

FMS Series
MORSE e CUBI-MORSA - VISES and VISE -TOWERS

5



MADE IN ITALY

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VALIGETTA DI CAMPIONATURA FMS (Art.860) SAMPLE KIT CASE FMS (Art.860)

NEW!

Art. 983

Valigetta di campionatura morsa Art.860 T.1x300
Sample kit case Art.860 T.1x300 vise

Cod. 0.98.30000

All'Interno - Inside:					
	Art. 810L		Art. 806B		Art. 297 16/18
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SIMBOLOGIA DATI TECNICI TECHNICAL DATA ICONS

GANASCE JAWS						
PIASTRE GANASCE JAW PLATES						
POSSIBILITÀ DI POSSIBILITY OF						
PAGINE PAGES						

SISTEMA MODULARE FLESSIBILE

FLEXIBLE MODULAR SYSTEM



Morse e Cubi-Morsa serie FMS - Morse Singole, Doppie, Autocentranti & centinaia di ganasce disponibili
FMS vises and Vise-Towers series - Single, Double and Self-centering Vises and hundreds of jaws available

Di speciale interesse per gli utilizzatori di centri di lavoro orizzontali e verticali le morse FMS presentano le stesse caratteristiche costruttive illustrate per le morse della serie STD, XL, gli elementi modulari e gli accessori (accuratamente rettificate in acciaio ad alta resistenza cementato e temprato con durezza 60 HRC).

Nata espressamente per i centri di lavoro, la gamma FMS permette ottimizzazioni di serraggio con riferimenti precisi in spazi contenuti, usure inesistenti e rigidità impensabile (spessore della base raddoppiato), possibilità di bloccare più pezzi contemporaneamente con l'ausilio di sistemi meccanici, pneumatici, elettrici o idraulici. Tutte sono disponibili/predisposte sia per piazzamenti verticali che orizzontali. Ganasce da 75 a 190 mm. Serraggi di qualsiasi lunghezza.

La caratteristica (Brevettata) che meglio contraddistingue questa serie di morse consiste nella possibilità di trasformare ogni morsa singola (cioè adibita al serraggio di un singolo pezzo) in una morsa autocentrante con bloccaggio concentrico dall'esterno all'interno e viceversa e in morsa doppia tramite la semplice sostituzione delle ganasce sul corpo base universale. Un semplice e rapido accorgimento permetterà quindi le seguenti alternative di serraggio: un singolo pezzo lungo, due pezzi più piccoli oppure operare in modo autocentrante. Tutto ciò ne suggerisce l'impiego in situazioni produttive caratterizzate da lotti di pezzi estremamente diversi fra loro riducendo tempi di set-up e garantendo un'accurata ripetibilità di posizionamento e quindi di precisione migliorando l'efficienza globale del sistema produttivo.

Of special interest to horizontal and vertical machining centres users FMS vises present the same building characteristics of STD and XL vises, modular elements and accessories (hardened HRC 60 & ground steel construction throughout). Born to be dedicated to machining centres, FMS series of vises allow workholdings with perfect alignment in a space saving design, extremely high wear resistance, with deflection reduced 2 times in respect to the STD modular vises (base thickness doubled), possibility to clamp more pieces simultaneously with mechanic, hydraulic, pneumatic or electric devices. You can use them both for vertical and horizontal clamping without any price charge. Jaws widths from 75 to 190 mm, Grip any work lenght.

The feature (Patented) which identifies this line of vises consists in the possibility to transform each single vise (1 piece clamping) in a self-centering vise with possibility to block from outside to inside and viceversa and in a double vise through the simple substitution of the jaws on the universal vise body base.

A simple and quick adjustment will then allow following clamping alternatives: single long piece, 2 smaller pieces or to operate in the self-centering way.

All that suggests their use in the production of lots of highly different pieces reducing set-up times and assuring very accurate repeatability of workpiece position and precision, increasing the global efficiency of the production process.



ESTREMA VERSATILITÀ

- 3 posizioni per la ganciatura; • Serraggio dall'esterno all'interno e viceversa;
- Posizionamento verticale-orizzontale-laterale; • Collegamento: gancio a gancio, dorso a dorso, gancio a dorso; • Possibilità illimitata per ganasce speciali; • Sostituzione semplice e precisa delle ganasce; • Elemento di prolunga per pezzi fuori misura;
- Sistema di serraggio meccanico, idraulico, pneumatico elettrico o con moltiplicatore di potenza, tramite comando manuale, a pedale o mediante pulsante elettrico (vedi pag. 12); • Costruzione solida e compatta e massima apertura rispetto alla sua lunghezza; • Flessioni praticamente ridotte di due volte rispetto alle precedenti morse modulari standard; • Accurata ripetibilità di posizionamento del pezzo da lavorare; • Precisioni geometriche con tolleranze entro 0,02 mm; • Protezione integrale dalla penetrazione di corpi estranei tramite piastre scorrevoli; • Possibilità di trasformazione di ogni morsa singola in morsa autocentrante o in morsa doppia tramite la semplice sostituzione delle ganasce sul corpo base universale.

EXTREME VERSATILITY

- 3 positions for the jaw; • Outside to inside clamping and viceversa; • Vertically, horizontally and sideway vise positioning;
- Side to side, back to back and back to side vise positioning; • Unlimited special jaws; • Simple and precise exchange of jaws;
- Extension element for extra-long pieces; • Mechanic, hydraulic or pneumatic or electrical clamping system or with pressure multiplier, through manual, pedal or push button board control (see page 12); • Space saving design, solid construction and maximum blocking ratio to total length; • Deflection reduced two times with respect to the STANDARD modular vises; • very accurate repeatability of workpiece position; • Geometrical accuracy with tolerances within 0,02 mm; • Integral protection from chips and dirty through sliding protection; • Possibility to transform each single vise in a self-centering vise with possibility to block from outside to inside and vice versa and in a double vise through the simple substitution of the jaws on the universal vise body base.

1 SISTEMA TERZA MANO

Per preserraggi in verticali

1 THIRD HAND SERVICE

For vertical workpieces preload

3 GANASCE MOBILI OSCILLANTI

Ganasce mobili oscillanti (per serraggio di pezzi irregolari)

3 STEP MOVABLE JAWS

Floating movable jaws (for irregular workpieces)

5 GANASCE MOBILI A GRADINO

Ganasce mobili a gradino (ideali per fori passanti)

5 STEP MOVABLE JAWS

Step movable jaws (for drilling holes through)

7 GANASCIA FISSA DOPPIA

Ganasce centrali fisse doppie con gradino piccolo e grande

7 DOUBLE FIXED JAWS

Central double fixed jaws with small and large step

9 CHIAVETTE di POSIZIONAMENTO

Chiavette longitudinali e trasversali sia sulla base, per posizione orizzontale, che in testa per posizione verticale

9 POSITIONING KEYWAYS

Longitudinal and cross keyways both on the base bottom surface for horizontal positioning and on the side for vertical positioning

2 3 MORSE IN UNA

Ghiera per trasformazione morsa da doppia in autocentante e viceversa

2 3 VISES IN ONE

Nut for vise configuration resetting from double to self-centering and viceversa

4 GANASCE A CAMBIO RAPIDO

Ganasce con piastre discendenti a cambio rapido manuale

4 COMB SYSTEM JAWS

Pull down jaw plates with comb system (quick hand change)

6 RIGIDITÀ CUBO MORSA

Cubo monoblocco

6 VISE TOWER RIGIDITY

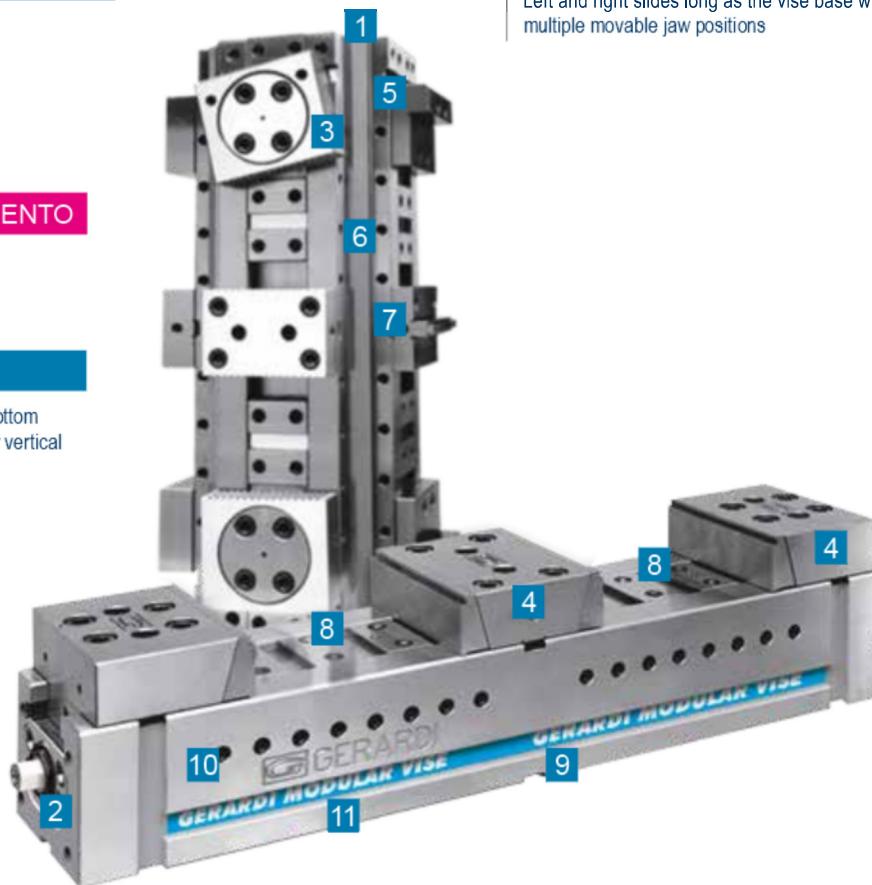
Solid vise tower

8 SLITTE MORSA

Slitte destre e sinistre lunghe quanto il corpo base con più chiavette per ganasce mobili

8 VISE SLIDES

Left and right slides long as the vise base with multiple movable jaw positions



10 VITE PRINCIPALE

All'interno vite principale (completamente protetta) con getto destro e sinistro

10 MAIN SPINDLE

Inside (completely protected) main spindle with left and right thread

11 RIGIDITÀ MORSA

Base con una sezione doppia per garantire una maggiore rigidità

11 VISE BASE RIGIDITY

Higher vise base in order to guarantee a better rigidity

TRE MORSE IN UNA THREE VISES IN ONE

3 MORSE IN
VISES IN 1

Acquista il modulo base universale. Una soluzione aperta per il lavoro di oggi pensando a quello di domani !
 Buy the base body. A Versatile solution for present and future machining !

CORPO BASE Art.855

BASE BODY Art.855

Modulo base universale

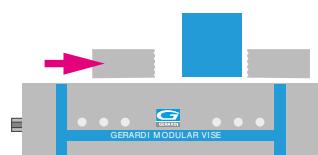
CENTINAIA DI GANASCE DISPONIBILI !!

Universal vise body module

HUNDREDS OF JAWS AVAILABLE !!

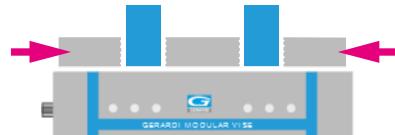
SERRAGGI SINGOLI

SINGLE CLAMPING



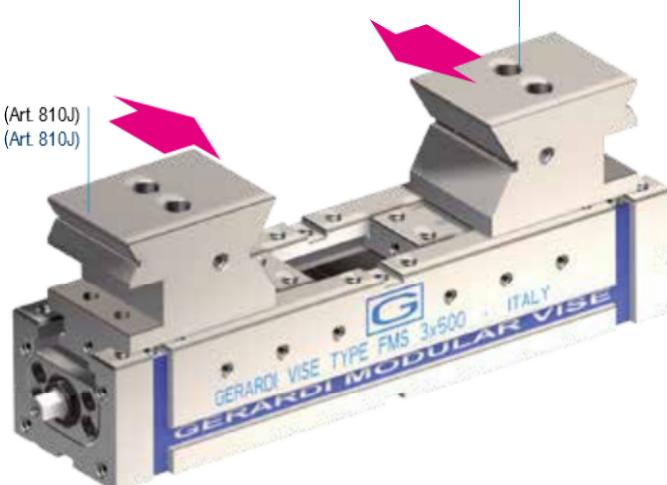
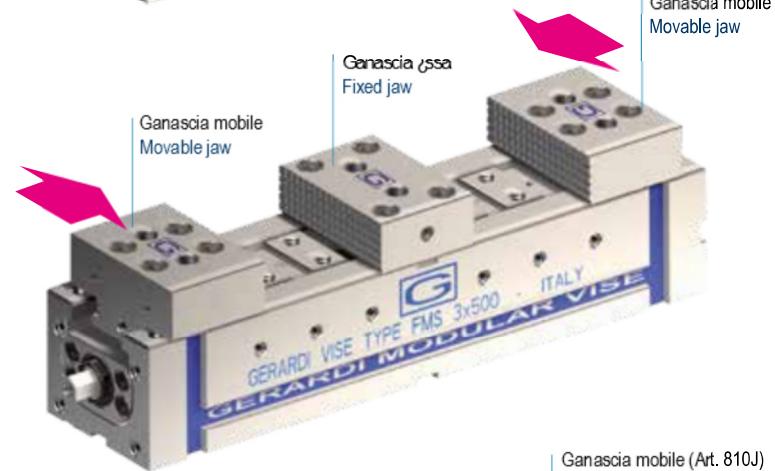
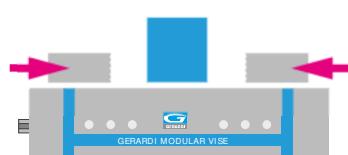
SERRAGGI DOPPI

DOUBLE CLAMPING



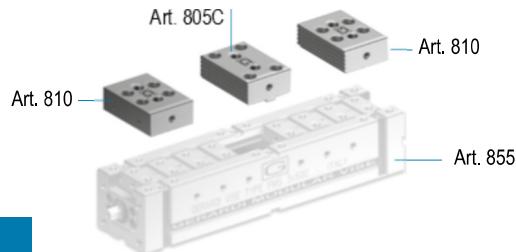
AUTOCENTRANTE

SELF-CENTERING

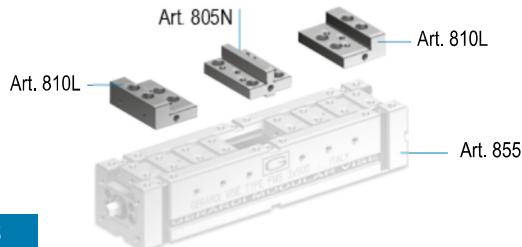


VERSIONI PER BLOCCAGGI DOPPI

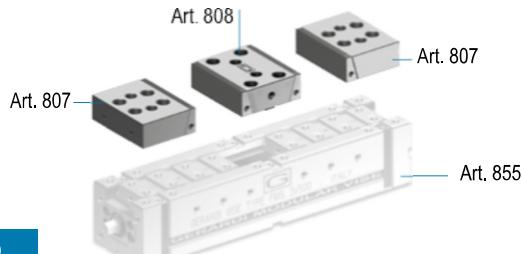
DOUBLE CLAMPING CONFIGURATION



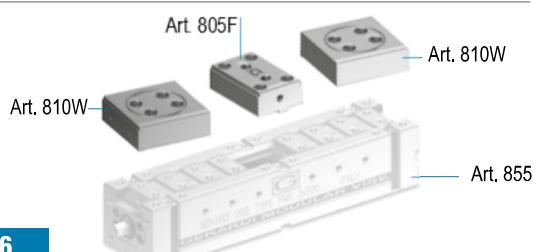
Art. 860



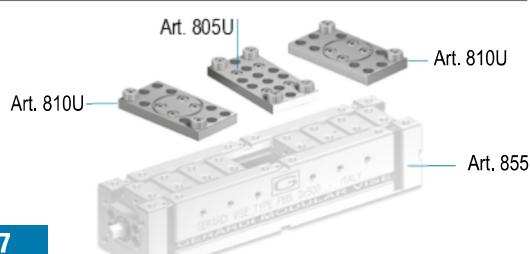
Art. 863



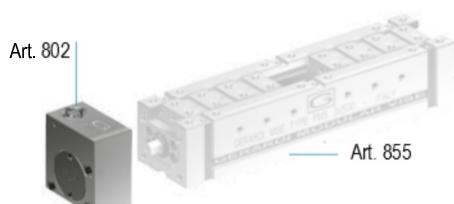
Art. 865



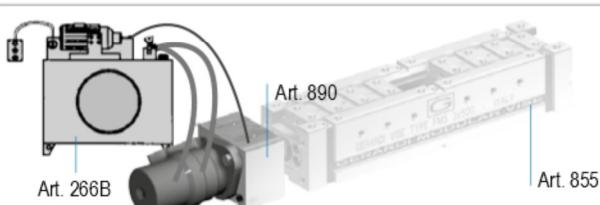
Art. 866



Art. 867



Art. 855D

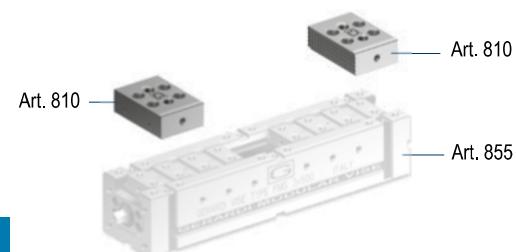


Art. 855F

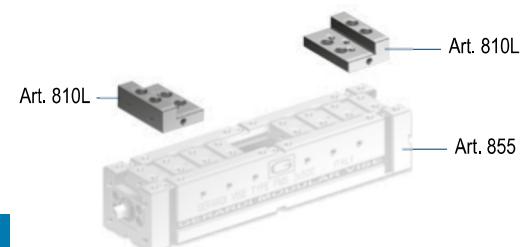
(Art. 855 + 890 + 266B)

VERSIONI AUTOCENTRANTI

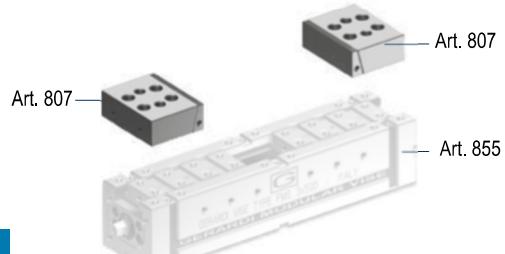
SELF-CENTERING TYPE



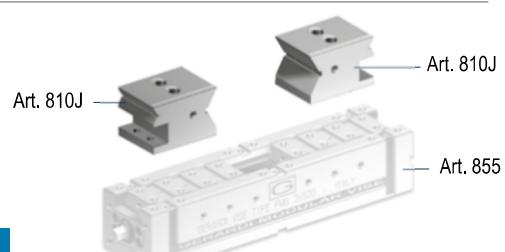
Art. 860



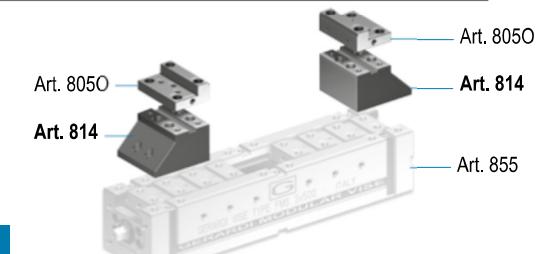
Art. 863



Art. 865



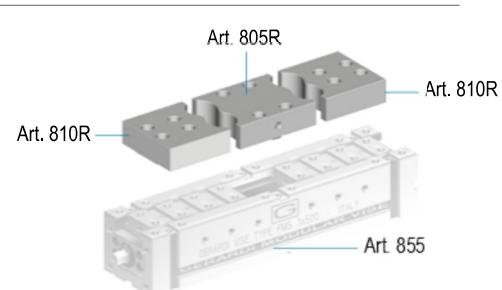
Art. 870



Art. 868



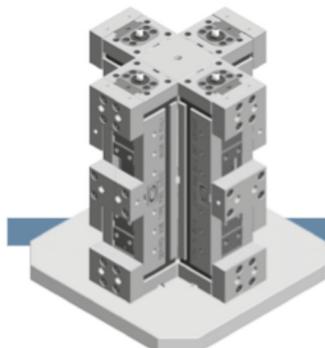
Art. 855E



Art. 805R

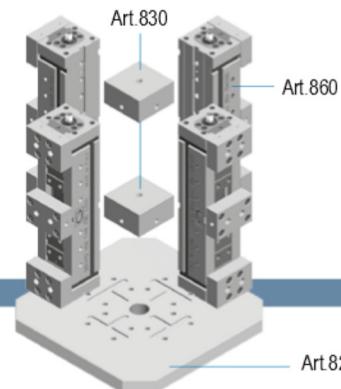
CUBI DI MORSE MONTATI A CROCE O DORSO A DORSO VISE TOWERS CROSS OR BACK TO BACK MOUNTED

Art.850P (Pag - Page 5.61)



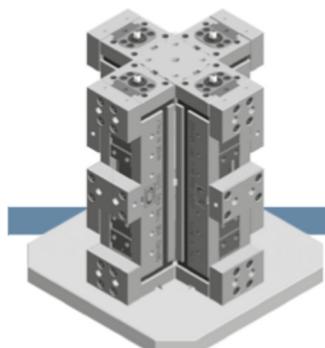
N° 4 MORSE FMS

montate a croce su piastra base (Art. 827)
 con distanziali (Art. 835)



N° 4 FMS VISES

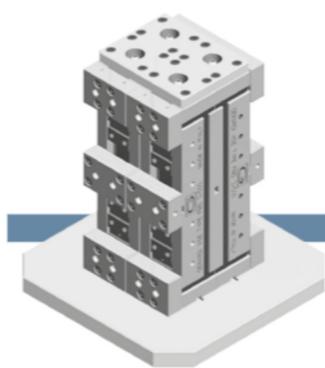
cross-mounted on base plate (Art. 827)
 with spacers (Art. 835)



N° 4 MORSE FMS

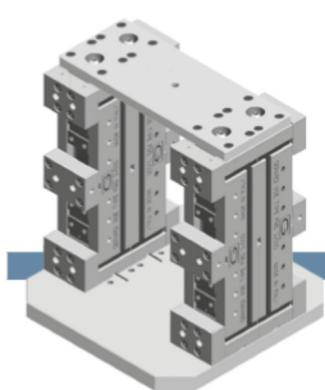
montate a croce su piastra base (Art. 827)
 con supporto centrale (Art. 836)

MECCANISMO TERZA MANO INCLUSO THIRD HAND DEVICE INCLUDED



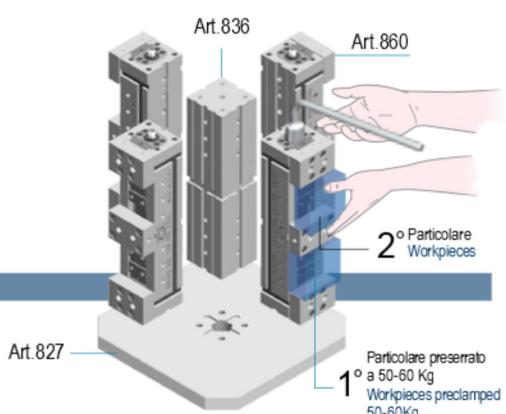
N° 4 MORSE FMS

montate dorso a dorso, fianco a fianco, su piastra base
 (Art. 827) con piastra di collegamento (Art. 832)



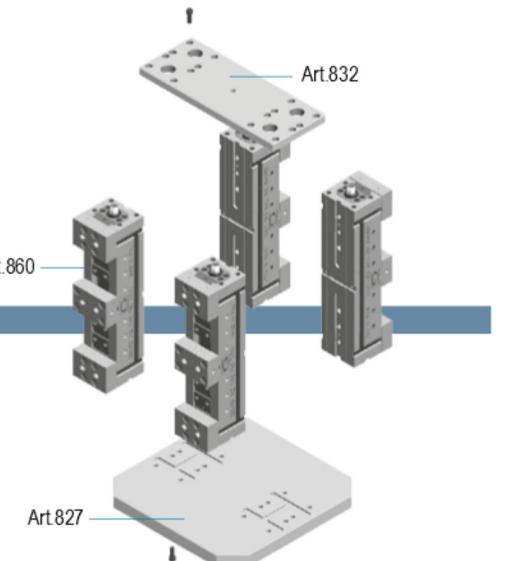
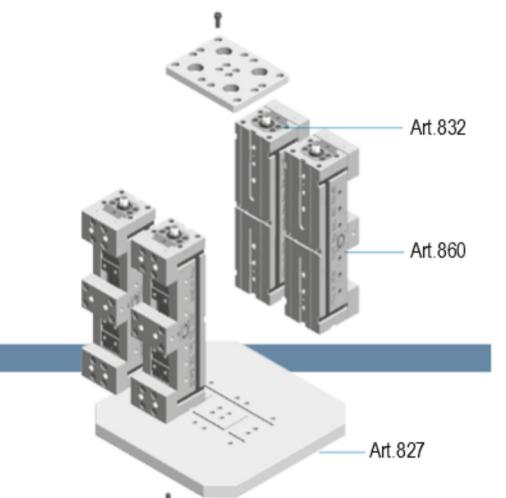
N° 4 MORSE FMS

montate dorso a dorso, su piastra base
 (Art. 827) con piastra di collegamento (Art. 832)



N° 4 FMS VISES

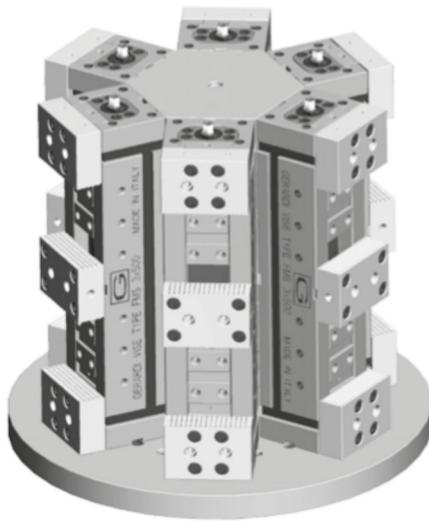
cross-mounted back-to-back, side by side, on base
 plate (Art. 827) with connecting plate (Art. 832)



Montaggio morsa con distanziali, supporto centrale o piastra di collegamento €125
 Vise mounted with spacers, center support or connecting plate €125 each

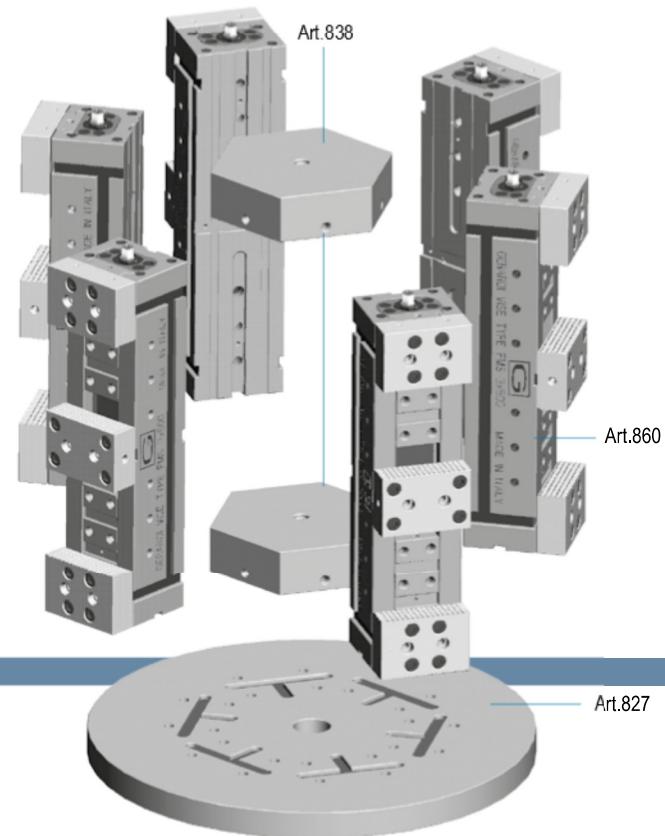
CUBI DI MORSE MONTATI VERTICALMENTE VISE TOWERS VERTICALLY ASSEMBLED

Art.850P (Pag - Page 5.70)



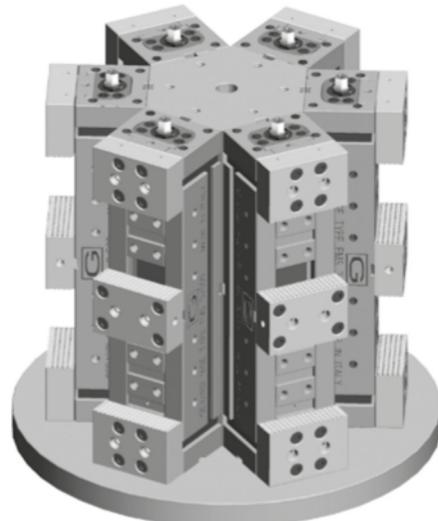
N° 6 morse FMS

montate verticalmente su piastra base (Art. 827) con distanziali esagonali (Art. 838)

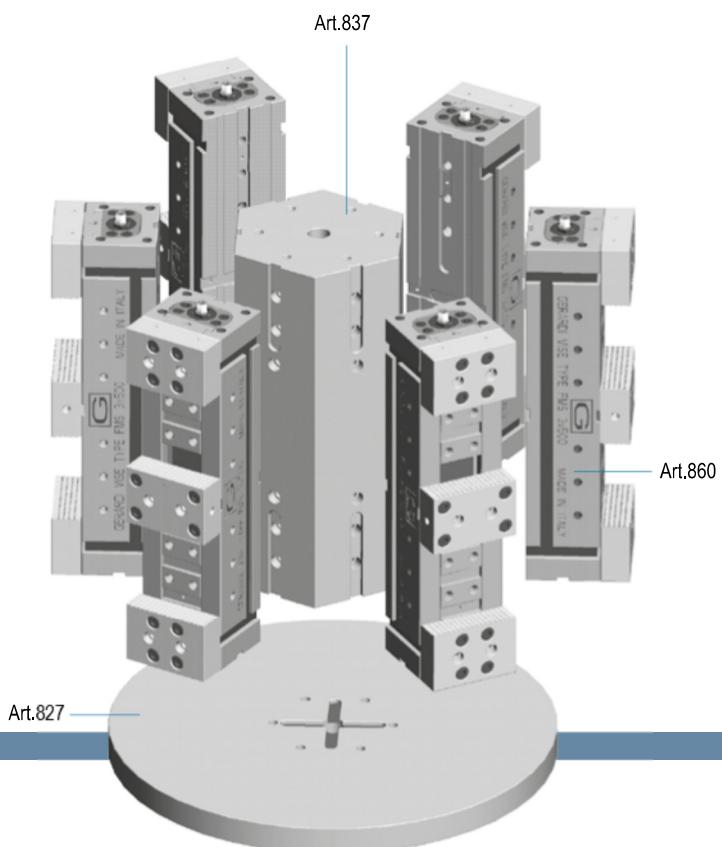


N° 6 FMS vises
vises vertically mounted on base plate (Art. 827) with exagon spacer (Art. 838)

MECCANISMO TERZA MANO INCLUSO THIRD HAND DEVICE INCLUDED



N° 6 morse FMS montate verticalmente su piastra base (Art. 827) con supporto centrale (Art. 837)

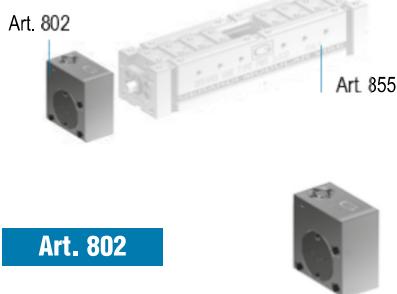


N° 6 FMS vises vertically mounted on base plate (Art. 827) with exagon center support (Art. 837)

Montaggio morsa con distanziatori, supporto centrale o piastra di collegamento **€125 cad.**
Vise mounted with spacers, center support or connecting plate **€125 each**

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN				
		A	C	56	68	96	116	136	156	136	136
Apertura massima fra le slitte / Maximum opening between slides											
Art. 855					70		90		100		
Modulo base universale		C	D	200 + 32	300 + 32	300	400	500	600	400	500
CENTINAIA DI GANASCE DISPONIBILI !!		E	F	220 + 32	230 + 32	320	420	520	620	425	525
		G	H	75			95			125	
		I	J	74			94			124	
		K	L	69			89			99	
		M	N	72	116	102	142	182	222	132	182
		O	P	245 + 32	345 + 32	360	460	560	660	470	570
		Q	R	357 + 32	451 + 32	537	637	737	837	637	737
	kg	S	T	7	10	18	25	32	39	40	45
		U	V	Cod. 5.85.51200	5.85.51300	5.85.52300	5.85.52400	5.85.52500	5.85.52600	5.85.53400	5.85.53500
		W	X								

Universal vise body module
HUNDREDS OF JAWS AVAILABLE !!

Art. 855D


(Art. 855 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod.	5.85.5D120	5.85.5D130	5.85.5D230	5.85.5D240	5.85.5D250	5.85.5D260	5.85.5D340	5.85.5D350

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

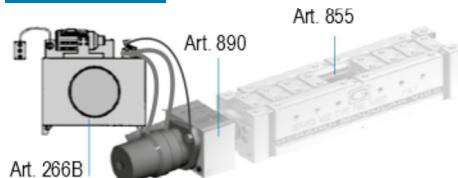
Cod.	5.80.21000	5.80.22000	5.80.23000

Art. 855E


(Art. 855 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.85.5E120	5.85.5E130	5.85.5E230	5.85.5E240	5.85.5E250	5.85.5E260	5.85.5E340	5.85.5E350

Meccanica con predisposizione elettroidraulica completa di motore, piastra, boccola e gancorsa

Art. 855F


(Art. 855 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.85.5F120	5.85.5F130	5.85.5F230	5.85.5F240	5.85.5F250	5.85.5F260	5.85.5F340	5.85.5F350

Meccanica elettroidraulica completa di centralina idraulica apparecchiatura elettrica con pulsantiera

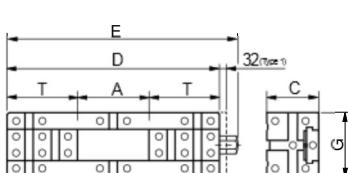
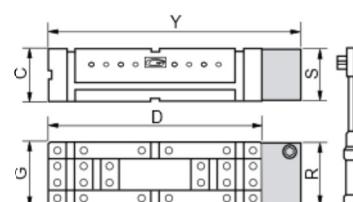
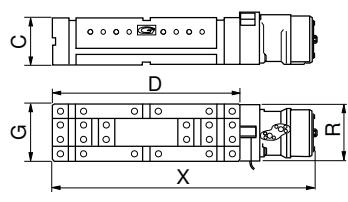
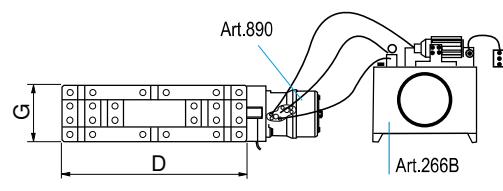
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S


Art. 855

Art. 855D

Art. 855E

Art. 855F

3 30 kN			4 30 kN				5 32 kN			6 32 kN		
136	136	136	188	168	148	128	152	216	252	316	280	244
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
124			144				169			189		
99			119				139			159		
232	282	332	156	216	276	336	174	242	274	242	310	378
670	770	870	570	670	770	870	-	-	-	-	-	-
837	937	1037	737	837	937	1037	837	937	1037	1037	1137	1237
50	55	60	66	72	80	88	115	125	135	170	190	210
5.85.53600	5.85.53700	5.85.53800	5.85.54500	5.85.54600	5.85.54700	5.85.54800	5.85.55600	5.85.55700	5.85.55800	5.85.56800	5.85.56900	5.85.56100

Art. 855D

(Art. 855 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.85.5D360	5.85.5D370	5.85.5D380	5.85.5D450	5.85.5D460	5.85.5D470	5.85.5D480	5.85.5D560	5.85.5D570	5.85.5D580	5.85.5D680	5.85.5D690	5.85.5D610

5

Art. 802

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 855E

(Art. 855 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.85.5E360	5.85.5E370	5.85.5E380	5.85.5E450	5.85.5E460	5.85.5E470	5.85.5E480	5.85.5E560	5.85.5E570	5.85.5E580	5.85.5E680	5.85.5E690	5.85.5E610

Mechanical with prepared hydraulic connection complete with motor plate, bushing and proximity switch

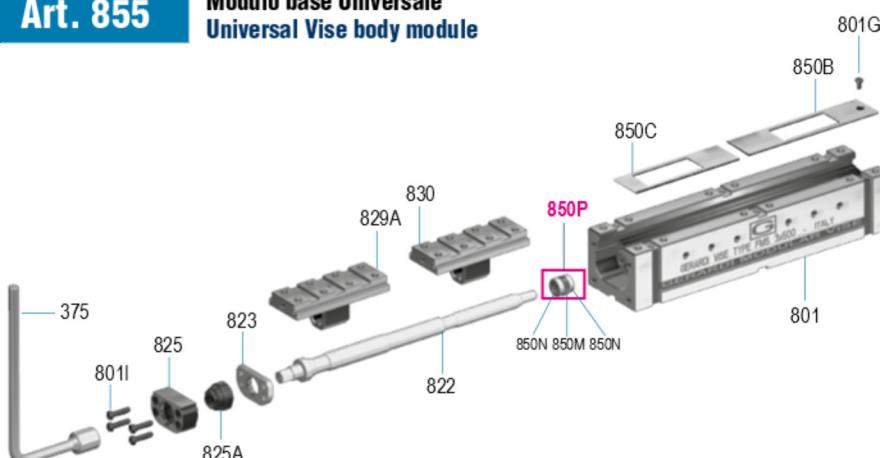
Art. 855F

(Art. 855 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.85.5F360	5.85.5F370	5.85.5F380	5.85.5F450	5.85.5F460	5.85.5F470	5.85.5F480	5.85.5F560	5.85.5F570	5.85.5F580	5.85.5F680	5.85.5F690	5.85.5F610

Mechanical with elettrohydraulic power-pack ready to work

Art. 855

 Modulo base Universale
 Universal Vise body module


Art.	Pag.	Art.	Pag.
375	4.31	850C	5.61
801	5.46	850P	5.61
801G	5.61	-	-
801I	5.61	-	-
822	5.52	-	-
823	5.59	-	-
825	5.59	-	-
825A	5.61	-	-
829A	5.50	-	-
830	5.50	-	-
850B	5.61	-	-

Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN		25 kN				30 kN	
Apertura massima / Maximum opening	A	2 x 16	2 x 66	2 x 54	2 x 104	2 x 154	2 x 204	2 x 74	2 x 124
Art. 860 Morsa FMS doppia, singola, autocentrante con ganasce piene	B	25				30			
	C	70				90			
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	G	75				95			
	J	56				64			
	W	74				94			
	kg	9	12	22	29	35	42	44	49
	Cod.	5.86.01200	5.86.01300	5.86.02300	5.86.02400	5.86.02500	5.86.02600	5.86.03400	5.86.03500

Double, single, self-centering FMS vise with straight jaws

Art. 860D

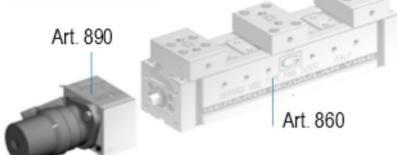

(Art. 860 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod. 5.86.0D120 5.86.0D130 5.86.0D230 5.86.0D240 5.86.0D250 5.86.0D260 5.86.0D340 5.86.0D350

Art. 802

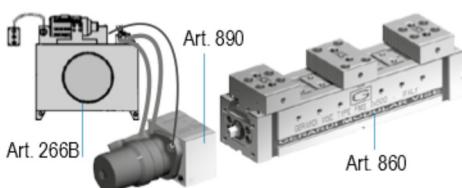

Moltiplicatore di coppia con rivo angolare - Mechanical with torque multiplier with angular transmission

Cod. 5.80.21000 5.80.22000 5.80.23000

Art. 860E


(Art. 860 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod. 5.86.0E120 5.86.0E130 5.86.0E230 5.86.0E240 5.86.0E250 5.86.0E260 5.86.0E340 5.86.0E350

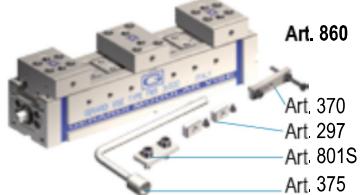
Art. 860F


(Art. 860 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod. 5.86.0F120 5.86.0F130 5.86.0F230 5.86.0F240 5.86.0F250 5.86.0F260 5.86.0F340 5.86.0F350

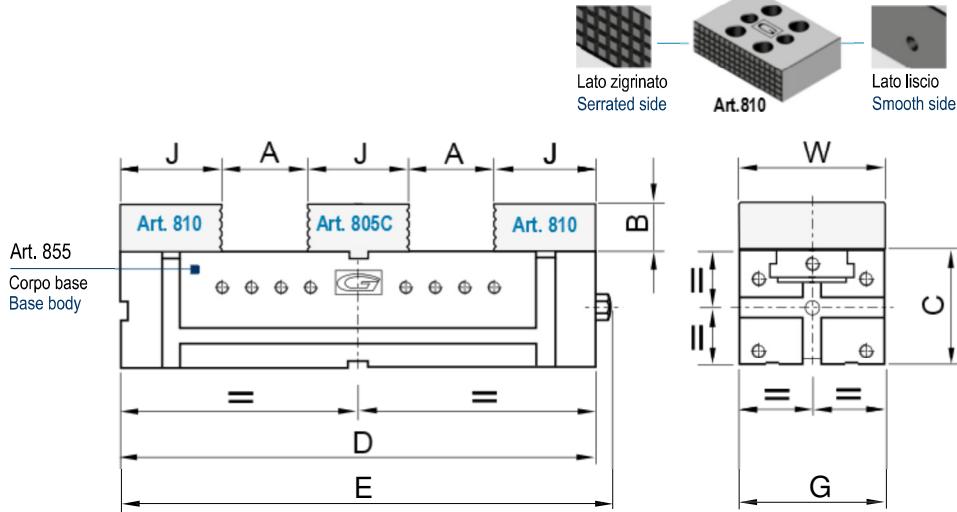
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S



3 30 kN			4 30 kN				5 32 kN				6 32 kN		
2 x 174	2 x 224	2 x 274	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338	
40				50				60				60	
100			120				140				160		
600	700	800	500	600	700	800	600	700	800	800	900	1000	
625	725	825	525	625	725	825	625	725	825	825	925	1025	
125				145				170				190	
84			98				108				108		
124				144				169				189	
54	59	64	71	79	88	96	130	140	150	210	230	250	
5.86.03600	5.86.03700	5.86.03800	5.86.04500	5.86.04600	5.86.04700	5.86.04800	5.86.05600	5.86.05700	5.86.05800	5.86.06800	5.86.06900	5.86.06100	

Art. 860D

(Art. 860 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.0D360	5.86.0D370	5.86.0D380	5.86.0D450	5.86.0D460	5.86.0D470	5.86.0D480	5.86.0D560	5.86.0D570	5.86.0D580	5.86.0D680	5.86.0D690	5.86.0D610

5

Art. 802

Moltiplicatore di coppia con rивio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 860E

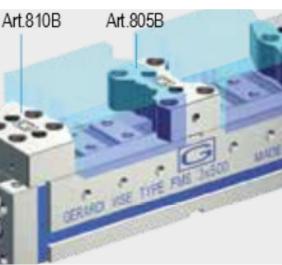
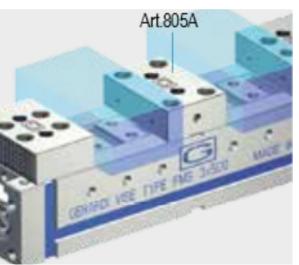
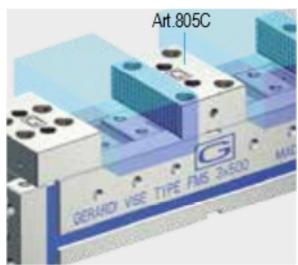
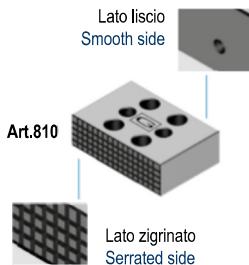
(Art. 860 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.0E360	5.86.0E370	5.86.0E380	5.86.0E450	5.86.0E460	5.86.0E470	5.86.0E480	5.86.0E560	5.86.0E570	5.86.0E580	5.86.0E680	5.86.0E690	5.86.0E610

Art. 860F

(Art. 860 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

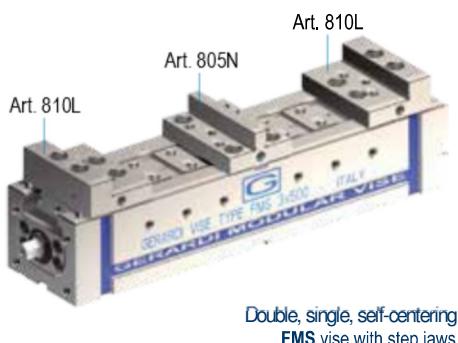
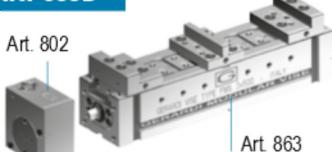
5.86.0F360	5.86.0F370	5.86.0F380	5.86.0F450	5.86.0F460	5.86.0F470	5.86.0F480	5.86.0F560	5.86.0F570	5.86.0F580	5.86.0F680	5.86.0F690	5.86.0F610


Art. 860
Esempi applicativi ganasce:
Jaw application examples:

Art.	Pag.
810	5.56
805C	5.54
805A	5.54
805B	5.54
810B	5.56

Ganasce Mobile reversibile
Reversible movable jawGanasce Zigrinata Art.805C
Serrated Jaw Art.805CGanasce Liscia Art.805A
Smooth Jaw Art.805AGanasce Lavorabili Art.805B + Art.810B
Soft Jaws Art.805B + Art.810B

Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN		25 kN				30 kN	
Apertura massima / Maximum opening	A	2 x 60	2 x 110	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162	2 x 212
Art. 863	B	25			30			40	
Morsa FMS doppia, singola, autocentrante con ganasce a gradino	C	70			90			100	
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	G	75			95			125	
	J	56			64			84	
	J1	22			24			30	
	J2	16			16			16	
	W	74			94			124	
	kg	8	11	20	27	33	40	40	45
	Cod.	5.86.31200	5.86.31300	5.86.32300	5.86.32400	5.86.32500	5.86.32600	5.86.33400	5.86.33500


Art. 863D

Art. 802


(Art. 863 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod.	5.86.3D120	5.86.3D130	5.86.3D230	5.86.3D240	5.86.3D250	5.86.3D260	5.86.3D340	5.86.3D350

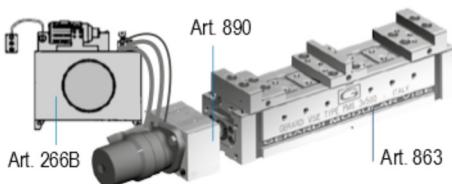
Moltiplicatore di coppia con rivo angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.21000	5.80.22000	5.80.23000

Art. 863E


(Art. 863 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.86.3E120	5.86.3E130	5.86.3E230	5.86.3E240	5.86.3E250	5.86.3E260	5.86.3E340	5.86.3E350

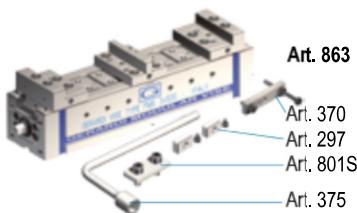
Art. 863F


(Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.3F120	5.86.3F130	5.86.3F230	5.86.3F240	5.86.3F250	5.86.3F260	5.86.3F340	5.86.3F350

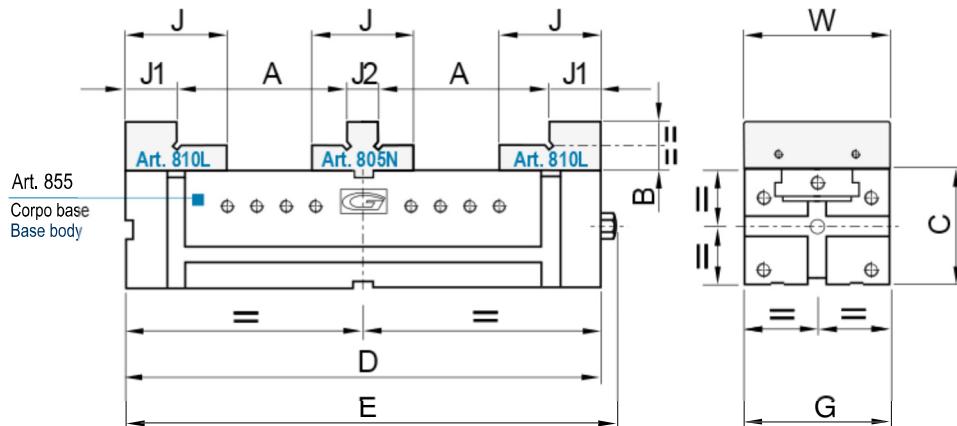
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S



3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454
40			50				60			60		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
84			98				108			108		
30			38				38			38		
16			16				16			16		
124			144				169			189		
50	55	60	68	76	85	93	124	134	144	200	220	240
5.86.33600	5.86.33700	5.86.33800	5.86.34500	5.86.34600	5.86.34700	5.86.34800	5.86.35600	5.86.35700	5.86.35800	5.86.36800	5.86.36900	5.86.36100

Art. 863D (Art. 863 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.3D360	5.86.3D370	5.86.3D380	5.86.3D450	5.86.3D460	5.86.3D470	5.86.3D480	5.86.3D560	5.86.3D570	5.86.3D580	5.86.3D680	5.86.3D690	5.86.3D610

5

Art. 802 Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

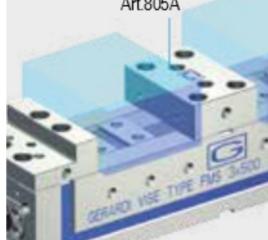
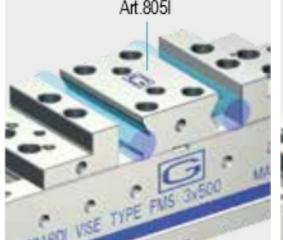
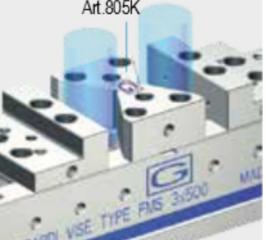
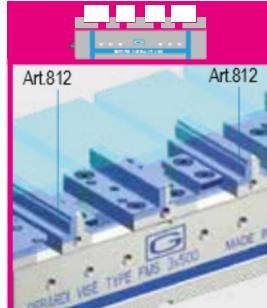
5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 863E (Art. 863 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.3E360	5.86.3E370	5.86.3E380	5.86.3E450	5.86.3E460	5.86.3E470	5.86.3E480	5.86.3E560	5.86.3E570	5.86.3E580	5.86.3E680	5.86.3E690	5.86.3E610

Art. 863F (Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.3F360	5.86.3F370	5.86.3F380	5.86.3F450	5.86.3F460	5.86.3F470	5.86.3F480	5.86.3F560	5.86.3F570	5.86.3F580	5.86.3F680	5.86.3F690	5.86.3F610

Art. 863
Esempi applicativi ganasce:
Jaw application examples:

 Ganasce lisce
 Smooth jaws

 Ganascia primatica orizzontale
 Horizontal prismatic jaws

 Ganascia prismatica verticale
 Vertical prismatic jaw

 Serraggio simultaneo di 4 pezzi
 4 Workpieces simultaneous clamping

 Ganascia lavorabile
 Soft jaws

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN	
		2 x 32	2 x 82	2 x 54	2 x 104	2 x 154	2 x 204	2 x 77
Apertura massima / Maximum opening	A	2 x 32	2 x 82	2 x 54	2 x 104	2 x 154	2 x 204	2 x 127
Art. 864	A1	2 x 84	2 x 134	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162
Morsa FMS doppia, singola, autozentante con ganasce a con doppio gradino	B	25				30		40
	C	70				90		100
	D	232	332	300	400	500	600	400
	E	252	352	320	420	520	620	425
	G	75				95		125
	J	56			64			84
	J1	24			24			30
	J2	16			16			16
	W	74			94			124
	kg	8	11	20	27	33	40	40
	Cod.	5.86.41200	5.86.41300	5.86.42300	5.86.42400	5.86.42500	5.86.42600	5.86.43400
								5.86.43500

Double, single, self-centering FMS vise with double step jaws

Art. 805F

Ganascia fissa con doppio gradino 3x5 LISCIA
 Fixed jaw with double 3x5 step SMOOTH



Cod.	5.80.5F100	5.80.5F200	5.80.5F300
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Art. 805G

Ganascia fissa con doppio gradino 3x5 ZIGRINATA
 Fixed jaw with double 3x5 step SERRATED



Cod.	5.80.5G100	5.80.5G200	5.80.5G300
------	------------	------------	------------

Art. 8100

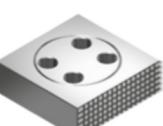
Ganascia mobile con gradino piccolo e grande
 Movable jaw with small and large step



Cod.	5.81.00100	5.81.00200	5.81.00300
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Art. 810X

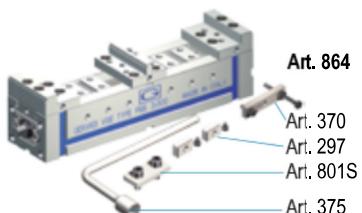
Ganascia mobile oscillante con gradino 3x5 zigrinata da un lato con albero a gradino (Art. 810Z)
 Floating movable jaw with 3x5 step one side serrated with step block pin (Art. 810Z)



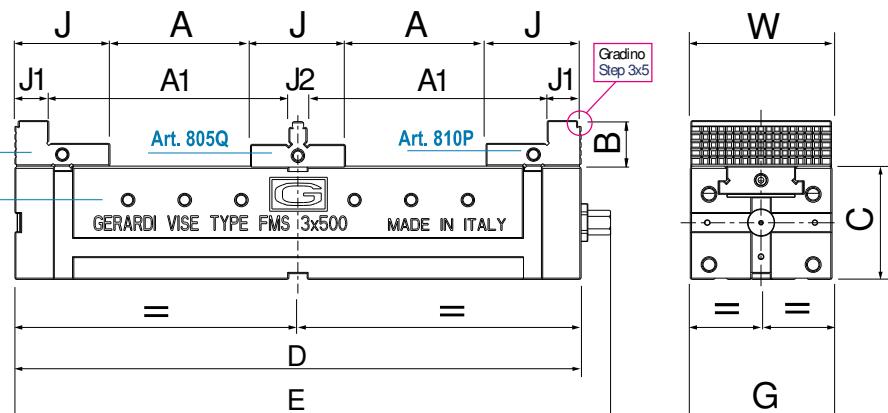
Cod.	5.81.0X100	5.81.0X200	5.81.0X300
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Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastra di collegamento Art. 801S


Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S



3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 177	2 x 227	2 x 277	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338
2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454
40			50				60			60		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
84			98				108			108		
30			38				38			38		
16			16				16			16		
124			144				169			189		
50	55	60	68	76	85	93	124	134	144	200	220	240
5.86.43600	5.86.43700	5.86.43800	5.86.44500	5.86.44600	5.86.44700	5.86.44800	5.86.45600	5.86.45700	5.86.45800	5.86.46800	5.86.46900	5.86.46100

Art. 805F

5.80.5F300

5.80.5F400

5.80.5F500

5.80.5F300

Art. 805G

5.80.5G300

5.80.5G400

5.80.5G500

Art. 8100

5.81.00300

5.81.00400

5.81.00500

5.81.00600

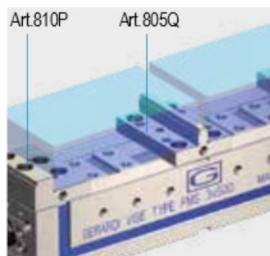
Art. 810X

5.81.0X300

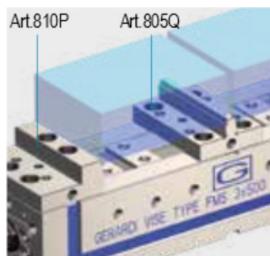
5.81.0X400

5.81.0X500

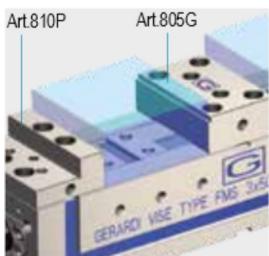
5.81.0X600

Art. 864**Esempi applicativi ganasce a doppio gradino:
Double step jaw application examples:**

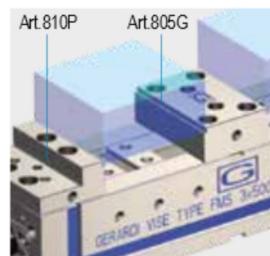
Utilizzo del gradino standard per alzare il particolare rispetto alla base
Use the main step for raising the workpiece



Per utilizzare il 2° gradino (3x5) ruotare le ganasce mobili di 180°
In order to use the second 3x5mm step turn the movable jaw 180°



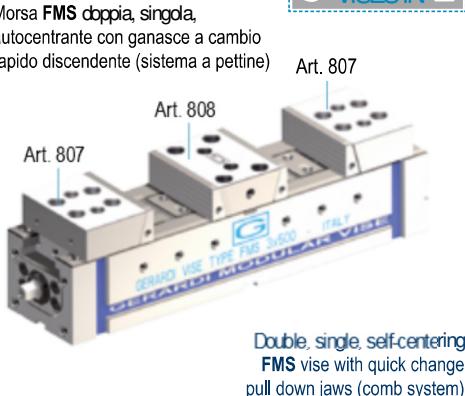
Per sfruttare il lato zigrinato delle ganasce mobili Art.810P sostituisci la ganciata fissa con l'Art.805G
To exploit the serrated side of the movable jaws Art.810P, change the fixed jaw with Art.805G





Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN	
		A	2 x 52	2 x 30	2 x 80	2 x 130	2 x 180	2 x 46
Apertura massima / Maximum opening	A	25		30			40	
Art. 865	B	70		90			100	
Morsa FMS doppia, singola, autozentante con ganasce a cambio rapido discendente (sistema a pettine)	C	232	300	400	500	600	400	500
	D	252	320	420	520	620	425	525
	E	75		95			125	
	G	63		76			98	
	J	70		88			111	
	J1	74		94			124	
	kg	12	23	30	36	43	46	51
	Cod.	5.86.51300	5.86.52300	5.86.52400	5.86.52500	5.86.52600	5.86.53400	5.86.53500

Art. 865



Art. 865D

(Art. 865 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Art. 802



Cod.	5.86.5D130	5.86.5D230	5.86.5D240	5.86.5D250	5.86.5D260	5.86.5D340	5.86.5D350

Art. 802

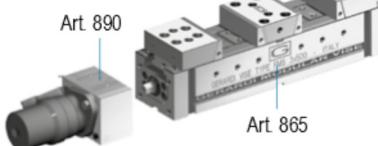
Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.21000	5.80.22000	5.80.23000

Art. 865E

(Art. 865 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Art. 890

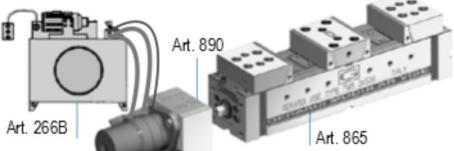


Cod.	5.86.5E130	5.86.5E230	5.86.5E240	5.86.5E250	5.86.5E260	5.86.5E340	5.86.5E350

Art. 865F

(Art. 865 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

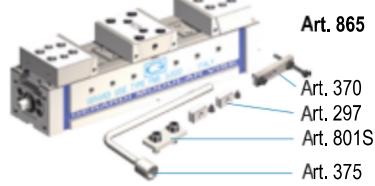
Art. 890



Cod.	5.86.5F130	5.86.5F230	5.86.5F240	5.86.5F250	5.86.5F260	5.86.5F340	5.86.5F350

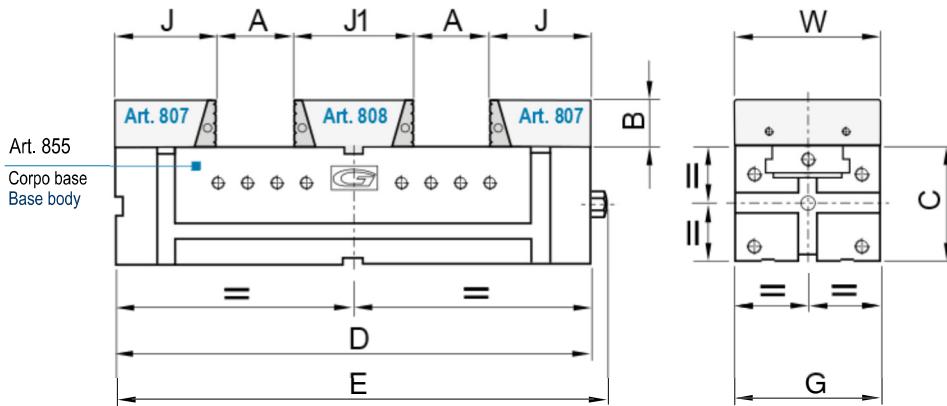
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 146	2 x 196	2 x 246	2 x 65	2 x 115	2 x 165	2 x 215	2 x 90	2 x 140	2 x 190	2 x 216	2 x 256	2 x 316
40			50				60			60		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
98			117				132			119		
111			136				155			130		
124			144				169			189		
54	59	64	74	82	91	99	134	144	154	215	235	255
5.86.53600	5.86.53700	5.86.53800	5.86.54500	5.86.54600	5.86.54700	5.86.54800	5.86.55600	5.86.55700	5.86.55800	5.86.56800	5.86.56900	5.86.56100

Art. 865D

(Art. 865 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.5D360	5.86.5D370	5.86.5D380	5.86.5D450	5.86.5D460	5.86.5D470	5.86.5D480	5.86.5D560	5.86.5D570	5.86.5D580	5.86.5D680	5.86.5D690	5.86.5D610

5

Art. 802

Moltiplicatore di coppia con rивio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 865E

(Art. 865 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.5E360	5.86.5E370	5.86.5E380	5.86.5E450	5.86.5E460	5.86.5E470	5.86.5E480	5.86.5E560	5.86.5E570	5.86.5E580	5.86.5E680	5.86.5E690	5.86.5E610

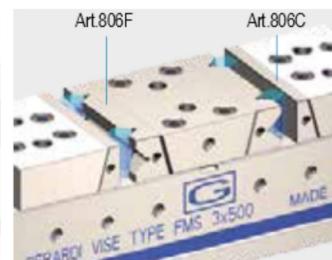
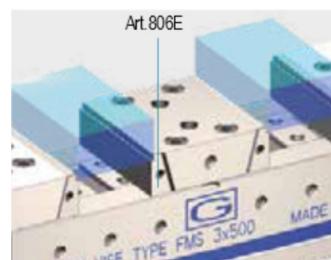
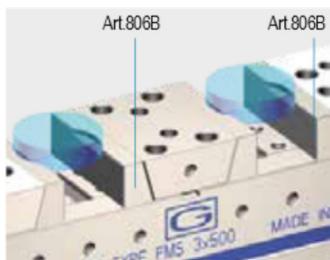
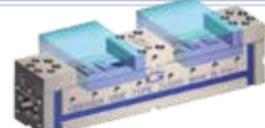
Art. 865F

(Art. 865 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.5F360	5.86.5F370	5.86.5F380	5.86.5F450	5.86.5F460	5.86.5F470	5.86.5F480	5.86.5F560	5.86.5F570	5.86.5F580	5.86.5F680	5.86.5F690	5.86.5F610

Art. 865

Esempi applicativi piastre ganasce:
Jaw plates application examples:



Piastre ganasce Art.806B
Jaw plates Art.806B

4 Piastre ganasce Art.806E
4 Jaw plates Art.806E

2 piastre ganasce Art.806F + 2 Art.806C
2 jaw plates Art.806F + 2 Art.806C

CORPI GANASCE FMS & PIASTRE GANASCE INTERCAMBIABILI RAPIDE

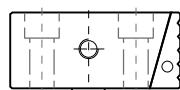
FMS COMB JAW BODIES & QUICK INTERCHANGEABLE JAW PLATES

Tipo (grandezza) / Vise type

1 2 3 4 5 6

Art. 806

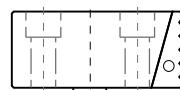
Ganascia fissa con piastra ganascia intercambiabile rapida
Fixed jaw with quick interchangeable jaw plate



Cod. 5.80.61000 5.80.62000 5.80.63000 5.80.64000 5.80.65000 5.80.66000

Art. 807

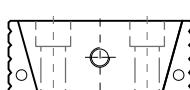
Ganascia mobile con piastra ganascia intercambiabile rapida
Movable jaw with quick interchangeable jaw plate



Cod. 5.80.71000 5.80.72000 5.80.73000 5.80.74000 5.80.75000 5.80.76000

Art. 808

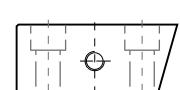
Ganascia fissa doppia con piastre ganasce intercambiabili rapide
Double fixed jaw with quick interchangeable jaw plate



Cod. 5.80.81000 5.80.82000 5.80.83000 5.80.84000 5.80.85000 5.80.86000

Art. 806A

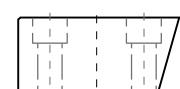
Corpo ganascia fissa per piastra ganascia intercambiabile rapida
Fixed jaw body for quick interchangeable jaw plate



Cod. 5.80.6A100 5.80.6A200 5.80.6A300 5.80.6A400 5.80.6A500 5.80.6A600

Art. 807A

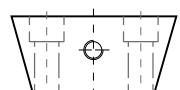
Corpo ganascia mobile per piastra ganascia intercambiabile rapida
Movable jaw body for quick interchangeable jaw plate



Cod. 5.80.7A100 5.80.7A200 5.80.7A300 5.80.7A400 5.80.7A500 5.80.7A600

Art. 808A

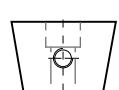
Corpo ganascia fissa doppia per piastre ganasce intercambiabili rapide
Double fixed jaw body for quick interchangeable jaw plate



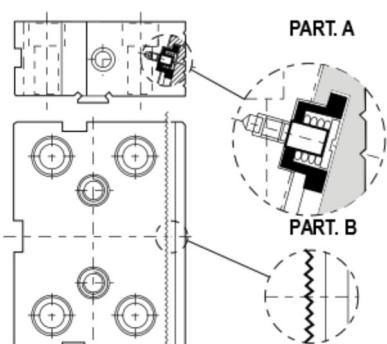
Cod. 5.80.8A100 5.80.8A200 5.80.8A300 5.80.8A400 5.80.8A500 5.80.8A600

Art. 808B

Corpo ganascia fissa doppia ridotta per piastre ganasce intercambiabili rapide
Double fixed jaw body narrow for quick interchangeable jaw plate



Cod. 5.80.8B100 5.80.8B200 5.80.8B300 5.80.8B400 5.80.8B500 5.80.8B600

**RAPIDA SOSTITUZIONE DELLE PIASTRE GANASCE DISCENDENTI SENZA BISOGNO DI ALCUN UTENSILE**

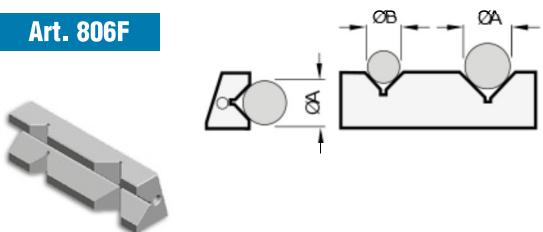
Il nuovo sistema con piastre ganasce intercambiabili, conferisce alla morsa FMS un ulteriore aumento di flessibilità dato dalla rapidità di sostituzione delle piastre ganasce e dalla precisione di riposizionamento.

La rapidità di sostituzione delle piastre ganasce è resa possibile dal nuovo sistema con perno a molla (**PART. A**), mentre le righe prismatiche (**PART. B**) effettuate con mola sagomata sui piani d'appoggio rendono possibile un riposizionamento di elevata precisione. La vasta gamma di piastre ganasce intercambiabili va a soddisfare le più svariate esigenze di lavorazione.

QUICK HAND CHANGE OF PULL-DOWN JAW PLATES - NO TOOLS NEEDED

The new system with quick interchangeable jaw plates, increase the FMS vise flexibility, and feature the quick jaw plates replacement and their high precision repositioning. The quickness of the jaw plates replacement is allowed by the new system of pin with spring (**PART. A**), while the prismatic grooves (**PART. B**), made with shaped grind wheel on the surface plates, allow a perfect repositioning. The wide range of interchangeable jaws plates can satisfy the most varied workholding needs.

Piastra ganascia rapida **SINGOLA SPECIALE**
TAYLOR MADE SINGLE quick change jaw plate

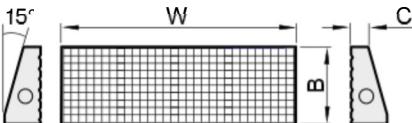
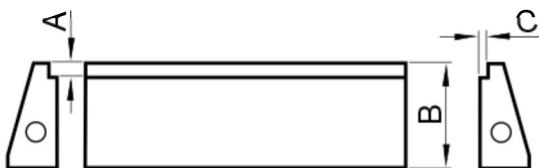
PIASTRE RAPIDE - Dimensioni speciali / **QUICK JAW PLATES** - Special dimensions**Art. 806F**

Ø Mn / Max	A	6 / 16	9 / 24	13 / 38	15 / 40	15 / 42	15 / 42
B	4 / 10	7 / 18	9 / 24	9 / 24	9 / 24	9 / 24	9 / 24

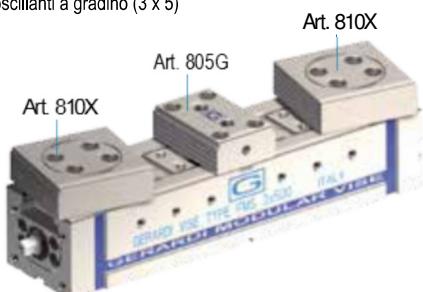
Piastra ganascia intercambiabile prismatica a pettine
Per serraggi autozentanti è necessario ordinare n. 2 piastre prismatiche
Prismatic comb interchangeable jaw plate
For self-centering clamping is necessary to order n. 2 prismatic jaws

PIASTRE GANASCE INTERCAMBIABILI RAPIDE

QUICK INTERCHANGEABLE JAW PLATES

Tipo (grandezza) / Vise type	1	2	3	4	5	6					
	W 73	93	123	143	168	188					
	B 25	30	40	50	60	60					
	C 10	10	11	11	16	16					
Art. 806B Piastre ganascia intercambiabile dolce a pettine Soft comb interchangeable jaw plate	 Cod. 5.80.6B100 5.80.6B200 5.80.6B300 5.80.6B400 5.80.6B500 5.80.6B600	 Cod. 5.80.6C100 5.80.6C200 5.80.6C300 5.80.6C400 5.80.6C500 5.80.6C600	 Cod. 5.80.6D100 5.80.6D200 5.80.6D300 5.80.6D400 5.80.6D500 5.80.6D600	 Cod. 5.80.6E100 5.80.6E200 5.80.6E300 5.80.6E400 5.80.6E500 5.80.6E600	 Cod. 5.80.6F100 5.80.6F200 5.80.6F300 5.80.6F400 5.80.6F500 5.80.6F600	 Cod. 5.80.6G100 5.80.6G200 5.80.6G300 5.80.6G400 5.80.6G500 5.80.6G600					
Art. 806C Piastre ganascia intercambiabile liscia a pettine Smooth comb interchangeable jaw plate	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!								
Art. 806D Piastre ganascia intercambiabile zigrinata a pettine Serrated comb interchangeable jaw plate	 Cod. 5.80.6E100 5.80.6E200 5.80.6E300 5.80.6E400 5.80.6E500 5.80.6E600	 Cod. 5.80.6F100 5.80.6F200 5.80.6F300 5.80.6F400 5.80.6F500 5.80.6F600	 Cod. 5.80.6G100 5.80.6G200 5.80.6G300 5.80.6G400 5.80.6G500 5.80.6G600	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!					
Art. 806E Piastre ganascia intercambiabile a gradino a pettine Step comb interchangeable jaw plate	 Cod. 5.80.6F100 5.80.6F200 5.80.6F300 5.80.6F400 5.80.6F500 5.80.6F600	 Cod. 5.80.6G100 5.80.6G200 5.80.6G300 5.80.6G400 5.80.6G500 5.80.6G600	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!						
Art. 806F Piastre ganascia intercambiabile prismatica a pettine Prismatic comb interchangeable jaw plate	 Cod. 5.80.6G100 5.80.6G200 5.80.6G300 5.80.6G400 5.80.6G500 5.80.6G600	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!							
Art. 806G Piastre ganascia intercambiabile a pettine con arresto a 90° 90° interchangeable comb jaw plate	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!								
Art. 806H Piastre ganascia intercambiabile bombata a pettine Round comb interchangeable jaw plate	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!									
Art. 806M Piastre ganascia intercambiabile a pettine per angolo di 30° o 45° 30° or 45° angle interchangeable comb jaw plate	 Cod. 5.80.6E100 5.80.6E200 5.80.6E300 5.80.6E400 5.80.6E500 5.80.6E600	 Cod. 5.80.6F100 5.80.6F200 5.80.6F300 5.80.6F400 5.80.6F500 5.80.6F600	 Cod. 5.80.6G100 5.80.6G200 5.80.6G300 5.80.6G400 5.80.6G500 5.80.6G600	 Cod. 5.80.6H100 5.80.6H200 5.80.6H300 5.80.6H400 5.80.6H500 5.80.6H600	 Cod. 5.80.6M100 5.80.6M200 5.80.6M300 5.80.6M400 5.80.6M500 5.80.6M600	Solo 2 per morsa!! Just 2 pcs each vise!!					
Art. 806E *	KIT RISPARMIO SAVING KIT										
Piastre ganascia intercambiabile a gradino a pettine (SET di coppia) Step comb interchangeable jaw plate (SET of pair)		A Set di 8 pezzi. 3 5 8 13 - - - B 25 C 3	Set di 10 pezzi. 3 5 8 13 18 - - - 40	Set di 14 pezzi. 3 5 8 13 18 23 28 50	Set di 14 pezzi. 3 5 8 13 18 23 28 60	Set di 14 pezzi. 3 5 8 13 18 23 28 60					
		Cod. 5.80.6E112	Cod. 5.80.6E212	Cod. 5.80.6E312	Cod. 5.80.6E412	Cod. 5.80.6E512	Cod. 5.80.6E612				

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN	
		2 x 52	2 x 30	2 x 80	2 x 130	2 x 180	2 x 46	2 x 96
Apertura massima / Maximum opening	A	2 x 52	2 x 30	2 x 80	2 x 130	2 x 180	2 x 46	2 x 96
Art. 866	B	25		30			40	
Morsa FMS doppia, singola, autocentrante con ganasce oscillanti a gradino (3 x 5)	C	70		90			100	
	D	232	300	400	500	600	400	500
	E	252	320	420	520	620	425	525
	G	75		95			125	
	J	63		76			98	
	J1	70		88			111	
	W	74		94			124	
	kg	12	23	30	36	43	46	51
	Cod.	5.86.61300	5.86.62300	5.86.62400	5.86.62500	5.86.62600	5.86.63400	5.86.63500



Double, single, self-centering FMS vise with boating step jaws (3 x 5)

Art. 866D



(Art. 866 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Art. 802



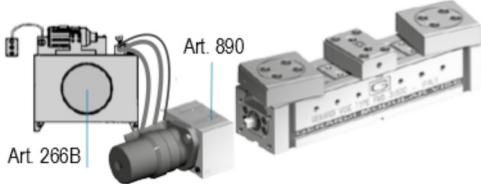
Moltiplicatore di coppia con rививо аngolare - Mechanical with torque multiplier with angular transmission

Art. 866E



(Art. 866 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Art. 866F



(Art. 866 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

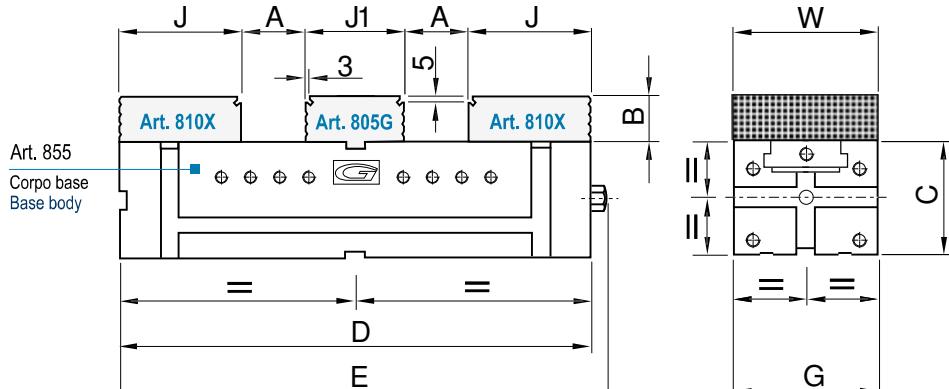
Dotazione standard:

- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento precisi Art. 297
 - 1 chiave a pipa Art. 375
 - 1 piastrina di collegamento Art.801S



Standard equipment:

- 2 workstops Art. 370
 - 1 pair of precision positioning key-nuts Art. 297
 - 1 box wrench Art. 375
 - 1 connecting plate Art.801S



3 30 kN			4 30 kN				5 32 kN				6 32 kN		
2 x 152	2 x 202	2 x 252	2 x 73	2 x 123	2 x 173	2 x 223	2 x 111	2 x 161	2 x 211	2 x 203	2 x 235	2 x 303	
40			50			60			60				
100			120			140			160				
600	700	800	500	600	700	800	600	700	800	800	900	1000	
625	725	825	525	625	725	825	625	725	825	825	925	1025	
125			145			170			190				
106			128			135			143				
84			98			108			108				
124			144			169			189				
54	59	64	74	82	91	99	134	144	154	215	235	255	
5.86.63600	5.86.63700	5.86.63800	5.86.64500	5.86.64600	5.86.64700	5.86.64800	5.86.65600	5.86.65700	5.86.65800	5.86.66800	5.86.66900	5.86.66100	

Art. 866D

(Art. 866 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.6D360	5.86.6D370	5.86.6D380	5.86.6D450	5.86.6D460	5.86.6D470	5.86.6D480	5.86.6D560	5.86.6D570	5.86.6D580	5.86.6D680	5.86.6D690	5.86.6D610

Art. 802

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 866E

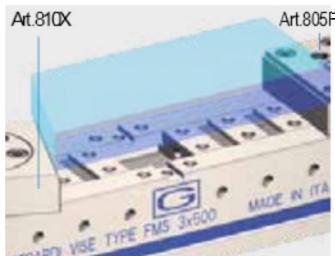
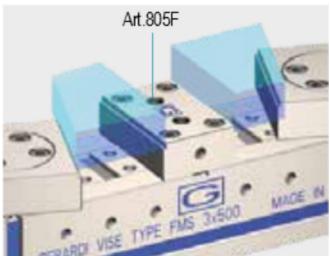
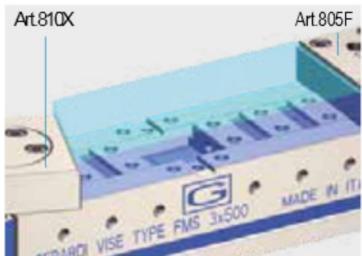
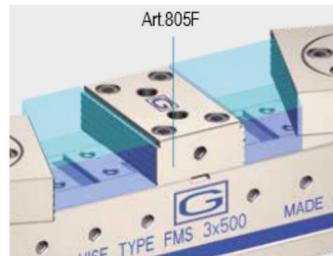
(Art. 866 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.6E360	5.86.6E370	5.86.6E380	5.86.6E450	5.86.6E460	5.86.6E470	5.86.6E480	5.86.6E560	5.86.6E570	5.86.6E580	5.86.6E680	5.86.6E690	5.86.6E610

Art. 866F

(Art. 866 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.6F360	5.86.6F370	5.86.6F380	5.86.6F450	5.86.6F460	5.86.6F470	5.86.6F480	5.86.6F560	5.86.6F570	5.86.6F580	5.86.6F680	5.86.6F690	5.86.6F610

Art. 866Esempi applicativi ganasce oscillanti:
Floating Jaws application examples:

Serraggio di particolari grezzi - Rough workpieces clamping

Serraggio particolari grezzi - Rough workpieces clamping

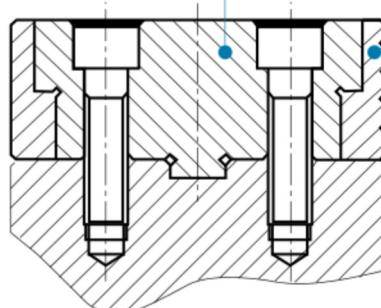
FUNZIONAMENTO DELLE GANASCE MOBILI OSCILLANTI

THE OPERATION OF MOVABLE JAWS

**3 MORSE IN
VISES IN 1**

Art. 810Z

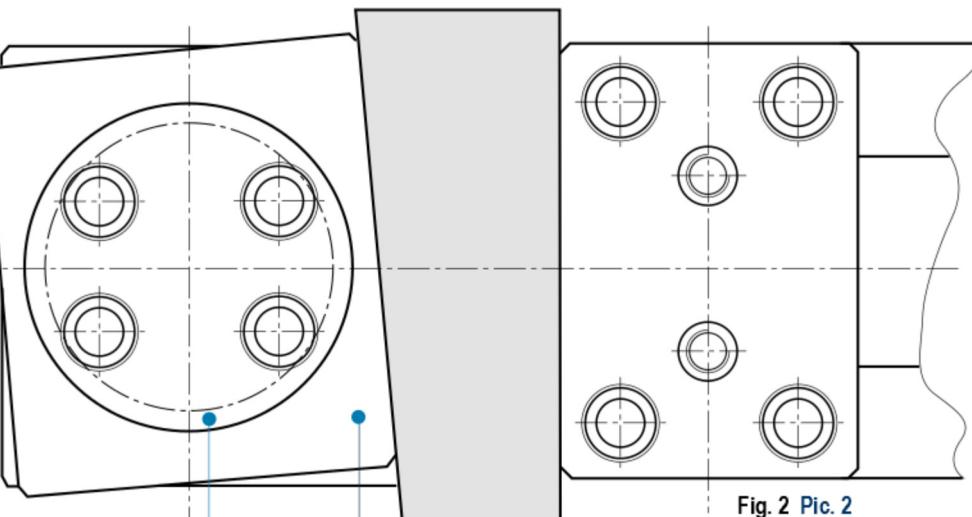
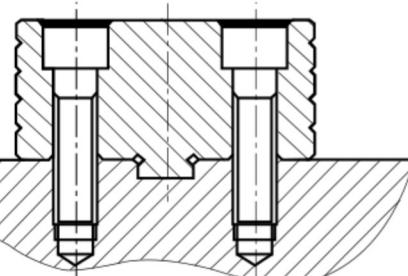
Albero a gradino per ganasce mobili oscillanti
Step block pin for floating movable jaw



Art. 810W

Ganascia mobile oscillante zigrinata da un lato, con albero a gradino (Art. 810Z)
Floating movable jaw one side serrated with step block pin (Art. 810Z)

Fig. 1 Pic. 1



Art. 810Z

Albero a gradino per ganasce mobili oscillanti
Step block pin for floating movable jaw

Art. 810W

Ganascia mobile oscillante zigrinata da un lato, con albero a gradino (Art. 810Z)
Floating movable jaw one side serrated with step block pin (Art. 810Z)

Le ganasce mobili oscillanti consentono il serraggio di pezzi di forma irregolare i cui lati non risultino paralleli (**Fig. 2**). Questo è reso possibile dall'albero a gradino (**Art. 810Z - Fig. 1**), posto al centro della ganascia, che pur permettendo la rotazione della ganascia, ne mantiene la precisione ed evita il sollevamento del pezzo mentre viene lavorato. Il tutto a garanzia di un serraggio in piena sicurezza.

Floating movable jaws allow to clamp workpieces with irregular shapes whose sides are not parallel (**Fig. 2**). In fact thanks to the step block spindle (**Art. 810Z - Fig. 1**), positioned in the centre of the jaw body, the jaw can rotate and guarantee at the same time maximum precision and no tilting of the parts while being worked. The safety of the workholding is guaranteed.

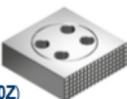
GANASCE MOBILI OSCILLANTI

FLOATING MOVABLE JAWS

Tipo (grandezza) / Vise type (size)	1	2	3	4	5	6
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Art. 810W

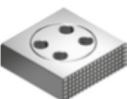
Ganascia mobile oscillante zigrinata da un lato con albero a gradino (**Art. 810Z**)
Floating movable jaw one side serrated with step block pin (**Art. 810Z**)



Cod.	5.81.0W100	5.81.0W200	5.81.0W300	5.81.0W400	5.81.0W500	5.81.0W600
------	------------	------------	------------	------------	------------	------------

Art. 810X

Ganascia mobile oscillante con gradino 3x5 zigrinata da un lato con albero a gradino (**Art. 810Z**)
Floating movable jaw with 3x5 step one side serrated with step block pin (**Art. 810Z**)



Cod.	5.81.0X100	5.81.0X200	5.81.0X300	5.81.0X400	5.81.0X500	5.81.0X600
------	------------	------------	------------	------------	------------	------------

Art. 810Y

Ganascia mobile oscillante con gradino 3x5 con albero a gradino (**Art. 810Z**)
Floating movable jaw with 3x5 step with step block pin (**Art. 810Z**)



Cod.	5.81.0Y100	5.81.0Y200	5.81.0Y300	5.81.0Y400	5.81.0Y500	5.81.0Y600
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Art. 810Z

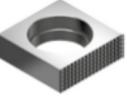
Albero a gradino per ganasce mobili oscillanti
Step block pin for Floating movable jaw



Cod.	5.81.0Z100	5.81.0Z200	5.81.0Z300	5.81.0Z400	5.81.0Z500	5.81.0Z600
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Art. 810WA

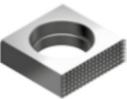
Corpo ganascia mobile oscillante zigrinata da un lato
Body Floating movable jaw one side serrated



Cod.	5.81.0WA10	5.81.0WA20	5.81.0WA30	5.81.0WA40	5.81.0WA50	5.81.0WA60
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Art. 810XA

Corpo ganascia mobile oscillante con gradino 3x5 zigrinata da un lato
Body Floating movable jaw with 3x5 step one side serrated



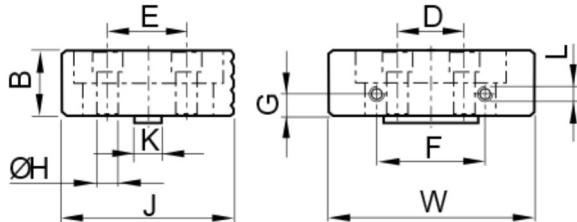
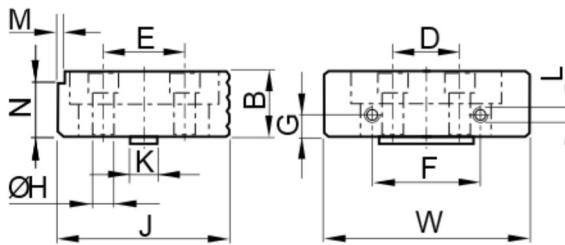
Cod.	5.81.0XA10	5.81.0XA20	5.81.0XA30	5.81.0XA40	5.81.0XA50	5.81.0XA60
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Art. 810YA

Corpo ganascia mobile oscillante con gradino 3x5
Body Floating movable jaw with 3x5 step



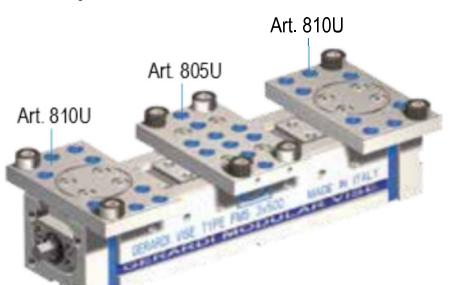
Cod.	5.81.0YA10	5.81.0YA20	5.81.0YA30	5.81.0YA40	5.81.0YA50	5.81.0YA60
------	------------	------------	------------	------------	------------	------------

Art. 810W**Art. 810X**

Tipo (grandezza) morsa / Vise (type) size

mm	1	2	3	4	5	6	Tollerance / Tolerance
B	25	30	40	50	60		- 0,02
D	20	25	38	48	44	54	-
E	32	40	50	60	68	68	-
F	40	50		65		100	-
G		10	15	20	25		-
H	9	11	13		17	22	-
L	M5			M6			-
K				16			H7
M				5			± 0,01
N				3			± 0,02
J	72	84	106	128	135	143	- 0,02
W	74	94	124	144	169	189	-

Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN	25 kN	25 kN	25 kN	30 kN	30 kN	30 kN	30 kN
Art. 867		A1	91	91	141	191	241	141	191
Morsa FMS doppia, singola, autozentante con ganasce oscillanti regolabili con inserti		B	20		20			20	
		C	70		90			100	
		D	232	300	400	500	600	400	500
		E	252	320	420	520	620	425	525
		G	75		95			125	
		J1	50		50			70	
		J2	25		25			35	
		Ø	30 (H = 16)		30 (H = 16)			30 (H = 16)	
		W	100		120			170	
		kg	11	20	27	33	40	40	45
		Cod.	5.86.71300	5.86.72300	5.86.72400	5.86.72500	5.86.72600	5.86.73400	5.86.73500

**Art. 867D**

(Art. 867 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod.	5.86.7D130	5.86.7D230	5.86.7D240	5.86.7D250	5.86.7D260	5.86.7D340	5.86.7D350

Art. 802

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.21000	5.80.22000	5.80.23000

Art. 867E

(Art. 867 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.86.7E130	5.86.7D230	5.86.7E240	5.86.7E250	5.86.7E260	5.86.7E340	5.86.7E350

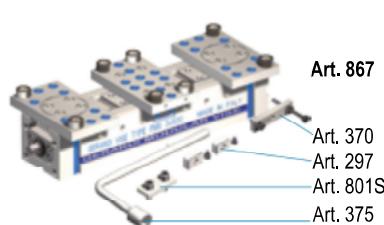
Art. 867F

(Art. 867 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.7F130	5.86.7F230	5.86.7F240	5.86.7F250	5.86.7F260	5.86.7F340	5.86.7F350

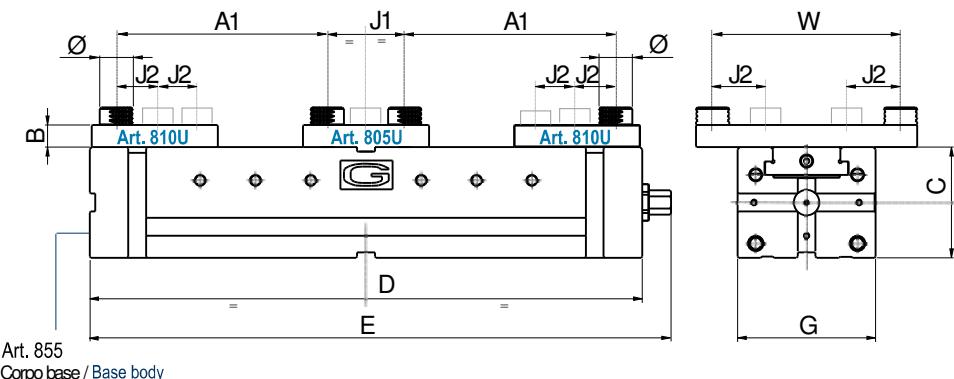
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastra di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
241	291	341	191	241	291	341	231	281	331	331	381	431
20			30				35			35		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
70			80				100			100		
35			40				40			40		
30 (H = 16)			30 (H = 16)				40 (H = 30)			40 (H = 30)		
170			220				250			300		
50	55	60	68	76	85	93	124	134	144	200	220	240
5.86.73600	5.86.73700	5.86.73800	5.86.74500	5.86.74600	5.86.74700	5.86.74800	5.86.75600	5.86.75700	5.86.75800	5.86.76800	5.86.76900	5.86.76100

Art. 867D

(Art. 867 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.7D360	5.86.7D370	5.86.7D380	5.86.7D450	5.86.7D460	5.86.7D470	5.86.7D480	5.86.7D560	5.86.7D570	5.86.7D580	5.86.7D680	5.86.7D690	5.86.7D610

Art. 802

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 867E

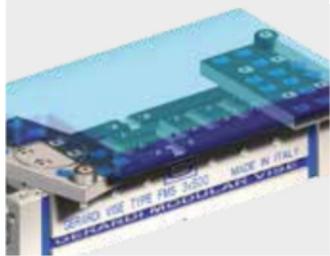
(Art. 867 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.7E360	5.86.7E370	5.86.7E380	5.86.7E450	5.86.7E460	5.86.7E470	5.86.7E480	5.86.7E560	5.86.7E570	5.86.7E580	5.86.7E680	5.86.7E690	5.86.7E610

Art. 867F

(Art. 867 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

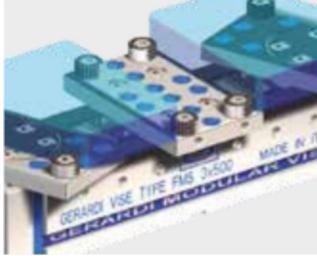
5.86.7F360	5.86.7F370	5.86.7F380	5.86.7F450	5.86.7F460	5.86.7F470	5.86.7F480	5.86.7F560	5.86.7F570	5.86.7F580	5.86.7F680	5.86.7F690	5.86.7F610

Art. 867Esempi applicativi ganasce oscillanti regolabili:
Floating adjustable jaws application examples:

4 inserti - 4 jaw inserts



6 inserti - 6 jaw inserts



8 inserti - 8 jaw inserts

FUNZIONAMENTO DELLE GANASCE MOBILI OSCILLANTI CON INSERTI

HOW TO OPERATE FLOATING MOVABLE JAWS WITH INSERTS

3 MORSE IN
VISES IN 1

Art. 810UZ

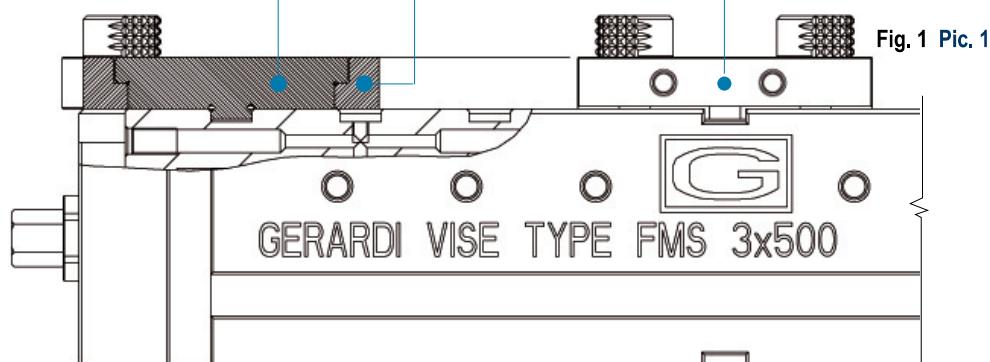
Albero a gradino per ganasce mobili oscillanti
Step block pin for Floating movable jaw

Art. 810UA

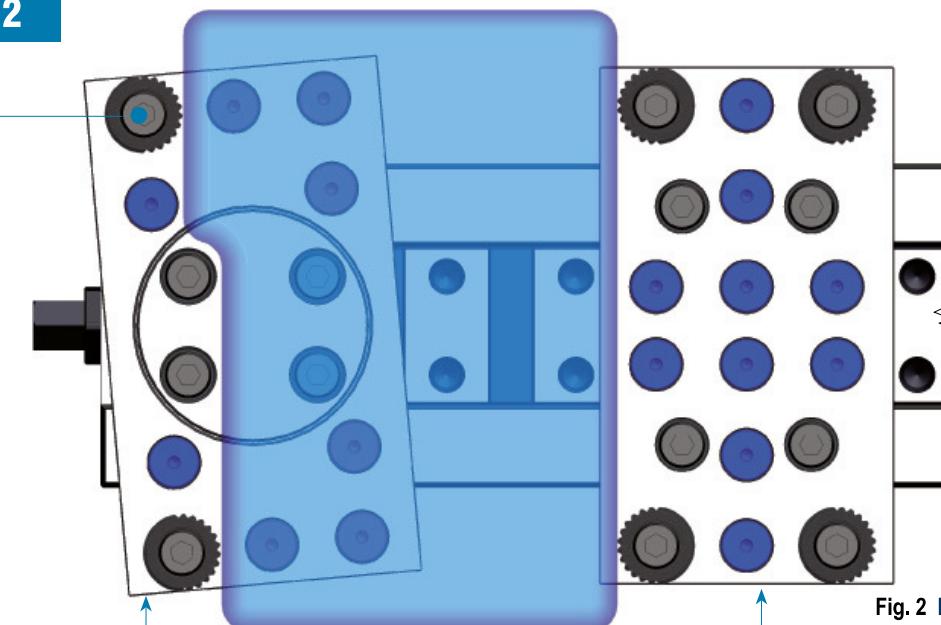
Corpo ganascia mobile oscillante
Body Floating movable jaw

Art. 805UA

Corpo ganascia fissa con inserti
Body Fixed jaw with inserts



Art. 812



Art. 810U

Ganascia mobile oscillante con inserti
Floating movable jaw with inserts

Art. 805U

Ganascia fissa con inserti
Fixed jaw with inserts

Le ganasce mobili oscillanti consentono il serraggio di pezzi di forma irregolare i cui lati non risultino paralleli (Fig. 2). Questo è reso possibile dall'albero a gradino (Art. 810UZ - Fig. 1), posto al centro della ganascia, che pur permettendo la rotazione della ganascia, ne mantiene la precisione ed evita il sollevamento del pezzo mentre viene lavorato. Il tutto a garanzia di un serraggio in piena sicurezza. Gli inserti estremizzano ulteriormente la versatilità delle ganasce mobili oscillanti della morsa FMS.

Floating movable jaws allow to clamp workpieces with irregular shapes whose sides are not parallel (Pic. 2). In fact thanks to the step block spindle (Art. 810UZ - Pic. 1), positioned in the centre of the jaw body, the jaw can float and guarantee at the same time maximum precision and no tilting of the parts while being worked. The safety of the workholding is guaranteed. The insert further increase the versatility of the FMS floating movable jaws.

GANASCE FISSE & MOBILI FMS

FMS FIXED AND MOVABLE JAWS

Tipo (grandezza) morsa / Vise type (size)	1	2	3	4	5	6	
Art. 810U Ganascia mobile oscillante con inserti Floating movable jaw with inserts		Cod. 5.81.0U100	5.81.0U200	5.81.0U300	5.81.0U400	5.81.0U500	5.81.0U600
Art. 810UA Corpo ganascia mobile oscillante Body floating movable jaw		Cod. 5.81.0UA10	5.81.0UA20	5.81.0UA30	5.81.0UA40	5.81.0UA50	5.81.0UA60
Art. 810UZ Albero a gradino per ganasce mobili oscillanti Step block pin for floating movable jaw		Cod. 5.81.0UZ10	5.81.0UZ20	5.81.0UZ30	5.81.0UZ40	5.81.0UZ50	5.81.0UZ60
Art. 810Q Ganascia mobile con inserti Movable jaw with inserts		Cod. 5.81.0Q100	5.81.0Q200	5.81.0Q300	5.81.0Q400	5.81.0Q500	5.81.0Q600
Art. 810QA Corpo ganascia mobile per inserti Body movable jaw for inserts		Cod. 5.81.0QA10	5.81.0QA20	5.81.0QA03	5.81.0QA40	5.81.0QA50	5.81.0QA60
Art. 805U Ganascia fissa con inserti Fixed jaw with inserts		Cod. 5.80.5U100	5.80.5U200	5.80.5U300	5.80.5U400	5.80.5U500	5.80.5U600
Art. 805UA Corpo ganascia fissa per inserti Body fixed jaw for inserts		Cod. 5.80.5UA10	5.80.5UA20	5.80.5UA30	5.80.5UA40	5.80.5UA50	5.80.5UA60
Art. 812 Coppia di inserti lisci e zigrinati Pair of smooth and serrated insert		Ø	30		40		
Art. 812A Coppia di inserti lisci Pair of smooth insert		H	16		30		
Art. 812C Coppia di inserti zigrinati Pair of serrated insert		Cod.	5.81.21000		5.81.25000		
		Cod.	5.81.2A100		5.81.2A500		
		Cod.	5.81.2C100		5.81.2C500		
Art. 813 Coppia di inserti lisci e zigrinati alti Pair of smooth and serrated high insert		Ø	30		40		
Art. 813A Coppia di inserti lisci alti Pair of smooth high insert		H	28		50		
Art. 813C Coppia di inserti zigrinati alti Pair of serrated high insert		Cod.	5.81.31000		5.81.35000		
		Cod.	5.81.3A100		5.81.3A500		
		Cod.	5.81.3C100		5.81.3C500		
Art. 815 Coppia di inserti lisci e zigrinati a gradino Pair of smooth and serrated step insert		H	16		30		
Art. 815A Coppia di inserti lisci a gradino Pair of smooth step insert		Cod.	5.81.51000		5.81.55000		
Art. 815C Coppia di inserti zigrinati a gradino Pair of serrated step insert		Cod.	5.81.5A100		5.81.5A500		
		Cod.	5.81.5C100		5.81.5C500		
Art. 812B Coppia di inserti in acciaio lavorabile Pair of insert in machineable steel metal		Ø	40		60		
		H	40		60		
		Cod.	5.81.2B100		5.81.2B500		
Art. 84U Tappo in alluminio Aluminum cap		Cod.	5.84.U1000		5.84.U5000		

Tipo (grandezza) morsa / Vise type (size)	kN	1		2			3	
		25 kN		25 kN		30 kN		
Art. 868	A	130	230	182	282	382	482	244
Morsa FMS autocentrante (con opzione serraggi doppi o singoli) con ganasce alte	B	99,5			117			137
	C	70			90			100
	D	232		300	400	500	600	400
	E	252		320	420	520	620	425
	F	169,5			207			237
	G	75			95			125
	H	75			85			98
	L	56			64			84
	J3	76	76			101		132
	J4	55	55			63		82
	X	39,5			47			57
	W	74			94			124
	kg	-			-			-
	Cod.	5.86.81200	5.86.81300	5.86.82300	5.86.82400	5.86.82500	5.86.82600	5.86.83400
								5.86.83500



FMS self-centering vise
(with double or single clamping option) with high jaws

Art. 868D



(Art. 868 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod.	5.86.8D120	5.86.8D130	5.86.8D230	5.86.8D240	5.86.8D250	5.86.8D260	5.86.8D340	5.86.8D350

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.21000	5.80.22000	5.80.23000

Art. 868E



(Art. 868 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.86.8E120	5.86.8E130	5.86.8E230	5.86.8E240	5.86.8E250	5.86.8E260	5.86.8E340	5.86.8E350

Art. 868F

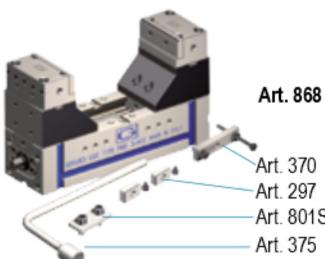


(Art. 868 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.8F120	5.86.8F130	5.86.8F230	5.86.8F240	5.86.8F250	5.86.8F260	5.86.8F340	5.86.8F350

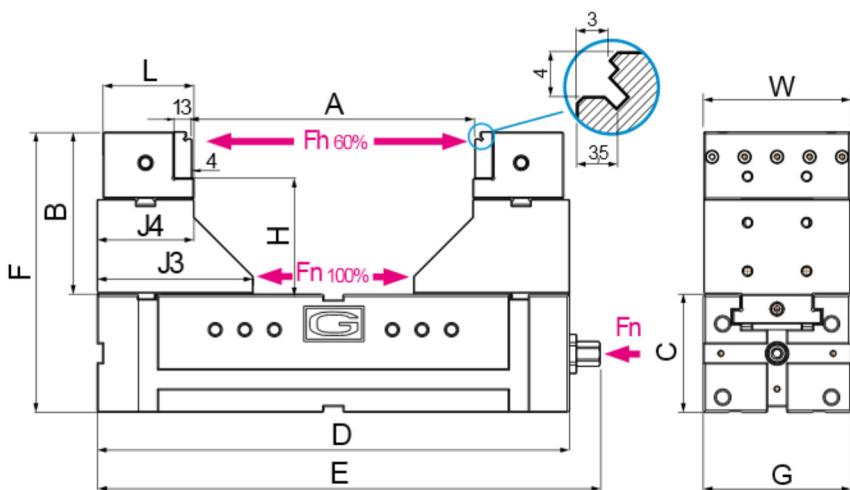
Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S



Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
444	544	644	316	416	516	616	396	496	596	596	696	796
137				171				186			246	
100				120				140			160	
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
237				291				326			406	
125				145				170			190	
98				128				138			180	
84				97				107			107	
132				154				169			189	
82				96				106			106	
57				64				66			86	
124				144				169			189	
-				-				-			-	
5.86.83600	5.86.83700	5.86.83800	5.86.84500	5.86.84600	5.86.84700	5.86.84800	5.86.85600	5.86.85700	5.86.85800	5.86.86800	5.86.86900	5.86.86100

Art. 868D

(Art. 868 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.8D360	5.86.8D370	5.86.8D380	5.86.8D450	5.86.8D460	5.86.8D470	5.86.8D480	5.86.8D560	5.86.8D570	5.86.8D580	5.86.8D680	5.86.8D690	5.86.8D610

Art. 802

Moltiplicatore di coppia con rивto angolare - Mechanical with torque multiplier with angular transmission

5.80.23000	5.80.24000	5.80.25000	5.80.26000

Art. 868E

(Art. 868 + 890) Morsa + motore idraulico / Vise + hydraulic motor

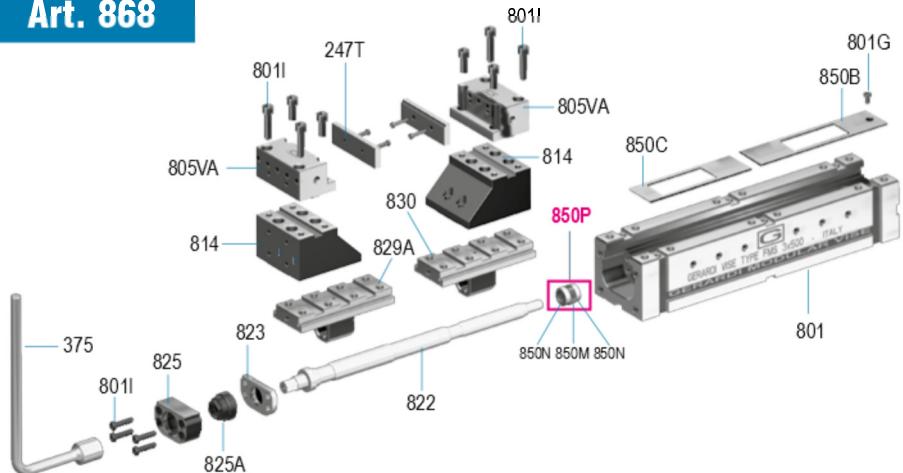
5.86.8E360	5.86.8E370	5.86.8E380	5.86.8E450	5.86.8E460	5.86.8E470	5.86.8E480	5.86.8E560	5.86.8E570	5.86.8E580	5.86.8E680	5.86.8E690	5.86.8E610

Art. 868F

(Art. 868 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.8F360	5.86.8F370	5.86.8F380	5.86.8F450	5.86.8F460	5.86.8F470	5.86.8F480	5.86.8F560	5.86.8F570	5.86.8F580	5.86.8F680	5.86.8F690	5.86.8F610

Art. 868

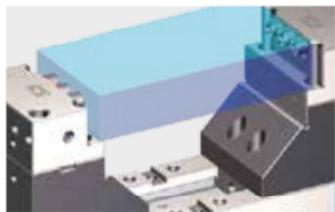
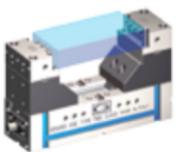
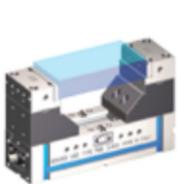


Art.	Pag.	Art.	Pag.
375	4.31	850B	5.61
801	5.46	850C	5.61
801G	5.61	850M	
801I	5.61	850N	
810J	5.56	850P	5.61
822	5.52	814	5.56
823	5.59	805VA	5.33
825	5.59	247T	5.33
825A	5.61	-	-
829A	5.50	-	-
830	5.50	-	-

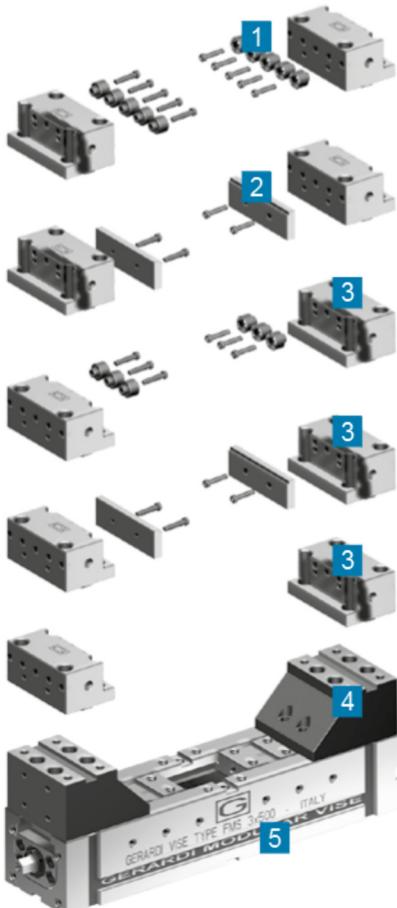
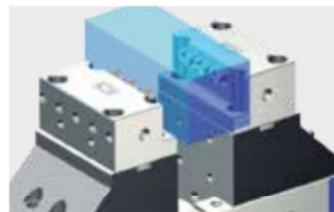
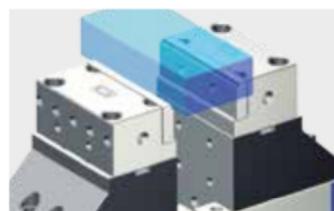
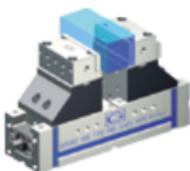
POSSIBILI COMBINAZIONI DELLA MORSA Art.868

POSSIBLE ARRANGEMENTS OF THE Art.868 VISE

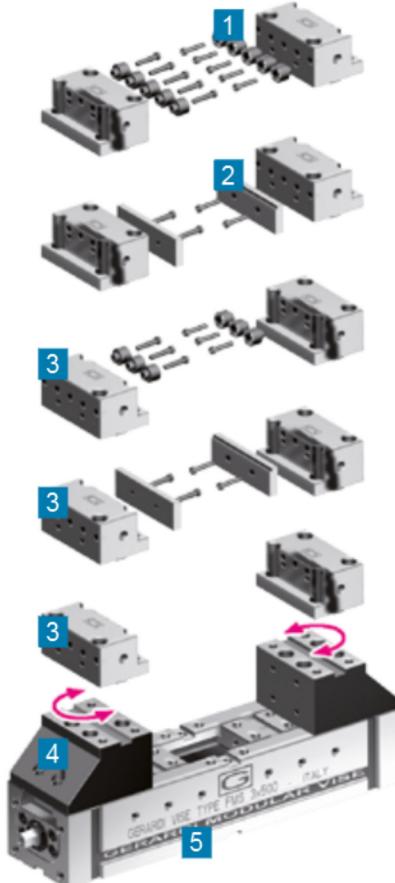
Orientamento base mobile Art.814 per massima apertura ganasce
Movable base Art.814 oriented for the maximum jaws opening



Orientamento base mobile Art.814 per chiusura ganasce a zero
Movable base Art.814 oriented in order to close jaws completely



- | | |
|----------|-------------------|
| 1 | Art. 90 |
| 2 | Art. 247T |
| 3 | Art. 805VA |
| 4 | Art. 814 |
| 5 | Art. 855 |



Possibilità di utilizzo di qualsiasi ganascia fissa FMS anziché del corpo ganascia 805V. Possibilità di due posizioni per ciascuna ganascia fissa e per base ganascia mobile Art.814
Possibility to use each FMS fixed jaw instead of jaw body Art.805V. Possibility of two positions (at 180°) for each fixed jaw and for movable base jaw Art.814

GANASCE & PIASTRE GANASCE PER Art.868

JAWS & JAW PLATES FOR Art.868

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
--------------------------------	---	---	---	---	---	---

Art. 805V

Ganascia per piastrine e puntali
Jaw for plates and points



Cod. 5.80.5V100 5.80.5V200 5.80.5V300 5.80.5V400 5.80.5V500 5.80.5V600

Art. 90

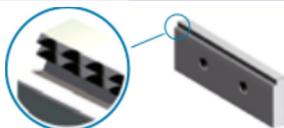
Inserto temprato GRIP
Hardened GRIP Insert



Cod. 5.90.10000

Art. 247T (W2)

Piastrina piana temprata GRIP
Hardened straight jaw plate GRIP



Cod. 4.24.7T100 4.24.7T200 4.24.7T300 4.24.7T400 4.24.7T500 4.24.7T600



PIASTRE GANASCE "GRIP"

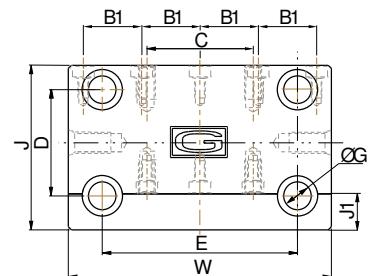
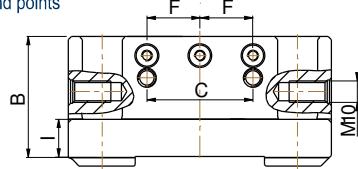
Minor Superficie → Maggiore Pressione
Less Surface → More Pressure

Per qualsiasi piastra piana speciale, raddoppiare il prezzo
For special taylor made straight jaw plate double the price

5

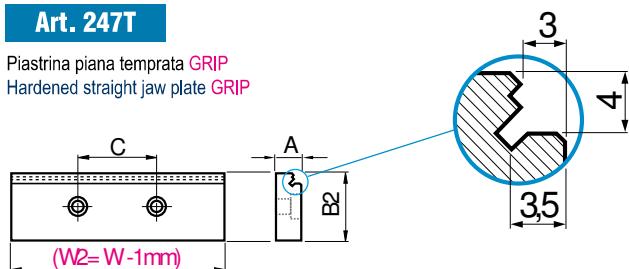
Art. 805VA

Corpo Ganascia
Jaw for plates and points



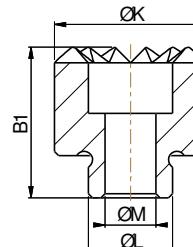
Art. 247T

Piastrina piana temprata GRIP
Hardened straight jaw plate GRIP



Art. 90

Puntale temprato GRIP
Hardened GRIP Point



mm	1	2	3	4	5	6
W	74	94	124	144	169	189
A	12	12	13	13		18
B	39,5	47	57	61	66	86
B1						
B2	24,5	32	39	43	48	56
C	25	32	50	50	75	90
D	32	40	50	60	68	68
E	56	70	92	108	126	144
F						
OG	9	11	13	17	17	21
I	15	15	18	18	18	20
J	56	64	84	97	107	107
J1			17			
K	-		18			-
L	-		10 h8			-
M	-		6			-

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN				3 30 kN	
		10 / 25	10 / 25	20 / 50	20 / 50	20 / 50	20 / 50	40 / 100	40 / 100
Apertura minima - massima / minimum - maximum Aperture	A	10 / 25	10 / 25	20 / 50	20 / 50	20 / 50	20 / 50	40 / 100	40 / 100
Apertura minima - massima / minimum - maximum Aperture	A1	10 / 15	10 / 15	10 / 25	10 / 25	10 / 25	10 / 25	25 / 50	25 / 50
Art. 870		B	34			55			90
Morsa FMS autocentrante (opzione doppia o singola) con ganasce prismatiche		C	70			90			100
		D	232	332	300	400	500	600	400
		E	252	352	320	420	520	620	425
		F	104			145			190
		G	75			95			125
		J	48	60		102			132
		W	50			75			100
		kg	9	12	23	30	63	43	47
		Cod.	5.87.01200	5.87.01300	5.87.02300	5.87.02400	5.87.02500	5.87.02600	5.87.03400
									5.87.03500


 FMS self-centering vise
 (double or single option) with prismatic jaws

 3 MORSE IN
 1 VISES IN 1

Art. 870D

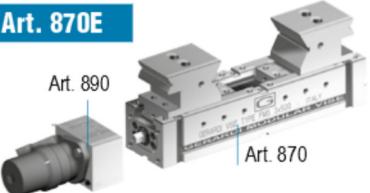

(Art. 870 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod. 5.87.0D120 5.87.0D130 5.87.0D230 5.87.0D240 5.87.0D250 5.87.0D260 5.87.0D340 5.87.0D350

Art. 802

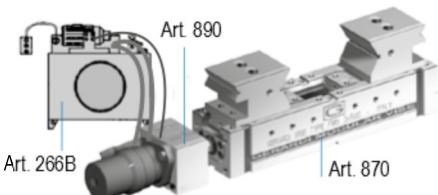

Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

Cod. 5.80.21000 5.80.22000 5.80.23000

Art. 870E


(Art. 870 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod. 5.87.0E120 5.87.0E130 5.87.0E230 5.87.0E240 5.87.0E250 5.87.0E260 5.87.0E340 5.87.0E350

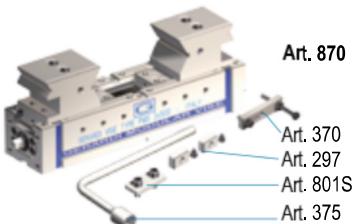
Art. 870F


(Art. 870 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

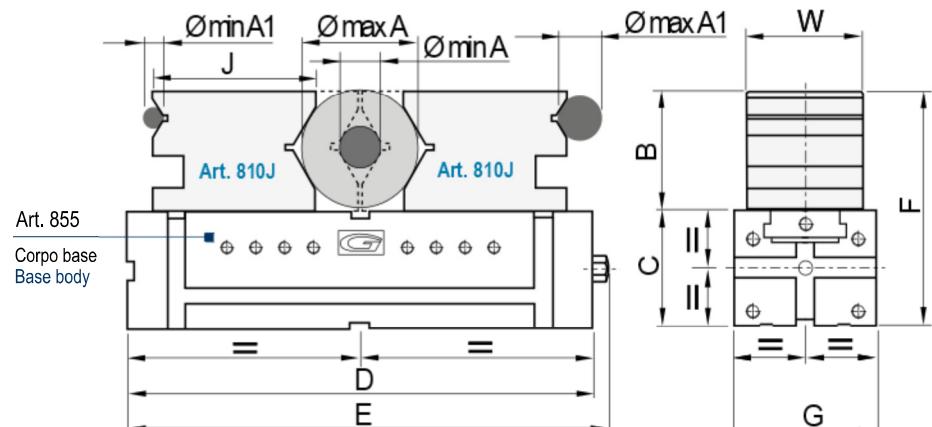
Cod. 5.87.0F120 5.87.0F130 5.87.0F230 5.87.0F240 5.87.0F250 5.87.0F260 5.87.0F340 5.87.0F350

Dotazione standard:

- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art. 801S


Standard equipment:

- 2 workstops Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375
- 1 connecting plate Art. 801S



3 30 kN			4 30 kN				5 32 kN			6 32 kN		
40 / 100	40 / 100	40 / 100	40 / 150	40 / 150	40 / 150	40 / 150	63 / 200	65 / 240	80 / 280	100 / 300	120 / 350	140 / 400
25 / 50	25 / 50	25 / 50	30 / 60	30 / 60	30 / 60	30 / 60	35 / 70	35 / 70	35 / 80	40 / 140	40 / 140	40 / 140
90			132				171	191	226	250	275	300
100			120					140			160	
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
190			252				311	331	366	410	435	460
125			145					170			190	
132			156					176			174	
100			132					140			160	
57	62	67	74	82	91	99	135	145	155	225	245	265
5.87.03600	5.87.03700	5.87.03800	5.87.04500	5.87.04600	5.87.04700	5.87.04800	5.87.05600	5.87.05700	5.87.05800	5.87.06800	5.87.06900	5.87.06100

Art. 870D (Art. 870 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.87.0D360 5.87.0D370 5.87.0D380 5.87.0D450 5.87.0D460 5.87.0D470 5.87.0D480 5.87.0D560 5.87.0D570 5.87.0D580 5.87.0D680 5.87.0D690 5.87.0D610

5

Art. 802 Moltiplicatore di coppia con rивio angolare - Mechanical with torque multiplier with angular transmission

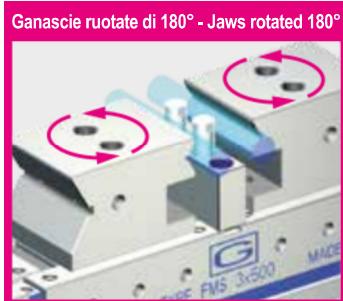
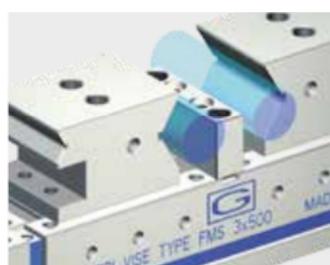
5.80.23000 5.80.24000 5.80.25000 5.80.26000

Art. 870E (Art. 870 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.87.0E360 5.87.0E370 5.87.0E380 5.87.0E450 5.87.0E460 5.87.0E470 5.87.0E480 5.87.0E560 5.87.0E570 5.87.0E580 5.87.0E680 5.87.0E690 5.87.0E610

Art. 870F (Art. 870 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.87.0F360 5.87.0F370 5.87.0F380 5.87.0F450 5.87.0F460 5.87.0F470 5.87.0F480 5.87.0F560 5.87.0F570 5.87.0F580 5.87.0F680 5.87.0F690 5.87.0F610

Art. 870
Esempi applicativi ganasce prismatiche:
 Prismatic jaws application examples:

 Serraggio di 2 particolari tondi per mezzo della ganascia intermedia alta Art.870A
 Round workpieces clamping by intermediate high jaw Art.870A

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN	
		A	B	C	D	E	G	W
Apertura massima / Maximum opening	A	85	185	170	270	370	470	230
Mnima apertura interno-esterno / Minimum opening inside-outside	A1	115 / 200	115 / 300	130 / 300	130 / 400	130 / 500	130 / 600	170 / 400
Art. 800	B	25				30		40
Morsa a Serraggio Meccanico solo per serraggi singoli	C	70				90		100
	D	232	332	300	400	500	600	400
	E	252	352	320	420	520	620	425
	G	75				95		125
	W	74				94		124
	kg	7	10	18	25	32	39	40
								45


 Mechanical Clamping vise
only for single clamping

SPECIFICA SOLO PER SERRAGGI SINGOLI

SPECIFIC FOR SINGLE CLAMPING ONLY

Cod. 5.80.01200 5.80.01300 5.80.02300 5.80.02400 5.80.02500 5.80.02600 5.80.03400 5.80.03500

Questa morsa, pur essendo parte del programma FMS, non è predisposta per serraggi doppi o autocentranti

Art. 800A

Meccanica con predisposizione idraulica solo per serraggi singoli / Mechanical with prepared hydraulic connection only for single clamping



E1	273	373	370,5	470,5	570,5	670,5	485	585
Cod.	5.80.0A120	5.80.0A130	5.80.0A230	5.80.0A240	5.80.0A250	5.80.0A260	5.80.0A340	5.80.0A350

Connettore Idraulico - Hydraulic Connexion

Art. 882A


Corsa - Stroke mm	4	7	10
Superficie - Surface cm ²	6	21	21
Pressione - Pressure bar	417	119	143

Art. 800B

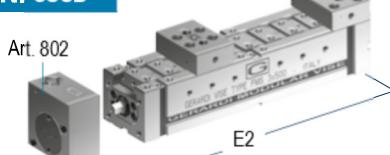
(Art. 800A + Art.393) Morsa + centralina a comando manuale singolo / Vise + power unit with single manual control



E1	273	373	370,5	470,5	570,5	670,5	485	585
Cod.	5.80.0B120	5.80.0B130	5.80.0B230	5.80.0B240	5.80.0B250	5.80.0B260	5.80.0B340	5.80.0B350

Art. 800D

(Art. 800 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier



E2	277	377	360	460	560	660	470	570
Nm	Max 20		Max 25		Max 20		Max 20	
Cod.	5.80.0D120	5.80.0D130	5.80.0D230	5.80.0D240	5.80.0D250	5.80.0D260	5.80.0D340	5.80.0D350

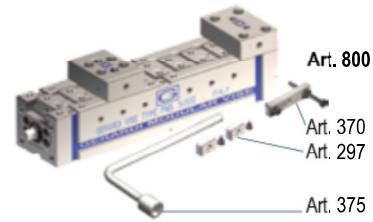
Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

Art. 802


Cod.	5.80.21000	5.80.22000	5.80.23000

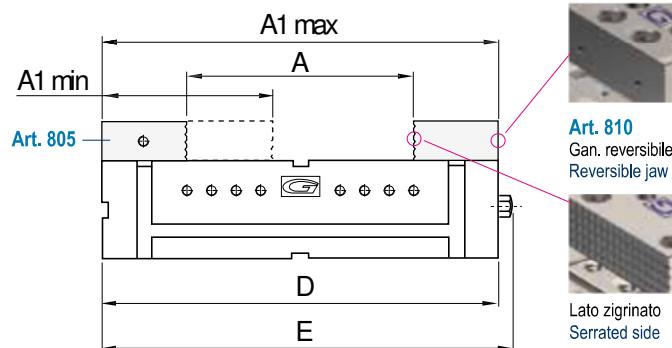
Dotazione standard:

- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375

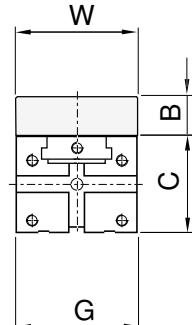


Standard equipment:

- 1 workshop Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375


 Lato liscio
Smooth side

 Art. 810
Gan. reversible
Reversible jaw

 Lato zigrinato
Serrated side


3 30 kN			4 30 kN				5 32 kN			6 32 kN		
430	530	630	300	400	500	600	380	480	580	580	680	780
170 / 600	170 / 700	170 / 800	200 / 500	200 / 600	200 / 700	200 / 800	220 / 600	220 / 700	220 / 800	220 / 800	220 / 800	220 / 100
40			50				60			60		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
124			144				169			189		
50	55	60	66	72	80	88	115	125	135	170	190	210

5.80.03600 5.80.03700 5.80.03800 5.80.04500 5.80.04600 5.80.04700 5.80.04800 5.80.05600 5.80.05700 5.80.05800 5.80.06800 5.80.06900 5.80.06100

This type of vise even if it is part of the FMS series is not suitable for double or self-centering clamping

Art. 800A Meccanica con predisposizione idraulica solo per serraggi singoli / Mechanical with prepared hydraulic connection only for single clamping

685	785	885	585	685	785	885	-	-	-	-	-	-
5.80.0A360	5.80.0A370	5.80.0A380	5.80.0A450	5.80.0A460	5.80.0A470	5.80.0A480	5.80.0A560	5.80.0A570	5.80.0A580	5.80.0A680	5.80.0A690	5.80.0A610

Art. 882A Connettore Idraulico - Hydraulic Connexion

10		10										
21		21										
143		143										

Art. 800B (Art. 800A + Art.393) Morsa + centralina a comando manuale singolo / Vise + power unit with single manual control

685	785	885	585	685	785	885	-	-	-	-	-	-
5.80.0B360	5.80.0B370	5.80.0B380	5.80.0B450	5.80.0B460	5.80.0B470	5.80.0B480	5.80.0B560	5.80.0B570	5.80.0B580	5.80.0B680	5.80.0B690	5.80.0B610

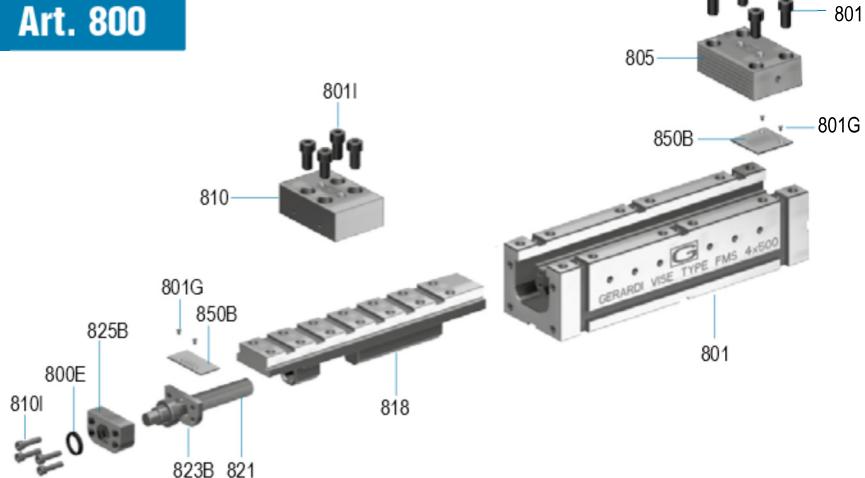
Art. 800D (Art. 800 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

670	770	870	570	670	770	870	685	785	885	-	-	-
Max 20			Max 20				Max 20			Max 20		
5.87.0D360	5.87.0D370	5.87.0D380	5.87.0D450	5.87.0D460	5.87.0D470	5.87.0D480	5.87.0D560	5.87.0D570	5.87.0D580	5.87.0D680	5.87.0D690	5.87.0D610

Art. 802 Moltiplicatore di coppia con rivio angolare - Mechanical with torque multiplier with angular transmission

5.80.23000		5.80.24000		5.80.25000		5.80.26000	

Art. 800



Art.	Pag.	Art.	Pag.
800E	5.61	-	-
801	5.46	-	-
801G	5.61	-	-
801I	5.61	-	-
805	5.54	-	-
810	5.56	-	-
818	5.50	-	-
821	5.52	-	-
823B	5.59	-	-
825B	5.59	-	-
850B	5.61	-	-

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3	
		25 kN		25 kN		30 kN	
Apertura massima / Maximum opening	A	-	-	-	-	-	-
Art. 900	B	-		-			40
Morsa a Serraggio Meccanico con Limitatore di Forza solo per serraggi singoli	C	-		-			100
	D	-	-	-	-	510	610
Mechanical Clamping vise with Limiting Device only for single clamping	E	-	-	-	-	400	500
SPECIFICA SOLO PER SERRAGGI SINGOLI	G	-		-			125
SPECIFIC FOR SINGLE CLAMPING ONLY	W	-		-			124
	kg	-	-	-	-		
	Cod.	-	-	-	-	5.90.03400	5.90.03500
	€	ATTUALMENTE NON DISPONIBILI - CURRENTLY NOT AVAILABLE					

Questa morsa, pur essendo parte del programma FMS, non è predisposta per serraggi doppi o autocentranti

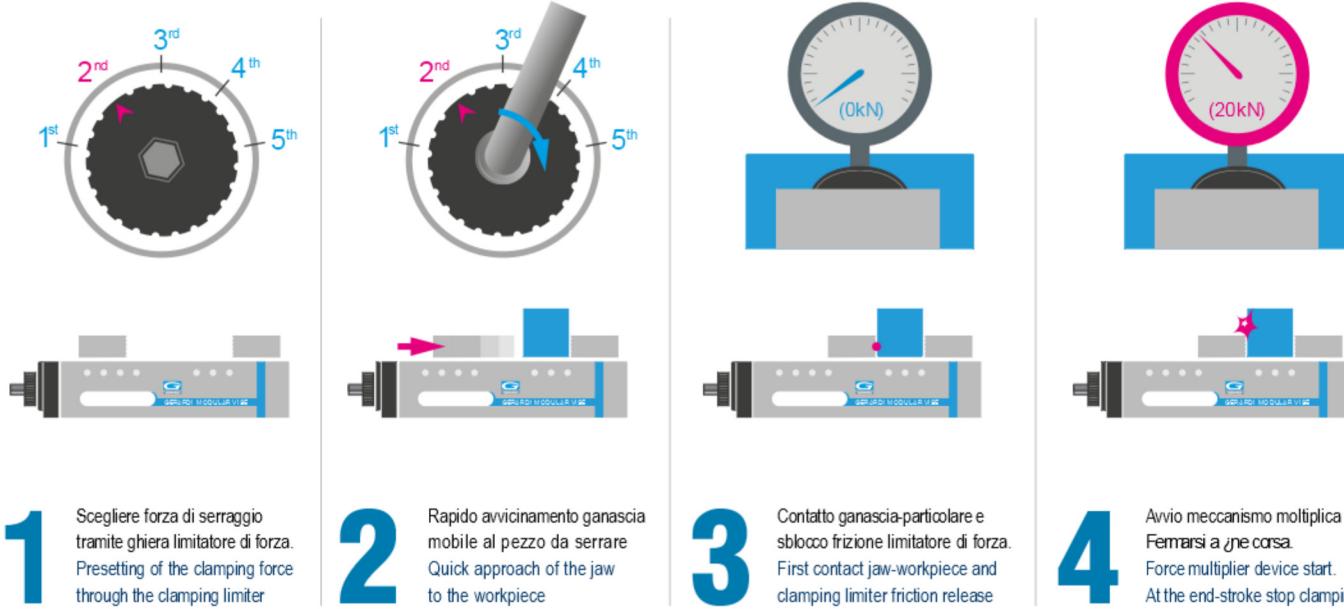
Art. 900YModulo per serraggio idraulico
Module for hydraulic clamping

Cod.

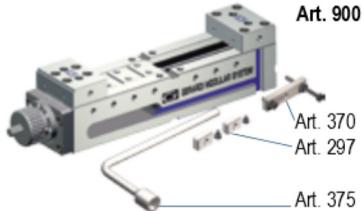
5.90.0Y300

€

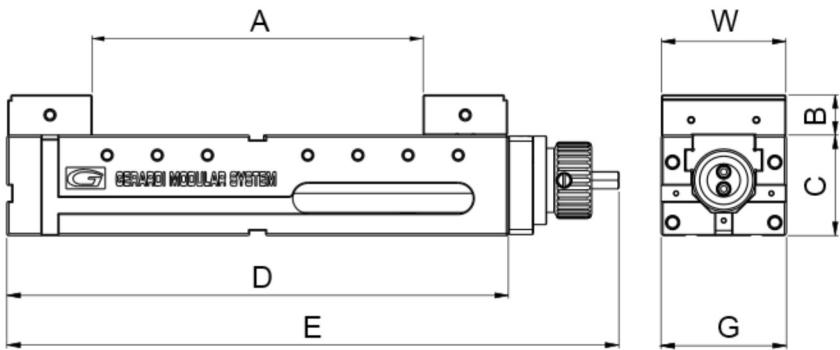
ATTUALMENTE NON DISPONIBILI - CURRENTLY NOT AVAILABLE

5**FUNZIONAMENTO LIMITATORE DI FORZA - HOW TO USE THE LIMITING DEVICE****Dotazione standard:**

- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375

**Standard equipment:**

- 1 workstop Art. 370
- 1 pair of precision positioning key-nuts Art. 297
- 1 box wrench Art. 375





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
432	532	632	304	404	505	605	384	484	584	-	-	-
40				50				60				-
100				120				140				-
710	810	910	610	710	810	910	710	810	910	-	-	-
600	700	800	500	600	700	800	600	700	800	-	-	-
125				145				170				-
124				144				169				-
5.90.03600	5.90.03700	5.90.03800	5.90.04500	5.90.04600	5.90.04700	5.90.04800	5.90.05600	5.90.05700	5.90.05800	-	-	-

ATTUALMENTE NON DISPONIBILI
CURRENTLY NOT AVAILABLE

This type of vise even if it is part of the FMS series is not suitable for double or self-centering clamping

Art. 900Y

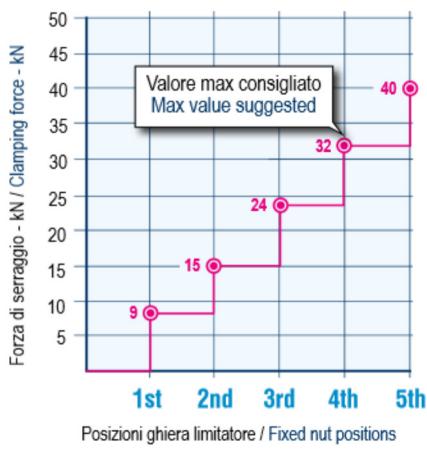
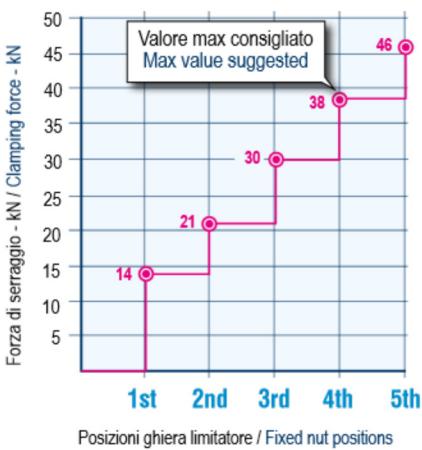
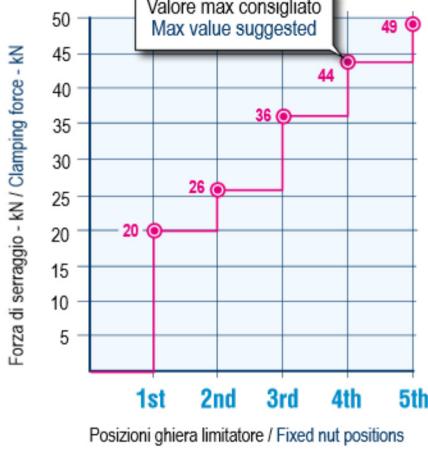
5.90.0Y300

5.90.0Y300

5.90.0Y300

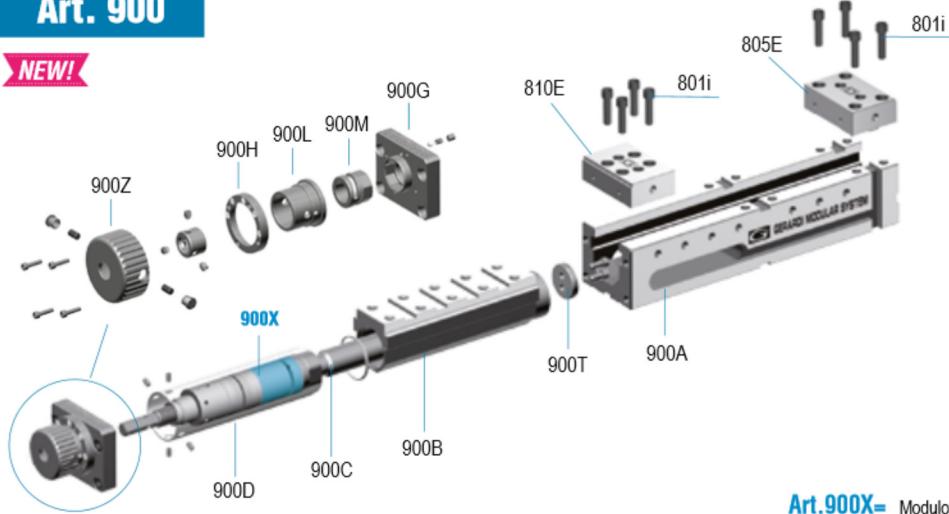
ATTUALMENTE NON DISPONIBILI
CURRENTLY NOT AVAILABLE

DIAGRAMMI CON FORZE DI SERRAGGIO - DIAGRAMS WITH CLAMPING FORCE

MORSE FMS TIPO
FMS VISES TYPE 3VITE: Ø 24 mm / Ø 30 mm PASSO: 2 mm
SCREW: Ø 24 mm / Ø 30 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrenchMORSE FMS TIPO
FMS VISES TYPE 4VITE: Ø 24 mm / Ø 30 mm PASSO: 2 mm
SCREW: Ø 24 mm / Ø 30 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrenchMORSE FMS TIPO
FMS VISES TYPE 5VITE: Ø 24 mm / Ø 30 mm PASSO: 2 mm
SCREW: Ø 24 mm / Ø 30 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrench

Art. 900

NEW!



Art. | Pag.

900Y 38

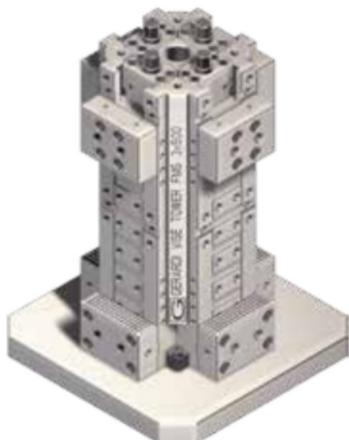
810E 57

805E 55



Art.900X= Modulo per serraggio meccanico - Module for mechanical clamping

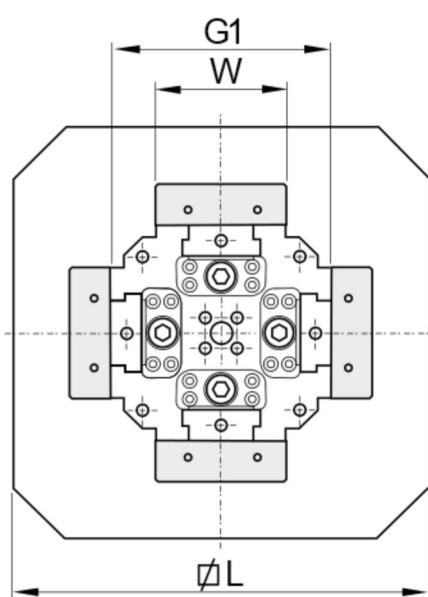
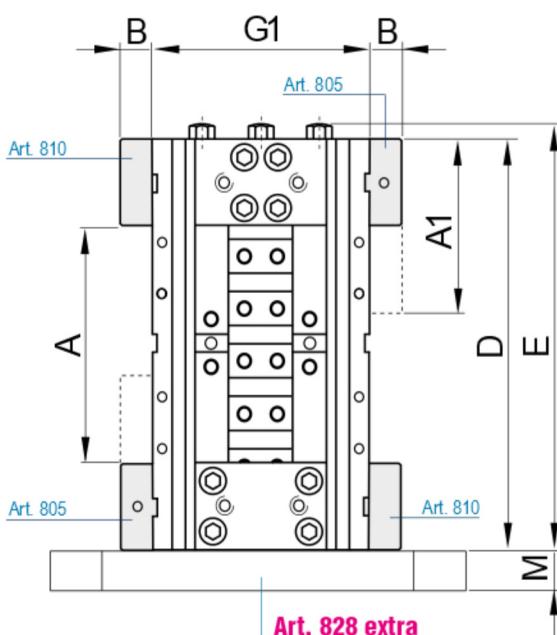
Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN		25 kN		30 kN		30 kN	
Apertura massima / Max. opening	A	85	185	170	270	370	470	230	330
Art. 800C	<small>SPECIFICA SOLO PER SERRAGGI SINGOLI SPECIFIC FOR SINGLE CLAMPING ONLY</small>	A1	115		130			170	
Cubo-morsa FMS con ganasce piene per il serraggio di 4 pezzi	B	25		30			40		
	D	200	300	300	400	500	600	400	500
	E	232	332	320	420	520	620	425	525
	G1	120		175			210		
	L	300		350			400		
	M	33		33			38		
	W	74		94			124		
	kg	30	45	53	70	88	106	90	112
	Cod.	5.80.0C120	5.80.0C130	5.80.0C230	5.80.0C240	5.80.0C250	5.80.0C260	5.80.0C340	5.80.0C350



FMS vise tower with straight jaws for 4 clamping stations

Questa morsa, pur essendo parte del programma FMS, non è predisposta per serraggi doppi o autocentranti

GANASCE REVERSIBILI REVERSIBLE JAWS

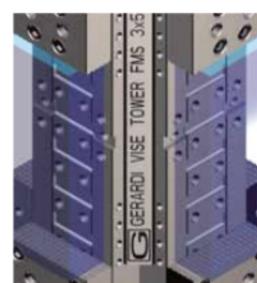


Dotazione standard per Art. 800C

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassa di legno

Standard equipment for Art. 800C

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of precision positioning key-nuts Art. 297
- 1 lifting hook Art. 848
- Wooden box packaging



3 30 kN			4 30 kN				5 32 kN				6 32 kN		
430	530	630	300	400	500	600	380	480	580	480	580	680	
170			509				630				810		
40			50				60				60		
600	700	800	500	600	700	800	600	700	800	800	900	1000	
625	725	825	525	625	725	825	625	725	825	825	925	1025	
210			245				280				290		
400			450				500				550		
38			38				38				38		
124			144				169				189		
135	157	180	180	210	252	288	260	303	340	500	562	625	
5.80.0C360	5.80.0C370	5.80.0C380	5.80.0C450	5.80.0C460	5.80.0C470	5.80.0C480	5.80.0C560	5.80.0C570	5.80.0C580	5.80.0C680	5.80.0C690	5.80.0C610	

This type of vise even if it is part of the FMS series is not suitable for double or self-centering clamping



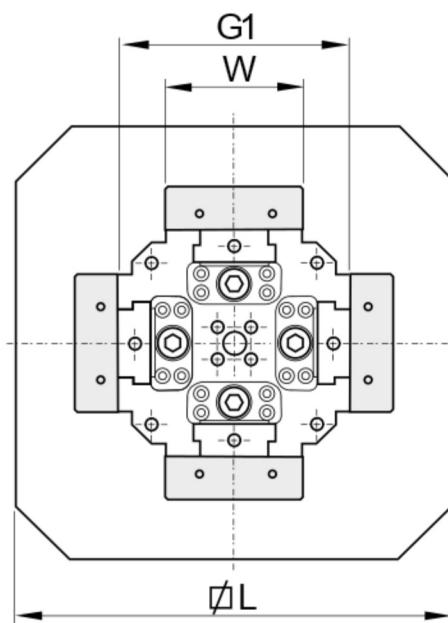
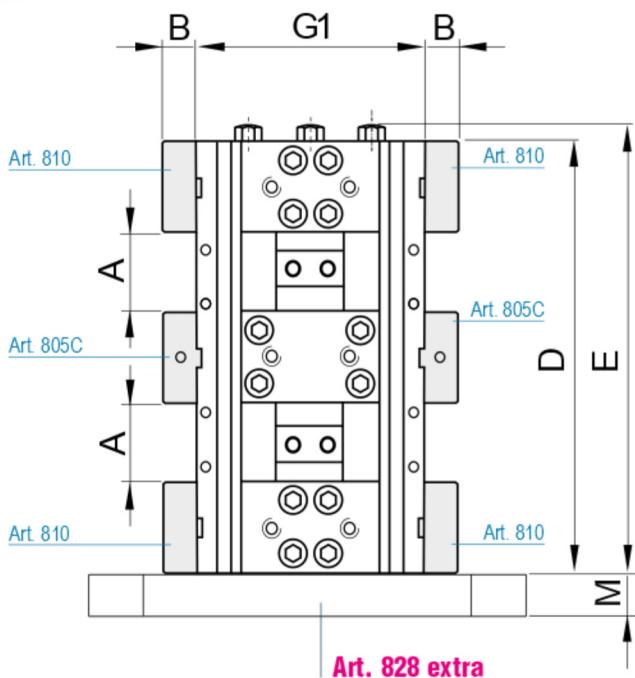
Art.	Pag.	Art.	Pag.
801G	5.61	-	-
801I	5.61	-	-
810	5.56	-	-
818	5.50	-	-
821	5.52	-	-
823B	5.59	-	-
825B	5.59	-	-
850B	5.61	-	-
-	-	-	-
-	-	-	-
-	-	-	-



Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN	25 kN	25 kN	30 kN			30 kN	
Apertura massima / Max. opening	A	2 x 16	2 x 66	2 x 54	2 x 104	2 x 154	2 x 204	2 x 74	2 x 124
Art. 860C	B	25		30		40			
Cubo-morsa FMS doppio per il serraggio di 8 pezzi	D	200	300	300	400	500	600	400	500
	E	232	332	320	420	520	620	425	525
	G1	120		175		210			
	L	300		350		400			
	M	33		33		38			
	W	74		94		124			
	kg	30	45	53	70	88	106	90	112
	Cod.	5.860.0C120	5.86.0C130	5.86.0C230	5.86.0C240	5.86.0C250	5.86.0C260	5.86.0C340	5.86.0C350

Double FMS vise tower
for 8 clamping stations**Art. 855C**Modulo base cubo morsa FMS doppia (senza ganasce)
FMS Double vise tower base (without jaws)

Cod.	5.85.5C120	5.85.5C130	5.85.5C230	5.85.5C240	5.85.5C250	5.85.5C260	5.85.5C340	5.85.5C350

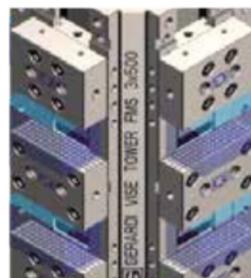
GANASCE REVERSIBILI
REVERSIBLE JAWS

Dotazione standard per Art. 860C

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassa di legno
- Meccanismo 3^a mano

Standard equipment for Art. 860C

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of precision positioning key-nuts Art. 297
- 1 lifting hook Art. 848
- Wooden box packaging
- Third hand device

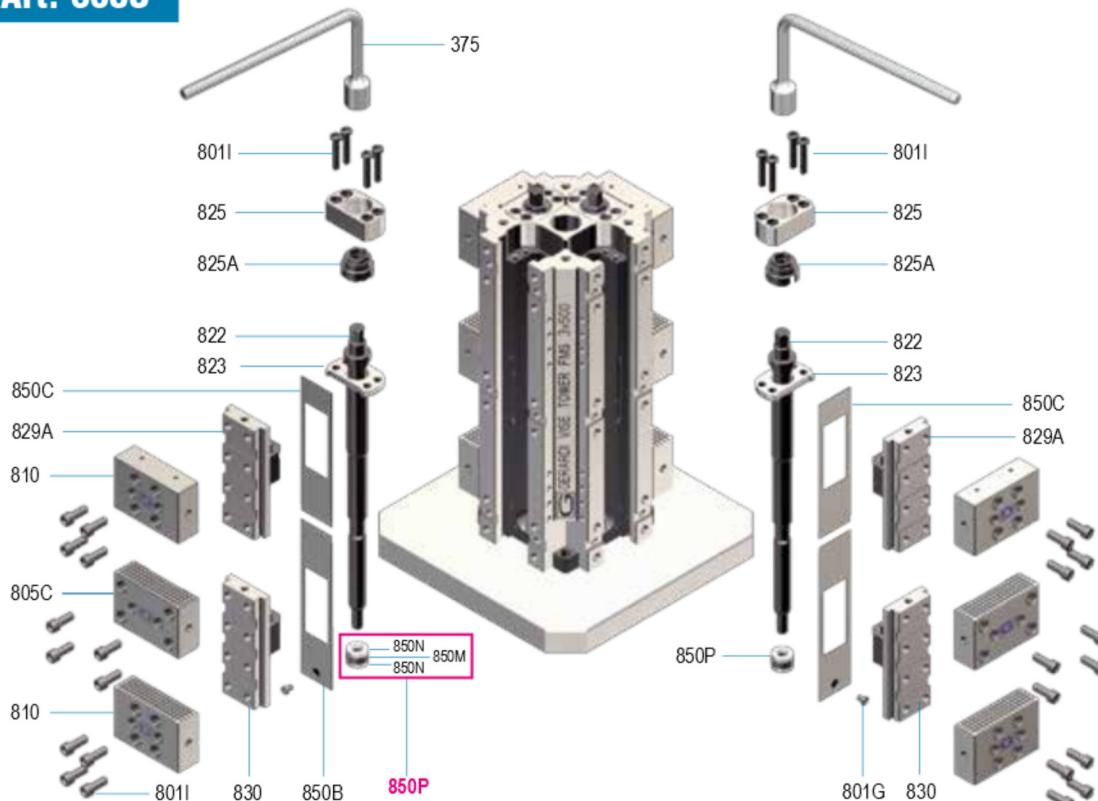




3 30 kN			4 30 kN				5 32 kN				6 32 kN		
2 x 174	2 x 224	2 x 274	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338	
40			50				60				60		
600	700	800	500	600	700	800	600	700	800	800	900	1000	
625	725	825	525	625	725	825	625	725	825	825	925	1025	
210			245				280				290		
400			450				500				550		
38			38				38				38		
124			144				169				189		
135	157	180	180	210	252	288	260	303	340	500	562	625	
5.86.0C360	5.86.0C370	5.86.0C380	5.86.0C450	5.86.0C460	5.86.0C470	5.86.0C480	5.86.0C560	5.86.0C570	5.86.0C580	5.86.0C680	5.86.0C690	5.86.0C610	
5.85.5C360	5.85.5C370	5.85.5C380	5.85.5C450	5.85.5C460	5.85.5C470	5.85.5C480	5.85.5C560	5.85.5C570	5.85.5C580	5.85.5C680	5.85.5C690	5.85.5C610	

GANASCE REVERSIBILI
REVERSIBLE JAWS

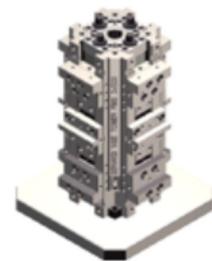
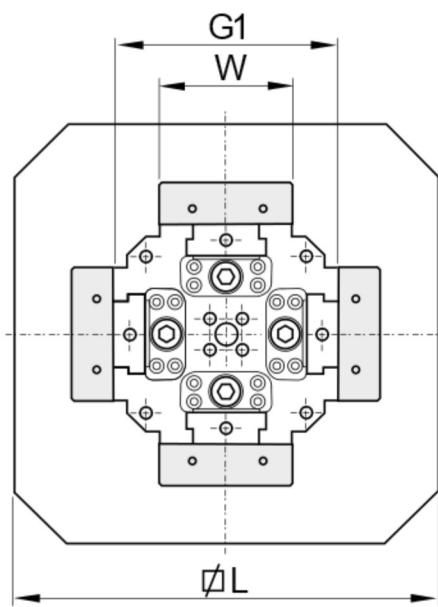
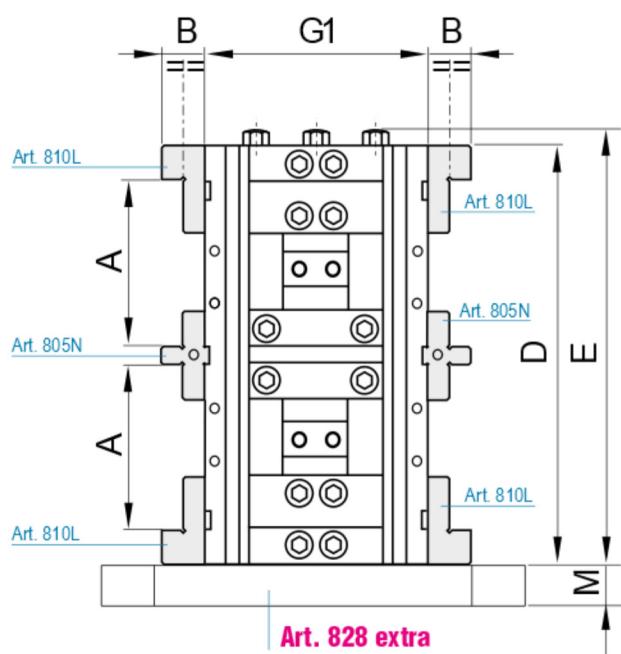
Art. 860C



Art.	Pag.
375	4.31
801G	5.61
801I	5.61
805C	5.54
810	5.56
822	5.52
823	5.59
825	5.59
825A	5.61
829A	5.50
830	5.50
850B	5.61
850C	5.61
850P	5.61
-	-
-	-
-	-



Tipo (grandezza) morsa / Vise type (size)	kN	1		2				3	
		25 kN	25 kN	25 kN	30 kN			30 kN	
Art. 863C	Apertura massima Max. opening A	2 x 60	2 x 110	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162	2 x 212
Cubo morsa FMS doppio con ganasce a gradino per il serraggio di 8 pezzi		Cod. 5.86.3C120	5.86.3C130	5.86.3C230	5.86.3C240	5.86.3C250	5.86.3C260	5.86.3C340	5.86.3C350
Double FMS vise tower with step-type jaws for 8 clamping stations									
Art. 870C	Ø Apertura Minima / Massima Ø Minimum - Max Opening A	10 / 25		10 / 50				25 / 100	
Cubo morsa FMS autocentrante con ganasce prismatiche		Cod. 5.87.0C120	5.87.0C130	5.87.0C230	5.87.0C240	5.87.0C250	5.87.0C260	5.87.0C340	5.87.0C350
	D	200	300	300	400	500	600	400	500
	E	232	332	320	420	520	620	425	525
	G1	120		175				210	
	L	300		350				400	
	M	33		33				38	
	W	74		94				124	
	W1	60		75				100	
	kg	42	63	68	90	113	130	118	147

Dotazione standard per
Art. 863C e Art. 870C:

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassetta di legno
- Meccanismo 3^a mano

Standard equipment for
Art. 863C and Art. 870C:

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of precision positioning key-nuts Art. 297
- 1 lifting hook Art. 848
- Packaging wooden box
- Third hand device

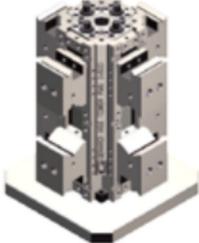
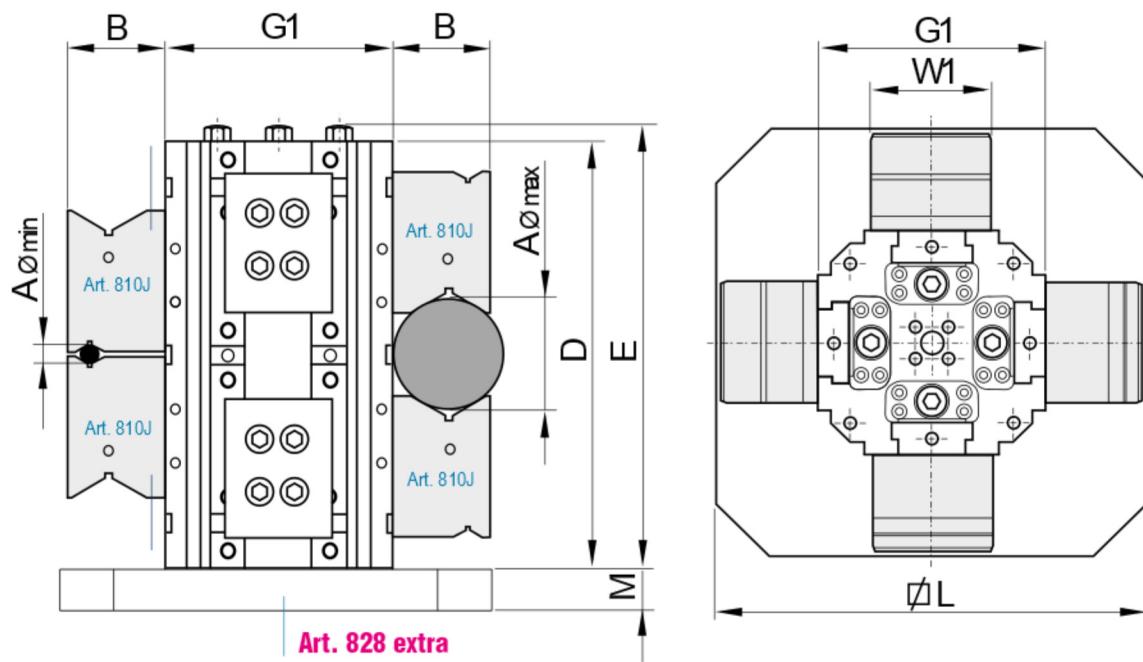




3 30 kN			4 30 kN				5 32 kN				6 32 kN		
2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454	
5.86.3C360	5.86.3C370	5.86.3C380	5.86.3C450	5.86.3C460	5.86.3C470	5.86.3C480	5.86.3C560	5.86.3C570	5.86.3C580	5.86.3C680	5.86.3C690	5.86.3C610	

25 / 100			30 / 150				35 / 200				40 / 300			
5.87.0C360	5.87.0C370	5.87.0C380	5.87.0C450	5.87.0C460	5.87.0C470	5.87.0C480	5.87.0C560	5.87.0C570	5.87.0C580	5.87.0C680	5.87.0C690	5.87.0C610		
600	700	800	500	600	700	800	600	700	800	800	900	1000		
625	725	825	525	625	725	825	625	725	825	825	925	1025		
210			245					280			290			
400			450					500			550			
38			38					38			38			
124			144					169			189			
100			132					140			160			
177	206	236	242	290	339	388	328	383	437	656	738	820		

5

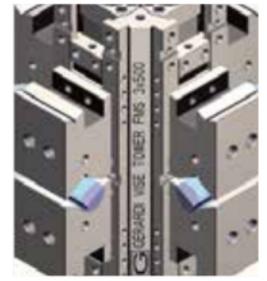


Dotazione standard per Art. 863C e Art. 870C

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassetta di legno
- Meccanismo 3° mano

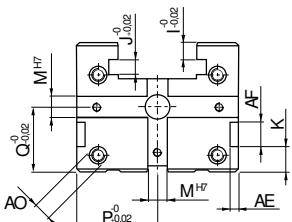
Standard equipment for Art. 863C and Art. 870C

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of precision positioning key-nuts Art. 297
- 1 lifting hook Art. 848
- Packaging wooden box
- Third hand device

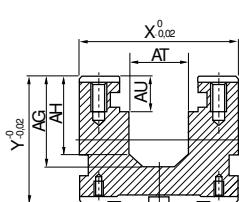


Tipo (grandezza) morsa / Vise type (size)

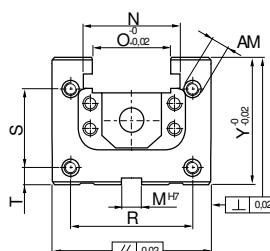
Art. 801

 Base morsa FMS. Disegni e tabella dimensionale
 FMS vise base body. Drawing and table dimension


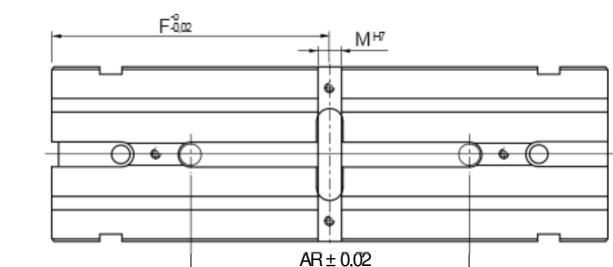
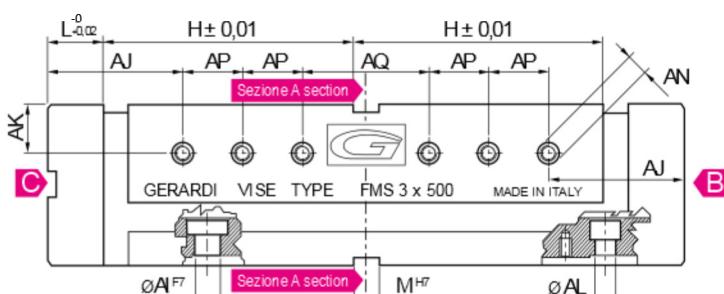
Vista da C / Side C



Sezione AA / AA section

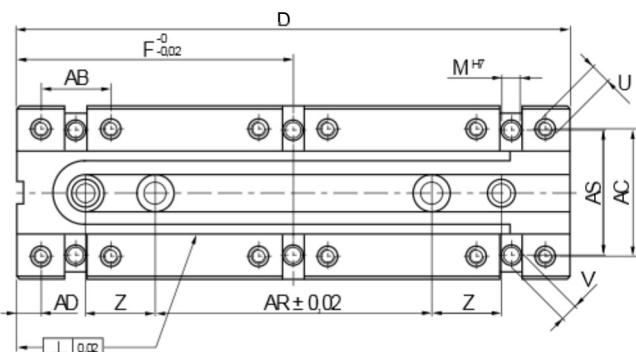


Vista da B / Side B



Vista dal basso / Show bottom

Vista dall'alto / Show top



	1	2
kg	4,7	7,3
Cod.	5.80.11200	5.80.11300
	5.80.12300	5.80.12400
D	200	300
F	100	150
H	71	121
I	10	13
J	10	12
K	15	20
L	21	25
M	16	16
N	45	53
O	35	41
P	37,5	47,5
Q	35	45
R	52	70
S	30	48
T	20	22
U	M8	M10
V	M8	M10
Z	50	50
X	75	95
Y	70	90
AB	32	40
AC	56	70
AD	13	13
AE	4	6
AF	16	16
AG	49	62
AH	41	53
AI	Ø 16 X 2	Ø 16 X 2
AJ	55	65
AK	20	27
Ø 11		Ø 13
AL	n°0 n°2	n° 2 n° 2
AM	M10	M10
AN	M10	M10
AO	M10	M10
AP	20 25	50
AQ	50 70	70
AR	100 200	200
AS	56	68
AT	28	34
AU	23	28

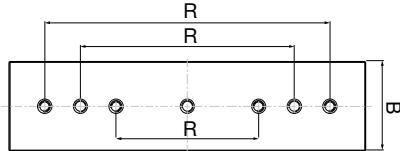
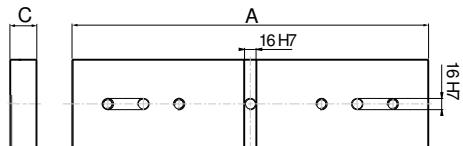
PIASTRE D'INTERFACCIA Art. 62 per morsa FMS
CONNECTING PLATES Art. 62 for FMS vises
NEW!

Tipo (grandezza) morsa / Vise type (size)

Art. 62

FMS

 Piastra di interfaccia
 Zero Point per morsa FMS

 Zero Point connecting
 plate for FMS vises


	1	2
A	232	332
B	75	95
C	38	38
R	200 / 300	200 / 300 / 400
kg	5	7
Cod.	5.62.12000	5.62.13000
	5.62.23000	5.62.24000

2		3					4					5				6		
23	27	26	31	39	46	52	47	56	65	75	71	82	94	140	156	174		
5.80.12500 5.80.12600 5.80.13400 5.80.13500 5.80.13600 5.80.13700 5.80.13800 5.80.14500 5.80.14600 5.80.14700 5.80.14800 5.80.15600 5.80.15700 5.80.15800 5.80.16800 5.80.16900 5.80.16100																		
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000		
250	300	200	250	300	350	400	250	300	350	400	300	350	400	400	450	500		
217	267	157	207	257	307	357	200	250	300	350	245	295	345	345	395	445		
13				13					20			20			20			
12				12					18			18			18			
20				20					20			26			26			
25				35					42			47			47			
16				16					16			16			16			
53				76					86			96			110			
41				61					71			82			94			
47,5				62,5					72,5			85			95			
45				50					60			70			80			
70				92					108			126			144			
48				62					72			92			100			
22				13					16			18			20			
M10				M12					M16			M16			M20			
M10				M12					M12			M12			M12			
50				50					50			50			50			
95				125					145			170			190			
90				100					120			140			160			
40				50					60			68			68			
70				92					108			126			144			
13				18					20			21			20			
6				6					10			10			10			
16				16					16			16			16			
62				72					80			95			105			
53				62					70			82			95			
Ø 16 x 2				Ø 16 x 2					Ø 16 x 2			Ø 16 x 2			Ø 16 x 2			
65				100					100			100			125			
27				32					40			48			58			
Ø 13				Ø 13					Ø 13			Ø 17			Ø 17			
n° 4	n° 6	n° 2	n° 4	n° 6	n° 8	n° 10	n° 4	n° 6	n° 8	n° 10	n° 6	n° 8	n° 10	n° 10	n° 12	n° 14		
M10				M12			M10			M12			M16			M20		
M10				M10M					M10			M10						
n° 20	n° 24	n° 8	n° 12	n° 16	n° 20	n° 24	n° 12	n° 16	n° 20	n° 24	n° 16	n° 20	n° 24	n° 24	n° 28	n° 32		
M10				M12					M16			M16			M20			
50				50					50			50			50			
70				100					100			100			125			
200				200					200			400	400	600	400	400	400	
68				92					106			126			144			
34				44					44			52			49			
28				28					41			41			41			

**PIASTRE D'INTERFAZIA Art.62 per morse FMS
CONNECTING PLATES Art.62 for FMS vises**

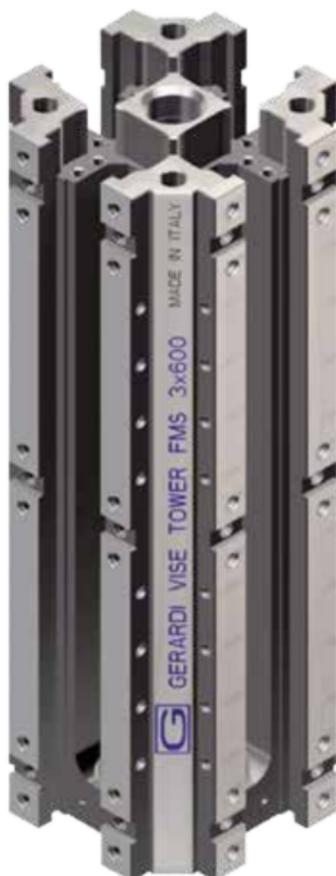
2		3					4					5				6		
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000		
95				125					145				170			190		
38				38					38			38			38			
200 / 300 / 400				200 / 300 / 400					200 / 300 / 400				200 / 300 / 400			200 / 300 / 400		
16,1	18,9	13,9	17,8	21,5	25,1	28,5	20,8	25	29,3	33,5	29	34	39	44	49	55		
5.62.25000	5.62.26000	5.62.34000	5.62.35000	5.62.36000	5.62.37000	5.62.38000	5.62.45000	5.62.46000	5.62.47000	5.62.48000	5.62.56000	5.62.57000	5.62.58000	5.62.68000	5.62.69000	5.62.61000		

Tipo (grandezza) morsa / Vise type (size)

1

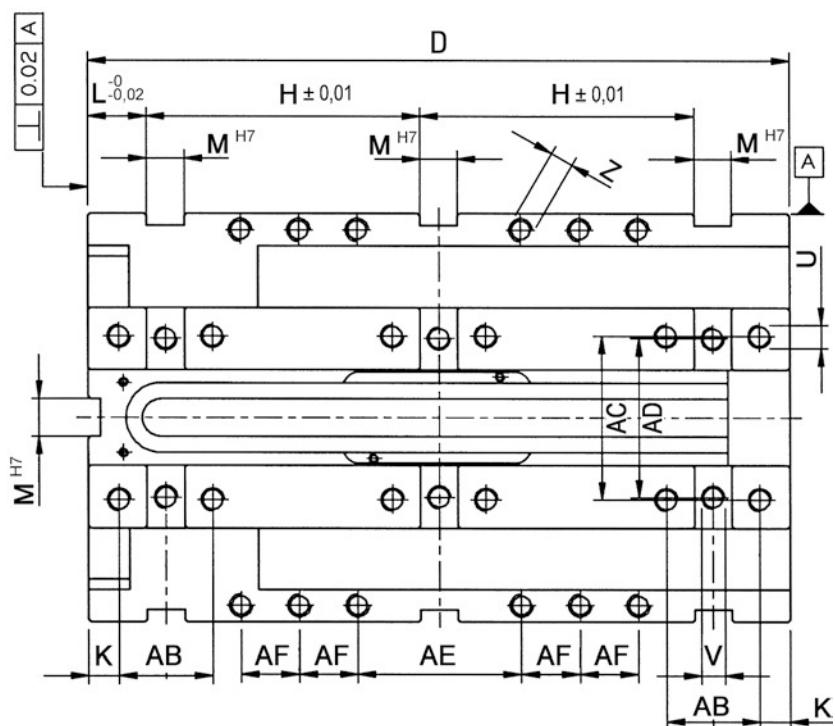
2

Art. 804

Corpo base cubo FMS. Disegni e tabella dimensionale
FMS cube base body. Drawing and table dimension

Cod. 5.80.41200 5.80.41300 5.80.42300 5.80.42400

	200	300	300	400
D	200	300	300	400
F		140		175
H	71	121	117	167
I		10		13
J		10		12
K		13		13
L		21		25
M		16		16
N		45		53
O		35		41
P		M10		M12
Q		11		13
R		-		100
S		-		40
T		-		120
U		M8		M10
V		M8		M10
Z		M10		M10
X		75		95
Y		70		85
AB		32		40
AC		56		70
AD		56		68
AE	50	70		70
AF	10	25		50
AG		49		62
AH		41		53



2

3

4

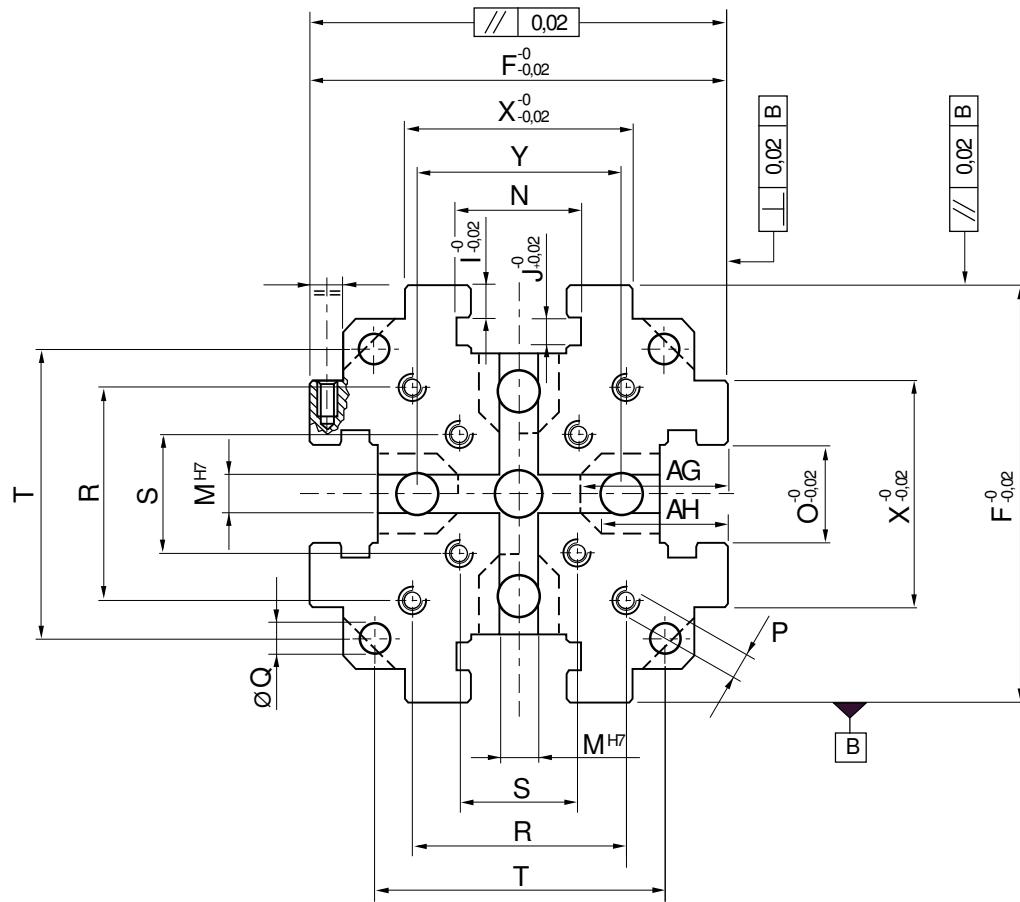
5

6

5.80.42500 5.80.42600 5.80.43400 5.80.43500 5.80.43600 5.80.43700 5.80.43800 5.80.44500 5.80.44600 5.80.44700 5.80.44800 5.80.45600 5.80.45700 5.80.45800 5.80.46800 5.80.46900 5.80.46100

500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
175				210					245			280				290
217	267	157	207	257	307	357	200	250	300	350	235	285	335	345	395	445
13				13					20			20			20	
12				12					18			18			18	
13				18					20			21			21	
25				35					42			47			47	
16				16					16			16			16	
53				76					86			96			110	
41				61					71			82			94	
M12				M12					M16			M16			M20	
13				13					13			17			17	
100				120					150			150			150	
40				40					40			50			50	
120				150					170			210			210	
M10				M12					M16			M16			M20	
M10				M12					M12			M12			M12	
M10				M10					M10			M10			M10	
95				125					145			170			190	
85				110					125			140			130	
40				50					60			68			68	
70				92					108			126			144	
68				92					106			126			144	
70				100					100			100			125	
50				50					50			50			50	
62				62					80			95			105	
53				72					70			82			95	

5



Tipo (grandezza) morsa / Vise type (size)

1 2

Larghezza base / Base lenght

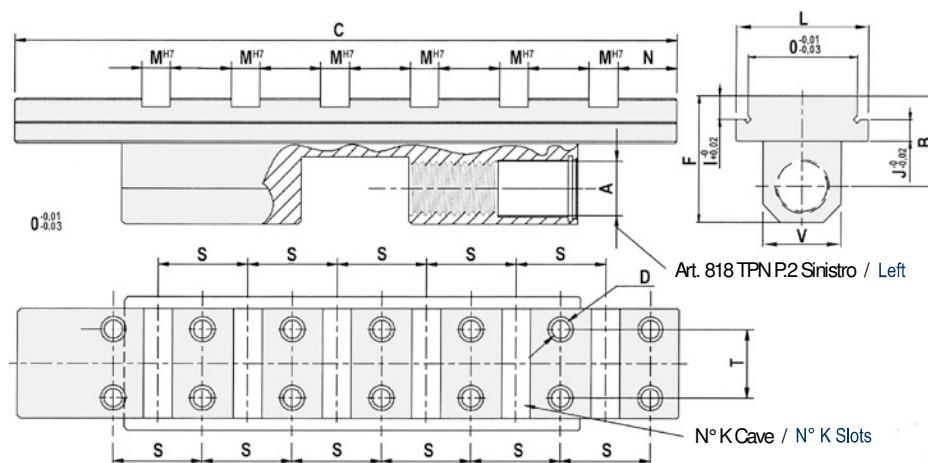
200 300 300 400

Art. 818

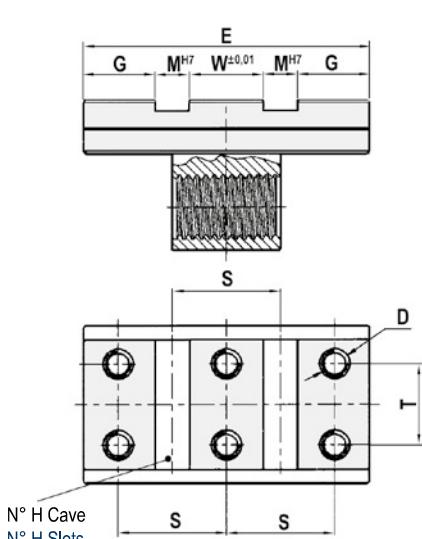
Slitta integrale lunga / Solid long slide



Cod. 5.81.81200 5.81.81300 5.81.82300 5.81.82400



A	18		24	
A1	18		18	
A2	24		24	
B	35		45	
C	170	264	256	356
D	M8		M10	
E	72	116	102	142
F	48,5		61,5	
G	15	18	23	
H	2	3	2	3
I	10		13	
J	10		12	
K	-	-	5	7
L	44		51	
M	16		16	
N	20		23	
O	35		41	
S	26	32	40	
T	20		25	
V	27		33	
W	10	16	24	

**Art. 829A**

Slitta con jetto sinistro / Slide Right Hand



Cod. 5.82.9A120 5.82.9A130 5.82.9A230 5.82.9A240

Art. 830

Slitta con jetto destro / Slide Left Hand



Cod. 5.83.01200 5.83.01300 5.83.02300 5.83.02400

2	3					4				5			6			
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
581.82500	581.82600	581.83400	581.83500	581.83600	581.83700	581.83800	581.84500	581.84600	581.84700	581.84800	581.85600	581.85700	581.85800	581.86800	581.86900	581.86100

24	30					30				36			36			
18	24					24				30			30			
24	30					30				36			36			
45	50					60				70			80			
456	556	346	446	546	646	746	435	535	635	735	525	625	725	725	825	925
M10		M12					M16				M16			M20		
182	222	132	182	232	282	332	156	216	276	336	174	242	310	242	310	378
61,5		71					80				95			106		
23		33					40				45			45		
4	5	2	3	4	5	6	2	3	4	5	2	3	4	3	4	5
13		13					20				20			20		
12		12					18				18			18		
9		5					5				6			9		
51		74					84				95			108		
16		16					16				16			16		
23		33					40				45			45		
41		61					71				82			94		
40		50					60				68			68		
25		38					44				44			54		
33		43					43				51			48		
24		34					44				52			52		

582.9A250	582.9A260	582.9A340	582.9A350	582.9A360	5.82.9A370	5.82.9A380	5.82.9A450	582.9A460	582.9A470	582.9A480	582.9A560	582.9A570	582.9A580	582.9A680	5.82.9A690	5.82.9A610

5.83.02500	5.83.02600	5.83.03400	5.83.03500	5.83.03600	5.83.03700	5.83.03800	5.83.04500	5.83.04600	5.83.04700	5.83.04800	5.83.05600	5.83.05700	5.83.05800	5.83.06800	5.83.06900	5.83.06100

Tipo (grandezza) morsa / Vise type (size)

1 2

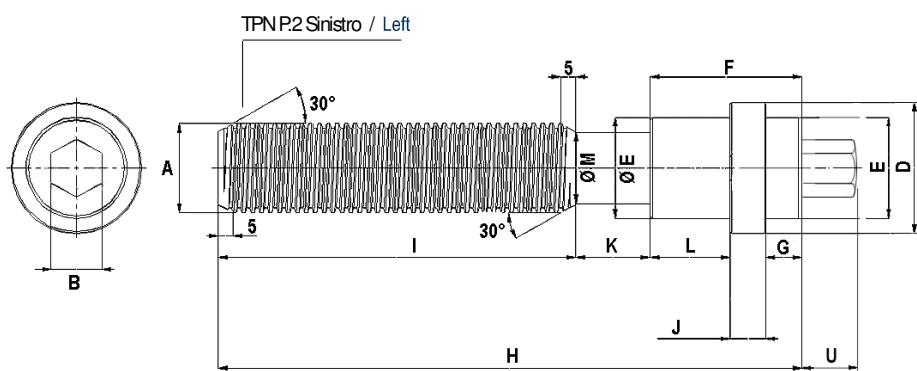
Larghezza base / Base lenght

200 300 300 400

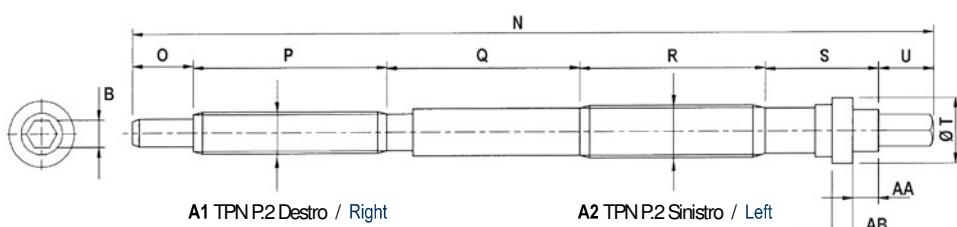
Cod. 5.82.11300 5.82.12600

Art. 821

Vite di bloccaggio con filetto sinistro / Main screw left thread



A	18	24
A1	18	18
A2	20	24
B	12	16
D	35	35
E	20	25
F	82	33
G	13	12
H	152	135
I	65	90
J	14	12
K	5	12
L	55	9
M	14	19
N	241	332
O	12	17
P	65	84
Q	32	66
R	68	85
S	44	6
T	32	32
U	12 esagono femmina female exagon	15
AA	10	10
AB	10	10



Art. 822

Vite di bloccaggio con filetto destro e sinistro
Main screw right and left threadViti con esagono maschio o femmina a seconda delle dimensioni
Screw available with external or internal hexagon

Cod. 5.82.21200 5.82.21300 5.82.22300 5.82.22400

2	3				4				5				6			
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
5.82.12600	5.82.14800				5.82.14800				5.82.16100				5.82.16100			

24	30				30				36				36				
18	24				24				30				30				
24	30				30				36				36				
16	19				19				19				19				
35	45				45				48				48				
25	30				30				30				30				
33	42				42				115				115				
12	16				16				15				15				
135	136				186				225				225				
90	118				118				135				135				
12	15				15				20				20				
12	26				26				55				55				
9	11				11				80				80				
19	24				24				30				30				
500	600	414	499	599	699	822	499	599	699	797	610	700	790	790	881	961	
52	52	25	35	54	87	121	35	54	87	121	47	71	101	101	81	100	
116	151	123	123	140	124	118	123	140	124	118	176	158	140	140	205	187	
134	164	82	132	160	226	282	132	160	226	282	124	192	256	256	245	308	
116	136	118	118	140	124	118	118	140	124	118	176	158	140	140	205	187	
62	77	41	66	80	113	136	66	80	113	136	62	96	128	128	120	154	
32		38				38				45				45			
20		25				25				25				25			
10		15				15				22				22			
10		12				12				15				15			

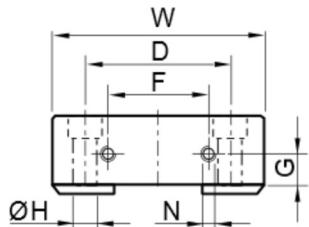
5.82.22500 5.82.22600 5.82.23400 5.82.23500 5.82.23600 5.82.23700 5.82.23800 5.82.23500 5.82.23600 5.82.23700 5.82.2800 5.82.25600 5.82.25700 5.82.25800 5.82.25800 5.82.26900 5.82.26100

GANASCE FISSE PER MORSE FMS

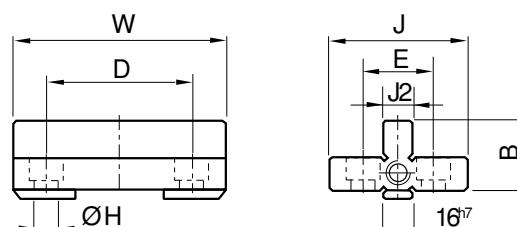
FIXED JAWS FOR FMS VISES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6	
Art. 805 Ganascia zigrinata da un lato Fixed jaw one side serrated		Cod. 5.80.51000	5.80.52000	5.80.53000	5.80.54000	5.80.55000	5.80.56000
Art. 805A Ganascia zigrinata da entrambi i lati Smooth jaw		Cod. 5.80.5A100	5.80.5A200	5.80.5A300	5.80.5A400	5.80.5A500	5.80.5A600
Art. 805B Ganascia zigrinata dolce Soft jaw		Cod. 5.80.5B100	5.80.5B200	5.80.5B300	5.80.5B400	5.80.5B500	5.80.5B600
Art. 805C Ganascia zigrinata da ambo i lati Fixed jaw serrated on both sides		Cod. 5.80.5C100	5.80.5C200	5.80.5C300	5.80.5C400	5.80.5C500	5.80.5C600
Art. 870A NEW!		Cod. 5.87.01000	5.87.02000	5.87.03000	5.87.04000	5.87.05000	5.87.06000

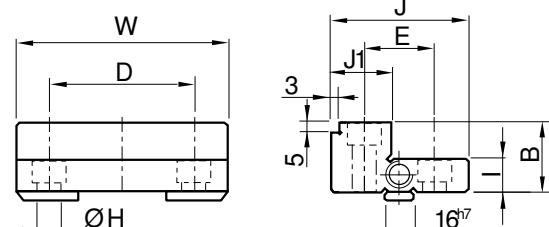
Art. 805 (Montata su Art. 860)
(Assembled on Art. 860)



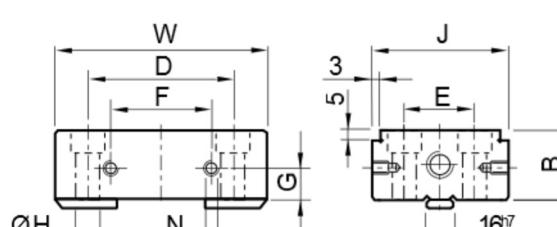
Art. 805N (Montata su Art. 863)
(Assembled on Art. 863)



Art. 805O Ganascia zigrinata con gradino piccolo e grande
Fixed jaw with small and large step



Art. 805F (Montata su Art. 866)
(Assembled on Art. 866)



Tipo (grandezza) morsa / Vise (type) size

mm	1	2	3	4	5	6	Tolleranze / Tolerance
W	74	94	124	144	169	189	-
J	56	64	84	98	108	108	-0,02
J1	24	24	30	38	38	38	
J2	16	16	16	16	16	16	
B	25	30	40	50	60	60	-0,02
D	56	70	92	108	126	144	-
E	32	40	50	60	68	68	-
F	40	50	65	65	65	100	-
G	10	10	15	20	25	25	-
H	9	11	13	17	17	22	-
I	12,5	15	20	25	30	30	-0,02
N	M5	M6	M6	M6	M6	M6	-

Tipo (grandezza) / Type (size)		1	2	3	4	5	6
Art. 805D		Cod. 5.80.5D100	5.80.5D200	5.80.5D300	5.80.5D400	5.80.5D500	5.80.5D600
Ganascia jssa con gradino 3x5 zigrinata da un lato Fixed jaw with 3x5 step serrated							
Art. 805E		Cod. 5.80.5E100	5.80.5E200	5.80.5E300	5.80.5E400	5.80.5E500	5.80.5E600
Ganascia jssa con gradino 3x5 liscia Fixed jaw with 3x5 step smooth							
Art. 805F		Cod. 5.80.5F100	5.80.5F200	5.80.5F300	5.80.5F400	5.80.5F500	5.80.5F600
Ganascia jssa con doppio gradino 3x5 liscia Fixed jaw with double 3x5 step smooth							
Art. 805G		Cod. 5.80.5G100	5.80.5G200	5.80.5G300	5.80.5G400	5.80.5G500	5.80.5G600
Ganascia jssa con doppio gradino 3x5 zigrinata Fixed jaw with double 3x5 step serrated							
Art. 805H		Cod. 5.80.5H100	5.80.5H200	5.80.5H300	5.80.5H400	5.80.5H500	5.80.5H600
Ganascia jssa con prisma verticale Fixed jaw with vertical prism							
Art. 805I		Cod. 5.80.5I100	5.80.5I200	5.80.5I300	5.80.5I400	5.80.5I500	5.80.5I600
Ganascia jssa con doppio prisma verticale Fixed jaw with double vertical prism							
Art. 805J		Cod. 5.80.5J100	5.80.5J200	5.80.5J300	5.80.5J400	5.80.5J500	5.80.5J600
Ganascia jssa con prisma orizzontale Fixed jaw with horizontal prism							
Art. 805K		Cod. 5.80.5K100	5.80.5K200	5.80.5K300	5.80.5K400	5.80.5K500	5.80.5K600
Ganascia jssa con doppio prisma orizzontale Fixed jaw with double horizontal prism							
Art. 805L		Cod. 5.80.5L100	5.80.5L200	5.80.5L300	5.80.5L400	5.80.5L500	5.80.5L600
Ganascia jssa con gradino Step jxed jaw							
Art. 805M		Cod. 5.80.5M100	5.80.5M200	5.80.5M300	5.80.5M400	5.80.5M500	5.80.5M600
Ganascia jssa con gradino zigrinata da un lato Step jxed jaw one side serrated							
Art. 805N		Cod. 5.80.5N100	5.80.5N200	5.80.5N300	5.80.5N400	5.80.5N500	5.80.5N600
Ganascia jssa con doppio gradino Fixed jaw with double step							
Art. 805O		Cod. 5.80.5O100	5.80.5O200	5.80.5O300	5.80.5O400	5.80.5O500	5.80.5O600
Ganascia jssa con gradino piccolo e grande liscia da un lato Fixed jaw with small and large step on side smooth							
Art. 805P		Cod. 5.80.5P100	5.80.5P200	5.80.5P300	5.80.5P400	5.80.5P500	5.80.5P600
Ganascia jssa con gradino piccolo e grande zigrin. da un lato Fixed jaw with small and large step one side serrated							
Art. 805Q		Cod. 5.80.5Q100	5.80.5Q200	5.80.5Q300	5.80.5Q400	5.80.5Q500	5.80.5Q600
Ganascia jssa doppia con gradino piccolo e grande Double jxed jaw with small and large step							
Art. 805R		Cod. 5.80.5R100	5.80.5R200	5.80.5R300	5.80.5R400	5.80.5R500	5.80.5R600
Ganascia jssa in alluminio Fixed jaw aluminium							
Art. 805T		Cod. 5.80.5T100	5.80.5T200	5.80.5T300	5.80.5T400	5.80.5T500	5.80.5T600
Ganascia jssa doppia GRIP per forti serraggi GRIP Double jxed jaw for strongest clamping							
Art. 805DT		Cod. 5.80.5DT10	5.80.5DT20	5.80.5DT30	5.80.5DT40	5.80.5DT50	5.80.5DT60
Ganascia jssa a coda di rondine Dove tail jxed jaw							

Richiedere scheda tecnica - Technical data sheet on request

GANASCE MOBILI PER MORSE FMS MOVABLE JAWS FOR FMS VISES

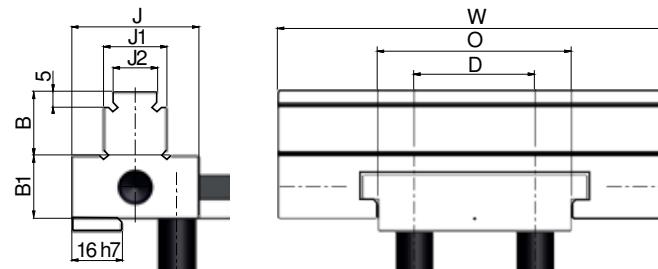
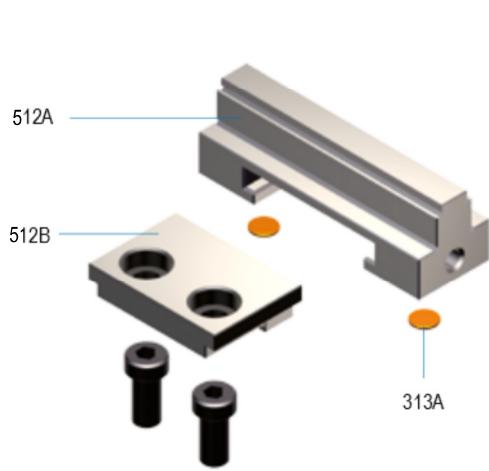
Tipo (grandezza) / Type (size)	1	2	3	4	5	6	
Art. 810 Ganascia mobile zigrinata da un lato Movable jaw one side serrated		Cod. 5.81.01000	5.81.02000	5.81.03000	5.81.04000	5.81.05000	5.81.06000
Art. 810A Ganascia mobile liscia Smooth movable jaw		Cod. 5.81.0A100	5.81.0A200	5.81.0A300	5.81.0A400	5.81.0A500	5.81.0A600
Art. 810B Ganascia mobile dolce Soft movable jaw		Cod. 5.81.0B100	5.81.0B200	5.81.0B300	5.81.0B400	5.81.0B500	5.81.0B600
Art. 810D Ganascia mobile con gradino 3x5 zigrinata da un lato Movable jaw with 3x5 step on side serrated		Cod. 5.81.0D100	5.81.0D200	5.81.0D300	5.81.0D400	5.81.0D500	5.81.0D600
Art. 814 Base mobile per ganasce Movable base for jaws		Cod. 5.81.41000	5.81.42000	5.81.43000	5.81.44000	5.81.45000	5.81.46000

Predisposizione per tutte le ganasce FMS fisse - Fit all FMS fixed jaws

Art. 810 (Montata su Art. 860) / (Assembled on Art. 860)		Art. 8100 (Montabile su Art. 868) / (Optionally assembled on Art. 868)	
Art. 810J (Montata su Art. 870) / (Assembled on Art. 870)		Art. 814 Piastra base per ganasce mobili / Movable jaws base	

Tipo / Type	1 x 200	1 x 300	2	3	4	5	6	Tolleranze / Tolerance
W	74		94	124	144	169	189	-
WW	60		75	100	132	140	160	-
B	25		30	40	50	60	60	- 0,02
B4	60		80	90	110	120	160	- 0,02
D	20		25	38	44	44	54	-
E	26	32	40	50	60	68	68	-
F	40		50	65	65	65	100	-
G	10		10	15	20	25	25	-
H	9		11	13	17	17	22	-
I	12,5		15	20	25	30	30	- 0,02
J	56		64	82	98	108	108	- 0,02
J1	24		24	30	38	38	38	- 0,02
J3	76	76	104	134	158	169	189	-
J4	55		63	83	97	106	107	-
N	M5		M6	M6	M6	M6	M6	-
Ø O	10 / 15		20 / 30	25 / 30	20 / 60	35 / 70	40 / 80	-
Ø P	10 / 25		20 / 50	40 / 100	45 / 150	63 / 200	73 / 100	-

Tipo (grandezza) / Type (size)		1	2	3	4	5	6
Art. 810E		Cod. 5.81.0E100	5.81.0E200	5.81.0E300	5.81.0E400	5.81.0E500	5.81.0E600
Ganascia mobile con gradino 3x5 liscia Movable jaw with 3x5 step smooth							
Art. 810J		Cod. 5.81.0J100	5.81.0J200	5.81.0J300	5.81.0J400	5.81.0J500	5.81.0J600
Ganascia mobile prismatica per tondi liscia Prismatic movable jaw for round parts smooth							
Art. 810K		Cod. 5.81.0K100	5.81.0K200	5.81.0K300	5.81.0K400	5.81.0K500	5.81.0K600
Ganascia mobile prismatica per tondi zigrinata Prismatic movable jaw for round parts serrated							
Art. 810L		Cod. 5.81.0L100	5.81.0L200	5.81.0L300	5.81.0L400	5.81.0L500	5.81.0L600
Ganascia mobile con gradino Step movable jaw							
Art. 810M		Cod. 5.81.0M100	5.81.0M200	5.81.0M300	5.81.0M400	5.81.0M500	5.81.0M600
Ganascia mobile con gradino zigrinata da un lato Step movable jaw one side serrated							
Art. 8100		Cod. 5.81.00100	5.81.00200	5.81.00300	5.81.00400	5.81.00500	5.81.00600
Ganascia mobile con gradino piccolo e grande Movable jaw with small and large step							
Art. 810P		Cod. 5.81.0P100	5.81.0P200	5.81.0P300	5.81.0P400	5.81.0P500	5.81.0P600
Ganascia mobile con gradino piccolo e grande zigrin. da un lato Movable jaw with small and large step one side serrated							
Art. 810R		Cod. 5.81.0R100	5.81.0R200	5.81.0R300	5.81.0R400	5.81.0R500	5.81.0R600
Ganascia mobile in alluminio Movable jaw aluminium							
Art. 810T		Cod. 5.81.0T100	5.81.0T200	5.81.0T300	5.81.0T400	5.81.0T500	5.81.0T600
Ganascia mobile GRIP per forti serraggi GRIP movable jaw for strongest clamping							
Art. 810DT NEW!		Cod. 5.81.0DT10	5.81.0DT20	5.81.0DT30	5.81.0DT40	5.81.0DT50	5.81.0DT60
Ganascia mobile a coda di rondine Dove tail movable jaw							
Richiedere scheda tecnica - Technical data sheet on request							
Art. 810V		Cod. 5.81.0V100	5.81.0V200	5.81.0V300	5.81.0V400	5.81.0V500	5.81.0V600
Ganascia mobile con segmenti oscillanti Movable jaw with floating inserts							
Art. 512		Cod. 5.51.21000	5.51.22000	5.51.23000	5.51.24000	5.51.25000	5.51.26000
Ganascia intermedia Intermediate Jaw							



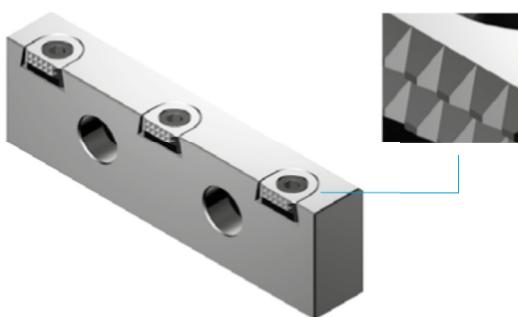
Tipo Type	1	2	3	4	5	6
W	74	94	124	144	169	189
J	25	35	40	40	50	50
J1	15	15	20	20	30	30
J2	9	9	14	14	19	19
B/B1	12,5	15	20	25	30	30
D	20	25	38	44	44	54
O	34	40	60	70	81	93

Vedi esempio applicativo - See application example: Pag. 5.15

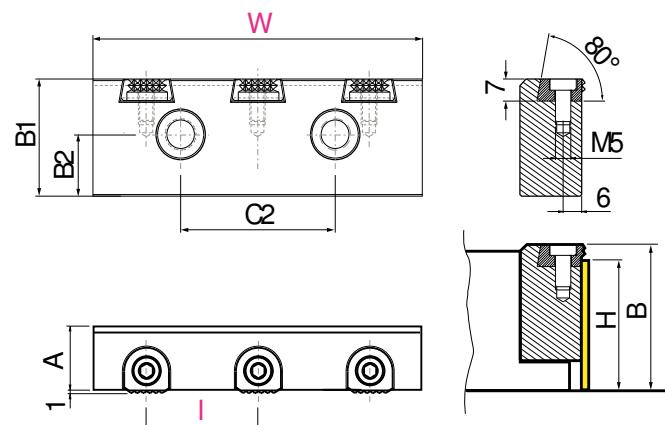
PIASTRE GANASCE PIANE CON INSERTI GRIP PER MORSE FMS

STRAIGHT INSERT GRIP JAW PLATES FOR FMS VISES

NEW!



Art. 547G

Piastra Piana con inserti GRIP per morse FMS
FMS vises Straight plate with GRIP inserts

Tipo / Type	1	2	3	4	5	6
W	74	94	124	144	169	189
I	25	32	23,5	29,5	23,5	27
C2	40	50	65	65	65	100
B	25	30	40	50	60	60
B1	25	30	40	50	60	60
B2	10	10	15	20	25	25
A	14	20	24	24	29	35
H	20	25	35	45	55	55
Cod.	5.54.7G100	5.54.7G200	5.54.7G300	5.54.7G400	5.54.7G500	5.54.7G600



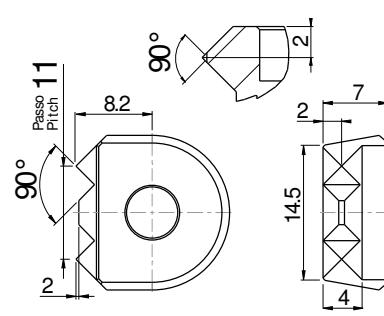
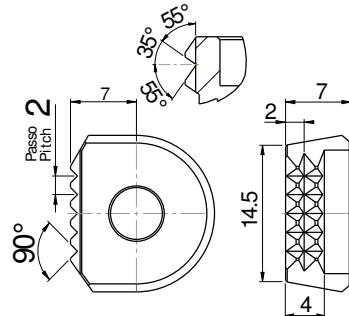
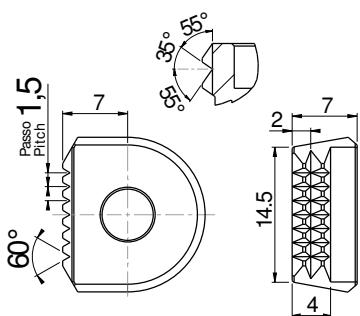
Art. 220 G01

Per materiali di durezza normale
For standard workpieces hardness clamping

Art. 220 G02

Per materiali di notevole durezza.
For hardened workpieces clamping

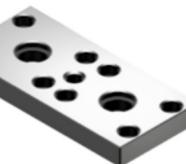
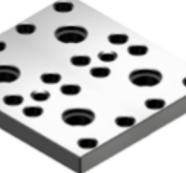
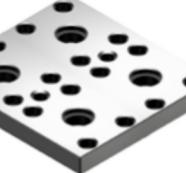
Art. 220 G11

Per materiali teneri
For soft material clamping

Tipo / Type	1	2	3	4	5	6
Art.547G	3 pcs each	3 pcs each	5 pcs each	5 pcs each	7 pcs each	7 pcs each

PIASTRE PER MORSE FMS

PLATES FOR FMS VISES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 823 Piastra intermedia per Art. 855 Middle plate for Art. 855						
						
	Cod. 5.82.31000	5.82.32000	5.82.33000	5.82.34000	5.82.35000	5.82.36000
Art. 823B Piastra intermedia per Art. 800 Middle plate for Art. 800						
						
	Cod. 5.82.3B100	5.82.3B200	5.82.3B300	5.82.3B400	5.82.3B500	5.82.3B600
Art. 825 Piastra di contenimento vite per morsa FMS per Art. 855 Screw holding plate for FMS vise for Art. 855						
						
	Cod. 5.82.51000	5.82.52000	5.82.53000	5.82.54000	5.82.55000	5.82.56000
Art. 825B Piastra di contenimento vite per morsa FMS per Art. 800 Screw holding plate for FMS vise for Art. 800						
						
	Cod. 5.82.5B100	5.82.5B200	5.82.5B300	5.82.5B400	5.82.5B500	5.82.5B600
Art. 825C Piastra di contenimento vite per morsa FMS per Art. 855W Screw holding plate for FMS vise for Art. 855W						
						
	Cod. 5.82.5C100	5.82.5C200	5.82.5C300	5.82.5C400	5.82.5C500	5.82.5C600
Art. 831 Piastra di collegamento per 2 morse FMS montate verticalmente dorso a dorso o zanco a zanco Connecting plate for 2 FMS vises vertically mounted back-to-back or side by side						
						
	Cod. 5.83.11000	5.83.12000	5.83.13000	5.83.14000	5.83.15000	5.83.16000
Art. 832 Piastra di collegamento per 4 morse FMS montate verticalmente dorso a dorso o zanco a zanco Connecting plate for 4 FMS vises vertically mounted back-to-back or side by side						
						
	Cod. 5.83.21000	5.83.22000	5.83.23000	5.83.24000	5.83.25000	5.83.26000
Art. 833 Piastra di collegamento personalizzata per 2 morse FMS Connecting plate for 2 FMS vises tailor made						
						
	Cod. 5.83.31000	5.83.32000	5.83.33000	5.83.34000	5.83.35000	5.83.36000
Art. 834 Piastra di collegamento personalizzata per 4 morse FMS Connecting plate for 4 FMS vises tailor made						
						
	Cod. 5.83.41000	5.83.42000	5.83.43000	5.83.44000	5.83.45000	5.83.46000

PIASTRE BASE PER MORSE FMS BASE PLATES FOR FMS VISES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6	7
Art. 827 Piastra base per una o più morse Head plate for one or more vises	C 33 H 300 Kg 22 Cod. 5.82.71000	C 33 H 350 Kg 30 Cod. 5.82.72000	C 38 H 400 Kg 44 Cod. 5.82.73000	C 38 H 450 Kg 56 Cod. 5.82.74000	C 38 H 500 Kg 71 Cod. 5.82.75000	C 38 H 630 Kg 113 Cod. 5.82.76000	C 38 H 800 Kg 182 Cod. 5.82.77000
Art. 827A Piastra base personalizzata per una o più morse Bussola di centraggio Art. 852 compresa Tailor made head plate for one or more vises Centering bushing Art. 852 included	Kg 21,5 Cod. 5.82.7A100	Kg 29,5 Cod. 5.82.7A200	Kg 43,5 Cod. 5.82.7A300	Kg 55 Cod. 5.82.7A400	Kg 70 Cod. 5.82.7A500	Kg 112 Cod. 5.82.7A600	Kg 181 Cod. 5.82.7A700
Art. 828 Piastra base per cubo morso Head plate for vise tower	Kg 22,5 Cod. 5.82.81000	Kg 30,5 Cod. 5.82.82000	Kg 45 Cod. 5.82.83000	Kg 57 Cod. 5.82.84000	Kg 72 Cod. 5.82.85000	Kg 114 Cod. 5.82.86000	Kg 183 Cod. 5.82.87000
Art. 828A Piastra base personalizzata per cubo morso Bussola di centraggio Art. 852 compresa Tailor made head plate for vise tower Centering bushing Art. 852 included	Kg 22 Cod. 5.82.8A100	Kg 30 Cod. 5.82.8A200	Kg 44,5 Cod. 5.82.8A300	Kg 56,5 Cod. 5.82.8A400	Kg 71 Cod. 5.82.8A500	Kg 113 Cod. 5.82.8A600	Kg 182 Cod. 5.82.8A700
Tipo (grandezza) / Type (size)	1	2	3	4	5	6	
Art. 835 Distanziale quadrato per 4 morse FMS Square spacer for 4 FMS vises	A 75 Cod. 5.83.51000	A 95 Cod. 5.83.52000	A 125 Cod. 5.83.53000	A 145 Cod. 5.83.54000	A 170 Cod. 5.83.55000	A 190 Cod. 5.83.56000	
Art. 836 Supporto quadrato per 4 morse FMS Square support for 4 FMS vises	A 75 Cod. 5.83.61000	A 95 Cod. 5.83.62000	A 125 Cod. 5.83.63000	A 145 Cod. 5.83.64000	A 170 Cod. 5.83.65000	A 190 Cod. 5.83.66000	
Art. 837 Supporto esagonale per 6 morse FMS Exagon support for 6 FMS vises	B 200 C 132 D 76 ~ Cod. 5.83.71000	B 300 C 170 D 98 ~ Cod. 5.83.72000	B 400 C 220 D 127 ~ Cod. 5.83.73000	B 500 C 255 D 147 ~ Cod. 5.83.74000	B 600 C 300 D 173 ~ Cod. 5.83.75000	B 800 C 335 D 193 ~ Cod. 5.83.76000	
Art. 838 Distanziale esagonale per 6 morse FMS Exagon spacer for 6 FMS vises	C 132 D 76 ~ Cod. 5.83.81000	C 170 D 98 ~ Cod. 5.83.82000	C 220 D 127 ~ Cod. 5.83.83000	C 255 D 147 ~ Cod. 5.83.84000	C 300 D 173 ~ Cod. 5.83.85000	C 335 D 193 ~ Cod. 5.83.86000	
Art. 852 Bussola di centraggio per piastra base Centering bushing for base plate	Cod. 5.85.21000	Cod. 5.85.22000	Cod. 5.85.23000	Cod. 5.85.24000	Cod. 5.85.25000	Cod. 5.85.26000	
Art. 853 Centraggio orizzontale per cubo FMS Horizontal centering for FMS cube	Cod. 5.85.31000	Cod. 5.85.32000	Cod. 5.85.33000	Cod. 5.85.34000	Cod. 5.85.35000	Cod. 5.85.36000	

Tipo (grandezza) / Type (size)

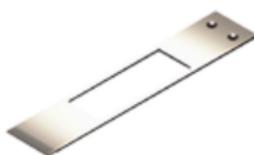
1 2 3 4 5 6

Art. 825A

 Ghiera per morse e cubi FMS
 Nut for FMS vises and cubes


Cod. 5.82.5A100 5.82.5A200 5.82.5A300 5.82.5A400 5.82.5A500 5.82.5A600

Art. 850B

 Riparo lato vite
 Protection side screw


Cod. 5.85.0B100 5.85.0B200 5.85.0B300 5.85.0B400 5.85.0B500 5.85.0B600

Art. 850C

 Riparo
 Protection

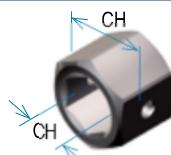

Cod. 5.85.0C100 5.85.0C200 5.85.0C300 5.85.0C400 5.85.0C500 5.85.0C600

Art. 850P

 Dispositivo "Terza Mano"
 "Third Hand" device


Cod. 5.85.0P100 5.85.0P200 5.85.0P300 5.85.0P400 5.85.0P500 5.85.0P600

Art. 850E

 Bussola esagonale per innesto automatico
 Hexagonal bushing for automatic connection


CH 12/22 14/24 19/30 19/30 27/40 27/40

Cod. 5.85.0E100 5.85.0E200 5.85.0E300 5.85.0E400 5.85.0E500 5.85.0E600

Art. 850T

 Distanziale per morsa solo autocentrante
 Spacer for Self-centering vise only


Cod. 5.85.0T100 5.85.0T200 5.85.0T300 5.85.0T400 5.85.0T500 5.85.0T600

Art. 850H

 Chiave esagonale per morsa FMS e cubo
 Hexagonal wrench for FMS vise and cube


Cod. 5.85.0H100 5.85.0H200 5.85.0H300 5.85.0H500

Art. 801S

 Piastra di collegamento slitte morsa
 Slides vise connecting plate


Cod. 5.80.1S100 5.80.1S200 5.80.1S300 5.80.1S400 5.80.1S600

RICAMBI PER MORSE Art.800 SPARE PARTS FOR VISES Art.800

Art. 800E

 Guarnizione per slitta integrale
 O ring for solid slide


Cod. 5.80.0E100 5.80.0E200 5.80.0E300 5.80.0E400 5.80.0E500 5.80.0E600

Art. 801G

 Grano di bloccaggio protezione centrale
 Setscrew for clamping central protection


Cod. 5.80.1G100 5.80.1G200 5.80.1G300 5.80.1G400 5.80.1G500 5.80.1G600

Art. 800I

 Vite tcei per piastra di contenimento
 Hex.socket head screw for screw holding plate


Cod. 5.80.0I100 5.80.0I200 5.80.0I300 5.80.0I400 5.80.0I500 5.80.0I600

Art. 801H

 Vite tcei per ganasce a gradino
 Hex.socket head screw for step jaws


Cod. 5.80.1H100 5.80.1H200 5.80.1H300 5.80.1H400 5.80.1H500 5.80.1H600

Art. 801I

 Vite tcei per ganasce
 Hex.socket head screw for jaws


Cod. 5.80.1I100 5.80.1I200 5.80.1I300 5.80.1I400 5.80.1I500 5.80.1I600

SERVOCOMANDI OLEODINAMICI PER MOTORI IDRAULICI ELECTRO-HYDRAULIC POWER PACK FOR HYDRAULIC MOTORS

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 566 Motore idraulico / Hydraulic motor	0MM32	OMP80	OMR200	OMR200	OMR200	OMR200
	bar		140			
	A mm	75	130	123	145	168
	B mm	70	100	104	119	139
	C mm	157	234	244	246	261
	Cod.	5.89.01000	5.89.02000	5.89.03000	5.89.04000	5.89.05000
						5.89.06000

Art. 890

Art. 566 + Art. 571 + Art. 891 + Art. 892

Motore idraulico completo di piastra d'interfaccia, boccola e fine corsa elettronico regolabile

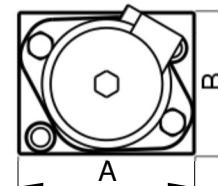
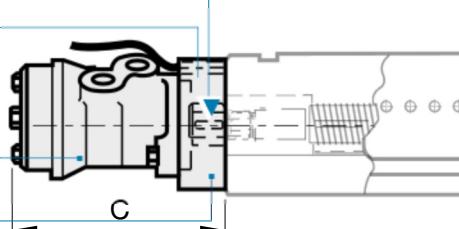
Hydraulic motor complete with connecting plate, bushing and adjustable electronic proximity switch

Art. 892

Art. 571

Art. 566

Art. 891

**Art. 891**

Piastra attacco motore idraulico / Hydraulic motor mounting plate

Art. 892

Boccola di trascinamento vite motore / Drive bushing screw-motor

Art. 566

Motore Idraulico / Hydraulic motor

Art. 571

Fine corsa elettronico / Electronic proximity switch

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
	bar	130	100	100	100	120
	l/min	5	10	20	20	20
	Cod.	5.89.0K101	5.89.0K201	5.89.0K301	5.89.0K401	5.89.0K501
						5.89.0K601

Art. 266B + Art. 890

Kit per automazione morse FMS

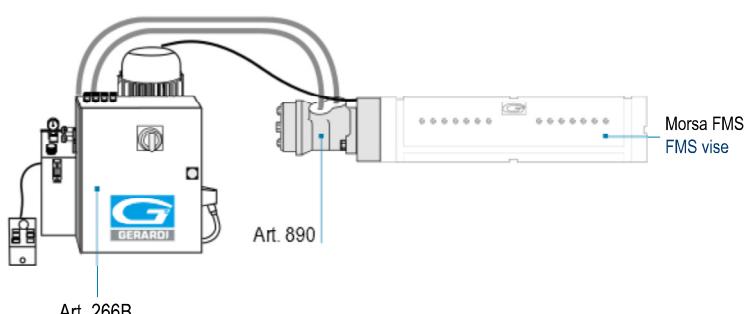
Kit for FMS vises automation.

COMPOSIZIONE COMPLETA DI:

- N° 1 servocomando Art. 890
- N° 1 centralina elettroidraulica Art. 266B/1
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea vedi pag. 5.79
- Regolazione forza di bloccaggio desiderata
- Fine corsa elettronico regolabile

COMPOSITION COMPLETE OF:

- N° 1 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/1
- Electrically controlled by manual switch board see pag. 5.79
- Adjustable clamping force as required
- Adjustable electronic proximity switch



DATI TECNICI:

Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (Vedi pag 5.65)

Per il diagramma forza di serraggio vedi pag. 5.72
Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65

For clamping forces diagram see pag. 5.72
Max operating pressure: 140 bar

Tubi e cavi di collegamento elettrici ed idraulici con massima lunghezza 1600 mm / Hydraulic pipes and electrical cables with max lenght 1600 mm

SERVOCOMANDI OLEODINAMICI PER MOTORI IDRAULICI ELECTRO-HYDRAULIC POWER PACK FOR HYDRAULIC MOTORS

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
bar	130	100	100	100	120	120
l/min	10	20	40	40	40	40
Cod.	5.89.0K102	5.89.0K202	5.89.0K302	5.89.0K402	5.89.0K502	5.89.0K602

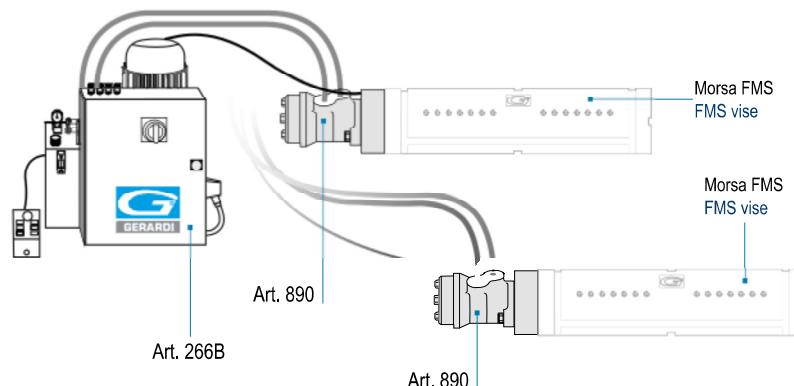
Art.890K/2

Art. 266B + 2 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

COMPOSIZIONE COMPLETA DI:

- N° 2 servocomandi Art. 890
- N° 1 centralina elettroidraulica Art. 266B/2
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
- Regolazione forza di bloccaggio desiderata
- Fine corsa elettronico regolabile



COMPOSITION COMPLETE OF:

- N° 2 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/2
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Adjustable electronic proximity switch

DATI TECNICI:

Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (Vedi pag 5.65)
Per il diagramma forza di serraggio vedi pag. 5.72
 Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.72
 Max operating pressure: 140 bar

Tubi e cavi di collegamento elettrici ed idraulici con massima lunghezza 1600 mm / Hydraulic pipes and electrical cables with max lenght 1600 mm

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
bar	130	100	100	100	120	120
l/min	15	30	60	60	60	60
Cod.	5.89.0K103	5.89.0K203	5.89.0K303	5.89.0K403	5.89.0K503	5.89.0K603

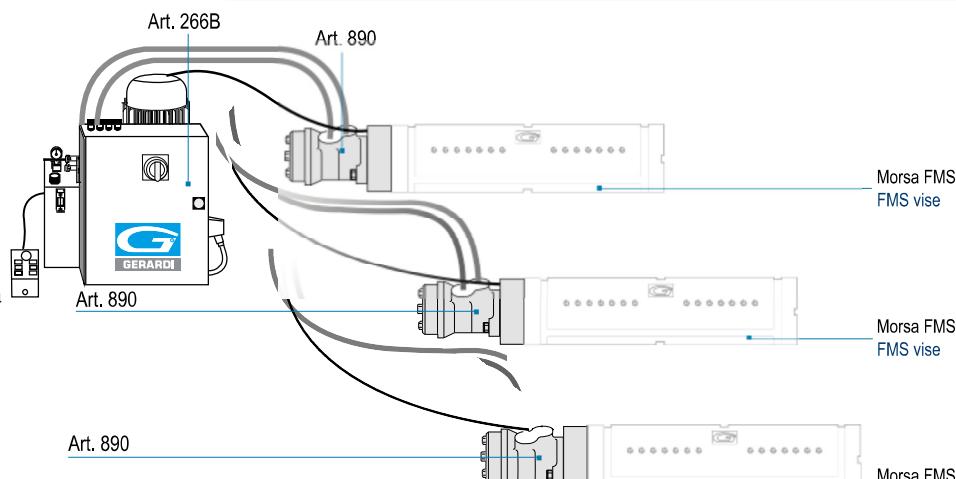
Art.890K/3

Art. 266B + 3 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

COMPOSIZIONE COMPLETA DI:

- N° 3 servocomandi Art. 890
- N° 1 centralina elettroidraulica Art. 266B/4
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
- Regolazione forza di bloccaggio desiderata
- Fine corsa elettronico regolabile



COMPOSITION COMPLETE OF:

- N° 3 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/4
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Adjustable electronic proximity switch

DATI TECNICI:

Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (Vedi pag 5.65)
Per il diagramma forza di serraggio vedi pag. 5.72
 Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.72
 Max operating pressure: 140 bar

Tubi e cavi di collegamento elettrici ed idraulici con massima lunghezza 1600 mm / Hydraulic pipes and electrical cables with max lenght 1600 mm

SERVOCOMANDI OLEODINAMICI PER MOTORI IDRAULICI ELECTRO-HYDRAULIC POWER PACK FOR HYDRAULIC MOTORS

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
bar	130	100	100	100	120	120
l/min	20	40	80	80	80	80
Cod.	5.89.0K104	5.89.0K204	5.89.0K304	5.89.0K404	5.89.0K504	5.89.0K604

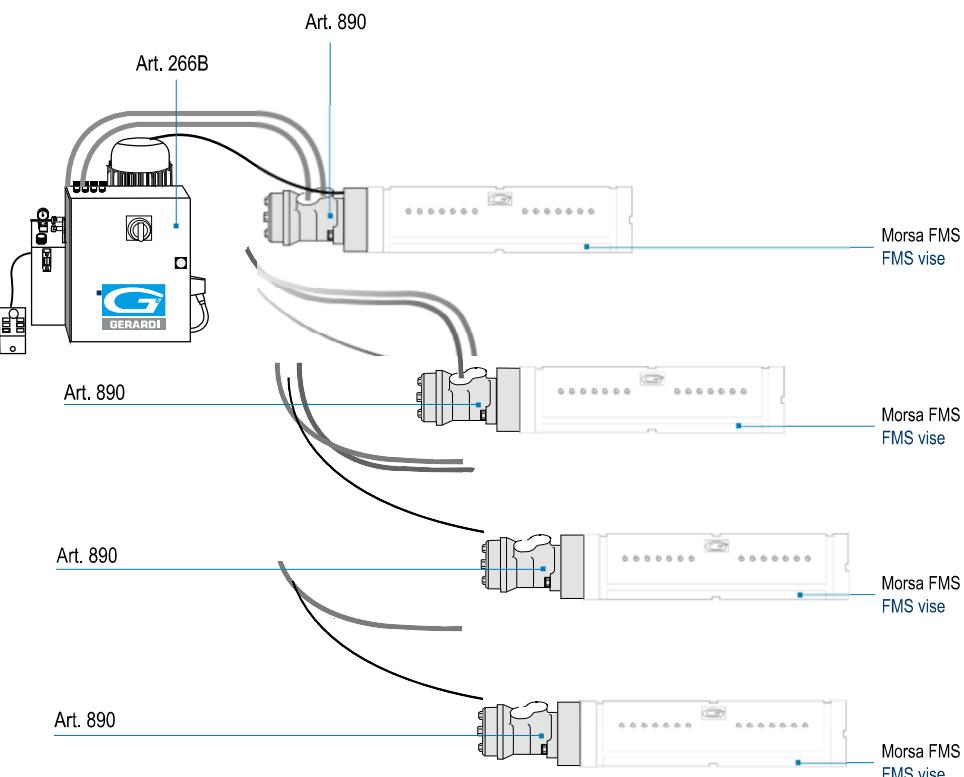
Art.890K/4

Art. 266B + 4 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

COMPOSIZIONE COMPLETA DI:

- N° 4 servocomandi Art. 890
- N° 1 centralina elettroidraulica Art. 266B/4
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
- Regolazione forza di bloccaggio desiderata
- Fine corsa elettronico regolabile



COMPOSITION COMPLETE OF:

- N° 4 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/4
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Adjustable electronic proximity switch

DATI TECNICI:

Velocità apertura-chiusura morsa da calcolarsi
in base al diagramma idromotore (Vedi pag 5.65)
Per il diagramma forza di serraggio vedi pag. 5.72
Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Opening and closing speed of vise to be calculated
from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.72
Max operating pressure: 140 bar



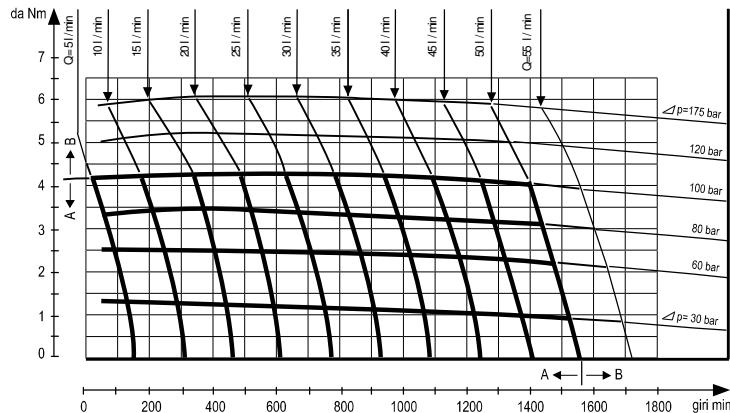
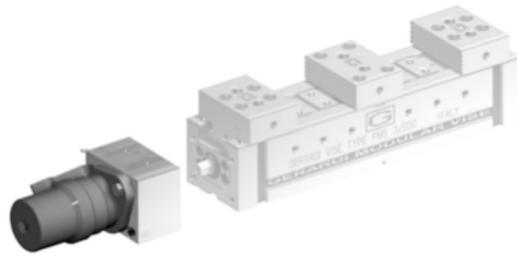
Tubi e cavi di collegamento elettrici ed idraulici con massima lunghezza 1600 mm / Hydraulic pipes and electrical cables with max lenght 1600 mm

GRAFICI MORSE FMS CON MOTORE IDRAULICO

DIAGRAMS OF FMS VISES WITH HYDRAULIC MOTORS

Art.890

(Art.890) Motore idraulico
(Art.890) Hydraulic motor

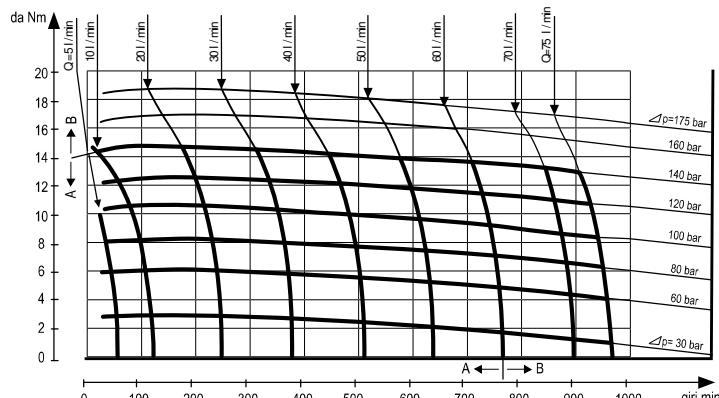
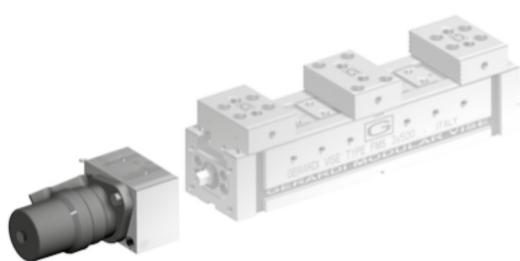


OMM 32

Morse FMS tipo 1 / Type 1 FMS vises

Art.890

(Art.890) Motore idraulico
(Art.890) Hydraulic motor

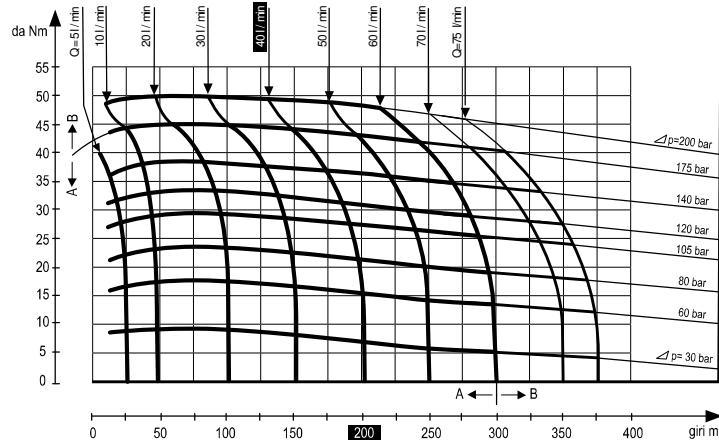
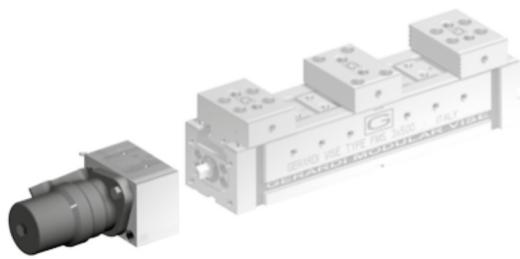


OMP 80

Morse FMS tipo 2 / Type 2 FMS vises

Art.890

(Art.890) Motore idraulico
(Art.890) Hydraulic motor



OMR 200

Morse FMS tipo 3 - 4 - 5 - 6 Type 3 - 4 - 5 - 6 FMS vises

VELOCITA' = Passo vite x giri/min (dati dalla portata di olio in l/min) - 25% circa per attriti e resistenze varie.

Esempio: Vite passo 2 mm; Giri 200/min (ipotizzando una portata olio di 40 l/min); $V = 2 \times 200 = 400 - 25\% = 300 \text{ mm/min}$ per una morsa.

Per più morsi dividere la velocità ottenuta per il numero delle morsi impiegate.

SPEED = Screw pitch x RPM (that you get from oil pump of 40 l/min) about - 25% for friction and other resistance.

Example: Screw pitch 2mm; RPM 200/min (taking in consideration oil pump of 40 l/min); $V = 2 \times 200 = 400 - 25\% = 300 \text{ mm/min}$ for one vise.

For more vises divide the speed obtained by the number of vises used.

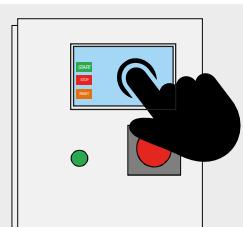
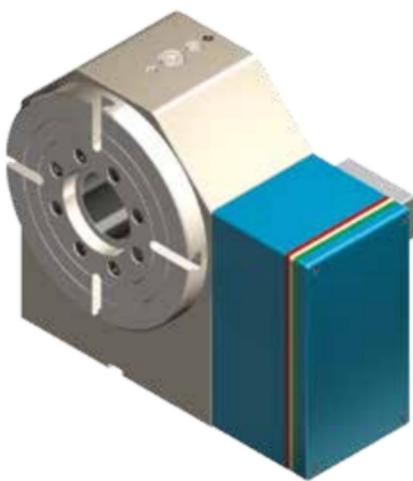
DIVISORE AUTOMATICO DPG 250

AUTOMATIC DIVIDING HEAD DPG 250

NEW!

Divisore automatico
Automatic dividing head

DPG 250



PROGRAMMAZIONE TOUCH SCREEN
FACILE ED INTUITIVA O TRAMITE COLLEGAMENTO
DIRETTO AL CNC

EASY AND INTUITIVE TOUCH SCREEN
PROGRAMMING OR THROUGH DIRECT
CONNECTION TO THE CNC

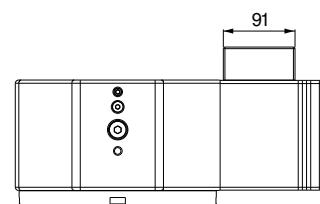
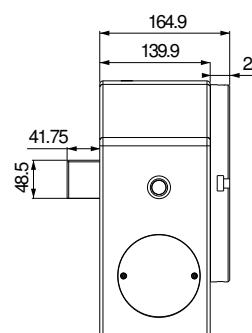
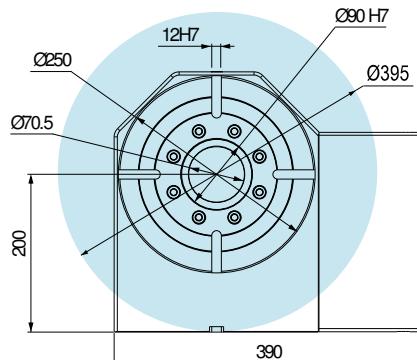
- Installazione semplice (alimentazione 220V)
 - Corona in bronzo speciale
 - Controsupporto semplice
 - Vite senza fine in acciaio temprato e retto inciso
 - Vite e corona in bagno d'olio
 - Cuscinetti a vite precaricati
 - Cuscinetto anteriore a rulli incrociati sovradimensionato
 - Recupero gioco con avvicinamento assiale
 - Completa tenuta stagna ai liquidi con possibilità di pressurizzazione
 - Possibilità di montare motori di tutte le marche
 - Dimensioni esterne contenute
 - Finestra di controlli liquidi e condensa
 - Lavorazione in posizionamento a 360°
-
- Easy installation (220V)
 - Special bronze crown
 - Simple tailstock
 - Worm screw in hardened ground steel
 - Bath lubrication Screw and Crown
 - Pre-loaded screw bearings
 - Over-dimensioned crossed-roller front bearing
 - Play recover with axial approach
 - Watertight seal with possibility of pressurization
 - Possibility to mount motors of all brands
 - Reduced external dimensions
 - Condensation and liquid control window
 - 360° work positioning

DATI TECNICI

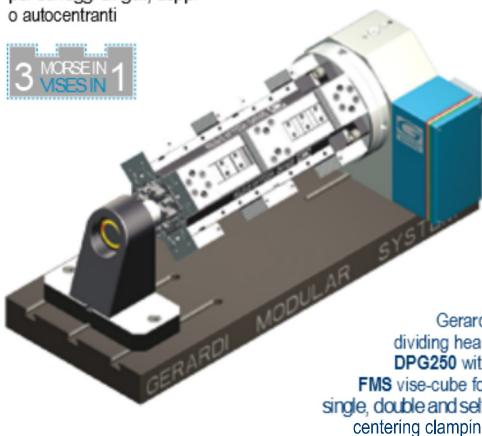
TECHNICAL DATA

Diametro del divisore Dividing head diameter	250 mm						
Diametro del foro passante Clearance hole diameter	70,5 mm						
Altezza punte Center height	200 mm						
Dimensione della scanalatura a T T-Slot width	12 mm						
Sistema di bloccaggio Clamping system	Idraulico Hydraulic						
Forza frenante Clamping torque	3000 Nm						
Motore Servo motor	3000 Max.g/min						
Minimo incremento Minimum increment	0,002						
Velocità di rotazione Rotation speed	33,3 Giri/min						
Rapporti vite/corona Speed reduction ratio (screw/gear)	1/90						
Rapporti vite/motore Speed reduction ratio (screw/motor)	1/180						
Precisione Indexing accuracy	±10 Sec.						
Ripetibilità Repeatability	4 Sec.						
Max. carico di lavoro sul divisore Max. allowable work weight on the dividing head	<table border="1"> <tr> <td>Verticale Vertical</td> <td></td> <td>Kg.550</td> </tr> <tr> <td>Orizzontale Horizontal</td> <td></td> <td>Kg.1500</td> </tr> </table>	Verticale Vertical		Kg.550	Orizzontale Horizontal		Kg.1500
Verticale Vertical		Kg.550					
Orizzontale Horizontal		Kg.1500					
Max. carico di spinta applicabile sul divisore Max. allowable tool load on the dividing head	<table border="1"> <tr> <td>N 25000</td> <td></td> </tr> <tr> <td>FxL Nm 1000</td> <td></td> </tr> <tr> <td>FxL Nm 2200</td> <td></td> </tr> </table>	N 25000		FxL Nm 1000		FxL Nm 2200	
N 25000							
FxL Nm 1000							
FxL Nm 2200							
Rapporti vite/corona Speed reduction ratio (screw/gear)	<table border="1"> <tr> <td>Verticale Vertical</td> <td></td> <td>10,5 Kg. m²</td> </tr> </table>	Verticale Vertical		10,5 Kg. m²			
Verticale Vertical		10,5 Kg. m²					
Coppia in lavoro Driving torque	<table border="1"> <tr> <td>Corona dentata Worm gear</td> <td></td> <td>698 Nm</td> </tr> </table>	Corona dentata Worm gear		698 Nm			
Corona dentata Worm gear		698 Nm					
Kg	110						
Cod.	8.DP.G2500						

DPG 250



Tipo (grandezza) morsa / Vise (type) size	kN	1		2				3			
		25 kN		25 kN		30 kN		700	800		
Divise Gerardi DPG250 con cubo-morsa FMS per serraggi singoli, doppi o autocentranti	D	200	300	300	400	500	600	400	500	600	700
	G1	120			175					210	
	W	74			94				124		
	kg	30	45	53	70	88	106	90	112	135	157
	Cod.	5.DP.G25000	5.DP.G25010	5.DP.G25020	5.DP.G25030	5.DP.G25040	5.DP.G25050	5.DP.G25060	5.DP.G25070	5.DP.G25080	5.DP.G25090
											5.DP.G25011


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI ! - UPGRADE YOUR APPLICATIONS THROUGH MODULAR ACCESSORIES !
Art. 99A


Cod.

5.99.A2000

Supporto
Support
Art. 99B


Cod.

5.99.B1000

5.99.B2000

5.99.B3000

Perno di centraggio orizzontale
Horizontal centering pin
Art. 99H


Cod.

5.99.H2000

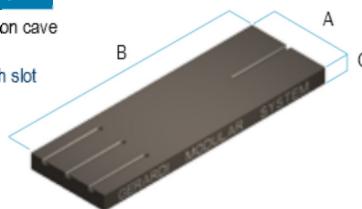
Distanziale
Spacer
**Art. 62
DPG 250**
Piastra di interfaccia DPG 250 per FMS
DPG 250 connecting plate for FMS

Cod.

5.62.804A05

5.62.804A06

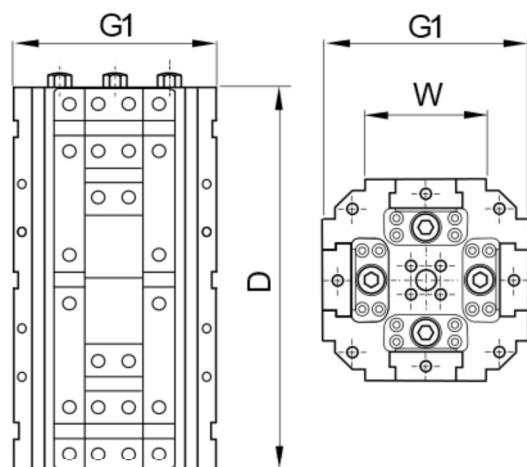
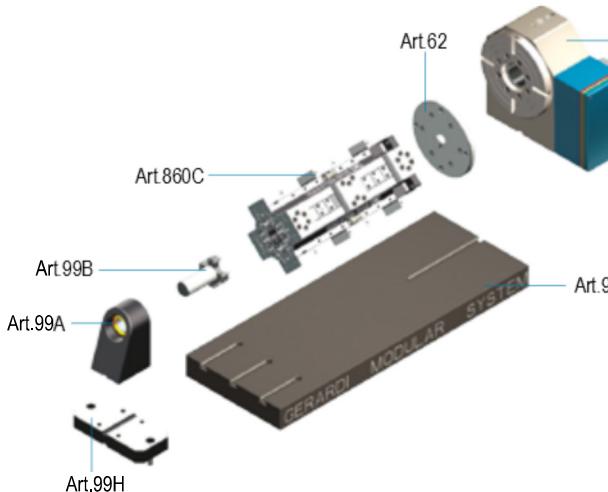
5.62.804A07

Art. 99S
Piastra base con cave
Piani rettificati
Base plate with slot
Faces ground

Dimensioni B mm / Dimension B mm	A	C	Kg	Cod.	€
650	400	50	102	1.99.S065S	
950	400	50	149	1.99.S095S	
1250	400	50	195	1.99.S125S	

Cave o fori calibrati su richiesta
Slot or calibrated holes on request

Disponibili quote "B" a step di 50mm - Available dimension "B" in steps of 50mm





DIVISORE MECCANICO DIVIGER 205

MECHANICAL DIVIDING HEAD DIVIGER 205

NEW!

Divisore meccanico
Mechanical dividing head

DATI TECNICI

TECHNICAL DATA



Diametro del divisore Dividing head diameter	220 mm
Diametro del foro passante Clearance hole diameter	85 mm
Altezza centrale Center height	200 mm
Dimensione della scanalatura a T T-Slot width	-
Sistema di bloccaggio Clamping system	Meccanico Mechanical
Minimo incremento Minimum increment	1°
Precisione Indexing accuracy	±10 Sec.
Coppia in lavoro Driving torque	3000 Nm
Kg	93
Cod.	7.66.73000

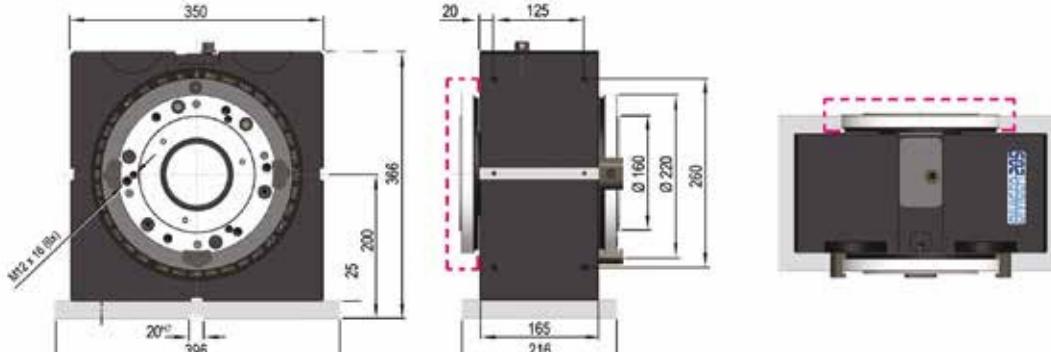
**DIVISORE MECCANICO, SENZA CAVI O IDRAULICA,
PER MACCHINE A CNC**

**MECHANICAL DIVIDING HEAD, WITHOUT ELECTRICAL CABLES OR
HYDRAULIC, FOR CNC MILLING MACHINE**

- Maggiore efficienza nella lavorazione su più lati
- Completamente autonomo dalla macchina
- Elevato momento torcente
- Divisione manuale o automatica tramite mandrino macchina
- 360 posizioni
- Serraggio simultaneo di due particolari grazie alla doppia Aṅga
- lavorazione su 5 facce senza contropunta
- Lavorazione a barra grazie al mandrino cavo
- Utilizzabile orizzontalmente o verticalmente
- Cambio tramite serraggio a cuneo
- Cost-effective on multiple-sides machining
- Machine independent
- High holding torque
- Dividing manually or automatically using the machine spindle
- 360 x 1° division
- Simultaneous clamping of 2 workpieces thanks to the dual Aṅga
- 5 faces machining without counter-holder
- Bar machining due to hollow spindle
- To be used horizontally or vertically
- Quick change through wedge clamping



DIVIGER 205



Tipo (grandezza) morsa / Vise (type) size	kN	1		2				3				
		25 kN		30 kN		25 kN		30 kN		25 kN		
Divisore Gerardi DIVIGER 205 con cubo-morsa FMS per serraggi singoli, doppi o autocentranti	D	200	300	300	400	500	600	400	500	600	700	800
	G1	120			175					210		
	W	74		94					124			
	kg	30	45	53	70	88	106	90	112	135	157	180
	Cod.	5.DIV20500	5.DIV20510	5.DIV20520	5.DIV20530	5.DIV20540	5.DIV20550	5.DIV20560	5.DIV20570	5.DIV20580	5.DIV20590	5.DIV20511
Gerardi DIVIGER 205 with FMS vise-cube for single, double and self-centering clamping												

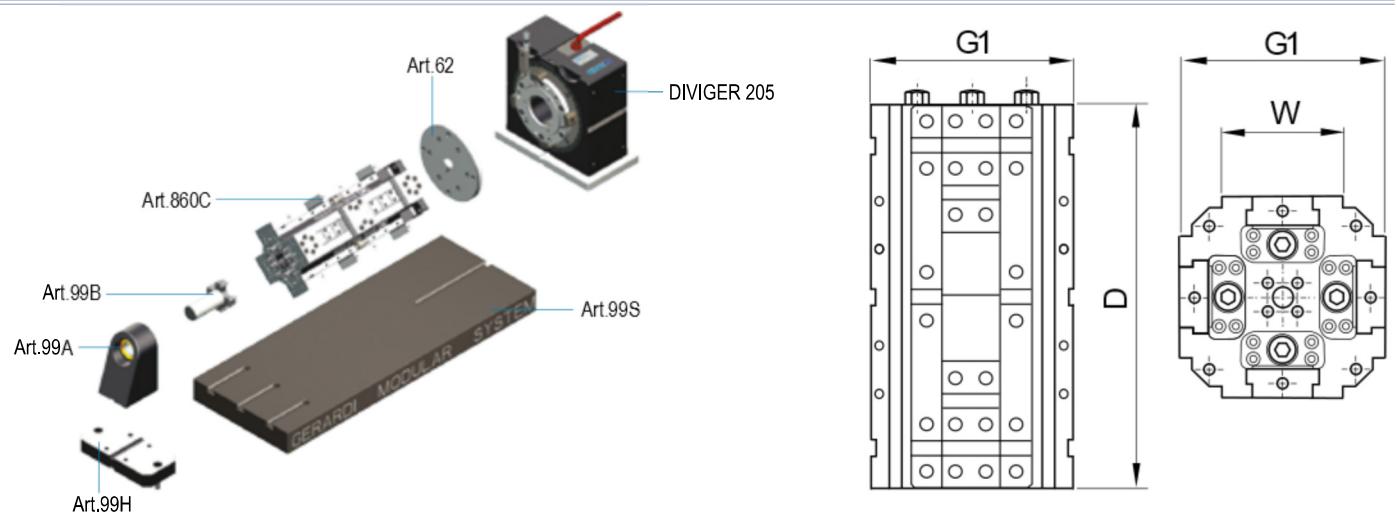

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI ! - UPGRADE YOUR APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 99A		Cod.	5.99.A2000
Supporto Support			
Art. 99B		Cod.	5.99.B1000 5.99.B2000 5.99.B3000
Perno di centraggio orizzontale Horizontal centering pin			
Art. 99H		Cod.	5.99.H2000
Distanziale Spacer			
Art. 62 DIVIGER 205		Cod.	5.62.804A05 5.62.804A06 5.62.804A07
Piastra di interfaccia DIVIGER 205 per FMS DIVIGER 205 connecting plate for FMS			

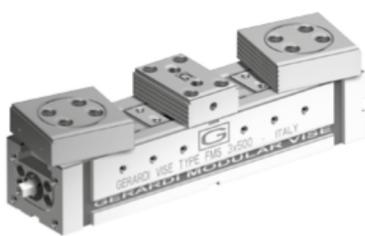
Art. 99S	Piastra base con cave Piani rettificati Base plate with slot Faces ground	Dimensioni B mm / Dimension B mm	A	C	Kg	Cod.	€
		650	400	50	102	1.99.S065S	
		950	400	50	149	1.99.S095S	
		1250	400	50	195	1.99.S125S	

 Cave o fori calibrati su richiesta
 Slot or calibrated holes on request

Disponibili quote "B" a step di 50mm - Available dimension "B" in steps of 50mm

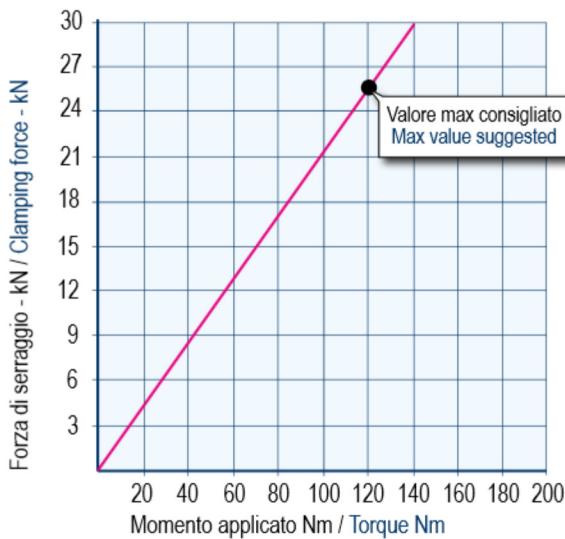


DIAGRAMMI CON FORZE DI SERRAGGIO DIAGRAMS WITH CLAMPING FORCE



MORSE FMS TIPO 1 FMS VISES TYPE 1

VITE: TPF 18 / 20 mm PASSO: 2 mm
SCREW: TPF 18 / 20 mm PITCH: 2 mm



SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA

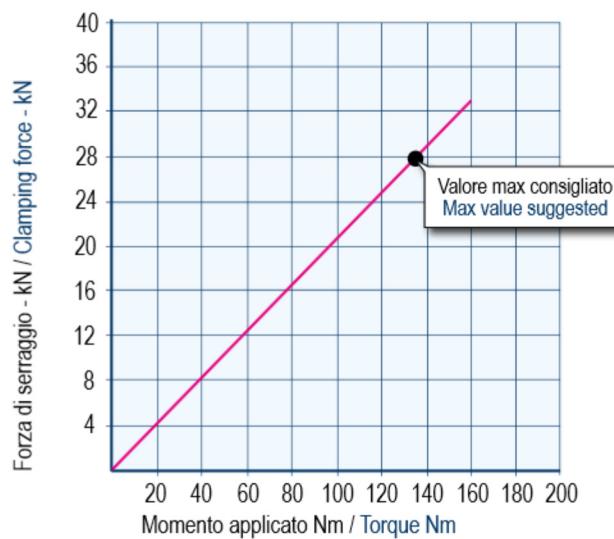
N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino al $\pm 10\%$. Per un corretto utilizzo non superare i valori indicati nel grafico

MECHANICAL CLAMPING WITH TORQUE WRENCH

Some factors such as lubrication, type of clamping on the machine table, frictions and more can modify above values within a $\pm 10\%$ range. For optimum operation do not exceed chart values

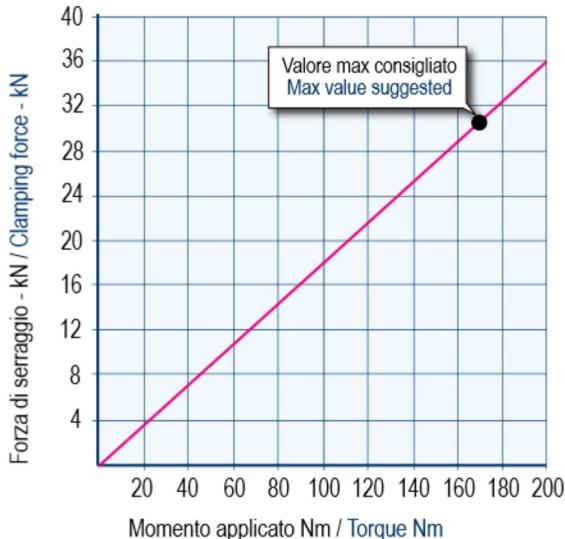
MORSE FMS TIPO 2 FMS VISES TYPE 2

VITE: TPF 18 / 24 mm PASSO: 2 mm
SCREW: TPF 18 / 24 mm PITCH: 2 mm



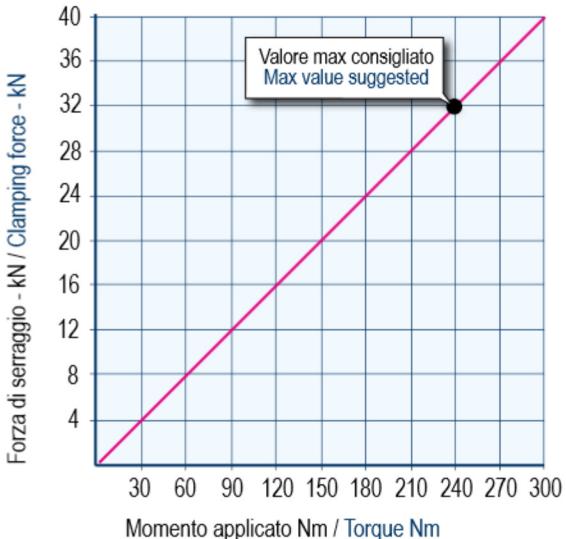
MORSE FMS TIPO 3-4 FMS VISES TYPE 3-4

VITE: TPF 24 / 30 mm PASSO: 2 mm
SCREW: TPF 24 / 30 mm PITCH: 2 mm



MORSE FMS TIPO 5-6 FMS VISES TYPE 5-6

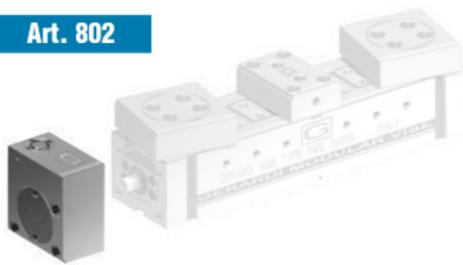
VITE: TPF 30 / 36 mm PASSO: 3 mm
SCREW: TPF 30 / 36 mm PITCH: 3 mm



DIAGRAMMI CON FORZE DI SERRAGGIO

DIAGRAMS WITH CLAMPING FORCE

Art. 802



MORSE FMS TIPO 1 FMS VISES TYPE 1

VITE: TPF 18 / 20 mm PASSO: 2 mm

SCREW: TPF 18 / 20 mm PITCH: 2 mm

Moltiplicatore di potenza: Art. 802

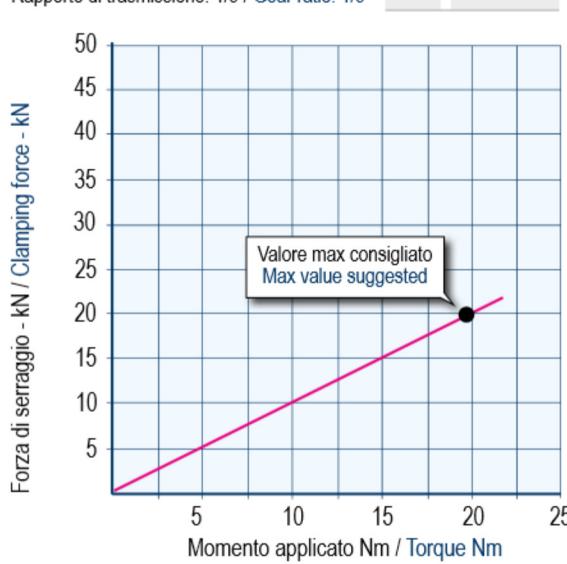
Pressure multiplier: Art. 802

Rapporto di trasmissione: 1/9 / Gear ratio: 1/9

Type 1

Cod. 5.80.21000

€ 862



MORSE FMS TIPO 3-4 FMS VISES TYPE 3-4

VITE: TPF 24 / 30 mm PASSO: 2 mm

SCREW: TPF 24 / 30 mm PITCH: 2 mm

Moltiplicatore di potenza: Art. 802

Pressure multiplier: Art. 802

Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

Type 3

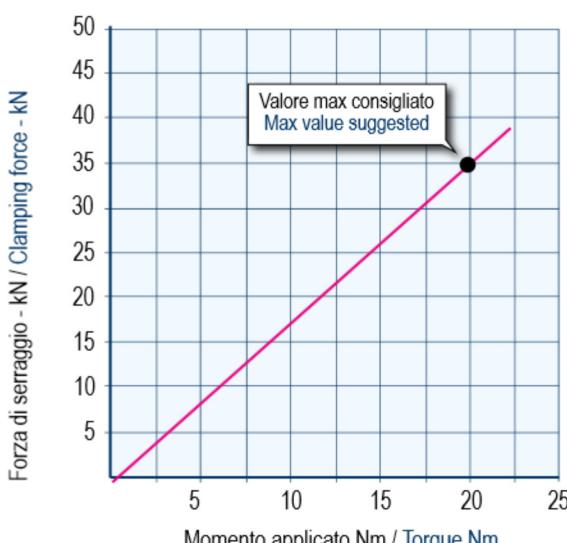
Cod. 5.80.23000

€ 907

Type 4

Cod. 5.80.24000

€ 1.114



SERRAGGIO MECCANICO CON MOLTIPLICATORE DI POTENZA Art.802

N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino al ±10%.

Per un corretto utilizzo non superare i valori indicati nel grafico

MECHANICAL CLAMPING WITH PRESSURE MULTIPLIER Art.802

Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a ± 10% range. For optimum operation do not exceed chart values

MORSE FMS TIPO 2 FMS VISES TYPE 2

VITE: TPF 18 / 24 mm PASSO: 2 mm

SCREW: TPF 18 / 24 mm PITCH: 2 mm

Moltiplicatore di potenza: Art. 802

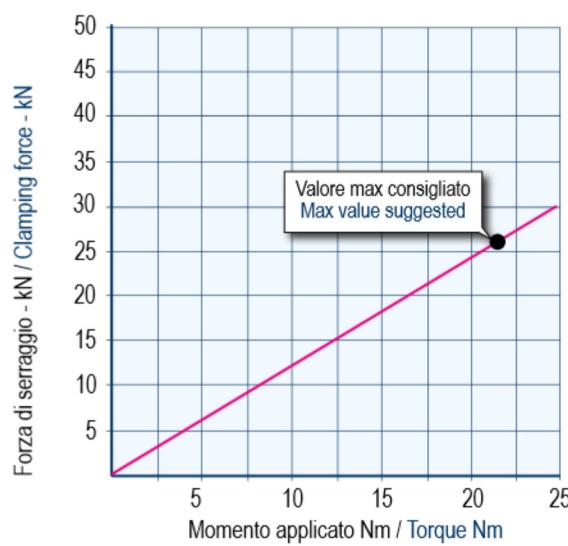
Pressure multiplier: Art. 802

Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

Type 2

Cod. 5.80.22000

€ 862



MORSE FMS TIPO 5-6 FMS VISES TYPE 5-6

Cod. 5.80.25000

€ 1.215

SCREW: TPF 30 / 36 mm PITCH: 3 mm

Moltiplicatore di potenza: Art. 802

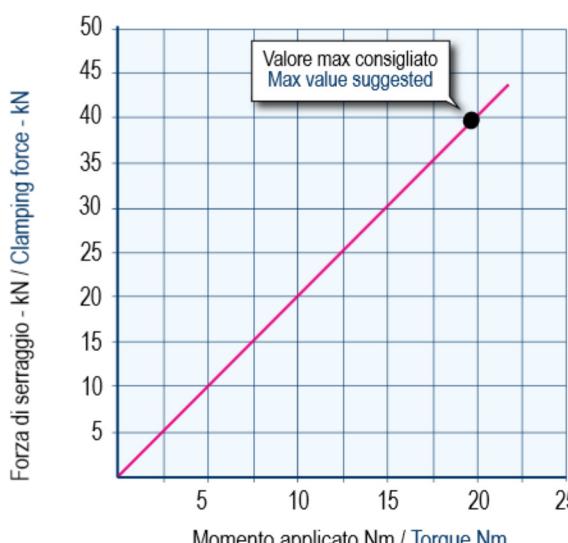
Pressure multiplier: Art. 802

Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

Type 5

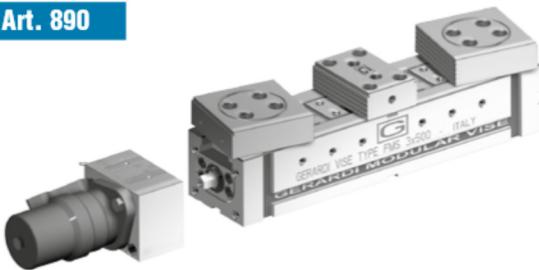
Cod. 5.80.26000

€ 1.209



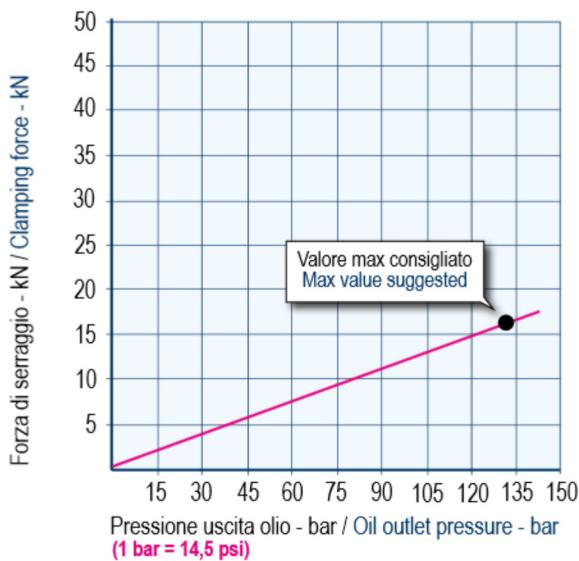
DIAGRAMMI CON FORZE DI SERRAGGIO DIAGRAMS WITH CLAMPING FORCE

Art. 890



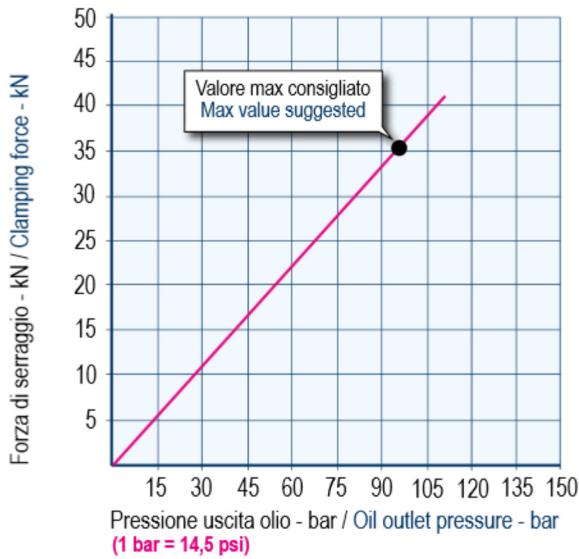
MORSE FMS TIPO 1 FMS VISES TYPE 1

VITE: TPF 18 / 20 mm PASSO: 2 mm
SCREW: TPF 18 / 20 mm PITCH: 2 mm
Motore idraulico tipo OMM 32
Hydraulic motor type OMM 32



MORSE FMS TIPO 3-4 FMS VISES TYPE 3-4

VITE: TPF 24 / 30 mm PASSO: 2 mm
SCREW: TPF 24 / 30 mm PITCH: 2 mm
Motore idraulico tipo OMR 200
Hydraulic motor type OMR 200



SERRAGGIO MECCANICO TRAMITE MOTORE IDRAULICO Art.890

N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino al ±10%.
Per un corretto utilizzo non superare i valori indicati nel grafico

**ATTENZIONE! Azionamento idraulico ma serraggio
meccanico (PIU' SICURO)**

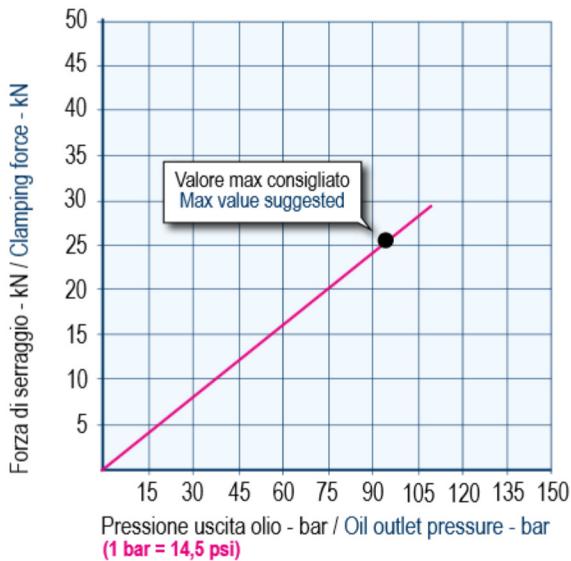
MECHANICAL CLAMPING THROUGH HYDRAULIC MOTOR Art.890

Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a ±10% range. For optimum operation do not exceed chart values

**IMPORTANT! Hydraulic control, but mechanical
clamping (SAFER)**

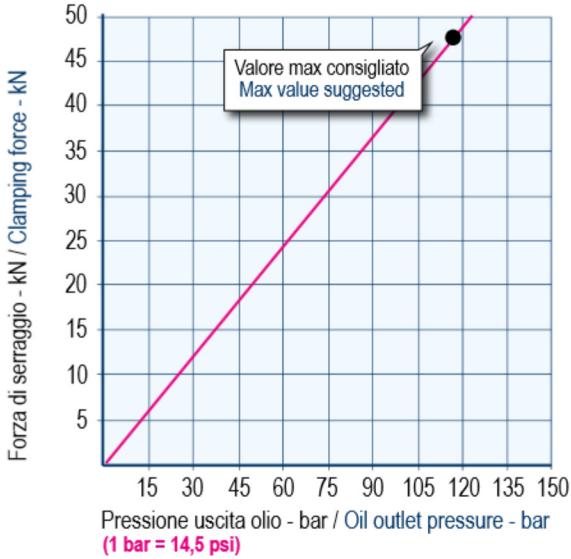
MORSE FMS TIPO 2 FMS VISES TYPE 2

VITE: TPF 18 / 24 mm PASSO: 2 mm
SCREW: TPF 18 / 24 mm PITCH: 2 mm
Motore idraulico tipo OMP 80
Hydraulic motor type OMP 80



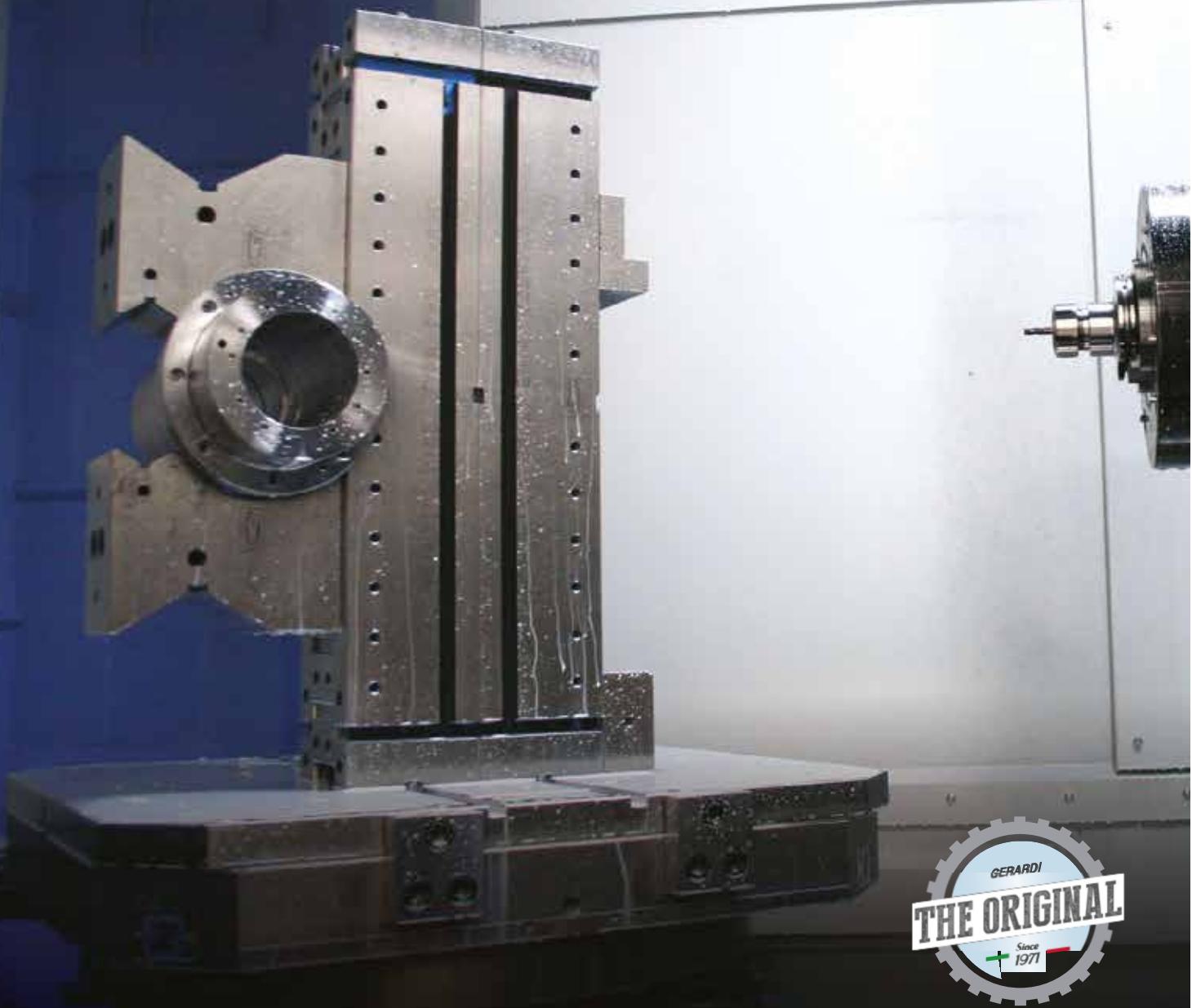
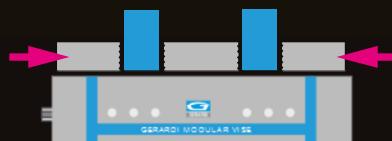
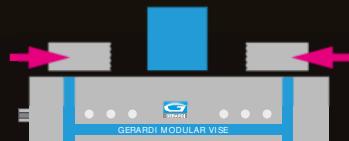
MORSE FMS TIPO 5-6 FMS VISES TYPE 5-6

VITE: TPF 30 / 36 mm PASSO: 3 mm
SCREW: TPF 30 / 36 mm PITCH: 3 mm
Motore idraulico tipo OMR 200
Hydraulic motor type OMR 200



CONSIGLI PER L'UTILIZZO E LA MANUTENZIONE DELLE MORSE FMS
INSTRUCTIONS FOR THE USE AND MAINTENANCE OF FMS VISES3 MORSE IN
VISES IN 1

5

SERRAGGI SINGOLI
SINGLE CLAMPINGSERRAGGI DOPPI
DOUBLE CLAMPINGAUTOCENTRANTE
SELF-CENTERING

UTILIZZO E MANUTENZIONE DELLE MORSE FMS

USE AND MAINTENANCE OF FMS VISES

Morse Singole, doppie, autocentranti - Single, double, self-centering Vises



1

Fare riferimento al disegno esploso, che accompagna tutte le morse e che riporta tutti i particolari costituenti la morsa FMS, denominati con numero di articolo, e riferiti sempre al tipo di morsa all'atto dell'acquisto.

Refer to your explosion view drawing accompanying all our vises and which identifies each part with its own article number. When requesting service or spare parts always refer to the vise type number.

2

La morsa può essere smontata seguendo attentamente tutte le istruzioni ed operazioni qui sotto descritte. Si consiglia vivamente di marcire pezzi e posizioni di tutti i particolari e rimontarli esattamente nella medesima posizione in cui sono stati smontati.

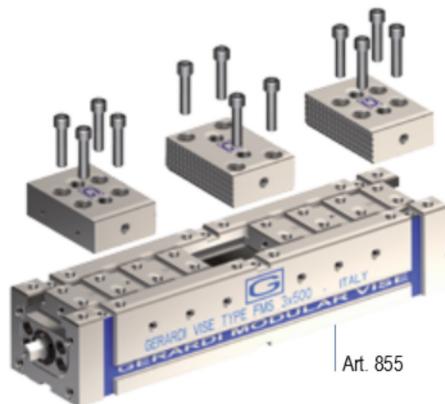
By the carefully following procedure and instructions the vise can be dismantled. We suggest all parts and their positions be marked so they can readily be reassembled to their original state.

OPERAZIONE 1

Togliere tutte le ganasce dal modulo base **Art.855**

OPERATION 1

Remove all the jaws from the vise module **Art.855**



Art. 855

OPERAZIONE 2

Adesso il modulo base è completamente libero da ogni impedimento.

Pulire attentamente il modulo base con un diluente appropriato. (Gasolio ecc).

OPERATION 2

Now the vise body module is completely free.

Clean thoroughly with detergent oil or grease remover.



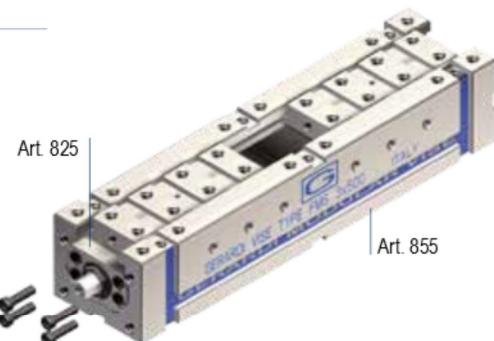
Art. 855

OPERAZIONE 3

Togliere le 4 viti di testa **Art. 801I** dalla piastra di contenimento **Art.825**

OPERATION 3

Unscrew and remove the 4 screws **Art. 801I** from the main screw holding plate **Art.825**



Art. 825

Art. 855

OPERAZIONE 4

Togliere la piastra di contenimento **Art.825**

OPERATION 4

Remove the main screw holding plate **Art.825**



Art. 825

Art. 855

Art. 801G

UTILIZZO E MANUTENZIONE DELLE MORSE FMS

USE AND MAINTENANCE OF FMS VISES

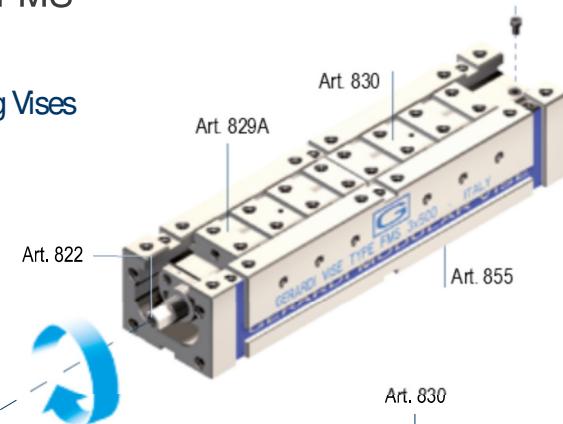
Morse Singole, doppie, autocentranti - Single, double, self-centering Vises

OPERAZIONE 5

Girare la vite Art. 822 in senso orario, affinché si possa togliere la vite Art. 810G dai ripari.

OPERATION 5

Turn the main screw Art. 822 clockwise in order to remove the screw Art. 810G from cover.

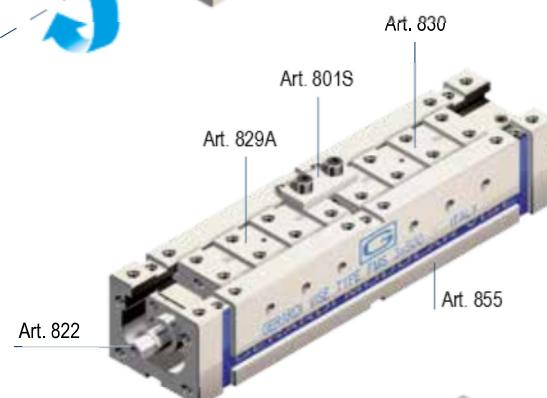


OPERAZIONE 6

Collegare le due slitte Art. 829A - Art. 830, utilizzando la piastrina di collegamento in dotazione Art. 801S, per non perdere la fase di posizionamento slitte.

OPERATION 6

Connect the 2 slides Art. 829A - Art. 830, using the connecting plate in the STD equipment Art. 801S, in order not to lose the slides reference on the main screw and also for safety reasons.

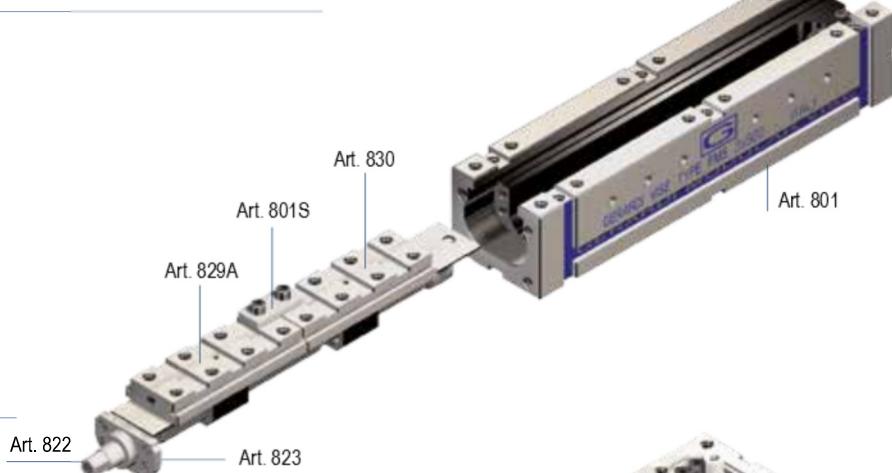


OPERAZIONE 7

Sfjare la vite Art. 822 assieme con le due slitte e la piastra intermedia Art. 823

OPERATION 7

Remove the main screw Art. 822 together with the 2 slides and the intermediate plate Art. 823

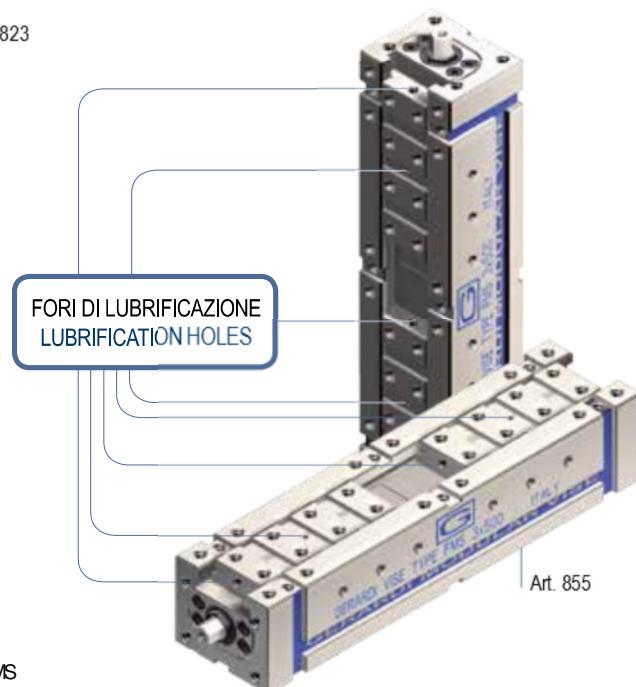


OPERAZIONE 8

Per rimontare la morsa, eseguire tutte le 8 operazioni in senso inverso senza forzare nel rimontaggio nessun particolare. L'unica manutenzione richiesta (a parte la periodica pulizia interna ed esterna della morsa) è la lubrificazione settimanale con olio molto fluido negli appositi fori situati nelle slitte. Il foro da scegliere per la lubrificazione dipende dalla posizione della morsa.

OPERATION 8

To reassemble the vise perform the 8 previous operations reverse order without forcing any stage or part. The only maintenance required (apart from periodic Internal and external vise cleaning) is weekly lubrication with low viscosity oil in the proper holes in the slides. Which lubrication hole is chosen depends on the vise position.



La morsa sopra descritta è completamente a chiusura MECCANICA MANUALE.

I vari dispositivi, ossia i moltiplicatori di forza MANUALI, OLEODINAMICI, ELETTRICI ed OLEOPNEUMATICI, sono completamente autonomi e possono essere applicati o tolti dalle morse FMS senza modifiche alcuna. La chiusura della morsa è sempre e comunque meccanica. (Vite/chiodiola)

This vise described above is for fully manual MECHANICAL CLAMPING.

The various accessories we offer, **MECHANICAL**, **HYDRAULIC**, **ELECTRIC** or **IDROPNEUMATIC** torque multipliers are independent units that can be added or removed without affecting the basic vise. Vise clamping is always mechanical through nut and screw.

FUNZIONAMENTO DELLA MORSA FMS FMS VISE OPERATION

MORSA DOPPIA

Con la ghiera Art.825A aperta, allineata alla piastra di contenimento Art.825 - Fig.1, la morsa è predisposta per un doppio serraggio con uno scarto dimensionale massimo fra i due pezzi da bloccare di 8mm.

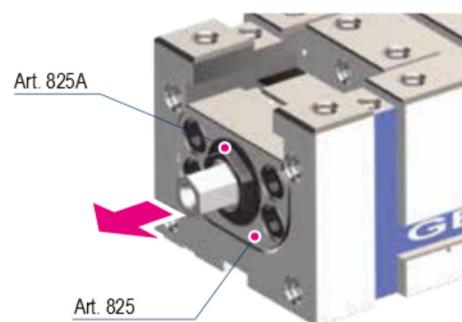


Fig. 1

DOUBLE STATION VISE

With the lockring Art.825A open, aligned to the main screw holding plate Art.825 - Pic.1 the vise configuration is for a double clamping with a max difference between workpieces of 8mm.

MORSA AUTOCENTRANTE

Con la ghiera Art.825A chiusa, all'interno della piastra di contenimento Art. 825 - Fig.2, la morsa è predisposta per il bloccaggio autocentrante di un solo pezzo (sono possibili sia blocaggi esterno-interno che interno-esterno)

ATTENZIONE: In questa situazione il centro pezzo rispetto al centro cava è disall线ato di 2 mm verso la chiave di serraggio.

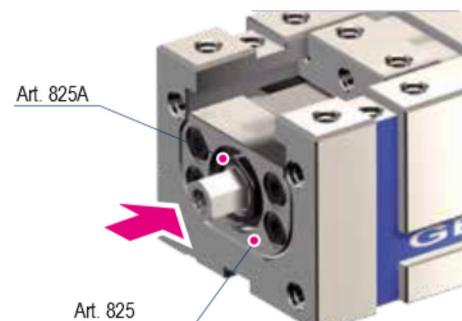


Fig. 2

SELF CENTERING VISE

With the lockring Art.825A closed, inside the main screw holding plate Art.825 - Pic.2, the vise configuration is for a self-centering clamping of one single piece (external to internal and internal or external clampings are possible)

ATTENTION: With this configuration the work-piece center with respect to the center slot is disaligned of 2 mm toward the clamping wrench

MORSE SINGOLA

Sia con la ghiera Art.825A aperta che chiusa (punti 1 e 2) è possibile il serraggio di un unico pezzo con riferimento fisso.

SINGLE STATION VISE

With open and closed lockring Art.825A it is possible to clamp a single piece with a fixed reference point

COME TRASFORMARE UNA MORSA FMS AUTOCENTRANTE IN UNA A BLOCCAGGIO RAPIDO HOW TO TRANSFORM SELF-CENTERING FMS VISE TO DOUBLE CLAMPING

OPERAZIONE 1

Inserire la bussola esagonale Art.850H nella sede della ghiera di riferimento Art.825A

OPERATION 1

Insert the hexagonal bushing Art.850H in the lockring Art.825A

OPERAZIONE 2

Inserire la chiave a pipa Art.375 nella bussola esagonale Art.850H

OPERATION 2

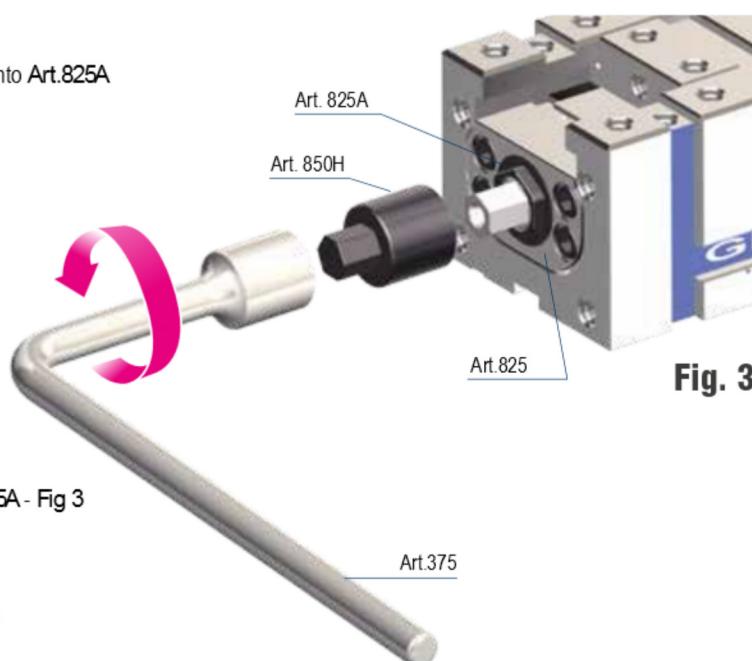
Put the box wrench Art.375 inside the hexagonal bushing Art.850H

OPERAZIONE 3

Girare la chiave a pipa in senso **antiorario** fino a portare la ghiera Art.825A - Fig 3 a sporgere dalla piastra di contenimento Art.825

OPERATION 3

Turn the box wrench **anticlockwise** to bring the lockring Art.825A - Pic.3 open in line with main screw holding plate Art.825



FUNZIONAMENTO DELLA MORSA FMS FMS VISE OPERATION

A questo punto la morsa FMS puo' serrare 2 pezzi contemporaneamente anche se le dimensioni tra loro sono diverse, con un margine di 8mm circa. Può anche essere utilizzata per serraggi singoli, per il serraggio di un unico pezzo, spostando la ganascia *rossa* centrale (Fig.4) in una delle 2 cave laterali e naturalmente, rimuovendo una delle 2 ganasce mobili. Per ottenere tutte le aperture possibili (data la lunghezza della base) può, in certe posizioni essere necessario l'utilizzo di ganasce speciali o spessori.

Now the FMS vise can clamp 2 work-pieces different dimensions (max difference 8mm). At the same time the vise can also be used as single station clamping by moving the central *red* jaw (Pic. 4) in one of the 2 lateral positioning slots and of course by removing one movable jaw. In order to reach all the possible openings (given the base lenght) it could be necessary, in some positions, the use of specials jaws or spacers.



Fig. 4



5

COME TRASFORMARE UNA MORSA FMS AUTOCENTRANTE IN UNA A BLOCCAGGIO RAPIDO HOW TO TRANSFORM SELF-CENTERING FMS VISE TO DOUBLE CLAMPING

OPERAZIONE 1

Inserire la bussola esagonale Art.850H nella sede della ghiera di riferimento Art.825A

OPERATION 1

Insert the hexagonal bushing Art.850H in the lockring Art.825A

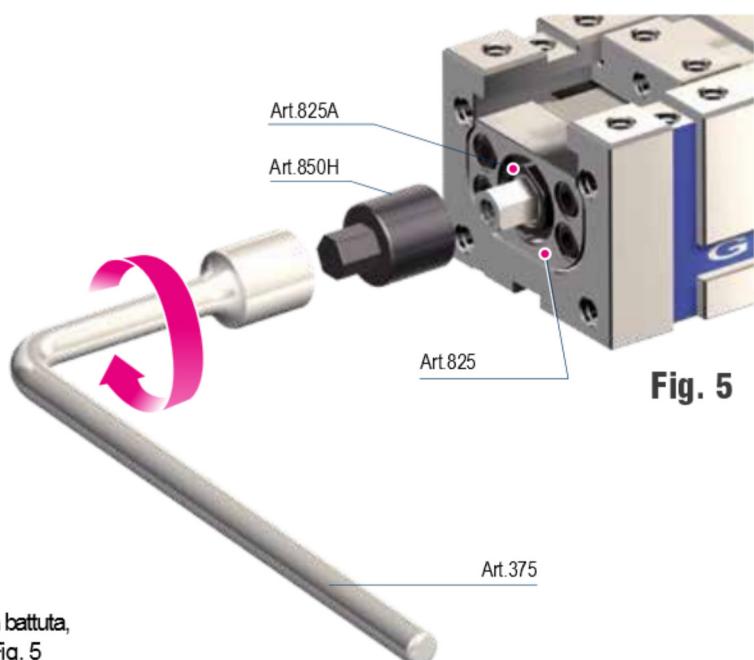


Fig. 5

OPERAZIONE 2

Inserire la chiave a pipa Art.375 nella bussola esagonale Art.850H

OPERATION 2

Put the box wrench Art.375 inside the hexagonal bushing Art.850H

OPERAZIONE 3

Girare la chiave a pipa Art.375 in senso **orario** *uno a portare la ghiera in battuta*, ossia all'interno della piastra di contenimento (non forzare il serraggio). Fig. 5

OPERATION 3

Turn the hexagonal wrench Art.375 **clockwise** to reach with the lockring the bottom position, that inside the main screw holding plate (do not force the clamping). Pic.5

OPERAZIONE 4

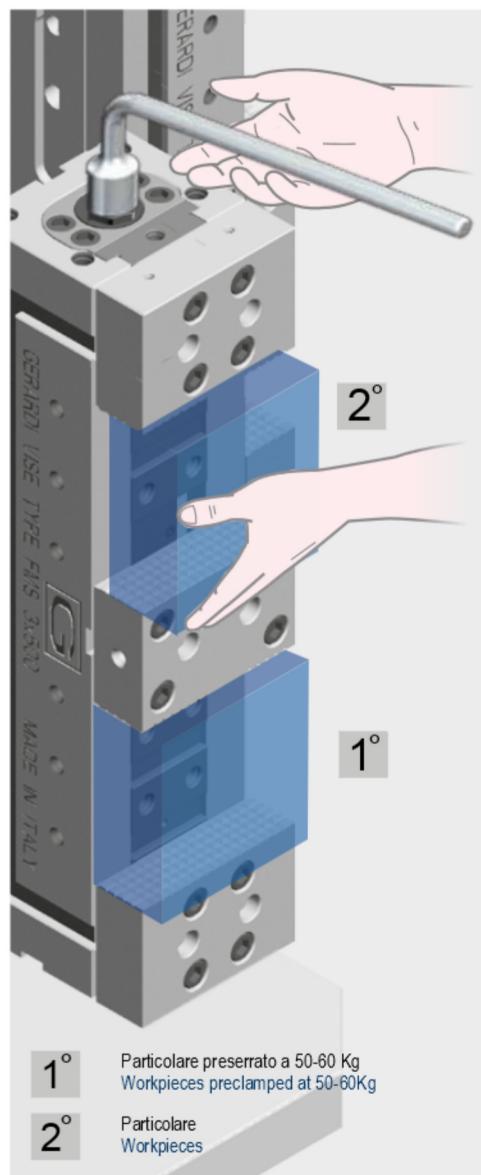
A questo punto la morsa FMS è autocentrante, può quindi serrare 1 pezzo garantendo il riferimento centrale dello stesso.

OPERATION 4

Now the FMS vise is self-centering, so it can clamp 1 work-piece and guarantee its central reference point.

DISPOSITIVO TERZA MANO per morse FMS doppie

THIRD HAND ACCESSORY for double FMS vises



DISPOSITIVO TERZA MANO PER MORSE FMS DOPPIE

Il meccanismo "Terza mano" nella morsa in versione adoppia stazione, consente il carico e serraggio lieve del primo pezzo (dalla parte opposta alla chiave nella stazione inferiore della morsa), mentre nel frattempo viene caricato il secondo pezzo (da cui la denominazione "Terza mano"). Tale dispositivo risulta particolarmente utile quando la morsa viene usata in posizione verticale. Con il dispositivo "Terza mano", i due particolari da lavorare possono essere di dimensioni diverse con uno scarto massimo fra loro di 2 mm.

Il meccanismo "Terza mano" standard ha una spinta di max 50 Kg. Volendo ottenere una spinta maggiore, basta sostituire le molle in dotazione con altre di maggior potenza (attenzione però a mantenere la stessa quota di altezza del pacchetto molle) oppure aggiungendo un altro distanziale di max. 3mm. N.B: sostituendo le molle o aggiungendo un distanziale extra bisogna tener presente che il maggior precarico comporterà lo stesso carico di spinta anche girando la vite Art.822 avuoto. Non volendo il meccanismo "Terza Mano", il tutto può essere semplicemente rimosso togliendo le molle con i relativi distanziali dalla loro sede naturale.

Attenzione!! Assicurarsi che Art.850N rimanga fissato nella morsa per proteggere l'eventuale entrata di trucioli.

THIRD HAND DEVICE FOR DOUBLE STATION FMS VISES

The "Third Hand" device in the double station vise configuration, allows the first workpiece loaded to be gripped/clamped lightly with a little pressure (on the opposite side of the wrench and then in the lower vise station), while the second workpiece is being loaded (from here the "third Hand" denomination). Such device is useful especially with the vise vertically positioned.

With the "Third Hand" device the two workpiece can be up to 2 mm different in gripping width.

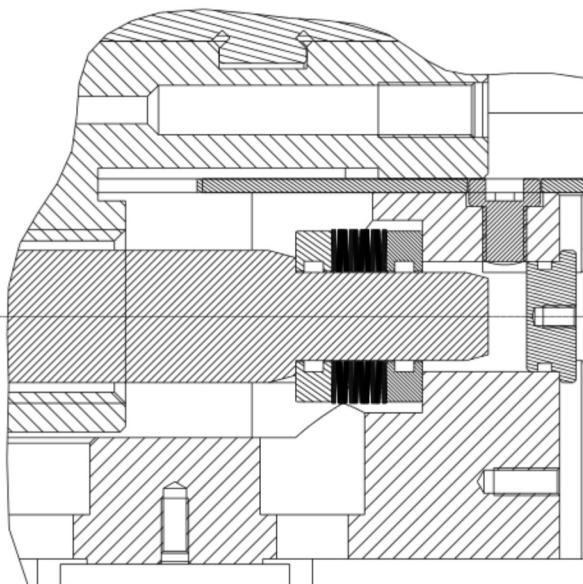
The standard "Third Hand" device has a max pressure of 50 Kg.

In order to reach a higher clamping power it is enough to preload by changing the standard springs with more powerful ones or by adding a spacer (max 3 mm). Be careful that remains the same spring and spacer packing height dimensions.

P.S: By changing springs or adding extra spacer remember that the higher preload will give the same resistance (given by the more powerful preload) even just turning the main screw Art.822 freely.

If the "Third Hand" device is not required, it could be simply removed by taking away the springs and their spacers from their standard position.

Attention!! Make sure that the Art.850N remains fixed in the vise to provide protection from dirt getting inside the vise.

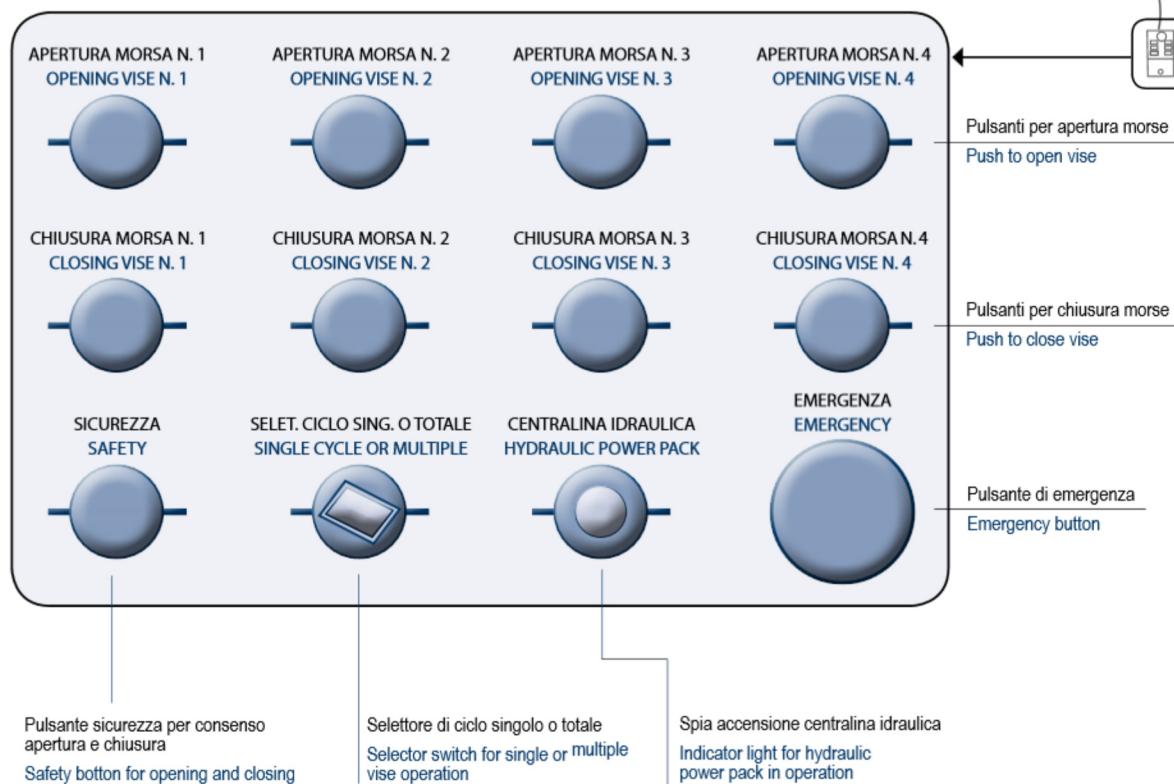


Art.850P



FUNZIONAMENTO COMANDO CENTRALINE ELETTROIDRAULICHE

ELECTRO-HYDRAULIC POWER PACK UNIT INSTRUCTIONS



FUNZIONAMENTO

Per comandare l'apertura o la chiusura delle morsi, è necessario, dopo avere acceso la centralina olio, premere un pulsante per il movimento contemporaneamente al pulsante di "sicurezza". Per la chiusura occorre tenere premuti i pulsanti fino a pezzo bloccato. Dopodiché entra in funzione il dispositivo di finecorsa automatico che sblocca l'elettrovalvola, per l'apertura tenere premuto fino al finecorsa eletromeccanico. Per comandare il movimento di ogni morsa singolarmente, girare il selettore (sing.-totale) sulla posizione "o" (singolo). Per ottenere il movimento contemporaneo di tutte le morsi, girare il selettore sulla posizione "t" (totale).

OPERATION - INSTRUCTION

To regulate the opening and closing of the vises it is necessary leaving turned on the main switch of the hydraulic power pack, to push the safety switch (button) at the same time as the open (or close) vise switch.

At the maximum opening of the vise the jaw movement limiting micro-switch will switch off jaw traverse.

To open or close the vises all together repeat the operation with the selector switch set to "multiple".

ATTENZIONE !

Accertarsi prima di comandare i movimenti, che la spia "centralina idraulica" sia accesa, e che nessuna persona sia in prossimità delle morsi, per evitare infortuni.

ATTENTION !

Before operating vises always make sure there are no person in the immediate vicinity.

Tipo di olio raccomandato: **MOBIL VACUOLINE OIL 1405**

Cambiare filtro ogni **400** ore lavorative

Cambiare olio ogni **2000** ore lavorative

Lubrificazione vite e slitte morsa: **OLIO FLUIDO A BASSA VISCOSITÀ'**

Type of oil recommended: **MOBIL VACUOLINE OIL 1405**

Change filter every **400** operating hours

Change oil every **2000** operating hours

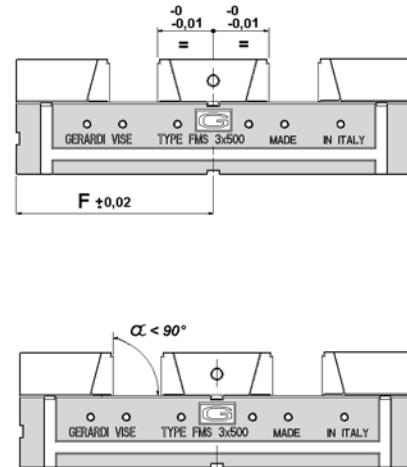
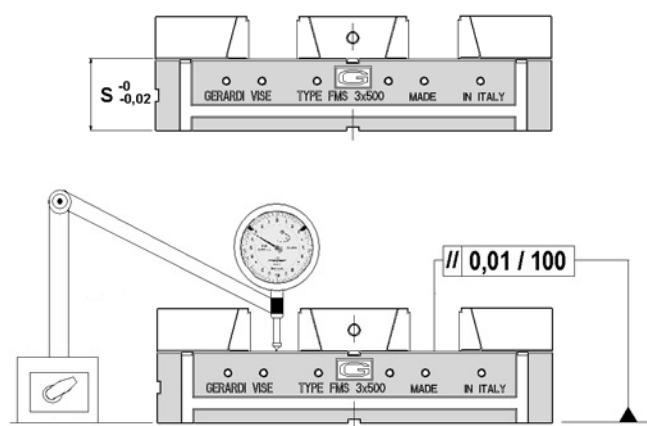
Lubrication of vise screw & slides: **WITH LOW VISCOSITY OIL**

ISTRUZIONI PER UN CORRETTO UTILIZZO

ISTRUCTIONS FOR A PROPER USE

TOLLERANZE GEOMETRICHE

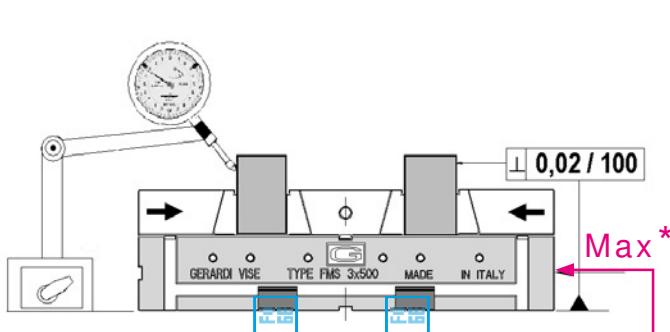
GEOMETRIC ACCURACIES



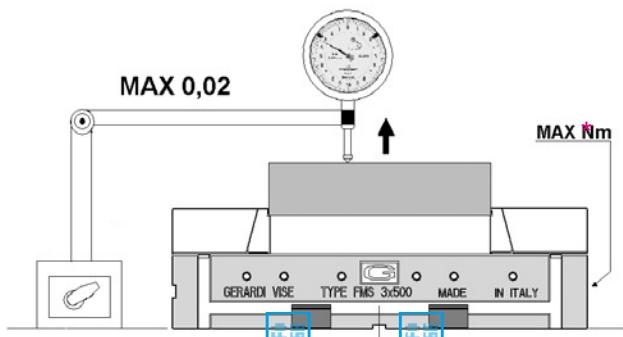
5

TOLLERANZE DINAMICHE

DYNAMIC ACCURACIES



Morsa ancorata con 2 coppie di staffe Art.296
Vise clamped with n. 2 pairs of Art.296



Morsa ancorata con 2 coppie di staffe Art.296
Vise clamped with n. 2 pairs of Art.296

Art 865

* Coppia applicata - Torque Nm

Forza di serraggio - Clamping power

Morsa tipo 1	Vise type 1	120	2500 Kgf
Morsa tipo 2	Vise type 2	140	2500 Kgf
Morsa tipo 3	Vise type 3	180	3000 Kgf
Morsa tipo 4	Vise type 4	180	3000 Kgf
Morsa tipo 5	Vise type 5	240	3200 Kgf
Morsa tipo 6	Vise type 6	240	3200 Kgf

* Max coppia applicabile per non superare i valori consigliati

1 kgf . m = 9.806