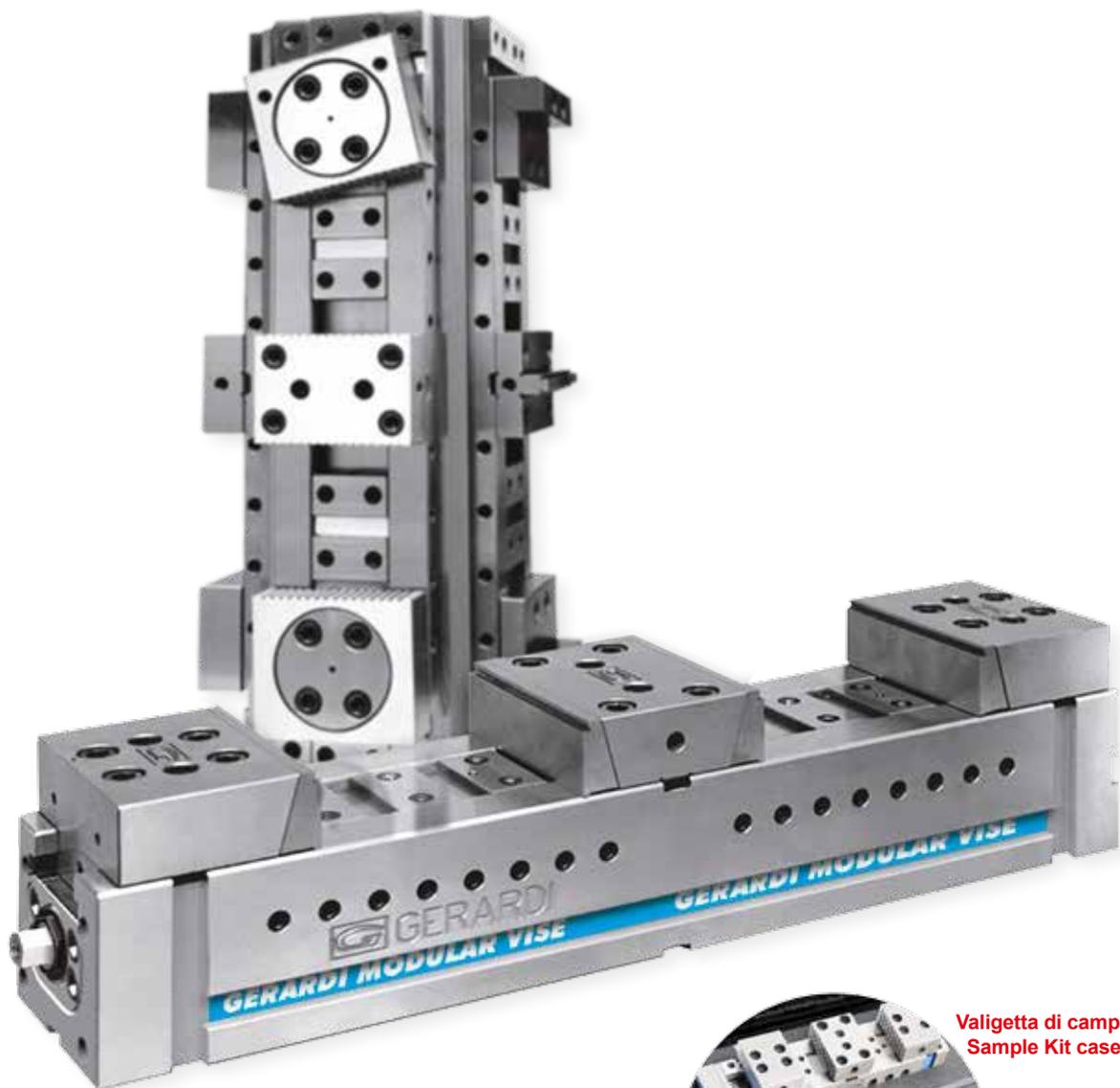


# FMS

## MORSE e CUBI-MORSA - VISES and VISE-TOWERS

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



Valigetta di campionatura  
Sample Kit case for Art.860

Art. 983

MORSE MODULARI FLESSIBILE  
FLEXIBLE MODULAR VISES

# SISTEMA MODULARE FLESSIBILE FLEXIBLE MODULAR SYSTEM

Pagg. 5.2 - 5.72

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

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

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

*Of special interest to horizontal and vertical machining centres users **FMS vises** present the same building characteristics of STD and XL vises, modular elements and accessories (hardened HRC 60 & ground steel construction throughout).*

***Born to be dedicated to machining centres**, FMS series of vises allow workholdings with perfect alignment in a space saving design, extremely high wear resistance, with deflection reduced 2 times in respect to the STD modular vises (base thickness doubled), possibility to clamp more pieces simultaneously with mechanic, hydraulic pneumatic or electric devices. You can use them both for vertical and horizontal clamping without any price charge. **Jaws widths from 75 to 190 mm. Grip any work length.***

La caratteristica (**BREVETTATA**) che meglio contraddistingue questa serie di morse consiste nella possibilità di **trasformare ogni morsa singola** (cioè adibita al serraggio di un singolo pezzo) **in una morsa autocentrante** con bloccaggio concentrico dall'esterno all'interno e viceversa **e in morsa doppia** tramite la semplice sostituzione delle ganasce sul corpo base universale.

Un semplice e rapido accorgimento permetterà quindi le seguenti alternative di serraggio: un singolo pezzo lungo, due pezzi più piccoli oppure operare in modo autocentrante. Tutto ciò ne suggerisce l'impiego in situazioni produttive caratterizzate da lotti di pezzi estremamente diversi fra loro riducendo tempi di set-up e garantendo un'accurata ripetibilità di posizionamento e quindi di precisione migliorando l'efficienza globale del sistema produttivo.

The feature (**PATENTED**) which identifies this line of vises consists in the possibility to **trasform each single vise** (1 piece clamping) **in a self-centering vise** with possibility to block from outside to inside and viceversa **and in a double vise** through the simple substitution of the jaws on the universal vise body base. A simple and quick adjustment will then allow following clamping alternatives: single long piece, 2 smaller pieces or to operate in the self-centering way.

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

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

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

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

**3 MORSE IN UNA  
VISES IN ONE**

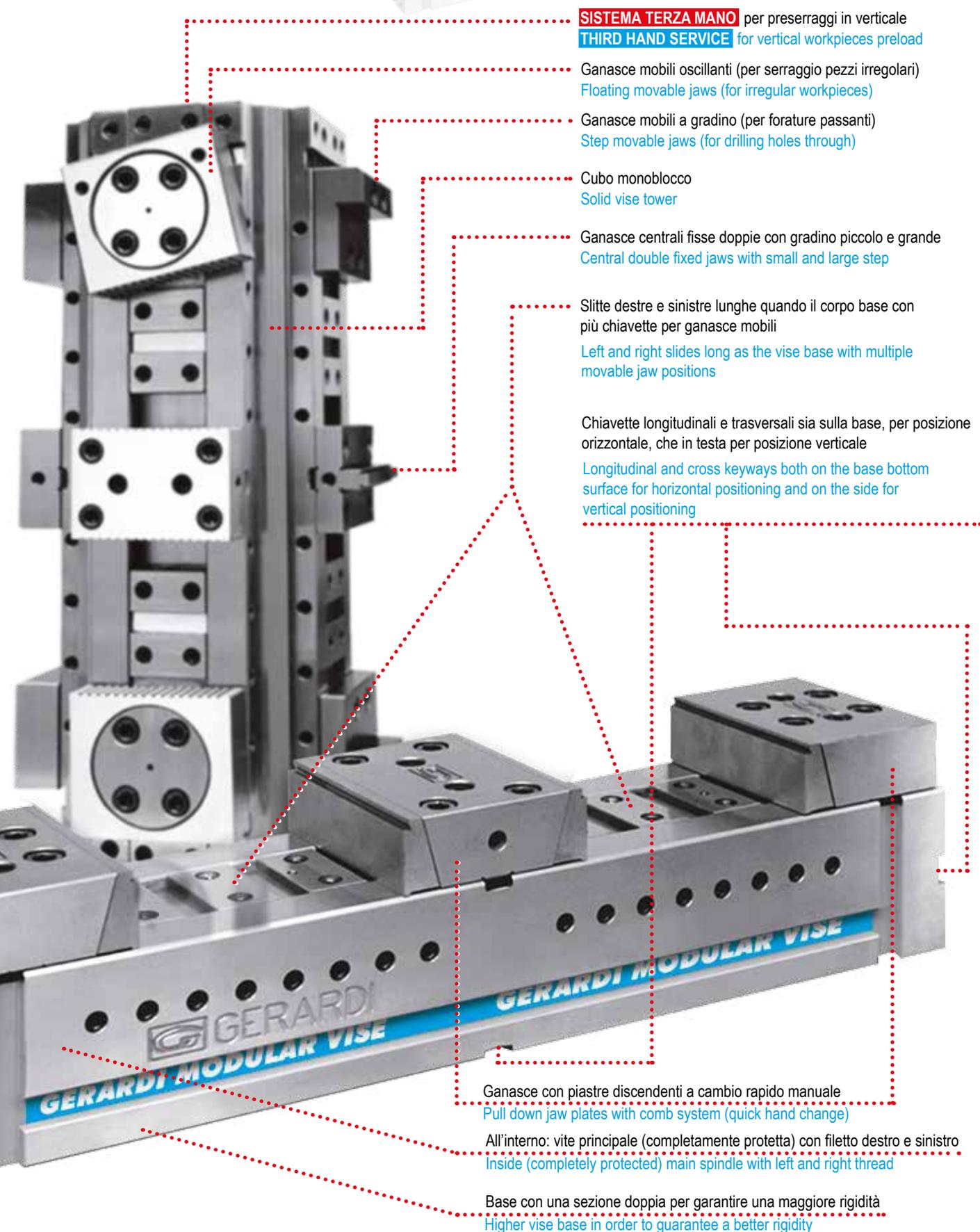
**FMS vises** have in **extreme versatility** their point of strenght:

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



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

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



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

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

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

Cubo monoblocco  
Solid vise tower

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

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

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

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

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

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

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

**3 MORSE IN UNA  
VISES IN ONE**



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

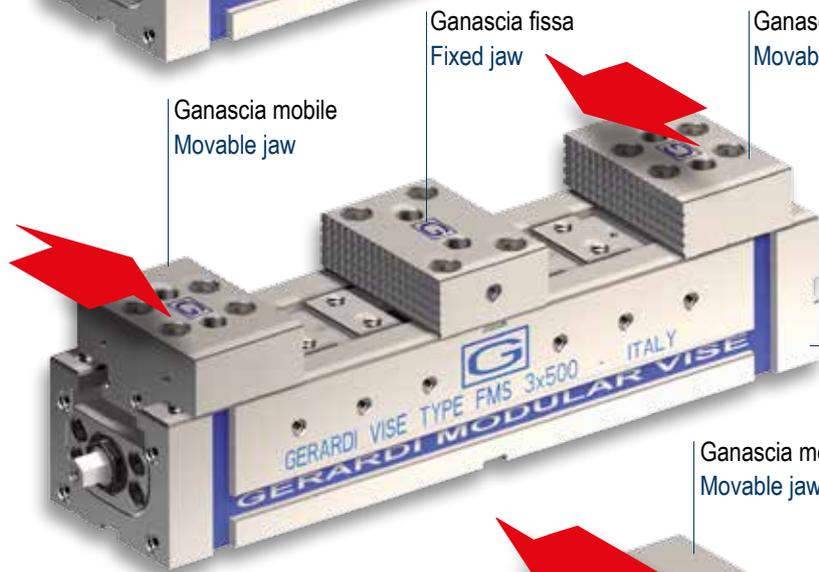
Ganascia fissa  
Fixed jaw



Ganascia mobile  
Movable jaw

**Morsa FMS per serraggi singoli  
FMS for single clamping**

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



Ganascia fissa  
Fixed jaw

Ganascia mobile  
Movable jaw

Ganascia mobile  
Movable jaw

**Morsa FMS per serraggi doppi  
FMS vise for double clamping**

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



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

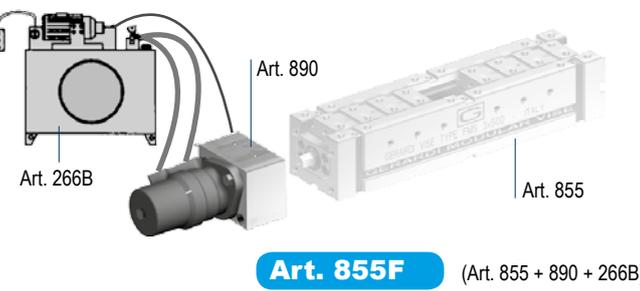
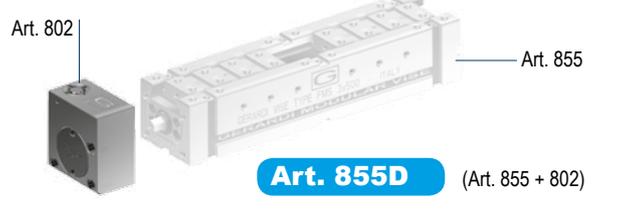
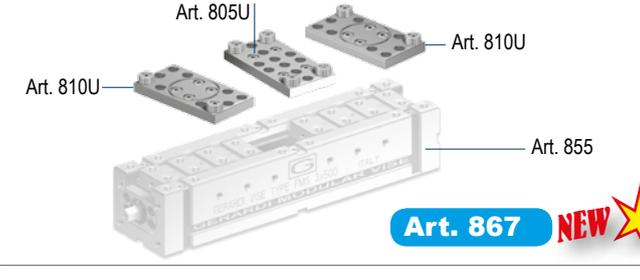
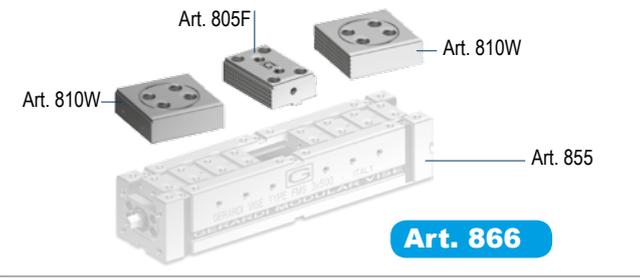
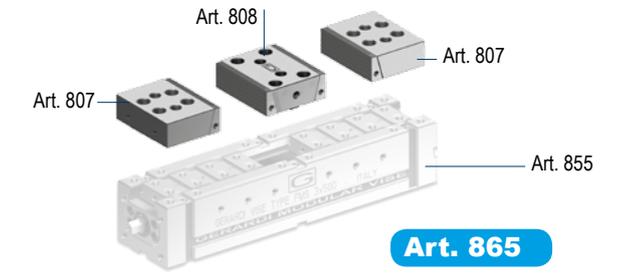
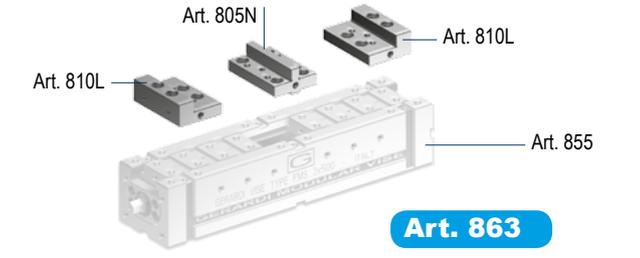
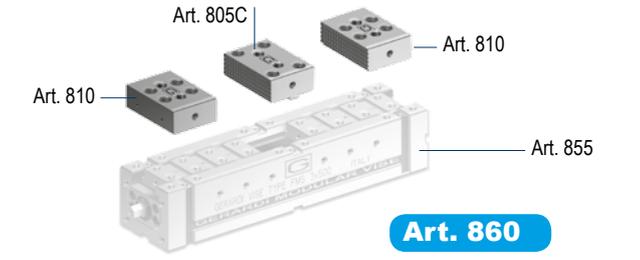
Ganascia mobile (Art. 810J)  
Movable jaw (Art. 810J)

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

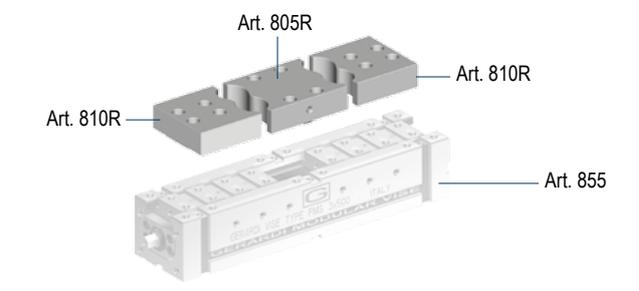
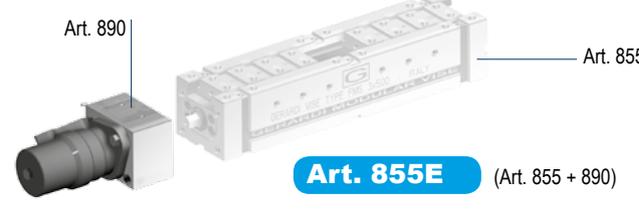
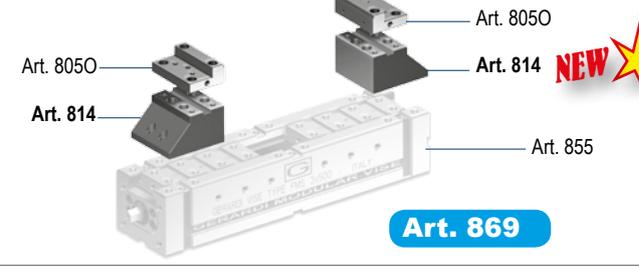
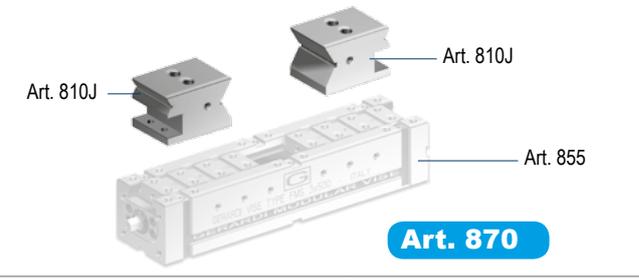
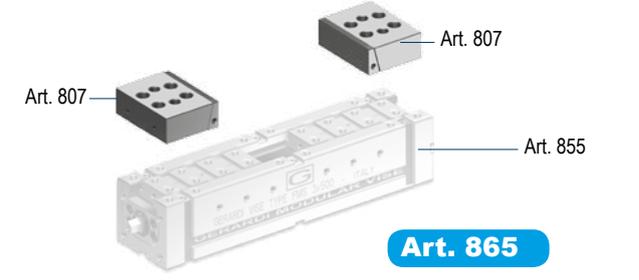
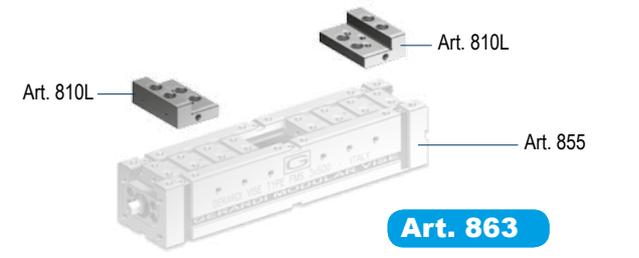
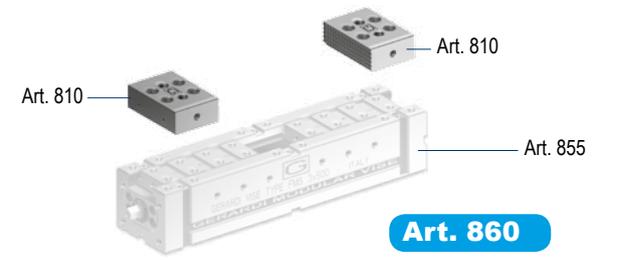
Corpo base / Base body **Art. 855**

5

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

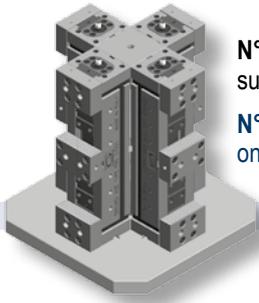


**VERSIONI AUTOCENTRANTI**  
**SELF-CENTERING TYPE**



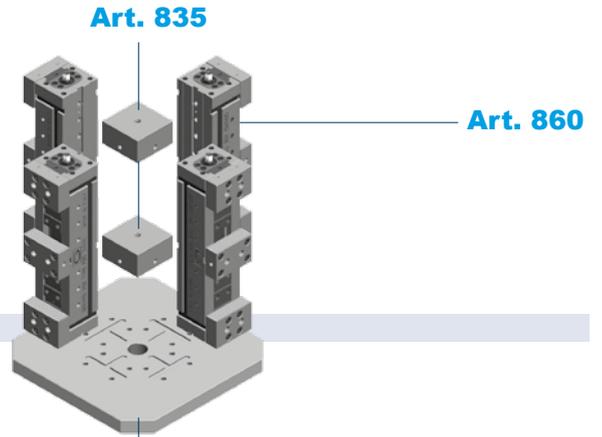
**MECCANISMO 3ª MANO INCLUSO**  
**THIRD HAND DEVICE INCLUDED**

**Art. 850P**  
 (Pag - Page 5.70)

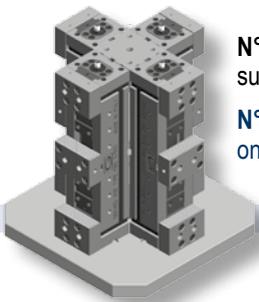


**N° 4 morse FMS** montate a croce  
 su piastra base (Art. 827) con distanziali (Art. 835)

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

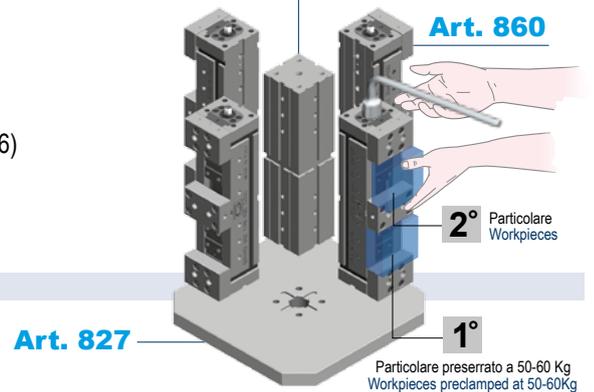


**Art. 835** **Art. 860**  
**Art. 827** **Art. 836**

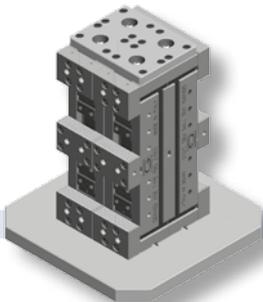


**N° 4 morse FMS** montate a croce  
 su piastra base (Art. 827) con supporto centrale (Art. 836)

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

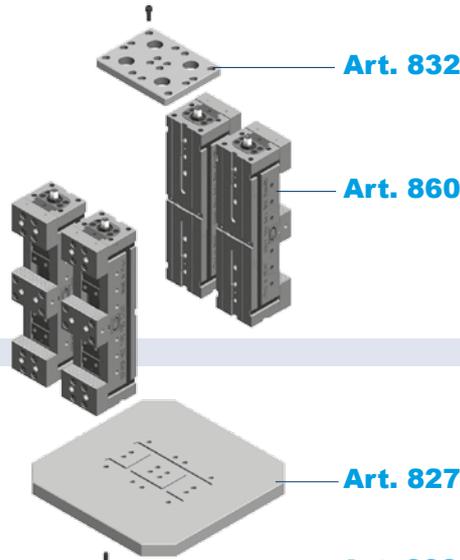


**Art. 827** **Art. 860**  
**1°** **2°** Particolare Workpieces  
 Particolare preserrato a 50-60 Kg  
 Workpieces preclamped at 50-60Kg



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

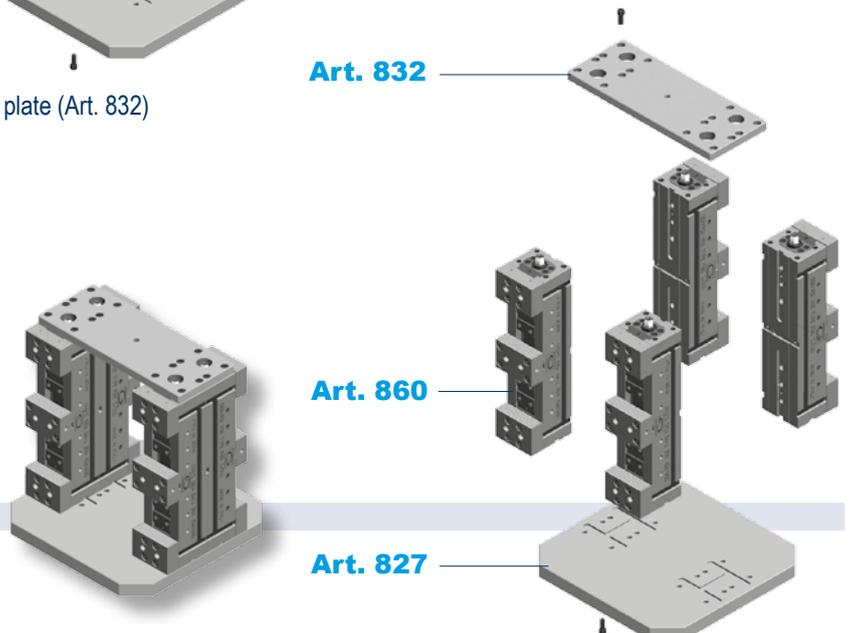
**N° 4 FMS vises** cross-mounted back-to-back,  
 side by side, on base plate (Art. 827) with connecting plate (Art. 832)



**Art. 832** **Art. 860**  
**Art. 827** **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)



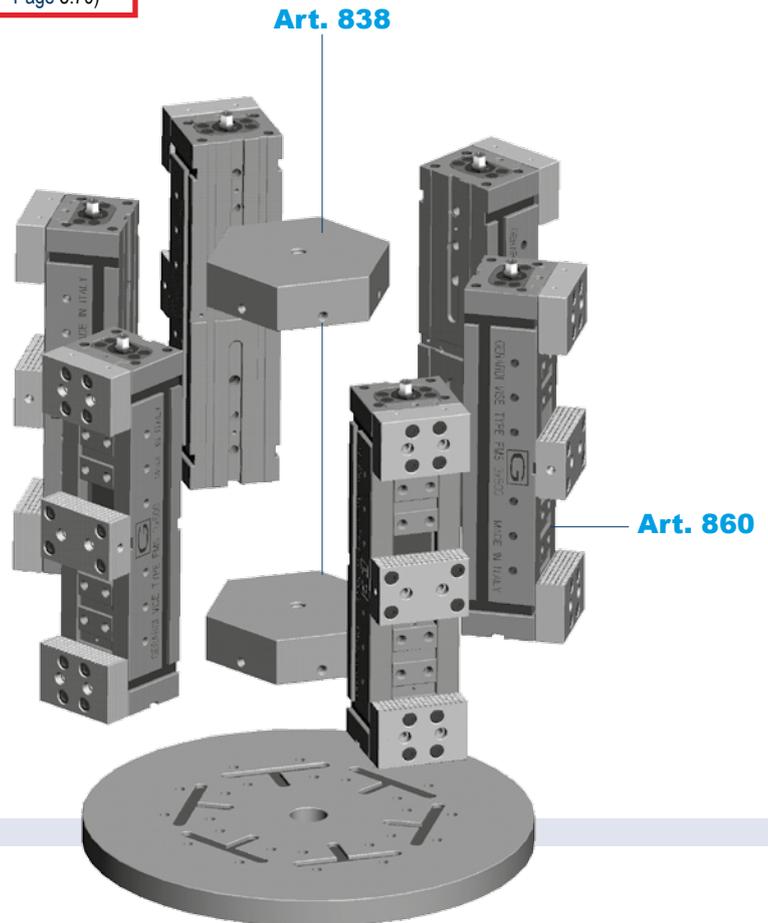
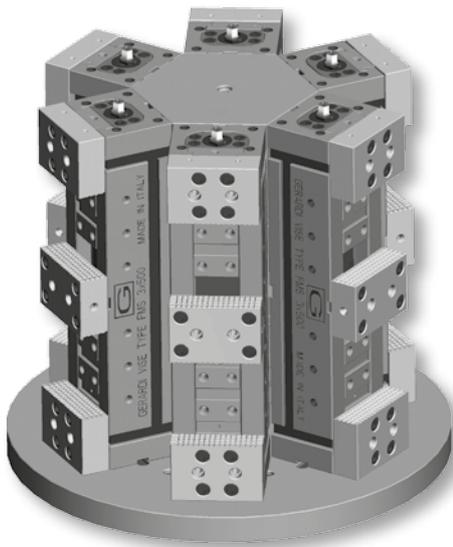
**Art. 860**  
**Art. 827**

**MECCANISMO 3ª MANO INCLUSO**

**THIRD HAND DEVICE INCLUDED**

**Art. 850P**

(Pag - Page 5.70)



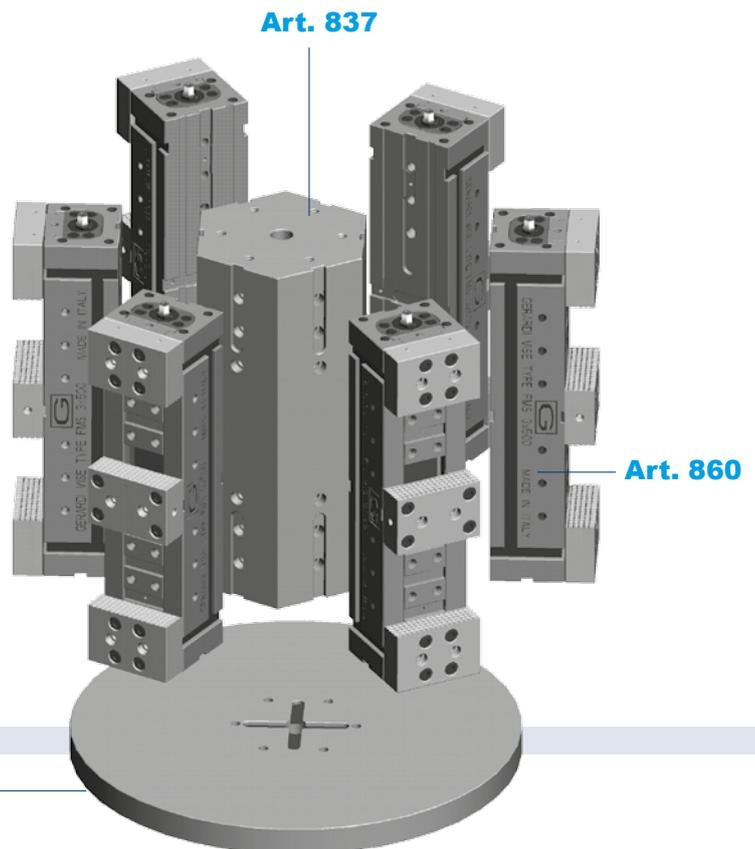
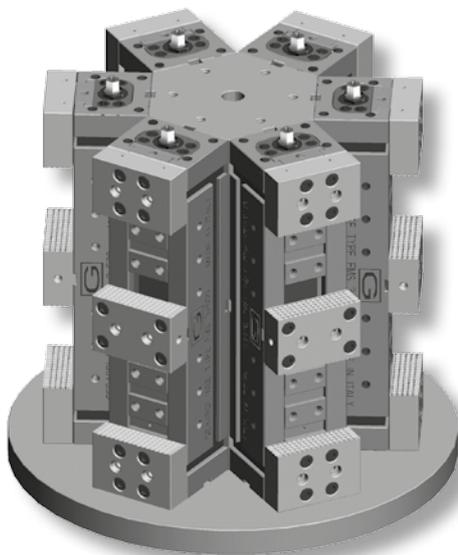
**N° 6 morse FMS** montate verticalmente  
su piastra base (Art. 827) con distanziali esagonali (Art. 838)

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

**Art. 838**

**Art. 860**

**Art. 827**



**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)

**Art. 837**

**Art. 860**

**Art. 827**

**3 MORSE IN UNA  
VISES IN ONE**



### Art. 855

Modulo base universale / Universal vise body module

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

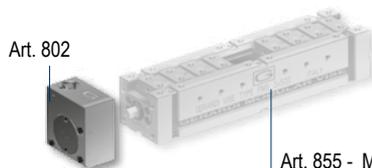
Cod. 5.85.51200 5.85.51300 5.85.52300 5.85.52400 5.85.52500 5.85.52600 5.85.53400 5.85.53500

**SPECIAL PRICE**

**SPECIAL PRICE**

### Art. 855D

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

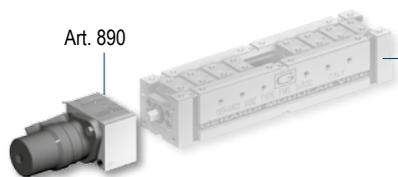


Cod. 5.85.5D120 5.85.5D130 5.85.5D230 5.85.5D240 5.85.5D250 5.85.5D260 5.85.5D340 5.85.5D350

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

### Art. 855E

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

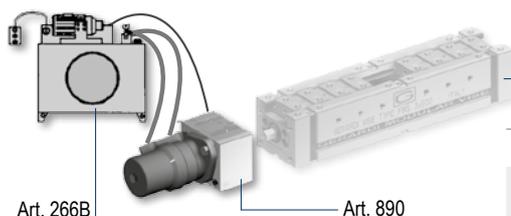


Art. 855 - Modulo base universale / Universal vise body module

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

### Art. 855F

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



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

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

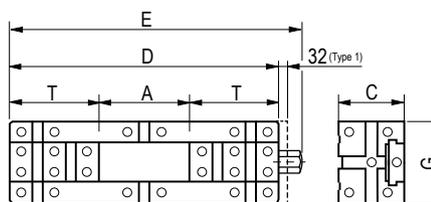
**Dotazione standard:**

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



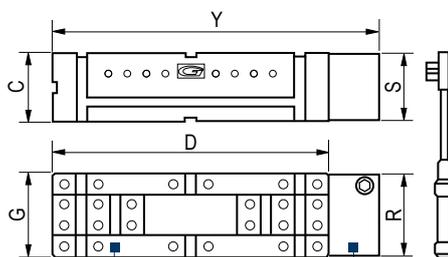
**Standard equipment:**

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



### Art. 855

Serraggio meccanico  
Universal vise body module



### Art. 855D

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

Art. 855

Art. 802

Art. 375

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



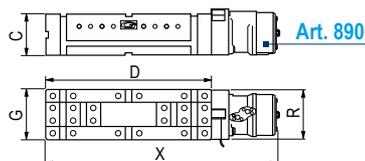
**Art. 855D**

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

5.85.5D360	5.85.5D370	5.85.5D380	5.85.5D450	5.85.5D460	5.85.5D470	5.85.5D480	5.85.5D560	5.85.5D570	5.85.5D580	5.85.5D680	5.85.5D690	5.85.5D610
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**Art. 855E**

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

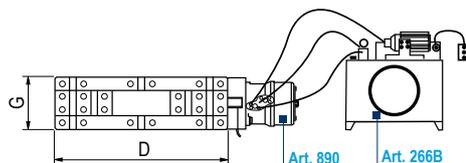


Meccanica con predisposizione elettroidraulica completa di motore, piastra, boccola e fincorsa  
Mechanical with prepared hydraulic connection complete with motor plate, bushing and proximity switch

5.85.5E360	5.85.5E370	5.85.5E380	5.85.5E450	5.85.5E460	5.85.5E470	5.85.5E480	5.85.5E560	5.85.5E570	5.85.5E580	5.85.5E680	5.85.5E690	5.85.5E610
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**Art. 855F**

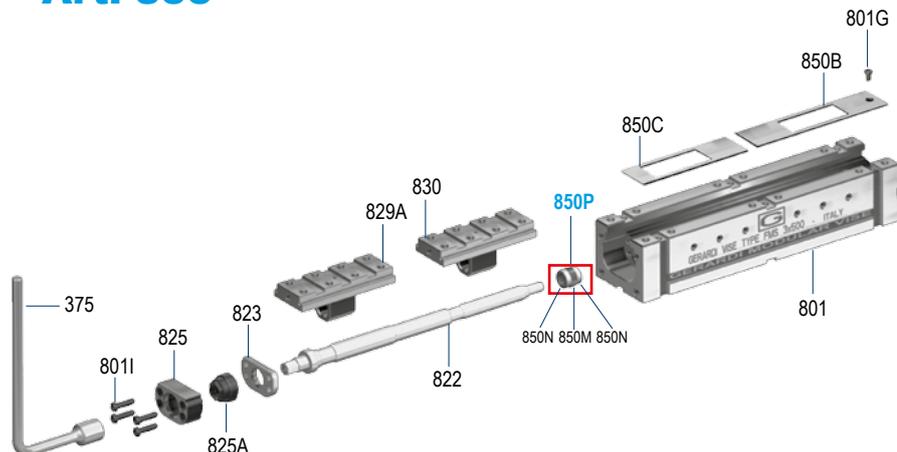
(Art. 855 + 890 + 266B)  
Morsa + motore idraulico + centralina  
Vise + hydraulic motor + power unit



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

5.85.5F360	5.85.5F370	5.85.5F380	5.85.5F450	5.85.5F460	5.85.5F470	5.85.5F480	5.85.5F560	5.85.5F570	5.85.5F580	5.85.5F680	5.85.5F690	5.85.5F610
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**Art. 855**



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



**3 MORSE IN UNA  
VISES IN ONE**



## Art. 860

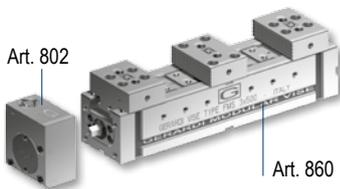
Art. 855 + Art. 805C + n. 2 Art. 810

Tipo (grandezza) morsa / Vise (type) size	kN	1		2				3	
		25 kN		25 kN				30 kN	
Apertura massima / Maximum opening	A	2 x 16	2 x 66	2 x 54	2 x 104	2 x 154	2 x 204	2 x 74	2 x 124
	B	25		30				40	
	C	70		90				100	
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	G	75		95				125	
	J	56		64				84	
	W	74		94				124	
	kg	9	12	22	29	35	42	44	49

Cod. 5.86.01200 5.86.01300 5.86.02300 5.86.02400 5.86.02500 5.86.02600 5.86.03400 5.86.03500

## Art. 860D

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



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

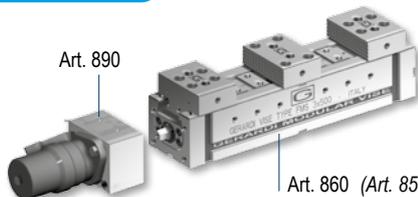
Cod. 5.86.0D120 5.86.0D130 5.86.0D230 5.86.0D240 5.86.0D250 5.86.0D260 5.86.0D340 5.86.0D350

**SPECIAL PRICE**

**SPECIAL PRICE**

## Art. 860E

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

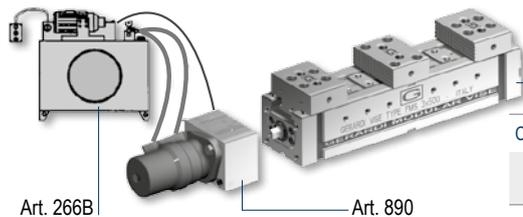


Art. 860 (Art. 855 + Art. 805C + n. 2 Art. 810)

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

## Art. 860F

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



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

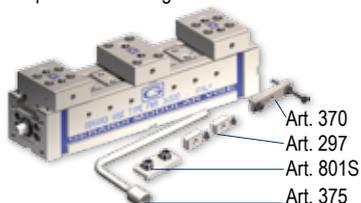
Cod. 5.86.0F120 5.86.0F130 5.86.0F230 5.86.0F240 5.86.0F250 5.86.0F260 5.86.0F340 5.86.0F350

## Art. 860

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

### Dotazione standard:

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

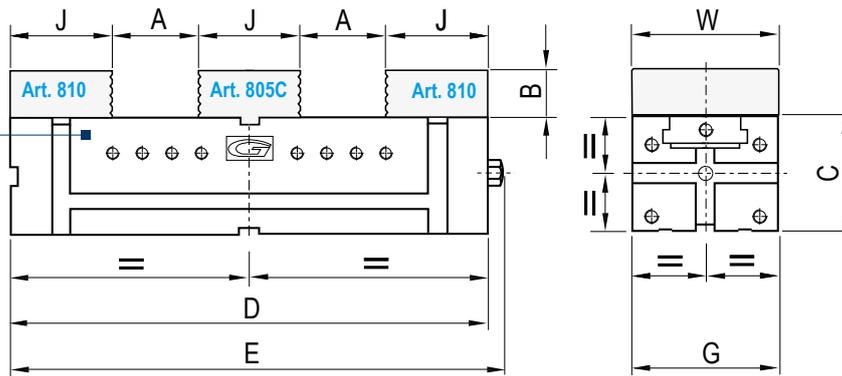


### Standard equipment:

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

### Art. 855

Corpo base  
Base body





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

**SPECIAL PRICE**

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

5.86.0D360	5.86.0D370	5.86.0D380	5.86.0D450	5.86.0D460	5.86.0D470	5.86.0D480	5.86.0D560	5.86.0D570	5.86.0D580	5.86.0D680	5.86.0D690	5.86.0D610
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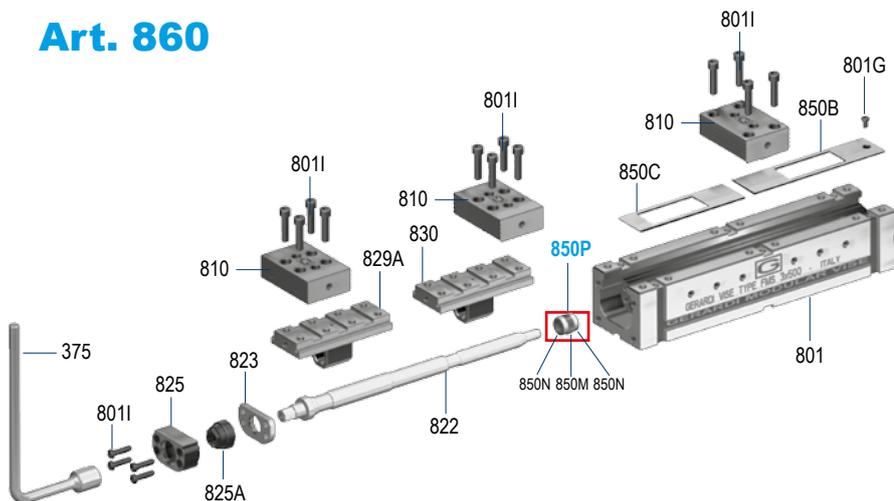
**Art. 860E** (Art. 860 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.0E360	5.86.0E370	5.86.0E380	5.86.0E450	5.86.0E460	5.86.0E470	5.86.0E480	5.86.0E560	5.86.0E570	5.86.0E580	5.86.0E680	5.86.0E690	5.86.0E610
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**Art. 860F**  
(Art. 860 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.0F360	5.86.0F370	5.86.0F380	5.86.0F450	5.86.0F460	5.86.0F470	5.86.0F480	5.86.0F560	5.86.0F570	5.86.0F580	5.86.0F680	5.86.0F690	5.86.0F610
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**Art. 860**



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

**3 MORSE IN UNA  
VISES IN ONE**



Tipo (grandezza) morsa / Vise (type) size	kN	1 25 kN		2 25 kN				3 30 kN	
Apertura massima / Maximum opening	A	2 x 60	2 x 110	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162	2 x 212
	B	25		30				40	
	C	70		90				100	
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	G	75		95				125	
	J	56		64				84	
	J1	22		24				30	
	J2	16		16				16	
	W	74		94				124	
	kg	8	11	20	27	33	40	40	45

### 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

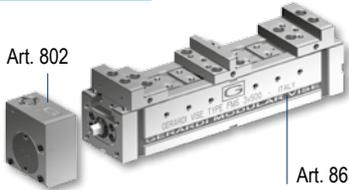
**SPECIAL PRICE**

**SPECIAL PRICE**

### Art. 863D

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

Art. 802



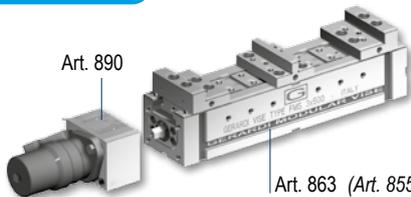
Art. 863 (Art. 855 + Art. 805N + n. 2 Art. 810L)

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

### Art. 863E

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

Art. 890

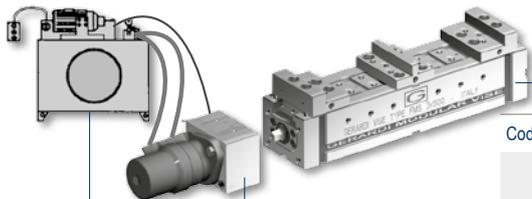


Art. 863 (Art. 855 + Art. 805N + n. 2 Art. 810L)

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

### Art. 863F

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



Art. 266B

Art. 890

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

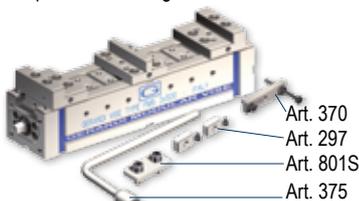
Cod. 5.86.3F120 5.86.3F130 5.86.3F230 5.86.3F240 5.86.3F250 5.86.3F260 5.86.3F340 5.86.3F350

## Art. 863

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

#### Dotazione standard:

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

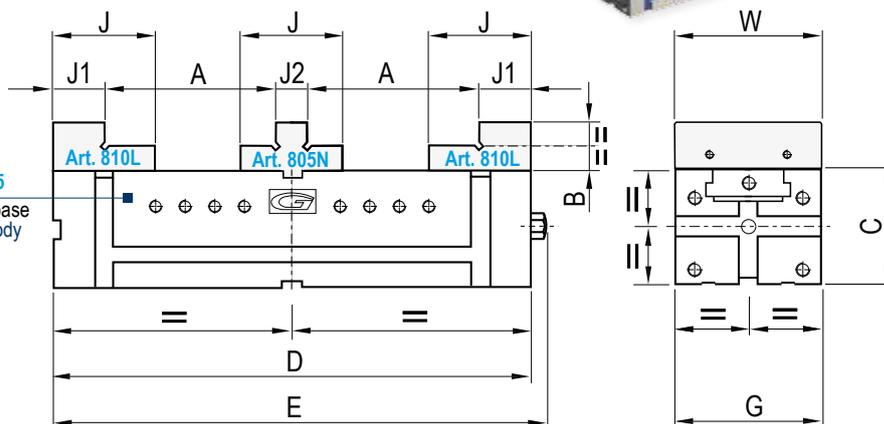


Art. 370  
Art. 297  
Art. 801S  
Art. 375

#### Standard equipment:

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

Art. 855  
Corpo base  
Base body



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



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

5.86.3D360	5.86.3D370	5.86.3D380	5.86.3D450	5.86.3D460	5.86.3D470	5.86.3D480	5.86.3D560	5.86.3D570	5.86.3D580	5.86.3D680	5.86.3D690	5.86.3D610
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**Art. 863E** (Art. 863 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.3E360	5.86.3E370	5.86.3E380	5.86.3E450	5.86.3E460	5.86.3E470	5.86.3E480	5.86.3E560	5.86.3E570	5.86.3E580	5.86.3E680	5.86.3E690	5.86.3E610
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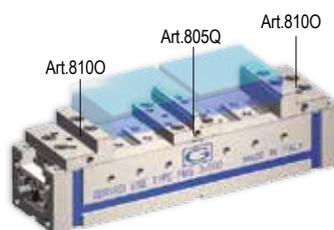
**Art. 863F**  
(Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.3F360	5.86.3F370	5.86.3F380	5.86.3F450	5.86.3F460	5.86.3F470	5.86.3F480	5.86.3F560	5.86.3F570	5.86.3F580	5.86.3F680	5.86.3F690	5.86.3F610
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Esempi applicativi - Application examples:

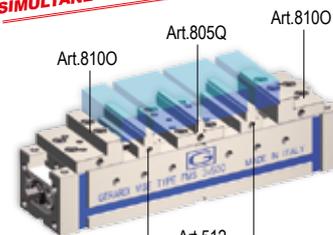


1 ganaschia fissa centrale Art.805F  
+ 2 ganasche mobili lisce Art.8100 con gradino piccolo (3x5) e grande  
1 fixed central jaw Art.805F + 2 smooth movable jaws Art.8100  
with small (3x5) and big step



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

**SERRAGGIO CONTEMPORANEO 4 PEZZI**  
**SIMULTANEOUS 4 WORKPIECES CLAMPING**



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



**3 MORSE IN UNA VISES IN ONE**



Tipo (grandezza) morsa / Vise (type) size	kN	1		2			3	
		25 kN		25 kN			30 kN	
Apertura massima / Maximum opening	A	2 x 52	2 x 30	2 x 80	2 x 130	2 x 180	2 x 46	2 x 96
	B	25		30			40	
	C	70		90			100	
	D	232	300	400	500	600	400	500
	E	252	320	420	520	620	425	525
	G	75		95			125	
	J	63		76			98	
	J1	70		88			111	
	W	74		94			124	
	kg	12	23	30	36	43	46	51

### Art. 865

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

Cod.	5.86.51300	5.86.52300	5.86.52400	5.86.52500	5.86.52600	5.86.53400	5.86.53500
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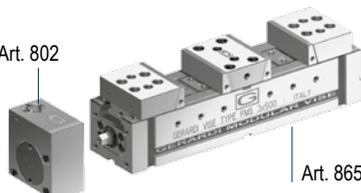
**SPECIAL PRICE**

**SPECIAL PRICE**

### Art. 865D

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

Art. 802



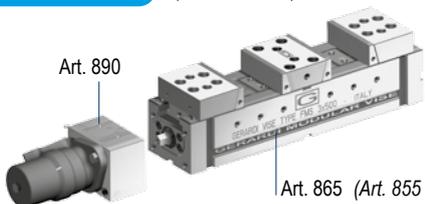
Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

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

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

Art. 890

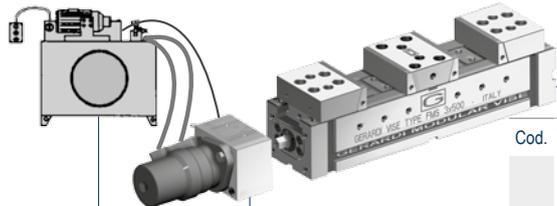


Art. 865 (Art. 855 + Art. 808 + n. 2 Art. 807)

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

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



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

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

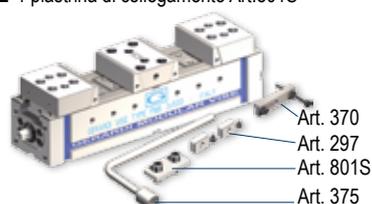
Morsa doppia, singola, autocentrante con ganasce a cambio rapido discendente (**Sistema a pettine**)  
Double, single, self-centering vise with quick change pull down jaws (**Comb system**)

#### Dotazione standard:

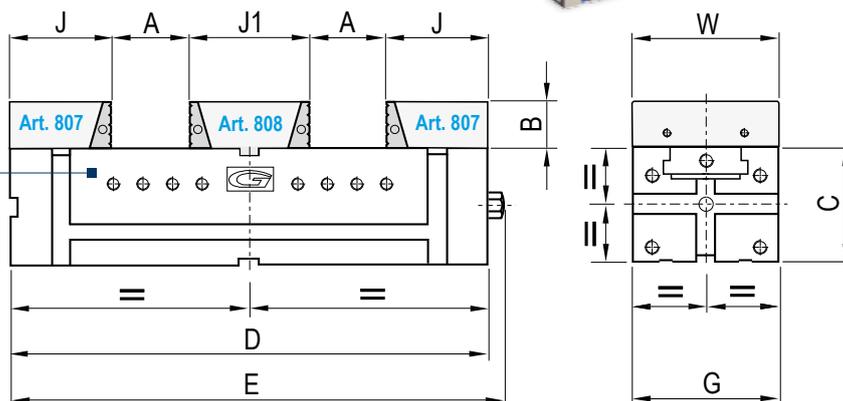
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art.801S

#### Standard equipment:

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



Art. 855  
Corpo base  
Base body





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 146	2 x 196	2 x 246	2 x 65	2 x 115	2 x 165	2 x 215	2 x 90	2 x 140	2 x 190	2 x 216	2 x 256	2 x 316
40		50		60		60		60		60		
100		120		140		140		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		170		170		190		
98		117		132		132		132		119		
111		136		155		155		155		130		
124		144		169		169		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

**SPECIAL PRICE**

**Art. 865D**

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

5.86.5D360	5.86.5D370	5.86.5D380	5.86.5D450	5.86.5D460	5.86.5D470	5.86.5D480	5.86.5D560	5.86.5D570	5.86.5D580	5.86.5D680	5.86.5D690	5.86.5D610
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**Art. 865E**

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

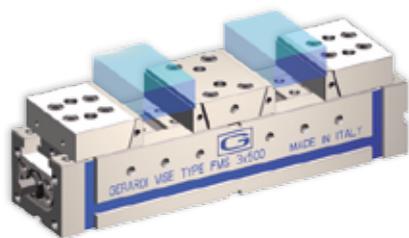
5.86.5E360	5.86.5E370	5.86.5E380	5.86.5E450	5.86.5E460	5.86.5E470	5.86.5E480	5.86.5E560	5.86.5E570	5.86.5E580	5.86.5E680	5.86.5E690	5.86.5E610
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**Art. 865F**

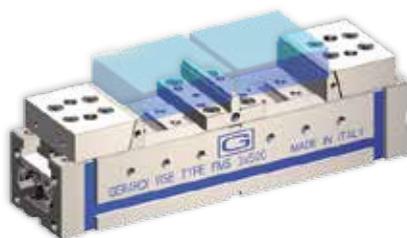
(Art. 865 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.5F360	5.86.5F370	5.86.5F380	5.86.5F450	5.86.5F460	5.86.5F470	5.86.5F480	5.86.5F560	5.86.5F570	5.86.5F580	5.86.5F680	5.86.5F690	5.86.5F610
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**Esempi applicativi - Application examples:**



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



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

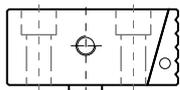


2 piastre ganasce Art.230C + 2 Art.230F  
2 jaw plates Art.230C + 2 Art.230F



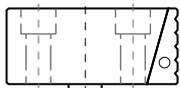
Tipo (grandezza) morsa / Vise (type) size

1	2	3	4	5	6
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**Art. 806**


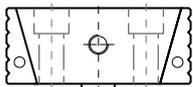
Cod.	5.80.61000	5.80.62000	5.80.63000	5.80.64000	5.80.65000	5.80.66000

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

**Art. 807**


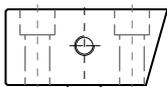
Cod.	5.80.71000	5.80.72000	5.80.73000	5.80.74000	5.80.75000	5.80.76000

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

**Art. 808**


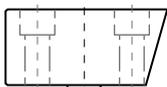
Cod.	5.80.81000	5.80.82000	5.80.83000	5.80.84000	5.80.85000	5.80.86000

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

**Art. 806A**


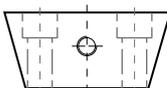
Cod.	5.80.6A100	5.80.6A200	5.80.6A300	5.80.6A400	5.80.6A500	5.80.6A600

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

**Art. 807A**


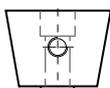
Cod.	5.80.7A100	5.80.7A200	5.80.7A300	5.80.7A400	5.80.7A500	5.80.7A600

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

**Art. 808A**


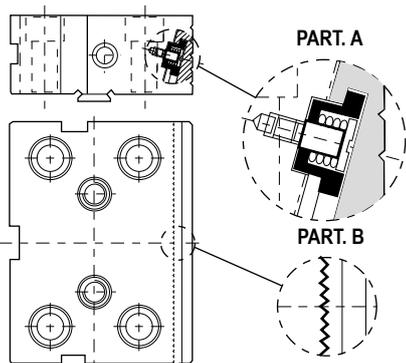
Cod.	5.80.8A100	5.80.8A200	5.80.8A300	5.80.8A400	5.80.8A500	5.80.8A600

Corpo ganaschia fissa doppia per piastre 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 ganaschia 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.

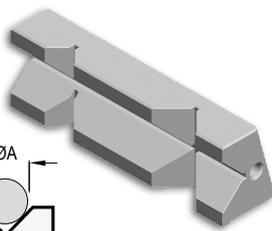
The quickness of the jaw plates replacement is allowed by the new system of pin with spring (**PART. A**), while the prismatic grooves (**PART. B**), made with shaped grind wheel on the surface plates, allow a perfect repositioning.

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

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

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

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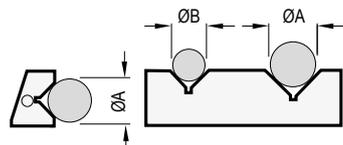
**Art. 806F**


Piastra ganaschia intercambiabile prismatica a pettine

Per serraggi autocentranti è necessario ordinare n. 2 piastrine prismatiche

Prismatic comb interchangeable jaw plate

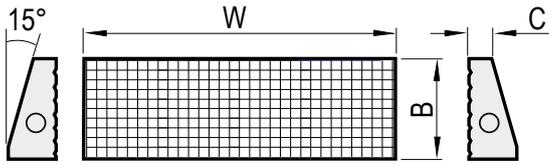
For self-centering clamping is necessary to order n. 2 prismatic jaws



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



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



**Art. 806B**

Piastra ganasce 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
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**Art. 806C**

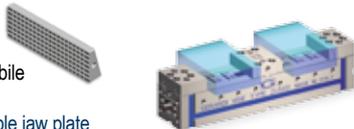
Piastra ganasce intercambiabile liscia a pettine  
Smooth comb interchangeable jaw plate



Cod.	5.80.6C100	5.80.6C200	5.80.6C300	5.80.6C400	5.80.6C500	5.80.6C600
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**Art. 806D**

Piastra ganasce 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
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**Art. 806E** \*

Piastra ganasce 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
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**Art. 806F**

Piastra ganasce intercambiabile prismatica a pettine  
Prismatic comb interchangeable jaw plate



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

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

**Art. 806G**

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



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

**Art. 806H**

Piastra ganasce 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
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**Art. 806M**

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

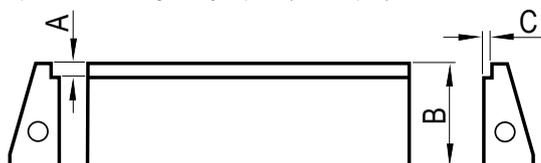


<b>Solo 2 per morsa !! Just 2 pc each vise !!</b>						
Cod.	5.80.6M100	5.80.6M200	5.80.6M300	5.80.6M400	5.80.6M500	5.80.6M600

**\* KIT RISPARMIO SAVING KIT**

**Art. 806E**

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



	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
A	8	13	8	13	8	13	8	13	8	13
	-	-	-	18	18	18	18	18	18	18
	-	-	-	-	23	23	23	23	23	23
	-	-	-	-	28	28	28	28	28	28
B	25	30	40	50	60	60				
C	3	3	3	3	3	3				
Cod.	5.80.6E112	5.80.6E212	5.80.6E312	5.80.6E412	5.80.6E512	5.80.6E612				

**3 MORSE IN UNA  
VISES IN ONE**



Tipo (grandezza) morsa / Vise (type) size		1		2			3		
kN		25 kN		25 kN			30 kN		
Apertura massima / Maximum opening		A	2 x 50	2 x 34	2 x 84	2 x 134	2 x 184	2 x 52	2 x 102
		B	25	30			40		
		C	70	90			100		
		D	232	300	400	500	600	400	500
		E	252	320	420	520	620	425	525
		G	75	95			125		
		J	72	84			106		
		J1	56	64			84		
		W	74	94			124		
kg			12	23	30	36	43	46	51

### Art. 866

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

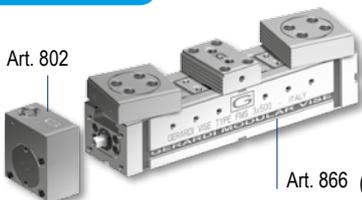
Cod.	5.86.61300	5.86.62300	5.86.62400	5.86.62500	5.86.62600	5.86.63400	5.86.63500
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SPECIAL PRICE

SPECIAL PRICE

### Art. 866D

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

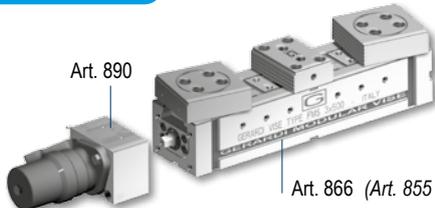


Cod.	5.86.6D130	5.86.6D230	5.86.6D240	5.86.6D250	5.86.6D260	5.86.6D340	5.86.6D350
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Art. 866 (Art. 855 + Art. 805G + n. 2 Art. 810X)

### Art. 866E

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

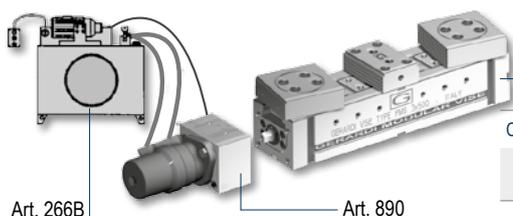


Cod.	5.86.6E130	5.86.6E230	5.86.6E240	5.86.6E250	5.86.6E260	5.86.6E340	5.86.6E350
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Art. 866 (Art. 855 + Art. 805G + n. 2 Art. 810X)

### Art. 866F

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



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

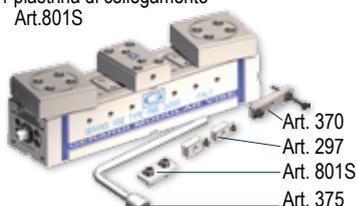
Cod.	5.86.6F130	5.86.6F230	5.86.6F240	5.86.6F250	5.86.6F260	5.86.6F340	5.86.6F350
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## Art. 866

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

#### Dotazione standard:

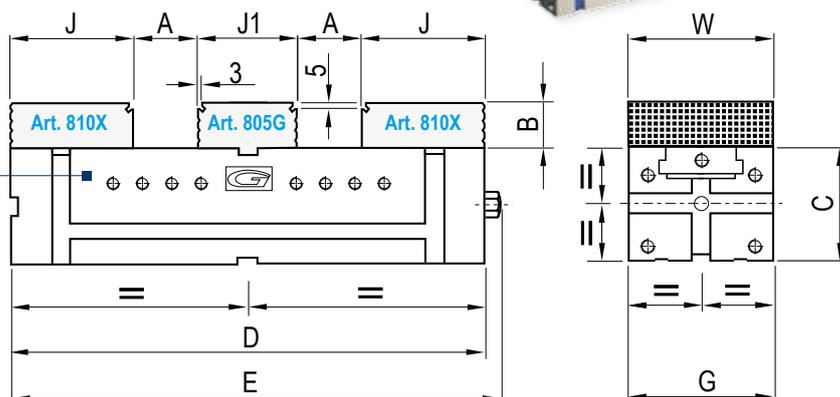
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art.801S



#### Standard equipment:

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

Art. 855  
Corpo base  
Base body



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



**Art. 866D**

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

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

**Art. 866E**

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

5.86.6E360	5.86.6E370	5.86.6E380	5.86.6E450	5.86.6E460	5.86.6E470	5.86.6E480	5.86.6E560	5.86.6E570	5.86.6E580	5.86.6E680	5.86.6E690	5.86.6E610
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**Art. 866F**

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

5.86.6F360	5.86.6F370	5.86.6F380	5.86.6F450	5.86.6F460	5.86.6F470	5.86.6F480	5.86.6F560	5.86.6F570	5.86.6F580	5.86.6F680	5.86.6F690	5.86.6F610
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**Esempi applicativi - Application examples:**



Serraggio di particolari grezzi - Rough workpieces clamping



Serraggio particolari grezzi - Rough workpieces clamping

**3 MORSE IN UNA VISES IN ONE**

**Art. 810W**

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

**Art. 810Z**

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

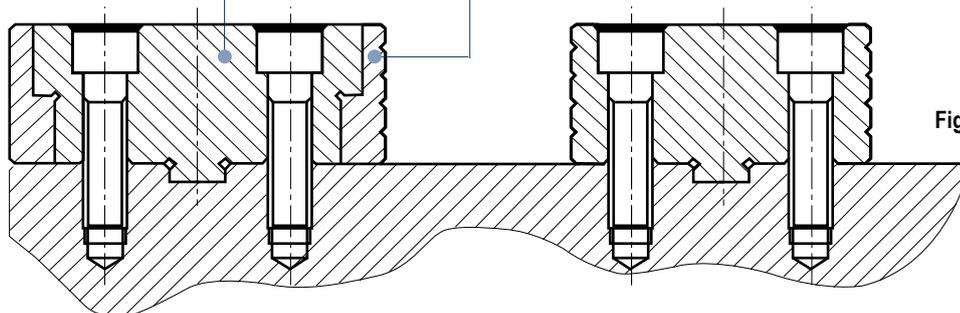


Fig. 1 Pic. 1

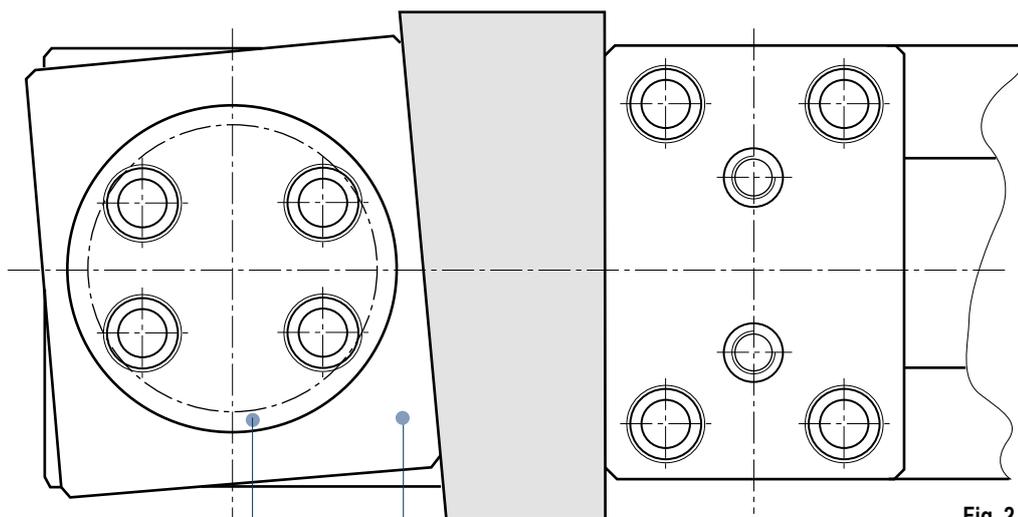


Fig. 2 Pic. 2

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

**Art. 810Z**

**Art. 810W**

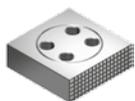
Ganascia mobile oscillante zigrinata da un lato, con albero a gradino ( Art. 810Z)  
 Floating movable jaw one side serrated with step block pin (Art. 810Z)

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

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

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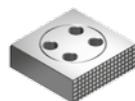
**Art. 810W**



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

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

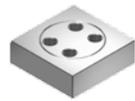
**Art. 810X**



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

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

**Art. 810Y**



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

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

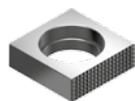
**Art. 810Z**



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

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

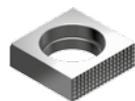
**Art. 810WA**



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

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

**Art. 810XA**



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

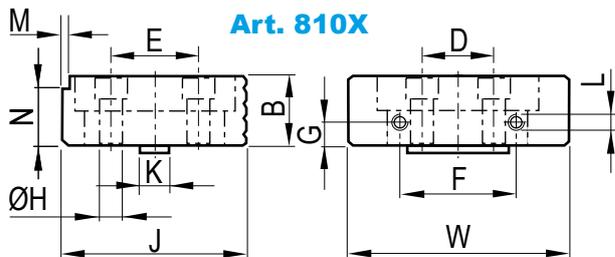
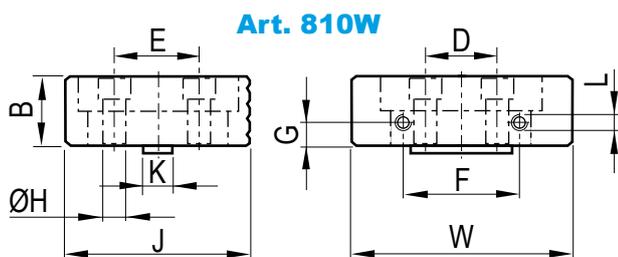
Corpo ganascia mobile oscillante con gradino 3x5 zigrinata da un lato / Body floating movable jaw with 3x5 step one side serrated

**Art. 810YA**



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

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



Tipo (grandezza) morsa / Vise (type) size

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

**3 MORSE IN UNA VISES IN ONE**



Vedi esempi applicativi a pag. 5.55

See application examples on page 5.55

Tipo (grandezza) morsa / Vise (type) size	kN	1			2			3	
		25 kN			25 kN			30 kN	
A1	91	91	141	191	241	141	191		
B	20			20			20		
C	70			90			100		
D	232	300	400	500	600	400	500		
E	252	320	420	520	620	425	525		
G	75			95			125		
J1	50			50			70		
J2	25			25			35		
Ø	30 (H = 16)			30 (H = 16)			30 (H = 16)		
W	100			120			170		
kg	11	20	27	33	40	40	45		

### Art. 867

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

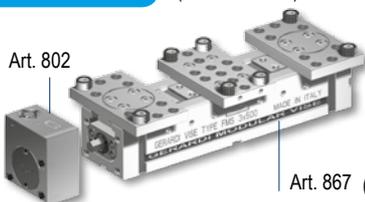
Cod.	5.86.71300	5.86.72300	5.86.72400	5.86.72500	5.86.72600	5.86.73400	5.86.73500
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**SPECIAL PRICE**

**SPECIAL PRICE**

### Art. 867D

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

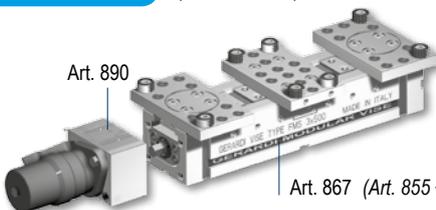


Cod.	5.86.7D130	5.86.7D230	5.86.7D240	5.86.7D250	5.86.7D260	5.86.7D340	5.86.7D350
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Art. 867 (Art. 855 + Art. 805U + n. 2 Art. 810U)

### Art. 867E

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

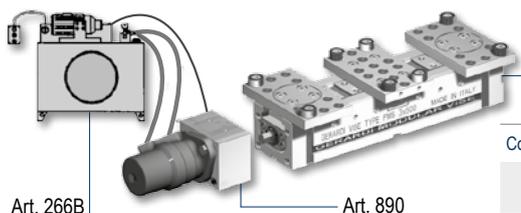


Cod.	5.86.7E130	5.86.7E230	5.86.7E240	5.86.7E250	5.86.7E260	5.86.7E340	5.86.7E350
------	------------	------------	------------	------------	------------	------------	------------

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

### Art. 867F

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



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

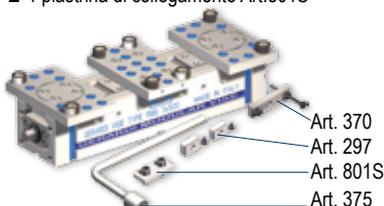
Cod.	5.86.7F130	5.86.7F230	5.86.7F240	5.86.7F250	5.86.7F260	5.86.7F340	5.86.7F350
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## Art. 867

Morsa doppia, singola, auto-centrante con ganasche oscillanti regolabili / Double, single, self-centering vise with floating adjustable jaws

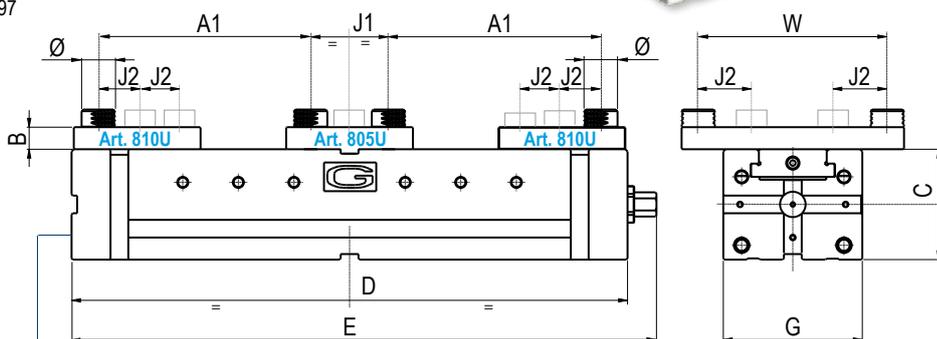
#### Dotazione standard:

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



#### Standard equipment:

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



Art. 855 Corpo base / Base body

3 30 kN			4 30 kN				5 32 kN			6 32 kN										
241	291	341	191	241	291	341	231	281	331	331	381	431								
20		30		35		35		100		160										
600	700	800	500	600	700	800	600	700	800	800	900	1000								
625	725	825	525	625	725	825	625	725	825	825	925	1025								
125		145		170		190		70		100										
35		40		40		40		30 (H = 16)		40 (H = 30)										
170		220		250		300		50	55	60	68	76	85	93	124	134	144	200	220	240

5.86.73600 5.86.73700 5.86.73800 5.86.74500 5.86.74600 5.86.74700 5.86.74800 5.86.75600 5.86.75700 5.86.75800 5.86.76800 5.86.76900 5.86.76100

**SPECIAL PRICE**

**Art. 867D**

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

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

**Art. 867E**

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

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

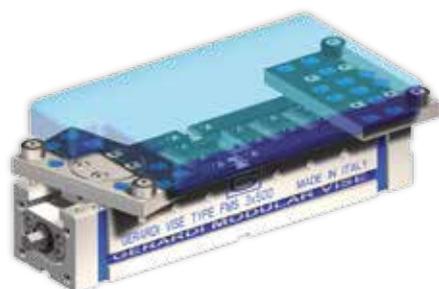
**Art. 867F**

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

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

**Esempi applicativi - Application examples:**

Vedi pag. 5.55 - See page 5.55



4 inserti - 4 inserts



6 inserti - 6 inserts



8 inserti - 8 inserts

**3 MORSE IN UNA  
VISES IN ONE**

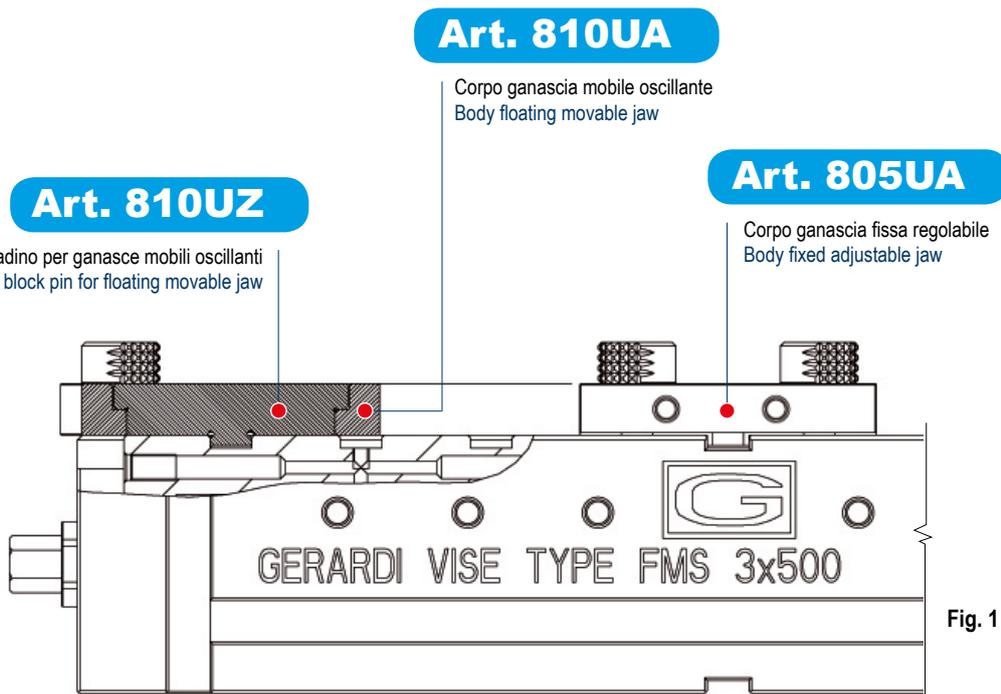


Fig. 1 Pic. 1

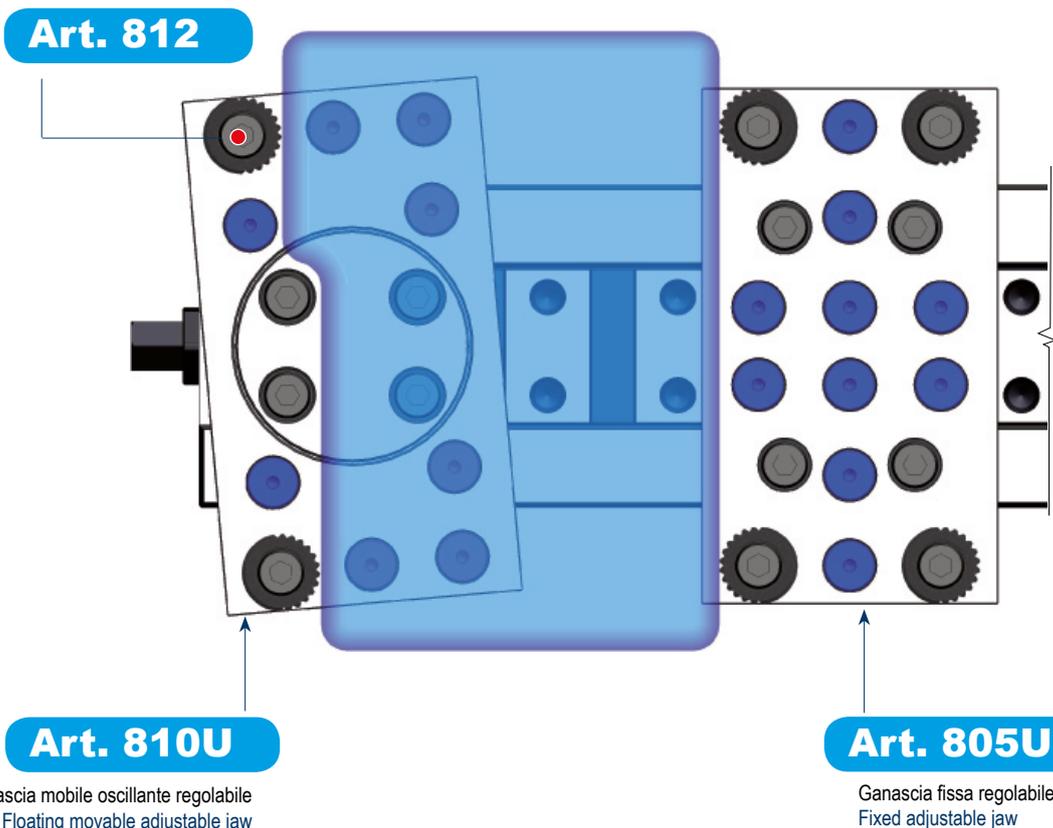
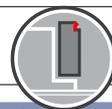


Fig. 2 Pic. 2

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

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

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



**3 MORSE IN UNA VISES IN ONE**

Tipo (grandezza) morsa / Vise (type) size

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

**Art. 868**

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

Cod.	5.87.01200	5.86.81300	5.86.82300	5.86.82400	5.86.82500	5.86.82600	5.86.83400	5.86.83500
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**SPECIAL PRICE**
**SPECIAL PRICE**
**Art. 868D**

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

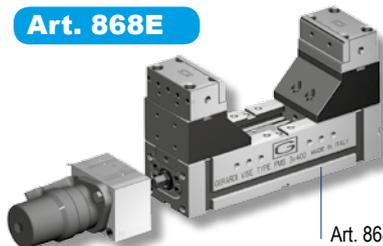


Cod.	5.86.8D120	5.86.8D130	5.86.8D230	5.86.8D240	5.86.8D250	5.86.8D260	5.86.8D340	5.86.8D350
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Art. 868 (Art. 855 + n. 2 Art. 814 + n. 2 Art. 805V)

**Art. 868E**

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

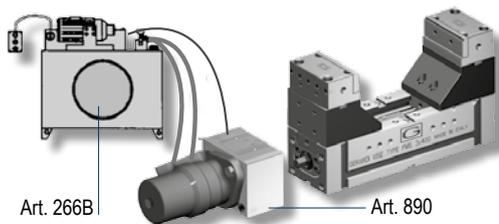


Cod.	5.86.8E120	5.86.8E130	5.86.8E230	5.86.8E240	5.86.8E250	5.86.8E260	5.86.8E340	5.86.8E350
------	------------	------------	------------	------------	------------	------------	------------	------------

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

**Art. 868F**

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



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

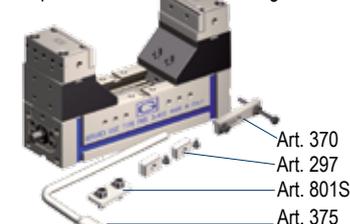
Cod.	5.86.8F120	5.86.8F130	5.86.8F230	5.86.8F240	5.86.8F250	5.86.8F260	5.86.8F340	5.86.8F350
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**Art. 868**

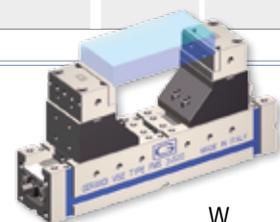
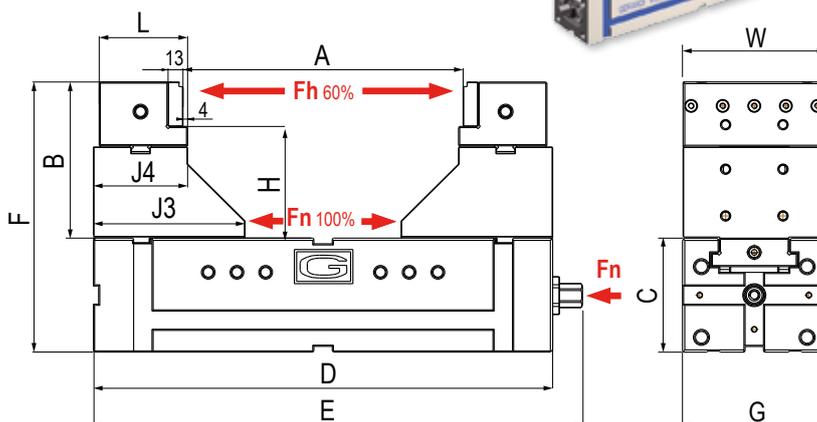
Morsa autocentrante (opzione doppia o singola) con ganasce alte / Self-centering vise (double or single option) with high jaws

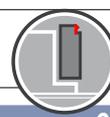
**Dotazione standard:**

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


**Standard equipment:**

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





3 30 kN			4 30 kN				5 32 kN			6 32 kN		
444	544	644	316	416	516	616	396	496	596	596	696	796
	137			171				186			246	
	100			120				140			160	
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
	237			291				326			406	
	125			145				170			190	
	98			128				138			180	
	77,5			96				101,5			101,5	
	132			154				169			189	
	82			96				106			106	
	57			64				66			86	
	124			144				169			189	
-			-				-			-		

5.86.83600	5.86.83700	5.86.83800	5.86.84500	5.86.84600	5.86.84700	5.86.84800	5.86.85600	5.86.85700	5.86.85800	5.86.86800	5.86.86900	5.86.86100
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**Art. 868D** (Art. 868 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

5.86.8D360	5.86.8D370	5.86.8D380	5.86.8D450	5.86.8D460	5.86.8D470	5.86.8D480	5.86.8D560	5.86.8D570	5.86.8D580	5.86.8D680	5.86.8D690	5.86.8D610
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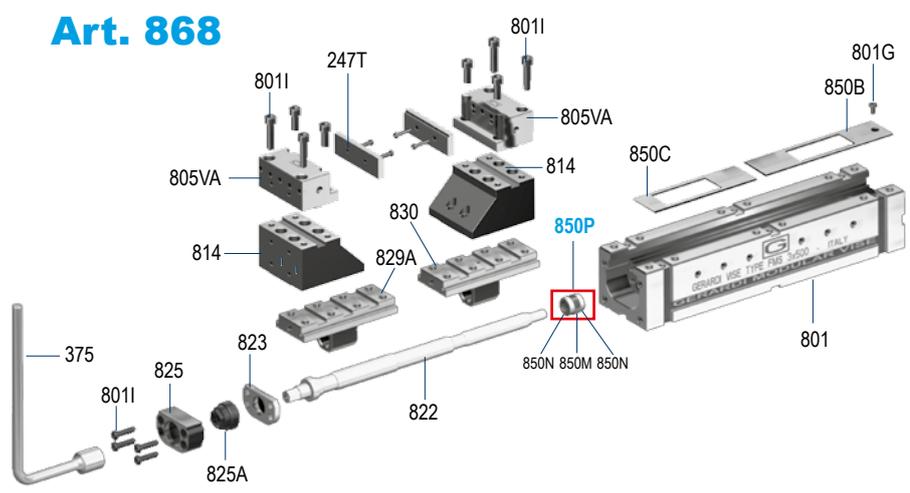
**Art. 868E** (Art. 868 + 890) Morsa + motore idraulico / Vise + hydraulic motor

5.86.8E360	5.86.8E370	5.86.8E380	5.86.8E450	5.86.8E460	5.86.8E470	5.86.8E480	5.86.8E560	5.86.8E570	5.86.8E580	5.86.8E680	5.86.8E690	5.86.8E610
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**Art. 868F**  
 (Art. 868 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

5.86.8F360	5.86.8F370	5.86.8F380	5.86.8F450	5.86.8F460	5.86.8F470	5.86.8F480	5.86.8F560	5.86.8F570	5.86.8F580	5.86.8F680	5.86.8F690	5.86.8F610
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**Art. 868**

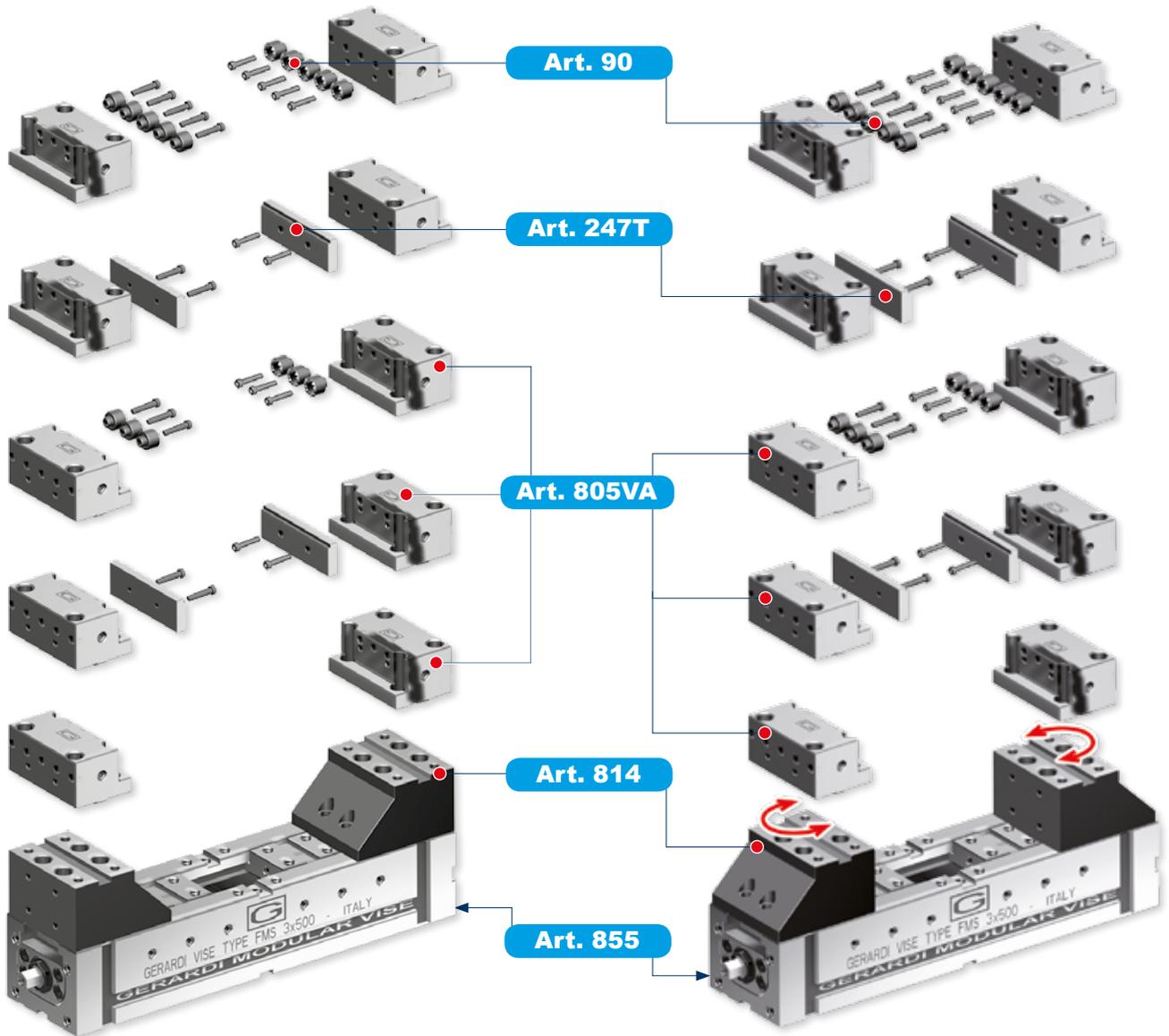


Art.	Pag.	Art.	Pag.
375	4.27	850B	5.54
801	5.40	850C	5.54
801G	5.54	850M	5.54
801I	5.54	850N	5.54
810J	5.51	850P	5.54
822	5.46	814	5.50
823	5.62	805V	5.29
825	5.62	247T	5.29
825A	5.54	-	-
829A	5.44	-	-
830	5.44	-	-



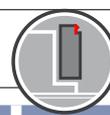
**POSSIBILI COMBINAZIONI con Art.868 - POSSIBLE ARRANGEMENTS with Art.868**

**Art. 868**



Possibilità di utilizzo di qualsiasi ganascia fissa FMS anzichè del corpo ganascia 805V.  
 Possibilità di due posizioni per ciascuna ganascia fissa e per base ganascia mobile Art.814

Possibility to use each FMS fixed jaw instead of jaw body Art.805V.  
 Possibility of two positions (at 180°) for each fixed jaw and for movable base jaw Art.814



Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
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**Art. 805V**

Ganascia per piastrine e puntali  
 Jaw for plates and points



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

**Art. 90**

Puntale temprato GRIP  
 Hardened GRIP Point



Cod.	5.90.10000

**Art. 247T** (W2)

Piastrina piana temprata GRIP  
 Hardened straight jaw plate GRIP



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

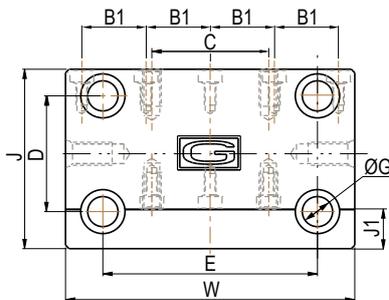
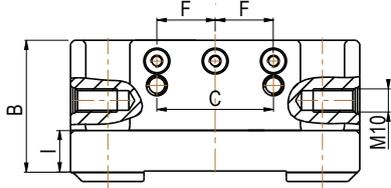
PIASTRE GANASCE "GRIP"  
 <Superficie Surface >Pressione Pressure



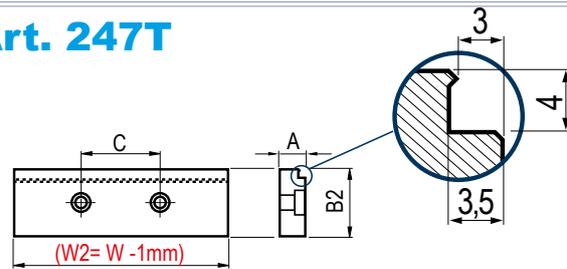
Per qualsiasi piastra piana speciale, raddoppiare il prezzo / For special taylor made straight jaw plate double the price

**Art. 805VA**

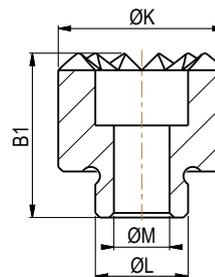
Corpo Ganascia  
 Jaw for plates and points



**Art. 247T**



**Art. 90**



mm	1	2	3	4	5	6
W	74	94	124	144	169	189
A	12	12	13	13	18	
B	39,5	47	57	61	66	86
B1						
B2	24,5	32	39	43	48	56
C	25	32	50	50	75	90
D	32	40	50	60	68	68
E	56	70	92	108	126	144
F						
ØG	9	11	13	17	17	21
I	15	15	18	18	18	20
J	40,5	48,5	77,5	96	101,5	101,5
J1				17		
K	-			18		-
L	-			10 h8		-
M	-			6		-

**3 MORSE IN UNA VISES IN ONE**



Tipo (grandezza) morsa / Vise (type) size		1 25 kN		2 25 kN			3 30 kN		
	kN								
Ø Apertura minima-massima / Ø minimum-maximum opening	A	10 / 25	10 / 25	20 / 50	20 / 50	20 / 50	20 / 50	40 / 100	40 / 100
Ø Apertura minima-massima / Ø minimum-maximum opening	A1	10 / 15	10 / 15	10 / 25	10 / 25	10 / 25	10 / 25	25 / 50	25 / 50
	B	34				55		90	
	C	70				90		100	
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	F	104				145		190	
	G	75				95		125	
	J	48	60			102		132	
	W	50				75		100	
kg		9	12	23	30	63	43	47	52

### Art. 870

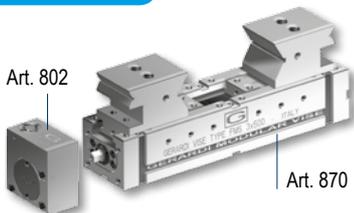
Art. 855 + n. 2 Art. 810J

Cod.	5.87.01200	5.87.01300	5.87.02300	5.87.02400	5.87.02500	5.87.02600	5.87.03400	5.87.03500
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### Art. 870D

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

Art. 802



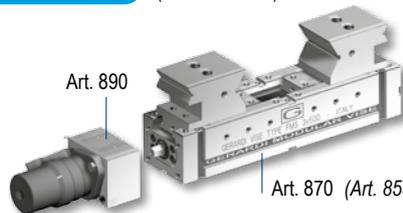
Art. 870 (Art. 855 + n. 2 Art. 810J)

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 / Vise + hydraulic motor

Art. 890

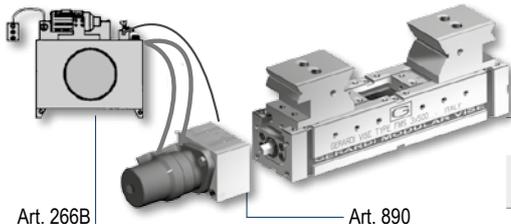


Art. 870 (Art. 855 + n. 2 Art. 810J)

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 / Vise + hydraulic motor + power unit



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

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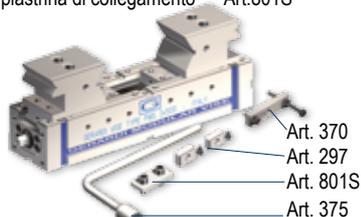
## Art. 870

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



#### Dotazione standard:

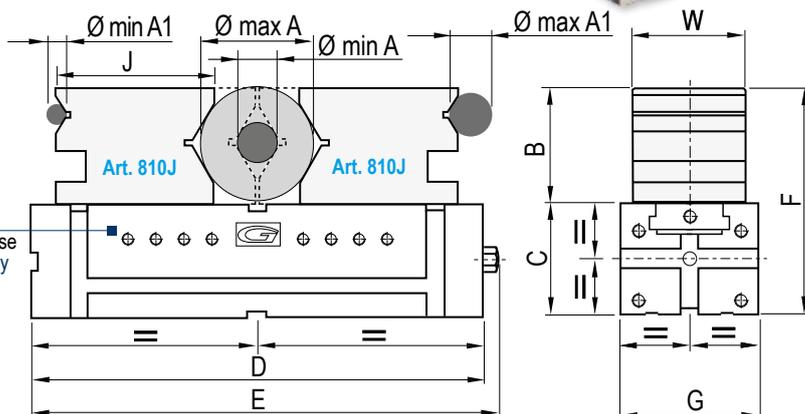
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento precisi Art. 297
- 1 chiave a pipa Art. 375
- 1 piastrina di collegamento Art.801S



#### Standard equipment:

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

Art. 855  
Corpo base  
Base body



3 30 kN			4 30 kN				5 32 kN			6 32 kN		
40 / 100	40 / 100	40 / 100	40 / 150	40 / 150	40 / 150	40 / 150	63 / 200	65 / 240	80 / 280	100 / 300	120 / 350	140 / 400
25 / 50	25 / 50	25 / 50	30 / 60	30 / 60	30 / 60	30 / 60	35 / 70	35 / 70	35 / 80	40 / 140	40 / 140	40 / 140
90			132				171	191	226	250	275	300
100			120							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		
132			156							176		
100			132							140		
57	62	67	74	82	91	99	135	145	155	225	245	265

5.87.03600 5.87.03700 5.87.03800 5.87.04500 5.87.04600 5.87.04700 5.87.04800 5.87.05600 5.87.05700 5.87.05800 5.87.06800 5.87.06900 5.87.06100

**SPECIAL PRICE**

**Art. 870D**

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

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

**Art. 870E**

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

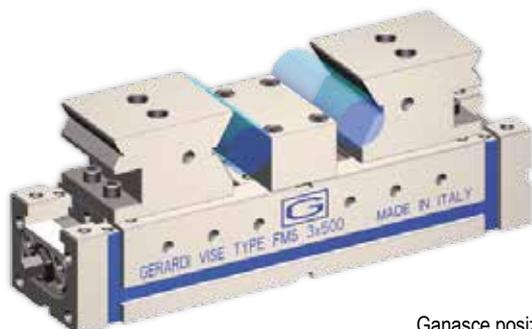
5.87.0E360 5.87.0E370 5.87.0E380 5.87.0E450 5.87.0E460 5.87.0E470 5.87.0E480 5.87.0E560 5.87.0E570 5.87.0E580 5.87.0E680 5.87.0E690 5.87.0E610

**Art. 870F**

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

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

**Esempi applicativi - Application examples:**



Ganasce posizionabili a 180°  
Jaws positionable at 180°

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

Tipo (grandezza) morsa / Vise (type) size	kN	1 25 kN		2 25 kN			3 30 kN		
Apertura massima / Maximum opening	A	85	185	170	270	370	470	230	330
Minima apertura interna / Minimum opening inside-outside	A1	115 / 200	115 / 300	130 / 300	130 / 400	130 / 500	130 / 600	170 / 400	170 / 500
	B	25		30			40		
	C	70		90			100		
	D	232	332	300	400	500	600	400	500
	E	252	352	320	420	520	620	425	525
	G	75		95			125		
	W	74		94			124		
kg		7	10	18	25	32	39	40	45
Cod.		5.80.01200	5.80.01300	5.80.02300	5.80.02400	5.80.02500	5.80.02600	5.80.03400	5.80.03500

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

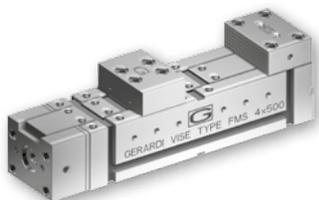


### Art. 800

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

### Art. 800A

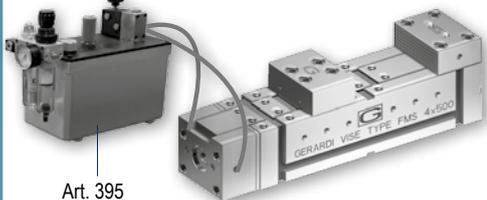
Meccanica con predisposizione idraulica **solo per serraggi singoli** / Mechanical with prepared hydraulic connection **only for single clamping**



Cod.	5.80.0A120	5.80.0A130	5.80.0A230	5.80.0A240	5.80.0A250	5.80.0A260	5.80.0A340	5.80.0A350
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### Art. 800B

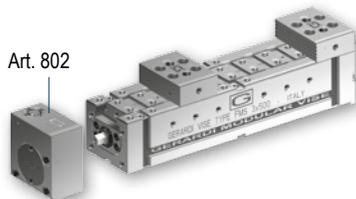
Meccanica con centralina elettroidraulica con pulsantiera chiavi in mano **solo per serraggi singoli**  
Mechanical with helctrohydraulic power pack and push botton switch ready to work **only for single clamping**



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**



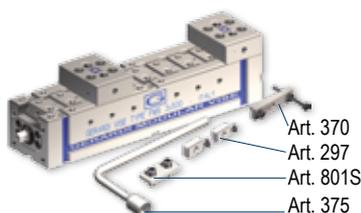
Cod.	5.80.0D120	5.80.0D130	5.80.0D230	5.80.0D240	5.80.0D250	5.80.0D260	5.80.0D340	5.80.0D350
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## Art. 800

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

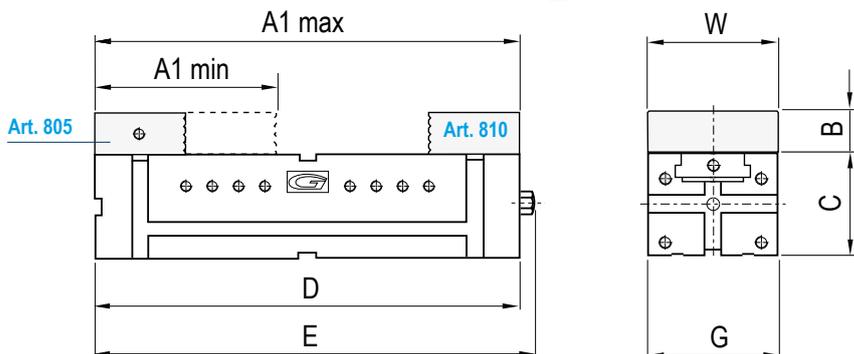
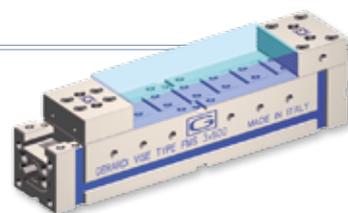
#### Dotazione standard:

- 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 30 kN			4 30 kN				5 32 kN			6 32 kN		
430	530	630	300	400	500	600	380	480	580	580	680	780
170 / 600	170 / 700	170 / 800	200 / 500	200 / 600	200 / 700	200 / 800	220 / 600	220 / 700	220 / 800	220 / 800	220 / 800	220 / 100
40			50				60			60		
100			120				140			160		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
125			145				170			190		
124			144				169			189		
50	55	60	66	72	80	88	115	125	135	170	190	210
5.80.03600	5.80.03700	5.80.03800	5.80.04500	5.80.04600	5.80.04700	5.80.04800	5.80.05600	5.80.05700	5.80.05800	5.80.06800	5.80.06900	5.80.06100

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

**Art. 800A**

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

5.80.0A360	5.80.0A370	5.80.0A380	5.80.0A450	5.80.0A460	5.80.0A470	5.80.0A480	5.80.0A560	5.80.0A570	5.80.0A580	5.80.0A680	5.80.0A690	5.80.0A610
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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

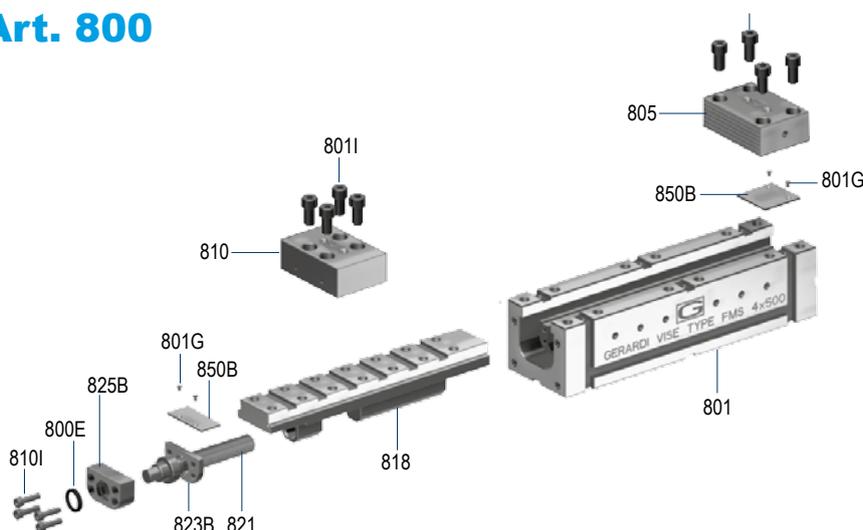
5.80.0B360	5.80.0B370	5.80.0B380	5.80.0B450	5.80.0B460	5.80.0B470	5.80.0B480	5.80.0B560	5.80.0B570	5.80.0B580	5.80.0B680	5.80.0B690	5.80.0B610
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**Art. 800D**

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

5.87.0D360	5.87.0D370	5.87.0D380	5.87.0D450	5.87.0D460	5.87.0D470	5.87.0D480	5.87.0D560	5.87.0D570	5.87.0D580	5.87.0D680	5.87.0D690	5.87.0D610
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**Art. 800**



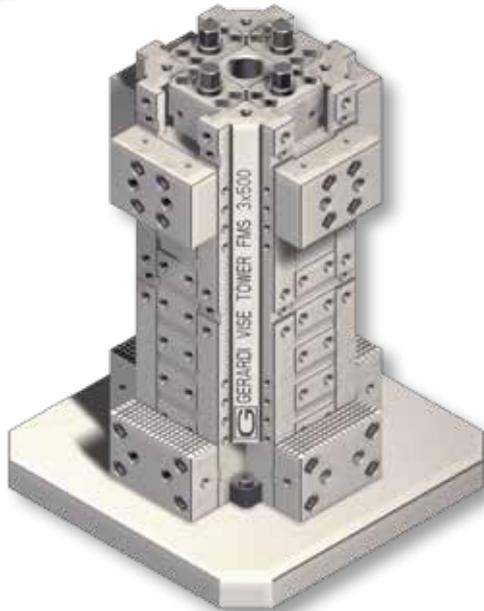
Art.	Pag.	Art.	Pag.
800E	5.54	-	-
801	5.40	-	-
801G	5.54	-	-
8011	5.54	-	-
805	5.48	-	-
810	5.50	-	-
818	5.44	-	-
821	5.46	-	-
823B	5.52	-	-
825B	5.52	-	-
850B	5.54	-	-



Tipo (grandezza) morsa / Vise (type) size

kN	1 25 kN		2 25 kN				3 30 kN	
Art. 800C	Apertura massima / Max. opening							
A	85	185	170	270	370	470	230	330
A1	115		130				170	
B	25		30				40	
D	200	300	300	400	500	600	400	500
E	232	332	320	420	520	620	425	525
G1	120		175				210	
L	300		350				400	
M	33		33				38	
W	74		94				124	
kg	30	45	53	70	88	106	90	112

Cod. 5.80.0C120 5.80.0C130 5.80.0C230 5.80.0C240 5.80.0C250 5.80.0C260 5.80.0C340 5.80.0C350

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


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

**Art. 800C**

 Cubo-morsa singola **specificata solo per serraggi singoli**  
 Vise tower single **specific for single clamping only**
**Dotazione standard per Art. 800C**

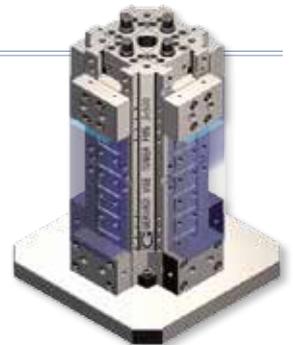
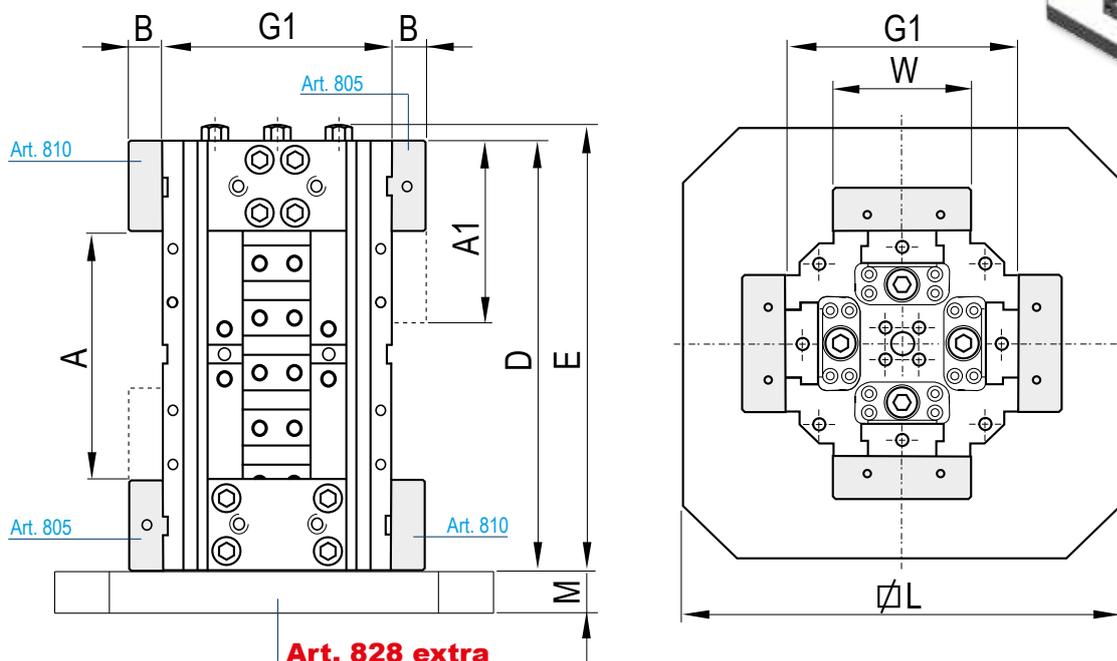
- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassa di legno

**Standard equipment for Art. 800C**

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

**Art. 800C**

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



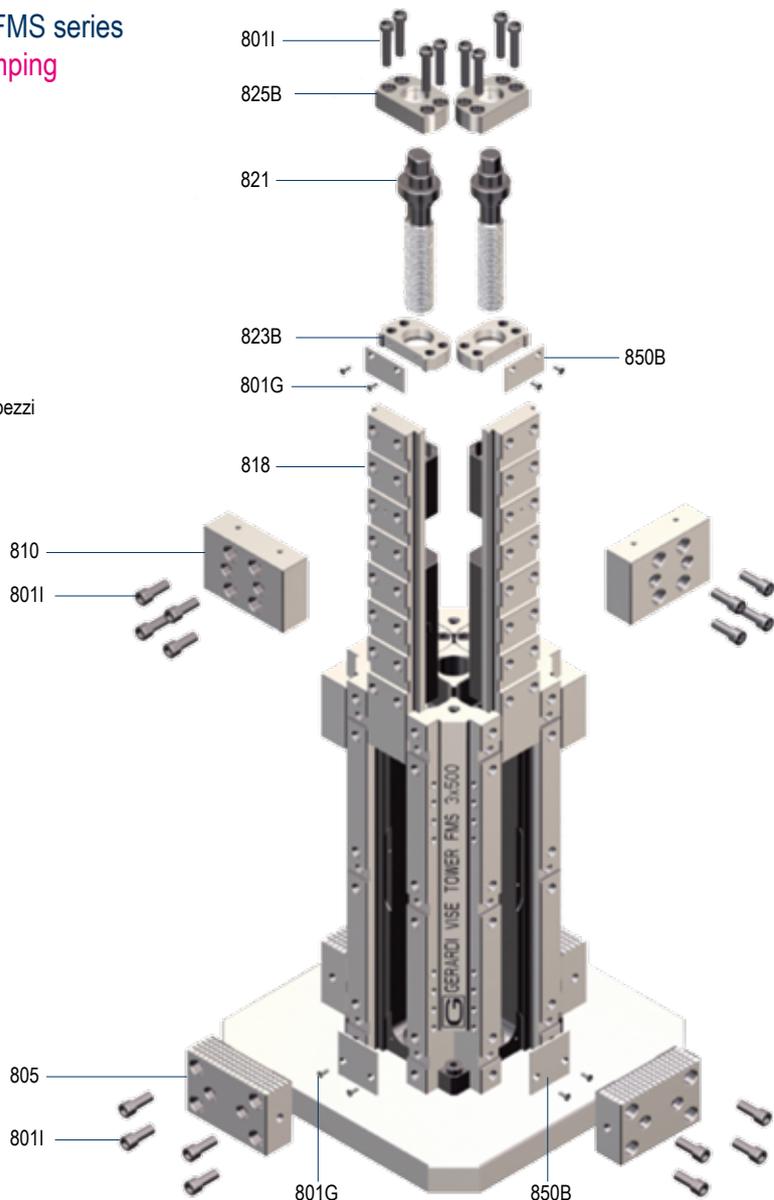
3 30 kN			4 30 kN				5 32 kN			6 32 kN		
430	530	630	300	400	500	600	380	480	580	480	580	680
170			509				630			810		
40			50				60			60		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210			245				280			290		
400			450				500			550		
38			38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

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

### Art. 800C

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

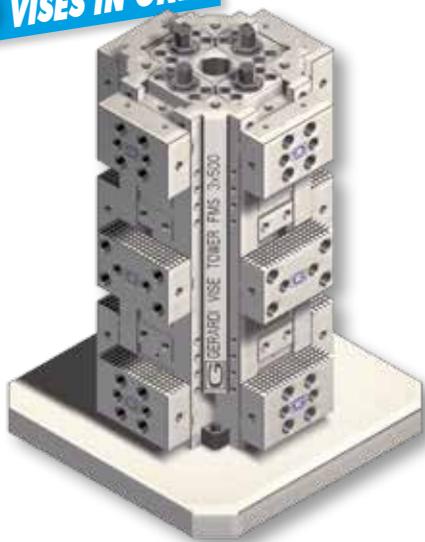
Art.	Pag.
801G	5.54
801I	5.54
810	5.50
818	5.44
821	5.46
823B	5.52
825B	5.52
850B	5.54
-	-
-	-
-	-





Tipo (grandezza) morsa / Vise (type) size		1 25 kN		2 25 kN				3 30 kN		
kN										
<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	5.86.0C130	5.86.0C230	5.86.0C240	5.86.0C250	5.86.0C260	5.86.0C340	5.86.0C350

**3 MORSE IN UNA  
VISE IN ONE**



### Art. 860C

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

#### 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 goliere di sollevamento Art. 848
- Imballo in cassa di legno
- Meccanismo 3<sup>a</sup> mano

#### Standard equipment for Art. 860C

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

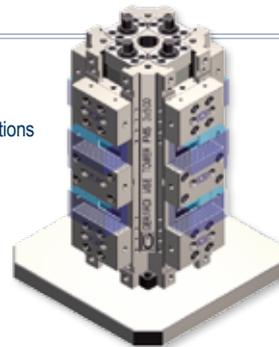
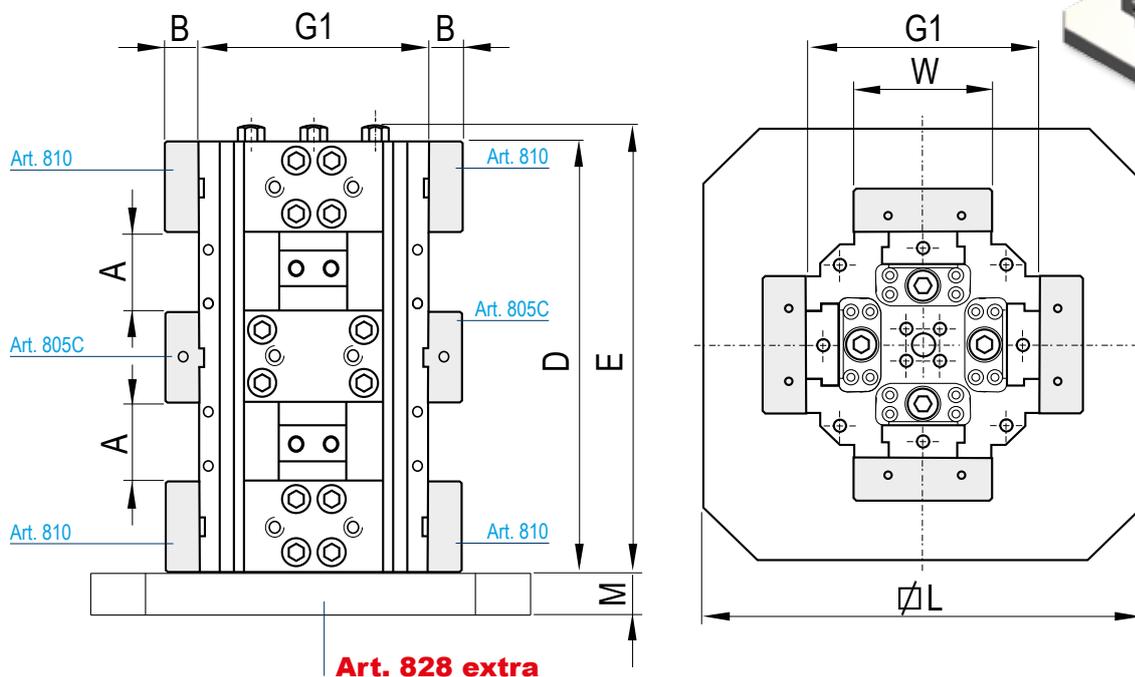
### Art. 855C

Modulo base cubo morsa FMS doppia (senza ganasce)  
FMS Double vise tower base (without jaws)

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

### Art. 860C

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

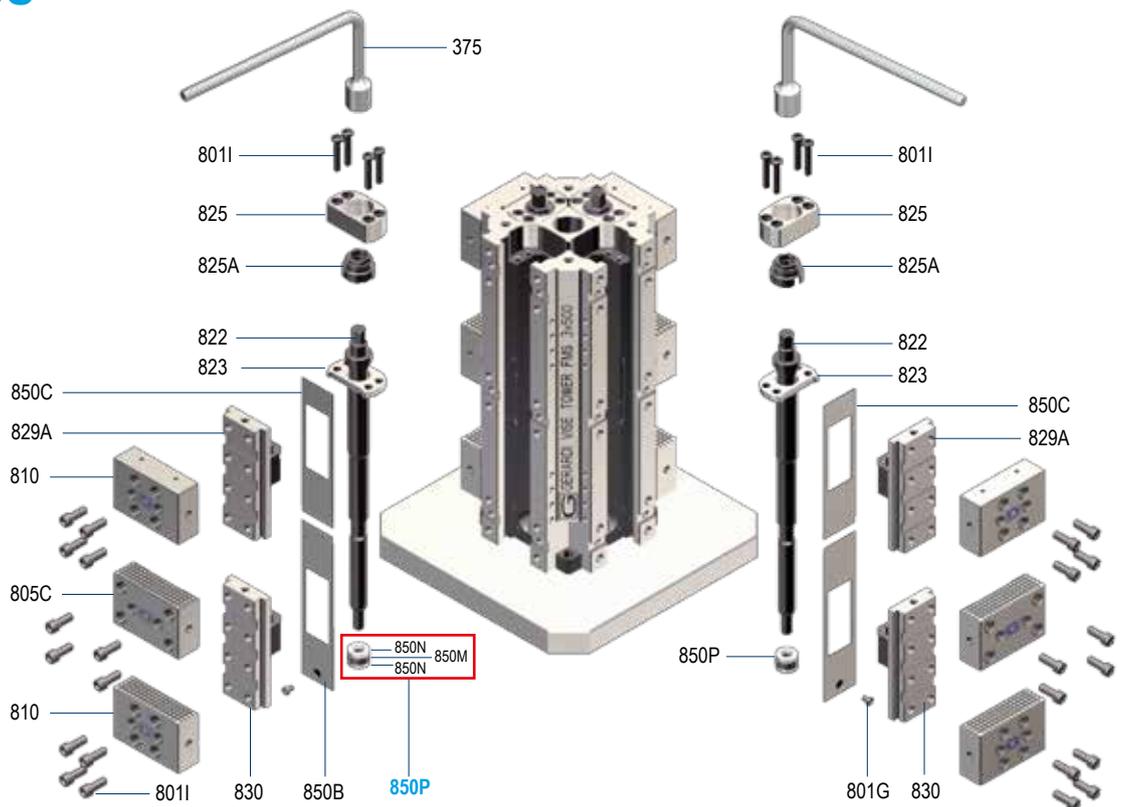


3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 174	2 x 224	2 x 274	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338
40			50				60			60		
600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210			245				280			290		
400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

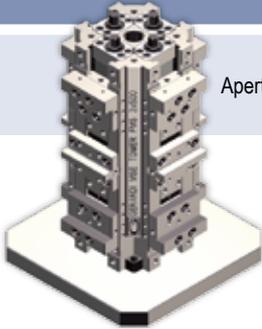
5.85.5C360	5.85.5C370	5.85.5C380	5.85.5C450	5.85.5C460	5.85.5C470	5.85.5C480	5.85.5C560	5.85.5C570	5.85.5C580	5.85.5C680	5.85.5C690	5.85.5C610
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

### Art. 860C

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



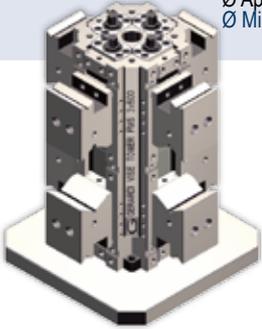


Tipo (grandezza) morsa / Vise (type) size		1 25 kN		2 25 kN				3 30 kN	
	Apertura massima / Max. opening A	2 x 60	2 x 110	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162	2 x 212

**Art. 863C**

 Cubo morsa doppia  
 Vise tower doublestation

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

Ø Apertura Minima - Massima Ø Minimum - Max. opening		A	10 / 25	10 / 50				25 / 100		
	<b>Art. 870C</b> Cubo morsa autocentrante Self-centering vise tower	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. 870C**

 Cubo morsa autocentrante  
 Self-centering vise tower

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

D	200	300	300	400	500	600	400	500
E	232	332	320	420	520	620	425	525
G1	120			175			210	
L	300			350			400	
M	33			33			38	
W	74			94			124	
W1	60			75			100	
kg	42	63	68	90	113	130	118	147

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

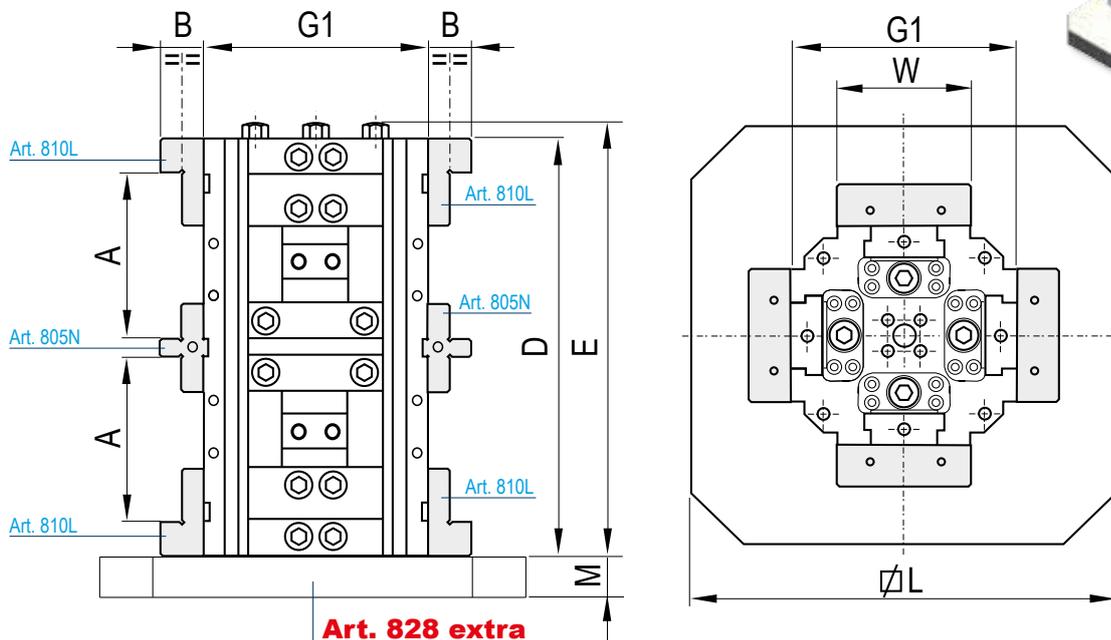
- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento precisi Art. 297
- 1 golfare di sollevamento Art. 848
- Imballo in cassetta di legno
- Meccanismo 3<sup>a</sup> mano

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

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

**Art. 863C**

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



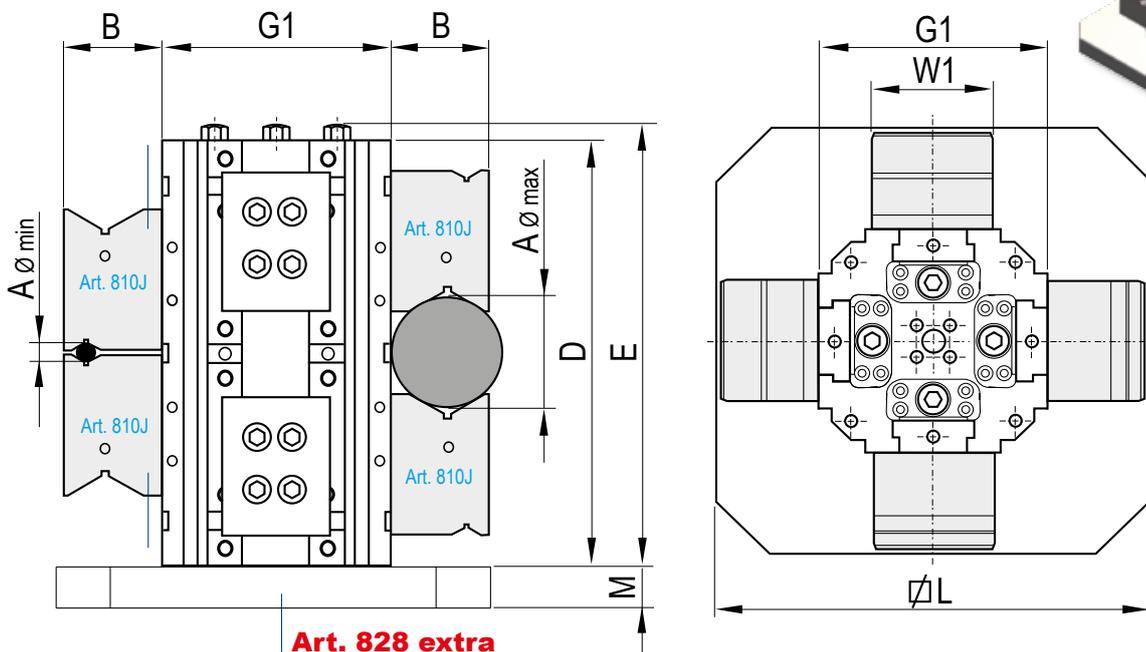
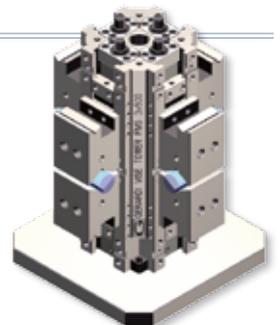
3 30 kN			4 30 kN				5 32 kN			6 32 kN		
2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454
5.86.3C360	5.86.3C370	5.86.3C380	5.86.3C450	5.86.3C460	5.86.3C470	5.86.3C480	5.86.3C560	5.86.3C570	5.86.3C580	5.86.3C680	5.86.3C690	5.86.3C610

25 / 100			30 / 150				35 / 200			40 / 300		
5.87.0C360	5.87.0C370	5.87.0C380	5.87.0C450	5.87.0C460	5.87.0C470	5.87.0C480	5.87.0C560	5.87.0C570	5.87.0C580	5.87.0C680	5.87.0C690	5.87.0C610

600	700	800	500	600	700	800	600	700	800	800	900	1000
625	725	825	525	625	725	825	625	725	825	825	925	1025
210				245				280		290		
400				450				500		550		
38				38				38		38		
124				144				169		189		
100				132				140		160		
177	206	236	242	290	339	388	328	383	437	656	738	820

### Art. 870C

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

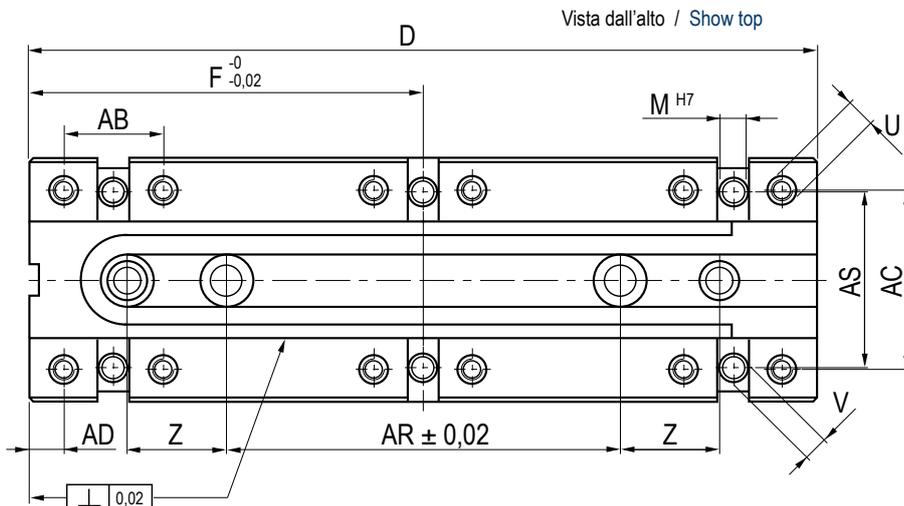
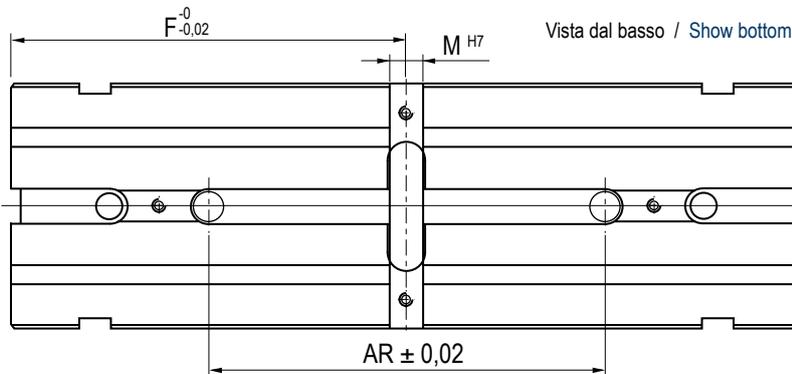
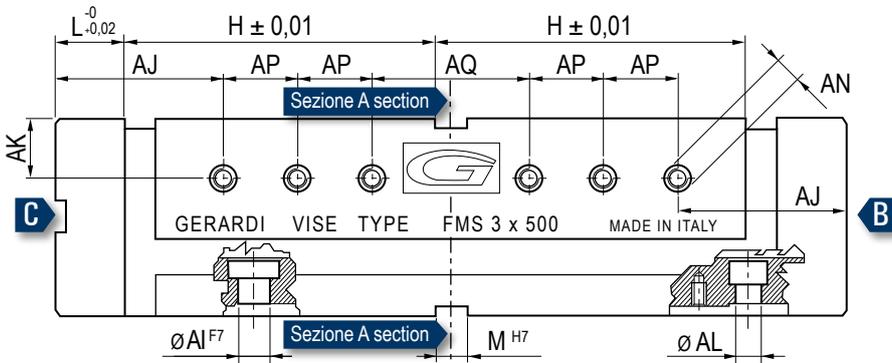
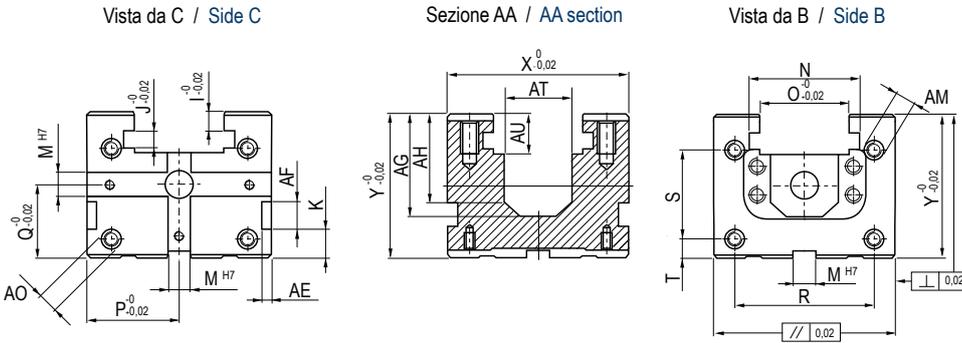


Tipo (grandezza) morsa / Vise (type) size

**1**
**2**
**Art. 801**

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

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



D	200	300	300	400
F	100	150	150	200
H	71	121	117	167
I	10		13	
J	10		12	
K	15		20	
L	21		25	
M	16		16	
N	45		53	
O	35		41	
P	37,5		47,5	
Q	35		45	
R	52		70	
S	30		48	
T	20		22	
U	M8		M10	
V	M8		M10	
Z	50		50	
X	75		95	
Y	70		90	
AB	32		40	
AC	56		70	
AD	13		13	
AE	4		6	
AF	16		16	
AG	49		62	
AH	41		53	
AI	Ø 16 X 2		Ø 16 X 2	
AJ	55		65	
AK	20		27	
AL	Ø 11		Ø 13	
AM	n°0	n°2	n°2	n°2
AN	M10		M10	
AO	n°8	n°12	n°12	n°16
AP	M10		M10	
AQ	20	25	50	
AR	50	70	70	
AS	100	200	200	
AT	56		68	
AU	28		34	
	23		28	

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

Tipo (grandezza) morsa / Vise (type) size

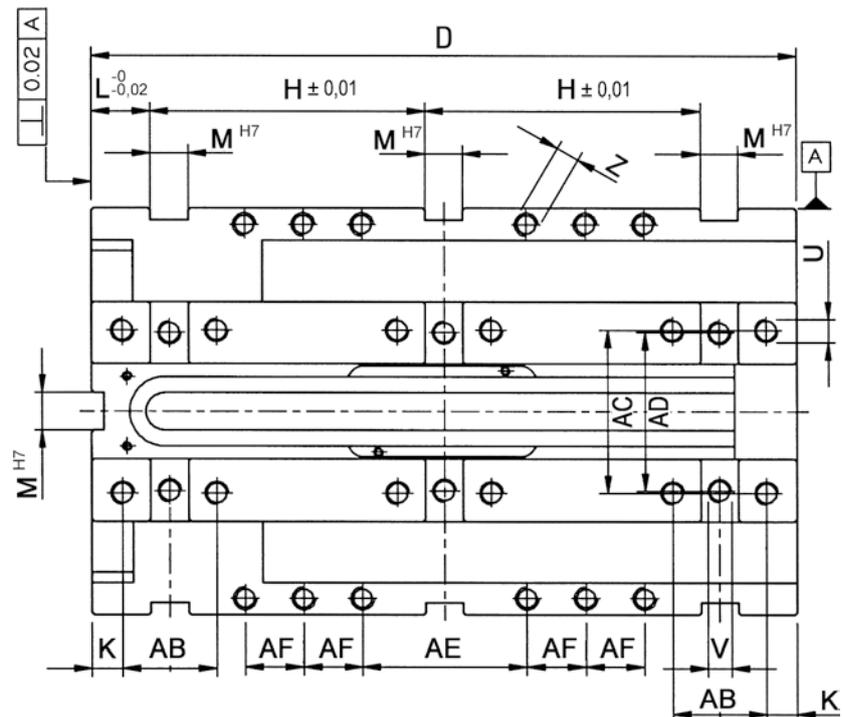
**1**
**2**

Cod. 5.80.41200 5.80.41300 5.80.42300 5.80.42400

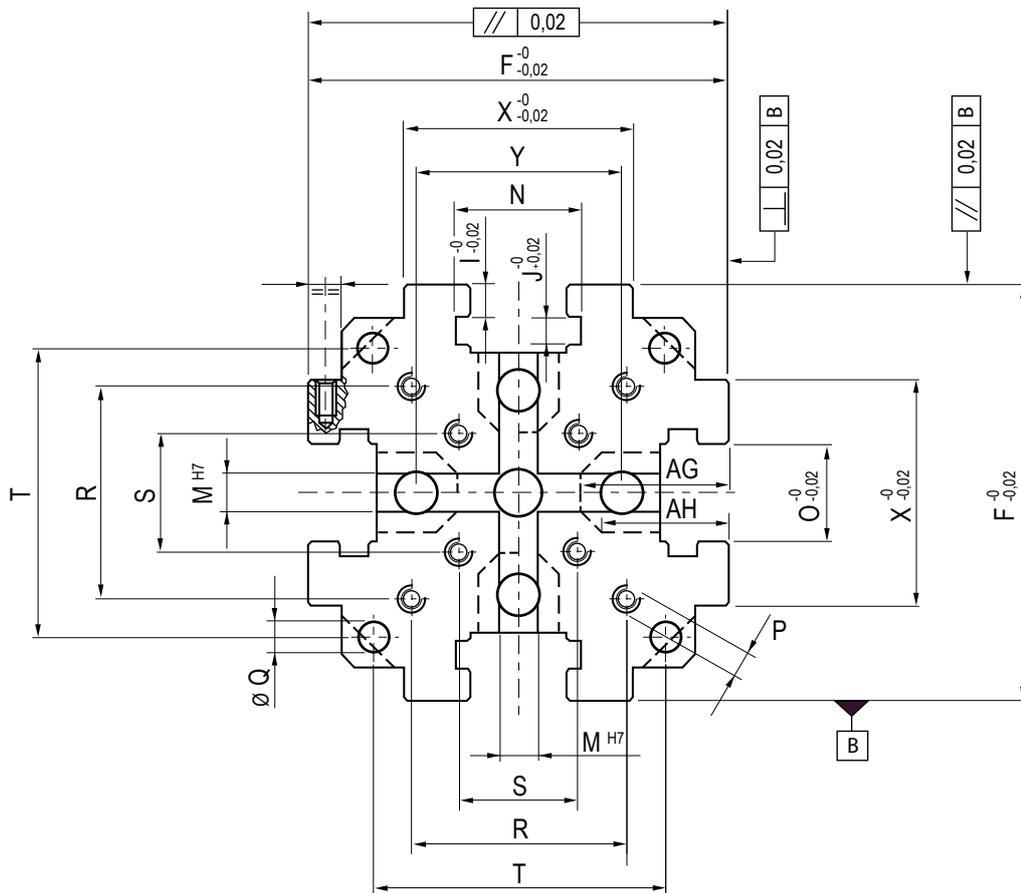
**Art. 804**

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


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



2		3					4				5			6		
5.80.42500	5.80.42600	5.80.43400	5.80.43500	5.80.43600	5.80.43700	5.80.43800	5.80.44500	5.80.44600	5.80.44700	5.80.44800	5.80.45600	5.80.45700	5.80.45800	5.80.46800	5.80.46900	5.80.46100
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
175				210					245			280			290	
217	267	157	207	257	307	357	200	250	300	350	235	285	335	345	395	445
13				13					20			20			20	
12				12					18			18			18	
13				18					20			21			21	
25				35					42			47			47	
16				16					16			16			16	
53				76					86			96			110	
41				61					71			82			94	
M12				M12					M16			M16			M20	
13				13					13			17			17	
100				120					150			150			150	
40				40					40			50			50	
120				150					170			210			210	
M10				M12					M16			M16			M20	
M10				M12					M12			M12			M12	
M10				M10					M10			M10			M10	
95				125					145			170			190	
85				110					125			140			130	
40				50					60			68			68	
70				92					108			126			144	
68				92					106			126			144	
70				100					100			100			125	
50				50					50			50			50	
62				62					80			95			105	
53				72					70			82			95	



Tipo (grandezza) morsa / Vise (type) size

**1**
**2**

Larghezza base / Base length

200

300

300

400

Cod. 5.81.81200 5.81.81300 5.81.82300 5.81.82400

**Art. 818**

Slitta integrale lunga / Solid long slide

**Art. 829A**

Slitta con filetto sinistro / Slide Right Hand

**Art. 830**

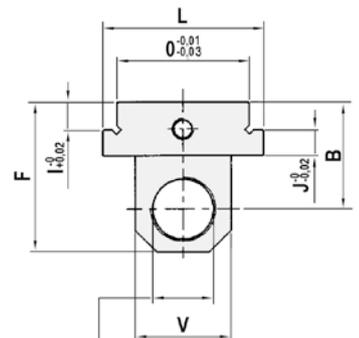
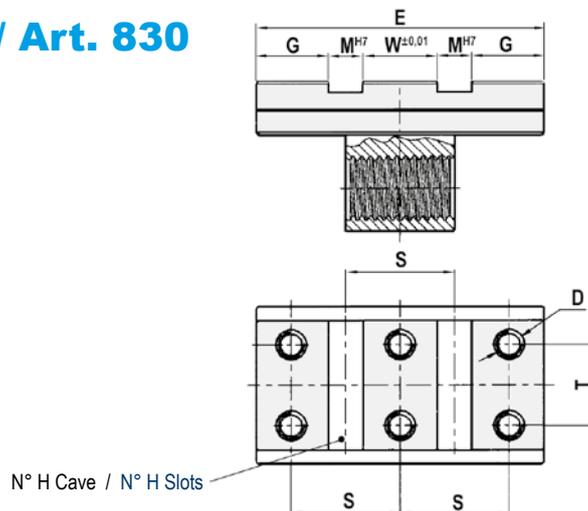
Slitta con filetto destro / Slide Left Hand

Cod. 5.82.9A120 5.82.9A130 5.82.9A230 5.82.9A240

Cod. 5.83.01200 5.83.01300 5.83.02300 5.83.02400



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

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

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

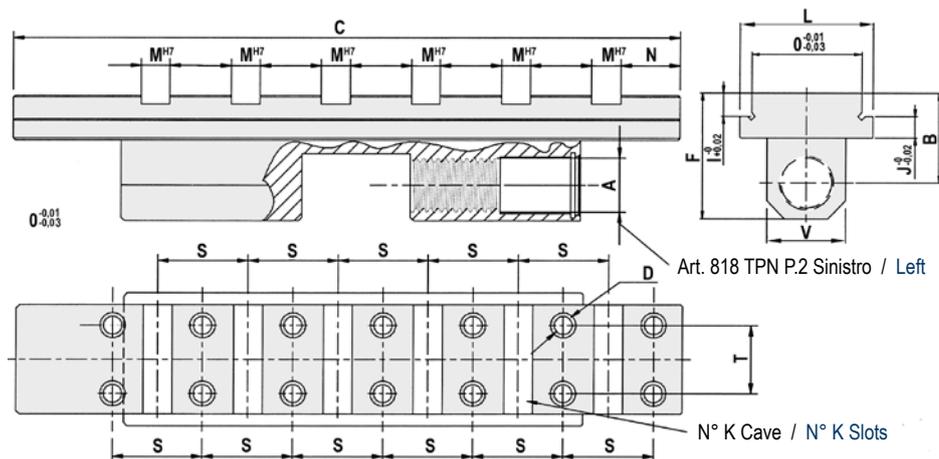
2		3					4				5			6		
500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
5.81.82500	5.81.82600	5.81.83400	5.81.83500	5.81.83600	5.81.83700	5.81.83800	5.81.84500	5.81.84600	5.81.84700	5.81.84800	5.81.85600	5.81.85700	5.81.85800	5.81.86800	5.81.86900	5.81.86100

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

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

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

Art. 818



Tipo (grandezza) morsa / Vite (type) size	1		2	
	Larghezza base / Base length	200	300	300
Cod.	5.82.11300		5.82.12600	

**Art. 821**

Vite di bloccaggio con filetto sinistro / Main screw left thread

Cod. 5.82.21200 5.82.21300 5.82.22300 5.82.22400

**Art. 822**

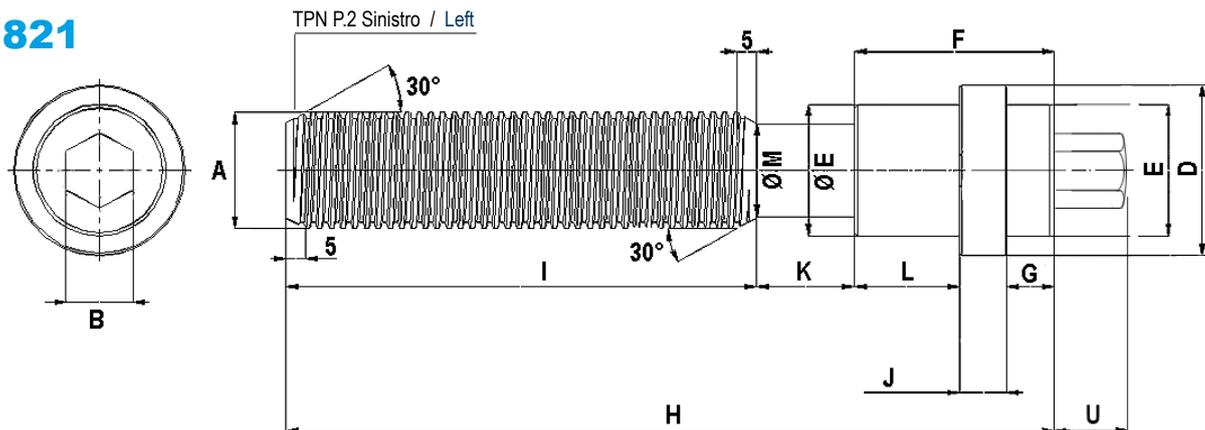
Vite di bloccaggio con filetto destro e sinistro / Main screw right and left thread \*

A	18		24	
A1	18		18	
A2	20		24	
B	12		16	
D	35		35	
E	20		25	
F	82		33	
G	13		12	
H	152		135	
I	65		90	
J	14		12	
K	5		12	
L	55		9	
M	14		19	
N	241	332	308	399
O	12	17	25	32
P	65	84	84	98
Q	32	66	66	106
R	68	85	75	94
S	44	6	38	49
T	32		32	
U	12 esagono femmina female exagon			15
AA	10		10	
AB	10		10	

**Art. 821**

**Art. 822**

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

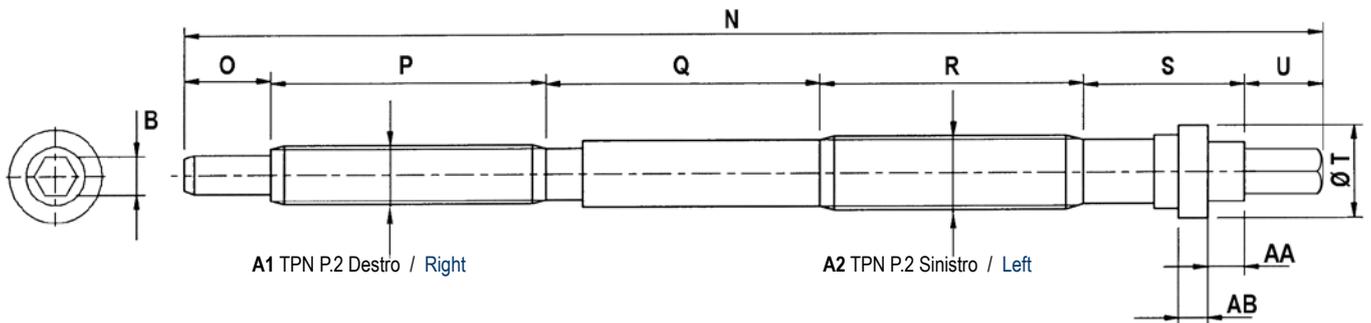
**Art. 821**


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

5.82.22500	5.82.22600	5.82.23400	5.82.23500	5.82.23600	5.82.23700	5.82.23800	5.82.24500	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	45					45				48			48			
25	30					30				30			30			
33	42					42				115			115			
12	16					16				15			15			
135	136					186				225			225			
90	118					118				135			135			
12	15					15				20			20			
12	26					26				55			55			
9	11					11				80			80			
19	24					24				30			30			
500	600	414	499	599	699	822	499	599	699	797	610	700	790	790	881	961
52	52	25	35	54	87	121	35	54	87	121	47	71	101	101	81	100
116	151	123	123	140	124	118	123	140	124	118	176	158	140	140	205	187
134	164	82	132	160	226	282	132	160	226	282	124	192	256	256	245	308
116	136	118	118	140	124	118	118	140	124	118	176	158	140	140	205	187
62	77	41	66	80	113	136	66	80	113	136	62	96	128	128	120	154
32	38					38				45			45			
20	25					25				25			25			
10	15					15				22			22			
10	12					12				15			15			

Art. 822



Tipo (grandezza) morsa / Vise (type) size

**1**
**2**
**3**
**4**
**5**
**6**
**Art. 805**

 Ganascia fissa zigrinata da un lato  
 Fixed jaw one side serrated


Cod.	5.80.51000	5.80.52000	5.80.53000	5.80.54000	5.80.55000	5.80.56000
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**Art. 805A**

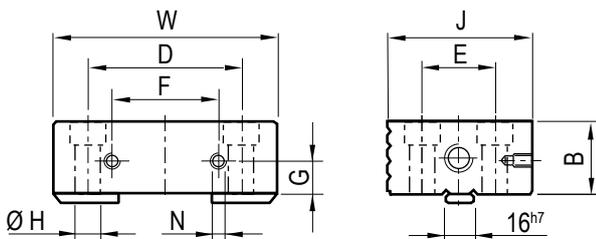
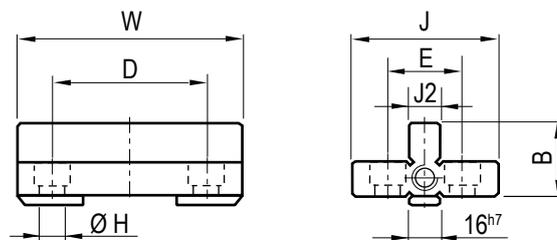
 Ganascia fissa liscia  
 Smooth fixed jaw


Cod.	5.80.5A100	5.80.5A200	5.80.5A300	5.80.5A400	5.80.5A500	5.80.5A600
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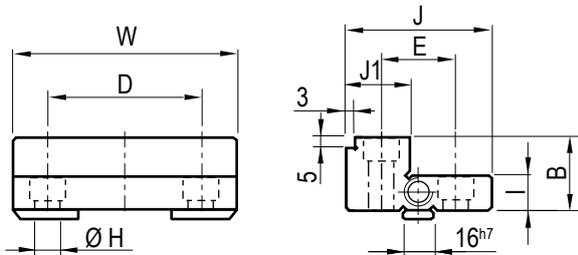
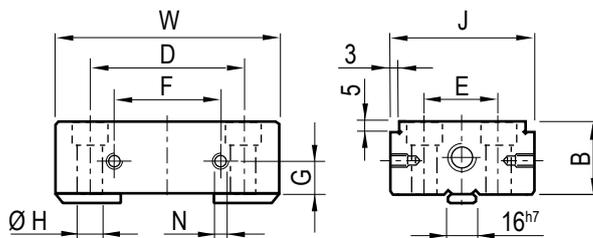
**Art. 805B**

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

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

**Art. 805O**

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


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


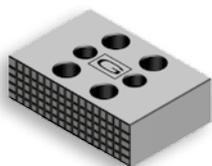
Tipo (grandezza) morsa / Vise (type) size

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

Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6
<b>Art. 805C</b>		Cod. 5.80.5C100	5.80.5C200	5.80.5C300	5.80.5C400	5.80.5C500	5.80.5C600
Ganascia fissa zigrinata da ambo i lati Fixed jaw serrated on both sides							
<b>Art. 805D</b>		Cod. 5.80.5D100	5.80.5D200	5.80.5D300	5.80.5D400	5.80.5D500	5.80.5D600
Ganascia fissa con gradino 3x5 zigrinata da un lato Fixed jaw with 3x5 step on side serrated							
<b>Art. 805E</b>		Cod. 5.80.5E100	5.80.5E200	5.80.5E300	5.80.5E400	5.80.5E500	5.80.5E600
Ganascia fissa con gradino 3x5 liscia Fixed jaw with 3x5 step smooth							
<b>Art. 805F</b>		Cod. 5.80.5F100	5.80.5F200	5.80.5F300	5.80.5F400	5.80.5F500	5.80.5F600
Ganascia fissa con doppio gradino 3x5 liscia Fixed jaw with double 3x5 step smooth							
<b>Art. 805G</b>		Cod. 5.80.5G100	5.80.5G200	5.80.5G300	5.80.5G400	5.80.5G500	5.80.5G600
Ganascia fissa con doppio gradino 3x5 zigrinata Fixed jaw with double 3x5 step serrated							
<b>Art. 805H</b>		Cod. 5.80.5H100	5.80.5H200	5.80.5H300	5.80.5H400	5.80.5H500	5.80.5H600
Ganascia fissa con prisma verticale Fixed jaw with vertical prism							
<b>Art. 805I</b>		Cod. 5.80.5I100	5.80.5I200	5.80.5I300	5.80.5I400	5.80.5I500	5.80.5I600
Ganascia fissa con doppio prisma verticale Fixed jaw with double vertical prism							
<b>Art. 805J</b>		Cod. 5.80.5J100	5.80.5J200	5.80.5J300	5.80.5J400	5.80.5J500	5.80.5J600
Ganascia fissa con prisma orizzontale Fixed jaw with horizontal prism							
<b>Art. 805K</b>		Cod. 5.80.5K100	5.80.5K200	5.80.5K300	5.80.5K400	5.80.5K500	5.80.5K600
Ganascia fissa con doppio prisma orizzontale Fixed jaw with double horizontal prism							
<b>Art. 805L</b>		Cod. 5.80.5L100	5.80.5L200	5.80.5L300	5.80.5L400	5.80.5L500	5.80.5L600
Ganascia fissa con gradino Step fixed jaw							
<b>Art. 805M</b>		Cod. 5.80.5M100	5.80.5M200	5.80.5M300	5.80.5M400	5.80.5M500	5.80.5M600
Ganascia fissa con gradino zigrinata da un lato Step fixed jaw one side serrated							
<b>Art. 805N</b>		Cod. 5.80.5N100	5.80.5N200	5.80.5N300	5.80.5N400	5.80.5N500	5.80.5N600
Ganascia fissa con doppio gradino Fixed jaw with double step							
<b>Art. 805O</b>		Cod. 5.80.5O100	5.80.5O200	5.80.5O300	5.80.5O400	5.80.5O500	5.80.5O600
Ganascia fissa con gradino piccolo e grande Fixed jaw with small and large step							
<b>Art. 805P</b>		Cod. 5.80.5P100	5.80.5P200	5.80.5P300	5.80.5P400	5.80.5P500	5.80.5P600
Ganascia fissa con gradino piccolo e grande zigrin. da un lato Fixed jaw with small and large step one side serrated							
<b>Art. 805Q</b>		Cod. 5.80.5Q100	5.80.5Q200	5.80.5Q300	5.80.5Q400	5.80.5Q500	5.80.5Q600
Ganascia fissa doppia con gradino piccolo e grande Double fixed jaw with small and large step							
<b>Art. 805R</b>		Cod. 5.80.5R100	5.80.5R200	5.80.5R300	5.80.5R400	5.80.5R500	5.80.5R600
Ganascia fissa in alluminio Fixed jaw aluminium							
<b>Art. 805T</b>		Cod. 5.80.5T100	5.80.5T200	5.80.5T300	5.80.5T400	5.80.5T500	5.80.5T600
Ganascia fissa doppia <b>GRIP</b> per forti serraggi <b>GRIP</b> Double fixed jaw for strongest clamping							

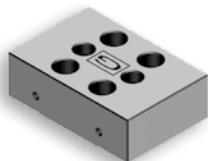
Tipo (grandezza) morsa / Vise (type) size

**1**
**2**
**3**
**4**
**5**
**6**
**Art. 810**

 Ganascia mobile zigrinata da un lato  
 Movable jaw one side serrated


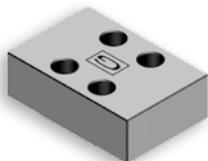
Cod. 5.81.01000 5.81.02000 5.81.03000 5.81.04000 5.81.05000 5.81.06000

**Art. 810A**

 Ganascia mobile liscia  
 Smooth movable jaw


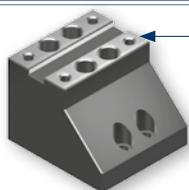
Cod. 5.81.0A100 5.81.0A200 5.81.0A300 5.81.0A400 5.81.0A500 5.81.0A600

**Art. 810B**

 Ganascia mobile dolce  
 Soft movable jaw


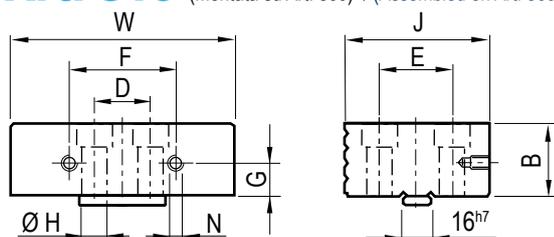
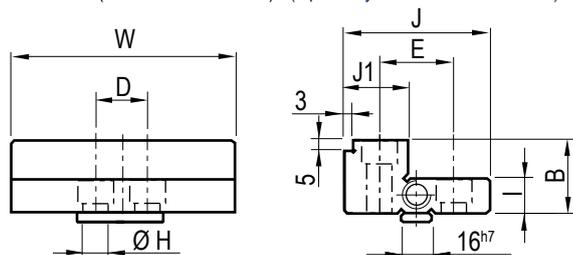
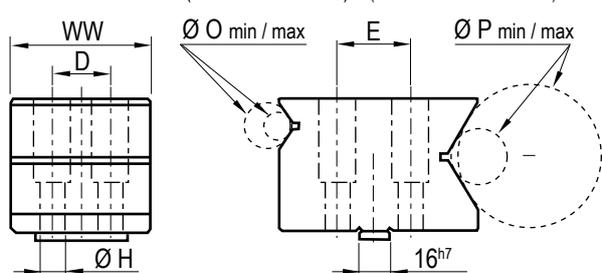
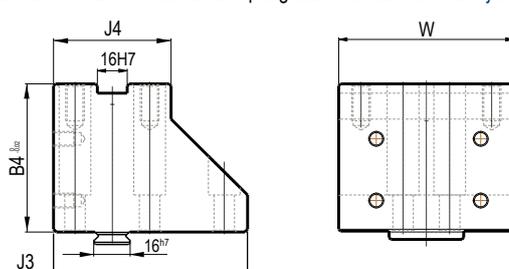
Cod. 5.81.0B100 5.81.0B200 5.81.0B300 5.81.0B400 5.81.0B500 5.81.0B600

**Art. 814**

 Base mobile per ganasce  
 Movable base for jaws


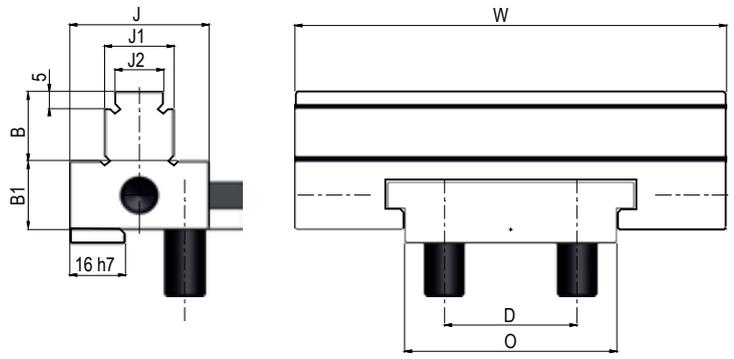
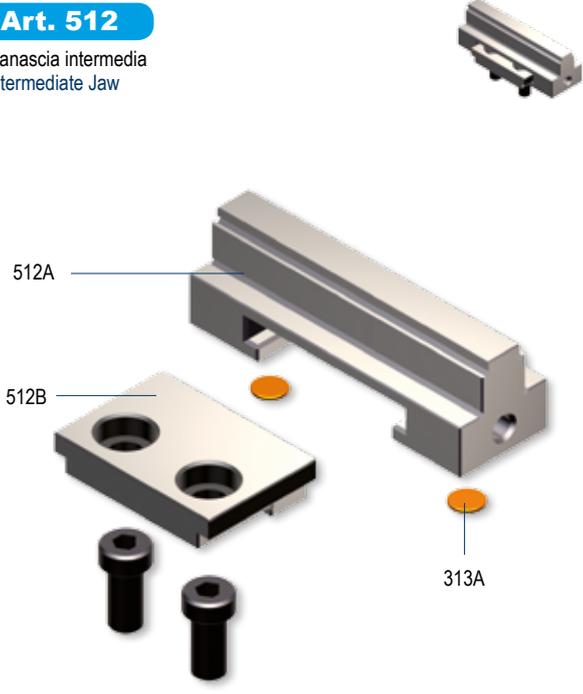
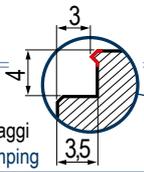
Predisposizione per tutte le ganasce FMS fisse / Fit all FMS fixed jaws

Cod. 5.81.41000 5.81.42000 5.81.43000 5.81.44000 5.81.45000 5.81.4.6000

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

**Art. 8100** (Montabile su Art. 868) / (Optionally assembled on Art. 868)

**Art. 810J** (Montata su Art. 870) / (Assembled on Art. 870)

**Art. 814** Piastra base per ganasce mobili / Movable jaws base


Tipo / Type	1 X 200	1 X 300	2	3	4	5	6	Tolleranze / Tolerance
W	74		94	124	144	169	189	-
WW	60		75	100	132	140	160	-
B	25		30	40	50	60	60	-0,02
B4	60		80	90	110	120	160	-0,02
D	20		25	38	44	44	54	-
E	26	32	40	50	60	68	68	-
F	40		50	65	65	65	100	-
G	10		10	15	20	25	25	-
H	9		11	13	17	17	22	-
I	12,5		15	20	25	30	30	-0,02
J	56		64	82	98	108	108	-0,02
J1	24		24	30	38	38	38	-0,02
J3	76	76	101	132	154	169	189	-
J4	55		63	83	96	106	106	-
N	M5		M6	M6	M6	M6	M6	-
Ø O	10 / 15		20 / 30	25 / 30	20 / 60	35 / 70	40 / 80	-
Ø P	10 / 25		20 / 50	40 / 100	45 / 150	63 / 200	73 / 100	-

Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
<b>Art. 810D</b> Ganascia mobile con gradino 3x5 zigrinata da un lato Movable jaw with 3x5 step on side serrated	Cod. 5.81.0D100	5.81.0D200	5.81.0D300	5.81.0D400	5.81.0D500	5.81.0D600
<b>Art. 810E</b> Ganascia mobile con gradino 3x5 liscia Movable jaw with 3x5 step smooth	Cod. 5.81.0E100	5.81.0E200	5.81.0E300	5.81.0E400	5.81.0E500	5.81.0E600
<b>Art. 810J</b> Ganascia mobile prismatica per tondi liscia Prismatic movable jaw for round parts smooth	Cod. 5.81.0J100	5.81.0J200	5.81.0J300	5.81.0J400	5.81.0J500	5.81.0J600
<b>Art. 810K</b> Ganascia mobile prismatica per tondi zigrinata Prismatic movable jaw for round parts serrated	Cod. 5.81.0K100	5.81.0K200	5.81.0K300	5.81.0K400	5.81.0K500	5.81.0K600
<b>Art. 810L</b> Ganascia mobile con gradino Step movable jaw	Cod. 5.81.0L100	5.81.0L200	5.81.0L300	5.81.0L400	5.81.0L500	5.81.0L600
<b>Art. 810M</b> Ganascia mobile con gradino zigrinata da un lato Step movable jaw one side serrated	Cod. 5.81.0M100	5.81.0M200	5.81.0M300	5.81.0M400	5.81.0M500	5.81.0M600
<b>Art. 810O</b> Ganascia mobile con gradino piccolo e grande Movable jaw with small and large step	Cod. 5.81.0O100	5.81.0O200	5.81.0O300	5.81.0O400	5.81.0O500	5.81.0O600
<b>Art. 810P</b> Ganascia mobile con gradino piccolo e grande zigrin. da un lato Movable jaw with small and large step one side serrated	Cod. 5.81.0P100	5.81.0P200	5.81.0P300	5.81.0P400	5.81.0P500	5.81.0P600
<b>Art. 810R</b> Ganascia mobile in alluminio Movable jaw aluminium	Cod. 5.81.0R100	5.81.0R200	5.81.0R300	5.81.0R400	5.81.0R500	5.81.0R600
<b>Art. 810T</b> Ganascia 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> Ganascia mobile con segmenti oscillanti Movable jaw with floating inserts	Cod. 5.81.0V100	5.81.0V200	5.81.0V300	5.81.0V400	5.81.0V500	5.81.0V600
<b>Art. 512</b> Ganascia intermedia Intermediate Jaw	Cod. 5.51.21000	5.51.22000	5.51.23000	5.51.24000	5.51.25000	5.51.26000



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

Vedi esempio applicativo - See application example: Pag. 5.13

Tipo (grandezza) morsa / Vise (type) size

**1**
**2**
**3**
**4**
**5**
**6**
**Art. 823**

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

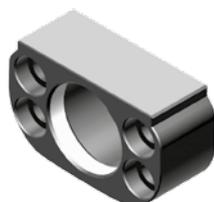

Cod.	5.82.31000	5.82.32000	5.82.33000	5.82.34000	5.82.35000	5.82.36000

**Art. 823B**

 Piastra intermedia per Art. 800  
 Middle plate for Art. 800

Cod.	5.82.3B100	5.82.3B200	5.82.3B300	5.82.3B400	5.82.3B500	5.82.3B600

**Art. 825**

 Piastra di contenimento vite  
 per morsa FMS per Art. 855  
 Screw holding plate for FMS vise for Art. 855


Cod.	5.82.51000	5.82.52000	5.82.53000	5.82.54000	5.82.55000	5.82.56000

**Art. 825B**

 Piastra di contenimento vite  
 per morsa FMS per Art. 800  
 Screw holding plate for FMS vise for Art. 800

Cod.	5.82.5B100	5.82.5B200	5.82.5B300	5.82.5B400	5.82.5B500	5.82.5B600

**Art. 825C**

 Piastra di contenimento vite  
 per morsa FMS per Art. 855W  
 Screw holding plate for FMS vise for Art. 855W

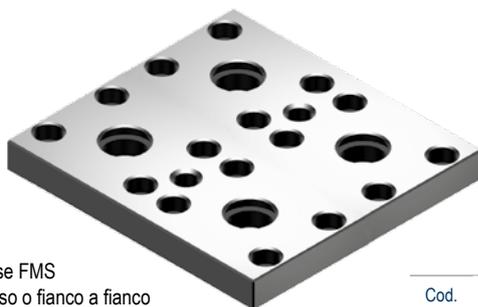
Cod.	5.82.5C100	5.82.5C200	5.82.5C300	5.82.5C400	5.82.5C500	5.82.5C600

**Art. 831**

 Piastra di collegamento per 2 morse FMS  
 montate verticalmente dorso a dorso o fianco a fianco  
 Connecting plate for 2 FMS vises  
 vertically mounted back-to-back or side by side


Cod.	5.83.11000	5.83.12000	5.83.13000	5.83.14000	5.83.15000	5.83.16000

**Art. 832**

 Piastra di collegamento per 4 morse FMS  
 montate verticalmente dorso a dorso o fianco a fianco  
 Connecting plate for 4 FMS vises  
 vertically mounted back-to-back or side by side


Cod.	5.83.21000	5.83.22000	5.83.23000	5.83.24000	5.83.25000	5.83.26000

**Art. 833**

 Piastra di collegamento personalizzata per 2 morse FMS  
 Connecting plate for 2 FMS vises tailor made

Cod.	5.83.31000	5.83.32000	5.83.33000	5.83.34000	5.83.35000	5.83.36000

**Art. 834**

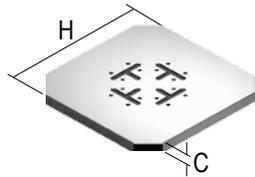
 Piastra di collegamento personalizzata per 4 morse FMS  
 Connecting plate for 4 FMS vises tailor made

Cod.	5.83.41000	5.83.42000	5.83.43000	5.83.44000	5.83.45000	5.83.46000

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

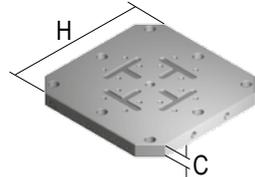
Piastra base per una o più morsa  
Head plate for one or more vises



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

**Art. 827A**

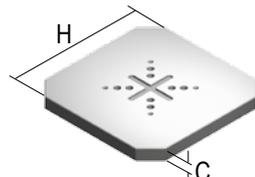
Piastra base personalizzata per una o più morsa  
Bussola di centraggio Art. 852 compresa  
Tailor made head plate for one or more vises  
Centering bushing Art. 852 included



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

**Art. 828**

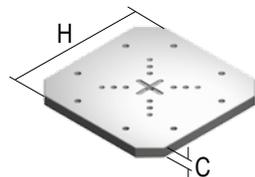
Piastra base per cubo morsa  
Head plate for vise tower



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

**Art. 828A**

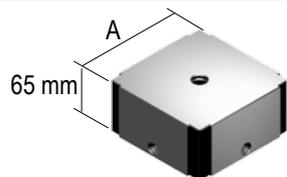
Piastra base personalizzata per cubo morsa  
Bussola di centraggio Art. 852 compresa  
Tailor made head plate for vise tower  
Centering bushing Art. 852 included



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

**Art. 835**

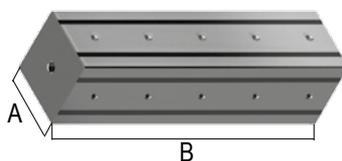
Distanziale quadrato per 4 morsa FMS  
Square spacer for 4 FMS vises



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

**Art. 836**

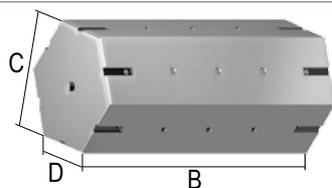
Supporto quadrato per 4 morsa FMS  
Square support for 4 FMS vises



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

**Art. 837**

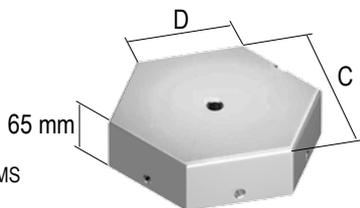
Supporto esagonale per 6 morsa FMS  
Exagon support for 6 FMS vises



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

**Art. 838**

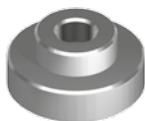
Distanziale esagonale per 6 morsa FMS  
Exagon spacer for 6 FMS vises



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

**Art. 852**

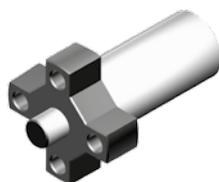
Bussola di centraggio per piastra base  
Centering bushing for base plate



Cod.	5.85.21000	5.85.22000	5.85.23000	5.85.24000	5.85.25000	5.85.26000
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**Art. 853**

Centraggio orizzontale per cubo FMS  
Horizontal centering for FMS cube



Cod.	5.85.31000	5.85.32000	5.85.33000	5.85.34000	5.85.35000	5.85.36000
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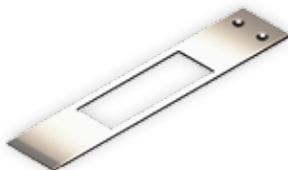
Tipo (grandezza) morsa / Vise (type) size

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

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


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

 Riparo lato vite  
 Protection side screw


Cod.	5.85.0B100	5.85.0B200	5.85.0B300	5.85.0B400	5.85.0B500	5.85.0B600
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**Art. 850C**

 Riparo  
 Protection

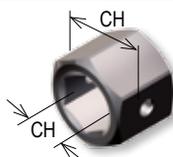

Cod.	5.85.0C100	5.85.0C200	5.85.0C300	5.85.0C400	5.85.0C500	5.85.0C600
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**Art. 850P**

 Dispositivo "Terza Mano"  
 "Third Hand" device


Cod.	5.85.0P100	5.85.0P200	5.85.0P300	5.85.0P400	5.85.0P500	5.85.0P600
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**Art. 850E**

 Bussola esagonale per innesto automatico  
 Hexagonal bushing for automatic connection


CH	12 / 22	14 / 24	19 / 30	19 / 30	27 / 40	27 / 40
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Cod.	5.85.0E100	5.85.0E200	5.85.0E300	5.85.0E400	5.85.0E500	5.85.0E600
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**Art. 850T**

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


Cod.	5.85.0T100	5.85.0T200	5.85.0T300	5.85.0T400	5.85.0T500	5.85.0T600
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**Art. 850H**

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


Cod.	5.85.0H100	5.85.0H200	5.85.0H300	5.85.0H500
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**RICAMBI PER MORSE ART. 800**
**SPARE PARTS FOR VISES ART. 800**
**Art. 800E**

 Guarnizione per slitta integrale  
 O ring for solid slide


Cod.	5.80.0E100	5.80.0E200	5.80.0E300	5.80.0E400	5.80.0E500	5.80.0E600
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**Art. 801G**

 Grano di bloccaggio protezione centrale  
 Setscrew for clamping central protection


Cod.	5.80.1G100	5.80.1G200	5.80.1G300	5.80.1G400	5.80.1G500	5.80.1G600
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**Art. 800I**

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

**Art. 801H**

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

Cod.	5.80.0I100	5.80.0I200	5.80.0I300	5.80.0I400	5.80.0I500	5.80.0I600
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Cod.	5.80.1H100	5.80.1H200	5.80.1H300	5.80.1H400	5.80.1H500	5.80.1H600
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**Art. 801I**

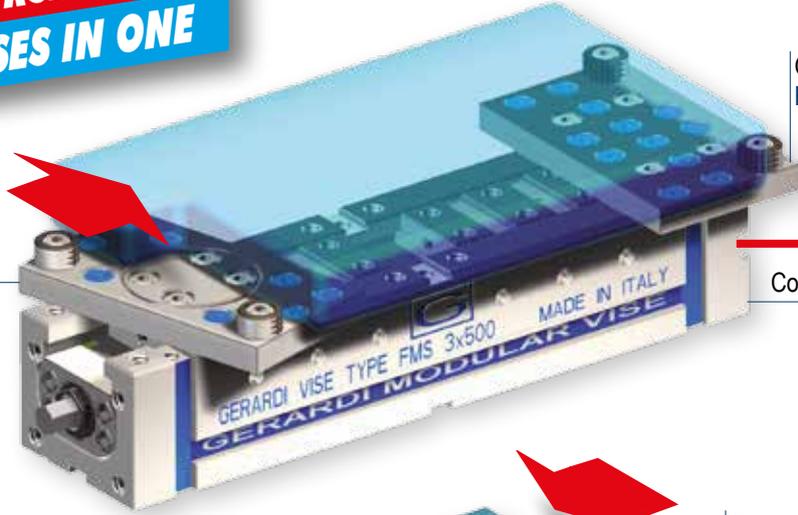
 Vite tcei per ganasce  
 Hex.socket head screw for jaws

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

**Art. 867**

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

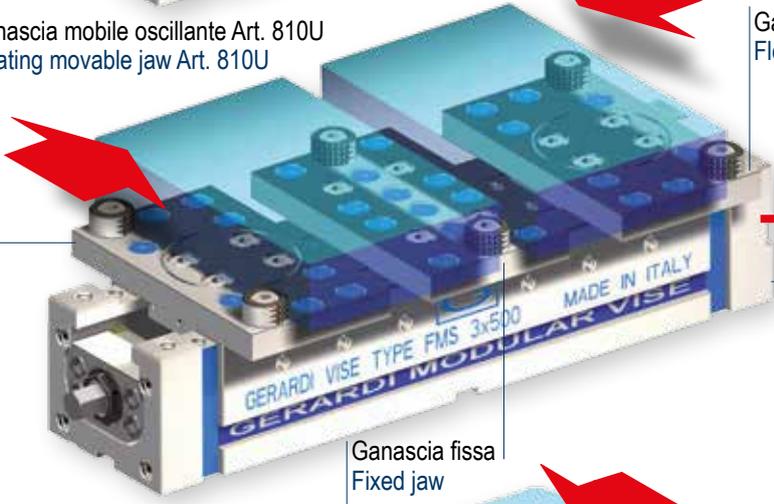


Ganascia fissa Art. 805U  
Fixed jaw Art. 805U

**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



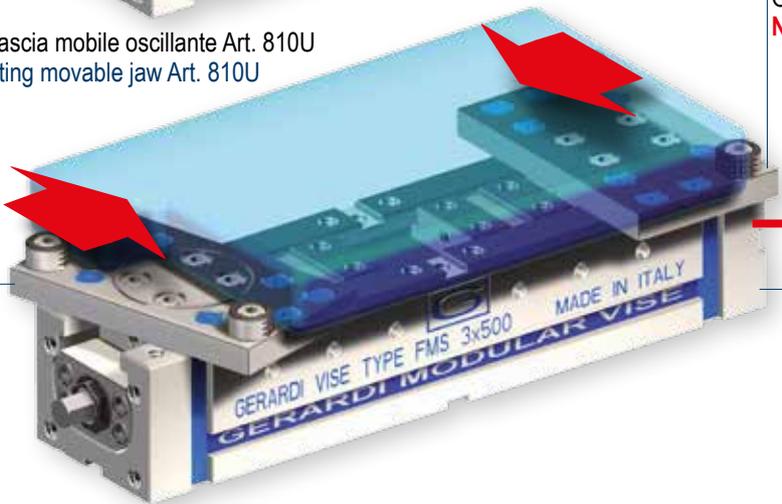
Ganascia fissa  
Fixed jaw

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**

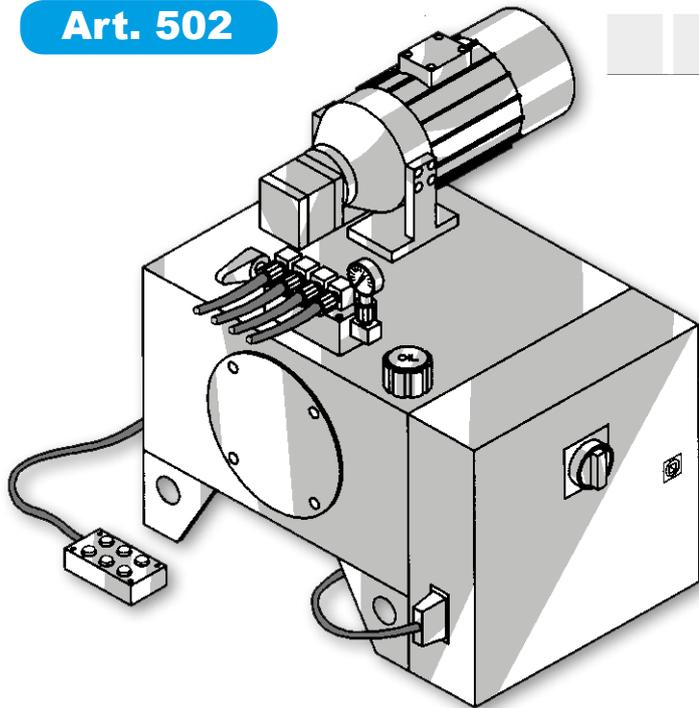
Corpo base / Base body **Art. 855**

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
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Cod.	2.50.2001	2.50.2002	2.50.2003	2.50.2004	2.50.2005	2.50.2006
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### Art. 502



### Art. 502

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

**SENZA OLIO**

Pressione massima di esercizio: 600 bar

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

**NO OIL**

Max operating pressure: 600 bar

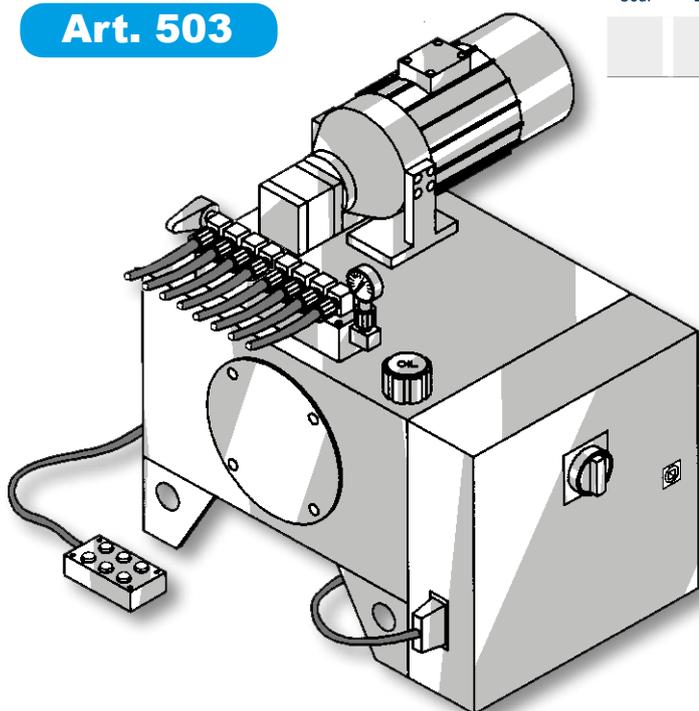
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

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

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

Cod.	2.50.3001	2.50.3002	2.50.3003	2.50.3004	2.50.3005	2.50.3006
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### Art. 503



### Art. 503

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

**SENZA OLIO**

Pressione massima di esercizio: 600 bar

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

**NO OIL**

Max operating pressure: 600 bar

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

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

n. 1  
Morsa  
Vise

n. 2  
Morse  
Vises

n. 3  
Morse  
Vises

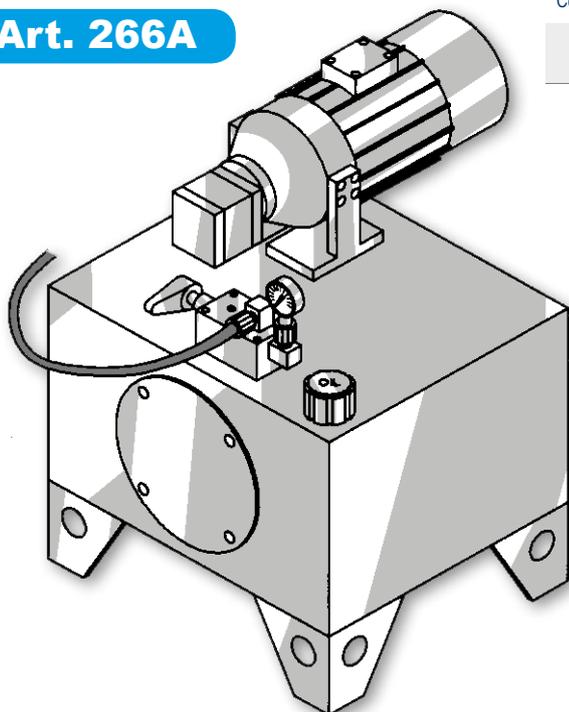
n. 4  
Morse  
Vises

n. 5  
Morse  
Vises

n. 6  
Morse  
Vises

Cod. 5.26.6A001 5.26.6A002 5.26.6A003 5.26.6A004 5.26.6A005 5.26.6A006

### Art. 266A



### Art. 266A

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

#### SENZA OLIO

Pressione massima di esercizio: 140 bar

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

#### NO OIL

Max operating pressure: 140 bar

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

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

n. 1  
Morsa  
Vise

n. 2  
Morse  
Vises

n. 3  
Morse  
Vises

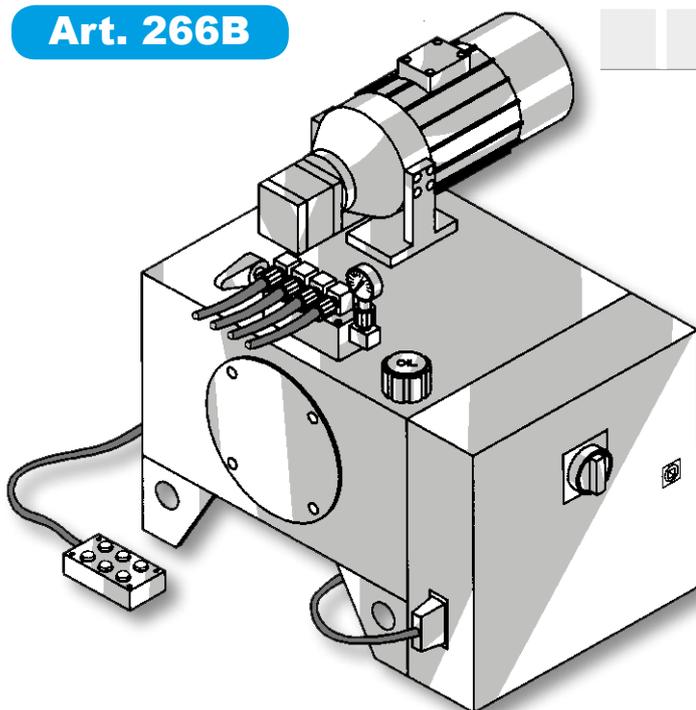
n. 4  
Morse  
Vises

n. 5  
Morse  
Vises

n. 6  
Morse  
Vises

Cod. 5.26.6B001 5.26.6B002 5.26.6B003 5.26.6B004 5.26.6B005 5.26.6B006

### Art. 266B



### Art. 266B

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

#### SENZA OLIO

Pressione massima di esercizio: 140 bar

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

#### NO OIL

Max operating pressure: 140 bar

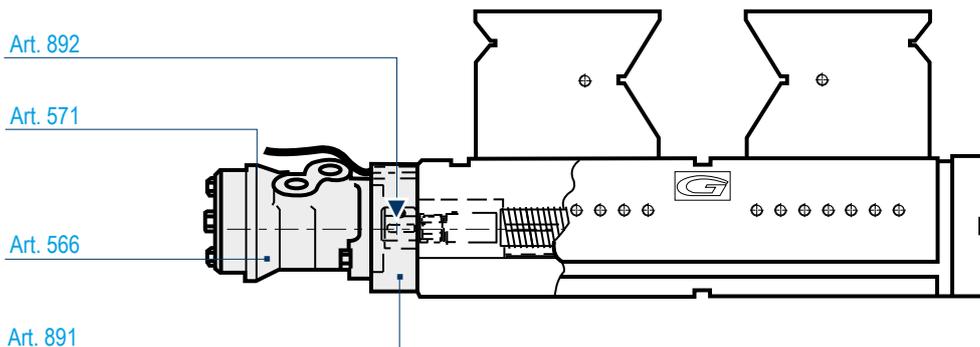
Cilindri oleodinamici, tubi o qualsiasi apparecchiatura sono esclusi / Hydraulic cylinder, pipes or any accessory are excluded

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



## Art. 895

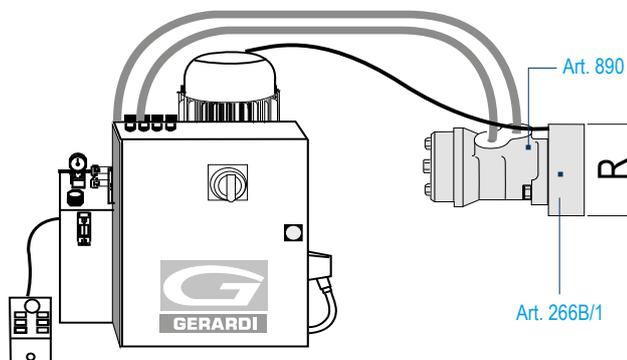
Gruppo di bloccaggio completo di apparecchiatura elettrica con fine corsa elettronico regolabile

**Pressione massima di esercizio: 140 bar**

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

**Max operating pressure: 140 bar**

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



Art.	Pag.
890	5.58
266B/1	5.57

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

## Art. 891

Piastra attacco motore idraulico / Hydraulic motor mounting plate

Cod.	5.89.11000	5.89.12000	5.89.13000	5.89.14000	5.89.15000	5.89.16000
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## Art. 892

Boccola di trascinamento vite motore / Drive bushing screw-motor

Cod.	5.89.21000	5.89.22000	5.89.23000	5.89.24000	5.89.25000	5.89.26000
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## Art. 566

Motore Danfoss / Danfoss motor

Cod.	5.56.61000	5.56.62000	5.56.63000	5.56.63000	5.56.63000	5.56.63000
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## Art. 571

Fine corsa elettronico / Electronic proximity switch

Cod.	5.57.11000	5.57.12000	5.57.13000	5.57.14000	5.57.15000	5.57.16000
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Tipo (grandezza) morsa / Vise (type) size		1	2	3	4	5	6
Larghezza del corpo base / Body base length	C	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

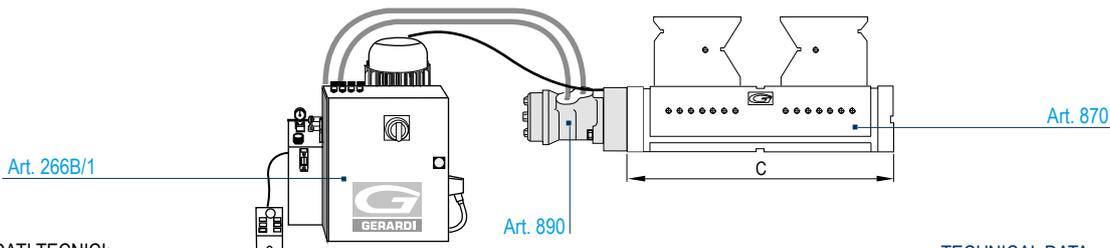
### Art. 870F

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



Art. 266B/1

Art. 890

Art. 870

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° 1 870	5.30
n° 1 890	5.58
n° 1 266B/1	5.57

TECHNICAL DATA:

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

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

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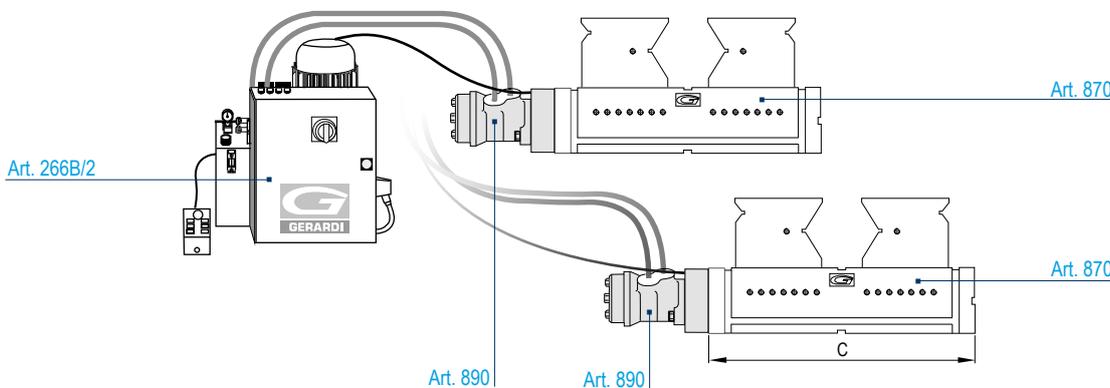
### Art. 870G

COMPOSIZIONE COMPLETA DI:

- N° 2 morse autocentrante Art. 870
- N° 2 servocomandi Art. 890
- N° 1 centralina elettroidraulica Art. 266B/2
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
- Regolazione forza di bloccaggio desiderata
- Ripristino automatico della pressione idraulica in caso di perdita o altro
- Possibilità di collegamento a più morse
- Fine corsa elettronico regolabile

COMPOSITION COMPLETE OF:

- N° 2 self-centering vise Art. 870
- N° 2 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/2
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Automatic pressure reset in case of leakage
- Suitable for multi-vise arrangements
- Adjustable electronic proximity switch



Art. 266B/2

Art. 890

Art. 890

Art. 870

Art. 870

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

TECHNICAL DATA:

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

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

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

### 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

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

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

Cod.	5.87.0L120	5.87.0L230	5.87.0L340	5.87.0L450	5.87.0L560	5.87.0L680
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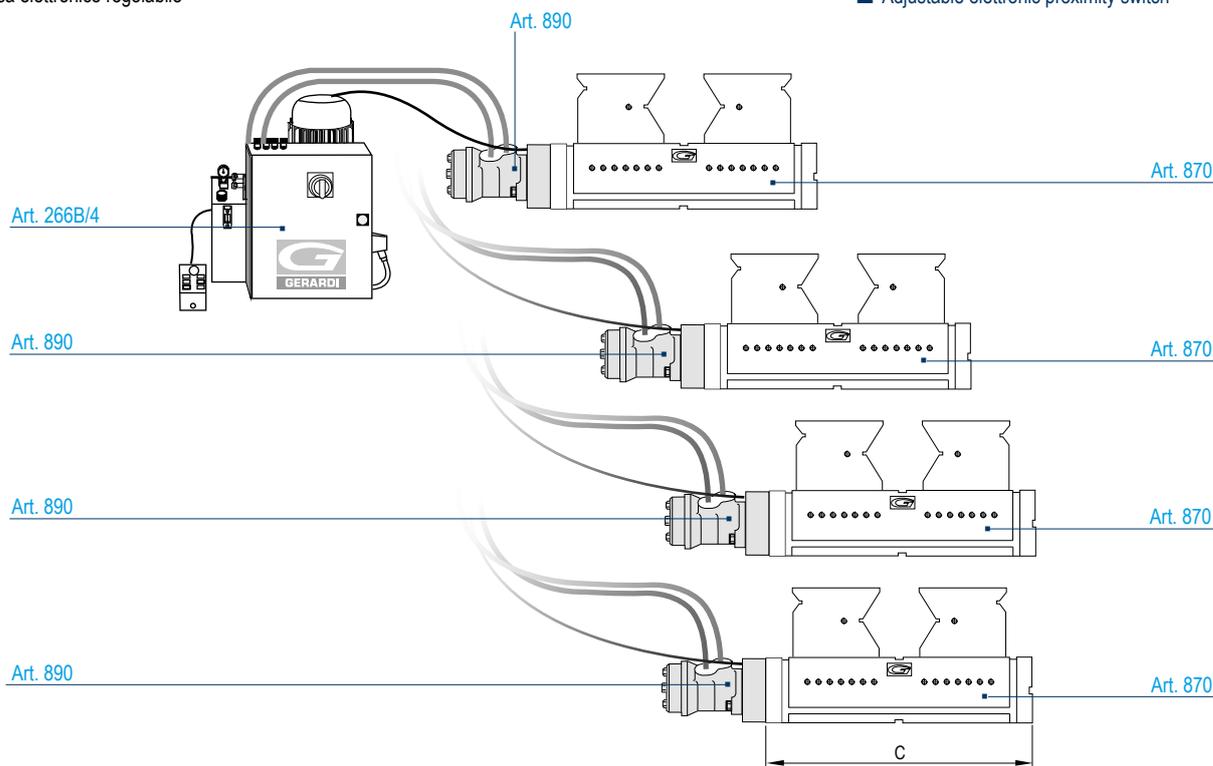
## Art. 870L

### COMPOSIZIONE COMPLETA DI:

- N° 4 morse autocentrante Art. 870
- N° 4 servocomandi Art. 890
- N° 1 centralina elettroidraulica Art. 266B/4
- Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
- Regolazione forza di bloccaggio desiderata
- Ripristino automatico della pressione idraulica in caso di perdita o altro
- Possibilità di collegamento a più morse
- Fine corsa elettronico regolabile

### COMPOSITION COMPLETE OF:

- N° 4 self-centering vise Art. 870
- N° 4 hydraulic servo unit Art. 890
- N° 1 electro-hydraulic power pack Art. 266B/4
- Electrically controlled by manual switch board
- Adjustable clamping force as required
- Automatic pressure reset in case of leakage
- Suitable for multi-vise arrangements
- Adjustable electronic proximity switch



### DATI TECNICI:

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

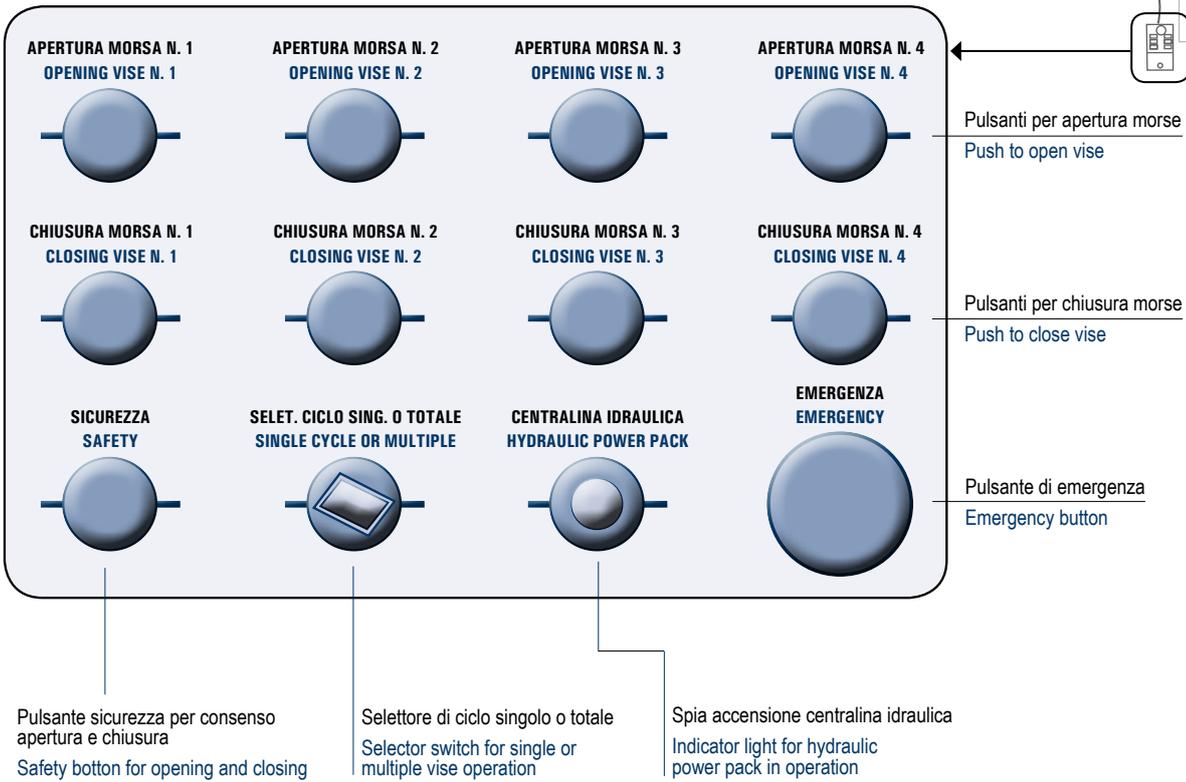
Art.	Pag.
n° 4 870	5.30
n° 4 890	5.58
n° 1 266B/4	5.57

### TECHNICAL DATA:

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

Tubi e cavi di collegamento elettrici ed idraulici standard. Massima lunghezza 1600 mm / Standard hydraulic pipes and electrical cables. Max 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 "o" (singolo).

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

**ATTENZIONE !**

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

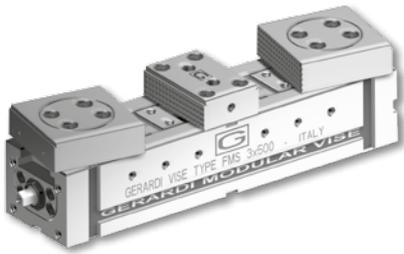
To open or close the vises all together repeat the operation with the selector switch set to "multiple".

**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 tours  
 Lubrification of vise screw & slides: **WITH LOW VISCOSITY OIL**



**SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA**

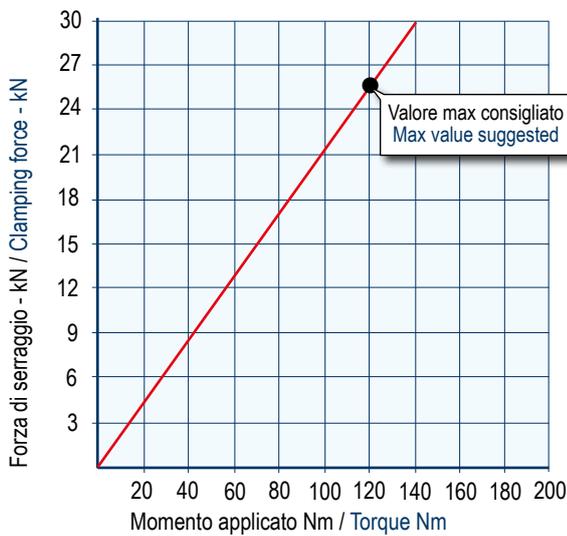
N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicato fino al  $\pm 10\%$   
Per un corretto utilizzo non superare i valori indicati nel grafico

**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

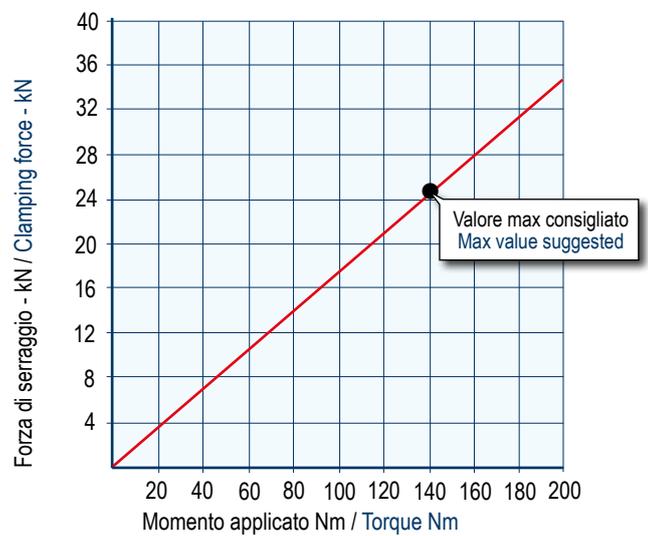
**MORSE FMS TIPO 1  
FMS VISES TYPE 1**

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



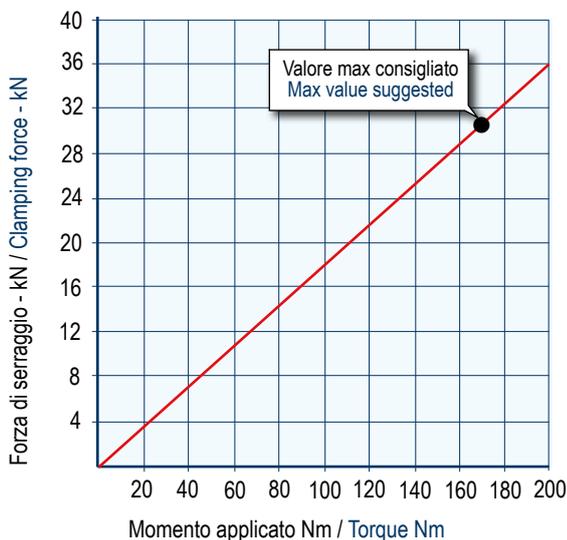
**MORSE FMS TIPO 2  
FMS VISES TYPE 2**

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



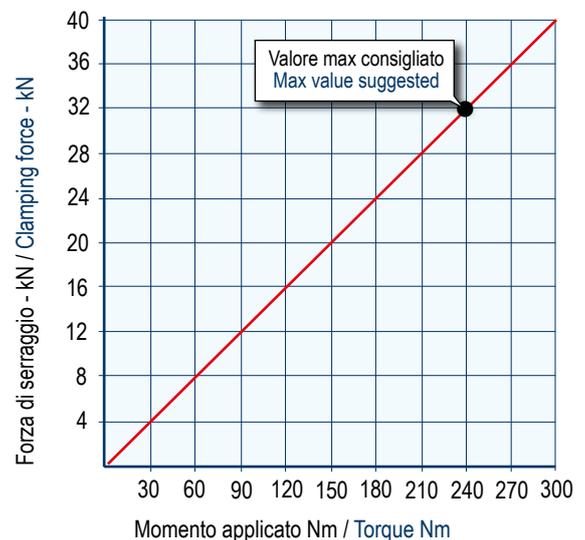
**MORSE FMS TIPO 3-4  
FMS VISES TYPE 3-4**

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

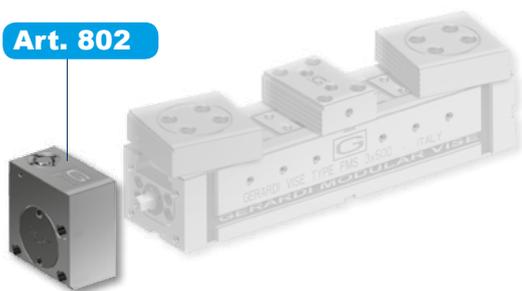


**MORSE FMS TIPO 5-6  
FMS VISES TYPE 5-6**

VITE:  $\varnothing 30$  mm /  $\varnothing 36$  mm PASSO: 3 mm  
SCREW:  $\varnothing 30$  mm /  $\varnothing 36$  mm PITCH: 3 mm  
Chiave dinamometrica / Torque wrench



Art. 802



**SERRAGGIO MECCANICO  
CON MOLTIPLICATORE DI POTENZA Art. 802**

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

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

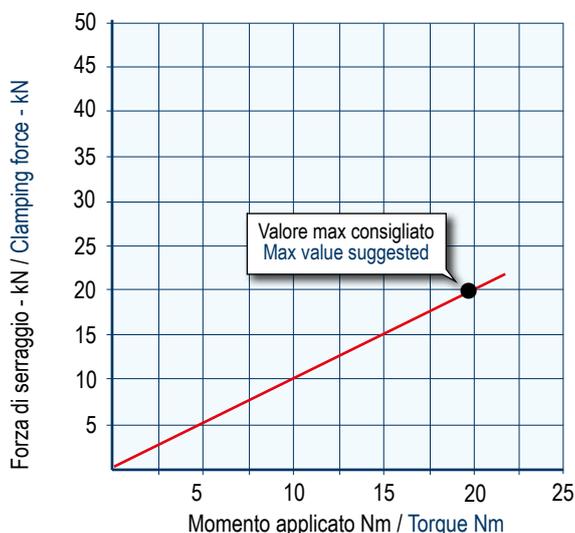
Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a  $\pm 10\%$  range. For optimum operation do not exceed chart values

Tipo 1 Type

**MORSE FMS TIPO  
FMS VISES TYPE 1**

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

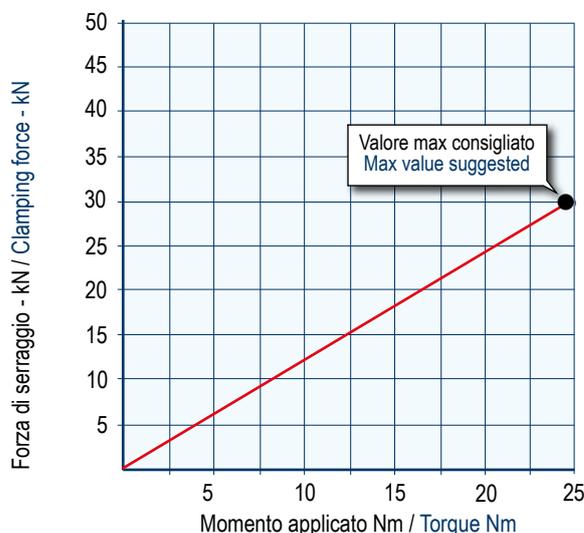
Type	Cod.
1	5.80.21000



**MORSE FMS TIPO  
FMS VISES TYPE 2**

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

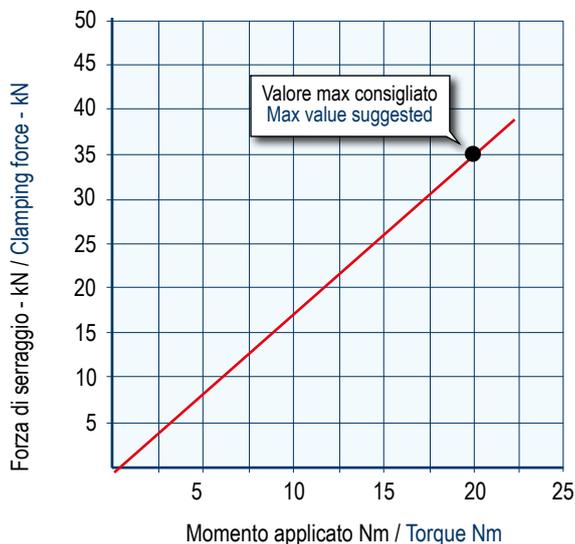
Type	Cod.
2	5.80.22000



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

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

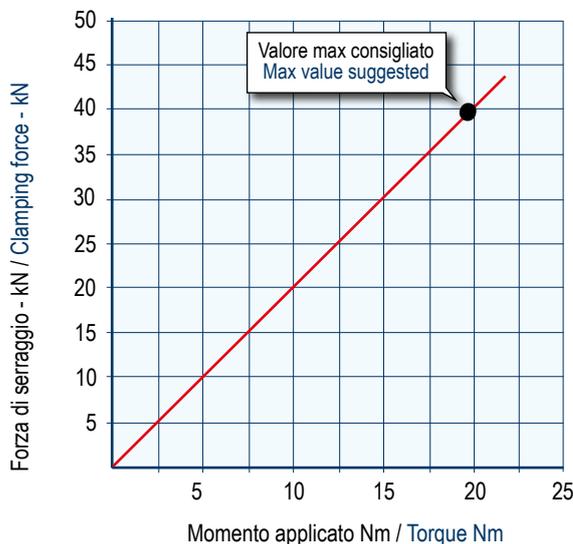
Type	Cod.
3	5.80.23000
4	5.80.24000



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

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

Type	Cod.
5	5.80.25000
6	5.80.26000





**SERRAGGIO MECCANICO**  
**TRAMITE MOTORE IDRAULICO Art. 890**

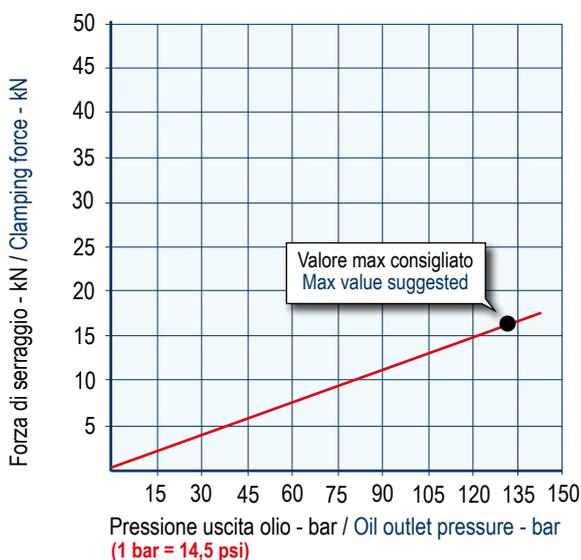
N.B. Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino al  $\pm 10\%$ . Per un corretto utilizzo non superare i valori indicati nel grafico

**MECHANICAL CLAMPING**  
**THROUGH HYDRAULIC MOTOR Art. 890** Some factor as lubrication, type of clamping on the machine table, frictions and more can modify above values within a  $\pm 10\%$  range. For optimum operation do not exceed chart values

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

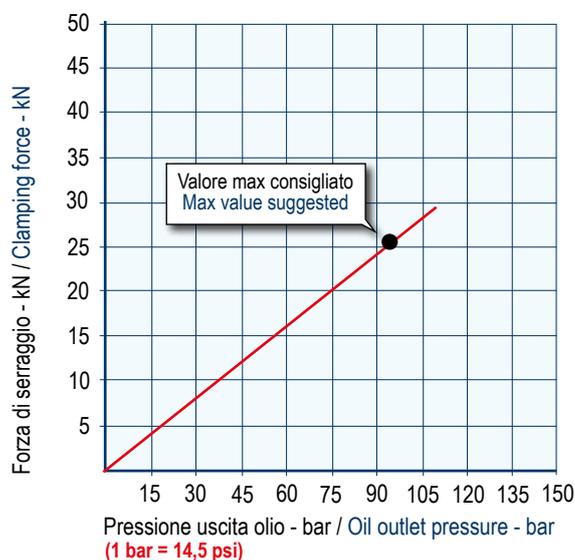
**MORSE FMS TIPO 1**  
**FMS VISES TYPE 1**

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



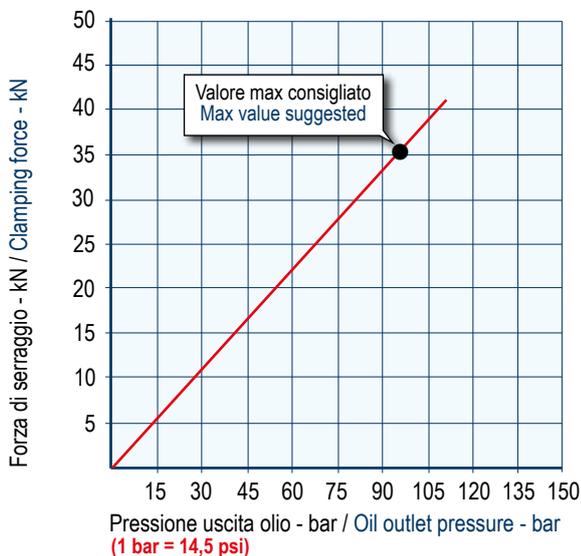
**MORSE FMS TIPO 2**  
**FMS VISES TYPE 2**

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



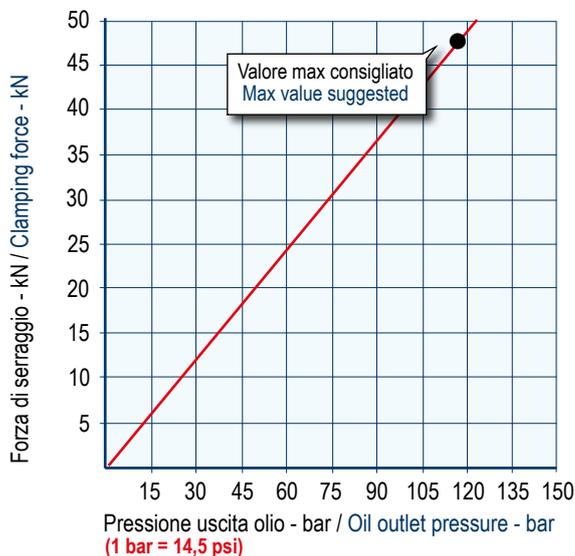
**MORSE FMS TIPO 3-4**  
**FMS VISES TYPE 3-4**

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



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

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



# CONSIGLI SULL' USO E MANUTENZIONE PER MORSE **FMS**

**“TRE MORSE IN UNA” ! Singola , doppia e autocentrante!**

## INSTRUCTIONS FOR THE USE AND MAINTENANCE OF **FMS** VISES

**“THREE VISES IN ONE” ! Single, double, self-centering!**



# 3 MORSE IN UNA VISES IN ONE



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

- 1** Fare riferimento al disegno esploso, che accompagna tutte le morse e che riporta tutti i particolari costituenti la morsa FMS, denominati con numero di articolo, e riferiti sempre al tipo di morsa all'atto dell'acquisto.
- 2** La morsa può essere smontata seguendo attentamente tutte le istruzioni ed operazioni qui sotto descritte. Si consiglia vivamente di marcare pezzi e posizioni di tutti i particolari e rimontarli esattamente nella medesima posizione in cui sono stati smontati.

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

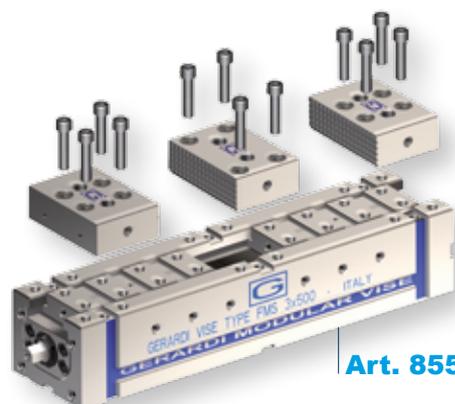
- 1** Refer to your explosion view drawing accompanying all our vises and which identifies each part with its own article number. When requesting service or spare parts always refer to the vise type number.
- 2** By the carefully following procedure and instructions the vise can be dismantled. We suggest all parts and their positions be marked so they can readily be reassembled to their original state.

### OPERAZIONE 1

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

### OPERATION 1

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



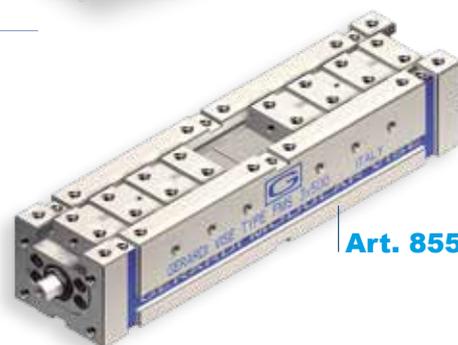
**Art. 855**

### OPERAZIONE 2

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

### OPERATION 2

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



**Art. 855**

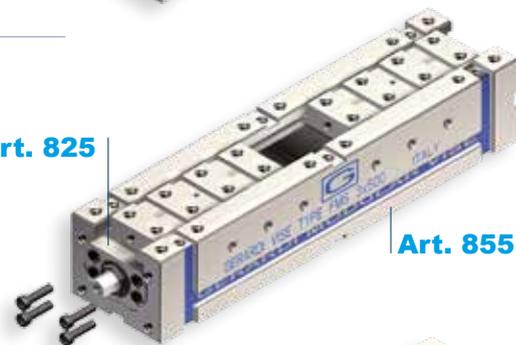
### OPERAZIONE 3

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

### OPERATION 3

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

**Art. 825**



**Art. 855**

### OPERAZIONE 4

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

### OPERATION 4

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

**Art. 825**



**Art. 855**

**Art. 801G**

**3 MORSE IN UNA  
VISE IN ONE**



**OPERAZIONE 5**

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

**OPERATION 5**

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

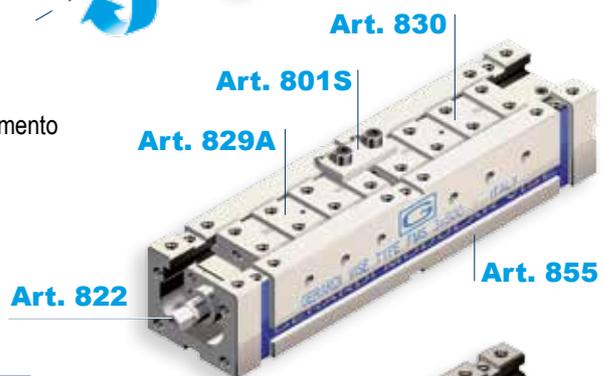


**OPERAZIONE 6**

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

**OPERATION 6**

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

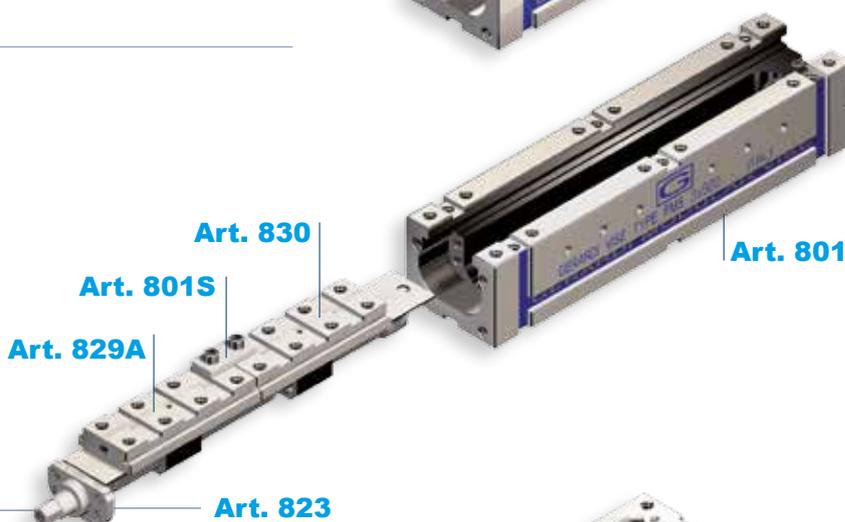


**OPERAZIONE 7**

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

**OPERATION 7**

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

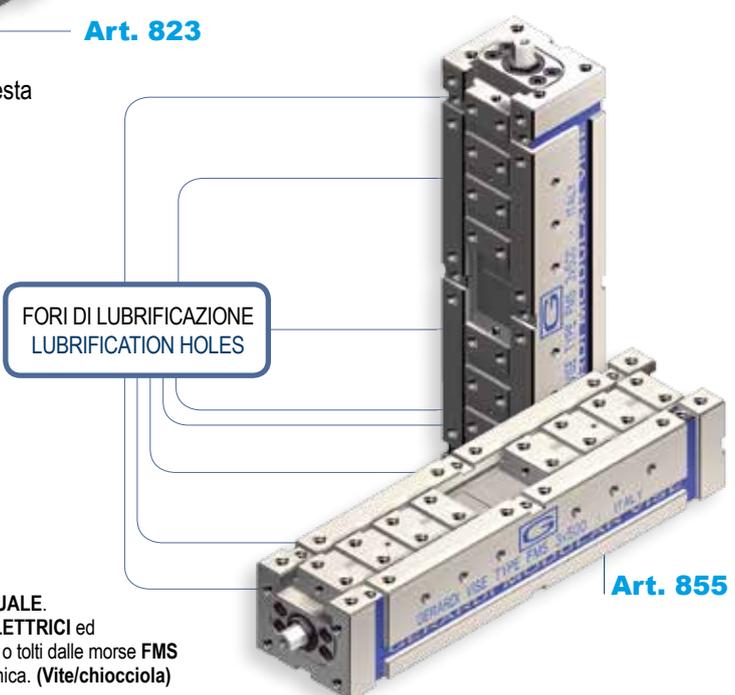


**OPERAZIONE 8**

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.

**3 MORSE IN UNA  
VISES IN ONE**



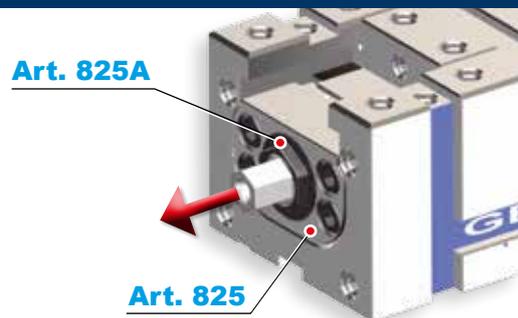
**FUNZIONAMENTO DELLA MORSA FMS  
FMS VISE OPERATION**

**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.

**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.



**Fig. 1**

**MORSA AUTOCENTRANTE**

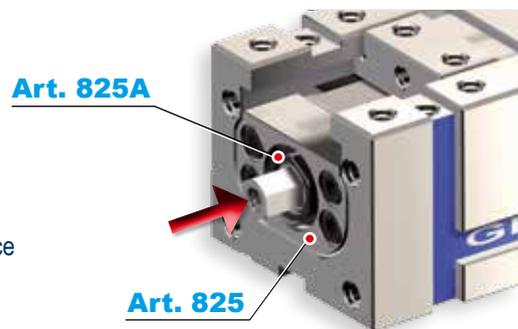
Con la ghiera **Art.825A** chiusa, all'interno della piastra di contenimento **Art. 825 - Fig.2**, la morsa è predisposta per il bloccaggio autocentrante di un solo pezzo (sono possibili sia bloccaggi esterno-interno che interno-esterno)

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

**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



**Fig. 2**

**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**

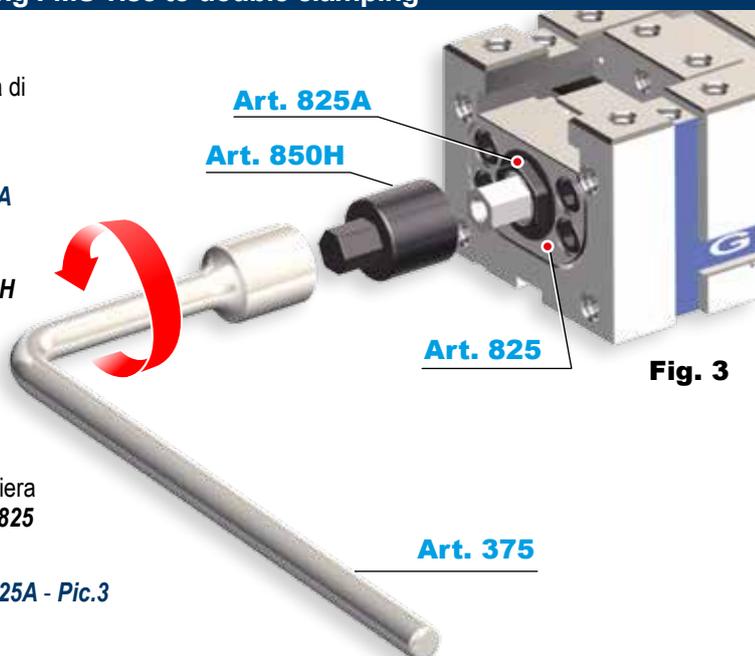
Put the box wrench **Art.375** inside the hexagonal bushing **Art.850H**

**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

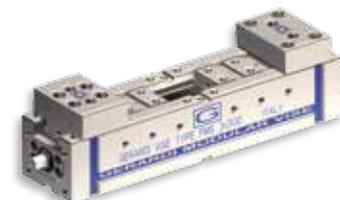
A questo punto la morsa FMS può serrare 2 pezzi contemporaneamente anche se le dimensioni tra loro sono diverse, con un margine di 8mm circa.

Può anche essere utilizzata per serraggi singoli, per il serraggio di un unico pezzo, spostando la ganaschia fissa centrale (**Fig.4**) in una delle 2 cave laterali e naturalmente, rimuovendo una delle 2 ganasce mobili.

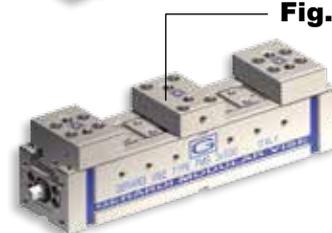
Per ottenere tutte le aperture possibili (data la lunghezza della base) può, in certe posizioni essere necessario l'utilizzo di ganasce speciali o spessori.

Now the FMS vise can clamp 2 work-pieces different dimensions (max difference 8mm)

At the same time the vise can also be used as single station clamping by moving the central fix jaw (**Pic. 4**) in one of the 2 lateral positioning slots and of course by removing one movable jaw. In order to reach all the possible openings (given the base length) it could be necessary, in some positions, the use of specials jaws or spacers.



**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

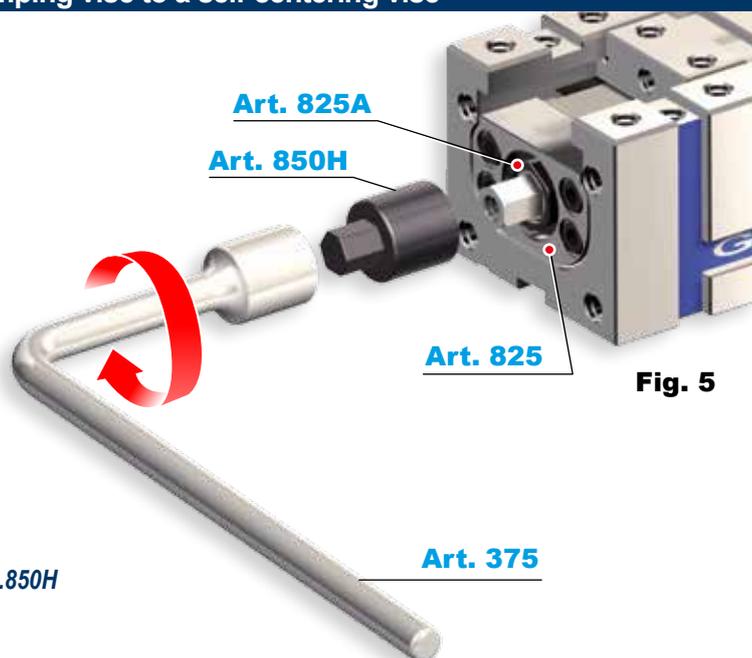
Turn the hexagonal wrench **Art.375** **clockwise** to reach with the locking the bottom position, that inside the main screw holding plate (do not force the clamping). **Pic.5**

#### 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.



**3 MORSE IN UNA  
VISES IN ONE**



**DISPOSITIVO "TERZA MANO"**

**"THIRD HAND" DEVICE**

**DISPOSITIVO TERZA MANO PER MORSE  
FMS DOPPIE**

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.

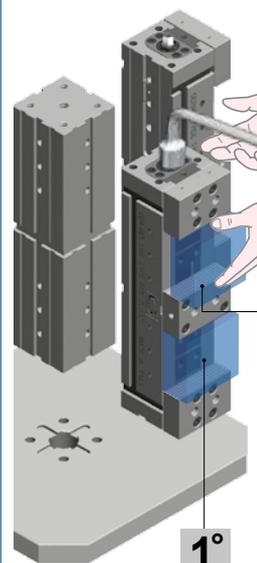
The standard "Third Hand" device has a max pressure of 50 Kg.

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.



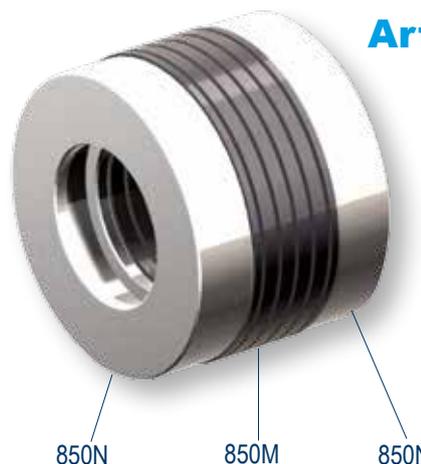
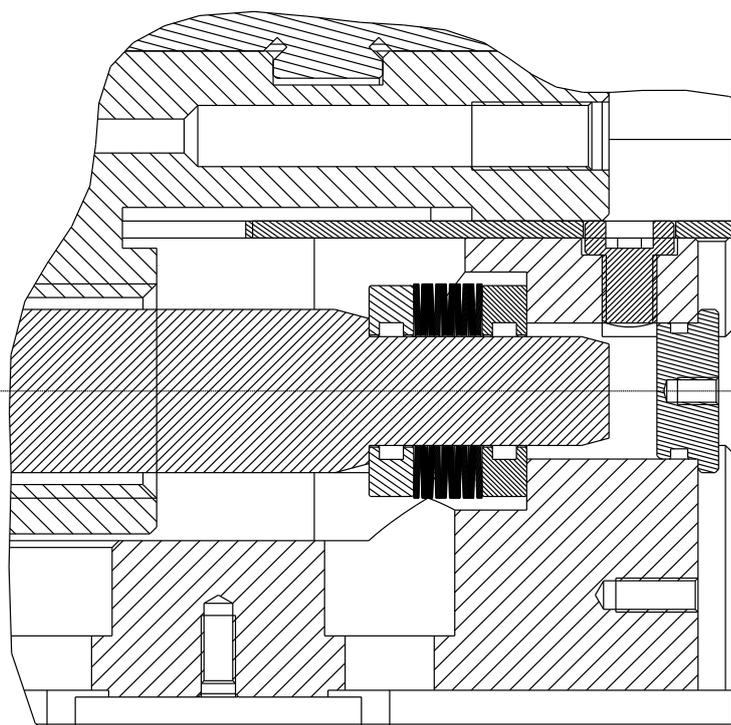
1° Particolare preserrato a 50-60 Kg  
Workpieces preclamped at 50-60Kg

2° Particolare  
Workpieces

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

Il meccanismo "Terza mano" standard ha una spinta di max 50 Kg. Volendo ottenere una spinta maggiore, basta sostituire le molle in dotazione con altre di maggior potenza (attenzione però a mantenere la stessa quota di altezza del pacchetto molle) oppure aggiungendo un altro distanziale di max. 3mm

*N.B: sostituendo le molle o aggiungendo un distanziale extra bisogna tener presente che il maggior precarico comporterà lo stesso carico di spinta anche girando la vite Art.822 a vuoto.*



**Art. 850P**

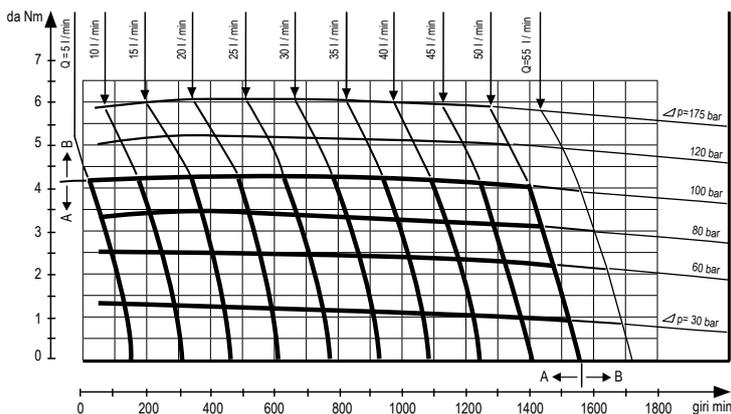
**Art. 860E**

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



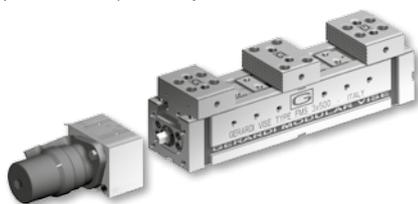
**OMM 32**

Morse FMS tipo 1 / Type 1 FMS vises



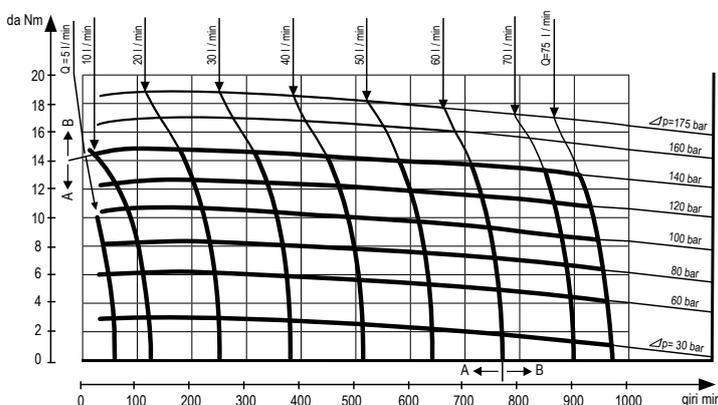
**Art. 860E**

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



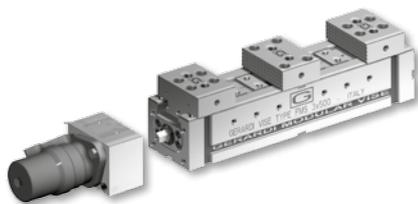
**OMP 80**

Morse FMS tipo 2 / Type 2 FMS vises



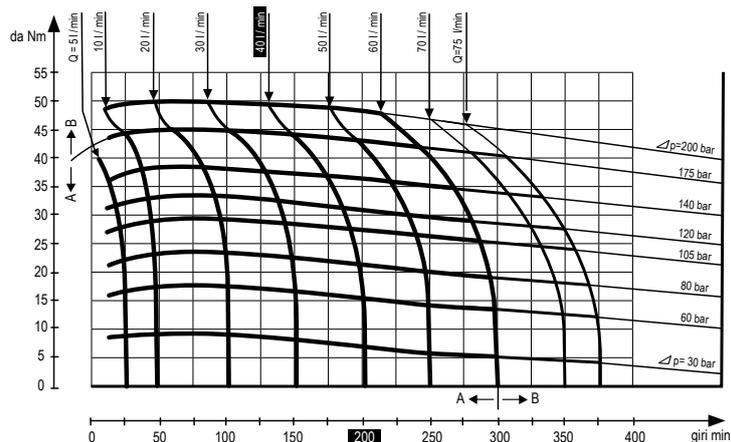
**Art. 860E**

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



**OMR 200**

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



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

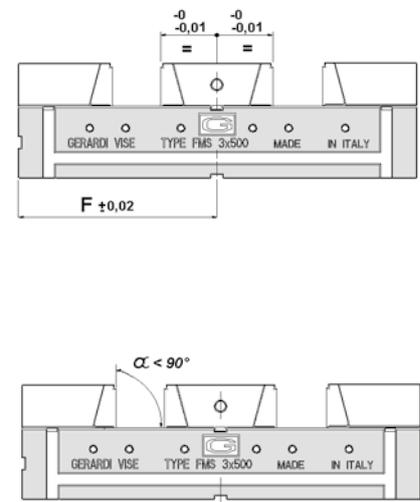
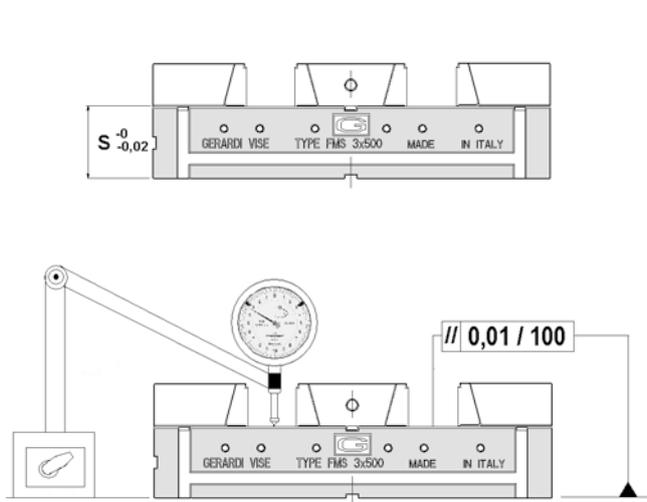
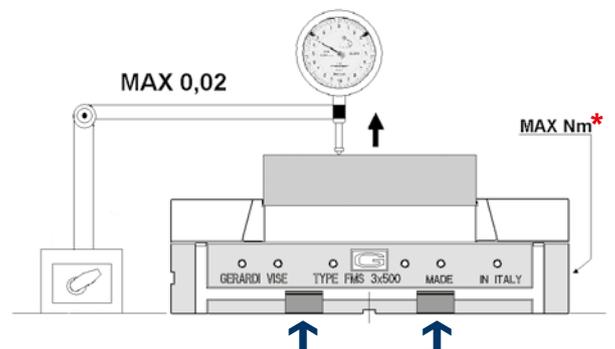
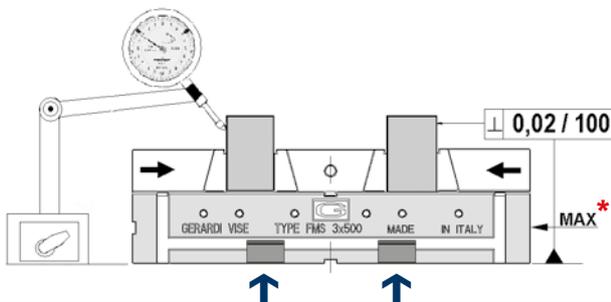
Esempio: Vite passo 2 mm; Giri 200/min (ipotizzando una portata olio di 40 l/min);  $V = 2 \times 200 = 400 - 25\% = 300$  mm/min per una morsa.

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

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

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

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

**TOLLERANZE GEOMETRICHE**
**GEOMETRIC ACCURACIES**

**TOLLERANZE DINAMICHE**
**DINAMIC ACCURACIES**


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

<b>Art 865</b>		<b>* Coppia applicata - Torque Nm</b>	<b>Forza di serraggio - Clamping power</b>
Morsa tipo 1	Vise type 1	120	2500 Kgf
Morsa tipo 2	Vise type 2	140	2500 Kgf
Morsa tipo 3	Vise type 3	180	3000 Kgf
Morsa tipo 4	Vise type 4	180	3000 Kgf
Morsa tipo 5	Vise type 5	240	3200 Kgf
Morsa tipo 6	Vise type 6	240	3200 Kgf

1 kgf . m = 9.806