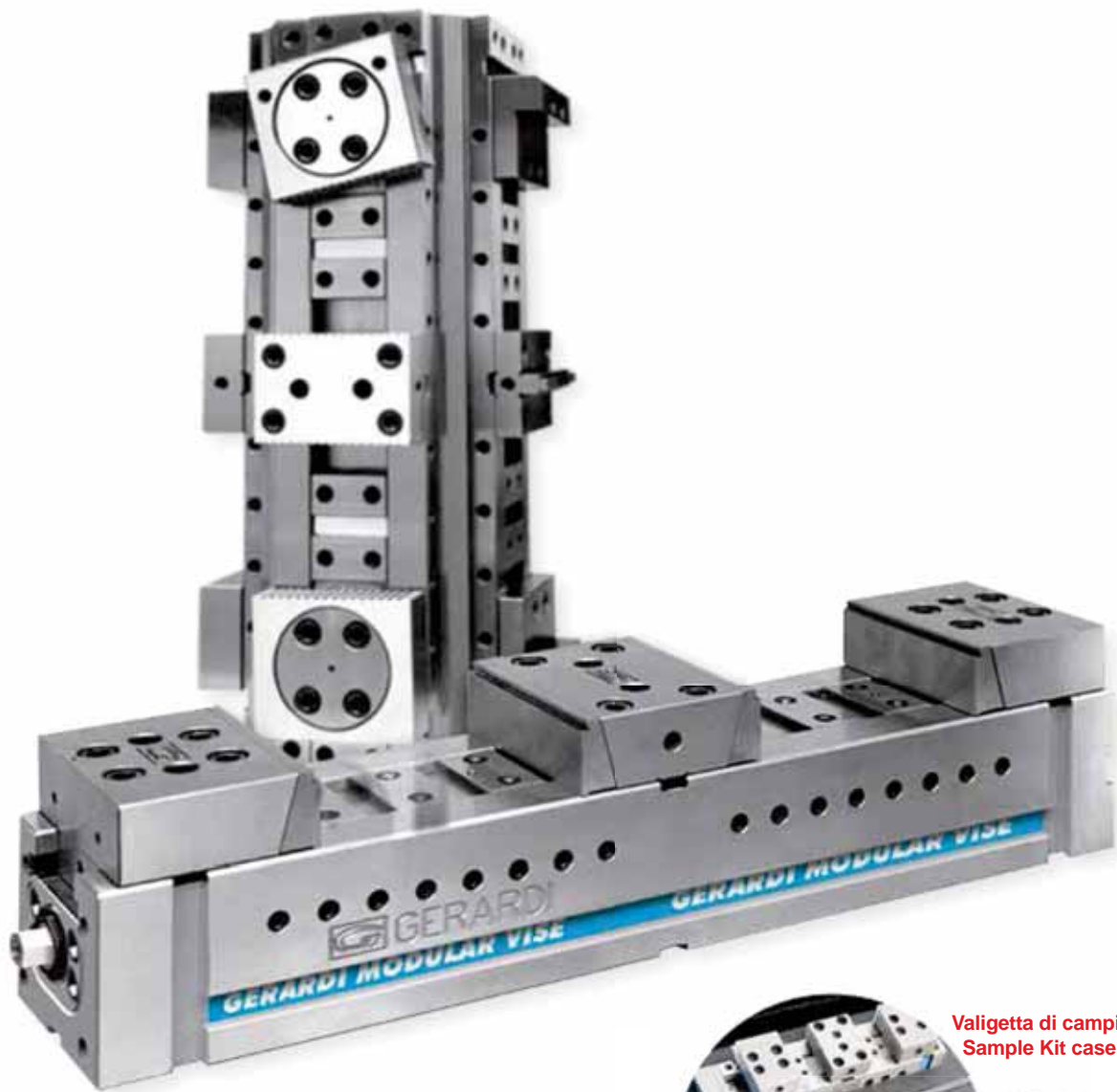


FMS

MORSE e CUBI-MORSA - VISES and VISE-TOWERS

Morse Singole, Doppie, Autocentranti - Single, Double and Self-centering vises



Valigetta di campionatura
Sample Kit case for Art.860

Art. 983

MORSE MODULARI FLESSIBILE
FLEXIBLE MODULAR VISES

SISTEMA MODULARE FLESSIBILE FLEXIBLE MODULAR SYSTEM

Pagg. 5.2 - 5.72

MORSE e CUBI-MORSA serie FMS - MORSE SINGOLE, DOPPIE, AUTOCENTRANTI FMS VISES and VISE-TOWERS series - SINGLE, DOUBLE and SELF-CENTERING VISES

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.

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 length.

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.

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 repetability of workpiece position and precision, increasing the global efficiency of the production process.

Le morse FMS fanno della **estrema versatilità** il loro punto di forza:

- 1- 3 posizioni per la ganasca fissa;
- 2- serraggio dall'esterno all'interno e viceversa;
- 3- posizionamento verticale-orizzontale-laterale;
- 4- **collegamento: fianco a fianco, dorso a dorso, fianco a dorso;**
- 5- possibilità illimitata per ganasce speciali;
- 6- sostituzione semplice e precisa delle ganasce;
- 7- elemento di prolunga per pezzi fuori misura;
- 8- sistema di serraggio meccanico, idraulico, pneumatico elettrico o con moltiplicatore di potenza, tramite comando manuale, a pedale o mediante pulsante elettrico (vedi pag. 12);
- 9- costruzione solida e compatta e massima apertura rispetto alla sua lunghezza;
- 10- flessioni praticamente ridotte di due volte rispetto alle precedenti morse modulari standard;
- 11- accurata ripetibilità di posizionamento del pezzo da lavorare;
- 12- precisioni geometriche con tolleranze entro 0,02 mm;
- 13- **protezione integrale dalla penetrazione di corpi estranei** tramite piastre scorrevoli;
- 14- possibilità di trasformazione di **ogni morsa singola** in **morsa autocentrante** o in **morsa doppia** tramite la semplice sostituzione delle ganasce sul corpo base universale.

Ghiera per trasformazione morsa da doppia in autocentrante e viceversa

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

**3 MORSE IN UNA
VISES IN ONE**

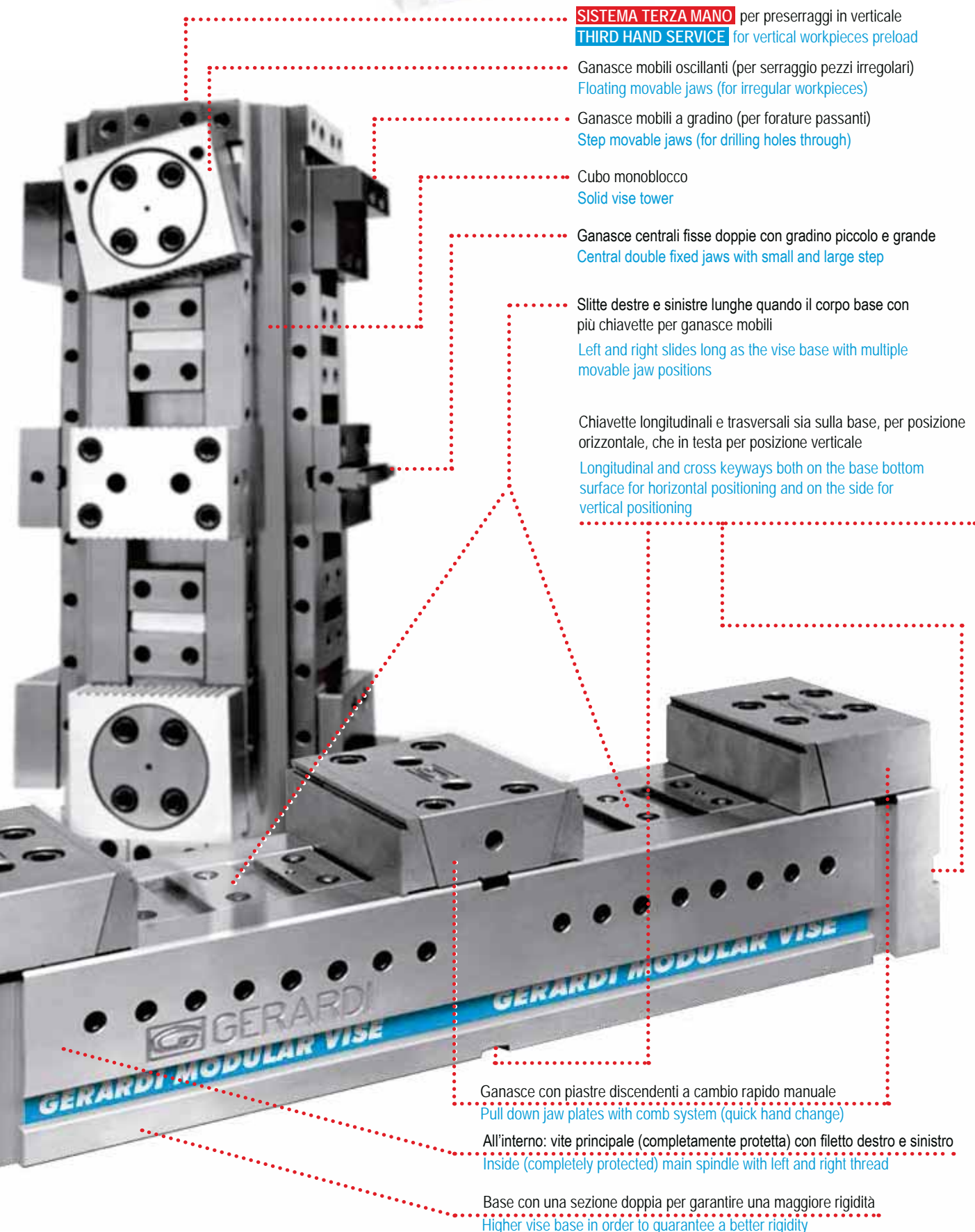
FMS vises have in **extreme versatility** their point of strength:

- 1- 3 positions for the fixed jaw;
- 2- outside to inside clamping and viceversa;
- 3- vertically, horizontally and sideway vise positioning;
- 4- side to side, back to back and back to side vise positioning;
- 5- unlimited special jaws;
- 6- simple and precise exchange of jaws;
- 7- extension element for extra-long pieces;
- 8- mechanic, hydraulic or pneumatic or electrical clamping system or with pressure multiplier, through manual, pedal or push button control (see page 12);
- 9- space saving design, solid construction and maximum blocking ratio to total length;
- 10- deflection reduced two times with respect to the STANDARD modular vises;
- 11- very accurate repetability of workpiece position;
- 12- geometrical accuracy with tollerances within 0,02 mm;
- 13- **integral protection from chips and dirty** through sliding protection;
- 14- 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.



FMS: le morse migliori ! E le più complete per bloccaggi singoli, doppi e autocentranti

Series FMS: the best vises ! And the most complete for single, double and self-centering clamping.



SISTEMA TERZA MANO per preserraggi in verticale
THIRD HAND SERVICE for vertical workpieces preload

Ganasce mobili oscillanti (per serraggio pezzi irregolari)
Floating movable jaws (for irregular workpieces)

Ganasce mobili a gradino (per forature passanti)
Step movable jaws (for drilling holes through)

Cubo monoblocco
Solid vise tower

Ganasce centrali fisse doppie con gradino piccolo e grande
Central double fixed jaws with small and large step

Slitte destre e sinistre lunghe quando il corpo base con
più chiavette per ganasce mobili
Left and right slides long as the vise base with multiple
movable jaw positions

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

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

Ganasce con piastre discendenti a cambio rapido manuale
Pull down jaw plates with comb system (quick hand change)

All'interno: vite principale (completamente protetta) con filetto destro e sinistro
Inside (completely protected) main spindle with left and right thread

Base con una sezione doppia per garantire una maggiore rigidità
Higher vise base in order to guarantee a better rigidity

3 MORSE IN UNA
VISES IN ONE



Corpo base / Base body **Art. 855**

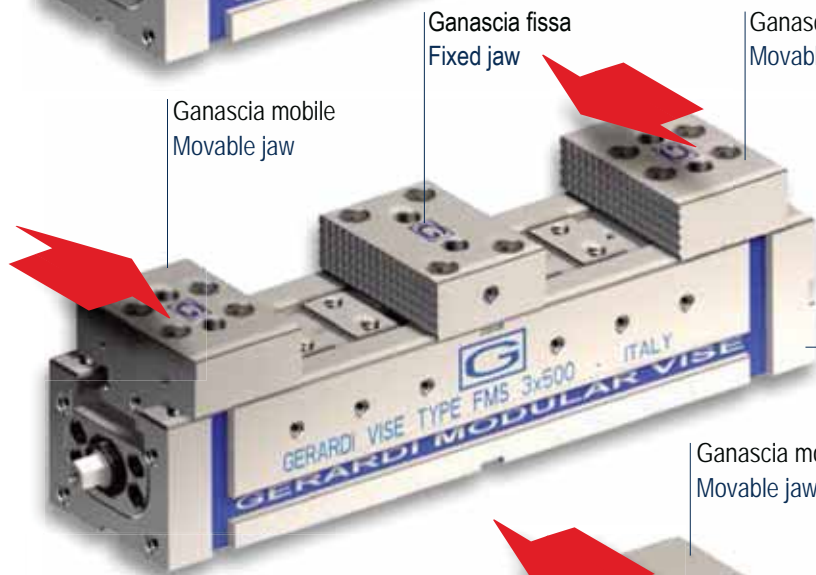


Ganascia mobile
Movable jaw

Ganascia fissa
Fixed jaw

Morsa FMS per serraggi singoli
FMS for single clamping

Corpo base / Base body **Art. 855**



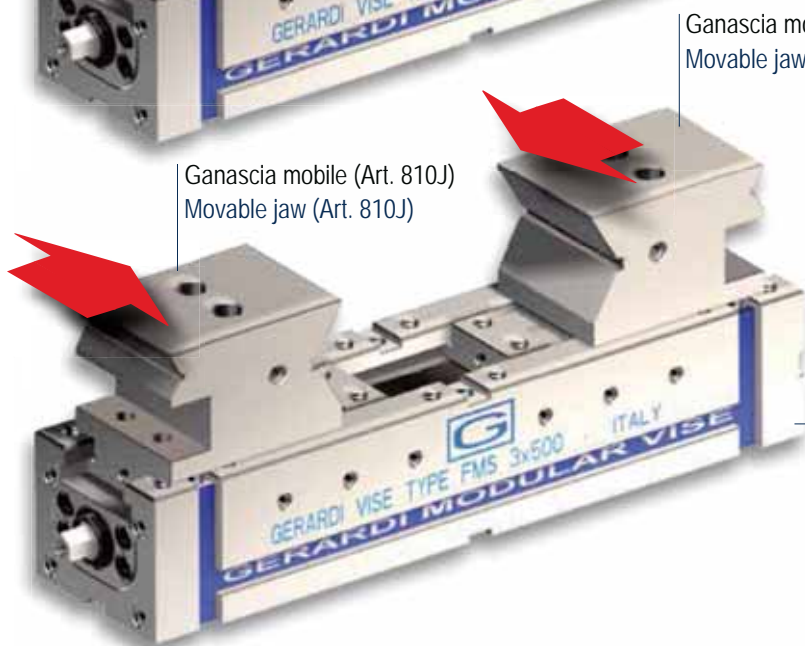
Ganascia mobile
Movable jaw

Ganascia fissa
Fixed jaw

Ganascia mobile
Movable jaw

Morsa FMS per serraggi doppi
FMS vise for double clamping

Corpo base / Base body **Art. 855**



Ganascia mobile (Art. 810J)
Movable jaw (Art. 810J)

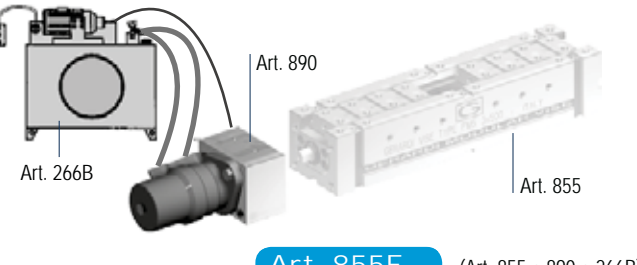
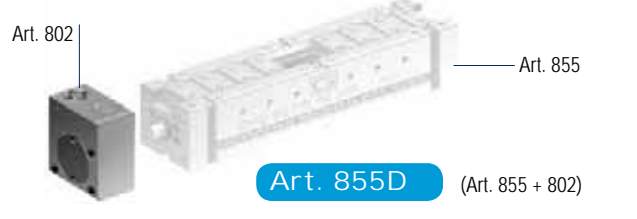
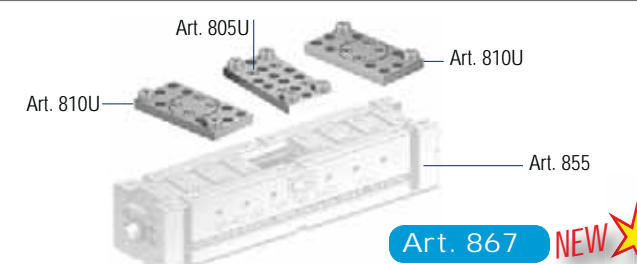
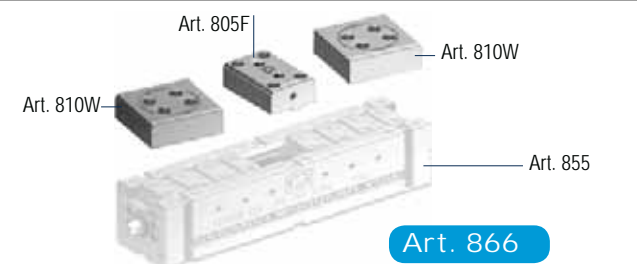
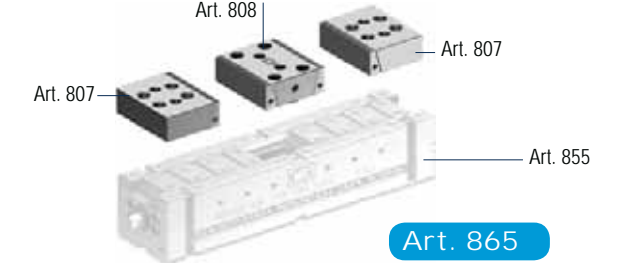
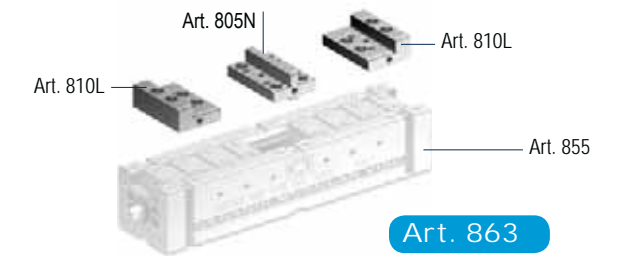
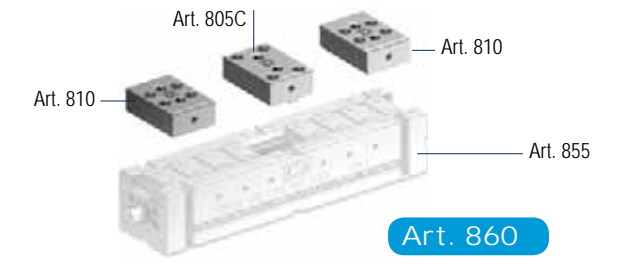
Ganascia mobile (Art. 810J)
Movable jaw (Art. 810J)

Morsa FMS autocentrante
FMS self-centering vise

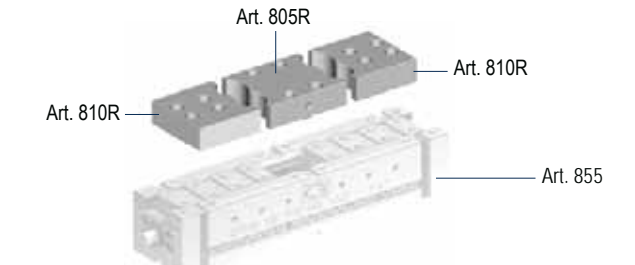
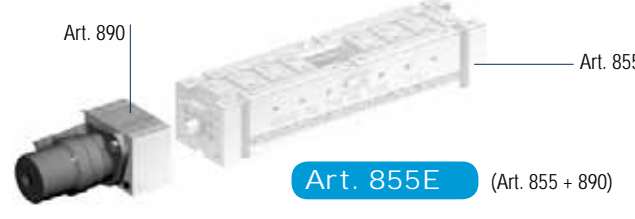
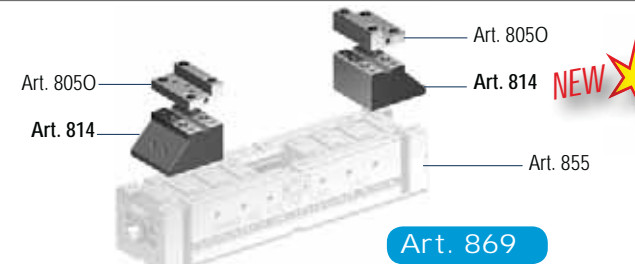
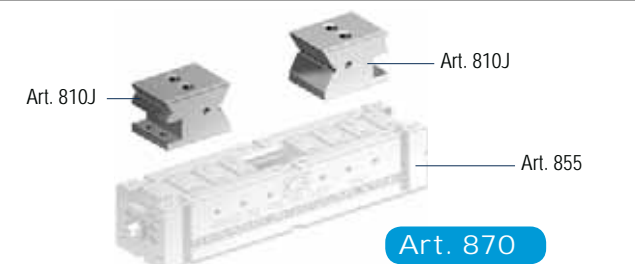
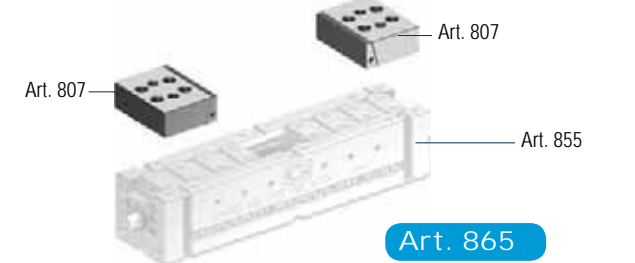
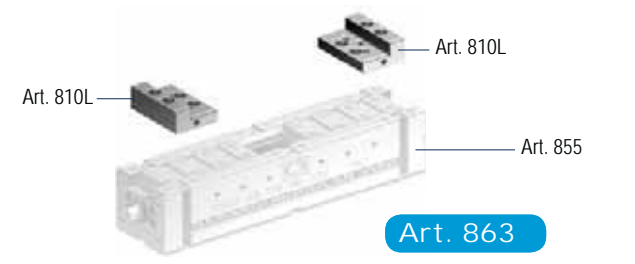
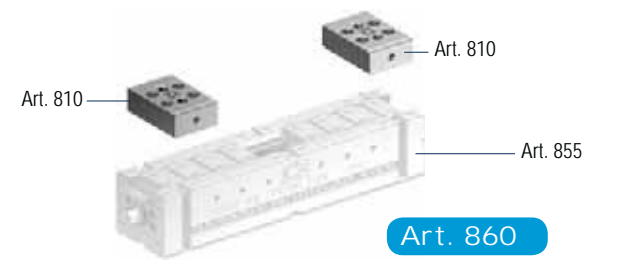
Corpo base / Base body **Art. 855**

5

VERSIONI PER BLOCCAGGI DOPPI
DOUBLE CLAMPING CONFIGURATION



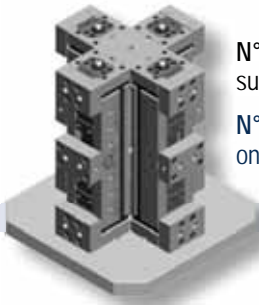
VERSIONI AUTOCENTRANTI
SELF-CENTERING TYPE



MECCANISMO 3^a MANO INCLUSO

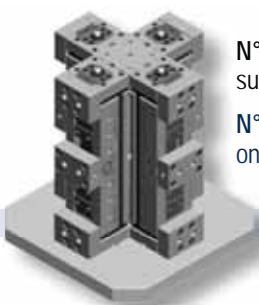
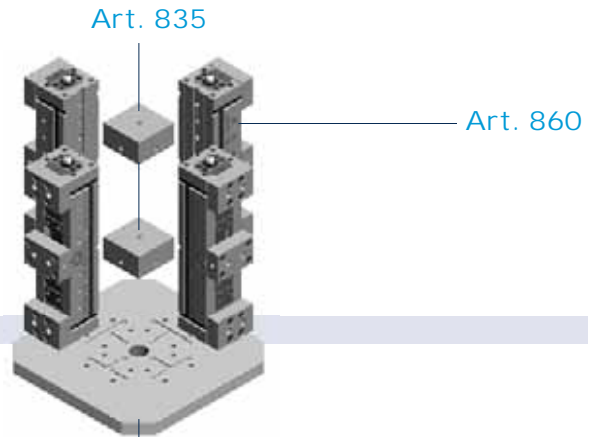
THIRD HAND DEVICE INCLUDED

Art. 850P
(Pag - Page 5.70)



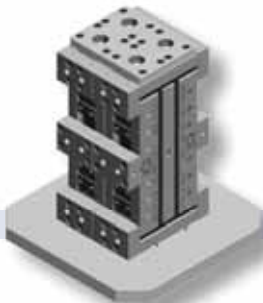
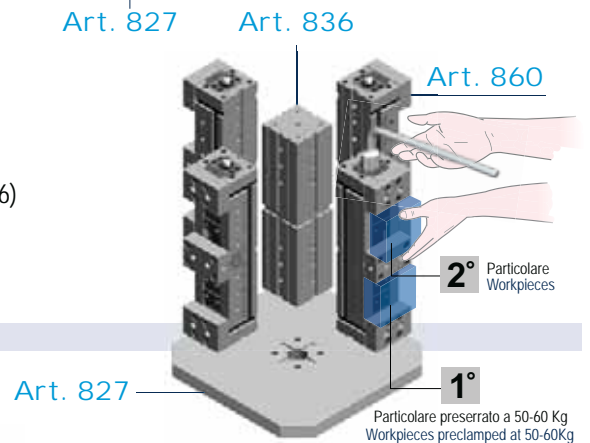
N° 4 morse FMS montate a croce su piastra base (Art. 827) con distanziali (Art. 835)

N° 4 FMS vises cross-mounted on base plate (Art. 827) with spacer (Art. 835)



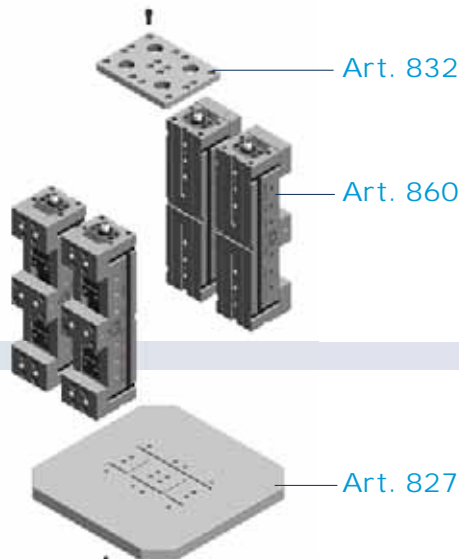
N° 4 morse FMS montate a croce su piastra base (Art. 827) con supporto centrale (Art. 836)

N° 4 FMS vises cross-mounted on base plate (Art. 827) with center support (Art. 836)



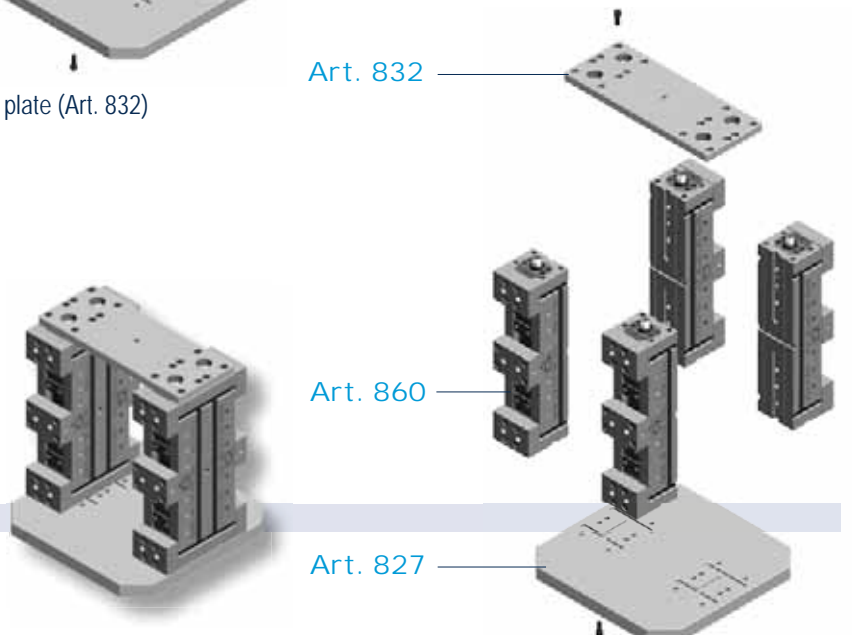
N° 4 morse FMS montate dorso a dorso, fianco a fianco, su piastra base (Art. 827) con piastra di collegamento (Art. 832)

N° 4 FMS vises cross-mounted back-to-back, side by side, on base plate (Art. 827) with connecting plate (Art. 832)



N° 4 morse FMS montate dorso a dorso, su piastra base (Art. 827) con piastra di collegamento (Art. 832)

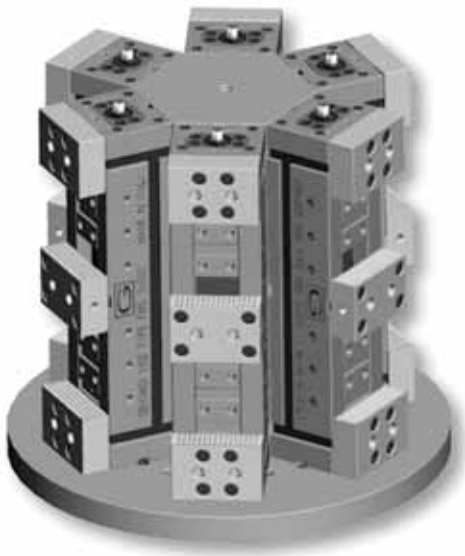
N° 4 FMS vises cross-mounted back-to-back, on base plate (Art. 827) with connecting plate (Art. 832)



MECCANISMO 3ª MANO INCLUSO

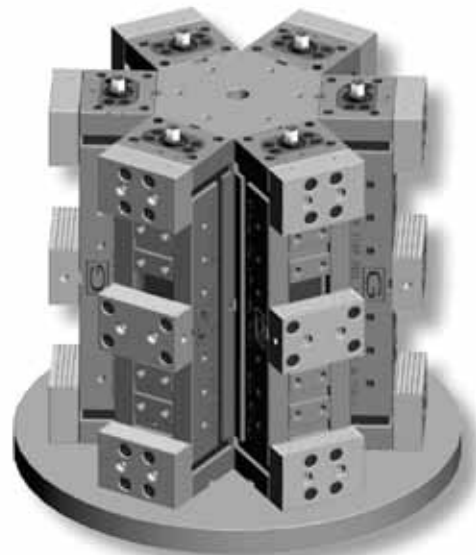
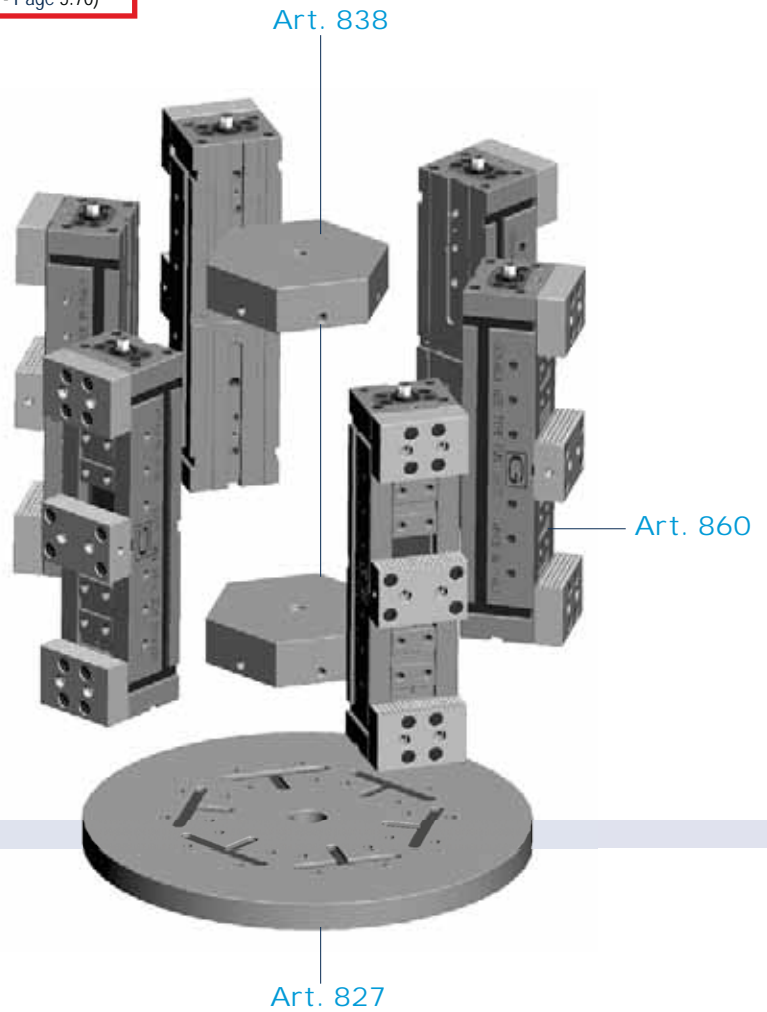
THIRD HAND DEVICE INCLUDED

Art. 850P
(Pag - Page 5.70)



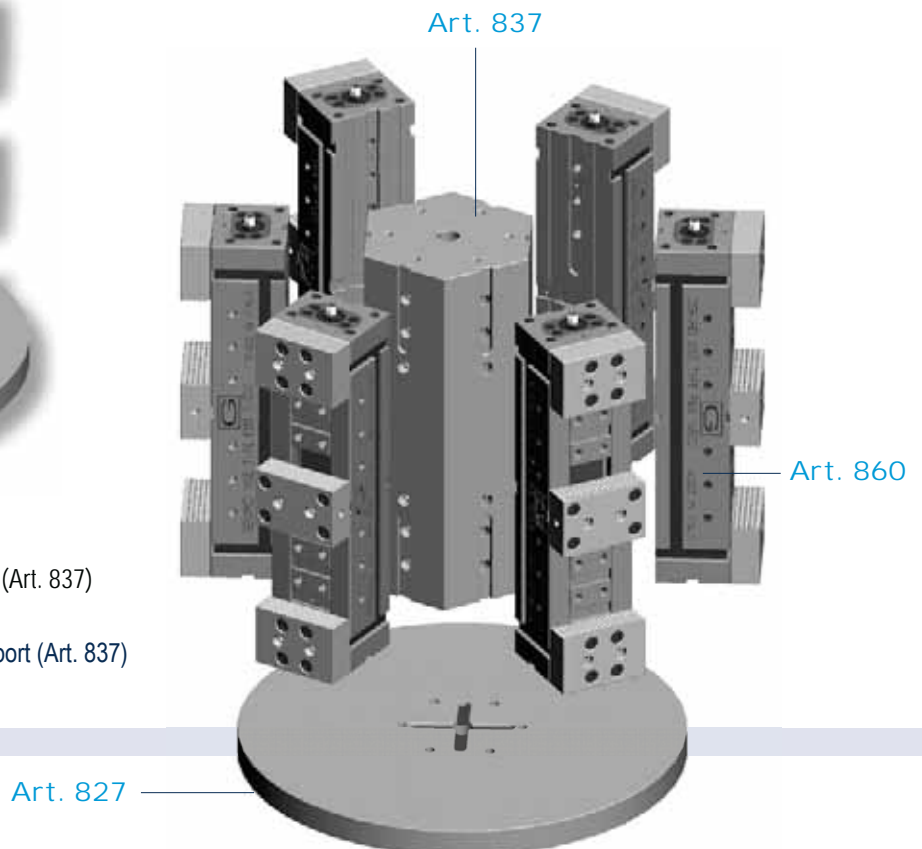
N° 6 morse FMS montate verticalmente
su piastra base (Art. 827) con distanziali esagonali (Art. 838)

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



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)



Tipo (grandezza) morsa / Vise (type) size

kN

1

25 kN

2

25 kN

3

30 kN

Apertura massima fra le slitte / Maximum opening between slides

	1 25 kN		2 25 kN				3 30 kN	
A	56	68	96	116	136	156	136	136
C	70		90				100	
D	200 + 32	300 + 32	300	400	500	600	400	500
E	220 + 32	230 + 32	320	420	520	620	425	525
G	75		95				125	
R	74		94				124	
S	69		89				99	
T	72	116	102	142	182	222	132	182
Y	245 + 32	345 + 32	360	460	560	660	470	570
X	357 + 32	451 + 32	537	637	737	837	637	737
kg	7	10	18	25	32	39	40	45

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


**3 MORSE IN UNA
VISES IN ONE**

Art. 855

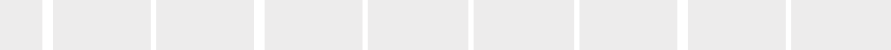
Modulo base universale / Universal vise body module

Art. 855D

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



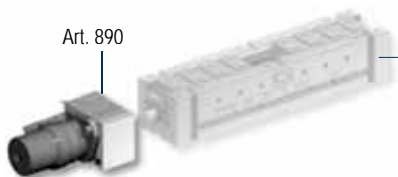
Cod. 5.85.5D120 5.85.5D130 5.85.5D230 5.85.5D240 5.85.5D250 5.85.5D260 5.85.5D340 5.85.5D350



Art. 855 - Modulo base universale / Universal vise body module

Art. 855E

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

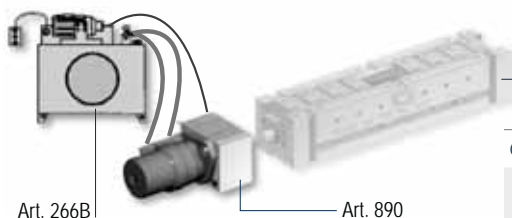


Art. 855 - Modulo base universale / Universal vise body module

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


Art. 855F

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



Art. 855 - Modulo base universale / Universal vise body module

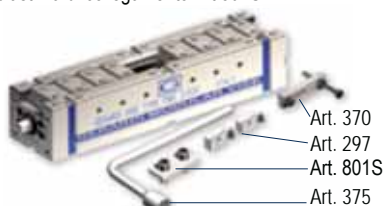
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Art. 855

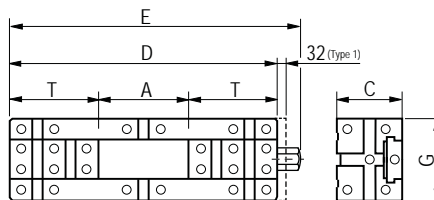
Modulo base universale / Universal vise body module

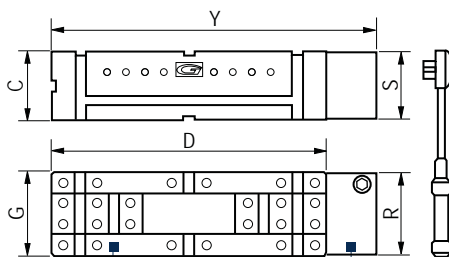
Dotazione standard:

- 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

 Serraggio meccanico
Universal vise body module

Art. 855D

 Meccanica con moltiplicatore di coppia
e chiave dinamometrica
Mechanical with torque multiplier
and torque wrench

Art. 855

Art. 802

Art. 375

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

SPECIAL PRICE

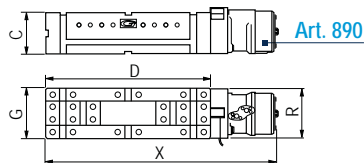
Art. 855D

(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
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Art. 855E

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

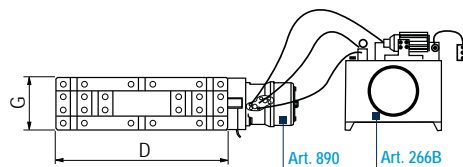


Meccanica con predisposizione elettroidraulica completa di motore, piastra, boccia e finecorsa
Mechanical with prepared hydraulic connection complete with motor plate, bushing and proximity switch

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
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Art. 855F

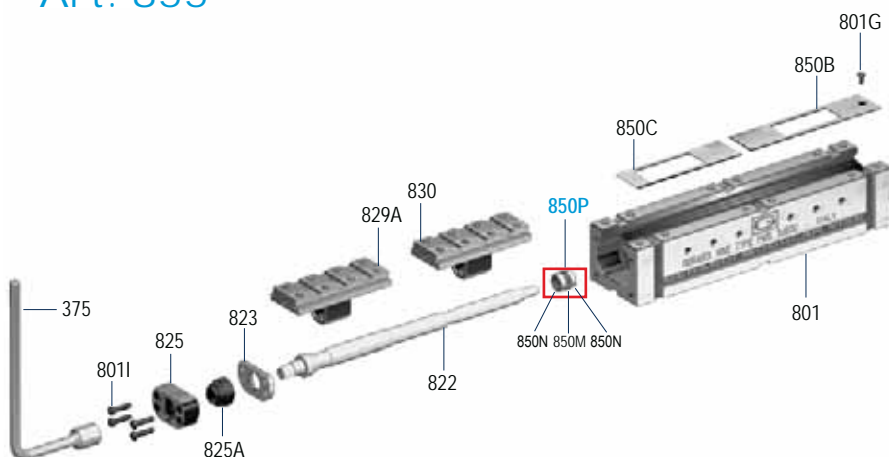
(Art. 855 + 890 + 266B)
Morsa + motore idraulico + centralina
Vise + hydraulic motor + power unit



Meccanica elettroidraulica completa di centralina idraulica e apparecchiatura elettrica con pulsantiera
Mechanical with electrohydraulic power-pack ready to work

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
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Art. 855



Art.	Pag.	Art.	Pag.
375	4.27	850B	5.54
801	5.40	850C	5.54
801G	5.54	-	-
801I	5.54	-	-
805C	5.49	-	-
822	5.46	-	-
823	5.52	-	-
825	5.52	-	-
825A	5.54	-	-
829A	5.44	-	-
830	5.44	-	-



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
	B	25		30				40	
	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	
	W	74		94				124	
kg		9	12	22	29	35	42	44	49

3 MORSE IN UNA
VISES IN ONE



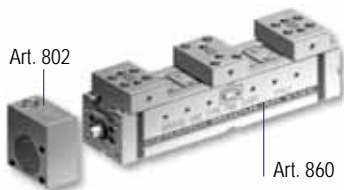
Art. 860

Art. 855 + Art. 805C + n. 2 Art. 810

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

Art. 860D

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



Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

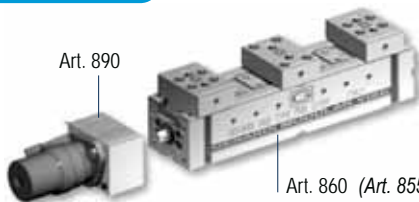
Cod. 5.86.0D120 5.86.0D130 5.86.0D230 5.86.0D240 5.86.0D250 5.86.0D260 5.86.0D340 5.86.0D350

SPECIAL PRICE

SPECIAL PRICE

Art. 860E

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

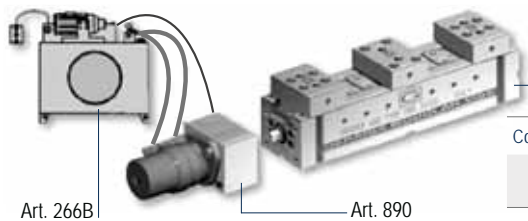


Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

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



Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

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

Art. 860

Morsa doppia, singola, autocentrante con ganasce piane / Double, single, self-centering vise with straight jaws

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

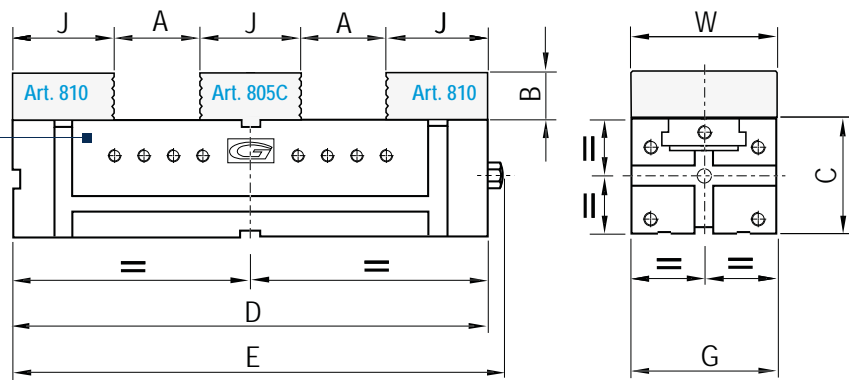


Standard equipment:

- 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

Corpo base
Base body





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

SPECIAL PRICE

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
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Art. 860E

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

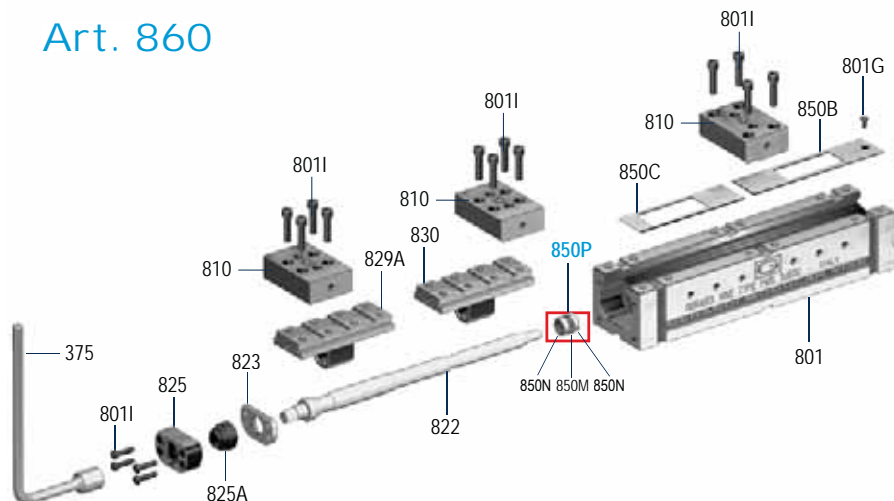
5.86.0E360	5.86.0E370	5.86.0E380	5.86.0E450	5.86.0E460	5.86.0E470	5.86.0E480	5.86.0E560	5.86.0E570	5.86.0E580	5.86.0E680	5.86.0E690	5.86.0E610
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Art. 860F

(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
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Art. 860



Art.	Pag.
375	4.27
801	5.40
801G	5.54
801I	5.54
805C	5.49
822	5.46
823	5.52
825	5.52
825A	5.54
829A	5.44
830	5.44

Art.	Pag.
850B	5.54
850C	5.54
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

Tipo (grandezza) morsa / Vise (type) size

kN	1 25 kN		2 25 kN				3 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
	B	25		30				40	
	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

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**3 MORSE IN UNA
VISES IN ONE**

Art. 863

Art. 855 + Art. 805N + n. 2 Art. 810L

SPECIAL PRICE
SPECIAL PRICE
Art. 863D

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

Art. 802



Art. 863 (Art. 855 + Art. 805N + n. 2 Art. 810L)

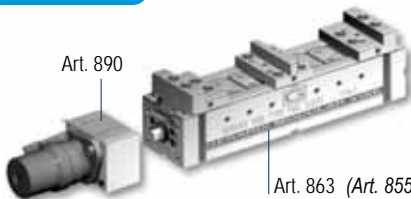
Cod. 5.86.3D120 5.86.3D130 5.86.3D230 5.86.3D240 5.86.3D250 5.86.3D260 5.86.3D340 5.86.3D350

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Art. 863E

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

Art. 890



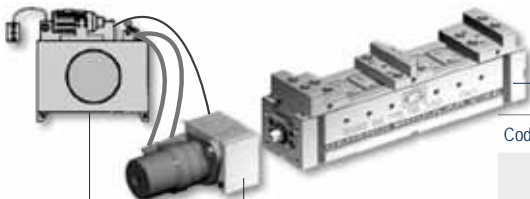
Art. 863 (Art. 855 + Art. 805N + n. 2 Art. 810L)

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

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Art. 863F

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



Art. 863 (Art. 855 + Art. 805N + n. 2 Art. 810L)

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

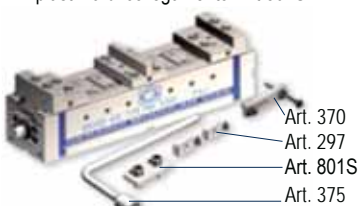
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Art. 863

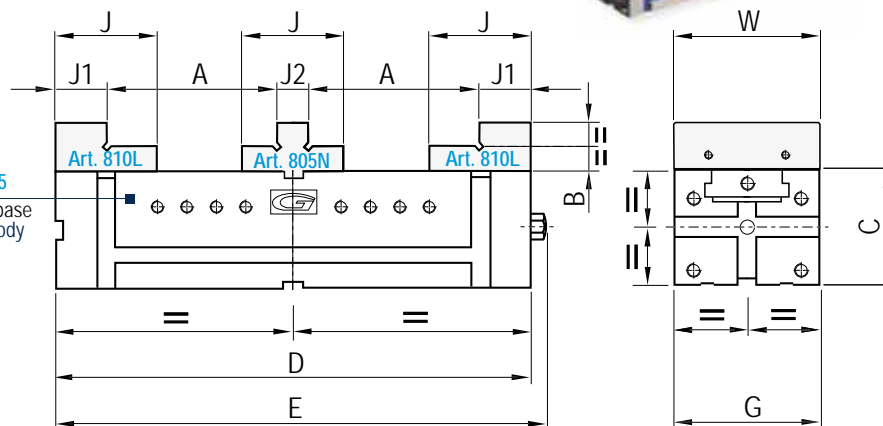
Morsa doppia, singola, autocentrante con ganasce a gradino / Double, single, self-centering vise with step jaws

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
Corpo base
Base body


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

SPECIAL PRICE

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
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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
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Art. 863F

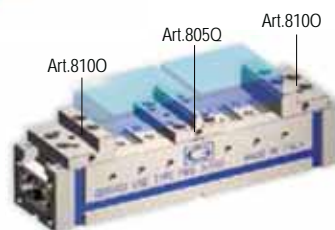
(Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

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
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Esempi applicativi - Application examples:

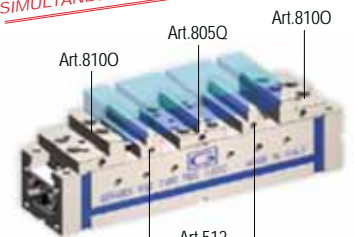


1 ganasce fissa centrale Art.805F
+ 2 ganasce mobili lisce Art.8100 con gradino piccolo (3x5) e grande
1 fixed central jaw Art.805F + 2 smooth movable jaws Art.8100
with small (3x5) and big step



1 ganasce Art.805Q + 2 Art.8100
1 jaw Art.805Q + 2 Art.8100

SERRAGGIO CONTEMPORANEO 4 PEZZI
SIMULTANEOUS 4 WORKPIECES CLAMPING



1 ganasce Art.805Q + 2 Art.8100 + 2 Art.512
1 jaw Art.805Q + 2 Art.8100 + 2 Art.512



Tipo (grandezza) morsa / Vise (type) size		1		2			3		
kN		25 kN		25 kN			30 kN		
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
		B	25	30			40		
		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

3 MORSE IN UNA
3 VISES IN ONE



Art. 865

Art. 855 + Art. 808 + n. 2 Art. 807

Cod.	5.86.51300	5.86.52300	5.86.52400	5.86.52500	5.86.52600	5.86.53400	5.86.53500
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SPECIAL PRICE

Art. 865D

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



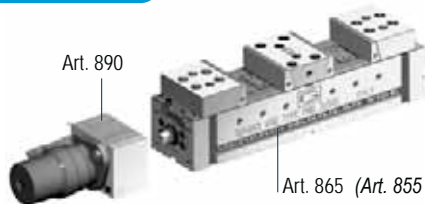
Art. 802

Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

Cod.	5.86.5D130	5.86.5D230	5.86.5D240	5.86.5D250	5.86.5D260	5.86.5D340	5.86.5D350
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Art. 865E

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



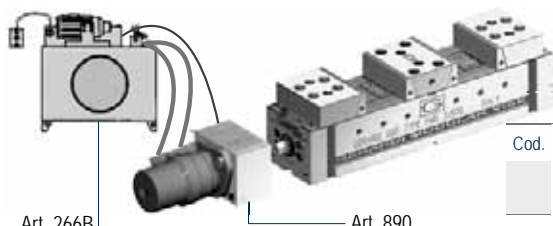
Art. 890

Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

Cod.	5.86.5E130	5.86.5E230	5.86.5E240	5.86.5E250	5.86.5E260	5.86.5E340	5.86.5E350
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Art. 865F

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



Art. 266B

Art. 890

Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

Cod.	5.86.5F130	5.86.5F230	5.86.5F240	5.86.5F250	5.86.5F260	5.86.5F340	5.86.5F350
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Art. 865

Morsa doppia, singola, autocentrante con ganasce a cambio rapido discendente (Sistema a pettine)
Double, single, self-centering vise with quick change pull down jaws (Comb system)

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

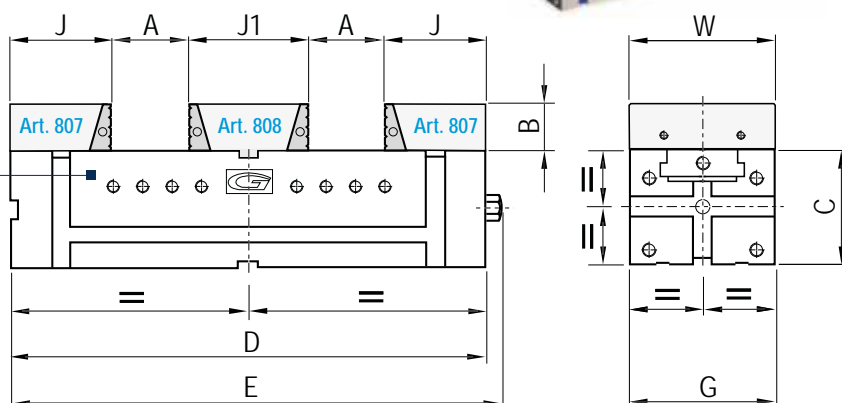


Art. 370
Art. 297
Art. 801S
Art. 375

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
Corpo base
Base body





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
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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
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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
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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
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Esempi applicativi - Application examples:



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



1 ganasca Art.805Q + piastre ganasce Art.806E
1 jaw Art.805Q + Jaw plates Art.806E

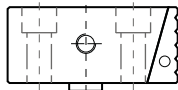


2 piastre ganasce Art.230C + 2 Art.230F
2 jaw plates Art.230C + 2 Art.230F



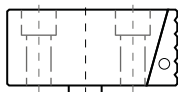
Tipo (grandezza) morsa / Vise (type) size

1	2	3	4	5	6
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Art. 806


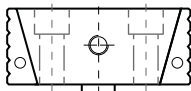
Cod.	5.80.61000	5.80.62000	5.80.63000	5.80.64000	5.80.65000	5.80.66000

Ganaschia fissa con piastra ganaschia intercambiabile rapida / Fixed jaw with quick interchangeable jaw plate

Art. 807


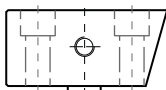
Cod.	5.80.71000	5.80.72000	5.80.73000	5.80.74000	5.80.75000	5.80.76000

Ganaschia mobile con piastra ganaschia intercambiabile rapida / Movable jaw with quick interchangeable jaw plate

Art. 808


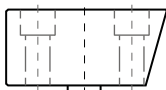
Cod.	5.80.81000	5.80.82000	5.80.83000	5.80.84000	5.80.85000	5.80.86000

Ganaschia fissa doppia con piastre ganasche intercambiabili rapide / Double fixed jaw with quick interchangeable jaw plate

Art. 806A


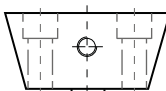
Cod.	5.80.6A100	5.80.6A200	5.80.6A300	5.80.6A400	5.80.6A500	5.80.6A600

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

Art. 807A


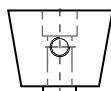
Cod.	5.80.7A100	5.80.7A200	5.80.7A300	5.80.7A400	5.80.7A500	5.80.7A600

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

Art. 808A


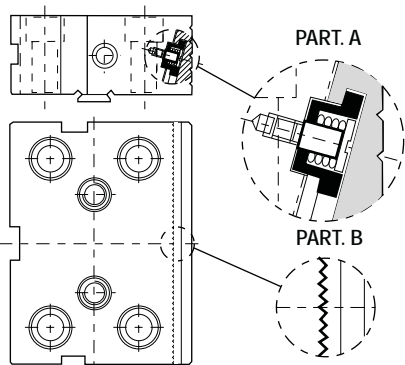
Cod.	5.80.8A100	5.80.8A200	5.80.8A300	5.80.8A400	5.80.8A500	5.80.8A600

Corpo ganaschia fissa doppia per piastre ganasche intercambiabili rapide / Double fixed jaw body for quick interchangeable jaw plate

Art. 808B


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

Corpo ganaschia fissa doppia ridotta per piastre ganasche intercambiabili rapide / Double fixed jaw body narrow for quick interchangeable jaw plate


RAPIDA SOSTITUZIONE DELLE PIASTRE GANASCE DISCENDENTI SENZA BISOGNO DI ALCUN UTENSILE

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

La rapidità di sostituzione delle piastre ganasche 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 ganasche 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.

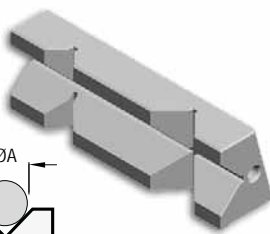
The quickness of the jaw plates replacement is allowed by the new system of pin with spring (PART. A), while the prismatic grooves (PART. B), made with shaped grind wheel on the surface plates, allow a perfect repositioning.

The wide range of interchangeable jaws plates can satisfy the most varied workholding needs.

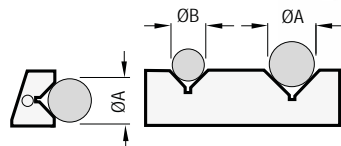
PIASTRE RAPIDE - Dimensioni speciali / QUICK JAW PLATES - Special dimensions

 Piastra ganaschia rapida SINGOLA SPECIALE
 TAYLOR MADE SINGLE quick change law plate

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Art. 806F


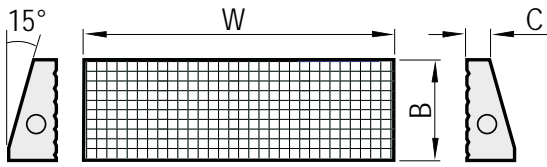
Piastra ganaschia intercambiabile prismatica a pettine
 Per serraggi autocentranti è necessario ordinare n. 2 piastrine prismatiche
 Prismatic comb interchangeable jaw plate
 For self-centering clamping is necessary to order n. 2 prismatic jaws



Ø Min / 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



Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6	
PIASTRE RAPIDE - Ricambi per ganasce FMS a pettine QUICK JAW PLATES - Spares for comb FMS jaws	W	73	93	123	143	168	188
	B	25	30	40	50	60	60
	C	10	10	11	11	16	16



Art. 806B

Piastra ganaschia 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

Art. 806C

Piastra ganaschia intercambiabile liscia a pettine
Smooth comb interchangeable jaw plate



Cod.	5.80.6C100	5.80.6C200	5.80.6C300	5.80.6C400	5.80.6C500	5.80.6C600

Art. 806D

Piastra ganaschia intercambiabile zigrinata a pettine
Serrated comb interchangeable jaw plate



Cod.	5.80.6D100	5.80.6D200	5.80.6D300	5.80.6D400	5.80.6D500	5.80.6D600

Art. 806E *

Piastra ganaschia intercambiabile a gradino a pettine
Step comb interchangeable jaw plate



Cod.	5.80.6E100	5.80.6E200	5.80.6E300	5.80.6E400	5.80.6E500	5.80.6E600

Art. 806F

Piastra ganaschia intercambiabile prismatica a pettine
Prismatic comb interchangeable jaw plate



2 per morsa !! 2 pcs each vise !!						
Cod.	5.80.6F100	5.80.6F200	5.80.6F300	5.80.6F400	5.80.6F500	5.80.6F600

Vedi dimensioni prisma pag. 5.16 / See prisma dimensions pag. 5.16

Art. 806G

Piastra ganaschia intercambiabile a pettine con arresto a 90°
90° interchangeable comb jaw plate



Solo 2 per morsa !! Just 2 pc each vise !!						
Cod.	5.80.6G100	5.80.6G200	5.80.6G300	5.80.6G400	5.80.6G500	5.80.6G600

Art. 806H

Piastra ganaschia intercambiabile bombata a pettine
Round comb interchangeable jaw plate



Cod.	5.80.6H100	5.80.6H200	5.80.6H300	5.80.6H400	5.80.6H500	5.80.6H600

Art. 806M

Piastra ganaschia intercambiabile a pettine per angolo di 30° o 45°
30° or 45° angle interchangeable comb jaw plate



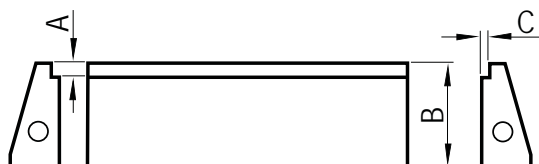
Solo 2 per morsa !! Just 2 pc each vise !!						
Cod.	5.80.6M100	5.80.6M200	5.80.6M300	5.80.6M400	5.80.6M500	5.80.6M600

*

**KIT RISPARMIO
SAVING KIT**

Art. 806E

Piastra ganaschia intercambiabile a gradino a pettine (SET di coppie)
Step comb interchangeable jaw plate (SET of pair)



A	Set di 8 pezzi Set of 8 pcs.		Set di 10 pezzi Set of 10 pcs.		Set di 14 pezzi Set of 14 pcs.		Set di 14 pezzi Set of 14 pcs.		Set di 14 pezzi Set of 14 pcs.	
	3	5	3	5	3	5	3	5	3	5
	8	13	8	13	8	13	8	13	8	13
	-	-	-	18	18	18	18	18	18	18
	-	-	-	-	23	23	23	23	23	23
	-	-	-	-	28	28	28	28	28	28
B	25	30	40	50	60	60				
C	3	3	3	3	3	3				
Cod.	5.80.6E112	5.80.6E212	5.80.6E312	5.80.6E412	5.80.6E512	5.80.6E612				

**3 MORSE IN UNA
VISES IN ONE**



Art. 866

Art. 855 + Art. 805G + n. 2 Art. 810X

Tipo (grandezza) morsa / Vise (type) size	kN	1			2			3	
		25 kN			25 kN			30 kN	
Apertura massima / Maximum opening	A	2 x 50	2 x 34	2 x 84	2 x 134	2 x 184	2 x 52	2 x 102	
	B	25			30		40		
	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	72			84		106		
	J1	56			64		84		
	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
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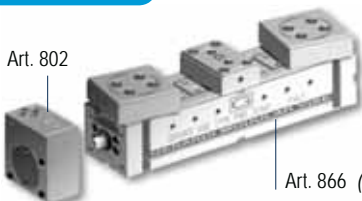
SPECIAL PRICE

SPECIAL PRICE

Art. 866D

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

Art. 802



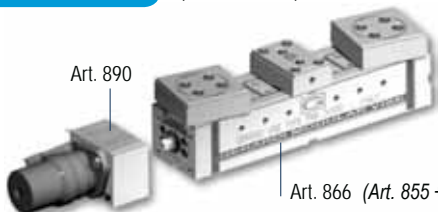
Art. 866 (Art. 855 + Art. 805G + n. 2 Art. 810X)

Cod.	5.86.6D130	5.86.6D230	5.86.6D240	5.86.6D250	5.86.6D260	5.86.6D340	5.86.6D350
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Art. 866E

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

Art. 890

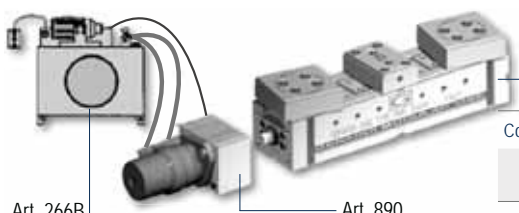


Art. 866 (Art. 855 + Art. 805G + n. 2 Art. 810X)

Cod.	5.86.6E130	5.86.6E230	5.86.6E240	5.86.6E250	5.86.6E260	5.86.6E340	5.86.6E350
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Art. 866F

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



Art. 866 (Art. 855 + Art. 805G + n. 2 Art. 810X)

Cod.	5.86.6F130	5.86.6F230	5.86.6F240	5.86.6F250	5.86.6F260	5.86.6F340	5.86.6F350
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Art. 866

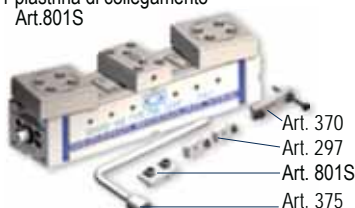
Morsa doppia, singola, autocentrante con ganasce oscillanti a gradino (3 x 5)
Double, single, self-centering vise with floating step jaws (3 x 5)

Dotazione standard:

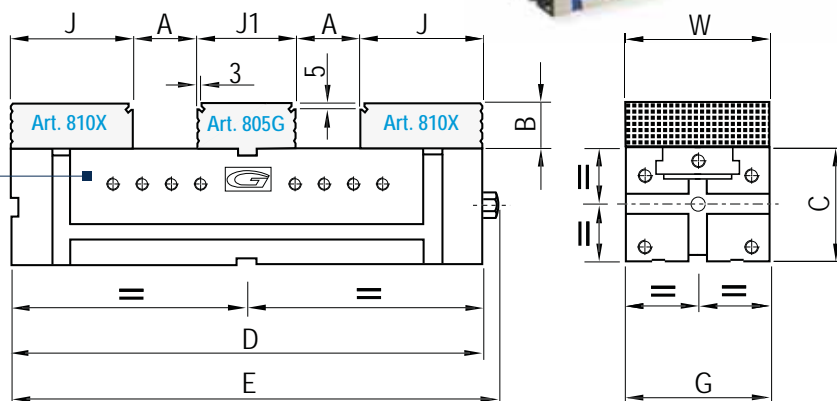
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art.801S

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
Corpo base
Base body



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

SPECIAL PRICE

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. 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

Esempi applicativi - Application examples:



Serraggio di particolari grezzi - Rough workpieces clamping



Serraggio particolari grezzi - Rough workpieces clamping

3 MORSE IN UNA
VISE IN ONE

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)

Art. 810Z

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

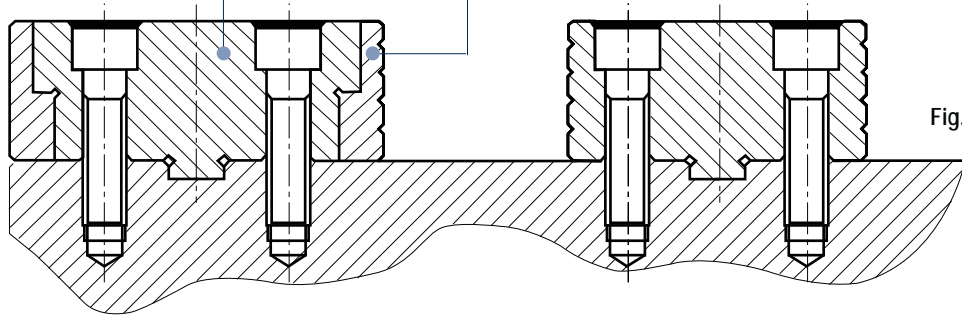


Fig. 1 Pic. 1

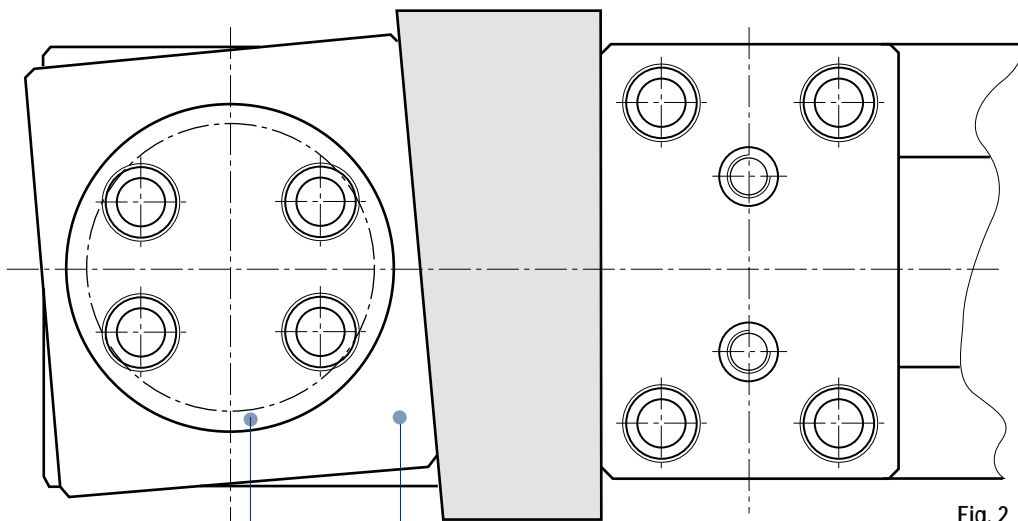


Fig. 2 Pic. 2

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

Art. 810Z

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)

Art. 810W

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 parallels (Pic. 2). In fact thanks to the step block spindle (Art. 810Z - 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.

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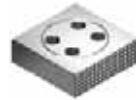
Art. 810W



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

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)

Art. 810X



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

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)

Art. 810Y



Cod.	5.81.0Y100	5.81.0Y200	5.81.0Y300	5.81.0Y400	5.81.0Y500	5.81.0Y600

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

Art. 810Z



Cod.	5.81.0Z100	5.81.0Z200	5.81.0Z300	5.81.0Z400	5.81.0Z500	5.81.0Z600

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

Art. 810WA



Cod.	5.81.0WA10	5.81.0WA20	5.81.0WA30	5.81.0WA40	5.81.0WA50	5.81.0WA60

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

Art. 810XA



Cod.	5.81.0XA10	5.81.0XA20	5.81.0XA30	5.81.0XA40	5.81.0XA50	5.81.0XA60

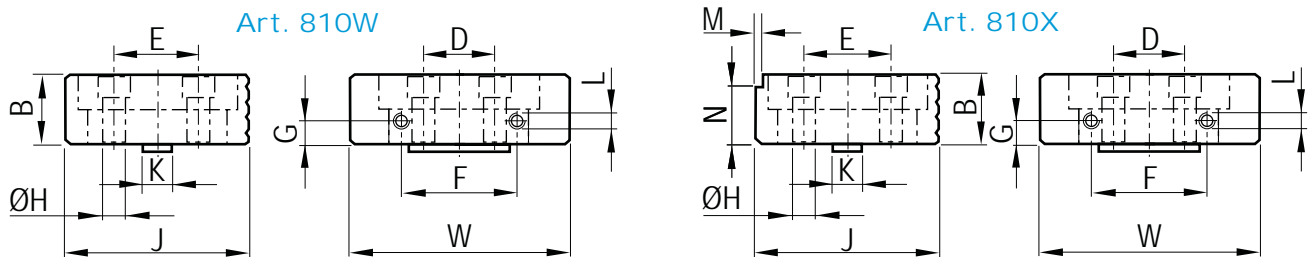
Corpo ganascia mobile oscillante con gradino 3x5 zigrinata da un lato / Body floating movable jaw with 3x5 step one side serrated

Art. 810YA



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

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



Tipo (grandezza) morsa / Vise (type) size

mm	1	2	3	4	5	6	Tolleranze / 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			30 kN	
A1	91	91	141	191	241	141	191
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

 Vedi esempi applicativi a pag. 5.55
 See application examples on page 5.55

**3 MORSE IN UNA
VISES IN ONE**

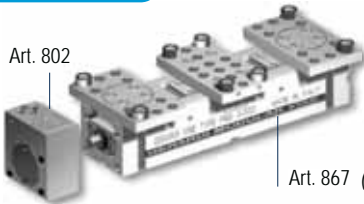
Art. 867

Art. 855 + Art. 805U + n. 2 Art. 810U

Cod.	5.86.71300	5.86.72300	5.86.72400	5.86.72500	5.86.72600	5.86.73400	5.86.73500
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Art. 867D

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

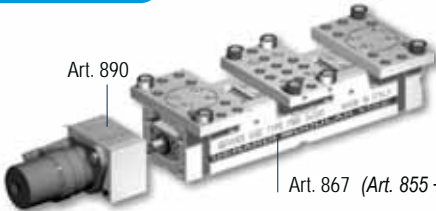


Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

Cod.	5.86.7D130	5.86.7D230	5.86.7D240	5.86.7D250	5.86.7D260	5.86.7D340	5.86.7D350
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Art. 867E

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

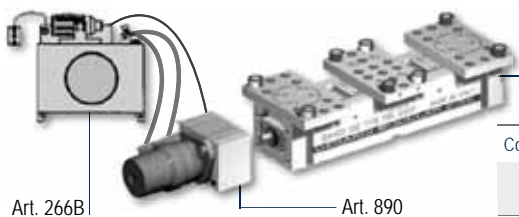


Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

Cod.	5.86.7E130	5.86.7E230	5.86.7E240	5.86.7E250	5.86.7E260	5.86.7E340	5.86.7E350
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Art. 867F

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



Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

Cod.	5.86.7F130	5.86.7F230	5.86.7F240	5.86.7F250	5.86.7F260	5.86.7F340	5.86.7F350
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Art. 867

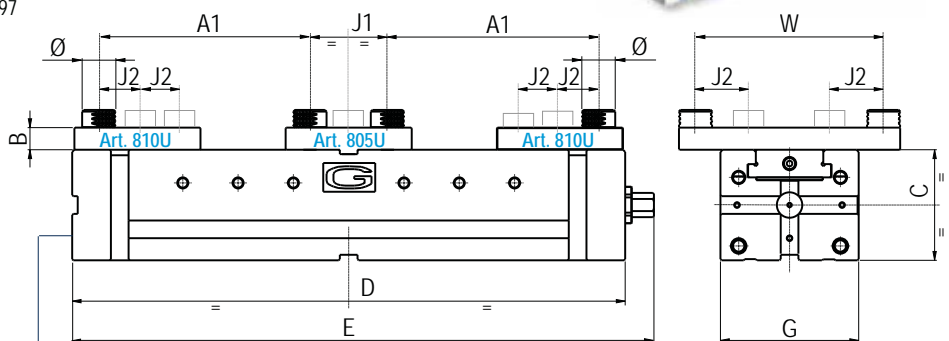
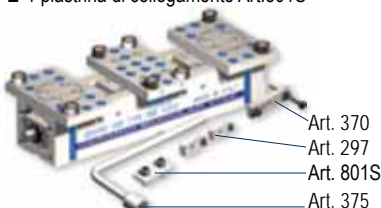
 Morsa doppia, singola, autocentrante con ganasce oscillanti regolabili /
 Double, single, self-centering vise with floating adjustable jaws

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 Corpo base / Base body



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		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		100		
35		40		40		40		30 (H = 16)		40 (H = 30)		
170		220		250		300		50		240		
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

SPECIAL PRICE

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. 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

Esempi applicativi - Application examples:

Vedi pag. 5.55 - See page 5.55



4 inserti - 4 inserts



6 inserti - 6 inserts



8 inserti - 8 inserts

3 MORSE IN UNA
VISES IN ONE

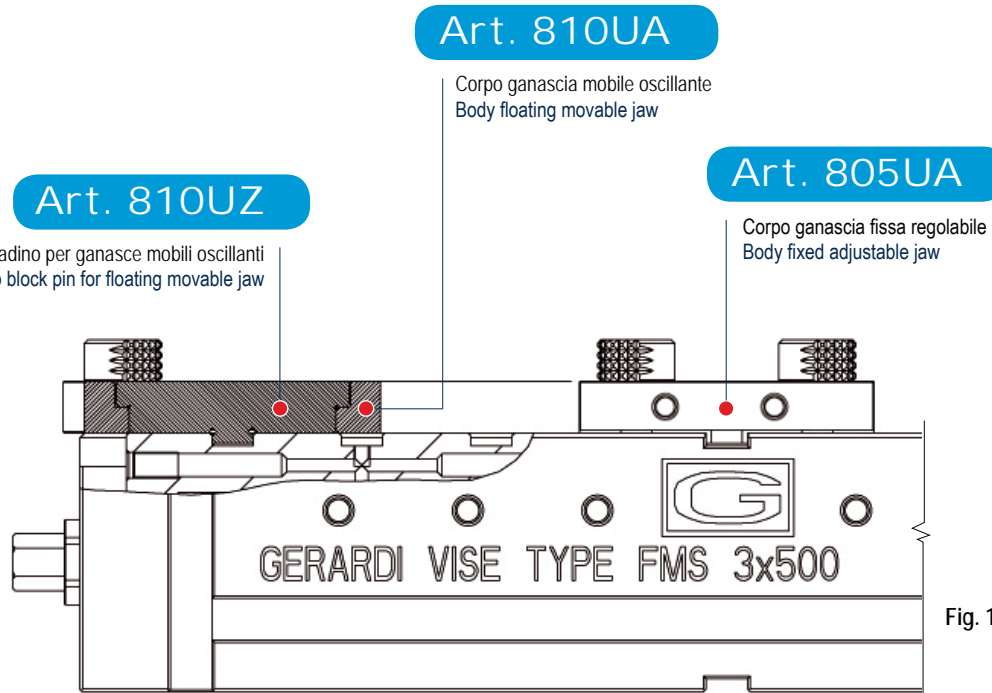


Fig. 1 Pic. 1

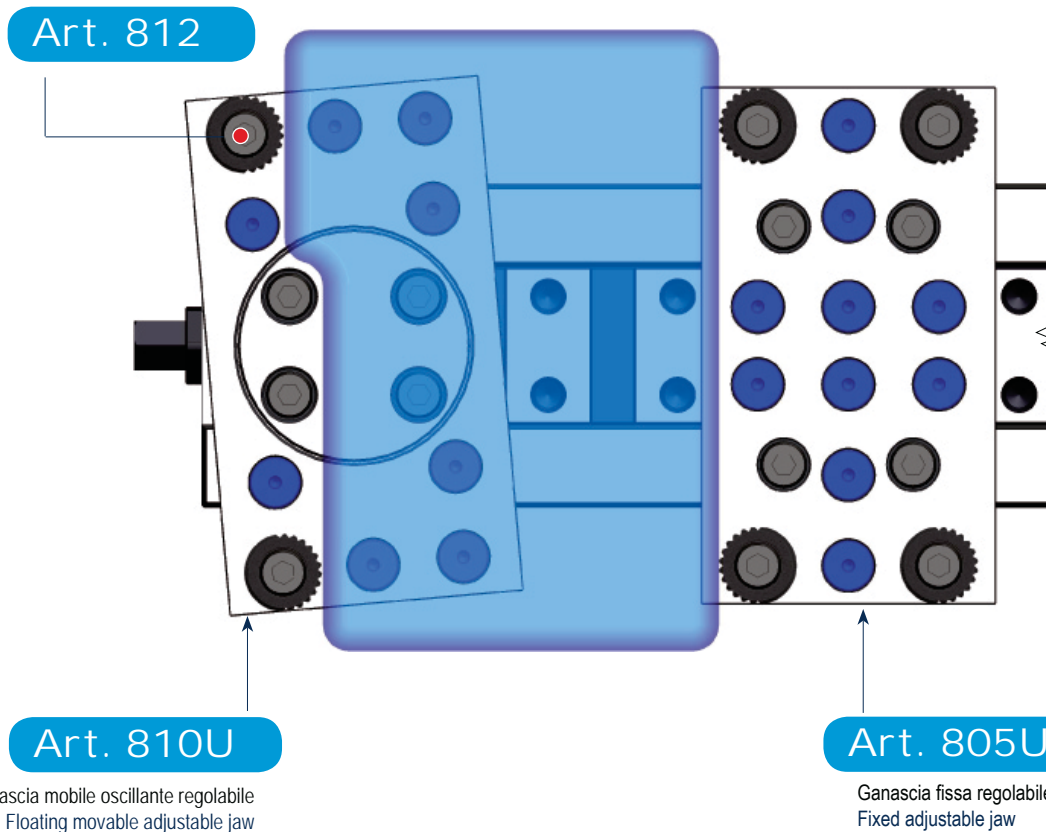
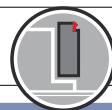


Fig. 2 Pic. 2

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.

Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6	
Art. 810U	Ganascia mobile oscillante regolabile Floating movable adjustable jaw		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 regolabile Movable adjustable jaw		Cod. 5.81.0Q100	5.81.0Q200	5.81.0Q300	5.81.0Q400	5.81.0Q500	5.81.0Q600
Art. 810QA	Corpo ganascia mobile regolabile Body adjustable movable jaw		Cod. 5.81.0QA10	5.81.0QA20	5.81.0QA30	5.81.0QA40	5.81.0QA50	5.81.0QA60
Art. 805U	Ganascia fissa regolabile Fixed adjustable jaw		Cod. 5.80.5U100	5.80.5U200	5.80.5U300	5.80.5U400	5.80.5U500	5.80.5U600
Art. 805UA	Corpo ganascia fissa regolabile Body fixed adjustable jaw		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		
			H	16		30		
Art. 812A	Coppia di inserti lisci Pair of smooth insert		Cod.	5.81.21000		5.81.25000		
			Cod.	5.81.2A100		5.81.2A500		
			Cod.	5.81.2C100		5.81.2C500		
Art. 812C	Coppia di inserti zigrinati Pair of serrated insert							
Art. 813	Coppia di inserti lisci e zigrinati alti Pair of smooth and serrated high insert		Ø	30		40		
			H	28		50		
Art. 813A	Coppia di inserti lisci alti Pair of smooth high insert		Cod.	5.81.31000		5.81.35000		
			Cod.	5.81.3A100		5.81.3A500		
			Cod.	5.81.3C100		5.81.3C500		
Art. 813C	Coppia di inserti zigrinati alti Pair of serrated high insert							
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		
			Cod.	5.81.5A100		5.81.5A500		
			Cod.	5.81.5C100		5.81.5C500		
Art. 815C	Coppia di inserti zigrinati a gradino Pair of serrated step insert							
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		



3 MORSE IN UNA
VISES IN ONE

Tipo (grandezza) morsa / Vise (type) size

kN	1		2				3	
	25 kN		25 kN				30 kN	
A	130	230	182	282	382	482	244	344
B	99,5				117			137
C	70				90			100
D	232		300	400	500	600	400	500
E	252		320	420	520	620	425	525
F	169,5				207			237
G	75				95			125
H	75				85			98
L	40,5				48,5			77,5
J3	76	76			101			132
J4	55	55			63			82
X	39,5				47			57
W	74				94			124
kg	-				-			-

Art. 868

(Art. 855 + n. 2 Art. 814 + n. 2 Art. 805V)

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
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Art. 868 (Art. 855 + n. 2 Art. 814 + n. 2 Art. 805V)

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
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Art. 868 (Art. 855 + n. 2 Art. 814 + n. 2 Art. 805V)

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
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Art. 266B

Art. 890

Art. 868 (Art. 855 + n. 2 Art. 814 + n. 2 Art. 805V)

Art. 868

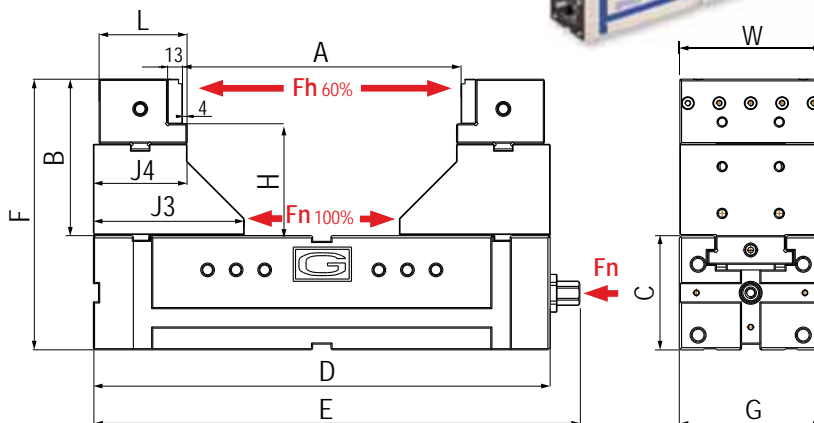
Morsa autocentrante (opzione doppia o singola) con ganasce alte / Self-centering vise (double or single option) with high jaws

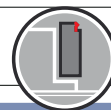
Dotazione standard:

- 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		
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	
	77,5			96				101,5			101,5	
	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
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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
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Art. 868E

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

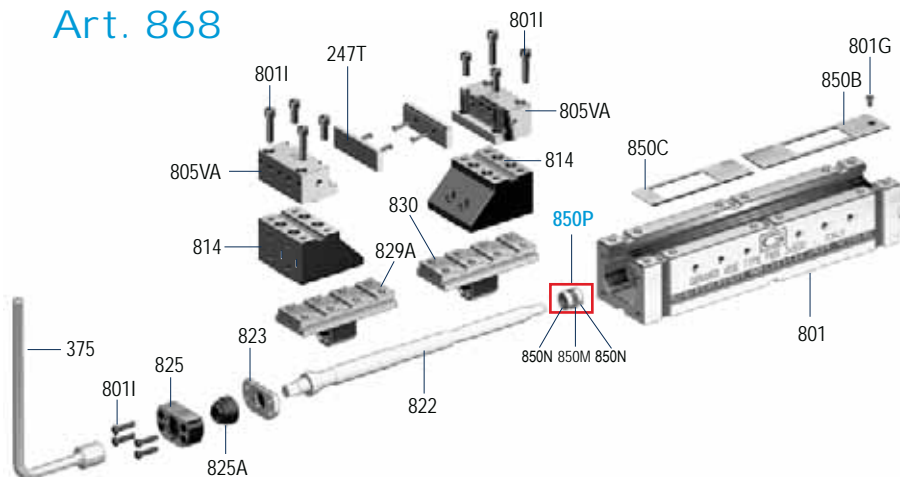
5.86.8E360	5.86.8E370	5.86.8E380	5.86.8E450	5.86.8E460	5.86.8E470	5.86.8E480	5.86.8E560	5.86.8E570	5.86.8E580	5.86.8E680	5.86.8E690	5.86.8E610
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Art. 868F

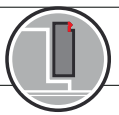
(Art. 868 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

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
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Art. 868

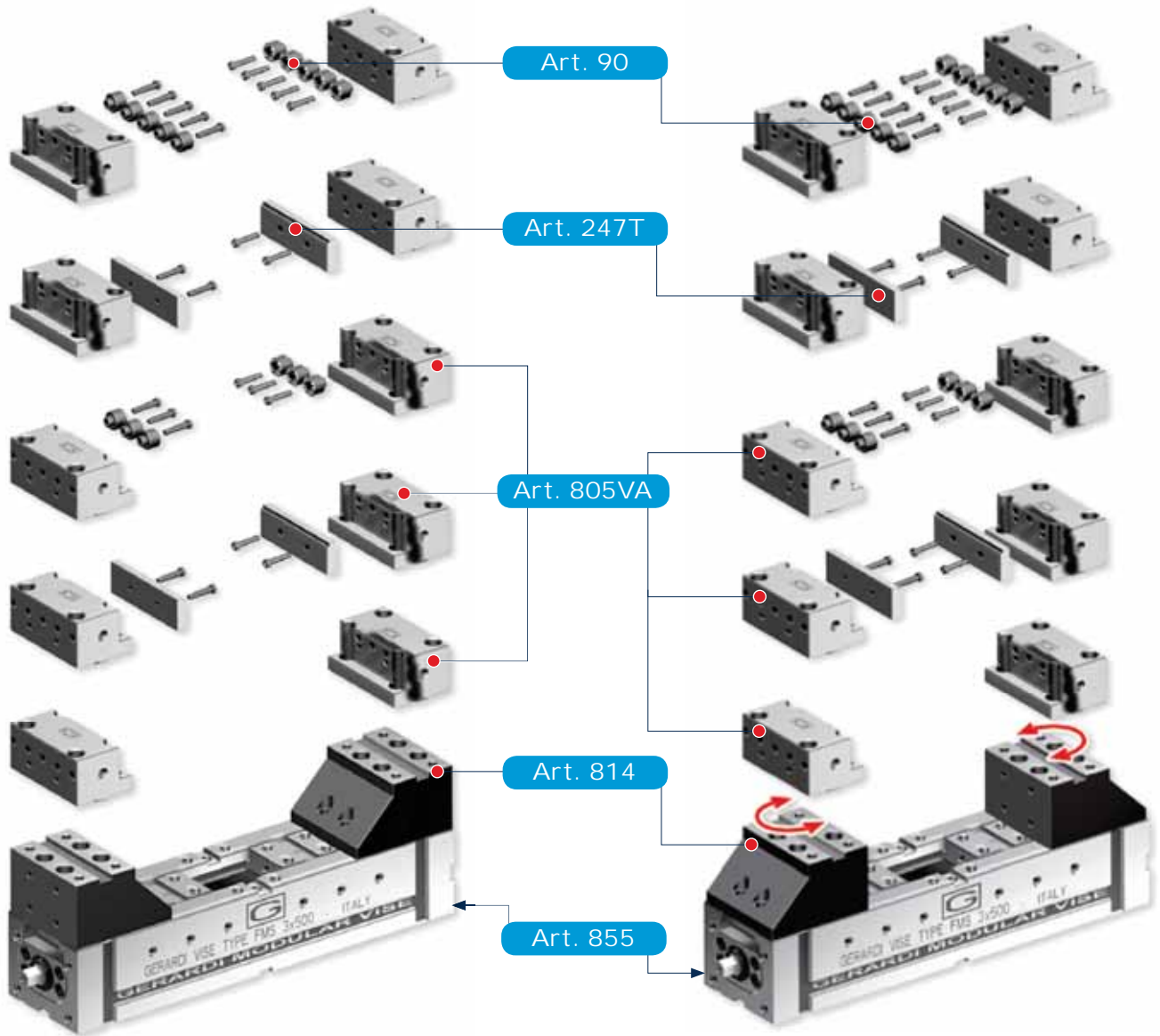


Art.	Pag.	Art.	Pag.
375	4.27	850B	5.54
801	5.40	850C	5.54
801G	5.54	850M	5.54
801I	5.54	850N	5.54
810J	5.51	850P	5.54
822	5.46	814	5.50
823	5.62	805V	5.29
825	5.62	247T	5.29
825A	5.54	-	-
829A	5.44	-	-
830	5.44	-	-



POSSIBILI COMBINAZIONI con Art.868 - POSSIBLE ARRANGEMENTS with Art.868

Art. 868



Possibilità di utilizzo di qualsiasi ganascia fissa FMS anzichè 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



Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
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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

Puntale temprato GRIP
 Hardened GRIP Point



Cod.	5.90.10000

Art. 247T (W2)

Piastrina piana temprata GRIP
 Hardened straight jaw plate GRIP



Cod. Art. 247T	4.24.7T100	4.24.7T200	4.24.7T300	4.24.7T400	4.24.7T500	4.24.7T600
cad / each						

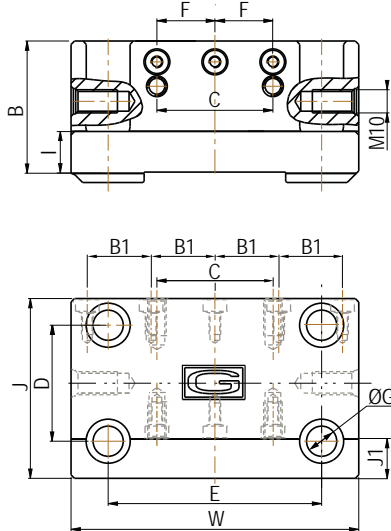
PIASTRE GANASCE "GRIP"
 <Superficie Surface > Pressione Pressure



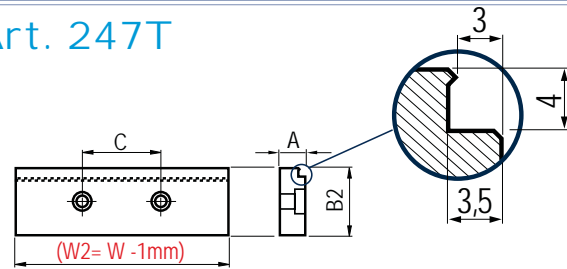
Per qualsiasi piastra piana speciale, raddoppiare il prezzo / For special taylor made straight jaw plate double the price

Art. 805VA

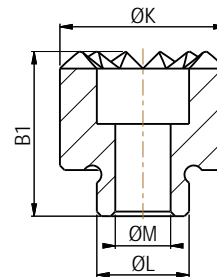
Corpo Ganascia
 Jaw for plates and points



Art. 247T



Art. 90



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						
ØG	9	11	13	17	17	21
I	15	15	18	18	18	20
J	40,5	48,5	77,5	96	101,5	101,5
J1				17		
K	-			18		-
L	-			10 h8		-
M	-			6		-

3 MORSE IN UNA VISES IN ONE



Tipo (grandezza) morsa / Vise (type) size		1 25 kN		2 25 kN				3 30 kN	
kN									
Ø Apertura minima-massima / Ø minimum-maximum opening	A	10 / 25	10 / 25	20 / 50	20 / 50	20 / 50	20 / 50	40 / 100	40 / 100
Ø Apertura minima-massima / Ø minimum-maximum opening	A1	10 / 15	10 / 15	10 / 25	10 / 25	10 / 25	10 / 25	25 / 50	25 / 50
	B	34		55				90	
	C	70		90				100	
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	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	52

Art. 870

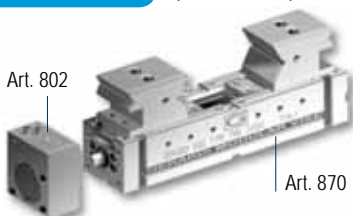
Art. 855 + n. 2 Art. 810J

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
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SPECIAL PRICE

Art. 870D

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

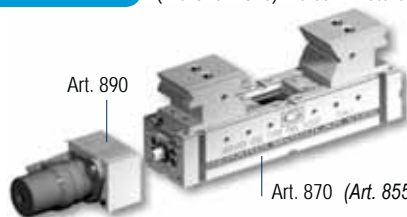


Cod.	5.87.0D120	5.87.0D130	5.87.0D230	5.87.0D240	5.87.0D250	5.87.0D260	5.87.0D340	5.87.0D350
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Art. 870 (Art. 855 + n. 2 Art. 810J)

Art. 870E

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

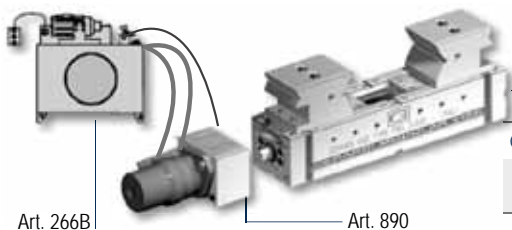


Cod.	5.87.0E120	5.87.0E130	5.87.0E230	5.87.0E240	5.87.0E250	5.87.0E260	5.87.0E340	5.87.0E350
------	------------	------------	------------	------------	------------	------------	------------	------------

Art. 870 (Art. 855 + n. 2 Art. 810J)

Art. 870F

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



Art. 870 (Art. 855 + n. 2 Art. 810J)

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
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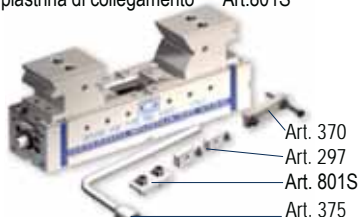
Art. 870

Morsa autocentrante (opzione doppia o singola) con ganasce prismatiche / Self-centering vise (double or single option) with prismatic jaws



Dotazione standard:

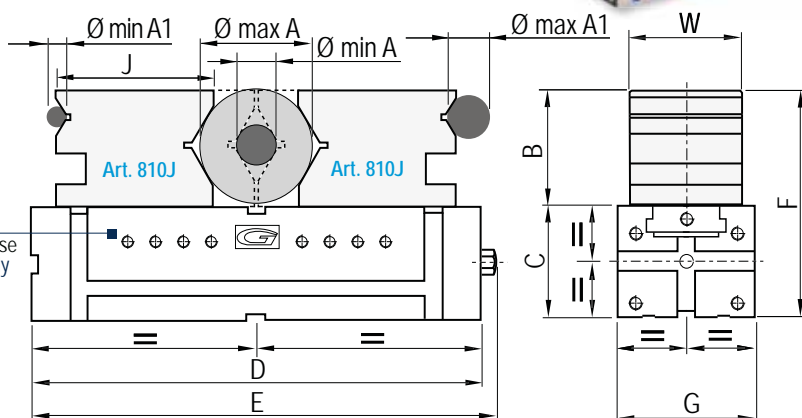
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art.801S



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
Corpo base
Base body



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

SPECIAL PRICE

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

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

Esempi applicativi - Application examples:



Ganasce posizionabili a 180°
Jaws positionable at 180°

N.B. Realizzabili versioni speciali per diametro **Max.1500** - Special Types available on request for up to Ø1500

Tipo (grandezza) morsa / Vise (type) size	kN	1 25 kN		2 25 kN			3 30 kN		
Apertura massima / Maximum opening	A	85	185	170	270	370	470	230	330
Minima apertura interna / Minimum opening inside-outside	A1	115 / 200	115 / 300	130 / 300	130 / 400	130 / 500	130 / 600	170 / 400	170 / 500
	B	25		30			40		
	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		
	W	74		94			124		
	kg	7	10	18	25	32	39	40	45
	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

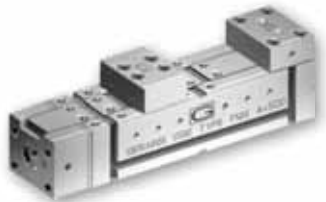
SPECIFICA SOLO PER SERRAGGI SINGOLI
SPECIFIC FOR SINGLE CLAMPING ONLY



Art. 800

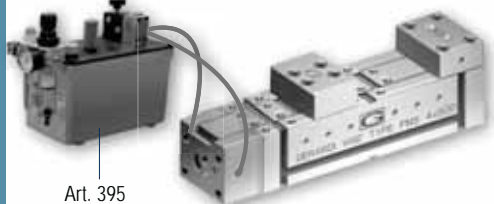
Questa morsa, pur essendo parte del programma FMS, **non è predisposta per serraggi doppi o autocentranti**

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



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
------	------------	------------	------------	------------	------------	------------	------------	------------

Art. 800B Meccanica con centralina elettroidraulica con pulsantiera chiavi in mano **solo per serraggi singoli**
 Mechanical with helctrohydraulic power pack and push botton switch ready to work **only for single clamping**



Art. 395

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 Meccanica con moltiplicatore di coppia e chiave dinamometrica applicabile prontamente senza modifiche, **solo per serraggi singoli**
 Mechanical with torque multiplier and torque wrench **only for single clamping**



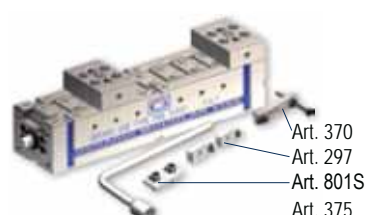
Art. 802

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
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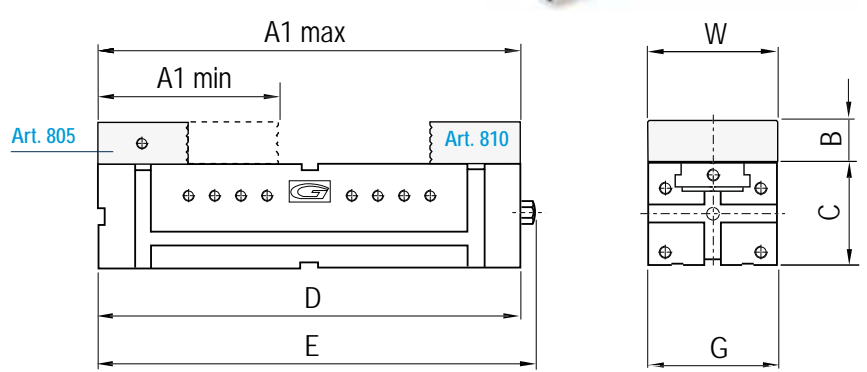
Art. 800

Serraggio meccanico **solo per serraggi singoli** / Mechanical clamping **only for single clamping**

- 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		
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**

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. 800B

Meccanica con centralina elettroidraulica con pulsantiera chiavi in mano **solo per serraggi singoli**
Mechanical with helctrohydraulic power pack and push botton switch ready to work **only for single clamping**

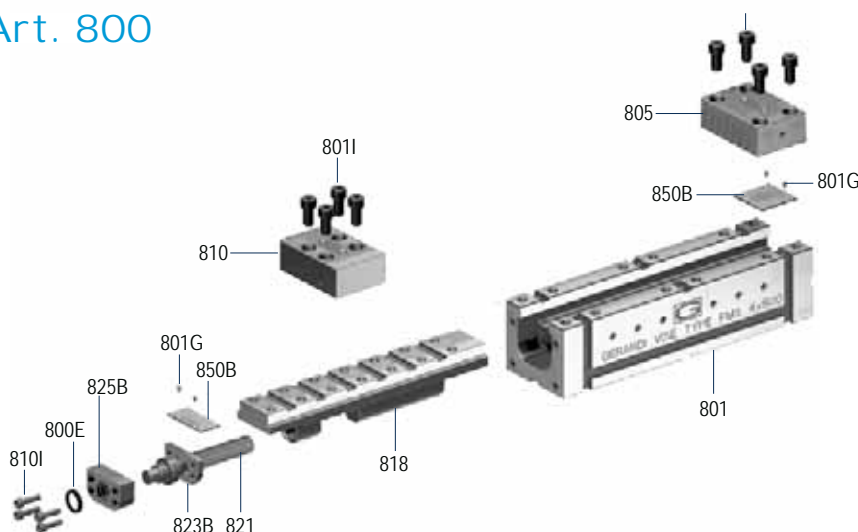
5.80.0B360	5.80.0B370	5.80.0B380	5.80.0B450	5.80.0B460	5.80.0B470	5.80.0B480	5.80.0B560	5.80.0B570	5.80.0B580	5.80.0B680	5.80.0B690	5.80.0B610
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

Art. 800D

Meccanica con moltiplicatore di coppia e chiave dinamometrica applicabile prontamente senza modifiche, **solo per serraggi singoli**
Mechanical with torque multiplier and torque wrench **only for single clamping**

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
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Art. 800



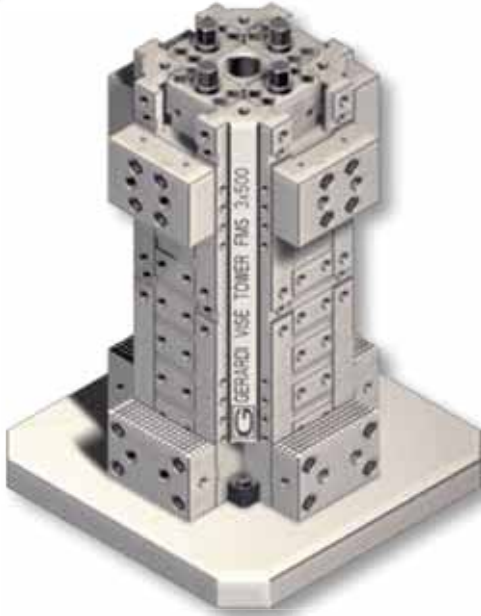
Art.	Pag.	Art.	Pag.
800E	5.54	-	-
801	5.40	-	-
801G	5.54	-	-
8011	5.54	-	-
805	5.48	-	-
810	5.50	-	-
818	5.44	-	-
821	5.46	-	-
823B	5.52	-	-
825B	5.52	-	-
850B	5.54	-	-

Tipo (grandezza) morsa / Vise (type) size

kN	1 25 kN		2 25 kN				3 30 kN	
	Art. 800C	Apertura massima / Max. opening						
A	85	185	170	270	370	470	230	330
A1	115		130				170	
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

SPECIFICA SOLO PER SERRAGGI SINGOLI
 SPECIFIC FOR SINGLE CLAMPING ONLY



Questo cubo-morsa, pur essendo parte del programma FMS, **non è predisposta per serraggi doppi o autocentranti**

Art. 800C

Cubo-morsa singola **specifico solo per serraggi singoli**
 Vise tower single **specific for single clamping only**

Dotazione standard per Art. 800C

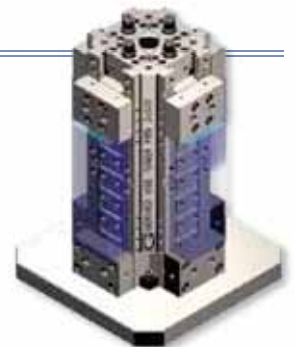
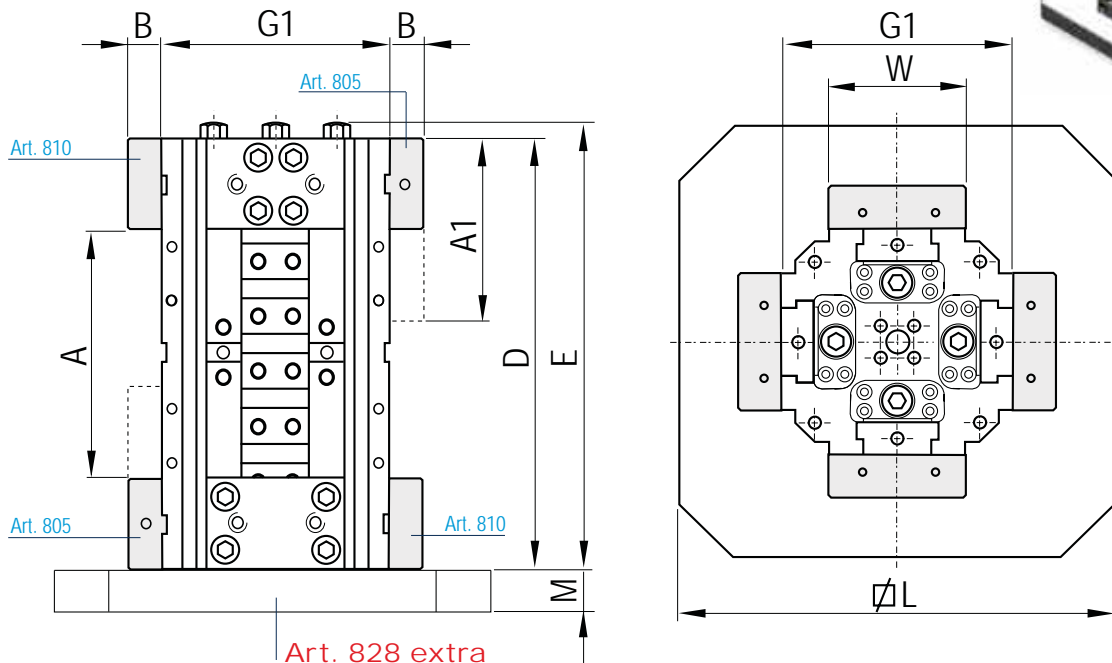
- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassa di legno

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

Art. 800C

Cubo-morsa FMS con ganasce piane per il serraggio di 4 pezzi / FMS vise tower with straight jaws for 4 clamping stations





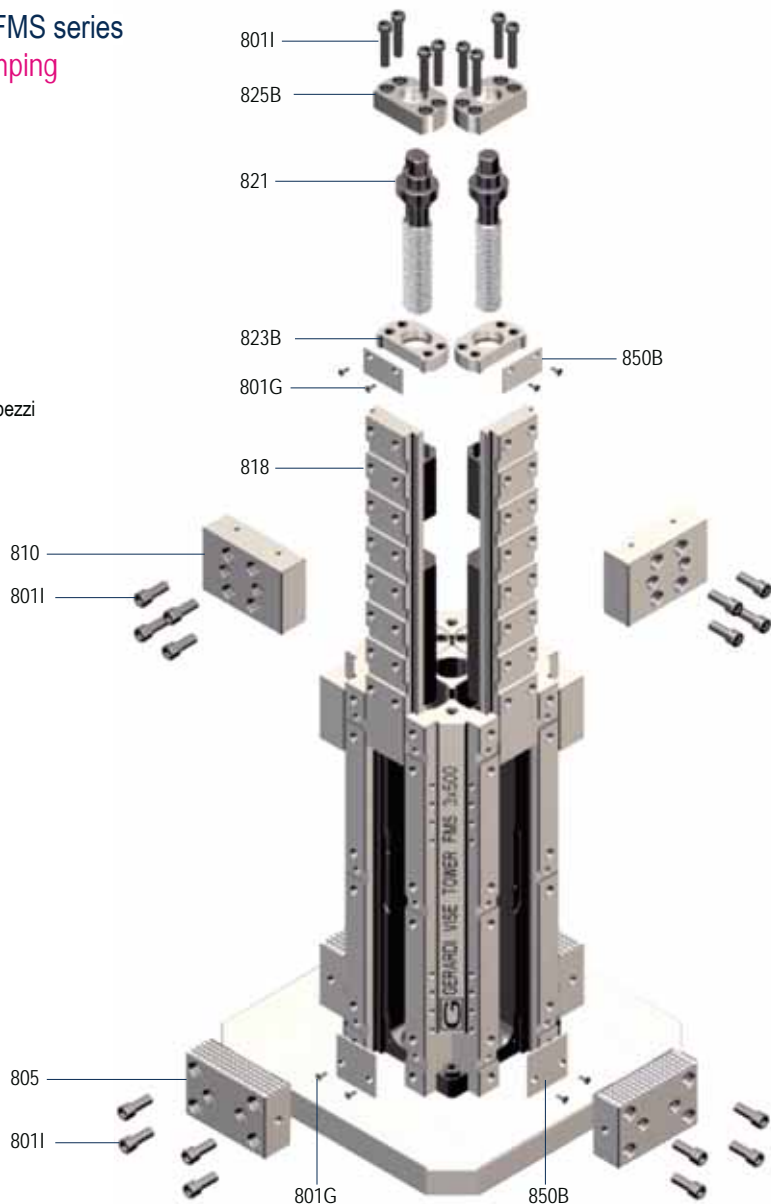
3 30 kN			4 30 kN				5 32 kN			6 32 kN		
430	530	630	300	400	500	600	380	480	580	480	580	680
170			509				630			810		
40			50				60			60		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210			245				280			290		
400			450				500			550		
38			38				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

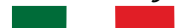
This type of vise tower even if it is part of the FMS series is not suitable for double or self-centering clamping

Art. 800C

Esploso di cubo-morsa FMS con ganasce piane per il serraggio di 4 pezzi
 Explode of FMS vise tower with straight jaws for 4 clamping stations

Art.	Pag.
801G	5.54
801I	5.54
810	5.50
818	5.44
821	5.46
823B	5.52
825B	5.52
850B	5.54
-	-
-	-
-	-





Tipo (grandezza) morsa / Vise (type) size

kN

1

25 kN

2

25 kN

3

30 kN

Art. 860C

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
---	--------	--------	--------	---------	---------	---------	--------	---------

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	
----	-----	--	--	-----	--	--	-----	--

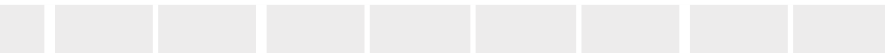
L	300			350			400	
---	-----	--	--	-----	--	--	-----	--

M	33			33			38	
---	----	--	--	----	--	--	----	--

W	74			94			124	
---	----	--	--	----	--	--	-----	--

kg	30	45	53	70	88	106	90	112
----	----	----	----	----	----	-----	----	-----

Cod.	5.860.0C120	5.86.0C130	5.86.0C230	5.86.0C240	5.86.0C250	5.86.0C260	5.86.0C340	5.86.0C350
------	-------------	------------	------------	------------	------------	------------	------------	------------


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

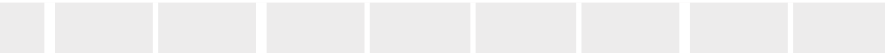
Art. 860C

 Cubo-morsa FMS doppia per il serraggio di 8 pezzi
 Double FMS vise tower for 8 clamping stations

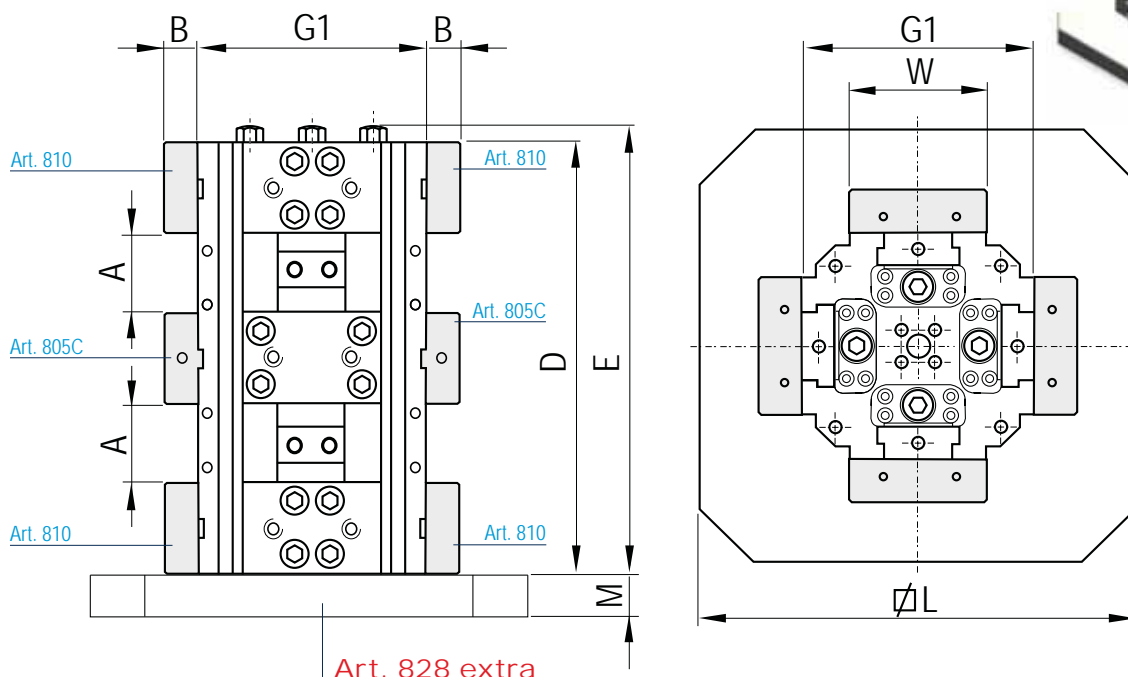
Art. 855C

 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
------	------------	------------	------------	------------	------------	------------	------------	------------


Art. 860C

Cubo-morsa FMS doppio con ganasca centrale fissa per il serraggio di 8 pezzi / Double FMS vise tower with fixed middle jaws for 8 clamping stations

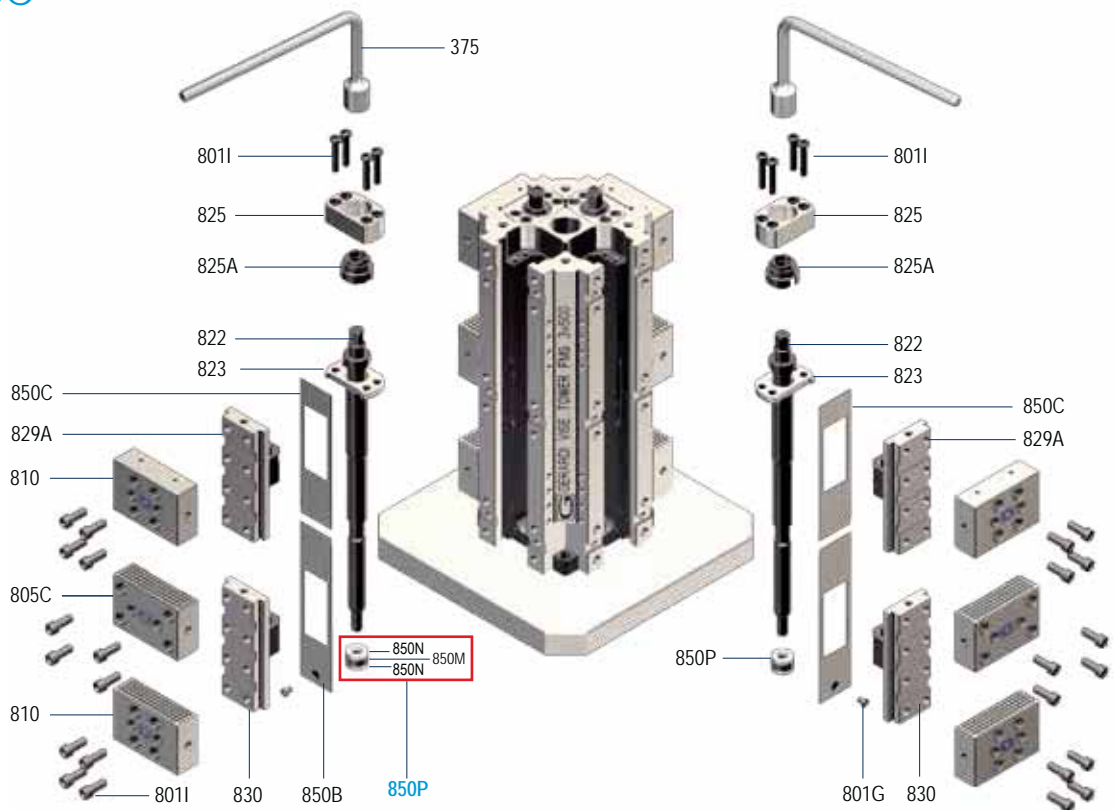

**3 MORSE IN UNA
VISES IN ONE**


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
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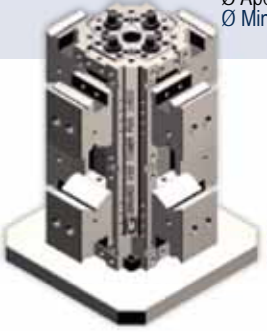
Art. 860C

Art.	Pag.
375	4.27
801G	5.54
801I	5.54
805C	5.49
810	5.50
822	5.46
823	5.52
825	5.52
825A	5.54
829A	5.44
830	5.44
850B	5.54
850C	5.54
850M	5.54
850N	5.54
850P	5.54
-	-





Tipo (grandezza) morsa / Vise (type) size		1 25 kN		2 25 kN				3 30 kN	
	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
		Cod.	5.86.3C120	5.86.3C130	5.86.3C230	5.86.3C240	5.86.3C250	5.86.3C260	5.86.3C340
Art. 863C Cubo morsa doppia Vise tower doublestation									

Ø Apertura Minima - Massima Ø Minimum - Max. opening		10 / 25		10 / 50				25 / 100	
	Art. 870C Cubo morsa autocentrante Self-centering vise tower	Cod.							
		5.870.0C120	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:

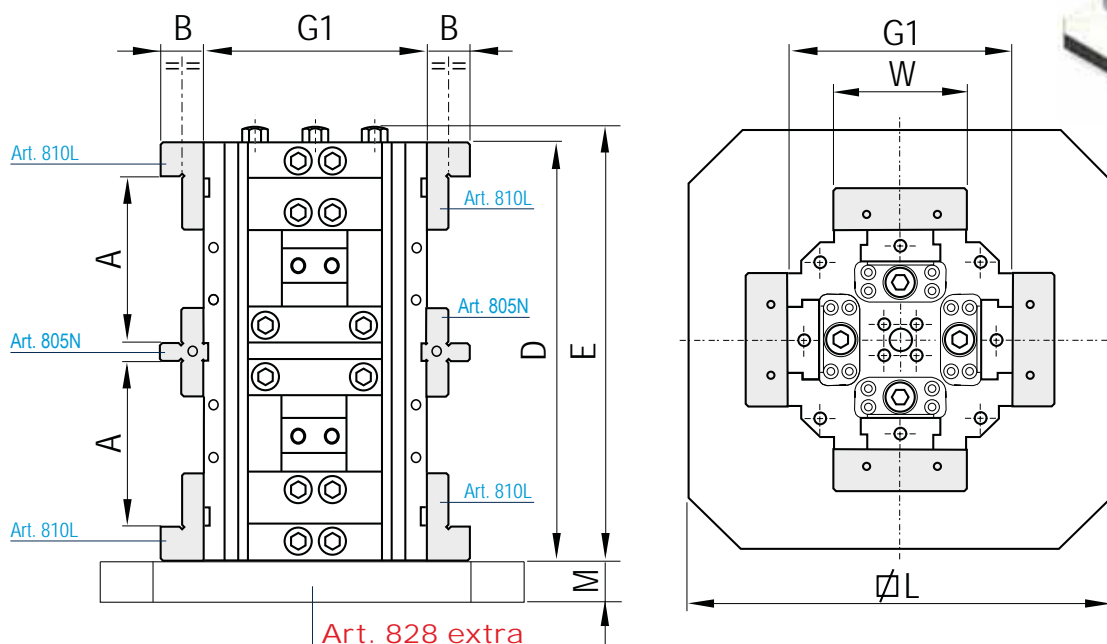
- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 goliare di sollevamento Art. 848
- Imballo in cassetta di legno
- Meccanismo 3^a mano

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

Art. 863C

Cubo morsa FMS doppio con ganasce a gradino per il serraggio di 8 pezzi / Double FMS vise tower with step-type jaws for 8 clamping stations



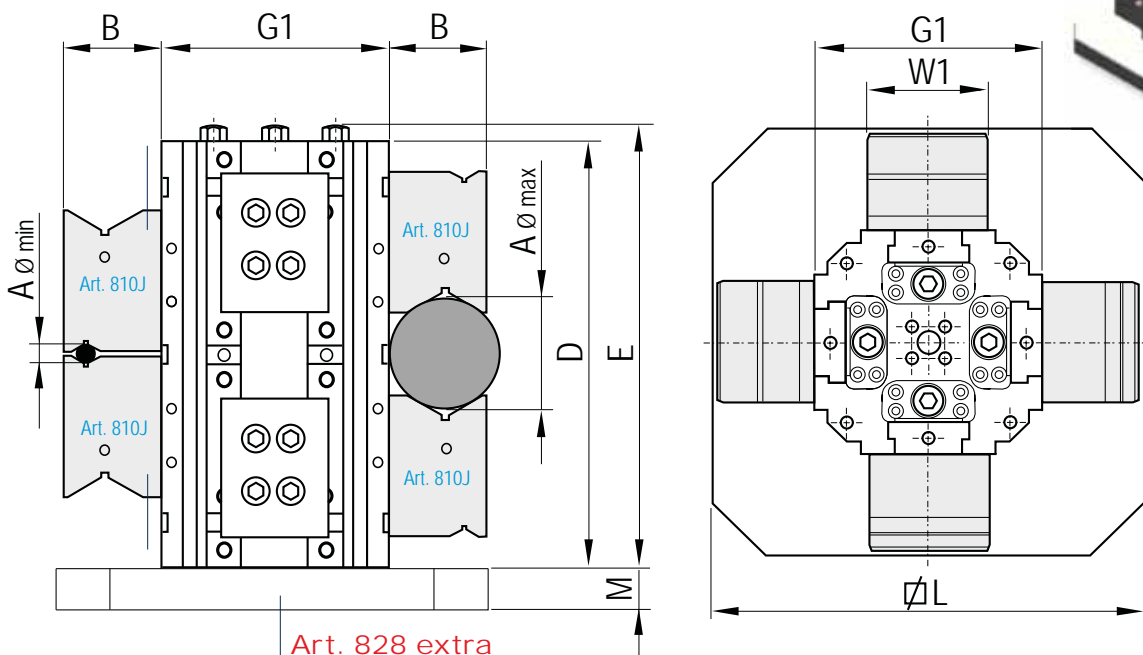
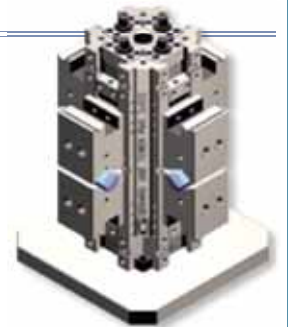
3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454
5.86.3C360	5.86.3C370	5.86.3C380	5.86.3C450	5.86.3C460	5.86.3C470	5.86.3C480	5.86.3C560	5.86.3C570	5.86.3C580	5.86.3C680	5.86.3C690	5.86.3C610

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

Art. 870C

Cubo morsa FMS autocentrante con ganasce prismatiche / Self-centering FMS vise tower with prismatic jaws

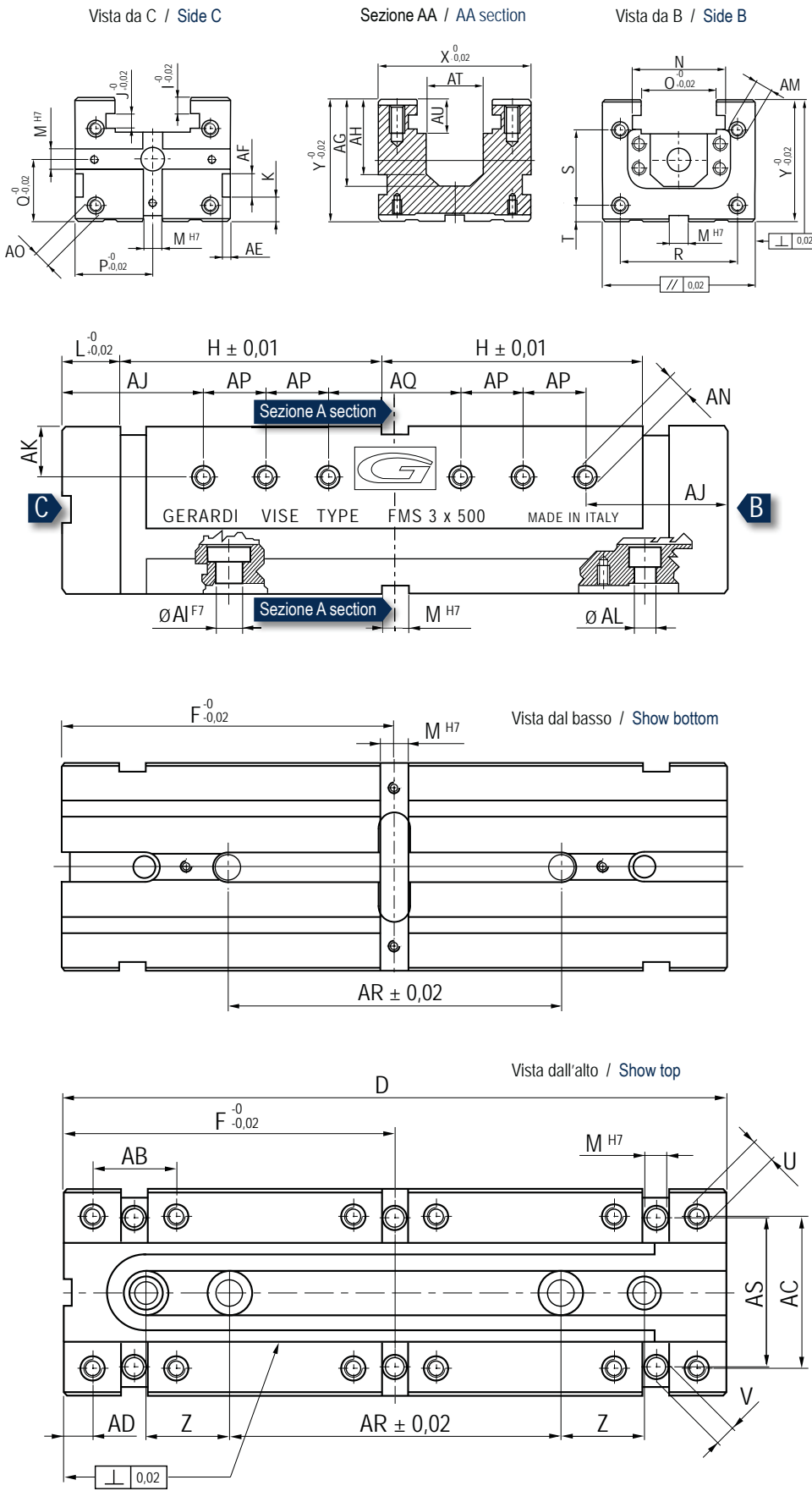


Tipo (grandezza) morsa / Vise (type) size

1
2
Art. 801

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

kg	4,7	7,3	12,8	19
Cod.	5.80.11200	5.80.11300	5.80.12300	5.80.12400



D	200	300	300	400
F	100	150	150	200
H	71	121	117	167
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	
AL	Ø 11		Ø 13	
AM	n°0	n°2	n° 2	n° 2
AN	M10		M10	
AO	n°8	n°12	n° 12	n° 16
AP	M10		M10	
AQ	20	25	50	
AR	50	70	70	
AS	100	200	200	
AT	56		68	
AU	28		34	
	23		28	

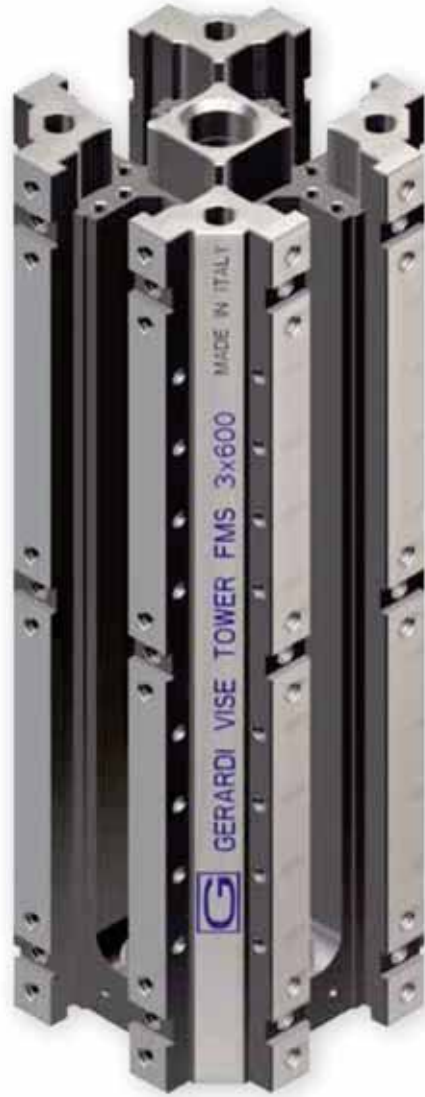
2		3					4				5			6		
23	27	26	31	39	46	52	47	56	65	75	71	82	94	140	156	174
5.80.12500	5.80.12600	5.80.13400	5.80.13500	5.80.13600	5.80.13700	5.80.13800	5.80.14500	5.80.14600	5.80.14700	5.80.14800	5.80.15600	5.80.15700	5.80.15800	5.80.16800	5.80.16900	5.80.16100
500	600	400	500	600	700	800	500	600	700	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					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	

Tipo (grandezza) morsa / Vise (type) size

1

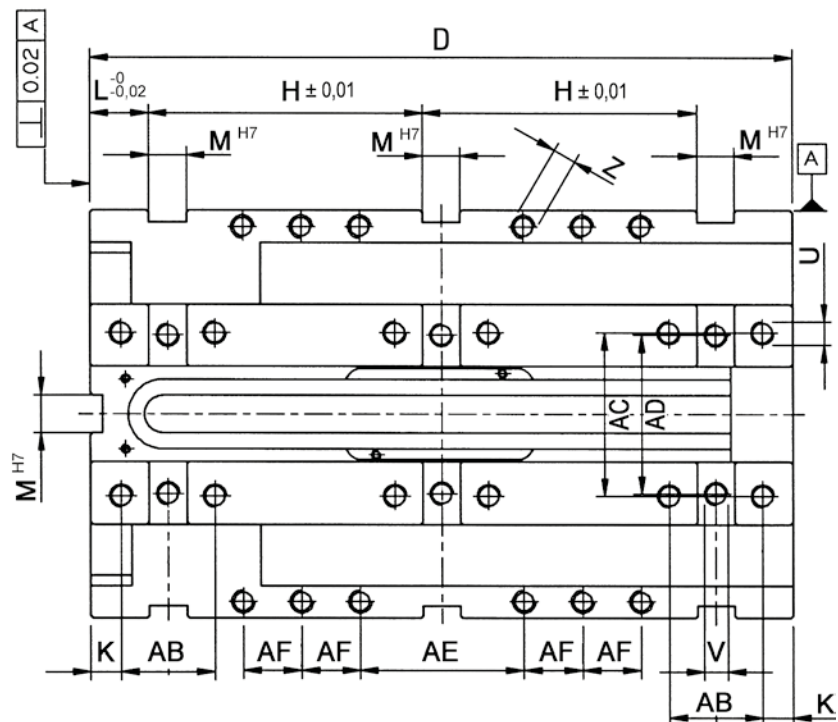
2

Art. 804

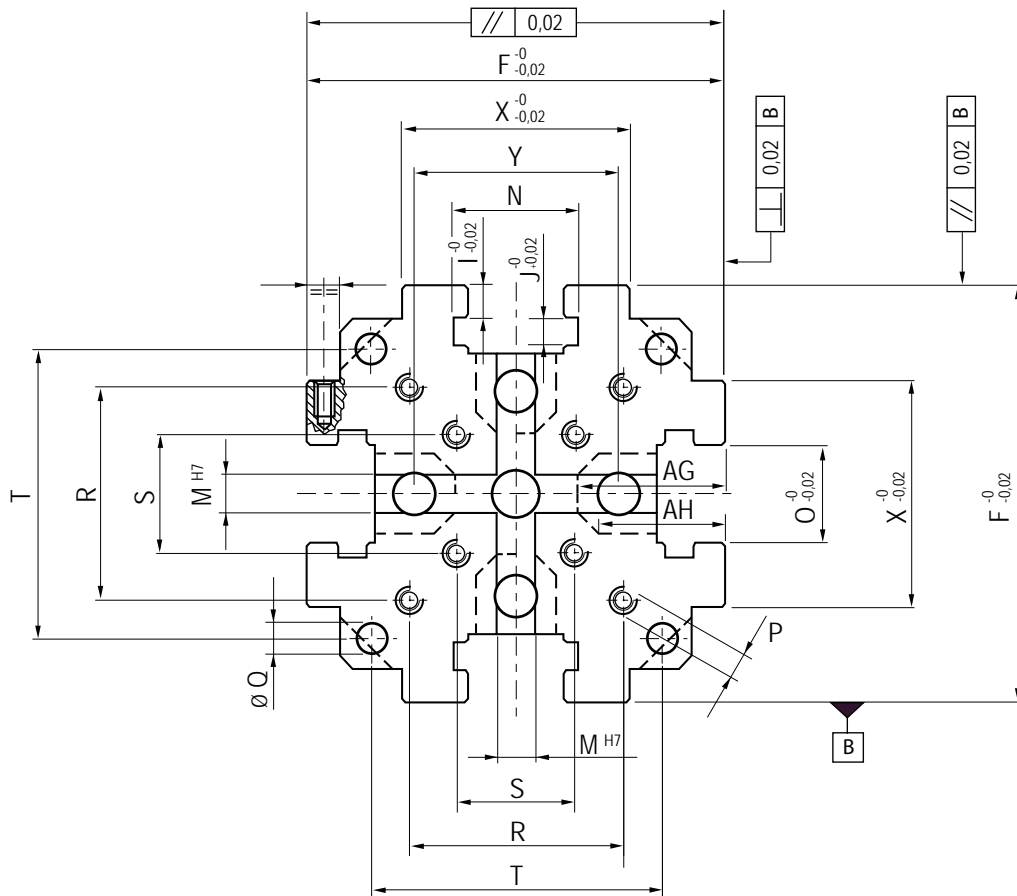
 Corpo base cubo FMS. Disegni e tabella dimensionale
 FMS cube base body. Drawing and table dimension


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	



Tipo (grandezza) morsa / Vise (type) size

1
2

Larghezza base / Base length

200

300

300

400

Cod. 5.81.81200 5.81.81300 5.81.82300 5.81.82400

Art. 818

Slitta integrale lunga / Solid long slide

Art. 829A

Slitta con filetto sinistro / Slide Right Hand

Art. 830

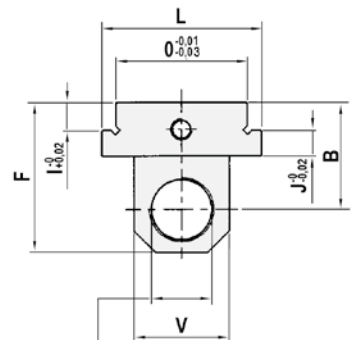
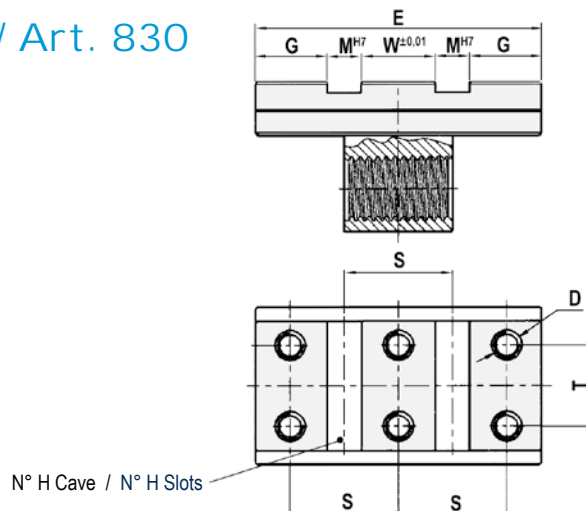
Slitta con filetto destro / Slide Left Hand

Cod. 5.82.9A120 5.82.9A130 5.82.9A230 5.82.9A240

Cod. 5.83.01200 5.83.01300 5.83.02300 5.83.02400



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 / Art. 830

 A1 Art. 828 TPN P.2 Destro / Right
 A2 Art. 830 TPN P.2 Sinistro / Left

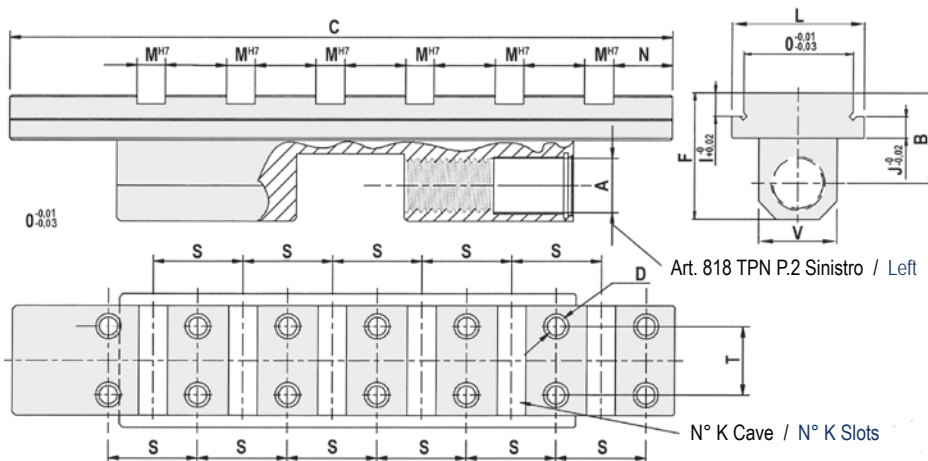
2		3					4				5			6		
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
5.81.82500	5.81.82600	5.81.83400	5.81.83500	5.81.83600	5.81.83700	5.81.83800	5.81.84500	5.81.84600	5.81.84700	5.81.84800	5.81.85600	5.81.85700	5.81.85800	5.81.86800	5.81.86900	5.81.86100

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

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		

Art. 818



Tipo (grandezza) morsa / Vise (type) size

1
2

Larghezza base / Base length

200

300

300

400

Cod. 5.82.11300

5.82.12600

Art. 821

Vite di bloccaggio con filetto sinistro / Main screw left thread

Art. 822

Vite di bloccaggio con filetto destro e sinistro / Main screw right and left thread*

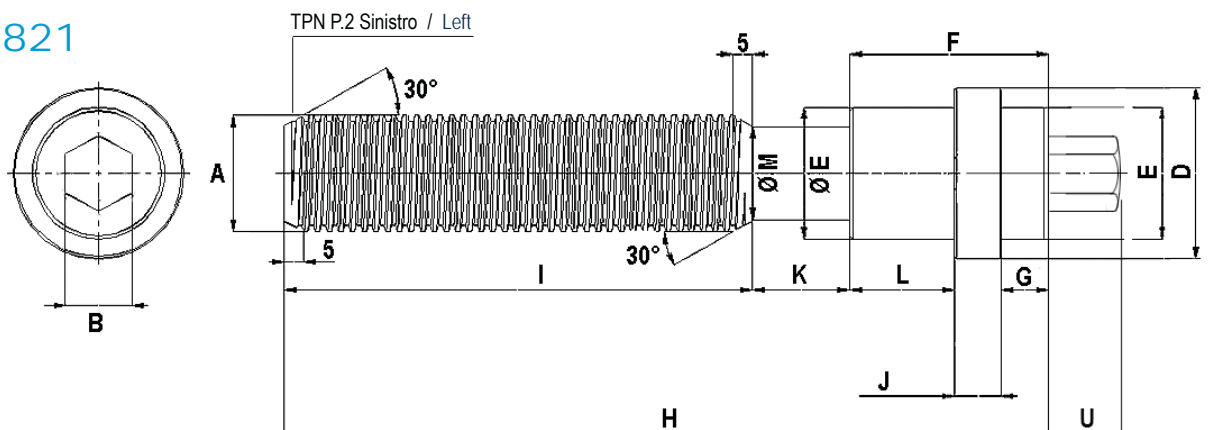
Cod. 5.82.21200 5.82.21300 5.82.22300 5.82.22400

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	308	399
O	12	17	25	32
P	65	84	84	98
Q	32	66	66	106
R	68	85	75	94
S	44	6	38	49
T	32	32		
U	12 esagono femmina female exagon	15		
AA	10	10		
AB	10	10		

Art. 821

Art. 822


* Viti con esagono maschio o femmina a seconda delle dimensioni
Screw available with external or internal exagon

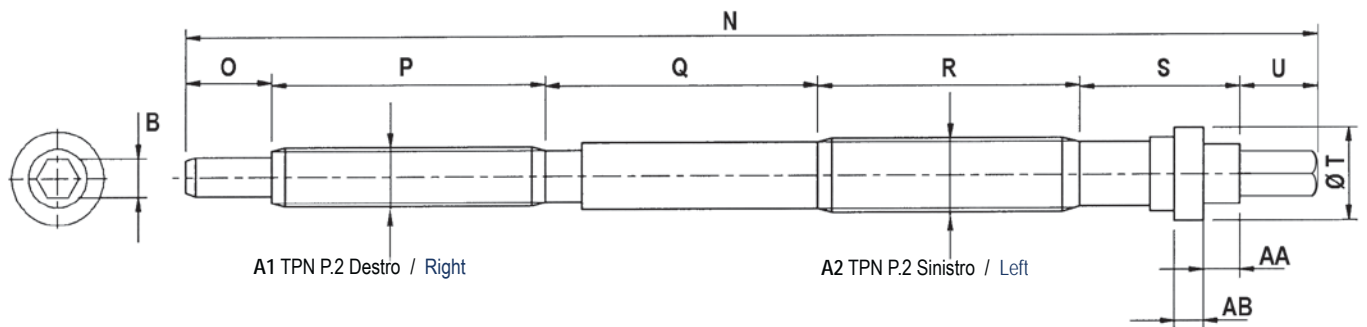
Art. 821


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		

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	5.82.24800	5.82.25600	5.82.25700	5.82.25800	5.82.25800	5.82.26900	5.82.26100
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

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			

Art. 822



Tipo (grandezza) morsa / Vise (type) size

1
2
3
4
5
6
Art. 805

 Ganascia fissa 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

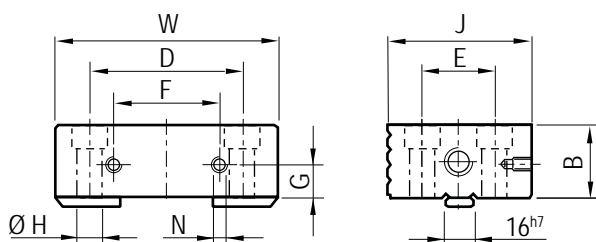
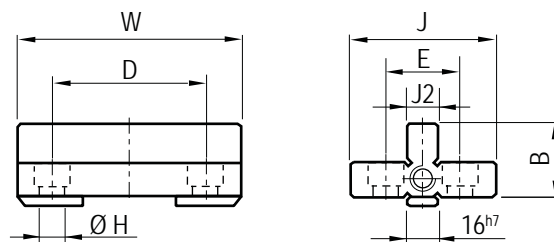
 Ganascia fissa liscia
 Smooth fixed jaw


Cod.	5.80.5A100	5.80.5A200	5.80.5A300	5.80.5A400	5.80.5A500	5.80.5A600

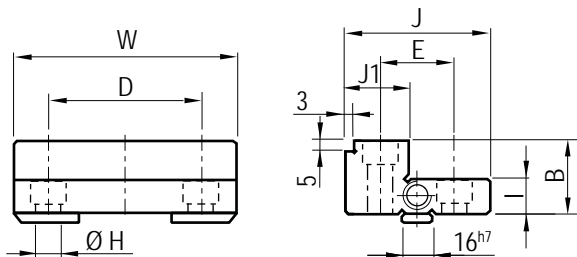
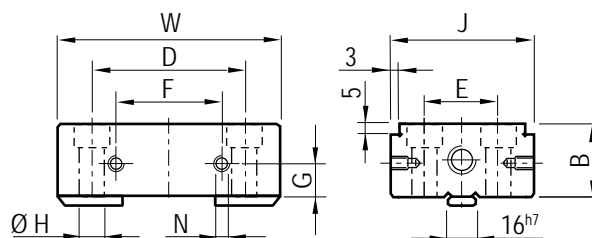
Art. 805B

 Ganascia fissa dolce
 Soft fixed jaw


Cod.	5.80.5B100	5.80.5B200	5.80.5B300	5.80.5B400	5.80.5B500	5.80.5B600

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

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

Art. 805O

Ganascia fissa con gradino piccolo e grande / Fixed jaw with small and large step


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


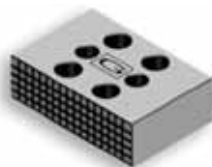
Tipo (grandezza) morsa / Vise (type) size

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

Tipo (grandezza) morsa / Vise (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

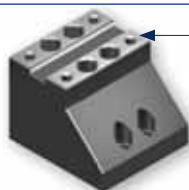

Cod. 5.81.0A100 5.81.0A200 5.81.0A300 5.81.0A400 5.81.0A500 5.81.0A600

Art. 810B

 Ganascia mobile dolce
 Soft movable jaw

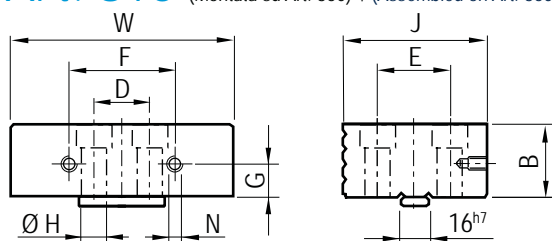
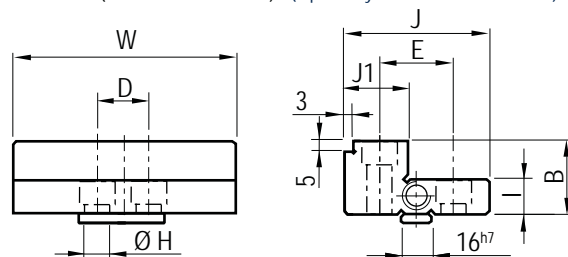
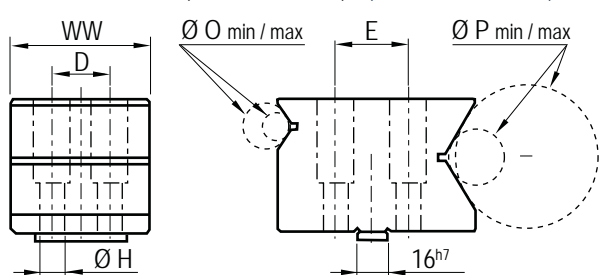
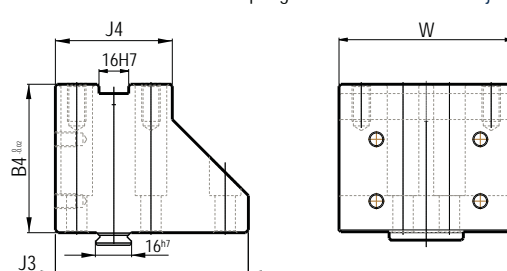

Cod. 5.81.0B100 5.81.0B200 5.81.0B300 5.81.0B400 5.81.0B500 5.81.0B600

Art. 814

 Base mobile per ganasce
 Movable base for jaws


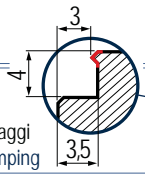
Predisposizione per tutte le ganasce FMS fisse / Fit all FMS fixed jaws

Cod. 5.81.41000 5.81.42000 5.81.43000 5.81.44000 5.81.45000 5.81.4.6000

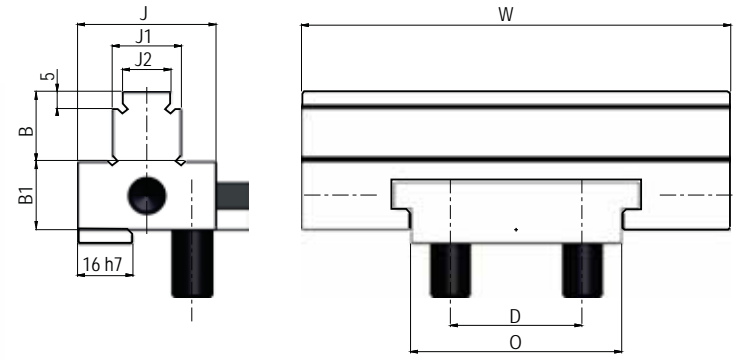
Art. 810 (Montata su Art. 860) / (Assembled on Art. 860)

Art. 810O (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) morsa / Vise (type) size	1	2	3	4	5	6
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. 810E Ganascia mobile con gradino 3x5 liscia Movable jaw with 3x5 step smooth	Cod. 5.81.0E100	5.81.0E200	5.81.0E300	5.81.0E400	5.81.0E500	5.81.0E600
Art. 810J Ganascia mobile prismatica per tondi liscia Prismatic movable jaw for round parts smooth	Cod. 5.81.0J100	5.81.0J200	5.81.0J300	5.81.0J400	5.81.0J500	5.81.0J600
Art. 810K Ganascia mobile prismatica per tondi zigrinata Prismatic movable jaw for round parts serrated	Cod. 5.81.0K100	5.81.0K200	5.81.0K300	5.81.0K400	5.81.0K500	5.81.0K600
Art. 810L Ganascia mobile con gradino Step movable jaw	Cod. 5.81.0L100	5.81.0L200	5.81.0L300	5.81.0L400	5.81.0L500	5.81.0L600
Art. 810M Ganascia mobile con gradino zigrinata da un lato Step movable jaw one side serrated	Cod. 5.81.0M100	5.81.0M200	5.81.0M300	5.81.0M400	5.81.0M500	5.81.0M600
Art. 810O Ganascia mobile con gradino piccolo e grande Movable jaw with small and large step	Cod. 5.81.0O100	5.81.0O200	5.81.0O300	5.81.0O400	5.81.0O500	5.81.0O600
Art. 810P Ganascia mobile con gradino piccolo e grande zigrin. da un lato Movable jaw with small and large step one side serrated	Cod. 5.81.0P100	5.81.0P200	5.81.0P300	5.81.0P400	5.81.0P500	5.81.0P600
Art. 810R Ganascia mobile in alluminio Movable jaw aluminium	Cod. 5.81.0R100	5.81.0R200	5.81.0R300	5.81.0R400	5.81.0R500	5.81.0R600
Art. 810T Ganascia mobile GRIP per forti serraggi GRIP movable jaw for strongest clamping	Cod. 5.81.0T100	5.81.0T200	5.81.0T300	5.81.0T400	5.81.0T500	5.81.0T600
Art. 810V Ganascia mobile con segmenti oscillanti Movable jaw with floating inserts	Cod. 5.81.0V100	5.81.0V200	5.81.0V300	5.81.0V400	5.81.0V500	5.81.0V600



Tipo - Type	1	2	3	4	5	6
Cod. 5.51.21000	5.51.22000	5.51.23000	5.51.24000	5.51.25000	5.51.26000	



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. 5.13

Tipo (grandezza) morsa / Vise (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

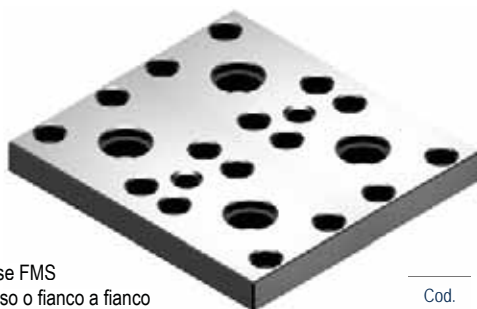
Cod.	5.82.5C100	5.82.5C200	5.82.5C300	5.82.5C400	5.82.5C500	5.82.5C600

Art. 831

 Piastra di collegamento per 2 morse FMS
 montate verticalmente dorso a dorso o fianco a fianco
 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 fianco a fianco
 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

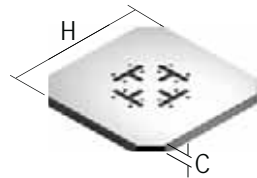
 Piastra di collegamento personalizzata per 4 morse FMS
 Connecting plate for 4 FMS vises tailor made

Cod.	5.83.41000	5.83.42000	5.83.43000	5.83.44000	5.83.45000	5.83.46000

Typo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
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Art. 827

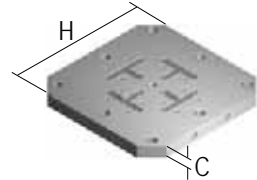
Piastra base per una o più morsi
Head plate for one or more vises



C	33	33	38	38	38	38
H	300	350	400	450	500	630
Cod.	5.82.71000	5.82.72000	5.82.73000	5.82.74000	5.82.75000	5.82.76000

Art. 827A

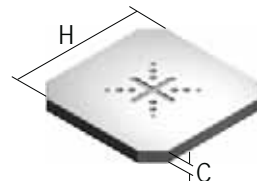
Piastra base personalizzata per una o più morsi
Bussola di centraggio Art. 852 compresa
Tailor made head plate for one or more vises
Centering bushing Art. 852 included



C	33	33	38	38	38	38
H	300	350	400	450	500	630
Cod.	5.82.7A100	5.82.7A200	5.82.7A300	5.82.7A400	5.82.7A500	5.82.7A600

Art. 828

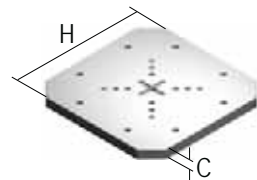
Piastra base per cubo morsa
Head plate for vise tower



C	33	33	38	38	38	38
H	300	350	400	450	500	630
Cod.	5.82.81000	5.82.82000	5.82.83000	5.82.84000	5.82.85000	5.82.86000

Art. 828A

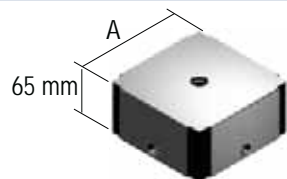
Piastra base personalizzata per cubo morsa
Bussola di centraggio Art. 852 compresa
Tailor made head plate for vise tower
Centering bushing Art. 852 included



C	33	33	38	38	38	38
H	300	350	400	450	500	630
Cod.	5.82.8A100	5.82.8A200	5.82.8A300	5.82.8A400	5.82.8A500	5.82.8A600

Art. 835

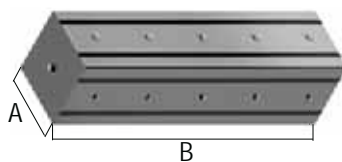
Distanziale quadrato per 4 morsi FMS
Square spacer for 4 FMS vises



A	75	95	125	145	170	190
Cod.	5.83.51000	5.83.52000	5.83.53000	5.83.54000	5.83.55000	5.83.56000

Art. 836

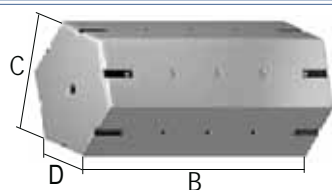
Supporto quadrato per 4 morsi FMS
Square support for 4 FMS vises



A	75	95	125	145	170	190
B	200	300	400	500	600	800
Cod.	5.83.61000	5.83.62000	5.83.63000	5.83.64000	5.83.65000	5.83.66000

Art. 837

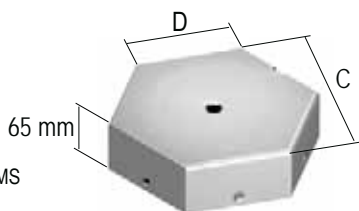
Supporto esagonale per 6 morsi FMS
Exagon support for 6 FMS vises



B	200	300	400	500	600	800
C	132	170	220	255	300	335
D	76 ~	98 ~	127 ~	147 ~	173 ~	193 ~
Cod.	5.83.71000	5.83.72000	5.83.73000	5.83.74000	5.83.75000	5.83.76000

Art. 838

Distanziale esagonale per 6 morsi FMS
Exagon spacer for 6 FMS vises



C	132	170	220	255	300	335
D	76 ~	98 ~	127 ~	147 ~	173 ~	193 ~
Cod.	5.83.81000	5.83.82000	5.83.83000	5.83.84000	5.83.85000	5.83.86000

Art. 852

Bussola di centraggio per piastra base
Centering bushing for base plate



Cod.	5.85.21000	5.85.22000	5.85.23000	5.85.24000	5.85.25000	5.85.26000
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Art. 853

Centraggio orizzontale per cubo FMS
Horizontal centering for FMS cube



Cod.	5.85.31000	5.85.32000	5.85.33000	5.85.34000	5.85.35000	5.85.36000
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Tipo (grandezza) morsa / Vise (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
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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
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Art. 850C

 Riparo
 Protection

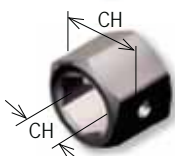

Cod.	5.85.0C100	5.85.0C200	5.85.0C300	5.85.0C400	5.85.0C500	5.85.0C600
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Art. 850P

 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
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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
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Cod.	5.85.0E100	5.85.0E200	5.85.0E300	5.85.0E400	5.85.0E500	5.85.0E600
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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
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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
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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
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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
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Art. 800I

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

Art. 801H

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

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

Cod.	5.80.1H100	5.80.1H200	5.80.1H300	5.80.1H400	5.80.1H500	5.80.1H600
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Art. 801I

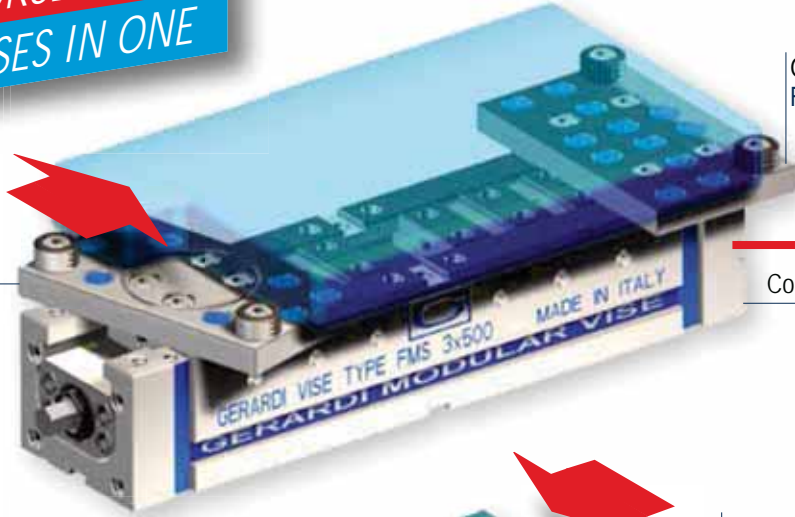
 Vite tcei per ganasce
 Hex.socket head screw for jaws

Cod.	5.80.1I100	5.80.1I200	5.80.1I300	5.80.1I400	5.80.1I500	5.80.1I600
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3 MORSE IN UNA
VICES IN ONE

Art. 867

Art. 855 + Art. 805U + n. 2 Art. 810U

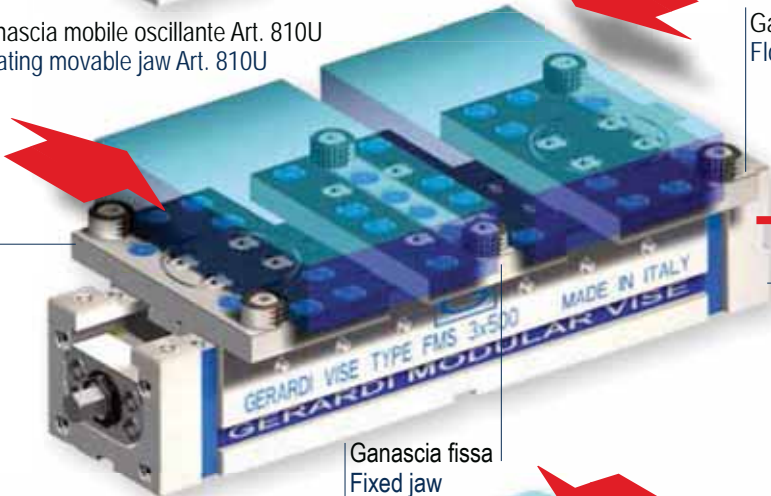


Ganascia fissa Art. 805U
Fixed jaw Art. 805U

Morsa FMS per serraggi singoli
FMS for single clamping

Corpo base / Base body **Art. 855**

Ganascia mobile oscillante Art. 810U
Floating movable jaw Art. 810U

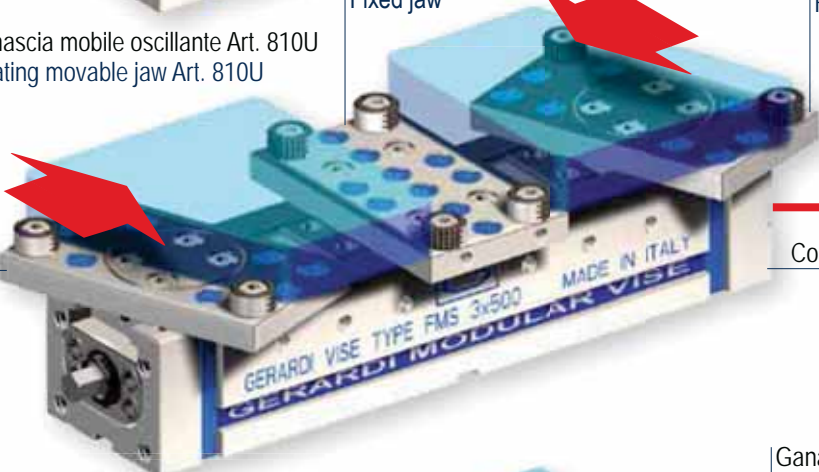


Ganascia mobile oscillante Art. 810U
Floating movable jaw Art. 810U

Morsa FMS Art. 867 per serraggi doppi
FMS vise Art. 867 for double clamping

Corpo base / Base body **Art. 855**

Ganascia mobile oscillante Art. 810U
Floating movable jaw Art. 810U



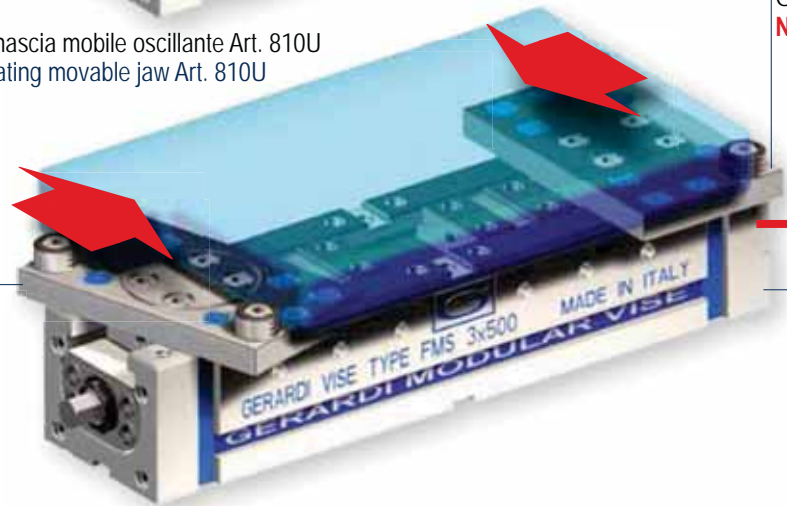
Ganascia fissa
Fixed jaw

Ganascia mobile oscillante Art. 810U
Floating movable jaw Art. 810U

Morsa FMS Art. 867 per serraggi doppi
FMS vise Art. 867 for double clamping

Corpo base / Base body **Art. 855**

Ganascia mobile oscillante Art. 810U
Floating movable jaw Art. 810U



Ganascia mobile **non oscillante** Art. 810Q
Not floating movable jaw Art. 810Q

Morsa FMS autocentrante
FMS self-centering vise

Corpo base / Base body **Art. 855**

NUMERO DI MORSE COLLEGATE INSIEME
(Bloccaggi indipendenti)
NUMBER OF VISES TO BE CONNECTED TOGETHER
(Independent clamping)

n. 1
Morsa
Vise

n. 2
Morse
Vises

n. 3
Morse
Vises

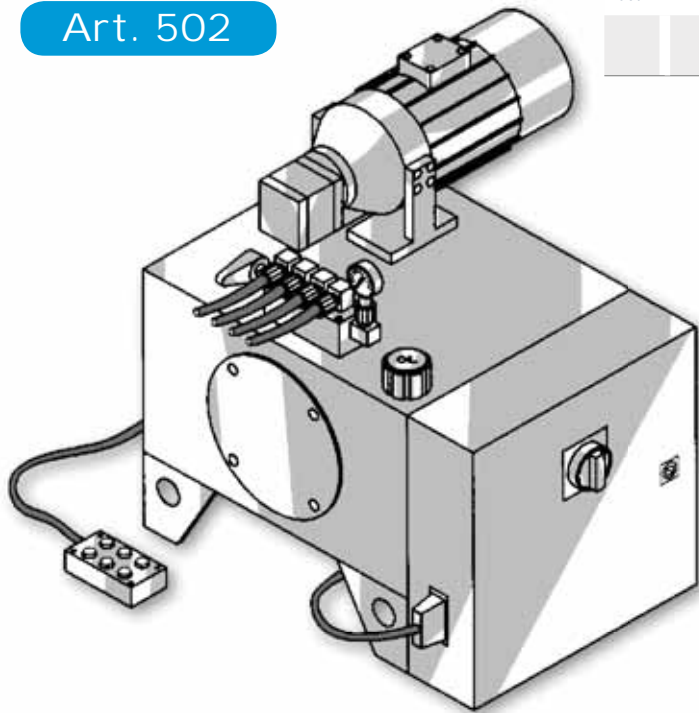
n. 4
Morse
Vises

n. 5
Morse
Vises

n. 6
Morse
Vises

Cod.	2.50.2001	2.50.2002	2.50.2003	2.50.2004	2.50.2005	2.50.2006
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Art. 502



Art. 502

Centraline idrauliche complete di apparecchiatura elettrica e pulsantiera per cilindri idraulici a **semplice effetto** per morse Standard.

SENZA OLIO

Pressione massima di esercizio: 600 bar

Hydraulic power pack unit with electrical equipment and push button switch for hydraulic cylinders **single acting** for Standard vises

NO OIL

Max operating pressure: 600 bar

Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

NUMERO DI MORSE COLLEGATE INSIEME
(Bloccaggi indipendenti)
NUMBER OF VISES TO BE CONNECTED TOGETHER
(Independent clamping)

n. 1
Morsa
Vise

n. 2
Morse
Vises

n. 3
Morse
Vises

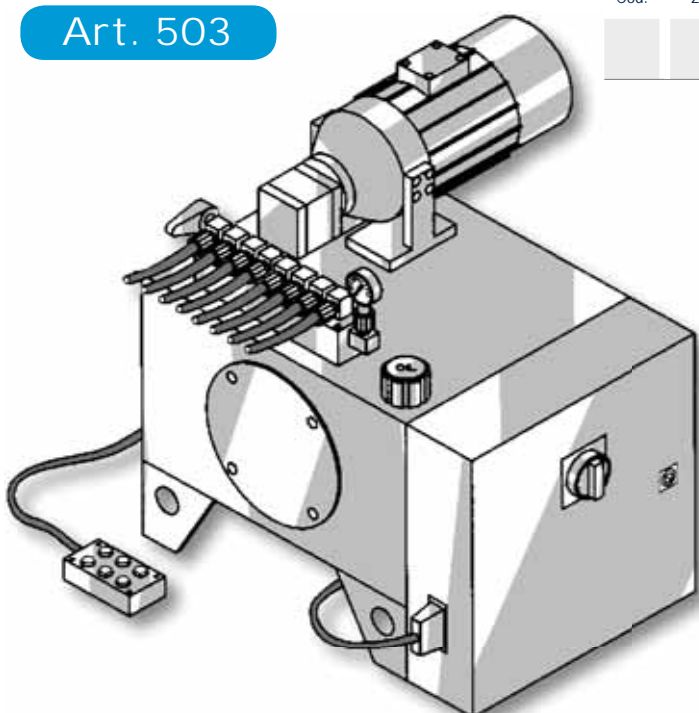
n. 4
Morse
Vises

n. 5
Morse
Vises

n. 6
Morse
Vises

Cod.	2.50.3001	2.50.3002	2.50.3003	2.50.3004	2.50.3005	2.50.3006
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Art. 503



Art. 503

Centraline idrauliche per **Art. 800A** complete di apparecchiatura elettrica e pulsantiera per cilindri idraulici a **doppio effetto**.

SENZA OLIO

Pressione massima di esercizio: 600 bar

Hydraulic power pack unit for **Art. 800A** with electrical equipment and push button switch for hydraulic cylinders **double acting**.

NO OIL

Max operating pressure: 600 bar

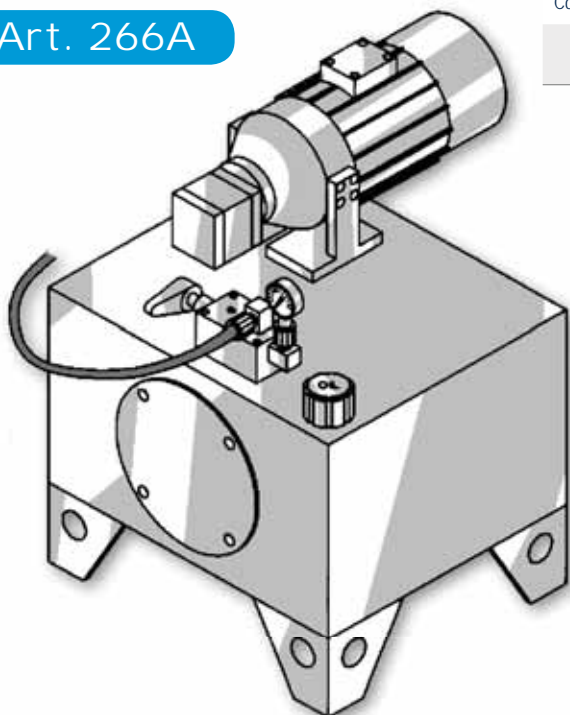
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

NUMERO DI MORSE COLLEGATE INSIEME
(Bloccaggi indipendenti)
NUMBER OF VISES TO BE CONNECTED TOGETHER
(Independent clamping)

n. 1 Morsa Vise	n. 2 Morse Vises	n. 3 Morse Vises	n. 4 Morse Vises	n. 5 Morse Vises	n. 6 Morse Vises
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Cod.	5.26.6A001	5.26.6A002	5.26.6A003	5.26.6A004	5.26.6A005	5.26.6A006
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Art. 266A



Art. 266A

Centraline idrauliche **senza apparecchiatura elettrica** per motori idraulici o composizione di più motori idraulici o altre attrezzature in genere.

SENZA OLIO

Pressione massima di esercizio: 140 bar

Hydraulic power pack unit **without electrical equipment** for hydraulic motor or other general fixture.

NO OIL

Max operating pressure: 140 bar

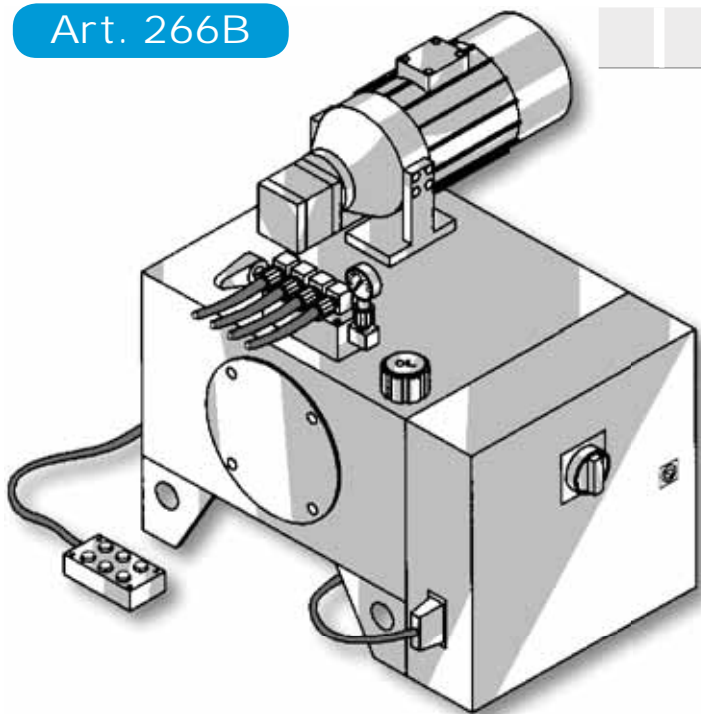
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

NUMERO DI MORSE COLLEGATE INSIEME
(Bloccaggi indipendenti)
NUMBER OF VISES TO BE CONNECTED TOGETHER
(Independent clamping)

n. 1 Morsa Vise	n. 2 Morse Vises	n. 3 Morse Vises	n. 4 Morse Vises	n. 5 Morse Vises	n. 6 Morse Vises
-----------------------	------------------------	------------------------	------------------------	------------------------	------------------------

Cod.	5.26.6B001	5.26.6B002	5.26.6B003	5.26.6B004	5.26.6B005	5.26.6B006
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Art. 266B



Art. 266B

Centraline idrauliche **con apparecchiatura elettrica** e pulsantiera per motori idraulici o composizione di più motori idraulici

SENZA OLIO

Pressione massima di esercizio: 140 bar

Hydraulic power pack unit **with electrical equipment** and push button switch for hydraulic motors.

NO OIL

Max operating pressure: 140 bar

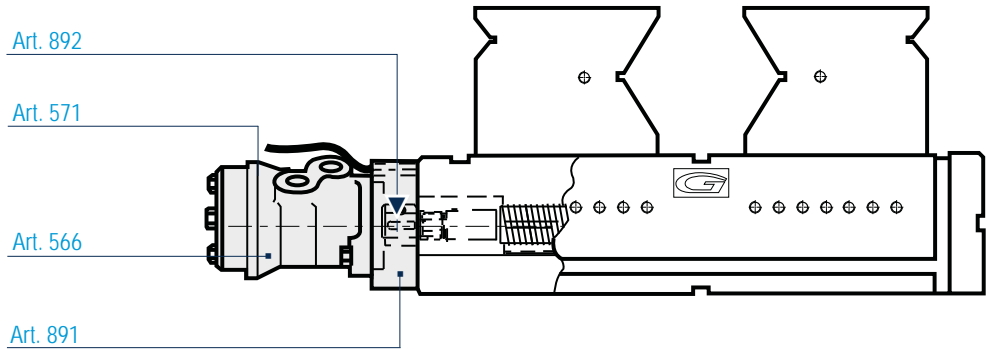
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
Art. 566 Motore idraulico / Hydraulic motor	OMM32	OMP80	OMR200	OMR200	OMR200	OMR200
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

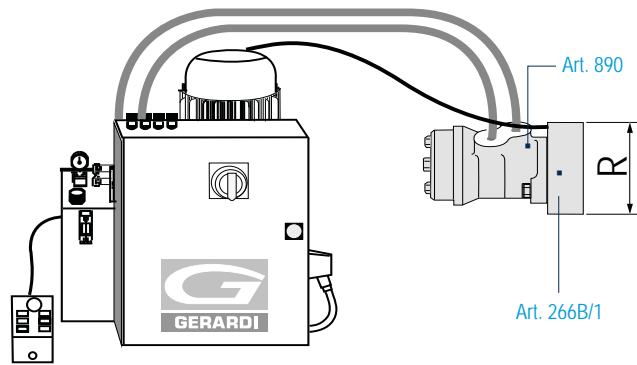
Motore idraulico completo di piastra, boccola e fine corsa elettronico regolabile
 Hydraulic motor complete with plate, bushing and adjustable electronic proximity switch



Art. 895

Gruppo di bloccaggio completo di apparecchiatura elettrica con fine corsa elettronico regolabile
Pressione massima di esercizio: 140 bar
 Hydraulic blocking device complete of electrical equipment and adjustable electronic proximity switch
Max operating pressure: 140 bar

R	69	89	99	119	139	159
Cod.	5.89.51000	5.89.52000	5.89.53000	5.89.54000	5.89.55000	5.89.56000



Art.	Pag.
890	5.58
266B/1	5.57

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm
 Standard hydraulic pipes and electrical cables. Max length 1600 mm

Art. 891

Piastra attacco motore idraulico / Hydraulic motor mounting plate

Cod.	5.89.11000	5.89.12000	5.89.13000	5.89.14000	5.89.15000	5.89.16000
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Art. 892

Boccola di trascinamento vite motore / Drive bushing screw-motor

Cod.	5.89.21000	5.89.22000	5.89.23000	5.89.24000	5.89.25000	5.89.26000
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Art. 566

Motore Danfoss / Danfoss motor

Cod.	5.56.61000	5.56.62000	5.56.63000	5.56.63000	5.56.63000	5.56.63000
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Art. 571

Fine corsa elettronico / Electronic proximity switch

Cod.	5.57.11000	5.57.12000	5.57.13000	5.57.14000	5.57.15000	5.57.16000
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Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6
Larghezza del corpo base / Body base length	C	232	300	400	500	600	800
	Cod.	5.87.0F120	5.87.0F230	5.87.0F340	5.87.0F450	5.87.0F560	5.87.0F680

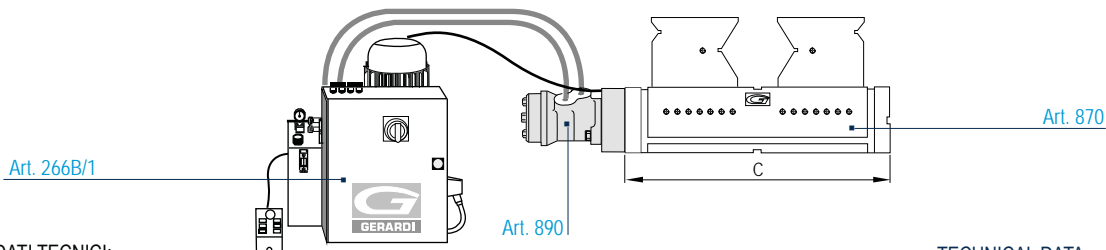
Art. 870F

COMPOSIZIONE COMPLETA DI:

- N° 1 morsa autocentrante Art. 870
- 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
- Regolazione forza di bloccaggio desiderata
- Ripristino automatico della pressione idraulica in caso di perdita o altro
- Possibilità di collegamento a più morse
- Fine corsa elettronico regolabile

COMPOSITION COMPLETE OF:

- N° 1 self-centering vise Art. 870
- N° 1 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/1
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Automatic pressure reset in case of leakage
- Suitable for multi-vise arrangements
- Adjustable electronic proximity switch



DATI TECNICI:

Vite: passo 2 mm
 IDROMOTORE Art. 566
 Motore elettrico kW 5.5
 Portata: 40 litri al minuto
 Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (Vedi pag 5-00)
 Per il diagramma forza di serraggio vedi pag. 5-00
 Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Screw: pitch 2 mm
 HYDRAULIC MOTOR Art. 566
 Electric motor kW 5.5
 Oil pumps: 40 l/min
 Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5-00
 For clamping forces diagram see pag. 5-00
 Max operating pressure: 140 bar

Art.	Pag.
n° 1 870	5.30
n° 1 890	5.58
n° 1 266B/1	5.57

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm / Standard hydraulic pipes and electrical cables. Max length 1600 mm

Cod.	5.87.0G120	5.87.0G230	5.87.0G340	5.87.0G450	5.87.0G560	5.87.0G680
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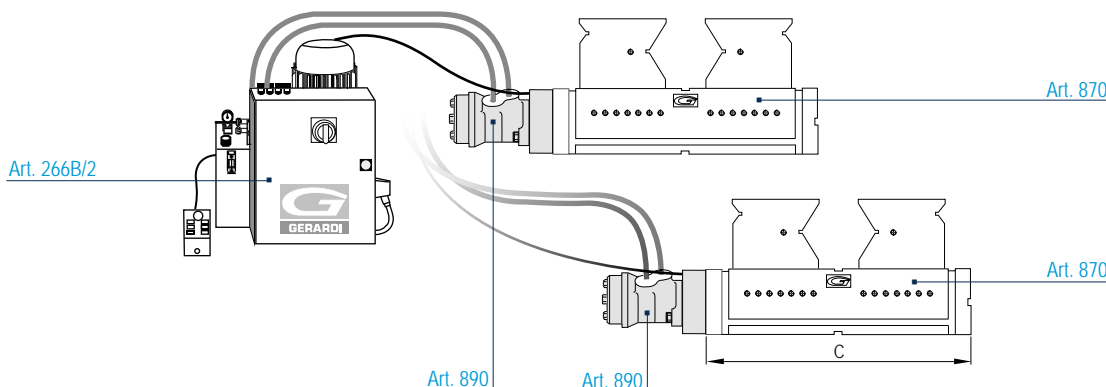
Art. 870G

COMPOSIZIONE COMPLETA DI:

- N° 2 morse autocentrante Art. 870
- 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
- Ripristino automatico della pressione idraulica in caso di perdita o altro
- Possibilità di collegamento a più morse
- Fine corsa elettronico regolabile

COMPOSITION COMPLETE OF:

- N° 2 self-centering vise Art. 870
- 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
- Automatic pressure reset in case of leakage
- Suitable for multi-vise arrangements
- Adjustable electronic proximity switch



DATI TECNICI:

Vite: passo 2 mm
 IDROMOTORE Art. 566
 Motore elettrico kW 5.5
 Portata: 40 litri al minuto
 Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (Vedi pag 5-00)
 Per il diagramma forza di serraggio vedi pag. 5-00
 Pressione massima di esercizio: 140 bar

TECHNICAL DATA:

Screw: pitch 2 mm
 HYDRAULIC MOTOR Art. 566
 Electric motor kW 5.5
 Oil pumps: 40 l/min
 Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5-00
 For clamping forces diagram see pag. 5-00
 Max operating pressure: 140 bar

Art.	Pag.
n° 2 870	5.30
n° 2 890	5.58
n° 1 266B/2	5.57

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm / Standard hydraulic pipes and electrical cables. Max length 1600 mm

Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6
Larghezza del corpo base / Body base length	C	232	300	400	500	600	800
	Cod.	5.87.OJ120	5.87.OJ230	5.87.OJ340	5.87.OJ450	5.87.OJ560	5.87.OJ680

Art. 870J



Art.	Pag.
n° 2 870	5.30
n° 3 890	5.58
n° 1 266B/3	5.57

Composizione per n. 3 morse FMS
 Stesse caratteristiche come descritte per gli Art. 870F e 870G

Composizione for n. 3 FMS vises
 Same characteristics as described for Art. 870F and 870G

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm / Standard hydraulic pipes and electrical cables. Max length 1600 mm

Cod.	5.87.OL120	5.87.OL230	5.87.OL340	5.87.OL450	5.87.OL560	5.87.OL680
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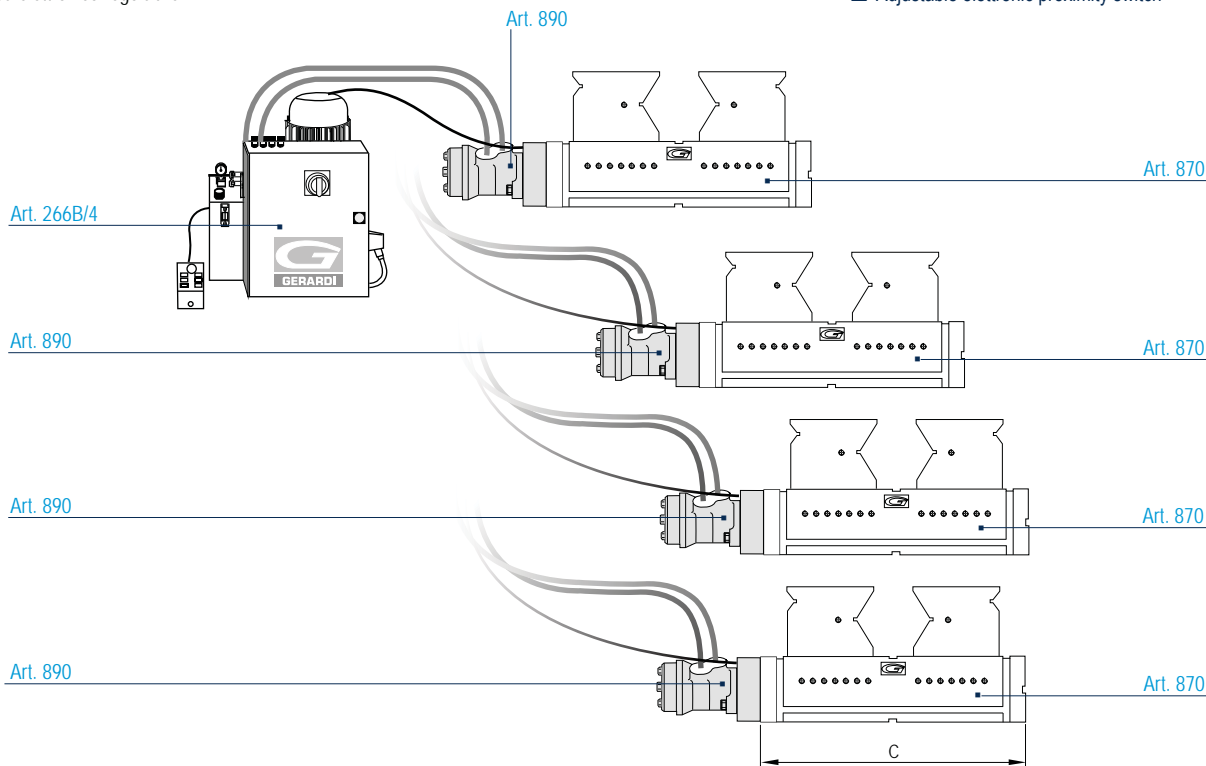
Art. 870L

COMPOSIZIONE COMPLETA DI:

- N° 4 morse autocentrante Art. 870
- 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
- Ripristino automatico della pressione idraulica in caso di perdita o altro
- Possibilità di collegamento a più morse
- Fine corsa elettronico regolabile

COMPOSITION COMPLETE OF:

- N° 4 self-centering vise Art. 870
- 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
- Automatic pressure reset in case of leakage
- Suitable for multi-vise arrangements
- Adjustable electronic proximity switch



DATI TECNICI:

Vite: passo 2 mm
 IDROMOTORE Art. 566
 Motore elettrico kW 5.5
 Portata: 40 litri al minuto
 Velocità apertura-chiusura morsa da calcolarsi
 in base al diagramma idromotore (Vedi pag 5-00)
 Per il diagramma forza di serraggio vedi pag. 5-00
 Pressione massima di esercizio: 140 bar

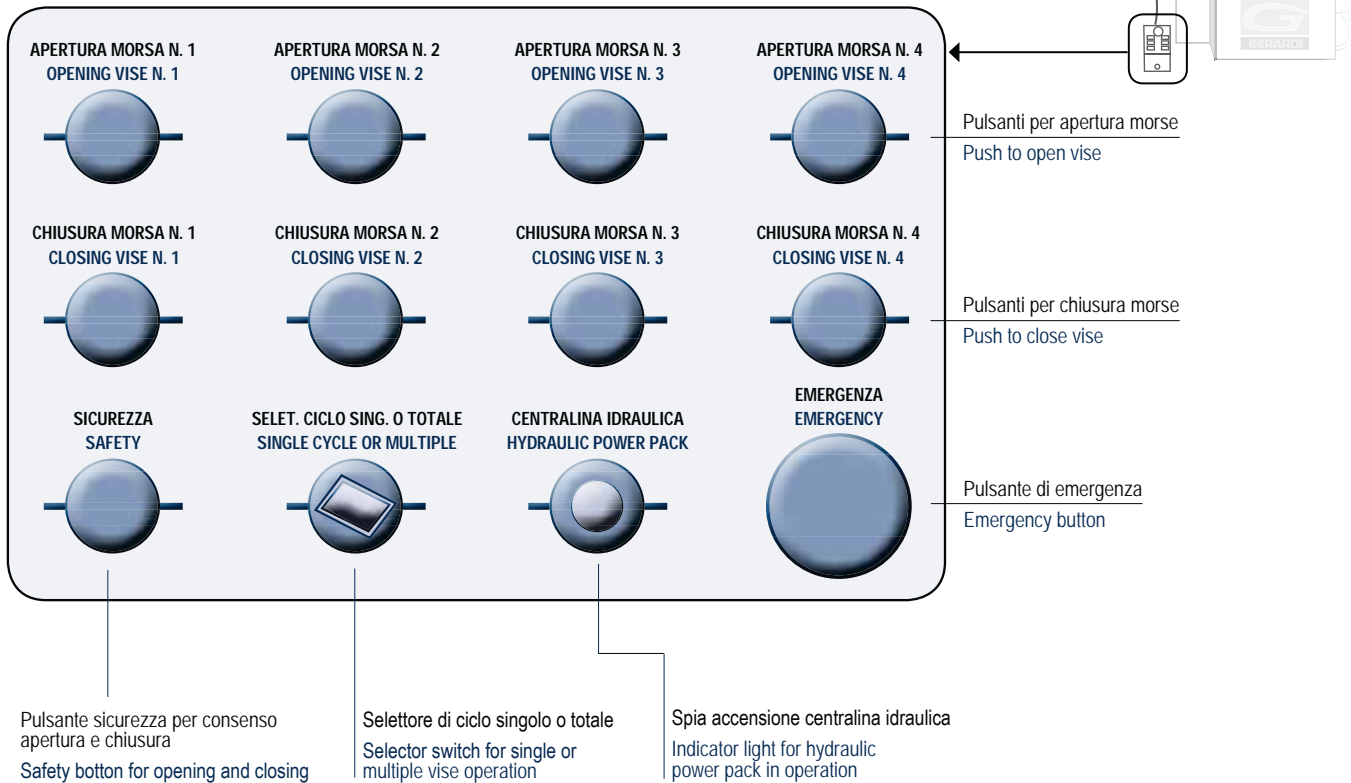
Art.	Pag.
n° 4 870	5.30
n° 4 890	5.58
n° 1 266B/4	5.57

TECHNICAL DATA:

Screw: pitch 2 mm
 HYDRAULIC MOTOR Art. 566
 Electric motor kW 5.5
 Oil pumps: 40 l/min
 Opening and closing speed of vise to be calculated
 from hydraulic motor diagram at page 5-00
 For clamping forces diagram see pag. 5-00
 Max operating pressure: 140 bar

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm / Standard hydraulic pipes and electrical cables. Max length 1600 mm

Funzionamento comando centraline elettroidrauliche Art. 266B
Electro-hydraulic power pack unit operating instruction Art. 266B



FUNZIONAMENTO

Per comandare l'apertura o la chiusura delle morse, e' 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 elettromeccanico.

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 morse, girare il selettore sulla posizione "I" (totale).

ATTENZIONE !

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

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.

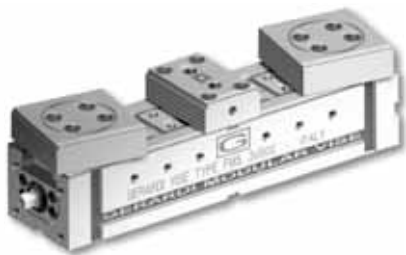
To open or close the vises all together repeat the operation with the selector switch set to "multiple".

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 VISCOSITA'

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



SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA

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

Per un corretto utilizzo non superare i valori indicati nel grafico

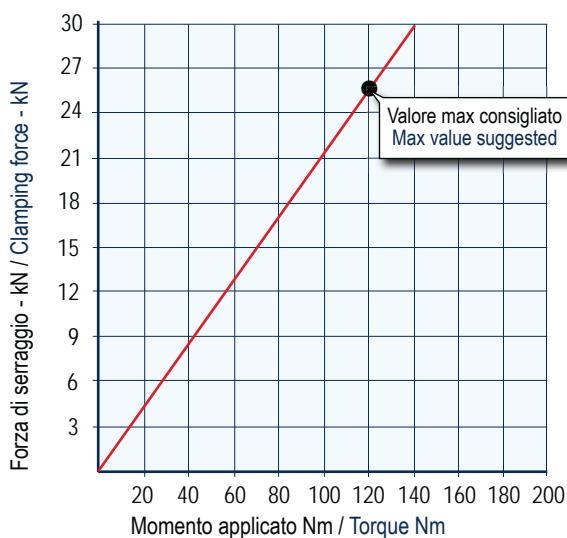
MECHANICAL CLAMPING WITH TORQUE WRENCH

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

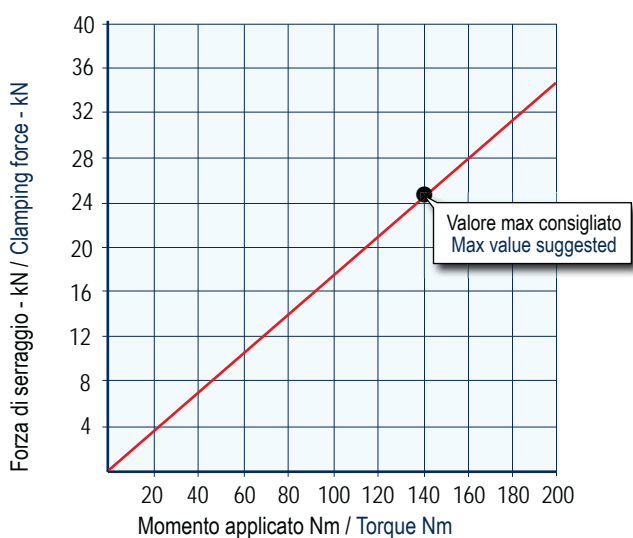
**MORSE FMS TIPO 1
FMS VISES TYPE 1**

VITE: Ø 18 mm / Ø 20 mm PASSO: 2 mm
SCREW: Ø 18 mm / Ø 20 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrench



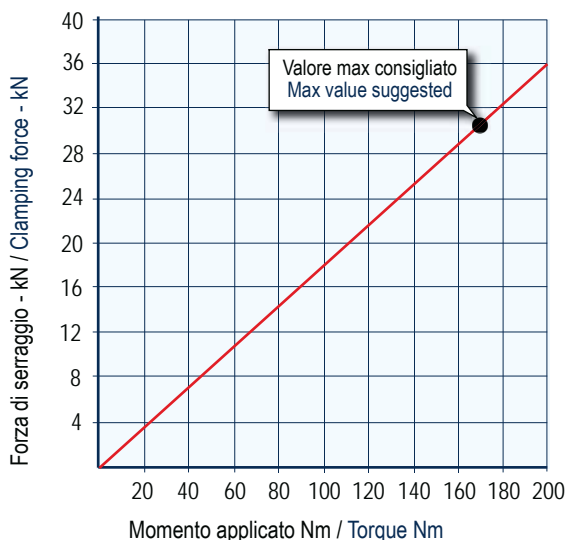
**MORSE FMS TIPO 2
FMS VISES TYPE 2**

VITE: Ø 18 mm / Ø 24 mm PASSO: 2 mm
SCREW: Ø 18 mm / Ø 24 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrench



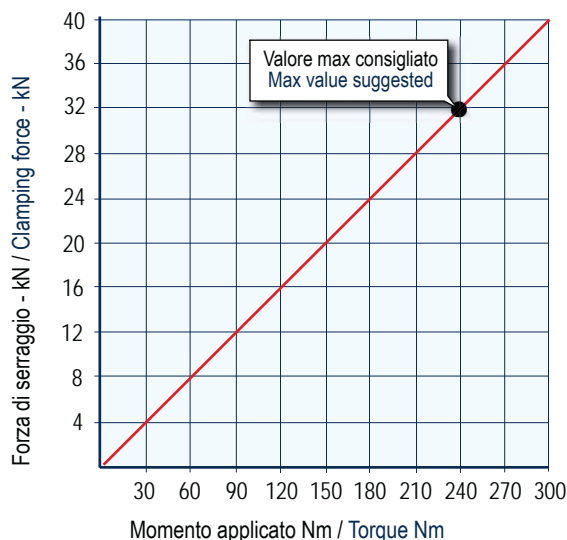
**MORSE FMS TIPO 3-4
FMS VISES TYPE 3-4**

VITE: Ø 24 mm / Ø 30 mm PASSO: 2 mm
SCREW: Ø 24 mm / Ø 30 mm PITCH: 2 mm
Chiave dinamometrica / Torque wrench

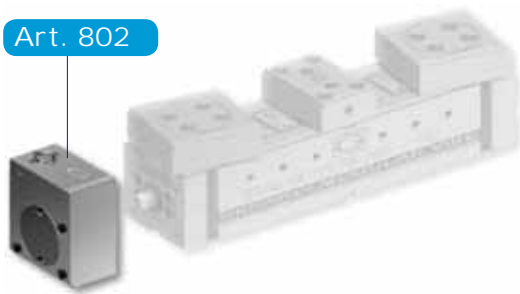


**MORSE FMS TIPO 5-6
FMS VISES TYPE 5-6**

VITE: Ø 30 mm / Ø 36 mm PASSO: 3 mm
SCREW: Ø 30 mm / Ø 36 mm PITCH: 3 mm
Chiave dinamometrica / Torque wrench



Art. 802



**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 $\pm 10\%$. Per un corretto utilizzo non superare i valori indicati nel grafico

**MECHANICAL CLAMPING
WITH PRESSURE MULTIPLIER Art. 802**

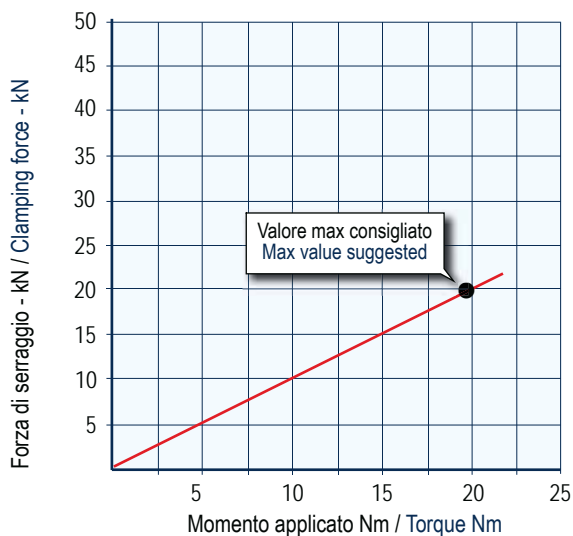
Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a $\pm 10\%$ range. For optimum operation do not exceed chart values

Tipo 1 Type

**MORSE FMS TIPO
FMS VISES TYPE 1**

VITE: $\varnothing 18$ mm / $\varnothing 20$ mm PASSO: 2 mm
SCREW: $\varnothing 18$ mm / $\varnothing 20$ mm PITCH: 2 mm
Moltiplicatore di potenza: Art. 802
Pressure multiplier: Art. 802
Rapporto di trasmissione: 1/9 / Gear ratio: 1/9

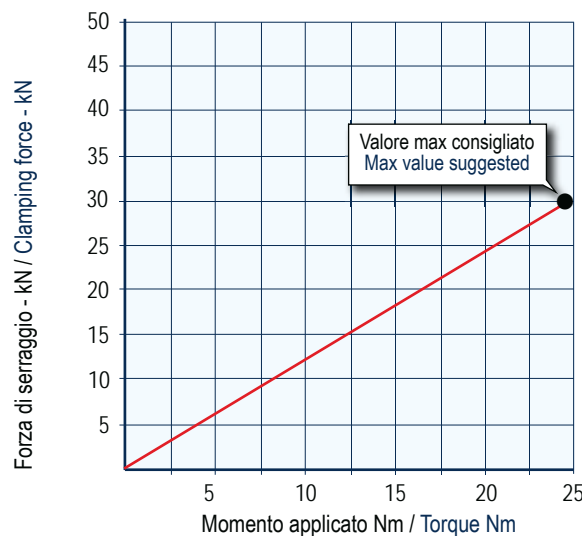
Type	Cod.
1	5.80.21000



**MORSE FMS TIPO
FMS VISES TYPE 2**

VITE: $\varnothing 18$ mm / $\varnothing 24$ mm PASSO: 2 mm
SCREW: $\varnothing 18$ mm / $\varnothing 24$ mm PITCH: 2 mm
Moltiplicatore di potenza: Art. 802
Pressure multiplier: Art. 802
Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

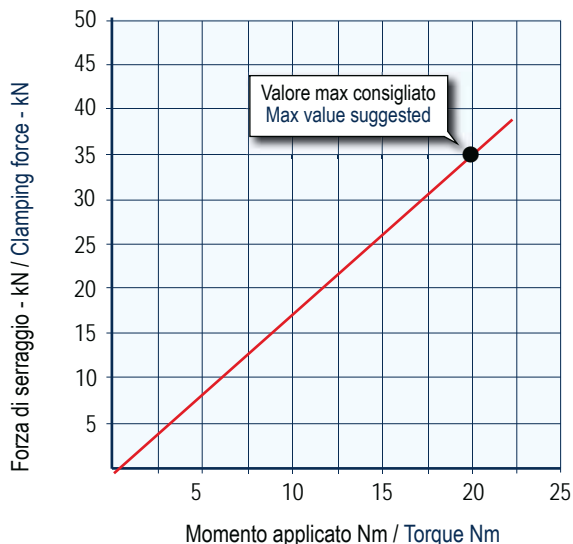
Type	Cod.
2	5.80.22000



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

VITE: $\varnothing 24$ mm / $\varnothing 30$ mm PASSO: 2 mm
SCREW: $\varnothing 24$ mm / $\varnothing 30$ mm PITCH: 2 mm
Moltiplicatore di potenza: Art. 802
Pressure multiplier: Art. 802
Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

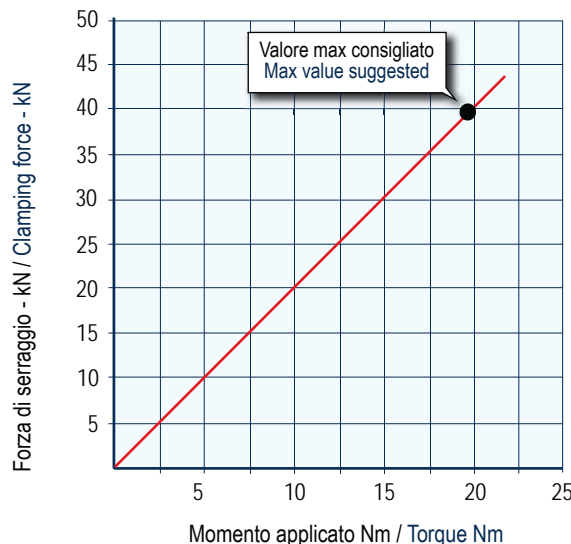
Type	Cod.
3	5.80.23000
4	5.80.24000

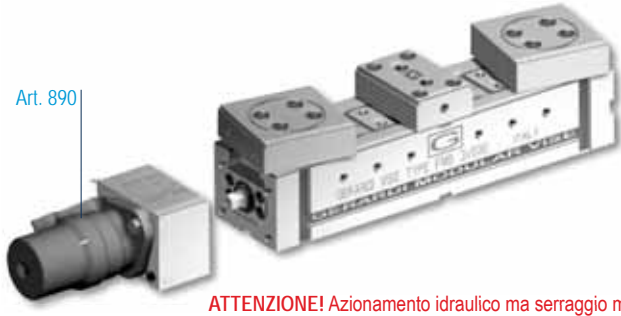


**MORSE FMS TIPO
FMS VISES TYPE 5-6**

VITE: $\varnothing 30$ mm / $\varnothing 36$ mm PASSO: 2 mm
SCREW: $\varnothing 30$ mm / $\varnothing 36$ mm PITCH: 2 mm
Moltiplicatore di potenza: Art. 802
Pressure multiplier: Art. 802
Rapporto di trasmissione: 1/7 / Gear ratio: 1/7

Type	Cod.
5	5.80.25000
6	5.80.26000





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 a $\pm 10\%$. Per un corretto utilizzo non superare i valori indicati nel grafico

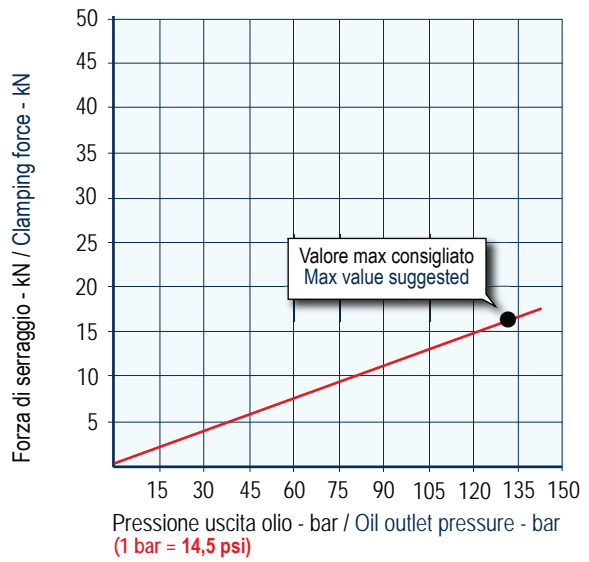
MECHANICAL CLAMPING
THROUGH HYDRAULIC MOTOR Art. 890

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

ATTENZIONE! Azionamento idraulico ma serraggio meccanico (PIU' SICURO)
IMPORTANT! Hydraulic control, but mechanical clamping (SAFER)

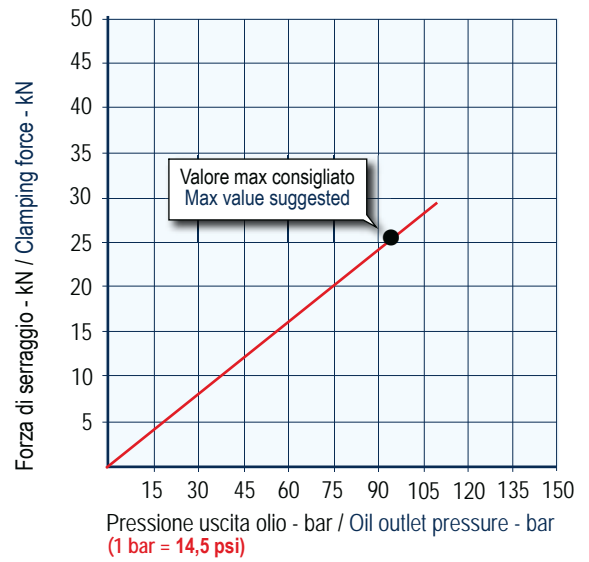
MORSE FMS TIPO 1
FMS VISES TYPE 1

VITE: $\varnothing 18$ mm / $\varnothing 20$ mm PASSO: 2 mm
 SCREW: $\varnothing 18$ mm / $\varnothing 20$ mm PITCH: 2 mm
 Motore idraulico tipo **OMM 32**
 Hydraulic motor type **OMM 32**



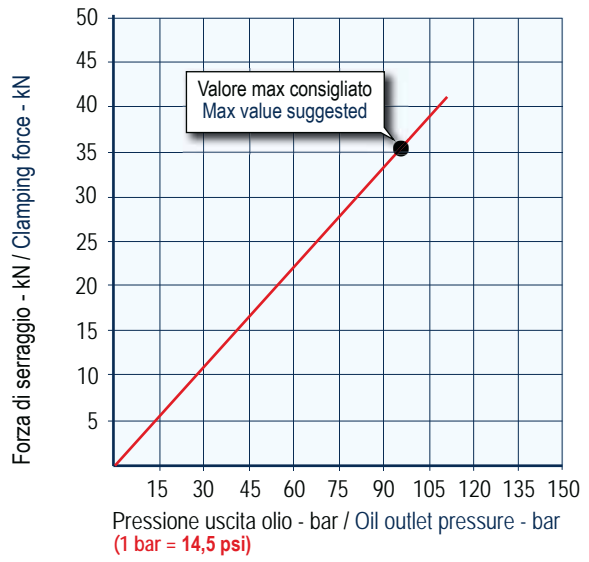
MORSE FMS TIPO 2
FMS VISES TYPE 2

VITE: $\varnothing 18$ mm / $\varnothing 24$ mm PASSO: 2 mm
 SCREW: $\varnothing 18$ mm / $\varnothing 24$ mm PITCH: 2 mm
 Motore idraulico tipo **OMP 80**
 Hydraulic motor type **OMP 80**



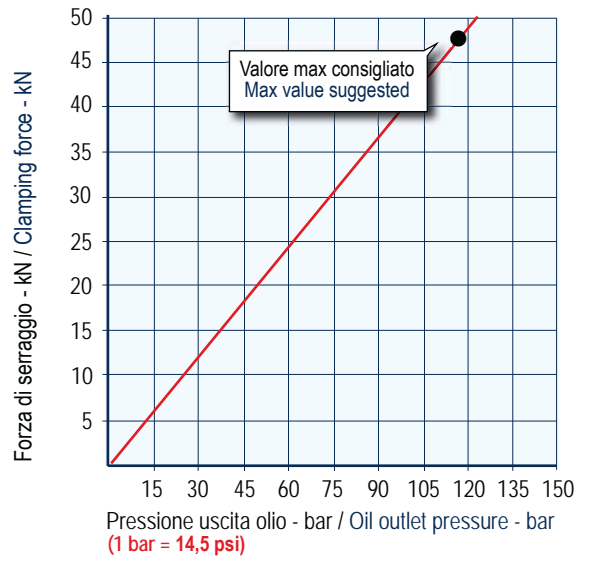
MORSE FMS TIPO 3-4
FMS VISES TYPE 3-4

VITE: $\varnothing 24$ mm / $\varnothing 30$ mm PASSO: 2 mm
 SCREW: $\varnothing 18$ mm / $\varnothing 20$ mm PITCH: 2 mm
 Motore idraulico tipo **OMR 200**
 Hydraulic motor type **OMR 200**



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

VITE: $\varnothing 30$ mm / $\varnothing 36$ mm PASSO: 2 mm
 SCREW: $\varnothing 18$ mm / $\varnothing 24$ mm PITCH: 2 mm
 Motore idraulico tipo **OMR 200**
 Hydraulic motor type **OMR 200**



CONSIGLI SULL' USO E MANUTENZIONE PER MORSE *FMS*

"TRE MORSE IN UNA" ! Singola , doppia e autocentrante!

INSTRUCTIONS FOR THE USE AND MAINTENANCE OF *FMS* VISES

"THREE VISES IN ONE" ! Single, double, self-centering!





**3 MORSE IN UNA
VISES IN ONE**

**CONSIGLI SULL'USO E MANUTENZIONE
PER MORSE FMS "3 MORSE IN UNA"**
(Singola, doppia, autocentrante)

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

**RECOMMENDATIONS FOR THE USE AND
MAINTENANCE OF FMS VISES**
"3 VISES IN ONE" (Single, double, self-centering)

- 1 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 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.

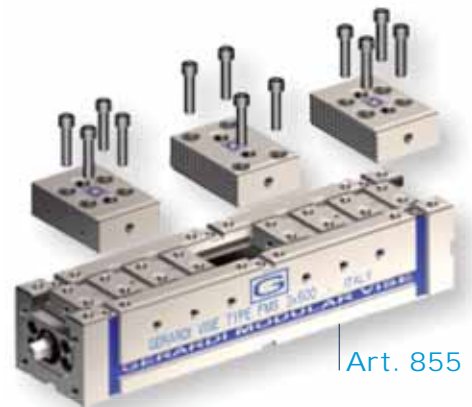
5

OPERAZIONE 1

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

OPERATION 1

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



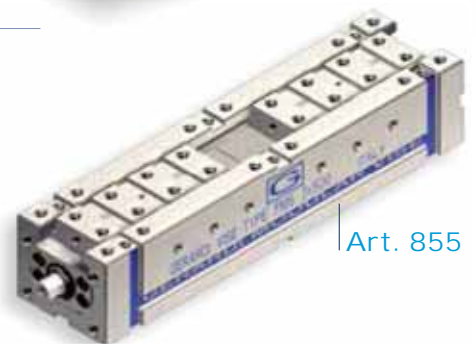
Art. 855

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.



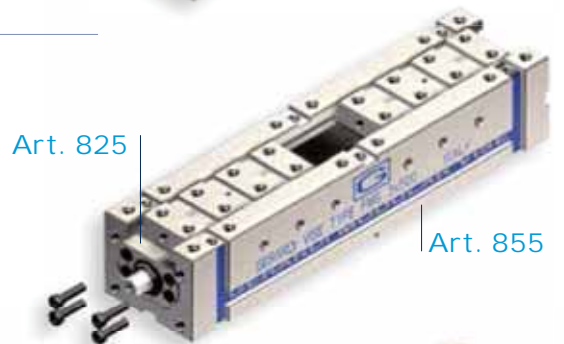
Art. 855

OPERAZIONE 3

Togliere le 4 viti di testa **Art. 8011** dalla piastra di contenimento **Art. 825**

OPERATION 3

Unscrew and remove the 4 screws **Art. 8011** 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

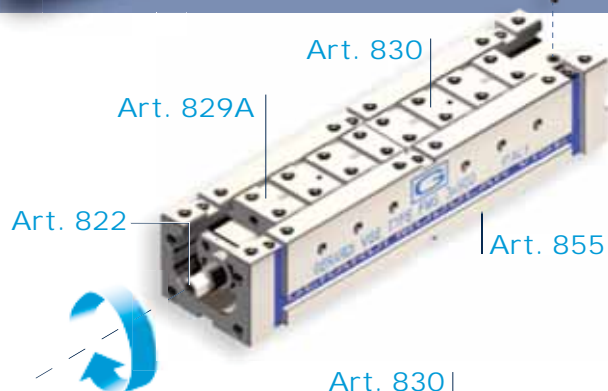
Art. 801G

**3 MORSE IN UNA
VISE IN ONE**



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.



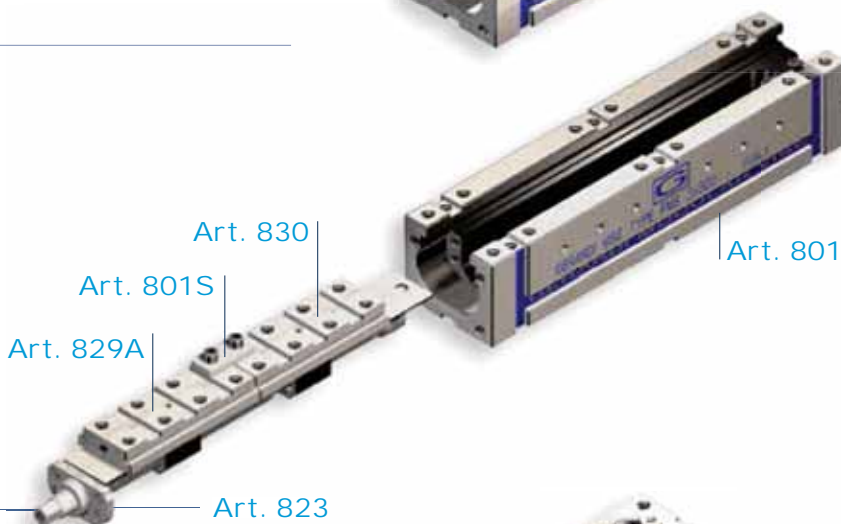
OPERAZIONE 6
Collegare le due slitte **Art. 829A - Art. 830**, utilizzando la piastrina di collegamento in dotazione **Art. 801S**, per non perdere la fase di posizionamento slitte.

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.



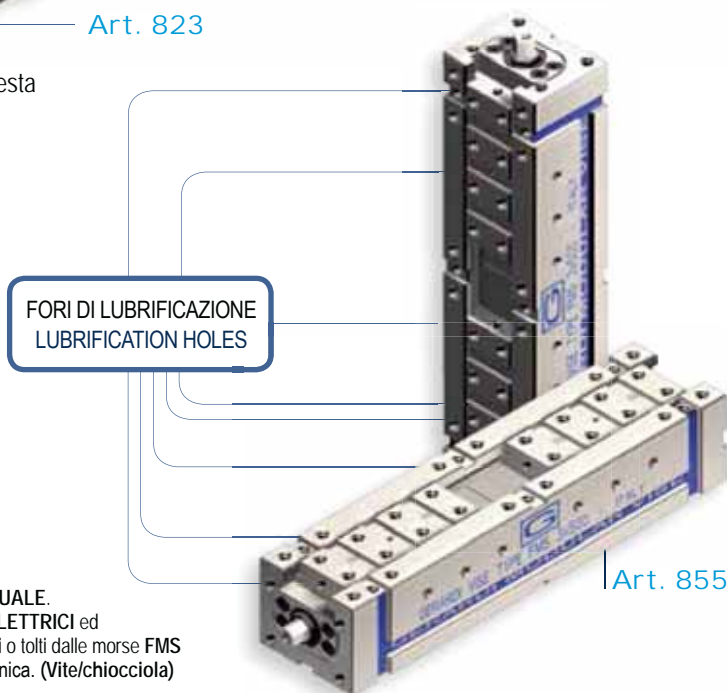
OPERAZIONE 7
Sfilare la vite **Art. 822** assieme con le due slitte e la piastra intermedia **Art. 823**

OPERATION 7
Remove the main screw **Art. 822** together with the 2 slides and the intermediare 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 modifica alcuna. La chiusura della morsa è sempre e comunque meccanica. (Vite/chiocciola)

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.



3 MORSE IN UNA
VISES IN ONE

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 e' predisposta per un doppio serraggio con uno scarto dimensionale massimo fra i due pezzi da bloccare di 8mm.

Art. 825A

Art. 825

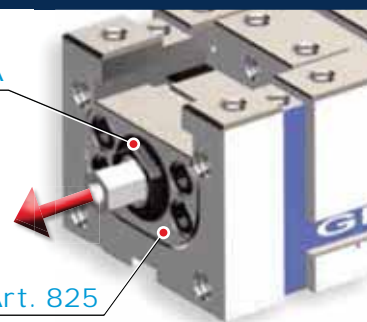


Fig. 1

DOUBLE STATION VISE

With the locking **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 bloccaggi esterno-interno che interno-esterno)

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

Art. 825A

Art. 825

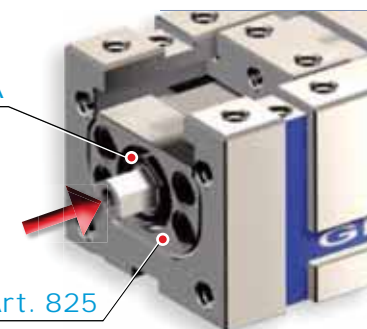


Fig. 2

SELF CENTERING VISE

With the locking **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 o 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

MORSA 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 locking **Art. 825A** it is possible to clamp a single piece with a fixed reference point

Come trasformare la morsa FMS autocentrante in una a bloccaggio doppio

Resetting operations 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 locking **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 locking **Art. 825A - Pic.3** open in line with main screw holding plate **Art. 825**

Art. 825A

Art. 850H

Art. 825

Art. 375

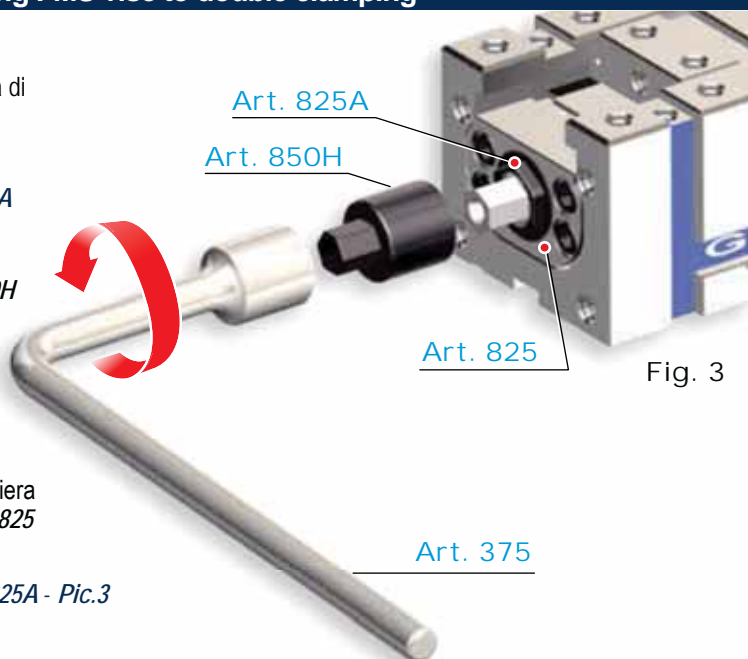


Fig. 3

**3 MORSE IN UNA
VISES IN ONE**



FUNZIONAMENTO DELLA MORSA FMS

FMS VISE OPERATION

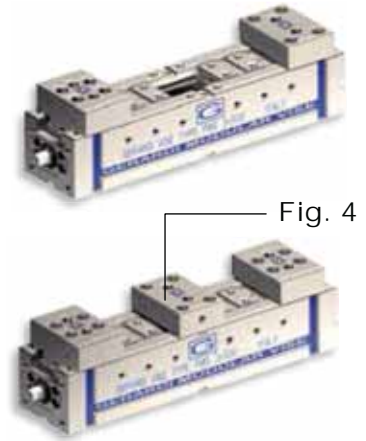
A questo punto la morsa FMS può serrare 2 pezzi contemporaneamente anche se le dimensioni tra loro sono diverse, con un margine di 8mm circa.

Può anche essere utilizzata per serraggi singoli, per il serraggio di un unico pezzo, spostando la ganaschia fissa 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 fix 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 length) it could be necessary, in some positions, the use of specials jaws or spacers.



Come trasformare la morsa FMS da bloccaggio doppio in una autocentrante

Resetting operations to transform double clamping vise to a self-centering vise

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

OPERATION 3

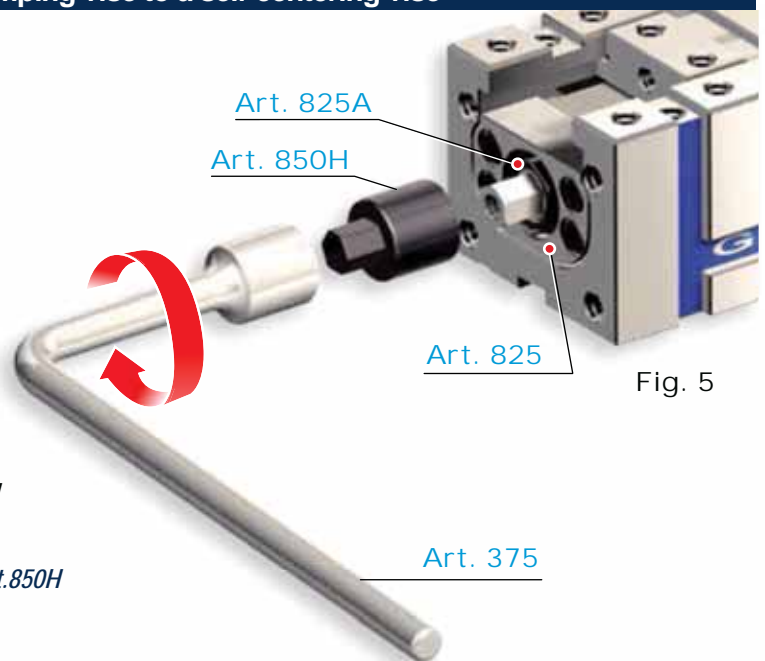
Turn the hexagonal wrench *Art.375* *clockwise* to reach with the locking the bottom position, that inside the main screw holding plate (do not force the clamping). *Pic.5*

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.



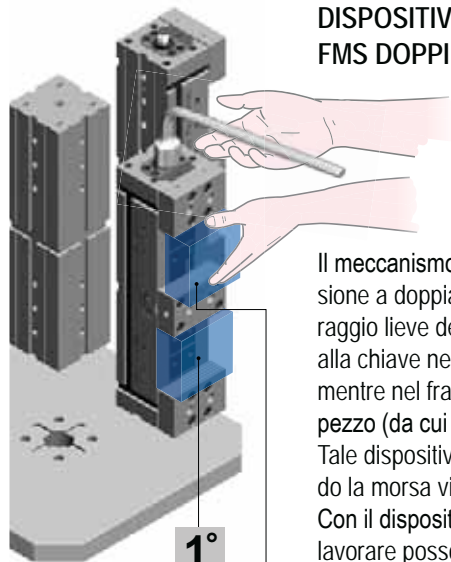
3 MORSE IN UNA
VISES IN ONE



DISPOSITIVO "TERZA MANO"

"THIRD HAND" DEVICE

DISPOSITIVO TERZA MANO PER MORSE
FMS DOPPIE



1° Particolare preserrato a 50-60 Kg
Workpieces preclamped at 50-60Kg

2° Particolare
Workpieces

Il meccanismo "Terza mano" nella morsa in versione a doppia 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 a vuoto.

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.

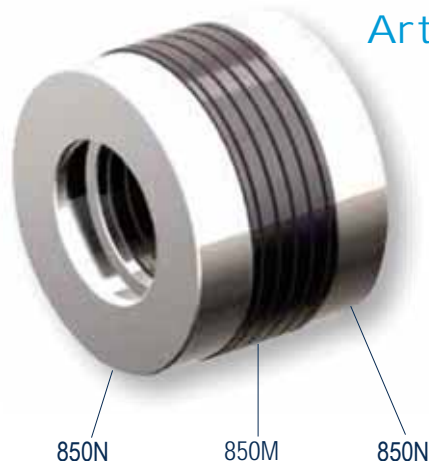
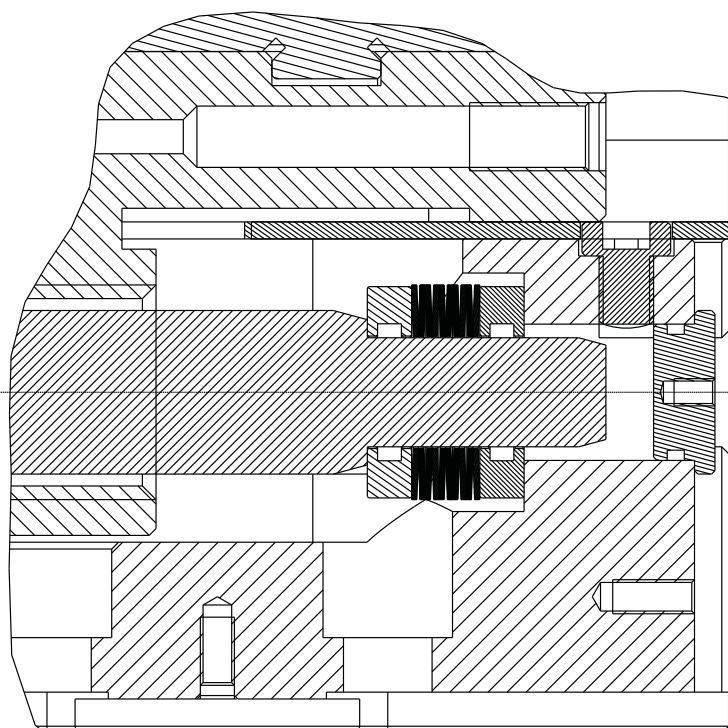
The standard "Third Hand" device has a max pressure of 50 Kg.

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

850N 850M 850N

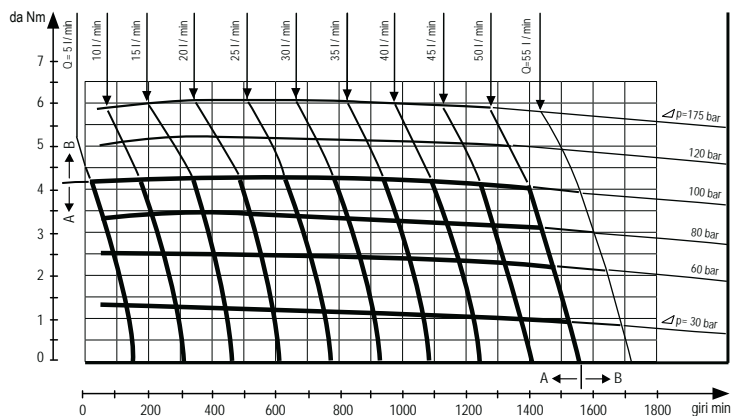
Art. 860E

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



OMM 32

Morse FMS tipo 1 / Type 1 FMS vises



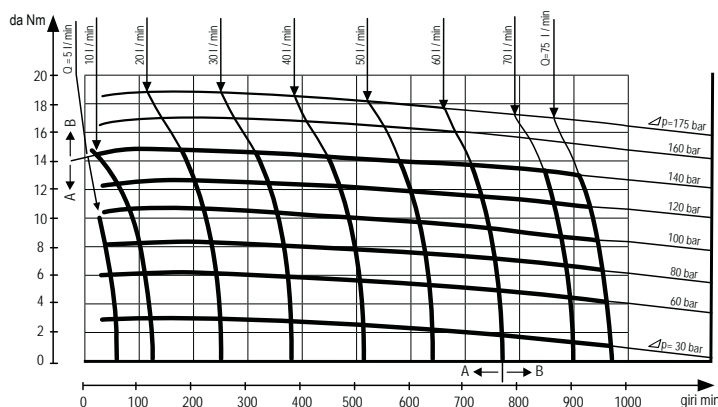
Art. 860E

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



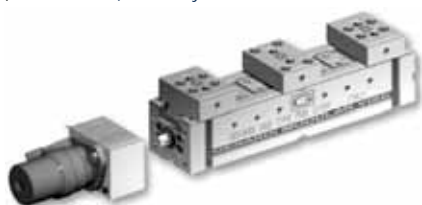
OMP 80

Morse FMS tipo 2 / Type 2 FMS vises



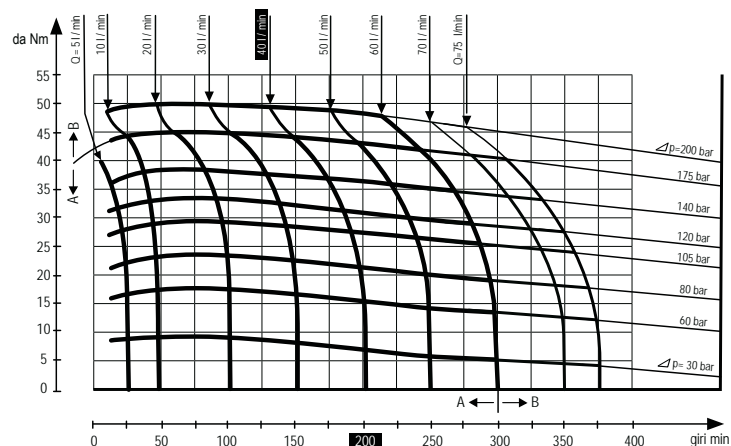
Art. 860E

(Art. 860 + 890) Morsa + motore idraulico
(Art. 860 + 890) Vise + 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.

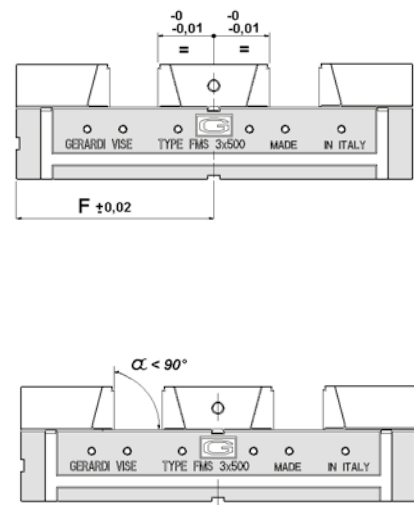
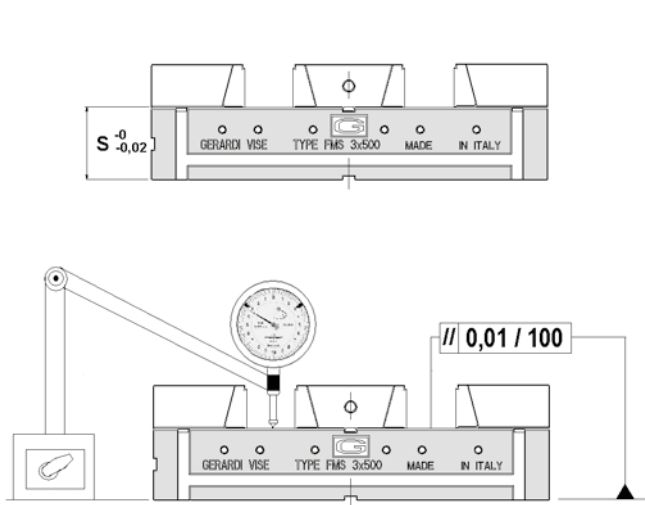
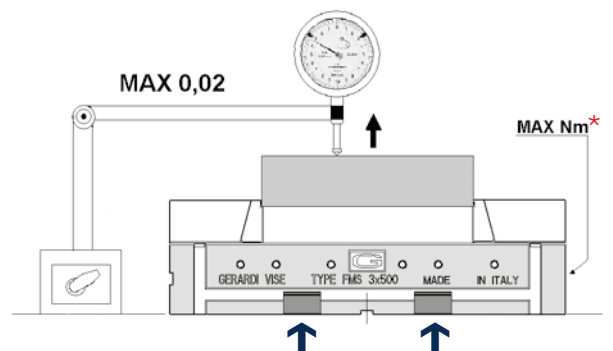
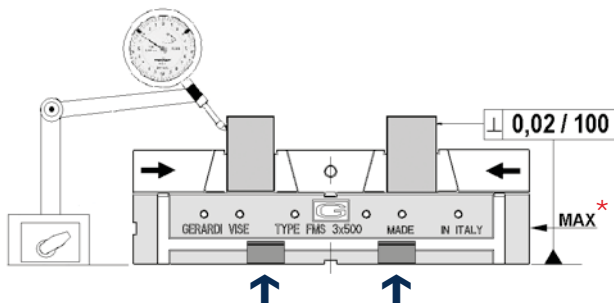
Esempio: Vite passo 2 mm; Giri 200/min (ipotizzando una portata olio di 40 l/min); $V = 2 \times 200 = 400 - 25\% = 300$ mm/min per una morsa.

Per più morse dividere la velocità ottenuta per il numero delle morse 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); $V = 2 \times 200 = 400 - 25\% = 300$ mm/min for one vise.

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

TOLLERANZE GEOMETRICHE
GEOMETRIC ACCURACIES

TOLLERANZE DINAMICHE
DINAMIC ACCURACIES


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

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

1 kgf . m = 9.806