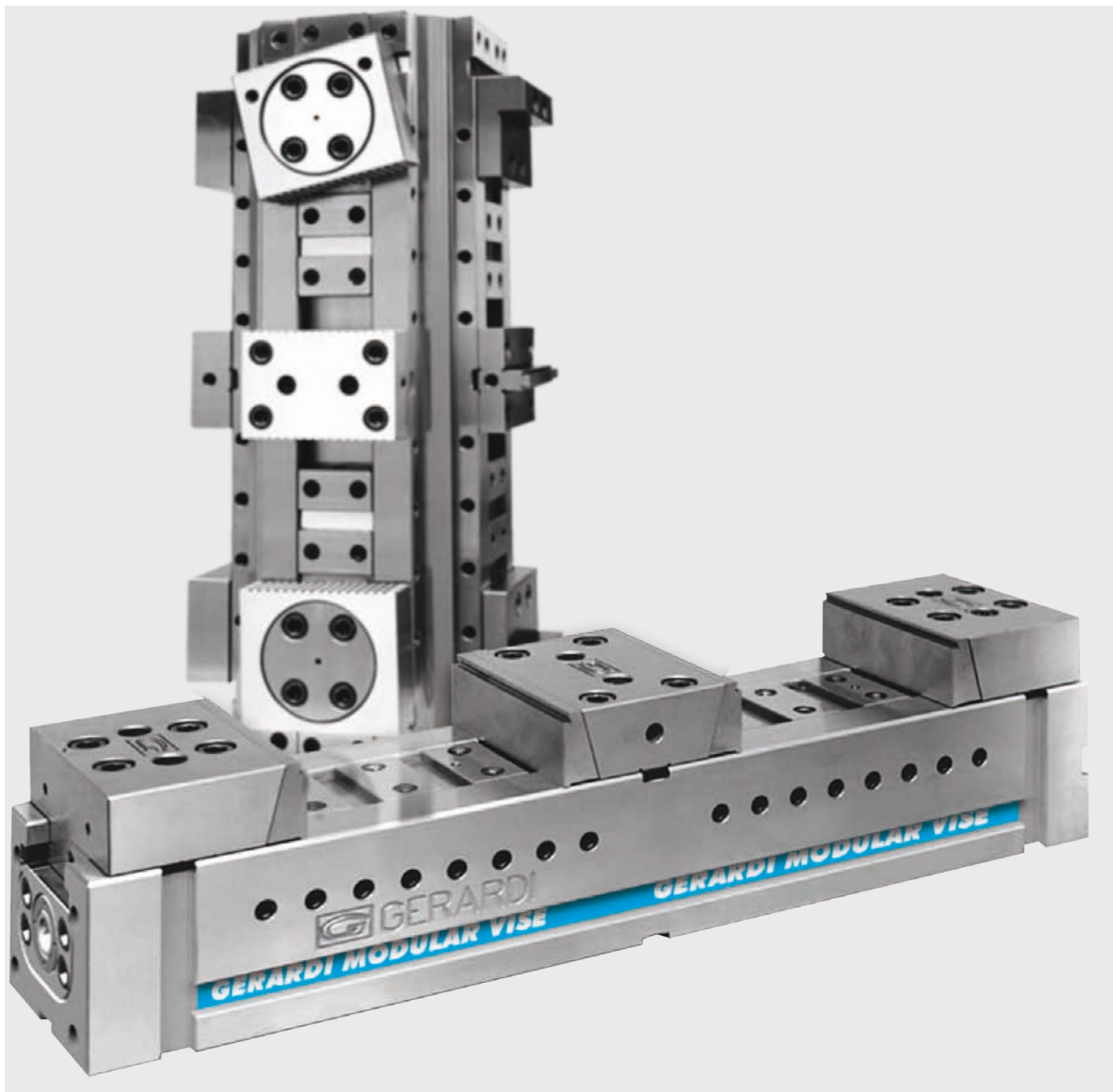


SISTEMA MODULARE FLESSIBILE  
FLEXIBLE MODULAR SYSTEM

# FMS

MORSE e CUBI-MORSA serie FMS  
MORSE SINGOLE, DOPPIE, AUTOCENTRANTI

FMS VISES and VISE-TOWERS series  
SINGLE, DOUBLE and SELF-CENTERING VISES



# SISTEMA MODULARE FLESSIBILE FLEXIBLE MODULAR SYSTEM

Pagg. 5.2 - 5.68

## 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 rettificati 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 repeatability 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.

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 sideways 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 repeatability of workpiece position;
- 12- geometrical accuracy with tolerances 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.

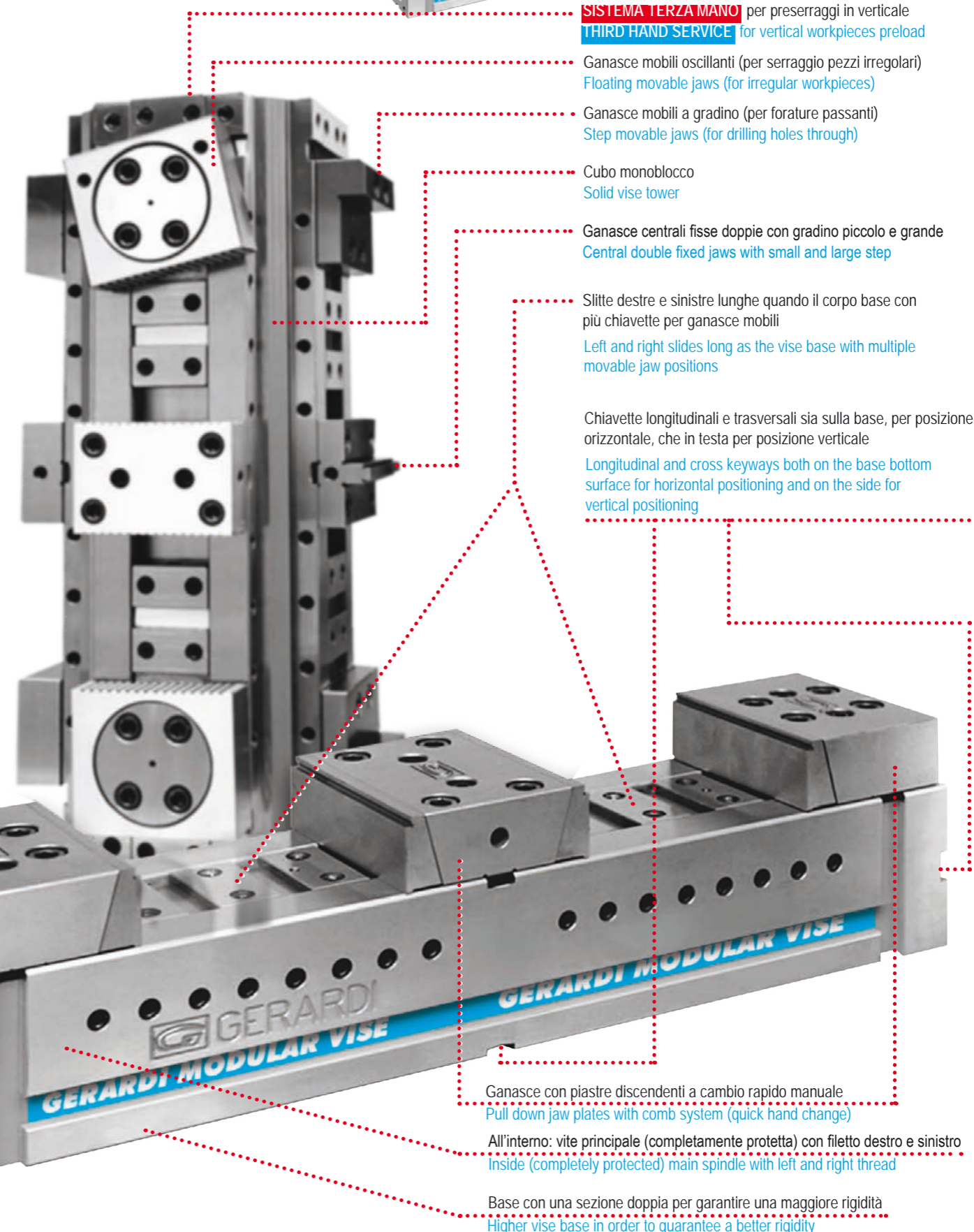
Ghiera per trasformazione morsa da doppia in autocentrante e viceversa  
Nut for vise configuration resetting from double to self-centering and viceversa

**3 MORSE IN UNA  
VISES IN ONE**



**FMS: 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

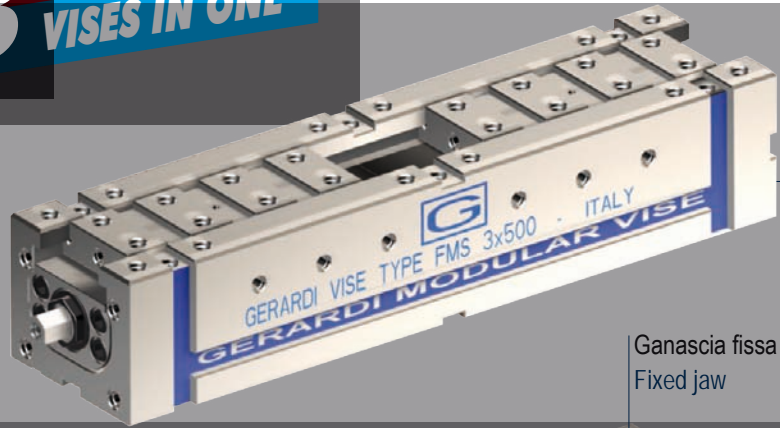
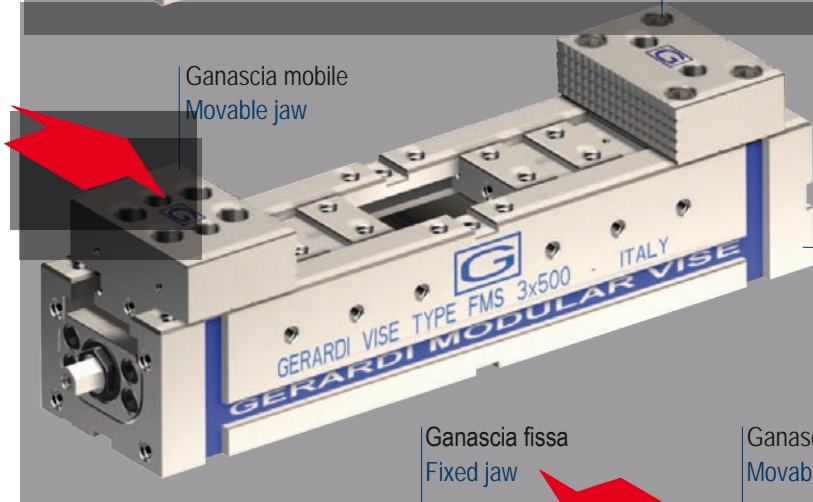
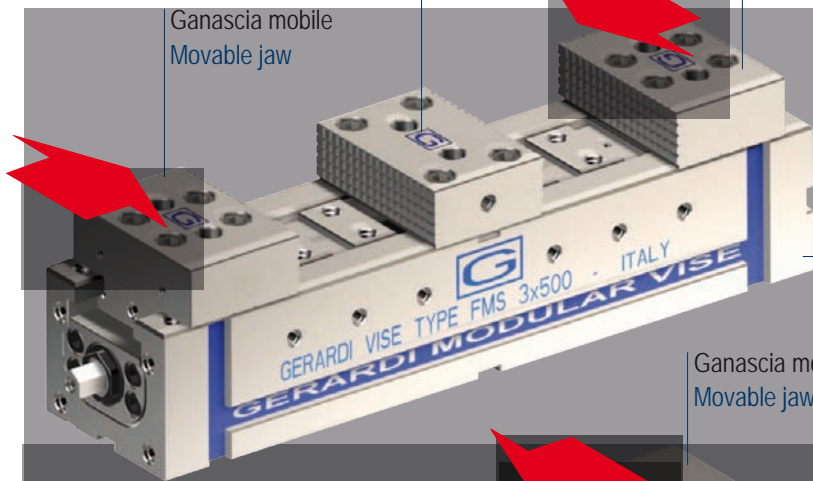
Slitte destre e sinistre lunghe quando il corpo base con più chiavette per ganasce mobili  
Left and right slides long as the vise base with multiple movable jaw positions

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)

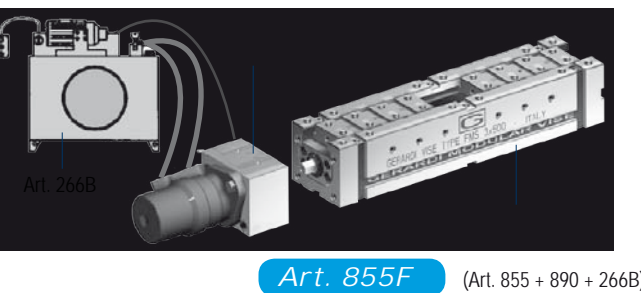
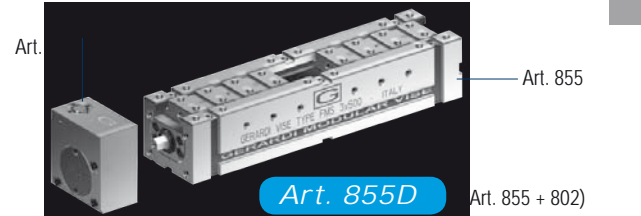
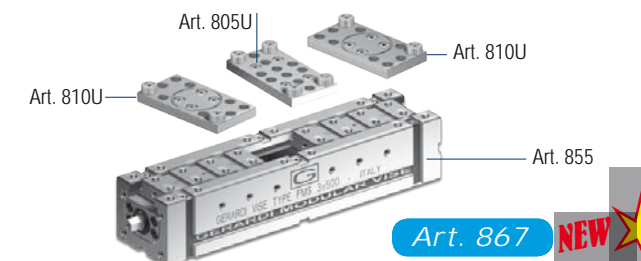
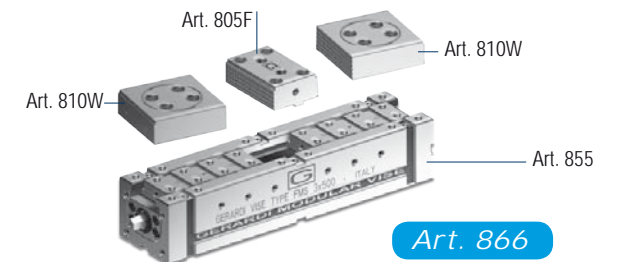
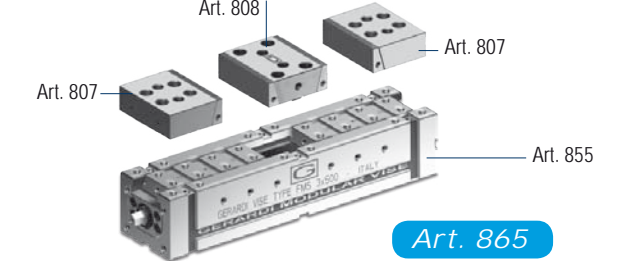
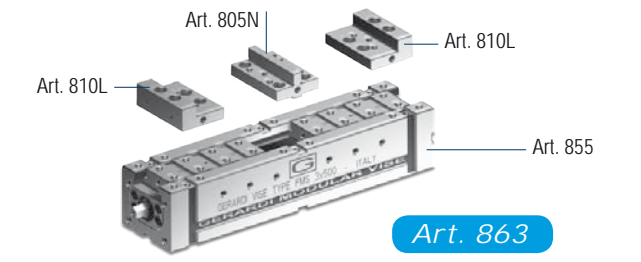
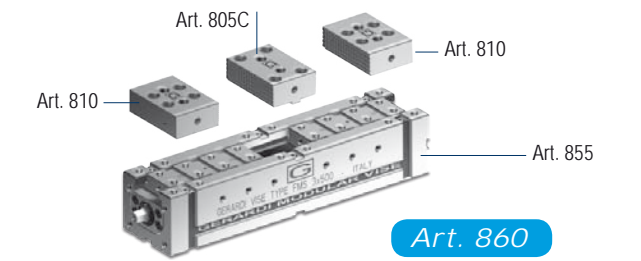
All'interno: vite principale (completamente protetta) con filetto destro e sinistro  
Inside (completely protected) main spindle with left and right thread

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

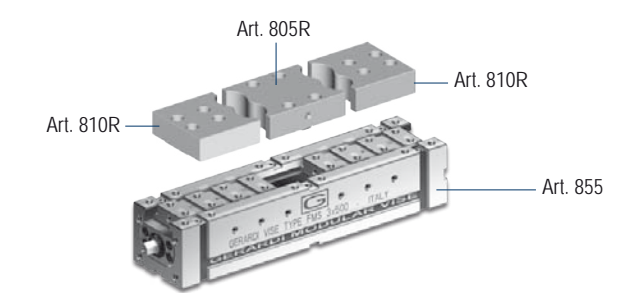
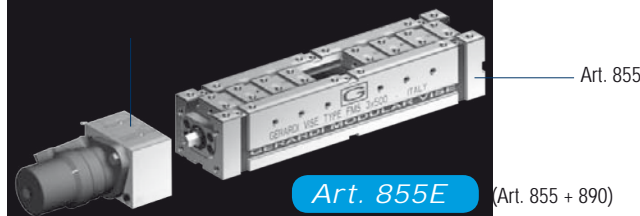
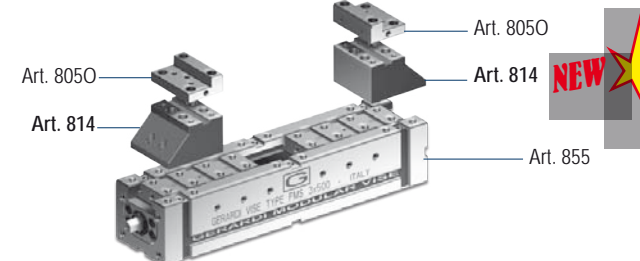
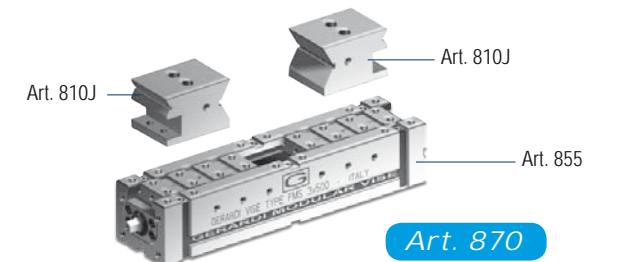
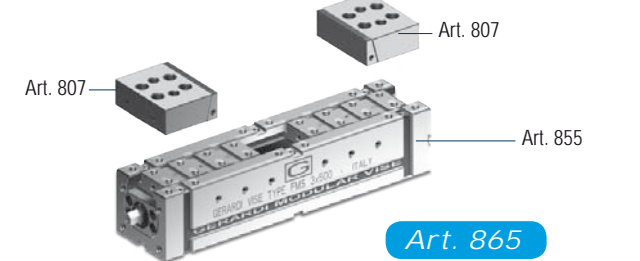
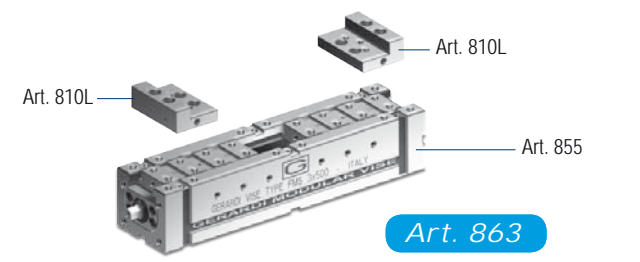
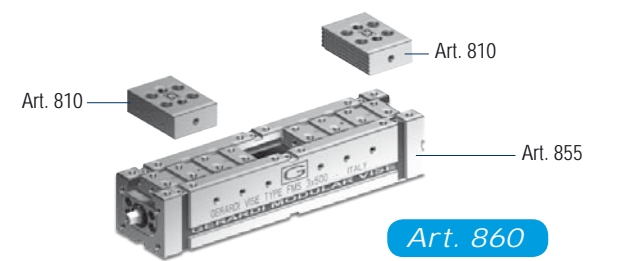
**3 MORSE IN UNA  
VISES IN ONE**Corpo base / Base body **Art. 855**Ganascia fissa  
Fixed jawGanascia mobile  
Movable jawMorsa FMS per serraggi singoli  
FMS for single clampingCorpo base / Base body **Art. 855**Ganascia mobile  
Movable jawGanascia fissa  
Fixed jawGanascia mobile  
Movable jawMorsa FMS per serraggi doppi  
FMS vise for double clampingCorpo 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 viseCorpo base / Base body **Art. 855**

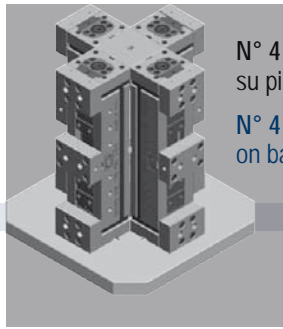
5

**VERSIONI PER BLOCCAGGI DOPPI**  
**DOUBLE CLAMPING CONFIGURATION**



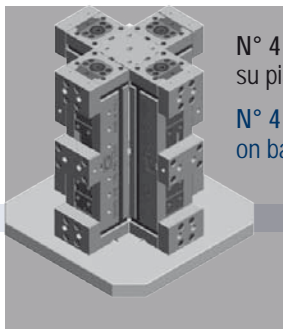
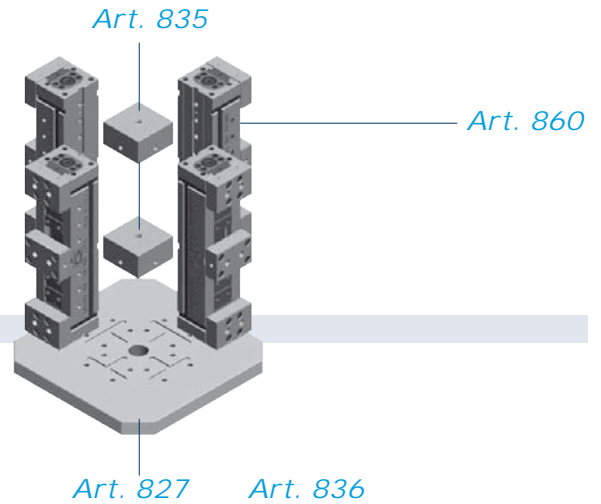
**VERSIONI AUTOCENTRANTI**  
**SELF-CENTERING TYPE**





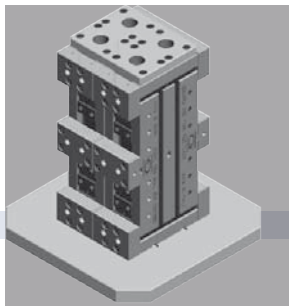
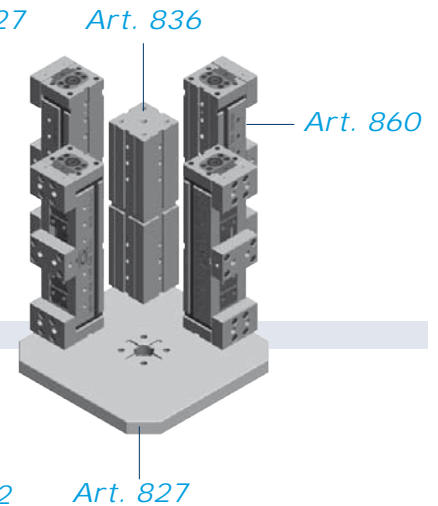
N° 4 morse FMS montate a croce  
su piastra base (Art. 827) con distanziali (Art. 835)

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



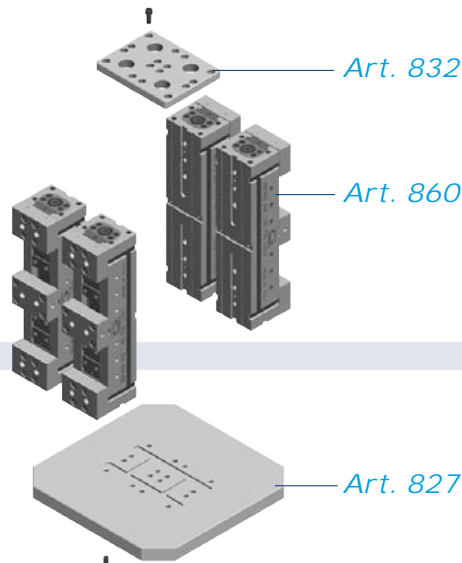
N° 4 morse FMS montate a croce  
su piastra base (Art. 827) con supporto centrale (Art. 836)

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



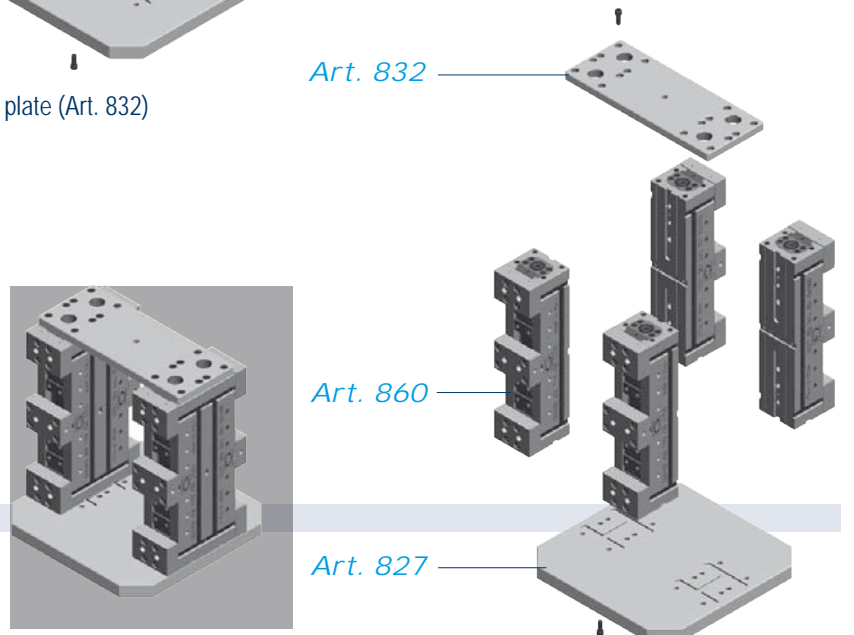
N° 4 morse FMS montate dorso a dorso,  
fianco a fianco, su piastra base (Art. 827)  
con piastra di collegamento (Art. 832)

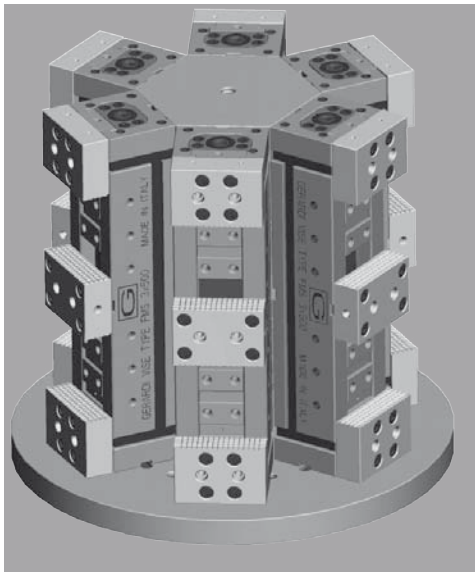
N° 4 FMS vises cross-mounted back-to-back,  
side by side, on base plate (Art. 827) with connecting plate (Art. 832)



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

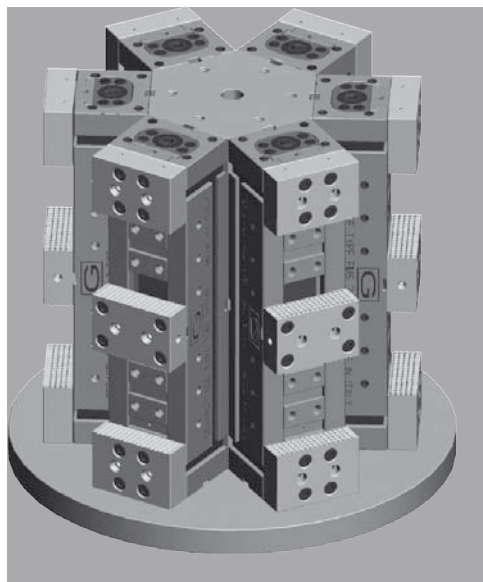
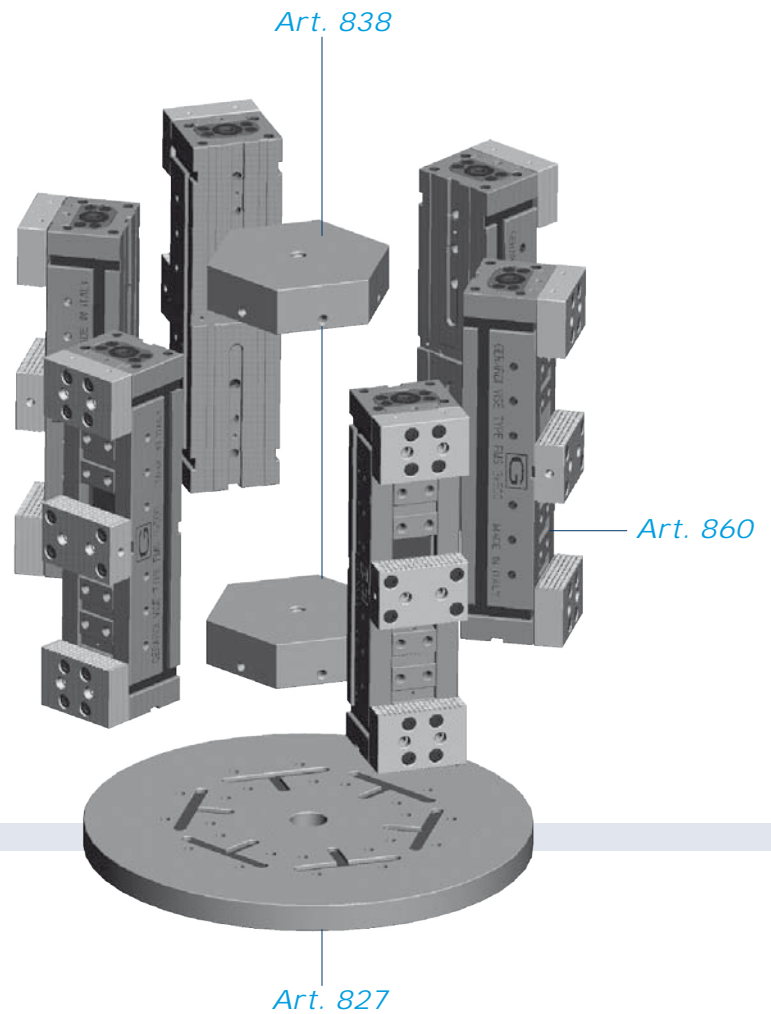
N° 4 FMS vises cross-mounted back-to-back,  
on base plate (Art. 827)  
with connecting plate (Art. 832)





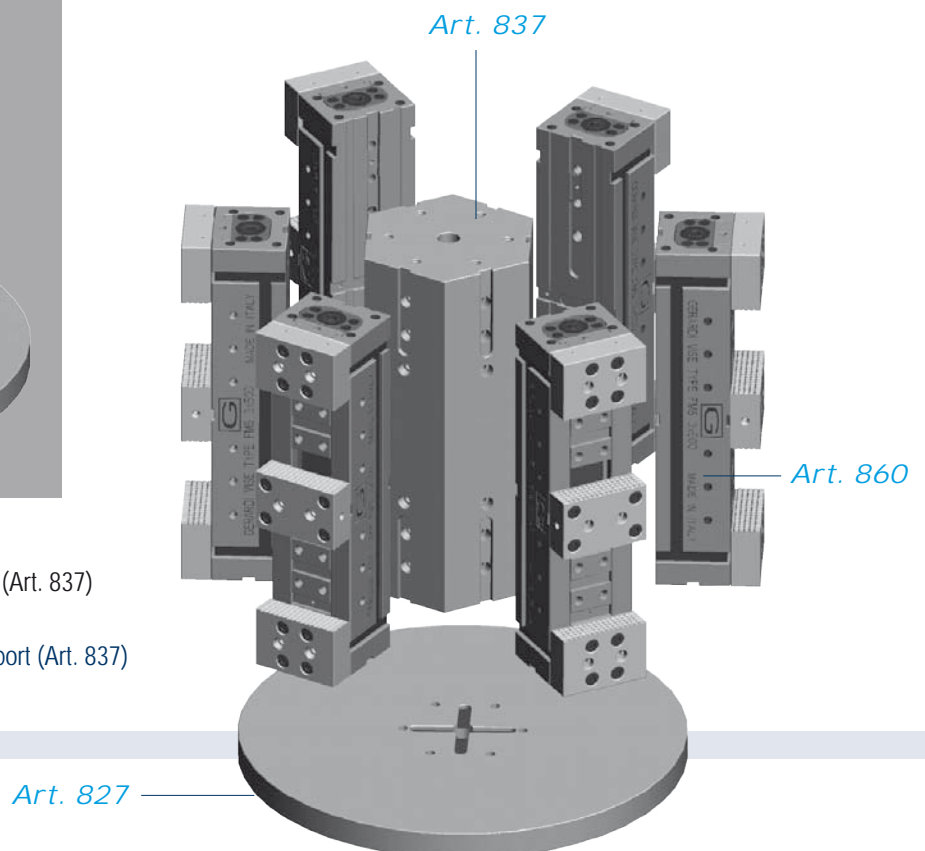
N° 6 morse FMS montate verticalmente  
su piastra base (Art. 827) con distanziali esagonali (Art. 838)

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	1		2			3			
Apertura massima fra le slitte / Maximum opening between slides	A	56	68	96	116	136	156	136	136
	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		
	R	74		94			124		
	S	69		89			99		
	T	72	116	102	142	182	222	132	182
	Y	277	377	360	460	560	660	470	570
	X	389	483	537	637	737	837	637	737
	kg	7	10	18	25	32	39	40	45

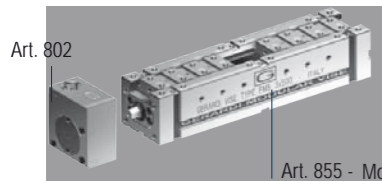
**3 MORSE IN UNA VISE IN ONE**



**Art. 855**

Modulo base universale / Universal vise body module

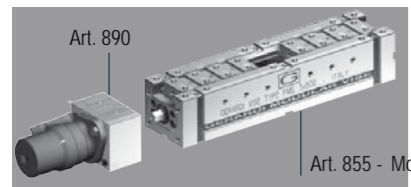
**Art. 855D** (Art. 855 + 802) Morsa + moltiplicatore di coppia / (Art. 855 + 802) Vise + torque multiplier



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

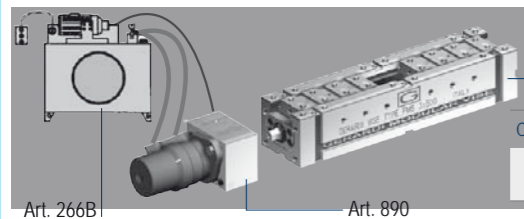
**Art. 855E** (Art. 855 + 890) Morsa + motore idraulico / (Art. 855 + 890) Vise + hydraulic motor



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

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

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



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

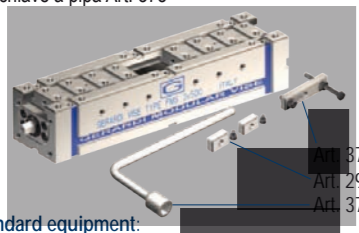
Art. 855 - Modulo base universale / Universal vise body module

**Art. 855**

Modulo base universale / Universal vise body module

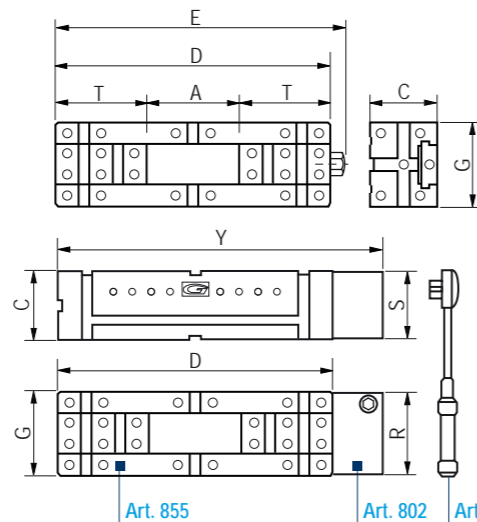
Dotazione standard:

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



Standard equipment:

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



**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

3			4				5			6		
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

Cod.	5.85.53600	5.85.53700	5.85.53800	5.85.54500	5.85.54600	5.85.54700	5.85.54800	5.85.55600	5.85.55700	5.85.55800	5.85.56800	5.85.56900	5.85.56100

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

Cod.	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

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

Cod.	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

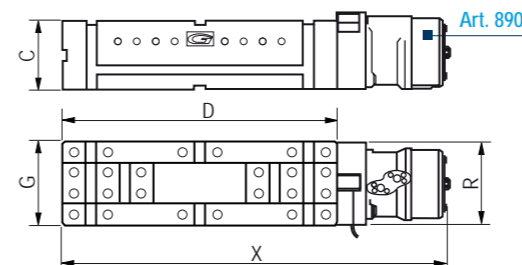
**Art. 855F**

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

Cod.	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

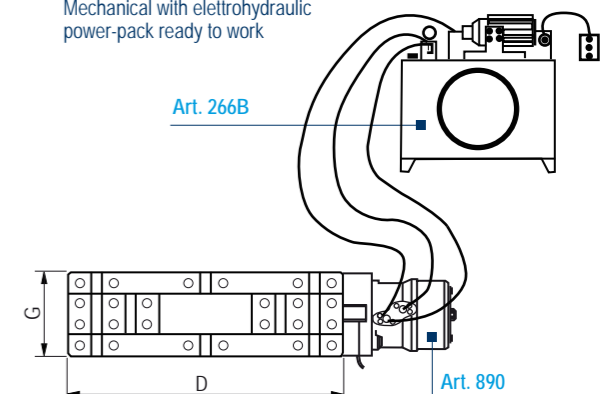
**Art. 855E**

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



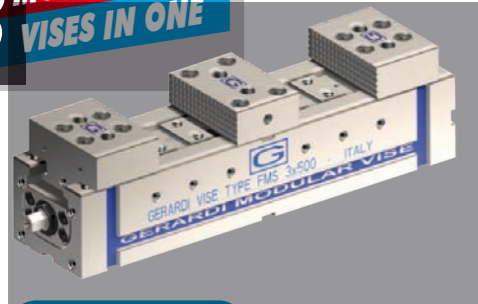
**Art. 855F**

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



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

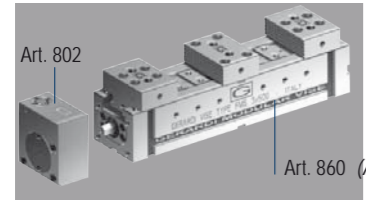
**3 MORSE IN UNA**  
**VISES IN ONE**



**Art. 860**

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

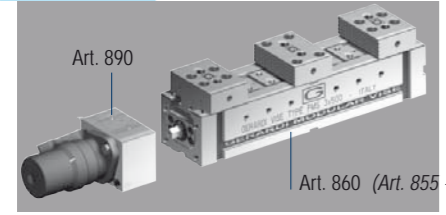
**Art. 860D** (Art. 860 + 802) Morsa + moltiplicatore di coppia / (Art. 860 + 802) Vise + torque multiplier



Cod.	5.86.0D120	5.86.0D130	5.86.0D230	5.86.0D240	5.86.0D250	5.86.0D260	5.86.0D340	5.86.0D350
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Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

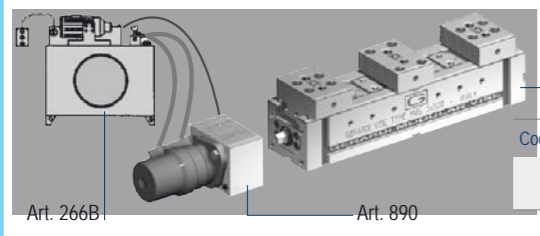
**Art. 860E** (Art. 860 + 890) Morsa + motore idraulico / (Art. 860 + 890) Vise + hydraulic motor



Cod.	5.86.0E120	5.86.0E130	5.86.0E230	5.86.0E240	5.86.0E250	5.86.0E260	5.86.0E340	5.86.0E350
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Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

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



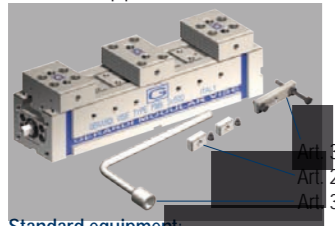
Cod.	5.86.0F120	5.86.0F130	5.86.0F230	5.86.0F240	5.86.0F250	5.86.0F260	5.86.0F340	5.86.0F350
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Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

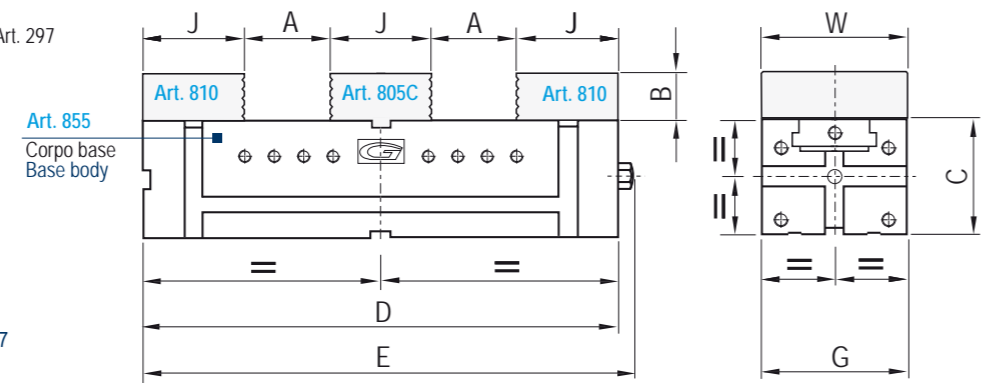
**Art. 860**

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



- Standard equipment:**
- 2 workstop Art. 370
  - 1 pair of precision positioning key-nuts Art. 297
  - 1 box wrench Art. 375



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

**Art. 860D** (Art. 860 + 802) Morsa + moltiplicatore di coppia / (Art. 860 + 802) 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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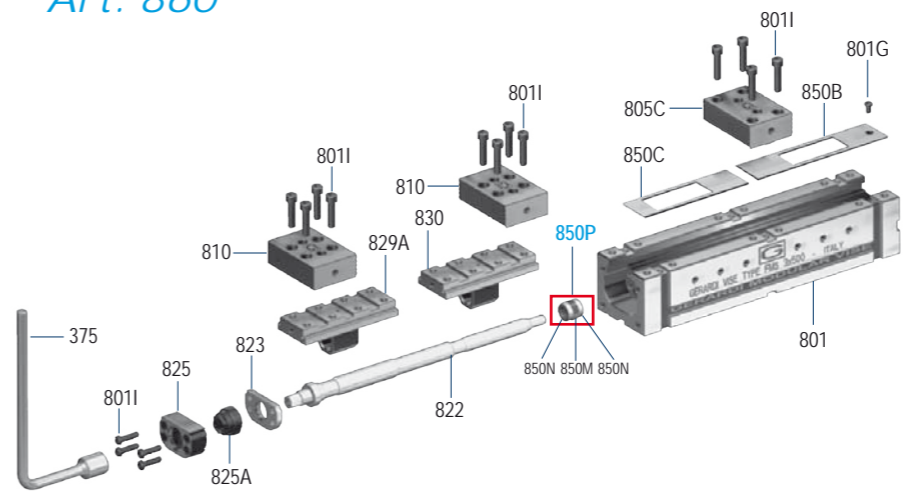
**Art. 860E** (Art. 860 + 890) Morsa + motore idraulico / (Art. 860 + 890) Vise + hydraulic motor

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 / (Art. 860 + 890 + 266B) 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**

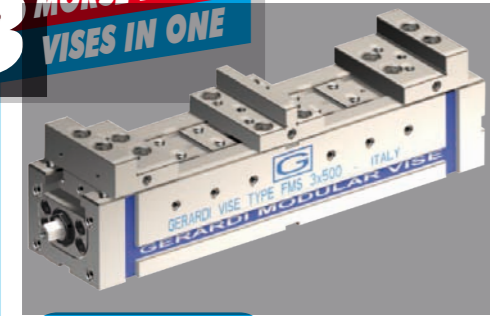


Art.	Pag.	Art.	Pag.
375	4.25	830	5.40
801	5.36	850B	5.50
801G	5.50	850C	5.50
801I	5.50	850M	5.50
805C	5.45	850N	5.50
810	5.46	850P	5.50
822	5.42	-	-
823	5.48	-	-
825	5.48	-	-
825A	5.50	-	-
829A	5.40	-	-



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

**3 MORSE IN UNA**  
**VISES IN ONE**

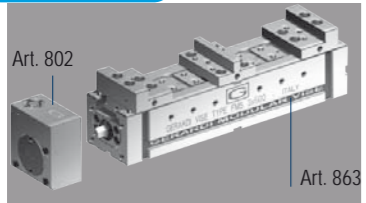


**Art. 863**

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

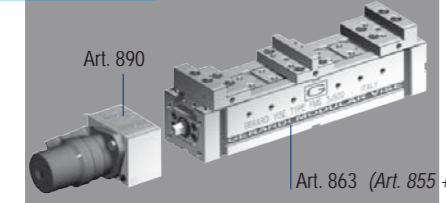
Cod.	5.86.31200	5.86.31300	5.86.32300	5.86.32400	5.86.32500	5.86.32600	5.86.33400	5.86.33500
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**Art. 863D** (Art. 863 + 802) Morsa + moltiplicatore di coppia / (Art. 863 + 802) Vise + torque multiplier



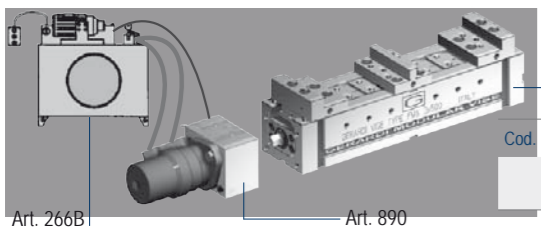
Cod.	5.86.3D120	5.86.3D130	5.86.3D230	5.86.3D240	5.86.3D250	5.86.3D260	5.86.3D340	5.86.3D350
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**Art. 863E** (Art. 863 + 890) Morsa + motore idraulico / (Art. 863 + 890) Vise + hydraulic motor



Cod.	5.86.3E120	5.86.3E130	5.86.3E230	5.86.3E240	5.86.3E250	5.86.3E260	5.86.3E340	5.86.3E350
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**Art. 863F** (Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / (Art. 863 + 890 + 266B) Vise + hydraulic motor + power unit

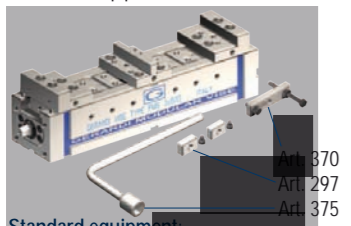


Cod.	5.86.3F120	5.86.3F130	5.86.3F230	5.86.3F240	5.86.3F250	5.86.3F260	5.86.3F340	5.86.3F350
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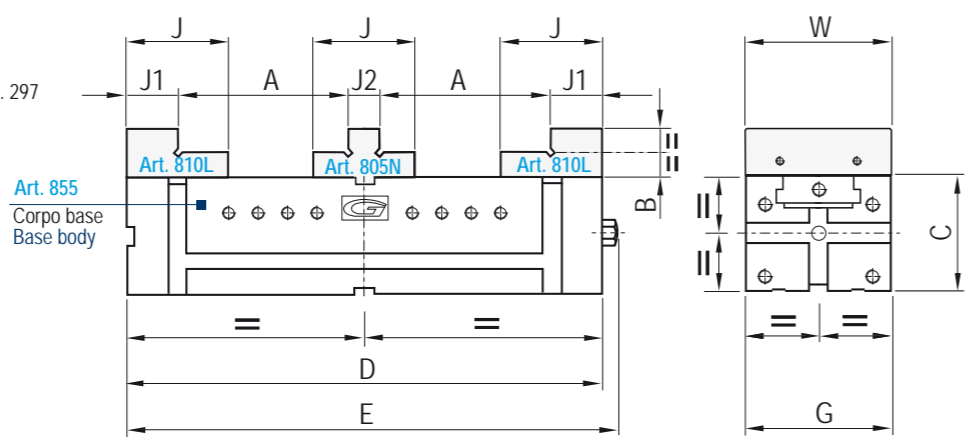
**Art. 863**

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



- Standard equipment:**
- 2 workstop Art. 370
  - 1 pair of precision positioning key-nuts Art. 297
  - 1 box wrench Art. 375



3			4				5			6		
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
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**Art. 863D** (Art. 863 + 802) Morsa + moltiplicatore di coppia / (Art. 863 + 802) 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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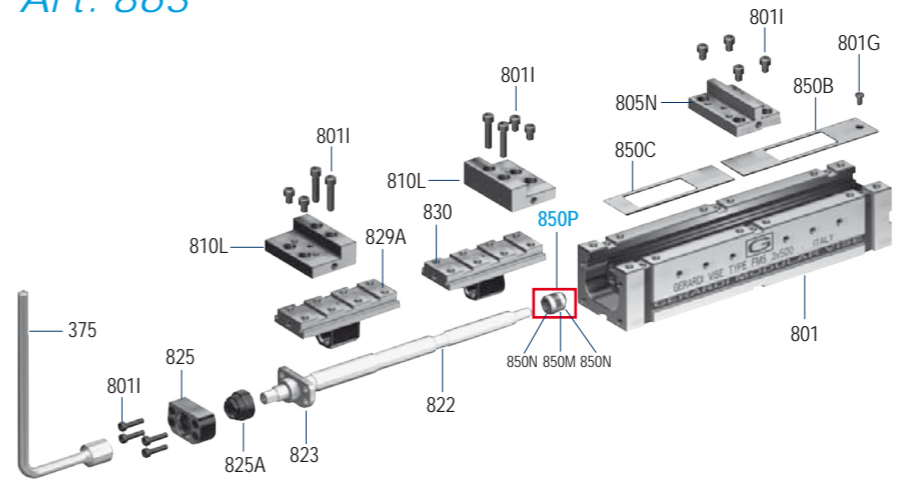
**Art. 863E** (Art. 863 + 890) Morsa + motore idraulico / (Art. 863 + 890) Vise + hydraulic motor

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 / (Art. 863 + 890 + 266B) 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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**Art. 863**



Art.	Pag.	Art.	Pag.
375	4.25	830	5.40
801	5.36	850B	5.50
801G	5.50	850C	5.50
801I	5.50	850M	5.50
805N	5.45	850N	5.50
810L	5.45	850P	5.50
822	5.42	-	-
823	5.48	-	-
825	5.48	-	-
825A	5.50	-	-
829A	5.40	-	-



Tipo (grandezza) morsa / Vise (type) size		1					2		3	
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	332	300	400	500	600	400	500		
	E	352	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**  
**VISES IN ONE**

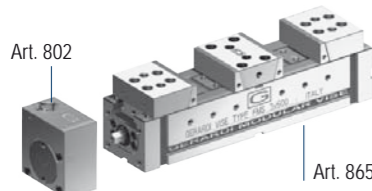


**Art. 865**

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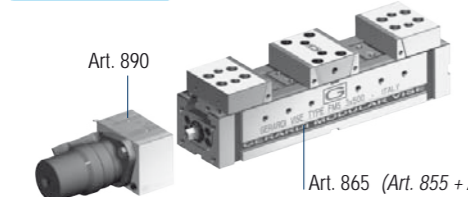
**Art. 865D** (Art. 865 + 802) Morsa + moltiplicatore di coppia / (Art. 865 + 802) Vise + torque multiplier



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

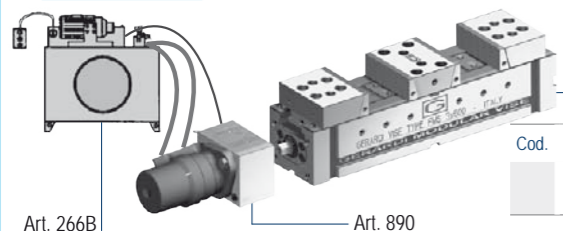
**Art. 865E** (Art. 865 + 890) Morsa + motore idraulico / (Art. 865 + 890) Vise + hydraulic motor



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

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



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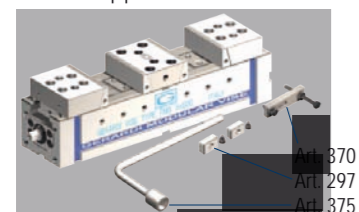
Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

**Art. 865**

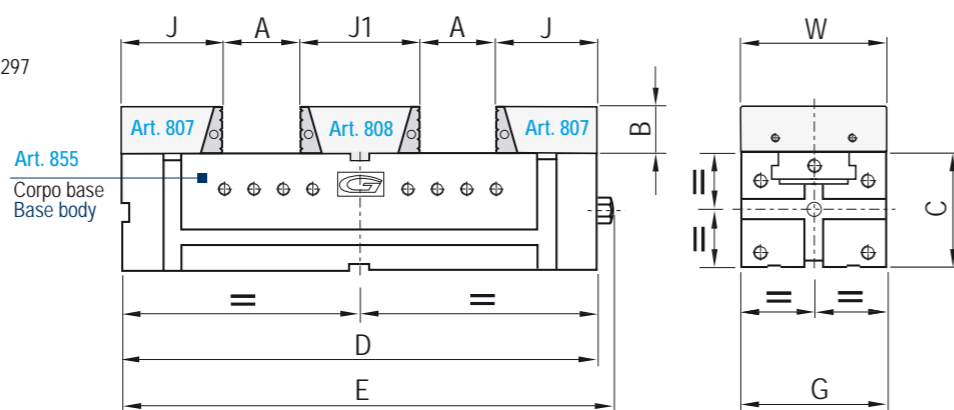
Morsa doppia, singola, autocentrante con ganasce a cambio rapido discendente (*Sistema a pettine*)  
Double, single, self-centering vise with quick change pull down jaws (*Comb system*)

**Dotazione standard:**

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



- Standard equipment:**
- 2 workstop Art. 370
  - 1 pair of precision positioning key-nuts Art. 297
  - 1 box wrench Art. 375



3			4				5			6		
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 / (Art. 865 + 802) 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 / (Art. 865 + 890) Vise + hydraulic motor

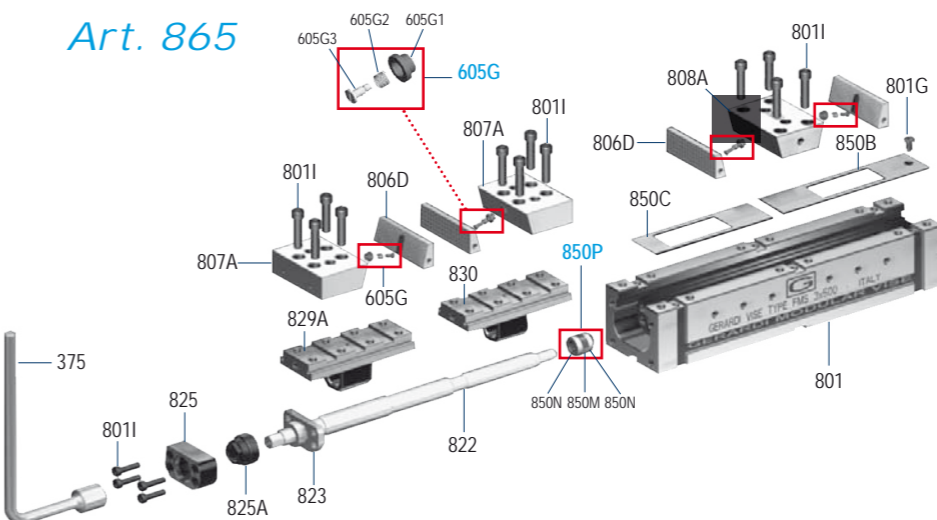
5.86.5E360	5.86.5E370	5.86.5E380	5.86.5E450	5.86.5E460	5.86.5E470	5.86.5E480	5.86.5E560	5.86.5E570	5.86.5E580	5.86.5E680	5.86.5E690	5.86.5E610
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**Art. 865F**

(Art. 865 + 890 + 266B) Morsa + motore idraulico + centralina / (Art. 865 + 890 + 266B) 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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**Art. 865**



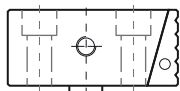
Art.	Pag.	Art.	Pag.
375	4.25	822	5.42
605G	6.23	825	5.48
605GI	6.23	825A	5.50
605G2	6.23	829A	5.40
605G3	6.23	830	5.40
801	5.36	850B	5.50
801G	5.50	850C	5.50
801I	5.50	850M	5.50
806D	5.17	850N	5.50
807A	5.16	850P	5.50
808A	5.16	-	-



Tipo (grandezza) morsa / Vise (type) size

1 2 3 4 5 6

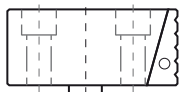
**Art. 806**



Cod.	5.80.61000	5.80.62000	5.80.63000	5.80.64000	5.80.65000	5.80.66000

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

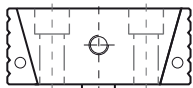
**Art. 807**



Cod.	5.80.71000	5.80.72000	5.80.73000	5.80.74000	5.80.75000	5.80.76000

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

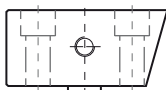
**Art. 808**



Cod.	5.80.81000	5.80.82000	5.80.83000	5.80.84000	5.80.85000	5.80.86000

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

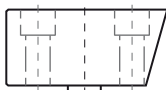
**Art. 806A**



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

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

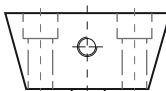
**Art. 807A**



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

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

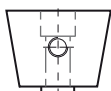
**Art. 808A**



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

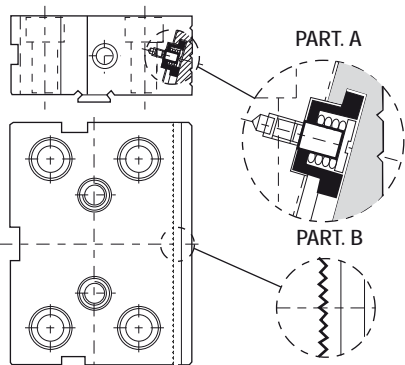
Corpo ganascia fissa doppia per piastre ganasce intercambiabili rapide / Double fixed jaw body for quick interchangeable jaw plate

**Art. 808B**



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

Corpo ganascia fissa doppia ridotta per piastre ganasce 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 ganasce intercambiabili, conferisce alla morsa FMS un ulteriore aumento di flessibilità dato dalla rapidità di sostituzione delle piastre ganasce e dalla precisione di riposizionamento.

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

La vasta gamma di piastre ganasce intercambiabili va a soddisfare le più svariate esigenze di lavorazione.

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

The new system with quick interchangeable jaw plates, increase the FMS vise flexibility, and feature the quick jaw plates replacement and their high precision repositioning.

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

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

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

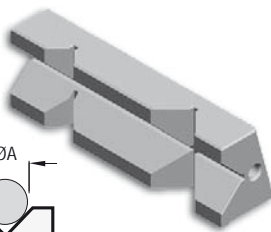
Piastra ganascia rapida SINGOLA SPECIALE  
TAYLOR MADE SINGLE quick change law plate

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SET di piastre ganasce rapide con DIMENSIONI SPECIALI  
Quick change jaw plates SET with TAYLOR MADE dimensions

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**Art. 806F**

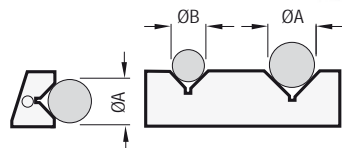


Piastra ganascia intercambiabile prismatica a pettine

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



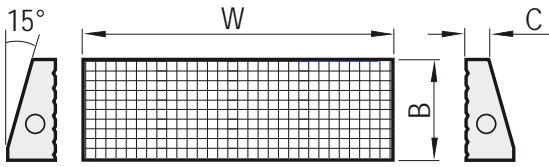
Ø Min / Max	A	6 / 16	9 / 24	13 / 38	15 / 40	15 / 42	15 / 42
	B	4 / 10	7 / 18	9 / 24	9 / 24	9 / 24	9 / 24



Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
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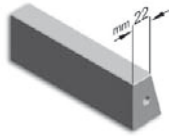
**PIASTRE RAPIDE** - Ricambi per ganasce FMS a pettine  
**QUICK JAW PLATES** - Spares for comb FMS jaws

W	73	93	123	143	168	188
B	25	30	40	50	60	60
C	10	10	11	11	16	16



**Art. 806B**

Piastra ganascia intercambiabile dolce a pettine  
 Soft comb interchangeable jaw plate



Cod.	5.80.6B100	5.80.6B200	5.80.6B300	5.80.6B400	5.80.6B500	5.80.6B600

**Art. 806C**

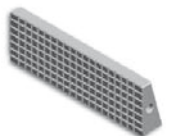
Piastra ganascia intercambiabile liscia a pettine  
 Smooth comb interchangeable jaw plate



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

**Art. 806D**

Piastra ganascia 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 ganascia 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 ganascia intercambiabile prismatica a pettine  
 Prismatic comb interchangeable jaw plate



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

Cod.	5.80.6F100	5.80.6F200	5.80.6F300	5.80.6F400	5.80.6F500	5.80.6F600

**Art. 806G**

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



Cod.	5.80.6G100	5.80.6G200	5.80.6G300	5.80.6G400	5.80.6G500	5.80.6G600

**Art. 806H**

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



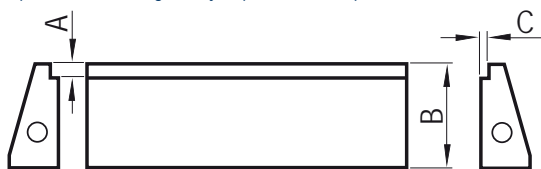
Cod.	5.80.6M100	5.80.6M200	5.80.6M300	5.80.6M400	5.80.6M500	5.80.6M600

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**KIT RISPARMIO**  
**SAVING KIT**

**Art. 806E**

Piastra ganascia 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	18	18	18
	23	23	23	23	23	23	23	23	23	23
	28	28	28	28	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				

Tipo (grandezza) morsa / Vise (type) size		1					2		3	
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	332	300	400	500	600	400	500		
	E	352	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		

**3 MORSE IN UNA VISES IN ONE**

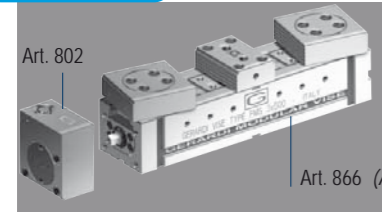


**Art. 866**

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

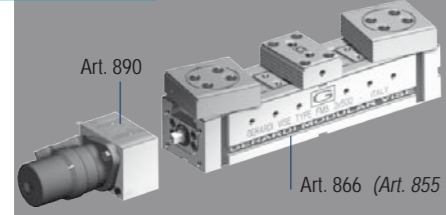
Cod.	5.86.61300	5.86.62300	5.86.62400	5.86.62500	5.86.62600	5.86.63400	5.86.63500
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**Art. 866D** (Art. 866 + 802) Morsa + moltiplicatore di coppia / (Art. 866 + 802) Vise + torque multiplier



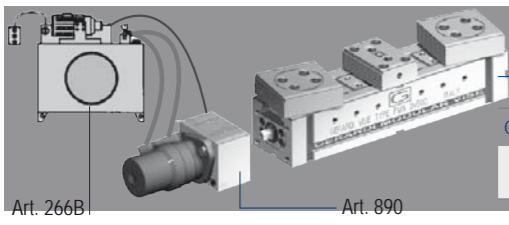
Cod.	5.86.6D130	5.86.6D230	5.86.6D240	5.86.6D250	5.86.6D260	5.86.6D340	5.86.6D350
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**Art. 866E** (Art. 866 + 890) Morsa + motore idraulico / (Art. 866 + 890) Vise + hydraulic motor



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 / (Art. 866 + 890 + 266B) Vise + hydraulic motor + power unit

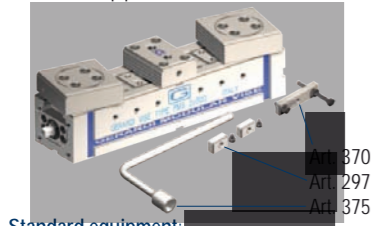


Cod.	5.86.6F130	5.86.6F230	5.86.6F240	5.86.6F250	5.86.6F260	5.86.6F340	5.86.6F350
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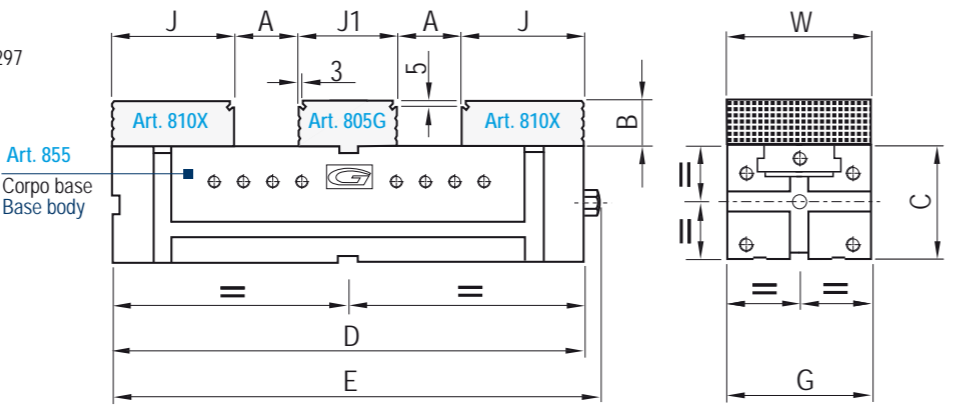
**Art. 866**

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



- Standard equipment:**
- 2 workstop Art. 370
  - 1 pair of precision positioning key-nuts Art. 297
  - 1 box wrench Art. 375



3			4				5			6		
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
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**Art. 866D** (Art. 866 + 802) Morsa + moltiplicatore di coppia / (Art. 866 + 802) 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
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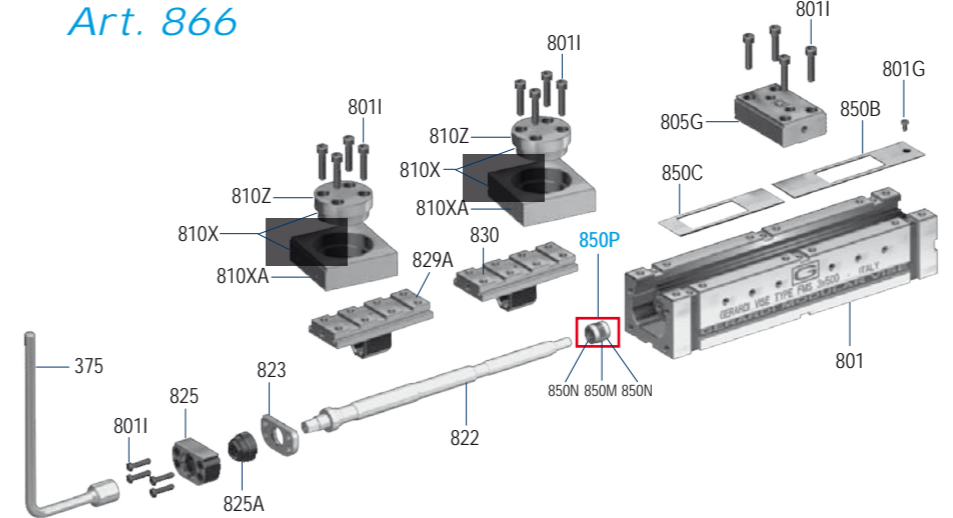
**Art. 866E** (Art. 866 + 890) Morsa + motore idraulico / (Art. 866 + 890) Vise + hydraulic motor

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 / (Art. 866 + 890 + 266B) Vise + hydraulic motor + power unit

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

**Art. 866**



Art.	Pag.	Art.	Pag.
375	4.25	825A	5.50
801	5.36	829A	5.40
801G	5.50	830	5.40
805G	5.45	850B	5.50
810X	5.21	850C	5.50
810XA	5.47	850M	5.50
810Z	5.47	850N	5.50
822	5.52	-	-
823	5.48	-	-
825	5.48	-	-

**3 MORSE IN UNA  
VISE IN ONE**

**Art. 810Z**

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

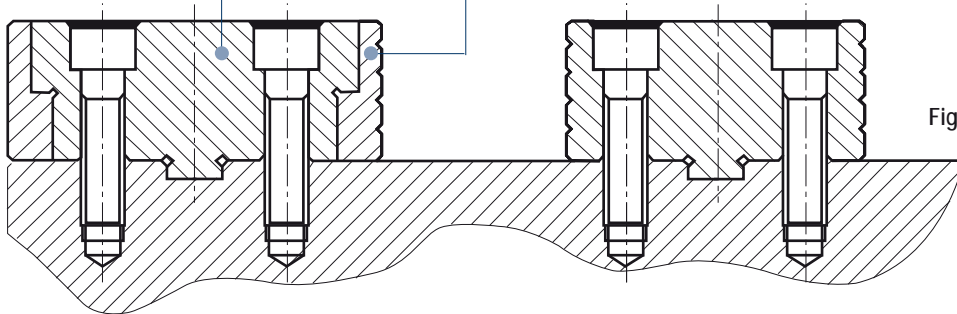


Fig. 1 Pic. 1

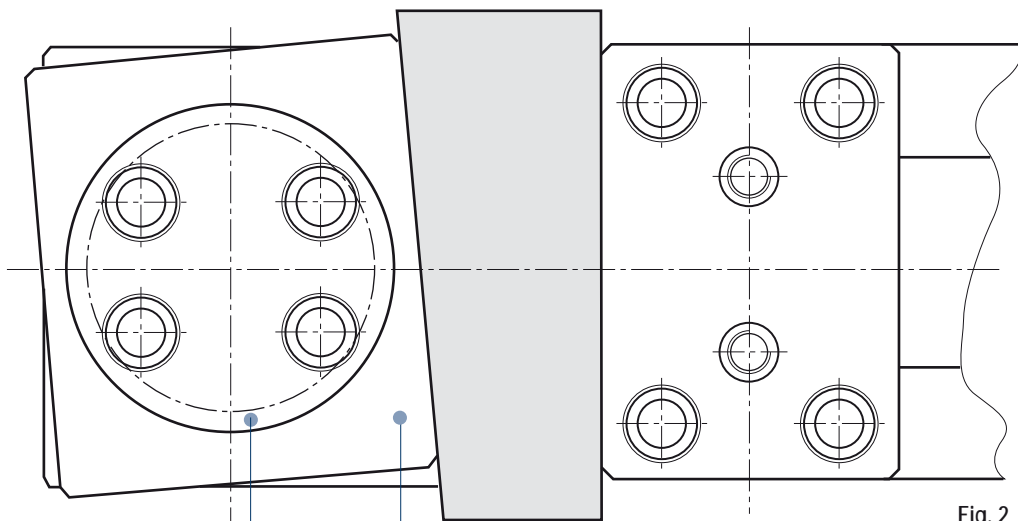


Fig. 2 Pic. 2

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)

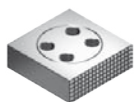
**Art. 810W**

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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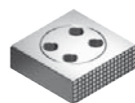
**Art. 810W**



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)

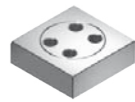
**Art. 810X**



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)

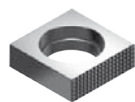
**Art. 810Z**



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

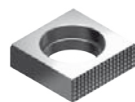
**Art. 810WA**



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

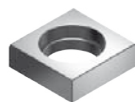
**Art. 810XA**



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

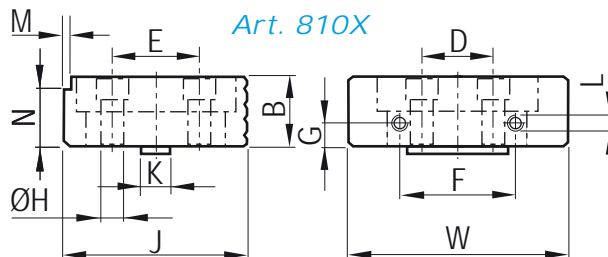
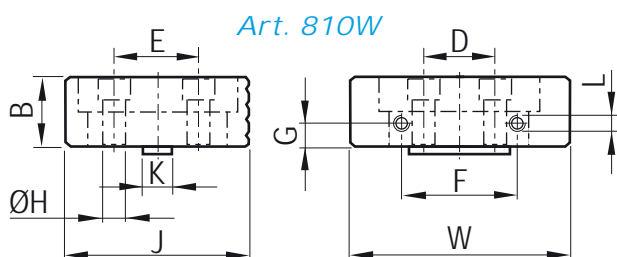
Corpo ganascia mobile oscillante con gradino 3x5 zigrinata da un lato / Body floating movable jaw with 3x5 step one side serrated

**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	1	2	3	4	5	6	Tolleranze / Tolerance
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Tipo (grandezza) morsa / Vise (type) size	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	1		2		3			
Vedi esempi applicativi a pag. 5.51 See application examples on page 5.51	A1	91	91	141	191	241	141	191
	B	20		20			20	
	C	70		90			100	
	D	332	300	400	500	600	400	500
	E	352	320	420	520	620	425	525
	G	75		95			125	
	J1	50		50			70	
	J2	25		25			35	
	Ø	30 (H = 16)		30 (H = 16)			30 (H = 16)	
	W	100		120			170	
	kg	11	20	27	33	40	40	45
	Cod.	5.86.71300	5.86.72300	5.86.72400	5.86.72500	5.86.72600	5.86.73400	5.86.73500

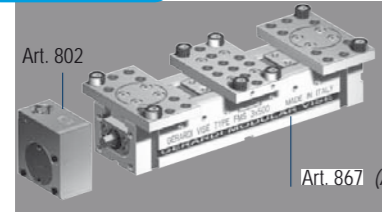
**3 MORSE IN UNA VISES IN ONE**



**Art. 867**

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

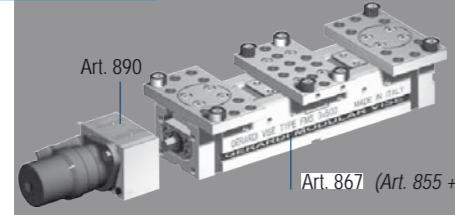
**Art. 867D** (Art. 867 + 802) Morsa + moltiplicatore di coppia / (Art. 867 + 802) Vise + torque multiplier



Cod.	5.86.7D130	5.86.7D230	5.86.7D240	5.86.7D250	5.86.7D260	5.86.7D340	5.86.7D350
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Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

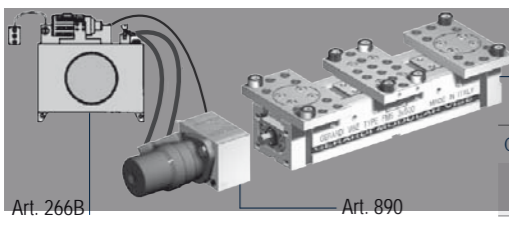
**Art. 867E** (Art. 867 + 890) Morsa + motore idraulico / (Art. 867 + 890) Vise + hydraulic motor



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

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



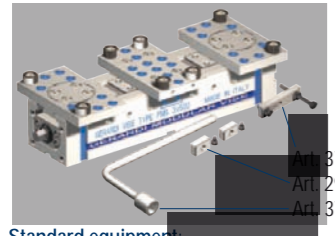
Cod.	5.86.7F130	5.86.7F230	5.86.7F240	5.86.7F250	5.86.7F260	5.86.7F340	5.86.7F350
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Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

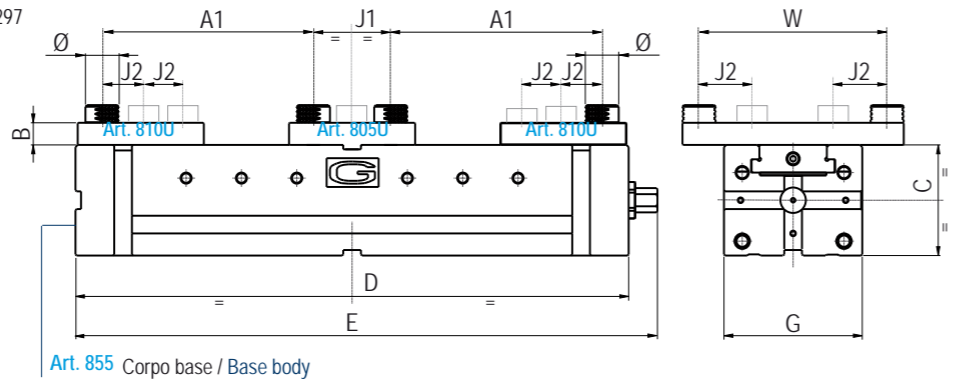
**Art. 867**

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



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



Art. 855 Corpo base / Base body



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

**Art. 867D** (Art. 867 + 802) Morsa + moltiplicatore di coppia / (Art. 867 + 802) 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
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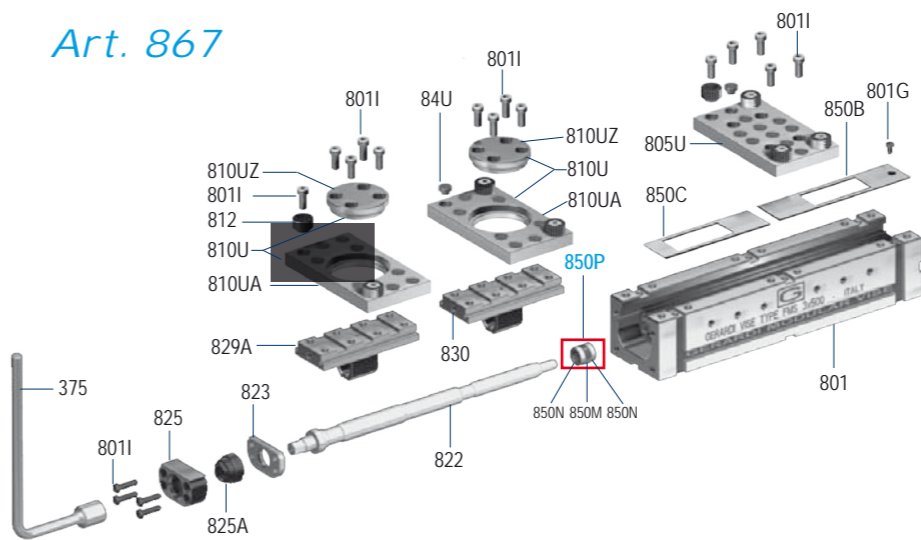
**Art. 867E** (Art. 867 + 890) Morsa + motore idraulico / (Art. 867 + 890) Vise + hydraulic motor

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
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**Art. 867F** (Art. 867 + 890 + 266B) Morsa + motore idraulico + centralina / (Art. 867 + 890 + 266B) 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
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**Art. 867**



Art.	Pag.	Art.	Pag.
84U	5.25	823	5.48
375	4.25	825	5.48
801	5.56	825A	5.50
801G	5.50	829A	5.40
801I	5.50	830	5.40
805U	5.25	850B	5.50
810U	5.25	850C	5.50
810UA	5.25	850M	5.50
810UZ	5.25	850N	5.50
812	5.25	850P	5.50
822	5.42	-	-



**3 MORSE IN UNA**  
**VICES IN ONE**

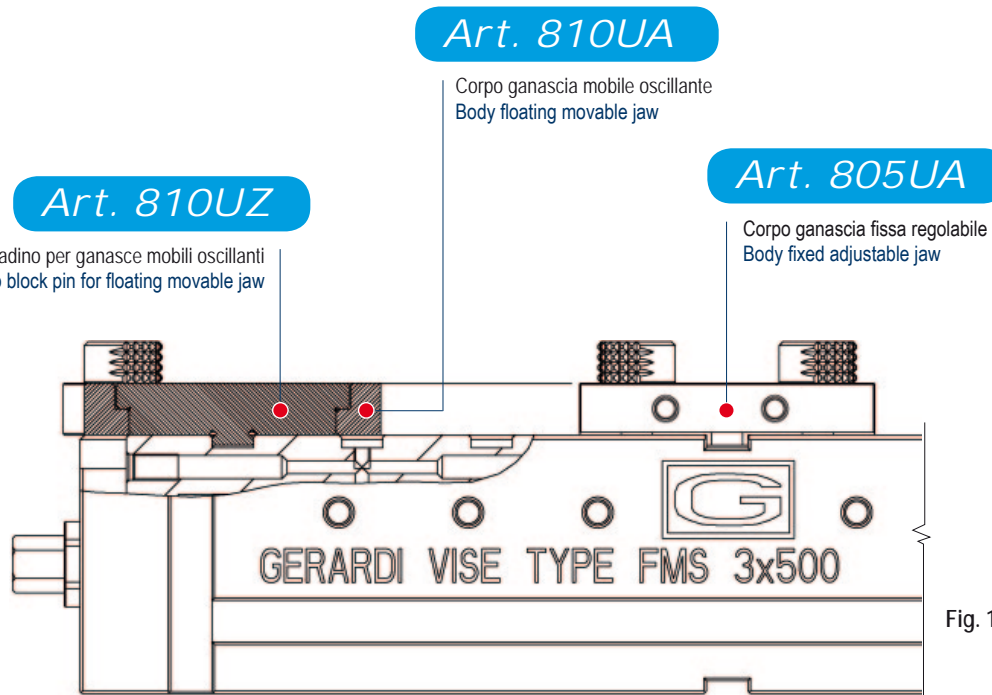


Fig. 1 Pic. 1

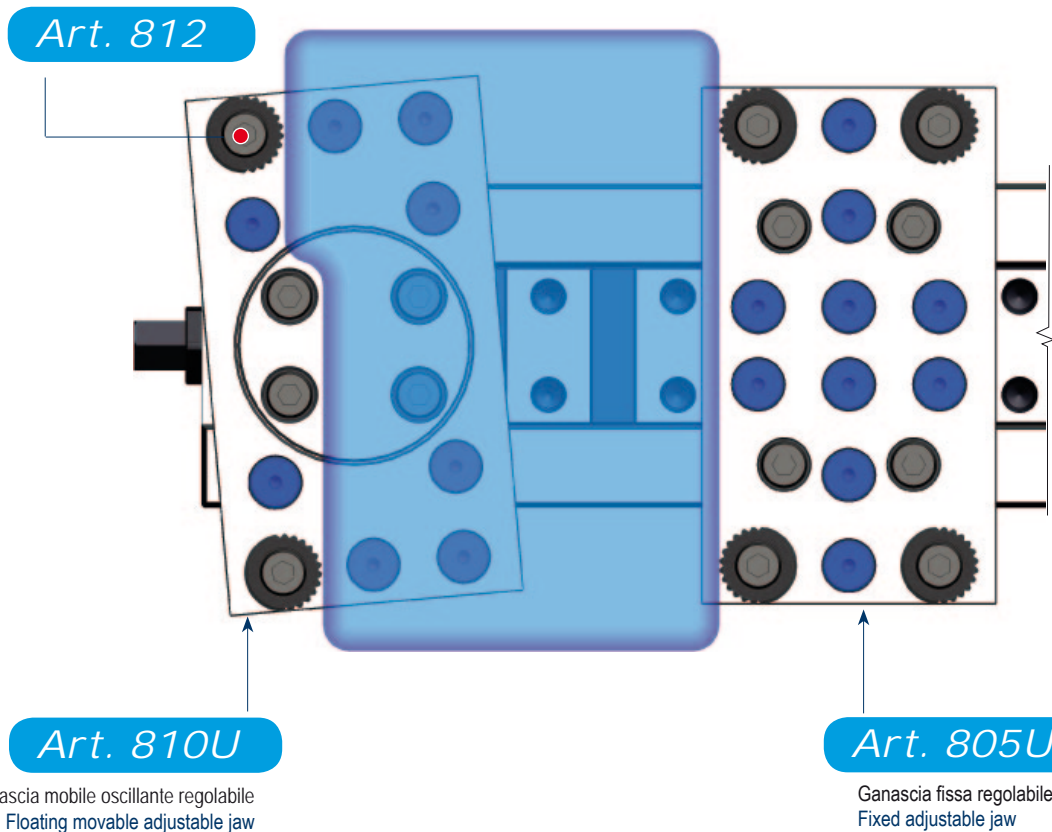


Fig. 2 Pic. 2

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
<p><b>Art. 810U</b></p> <p>Ganascia mobile oscillante regolabile Floating movable adjustable jaw</p> 	Cod. 5.81.0U100	5.81.0U200	5.81.0U300	5.81.0U400	5.81.0U500	5.81.0U600
<p><b>Art. 810UA</b></p> <p>Corpo ganascia mobile oscillante Body floating movable jaw</p> 	Cod. 5.81.0UA10	5.81.0UA20	5.81.0UA30	5.81.0UA40	5.81.0UA50	5.81.0UA60
<p><b>Art. 810UZ</b></p> <p>Albero a gradino per ganasce mobili oscillanti Step block pin for floating movable jaw</p> 	Cod. 5.81.0UZ10	5.81.0UZ20	5.81.0UZ30	5.81.0UZ40	5.81.0UZ50	5.81.0UZ60
<p><b>Art. 810Q</b></p> <p>Ganascia mobile regolabile Movable adjustable jaw</p> 	Cod. 5.81.0Q100	5.81.0Q200	5.81.0Q300	5.81.0Q400	5.81.0Q500	5.81.0Q600
<p><b>Art. 810QA</b></p> <p>Corpo ganascia mobile regolabile Body adjustable movable jaw</p> 	Cod. 5.81.0QA10	5.81.0QA20	5.81.0QA0	5.81.0QA40	5.81.0QA50	5.81.0QA60
<p><b>Art. 805U</b></p> <p>Ganascia fissa regolabile Fixed adjustable jaw</p> 	Cod. 5.80.5U100	5.80.5U200	5.80.5U300	5.80.5U400	5.80.5U500	5.80.5U600
<p><b>Art. 805UA</b></p> <p>Corpo ganascia fissa regolabile Body fixed adjustable jaw</p> 	Cod. 5.80.5UA10	5.80.5UA20	5.80.5UA30	5.80.5UA40	5.80.5UA50	5.80.5UA60
<p><b>Art. 812</b></p> <p>Coppia di inserti lisci e zigrinati Pair of smooth and serrated insert</p>	Ø	30			40	
	H	16			30	
<p><b>Art. 812A</b></p> <p>Coppia di inserti lisci Pair of smooth insert</p> 	Cod.	5.81.21000			5.81.25000	
	Cod.	5.81.2A100			5.81.2A500	
<p><b>Art. 812C</b></p> <p>Coppia di inserti zigrinati Pair of serrated insert</p> 	Cod.	5.81.2C100			5.81.2C500	
<p><b>Art. 813</b></p> <p>Coppia di inserti lisci e zigrinati alti Pair of smooth and serrated high insert</p>	Ø	30			40	
	H	28			50	
<p><b>Art. 813A</b></p> <p>Coppia di inserti lisci alti Pair of smooth high insert</p> 	Cod.	5.81.31000			5.81.35000	
	Cod.	5.81.3A100			5.81.3A500	
<p><b>Art. 813C</b></p> <p>Coppia di inserti zigrinati alti Pair of serrated high insert</p> 	Cod.	5.81.3C100			5.81.3C500	
<p><b>Art. 815</b></p> <p>Coppia di inserti lisci e zigrinati a gradino Pair of smooth and serrated step insert</p>	H	16			30	
<p><b>Art. 815A</b></p> <p>Coppia di inserti lisci a gradino Pair of smooth step insert</p> 	Cod.	5.81.51000			5.81.55000	
	Cod.	5.81.5A100			5.81.5A500	
<p><b>Art. 815C</b></p> <p>Coppia di inserti zigrinati a gradino Pair of serrated step insert</p> 	Cod.	5.81.5C100			5.81.5C500	
<p><b>Art. 812B</b></p> <p>Coppia di inserti in acciaio lavorabile Pair of insert in machineable steel metal</p> 	Ø	40			60	
	H	40			60	
	Cod.	5.81.2B100			5.81.2B500	
<p><b>Art. 84U</b></p> <p>Tappo in alluminio Aluminum cap</p> 	Cod.	5.84.U1000			5.84.U5000	

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

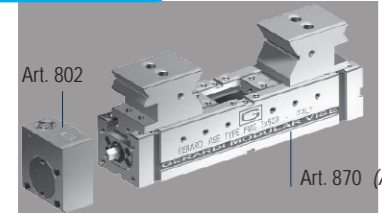
**3 MORSE IN UNA VISES IN ONE**



**Art. 870**

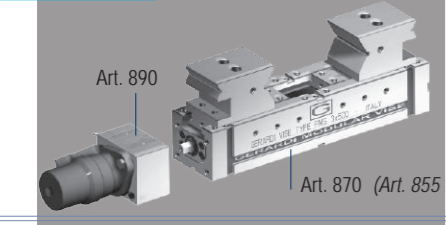
Art. 855 + n. 2 Art. 810J

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



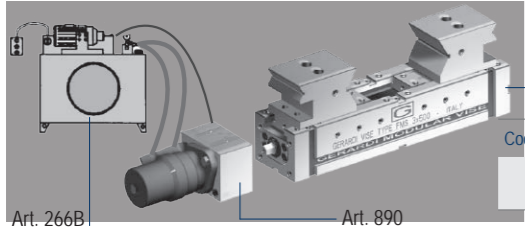
Cod.	5.87.0D120	5.87.0D130	5.87.0D230	5.87.0D240	5.87.0D250	5.87.0D260	5.87.0D340	5.87.0D350
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**Art. 870E** (Art. 870 + 890) Morsa + motore idraulico / (Art. 870 + 890) Vise + hydraulic motor



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

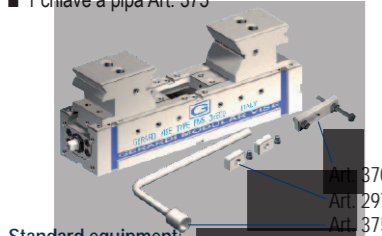


Cod.	5.87.0F120	5.87.0F130	5.87.0F230	5.87.0F240	5.87.0F250	5.87.0F260	5.87.0F340	5.87.0F350
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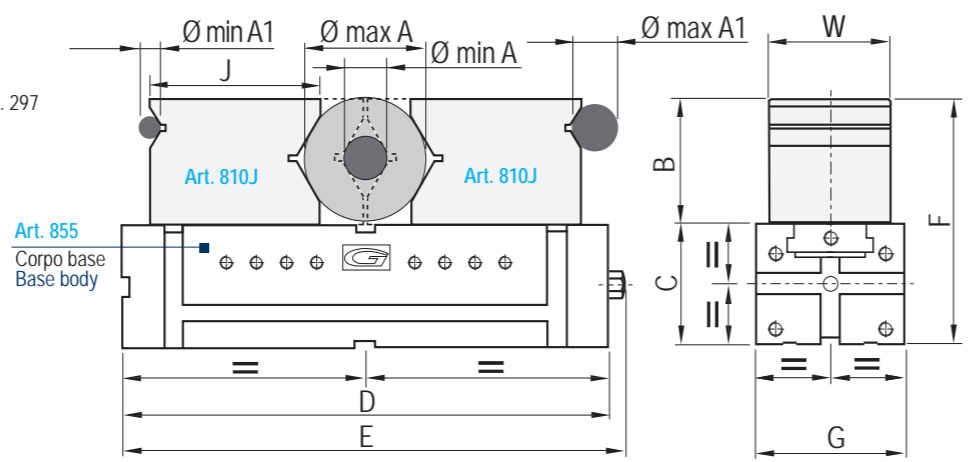
**Art. 870**

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

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

**Art. 870D** (Art. 870 + 802) Morsa + moltiplicatore di coppia / (Art. 870 + 802) 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
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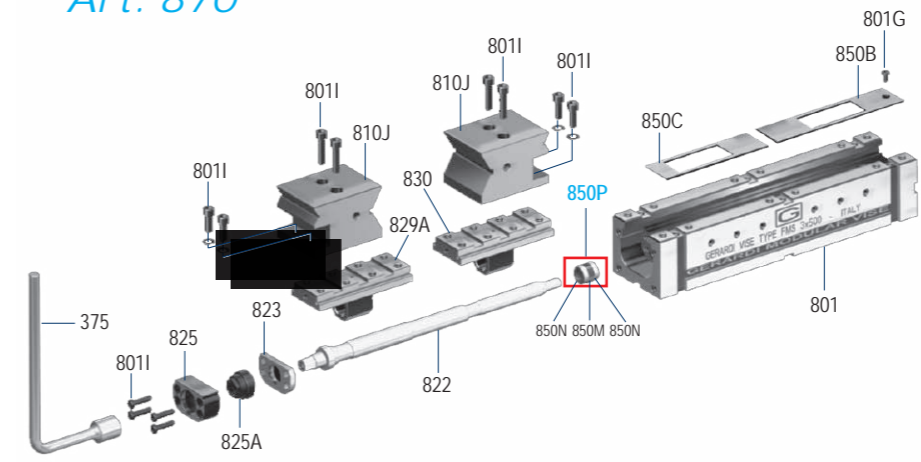
**Art. 870E** (Art. 870 + 890) Morsa + motore idraulico / (Art. 870 + 890) Vise + hydraulic motor

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
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**Art. 870F** (Art. 870 + 890 + 266B) Morsa + motore idraulico + centralina / (Art. 870 + 890 + 266B) 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
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**Art. 870**



Art.	Pag.	Art.	Pag.
375	4.25	850B	5.50
801	5.56	850C	5.50
801G	5.50	850M	5.50
801I	5.50	850N	5.50
810J	5.47	850P	5.50
822	5.42	-	-
823	5.58	-	-
825	5.48	-	-
825A	5.50	-	-
829A	5.40	-	-
830	5.40	-	-

Tipo (grandezza) morsa / Vise (type) size		1		2				3	
Apertura massima / Maximum opening	A	85	185	170	270	370	470	230	330
Minima apertura interno-esterno / 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

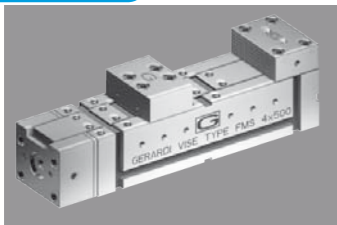
**SPECIFICA SOLO PER SERRAGGI SINGOLI**  
**SPECIFIC FOR SINGLE CLAMPING ONLY**



**Art. 800**

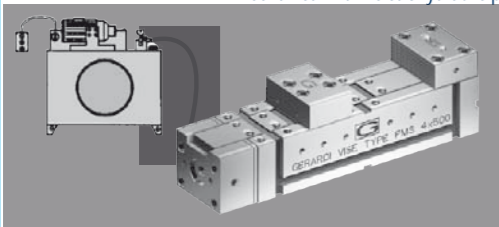
Questa morsa, pur essendo parte del programma FMS, **non è predisposta per serraggi doppi o autocentranti**

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



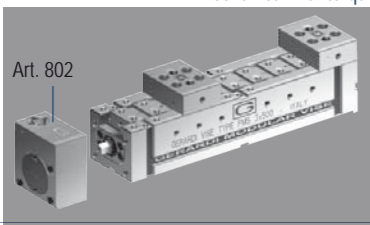
Cod.	5.80.0A120	5.80.0A130	5.80.0A230	5.80.0A240	5.80.0A250	5.80.0A260	5.80.0A340	5.80.0A350
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**Art. 800B** Meccanica con centralina elettroidraulica con pulsantiera chiavi in mano **solo per serraggi singoli**  
Mechanical with helctrohydraulic power pack and push botton switch ready to work **only for single clamping**



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
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**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**



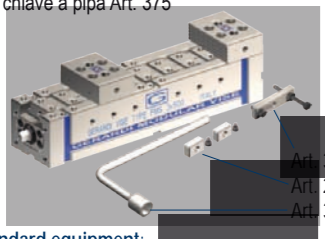
Cod.	5.80.0D120	5.80.0D130	5.80.0D230	5.80.0D240	5.80.0D250	5.80.0D260	5.80.0D340	5.80.0D350
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**Art. 800**

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

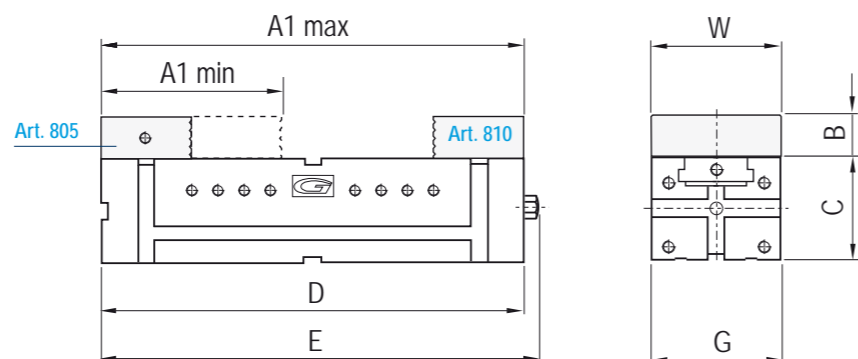
**Dotazione standard:**

- 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			4				5			6		
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
	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
	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
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

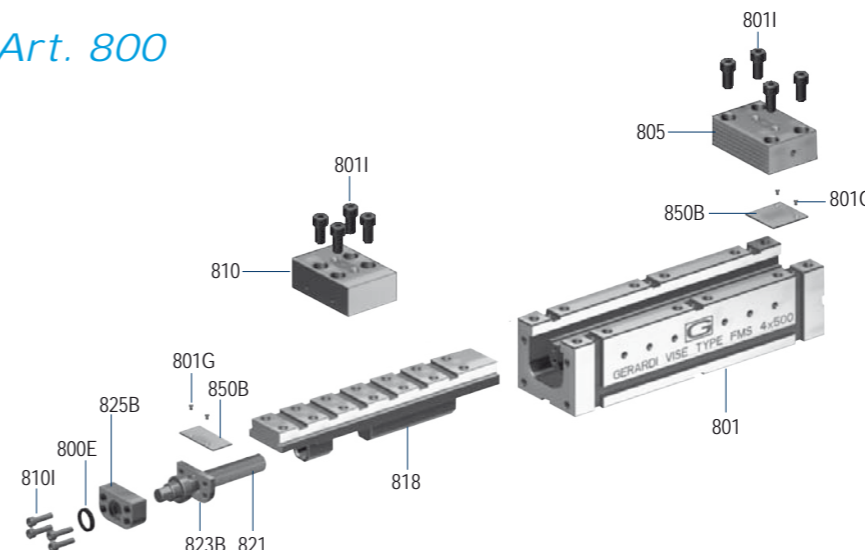
**Art. 800B** Meccanica con centralina elettroidraulica con pulsantiera chiavi in mano **solo per serraggi singoli**  
Mechanical with helctrohydraulic power pack and push botton switch ready to work **only for single clamping**

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

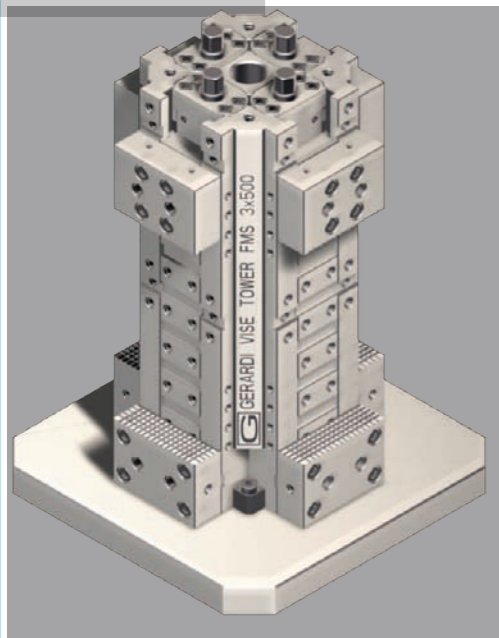
**Art. 800**



Art.	Pag.	Art.	Pag.
800E	5.50	-	-
801	5.36	-	-
801G	5.50	-	-
801I	5.50	-	-
805	5.44	-	-
810	5.46	-	-
818	5.40	-	-
821	5.42	-	-
823B	5.48	-	-
825B	5.48	-	-
850B	5.50	-	-

Tipo (grandezza) morsa / Vise (type) size	1		2				3		
<b>Art. 800C</b> 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 cube single **specific for single clamping only**

**Dotazione standard per Art. 800C**

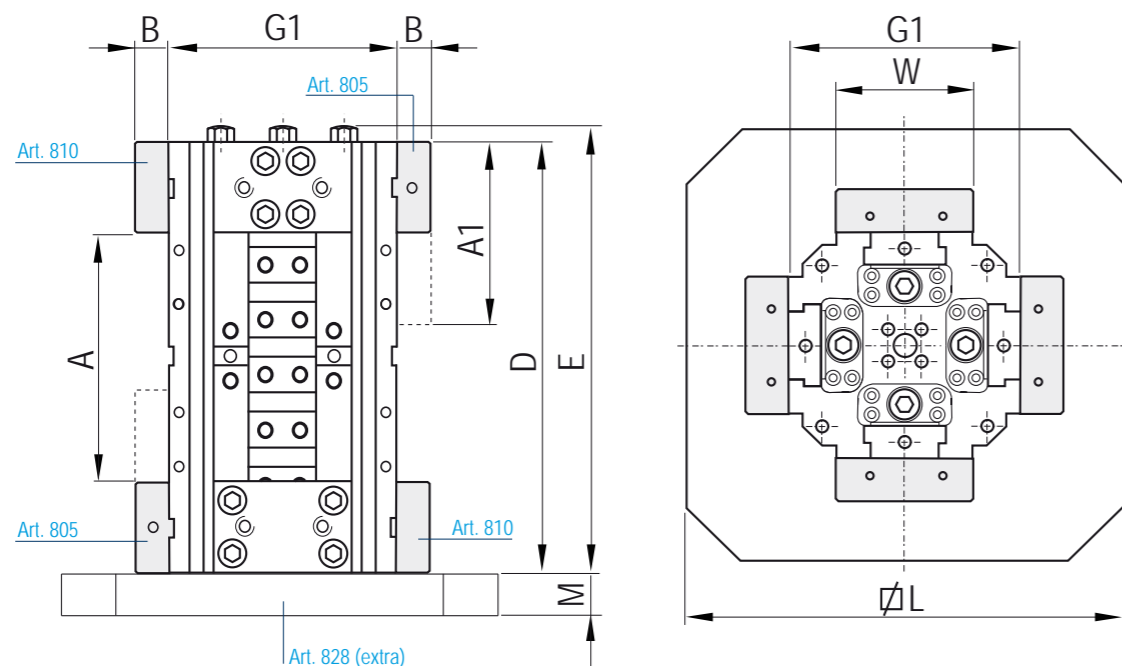
- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassetta di legno

**Standard equipment for Art. 800C**

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

**Art. 800C**

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

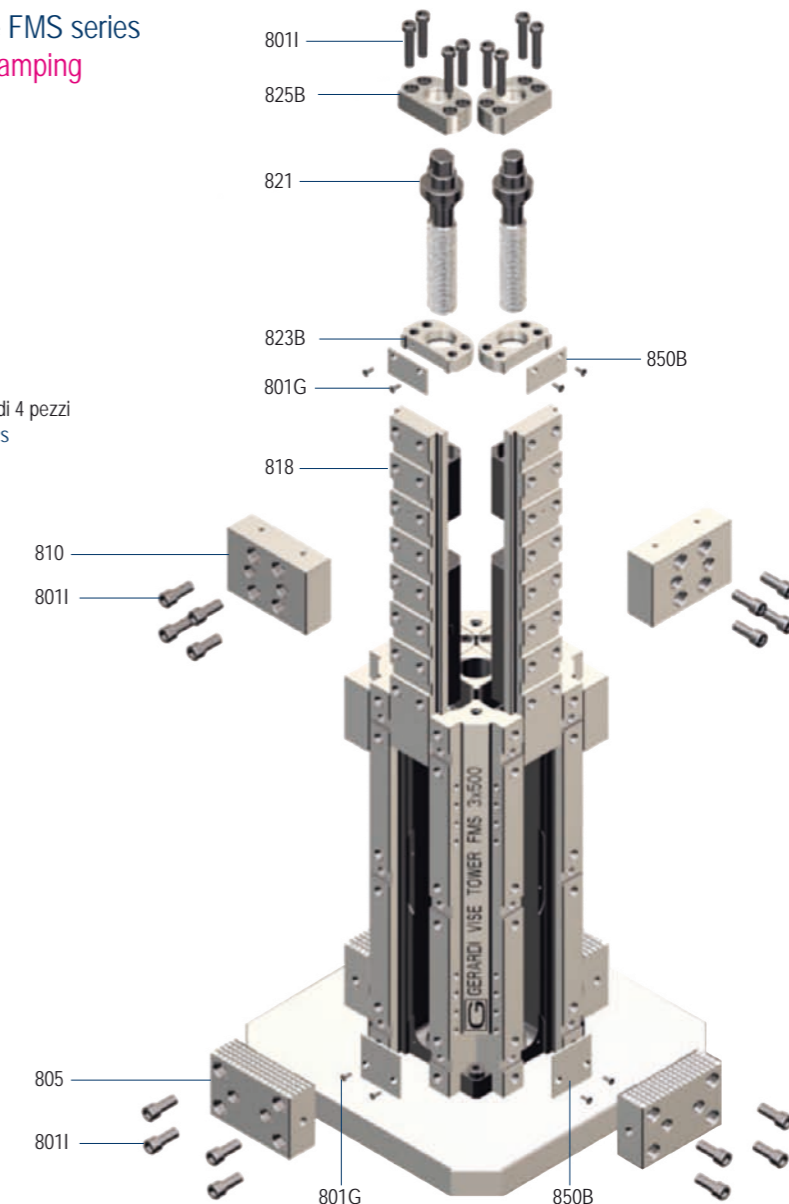


3			4				5			6		
430	530	630	300	400	500	600	380	480	580	480	580	680
170			509				630			810		
40			50				60			60		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210			245				280			290		
400			450				500			550		
38			38				38			38		
124			144				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 cube 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 bloccaggio di 4 pezzi / Explode of FMS vise cube with straight jaws for 4 clamping stations



Art.	Pag.
801G	5.50
801I	5.50
810	5.46
818	5.40
821	5.42
823B	5.48
825B	5.48
850B	5.50
-	-
-	-
-	-

Tipo (grandezza) morsa / Vise (type) size

	1		2				3	
<b>Art. 860C</b> 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	5.860.0C130	5.860.0C230	5.860.0C240	5.860.0C250	5.860.0C260	5.860.0C340	5.860.0C350
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**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 cassetta di legno

**Standard equipment for Art. 860C**

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

**Art. 860C**

Cubo-morsa doppia / Vise cube double action

**Art. 855C**

Modulo base cubo morsa doppia / Double vise cube base

Cod.	5.855.5C120	5.855.5C130	5.855.5C230	5.855.5C240	5.855.5C250	5.855.5C260	5.855.5C340	5.855.5C350
------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

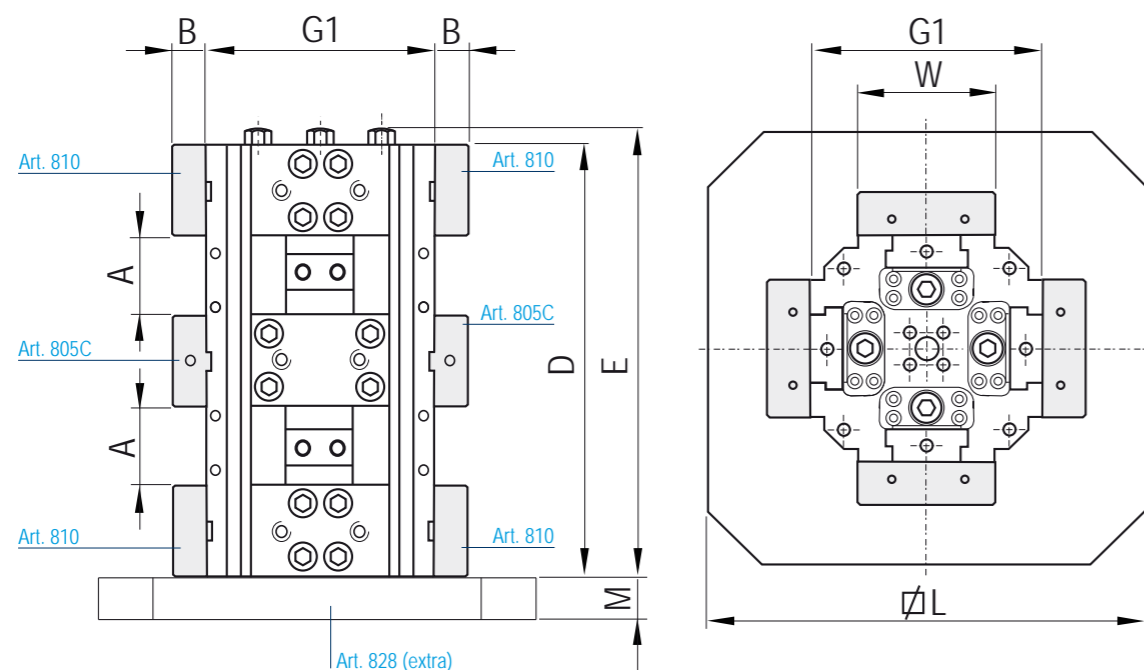
3			4				5			6		
2 x 174	2 x 224	2 x 274	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338
	40			50				60			60	
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
	210			245				280			290	
	400			450				500			550	
	38			38				38			38	
	124			144				169			189	
135	157	180	180	210	252	288	260	303	340	500	562	625

5.860.0C360	5.860.0C370	5.860.0C380	5.860.0C450	5.860.0C460	5.860.0C470	5.860.0C480	5.860.0C560	5.860.0C570	5.860.0C580	5.860.0C680	5.860.0C690	5.860.0C610
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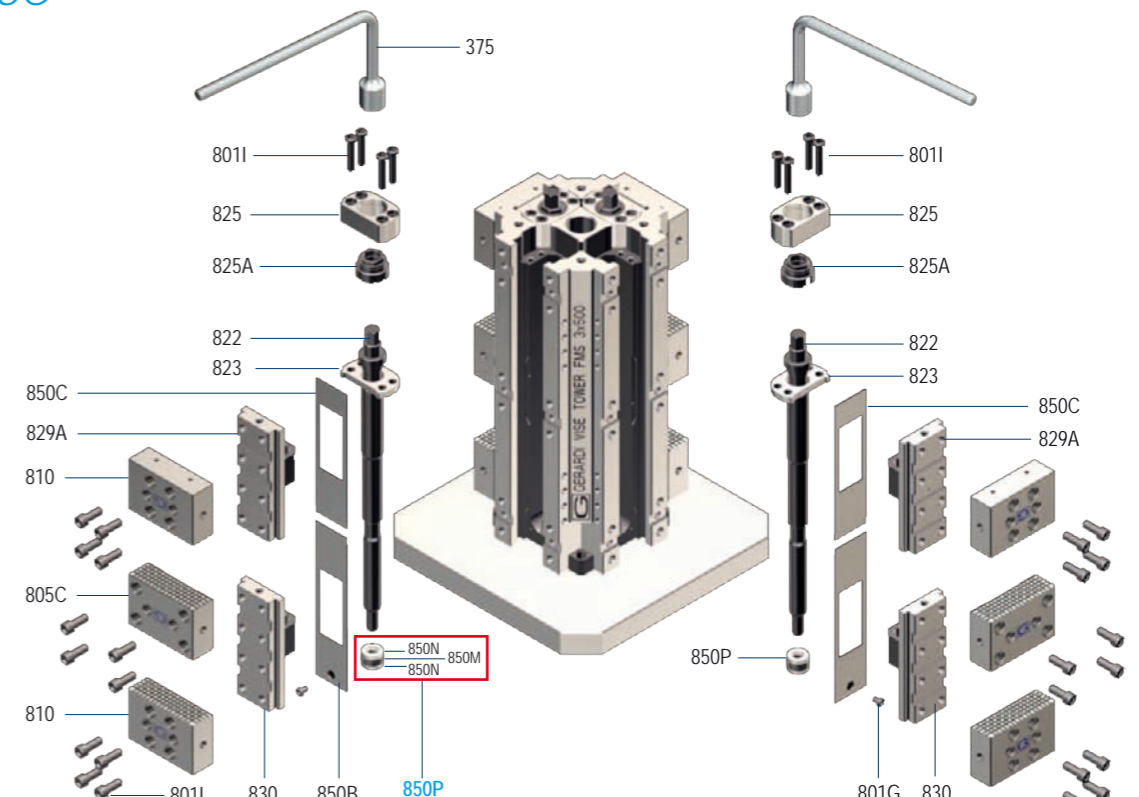
5.855.5C360	5.855.5C370	5.855.5C380	5.855.5C450	5.855.5C460	5.855.5C470	5.855.5C480	5.855.5C560	5.855.5C570	5.855.5C580	5.855.5C680	5.855.5C690	5.855.5C610
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**Art. 860C**
**Art. 860C**

Cubo-morsa FMS con ganascia centrale fissa per il bloccaggio di 8 pezzi / FMS vise cube with fixed middle jaws for 8 clamping stations



Art.	Pag.
375	4.25
801G	5.50
801I	5.50
805C	5.45
810	5.46
822	5.42
823	5.58
825	5.48
825A	5.50
829A	5.40
830	5.40
850B	5.50
850C	5.50
850M	5.50
850N	5.50
850P	5.50



Tipo (grandezza) morsa / Vise (type) size	1		2				3	
<b>Art. 863C</b> 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
<b>Art. 870C</b> Ø apertura Minima - Massima / Ø Minimum - Max. opening	10 / 25		10 / 50				25 / 100	
D	200	300	300	400	500	600	400	500
E	232	332	320	420	520	620	425	525
G1	120			175			210	
L	300			350			400	
M	33			33			38	
W	74			94			124	
W1	60			75			100	
kg	42	63	68	90	113	130	118	147

- Dotazione standard per Art. 863C e Art. 870C:**
- 1 chiave a pipa Art. 375
  - 4 arresti laterali Art. 370
  - 2 coppie di tasselli di posizionamento precisi Art. 297
  - 1 golfare di sollevamento Art. 848
  - Imballo in cassetta di legno

- Standard equipment for Art. 863C and Art. 870C:**
- 1 box wrench Art. 375
  - 4 workstop Art. 370
  - 2 pair of precision positioning key-nuts Art. 297
  - 1 lifting hook Art. 848
  - Packaging wooden box

**Art. 863C**  
Cubo morsa doppia / Vise cube double action

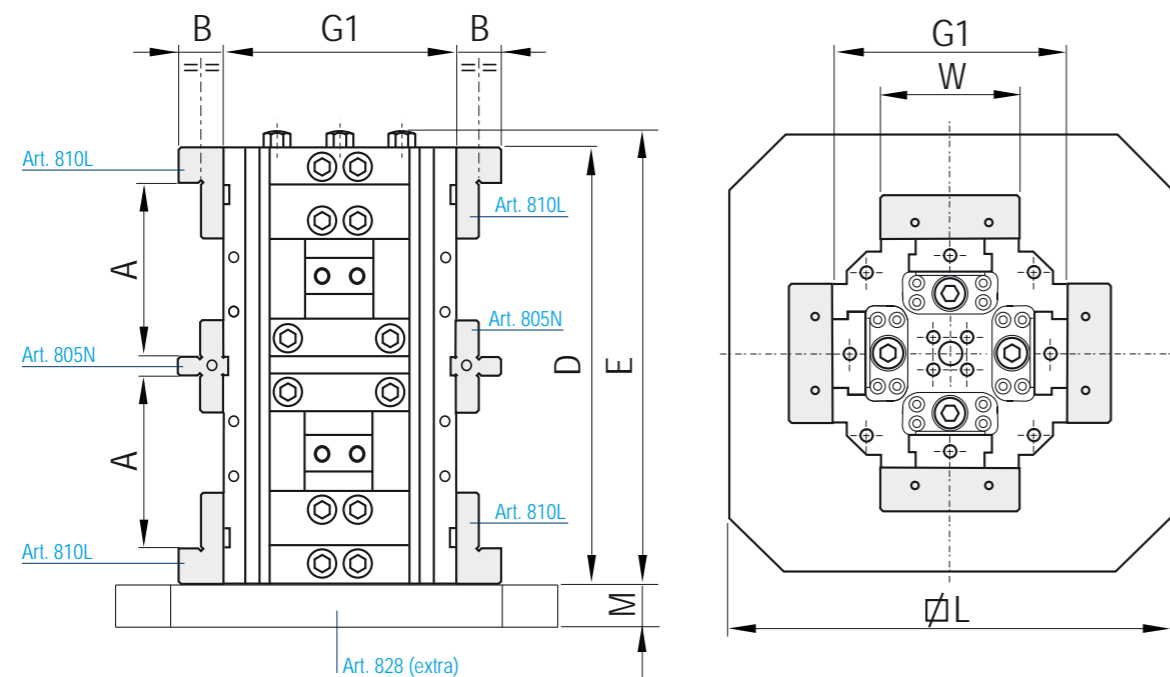
Cod.	5.86.3C120	5.86.3C130	5.86.3C230	5.86.3C240	5.86.3C250	5.86.3C260	5.86.3C340	5.86.3C350

**Art. 870C**  
Cubo morsa autocentrante / Self-centering vise cube

Cod.	5.870.0C120	5.870.0C130	5.870.0C230	5.870.0C240	5.870.0C250	5.870.0C260	5.870.0C340	5.870.0C350

**Art. 863C**

Cubo doppio con ganasce a gradino per il bloccaggio di 8 pezzi / Double cube with step-type jaws for 8 clamping stations



3			4				5			6		
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
25 / 100			30 / 150				35 / 200			40 / 300		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210			245				280			290		
400			450				500			550		
38			38				38			38		
124			144				169			189		
100			132				140			160		
177	206	236	242	290	339	388	328	383	437	656	738	820

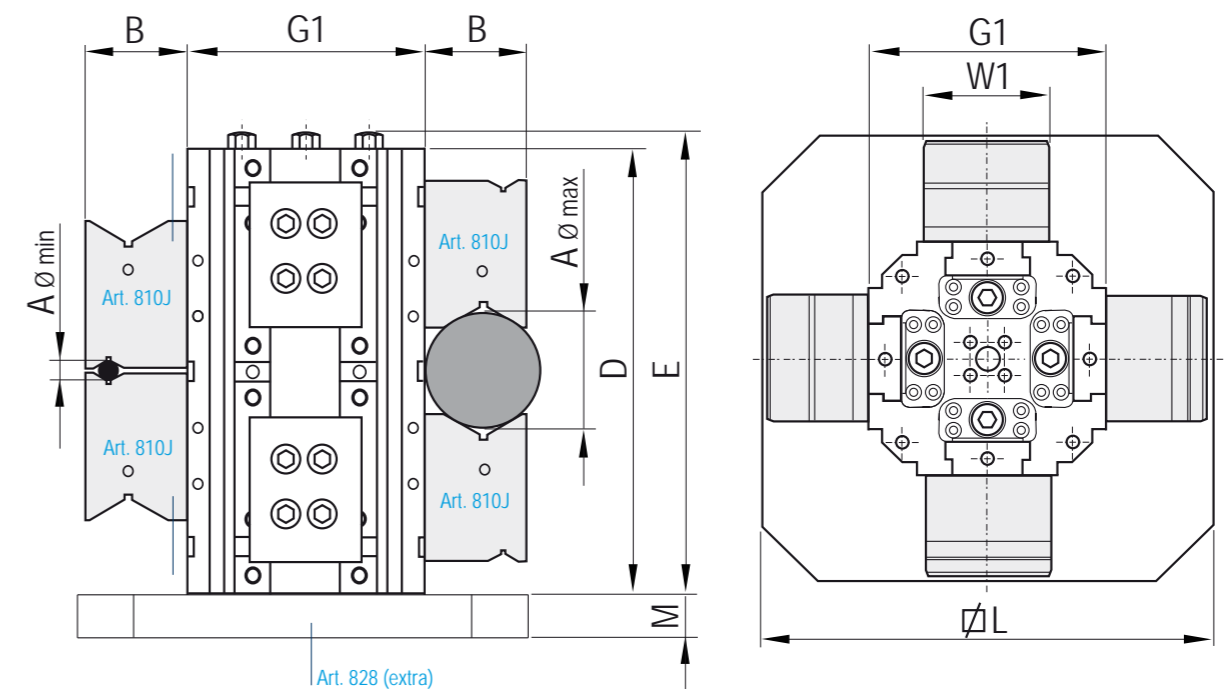
5.86.3C360	5.86.3C370	5.86.3C380	5.86.3C450	5.86.3C460	5.86.3C470	5.86.3C480	5.86.3C560	5.86.3C570	5.86.3C580	5.86.3C680	5.86.3C690	5.86.3C610

5.870.0C360	5.870.0C370	5.870.0C380	5.870.0C450	5.870.0C460	5.870.0C470	5.870.0C480	5.870.0C560	5.870.0C570	5.870.0C580	5.870.0C680	5.870.0C690	5.870.0C610

**Art. 870C**

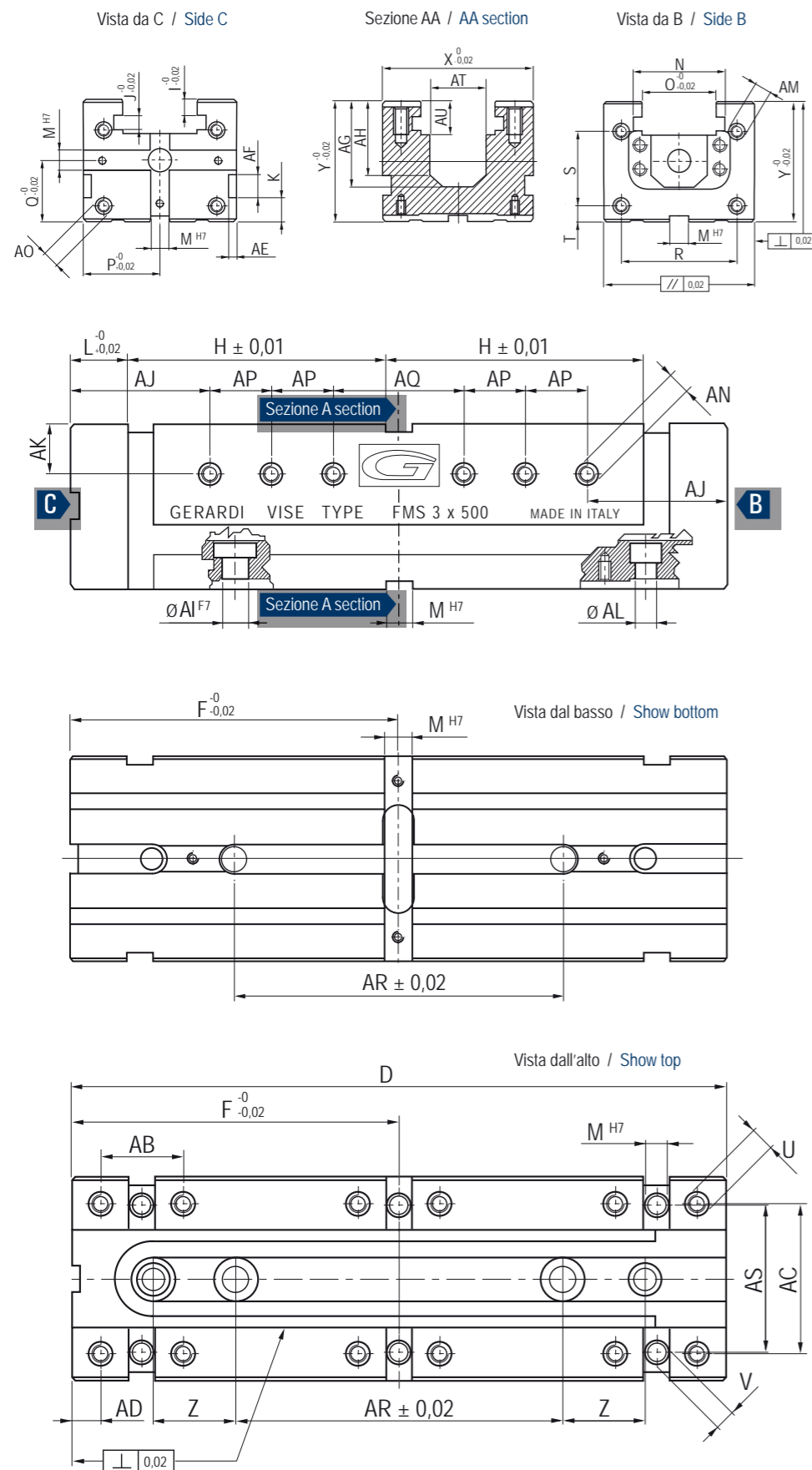
Cubo autocentrante con ganasce prismatiche / Self-centering cube with prismatic jaws



Tipo (grandezza) morsa / Vise (type) size

**Art. 801**

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



	1		2	
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	M10		M10	
AP	20	25	50	
AQ	50	70	70	
AR	100	200	200	
AS	56		68	
AT	28		34	
AU	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
68				92					106			126			144	
34				44					44			52			49	
28				28					41			41			41	



Tipo (grandezza) morsa / Vise (type) size

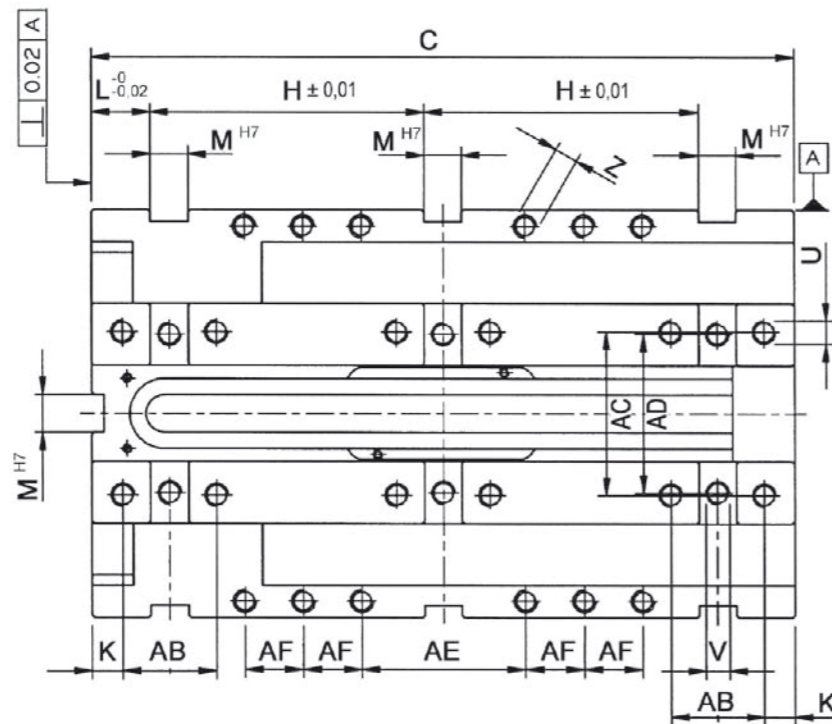
**Art. 804**

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

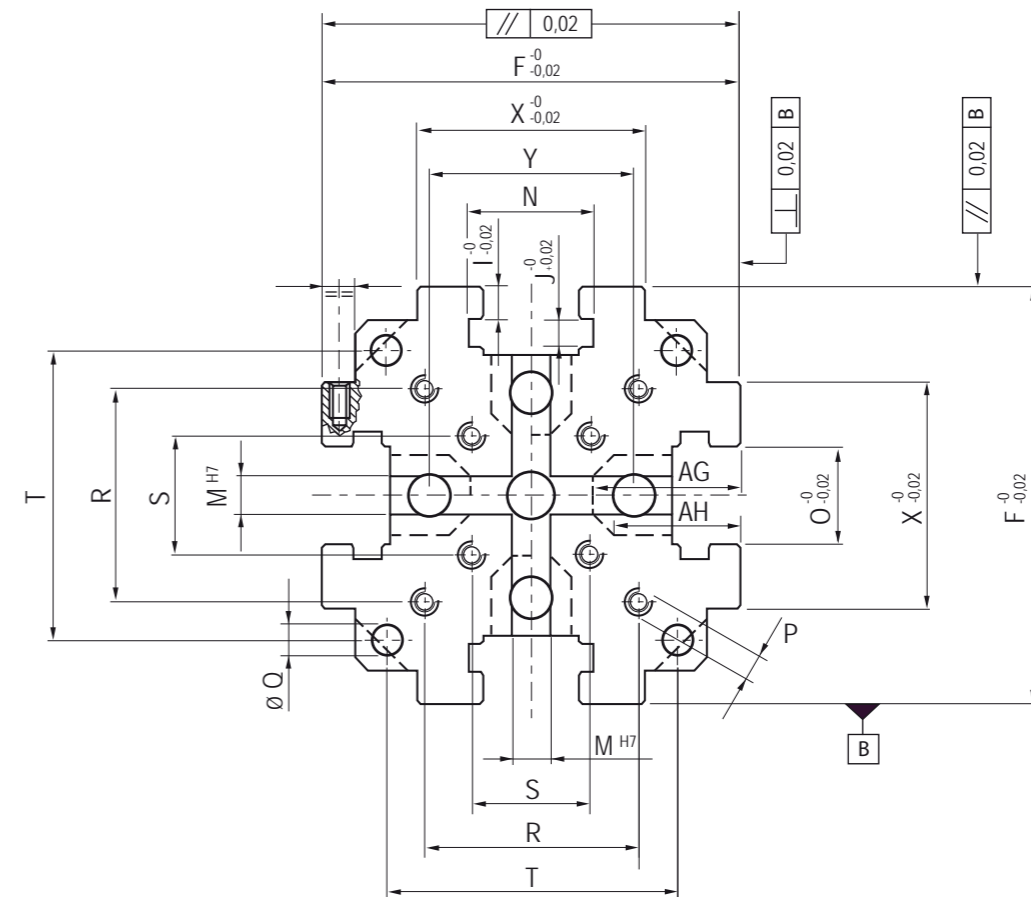


Cod. 5.80.41200 5.80.41300 5.80.42300 5.80.42400

	1	2
D	200	300
F	140	175
H	71	121
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
AF	10	25
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

Larghezza base / Base length

1 2

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 R.H.

**Art. 830**

Slitta con filetto destro / Slide L.H.

**Art. 818**

**Art. 829A**

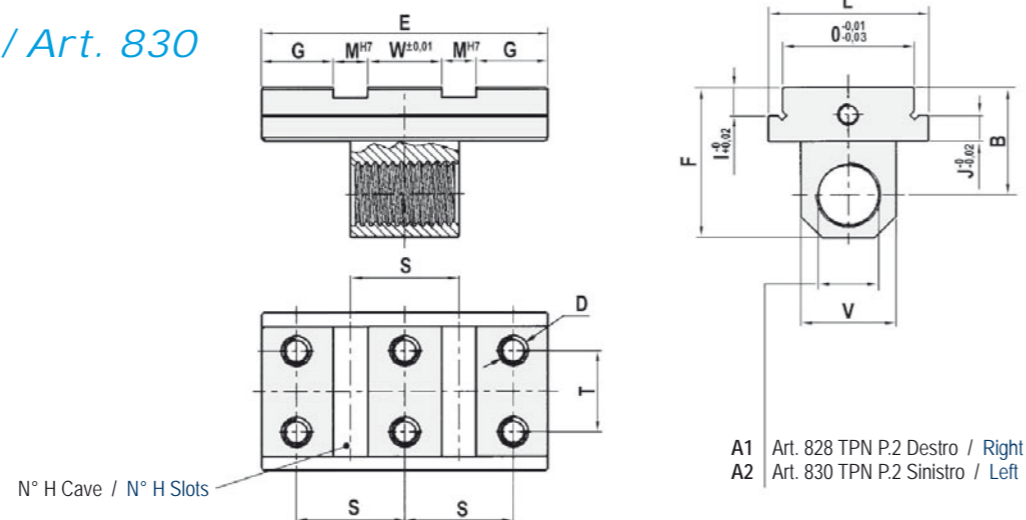
**Art. 830**



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	20	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	40
T	20	25
U	40	36
V	27	33
W	16	24

**Art. 829A / Art. 830**



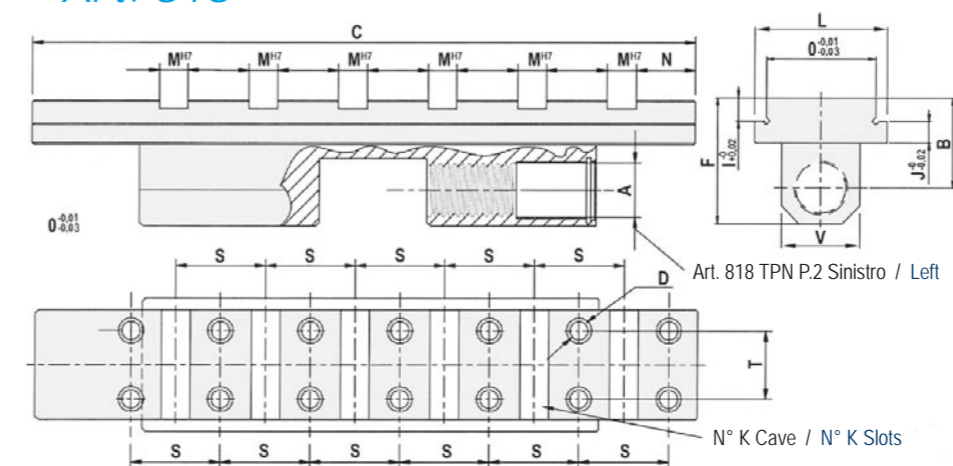
2		3				4				5			6			
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
5.81.82500	5.81.82600	5.81.83400	5.81.83500	5.81.83600	5.81.83700	5.81.83800	5.81.84500	5.81.84600	5.81.84700	5.81.84800	5.81.85600	5.81.85700	5.81.85800	5.81.86800	5.81.86900	5.81.86100

Cod. 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

Cod. 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																
18																
24																
45																
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
36				50				44				50				60
33				43				43				51				48
24				34				44				52				52

**Art. 818**



Tipo (grandezza) morsa / Vise (type) size

Larghezza base / Base length

	1		2	
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	18	25		
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	20	20		
AA	10	10		
AB	10	10		



Art. 821



Art. 822

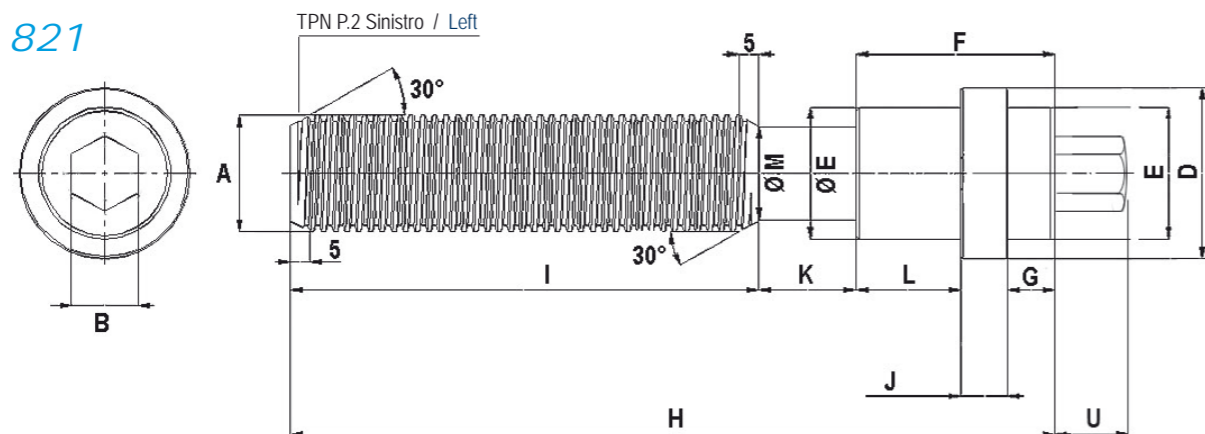
\* Viti con esagono maschio o femmina a seconda delle dimensioni  
Available also with external hexagon

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				

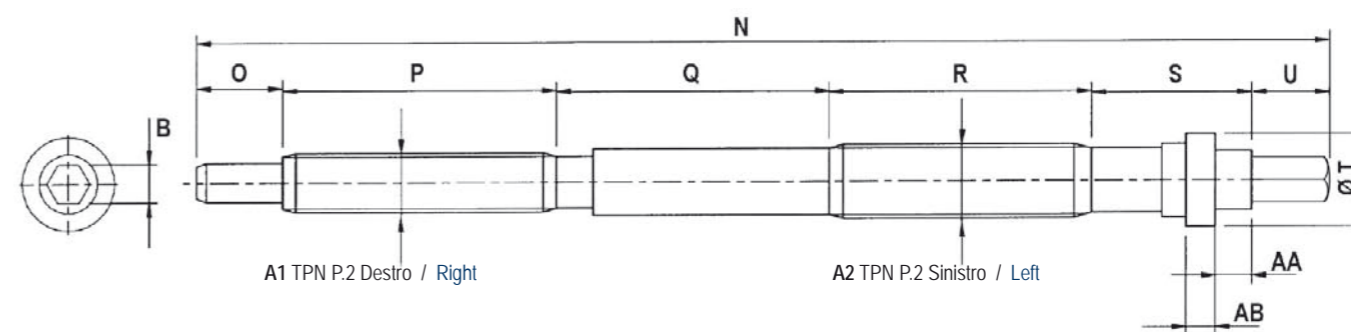
Cod.	5.82.22500	5.82.22600	5.82.23400	5.82.23500	5.82.23600	5.82.23700	5.82.23800	5.82.24500	5.82.24600	5.82.24700	5.82.24800	5.82.25600	5.82.25700	5.82.25800	5.82.26800	5.82.26900	5.82.26100

24				30							30				36		36
18				24							24				30		30
24				30							30				36		36
16				19							19				19		19
35				44							44				60		60
25				34							34				38		38
33				51							51				152		152
12				12							12				41		41
25				25							25				38		38
90				106							106				140		140
12				12							12				26		26
12				35							35				9		9
9				27							27				106		106
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			38				45		45
20				25				25			25				25		25
10				15				15			15				22		22
10				12				12			12				15		15

**Art. 821**



**Art. 822**

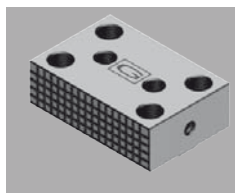


Tipo (grandezza) morsa / Vise (type) size

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**

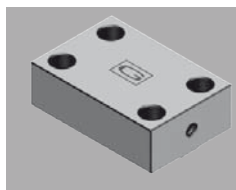
Ganascia fissa liscia  
Smooth fixed jaw



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

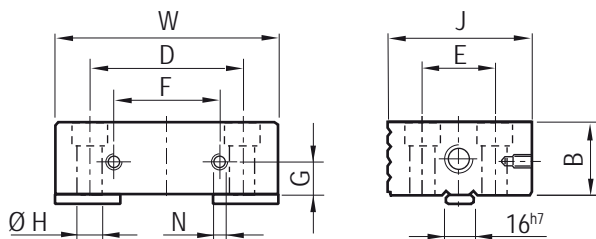
**Art. 805B**

Ganascia fissa dolce  
Soft fixed jaw

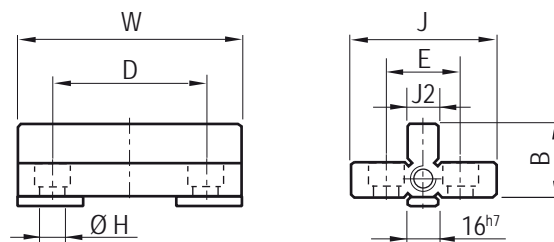


Cod. 5.80.5B100 5.80.5B200 5.80.5B300 5.80.5B400 5.80.5B500 5.80.5B600

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

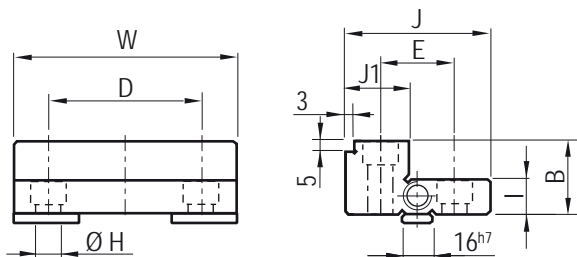


**Art. 805N** (Montata su Art. 863) / (Assembled on Art. 863)

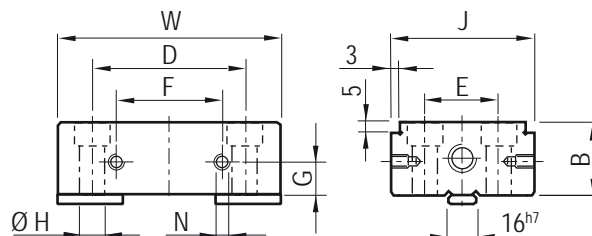


**Art. 805O**

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	-

5

Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
<p><b>Art. 805C</b></p> <p>Ganascia fissa zigrinata da ambo i lati Fixed jaw serrated on both sides</p> 	Cod. 5.80.5C100	5.80.5C200	5.80.5C300	5.80.5C400	5.80.5C500	5.80.5C600
<p><b>Art. 805D</b></p> <p>Ganascia fissa con gradino 3x5 zigrinata da un lato Fixed jaw with 3x5 step on side serrated</p> 	Cod. 5.80.5D100	5.80.5D200	5.80.5D300	5.80.5D400	5.80.5D500	5.80.5D600
<p><b>Art. 805E</b></p> <p>Ganascia fissa con gradino 3x5 liscia Fixed jaw with 3x5 step smooth</p> 	Cod. 5.80.5E100	5.80.5E200	5.80.5E300	5.80.5E400	5.80.5E500	5.80.5E600
<p><b>Art. 805F</b></p> <p>Ganascia fissa con doppio gradino 3x5 liscia Fixed jaw with double 3x5 step smooth</p> 	Cod. 5.80.5F100	5.80.5F200	5.80.5F300	5.80.5F400	5.80.5F500	5.80.5F600
<p><b>Art. 805G</b></p> <p>Ganascia fissa con doppio gradino 3x5 zigrinata Fixed jaw with double 3x5 step serrated</p> 	Cod. 5.80.5G100	5.80.5G200	5.80.5G300	5.80.5G400	5.80.5G500	5.80.5G600
<p><b>Art. 805H</b></p> <p>Ganascia fissa con prisma verticale Fixed jaw with vertical prism</p> 	Cod. 5.80.5H100	5.80.5H200	5.80.5H300	5.80.5H400	5.80.5H500	5.80.5H600
<p><b>Art. 805I</b></p> <p>Ganascia fissa con doppio prisma verticale Fixed jaw with double vertical prism</p> 	Cod. 5.80.5I100	5.80.5I200	5.80.5I300	5.80.5I400	5.80.5I500	5.80.5I600
<p><b>Art. 805J</b></p> <p>Ganascia fissa con prisma orizzontale Fixed jaw with horizontal prism</p> 	Cod. 5.80.5J100	5.80.5J200	5.80.5J300	5.80.5J400	5.80.5J500	5.80.5J600
<p><b>Art. 805K</b></p> <p>Ganascia fissa con doppio prisma orizzontale Fixed jaw with double horizontal prism</p> 	Cod. 5.80.5K100	5.80.5K200	5.80.5K300	5.80.5K400	5.80.5K500	5.80.5K600
<p><b>Art. 805L</b></p> <p>Ganascia fissa con gradino Step fixed jaw</p> 	Cod. 5.80.5L100	5.80.5L200	5.80.5L300	5.80.5L400	5.80.5L500	5.80.5L600
<p><b>Art. 805M</b></p> <p>Ganascia fissa con gradino zigrinata da un lato Step fixed jaw one side serrated</p> 	Cod. 5.80.5M100	5.80.5M200	5.80.5M300	5.80.5M400	5.80.5M500	5.80.5M600
<p><b>Art. 805N</b></p> <p>Ganascia fissa con doppio gradino Fixed jaw with double step</p> 	Cod. 5.80.5N100	5.80.5N200	5.80.5N300	5.80.5N400	5.80.5N500	5.80.5N600
<p><b>Art. 805O</b></p> <p>Ganascia fissa con gradino piccolo e grande Fixed jaw with small and large step</p> 	Cod. 5.80.5O100	5.80.5O200	5.80.5O300	5.80.5O400	5.80.5O500	5.80.5O600
<p><b>Art. 805P</b></p> <p>Ganascia fissa con gradino piccolo e grande zigrin. da un lato Fixed jaw with small and large step one side serrated</p> 	Cod. 5.80.5P100	5.80.5P200	5.80.5P300	5.80.5P400	5.80.5P500	5.80.5P600
<p><b>Art. 805Q</b></p> <p>Ganascia fissa doppia con gradino piccolo e grande Double fixed jaw with small and large step</p> 	Cod. 5.80.5Q100	5.80.5Q200	5.80.5Q300	5.80.5Q400	5.80.5Q500	5.80.5Q600
<p><b>Art. 805R</b></p> <p>Ganascia fissa in alluminio Fixed jaw aluminium</p> 	Cod. 5.80.5R100	5.80.5R200	5.80.5R300	5.80.5R400	5.80.5R500	5.80.5R600
<p><b>Art. 805T</b></p> <p>Ganascia fissa <b>GRIP</b> per forti serraggi <b>GRIP</b> fixed jaw for strongest clamping</p> 	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

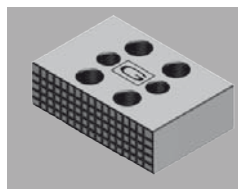
4

5

6

**Art. 810**

Ganascia nobile zigrinata da un lato  
Movable jaw one side serrated

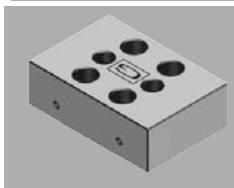


Cod. 5.81.01000 5.81.02000 5.81.03000 5.81.04000 5.81.05000 5.81.06000

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**Art. 810A**

Ganascia mobile liscia  
Smooth movable jaw

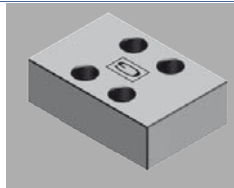


Cod. 5.81.0A100 5.81.0A200 5.81.0A300 5.81.0A400 5.81.0A500 5.81.0A600

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**Art. 810B**

Ganascia mobile dolce  
Soft movable jaw

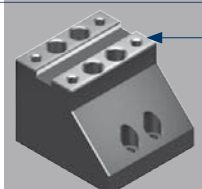


Cod. 5.81.0B100 5.81.0B200 5.81.0B300 5.81.0B400 5.81.0B500 5.81.0B600

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**Art. 814**

Base mobile per ganasce  
Movable base for jaws

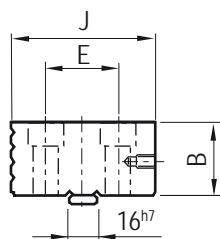
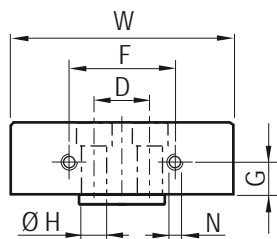


Predisposizione per tutte le ganasce FMS fisse  
Fit all FMS fixed jaws

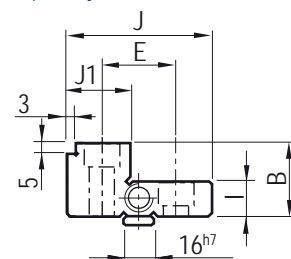
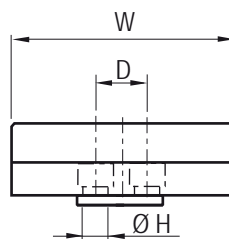
Cod. 5.81.41000 5.81.42000 5.81.43000 5.81.44000 5.81.45000 5.81.4.6000

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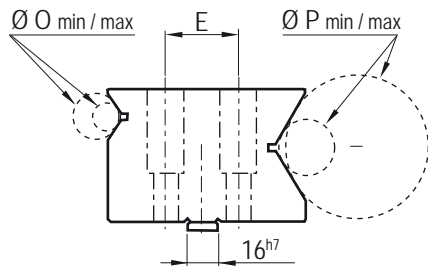
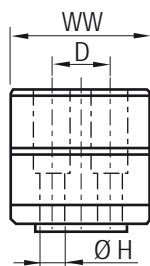
**Art. 810** (Montata su Art. 860) / (Assembled on Art. 860)



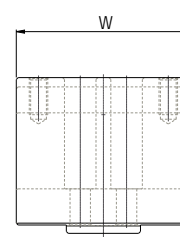
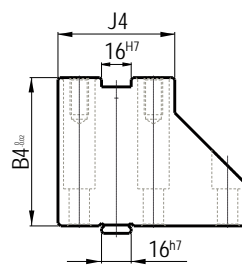
**Art. 810O** (Montabile su Art. 868) / (Optionally assembled on Art. 868)



**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			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	84	98	108	108	- 0,02
J1	24		24	30	38	38	38	- 0,02
J4	55		63	83	96	106	106	-
N	M5		M6	M6	M6	M6	M6	-
O	10 / 15		20 / 30	25 / 30	20 / 60	35 / 70	40 / 80	-
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
<b>Art. 810D</b> Ganaschia 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
<b>Art. 810E</b> Ganaschia 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
<b>Art. 810J</b> Ganaschia 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
<b>Art. 810K</b> Ganaschia 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
<b>Art. 810L</b> Ganaschia 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
<b>Art. 810M</b> Ganaschia 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
<b>Art. 810O</b> Ganaschia 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
<b>Art. 810P</b> Ganaschia 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
<b>Art. 810R</b> Ganaschia 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
<b>Art. 810T</b> Ganaschia mobile <b>GRIP</b> per forti serraggi <b>GRIP</b> movable jaw for strongest clamping		Cod. 5.81.0T100	5.81.0T200	5.81.0T300	5.81.0T400	5.81.0T500	5.81.0T600
<b>Art. 810V</b> Ganaschia 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
<b>Art. 810W</b> * Ganaschia mobile oscillante zigrinata da un lato Floating movable jaw one side serrated		Cod. 5.81.0W100	5.81.0W200	5.81.0W300	5.81.0W400	5.81.0W500	5.81.0W600
<b>Art. 810X</b> * Ganaschia mobile oscillante con gradino 3x5 zigrin. da un lato Floating movable jaw with 3x5 step one side serrated		Cod. 5.81.0X100	5.81.0X200	5.81.0X300	5.81.0X400	5.81.0X500	5.81.0X600
<b>Art. 810Y</b> * Ganaschia mobile oscillante con gradino 3x5 Floating movable jaw with 3x5 step		Cod. 5.81.0Y100	5.81.0Y200	5.81.0Y300	5.81.0Y400	5.81.0Y500	5.81.0Y600
<b>Art. 810Z</b> Albero gradino per ganasce mobili oscillanti Step block pin for floating movable jaw		Cod. 5.81.0Z100	5.81.0Z200	5.81.0Z300	5.81.0Z400	5.81.0Z500	5.81.0Z600
<b>Art. 810WA</b> Corpo ganaschia mobile oscillante zigrinata da un lato Body floating movable jaw one side serrated		Cod. 5.81.0WA10	5.81.0WA20	5.81.0WA30	5.81.0WA40	5.81.0WA50	5.81.0WA60
<b>Art. 810XA</b> Corpo ganaschia mobile oscillante con gradino 3x5 zigrin. da un lato Body floating movable jaw with 3x5 step one side serrated		Cod. 5.81.0XA10	5.81.0XA20	5.81.0XA30	5.81.0XA40	5.81.0XA50	5.81.0XA60
<b>Art. 810YA</b> Corpo ganaschia mobile oscillante con gradino 3x5 Body floating movable jaw with 3x5 step		Cod. 5.81.0YA10	5.81.0YA20	5.81.0YA30	5.81.0YA40	5.81.0YA50	5.81.0YA60

\* Con albero a gradino (Art. 810Z) / With step block pin (Art. 810Z)

Tipo (grandezza) morsa / Vise (type) size

1

2

3

4

5

6

**Art. 823**

 Piastra intermedia per Art. 855  
 Middle plate for Art. 855

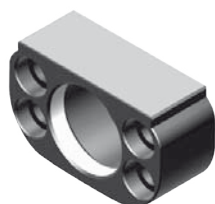

Cod.	5.82.31000	5.82.32000	5.82.33000	5.82.34000	5.82.35000	5.82.36000

**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

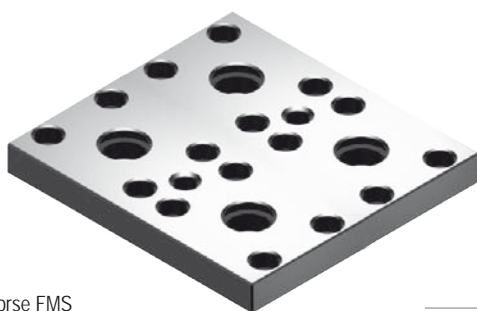
Cod.	5.82.5C100	5.82.5C200	5.82.5C300	5.82.5C400	5.82.5C500	5.82.5C600

**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

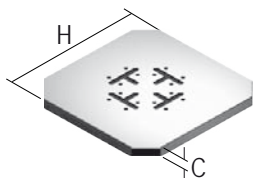
Cod.	5.83.41000	5.83.42000	5.83.43000	5.83.44000	5.83.45000	5.83.46000



Tipo (grandezza) morsa / Vise (type) size

**Art. 827**

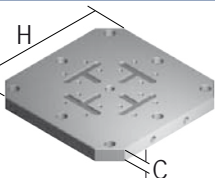
Piastra base per una o più morse FMS  
Head plate for one or more FMS vises



	1	2	3	4	5	6
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**

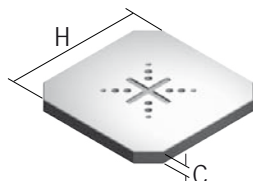
Piastra base personalizzata per una o più morse FMS  
Bussola di centraggio per Art. 852 compresa  
Tailor made head plate for one or more FMS vises  
Centering bushing for Art. 852 included



	1	2	3	4	5	6
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**

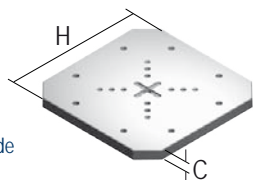
Piastra base per cubo FMS o MULTIFLEX  
Head plate for FMS or MULTIFLEX cube



	1	2	3	4	5	6
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**

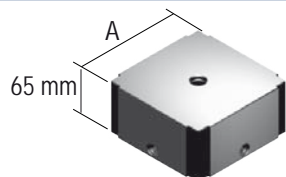
Piastra base per cubo FMS o MULTIFLEX personalizzata  
Bussola di centraggio per Art. 852 compresa  
Head plate for FMS or MULTIFLEX cube tailor made  
Centering bushing for Art. 852 included



	1	2	3	4	5	6
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**

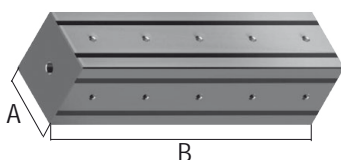
Distanziale quadrato per 4 morse FMS  
Square spacer for 4 FMS vises



	1	2	3	4	5	6
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**

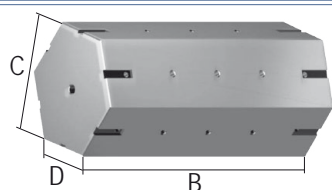
Supporto quadrato per 4 morse FMS  
Square support for 4 FMS vises



	1	2	3	4	5	6
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**

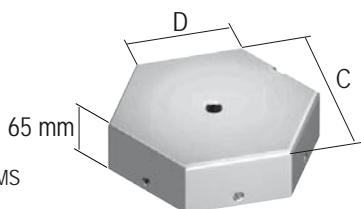
Supporto esagonale per 6 morse FMS  
Exagon support for 6 FMS vises



	1	2	3	4	5	6
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 morse FMS  
Exagon spacer for 6 FMS vises



	1	2	3	4	5	6
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**

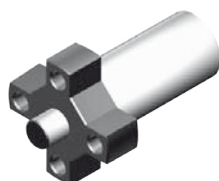
Bussola di centraggio per piastra base  
Centering bushing for base plate



	1	2	3	4	5	6
Cod.	5.85.21000	5.85.22000	5.85.23000	5.85.24000	5.85.25000	5.85.26000

**Art. 853**

Centraggio orizzontale per cubo FMS  
Horizontal centering for FMS cube



	1	2	3	4	5	6
Cod.	5.85.31000	5.85.32000	5.85.33000	5.85.34000	5.85.35000	5.85.36000

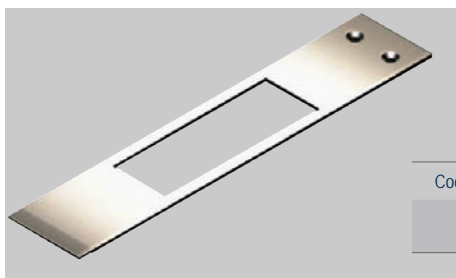
Tipo (grandezza) morsa / Vise (type) size

**1**
**2**
**3**
**4**
**5**
**6**
**Art. 825A**

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

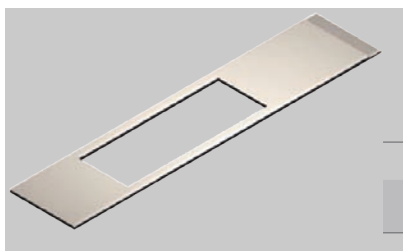

Cod.	5.82.5A100	5.82.5A200	5.82.5A300	5.82.5A400	5.82.5A500	5.82.5A600
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**Art. 850B**

 Riparo lato vite  
 Protection side screw


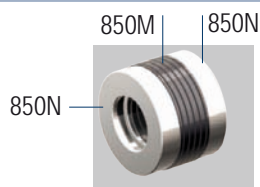
Cod.	5.85.0C100	5.85.0C200	5.85.0C300	5.85.0C400	5.85.0C500	5.85.0C600
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**Art. 850C**

 Riparo  
 Protection


Cod.	5.85.0B100	5.85.0B200	5.85.0B300	5.85.0B400	5.85.0B500	5.85.0B600
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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. 850H**

 Chiave a pioli per morsa FMS e cubo  
 Pin 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

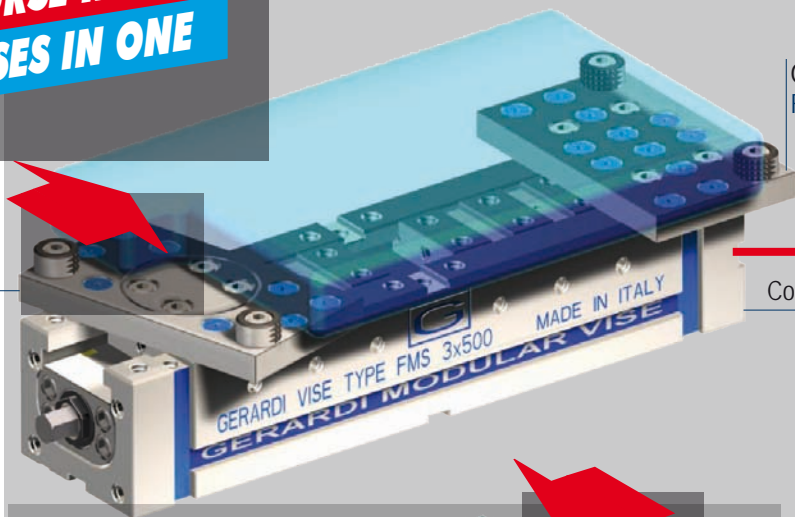
**Art. 801I**

 Vite tcei per ganasce  
 Hex.socket head screw for 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
Cod.	5.80.1I100	5.80.1I200	5.80.1I300	5.80.1I400	5.80.1I500	5.80.1I600

**3 MORSE IN UNA  
VISES IN ONE**

**Art. 867** Art. 855 + Art. 805U + n. 2 Art. 810U



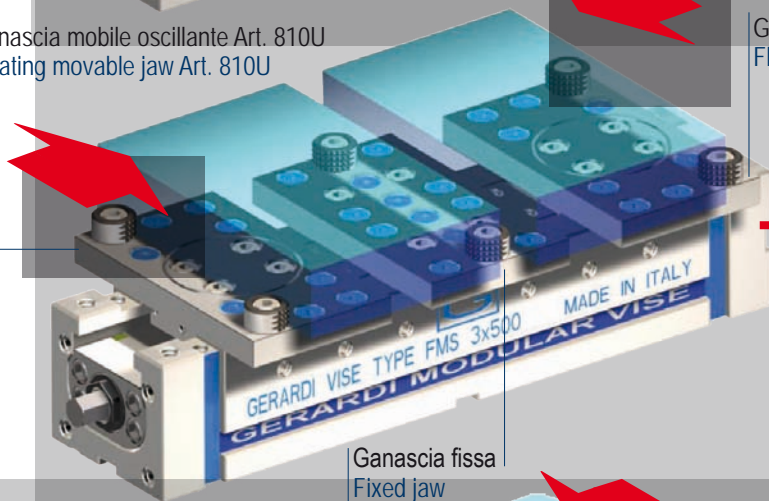
Ganascia fissa Art. 805U  
Fixed jaw Art. 805U

**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



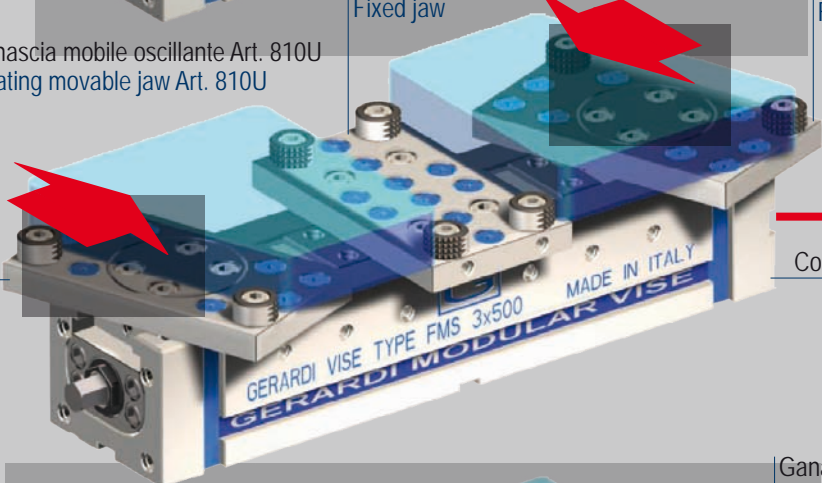
**Morsa FMS Art. 867 per serraggi doppi  
FMS vise Art. 867 for double clamping**

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

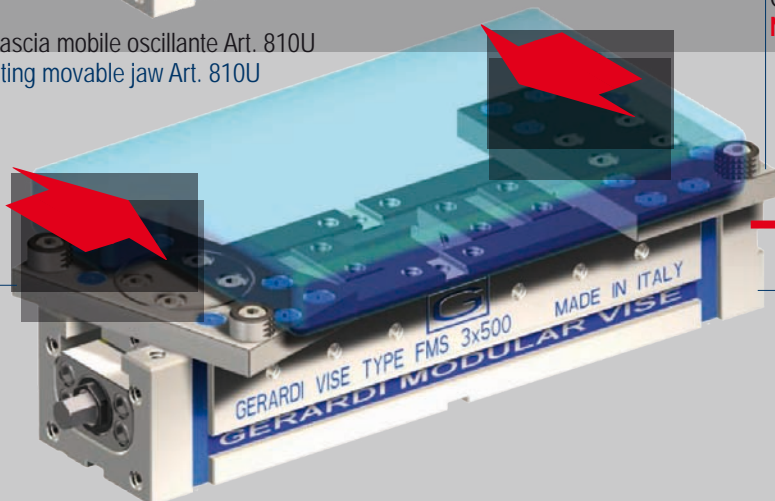


**Morsa FMS Art. 867 per serraggi doppi  
FMS vise Art. 867 for double clamping**

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



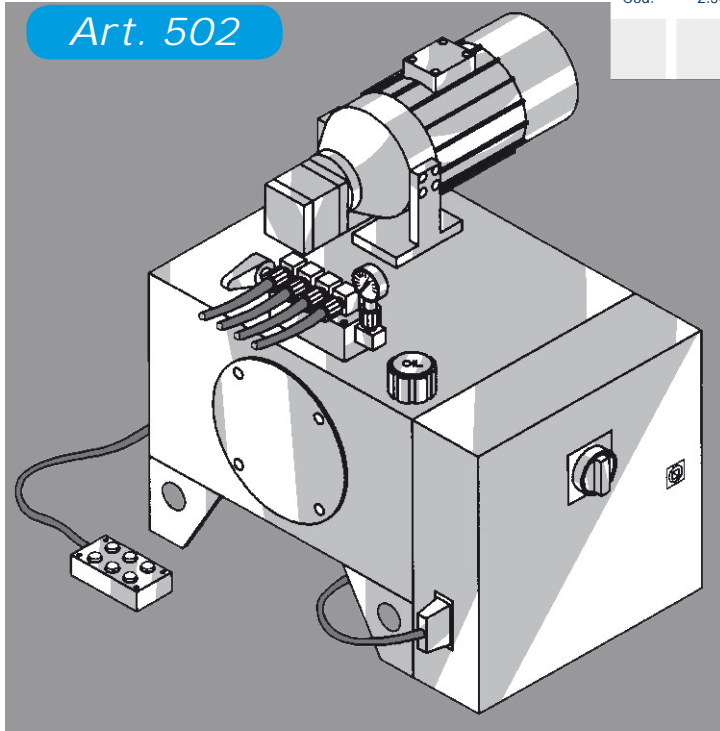
**Morsa FMS autocentrante  
FMS self-centering vise**

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.

**SENZA OLIO**

Pressione massima di esercizio: 600 bar

Vedere pag. 4.34 per dati tecnici

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

**NO OIL**

Max operating pressure: 600 bar

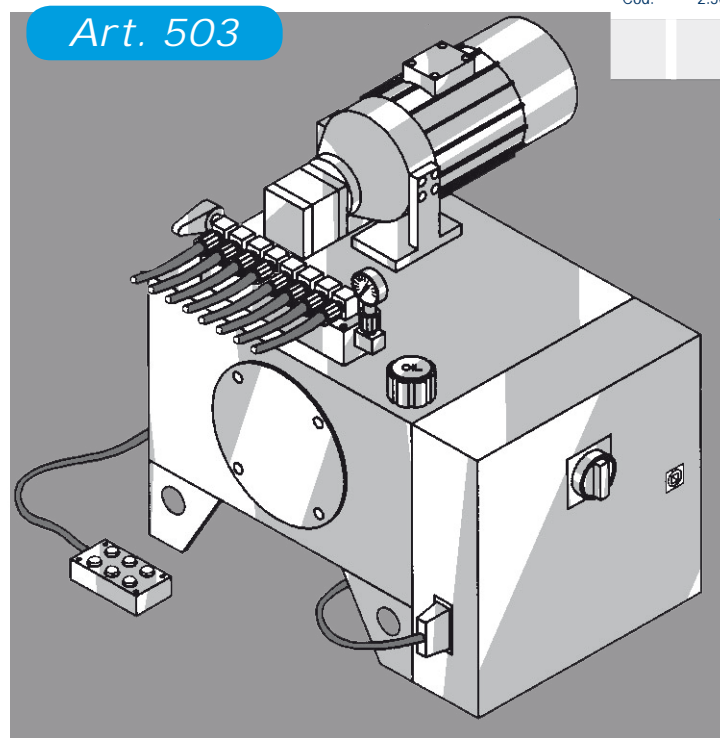
See page 4.35 for technical data

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 semplice effetto.

**SENZA OLIO**

Pressione massima di esercizio: 600 bar

Vedere pag. 4.34 per dati tecnici

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

**NO OIL**

Max operating pressure: 600 bar

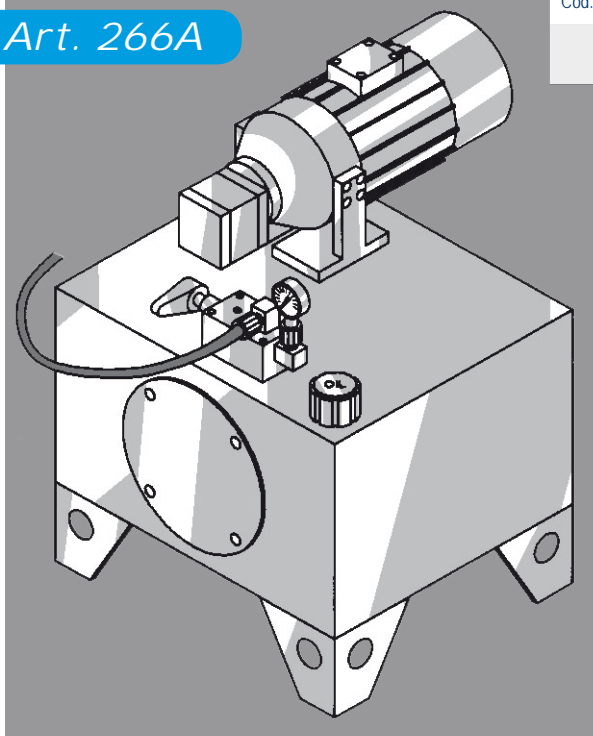
See page 4.35 for technical data

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

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

Vedere pag. 4.34 per dati tecnici

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

**NO OIL**

Max operating pressure: 140 bar

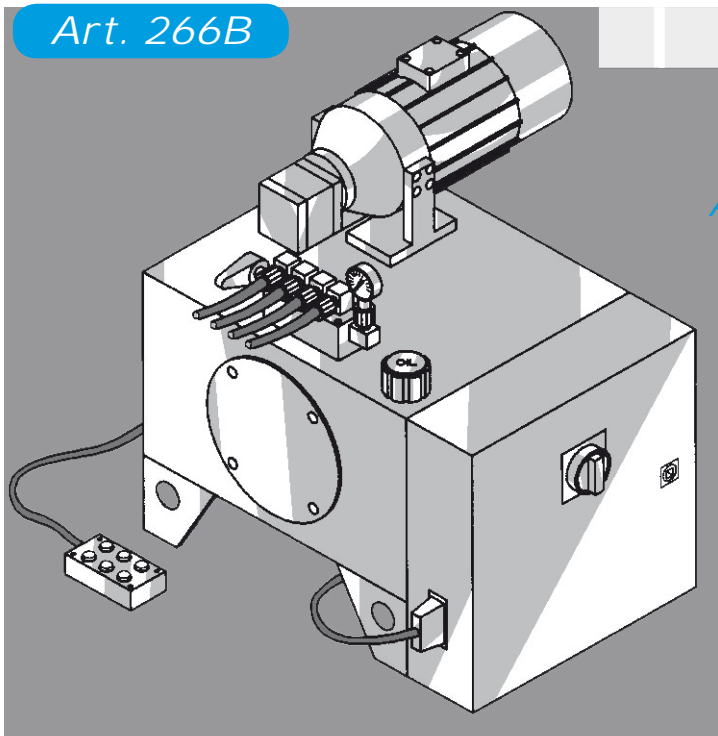
See page 4.34 for technical data

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

Vedere pag. 4.35 per dati tecnici

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

**NO OIL**

Max operating pressure: 140 bar

See page 4.35 for technical data

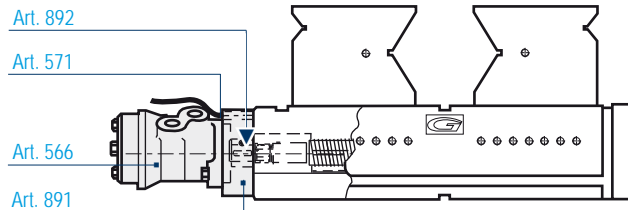
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
<b>Art. 566</b> 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



Cod.	5.89.51000	5.89.52000	5.89.53000	5.89.54000	5.89.55000	5.89.56000
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## Art. 895

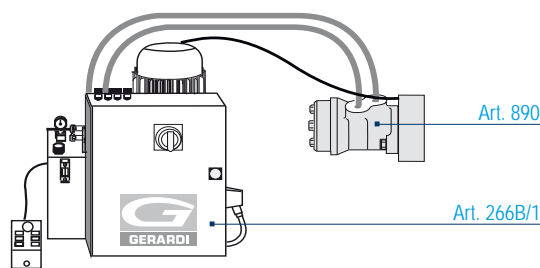
Gruppo di bloccaggio completo di apparecchiatura elettrica con fine corsa elettronico regolabile

Pressione massima di esercizio: 140 bar

Hydraulic blocking device complete of electrical equipment and adjustable electronic proximity switch

Max operating pressure: 140 bar

Art.	Pag.
890	5.54
266B/1	5.53



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

## 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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La lunghezza standard dei collegamenti elettrici e idraulici, è di 1600 mm.  
Extra lunghezze saranno quotate separatamente.  
Per bloccaggi multipli chiedere la quotazione

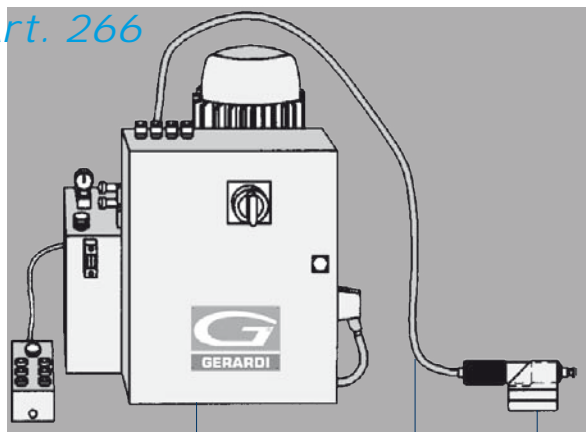
Standard length for electrical wire and high pressure hose is 1600 mm.  
Extra length will be quoted separatly.

For multiple clamping, ask for specific quotation

### GRUPPI DI BLOCCAGGIO CON CENTRALINA OLEODINAMICA

#### HYDRAULIC BLOCKING DEVICE WITH MOTOR DRIVEN POWER UNIT

## Art. 266



Art. 502

Art. 403

Art. 271

Tipo e caratteristiche Type and characteristics	Art. 266 - Art. 502		Art. 267 - Art. 503	
	A effetto semplice Single-acting		A doppio effetto Double-acting	
Pressione max d'esercizio Max opening pressure	bar	600		
	psi	8.700		
Portata Delivery	l / min	40		
Potenza motore Motor power	KW	5,5		
Massima capacità olio Max oil capacity	l / min	200		
Regolazione pressione Pressure adjustment	Pressostato		By pressure switch	
Peso Weight	kg	-	-	

SELF-CENTERING FMS VISES WITH ELECTRO-HYDRAULIC POWER PACK

Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6
Larghezza del corpo base / Body base length	C	200	300	400	500	600	800
	Cod.	5.87.0F120	5.87.0F230	5.87.0F340	5.87.0F450	5.87.0F560	5.87.0F680

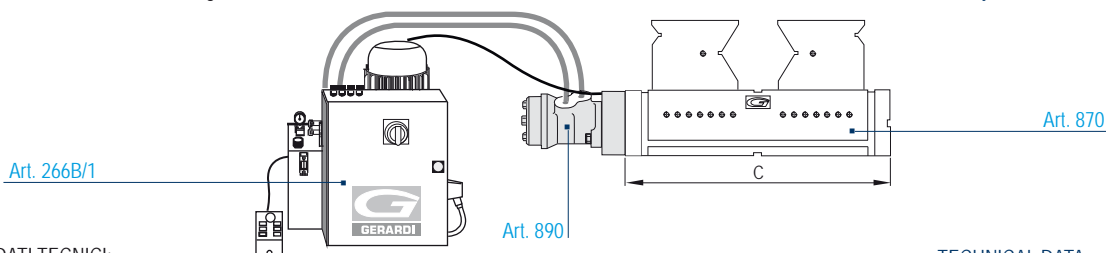
**Art. 870F**

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	5.36
n° 1 890	5.54
n° 1 266B/1	5.53

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

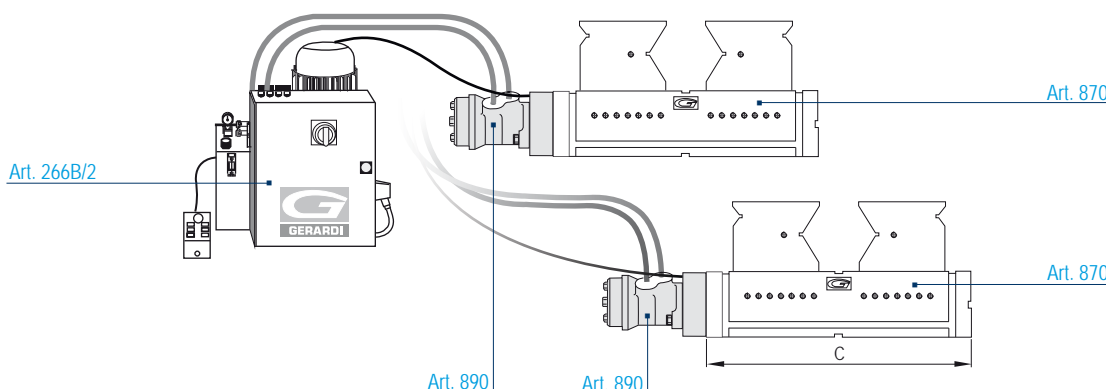
**Art. 870G**

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	5.26
n° 2 890	5.54
n° 1 266B/2	5.53

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	200	300	400	500	600	800
	Cod.	5.87.0J120	5.87.0J230	5.87.0J340	5.87.0J450	5.87.0J560	5.87.0J680

## Art. 870J

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Art.	Pag.
n° 2 870	5.26
n° 3 890	5.54
n° 1 266B/3	5.53

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

*Composizion for n. 3 FMS vises*  
Same characteristics as describet 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 lenght 1600 mm

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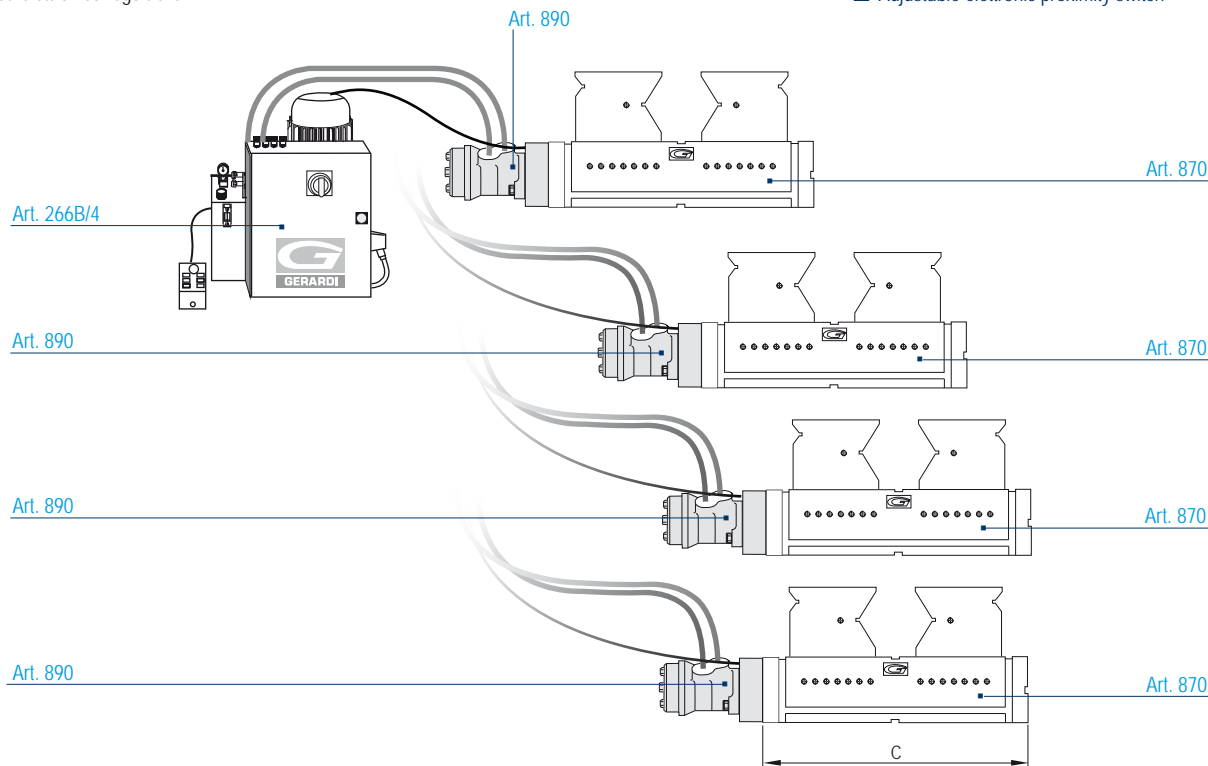
## Art. 870L

### 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	5.26
n° 4 890	5.54
n° 1 266B/4	5.53

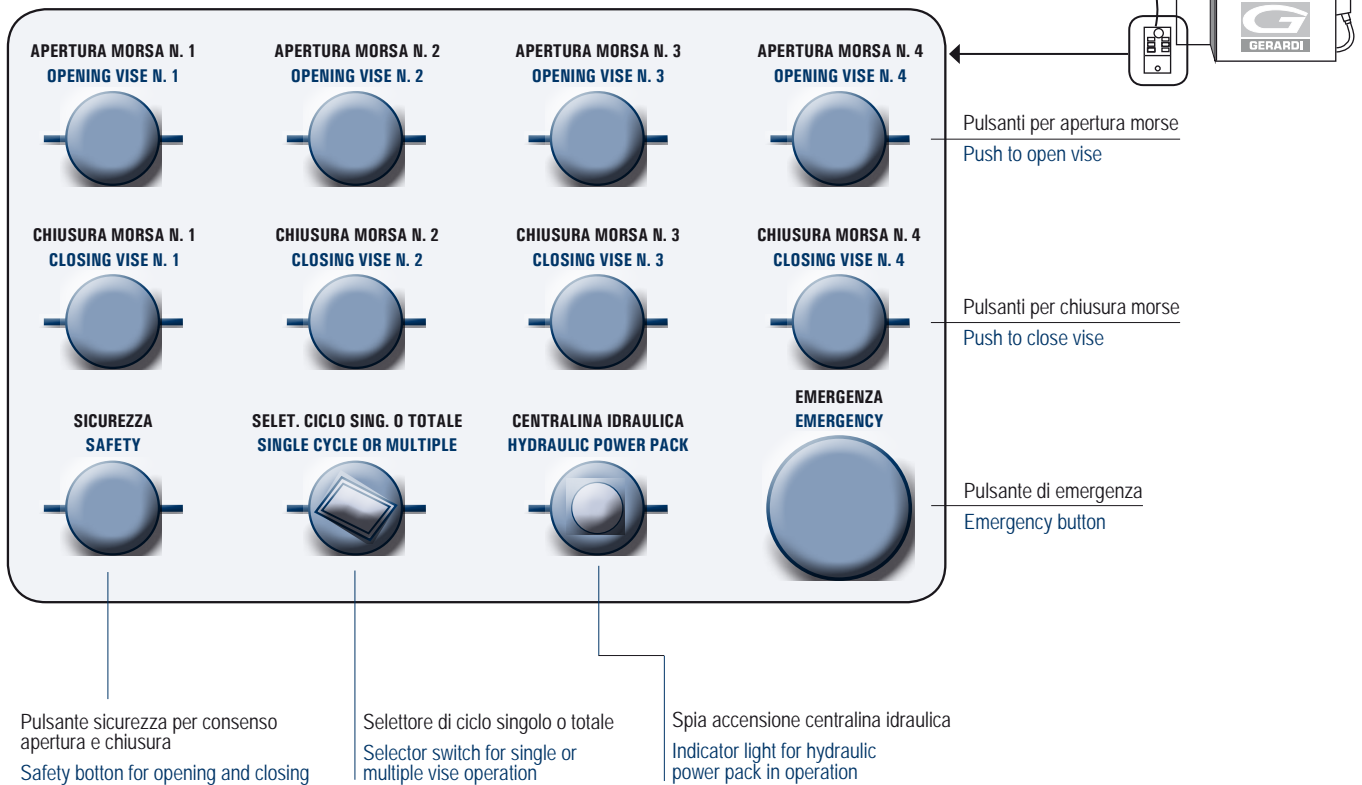
### TECHNICAL DATA:

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 lenght 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 "0" (singolo).

Per ottenere il movimento contemporaneo di tutte le morse, girare il selettore sulla posizione "1" (totale).

### ATTENZIONE !

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

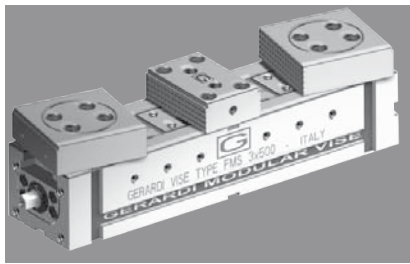
To open or close the vises all together repeat the operation with the selector switch set to "multiple".

### 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  
Lubrification of vise screw & slides: WITH LOW VISCOSITY OIL



**SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA**

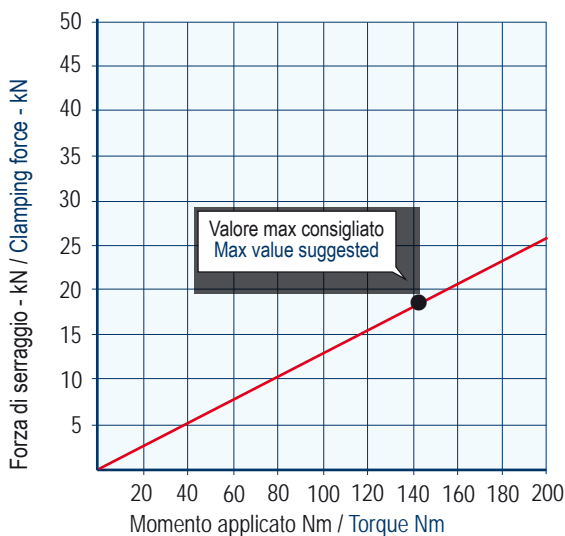
N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicato fino al  $\pm 10\%$   
 Per un corretto utilizzo non superare i valori indicati nel grafico

**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  $\pm 10\%$  range  
 For optimum operation do not exceed chart values

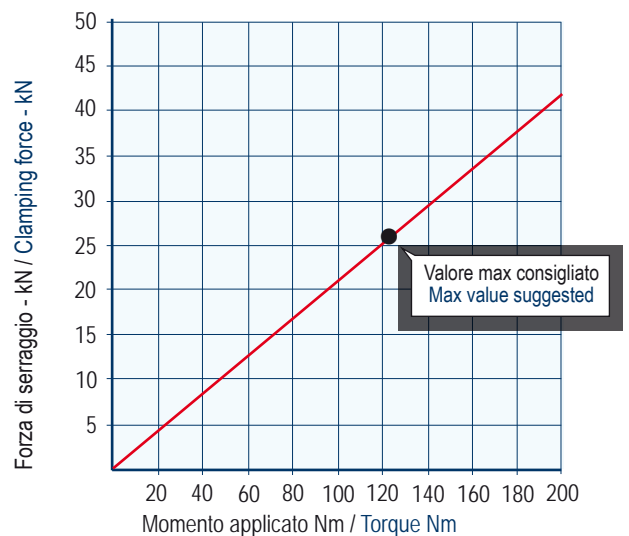
**MORSE FMS TIPO 1**  
**FMS VISES TYPE 1**

VITE:  $\varnothing 18$  mm /  $\varnothing 20$  mm PASSO: 2 mm  
 SCREW:  $\varnothing 18$  mm /  $\varnothing 20$  mm PITCH: 2 mm  
 Chiave dinamometrica / Torque wrench



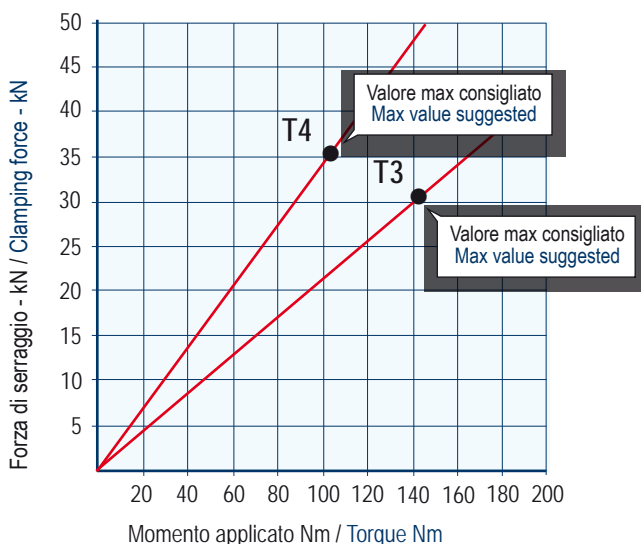
**MORSE FMS TIPO 2**  
**FMS VISES TYPE 2**

VITE:  $\varnothing 18$  mm /  $\varnothing 24$  mm PASSO: 2 mm  
 SCREW:  $\varnothing 18$  mm /  $\varnothing 24$  mm PITCH: 2 mm  
 Chiave dinamometrica / Torque wrench



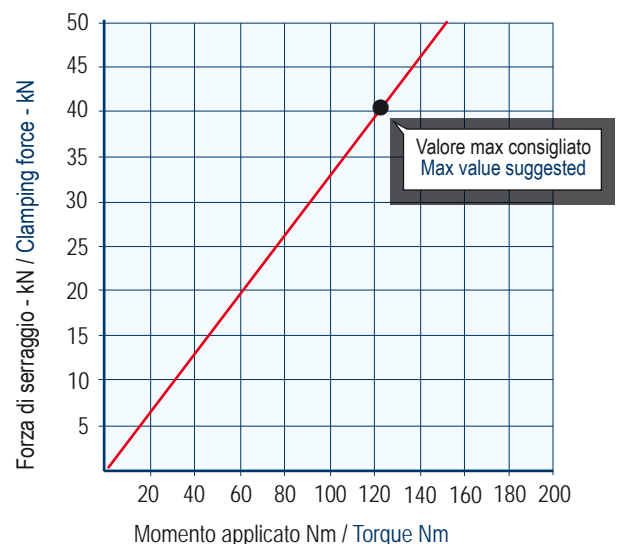
**MORSE FMS TIPO 3-4**  
**FMS VISES TYPE 3-4**

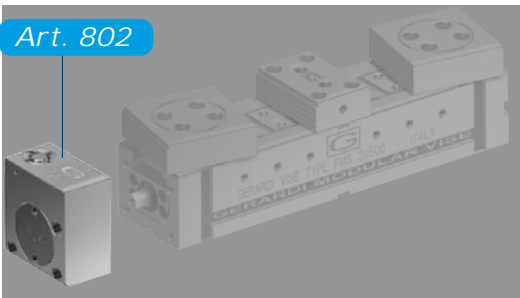
VITE:  $\varnothing 24$  mm /  $\varnothing 30$  mm PASSO: 2 mm  
 SCREW:  $\varnothing 18$  mm /  $\varnothing 20$  mm PITCH: 2 mm  
 Chiave dinamometrica / Torque wrench



**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  
 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**

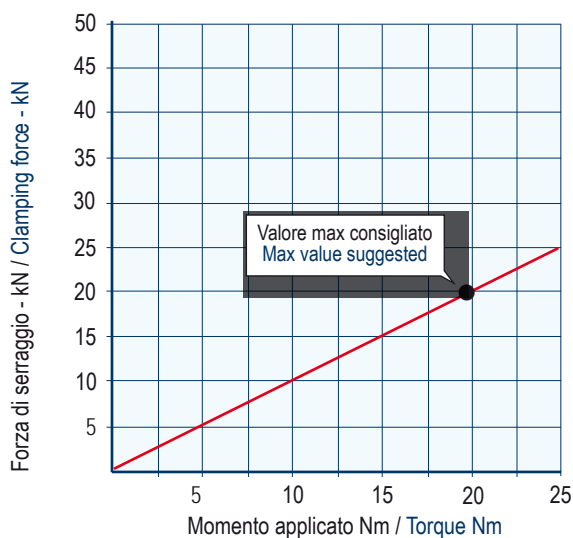
Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a  $\pm 10\%$  range. For optimum operation do not exceed chart values

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

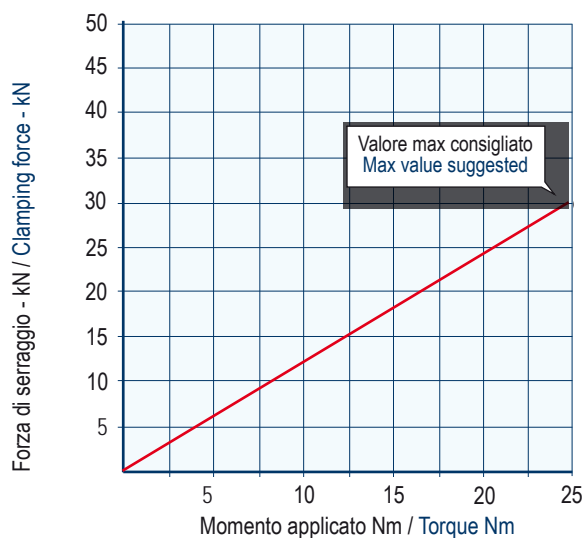
Type	Cod.
1	5.80.21000



**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

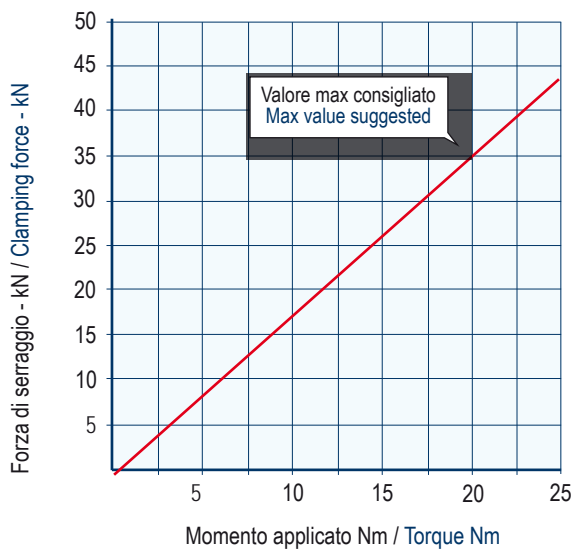
Type	Cod.
2	5.80.22000



**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

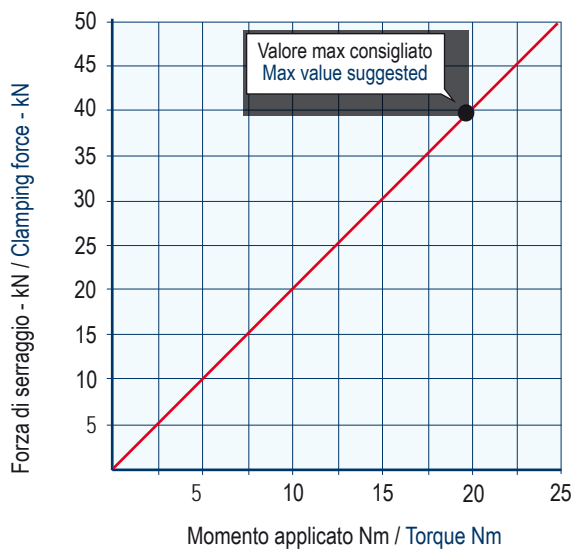
Type	Cod.
3	5.80.23000
4	5.80.24000

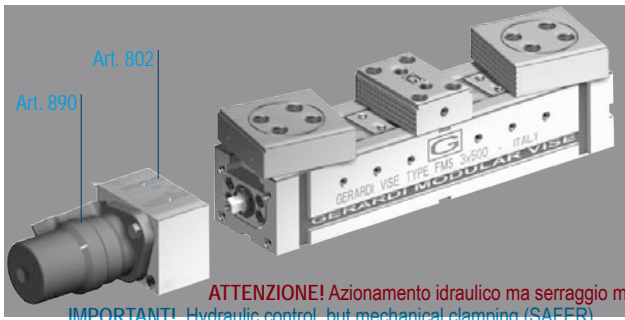


**MORSE FMS TIPO  
FMS VISES TYPE 5-6**

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

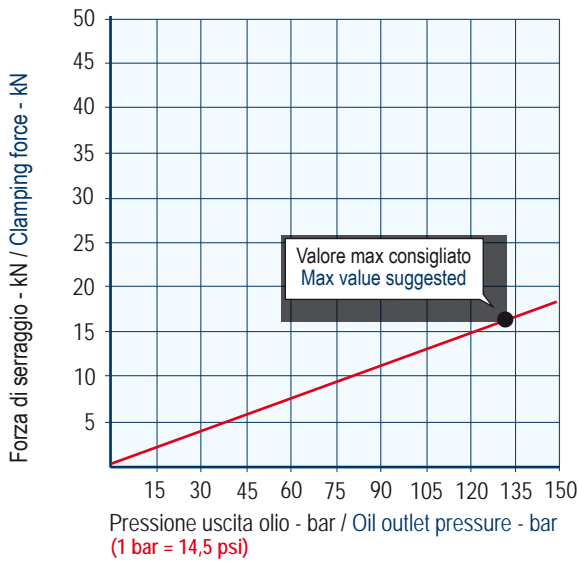
**MECHANICAL CLAMPING  
 THROUGH HYDRAULIC MOTOR Art. 890**

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)

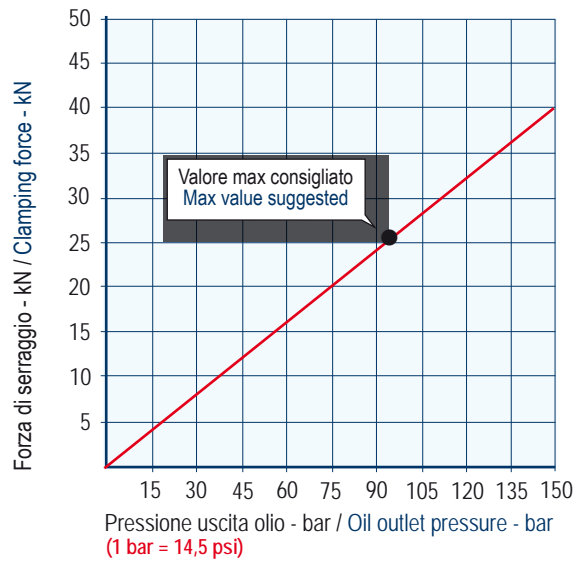
**MORSE FMS TIPO 1  
 FMS VISES TYPE 1**

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



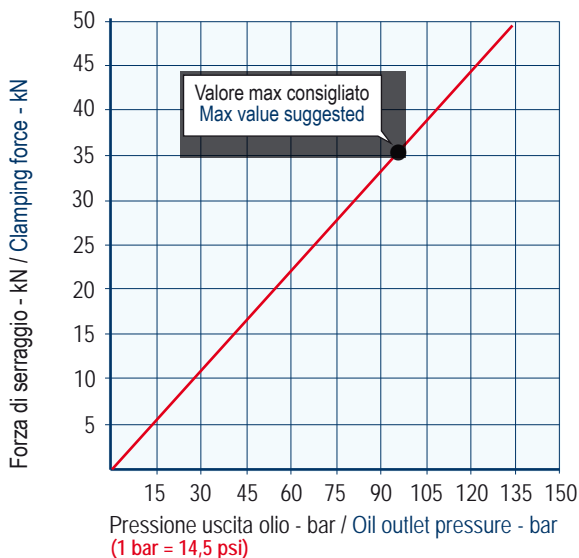
**MORSE FMS TIPO 2  
 FMS VISES TYPE 2**

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



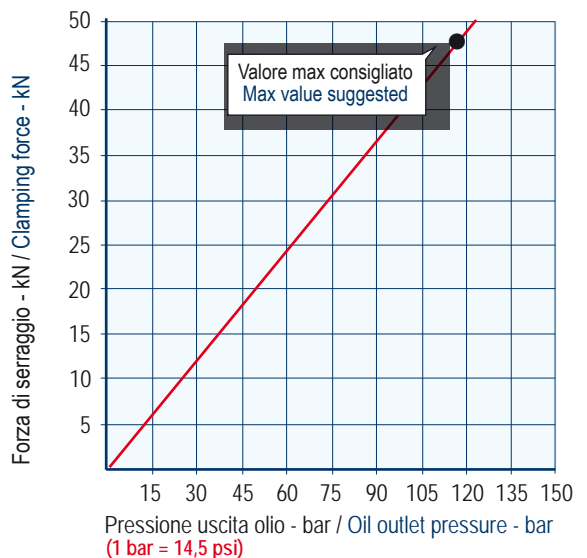
**MORSE FMS TIPO 3-4  
 FMS VISES TYPE 3-4**

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

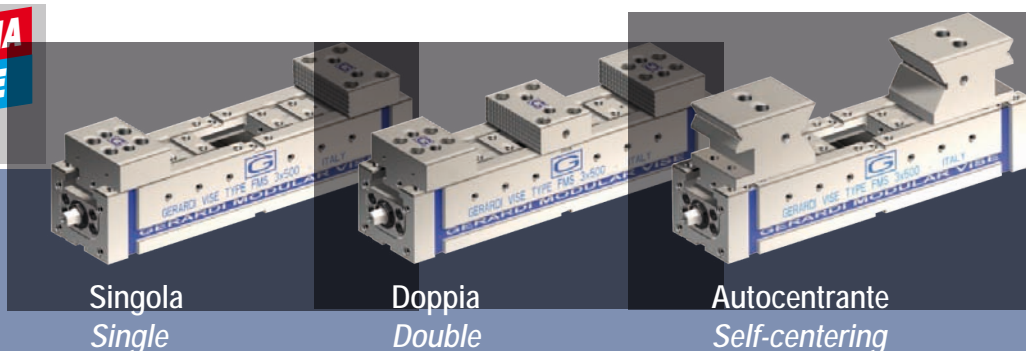


**MORSE FMS TIPO 5-6  
 FMS VISES TYPE 5-6**

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



**3** MORSE IN UNA  
VISES IN ONE



Singola  
Single

Doppia  
Double

Autocentrante  
Self-centering

## 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

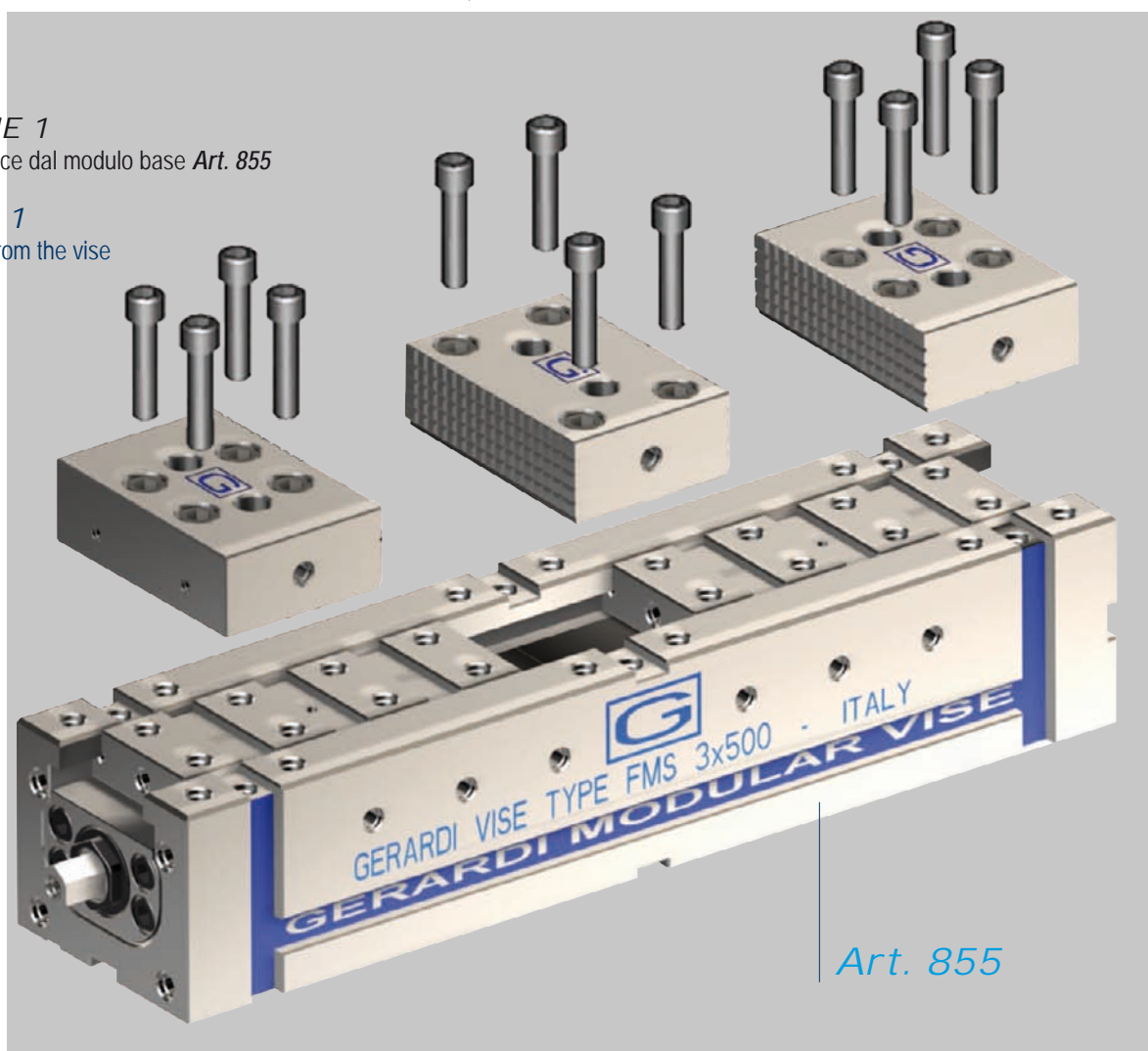
By the carefully following procedure and instructions the vise can be dismantled. We suggest all parts and their positions be marked so they can readily be reassembled to their original state.

### 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

# 3 MORSE IN UNA VISES IN ONE

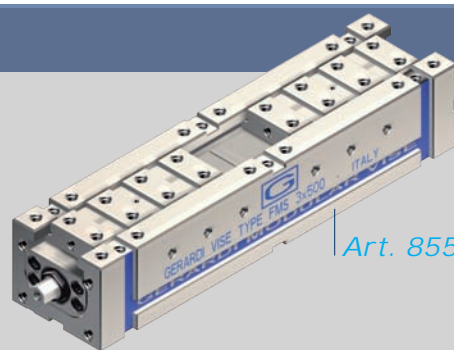


## OPERAZIONE 2

Adesso il modulo base è completamente libero da ogni impedimento.  
Pulire attentamente il modulo base con un diluente appropriato. (Gasolio ecc).

## OPERATION 2

Now the vise body module is completely free.  
Clean thoroughly with detergent oil or grease remover.



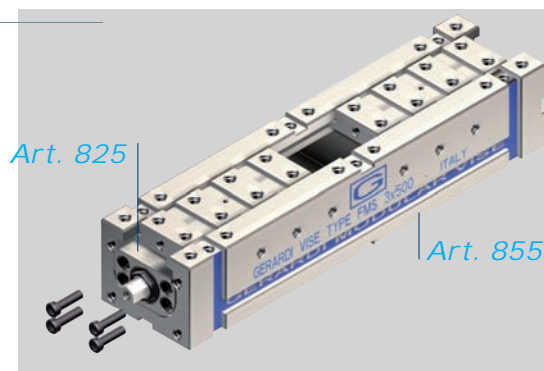
Art. 855

## OPERAZIONE 3

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

## OPERATION 3

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



Art. 825

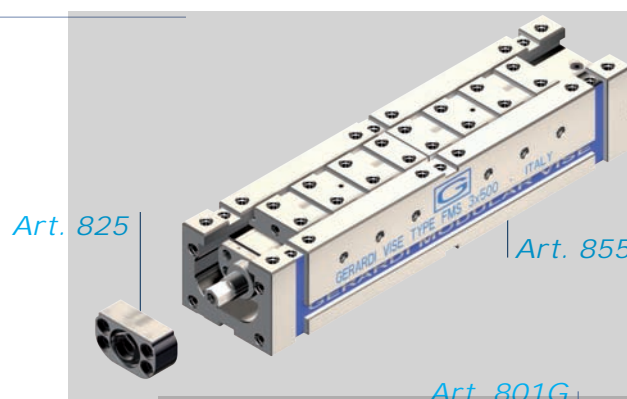
Art. 855

## OPERAZIONE 4

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

## OPERATION 4

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



Art. 825

Art. 855

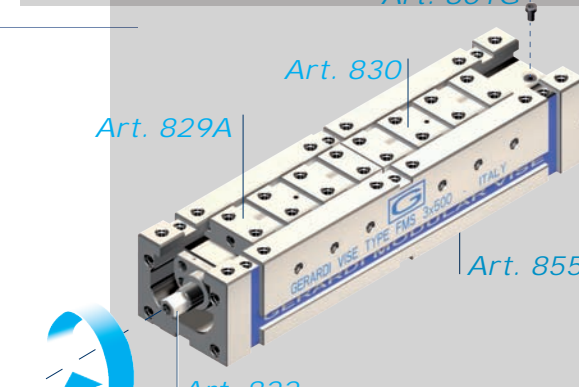
Art. 801G

## 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.



Art. 830

Art. 829A

Art. 855

Art. 822

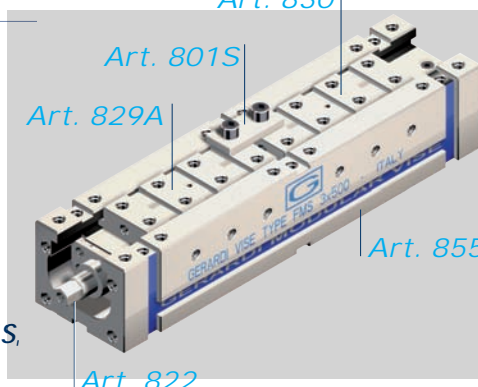
Art. 830

## OPERAZIONE 6

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

## OPERATION 6

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



Art. 801S

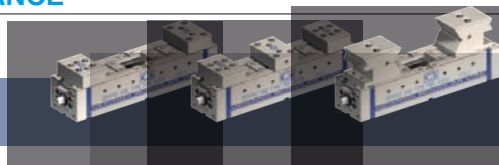
Art. 829A

Art. 855

Art. 822

5

**3 MORSE IN UNA  
VISES IN ONE**

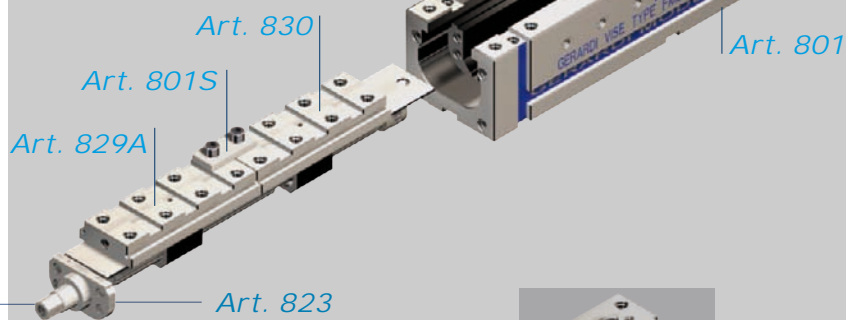


### OPERAZIONE 7

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 intermediate plate Art. 823



### OPERAZIONE 8

Per rimontare la morsa, eseguire tutte le 8 operazioni in senso inverso senza forzare nel rimontaggio nessun particolare.

L'unica manutenzione richiesta

(a parte la periodica pulizia interna ed esterna della morsa)

è la lubrificazione settimanale con olio molto fluido negli appositi fori situati nelle slitte.

Il foro da scegliere per la lubrificazione dipende dalla posizione della morsa.

### OPERATION 8

To reassemble the vise perform the 8 previous operations reverse order without forcing any stage or part.

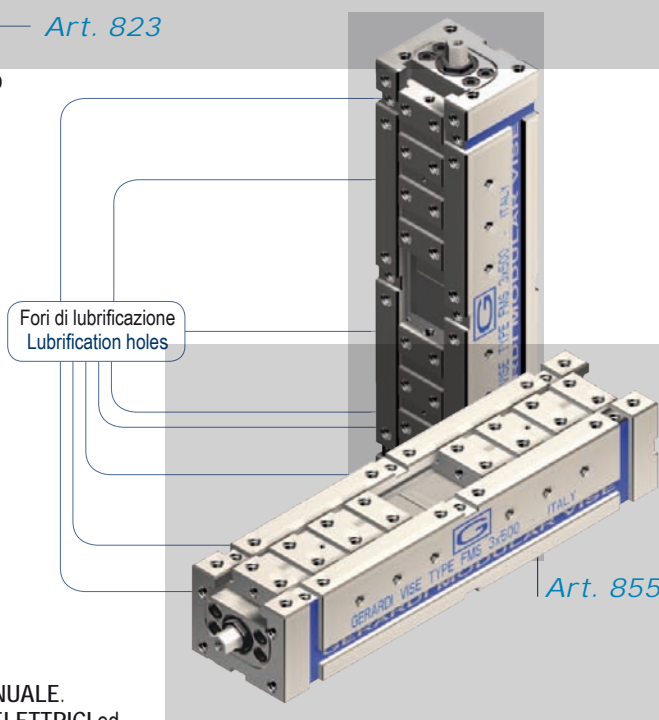
The only maintenance required

(apart from periodic internal and external vise cleaning)

is weekly lubrication with low viscosity oil

in the proper holes in the slides.

Which lubrication hole is chosen depends on the vise position.



La morsa sopra descritta è completamente a chiusura MECCANICA MANUALE.

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

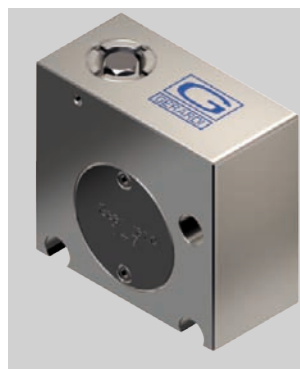
This vise described above is for fully manual MECHANICAL CLAMPING.

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.

## SISTEMI DI AZIONAMENTO E DI MOLTIPLICA MORSE FMS FMS CLAMPING CONTROL SYSTEM

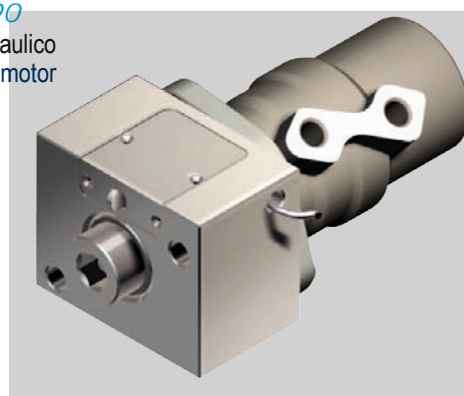
### Art. 802

Moltiplicatore di forza meccanico a vite senza fine. Rapporto 1:7  
Mechanical torque multiplier.  
Gear ratio 1:7



### Art. 890

Motore idraulico  
Hydraulic motor



# 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**

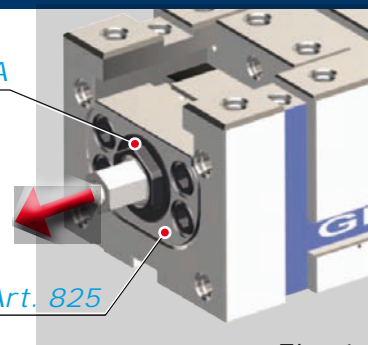


Fig. 1

#### 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**

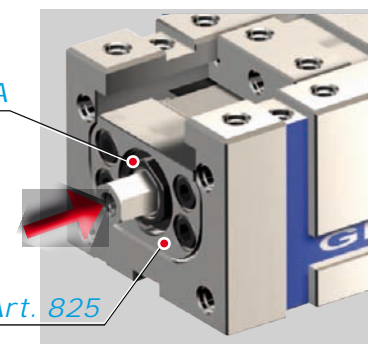


Fig. 2

#### 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**

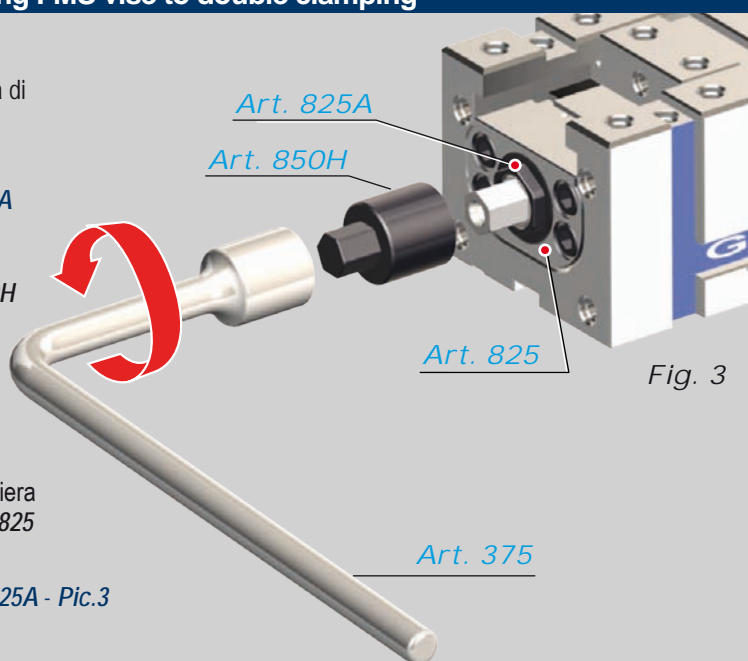
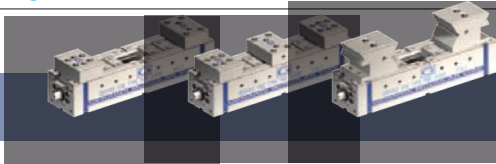


Fig. 3



**3 MORSE IN UNA  
VISES IN ONE**



## FUNZIONAMENTO DELLA MORSA FMS

### FMS VISE OPERATION

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

Può anche essere utilizzata per bloccaggi singoli, per il serraggio di un unico pezzo, spostando la ganasca 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.

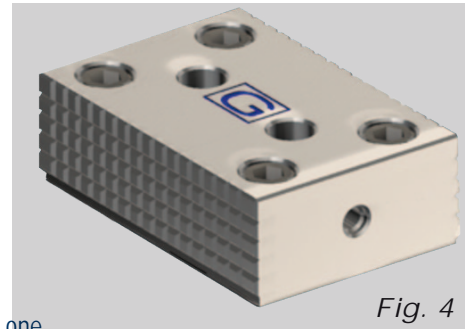


Fig. 4

## 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.

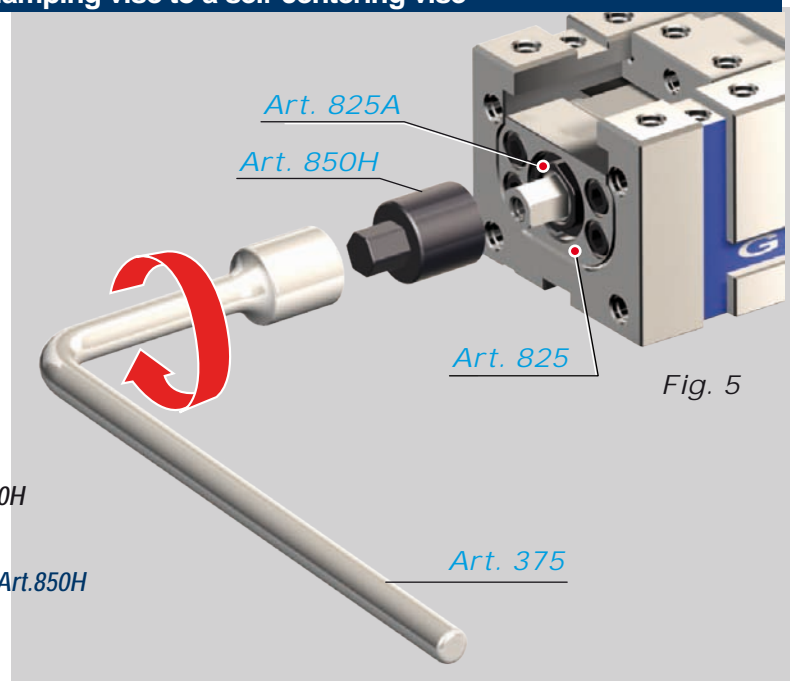
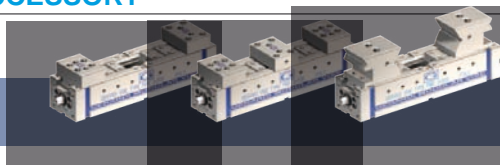


Fig. 5

**3 MORSE IN UNA  
VISES IN ONE**



## DISPOSITIVO "TERZA MANO"

### "THIRD HAND" DEVICE

#### DISPOSITIVO TERZA MANO PER MORSE FMS DOPPIE

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 o 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.

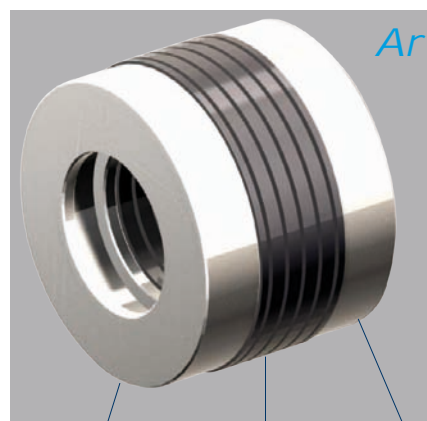
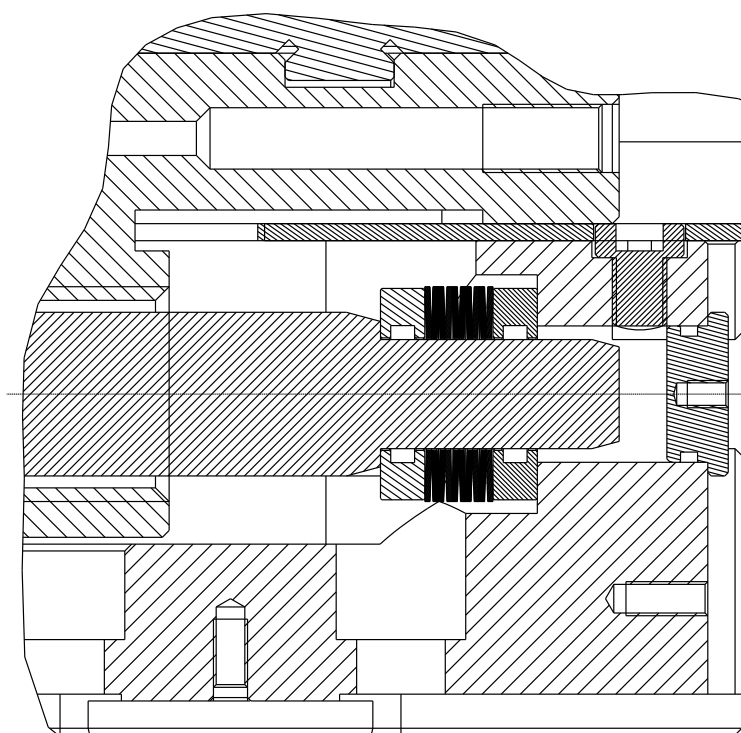
The standard "Third Hand" device has a max pressure of 50 Kg.

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.



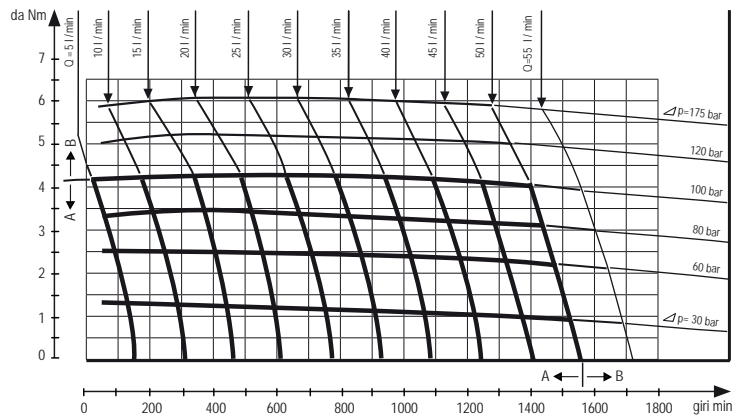
Art. 850P

850N

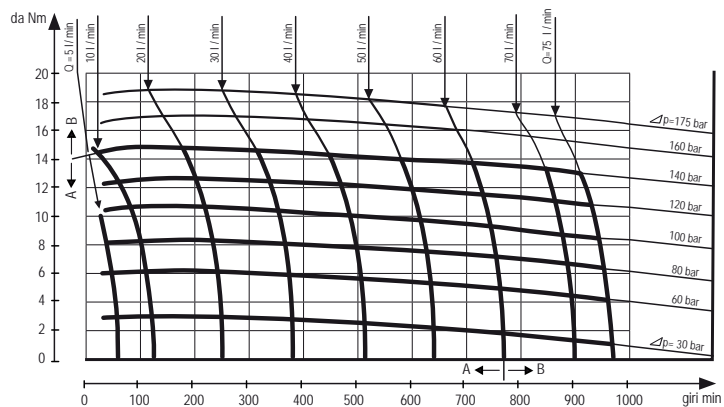
850M

850N

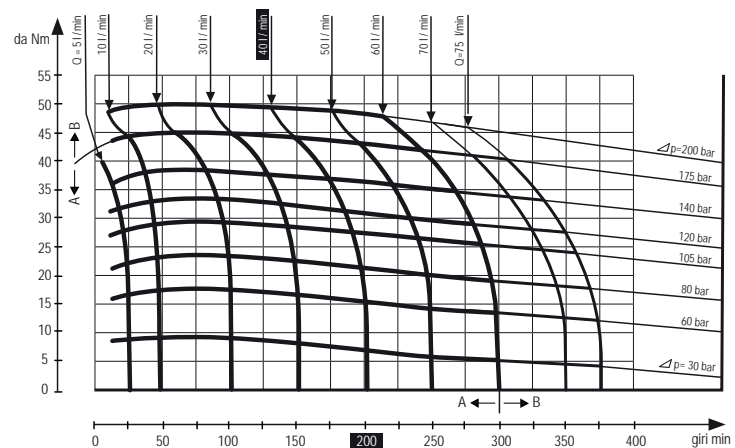
**OMM 32**  
Morse FMS tipo 1 / Type 1 FMS vises



**OMP 80**  
Morse FMS tipo 2 / Type 2 FMS vises



**OMR 200**  
Morse FMS tipo 3 - 4 - 5 - 6  
Type 3 - 4 - 5 - 6 FMS vises

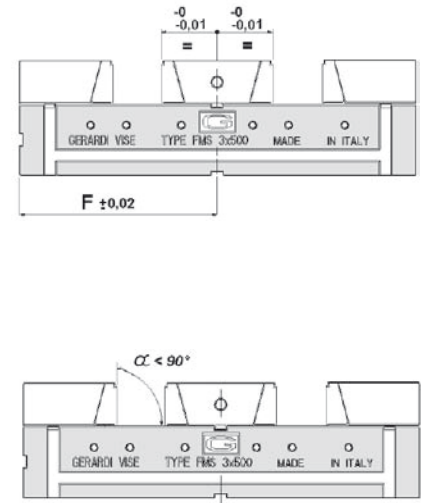
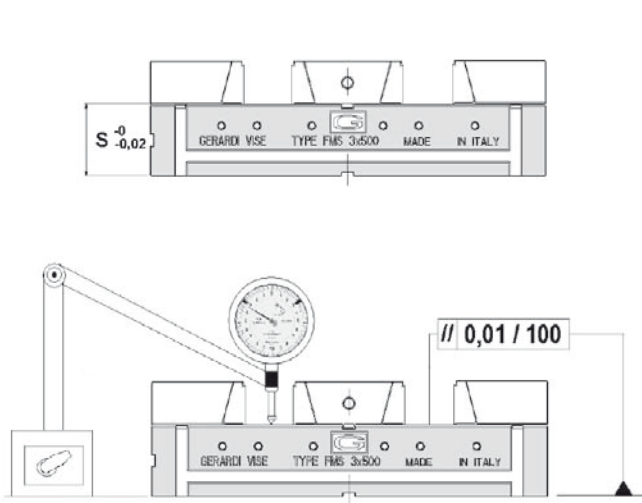


VELOCITA' = Passo vite x giri/min (dati dalla portata di olio in l/min) - 25% circa per attriti e resistenze varie.  
Esempio: Vite passo 2 mm; Giri 200/min (ipotizzando una portata olio di 40 l/min);  $V = 2 \times 200 = 400 - 25\% = 300$  mm/min per una morsa.  
Per più morse dividere la velocità ottenuta 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.

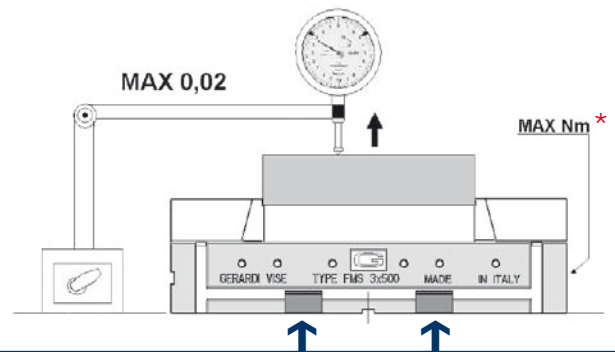
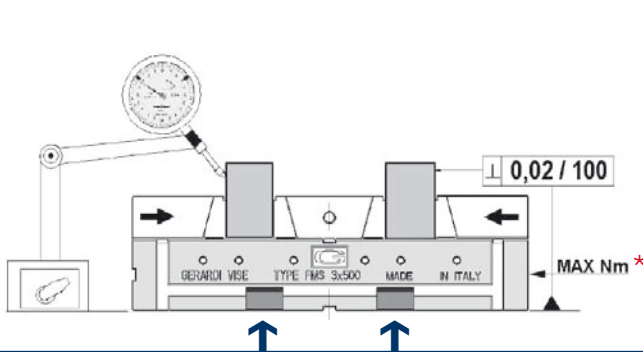
**TOLLERANZE GEOMETRICHE**

**GEOMETRIC ACCURACIES**



**TOLLERANZE DINAMICHE**

**DINAMIC ACCURACIES**



Morsa ancorata con 2 coppie di staffe [Art. 296](#) / Vise clamped with n. 2 pairs of [Art. 296](#)

Art 865		* Forza applicata Wrenching force	Forza di serraggio Clamping power
Morsa tipo 1	Vise type 1	80 Nm	500 kg
Morsa tipo 2	Vise type 2	80 Nm	1000 kg
Morsa tipo 3	Vise type 3	80 Nm	2000 kg
Morsa tipo 4	Vise type 4	80 Nm	2500 kg
Morsa tipo 5	Vise type 5	80 Nm	2500 kg
Morsa tipo 6	Vise type 6	80 Nm	2500 kg

1 kgf . m = 9.806 Nm