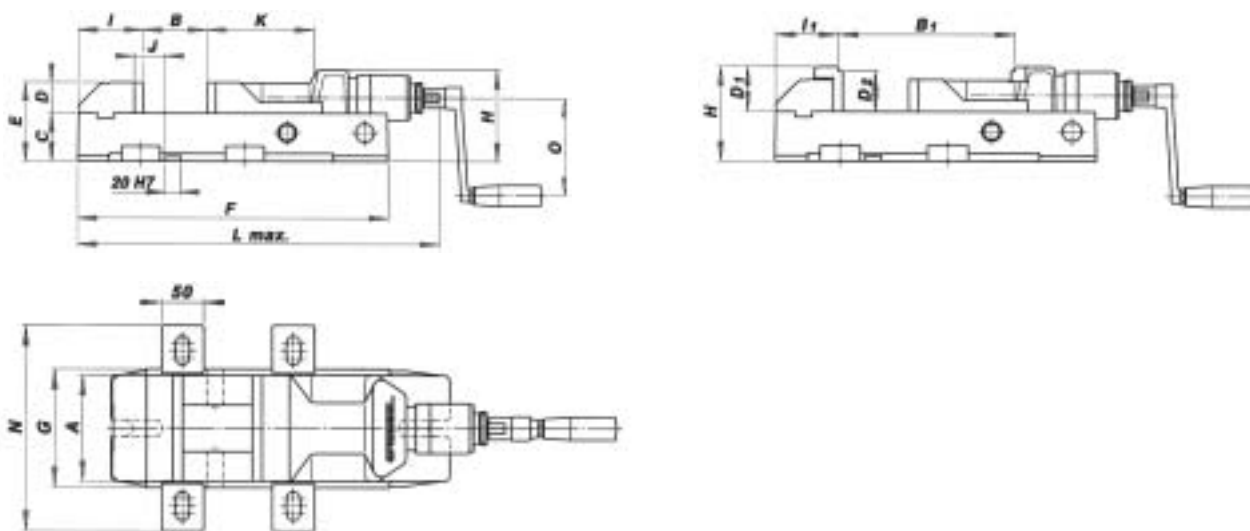
*Schnellwechsel-System
– rein mechanisch, ohne Magnet
– sicherer Halt
– geführte Position
– selbsttätiger Spielausgleich durch
Niederzugeffekt
– Schmutzabstreifer verhindert
Einklemmen von Spänen
– Adapterbacke für gesamtes
Backensortiment*

*Grösste Sicherheit
Mechanische Verriegelung hält einge-
stellte Spannkraft sicher und mit
höchster Wiederholgenauigkeit.
Auch bei Vibrationen.
Garantiert gegen Werkstückabwurf.*

*Werkstückunterlagen mit
Schwenkklick-Halterung
Ohne Magnet, einfach von Hand
einrastbar. Auch vertikal und mitten
im Spannbereich.*



*... in Werkzeug- und Maschinenbau.
Fein dosiert und kraftvoll, sicher und schnell.*

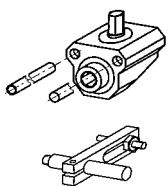


Typen	Masse (mm)												
	A	B	C	D	E	F	G	H	I	J	K	L max.	N
grefors® 100	100	0-161	52	35	87	340	112	108	81	11	113	522	216
grefors® 125	125	0-203	62	40	102	400	140	118	84	28	135	585	242
grefors® 160	160	0-302	78	50	128	540	176	149	110	40	169	782	278
grefors® 100-M	100	0-161	52	35	87	340	112	108	81	11	113	467	216
grefors® 125-M	125	0-203	62	40	102	400	140	118	84	28	135	530	242
grefors® 160-M	160	0-302	78	50	128	540	176	149	110	40	169	713	278
	A	B1	D1	D2	I1								
grefors® 100-VS/-MVS	100	120-280	56	50	76								
grefors® 125-VS/-MVS	125	138-340	56	50	79								
grefors® 160-VS/-MVS	160	170-472	71	65	105								

Typenübersicht

Typ	Beschreibung	Backenbreite (mm)	Spannkraft (kN)	Gewicht (kg)	Lieferumfang	Bestell-Nr.
grefors® 100	Sensokraftspanner	100	4-30	20	2 Backen profiliert,	MHS.100.500.01
grefors® 125	Standard	125	4-40	27	4 Briden, 1 Kurbel	MHS.125.500.01
grefors® 160		160	5-60	55	4 Briden, 1 Kurbel	MHS.125.500.01
grefors® 100-VS	Sensokraftspanner	100	4-30	21	2 Backen profiliert,	MHS.100.550.01
grefors® 125-VS	mit vergrösserter	125	4-40	28	4 Briden, 1 Kurbel	MHS.125.550.01
grefors® 160-VS	Spannweite	160	5-60	57	4 Briden, 1 Kurbel	MHS.125.550.01

Zubehör



Typ	Beschreibung	Lieferumfang	Bestell-Nr.
Winkeltrieb	zu Sensokraftspanner 100	Stück	MHA.125.510.01
	zu Sensokraftspanner 125		MHA.125.510.01
	zu Sensokraftspanner 160		MHA.160.510.01
Werkstückanschlag	zu Sensokraftspanner 100	Stück	MSA.000.275.01
	zu Sensokraftspanner 125 zu Sensokraftspanner 160		

Vertrieb

GRESSEL AG
Spanntechnik
Schützenstrasse 25
CH-8355 Aadorf
Schweiz
Tel. +41 (0)52 368 16 16
Fax +41 (0)52 368 16 17

info@gressel.ch

www.gressel.ch

Kleinteil-Einfachspanner

solinos



Neu: Einfachspanner solinos

100% Kapselung

Mit der geschlossenen Schiebergeometrie verlieren Sie nicht unnötige Zeit mit Reinigen.

Mechanisch oder hydraulisch

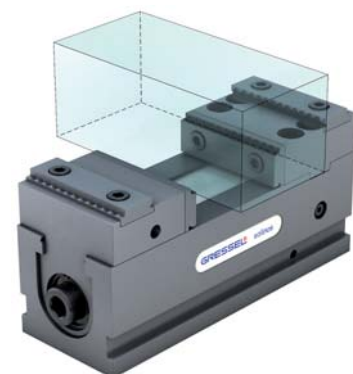
Den GRESSEL solinos gibt es in mechanischer und hydraulischer Ausführung.

Grosse-, kleine-, runde-, Teile spannen

Mit dem modularen Wechselbackensystem können Sie den solinos einfach Ihren spezifischen Anforderungen anpassen. Überzeugen Sie sich im Prospekt.

Laden Sie mit Paletten?

Der neue GRESSEL solinos ist neben dem GRESSEL centrinos die ideale und kostengünstige Lösung für die werkstückseitige Automation auf Palettenspeichern.



Ausführungsmöglichkeiten, einige Beispiele:



Backe grip VS horizontal
für grössere Spannweiten bis 156 mm



Universal Stufenbacke wendbar
Einsatz oben oder unten möglich



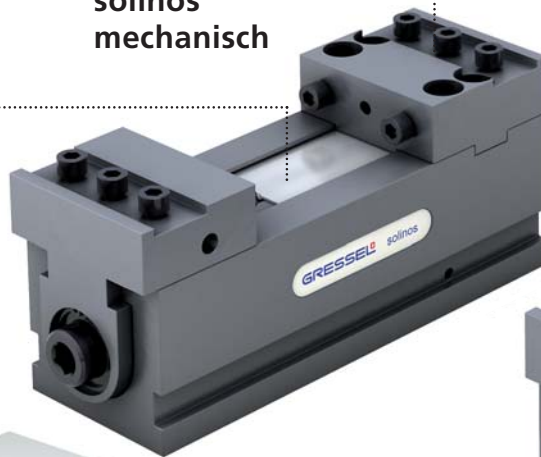
Backe grip 22 wendbar
Einsatz oben oder unten möglich



Backe grip wendbar
Einsatz oben oder unten möglich

100% Kapselung
verschmutzungs-
unempfindlich

**solinos
mechanisch**

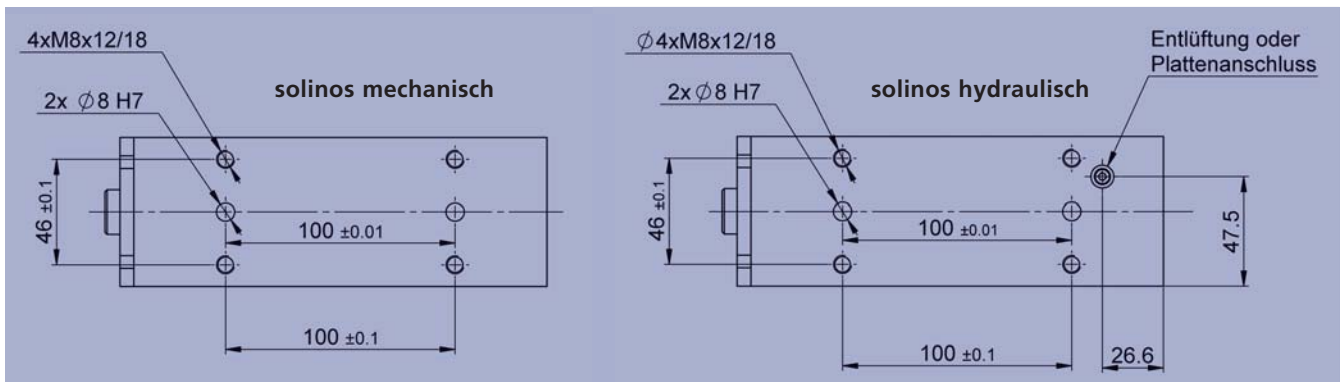


**solinos
hydraulisch**



solinos-AL
Variante mit ALU-
Schnellwechselbacken für das
Spannen von Formteilen

Standardschnittstelle:



Aufspannungsbohrungen können individuell angepasst werden.
Weitere Informationen erhalten Sie gerne bei Ihrem zuständigen GRESSEL Berater.

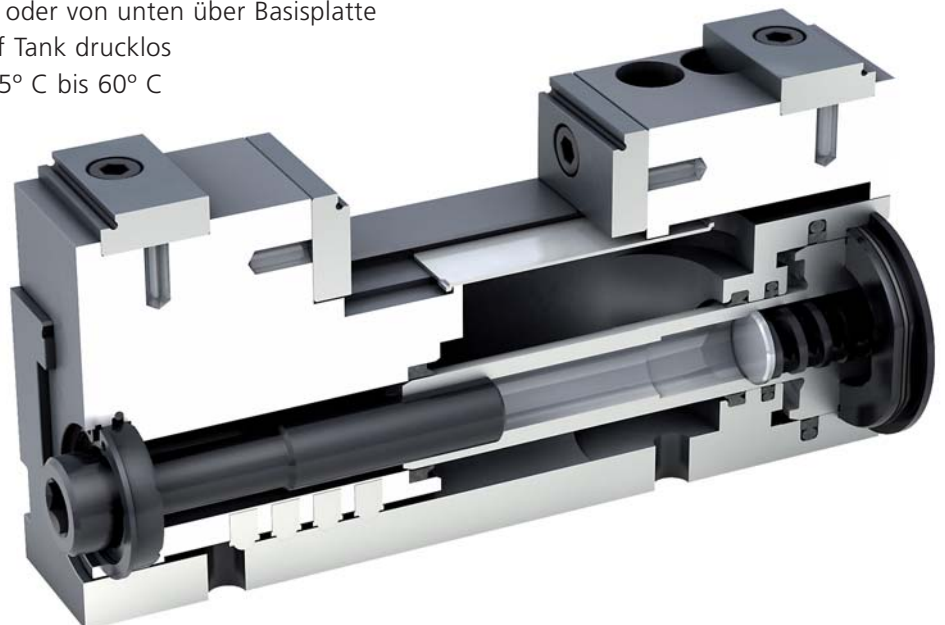
solinos: mechanische Ausführung

- Einfaches Handling
- Mehrfach 100% gekapselt (Grundkörper + Schieber)
- vielseitiges Backenprogramm
- für Roh- und Fertigteile
- Hohe Spannkraft – 20 kN
- Geeignet für Paletten
- Spannweiteinstellung ohne ummontieren der Backen
- Sehr lange Führung der Spannbacke – dadurch geringes Abheben
- GRESSEL Werkstückunterlagen passen



solinos-H: hydraulische Ausführung

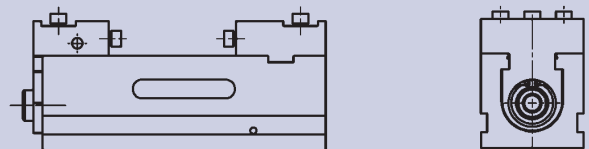
- gleiche Vorteile wie mechanische Ausführung
- Spannbereich Einstellung über Spindel mit Rasterung
- Wirkprinzip: Einfachwirkender Hydraulikkolben mit Federrückstellung
- Betätigung: 4mm Krafthub hydraulisch; 60mm Verstellhub mechanisch
- Druckbereich: bis 250 Bar Spannkraft 20kN
- Hydraulikanschluss seitlich G1/8 oder von unten über Basisplatte
- Hydraulik Aggregat Rücklauf auf Tank drucklos
- Einsatz-Temperaturbereich: von 5° C bis 60° C
- Einbaulage: beliebig



solinos: Standard-Version



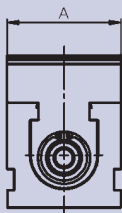
Lieferumfang



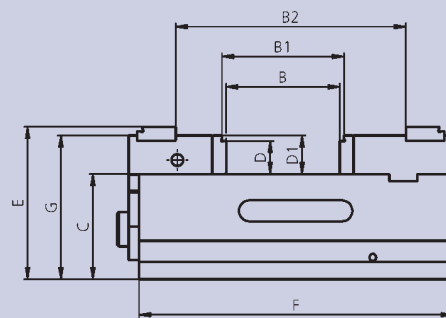
Typ	Beschreibung	Backenbreite [mm]	Spannkraft [kN]	Gewicht [kg]	Bestell-Nr.
solinos	Standard-Version ohne Aufsatzbacken	65	max. 20	5.5	KLM.065.001.01

Lieferumfang: solinos jeweils ohne Aufsatzbacken, inkl. 10 Schrauben für Aufsatzbacken

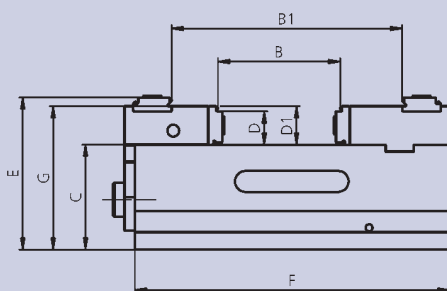
Ausführungsvarianten:



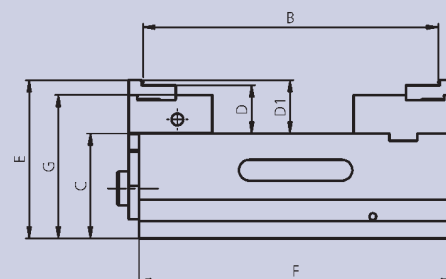
Standard-Version



Stufenbacke glatt



Backe grip



Backe VS grip

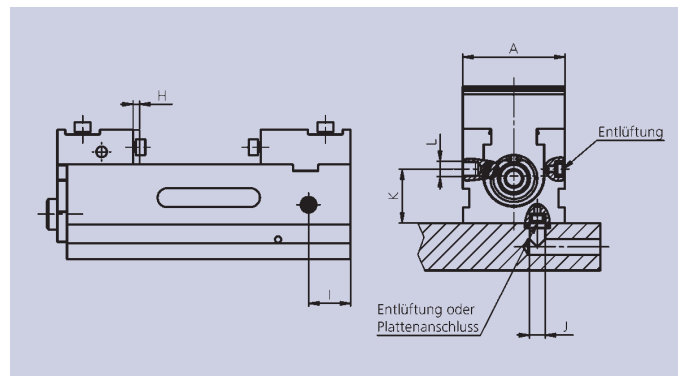
Typ	Beschreibung	A	B	B1	B2	C	D	D1	E	F	G
solinos	Standard-Version	65	-	-	-	-	-	-	-	-	-

Typ	Beschreibung	A	B	B1	B2	C	D	D1	E	F	G
Stufenbacke glatt	für solinos	65	0-64	5-69	55-119	60	19	22	87	180	82
Backe grip	für solinos	65	5-69	55-119	-	60	19	22	87	180	82
Backe VS grip	für solinos	65	92-156	-	-	60	27.5	30.5	90.5	180	87.5

solinos-H: hydraulische Ausführung



Lieferumfang



Typ	Beschreibung	Backenbreite [mm]	Spannkraft [kN]	Gewicht [kg]	Bestell-Nr.
solinos-H	hydraulische Ausführung ohne Aufsatzbacken	65	max. 20	5.6	KLH.065.001.01
Lieferumfang: solinos hydraulisch, jeweils ohne Aufsatzbacken, inkl. 10 Schrauben für Aufsatzbacken					

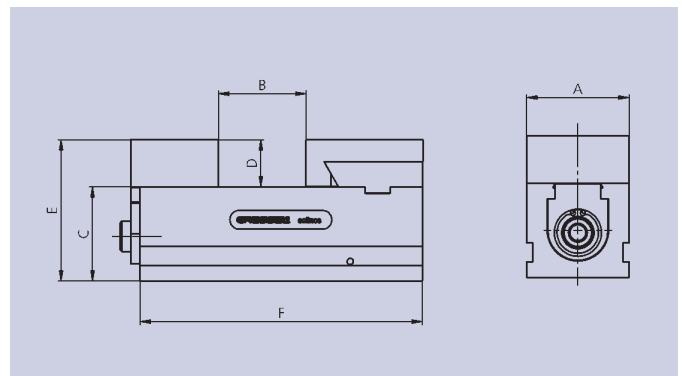
Typ	A	H	I	J	K	L
solinos-H	65	4	26.6	∅10	42.5	G1/8

Ausführungsvarianten siehe solinos Standard-Version auf Seite 4

solinos-AL: mit ALU Schnellwechselbacken



Lieferumfang



Typ	Beschreibung	Backenbreite [mm]	Spannkraft [kN]	Gewicht [kg]	Bestell-Nr.
solinos-AL	solinos mit ALU Schnellwechselbacken	65	max. 20	5.5	KLM.065.001.05
solinos-H-AL	solinos hydraulisch mit ALU Schnellwechselbacken	65	max. 20	5.6	KLH.065.001.05

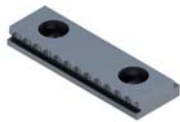
Typ	A	B	C	D	E	F
solinos-AL	65	0-64	60	30	90	180

oben und unten einsetzbar



Typ	A	B	C	D	Bestell-Nr.
Universal Stufenbacke	65	22	8	19	CSA.065.002.11

(je 1 Stück)



Typ	A	B	C	Bestell-Nr.
Backe grip wendbar	65	8	22	CSA.065.003.11

(je 1 Stück)



Typ	A	B	C	D	Bestell-Nr.
Backe grip 22 wendbar	22	22	8	19	CSA.065.005.11

(je 1 Stück)

nur oben einsetzbar



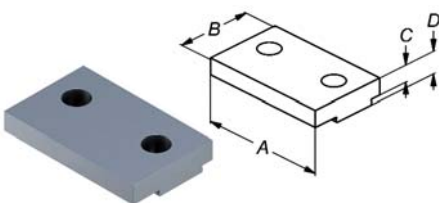
Typ	A	B	C	D	E	Bestell-Nr.
Backe grip VS horizontal	65	11.5	27	8.5	22	CSA.065.006.11

(je 1 Stück)



Typ	A	B	C	D	E	Bestell-Nr.
Backe glatt VS horizontal	65	13.5	27	8.5	22	CSA.065.009.11

(je 1 Stück)



Typ	A	B	C	D	Bestell-Nr.
Backe weich horizontal	65	40	8.6	11.5	CSA.065.008.11

(je 1 Stück)

nur unten einsetzbar



Typ	A	B	C	Bestell-Nr.
Prismenbacken	65	22	15.5	CSA.065.007.11

(je 1 Stück)



Typ	A	B	C	Bestell-Nr.
Weiche Backe	64	22	20	FSA.065.037.11

(je 1 Stück)

Diverses Zubehör / Positionieren und Befestigen



Typ	Bestell-Nr.
Werkstückanschlag	FSA.000.010.01

Typ	Beschreibung	Bestell-Nr.
Drehmomentschlüssel	20-100 Nm, mit Ratsche, inkl. Sechskanteinsatz SW10	XNF.91101.110

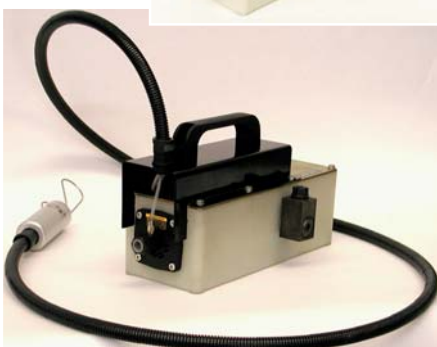
Typ	Beschreibung	Bestell-Nr.
Spannhebel	mit Gelenk, inkl. Sechskant-Stifteinsatz SW10, SW 14 und Sechskanteinsatz SW 16	XNF.91105.050

Typ	Beschreibung	Bestell-Nr.
Aufspannschrauben zu Briden	Satz à 2 Stück	
	zu T-Nut 12mm	MAA.000.012.01
	zu T-Nut 14mm	MAA.000.014.01
	zu T-Nut 16mm	MAA.000.016.01
	zu T-Nut 18mm	MAA.000.018.01

Typ	Bestell-Nr.
Briden	GPA.000.015.01

Zubehör für hydraulische Ausführung (pneumohydraulisch)

Durch ein kompaktes Design sind die lufthydraulischen Pumpen klein, handlich und tragbar (Gewicht ca. 5 kg). Der Druck am Ölausgang verändert sich proportional zum Druck am Lufteinlass. Förderleistung 2,2 l/min. Alle Einheiten sind mit einem internen austauschbaren Luftfilter und Überdruckventil ausgestattet.



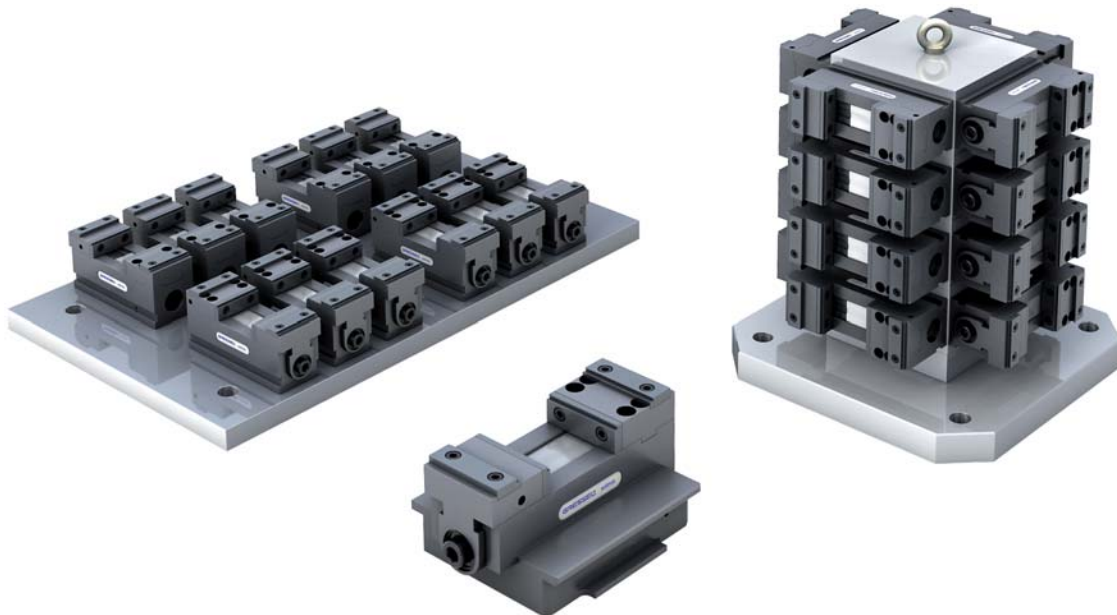
Technische Daten Hydraulikaggregat (pneumohydraulisch):

Öldruck bis 250 bar
 Ölförderleistungen bis 2,2 l/min
 Tankinhalt 1,4 l
 Druckluftnetz 5-8 bar
 Laufruhiger Betrieb (75 dbA)
 Kompakte Abmessungen (295x115x170 mm)

Typ	Beschreibung	Bestell-Nr.
Hydraulikaggregat	mit Fusschalter	FSA.000.010.01

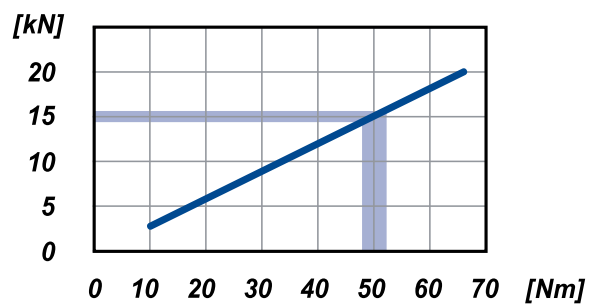
Typ	Beschreibung	Bestell-Nr.
Hydraulikaggregat	mit Handschalter	FSA.000.010.01

Anwendungen



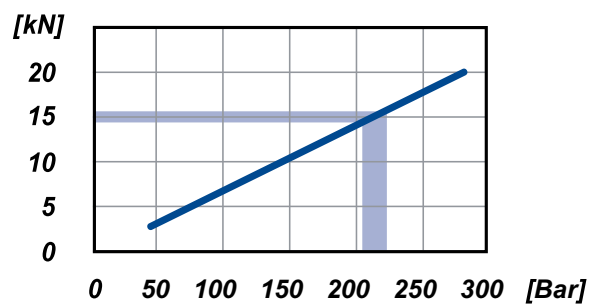
Spannkraft-Diagramm solinos

Spannkraft: 15kN
Drehmoment: 50Nm



Spannkraft-Diagramm solinos hydraulisch

Spannkraft: 15kN
Hydraulikdruck: 220 Bar



Vertrieb

GRESSEL AG
Spanntechnik
Schützenstrasse 25
CH-8355 Aadorf
Schweiz
Tel. +41 (0)52 368 16 16
Fax +41 (0)52 368 16 17

info@gressel.ch

www.gressel.ch

The sprinter among the NC quick-action vices



Record-setting rapid-action clamping

Unique and patented clamping-action with mechanical force amplification. Secure clamping with only one lever movement of max. 160°.

In middle of the machine table

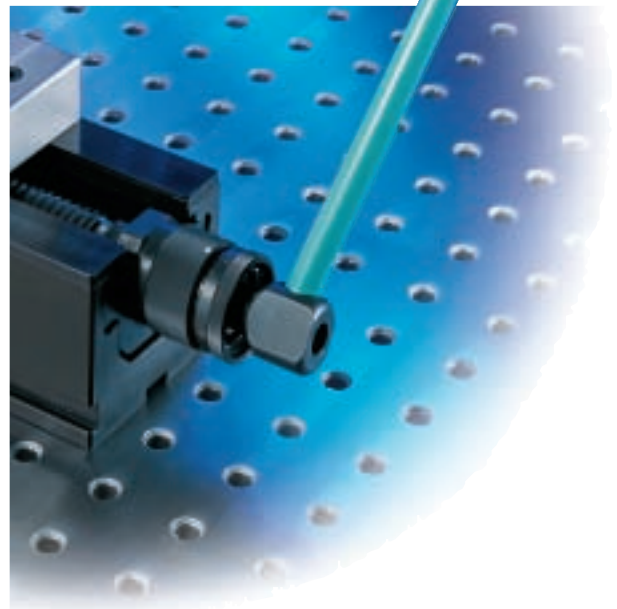
Compact, no cranking, no bevel drive. Hence free positioning, even in the middle of the machine table.

Quick dismantling

Only a few components. Quickly adjusted, positioned, dismantled and cleaned.

Modular and flexible

The modularity of gripo[®] allows a conversion into various versions and solves almost every clamping task.



High-speed clamping ...

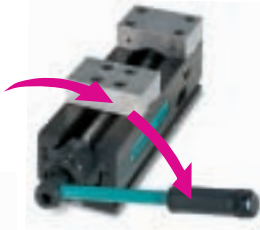
gripos®

gripos® holds almost everything

Hard or soft, cubic or irregular shaped work pieces, series or single piece processing, fully automatic or manual.

The trick with the lever

Small angle of rotation, full clamping force at max. 160° lever movement, no cranking, no bevel drive, hence also in the middle of the machine table.



Very few components, spindle assembly easy to remove

and therefore easy to position, dismantle and clean.



gripos® - the system kit

Easy to convert, set-up and extend. Whether it is set up horizontally, vertically or laterally, individually or in groups, on a grid plate, slot table or zero point positioning system.



Fully enclosed force transmission

- protection against dust and liquids
- mechanical locking
- vibration proof

Flawless clamping action

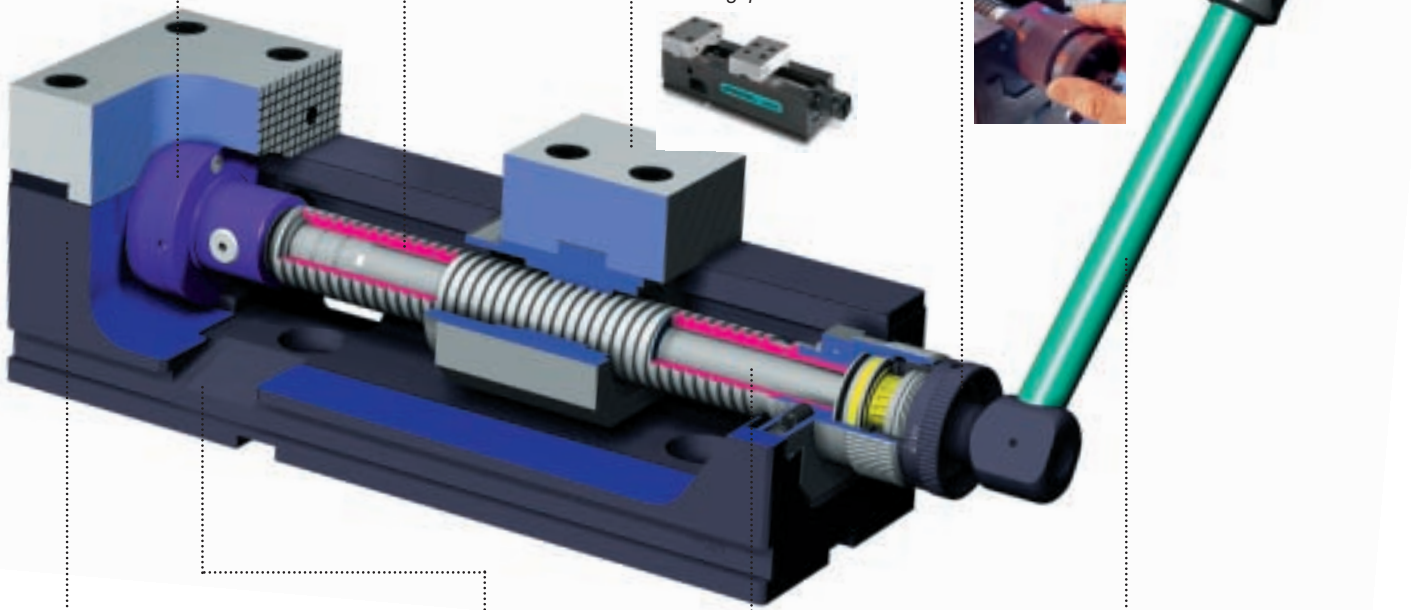
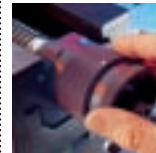
- no spinning of the outer spindle
- no jamming of chips

Reversible jaw with three-fold benefit*

- smooth
 - serrated
 - M8 thread for attachment of a large range of jaws
- *not with gripos II

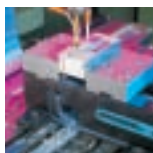
Controlled clamping force

- 10% to 100%
- continuously variable
- pre-adjustable
- no loss of clamping force



Body with high torsional stability

- wear resistant
- underside and guide-ways ground
- true-to-square laid on side



Coolant drain-off

- controlled drain-off of coolant liquid
- interruption-free operation

Clamping force by traction rod

- no bending of base body
- top machining precision

Quick-action lever clamping

- clamping < 1 second!
- no cranking
- no bevel drive
- reliably locked

GRESSEL clamping systems

By innovation and experience GRESSEL clamping systems have become the epitome of cleverness, precision and reliability. They enjoy worldwide appreciation, moreover for their high economy, durability and flexibility.



gripes® NC-vices for processing centres

GRESSEL gripes® are also available as multiple clamping units as 2V or 4V tower units for use in production and horizontal processing centres.

Extended clamping widths

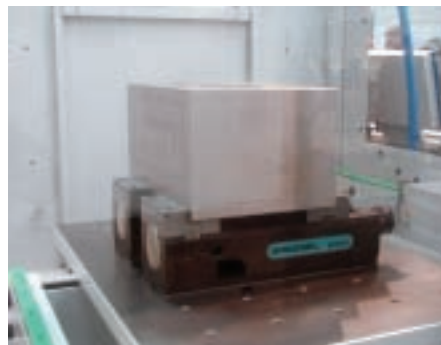
Two individual gripes® clamping units are connected with a traction rod to build one block for greater clamping widths. In addition, the NC-vice can be equipped with 160 mm jaws to expand the application range. The conversion is completed quickly, easily and without any great assembly effort.

Application with all conventional zero point clamping systems

gripes® can be adjusted to fit practically all zero point clamping system by individually modifying the base body.

Plenty of accessories

Work piece supports with a unique swivel-click bracket, quick-action adjustment, quick-change jaws in various designs, and much more.



Real 5-sided processing

Limits are frequently encountered in 5-axis machining centers due to inaccessibility of the processing axis. GRESSEL offers a sophisticated assortment of high support jaws, which allow an excellent use of the full play of the axis.

The new support jaws are also available in version VS (expanded clamping width), meaning that the support jaws can be reversed very easily and quickly, resulting in an expansion of the clamping width by max. 88 mm.

The so-called PC (pseudo-centric) version offers additional possibilities. The stationary jaw can be moved closer into the centre of the vice with additional slots in the basic body. This provides the user with more freedom in the 5-axis processing.

The clamping force, which is reduced by approx. 40% with the high support jaws, is compensated by special variable grip jaws, which highly improve the clamping and holding of the work piece.

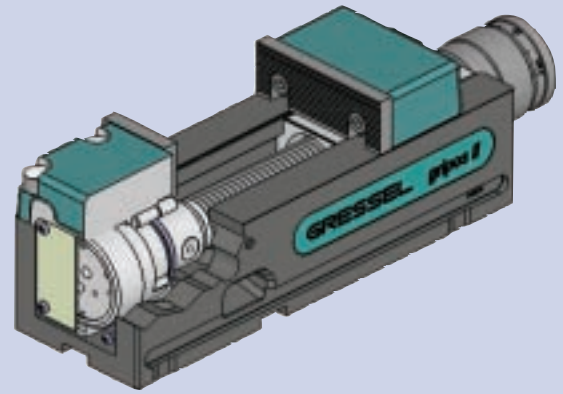


**... in production and automation.
Modular structure for the greatest economy.**

gripos II - cost effective clamping

Drawbar principle for an optimal distribution of the clamping forces on the work piece. The basic body is relieved from direct clamping forces and remains stable against distortions – even at extreme load.

The force amplification cassette is directly integrated in the T-shaped fixed jaw and therefore has a direct counter-pull. gripos II is designed as a cost-effective version in the gripos® quality, and only a little less modular.



gripos® - modular construction

Drive

gripos® allows a conversion from the mechanical force transmission into a hydraulic or pneumatic drive system without any great assembly.

A simple acting hydraulic cylinder can be used or a pneumatically powered clamping cassette can be attached instead of the standard mechanical force cassette.

Versions:

mechanical force amplification

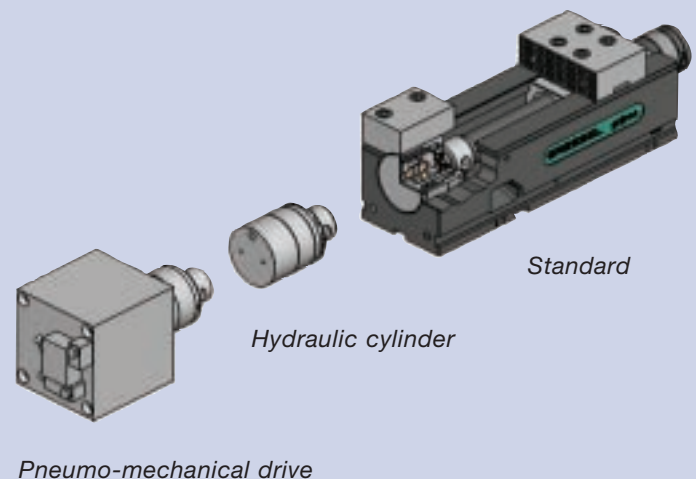
- for models 100 and 125

hydraulically powered

- for models 125 and 160

pneumo-mechanical

- for models 100 and 125



Jaws

An important constituent of the modular structure of gripos® is the option to easily replace the most diverse support jaws.

Versions:

Standard reversible jaws for triple use

- smooth, serrated or with attachment jaws

Soft jaws for positive fitting clamping

Combination reversible jaws for more clamping width

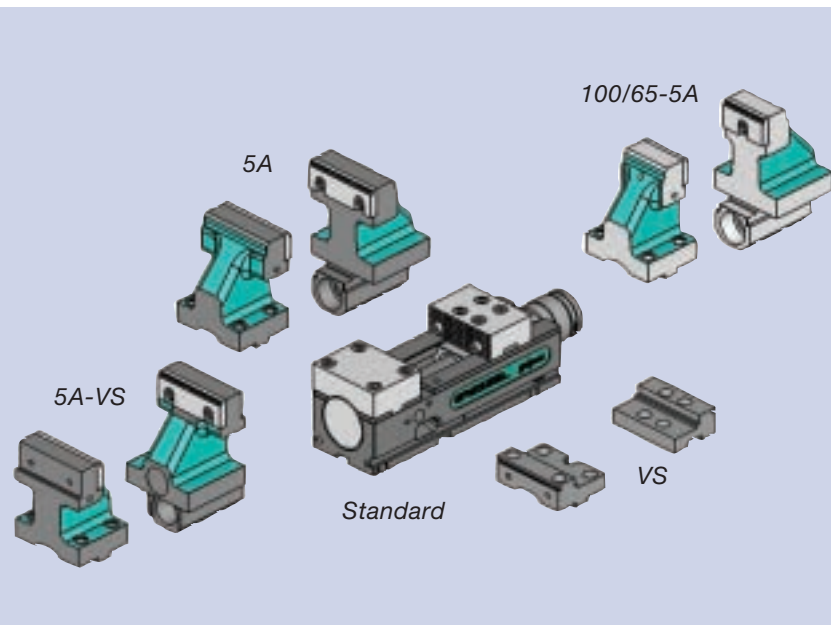
- VS jaw set 100, 125 and 160 mm

High support 5A jaws for 5-sided processing

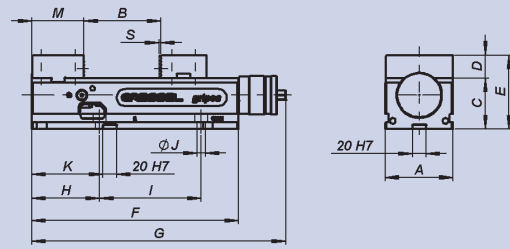
- Standard set of 5A jaws

- reversible 5A-VS jaw set for expanded clamping widths

- 100/65 5A jaw set with a reduced jaw width of 65 mm



gripos® standard version

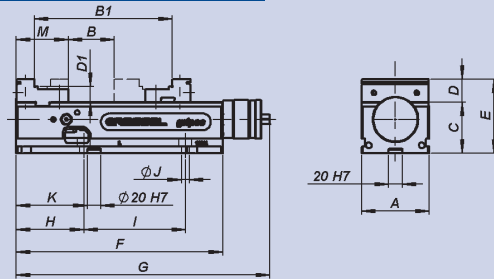


Model	Measurement [mm]												
	A	B	C	D	E	F	G	H	I	J	K	M	S
gripos 100	100	0-156	75	34	109	305	374	100	150	12	105	77	2.5
gripos 125	125	0-214	100	39	139	390	458	120	200	16	125	89	3

Model	Description	Jaw width [mm]	Clamping force [kN]	Weight [kg]	Order No.
gripos 100	NC quick-action vice	100	4-30	19,5	GPS.100.200.01
gripos 125	NC quick-action vice	125	4-40	35	GPS.125.200.01

Scope: Contents **gripos** including 1 clamping lever, 4 springs and cover plates

gripos-VS expanded clamping widths

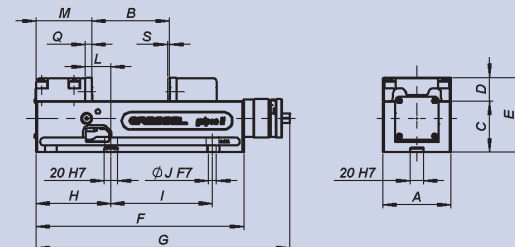


Model	Measurement [mm]														
	A	B	B1	C	D	D1	E	F	G	H	I	J	K	M	S
gripos 100-VS	100	0-156	89-245	75	34	23	109	305	374	100	150	12	105	77	2.5
gripos 125-VS	125	0-214	95-309	100	39	25	139	390	458	120	200	16	125	89	3

Model	Description	Jaw width [mm]	Clamping force [kN]	Weight [kg]	Order No.
gripos 100-VS	NC quick-action vice with expanded clamping width	100	4-30	19	GPS.100.200.02
gripos 125-VS	NC quick-action vice with expanded clamping width	125	4-40	34	GPS.125.200.02

Scope: Contents **gripos VS** including 1 clamping lever, 4 springs and cover plates

gripos II quick-action vice

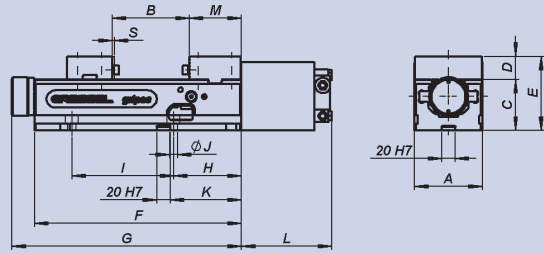


Model	Measurement [mm]													
	A	B	C	D	E	F	G	H	I	J	L	M	Q	S
gripos II 100	100	0-153	75	35	110	307	375	110.5	120/150	12	38	82.5	10	2.5
gripos II 125	125	0-205	100	40	140	392	460	134	200	16	46	99.5	11.5	3

Model	Description	Jaw width [mm]	Clamping force [kN]	Weight [kg]	Order No.
gripos II 100	NC quick-action vice, standard version	100	4-30	19	GTS.100.000.01
gripos II 125	NC quick-action vice, standard version	125	4-40	34	GTS.125.000.01

Scope: Contents **gripos II** incl. 2 jaws with profiled surface, 1 clamping lever, 4 springs

gripos® hydraulic/pneumatic



Model	Measurement [mm]														
	A	B	C	D	E	F	G	H	I	J	K	L	M	S	
gripos 125-H *	125	0-214	100	39	139	390	458	120	200	16	125			89	3
gripos 160-H *	160	0-302	115	49	164	470	531	140	180	16				82	6
gripos 100-P**	100	0-156	75	34	109	305	339	100	150	12	105	133	77	2.5	
gripos 125-P**	125	0-214	100	39	139	390	428	120	200	16	125	155	89	3	

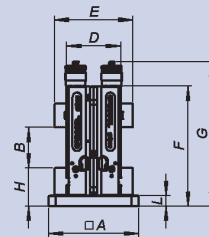
* A simple acting hydraulic cylinder is attached instead of the mechanical cassette

**A pneumo-mechanical drive is attached instead of the mechanical cassette

Model	Description	Jaw width [mm]	Clamping force [kN]	Max. pressure [bar]	Weight [kg]	Order No.
gripos 125-H *	NC quick-action vice, hydraulic	125	bis 40	170	33	GPH.125.200.01
gripos 160-H *	NC quick-action vice, hydraulic	160	bis 70	250	71	GPH.160.000.01
gripos 100-P**	NC quick-action vice, pneumo-mechanical	100	5-30	8	21	GPP.100.200.01
gripos 125-P**	NC quick-action vice, pneumo-mechanical	125	6-40	8	38	GPP.125.200.01

Scope: Contents **gripos hydraulic / pneumatic** *hydraulic connection / **pneumatic connection

gripos-2V vertical unit

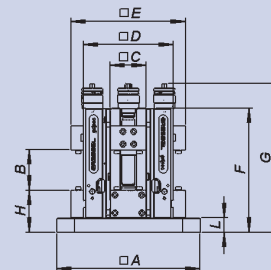


Vertical unit attached on a base plate with 2 NC quick-action vices, for pallets according to DIN 55201 and JIS 6337-1980

Model	Measurement [mm]									Weight [kg]	Order No.	
	A	B	C	D	E	F	G	H	L			
gripos 100-2V	250	0-156		150	218	335	404	107	30		56	GPS.100.202.01
gripos 125-2V	250	0-214		200	278	430	498	129	40		92	GPS.125.202.01

Scope: Contents **gripos 2V** including 1 clamping lever, cover plates and 2 springs

gripos-4V vertical unit

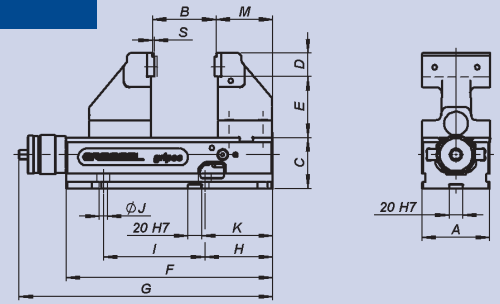


Vertical unit attached on a base plate with 4 NC quick-action vices, for pallets according to DIN 55201 and JIS 6337-1980

Model	Measurement [mm]									Weight [kg]	Order No.	
	A	B	C	D	E	F	G	H	L			
gripos 100-4V / 400	400	0-156	101	251	319	345	414	117	40		148	GPS.100.204.04
gripos 125-4V / 400	400	0-214	126	326	404	430	498	129	40		224	GPS.125.204.04
gripos 125-4V / 500	500	0-214	126	326	404	430	498	129	40		252	GPS.125.204.05

Scope: Contents **gripos 4V** including 1 clamping lever, cover plates and 1 lifting ring

gripos-5A 5 axis

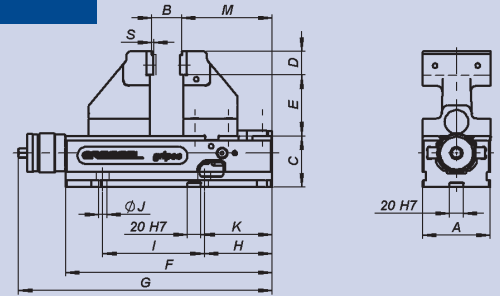
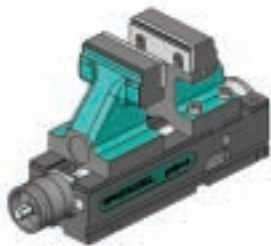


Model	Measurement [mm]												
	A	B	C	D	E	F	G	H	I	J	K	M	S
gripos 100-5A	100	5-127	75	35	90	305	375	100	150	12	105	83.5	2.5
gripos 125-5A	125	5-179	100	40	110	390	458	120	200	16	125	100	3

Model	Description	Jaw width [mm]	* Clamping force [kN]	Weight [kg]	Order No.
gripos 100-5A	NC quick-action vice with high support jaws	100	4-30	25	GPS.100.200.05
gripos 125-5A	NC quick-action vice with high support jaws	125	4-40	43	GPS.125.200.05

Scope: Contents **gripos-5A** incl. 2 stepped jaws grip 5mm, 1 clamping lever, 4 springs, cover plates

gripos-5A-PC 5 axis

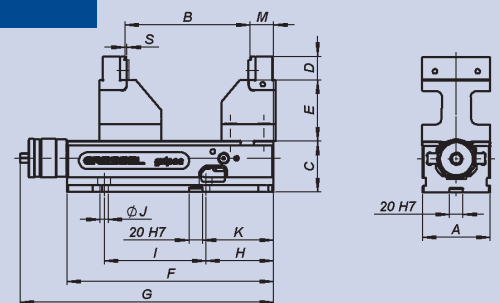
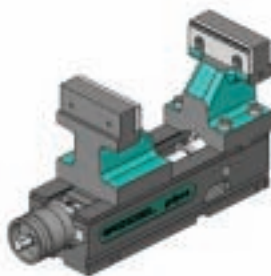


Model	Measurement [mm]												
	A	B	C	D	E	F	G	H	I	J	K	M	S
gripos 100-5A-PC	100	5-77	75	35	90	305	375	100	150	12	105	133.5	2.5
gripos 125-5A-PC	125	5-124	100	40	110	390	458	120	200	16	125	155	3

Model	Description	Jaw width [mm]	* Clamping force [kN]	Weight [kg]	Order No.
gripos 100-5A-PC	NC quick-action vice with high support jaws	100	4-30	25	GPS.100.200.07
gripos 125-5A-PC	NC quick-action vice with high support jaws	125	4-40	43	GPS.125.200.07

Scope: Contents **gripos-5A-PC** incl. 2 stepped jaws grip 5mm, 1 clamping lever, 4 springs, cover plates

gripos-5A-VS expanded clamping widths

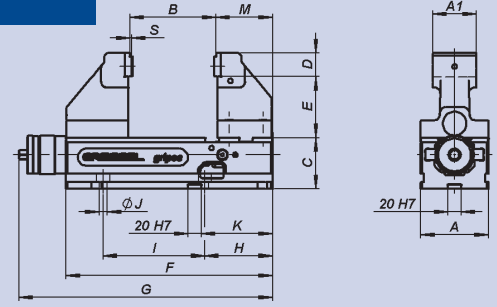
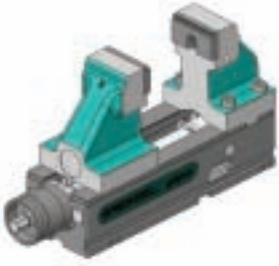


Model	Measurement [mm]												
	A	B	C	D	E	F	G	H	I	J	K	M	S
gripos 100-5A-VS	100	98-198	75	35	90	305	375	100	150	12	105	34.5	2.5
gripos 125-5A-VS	125	119-267	100	40	110	390	458	120	200	16	125	36	3

Model	Description	Jaw width [mm]	* Clamping force [kN]	Weight [kg]	Order No.
gripos 100-5A-VS	NC quick-action vice with high support jaws	100	4-30	25	GPS.100.200.06
gripos 125-5A-VS	NC quick-action vice with high support jaws	125	4-40	43	GPS.125.200.06

Scope: Contents **gripos-5A-VS** incl. 2 stepped jaws grip 5mm, 1 clamping lever, 4 springs, cover plates

gripos-5A 5 axis – jaws 65



Model	Measurement [mm]													
	A	A1	B	C	D	E	F	G	H	I	J	K	M	S
gripos 100/65-5A	100	65	5-127	75	35	90	305	375	100	150	12	105	83.5	2.5

Model	Description	Jaw width [mm]	* Clamping force [kN]	Weight [kg]	Order No.
gripos 100/65-5A	NC quick-action vice	65	4-30	25	GPS.100.201.05

Scope: Contents **gripos 100/65-5A** 65 incl. 2 stepped jaws grip 5mm, 1 clamping lever, 4 springs, cover plates

* **Clamping force:** corresponds with the clamping force value adjustable at the spindle when using standard jaws. They reduce by approx. 40% with high support jaws. The clamping force loss, however, is generally compensated by using the standard grip stepped jaws.

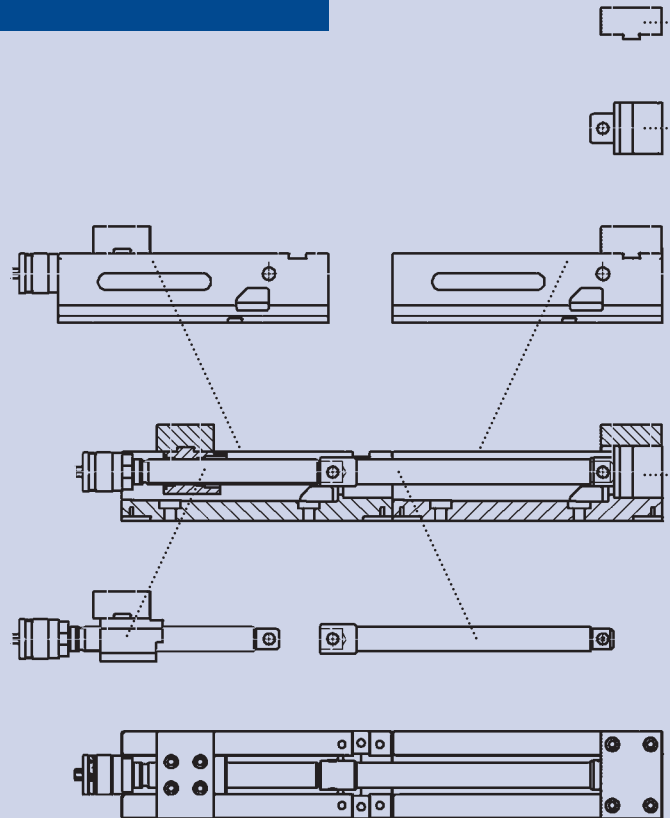
gripos® for enlarged jaw opening

Clamping width expansion by sequentially arranging 2 gripos with traction rod extensions

Two single devices are combined into one unit with a traction rod extension. Quick conversion due to a modular structure. At least one basic body and a traction rod are also required.

Zero point clamping systems

gripos® can be individually manufactured to suit most conventional zero point clamping systems. Holes with the appropriate key dimensions can be incorporated upon request.

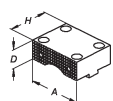


Sales

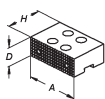
GRESSEL AG
Spanntechnik
Schützenstrasse 25
CH-8355 Aadorf
Schweiz
Tel. +41 (0)52 368 16 16
Fax +41 (0)52 368 16 17

info@gressel.ch

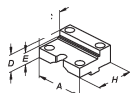
www.gressel.ch



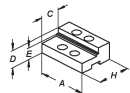
Model	Jaw width [mm]						Order No.
	A	B	C	D	E	H	
Reversible jaw, fixed	100	-	-	34	-	76	GPA.100.040.01
Reversible jaw, fixed	125	-	-	39	-	88	GPA.125.040.01



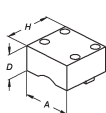
Reversible jaw, mobile	100	-	-	34	-	67	GPA.100.041.01
Reversible jaw, mobile	125	-	-	39	-	82	GPA.125.041.01



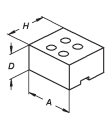
Combination reversible jaw, fixed	100	-	50	34	23	76	GPA.100.042.01
Combination reversible jaw, fixed	125	-	50	39	25	88	GPA.125.042.01



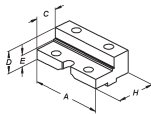
Combination reversible jaw, mobile	100	-	40	34	23	67	GPA.100.043.01
Combination reversible jaw, mobile	125	-	45	39	25	82	GPA.125.043.01



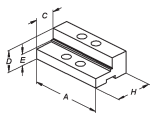
Soft jaw, fixed	100	-	-	50	-	95	GPA.100.003.01
Soft jaw, fixed	125	-	-	50	-	110	GPA.125.003.01



Soft jaw, mobile	100	-	-	50	-	85	GPA.100.004.01
Soft jaw, mobile	125	-	-	50	-	100	GPA.125.004.01



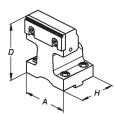
Jaw VS, fixed 125/160	160	-	50	49	25	88	GPZ.125.072.11
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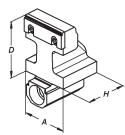
Jaw VS, mobile 125/160	160	-	45	49	25	82	GPZ.125.073.02
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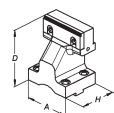
Spindle nut for the mobile jaw	100						GPA.100.007.11
Spindle nut for the mobile jaw	125						GPA.125.007.11



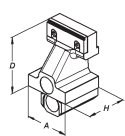
High support jaw, fixed	100	-	-	125	-	80	GPA.100.046.01
High support jaw, fixed	125	-	-	150	-	95	GPA.125.046.01



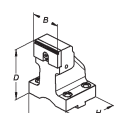
High support jaw, mobile	100	-	-	125	-	91	GPA.100.047.01
High support jaw, mobile	125	-	-	150	-	105	GPA.125.047.01



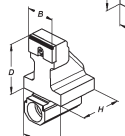
VS support jaw, high, fixed	100	-	-	125	-	80	GPA.100.048.01
VS support jaw, high, fixed	125	-	-	150	-	95	GPA.125.048.01



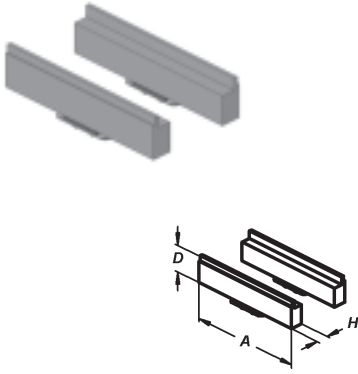
VS support jaw, high, mobile	100	-	-	125	-	91	GPA.100.049.01
VS support jaw, high, mobile	125	-	-	150	-	105	GPA.125.049.01



Support jaw, high, fixed 100/65	100	65	-	125	-	80	GPA.100.056.01
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Support jaw, high, mobile 100/65	100	65	-	125	-	91	GPA.100.057.01
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Work piece supports, hardened and milled, with swivel-click bracket. (2 units per set)

Model	Jaw width [mm]	Measurement [mm]		Order No.
	A	D	H	
Work piece supports	100	11	10.5	GPA.100.033.01
Work piece supports	100	16	10.5	GPA.100.030.01
Work piece supports	100	23	10.5	GPA.100.036.01
Work piece supports	100	25.5	10.5	GPA.100.031.01
Work piece supports	100	29.5	10.5	GPA.100.032.01
Work piece supports	125	11	10.5	GPA.125.211.01
Work piece supports	125	16	10.5	GPA.125.216.01
Work piece supports	125	21	10.5	GPA.125.221.01
Work piece supports	125	25	10.5	GPA.125.225.01
Work piece supports	125	26	10.5	GPA.125.226.01
Work piece supports	125	29	10.5	GPA.125.229.01
Work piece supports	125	32.5	10.5	GPA.125.232.01
Work piece supports	125	36	10.5	GPA.125.236.01



Quick-action device for gripos and gripos II

Model	Description	Order No.
Quick-action device	for fast jaw opening adjustment (unit)	GPA.000.032.01



Handle for gripos

Model	Description	Order No.
Handle for gripos	for easy handling of the vices	GPA.000.029.01



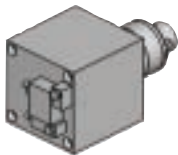
Traction rod extension for gripos

Model	Description	Order No.
Traction rod extension	for gripos 100	GPA.100.026.01
Traction rod extension	for gripos 125	GPA.125.026.01



Hydraulic cylinder for gripos

Model	Description	Order No.
Hydraulic cylinder	for gripos 125	GPH.125.062.01



Pneumo-mechanical drive for gripos

Model	Description	Order No.
pneumo-mechanical drive	for gripos 100	GPP.100.062.01
pneumo-mechanical drive	for gripos 125	GPP.125.062.01



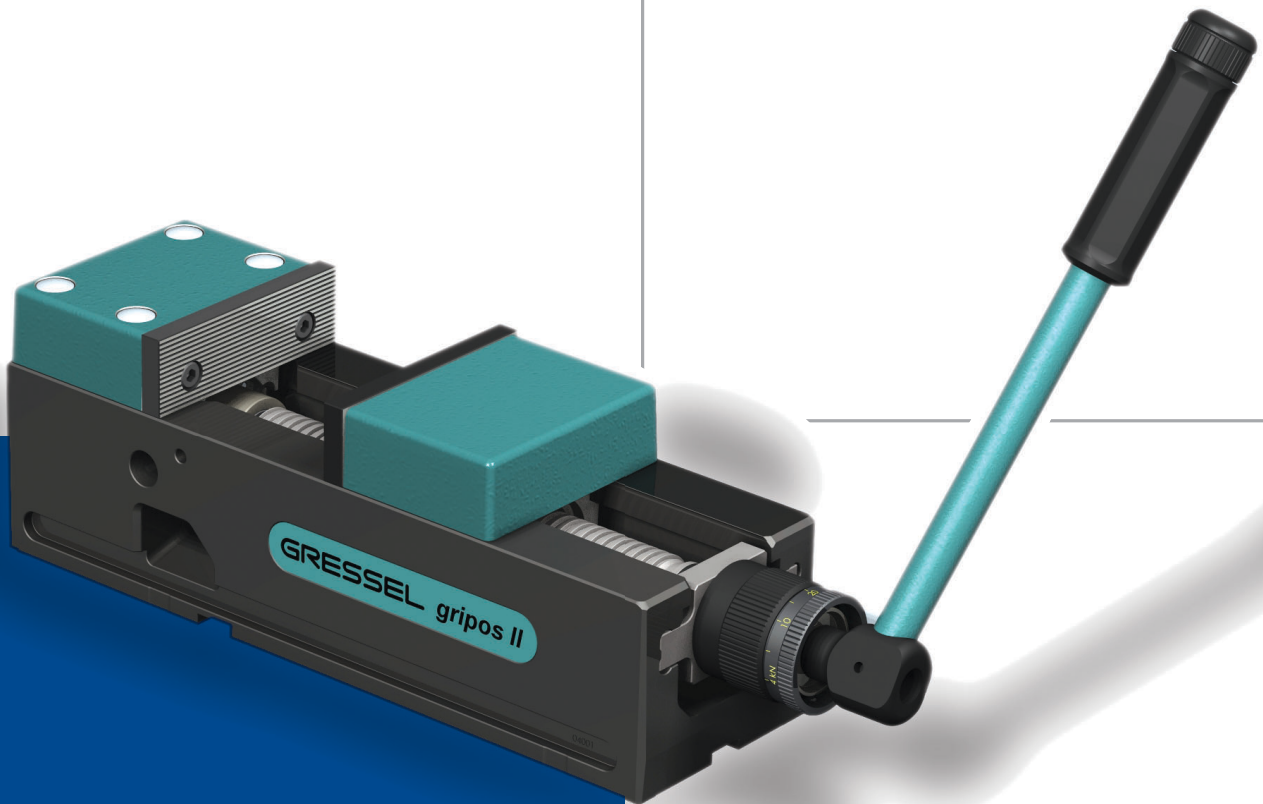
Material stop for gripos and gripos II

Model	Description	Order No.
Material stop	for gripos and gripos II	MSA.000.275.01

NC rapid action vice with drawbar

gripos II

GRESSEL

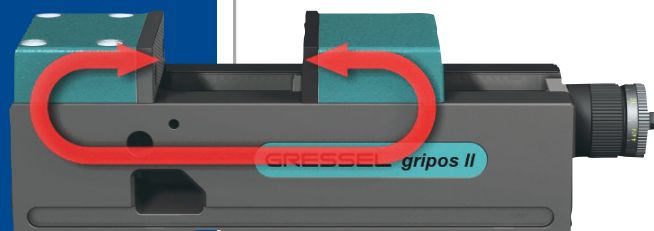
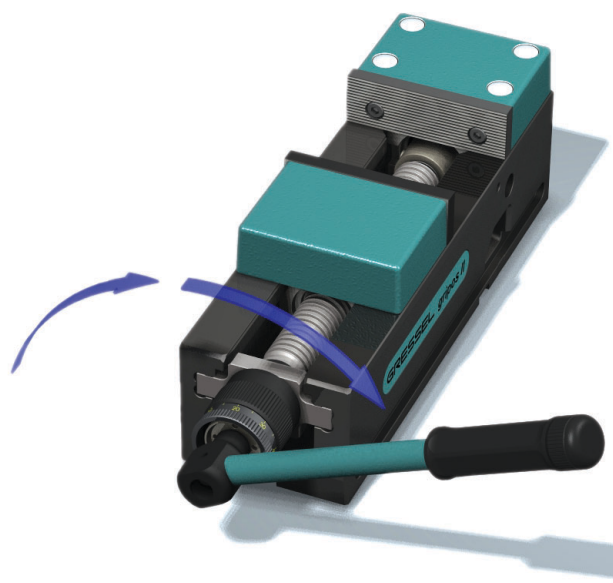


The unique, patented rapid-action lever clamping system with mechanical force amplification.

The novel design of gripos II provides additional benefits such as:

Drawbar principle

The clamping pressures act optimally on the workpiece and not on the basic body.



High-speed Clamping ...

GRESSEL Clamping Systems

Through innovation and experience GRESSEL clamping systems have become the epitome of cleverness, precision and reliability. They enjoy world-wide appreciation, moreover thanks to their cost-effectiveness, durability and versatility.

A unique design

- compact construction
- few structural parts
- for clamping the widest range of workpieces

Quick-action lever clamping

- clamped at cyberspeed
- small angle of rotation of max. 160°
- dosed or full clamping pressure
- no cranking, no bevel drive
- easy to operate in the middle of the machine table

gripos II

Enclosed force amplification

- Protection from chips and fluid
- vibration resistant
- mechanical locking

Trouble-free clamping

- no co-rotation of the external spindle
- no jamming of chips

Versatile jaw program

- the right clamp jaws for any requirement
- an extensive jaw program of standard, special – purpose and quick-change jaws is available
- compatible to most GRESSEL vices

Controlled clamping pressure

- 10% to 100%
- infinitely variable
- no loss of clamping pressure

Drawbar

- The basic body is relieved of direct clamping forces and remains stable – even under extreme loading.
- The stationary jaw has a direct counter-traction.
- The workpiece – outside edge as a reference remains at all times in the same position – even with the widest range of clamping forces.
- The advantages of gripos II can therefore be used also for precision work.
- At full clamping depth the outer edged of the workpiece deviates less than 0.01 mm.

Coolant drain-off

- controlled drain-off of coolant
- trouble-free working

Clamping pressure using drawbar

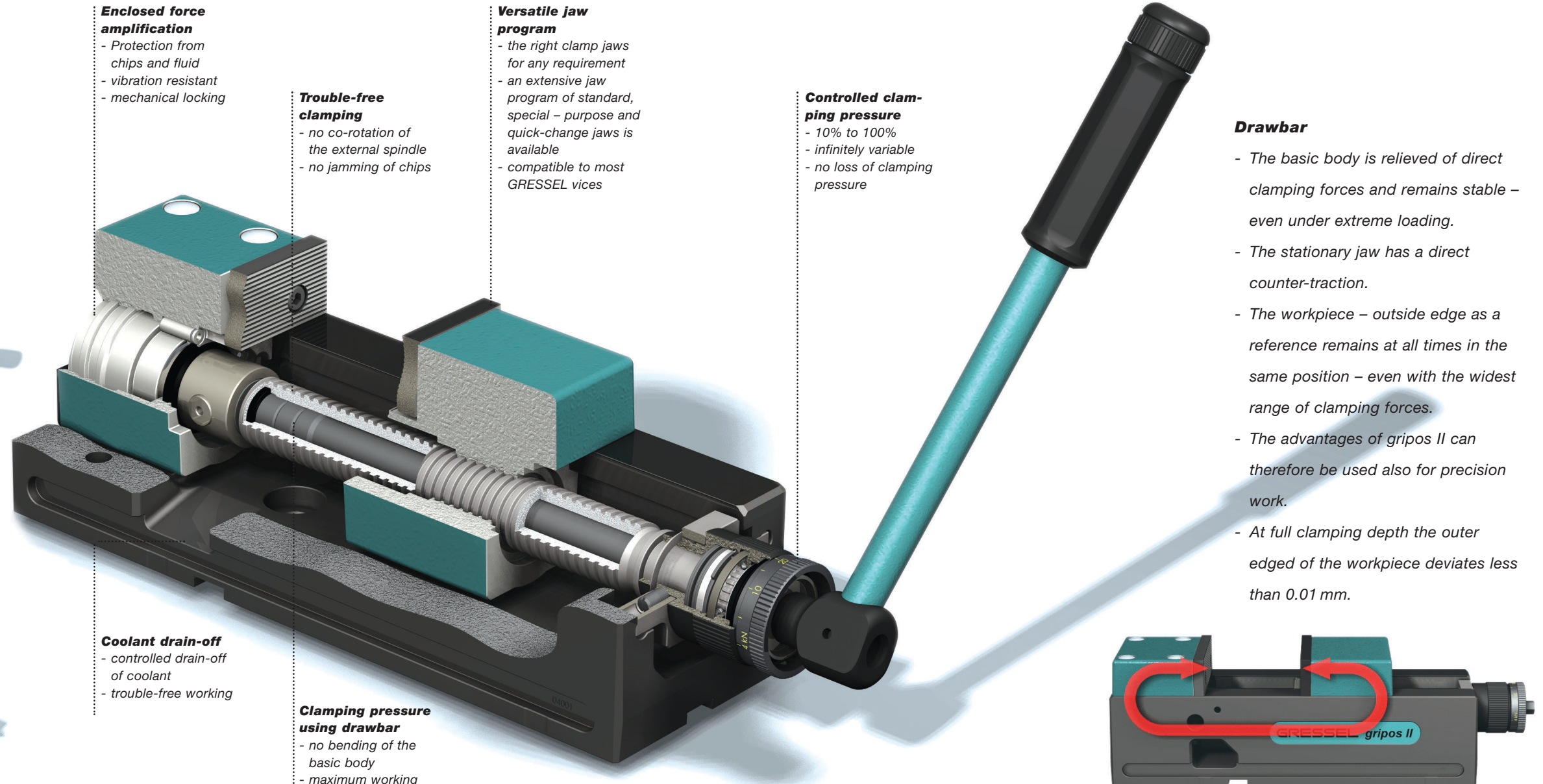
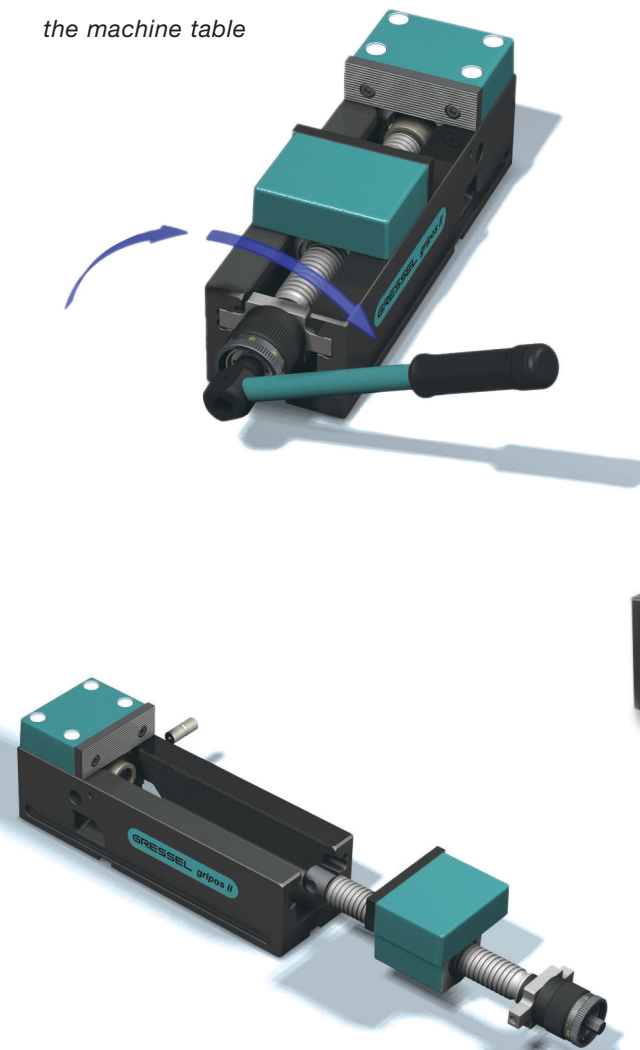
- no bending of the basic body
- maximum working precision

Dimensionally stable basic body

- wear resistant
- black surface protection
- precision slots for transverse or longitudinal set-up, dowel holes for 40 mm and 50 mm grids.

Removal of the spindle assembly

- without screws in no time at all
- easy access for positioning and fastening of gripos II
- easy maintenance, lightning-fast and easy cleaning



... in manufacturing and automation.

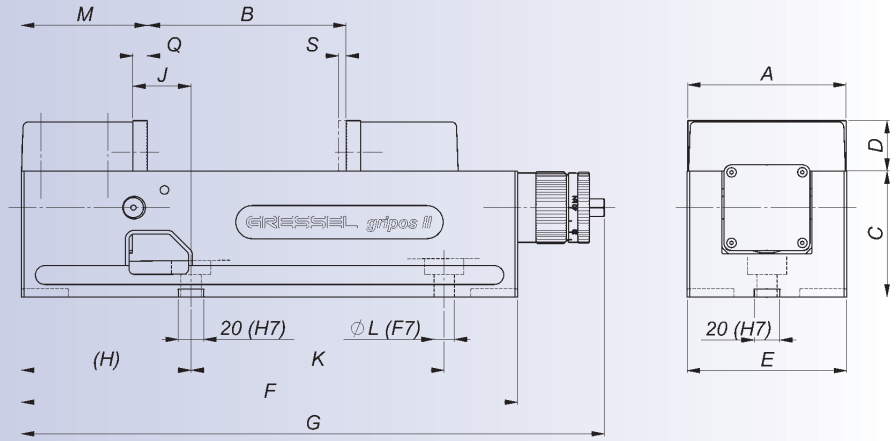
Modular construction for maximum economy.

Technical Data

Type	Description	Jaw width	Clamp. pressure [kN]	Scope of supply	Order No
gripes II 100	NC quick action vice	100	4 - 30	2 standard jaws	GTS.100.000.01
gripes II 125	with drawbar	125	4 - 40	profiled 1 clamping lever 4 clamps	GTS.125.000.01



gripes II rapid action vice

Rapid clamping with mechanical force amplification.



Type	[mm]														[kg]
	A	B	C	D	E	F	G	H	J	K	L	M	Q	S	Weight
gripes II 100	100	0-153	75	35	101	307	375	110,5	38	120/150	12	82,5	10	2,5	19
gripes II 125	125	0-205	100	40	126	392	460	134	46	200	16	99,5	11,5	3	34

Accessories

Type	Description	Order No
	Quick action grip for jaw opening-adjustment with detachable ball grip, appropriate for gripes II 100 and gripes II 125	GPA.000.032.01
	Material stop appropriate for gripes II 100 and gripes II 125	MSA.000.275.01

Jaw assortment – positioning and fastening

The complete GRESSEL gripes jaw program is available for the widest range of requirements.

workpiece supports and set-up bolts are identical to the GRESSEL gripes program.

Vertrieb:

GRESSEL AG

Spanntechnik
Schützenstrasse 25
CH-8355 Aadorf
Schweiz
Tel. +41 (0)52 368 16 16
Fax +41 (0)52 368 16 17

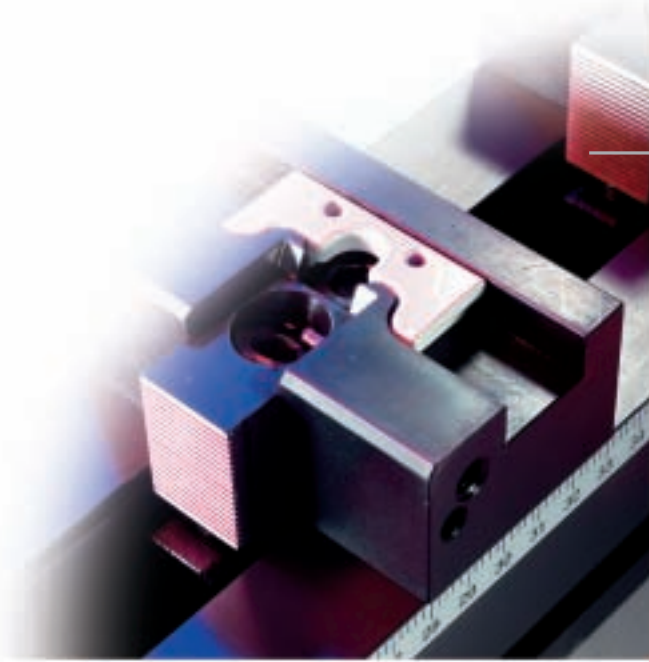
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Multiple clamping with the multigrip system

multigrip

GRESSLER



Innovative Clamping System simply different.

- *Vertical index-dovetailing with protection against damage*
- *Smooth work-piece support*
- *Simple maintenance*
- *Highest processing safety*

Applications

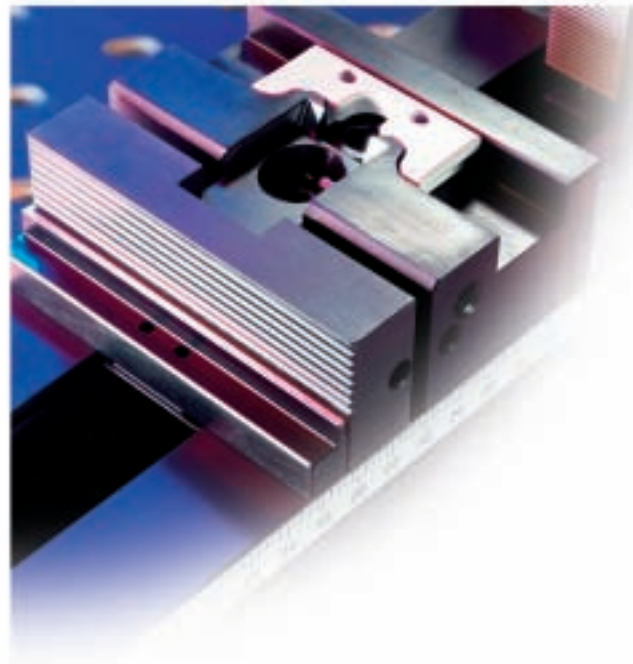
- *Multiple clamping*
- *Single piece clamping of large parts*
- *Clamping of large plates*
- *Package clamping*
- *Mirrored clamping*

Minimise the setting-up time

Optimal use of the machine capacity due to multi-clamping with a new type of jaw positioning.

Security during high feed rates

Safe work-piece clamping with the stable block vice and its ideal force transfer and efficient press-down effect.



Efficient multi-clamping...

multigrip

Make full use of the machine capacity

With multi-clamping you can process several pieces simultaneously in one clamping action.

Reduced setting-up time

Simple and quick, with a new type of system. With the vertical dovetailing on the inner face of the clamping rail the jaw modules can be precisely positioned. The adjustable jaws are adjusted and fixed with just a half turn of the screw.

Minimal cleaning effort

The unique design prevents soiling so that there is no need to clean when adjusting the clamping width, and disturbance free clamping remains guaranteed at all times.

Security during high feed rates

The block vice and integrated press-down effect reduce vibration and increase stability during the process. Clamping jaws with press-down effect guarantee safe clamping of the work-piece with ideal force transfer. This guarantees long-lasting precision even during high feed rates.

Jaws, fixed

- Capable of being used, smooth or profiled
- Capable of being moved using the index-dovetailing

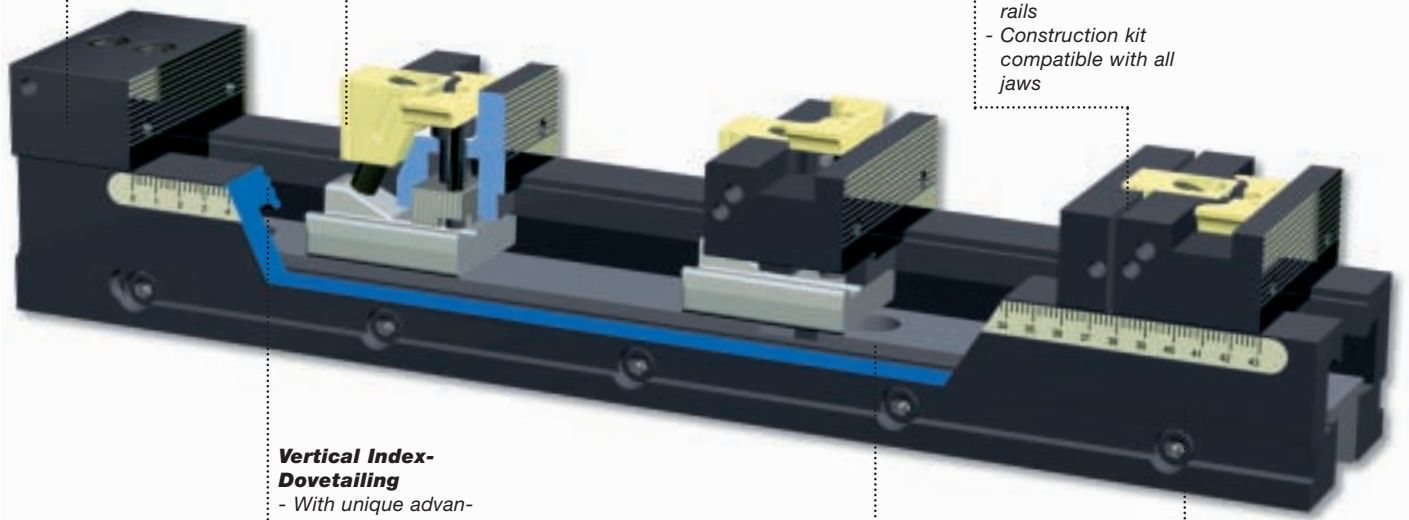
Adjustable jaws

- Plate with «click in» holder
- A bolt, rotate 1/4 opens to fixing or new positioning
- Clamping jaw with press-down
- Fixed construction area for following work-piece



Jaw Assortment

- Jaw attachment, without press-down for wide support
- Work-piece specific jaws
- Work-piece supports capable of swivelling
- Compatible with all multigrip clamping rails
- Construction kit compatible with all jaws



Vertical Index-Dovetailing

- With unique advantages on the inside surface of the side rail
- Work-piece support on a smooth upper surface
- No-effort cleaning
- No jamming of swarf
- Protected against damage and wear and tear



Clamping

- Close-tolerance holes for grid plates
- Longitudinal grooves for T-nut table
- Zero-point positioning system

Clamping rails

- Widths of 65 and 90 mm, each in three standard lengths
- Protected against corrosion

GRESSEL clamping systems

With innovation and experience GRESSEL clamping systems have become the epitome of cleverness, precision and safety. Moreover their being highly economical, long-lasting and flexible has brought them international recognition.

Application with convincing advantages for high productivity in manufacturing.



Flexible and modular

The jaw system constructed in line with the construction kit principle, with various jaw attachments and work-piece supports that can be swivelled, offers complete flexibility for the processing of different work-pieces.



All jaws can easily be fitted to the different multigrip rail sizes. This thought out design makes multigrip a flexible and modular clamping system with a high level of cost efficiency.

Advantages at a glance

- Short setting-up times
- minimal effort cleaning with the vertical dovetailing
- High clamping force with block and press-down clamping
- High level of processing safety even during high feed rates
- Simple and quick to set up
- Modular and flexible jaw system
- Reinforced against wear and tear

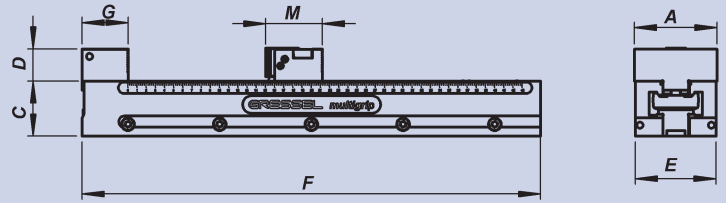
Applications with convincing advantages for high manufacturing productivity.

Increasing variety of parts and shorter delivery times demand efficient and time-saving clamping solutions. The innovative multi-clamping system multigrip enables manufacturing efficiency to increase. multigrip also satisfies individual needs in the simplest way with a wide assortment of jaws or work-piece specific modifications. You want to reduce your costs with individual clamping solutions?

The GRESSEL Team would be pleased to advise you.

**... for optimal use of the machine running time.
Reduce setting-up time during manufacture to a minimum.**

Basic Set



multigrip Basic Set

The Basic Set comprises a clamping rail (different lengths available), including a jaw, fixed and an adjustable jaw for price information only.

The system can be extended with additional adjustable jaws or clamping rails to specifically meet your individual requirements.

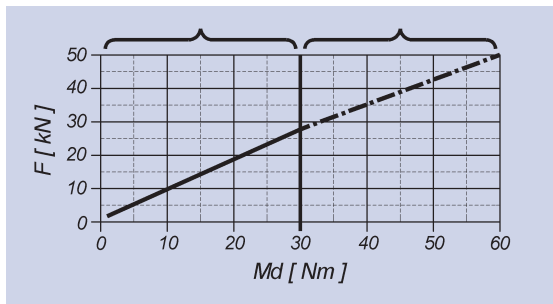
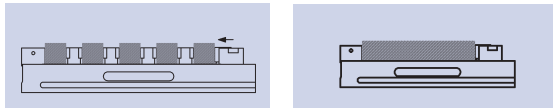
All parts must be individually ordered.

Type	No. adjust. jaw	clamping force (kN)	weight *	Dimension (mm)						
				jaw width						
				A	C	D	E	F	G	M
multigrip 65-220	1	20	6.3	64	60	34.8	65	220	50	61.5-65.5
multigrip 65-320	1	20	8.0	64	60	34.8	65	320	50	61.5-65.5
multigrip 65-400	1	20	9.5	64	60	34.8	65	400	50	61.5-65.5
multigrip 65-500	1	20	11.4	64	60	34.8	65	500	50	61.5-65.5
multigrip 90-400	1	25	13.4	90	60	34.8	88	400	50	61.5-65.5
multigrip 90-500	1	25	16.1	90	60	34.8	88	500	50	61.5-65.5
multigrip 90-600	1	25	18.7	90	60	34.8	88	600	50	61.5-65.5
multigrip 90-650	1	25	19.9	90	60	34.8	88	650	50	61.5-65.5

* weight = clamping rail, fixed jaw plus adjust. jaw

Clamping Capacity

Clamping force

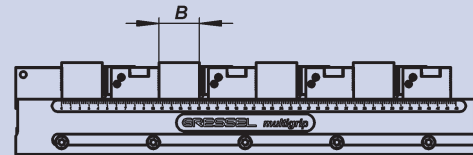


Several work-pieces

Clamping force max.
25 kN per piece.

Single work-piece

Clamping force max.
50 kN per piece.



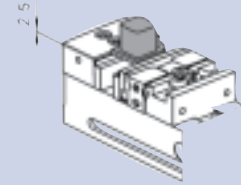
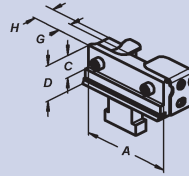
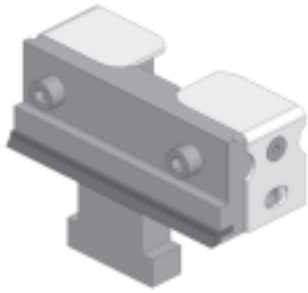
Vice widths

The vice width (B) shows the maximum size of work-piece according to the number of clamping positions for individual length.

The vice widths are valid for application during use of adjustable jaws without jaw attachments, and can therefore be reduced appropriately according to the concerned use case.

Type	Number of work-pieces						
	1	2	3	4	5	6	7
	Maximum work-piece size B in (mm)						
multigrip 65 - 220	105	20	-	-	-	-	-
multigrip 65 - 320	205	70	25	2.5	-	-	-
multigrip 65 - 400	285	110	51.7	22.5	5	-	-
multigrip 65 - 500	385	160	85	47.5	25	10	-
multigrip 90 - 400	285	110	51.7	22.5	5	-	-
multigrip 90 - 500	385	160	85	47.5	25	10	-
multigrip 90 - 600	485	210	118.3	72.5	45	26.7	13.6
multigrip 90 - 650	535	235	135	85	55	35	20.7

Jaw attachment with guide



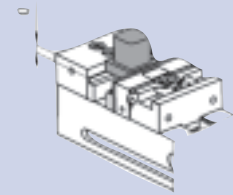
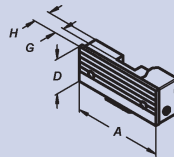
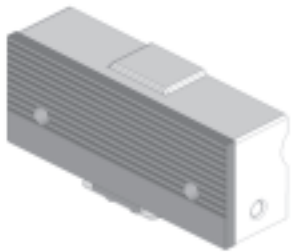
Clamping depth min. 2.5 mm

Type	Dimension (mm)					Order No.
	jaw width					
	A	C	D	G	H	
Jaw attachment 40	40	22	35	14	23	FSA.040.004.02
Jaw attachment 65	64	22	35	14	23	FSA.065.004.02
Jaw attachment 90	90	22	35	14	23	FSA.090.004.02

Reduced Clamping depth

The press down effect of the adjustable jaw is not there while using jaw attachments.

Jaw attachment with clamping spring



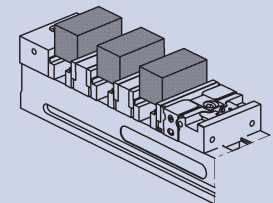
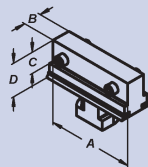
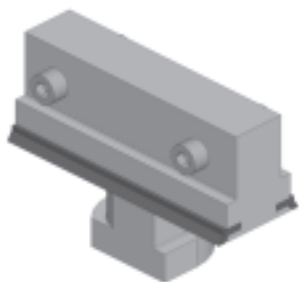
Clamping depth min. 10 mm

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	G	H	
Jaw attachment 65	66	36	10	18	FSA.065.070.01
Jaw attachment 90	92	36	10	18	FSA.090.070.01

Reduced Clamping depth

The press down effect of the adjustable jaw is not there while using jaw attachments.

Intermediate jaw for package clamping



Intermediate jaw for package clamping

Type	Dimension (mm)				Order No.
	jaw width				
	A	B	C	D	
Intermediate jaw 65	64	19	22	35	FSA.065.005.01
Intermediate jaw 90	90	19	22	35	FSA.090.005.01

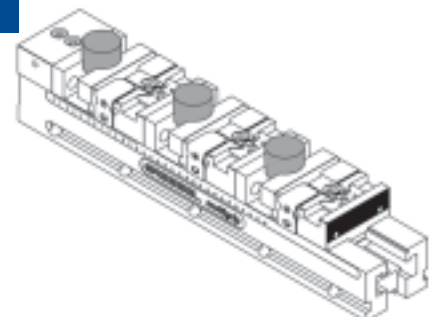
For several blank work-pieces: Package clamping for processing from the full

- Position of the work-piece outer edge without precise reference (work-piece tolerance adds up)
- Minimum clamping depth of 2.5 mm while using intermediate jaw and a jaw attachment with guide.

Clamping of moulded parts

multigrip can be used exceptionally well for clamping moulded parts by using **soft jaw attachments**.

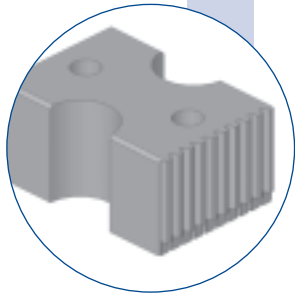
For **dimensions** of the soft jaws, please refer to the supplementary sheet on **multigrip** jaw assortment.



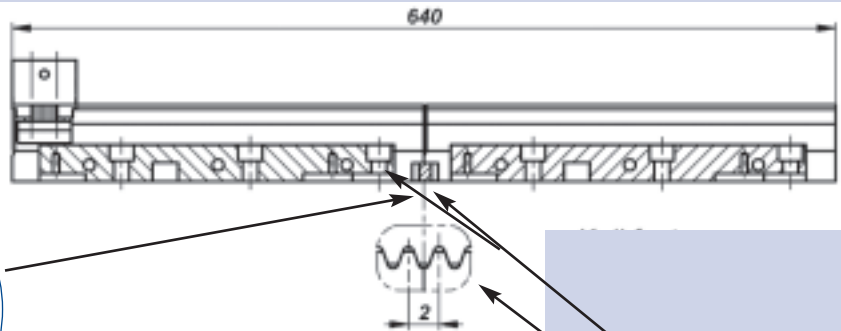
Extending the clamping rail

- simple
- quick
- precise

with general indexing



multigrip 65-320



Fixed wedge for indexing-specific connection

For large work-pieces:

For example, plates or a large number of small work-pieces.

Using the machine table.

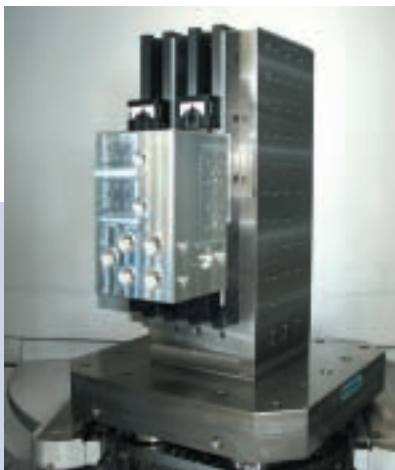
- Extension of length with the help of two rails. Positioning with Rhombus pins / bolts.
- The indexing takes place through dovetailing in the side rails and wedge.
- Increased clamping power up to 50 kN in case of single work-piece clamping.

Applications



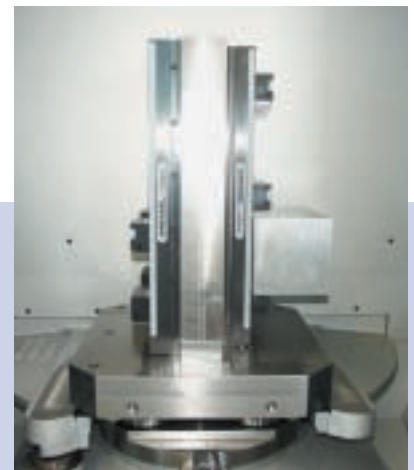
Single work-piece clamping of large blank parts with two **multigrip** and clamping power up to 50 kN.

Clamping tower ...



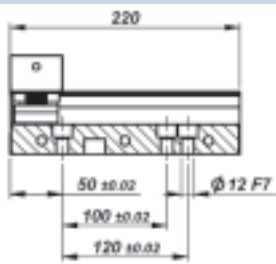
... with each **multigrip** pair for clamping a large work-piece or several small parts.

Double angle tower ...

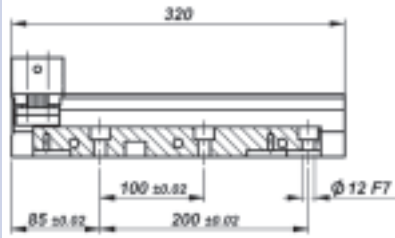


8 Standard versions

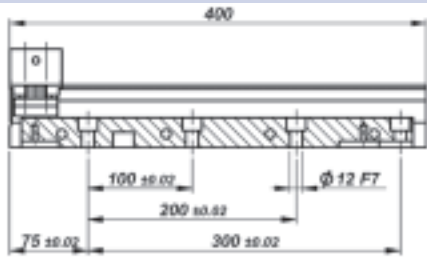
multigrip 65-220



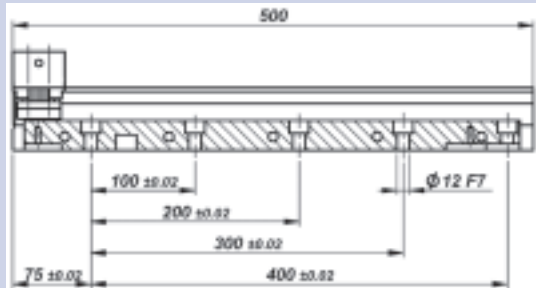
multigrip 65-320



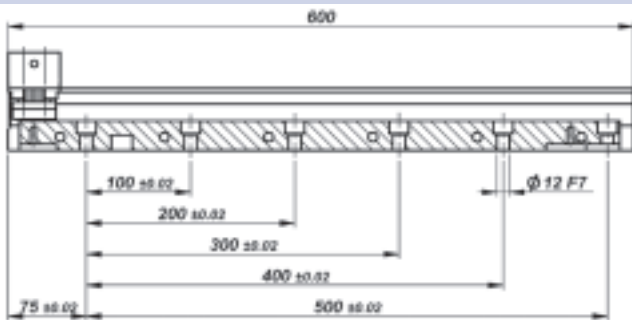
multigrip 65-400 / multigrip 90-400



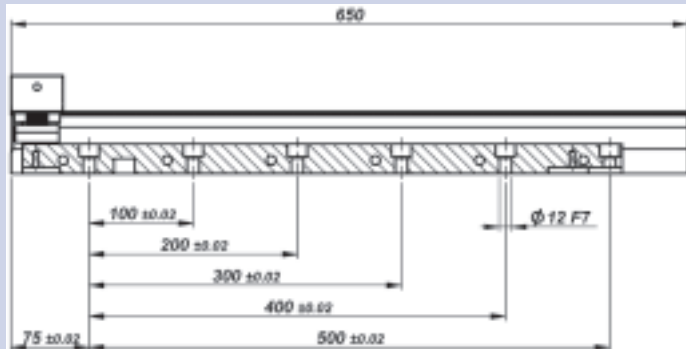
multigrip 65-500 / multigrip 90-500



multigrip 90-600



multigrip 90-650



Sales

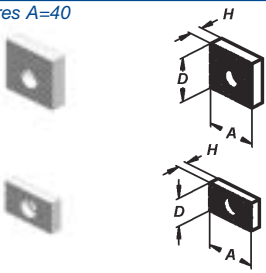
GRESSEL AG
 Spanntechnik
 Schützenstrasse 25
 CH-8355 Aadorf
 Schweiz
 Tel. +41 (0)52 368 16 16
 Fax +41 (0)52 368 16 17

info@gressel.ch

www.gressel.ch

Jaw assortment multigrip

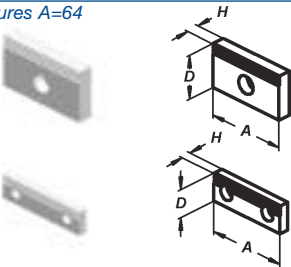
Figures A=40



Serrated jaw

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Serrated jaw 40	40	35	11		FSA.040.009.11
Serrated jaw 65	64	35	11		FSA.065.009.11
Serrated jaw 90	90	35	11		FSA.090.009.11
Serrated jaw 40	40	22	8.5		FSA.040.035.11
Serrated jaw 65	64	22	8.5		FSA.065.035.11
Serrated jaw 90	90	22	8.5		FSA.090.035.11

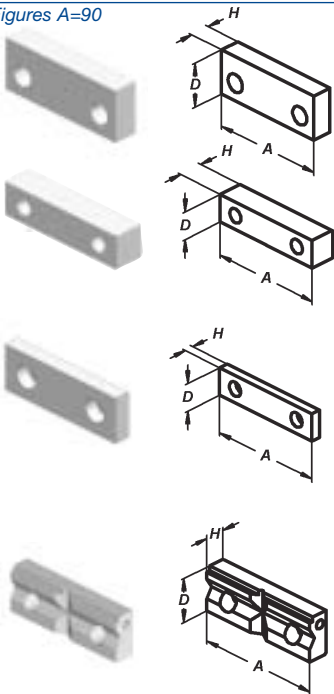
Figures A=64



Grip jaw

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Grip jaw 40	40	35	10		FSA.040.014.11
Grip jaw 65	64	35	10		FSA.065.014.11
Grip jaw 90	90	35	10		FSA.090.014.11
Grip jaw 40	40	22	7.7		FSA.040.038.11
Grip jaw 65	64	22	7.7		FSA.065.038.11
Grip jaw 90	90	22	7.7		FSA.090.038.11

Figures A=90



Soft jaw

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Soft jaw 40	40	35	16		FSA.040.013.11
Soft jaw 65	64	35	16		FSA.065.013.11
Soft jaw 90	90	35	16		FSA.090.013.11
Soft jaw 40	40	22	20		FSA.040.037.11
Soft jaw 65	64	22	20		FSA.065.037.11
Soft jaw 90	90	22	20		FSA.090.037.11

Polished jaw

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Polished jaw 40	40	22	7.7		FSA.040.036.11
Polished jaw 65	64	22	7.7		FSA.065.036.11
Polished jaw 90	90	22	7.7		FSA.090.036.11

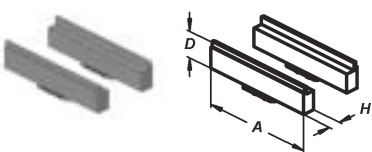
Prism jaw

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Prism jaw 72	72	35	16		ECA.072.013.01
Prism jaw 80	80	35	16		ECA.080.013.01
Prism jaw 100	100	35	16		ECA.100.013.01

Work-piece supports

Work-piece supports

Type	Dimension (mm)				Order No.
	jaw width				
	A	D	H		
Work-piece supports 65-11	64	11	10		FSA.065.011.01
Work-piece supports 65-16	64	16	10		FSA.065.016.01
Work-piece supports 65-21	64	21	10		FSA.065.021.01
Work-piece supports 65-25	64	25	10		FSA.065.025.01
Work-piece supports 65-28	64	28	10		FSA.065.028.01
Work-piece supports 65-30	64	30	10		FSA.065.030.01
Work-piece supports 65-32.5	64	32.5	10		FSA.065.032.01
Work-piece supports 90-11	90	11	10		FSA.090.011.01
Work-piece supports 90-16	90	16	10		FSA.090.016.01
Work-piece supports 90-21	90	21	10		FSA.090.021.01
Work-piece supports 90-25	90	25	10		FSA.090.025.01
Work-piece supports 90-28	90	28	10		FSA.090.028.01
Work-piece supports 90-30	90	30	10		FSA.090.030.01
Work-piece supports 90-32.5	90	32.5	10		FSA.090.032.01



Clamping jaws and accessories



Connecting piece

Type	Order No.
Connecting piece for connecting two clamping rails	FSM.000.062.11

Clamping jaw – suitable for adjustable jaw 40/65/90

Type	Order No.
Standard clamping jaw (profiled surface)	FSM.000.042.11
Grip clamping jaw	FSZ.000.032.11
Clamping jaw with pyramid profile	FSZ.000.033.11

Torque wrench

Type	Dimension (mm)			Order No.
	Md	Lenght	Hex.	
Torque wrench	8-54 Nm	280	SW 8	FSA.000.015.01

Positioning and fixing



Type	Description	Scope of delivery	Size	Order No.
Dowel bolt	Dowel bolt f7	Set incl. 2 pieces	Ø12 F7 M12	FSA.000.005.01
Precision T-nut piece	T-nut piece with screw	Set incl. 2 pieces	for T-Nut 14 mm	MAA.110.014.01
			for T-Nut 16 mm	MAA.110.016.01
Fixture bolt	fixture bolt for T-nut piece	Set incl. 2 pieces	for T-Nut 14 mm	FSA.000.024.01
			for T-Nut 16 mm	FSA.000.026.01
Expander Bolt			12mm, 31, 5/24	XNN.14300.120
			16mm, 50/43	XNN.14300.160

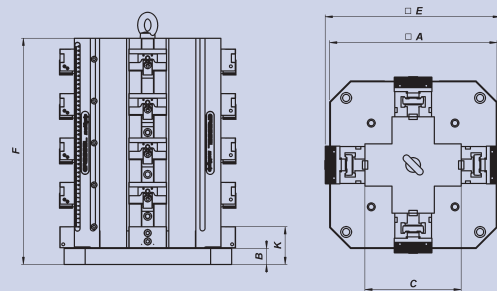
On grid plates

In case of several laterally positioned clamping rails, the reference position of the jaw is fixed, depending on the grid plate and the clamping system.

To be able to fasten the clamping rails without force even in case of extreme tolerance positions, the holes are maintained in the F7 tolerance field. This offers adequate space for inserting the fastening screws.

An expander bolt is used for more precise alignment. The expander bolt can be removed after the alignment and fastening. The free hole now creates place for another fastening screw.

Clamping towers

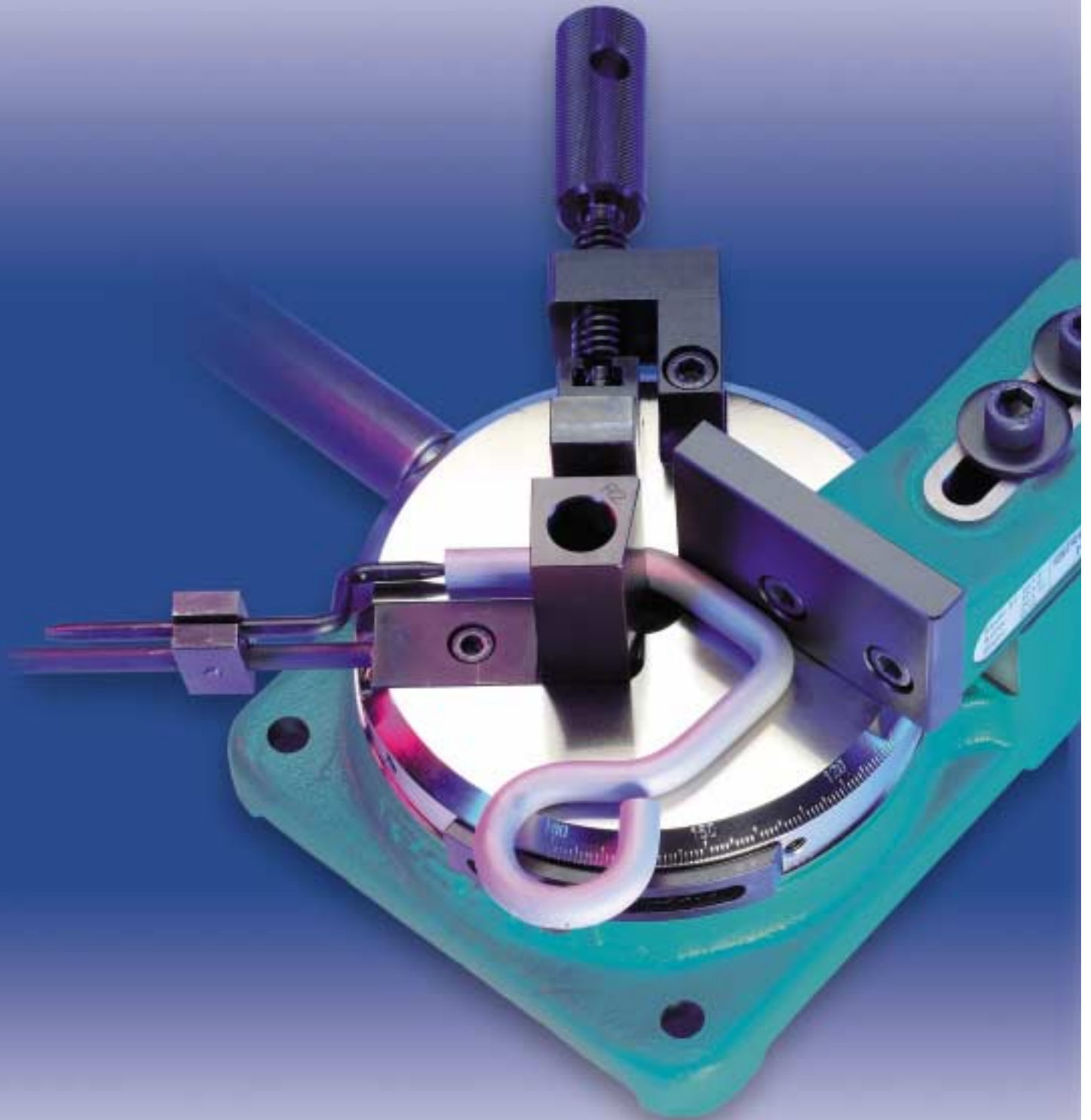


Clamping towers

Type	Dimension (mm)						weight (kg)	Order No.
	A	B	C	E	F	K		
multigrip 65-4V	400	40	230	420	540	90	255	FSM.065.240.09
multigrip 90-4V	500	40	230	420	640	90	323	FSM.090.250.09

Profile bending machines HB

Precision bending up to 180°



Easy to operate

Highly suitable for the tight and precise bending of round and flat bar stock, high sections and other profiles. True to size bending of whole series possible, thanks to angular and linear stops.

Fields/areas of application

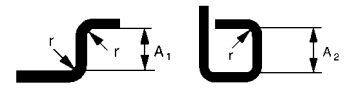
- Mechanical workshops
- Apparatus manufacture
- Prototype construction
- Fittings technology
- Instruments in medical engineering
- Small and medium sized series
- Repair work



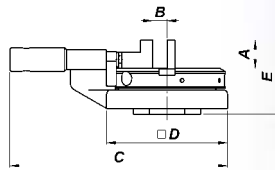
The following bends are possible with all types:



Minimum clearance A1 / A2



HB 10

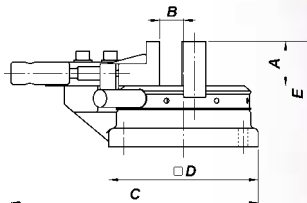


Profile bending machine HB 10
Portable machine for holding in vice. With nickel plated turn-table. Bending angle read-off up to 180°.

Type	Dimensions (mm)					Weight (kg)
	A	B**	C	D	E	
HB 10	35	20	260	150 x 150	92	9.5

Type	Description/scope of delivery	Order No.	Bending perf. (mm)		Bending radius (r)	Section A height (mm)	Bending angle	Jaw opening (mm) B	Minimum clearance	
			St 37*	Copper					A1 (mm)	A2 (mm)
HB 10	Profile bending machine with bending lever 460 mm 1 bending tool R = 0 mm (90°) 1 bending tool R = 6 mm (180°) 1 material stop and 1 angle stop	HBM.010.000.01	35 x 4	35 x 5	0	35	90°	20	18	18
			25 x 5	25 x 6	2.5	35	90°	17.5	23	23
			18 x 6	16 x 8	4	35	90°	16	26	26
			10 x 8	10 x 10	6	35	180°	14	30	12
			9 x 9	Ø 10	10	35	180°	10	38	20
			Ø 10							

HB 14

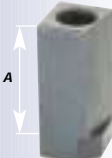
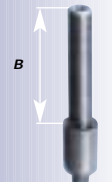
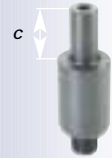



Profile bending machine HB 14
Portable machine for holding in vice and for bench fixture. With covered needle bearing and nickel plated turn-table. Angle read-off up to 180°.

Type	Dimensions (mm)					Weight (kg)
	A	B**	C	D	E	
HB 14	60	36	310	200 x 200	142	22.4

Type	Description/scope of delivery	Order No.	Bending perf. (mm)		Bending radius (r)	Section A height (mm)	Bending angle	Jaw opening (mm) B	Minimum clearance	
			St 37*	Copper					A1 (mm)	A2 (mm)
HB 14	Profile bending machine with bending lever 800 mm (2-part) 1 bending tool R = 2 mm (90°) 1 material stop and 1 angle stop 1 cover plug	HBM.014.000.01	60 x 6	60 x 7	0	60	90°	36	25	30
			40 x 8	50 x 8	2	60	90°	34	29	34
			25 x 10	35 x 10	5	60	90°	31	35	40
			20 x 12	25 x 12	8	60	180°	28	41	16
			13 x 13	15 x 15	10	60	180°	26	45	20
			Ø 15	Ø 16	15	60	180°	21	55	30
					20	60	180°	16	65	40

*Bending performance referred to mild steel St 37, hot rolled **Bending radius R=0

Accessories	Type	HB 10	HB 14	HB 20	HB 25 und HBH 25				
	Bending tool 90°	Section height A = 35 mm	Section height A = 60 mm	Section height A = 100 mm	Section height A = 120 mm				
		Radius	Order No.	Radius	Order No.	Radius	Order No.		
		0 mm	HBM.010.030.11	0 mm	HBA.014.030.11	0 mm	HBA.020.030.11	0 mm	HBA.025.032.11
		2.5 mm	HBA.010.050.11	2 mm	HBM.014.020.11	2 mm	HBM.020.020.11	2 mm	HBA.025.033.11
		4 mm	HBA.010.051.11	5 mm	HBA.014.031.11	5 mm	HBA.020.031.11	5 mm	HBM.025.030.11
				8 mm	HBA.020.032.11	10 mm	HBA.025.034.11		
	Bending tool 180°	Section height B = 35 mm	Section height B = 60 mm	Section height B = 100 mm	Section height B = 120 mm				
		Radius	Order No.	Radius	Order No.	Radius	Order No.		
		6 mm	HBM.010.052.11	8 mm	HBA.014.032.11	10 mm	HBA.020.033.11	15 mm	HBA.025.035.11
		10 mm	HBA.010.053.11	10 mm	HBA.014.033.11	15 mm	HBA.020.034.11	20 mm	HBM.025.031.11
				15 mm	HBA.014.034.11	20 mm	HBA.020.035.11	30 mm	HBA.025.036.11
			20 mm	HBA.014.035.11	25 mm	HBA.020.036.11			
	Bending tool 180° for small radii	Section height C = 25 mm			Section height C = 40 mm				
		Radius	Perform.	Order No.	Radius	Perform.	Order No.		
		mm	□	Ø	mm	□	Ø		
		4	25/1,5	4	HBA.020.037.11	6	40/2	6	HBA.025.038.11
		6	25/2	6	HBA.020.038.11	10	40/4	10	HBA.025.037.11
		8	25/3	8	HBA.020.039.11				
		Performance referred to mild steel St 37 hot rolled							
	Extra clamp					For extreme bends, this clamp provides extra connection between the 90° bending tool and the clamp jaw. Usable with the types HB 20 and HB 25.			
						Order No. HBA.020.060.01			



Rapid action clamp for HB 25

A rapid action clamping mechanism can be supplied for the bending machines HB 25. Series work can thereby be performed still more economically, as the workpieces can be clamped and unclamped quickly and safely by a simple lever action.

Features of this sturdy construction:

- Rough setting via spindle
- Clamping by cam-lock. Stroke 2.4 mm; self-locking over whole range
- Jaw opening same size as standard model
- Wear resistant and no maintenance

Easy exchange of clamp mechanisms by unscrewing the cyl. hd. screws in the support plate.

Order No. HBA.025.040.01

Distributor:

Bench vices AX, AXP and PS
**Long-proven, robust
and non-wearing**



The classics

Of durable nodular or special cast iron, equipped with serrated or smooth jaws. With many accessories for all clamping work in the workshop, factory or on the road.

AX, AXP and PS, Bench Vices, gripping and smart

AX the smart model

- Moving front jaw
- With 90° pivoting slide
- Large clearance = wide jaw opening
- Easy manipulation = high clamping pressure
- Finely graded clamping possible
- Universal application
- Covered spindle
- With powerful pneumatic drive (optional)

AX

Fields/areas of application

- Installation work on the building site
- Garages
- Erection/assembly
- Servicing, repairs
- For on the road
- Apprentice workshops

PS the classic model

- Moving back jaw
- For precision hand work
- Robust
- Compact
- Long proven, classical construction

PS

Fields/areas of application

- Workshops
- Production shops
- Apprentice workshops



AXP with pneumatic multiple cylinder

The model series AXP with clamping pressure up to 16 kN. With double action multiple cylinder and swivelling air connections. No maintenance; all pneumatic system parts of Anticorodal; minimal air consumption. With complete foot control on request. Both hands stay free for loading heavy workpieces.

AX positioner device

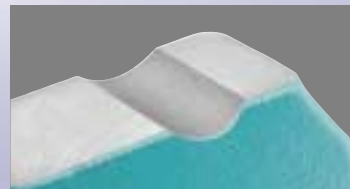
Optimum working position thanks to effortless height adjustment up to 200 mm. With damped gas spring to guard against abrupt drop or sudden lift.

The forwards opening AX

With protected square section guide for non-maintenance accuracy. Innumerable applications possible thanks to 90° pivoting slide.



AX with wide jaw openings
With 90° pivoted slide practically unlimited wide jaw openings.



Anvil and saddle as working aid

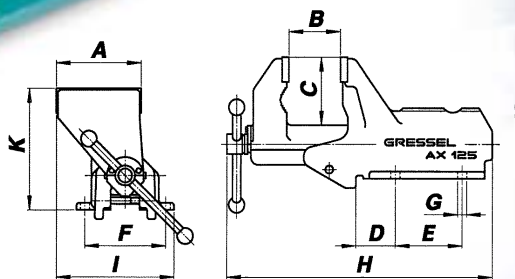
For optimum processing on tubes and similar workpieces.

Vertical clamping

Thanks to lateral offset design, vertical clamping also possible for round stock up to 4".



AX



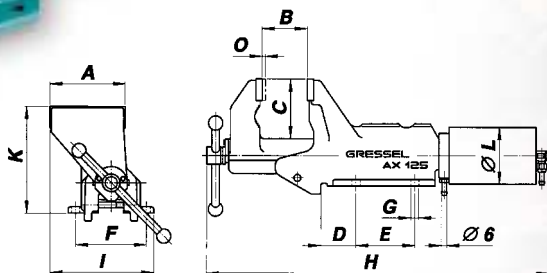
Bench vice AX

With protected spindle in supported square guide, for non-maintenance accuracy. Innumerable possible applications thanks to patented, 90° pivoting slide.

Types	Dimensions (mm)										
	A	B	C	D	E	F	G	H	I	K	
AX 100	100	110	80	60	--	100	11	255	143	160	
AX 125	125	135	90	50	110	118	11	320	173	190	
AX 160	160	170	115	65	135	147	13	390	220	235	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
AX 100	Vice	100	--	8	2 serrated jaws	AXM.100.000.04
AX 125	Opening forwards with serrated jaws (pc.)	125	--	15		AXM.125.000.04
AX 160		160	--	29		AXM.160.000.04

AXP



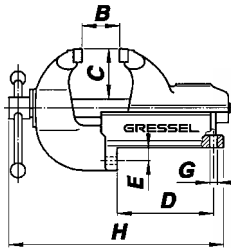
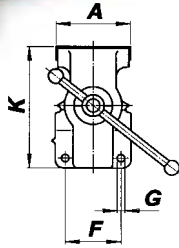
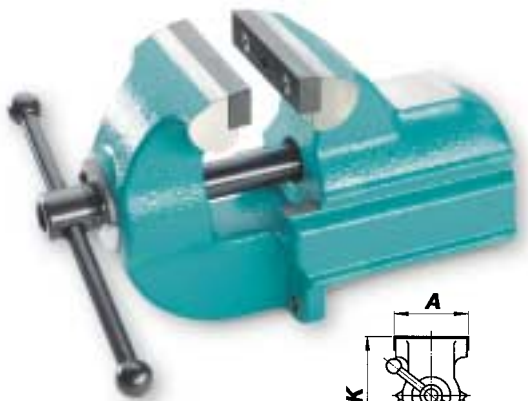
Pneumatic bench vice AXP

With double-action multiple cylinder and swivelling air connections. Clamping pressure up to 16 kN. All parts of Anticorodal; minimal air consumption. Foot control on request.

Types	Dimensions (mm)											
	A	B	C	D	E	F	G	H	I	K	L	O
AXP 125	125	135	90	50	110	118	11	460	173	190	95	6
AXP 160	160	170	115	65	135	147	13	590	220	235	95	6

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
AXP 125	Pneumatic bench vice	125	max. 13	19	2 serrated jaws	AXP.125.000.04
AXP 160	opening forwards with serrated jaws (pc.)	160	max. 16	33		AXP.160.000.04

PS



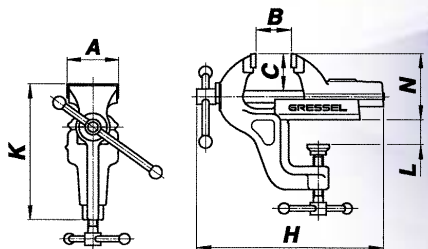
Bench vice PS

Opening backwards, with or without integrated C-clamp fixture. Of special cast iron, with prism guide, steel quill, covered spindle and case hardened jaws.

Types	Dimensions (mm)									
	A	B	C	D	E	F	G	H	K	
PS 100	100	110	74	135	17	76	11	310	175	
PS 125	125	150	88	167.5	24	95	12.5	374	212	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
PS 100-1	Vice opening backwards	100	--	11.5	2 serrated jaws	PSM.100.000.01
PS 125-1	with serrated jaws (pc.)	125	--	19.6		PSM.125.000.01
PS 100-2	Vice opening backwards	100	--	11.5	2 smooth jaws	PSM.100.000.02
PS 125-2	with smooth jaws (pc.)	125	--	19.6		PSM.125.000.02

PSB



Bench vice with C-clamp PSB

Corresponds to the PS with respect to design and quality, except for the integrated fixture which is especially distinct with the sturdy C-clamp and powerful screw. Rapidly re-positioned, as no hole in bench.

Types	Dimensions (mm)							
	A	B	C	H	K	L	N	
PSB 80	80	60	38	225	158	10-52	75	

Type	Description	Jaw width (mm)	Clamping pressure (kN)	Weight (kg)	Scope of delivery	Order No.
PSB 80-1	Vice with C-clamp and serrated jaws (pc.)	80	--	3.1	2 serrated jaws	PSB.080.200.01
PSB 80-2	Vice with C-clamp and smooth jaws (pc.)	80	--	3.1	2 smooth jaws	PSB.080.200.02

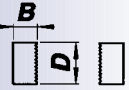
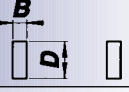
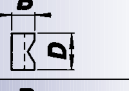
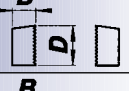
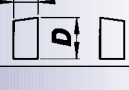
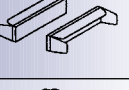
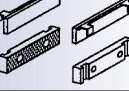
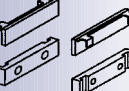
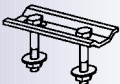
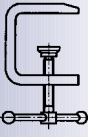
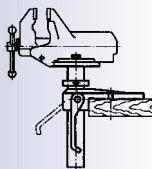
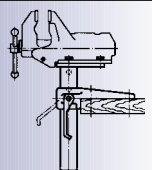
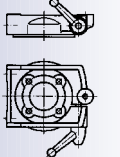
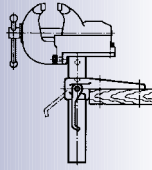
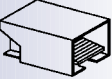
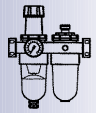
Fig.	Type	Dimensions (mm)		For vice type							Order No.	
		B	D	AX 100	AX 125	AX 160	AXP 125	AXP 160	PSB 80-1/2	PS 100-1/2		PS 125-1/2
Jaw assortment												
	Serrated jaws Set, 2 pcs.	8 10.5 11.8	22 35 40	◆	◆	◆	◆					AXA.100.012.01 AXA.125.012.01 AXA.160.012.01
	Smooth jaws Set, 2 pcs.	8 10.5 11.8	22 35 40	◆	◆	◆	◆					AXA.100.013.01 AXA.125.013.01 AXA.160.013.01
	Prism jaw 1 pc.	13.5 16 18	22 35 40	◆	◆	◆	◆					AXA.100.014.01 AXA.125.014.01 AXA.160.014.01
	Serrated jaws Set, 2 pcs.	8 13.5 13.5	20 23.5 23.5					◆	◆	◆		PSA.080.209.01 PSA.100.009.01 PSA.125.009.01
	Smooth jaws Set, 2 pcs.	8 13.5 13.5	20 23.5 23.5					◆	◆	◆		PSA.080.210.01 PSA.100.010.01 PSA.125.010.01
	Jaw facings Clip-on jaws with aluminium facing. Set, 2 pcs.							◆	◆	◆		PSA.080.015.05 PSA.100.015.05 PSA.125.015.05
	Jaw facings with plastic facing. Set, with serrated base jaws and screws.									◆		PSA.125.022.01
	Jaw facings with plastic facing. Set, with smooth base jaws and screws.									◆		PSA.125.023.01



Fig.	Type	Description	For vice type							Order No.	
			AX 100	AX 125	AX 160	AXP 125	AXP 160	PSB 80-1/1-2	PS 100-1/1-2		PS 125-1/1-2
Positioning and fixture											
	Fixture rail incl. bolts and washers	For rapid vice removal. Hidden fixture.	◆	◆	◆	◆					AXA.100.030.01 AXA.125.030.01 AXA.160.030.01
	C-clamp fixture	Hook-in. No holes needed in bench top.	◆								AXA.100.040.01
	Positioning lifter incl. screws	Manual height adjustment within 200 mm; 360° swivel.	◆								AXA.100.130.01
	Positioner device incl. screws	Infin. var. height adjustment within 200 mm; damped gas spring; 360° swivel.		◆	◆	◆					AXA.125.150.01 AXA.160.150.01
	Swivel base incl. screws	For optimum clamping of workpieces. Quick and effortless setting of ideal working position. 360° swivel.					◆		◆		PSA.100.100.01 PSA.125.100.01
	Positioner device incl. screws	Infin. var. height adjustment within 200 mm; damped gas spring; 360° swivel.					◆		◆		PSA.100.150.01 PSA.125.150.01
Further accessories											
	Foot valve incl. 5 clamps	With protection hood			◆	◆					AXP.000.230.02
	Conditioning unit with connecting material	With pressure regulator for clamping pressure setting.			◆	◆					AXP.000.235.01
	Air hose	Ø 14 x 6 mm; by the metre			◆	◆					XNF.2801.001

Distributor: