

5

*Single, Double
or Self-centering!*

FMS

Morse e Cubi / Vises & Vise Towers

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

Art. 983
Art.860 T.1x300

Art. 860 - All'Interno - Inside:

Art.810L	Art.807	Art.810X	Art.810U
Art.810J	Art.814	Art.806B	Art.806C
Art.806D	Art.806E	Art.806F	Art.298
Art.297	Art.850H	Art.370	Art.375

Morsa / Vise Art. 860
Cod. 0.98.30000



SIMBOLOGIA DATI TECNICI
TECHNICAL DATA ICONS

GANASCE JAWS	PIASTRE GANASCE JAW PLATES	POSSIBILITÀ POSSIBILITY	PAGINE PAGES
 Piane Straights A gradino With step Oscillanti Floating Oscillanti con inserti regolabili Floating with inserts adjustable Prismatiche Prismatic	 Discen- dente Pull down Piana Straight Cambio rapido manuale Quick manual change GRIP GRIP Inserti GRIP Inserti GRIP	 Serraggio singolo Single clamping Serraggio doppio Double clamping Predisposi- zione Zero Point Zero Point Ready Cubi-morsa Vise tower Divisore Automatico Automatic dividing head Divisore Meccanico Mechanical dividing head	 Lavorazioni a 5 assi 5 axis machining Accessori & Ricambi Accessories & Spare Parts Istruzioni corretto utilizzo Instruction for a proper use Diagrammi forze di serraggio Clamping force diagrams Sistema Idraulico Hydraulic System

OPZIONI LAVORAZIONI EXTRA
OPTIONS FOR EXTRA MACHINING

Nei codici, FMS si riferisce agli articoli dei gruppi 5, 6 e 7.
In codes, FMS refers to articles in groups 5, 6 and 7.

Lavorazione extra Extra machining	Cod.	Lavorazione extra Extra machining	Cod.
AGGIUNTA di un foro calibrato ADDITION of a calibrated hole	MAN-010-FMS	MONTAGGIO SEMPLICE SIMPLE ASSEMBLY	MAN-060-FMS
AGGIUNTA di una chiave calibrata ADDITION of a calibrated key-way	MAN-020-FMS	MONTAGGIO ed ALLINEAMENTO (Standard) (Standard) ASSEMBLY and ALIGNMENT	MAN-070-FMS
PREDISPOSIZIONE SEMPLICE SIMPLE SET UP	MAN-030-FMS	MONTAGGIO VERTICALE COMPLETE VERTICAL ASSEMBLY	MAN-080-FMS
PREDISPOSIZIONE & MONTAGGIO COMPLETO COMPLETE SET UP & MOUNTING	MAN-040-FMS	ALLINEAMENTO e CONTROLLO tramite DEA ALIGNMENT and CONTROL by DEA \ CMM	MAN-090-FMS
MONTAGGIO PARZIALE PARTIAL ASSEMBLY	MAN-050-FMS	TABULATO controllo DEA PRINTOUT DEA control	MAN-100-FMS

Vedi pagina 5.70 per esempi applicativi - See page 5.70 for application examples

Morse e cubi morsa / Vises & vise-towers

FMS SERIES

Un sistema modulare flessibile con centinaia di ganasce disponibili

A Flexible modular system with hundreds of jaws available

ESTREMA VERSATILITÀ EXTREME VERSATILITY

- 3 posizioni per la ganascia fissa; •Serraggio dall'esterno all'interno e viceversa;
- Posizionamento verticale-orizzontale-laterale; •Collegamento: fianco a fianco, dorso a dorso, fianco a dorso; •Possibilità illimitata per ganasce speciali; •Sostituzione semplice e precisa delle ganasce; •Elemento di prolunga per pezzi fuori misura; •Sistema di serraggio meccanico, idraulico, pneumatico elettrico o con moltiplicatore di potenza, tramite comando manuale, a pedale o mediante pulsante elettrico (vedi pag. 12); •Costruzione solida e compatta e massima apertura rispetto alla sua lunghezza; •Flessioni praticamente ridotte di due volte rispetto alle precedenti morse modulari standard; •Accurata ripetibilità di posizionamento del pezzo da lavorare; •Precisioni geometriche con tolleranze entro 0,02 mm; •Protezione integrale dalla penetrazione di corpi estranei tramite piastre scorrevoli; •Possibilità di trasformazione di ogni morsa singola in morsa autocentrante o in morsa doppia tramite la semplice sostituzione delle ganasce sul corpo base universale. (ESEMPLI APPLICATIVI A PAGINA 5.76).

- 3 positions for the fixed jaw; •Outside to inside clamping and viceversa; •Vertically, horizontally and sideways vise positioning; •Side to side, back to back and back to side vise positioning; •Unlimited special jaws; •Simple and precise exchange of jaws; •Extension element for extra-long pieces; •Mechanic, hydraulic or pneumatic or electrical clamping system or with pressure multiplier, through manual, pedal or push button control (see page 12); •Space saving design, solid construction and maximum blocking ratio to total length; •Deflection reduced two times with respect to the STANDARD modular vises; •Very accurate repeatability of workpiece position; •Geometrical accuracy with tolerances within 0,02 mm; •Integral protection from chips and dirty through sliding protection; •Possibility to transform each single vise in a self-centering vise with possibility to block from outside to inside and vice versa and in a double vise through the simple substitution of the jaws on the universal vise body base. (APPLICATION EXAMPLES ON PAGE 5.76)

Vite a doppio filetto Double thread spindle

Vite principale (completamente protetta) con filetto destro e sinistro e slitte guidate lunghe quanto il corpo base con più chiavette per ganasce mobili

Completely protected main spindle with left and right thread and guided slides long ad the vise base with multiple movable jaw positions

Chiavette di posizionamento Positioning Keyways

Chiavette longitudinali e trasversali sia sulla base per il posizionamento orizzontale, sia in testa per il posizionamento verticale.

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



3 Morse in Una 3 Vises in One

Possibilità di trasformare ogni morsa singola 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.

Possibility to transform each single vise in a self-centering vise with the possibility to block from outside to inside and viceversa and in a double vise through the simple substitution of the jaw on the universal vise body base.



Altissima rigidità Highest rigidity

Base della morsa con una sezione doppia per garantire maggiore rigidità. Flessioni ridotte di due volte rispetto alle normali morse modulari standard. Disponibili cubi monoblocco.

Higher vise base in order to guarantee a better rigidity. Bending reduced two times with respect to the standard modular vises. Available solid vise towers



Riconfigurazione Rapidissima Quickest Vise Resetting

Grazie alla piastra ganascia intercambiabile manualmente tramite sistema a pettine

Thanks to the quick interchangeable jaw plate through ground comb system



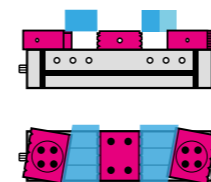
Precisione / Accuracy
±0,02mm



Durezza / Hardened
HRC 58±2

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. Serraggi di qualsiasi lunghezza. La caratteristica (Brevetata) 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. 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.

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. Grip any work length. The feature (Patented) which identifies this line of vises consists in the possibility to transform each single vise (1 piece clamping) in a self-centering vise with possibility to block from outside to inside and viceversa and in a double vise through the simple substitution of the jaws on the universal vise body base. All that suggests their use in the production of lots of highly different pieces reducing set-up times and assuring very accurate repeatability of workpiece position and precision, increasing the global efficiency of the production process.



Ganasce Mobili Oscillanti per serraggio di pezzi irregolari
Floating Movable Jaws for irregular workpieces

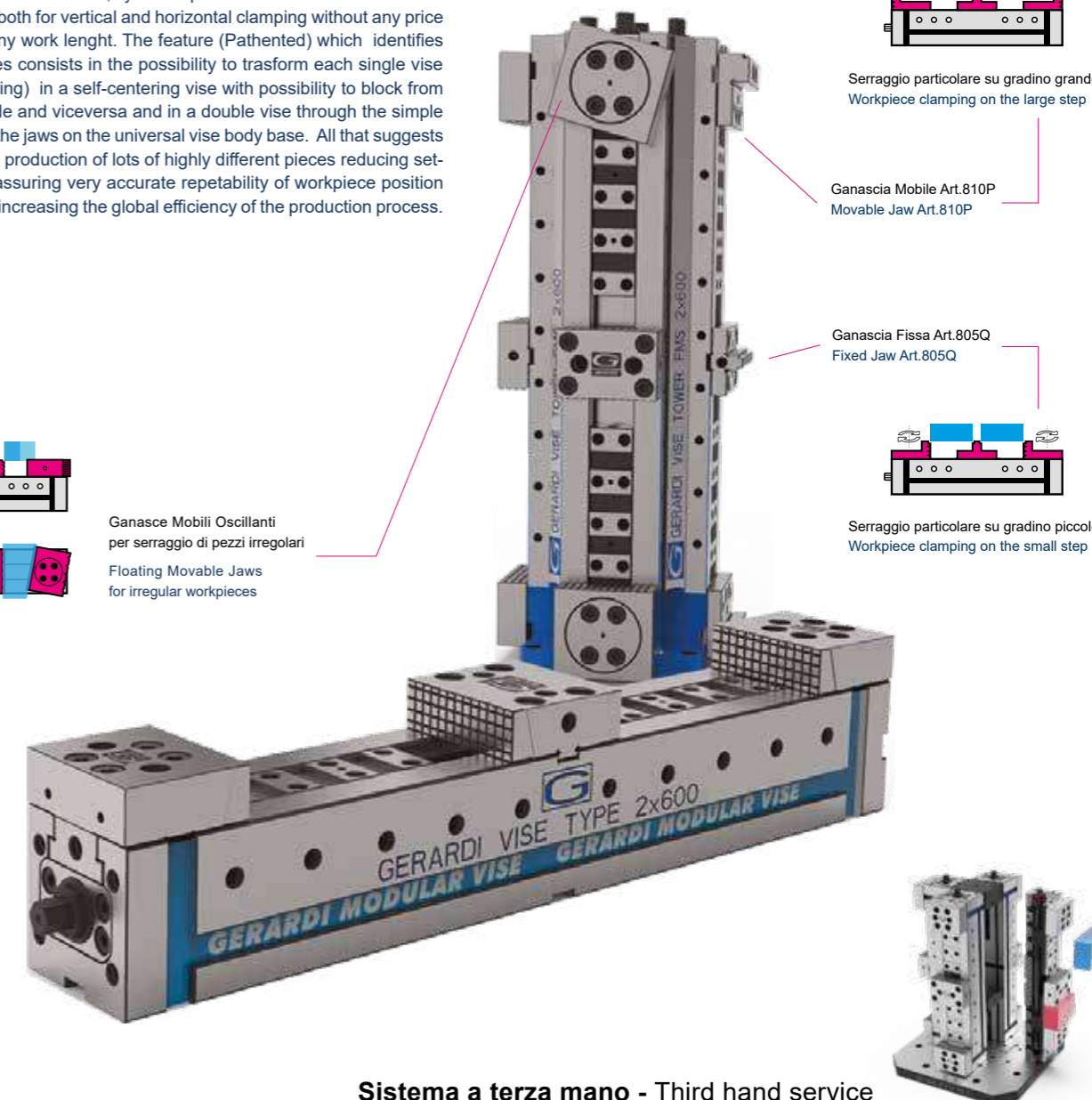
SCAN IT TO SEE



THE WEB PAGE



Singole, Doppie o Autocentranti!
Single, Double or Self-centering!



Serraggio particolare su gradino grande
Workpiece clamping on the large step

Ganascia Mobile Art.810P
Movable Jaw Art.810P

Ganascia Fissa Art.805Q
Fixed Jaw Art.805Q

Serraggio particolare su gradino piccolo
Workpiece clamping on the small step

Sistema a terza mano - Third hand service

Consente il carico e serraggio lieve del primo particolare da lavorare mentre viene caricato il secondo di dimensione maggiore. Molto utile con l'utilizzo verticale della morsa.

It allows the first workpiece loaded to be clamped lightly while the second workpiece is being loaded. Such device is useful especially with the vise vertically positioned

Staffe di ancoraggio / Vise holding clamps

NEW
2024

Soluzioni personalizzate / Customized solutions

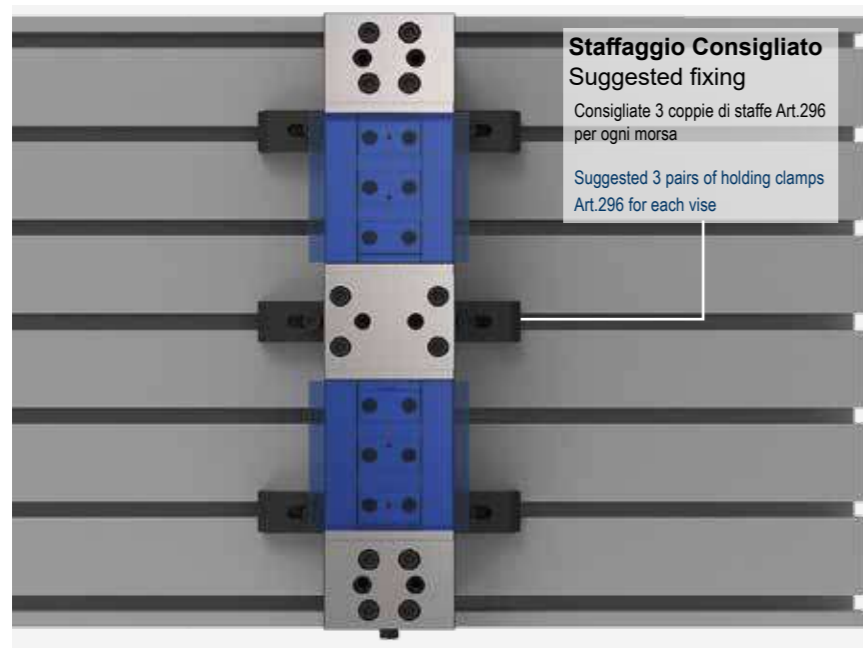
FMS

Coppia staffe di fissaggio Art.296, complete di vite e dado a "T"
Pair of vise holding clamps Art.296 complete of screw and "T" nuts

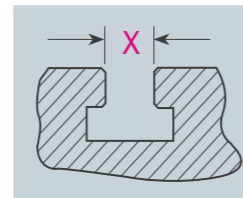


Esempio d'ordine per morsa tipo 3 su macchina con cave a T da 18mm: **Art.296 T.3 X=18mm**
Oppure con codice: **2.29.6300 X=18mm**

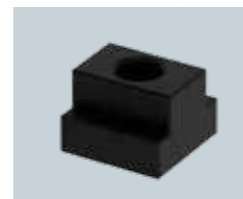
Order example for Type 3 vise on machine with 18mm T-slots: **Art.296 T.3 X=18mm**
Also with code: **2.29.6300 X=18mm**



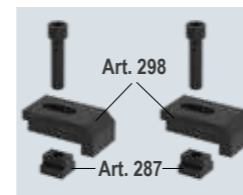
Staffaggio Consigliato
Suggested fixing
Consigliate 3 coppie di staffe Art.296 per ogni morsa
Suggested 3 pairs of holding clamps Art.296 for each vise



Cava a T
T Slot
Specificare sempre la cava della vostra macchina
Always specify the machine T-slot dimension



Art.287 (Pag.4.34)
Dadi a T - T Nuts
Per fissaggio morsa alle cave a T della macchina
For vise clamping on the machine T-slots



Art.296
(Art.298 + Art.287)
Consigliate 3 coppie di staffe Art.296 per ogni morsa
Suggested 3 pairs of holding clamps Art.296 for each vise

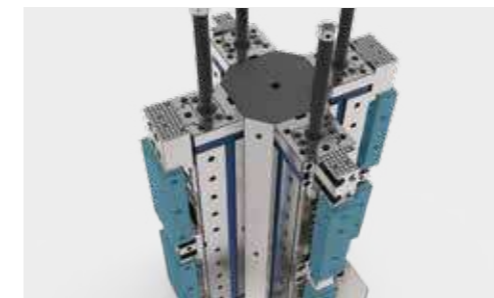
Tipo (grandezza) Type (size)	1				2 - 3				4 - 5 - 6																							
Art. 296	12	14	16	18	12*	14	16	18	12*	14	16	18*	20	22	16	18	20	22	18*	20	22											
Cava a T slot X	8	9	10	11	12	13	14	20	21	22	32	39	40	20	21	22	23	32	39	40	20	21	22	23	32	39	40					
T-nuts Ref. N°	M8				M10				M12 *				M16				M12 *				M16				M12				M16 *			
Filetto vite Screw thread	M8				M10				M12 *				M16				M12 *				M16				M12				M16 *			
1 X M8	A	50	50	50	50	76	76	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86					
	B	24	24	24	24	30	30	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40					
	C	6	6	6	6	6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10					
	Ø D	8,5	11	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17					
	E	10	10	10	10	13	13	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15					
	Ø F	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	G / G1	14	16/15	17,5/13	19/9	17/22	16/15	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27	26/27						
	H	34	34	34	34	42	42	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50					
	I	8	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	J	4	4	4	4	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10					
	T ± 0,1	15	15	15	15	20	20	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26					
	Cod.	2.29.61000 / M8	2.29.61000 / M10	2.29.61000 / M12	2.29.61000 / M16	2.29.63000 / M12	2.29.63000 / M12	2.29.65000 / M12	2.29.65000 / M16	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12	2.29.65000 / M12					

*Scelta consigliata - Suggested choice

*Scelta NON consigliata - NO Suggested choice

FMS

Soluzioni personalizzate a tutti i vostri problemi di serraggio
Customized solutions for all your clamping problems



Morse FMS automatizzate in verticale
FMS vises automated vertically mounted

Gestione automatica di morsa meccaniche grazie alla predisposizione per connessione con il robot. Lavorazioni del particolare su 3 lati con un unico serraggio evitando il riposizionamento ed una seconda ripresa del particolare da lavorare.
Automated machine setting thanks to the pre-fitting with robot connection. Workpiece machining on 3 sides with one clamping and so avoiding re-positioning and a second machining of the workpiece.



Morsa FMS con riduttore epicicloidale
FMS vise with epicyclic force reducer

Riduttore epicicloidale il quale consente di moltiplicare notevolmente la coppia sviluppata dal motore idraulico consentendo di arrivare a elevate forze di serraggio, fino a 480 kN
Epicyclic force reducer able to multiply greatly the torque generated by the hydraulic engine reaching a very high clamping force, maximum 480kN.



Serraggio automatico di grandi particolari tondi
Round workpieces automatic clamping

Sistema di serraggio meccanico con morsa FMS per il serraggio di particolari tondi di grandi dimensioni controllato tramite centralina idraulica da CNC
Quick positioning and clamping with FMS vises of whole equipment on round Zero Point plate through pull-studs and centering pin.



Non solo per centri a 5 assi
Not only for 5th axis machines

Morsa autocentrante FMS su centro di lavoro verticale con ganasce personalizzate in alluminio.
Self Centering FMS vise with tailor made jaws aluminum mounted on Vertical CNC



Morse FMS in verticale con robot
FMS vises vertically mounted + robot

Assieme di morsa FMS montate verticalmente su centro orizzontale gestite tramite robot anche per carico e scarico pezzi
FMS vises vertically mounted on horizontal machining center. Both vise clamping and workpieces turnover are operated through automated robotic system.

TRE MORSE IN UNA THREE VISES IN ONE



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

CORPO BASE Art.855

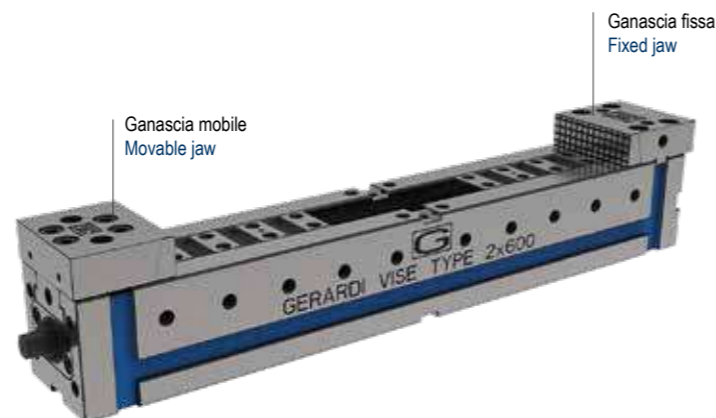
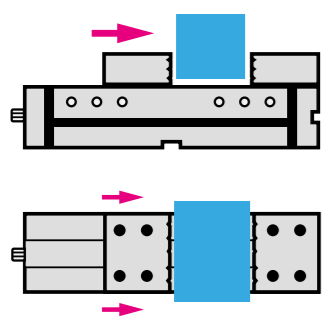
BASE BODY Art.855

Modulo base universale
CENTINAIA DI GANASCE DISPONIBILI !!

Universal vise body module
HUNDREDS OF JAWS AVAILABLE !!

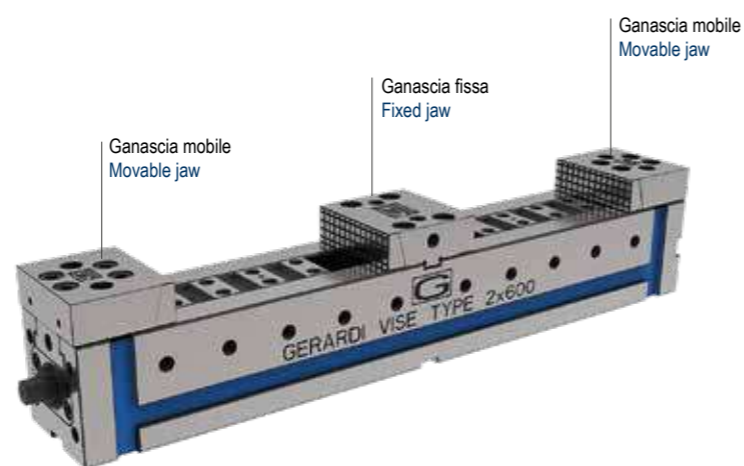
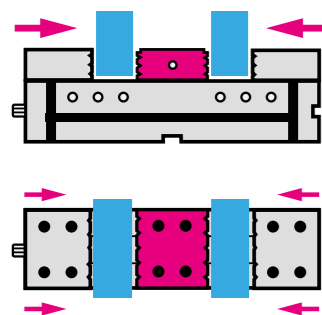
SERRAGGI SINGOLI

SINGLE CLAMPING



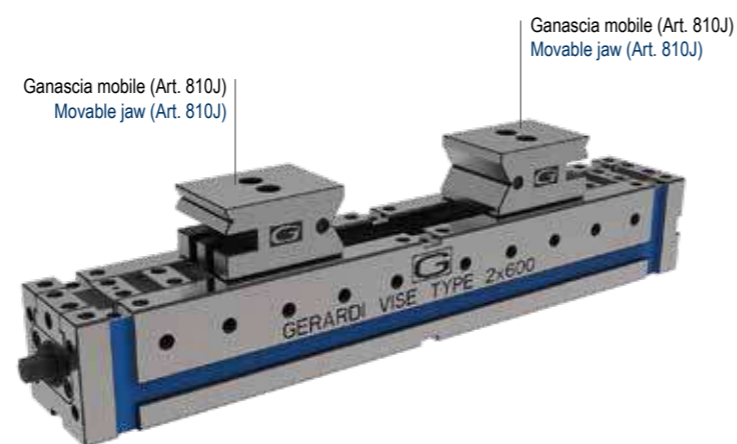
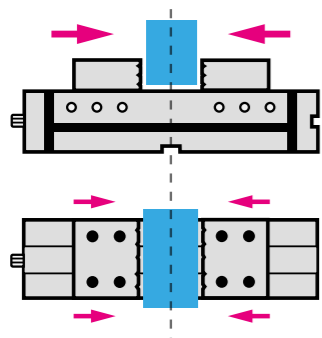
SERRAGGI DOPPI

DOUBLE CLAMPING



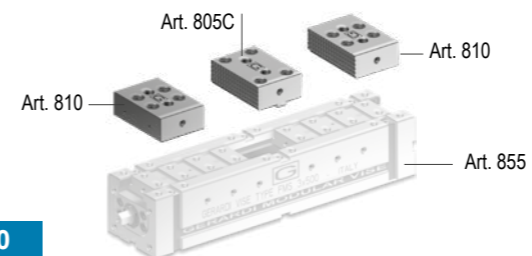
AUTOCENTRANTE

SELF-CENTERING

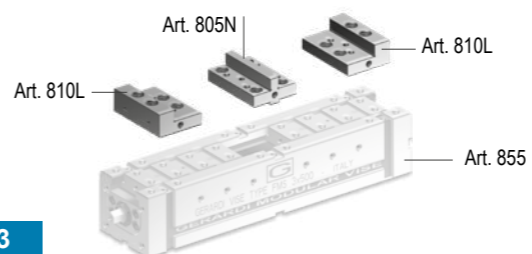


VERSIONI PER SERRAGGI DOPPI

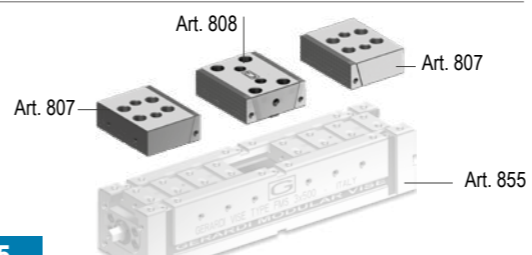
DOUBLE CLAMPING CONFIGURATION



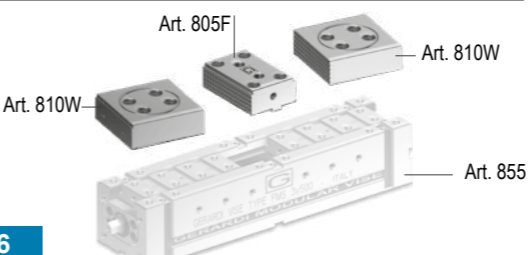
Art. 860



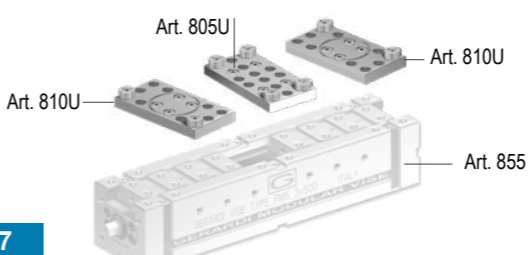
Art. 863



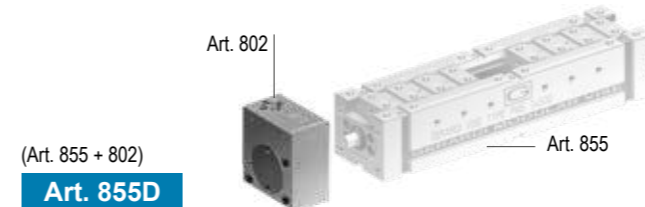
Art. 865



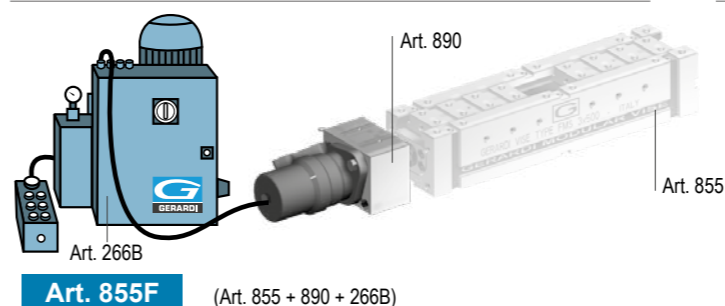
Art. 866



Art. 867



Art. 855D

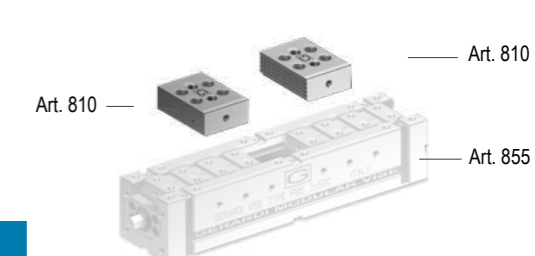


Art. 855F

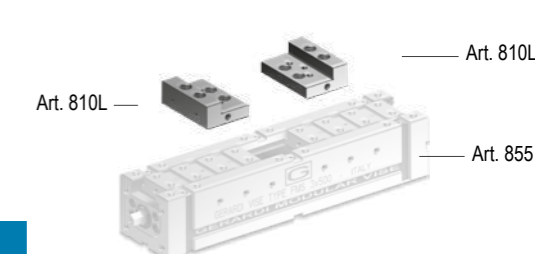
(Art. 855 + 890 + 266B)

VERSIONI AUTOCENTRANTI

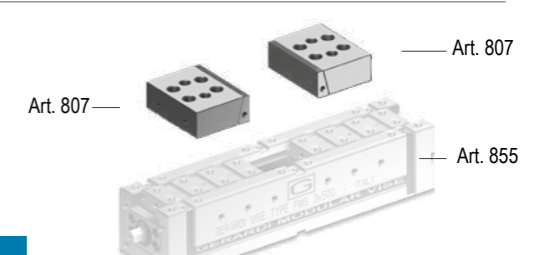
SELF-CENTERING TYPE



Art. 860



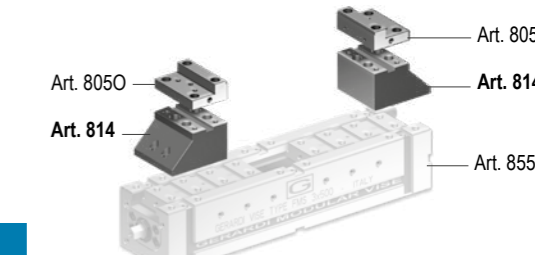
Art. 863



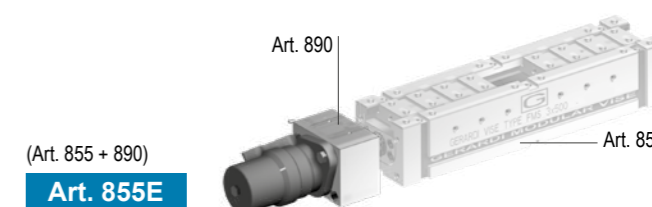
Art. 865



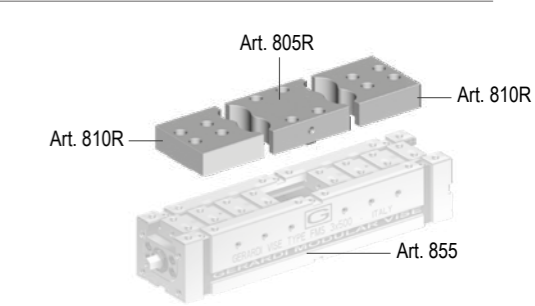
Art. 870



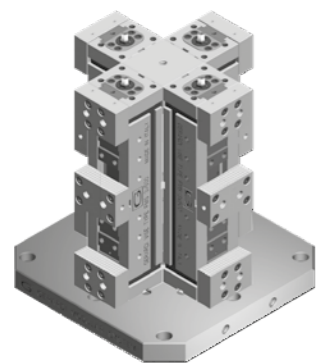
Art. 868



Art. 855E

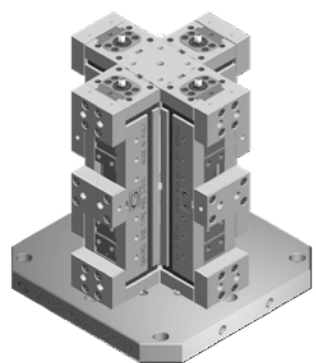


CUBI DI MORSE MONTATI A CROCE O DORSO A DORSO VISE TOWERS CROSS OR BACK TO BACK MOUNTED



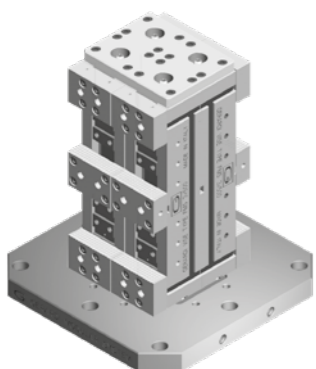
N° 4 MORSE FMS
montate a croce su piastra base (Art. 827A)
con distanziali (Art. 835)

N° 4 FMS VISES
cross-mounted on base plate (Art. 827A)
with spacers (Art. 835)



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

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



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

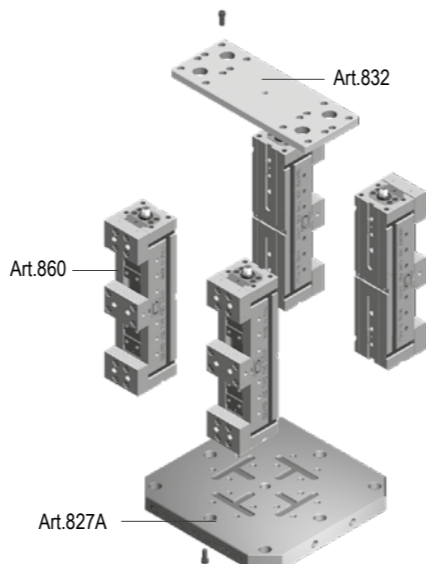
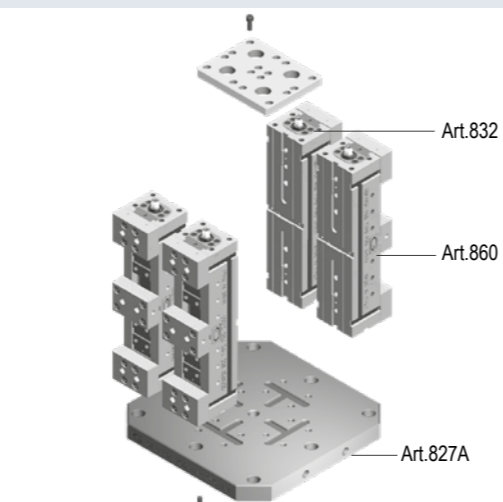
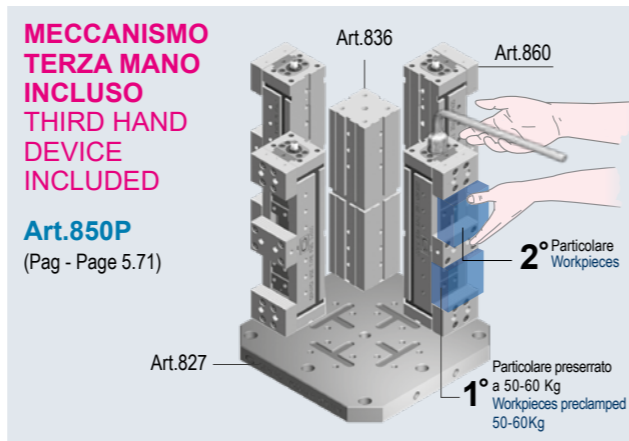
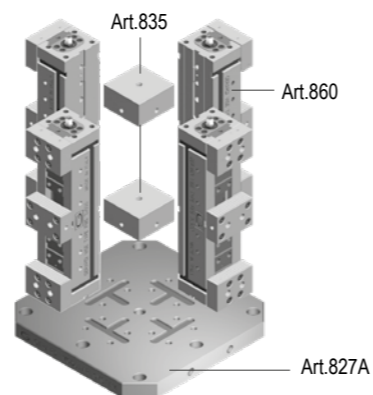
N° 4 FMS VISES
cross-mounted back-to-back, side by side, on base
plate (Art. 827) with connecting plate (Art. 832)



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

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

Montaggio ed allineamento morsa con distanziali, supporto centrale o piastra di collegamento (Vedi pag.5.3)
Vise and alignment mounted with spacers, center support or connecting plate (See page 5.3)

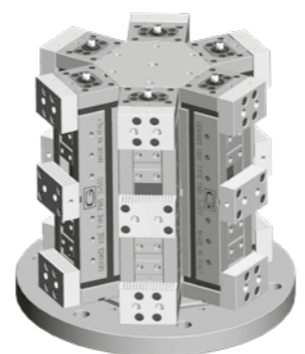


CUBI DI MORSE MONTATI VERTICALMENTE VISE TOWERS VERTICALLY ASSEMBLED



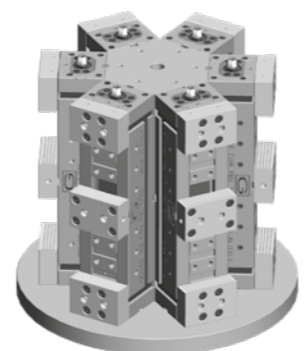
N° 3 morse FMS
montate verticalmente su piastra base a Y (827)
con supporto centrale (Art. 838)

N° 3 FMS vises
vises vertically mounted on Y base plate (827A)
with exagon center support (Art. 838)



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

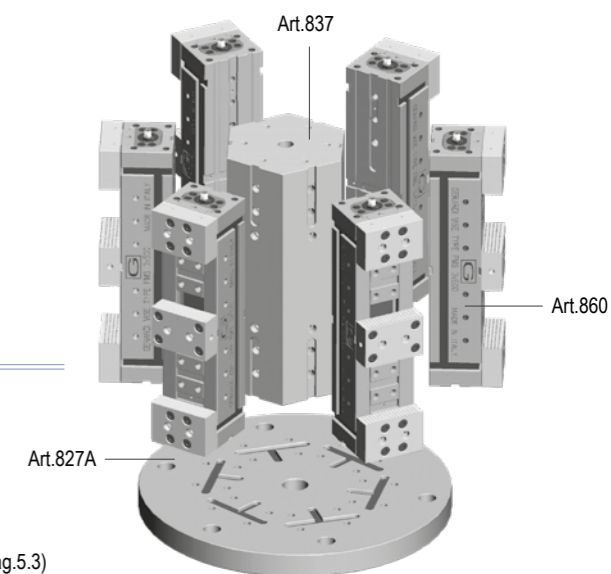
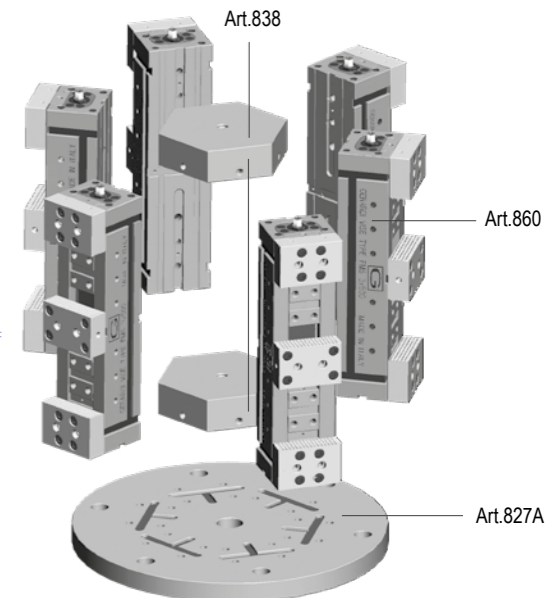
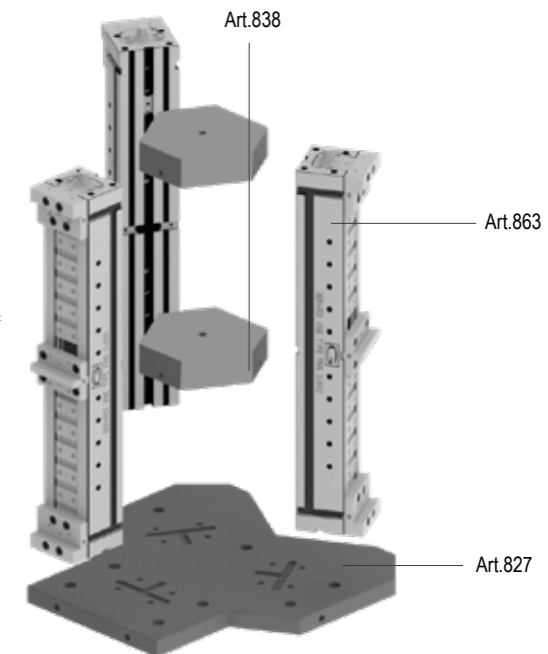
N° 6 FMS vises
vises vertically mounted on base plate (Art. 827A)
with exagon spacer (Art. 838)



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


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

Montaggio ed allineamento morsa con distanziali, supporto centrale o piastra di collegamento (Vedi pag.5.3)
Vise and alignment mounted with spacers, center support or connecting plate (See page 5.3)



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
	C	70		90			100	
	D	200 + 32	300 + 32	300	400	500	600	400
	E	249	349	320	420	520	620	425
	G	75		95			125	
	R	74		94			124	
	S	69		89			99	
	T	72	116	102	142	182	222	132
	Y	277	377	360	460	560	660	470
	X	407	507	537	637	737	837	637
	kg	7	10	18	25	32	39	40

Art. 855
Modulo base universale
CENTINAIA DI GANASCE DISPONIBILI !!
 3 in 1 VISES
UNIVERSAL / TORQUE / HYDRAULIC



Universal vise body module
HUNDREDS OF JAWS AVAILABLE !!

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
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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
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Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission
Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

Cod.	5.80.21000	5.80.22000	5.80.23000
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Art. 855E (Art. 855 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.85.5E120	5.85.5E130	5.85.5E230	5.85.5E240	5.85.5E250	5.85.5E260	5.85.5E340	5.85.5E350
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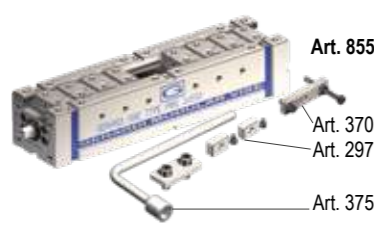
Meccanica con predisposizione elettroidraulica completa di motore, piastra, boccola e fincorsa

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

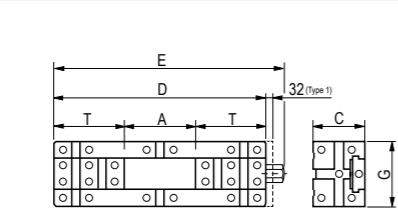
Cod.	5.85.5F120	5.85.5F130	5.85.5F230	5.85.5F240	5.85.5F250	5.85.5F260	5.85.5F340	5.85.5F350
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Meccanica elettroidraulica completa di centralina idraulica apparecchiatura elettrica con pulsantiera

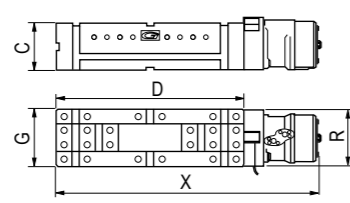
Dotazione standard:
 ■ 2 arresti laterali Art. 370
 ■ 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 ■ 1 chiave a pipa Art. 375



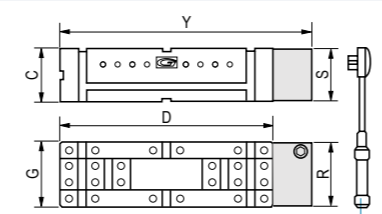
Standard equipment:
 ■ 2 workstops Art. 370
 ■ 1 pair of positioning key-nuts for 16 mm slot Art. 297
 ■ 1 box wrench Art. 375



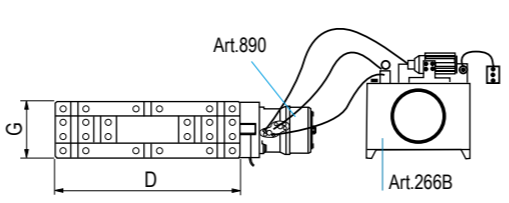
Art. 855



Art. 855E



Art. 855D



Art. 855F

		3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	136	136	136	188	168	148	128	152	216	252	316	280	244	
C	100			120				140			160			
D	600	700	800	500	600	700	800	600	700	800	800	900	1000	
E	625	725	825	525	625	725	825	625	725	825	825	925	1025	
G	125			145				170			190			
R	124			144				169			189			
S	99			119				139			159			
T	232	282	332	156	216	276	336	174	242	274	242	310	378	
Y	670	770	870	570	670	770	870	-	-	-	-	-	-	
X	837	937	1037	737	837	937	1037	837	937	1037	1037	1137	1237	
kg	50	55	60	66	72	80	88	115	125	135	170	190	210	

Cod.	5.85.53600	5.85.53700	5.85.53800	5.85.54500	5.85.54600	5.85.54700	5.85.54800	5.85.55600	5.85.55700	5.85.55800	5.85.56800	5.85.56900	5.85.56100
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Art. 855D (Art. 855 + 802) Morsa + moltiplicatore di coppia / Vise + torque multiplier

Cod.	5.85.5D360	5.85.5D370	5.85.5D380	5.85.5D450	5.85.5D460	5.85.5D470	5.85.5D480	5.85.5D560	5.85.5D570	5.85.5D580	5.85.5D680	5.85.5D690	5.85.5D610
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Art. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 855E (Art. 855 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.85.5E360	5.85.5E370	5.85.5E380	5.85.5E450	5.85.5E460	5.85.5E470	5.85.5E480	5.85.5E560	5.85.5E570	5.85.5E580	5.85.5E680	5.85.5E690	5.85.5E610
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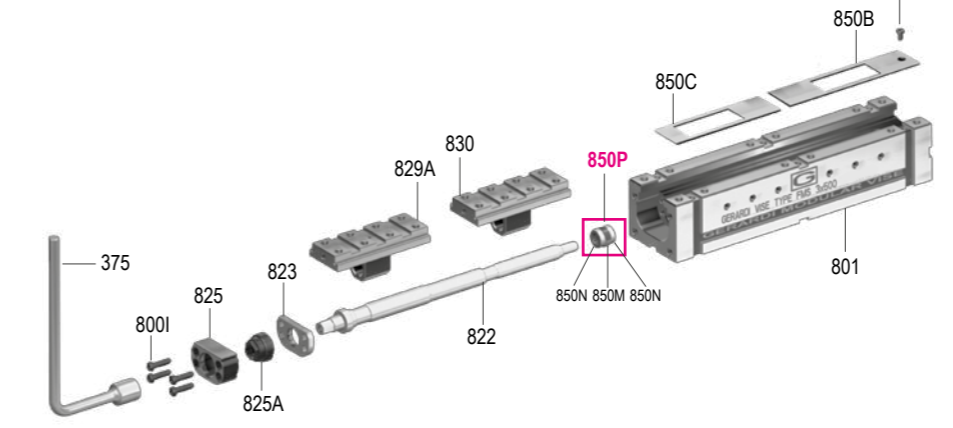
Mechanical with prepared hydraulic connection complete with motor plate, bushing and proximity switch

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

Cod.	5.85.5F360	5.85.5F370	5.85.5F380	5.85.5F450	5.85.5F460	5.85.5F470	5.85.5F480	5.85.5F560	5.85.5F570	5.85.5F580	5.85.5F680	5.85.5F690	5.85.5F610
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Mechanical with elettrohydraulic power-pack ready to work

Art. 855 Modulo base Universale
Universal Vise body module



Art.	Pag.	Art.	Pag.
375	4.35	850C	5.61
800I	5.61	850P	5.72
801G	5.61	-	-
801I	5.61	-	-
822	5.53	-	-
823	5.59	-	-
825	5.59	-	-
825A	5.61	-	-
829A	5.52	-	-
830	5.52	-	-
850B	5.61	-	-

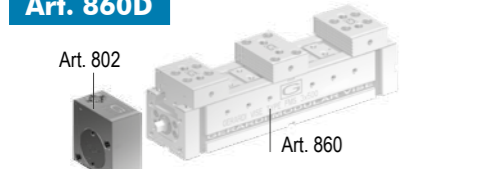
Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN				3 30 kN	
Apertura massima / Maximum opening	A	2 x 16	2 x 66	2 x 54	2 x 104	2 x 154	2 x 204	2 x 74	2 x 124
Art. 860 Morsa FMS doppia, singola, autocentrante con ganasce zigrinate	B	25			30			40	
	C	70			90			100	
	D	232	332	300	400	500	600	400	500
	E	249	349	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



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

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

Cod.	5.86.0D120	5.86.0D130	5.86.0D230	5.86.0D240	5.86.0D250	5.86.0D260	5.86.0D340	5.86.0D350
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Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

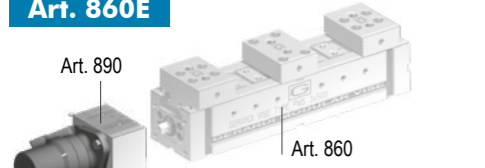
Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

Cod.	5.80.21000	5.80.22000	5.80.23000
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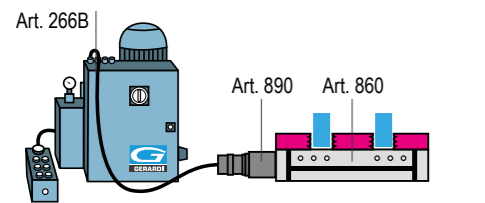
Art. 860E (Art. 860 + 890) Morsa + motore idraulico / Vise + hydraulic motor

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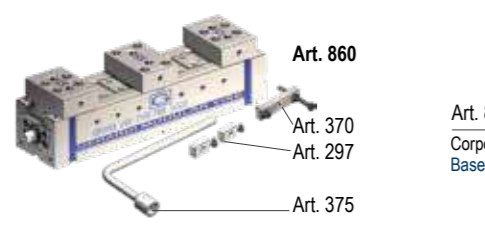


Art. 860F (Art. 860 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

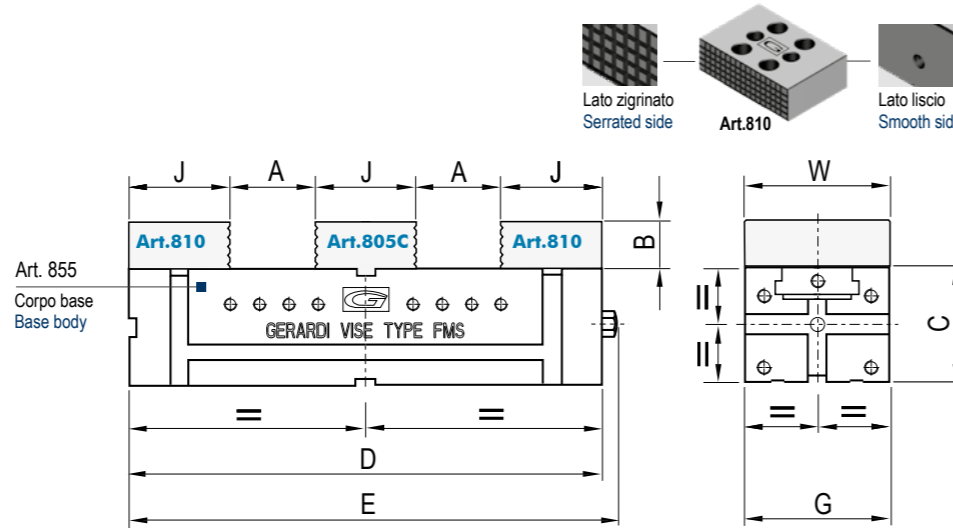
Cod.	5.86.0F120	5.86.0F130	5.86.0F230	5.86.0F240	5.86.0F250	5.86.0F260	5.86.0F340	5.86.0F350
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
B	40			50				60				60	
C	100			120				140				160	
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125			145				170				190	
J	84			98				108				108	
W	124			144				169				189	
kg	54	59	64	71	79	88	96	130	140	150	210	230	250
Cod.	5.86.03600	5.86.03700	5.86.03800	5.86.04500	5.86.04600	5.86.04700	5.86.04800	5.86.05600	5.86.05700	5.86.05800	5.86.06800	5.86.06900	5.86.06100

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

Cod.	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. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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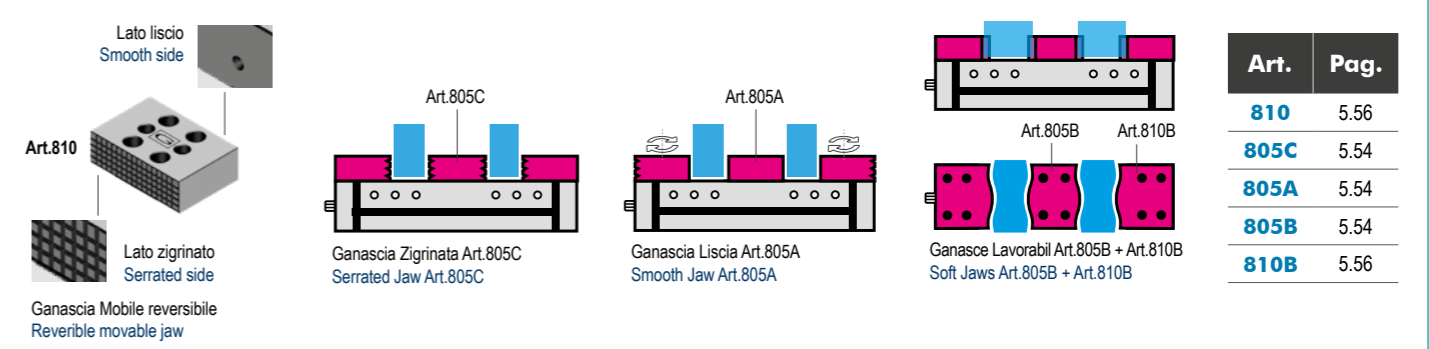
Art. 860E (Art. 860 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	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

Cod.	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 Esempi applicativi ganasce:
Jaw application examples:



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

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	249	349	320	420	520	620	425	525
	G	75			95			125	
	J	56			64			84	
	J1	22			24			30	
	J2	16			16			16	
	W	74			94			124	
	kg	8	11	20	27	33	40	40	45
	Cod.	5.86.31200	5.86.31300	5.86.32300	5.86.32400	5.86.32500	5.86.32600	5.86.33400	5.86.33500



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

Cod.	5.86.3D120	5.86.3D130	5.86.3D230	5.86.3D240	5.86.3D250	5.86.3D260	5.86.3D340	5.86.3D350
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Art. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

Cod.	5.80.21000	5.80.22000	5.80.23000
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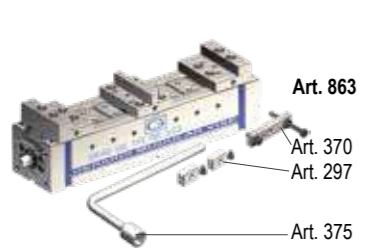
Art. 863E (Art. 863 + 890) Morsa + motore idraulico / Vise + hydraulic motor

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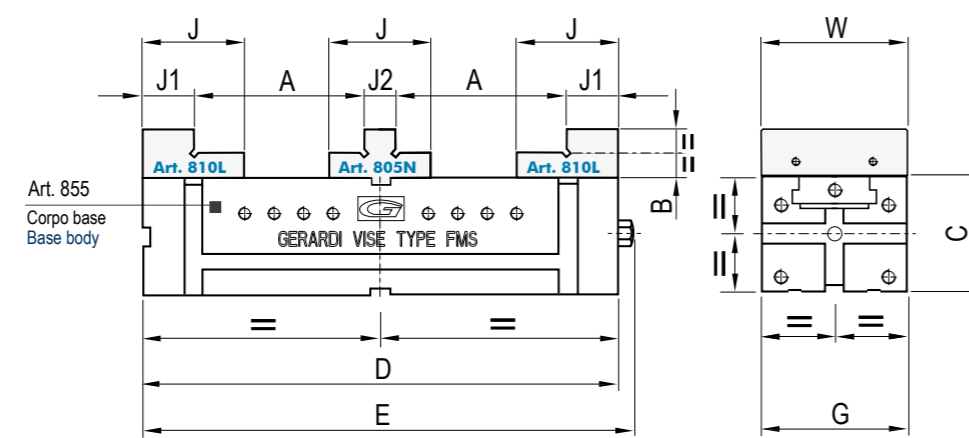
Art. 863F (Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.3F120	5.86.3F130	5.86.3F230	5.86.3F240	5.86.3F250	5.86.3F260	5.86.3F340	5.86.3F350
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
B	40			50				60				60	
C	100			120				140				160	
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125			145				170				190	
J	84			98				108				108	
J1	30			38				38				38	
J2	16			16				16				16	
W	124			144				169				189	
kg	50	55	60	68	76	85	93	124	134	144	200	220	240
Cod.	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

Cod.	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. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 863E (Art. 863 + 890) Morsa + motore idraulico / Vise + hydraulic motor

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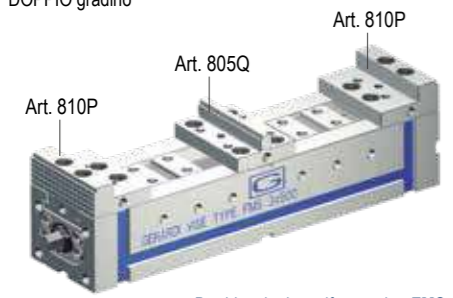
Art. 863F (Art. 863 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.3F360	5.86.3F370	5.86.3F380	5.86.3F450	5.86.3F460	5.86.3F470	5.86.3F480	5.86.3F560	5.86.3F570	5.86.3F580	5.86.3F680	5.86.3F690	5.86.3F610
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Art. 863 Esempi applicativi ganasce:
Jaw application examples:

Serraggio simultaneo di 4 pezzi con ganascia intermedia
4 Workpieces simultaneous clamping with intermediate jaw

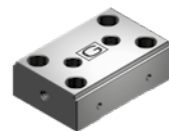
Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN				3 30 kN	
Apertura massima / Maximum opening	A	2 x 32	2 x 82	2 x 54	2 x 104	2 x 154	2 x 204	2 x 77	2 x 127
Art. 864	A1	2 x 84	2 x 134	2 x 118	2 x 168	2 x 218	2 x 268	2 x 162	2 x 212
Morsa FMS doppia, singola, autocentrante con ganasce a DOPPIO gradino	B	25		30				40	
	C	70		90				100	
	D	232	332	300	400	500	600	400	500
	E	249	349	320	420	520	620	425	525
	G	75		95				125	
	J	56		64				84	
	J1	24		24				30	
	J2	16		16				16	
	W	74		94				124	
kg		8	11	20	27	33	40	40	45
Cod.		5.86.41200	5.86.41300	5.86.42300	5.86.42400	5.86.42500	5.86.42600	5.86.43400	5.86.43500



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

Art. 805F

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



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

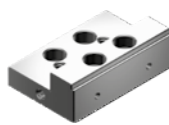
Ganascia fissa con doppio gradino 3x5 ZIGRINATA
Fixed jaw with double 3x5 step SERRATED



Cod.	5.80.5G100	5.80.5G200	5.80.5G300
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Art. 810O

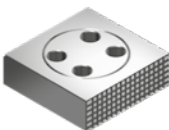
Ganascia mobile con gradino piccolo e grande
Movable jaw with small and large step



Cod.	5.81.0O100	5.81.0O200	5.81.0O300
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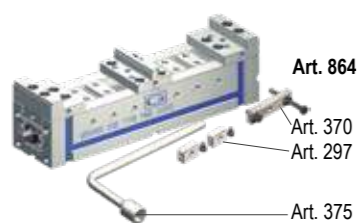
Art. 810X

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

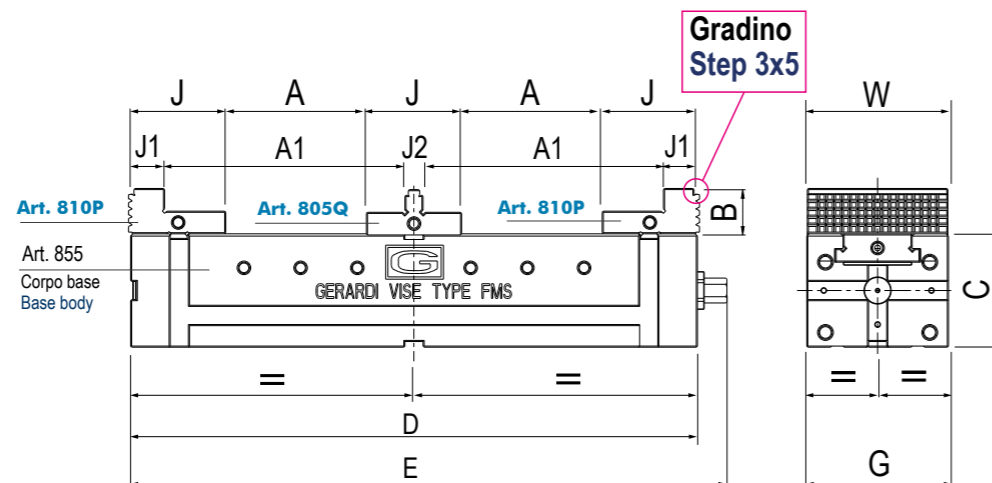


Cod.	5.81.0X100	5.81.0X200	5.81.0X300
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	2 x 177	2 x 227	2 x 277	2 x 103	2 x 153	2 x 203	2 x 253	2 x 138	2 x 188	2 x 238	2 x 238	2 x 288	2 x 338
A1	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
B	40			50				60			60		
C	100			120				140			160		
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125			145				170			190		
J	84			98				108			108		
J1	30			38				38			38		
J2	16			16				16			16		
W	124			144				169			189		
kg	50	55	60	68	76	85	93	124	134	144	200	220	240
Cod.	5.86.43600	5.86.43700	5.86.43800	5.86.44500	5.86.44600	5.86.44700	5.86.44800	5.86.45600	5.86.45700	5.86.45800	5.86.46800	5.86.46900	5.86.46100

Art. 805F

Cod.	5.80.5F300	5.80.5F400	5.80.5F500	5.80.5F300
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Art. 805G

Cod.	5.80.5G300	5.80.5G400	5.80.5G500	5.80.5G600
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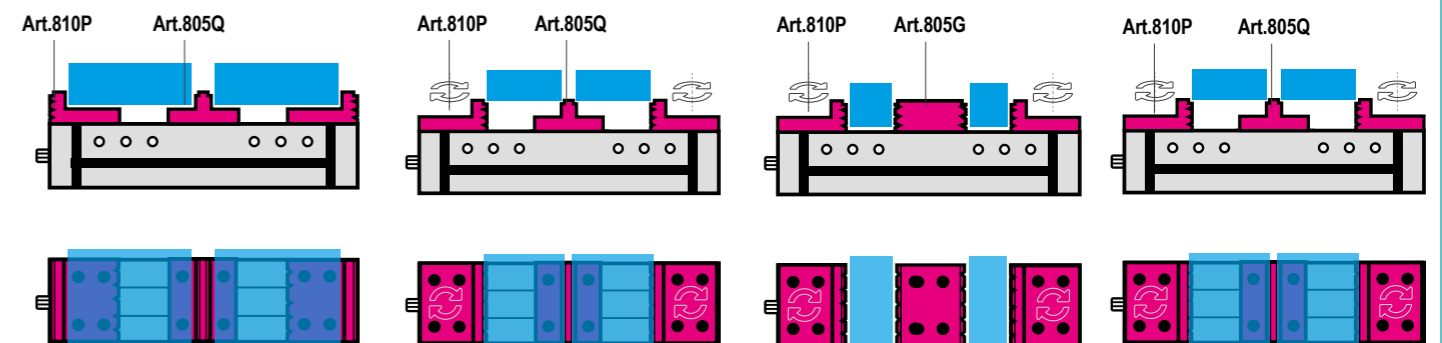
Art. 810O

Cod.	5.81.0O300	5.81.0O400	5.81.0O500	5.81.0O600
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Art. 810X

Cod.	5.81.0X300	5.81.0X400	5.81.0X500	5.81.0X600
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Art. 864 Esempi applicativi ganasce a doppio gradino:
Double step jaw application examples:

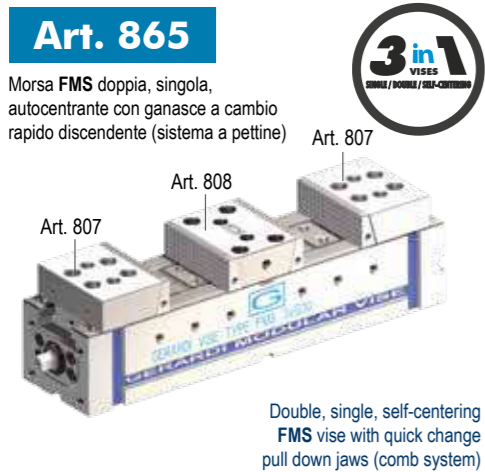


Utilizzo del gradino standard per alzare il particolare rispetto alla base
Use the main step for raising the workpiece

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

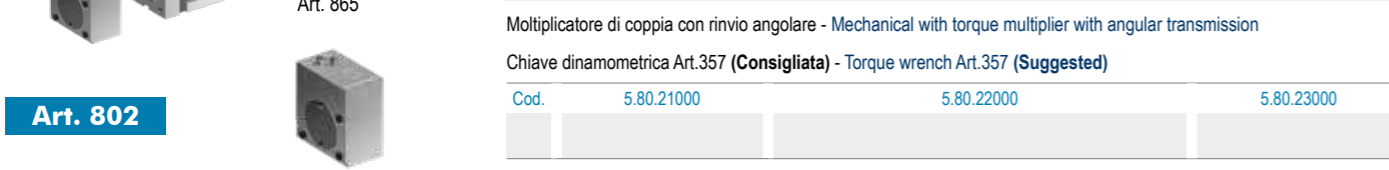
Per sfruttare il lato zigrinato delle ganasce mobili Art.810P sostituisci la ganascia fissa centrale con l'Art.805G
To exploit the serrated side of the movable jaws Art.810P change the fixed central jaw with Art.805G

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 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	332	300	400	500	600	400	500	
	E	349	320	420	520	620	425	525	
	G	75		95			125		
	J	63		76			98		
	J1	70		88			111		
	W	74		94			124		
	kg	12	23	30	36	43	46	51	
	Cod.	5.86.51300	5.86.52300	5.86.52400	5.86.52500	5.86.52600	5.86.53400	5.86.53500	



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

Cod.	5.86.5D130	5.86.5D230	5.86.5D240	5.86.5D250	5.86.5D260	5.86.5D340	5.86.5D350
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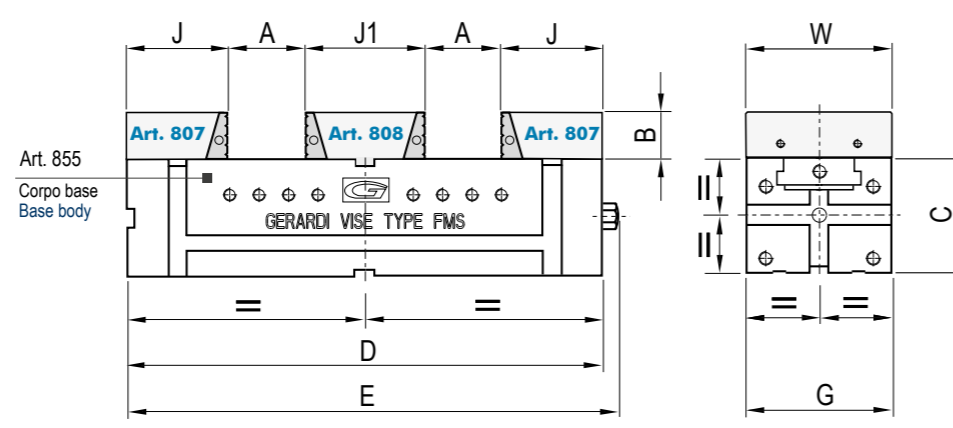
Art. 865E (Art. 865 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.86.5E130	5.86.5E230	5.86.5E240	5.86.5E250	5.86.5E260	5.86.5E340	5.86.5E350
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Art. 865F (Art. 865 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.86.5F130	5.86.5F230	5.86.5F240	5.86.5F250	5.86.5F260	5.86.5F340	5.86.5F350
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375
- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
B	40			50				60			60		
C	100			120				140			160		
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125			145				170			190		
J	98			117				132			119		
J1	111			136				155			130		
W	124			144				169			189		
kg	54	59	64	74	82	91	99	134	144	154	215	235	255
Cod.	5.86.53600	5.86.53700	5.86.53800	5.86.54500	5.86.54600	5.86.54700	5.86.54800	5.86.55600	5.86.55700	5.86.55800	5.86.56800	5.86.56900	5.86.56100

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

Cod.	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. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 865E (Art. 865 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	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

Cod.	5.86.5F360	5.86.5F370	5.86.5F380	5.86.5F450	5.86.5F460	5.86.5F470	5.86.5F480	5.86.5F560	5.86.5F570	5.86.5F580	5.86.5F680	5.86.5F690	5.86.5F610
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Art. 865 Esempi applicativi piastre ganasce:
Jaw plates application examples:

Configurazione standard / Standard configuration

CORPI GANASCE FMS & PIASTRE GANASCE INTERCAMBIABILI RAPIDE
FMS COMB JAW BODIES & QUICK INTERCHANGEABLE JAW PLATES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 806* Ganascia fissa con piastra ganascia zigrinata intercambiabile rapida Fixed jaw with quick interchangeable serrated jaw plate	Cod. 5.80.61000	5.80.62000	5.80.63000	5.80.64000	5.80.65000	5.80.66000
Art. 807* Ganascia mobile con piastra ganascia zigrinata intercambiabile rapida Movable jaw with quick interchangeable serrated jaw plate	Cod. 5.80.71000	5.80.72000	5.80.73000	5.80.74000	5.80.75000	5.80.76000
Art. 808* Ganascia fissa doppia con piastre ganasce zigrinate intercambiabili rapide Double fixed jaw with quick interchangeable serrated jaw plate	Cod. 5.80.81000	5.80.82000	5.80.83000	5.80.84000	5.80.85000	5.80.86000
Art. 806A Corpo ganascia fissa per piastra ganascia intercambiabile rapida Fixed jaw body for quick interchangeable jaw plate	Cod. 5.80.6A100	5.80.6A200	5.80.6A300	5.80.6A400	5.80.6A500	5.80.6A600
Art. 807A Corpo ganascia mobile per piastra ganascia intercambiabile rapida Movable jaw body for quick interchangeable jaw plate	Cod. 5.80.7A100	5.80.7A200	5.80.7A300	5.80.7A400	5.80.7A500	5.80.7A600
Art. 808A Corpo ganascia fissa doppia per piastre ganasce intercambiabili rapide Double fixed jaw body for quick interchangeable jaw plate	Cod. 5.80.8A100	5.80.8A200	5.80.8A300	5.80.8A400	5.80.8A500	5.80.8A600
Art. 808B Corpo ganascia fissa doppia ridotta per piastre ganasce intercambiabili rapide Double fixed jaw body narrow for quick interchangeable jaw plate	Cod. 5.80.8B100	5.80.8B200	5.80.8B300	5.80.8B400	5.80.8B500	5.80.8B600

RAPIDA SOSTITUZIONE DELLE PIASTRE GANASCE DISCENDENTI SENZA BISOGNO DI ALCUN UTENSILE

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

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

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

Art. 806F
Piastra ganascia intercambiabile prismatica a pettine
Prismatic comb interchangeable jaw plate

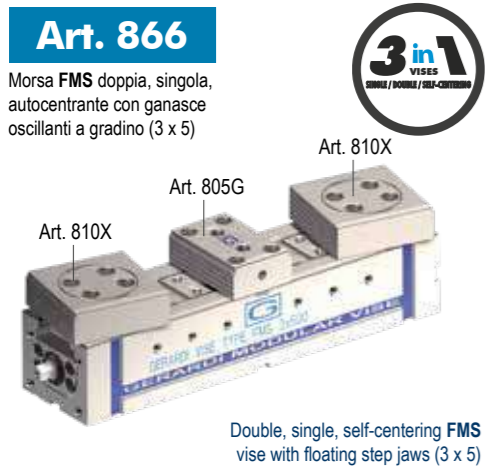
Solo 2 per morsa!! Just 2 pcs each vise!!

Cod.	5.80.6F100	5.80.6F200	5.80.6F300	5.80.6F400	5.80.6F500	5.80.6F600
Piastra ganascia intercambiabile prismatica a pettine Per serraggi autocentranti è necessario ordinare n. 2 piastrine prismatiche Prismatic comb interchangeable jaw plate For self-centering clamping is necessary to order n. 2 prismatic jaws						
Ø Min / Max	A 6 / 16	9 / 24	13 / 38	15 / 40	15 / 42	15 / 42
	B 4 / 10	7 / 18	9 / 24	9 / 24	9 / 24	9 / 24

PIASTRE GANASCE INTERCAMBIABILI RAPIDE
QUICK INTERCHANGEABLE JAW PLATES

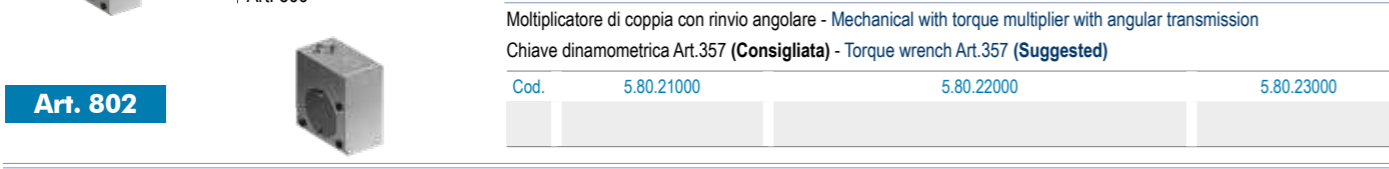
Tipo (grandezza) / Type (size)	1	2	3	4	5	6	
Art. 806B Piastra ganascia lavorabile a pettine Soft comb jaw plate	Cod. 5.80.6B100	5.80.6B200	5.80.6B300	5.80.6B400	5.80.6B500	5.80.6B600	
Art. 806C Piastra ganascia liscia a pettine Smooth comb jaw plate	Cod. 5.80.6C100	5.80.6C200	5.80.6C300	5.80.6C400	5.80.6C500	5.80.6C600	
Art. 806D Piastra ganascia zigrinata a pettine Serrated comb jaw plate	Cod. 5.80.6D100	5.80.6D200	5.80.6D300	5.80.6D400	5.80.6D500	5.80.6D600	
Art. 806E Piastra ganascia a gradino a pettine Step comb jaw plate	Cod. 5.80.6E100	5.80.6E200	5.80.6E300	5.80.6E400	5.80.6E500	5.80.6E600	
KIT RISPARMIO - SAVING KIT							
Piastra ganascia intercambiabile a gradino a pettine (SET di coppie) Step comb interchangeable jaw plate (SET of pair)							
A	Set di 8 pezzi Set of 8 pcs.	3	5	8	13	18	
	Set di 10 pezzi Set of 10 pcs.	3	5	8	13	18	
	Set di 14 pezzi Set of 14 pcs.	3	5	8	13	18	
	Set di 14 pezzi Set of 14 pcs.	3	5	8	13	18	
	Set di 14 pezzi Set of 14 pcs.	3	5	8	13	18	
	Set di 14 pezzi Set of 14 pcs.	3	5	8	13	18	
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	
Art. 806SLD Piastra ganascia scaricata a pettine Discharged comb jaw plate	A 28	38	48	58	63	95	
	B 12	12	12	12	12	12	
	C 14	18	32	42	47	79	
	H 8	8	8	8	8	8	
Cod.	5.80.6SLD1	5.80.6SLD2	5.80.6SLD3	5.80.6SLD4	5.80.6SLD5	5.80.6SLD6	
Cod.	5.80.6SLE1	5.80.6SLE2	5.80.6SLE3	5.80.6SLE4	5.80.6SLE5	5.80.6SLE6	
Art. 806K Piastra ganascia a gradino a pettine con inserti GRIP Comb step jaw plate with GRIP inserts	C 14	18	32	42	47	79	
	H 23	33	43	53	58	73	
Cod.	5.80.6K100	5.80.6K200	5.80.6K300	5.80.6K400	5.80.6K500	5.80.6K600	
Art. 806G Piastra ganascia a pettine con arresto a 90° 90° comb jaw plate	1 per stazione di serraggio !! 1 pc per clamping station !!						
Cod.	5.80.6G100	5.80.6G200	5.80.6G300	5.80.6G400	5.80.6G500	5.80.6G600	
Art. 806H Piastra ganascia bombata a pettine Round comb jaw plate	Cod.	5.80.6H100	5.80.6H200	5.80.6H300	5.80.6H400	5.80.6H500	5.80.6H600
Art. 806M Piastra ganascia a pettine per angolo di 30° o 45° 30° or 45° angle comb jaw plate	1 per stazione di serraggio !! 1 pc per clamping station !!						
Cod.	5.80.6M100	5.80.6M200	5.80.6M300	5.80.6M400	5.80.6M500	5.80.6M600	

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 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	332	300	400	500	600	400	500
	E	349	320	420	520	620	425	525
	G	75		95			125	
	J	63		76			98	
	J1	70		88			111	
	W	74		94			124	
kg		12	23	30	36	43	46	51
Cod.		5.86.61300	5.86.62300	5.86.62400	5.86.62500	5.86.62600	5.86.63400	5.86.63500



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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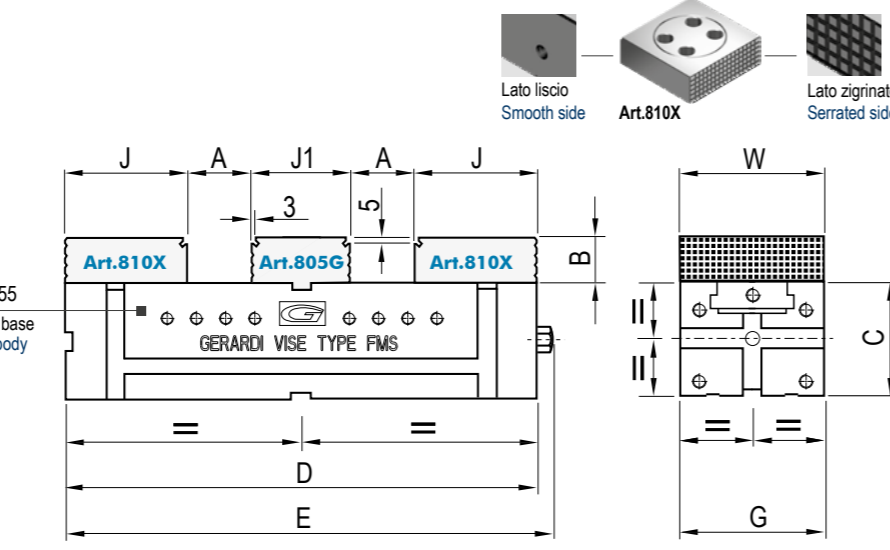
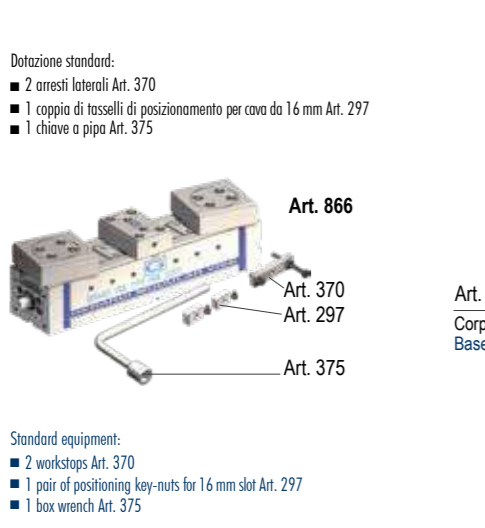


Art. 866E (Art. 866 + 890) Morsa + motore idraulico / Vise + hydraulic motor

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

Cod.	5.86.6F130	5.86.6F230	5.86.6F240	5.86.6F250	5.86.6F260	5.86.6F340	5.86.6F350
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	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
B		40			50				60				60
C		100			120				140				160
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G		125			145				170				190
J		106			128				135				143
J1		84			98				108				108
W		124			144				169				189
kg	54	59	64	74	82	91	99	134	144	154	215	235	255
Cod.	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

Cod.	5.86.6D360	5.86.6D370	5.86.6D380	5.86.6D450	5.86.6D460	5.86.6D470	5.86.6D480	5.86.6D560	5.86.6D570	5.86.6D580	5.86.6D680	5.86.6D690	5.86.6D610
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Art. 802 Multiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

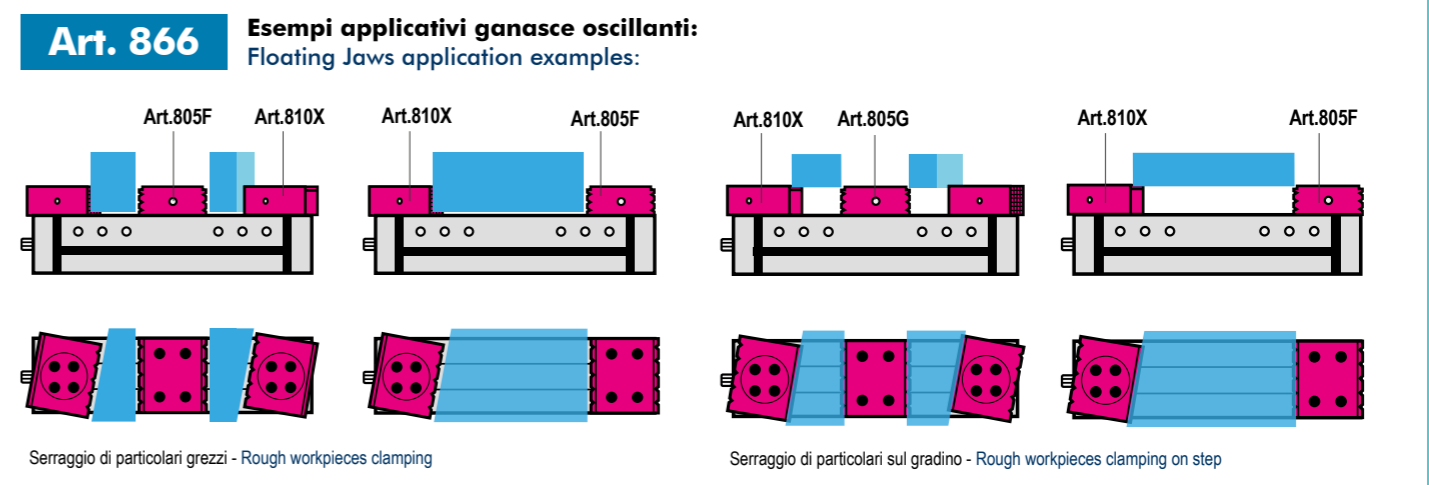
Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 866E (Art. 866 + 890) Morsa + motore idraulico / Vise + hydraulic motor

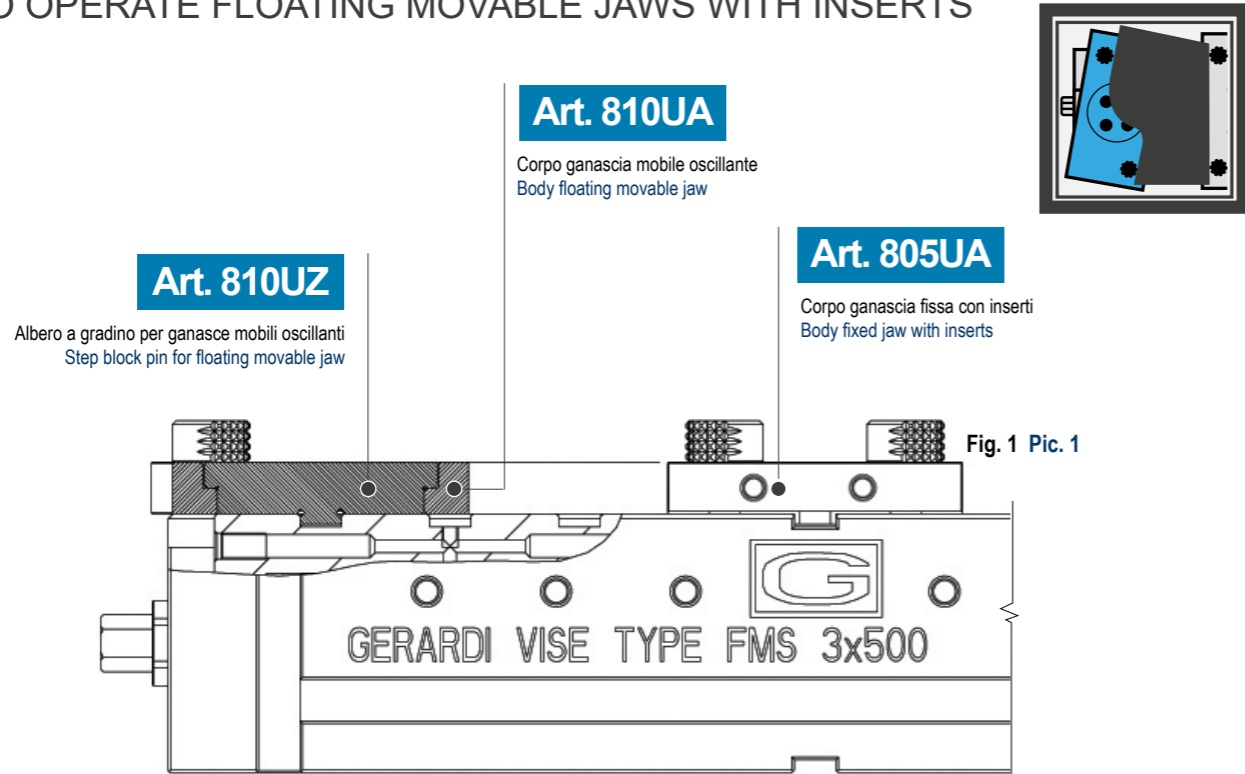
Cod.	5.86.6E360	5.86.6E370	5.86.6E380	5.86.6E450	5.86.6E460	5.86.6E470	5.86.6E480	5.86.6E560	5.86.6E570	5.86.6E580	5.86.6E680	5.86.6E690	5.86.6E610
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Art. 866F (Art. 866 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	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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FUNZIONAMENTO DELLE GANASCE MOBILI OSCILLANTI CON INSERTI HOW TO OPERATE FLOATING MOVABLE JAWS WITH INSERTS



Art. 810UA
Corpo ganascia mobile oscillante
Body floating movable jaw

Art. 810UZ
Albero a gradino per ganasce mobili oscillanti
Step block pin for floating movable jaw

Art. 805UA
Corpo ganascia fissa con inserti
Body fixed jaw with inserts

Fig. 1 Pic. 1

Art. 812

Art. 84U
Tappo in alluminio (EXTRA)
Aluminum cap (ETRA)

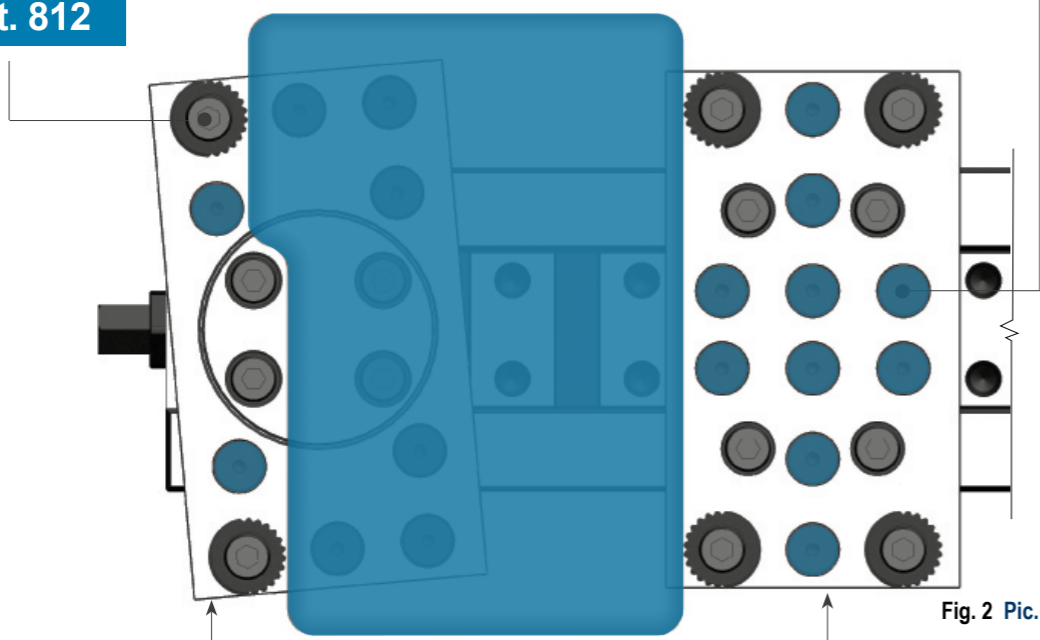


Fig. 2 Pic. 2

Art. 810U
Ganascia mobile oscillante con inserti
Floating movable jaw with inserts

Art. 805U
Ganascia fissa con inserti
Fixed jaw with inserts

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

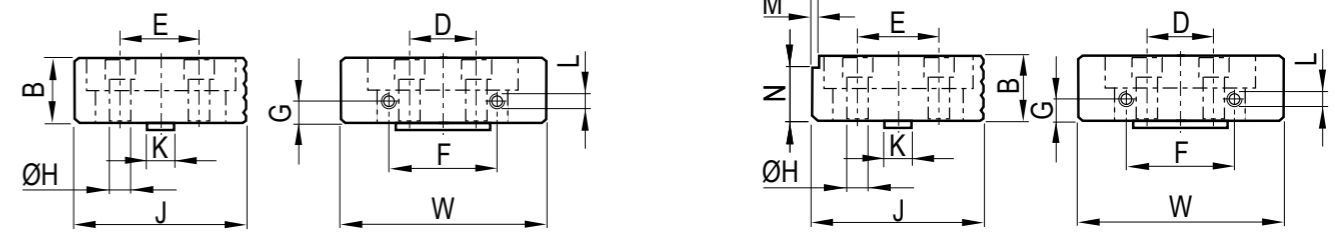
Floating movable jaws allow to clamp workpieces with irregular shapes whose sides are not parallels (Pic. 2). In fact thanks to the step block spindle (Art. 810UZ - Pic. 1), positioned in the centre of the jaw body, the jaw can float and guarantee at the same time maximum precision and no tilting of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

GANASCE MOBILI OSCILLANTI FLOATING MOVABLE JAWS

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 810W* Ganascia mobile oscillante zigrinata da un lato con albero a gradino (Art. 810Z) Floating movable jaw one side serrated with step block pin (Art. 810Z)	Cod. 5.81.0W100	5.81.0W200	5.81.0W300	5.81.0W400	5.81.0W500	5.81.0W600
Art. 810X* Ganascia mobile oscillante con gradino 3x5 zigrinata da un lato con albero a gradino (Art. 810Z) Floating movable jaw with 3x5 step one side serrated with step block pin (Art. 810Z)	Cod. 5.81.0X100	5.81.0X200	5.81.0X300	5.81.0X400	5.81.0X500	5.81.0X600
Art. 810Y* Ganascia mobile oscillante con gradino 3x5 con albero a gradino (Art. 810Z) Floating movable jaw with 3x5 step with step block pin (Art. 810Z)	Cod. 5.81.0Y100	5.81.0Y200	5.81.0Y300	5.81.0Y400	5.81.0Y500	5.81.0Y600
Art. 810Z Albero a gradino per ganasce mobili oscillanti Step block pin for floating movable jaw	Cod. 5.81.0Z100	5.81.0Z200	5.81.0Z300	5.81.0Z400	5.81.0Z500	5.81.0Z600
Art. 810WA Corpo ganascia mobile oscillante zigrinata da un lato Body floating movable jaw one side serrated	Cod. 5.81.0WA10	5.81.0WA20	5.81.0WA30	5.81.0WA40	5.81.0WA50	5.81.0WA60
Art. 810XA Corpo ganascia mobile oscillante con gradino 3x5 zigrinata da un lato Body floating movable jaw with 3x5 step one side serrated	Cod. 5.81.0XA10	5.81.0XA20	5.81.0XA30	5.81.0XA40	5.81.0XA50	5.81.0XA60
Art. 810YA Corpo ganascia mobile oscillante con gradino 3x5 Body floating movable jaw with 3x5 step	Cod. 5.81.0YA10	5.81.0YA20	5.81.0YA30	5.81.0YA40	5.81.0YA50	5.81.0YA60

Art. 810W

Art. 810X



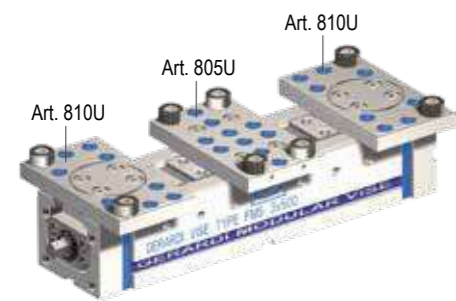
Tipo (grandezza) morsa / Vise (type) size

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

Tipo (grandezza) morsa / Vise type (size)	1	2				3	
kN	25 kN	25 kN				30 kN	
A1	91	91	141	191	241	141	191
B	20	20				20	
C	70	90				100	
D	332	300	400	500	600	400	500
E	349	320	420	520	620	425	525
G	75	95				125	
J1	50	50				70	
J2	25	25				35	
Ø	30 (H = 16)	30 (H = 16)				30 (H = 16)	
W	100	120				170	
kg	11	20	27	33	40	40	45
Cod.	5.86.71300	5.86.72300	5.86.72400	5.86.72500	5.86.72600	5.86.73400	5.86.73500

Art. 867

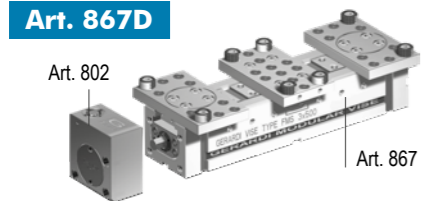
Morsa FMS doppia, singola, autocentrante con ganasce oscillanti con inserti regolabili



Double, single, self-centering FMS vise with floating jaws with adjustable inserts

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

Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

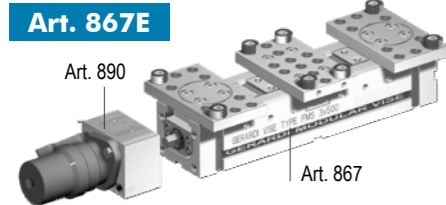
Cod.	5.80.21000	5.80.22000	5.80.23000
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Art. 802



Art. 867E

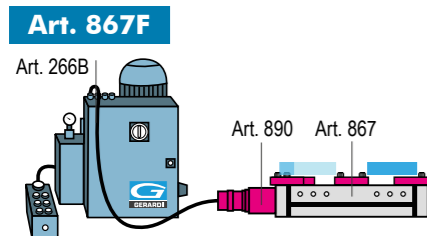
(Art. 867 + 890) Morsa + motore idraulico / Vise + hydraulic motor



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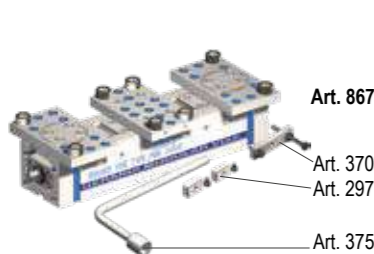
Art. 867F

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

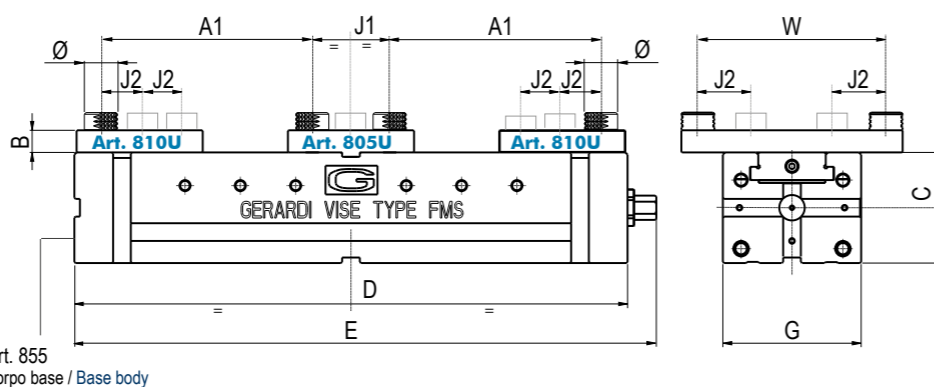


Cod.	5.86.7F130	5.86.7F230	5.86.7F240	5.86.7F250	5.86.7F260	5.86.7F340	5.86.7F350
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3			4				5			6		
	30 kN			30 kN				32 kN			32 kN		
A1	241	291	341	191	241	291	341	231	281	331	331	381	431
B	20	30				35			35				
C	100	120				140			160				
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125	145				170			190				
J1	70	80				100			100				
J2	35	40				40			40				
Ø	30 (H = 16)	30 (H = 16)				40 (H = 30)			40 (H = 30)				
W	170	220				250			300				
kg	50	55	60	68	76	85	93	124	134	144	200	220	240
Cod.	5.86.73600	5.86.73700	5.86.73800	5.86.74500	5.86.74600	5.86.74700	5.86.74800	5.86.75600	5.86.75700	5.86.75800	5.86.76800	5.86.76900	5.86.76100

Art. 867D

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

Cod.	5.86.7D360	5.86.7D370	5.86.7D380	5.86.7D450	5.86.7D460	5.86.7D470	5.86.7D480	5.86.7D560	5.86.7D570	5.86.7D580	5.86.7D680	5.86.7D690	5.86.7D610
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Art. 802

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

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 867E

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

Cod.	5.86.7E360	5.86.7E370	5.86.7E380	5.86.7E450	5.86.7E460	5.86.7E470	5.86.7E480	5.86.7E560	5.86.7E570	5.86.7E580	5.86.7E680	5.86.7E690	5.86.7E610
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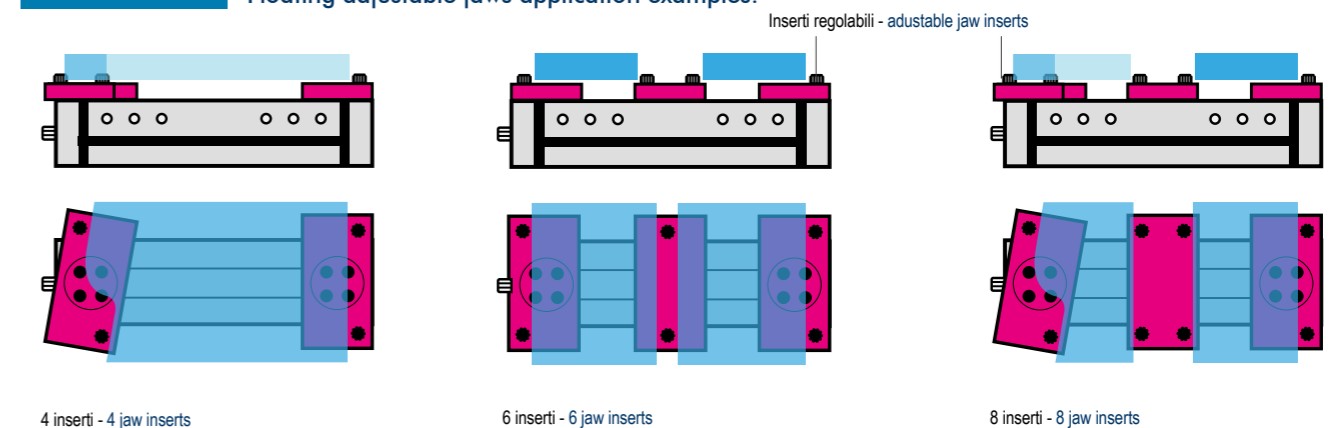
Art. 867F

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

Cod.	5.86.7F360	5.86.7F370	5.86.7F380	5.86.7F450	5.86.7F460	5.86.7F470	5.86.7F480	5.86.7F560	5.86.7F570	5.86.7F580	5.86.7F680	5.86.7F690	5.86.7F610
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Art. 867

Esempi applicativi ganasce oscillanti regolabili:
Floating adjustable jaws application examples:



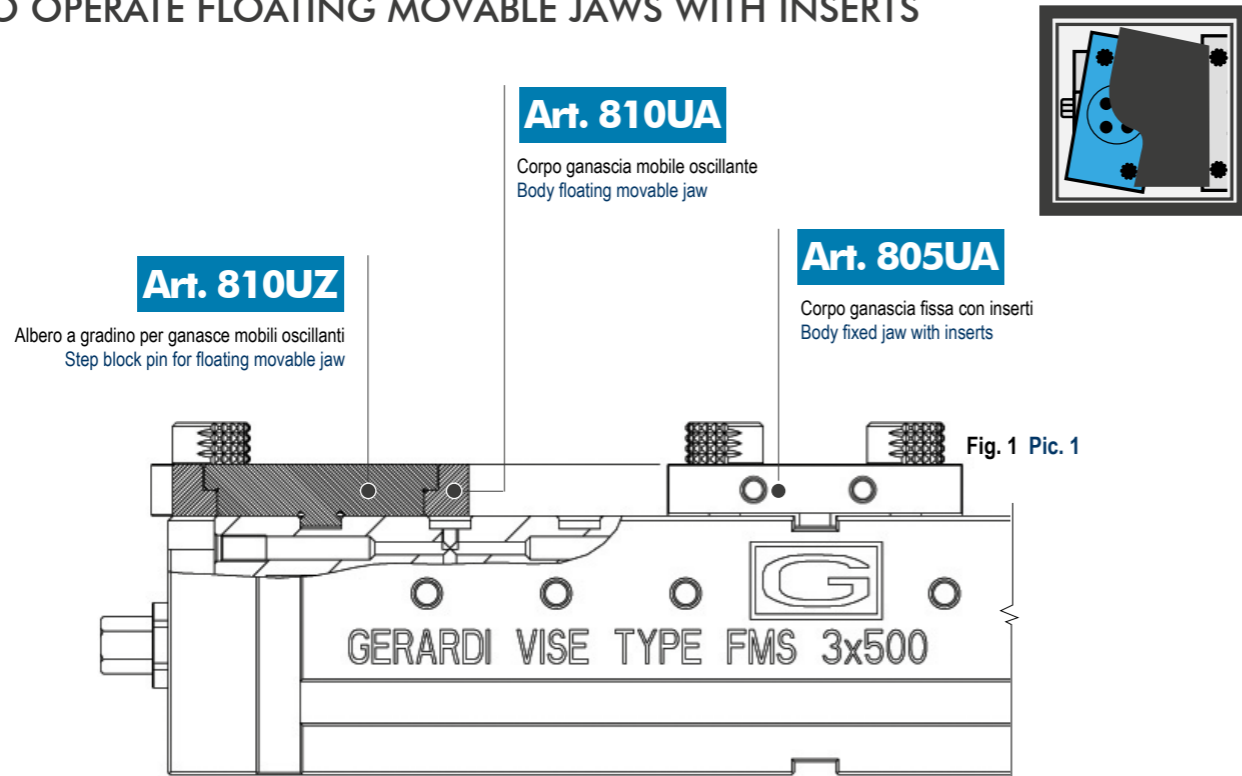
4 inserti - 4 jaw inserts

6 inserti - 6 jaw inserts

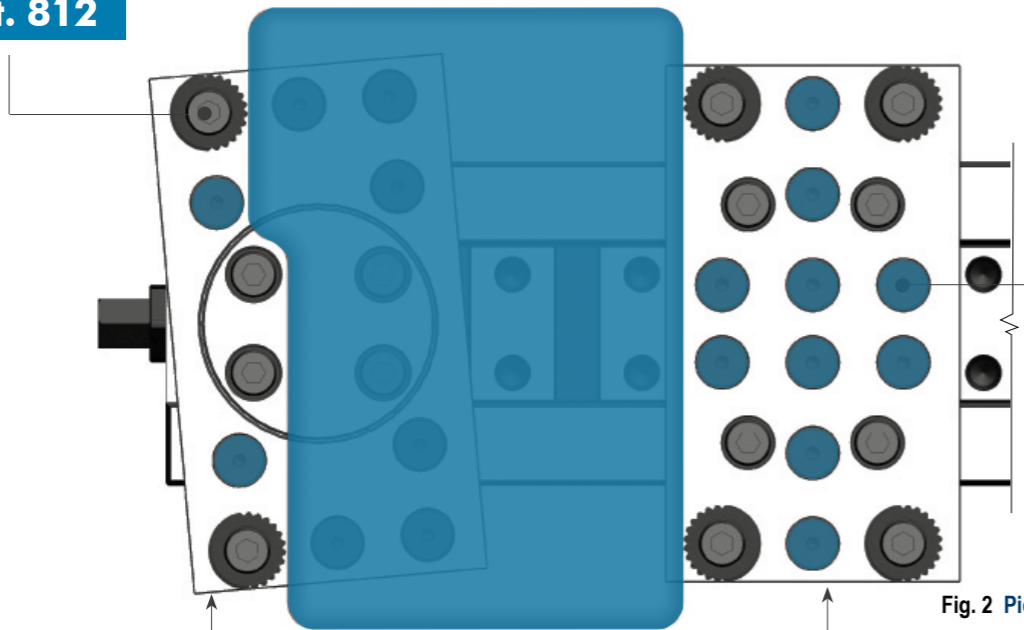
8 inserti - 8 jaw inserts

FUNZIONAMENTO DELLE GANASCE MOBILI OSCILLANTI CON INSERTI

HOW TO OPERATE FLOATING MOVABLE JAWS WITH INSERTS



Art. 812



Art. 84U

Tappo in alluminio (EXTRA)
Aluminum cap (ETRA)

Art. 810U

Ganascia mobile oscillante con inserti
Floating movable jaw with inserts

Art. 805U

Ganascia fissa con inserti
Fixed jaw with inserts

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

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

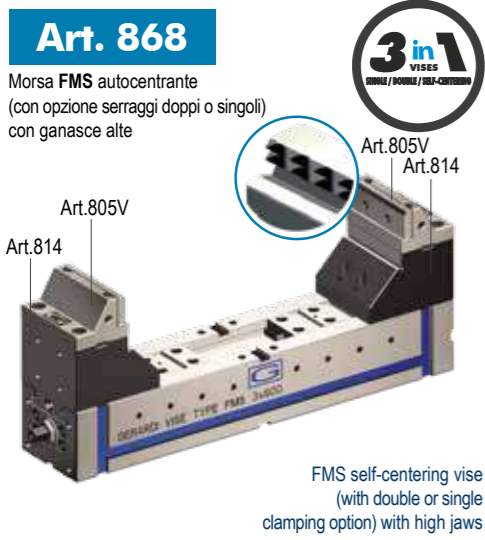
GANASCE FISSE & MOBILI FMS

FMS FIXED AND MOVABLE JAWS

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 810U* Ganascia mobile regolabile oscillante con inserti Floating movable jaw with inserts	Cod. 5.81.0U100	5.81.0U200	5.81.0U300	5.81.0U400	5.81.0U500	5.81.0U600
* Set viti per fissaggio a richiesta - Set of fixing screws on request						
Art. 810UA Corpo ganascia mobile oscillante Body floating movable jaw	Cod. 5.81.0UA10	5.81.0UA20	5.81.0UA30	5.81.0UA40	5.81.0UA50	5.81.0UA60
Art. 810UZ* Albero a gradino per ganasce mobili oscillanti Step block pin for floating movable jaw	Cod. 5.81.0UZ10	5.81.0UZ20	5.81.0UZ30	5.81.0UZ40	5.81.0UZ50	5.81.0UZ60
* Set viti per fissaggio a richiesta - Set of fixing screws on request						
Art. 810Q* Ganascia mobile regolabile con inserti Movable jaw with inserts	Cod. 5.81.0Q100	5.81.0Q200	5.81.0Q300	5.81.0Q400	5.81.0Q500	5.81.0Q600
* Set viti per fissaggio a richiesta - Set of fixing screws on request						
Art. 810QA Corpo ganascia regolabile mobile per inserti Body movable jaw for inserts	Cod. 5.81.0QA10	5.81.0QA20	5.81.0QA30	5.81.0QA40	5.81.0QA50	5.81.0QA60
Art. 805U* Ganascia fissa regolabile con inserti Fixed jaw with inserts	Cod. 5.80.5U100	5.80.5U200	5.80.5U300	5.80.5U400	5.80.5U500	5.80.5U600
* Set viti per fissaggio a richiesta - Set of fixing screws on request						
Art. 805UA Corpo ganascia fissa regolabile per inserti Body fixed jaw per inserti	Cod. 5.80.5UA10	5.80.5UA20	5.80.5UA30	5.80.5UA40	5.80.5UA50	5.80.5UA60
Art. 812 Inserto liscio e zigrinato Smooth and serrated insert	Ø 30		Ø 40			
	H 16		H 30			
Art. 812A Inserto liscio Smooth insert	Cod. 5.81.21000		5.81.25000			
	Cod. 5.81.2A100		5.81.2A500			
Art. 812C Inserto zigrinato Serrated insert	Cod. 5.81.2C100		5.81.2C500			
Art. 813 Inserto liscio e zigrinato alto Smooth and serrated high insert	Ø 30		Ø 40			
	H 28		H 50			
Art. 813A Inserto liscio alto Smooth high insert	Cod. 5.81.31000		5.81.35000			
	Cod. 5.81.3A100		5.81.3A500			
Art. 813C Inserto zigrinato alto Serrated high insert	Cod. 5.81.3C100		5.81.3C500			
Art. 815 Inserto liscio e zigrinato a gradino Pair of smooth and serrated step insert	H 16		H 30			
Art. 815A Inserto liscio a gradino Smooth step insert	Cod. 5.81.51000		5.81.55000			
	Cod. 5.81.5A100		5.81.5A500			
Art. 815C Inserto zigrinato a gradino Serrated step insert	Cod. 5.81.5C100		5.81.5C500			
Art. 812B Inserto in acciaio lavorabile Insert in machineable steel metal	Ø 40		Ø 60			
	H 40		H 60			
	Cod. 5.81.2B100		5.81.2B500			
Art. 84U Tappo in alluminio (EXTRA) Aluminum cap (ETRA)	Cod. 5.84.U1000		5.84.U5000			

Tipo (grandezza) morsa / Vise type (size)	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	332	300	400	500	600	400	500
E	249	349	320	420	520	620	425	525
F	169,5		207				237	
G	75		95				125	
H	75		85				98	
L	56		64				84	
J3	76	76	101				132	
J4	55	55	63				82	
X	39,5		47				57	
W	74		94				124	
kg	-		-				-	

Cod. 5.86.81200 5.86.81300 5.86.82300 5.86.82400 5.86.82500 5.86.82600 5.86.83400 5.86.83500



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

Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

Cod.	5.80.21000	5.80.22000	5.80.23000
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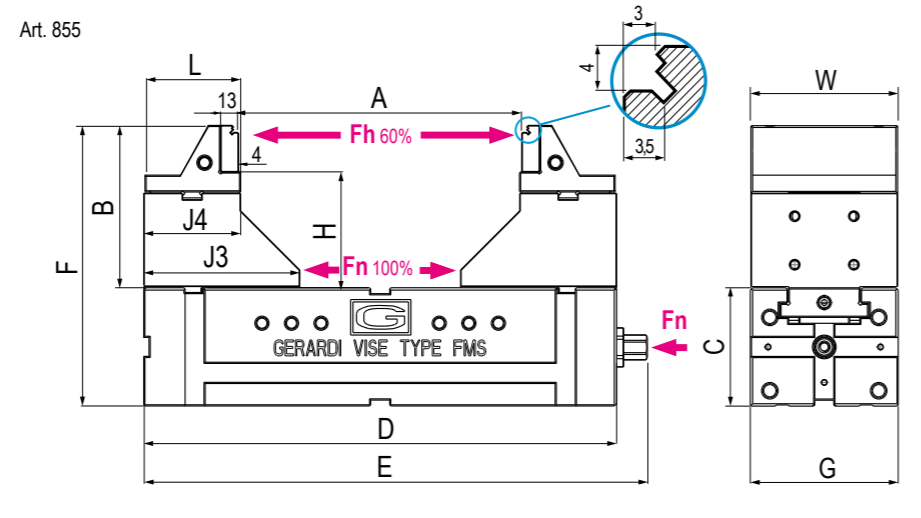
Art. 868E (Art. 868 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	5.86.8E120	5.86.8E130	5.86.8E230	5.86.8E240	5.86.8E250	5.86.8E260	5.86.8E340	5.86.8E350
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Art. 868F (Art. 868 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

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

- Dotazione standard:**
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375
- Standard equipment:**
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3			4				5			6		
	30 kN			30 kN				32 kN			32 kN		
A	444	544	644	316	416	516	616	396	496	596	596	696	796
B	137			171				186			246		
C	100			120				140			160		
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
F	237			291				326			406		
G	125			145				170			190		
H	98			128				138			180		
L	84			97				107			107		
J3	132			154				169			189		
J4	82			96				106			106		
X	57			64				66			86		
W	124			144				169			189		
kg	-			-				-			-		

Cod. 5.86.83600 5.86.83700 5.86.83800 5.86.84500 5.86.84600 5.86.84700 5.86.84800 5.86.85600 5.86.85700 5.86.85800 5.86.86800 5.86.86900 5.86.86100

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

Cod.	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. 802 Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

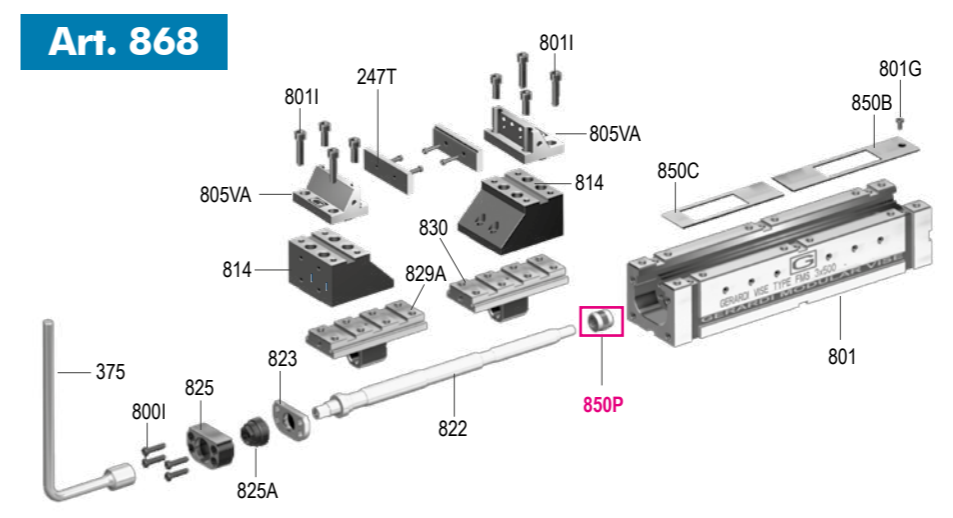
Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 868E (Art. 868 + 890) Morsa + motore idraulico / Vise + hydraulic motor

Cod.	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

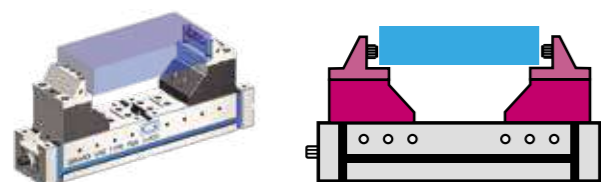
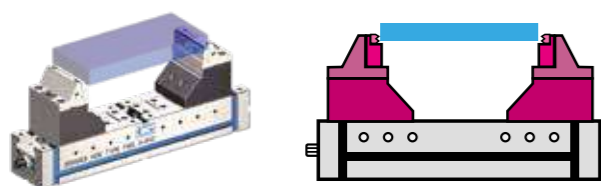
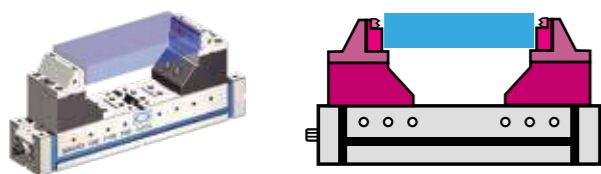
Cod.	5.86.8F360	5.86.8F370	5.86.8F380	5.86.8F450	5.86.8F460	5.86.8F470	5.86.8F480	5.86.8F560	5.86.8F570	5.86.8F580	5.86.8F680	5.86.8F690	5.86.8F610
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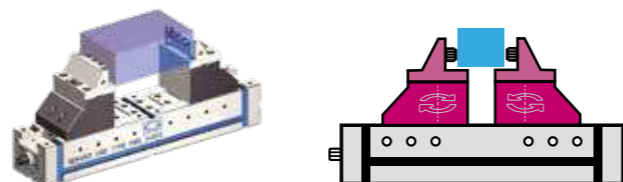
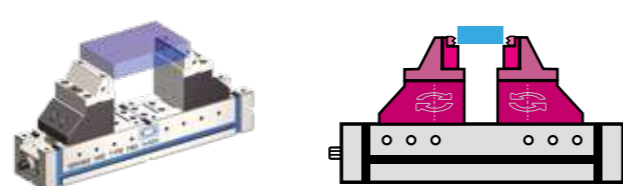
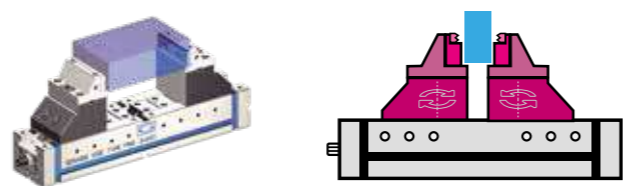
Art.	Pag.	Art.	Pag.
375	4.35	830	5.52
800I	5.61	850B	5.61
801	5.50	850C	5.61
801G	5.61	850P	5.72
801I	5.61	814	5.56
810J	5.56	805VA	5.35
822	5.53	247T	5.35
823	5.59	-	-
825	5.59	-	-
825A	5.61	-	-
829A	5.52	-	-

POSSIBILI COMBINAZIONI DELLA MORSA Art.868 POSSIBLE ARRANGEMENTS OF THE Art.868 VISE

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



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



Art. 868

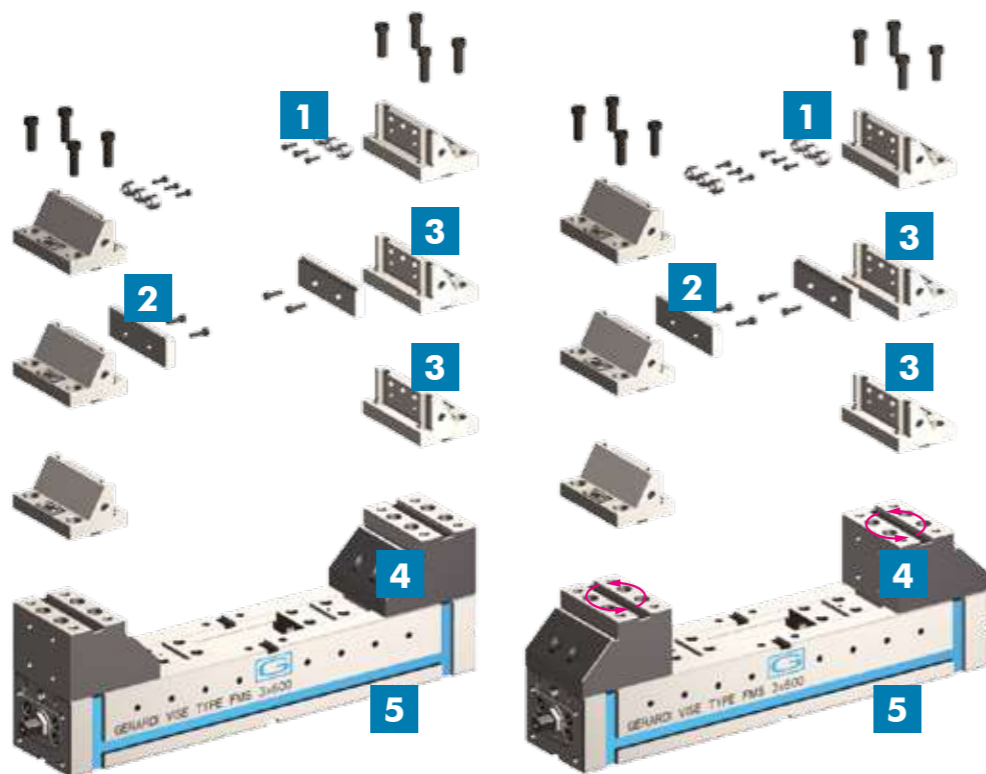
1 Art.90
PUNTALE TEMPRATO GRIP
HARDENED GRIP POINT

2 Art.247T
PIASTRINA PIANA GRIP
STRAIGHT JAW PLATE GRIP

3 Art.805VA
CORPO GANASCIA
JAW PLATE BODY

4 Art.814
BASE PER GANASCE FISSE
BASE FOR FIXED JAWS

5 Art.855
CORPO BASE CUBO
CUBE BASE BODY



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

GANASCE & PIASTRE GANASCE PER Art.868 JAWS & JAW PLATES FOR Art.868

Tipo (grandezza) / Type (size)

1 2 3 4 5 6

Art. 805V*

Ganascia per piastrine e puntali
Jaw for plates and points



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

* Viti per fissaggio a richiesta Fixing screws on request

Art. 90

Puntale temprato GRIP
Hardened GRIP Insert



Cod. 5.90.10000

Art. 247T (W2)

Piastra piana temprata GRIP
con larghezza ridotta
Hardened straight jaw plate GRIP
with narrow width



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

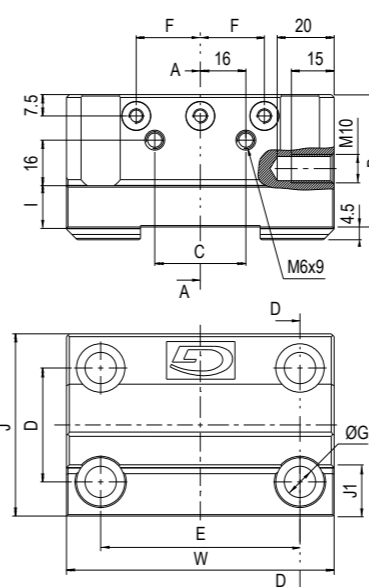
Per qualsiasi piastra piana speciale, raddoppiare il prezzo
For special Taylor made straight jaw plate double the price

PIASTRE GANASCE "GRIP" JAW PLATES

MINOR SUPERFICIE DI CONTATTO + PRESSIONE DI SERRAGGIO
LESS SURFACE CONTACT + CLAMPING PRESSURE

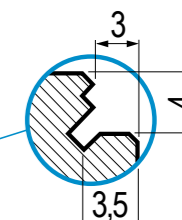
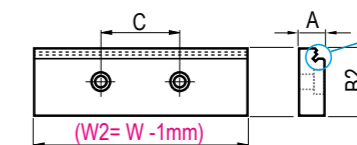
Art. 805VA

Corpo Ganascia
Jaw for plates and points



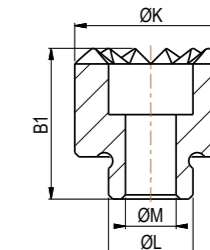
Art. 247T

Piastrina piana temprata GRIP
Hardened straight jaw plate GRIP



Art. 90

Puntale temprato GRIP
Hardened GRIP Point



mm	1	2	3	4	5	6
W	74	94	124	144	169	189
A	12	12	13	13	18	18
B	39,5	47	57	61	66	86
B2	24,5	32	39	43	48	56
C	25	32	50	50	76	90
D	32	40	50	60	68	68
E	56	70	92	108	126	144
F	2X26	3x20	3x25	4x20	4x25	4x30
ØG	9	11	13	17	17	21
I	15	15	18	18	18	20
J	56	64	84	97	107	107
J1				17		
ØK	-			18		-
ØL	-			10 h8		-
ØM	-			6		-

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN				3 30 kN	
Apertura minima - massima / minimum - maximum Aperture	A	10 / 25	10 / 25	20 / 50	20 / 50	20 / 50	20 / 50	40 / 100	40 / 100
Apertura minima - massima / minimum - maximum Aperture	A1	10 / 15	10 / 15	10 / 25	10 / 25	10 / 25	10 / 25	25 / 50	25 / 50
	B	34		55				90	
	C	70		90				100	
	D	232	332	300	400	500	600	400	500
	E	249	349	320	420	520	620	425	525
	F	104		145				190	
	G	75		95				125	
	J	48	60	102				132	
	W	50		75				100	
	kg	9	12	23	30	63	43	47	52
	Cod.	5.87.01200	5.87.01300	5.87.02300	5.87.02400	5.87.02500	5.87.02600	5.87.03400	5.87.03500

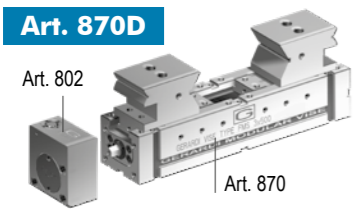
Art. 870

Morsa FMS autocentrante (opzione doppia o singola) con ganasce prismatiche



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

Art. 870D



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

Cod.	5.87.0D120	5.87.0D130	5.87.0D230	5.87.0D240	5.87.0D250	5.87.0D260	5.87.0D340	5.87.0D350
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Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

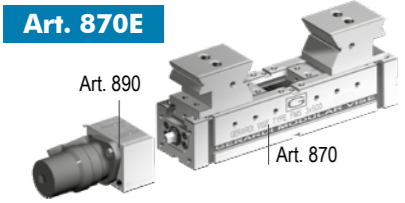
Chiave dinamometrica Art.357 (Consigliata) - Torque wrench Art.357 (Suggested)

Cod.	5.80.21000	5.80.22000	5.80.23000
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Art. 802



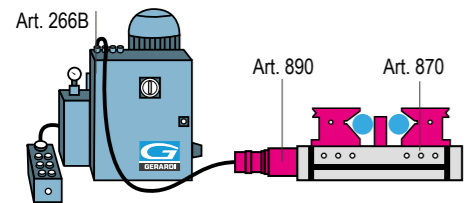
Art. 870E



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

Cod.	5.87.0E120	5.87.0E130	5.87.0E230	5.87.0E240	5.87.0E250	5.87.0E260	5.87.0E340	5.87.0E350
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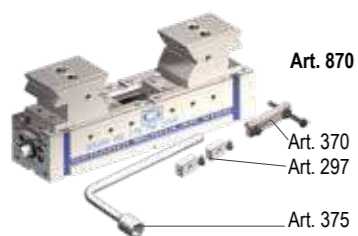
Art. 870F



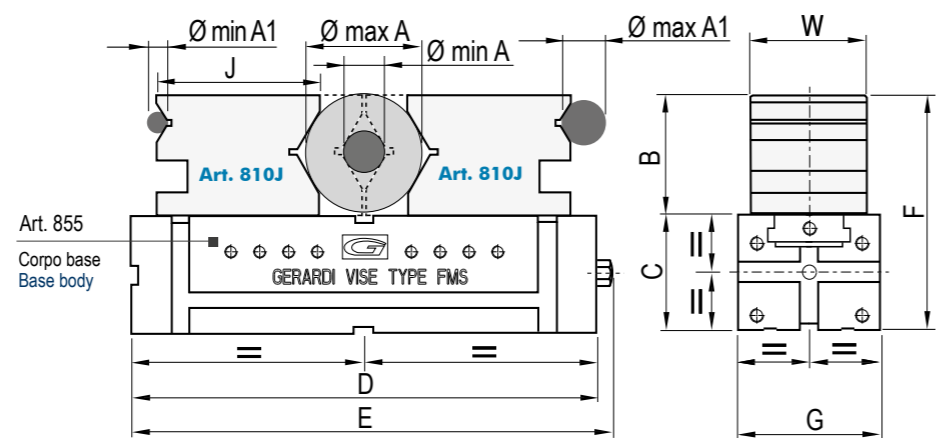
(Art. 870 + 890 + 266B) Morsa + motore idraulico + centralina / Vise + hydraulic motor + power unit

Cod.	5.87.0F120	5.87.0F130	5.87.0F230	5.87.0F240	5.87.0F250	5.87.0F260	5.87.0F340	5.87.0F350
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
A1	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
B	90			132				171	191	226	250	275	300
C	100			120				140				160	
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
F	190			252				311	331	366	410	435	460
G	125			145				170				190	
J	132			156				176				174	
W	100			132				140				160	
kg	57	62	67	74	82	91	99	135	145	155	225	245	265
Cod.	5.87.03600	5.87.03700	5.87.03800	5.87.04500	5.87.04600	5.87.04700	5.87.04800	5.87.05600	5.87.05700	5.87.05800	5.87.06800	5.87.06900	5.87.06100

Art. 870D

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

Cod.	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. 802

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

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 870E

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

Cod.	5.87.0E360	5.87.0E370	5.87.0E380	5.87.0E450	5.87.0E460	5.87.0E470	5.87.0E480	5.87.0E560	5.87.0E570	5.87.0E580	5.87.0E680	5.87.0E690	5.87.0E610
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Art. 870F

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

Cod.	5.87.0F360	5.87.0F370	5.87.0F380	5.87.0F450	5.87.0F460	5.87.0F470	5.87.0F480	5.87.0F560	5.87.0F570	5.87.0F580	5.87.0F680	5.87.0F690	5.87.0F610
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Art. 870

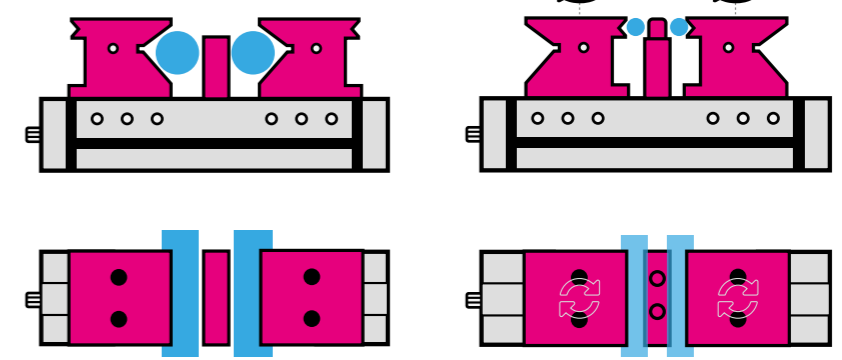
Esempi applicativi ganasce prismatiche: Prismatic jaws application examples:

Ganasce ruotate di 180° - Jaws rotated 180°



Art. 870A

Pag.5.54 Page. 5.54



Per il serraggio di 2 particolari tondi contemporaneamente per mezzo della ganasca intermedia alta Art.870A
For clamping 2 round workpieces simultaneously by intermediate high jaw Art.870A

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

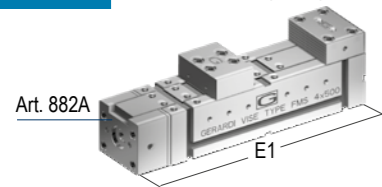
Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN			3 30 kN		
Apertura massima / Maximum opening	A	85	185	170	270	370	470	230	330
Minima apertura interno-esterno / Minimum opening inside-outside	A1	115 / 200	115 / 300	130 / 300	130 / 400	130 / 500	130 / 600	170 / 400	170 / 500
Art. 800 Morsa a Serraggio Meccanico solo per serraggi singoli	B	25		30			40		
SPECIFICA SOLO PER SERRAGGI SINGOLI SPECIFIC FOR SINGLE CLAMPING ONLY	C	70		90			100		
	D	232	332	300	400	500	600	400	500
	E	249	349	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
Art. 800Z Corpo morsa Vise body	Cod.	5.80.0Z120	5.80.0Z130	5.80.0Z230	5.80.0Z240	5.80.0Z250	5.80.0Z260	5.80.0Z340	5.80.0Z350



Mechanical Clamping vise only for single clamping

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

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



Connettore Idraulico - Hydraulic Connexion

Art. 882A

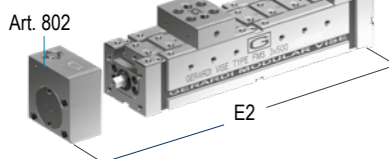
Corsa - Stroke	mm	4	7	10
Superficie - Surface	cm ²	6	21	21
Pressione - Pressure	bar	417	119	143

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

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

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

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

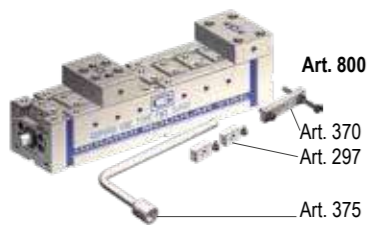


Moltiplicatore di coppia con rinvio angolare - Mechanical with torque multiplier with angular transmission

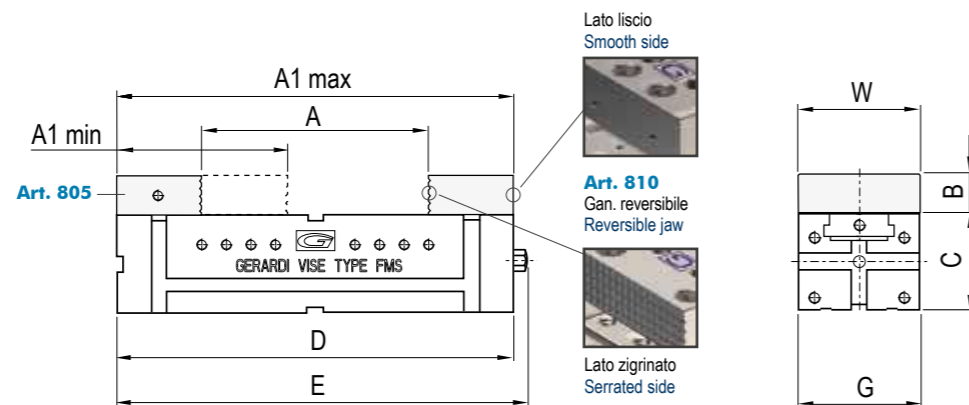
Art. 802

Cod.	5.80.21000	5.80.22000	5.80.23000
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- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	430	530	630	300	400	500	600	380	480	580	580	680	780
A1	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
B	40			50				60			60		
C	100			120				140			160		
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G	125			145				170			190		
W	124			144				169			189		
kg	50	55	60	66	72	80	88	115	125	135	170	190	210
Cod.	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

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

E1	685	785	885	585	685	785	885	-	-	-	-	-	-
Cod.	5.80.0A360	5.80.0A370	5.80.0A380	5.80.0A450	5.80.0A460	5.80.0A470	5.80.0A480	5.80.0A560	5.80.0A570	5.80.0A580	5.80.0A680	5.80.0A690	5.80.0A610

Art. 882A Connettore Idraulico - Hydraulic Connexion

	10	10	-	-
	21	21	-	-
	143	143	-	-

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

E1	685	785	885	585	685	785	885	-	-	-	-	-	-
Cod.	5.80.0B360	5.80.0B370	5.80.0B380	5.80.0B450	5.80.0B460	5.80.0B470	5.80.0B480	5.80.0B560	5.80.0B570	5.80.0B580	5.80.0B680	5.80.0B690	5.80.0B610

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


E2	670	770	870	570	670	770	870	685	785	885	-	-	-	
Nm	Max 20		Max 20			Max 20			Max 20			Max 20		
Cod.	5.80.0D360	5.80.0D370	5.80.0D380	5.80.0D450	5.80.0D460	5.80.0D470	5.80.0D480	5.80.0D560	5.80.0D570	5.80.0D580	5.80.0D680	5.80.0D690	5.80.0D610	

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

Cod.	5.80.23000	5.80.24000	5.80.25000	5.80.26000
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Art. 800

Art.	Pag.	Art.	Pag.
800E	5.61	850B	5.61
800I	5.61	-	-
801	5.50	-	-
801G	5.61	-	-
8011	5.61	-	-
805	5.54	-	-
810	5.56	-	-
818	5.52	-	-
821	5.53	-	-
823B	5.59	-	-
825B	5.59	-	-

Tipo (grandezza) morsa / Vise type (size)	kN	1					2					3 30 kN	
Apertura massima / Maximum opening	A	-	-	-	-	-	-	-	-	-	-	232	332
Art. 900 Morsa a Serraggio Meccanico con Limitatore di Forza solo per serraggi singoli  Mechanical Clamping vise with Limiting Device only for single clamping SPECIFICA SOLO PER SERRAGGI SINGOLI SPECIFIC FOR SINGLE CLAMPING ONLY	B	-	-	-	-	-	-	-	-	-	-	40	-
	C	-	-	-	-	-	-	-	-	-	-	100	-
	D	-	-	-	-	-	-	-	-	-	-	510	610
	E	-	-	-	-	-	-	-	-	-	-	400	500
	G	-	-	-	-	-	-	-	-	-	-	125	-
	W	-	-	-	-	-	-	-	-	-	-	124	-
	kg	-	-	-	-	-	-	-	-	-	-	-	44
Cod.	-	-	-	-	-	-	-	-	-	-	5.90.03400	5.90.03500	-

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

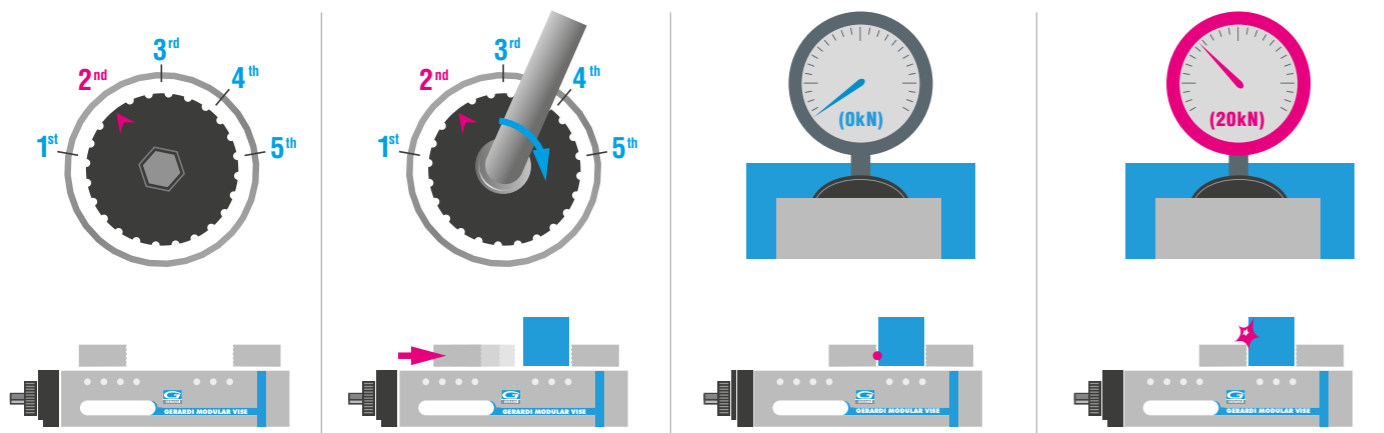
Art. 900Y	Cod.	-					5.90.0Y300						
Modulo per serraggio idraulico Module for hydraulic clamping 	-	-	-	-	-	-	-	-	-	-	-	-	-

	3 30 kN			4 30 kN				5 32 kN			6		
A	432	532	632	304	404	505	605	384	484	584	-	-	-
B	40	-	-	50	-	-	-	60	-	-	-	-	-
C	100	-	-	120	-	-	-	140	-	-	-	-	-
D	710	810	910	610	710	810	910	710	810	910	-	-	-
E	600	700	800	500	600	700	800	600	700	800	-	-	-
G	125	-	-	145	-	-	-	170	-	-	-	-	-
W	124	-	-	144	-	-	-	169	-	-	-	-	-
kg	-	-	-	57	-	-	-	99	-	-	-	-	-
Cod.	5.90.03600	5.90.03700	5.90.03800	5.90.04500	5.90.04600	5.90.04700	5.90.04800	5.90.05600	5.90.05700	5.90.05800	-	-	-

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

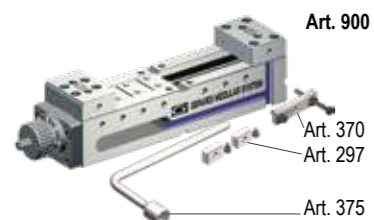
Art. 900Y	Cod.	5.90.0Y300			5.90.0Y300			5.90.0Y300			-		
	-	-	-	-	-	-	-	-	-	-	-	-	-

FUNZIONAMENTO LIMITATORE DI FORZA - HOW TO USE THE LIMITING DEVICE

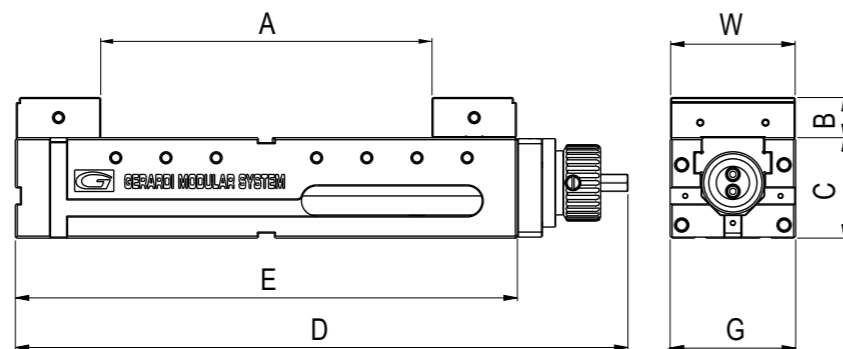


- 1** Scegliere forza di serraggio tramite ghiera limitatore di forza. Presetting of the clamping force through the clamping limiter
- 2** Rapido avvicinamento ganascia mobile al pezzo da serrare. Quick approach of the jaw to the workpiece
- 3** Contatto ganascia-particolare e sblocco frizione limitatore di forza. First contact jaw-workpiece and clamping limiter friction release
- 4** Avvio meccanismo moltiplica forza. Fermarsi a fine corsa. Force multiplier device start. At the end-stroke stop clamping.

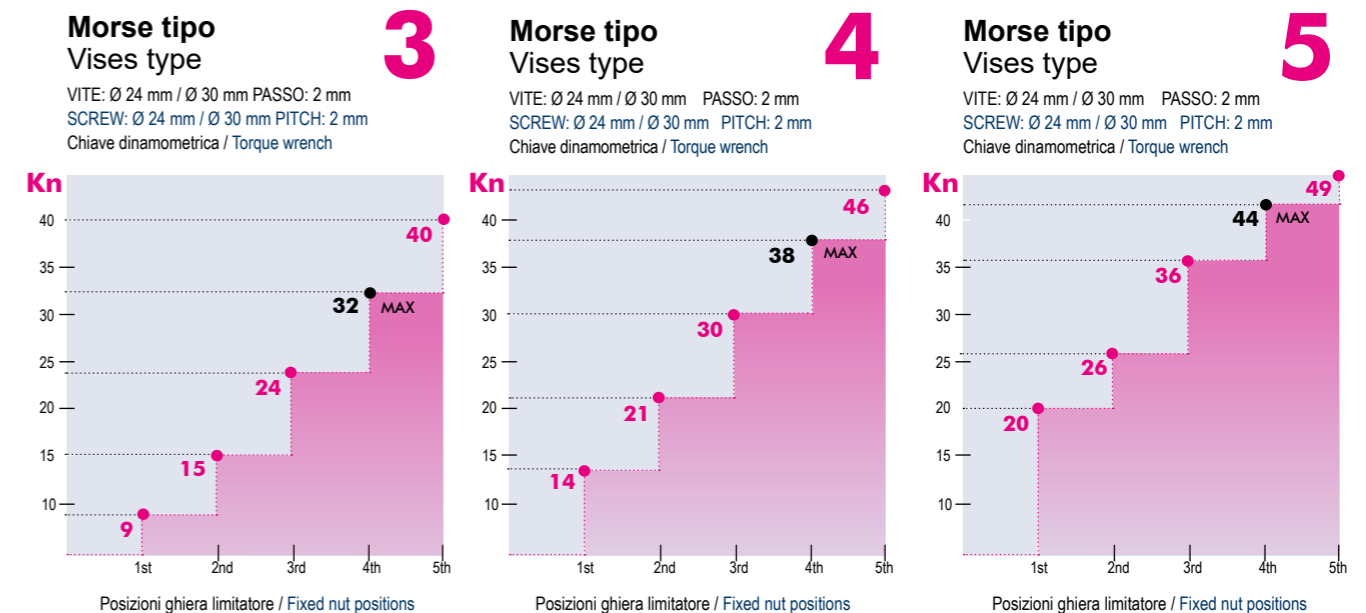
- Dotazione standard:
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 chiave a pipa Art. 375



- Standard equipment:
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts for 16 mm slot Art. 297
 - 1 box wrench Art. 375



Diagrammi forze di serraggio - Diagrams with clamping force



Art. 900

Art.	Pag.
900Y	40
810E	57
805E	55

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

Tipo (grandezza) morsa / Vise type (size)		1 25 kN		2 25 kN				3 30 kN			
Apertura massima / Max. opening		A	85	185	170	270	370	470	230	330	
Art. 800C		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	

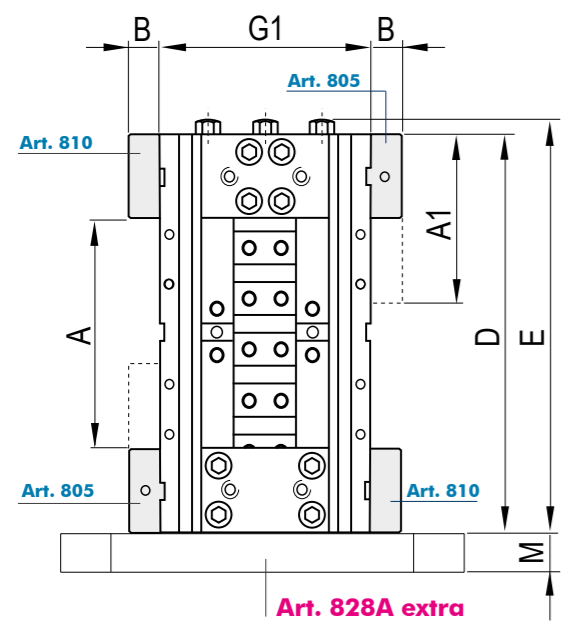


FMS vise tower with straight jaws for 4 clamping stations

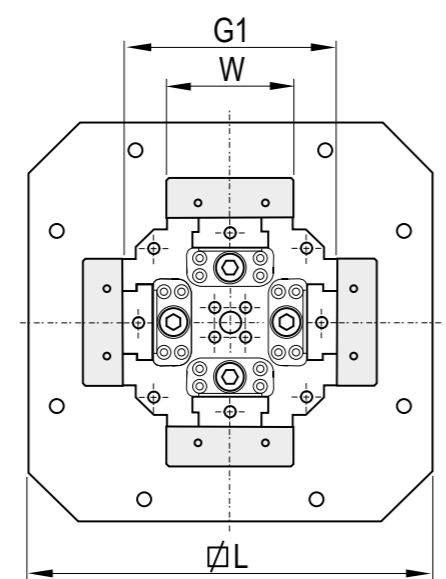
SPECIFICA SOLO PER SERRAGGI SINGOLI
SPECIFIC FOR SINGLE CLAMPING ONLY

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

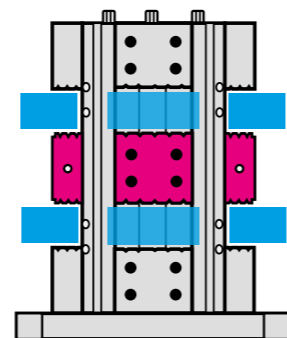
Art. 800G	Cod.	5.80.0G120	5.80.0G130	5.80.0G230	5.80.0G240	5.80.0G250	5.80.0G260	5.80.0G340	5.80.0G350
Modulo base cubo morsa FMS (senza ganasce) FMS vise tower base (without jaws)									



- Dotazione standard per Art. 800C**
- 1 chiave a pipa Art. 375
 - 4 arresti laterali Art. 370
 - 2 coppie di tasselli di posizionamento per cava da 16 mm Art. 297
 - 1 galfare 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 positioning key-nuts for 16 mm slot Art. 297
 - 1 lifting hook Art. 848
 - Wooden box packaging



GANASCE REVERSIBILI
REVERSIBLE JAWS

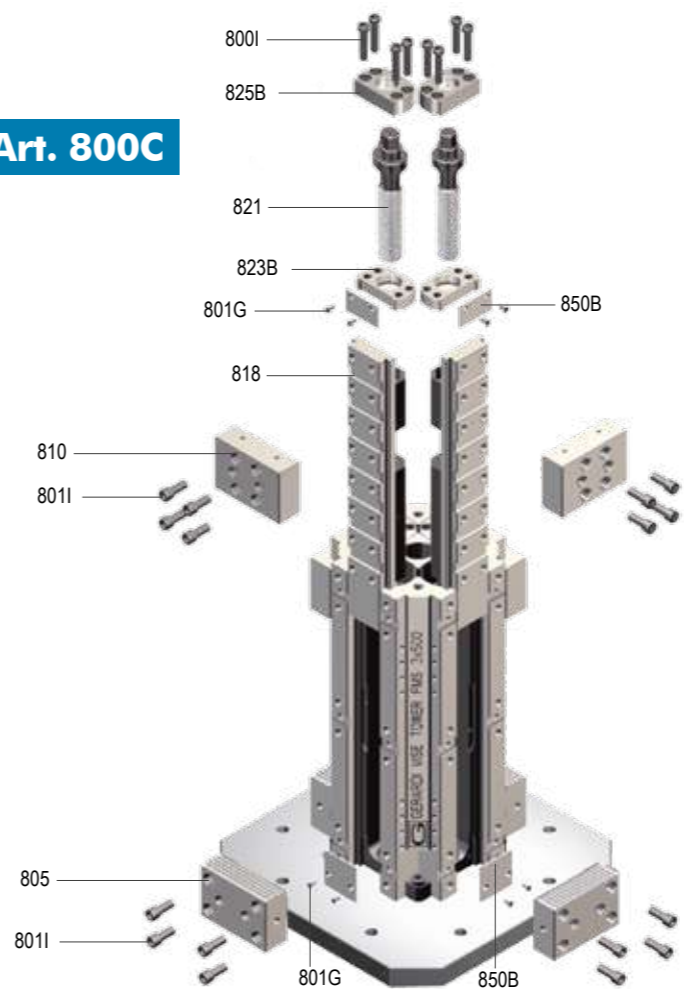
		3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A		430	530	630	300	400	500	600	380	480	580	480	580	680
A1			170		509				630			810		
B		40			50				60			60		
D		600	700	800	500	600	700	800	600	700	800	800	900	1000
E		625	725	825	525	625	725	825	625	725	825	825	925	1025
G1			210		245				280			290		
L			400		450				500			550		
M			38		38				38			38		
W			124		144				169			189		
kg		135	157	180	180	210	252	288	260	303	340	500	562	625

Art. 800C	Cod.	5.80.0C360	5.80.0C370	5.80.0C380	5.80.0C450	5.80.0C460	5.80.0C470	5.80.0C480	5.80.0C560	5.80.0C570	5.80.0C580	5.80.0C680	5.80.0C690	5.80.0C610

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

Art. 800G	Cod.	5.80.0G360	5.80.0G370	5.80.0G380	5.80.0G450	5.80.0G460	5.80.0G470	5.80.0G480	5.80.0G560	5.80.0G570	5.80.0G580	5.80.0G680	5.80.0G690	5.80.0G610

Art. 800C



GANASCE REVERSIBILI
REVERSIBLE JAWS

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

Art.	Pag.	Art.	Pag.
800I	5.61	-	-
801G	5.61	-	-
801I	5.61	-	-
810	5.56	-	-
818	5.52	-	-
821	5.53	-	-
823B	5.59	-	-
825B	5.59	-	-
850B	5.61	-	-
-	-	-	-
-	-	-	-

Tipo (grandezza) morsa / Vise type (size)	kN	1 25 kN		2 25 kN				3 30 kN	
Apertura massima / Max. opening	A	2 x 16	2 x 66	2 x 54	2 x 104	2 x 154	2 x 204	2 x 74	2 x 124
	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.	5.86.0C120	5.86.0C130	5.86.0C230	5.86.0C240	5.86.0C250	5.86.0C260	5.86.0C340	5.86.0C350

Art. 860C

Cubo-morsa FMS doppio per il serraggio di 8 pezzi



Double FMS vise tower for 8 clamping stations

Art. 855C

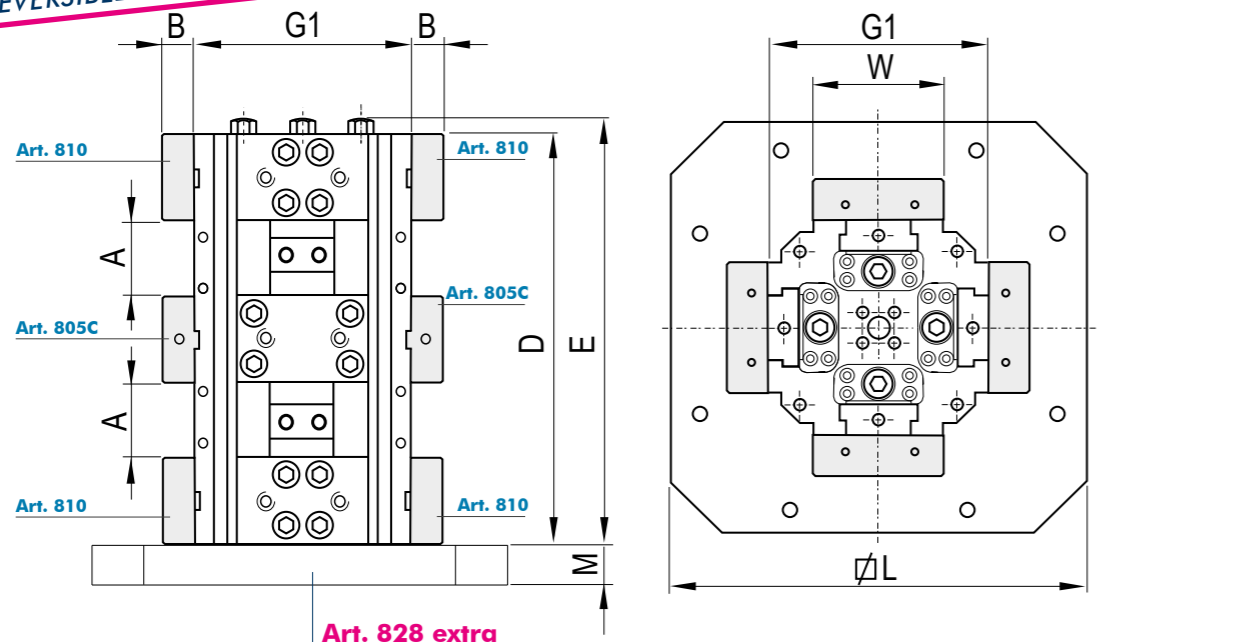
Modulo base cubo morsa FMS doppia (senza ganasce)
FMS Double vise tower base (without jaws)

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

	3 30 kN			4 30 kN				5 32 kN			6 32 kN		
A	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
B	40			50				60			60		
D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G1	210			245				280			290		
L	400			450				500			550		
M	38			38				38			38		
W	124			144				169			189		
kg	135	157	180	180	210	252	288	260	303	340	500	562	625
Cod.	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

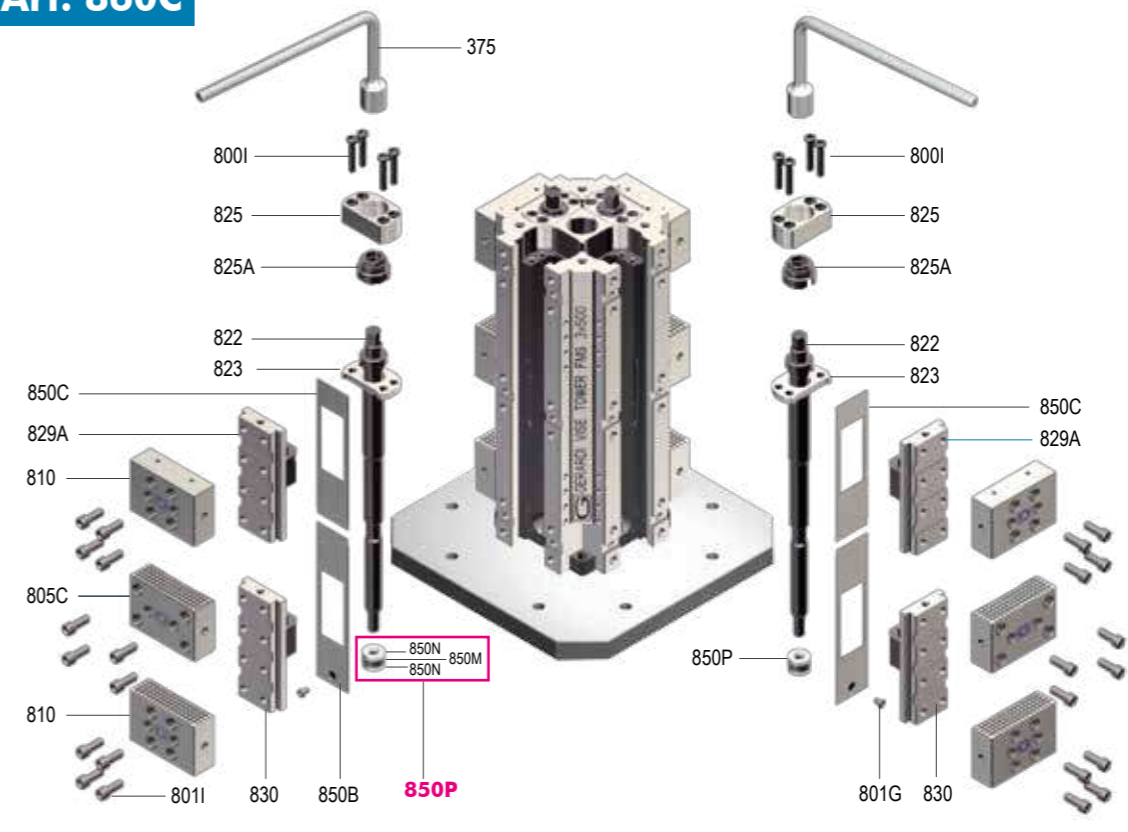
Cod.	5.85.5C360	5.85.5C370	5.85.5C380	5.85.5C450	5.85.5C460	5.85.5C470	5.85.5C480	5.85.5C560	5.85.5C570	5.85.5C580	5.85.5C680	5.85.5C690	5.85.5C610
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**GANASCE REVERSIBILI
REVERSIBLE JAWS**



**GANASCE REVERSIBILI
REVERSIBLE JAWS**

Art. 860C



Art.	Pag.
375	4.35
8001	5.61
801G	5.61
8011	5.61
805C	5.54
810	5.56
822	5.53
823	5.59
825	5.59
825A	5.61
829A	5.52
830	5.52
850B	5.61
850C	5.61
850P	5.61
-	-
-	-

Dotazione standard per Art. 860C

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento per cava da 16 mm Art. 297
- 1 golphare di sollevamento Art. 848
- Imballo in cassa di legno
- Meccanismo 3a mano

Standard equipment for Art. 860C

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of positioning key-nuts for 16 mm slot Art. 297
- 1 lifting hook Art. 848
- Wooden box packaging
- Third hand device

Tipo (grandezza) morsa / Vise type (size)		1		2				3	
kN		25 kN		25 kN				30 kN	
A	Apertura massima Max. opening	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 FMS doppio con ganasce a gradino per il serraggio di 8 pezzi



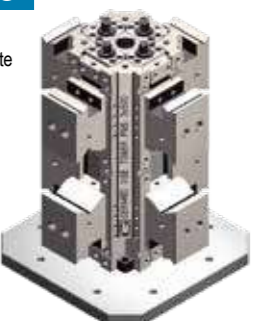
Double FMS vise tower with step-type jaws for 8 clamping stations

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 / 50				25 / 100	
A		10 / 25							

Art. 870C

Cubo morsa FMS autocentrante con ganasce prismatiche



Self-centering FMS vise tower with prismatic jaws

Cod.	5.87.0C120	5.87.0C130	5.87.0C230	5.87.0C240	5.87.0C250	5.87.0C260	5.87.0C340	5.87.0C350

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

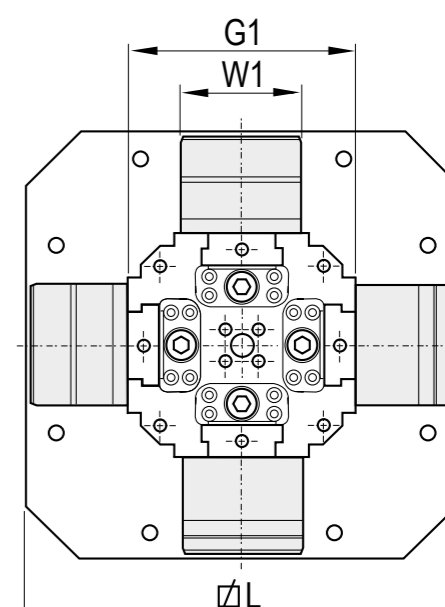
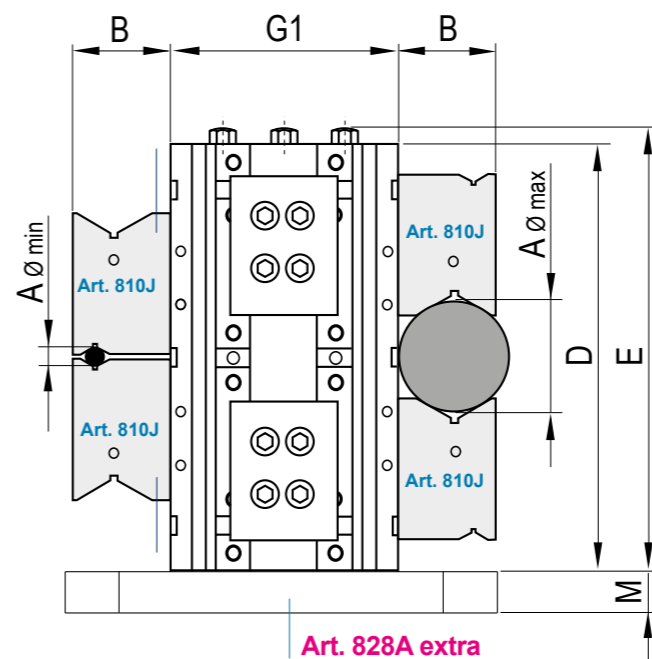
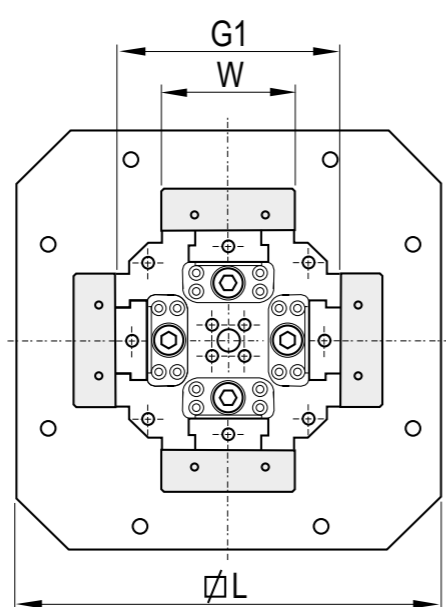
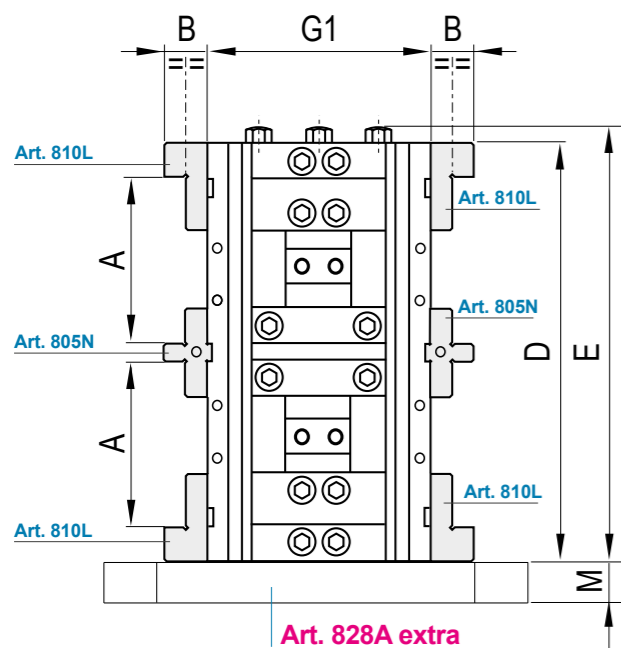
3		4				5			6					
30 kN		30 kN				32 kN			32 kN					
A		2 x 262	2 x 312	2 x 362	2 x 204	2 x 254	2 x 304	2 x 354	2 x 254	2 x 304	2 x 354	2 x 354	2 x 404	2 x 454

Cod.	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

A		25 / 100		30 / 150				35 / 200			40 / 300		
A													

Cod.	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

D	600	700	800	500	600	700	800	600	700	800	800	900	1000
E	625	725	825	525	625	725	825	625	725	825	825	925	1025
G1		210			245				280			290	
L		400			450				500			550	
M		38			38				38			38	
W		124			144				169			189	
W1		100			132				140			160	
kg	177	206	236	242	290	339	388	328	383	437	656	738	820

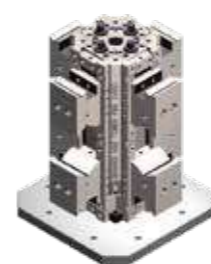
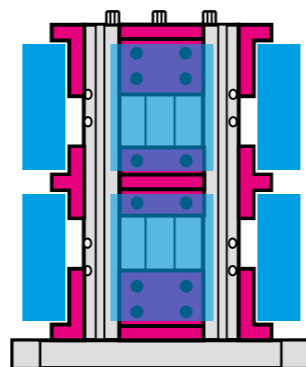


Dotazione standard per Art. 860C

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento per cava da 16 mm Art. 297
- 1 goliare di sollevamento Art. 848
- Imballo in cassa di legno
- Meccanismo 3a mano

Standard equipment for Art. 860C

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of positioning key-nuts for 16 mm slot Art. 297
- 1 lifting hook Art. 848
- Wooden box packaging
- Third hand device

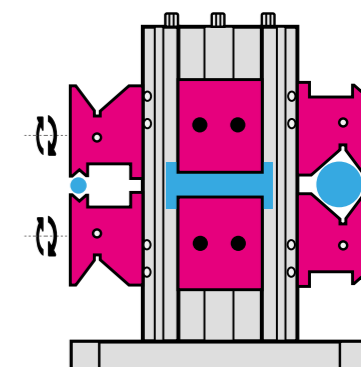


Dotazione standard per Art. 863C e Art. 870C:

- 1 chiave a pipa Art. 375
- 4 arresti laterali Art. 370
- 2 coppie di tasselli di posizionamento per cava da 16 mm Art. 297
- 1 goliare di sollevamento Art. 848
- Imballo in cassetta di legno
- Meccanismo 3a mano

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

- 1 box wrench Art. 375
- 4 workstops Art. 370
- 2 pair of positioning key-nuts for 16 mm slot Art. 297
- 1 lifting hook Art. 848
- Packaging wooden box
- Third hand device



COMPONENTI PER CUBO FMS
SPARE PARTS FOR FMS CUBE

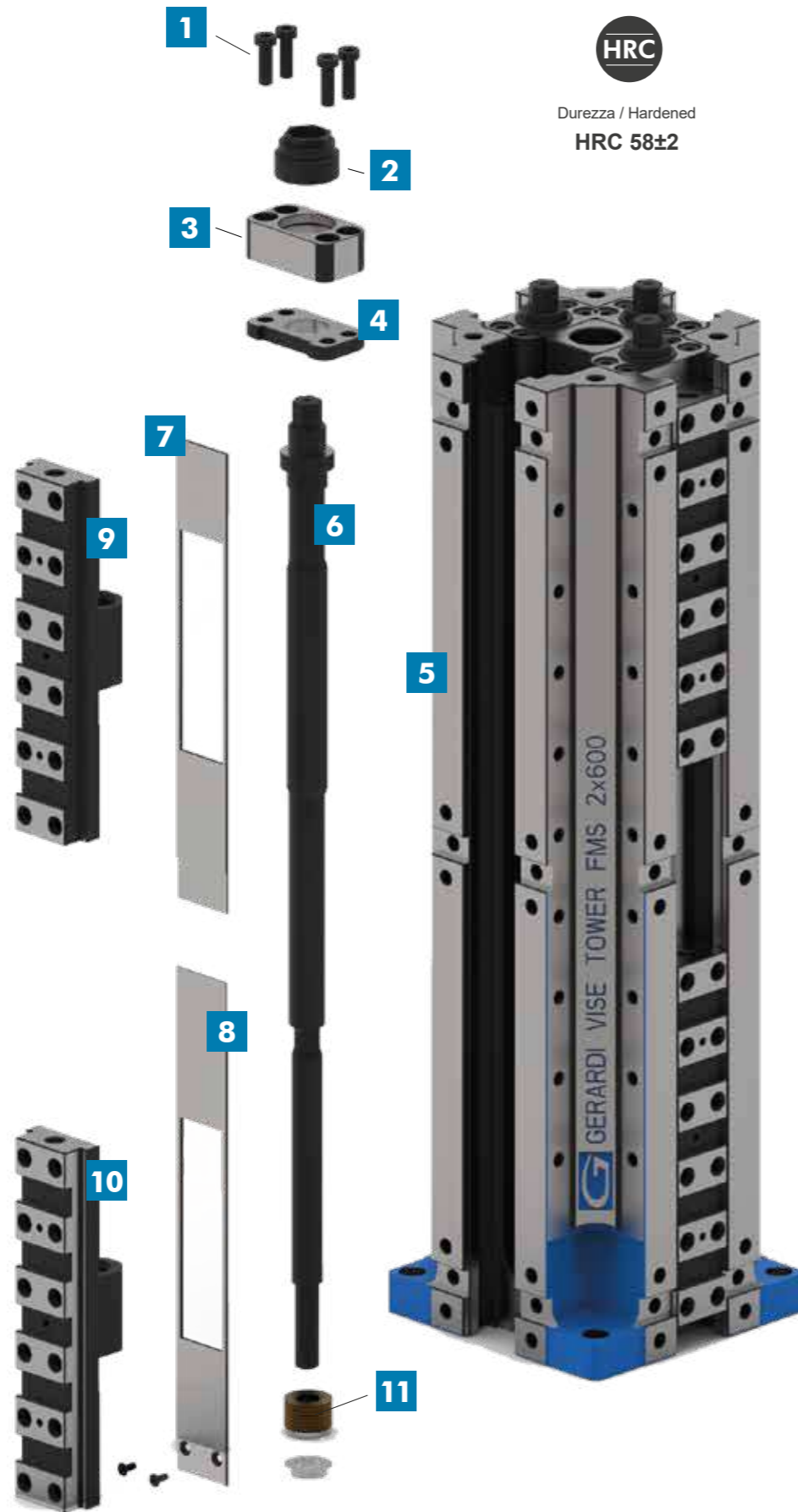
Art. 855C



Precisione / Accuracy
 $\pm 0,02\text{mm}$

HRC
Durezza / Hardened
HRC 58 \pm 2

- 1 Art.800I
VITI PER GANASCE
SCREWS FOR JAWS
- 2 Art.825A
GHIERA
NUT
- 3 Art.825B
PIASTRA DI CONTENIMENTO
SCREW HOLDING PLATE
- 4 Art.823
PIASTRA INTERMEDIA
MIDDLE PLATE
- 5 Art.804
CORPO BASE CUBO
CUBE BASE BODY
- 6 Art.822
VITE DI BLOCCAGGIO
MAIN SCREW
- 7 Art.850C
RIPARO
PROTECTION
- 8 Art.850B
RIPARO LATO VITE
PROTECTION SIDE SCREW
- 9 Art.830
SLITTA FILETTO DESTRO
SLIDE WITH RIGHT THREAD
- 10 Art.829A
SLITTA FILETTO SINISTRO
SLIDE WITH LEFT THREAD
- 11 Art.850P
DISPOSITIVO TERZA MANO
THIRD HAND DEVICE

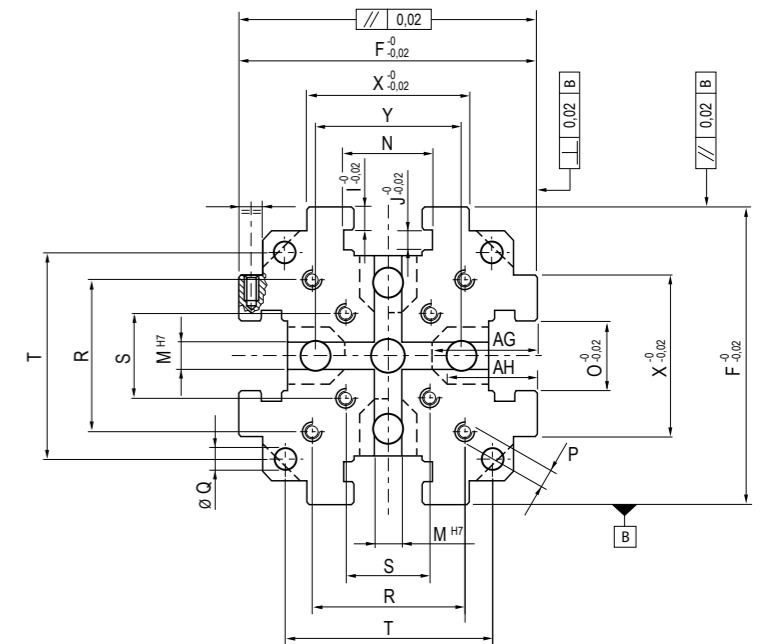
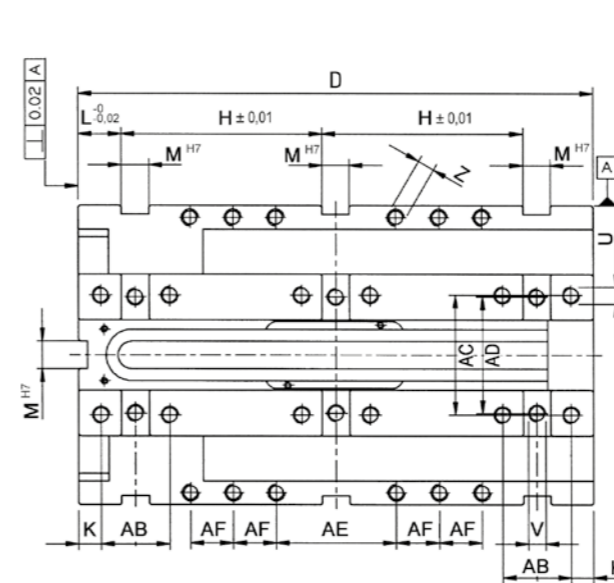


Tipo (grandezza) Type (size)	1		2		3		4		5		6										
Larghezza base / Base length	200	300	300	400	500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
Cod.	5.80.41200	5.80.41300	5.80.42300	5.80.42400	5.80.42500	5.80.42600	5.80.43400	5.80.43500	5.80.43600	5.80.43700	5.80.43800	5.80.44500	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

Art. 804

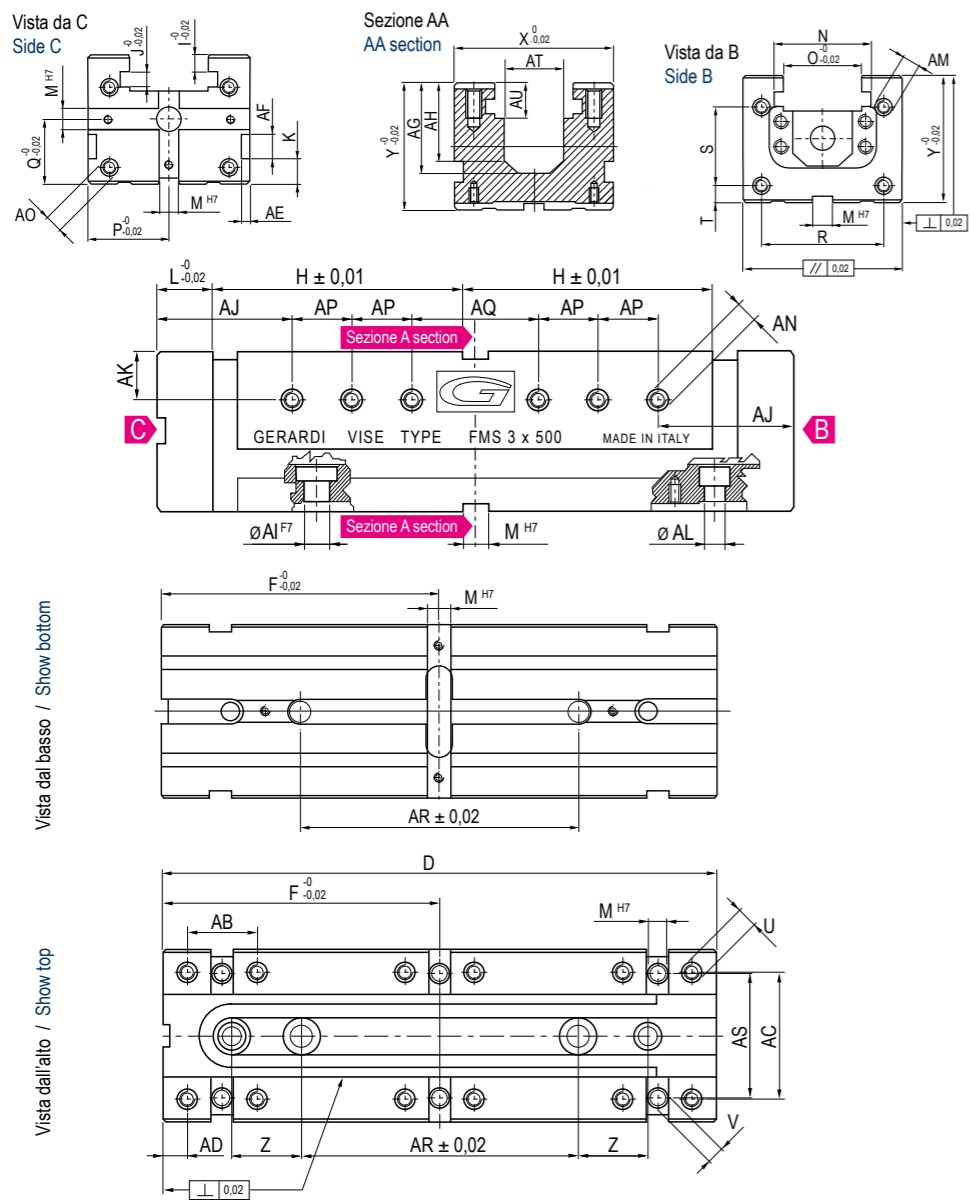
Corpo base cubo FMS.
Disegni e tabella dimensionale
FMS cube base body.
Drawing and table dimension

	200	300	300	400	300	400	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
D	200	300	300	400	300	400	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
F	140			175					210				245				280			290	
H	71	121	117	167	217	267	157	207	257	307	357	200	250	300	350	245	295	345	345	395	445
I	10			13					13				20				20			20	
J	10			12					12				18				18			18	
K	13			13					13				20				20			20	
L	21			25					35				42				47			47	
M	16			16					16				16				16			16	
N	45			53					76				86				96			110	
O	35			41					61				71				81			94	
P	M10			M12					M12				M16				M16			M20	
Q	11			13					13				13				17			17	
R	-			100					120				150				150			150	
S	-			40					40				40				50			50	
T	-			120					16				16				16			210	
U	M8			M10					M12				M16				M16			M20	
V	M8			M10					M12				M12				M12			M12	
Z	M10			M10					M10				M10				M10			M10	
X	75			95					125				145				170			190	
Y	70			85					110				125				140			130	
AB	32			40					50				60				68			68	
AC	56			70					92				108				126			144	
AD	56			68					92				106				126			144	
AE	50	70		70					100				100				100			125	
AF	10	25		50					50				50				50			50	
AG	49			62					62				80				95			105	
AH	41			53					72				70				82			95	



Tipo (grandezza) morsa / Vise type (size)

Art. 801 Base morsa FMS. Disegni e tabella dimensionale
FMS vise base body. Drawing and table dimension



	1		2	
kg	4,7	7,3	12,8	19
Cod.	5.80.11200	5.80.11300	5.80.12300	5.80.12400
D	200	300	300	400
F	100	150	150	200
H	71	121	117	167
I	10		13	
J	10		12	
K	15		20	
L	21		25	
M	16		16	
N	45		53	
O	35		41	
P	37,5		47,5	
Q	35		45	
R	52		70	
S	30		48	
T	20		22	
U	M8		M10	
V	M8		M10	
Z	50		50	
X	75		95	
Y	70		90	
AB	32		40	
AC	56		70	
AD	13		13	
AE	4		6	
AF	16		16	
AG	49		62	
AH	41		53	
AI	Ø 16 X 2		Ø 16 X 2	
AJ	55		65	
AK	20		27	
AL	Ø 11		Ø 13	
AM	M10		M10	
AN	M10		M10	
AO	M10		M10	
AP	20	25	50	
AQ	50	70	70	
AR	100	200	200	
AS	56		68	
AT	28		34	
AU	23		28	

PIASTRE D'INTERFACCIA ZERO POINT

Tipo (grandezza) / Type (size)

Art. 62
FMS

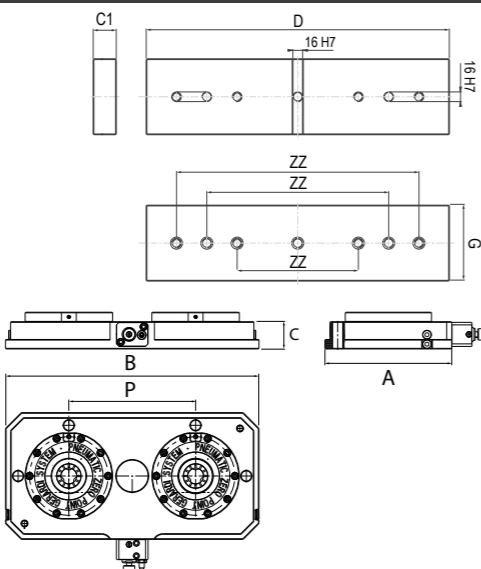
Piastra di interfaccia
Zero Point per morse FMS

Zero Point connecting
plate for FMS vises

Tiranti e viti INCLUSI
Pull Studs and screws INCLUDED

Art. 81P

Piastra Zero Point in acciaio con montaggio incassato
Zero Point steel plate built-in mounting



	1		2	
D	232	332	300	400
G	75		95	
C1	38		38	
ZZ	200 / 300		200 / 300 / 400	
kg	5	7	11	13,4
Cod.	5.62.12000	5.62.13000	5.62.23000	5.62.24000
A	200		200	
B	400		400	
C	43		43	
Art. 665	Tipo / Type T.2		Tipo / Type T.2	
P	200		200	
kg	29		29	
Cod.	9.81.P2040S2		9.81.P2040S2	

	2		3				4				5			6			
kg	23	27	26	31	39	46	52	47	56	65	75	71	82	94	140	156	174
Cod.	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
D	500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
F	250	300	200	250	300	350	400	250	300	350	400	300	350	400	400	450	500
H	217	267	157	207	257	307	357	200	250	300	350	245	295	345	345	395	445
I	13				13				20				20				
J	12				12				18				18				
K	20				20				20				26				
L	25				35				42				47				
M	16				16				16				16				
N	53				76				86				96				110
O	41				61				71				82				94
P	47,5				62,5				72,5				85				95
Q	45				50				60				70				80
R	70				92				108				126				144
S	48				62				72				92				100
T	22				13				16				18				20
U	M10				M12				M16				M16				M20
V	M10				M12				M12				M12				M12
Z	50				50				50				50				50
X	95				125				145				170				190
Y	90				100				120				140				160
AB	40				50				60				68				68
AC	70				92				108				126				144
AD	13				18				20				21				20
AE	6				6				10				10				10
AF	16				16				16				16				16
AG	62				72				80				95				105
AH	53				62				70				82				95
AI	Ø 16 x 2				Ø 16 x 2				Ø 16 x 2				Ø 16 x 2				Ø 16 x 2
AJ	65				100				100				100				125
AK	27				32				40				48				58
AL	Ø 13				Ø 13				Ø 13				Ø 17				Ø 17
AM	M10				M12				M12				M16				M20
AN	M10				M10M				M10				M10				M10
AO	M10				M12				M16				M16				M20
AP	50				50				50				50				50
AQ	70				100				100				100				125
AR	200				200				200				400	400	600	400	400
AS	68				92				106				126				144
AT	34				44				44				52				49
AU	28				28				41				41				41

ZERO POINT CONNECTING PLATES

	2		3				4				5			6			
D	500	600	400	500	600	700	800	500	600	700	800	600	700	800	800	900	1000
G	95				125				145				170				190
C1	38				53				38				38				38
ZZ	200 / 300 / 400				200 / 300 / 400				200 / 300 / 400				200 / 300 / 400				200 / 300 / 400
kg	16,1	18,9	13,9	17,8	21,5	25,1	28,5	20,8	25	29,3	33,5	29	34	39	44	49	55
Cod.	5.62.25000	5.62.26000	5.62.34000	5.62.35000	5.62.36000	5.62.37000	5.62.38000	5.62.45000	5.62.46000	5.62.47000	5.62.48000	5.62.56000	5.62.57000	5.62.58000	5.62.68000	5.62.69000	5.62.61000
A	200				200			200	200			200	200				250
B	600				400			500	600			600	800				1000
C	43				43			43	43			43	43				43
Art. 665	Tipo / Type T.2				Tipo / Type T.2			Tipo / Type T.2	Tipo / Type T.2			Tipo / Type T.2	Tipo / Type T.2				Tipo / Type T.3
P	300				200	250	200x2	300x2	250	200x2	300x2	200x2	300x2				300x2
kg	42				29	41	42	59	41	42	59	42	59				68,5
Cod.	9.81.P2060S2				9.81.P2040S2	9.81.P2060S2	9.81.P2060S3	9.81.P2080S3	9.81.P2060S2	9.81.P2060S3	9.81.P2080S3	9.81.P2060S3	9.81.P2080S3				9.81.P325100S3

Tipo (grandezza) Type (size)	1		2		3		4		5		6		
Larghezza base / Base lenght	200	300	300	400	500	600	400	500	600	700	800	900	1000

Art. 818 Cod. 5.81. 81200 5.81. 81300 5.81. 82300 5.81. 82400 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

Slitta integrale lunga
Solid long slide



A	18		24				30				30			36			36				
A1	18		18				24				24			30			30				
A2	24		24				30				30			36			36				
B	35		45				50				60			70			80				
C	170	264	256	356	456	556	346	446	546	646	746	435	535	635	735	525	625	725	725	825	925
D	M8		M10				M12				M16			M16			M20				
E	72	116	102	142	182	222	132	182	232	282	332	156	216	276	336	174	242	310	242	310	378
F	48,5		61,5				71				80			95			106				
G	15	18	23				33				40			45			45				
H	2	3	2	3	4	5	2	3	4	5	6	2	3	4	5	2	3	4	2	3	4
I	10		13				13				20			20			20				
J	10		12				12				18			18			18				
K	-	-	5	7	9		5				6			9			9				
L	44		51				74				84			95			108				
M	16		16				16				16			16			16				
N	20		23				33				40			45			45				
O	35		41				61				71			82			94				
S	26	32	40				50				60			68			68				
T	20		25				38				44			44			54				
V	27		33				43				43			51			48				
W	10	16	24				34				44			52			52				

Art. 829A

Cod. 5.82. 9A1200 5.82. 9A1300 5.82. 9A2300 5.82. 9A2400 5.82. 9A2500 5.82. 9A2600 5.82. 9A3400 5.82. 9A3500 5.82. 9A3600 5.82. 9A3700 5.82. 9A3800 5.82. 9A4500 5.82. 9A4600 5.82. 9A4700 5.82. 9A4800 5.82. 9A5600 5.82. 9A5700 5.82. 9A5800 5.82. 9A6800 5.82. 9A6900 5.82. 9A6100

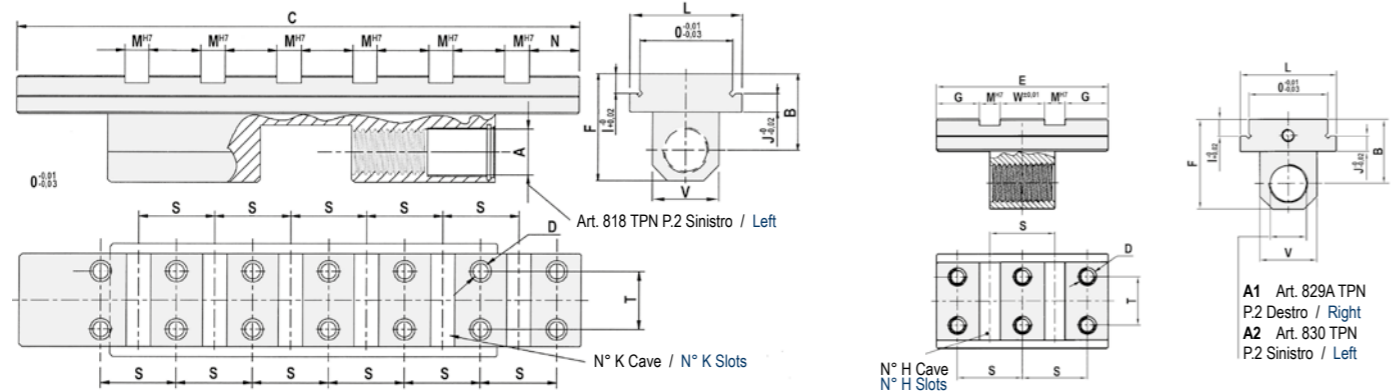
Slitta con filetto destro
Slide with right thread



Art. 830

Cod. 5.83. 01200 5.83. 01300 5.83. 02300 5.83. 02400 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

Slitta con filetto sinistro
Slide with left thread



Tipo (grandezza) Type (size)	1		2		3		4		5		6		
Larghezza base / Base lenght	200	300	300	400	500	600	400	500	600	700	800	900	1000

Art. 821 Cod. 5.82.11300 5.82.12600 5.82.14800 5.82.14800 5.82.16100 5.82.16100

Vite di bloccaggio con filetto sinistro
Main screw left thread



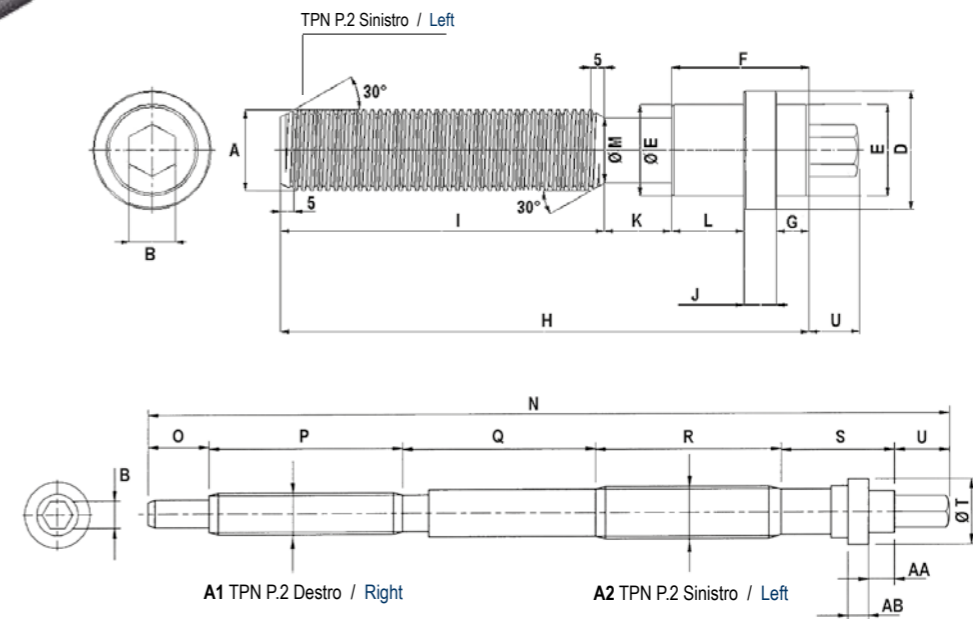
A	18		24				30				30			36			36				
A1	18		18				24				24			30			30				
A2	20		24				30				30			36			36				
B	16		16				19				19			19			19				
C	-		-				-				-			-			-				
D	35		35				45				45			48			48				
E	20		25				30				30			30			30				
F	82		33				42				42			115			115				
G	13		12				16				16			15			15				
H	152		135				136				186			225			225				
I	65		90				118				118			135			135				
J	14		12				15				15			20			20				
K	5		12				26				26			55			55				
L	55		9				11				11			80			80				
M	14		19				24				24			30			30				
N	242	333	308	399	500	600	414	499	599	699	822	499	599	699	797	610	700	790	881	961	
O	12	17	25	32	52	52	25	35	54	87	121	35	54	87	121	47	71	101	101	81	100
P	65	84	84	98	116	151	123	123	140	124	118	123	140	124	118	176	158	140	140	205	187
Q	32	66	66	106	134	164	82	132	160	226	282	132	160	226	282	124	192	256	256	245	308
R	68	85	75	94	116	136	118	118	140	124	118	118	140	124	118	176	158	140	140	205	187
S	44	6	38	49	62	77	41	66	80	113	136	66	80	113	136	62	96	128	128	120	154
T	32		32				38				38			45			45				
U	21		15		20		25				25			25			25				
AA	10		10				15				15			22			22				
AB	10		10				12				12			15			15				

Art. 822

Cod. 5.82. 21200 5.82. 21300 5.82. 22300 5.82. 22400 5.82. 22500 5.82. 22600 5.82. 23400 5.82. 23500 5.82. 23600 5.82. 23700 5.82. 23800 5.82. 23500 5.82. 23600 5.82. 23700 5.82. 23800 5.82. 25600 5.82. 25700 5.82. 25800 5.82. 26800 5.82. 26900 5.82. 26100

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

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

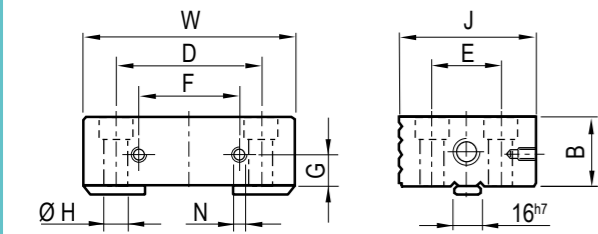
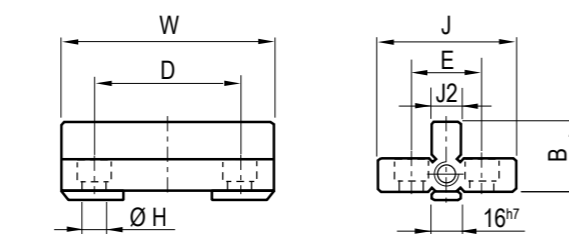
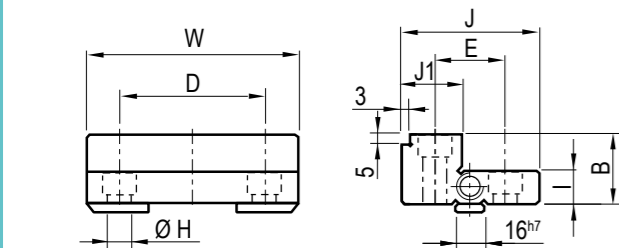
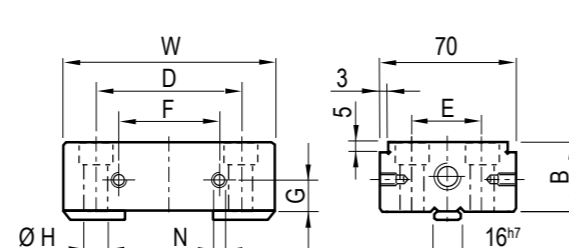


Passo Filetto - Thread Pitch

TYPE	PITCH
T1 / T2 / T3	P2
T5x6	P2
T5x7	P2
T5x8	P3
T5x6	P3

GANASCE FISSE PER MORSE FMS
FIXED JAWS FOR FMS VISES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 805* Ganascia fissa zigrinata da un lato Fixed jaw one side serrated	Cod. 5.80.51000	5.80.52000	5.80.53000	5.80.54000	5.80.55000	5.80.56000
Art. 805A* Ganascia fissa liscia Smooth fixed jaw	Cod. 5.80.5A100	5.80.5A200	5.80.5A300	5.80.5A400	5.80.5A500	5.80.5A600
Art. 805B* Ganascia fissa dolce Soft fixed jaw	Cod. 5.80.5B100	5.80.5B200	5.80.5B300	5.80.5B400	5.80.5B500	5.80.5B600
Art. 805C* Ganascia fissa zigrinata da ambo i lati Fixed jaw serrated on both sides	Cod. 5.80.5C100	5.80.5C200	5.80.5C300	5.80.5C400	5.80.5C500	5.80.5C600
Art. 870A* Ganascia fissa intermedia alta Fixed Intermediate high jaw	Cod. 5.87.0A100	5.87.0A200	5.87.0A300	5.87.0A400	5.87.0A500	5.87.0A600

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	-

* Set viti per fissaggio a richiesta - Fixing screws set on request

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

* Set viti per fissaggio a richiesta - Set of fixing screws on request

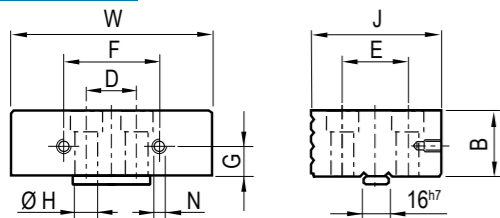
Richiedere scheda tecnica - Technical data sheet on request

GANASCE MOBILI PER MORSE FMS
MOVABLE JAWS FOR FMS VISES

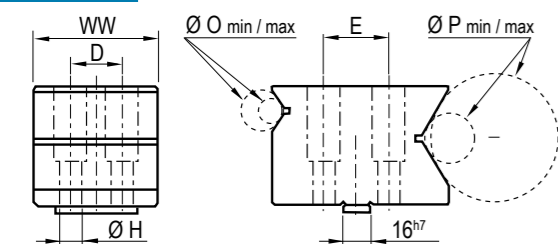
Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 810* Ganascia mobile zigrinata da un lato Movable jaw one side serrated	Cod. 5.81.01000	5.81.02000	5.81.03000	5.81.04000	5.81.05000	5.81.06000
Art. 810A* Ganascia mobile liscia Smooth movable jaw	Cod. 5.81.0A100	5.81.0A200	5.81.0A300	5.81.0A400	5.81.0A500	5.81.0A600
Art. 810B* Ganascia mobile dolce Soft movable jaw	Cod. 5.81.0B100	5.81.0B200	5.81.0B300	5.81.0B400	5.81.0B500	5.81.0B600
Art. 810D* Ganascia mobile con gradino 3x5 zigrinata da un lato Movable jaw with 3x5 step on side serrated	Cod. 5.81.0D100	5.81.0D200	5.81.0D300	5.81.0D400	5.81.0D500	5.81.0D600
Art. 814* Base mobile per ganasce fisse Movable base for fixed jaws	Cod. 5.81.41200 / 5.81.41300	5.81.42000	5.81.43000	5.81.44000	5.81.45000	5.81.4.6000

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

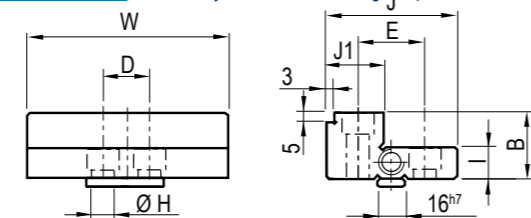
Art. 810 (Montata su Art. 860) / (Assembled on Art. 860)



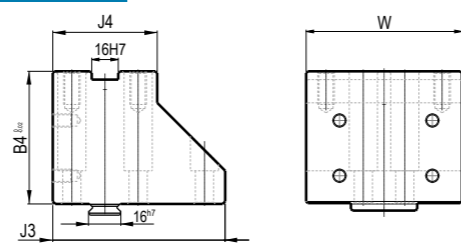
Art. 810J (Montata su Art. 870) / (Assembled on Art. 870)



Art. 810O Ganascia mobile con gradino piccolo e grande
Movable jaw with small and large step



Art. 814 Base mobile per ganasce fisse - Movable base for fixed jaws

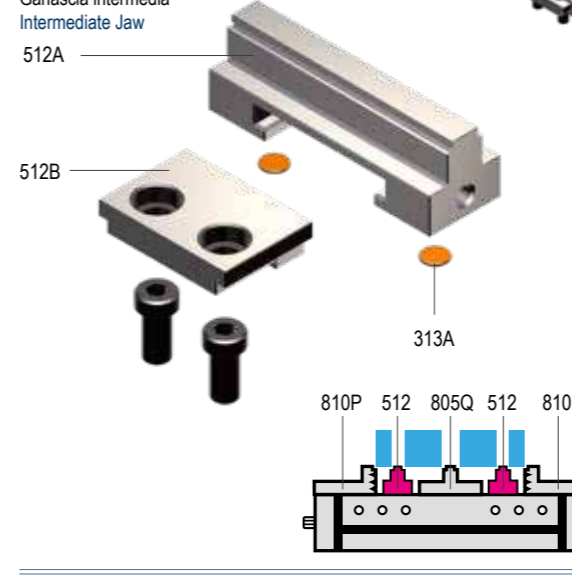


Tipo / Type	1x200	1x300	2	3	4	5	6	Tolleranze Tolerance
W	74		94	124	144	169	189	-
WW	60		75	100	132	140	160	-
B	25		30	40	50	60	60	-0,02
B4	60		80	90	110	120	160	-0,02
D	20		25	38	44	44	54	-
E	26	32	40	50	60	68	68	-
F	40		50	65	65	65	100	-
G	10		10	15	20	25	25	-
H	9		11	13	17	17	22	-
I	12,5		15	20	25	30	30	-0,02
J	56		64	84	98	108	108	-0,02
J1	24		24	30	38	38	38	-0,02
J3	76	76	104	134	158	169	189	-
J4	55		63	83	97	106	107	-
N	M5		M6	M6	M6	M6	M6	-
Ø O	10 / 15		20 / 30	25 / 30	20 / 60	35 / 70	40 / 80	-
Ø P	10 / 25		20 / 50	40 / 100	45 / 150	63 / 200	73 / 300	-

* Set viti per fissaggio a richiesta - Fixing screws set on request

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Art. 810E* Ganascia mobile con gradino 3x5 liscia Movable jaw with 3x5 step smooth	Cod. 5.81.0E100	5.81.0E200	5.81.0E300	5.81.0E400	5.81.0E500	5.81.0E600
Art. 810J* Ganascia mobile prismatica per tondi liscia Prismatic movable jaw for round parts smooth	Cod. 5.81.0J100	5.81.0J200	5.81.0J300	5.81.0J400	5.81.0J500	5.81.0J600
Art. 810K* Ganascia mobile prismatica per tondi zigrinata Prismatic movable jaw for round parts serrated	Cod. 5.81.0K100	5.81.0K200	5.81.0K300	5.81.0K400	5.81.0K500	5.81.0K600
Art. 810L* Ganascia mobile con gradino Step movable jaw	Cod. 5.81.0L100	5.81.0L200	5.81.0L300	5.81.0L400	5.81.0L500	5.81.0L600
Art. 810M* Ganascia mobile con gradino zigrinata da un lato Step movable jaw one side serrated	Cod. 5.81.0M100	5.81.0M200	5.81.0M300	5.81.0M400	5.81.0M500	5.81.0M600
Art. 810O* Ganascia mobile con gradino piccolo e grande Movable jaw with small and large step	Cod. 5.81.0O100	5.81.0O200	5.81.0O300	5.81.0O400	5.81.0O500	5.81.0O600
Art. 810P* Ganascia mobile con gradino piccolo e grande zigrin. da un lato Movable jaw with small and large step one side serrated	Cod. 5.81.0P100	5.81.0P200	5.81.0P300	5.81.0P400	5.81.0P500	5.81.0P600
Art. 810R* Ganascia mobile in alluminio Movable jaw aluminium	Cod. 5.81.0R100	5.81.0R200	5.81.0R300	5.81.0R400	5.81.0R500	5.81.0R600
Art. 810T* Ganascia mobile GRIP per forti serraggi GRIP movable jaw for strongest clamping	Cod. 5.81.0T100	5.81.0T200	5.81.0T300	5.81.0T400	5.81.0T500	5.81.0T600
Art. 810DT Ganascia mobile a coda di rondine Dove tail movable jaw	Cod. 5.81.0DT10	5.81.0DT20	5.81.0DT30	5.81.0DT40	5.81.0DT50	5.81.0DT60
Art. 810V* Ganascia mobile con segmenti oscillanti Movable jaw with floating inserts	Cod. 5.81.0V100	5.81.0V200	5.81.0V300	5.81.0V400	5.81.0V500	5.81.0V600
Art. 512* Ganascia intermedia Intermediate Jaw	Cod. 5.51.21000	5.51.22000	5.51.23000	5.51.24000	5.51.25000	5.51.26000

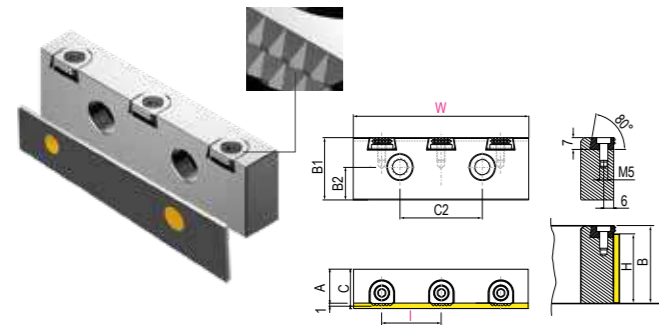
* Set viti per fissaggio a richiesta - Set of fixing screws on request



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

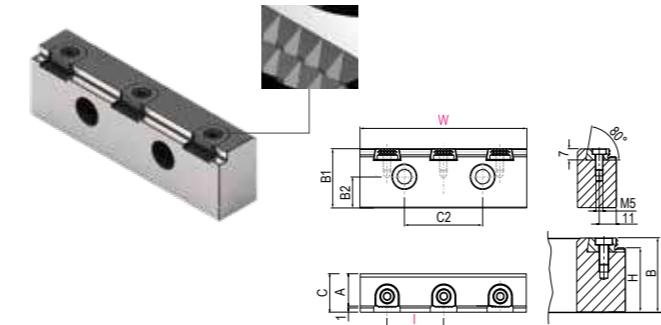
PIASTRE GANASCE PIANE CON INSERTI GRIP STRAIGHT INSERT GRIP JAW PLATES

Art. 547G Piastra Piana con inserti GRIP
Straight plate with GRIP inserts



Dotazione Standard - Standard Equipment
1 pc. Art.414R parallela magnetica - 1 pc. Art.414R magnetic parallel

Art. 547K Piastra Piana a gradino integrale con inserti GRIP
Straight integral step plate with GRIP inserts



Type	1	2	3	4	5	6
W	74	94	124	144	169	189
I	26	33	23,5	29,5	23	27
C	22,7	22,7	22,7	22,7	22,7	22,7
C2	40	50	65	65	65	100
B	25	30	40	50	60	60
B1	25	30	40	50	60	60
B2	10	10	15	20	25	25
A	20	20	20	20	20	20
H	20	25	35	45	55	55
Cod.	5.54.7G100	5.54.7G200	5.54.7G300	5.54.7G400	5.54.7G500	5.54.7G600

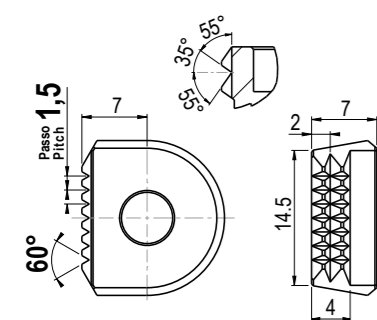
Type	1	2	3	4	5	6
W	74	94	124	144	169	189
I	26	33	23,5	29,5	23	27
C	25	25	25	25	25	25
C2	40	50	65	65	65	10
B	25	30	40	50	60	60
B1	25	30	40	50	60	60
B2	10	10	15	20	25	25
A	20	20	20	20	20	20
H	20	25	35	45	55	55
Cod.	5.54.7K100	5.54.7K200	5.54.7K300	5.54.7K400	5.54.7K500	5.54.7K600

INSERTI GRIP PER MORSE FMS INSERT GRIP JAW PLATES FOR FMS VISES

Art. 220 G01

Per materiali di durezza normale
For standard workpieces hardness clamping

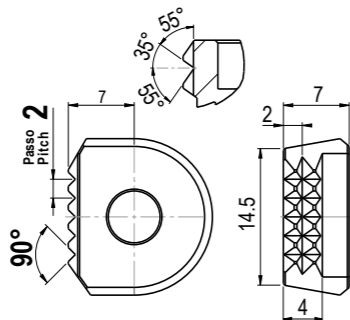
Cod. 4.22.01000 / G01



Art. 220 G02

Per materiali di notevole durezza.
For hardened workpieces clamping

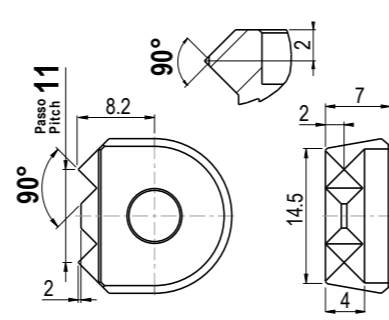
Cod. 4.22.01000 / G02



Art. 220 G11

Per materiali teneri
For soft material clamping

Cod. 4.22.01000 / G11



Tipo / Type	1	2	3	4	5	6
Art.547G - Art.547K	3 pcs each	3 pcs each	5 pcs each	5 pcs each	7 pcs each	7 pcs each
Viti a testa bassa M5 x 10mm Low head screws M5 x 10mm	3 pcs each	3 pcs each	5 pcs each	5 pcs each	7 pcs each	7 pcs each

PIASTRE PER MORSE FMS PLATES FOR FMS VISES

Tipo (grandezza) / Type (size)

Art. 823

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

Art. 823B

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

Art. 825

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

Art. 825B

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

Art. 825C

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

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

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

Art. 833

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

Art. 834

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

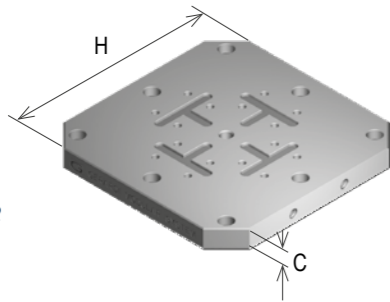
	1	2	3	4	5	6
Cod. 5.82.31000	5.82.32000	5.82.33000	5.82.34000	5.82.35000	5.82.36000	
Cod. 5.82.3B100	5.82.3B200	5.82.3B300	5.82.3B400	5.82.3B500	5.82.3B600	
Cod. 5.82.51000	5.82.52000	5.82.53000	5.82.54000	5.82.55000	5.82.56000	
Cod. 5.82.5B100	5.82.5B200	5.82.5B300	5.82.5B400	5.82.5B500	5.82.5B600	
Cod. 5.82.5C100	5.82.5C200	5.82.5C300	5.82.5C400	5.82.5C500	5.82.5C600	
Cod. 5.83.11000	5.83.12000	5.83.13000	5.83.14000	5.83.15000	5.83.16000	
Cod. 5.83.21000	5.83.22000	5.83.23000	5.83.24000	5.83.25000	5.83.26000	
Cod. 5.83.31000	5.83.32000	5.83.33000	5.83.34000	5.83.35000	5.83.36000	
Cod. 5.83.41000	5.83.42000	5.83.43000	5.83.44000	5.83.45000	5.83.46000	

PIASTRE BASE PER MORSE FMS
BASE PLATES FOR FMS VISES

Tipo (grandezza) / Type (size)	1	2	3	4	5	6	7
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Art. 827A

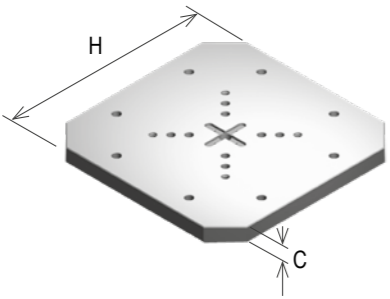
Piastra base personalizzata per una o più morse
 Bussola di centraggio Art. 852 compresa
 Tailor made head plate for one or more vises
 Centering bushing Art. 852 included



H	300	350	400	450	500	630	800
C	33	33	38	38	38	38	38
Kg	21,5	29,5	43,5	55	70	112	181
Cod.	5.82.7A100	5.82.7A200	5.82.7A300	5.82.7A400	5.82.7A500	5.82.7A600	5.82.7A700

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

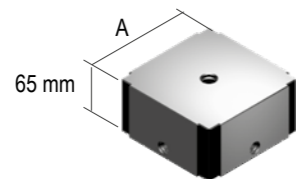


H	300	350	400	450	500	630	800
C	33	33	38	38	38	38	38
Kg	22	30	44,5	56,5	71	113	182
Cod.	5.82.8A100	5.82.8A200	5.82.8A300	5.82.8A400	5.82.8A500	5.82.8A600	5.82.8A700

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
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Art. 835

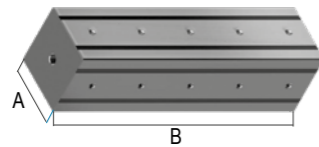
Distanziale quadrato per 4 morse FMS
 Square spacer for 4 FMS vises



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

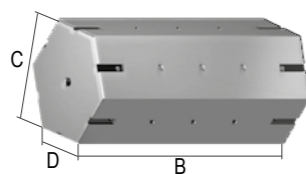
Supporto quadrato per 4 morse FMS
 Square support for 4 FMS vises



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

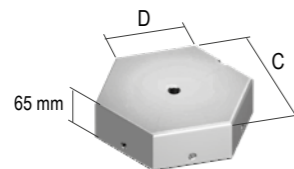
Supporto esagonale per 6 morse FMS
 Exagon support for 6 FMS vises



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 morse 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) / Type (size)	1	2	3	4	5	6
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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

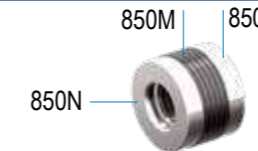
Riparo
 Protection



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

Art. 850T

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



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

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



Cod.	5.85.0H100	5.85.0H300	5.85.0H500
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Art. 801S

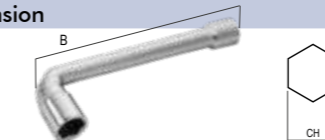
Piastrina di collegamento slitte morsa
 Slides vise connecting plate



Cod.	5.80.1S100	5.80.1S200	5.80.1S300	5.80.1S400	5.80.1S500	5.80.1S600
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Dimensioni / Dimension
Art.375

Chiave a pipa
 Box wrench



	CH	B	CH	B	CH	B	CH	B	CH	B	CH	B
	16	250	16	250	19	250	19	250	19	250	19	250
Cod.	4.37.516250	4.37.516250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250	4.37.519250

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 ganasce
 Hex.socket head screw for jaws



Cod.	5.80.0I100	5.80.0I200	5.80.0I300	5.80.0I400	5.80.0I500	5.80.0I600
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Art. 801H

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



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

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



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

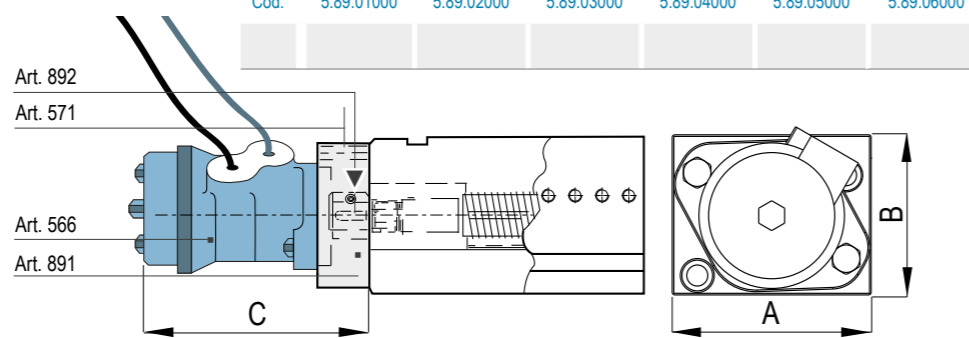
SERVOCOMANDI OLEODINAMICI PER MOTORI IDRAULICI
ELECTRO-HYDRAULIC POWER PACK FOR HYDRAULIC MOTORS

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

Art.890

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

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



bar	140					
A mm	75	130	123	145	168	188
B mm	70	100	104	119	139	159
C mm	175	234	244	246	261	261
Cod.	5.89.01000	5.89.02000	5.89.03000	5.89.04000	5.89.05000	5.89.06000

Art. 891

Piastra attacco motore idraulico / Hydraulic motor mounting plate

Cod.	5.89.11000	5.89.12000	5.89.13000	5.89.14000	5.89.15000	5.89.16000
------	------------	------------	------------	------------	------------	------------

Art. 892

Boccola di trascinamento vite motore / Drive bushing screw-motor

Cod.	5.89.21000	5.89.22000	5.89.23000	5.89.24000	5.89.25000	5.89.26000
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Art. 566

Motore Idraulico / Hydraulic 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) / Type (size)	1	2	3	4	5	6
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Art.890K/1

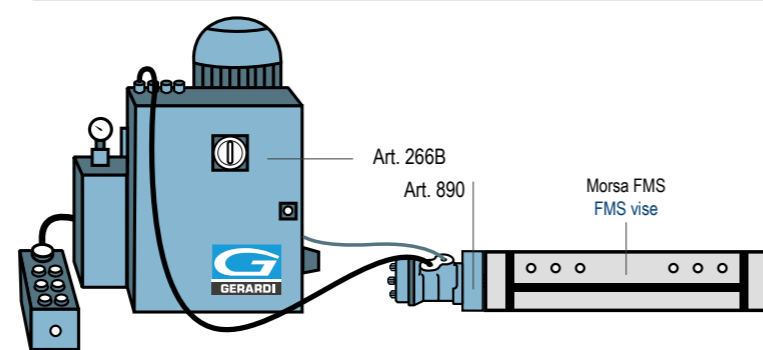
Passo vite / screw pitch mm	2	2	2	2	3	3
bar	130	100	100	100	120	120
l/min	5	10	20	20	20	20
Cod.	5.89.0K101	5.89.0K201	5.89.0K301	5.89.0K401	5.89.0K501	5.89.0K601

Art. 266B + Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

DATI TECNICI:
IDROMOTORE: Art.566
Motore elettrico Kw 5,5
Portata Min. 40 litri al minuto
Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (vedi pag. 5.65)
Per il diagramma forza di serraggio vedi pag. 5.74
Pressione massima di esercizio: 140 bar

TECHNICAL DATA:
HYDRAULIC MOTOR Art.566
Electric motor kW 5,5
Oil pumps: 40l/min
Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.75
Max operating pressure: 140 bar



- COMPOSIZIONE COMPLETA DI:**
- N° 1 servocomando Art. 890
 - N° 1 centralina elettroidraulica Art. 266B/1
 - Comando manuale elettrico da pulsantiera con chiusura ed apertura indipendente, singola o simultanea
 - Regolazione forza di bloccaggio desiderata
 - Fine corsa elettronico regolabile
- COMPOSIZIONE COMPLETE OF:**
- 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
 - Adjustable electronic proximity switch

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

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

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
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Art.890K/2

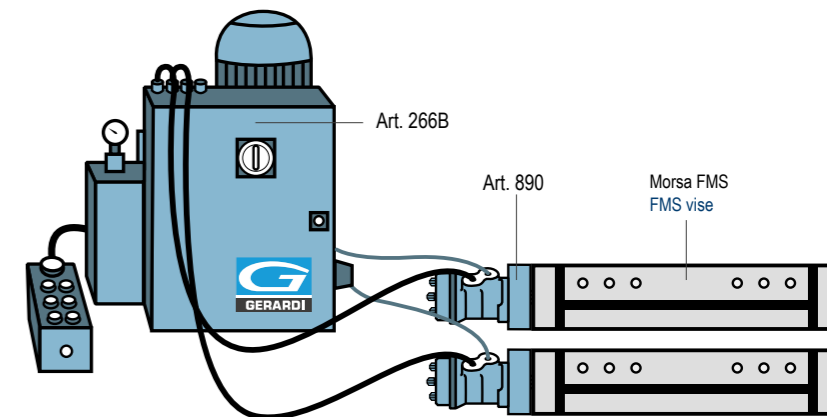
Art. 266B + 2 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

DATI TECNICI:
IDROMOTORE: Art.566
Motore elettrico Kw 5,5
Portata Min. 40 litri al minuto
Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (vedi pag. 5.65)
Per il diagramma forza di serraggio vedi pag. 5.74
Pressione massima di esercizio: 140 bar

TECHNICAL DATA:
HYDRAULIC MOTOR Art.566
Electric motor kW 5,5
Oil pumps: 40l/min
Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.75
Max operating pressure: 140 bar

Passo vite / screw pitch mm	2	2	2	2	3	3
bar	130	100	100	100	120	120
l/min	10	20	40	40	40	40
Cod.	5.89.0K102	5.89.0K202	5.89.0K302	5.89.0K402	5.89.0K502	5.89.0K602



- COMPOSIZIONE COMPLETA DI:**
- N° 2 servocomandi Art. 89
 - 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
 - Fine corsa elettronico regolabile
- COMPOSIZIONE COMPLETE OF:**
- N° 2 hydraulic servo units Art. 890
 - N° 1 electro-hydraulic power pack Art. 266B/1
 - Electrically controlled by manual switch board
 - Adjustable clamping force as required
 - Adjustable electronic proximity switch

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

Tipo (grandezza) / Type (size)	1	2	3	4	5	6
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Art.890K/3

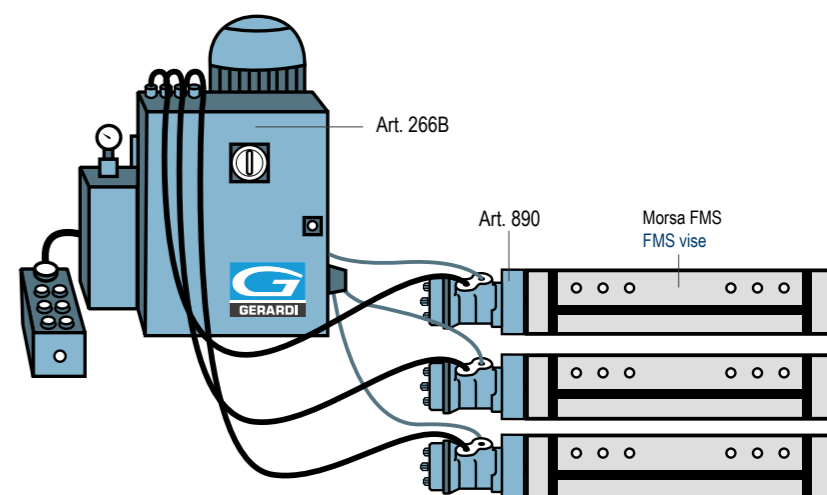
Art. 266B + 3 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

DATI TECNICI:
IDROMOTORE: Art.566
Motore elettrico Kw 5,5
Portata Min. 40 litri al minuto
Velocità apertura-chiusura morsa da calcolarsi in base al diagramma idromotore (vedi pag. 5.65)
Per il diagramma forza di serraggio vedi pag. 5.74
Pressione massima di esercizio: 140 bar

TECHNICAL DATA:
HYDRAULIC MOTOR Art.566
Electric motor kW 5,5
Oil pumps: 40l/min
Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.75
Max operating pressure: 140 bar

Passo vite / screw pitch mm	2	2	2	2	3	3
bar	130	100	100	100	120	120
l/min	15	30	60	60	60	60
Cod.	5.89.0K103	5.89.0K203	5.89.0K303	5.89.0K403	5.89.0K503	5.89.0K603



- COMPOSIZIONE COMPLETA DI:**
- N° 3 servocomandi Art. 89
 - 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
 - Fine corsa elettronico regolabile
- COMPOSIZIONE COMPLETE OF:**
- N° 3 hydraulic servo units Art. 890
 - N° 1 electro-hydraulic power pack Art. 266B/1
 - Electrically controlled by manual switch board
 - Adjustable clamping force as required
 - Adjustable electronic proximity switch

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

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

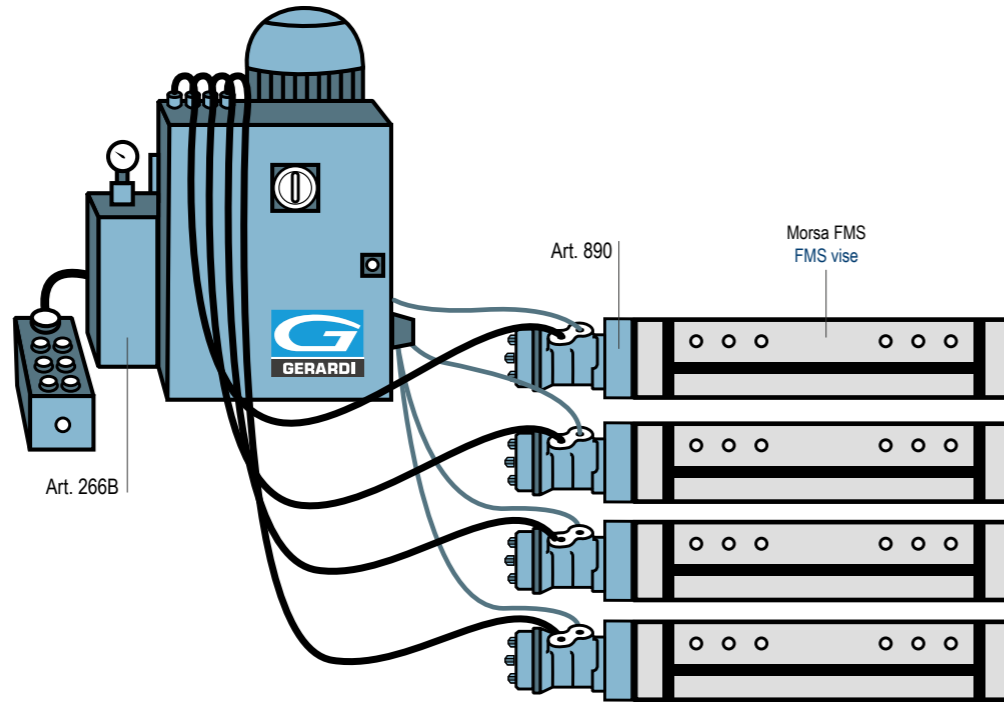
Tipo (grandezza) / Type (size)	1	2	3	4	5	6
Passo vite / screw pitch mm	2	2	2	2	3	3
bar	130	100	100	100	120	120
l/min	20	40	80	80	80	80
Cod.	5.89.0K104	5.89.0K204	5.89.0K304	5.89.0K404	5.89.0K504	5.89.0K604

Art.890K/4

Art. 266B + 4 Art. 890

Kit per automazione morse FMS
Kit for FMS vises automation.

DATI TECNICI:
IDROMOTORE: Art.566
Motore elettrico Kw 5.5
Portata Min. 40 litri al minuto
Velocità apertura-chiusura morse da calcolarsi in base al digramma idromotore (vedi pag. 5.65)
Per il diagramma forza di serraggio vedi pag. 5.74
Pressione massima di esercizio: 140 bar



TECHNICAL DATA:
HYDRAULIC MOTOR Art.566
Electric motor kW 5,5
Oil pumps: 40l/min
Opening and closing speed of vise to be calculated from hydraulic motor diagram at page 5.65
For clamping forces diagram see pag. 5.75
Max operating pressure: 140 bar

- COMPOSIZIONE COMPLETA DI:**
- N° 3 servocomandi Art. 89
 - 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
 - Fine corsa elettronico regolabile
- COMPOSITION COMPLETE OF:**
- N° 3 hydraulic servo units Art. 890
 - N° 1 electro-hydraulic power pack Art. 266B/1
 - Electrically controlled by manual switch board
 - Adjustable clamping force as required
 - Adjustable electronic proximity switch

Riduttore epicicloidale il quale consente di moltiplicare notevolmente la coppia sviluppata dal motore idraulico consentendo di arrivare a elevate forze di serraggio, fino a 480 kN

Epicyclic force reducer able to multiply greatly the torque generated by the hydraulic engine reaching a very high clamping force, maximum 480kN.

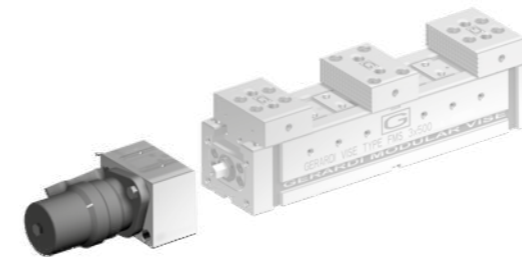


Tubi e cavi di collegamento elettrici ed idraulici con massima lunghezza 1600 mm / Hydraulic pipes and electrical cables with max length 1600 mm

DIAGRAMMI COPPIE MOTORI IDRAULICI
HYDRAULIC MOTOR TORQUE DIAGRAMS

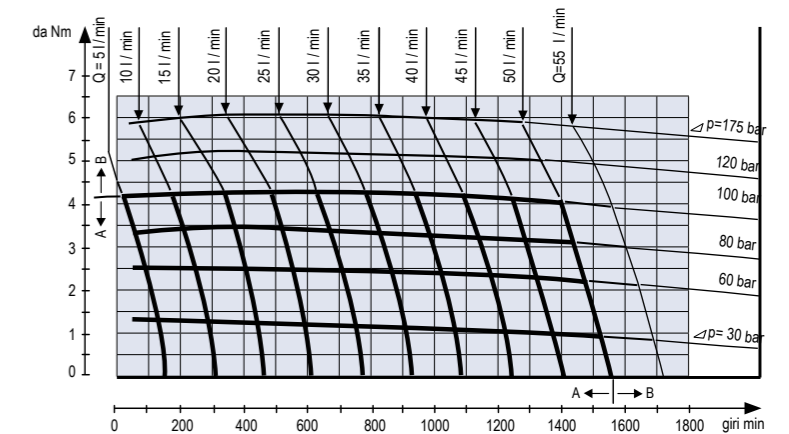
Art.890

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



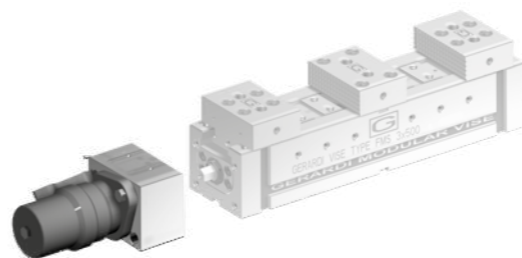
OMR 32

Morse FMS tipo 1 / Type 1 FMS vises



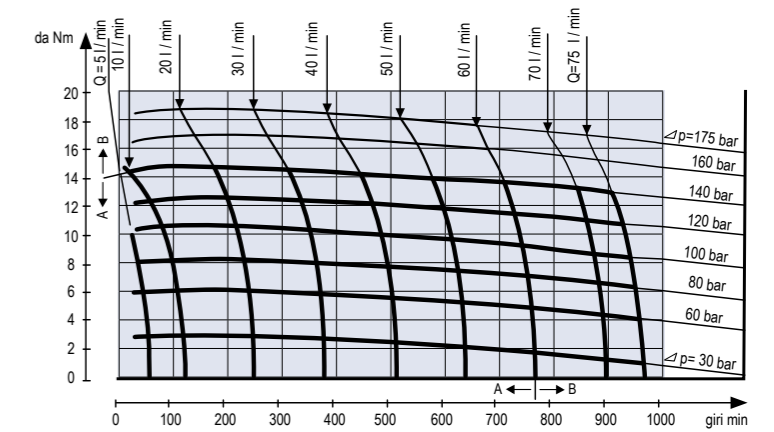
Art.890

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



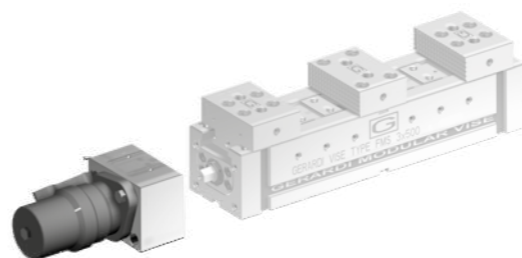
OMR 80

Morse FMS tipo 2 / Type 2 FMS vises



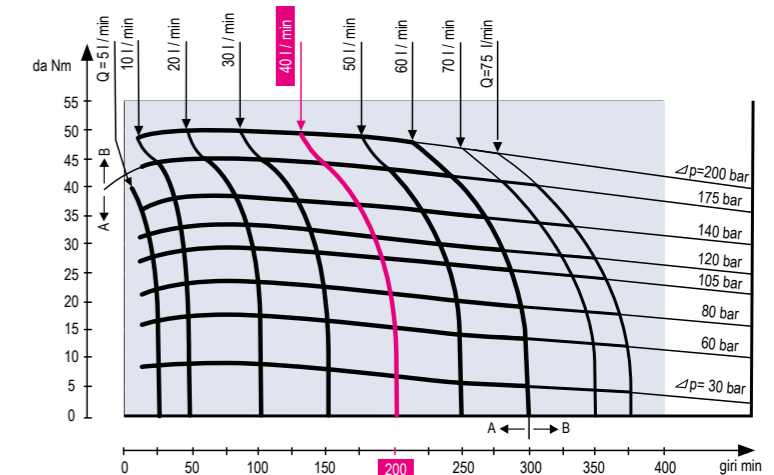
Art.890

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



OMR 200

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



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

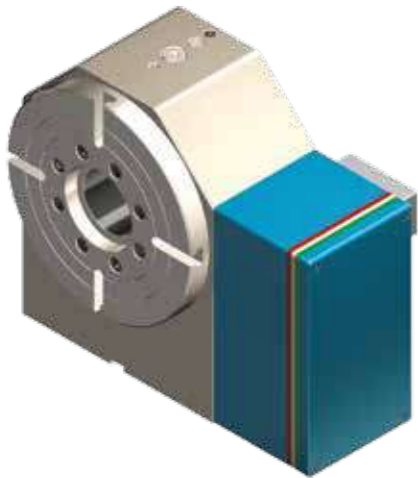
SPEED = Screw pitch x RPM (that you get from oil pump of 40 l/min) about - 25% for friction and other resistance.
Example: Screw pitch 2mm; **RPM 200/min** (taking in consideration oil pump of **40 l/min**); $V = 2 \times 200 = 400 - 25\% = 300$ mm/min for one vise.
For more vises divide the speed obtained by the number of vises used.

DIVISORE AUTOMATICO DPG 250

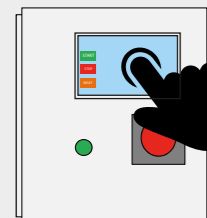
AUTOMATIC DIVIDING HEAD DPG 250

Divisore automatico Automatic dividing head	Dati tecnici Technical Data	
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DPG 250



Diametro del divisore Dividing head diameter		250 mm
Diametro del foro passante Clearance hole diameter		70,5 mm
Altezza punta Center height		200 mm
Dimensione della scanalatura a T T-Slot width		12 mm
Sistema di bloccaggio Clamping system		Idraulico Hydraulic
Forza frenante Clamping torque		3000 Nm
Motore Servo motor		3000 Max.g/min
Minimo incremento Minimum increment		0,002
Velocità di rotazione Rotation speed		33,3 Giri/min
Rapporti vite/corona Speed reduction ratio (screw/gear)		1/90
Rapporti vite/motore Speed reduction ratio (screw/motor)		1/180
Precisione Indexing accuracy		±10 Sec.
Ripetibilità Repeatability		4 Sec.
Max. carico di lavoro sul divisore Max. allowable work weight on the dividing head	Verticale Vertical	Kg.550
	Orizzontale Horizontal	Kg.1500
Max. carico di spinta applicabile sul divisore Max. allowable tool load on the dividing head		N 25000
		FxL Nm 1000
Rapporti vite/corona Speed reduction ratio (screw/gear)	Verticale Vertical	FxL Nm 2200
	Verticale Vertical	10,5 Kg. m ²
Coppia in lavoro Driving torque	Corona dentata Worm gear	698 Nm
Kg		110
Cod.		8.DP.G2500



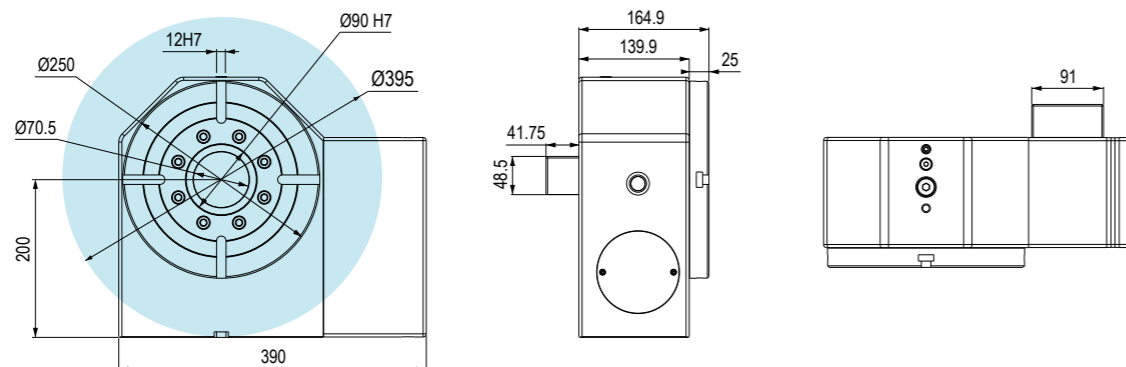
PROGRAMMAZIONE TOUCH SCREEN
FACILE ED INTUITIVA O TRAMITE COLLEGAMENTO DIRETTO AL CNC

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

- Installazione semplice (alimentazione 220V)
- Corona in bronzo speciale
- Controsupporto semplice
- Vite senza fine in acciaio temprato e rettificato
- Vite e corona in bagno d'olio
- Cuscinetti a vite precaricati
- Cuscinetto anteriore a rulli incrociati sovradimensionato
- Recupero gioco con avvicinamento assiale
- Completa tenuta stagna ai liquidi con possibilità di pressurizzazione
- Possibilità di montare motori di tutte le marche
- Dimensioni esterne contenute
- Finestra di controlli liquidi e condensa
- Lavorazione in posizionamento a 360°

- Easy installation (220V)
- Special bronze crown
- Simple tailstock
- Worm screw in hardened ground steel
- Bath lubrication Screw and Crown
- Pre-loaded screw bearings
- Over-dimensioned crossed-roller front bearing
- Play recover with axial approach
- Watertight seal with possibility of pressurization
- Possibility to mount motors of all brands
- Reduced external dimensions
- Condensation and liquid control window
- 360° work positioning

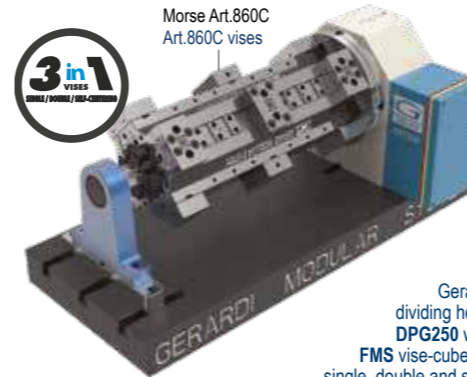
DPG 250



Tipo (grandezza) / Type (size)	1		2				3				
	25 kN		25 kN				30 kN				
	25 kN		25 kN				30 kN				
D	200	300	300	400	500	600	400	500	600	700	800
G1	120			175					210		
W	74			94					124		
Cod.	5.DP.G25000	5.DP.G25010	5.DP.G25020	5.DP.G25030	5.DP.G25040	5.DP.G25050	5.DP.G25060	5.DP.G25070	5.DP.G25080	5.DP.G25090	5.DP.G25011



Morse Art.860C
Art.860C vises



Gerardi dividing head
DPG250 with
FMS vise-cube for
single, double and self-
centering clamping

Nel caso si disponga di un proprio divisore, il prezzo dell'attrezzatura potrebbe subire variazioni
In case you already have a divider, the price may be revised

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 99A

Supporto
Support



Cod. 5.99.A1000

Art. 99B

Perno di centraggio completo
di sistema d'allineamento
Horizontal centering pin with alignment system



Cod. 5.99.B1000 5.99.B2000 5.99.B3000

Art. 99H

Distanziale per supporto
Spacer support



Cod. 5.99.H1000

Art. 62K

DPG 250

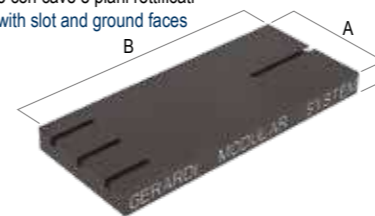
Piastra di interfaccia per cubo FMS
completa di sistema d'allineamento
Connecting plate with alignment system for FMS



Cod. 5.62.K801A5 5.62.K801A6 5.62.K801A7

Art. 99S

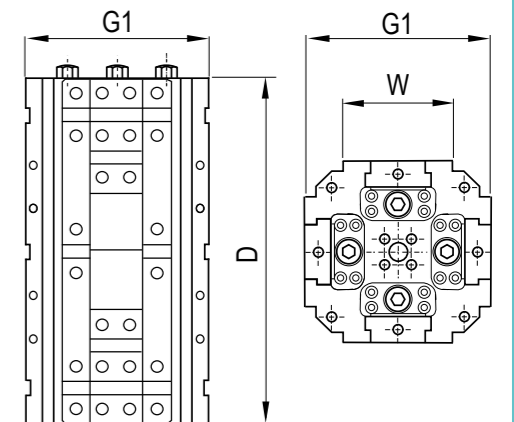
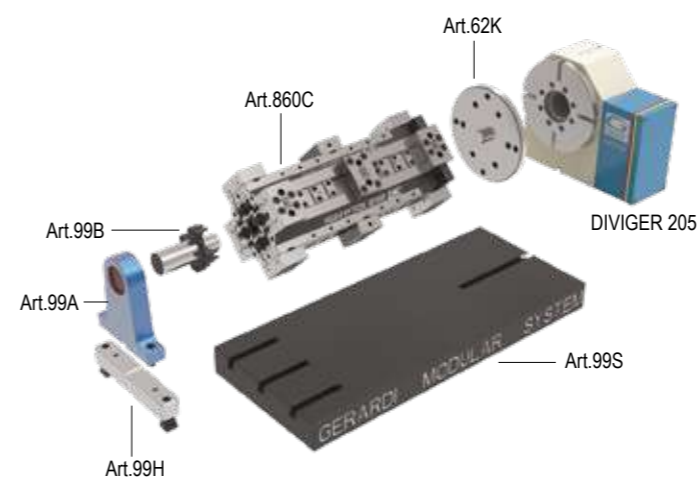
Piastra base con cave e piani rettificati
Base plate with slot and ground faces



Dimensioni B mm Dimension B mm	A	C	Kg	Cod.
650	400	50	102	7.99.S065S
950	400	50	149	7.99.S095S
1250	400	50	195	7.99.S125S

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

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



DIVISORE MECCANICO DIVIGER 205

MECHANICAL DIVIDING HEAD DIVIGER 205

Divisore automatico
Automatic dividing head

Dati tecnici
Technical Data

DIVIGER 205



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

DIVISORE MECCANICO, SENZA CAVI O IDRAULICA,
PERMACCHINE A CNC

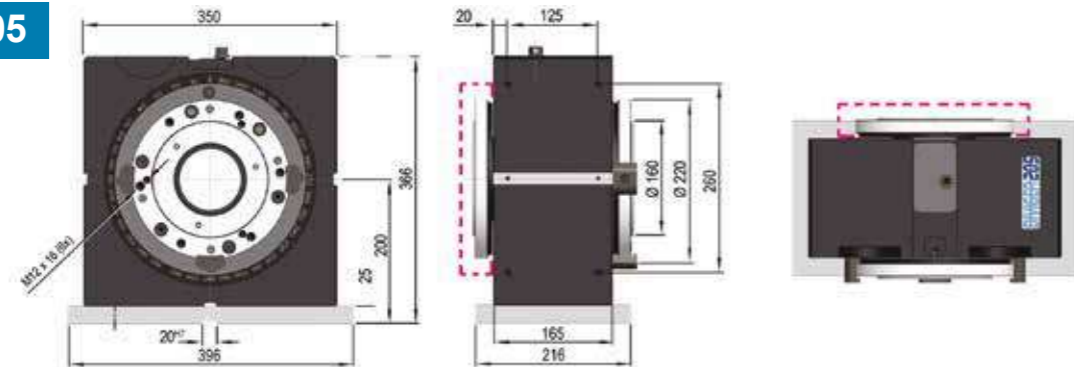
MECHANICAL DIVIDING HEAD, WITHOUT ELECTRICAL CABLES
OR HYDRAULIC, FOR CNC MILLING MACHINE

- Maggiore efficienza nella lavorazione su più lati
- Completamente autonomo dalla macchina
- Elevato momento torcente
- Divisione manuale o automatica tramite mandrino macchina
- 360 posizioni
- Serraggio simultaneo di due particolari grazie alla doppia flangia
- lavorazione su 5 facce senza contropunta
- Lavorazione a barra grazie al mandrino cavo
- Utilizzabile orizzontalmente o verticalmente
- Cambio tramite serraggio a cuneo

- Cost-effective on multiple-sides machining
- Machine independent
- High holding torque
- Dividing manually or automatically using the machine spindle
- 360 x 1° division
- Simultaneous clamping of 2 workpieces thanks to the dual flange
- 5 faces machining without counter-holder
- Bar machining due to hollow spindle
- To be used horizontally or vertically
- Quick change through wedge clamping



DIVIGER 205

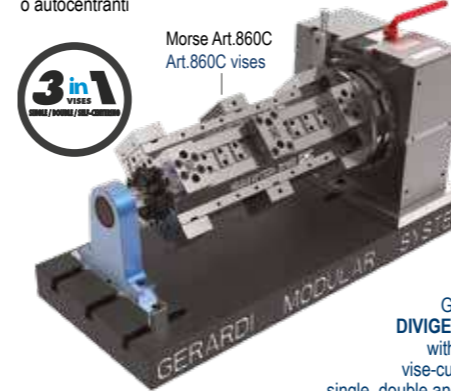


Tipo (grandezza) / Type (size)

Divisore Gerardi DIVIGER 205
con cubo-morsa FMS
per serraggi singoli, doppi
o autocentranti



Morse Art.860C
Art.860C vises



Gerardi
DIVIGER 205
with FMS
vise-cube for
single, double and self-
centering clamping

kN	1		2				3				
	25 kN	30 kN	25 kN		30 kN		30 kN				
D	200	300	300	400	500	600	400	500	600	700	800
G1	120				175					210	
W	74				94					124	
Cod.	5.D.I.V20500	5.D.I.V20510	5.D.I.V20520	5.D.I.V20530	5.D.I.V20540	5.D.I.V20550	5.D.I.V20560	5.D.I.V20570	5.D.I.V20580	5.D.I.V20590	5.D.I.V20511

Nel caso si disponga di un proprio divisore, il prezzo dell'attrezzatura potrebbe subire variazioni
In case you already have a diviger, the price could be modified

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 99A

Supporto
Support



Cod.	5.99.A1000				
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Art. 99B

Perno di centraggio completo
di sistema d'allineamento
Horizontal centering pin with alignment system



Cod.	5.99.B1000	5.99.B2000	5.99.B3000
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Art. 99H

Distanziale per supporto
Spacer support



Cod.	5.99.H1000				
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Art. 62K

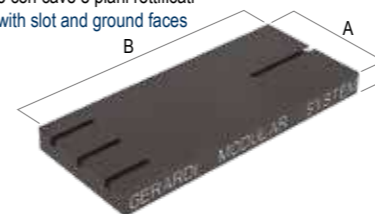
Piastra di interfaccia per cubo FMS
completa di sistema d'allineamento
Connecting plate with alignment system for FMS



Cod.	5.62.K801A5	5.62.K801A6	5.62.K801A7
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Art. 99S

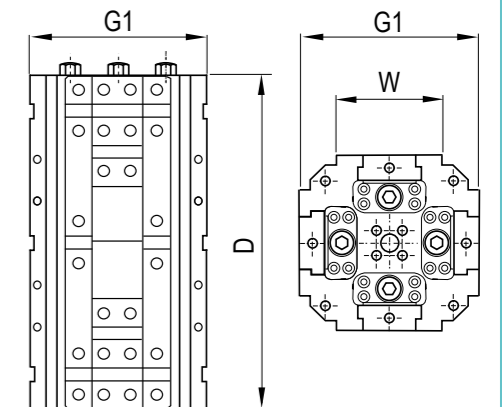
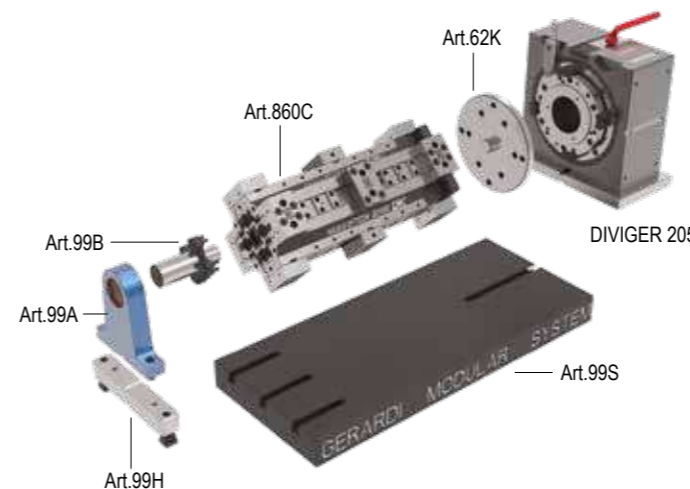
Piastra base con cave e piani rettificati
Base plate with slot and ground faces



Dimensioni B mm Dimension B mm	A	C	Kg	Cod.
650	400	50	102	7.99.S065S
950	400	50	149	7.99.S095S
1250	400	50	195	7.99.S125S

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

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



PREDISPOSIZIONE e MONTAGGIO MORSE su CUBI LAVORATI
TOMBSTONES SET-UP and VISES MOUNTING on MACHINED TOMBSTONES

Art. 57C Cubo lavorato
Machined cube



Dim. A=250 / B=400 / H=660

Cod. 8.53.C00081

Art. 864 Tipo di morsa
Vise type



Art.864 Tipo 3x500

Cod. 5.86.43500

Numero morsa x 4
Vises number x 4

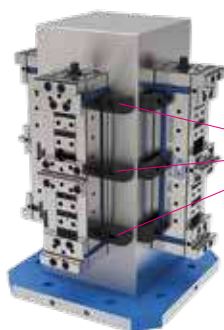
Predisposizione e montaggio completo
Complete set up & mounting



Cod. MAN-040-FMS

Realizzazione di fori filettati o fori di fissaggio (da un minimo di 4 a un massimo di 6), fori calibrati o chiavette (da un minimo di 2 a un massimo di 3).
Creation of threaded holes or screw holes (minimum 4 and maximum 6), calibrated holes or key-ways (minimum 2 and maximum 3).

Cubo con morsa
Cube with vises



TABULATO controllo DEA - MAN-100-FMS
PRINTOUT DEA control - MAN-100-FMS

PREDISPOSIZIONE e MONTAGGIO MORSE su CUBO a RETICOLO
TOMBSTONES SET-UP and VISES MOUNTING on 2 GRID TOMBSTONES

Art. 53F Cubo a reticolo
Grid tombstone



Dim. A=250 / B=400 / H=660

Cod. 8.53.F00081

Art. 864 Tipo di morsa
Vise type



Art.864 Tipo 3x500

Cod. 5.86.43500

Numero morsa x 4
Vises number x 4

Montaggio ed allineamento (standard)
(Standard) Assembly and alignment



Cod. MAN-070-FMS

Montaggio di una o più morsa e/o attrezzature già predisposte tra loro comprensivo di controllo manuale. Il prezzo di listino comprende manodopera, viti, staffe e tasselli per singola morsa.
Assembly of one or more vises or equipments already interfaced between themselves complete of manual check. The list price includes working hours, screws, holding clamps and key-nuts for only one vise.

Art. 750 Cubo con morsa
Cube with vises

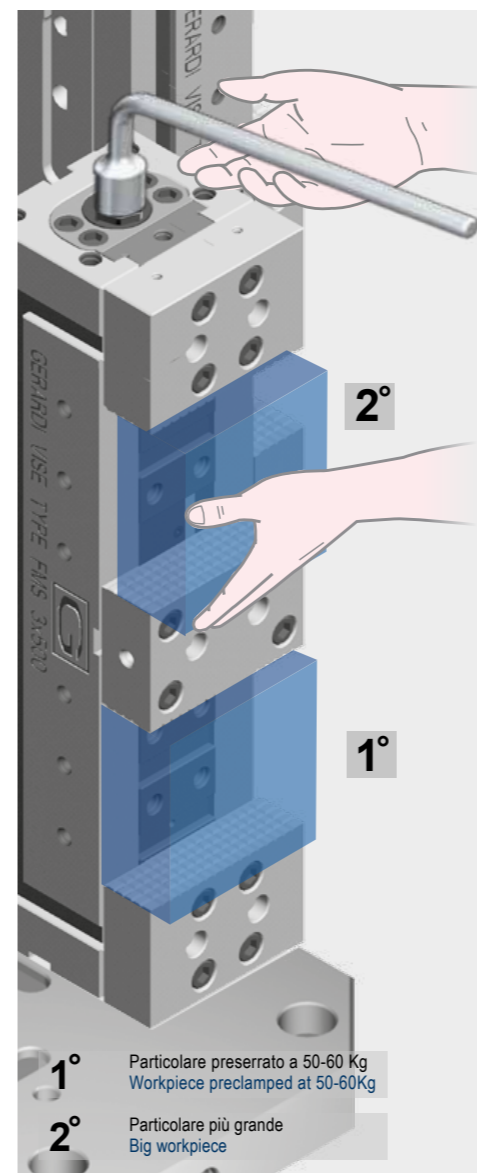


Art.750 Type 3

Cod. 1.75.03300

TABULATO controllo DEA - MAN-100-FMS
PRINTOUT DEA control - MAN-100-FMS

DISPOSITIVO TERZA MANO PER MORSE FMS DOPPIE
THIRD HAND ACCESSORY FOR DOUBLE FMS VISES



DISPOSITIVO TERZA MANO PER MORSE FMS DOPPIE

Il meccanismo "Terza mano" nella morsa in versione 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 di dimensione maggiore (da cui la denominazione "Terza mano"). Tale dispositivo risulta particolarmente utile quando la morsa viene usata in posizione verticale. Con il dispositivo "Terza mano", i due particolari da lavorare possono essere di dimensioni diverse con uno scarto massimo fra loro di 2 mm.

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

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

Non volendo il meccanismo "Terza Mano", il tutto può essere semplicemente rimosso togliendo le molle con i relativi distanziali dalla loro sede naturale.

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

THIRD HAND DEVICE FOR DOUBLE STATION FMS VISES

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

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

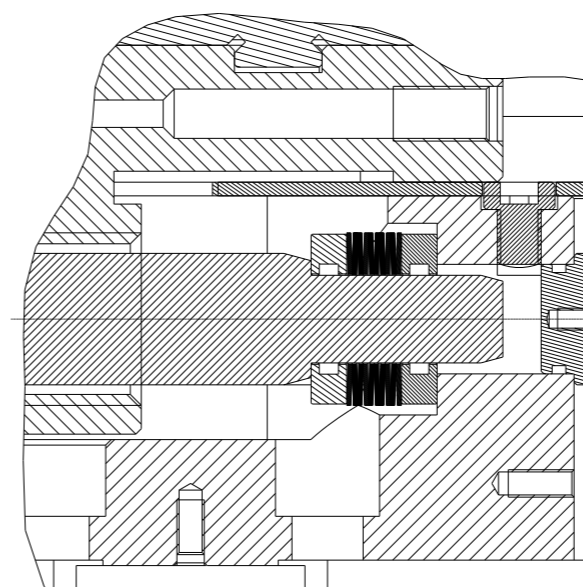
The standard "Third Hand" device has a max pressure of 50 Kg.

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

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

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

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



Art.850P



850N 850M 850N

Diagrammi di serraggio / Clamping diagrams

FMS

Diagrammi di serraggio meccanico con chiave dinamometrica

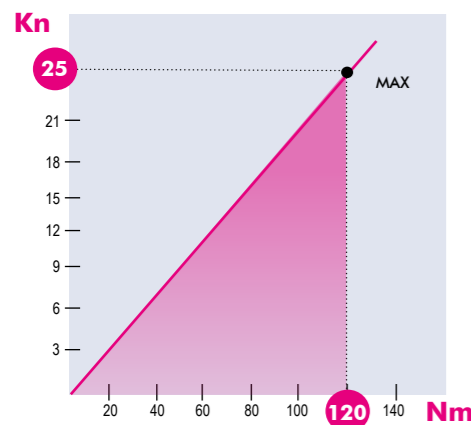
Mechanical clamping diagrams with torque wrench

Art. 357

Morse tipo Vises type

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

1

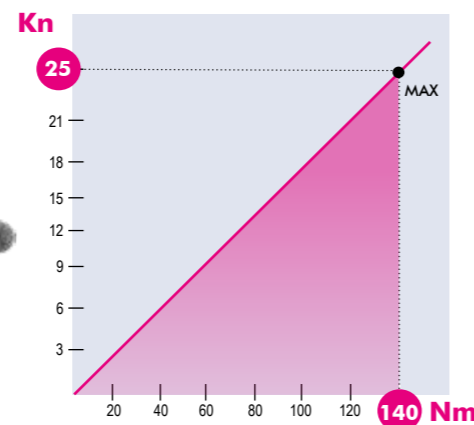


Art. 357

Morse tipo Vises type

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

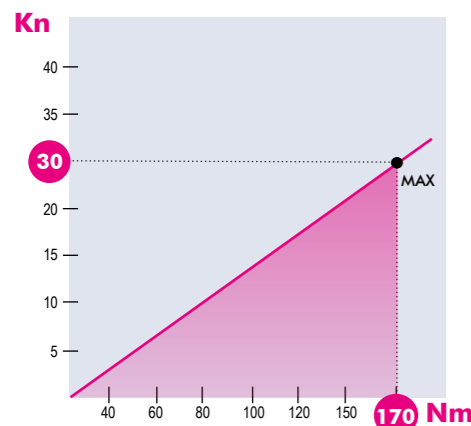
2



Morse tipo Vises type

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

3-4

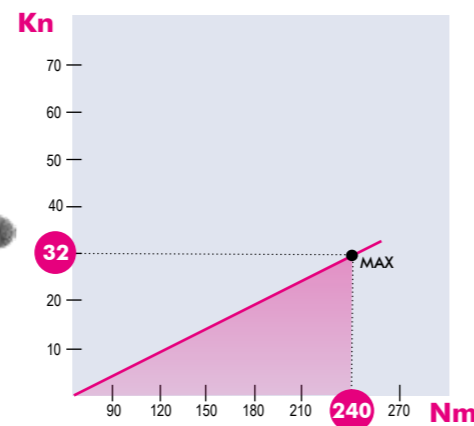


Art. 357

Morse tipo Vises type

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

5-6



Diagrammi serraggio / Clamping diagrams

FMS

Diagrammi di serraggio meccanico con moltiplicatore di potenza

Mechanical clamping diagrams with pressure multiplier

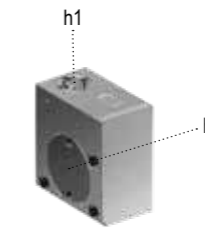
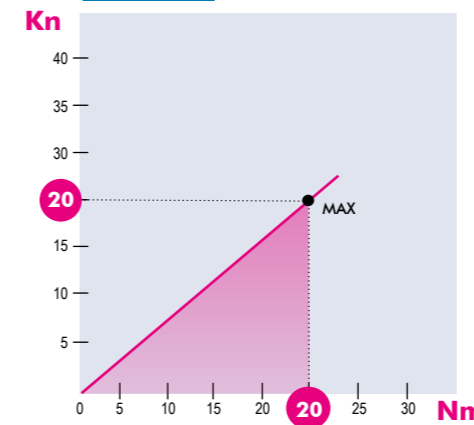
Art. 802

Morse tipo Vises type

VITE: TPF 18 / 20 mm PASSO: 2 mm
SCREW: TPF 18 / 20 mm PITCH: 2 mm
Rapporto trasmissione: 9:1
Gear ratio: 9:1

1

Type 1 Cod. 5.80.21000 € 906



Art. 802

RATIO = h1 : h2

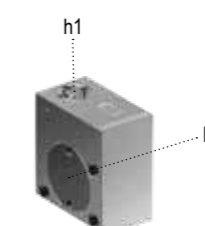
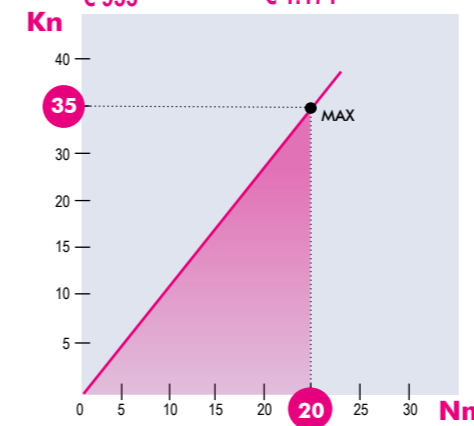
Morse tipo Vises type

VITE: TPF 24 / 30 mm PASSO: 2 mm
SCREW: TPF 24 / 30 mm PITCH: 2 mm
Rapporto trasmissione: 7:1
Gear ratio: 7:1

3-4

Type 3 Cod. 5.80.23000 € 953

Type 4 Cod. 5.80.24000 € 1.171



Art. 802

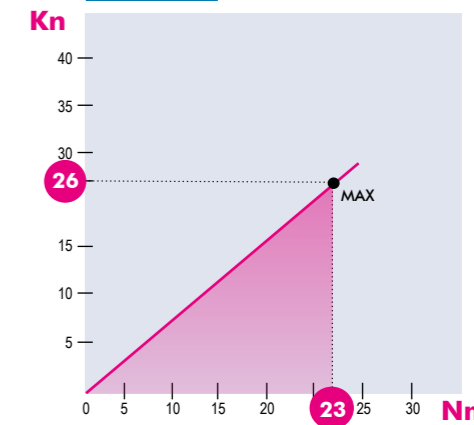
RATIO = h1 : h2

Morse tipo Vises type

VITE: TPF 18 / 24 mm PASSO: 2 mm
SCREW: TPF 18 / 24 mm PITCH: 2 mm
Rapporto trasmissione: 7:1
Gear ratio: 7:1

2

Type 2 Cod. 5.80.22000 € 906



RATIO = h1 : h2

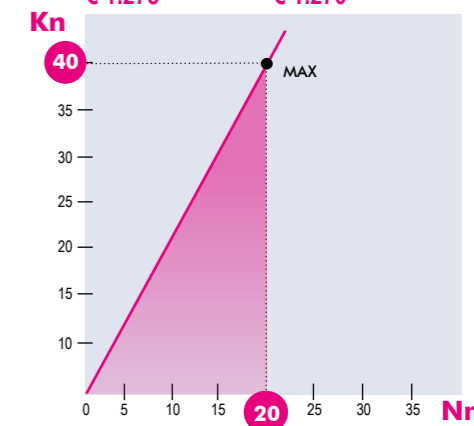
Morse tipo Vises type

VITE: TPF 30 / 36 mm PASSO: 3 mm
SCREW: TPF 30 / 36 mm PITCH: 3 mm
Rapporto trasmissione: 7:1
Gear ratio: 7:1

5-6

Type 5 Cod. 5.80.25000 € 1.278

Type 6 Cod. 5.80.26000 € 1.270



RATIO = h1 : h2

NB: Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino a ± 10%. Per un corretto utilizzo non superare i valori indicati nel grafico
Some factor as lubrication, clamping on the machine table, frictions and more can modify above values within a ± 10% range. For optimum operation do not exceed chart values.

NB: Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino a ± 10%. Per un corretto utilizzo non superare i valori indicati nel grafico
Some factor as lubrication, clamping on the machine table, frictions and more can modify above values within a ± 10% range. For optimum operation do not exceed chart values.

Diagrammi serraggio / Clamping diagrams

FMS

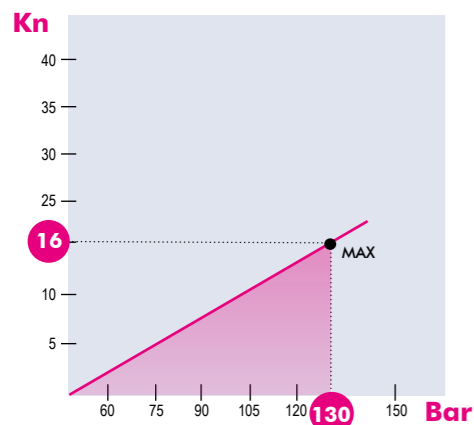
Diagrammi di serraggio meccanico tramite motore idraulico

Mechanical clamping diagrams through hydraulic motor **Art. 890**

Morse tipo Vises type

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

1

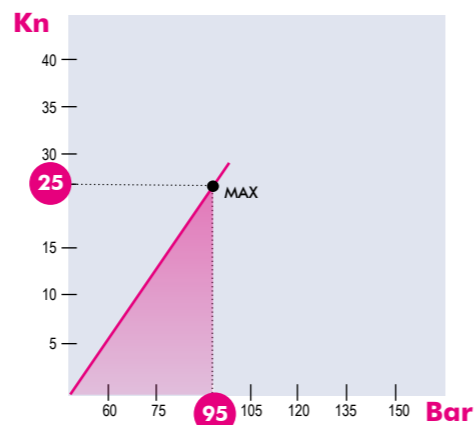


Art. 890

Morse tipo Vises type

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

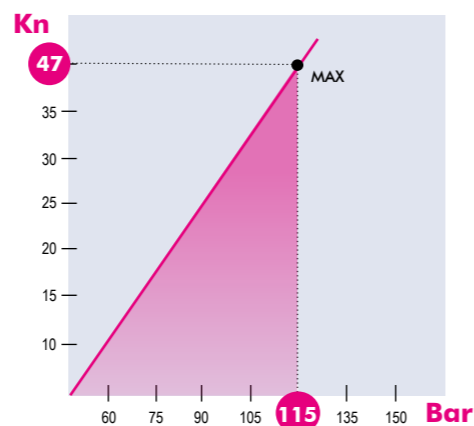
2



Morse tipo Vises type

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

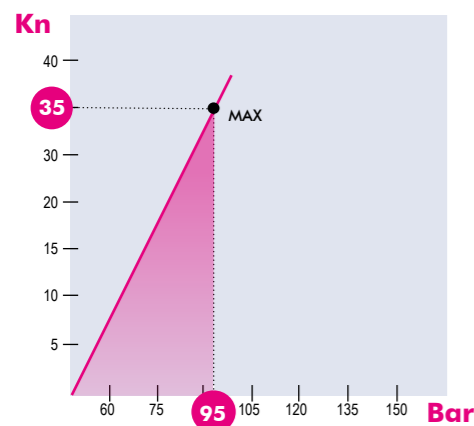
5-6



Morse tipo Vises type

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

3-4



Art. 890

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

NB: Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino a $\pm 10\%$. Per un corretto utilizzo non superare i valori indicati nel grafico
Some factor as lubrication, 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.

ISTRUZIONI PER UN CORRETTO UTILIZZO

ISTRUCTIONS FOR A PROPER USE



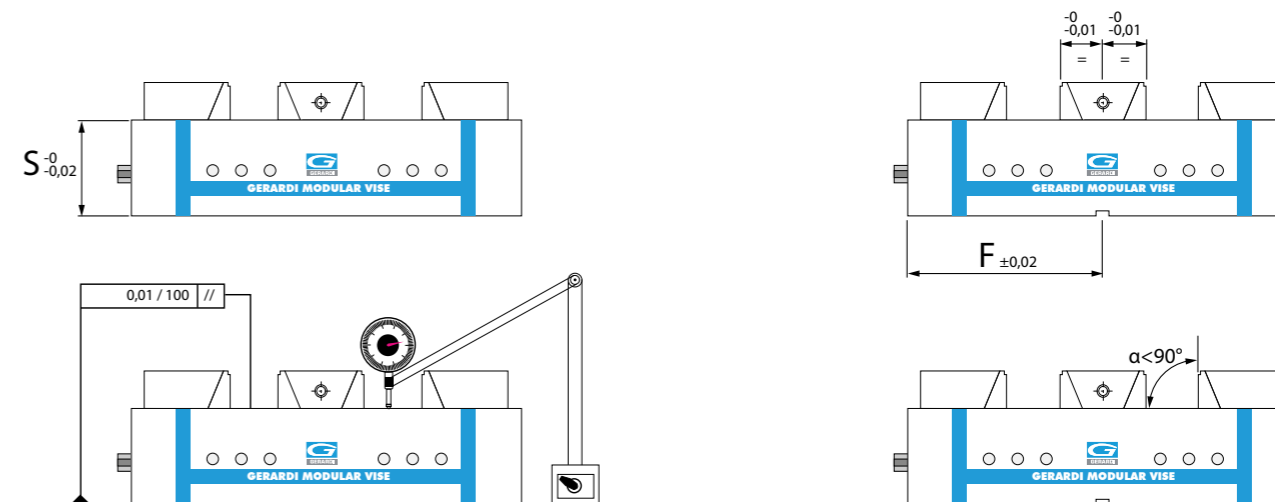
Libretto Istruzioni / Instruction Book

Scansiona il QR code e scarica le istruzioni complete

Scan the QR code to download the complete instructions

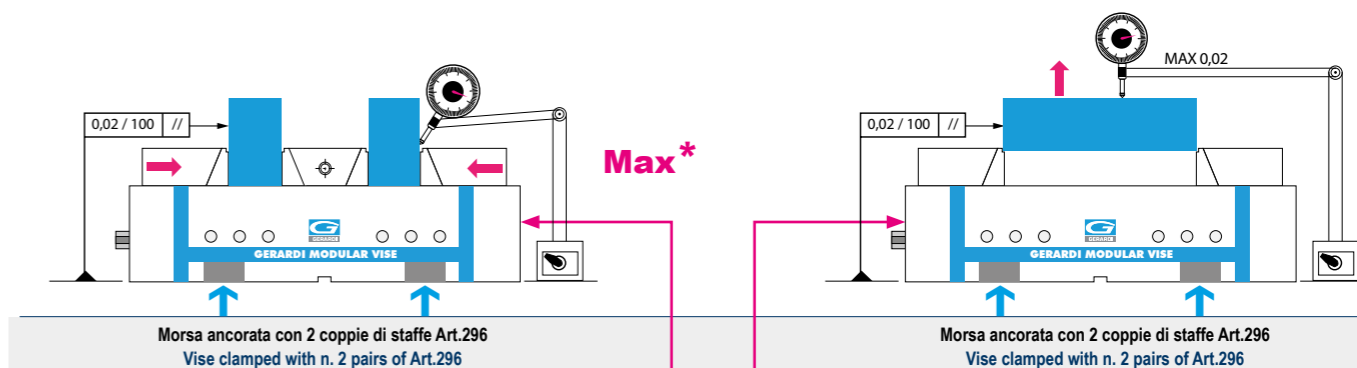
TOLLERANZE GEOMETRICHE

GEOMETRIC ACCURACIES



TOLLERANZE DINAMICHE

DINAMIC ACCURACIES

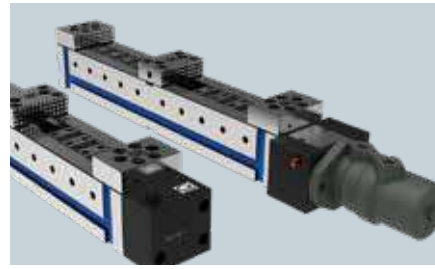


Art 865	* Coppia applicata - Torque Nm	Forza di serraggio - Clamping power
Morsa tipo 1 Vise type 1	120	2500 Kgf
Morsa tipo 2 Vise type 2	140	2500 Kgf
Morsa tipo 3 Vise type 3	180	3000 Kgf
Morsa tipo 4 Vise type 4	180	3000 Kgf
Morsa tipo 5 Vise type 5	240	3200 Kgf
Morsa tipo 6 Vise type 6	240	3200 Kgf

* Max coppia applicabile per non superare i valori consigliati

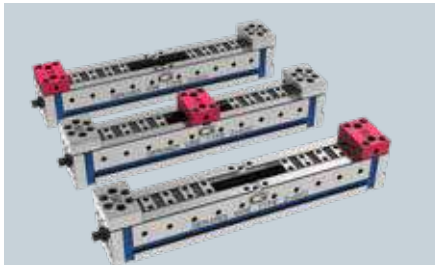
1 kgf . m = 9.806

ESTREMA VERSATILITY
EXTREME VERSATILITY

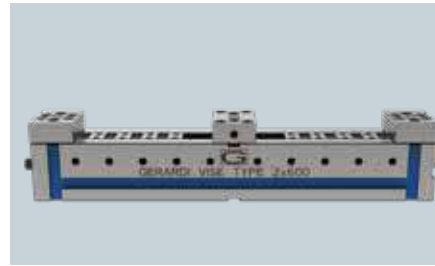


Sistema di serraggio meccanico, idraulico, pneumatico elettrico o con moltiplicatore di potenza, tramite comando manuale, a pedale o mediante pulsante elettrico (vedi pag. 12)

Mechanic, hydraulic or pneumatic or electrical clamping system or with pressure multiplier, through manual, pedal or push button control (see page 12)



3 posizioni per la ganaschia fissa
3 positions for the fixed jaw

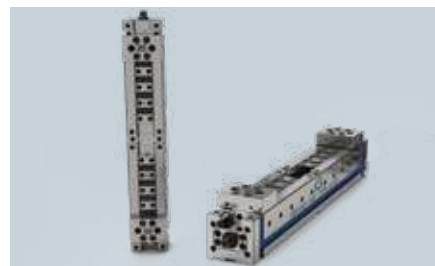


Costruzione solida e compatta e massima apertura rispetto alla sua lunghezza

Space saving design, solid construction and maximum blocking ratio to total length

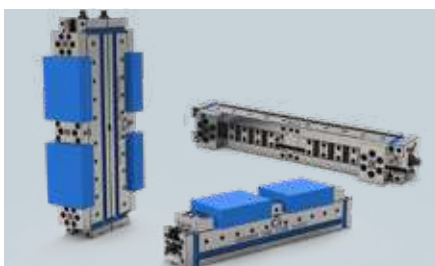


Serraggio dall'esterno all'interno e viceversa
Outside to inside clamping and viceversa

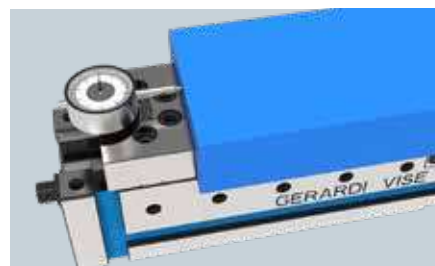


Precisioni geometriche con tolleranze entro 0,02mm

Geometrical accuracy with tolerances within 0,02 mm



Posizionamento verticale-orizzontale laterale grazie alle chiavette longitudinali e trasversali sia sulla base che in testa
Vertically, horizontally and sideway vise positioning by the

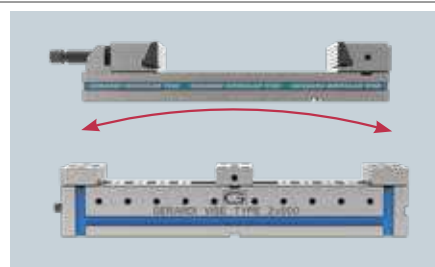


Accurata ripetibilità di posizionamento dei particolari da lavorare

Very accurate repetibility of workpieces position



Collegamento: fianco a fianco, dorso a dorso
Side by side, back to back vise positioning

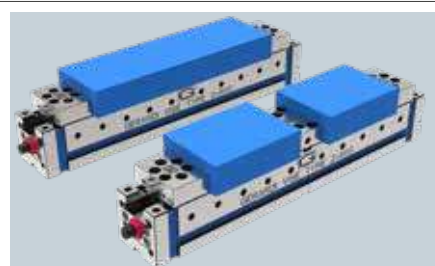


Flessioni ridotte di due volte rispetto alle morse modulari STANDARD

Bending reduced two times with respect to the STANDARD modular vises

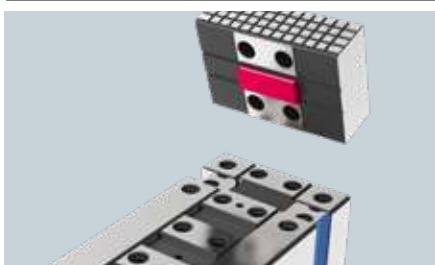


Possibilità illimitata per ganasce speciali
Unlimited range of special jaws

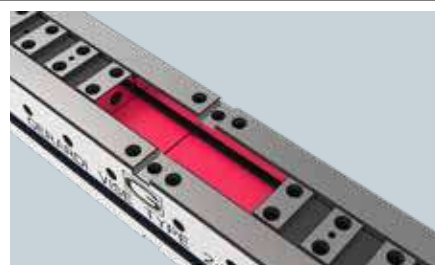


Trasformazione da autocentrante a doppia tramite la sostituzione delle ganasce sul corpo base universale e tramite la ghiera di regolazione.

Transform each single vise in a self-centering with possibility to block from outside to inside and vice versa and in a double vise through the substitution of the jaws on the universal vise body base and by the setting nut.



Sostituzione semplice e precisa delle ganasce
Simple and precise exchange of jaws



Protezione integrale dalla penetrazione di corpi estranei tramite piastre scorrevoli

Integral protection from chips and dirty through sliding protections

5