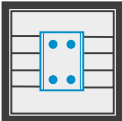
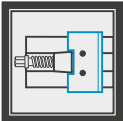
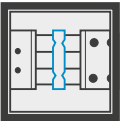







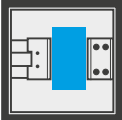
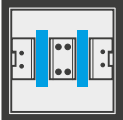





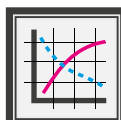


XL Series MORSE - VISES





SIMBOLOGIA DATI TECNICI TECHNICAL DATA ICONS

<p>GANASCE JAWS</p>		 Fissa Fixed	 Mobile Movable	 Intermedia Intermediate	 Fissa con piastra singola Fixed with single plate	 Fissa con piastra doppia Fixed with double plate
<p>PIASTRE GANASCE JAW PLATES</p>		 Discendente Pull down	 Piana Straight	 Cambio rapido manuale Quick manual change	 GRIP GRIP	 Inserti GRIP Inserti GRIP
<p>POSSIBILITÀ DI POSSIBILITY OF</p>		 Serraggio di 1 particolare Clamping only 1 piece	 Serraggio di 2 particolari Clamping 2 pieces	 Montaggio sul fianco o in serie Side mounting or gang operation	 Posizionamento cambio rapido Quick change & positioning	 Cubi-morsa Vise tower
<p>PAGINE PAGES</p>				 Accessori & Ricambi Accessories & Spare Parts	 Istruzioni corretto utilizzo Instruction for a proper use	 Diagrammi forze di serraggio Clamping force diagrams

MORSE serie XL

XL VISES series

La Morse XL prendono il nome dalle dimensioni Extra Large delle loro basi, molto più lunghe delle morse STD!
XL vises derive their name from the Extra Large vise base dimension that is much longer than STD vises!

Le morse **GERARDI** sono ormai considerate sinonimo di produzione ad alto livello tecnologico per l'accurata scelta dei materiali impiegati e per la precisione raggiunta anche nei minimi particolari. **Accuratamente rettificate** in ogni loro particolare ed ampiamente collaudate, consentono:

- una capacità di massimo rendimento della macchina / ■ un forte carico di pressione / ■ una maggior potenza di taglio,
- esclusione totale di vibrazioni / ■ minor usura dell'utensile / ■ una più precisa lavorazione

La costruzione con un sistema di elementi componibili consente le più svariate possibilità di impiego e combinazioni in caso di necessità.

Lo spazio sulla tavola della macchina a volte è limitato: le **morse XL** sono la risposta che vi permette di avere **due morse in una** perché si possono trasformare rapidamente da **morsa doppia a morsa singola di grande apertura**. La versione **XL doppia** permette la lavorazione di un numero maggiore di pezzi sfruttando al massimo la lunghezza della tavola della macchina utensile, ciò significa aumentare la produttività delle fasi attive del ciclo e di macchina stessa in quanto abbiamo:

- riduzione del numero dei carichi e conseguente risparmio dei tempi morti di fermo macchina / ■ una minore incidenza (50%) dei tempi di cambio utensile / ■ minori tempi di spostamento da una serie di pezzi a quella successiva / ■ minore usura della macchina / ■ operatore più libero dati i più lunghi tempi di ciclo complessivi.

In definitiva tutto ciò permette di ridurre al minimo i tempi morti di lavoro e quindi un **più rapido ammortamento degli impianti e delle stesse attrezzature**. La versione **XL singola** permette il serraggio di **pezzi di dimensioni insolite e di piastre** (con le appropriate ganasce). La notevole gamma di dimensioni e lunghezze delle basi garantisce il soddisfacimento delle più svariate necessità nonché una rigidità notevole dell'attrezzatura. Esiste la possibilità comunque di connettere due basi singole tramite un'apposita **ganasca fissa doppia di collegamento** per ottenere una morsa XL doppia da due basi standard (gr. 1) singole. A richiesta tutte le morse sono fornibili con tasselli di riferimento di varie grandezze o con fori calibrati.

GERARDI vises are manufactured under rigid quality control. Only the most suitable materials are used, and the accuracy of even the smallest components is assured. As a result of the high standard construction Gerardi vises can maintain their accuracy under the most severe operating conditions. Hardened and Ground steel construction throughout allowing you maximum machine performance with:

- bigger clamping power / ■ bigger cutting performances / ■ total exclusion of vibrations / ■ lower tool wear
- higher precision during machinework

The modular design and the concept of interchangeability makes possible a wide variety of set up combination and solutions.

Space on the machine table is sometimes limited: **XL vises** enable to have **2 vises in 1** because they can quickly change **from double vise to single vise with very large opening**. Double XL vise allows to machine more workpieces using the total length of the machine tool, this means to increase productivity of the workpiece and of the machine itself because:

- reduction of total number of loading and unloading with consequence **save of dead times/interruptions** if machine is not working,
- reduction (50%) of total tool changing time,
- lower moving time from a series of pieces to another,
- lower machine wear,
- more time the operator can walk away to do other work because of longer total cycle times.

In conclusion all this allows to reduce to a minimum dead times/interruptions and consequently **faster payback period of machines and fixtures**.

Single XL vise allows to clamp **pieces of unusual dimensions and plates** (with the right jaws). The very wide range of widths and lengths of bases guarantees the satisfaction of the widest variety of works and a big rigidity of the fixture too. There is anyway the possibility to connect 2 single vises through a dedicated **double fixed connection jaw** to get one XL vise starting from 2 standard single bases. On request all vises can be supplied with key-nuts of different sizes or with ground holes.



USURA INESISTENTE

Grazie all'accurata scelta dei materiali impiegati ed allo studio dimensionale computerizzato dei componenti. **Costruzione completamente in speciali leghe di acciaio** ad alta resistenza, normalizzato, cementato e temprato con **durezza 60 ±2 HRC**. Tutto ciò al fine di conferire massima rigidità, elevate prestazioni e usura inesistente. A riprova di tutto ciò assicuriamo **5 ANNI DI GARANZIA** su tutto il programma morse e organi meccanici in genere.

NO WEAR

Thanks to the manufacturing with only the most suitable materials and to the structure of the vise components (developed using computer customised softwares and the experience gained during many years spent working on the specific field). **High alloyed quality resistance steel, case hardened HRC 60 ±2**, is used in manufacturing all the Gerardi vises and accessories in order to give maximum rigidity, high performances and no wear. As evidence we give **5 YEARS WARRANTY** on all the vises and mechanical components.



DESIGN COMPATTO E MANEGGEVOLEZZA

La semplicità nonché la compattezza costruttiva consentono un'apertura notevole rispetto all'ingombro totale dell'attrezzatura. Inoltre lo stesso peso (solo 25 kg per una morsa da 150 mm di larghezza ganasca) è tale da consentire un facile trasferimento da una macchina all'altra.

SPACE SAVING DESIGN & HANDY

The space saving design and solid construction allow a maximum blocking ratio to total overall dimension of the vise. Furthermore the weight (only 25 kg for a 150 mm jaw width vise) allows a simple moving from one machine to another.

1-2 RAPIDITA' DEI SERRAGGI

Grazie allo **scorrimento del gruppo di serraggio** nella guida della base (a cremagliera) fino in prossimità del pezzo da lavorare dove si adatterà automaticamente alla nicchia più vicina. L'operazione di serraggio si conclude agendo sulla vite di bloccaggio. Oltre a quello manuale meccanico, sono disponibili **4 ulteriori sistemi di serraggio** intercambiabili e indipendenti:

1 - Idraulici / 2 - Pneumatici / 3 - Idraulici manuali / 4 - Idraulici elettrici.
L'operazione è in termini di secondi.

1-2 QUICK CLAMPING

Thanks to the **clamping device sliding in the vise base slide** (compact rack type) till the proximity of the workpiece. The clamping is completed with the main screw. Besides the manual mechanic system, **4 further** interchangeable and independent **clamping systems** are available:

1- Hydraulic / 2- Pneumatic / 3- Manual hydraulic / 4- Electrical hydraulic.
The change needs only few seconds.

3-4 PRECISIONI ± 0,02 mm

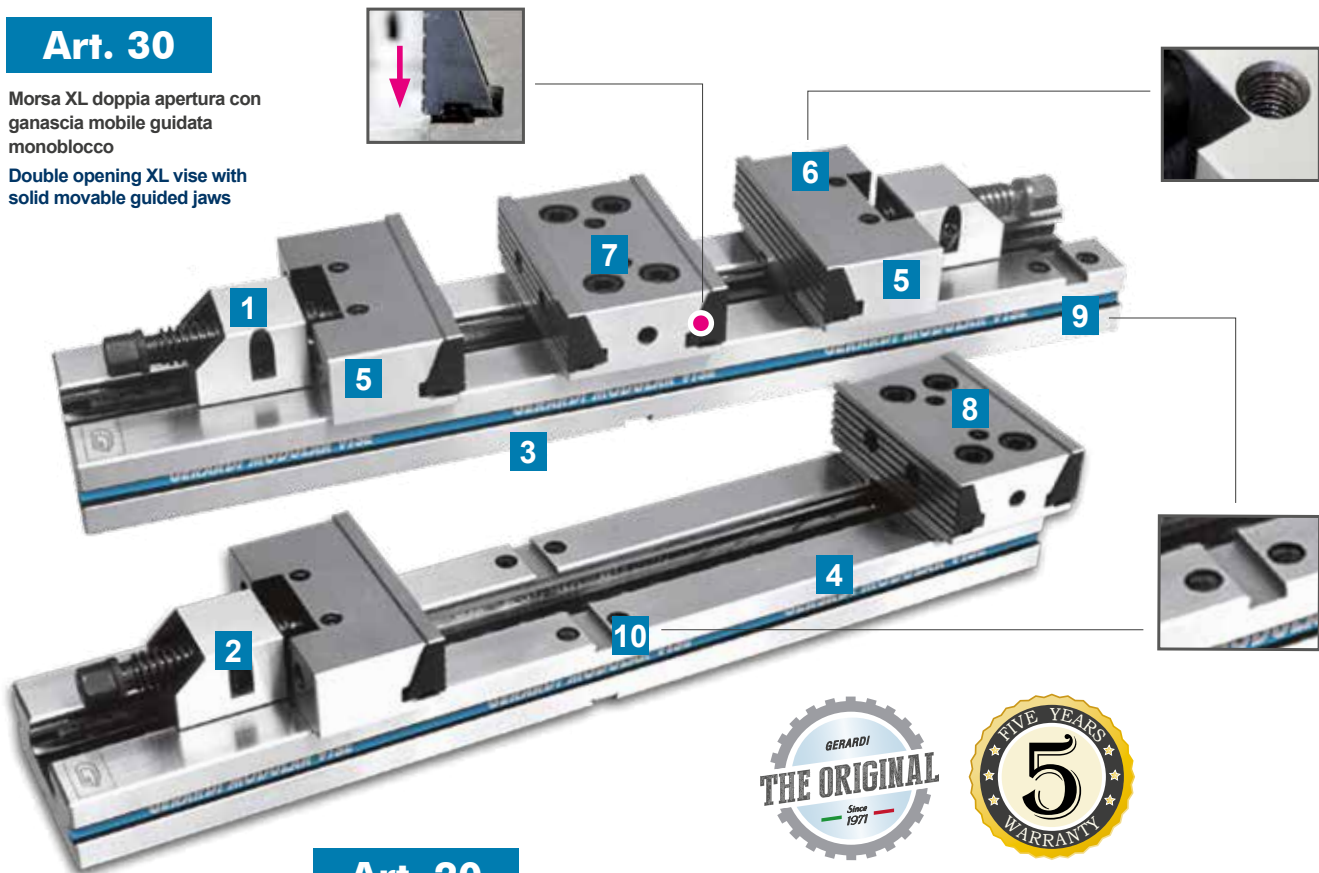
Slittone base con tutte le superfici di scorrimento ed accoppiamento rettificata. L'allineamento agli assi della macchina avviene grazie alle **chiavette longitudinali e trasversali** (16H7) o fori di posizionamento (Ø16 mm F7), a richiesta, previsti nella parte inferiore della base di ciascuna morsa. Naturalmente tutto ciò consente oltre alle precisioni dichiarate **tempi di installazione ristrettissimi**.

3-4 HIGHEST ACCURACIES ± 0,02 mm

Solid vise base. Every sliding and coupling surface is ground. **Centesimal tolerances** are guaranteed by checking cycles with CNC measuring machine. The perfect alignment with the machine axis is given by **longitudinal and cross keyways** (16H7) upon specific request by positioning holes (Ø16 mm F7) on the bottom surface of the vise base. Of course this allows **minimum of set up times and gang operations**.

Art. 30

Morsa XL doppia apertura con ganascia mobile guidata monoblocco
Double opening XL vise with solid movable guided jaws



Art. 20



5 SERRAGGI INDIPENDENTI

Due Gruppi di serraggio indipendenti

5 INDEPENDENT CLAMPINGS

Two independent clamping devices

6 FORI FILETTATI SOPRA LE GANASCE PER APPLICAZIONI SPECIALI

Quattro fori filettati supplementari sopra le ganasce danno la possibilità di installare ganasce sovrapponibili per applicazioni speciali.

6 THREADED HOLES ON THE TOP OF THE JAWS FOR SPECIAL APPLICATIONS

4 extra tapped holes over the jaws for special Gerardi stack type jaw application

7-8 GANASCIA FISSA DOPPIA

Ganasce fisse doppie posizionabili sia al centro (per serraggi doppi), sia all'estremità della base (per serraggi singoli di particolari di grosse dimensioni).

7-8 DOUBLE FIXED JAWS

Double fixed jaw position both in the center of the vise base (for double clamping) and at the end (for single big workpieces Clamping).

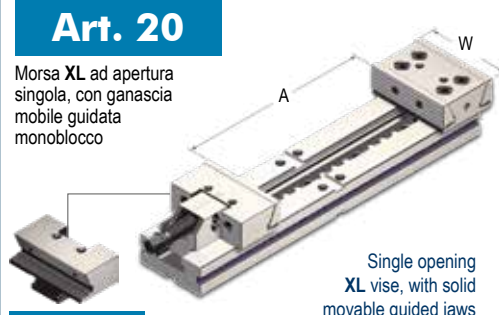
9-10 DUE SERIE DI CHIAVETTE

Due serie di chiavette per due posizioni alternative delle ganasce fisse doppie.

9-10 TWO DIFFERENT KEYWAYS

Two different keyways for two alternatives positions of the double fixed jaw.

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	100	125	150		175			
	B	30	40	50		60			
	C	35	40	50		58			
	D	460	520	580	680	666	766	866	966
	G	75	95	125		145			
	kg	10	17	32	35	47	52	56	61
	Cod.	3.21.00000	3.22.10000	3.23.20000	3.23.30000	3.24.20000	3.24.30000	3.24.40000	3.24.50000
	€	735	989	1.229	1.362	1.435	1.577	1.717	1.863



Monoblocco - Solid

Single opening XL vise, with solid movable guided jaws

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313	Cod.	4.31.31000	4.31.32000	4.31.33000	4.31.34000
€	60	78	98	115	
H	23	33	43	53	

Art. 212	Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
€	89	108	142	178	

Art. 217	Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
€	141	117	166	225	

Art. 242G	Cod.	1.24.2G100	1.24.2G200	1.24.2G300	1.24.2G400
€	109	119	150	170	

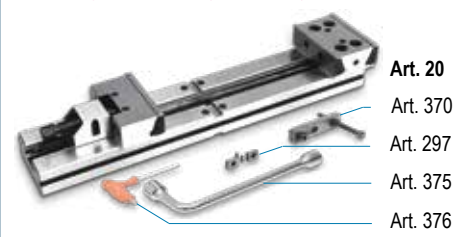
Art. 271	Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
€	314	322	331	361	

Art. 391	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
€	1.530	1.542	1.549	1.576	

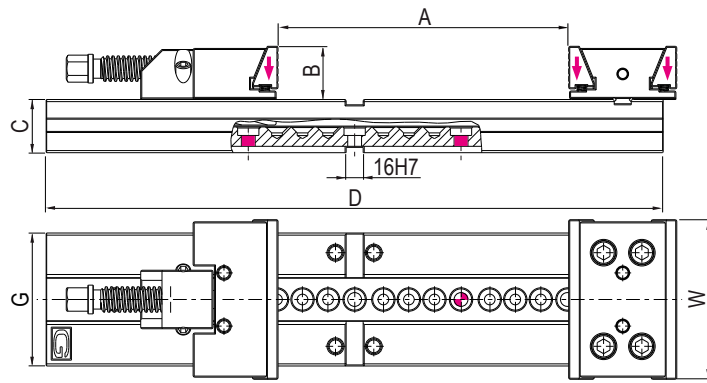
Art. 392	Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
€	1.489	1.499	1.508	1.535	

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

- Dotazione standard:**
- 1 arresto laterale Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00



- Standard equipment:**
- 1 workshop Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00

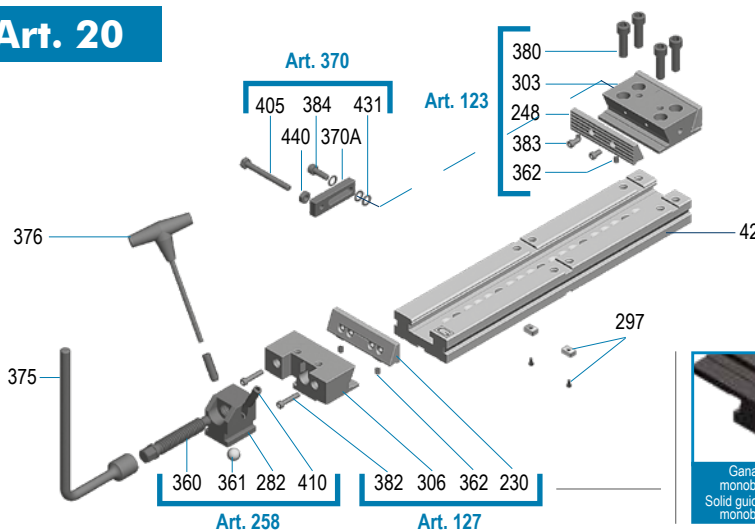

 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
64	69	74	79	84	95	105	115	125	135	145	155
3.25.20000	3.25.30000	3.25.40000	3.25.50000	3.25.60000	3.26.20000	3.26.30000	3.26.40000	3.26.50000	3.26.60000	3.26.70000	3.26.80000
2.436	2.717	3.001	3.284	3.566	3.396	3.737	4.077	4.415	4.757	5.095	5.433

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313	4.31.35000 131 53		4.31.36000 148 68
Art. 212	1.21.25000 214		1.21.26000 297
Art. 217	2.21.75000 297		2.21.76000 506
Art. 242G	1.24.2G500 232		1.24.2G600 304
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49

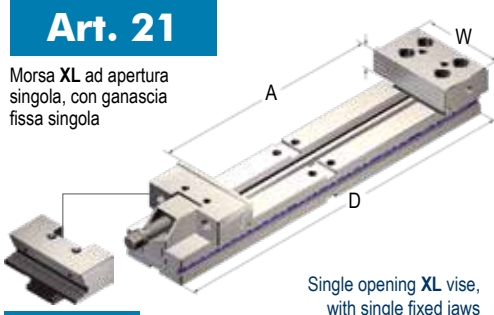
Art. 20


Art.	Pag.	Art.	Pag.
42	2.30	375	4.33
230	4.9	376	4.33
248	4.9	380	4.26
282	4.34	382	4.26
297	4.33	383	4.26
303	4.27	384	4.26
306	4.27	405	4.33
360	4.34	410	4.34
361	4.34	431	4.26
362	4.26	440	4.26
370A	4.33	-	-



2

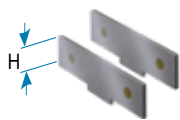
Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	100	125	150			175		
	B	30	40	50			60		
	C	35	40	50			58		
	D	460	520	580	680	666	766	866	966
	G	75	95	125			145		
	kg	10	17	32	35	47	52	56	61
	Cod.	2.21.12900	2.21.23200	2.21.33600	2.21.34600	2.21.44000	2.21.45000	2.21.46000	2.21.47000
	€	735	989	1.229	1.362	1.435	1.577	1.717	1.863



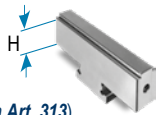
Monoblocco - Solid

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313	Cod.	4.31.31000	4.31.32000	4.31.33000	4.31.34000
Piastre magnetiche parallele piane Magnetic parallel plates	€	60	78	98	115
	H	23	33	43	53



Art. 212	Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
Ganascia mobile intermedia (da usare con Art. 313) Intermediate movable jaw (to be used with Art. 313)	€	89	108	142	178



Art. 217	Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
Ganascia mobile prismatica Prismatic movable jaw	€	141	117	166	225



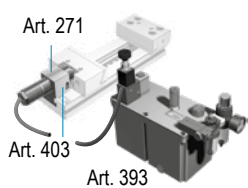
Art. 242G	Cod.	1.24.2G100	1.24.2G200	1.24.2G300	1.24.2G400
Piastra ganascia con inserti GRIP Jaw plate with GRIP inserts	€	109	119	150	170



Art. 271	Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	€	314	322	331	361



Art. 271	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Art. 271	€	1.530	1.542	1.549	1.576

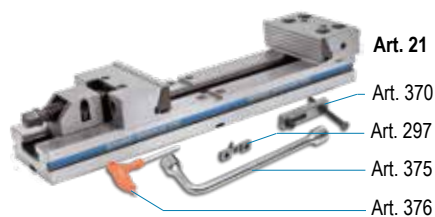

Art. 391
 CNC / CNC

Art. 392
 Pneumatico / Air control

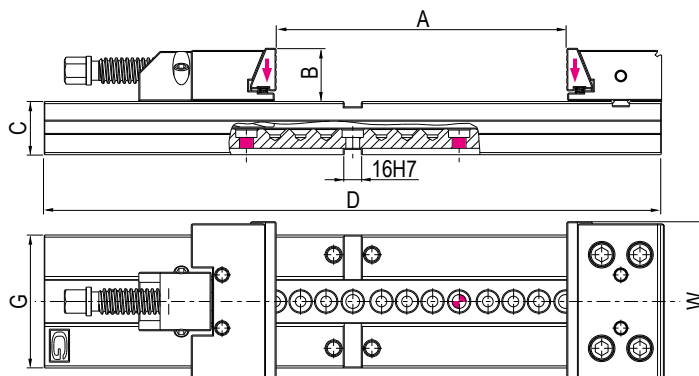
 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

Dotazione standard:

- 1 arresto laterale Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00

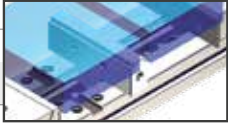

Standard equipment:

- 1 workstop Art. 370
 - 1 pair of positioning key-nuts Art. 297
(Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

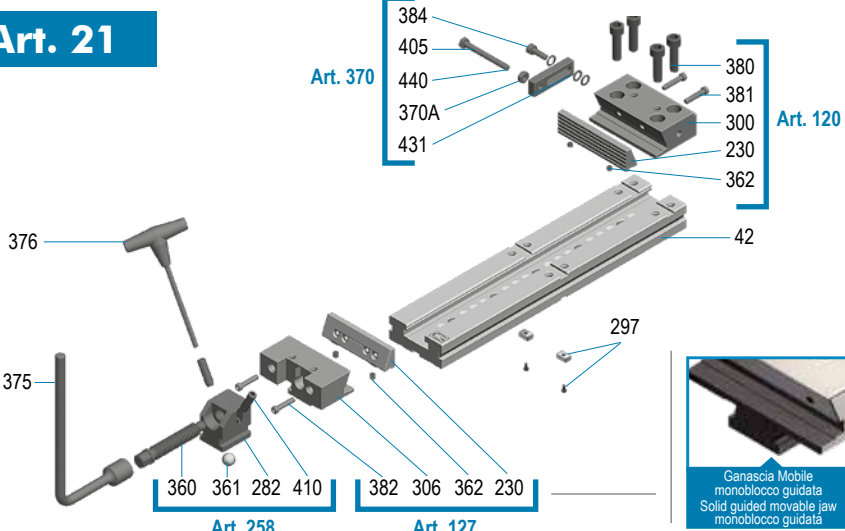
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
64	69	74	79	84	95	105	115	125	135	145	155
2.21.55000	2.21.56000	2.21.57000	2.21.58000	2.21.59000	2.21.65000	2.21.66000	2.21.67000	2.21.68000	2.21.69000	2.21.61000	2.21.61100
2.436	2.717	3.001	3.284	3.566	3.396	3.737	4.077	4.415	4.757	5.095	5.433

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313	4.31.35000 131 53		4.31.36000 148 68
Art. 212	1.21.25000 214		1.21.26000 297
Art. 217	2.21.75000 297		2.21.76000 506
Art. 242G	1.24.2G500 232		1.24.2G600 304
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49

Art. 21



Art. 370
 384
405
440
370A
431

Art. 120
 380
381
300
230
362

376
375
360
361
282
410
382
306
362
230

297

42

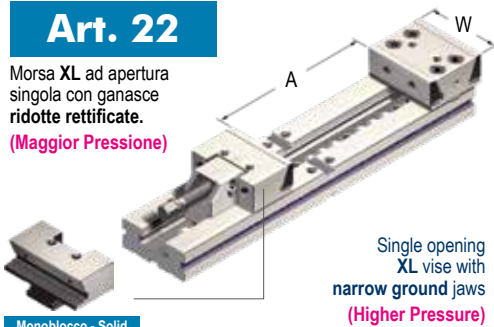
Art. 258
 Art. 127

Ganaschia Mobile
 monoblocco guidata
 Solid guided movable jaw
 monoblocco guidata

Art.	Pag.	Art.	Pag.
42	2.30	375	4.33
230	4.9	376	4.33
248	4.9	380	4.26
282	4.34	382	4.26
297	4.33	383	4.26
300	4.27	384	4.26
306	4.27	405	4.33
360	4.34	410	4.34
361	4.34	431	4.26
362	4.26	440	4.26
370A	4.33	-	-

2

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	75	95	125			145		
	B	30	40	50			60		
	C	35	40	50			58		
	D	460	520	580	680	666	766	866	966
	G	75	95	125			145		
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8	59.8
	Cod.	3.21.00220	3.22.10220	3.23.20220	3.23.30220	3.24.20220	3.24.30220	3.24.40220	3.24.50220
	€	817	1.099	1.366	1.513	1.594	1.753	1.908	2.070


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313R	Cod.	4.31.3R100	4.31.3R200	4.31.3R300	4.31.3R400
Piastre magnetiche parallele piane Magnetic parallel plates	€	60	78	98	115
	H	23	33	43	53

Art. 213	Cod.	1.21.31000	1.21.32000	1.21.33000	1.21.34000
Ganascia mobile intermedia (da usare con Art. 313R) Intermediate movable jaw (to be used with Art. 313R)	€	89	108	142	178

Art. 218	Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000
Ganascia mobile prismatica Prismatic movable jaw	€	141	117	166	225

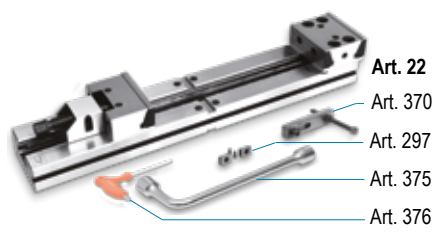
Art. 243G	Cod.	1.24.3G100	1.24.3G200	1.24.3G300	1.24.3G400
Piastra ganascia ridotta con inserti GRIP Narrow width jaw plate with GRIP inserts	€	109	119	129	170

Art. 271	Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	€	314	322	331	361

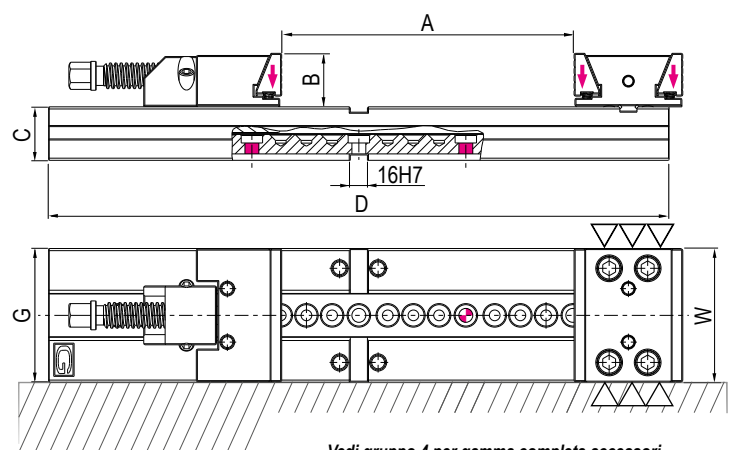
Art. 271	Art. 391	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
	CNC / CNC	€	1.530	1.542	1.549	1.576
Art. 403	Art. 392	Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
	Pneumatico / Air control	€	1.489	1.499	1.508	1.535

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

- Dotazione standard:**
- 1 arresto laterale Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00

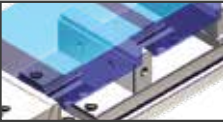

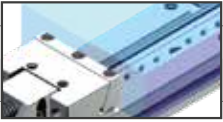



- Standard equipment:**
- 1 workshop Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00

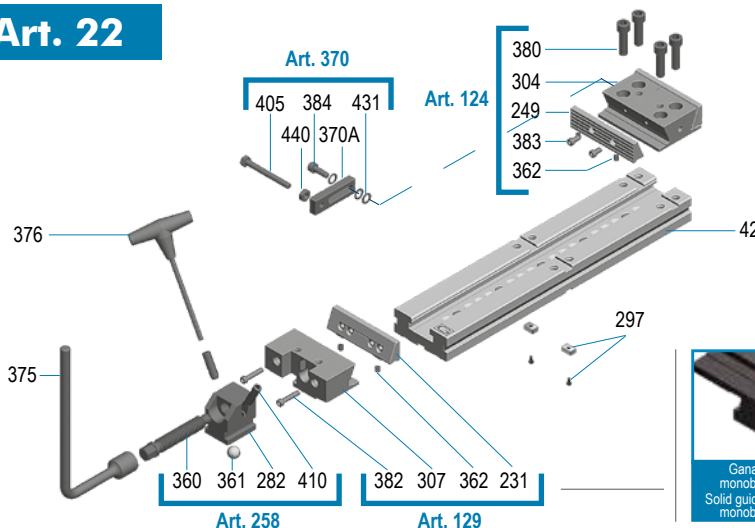

 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
3.25.20220	3.25.30220	3.25.40220	3.25.50220	3.25.60220	3.26.20220	3.26.30220	3.26.40220	3.26.50220	3.26.60220	3.26.70220	3.26.80220
2.706	3.020	3.336	3.649	3.963	3.774	4.152	4.530	4.906	5.284	5.661	6.037

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313R	4.31.3R500 131 53		4.31.3R600 148 68
Art. 213	1.21.35000 214		1.21.36000 297
Art. 218	2.21.85000 297		2.21.86000 506
Art. 243G	1.24.3G500 212		1.24.3G600 284
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

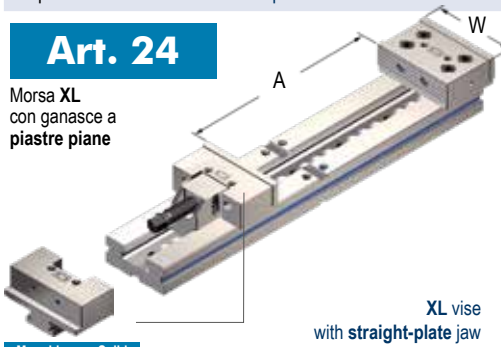
 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49

Art. 22


Art.	Pag.	Art.	Pag.
42	2.30	375	4.33
231	4.9	376	4.33
249	4.9	380	4.26
282	4.34	382	4.26
297	4.33	383	4.26
304	4.27	384	4.26
307	4.27	405	4.33
360	4.34	410	4.34
361	4.34	431	4.26
362	4.26	440	4.26
370A	4.33	-	-

2

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	100	125	150			175		
	B	30	40	50			60		
	C	35	40	50			58		
	D	460	520	580	680	666	766	866	966
	G	75	95	125			145		
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8	59.8
	Cod.	2.24.12900	2.24.23200	2.24.33600	2.24.34600	2.24.44000	2.24.45000	2.24.46000	2.24.47000
	€	735	989	1.229	1.362	1.435	1.577	1.717	1.863


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313	Cod.	4.31.31000	4.31.32000	4.31.33000	4.31.34000
Piastrine magnetiche parallele piane / Magnetic parallel plates	€	60	78	98	115
	H	23	33	43	53

Art. 212	Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
Ganascia mobile intermedia (da usare con Art. 313) / Intermediate movable jaw (to be used with Art. 313)	€	89	108	142	178

Art. 246	Cod.	1.65.16200	1.65.26200	1.65.36200	1.65.46200
Piastra piana in acciaio lavorabile / Machinable steel straight jaw plate	€	55	60	72	89

Art. 246G	Cod.	1.24.6G100	1.24.6G200	1.24.6G300	1.24.6G400
Piastra piana con inserti GRIP / Straight jaw plate with GRIP inserts	€	109	119	150	170

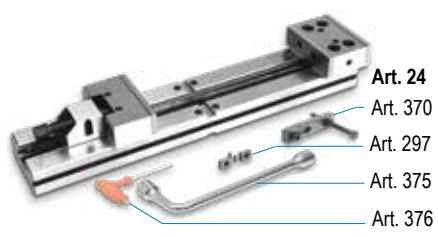
Art. 271	Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
Supporto di serraggio con cilindro idraulico / Clamping support with hydraulic cylinder	€	314	322	331	361

Art. 271	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
CNC / CNC	€	1.530	1.542	1.549	1.576

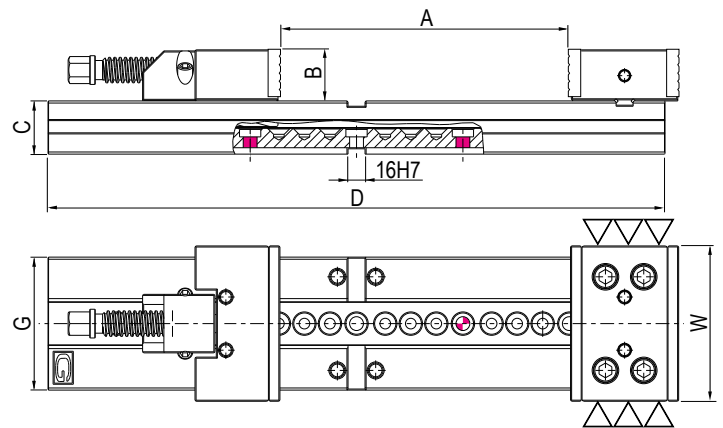
Art. 392	Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
Pneumatico / Air control	€	1.489	1.499	1.508	1.535

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

- Dotazione standard:**
- 1 arresto laterale Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00





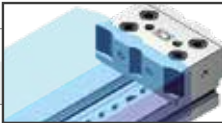
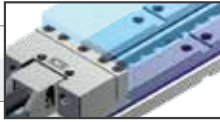

- Standard equipment:**
- 1 workshop Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00



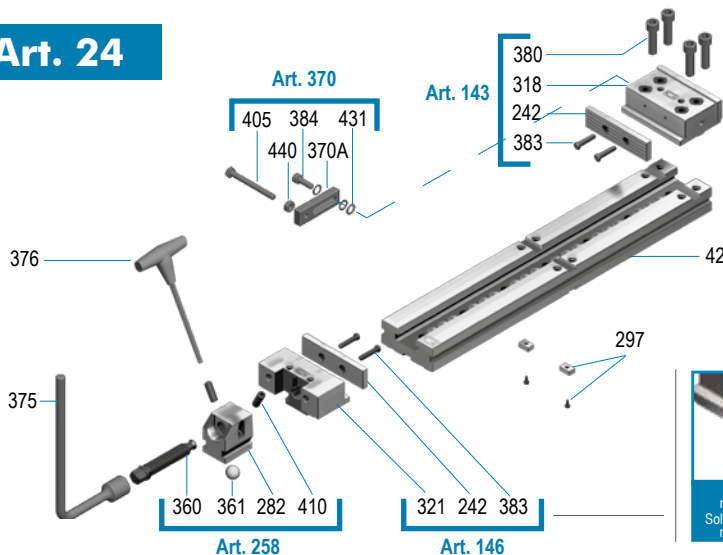
Vedi gruppo 4 per gamma completa accessori / See group 4 for complete range of accessories

5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.24.55000	2.24.56000	2.24.57000	2.24.58000	2.24.59000	2.24.65000	2.24.66000	2.24.67000	2.24.68000	2.24.69000	2.24.61000	2.24.61100
2.436	2.717	3.001	3.284	3.566	3.396	3.737	4.077	4.415	4.757	5.095	5.433

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313	4.31.35000 131 53		4.31.36000 148 68
Art. 212	1.21.25000 214		1.21.26000 297
Art. 246	1.65.56200 124		1.65.66200 166
Art. 246G	1.24.6G500 232		1.24.6G600 304
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49

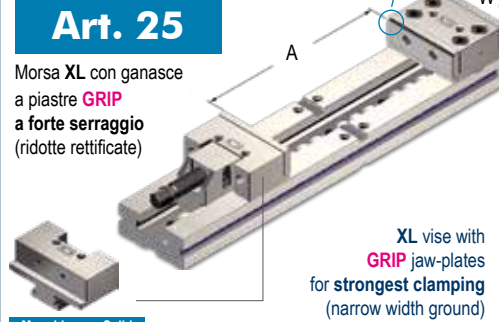
Art. 24


Art.	Pag.	Art.	Pag.
42	2.30	380	4.26
242	4.11	383	4.26
282	4.34	384	4.26
297	4.33	405	4.33
318	4.27	410	4.34
321	4.27	431	4.26
360	4.34	440	4.26
361	4.34	-	-
370A	4.33	-	-
375	4.33	-	-
376	4.33	-	-



2

Tipo (grandezza) morsa Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	75	95	125		145			
	B	30	40	50		60			
	C	35	40	50		58			
	D	460	520	580	680	666	766	866	966
	G	75	95	125		145			
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8	59.8
	Cod.	2.25.12900	2.25.23200	2.25.33600	2.25.34600	2.25.44000	2.25.45000	2.25.46000	2.25.47000
	€	817	1.099	1.366	1.513	1.594	1.753	1.908	2.070



Monoblocco - Solid

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313R Piastrine magnetiche parallele Magnetic parallel plates	Cod.	4.31.3R100		4.31.3R200		4.31.3R300		4.11.3R400	
		€	60	78	98	115			
	H	23	33	43		53			

Art. 218 Ganascia mobile prismatica Prismatic movable jaw	Cod.	2.21.81000		2.21.82000		2.21.83000		2.21.84000	
		€	141	117	166	225			

Art. 247 Piastra piana in acciaio lavorabile Machinable steel straight jaw plate	Cod.	1.65.17200		1.65.27200		1.65.37200		1.65.47200	
		€	56	61	74	90			

Art. 247G NEW! Piastra piana ridotta con inserti GRIP Narrow width straight jaw plate with GRIP inserts	Cod.	1.24.7G100		1.24.7G200		1.24.7G300		1.24.7G400	
		€	109	119	129	170			

Art. 271 Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	Cod.	2.27.11000		2.27.12000		2.27.13000		2.27.14000	
		€	314	322	331	361			

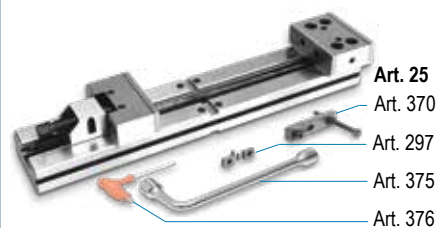
Art. 271 Art. 403 Art. 393	Cod.	4.39.11000		4.39.12000		4.39.13000		4.39.14000	
		€	1.530	1.542	1.549	1.576			

Art. 392 Pneumatico / Air control	Cod.	4.39.21000		4.39.22000		4.39.23000		4.39.24000	
		€	1.489	1.499	1.508	1.535			

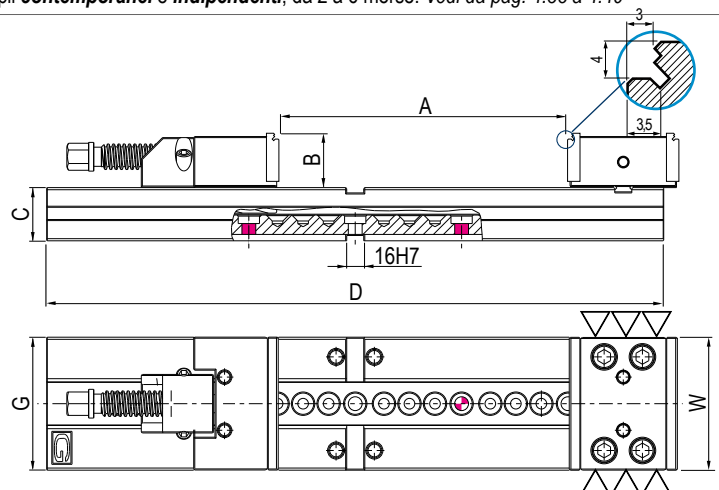
 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morsa. Vedi da pag. 4.38 a 4.49

Dotazione standard:

- 1 arresto laterale Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00







Standard equipment:

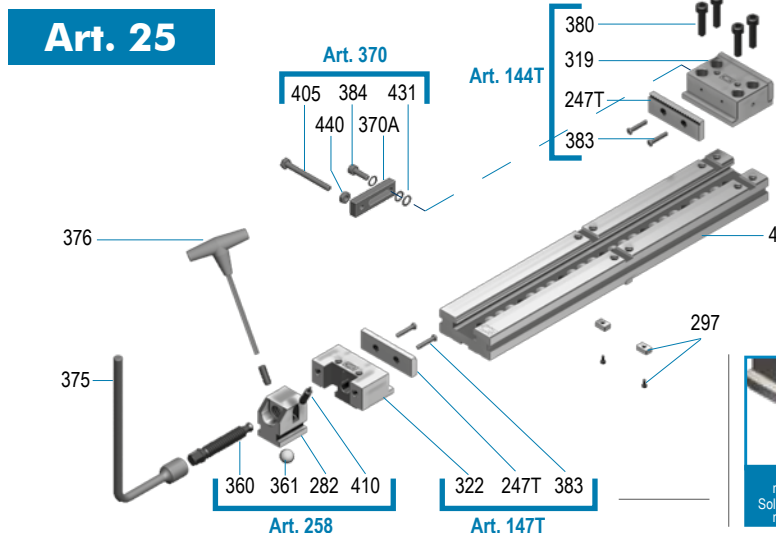
- 1 workshop Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

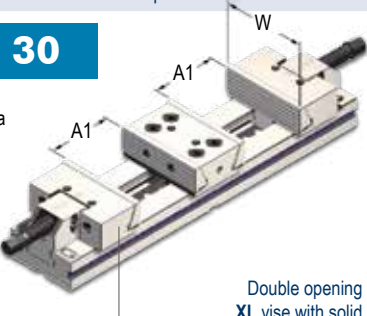
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.25.55000	2.25.56000	2.25.57000	2.25.58000	2.25.59000	2.25.65000	2.25.66000	2.25.67000	2.25.68000	2.25.69000	2.25.61000	2.25.61100
2.706	3.020	3.336	3.649	3.963	3.774	4.152	4.530	4.906	5.284	5.661	6.037

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

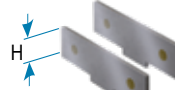
Art. 313R	4.31.3R500 131 53		4.31.3R600 148 68
Art. 218	2.21.85000 297		2.21.86000 506
Art. 247	1.65.57200 126		1.65.67200 168
Art. 247G	1.24.7G500 212		1.24.7G600 284
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

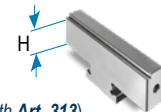
 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49



Art.	Pag.	Art.	Pag.
42	2.30	380	4.26
247T	4.11	383	4.26
282	4.34	384	4.26
297	4.33	405	4.33
319	4.28	410	4.34
322	4.28	431	4.26
360	4.34	440	4.26
361	4.34	-	-
370A	4.33	-	-
375	4.33	-	-
376	4.33	-	-

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270
Art. 30 Morsa XL a doppia apertura con ganascia mobile guidata monoblocco  Double opening XL vise with solid movable guided jaws Monoblocco - Solid	W	100	125	150		175			
	B	30	40	50		60			
	C	35	40	50		58			
	D	460	520	580	680	666	766	866	966
	G	75	95	125		145			
	kg	14.5	21	39	43	59	64	69	74
	Cod.	3.31.00600	3.32.10600	3.33.20600	3.33.30600	3.34.20600	3.34.30600	3.34.40600	3.34.50600
	€	909	1.211	1.492	1.628	1.740	1.885	2.026	2.170


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

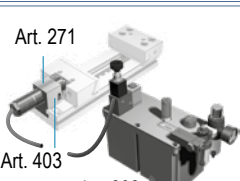
Art. 313 Piastre magnetiche parallele piane Magnetic parallel plates		Cod.		4.31.31000		4.31.32000		4.31.33000		4.31.34000	
		€	60	78	98						
H	23	33	43							53	


Art. 212 Ganascia mobile intermedia (da usare con Art. 313) Intermediate movable jaw (to be used with Art. 313)		Cod.		1.21.21000		1.21.22000		1.21.23000		1.21.24000	
		€	89	108	142						

Art. 217 Ganascia mobile prismatica Prismatic movable jaw		Cod.		2.21.71000		2.21.72000		2.21.73000		2.21.74000	
		€	141	117	166						

Art. 242G NEW! Piastra ganascia con inserti GRIP Jaw plate with GRIP inserts		Cod.		1.24.2G100		1.24.2G200		1.24.2G300		1.24.2G400	
		€	109	119	150						

Art. 271 Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder		Cod.		2.27.11000		2.27.12000		2.27.13000		2.27.14000	
		€	314	322	331						

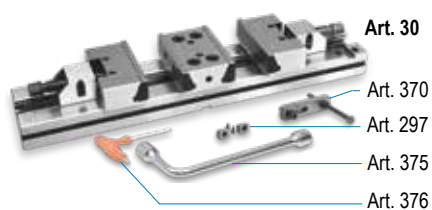
Art. 271 	Art. 391 CNC / CNC	Cod.		4.39.11000		4.39.12000		4.39.13000		4.39.14000	
		€	1.530	1.542	1.549						

Art. 403 	Art. 392 Pneumatico / Air control	Cod.		4.39.21000		4.39.22000		4.39.23000		4.39.24000	
		€	1.489	1.499	1.508						

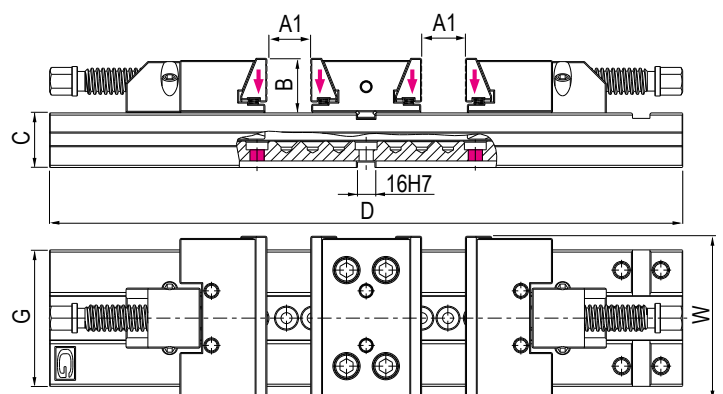
 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

Dotazione standard:

- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00


Standard equipment:

- 2 workstops Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

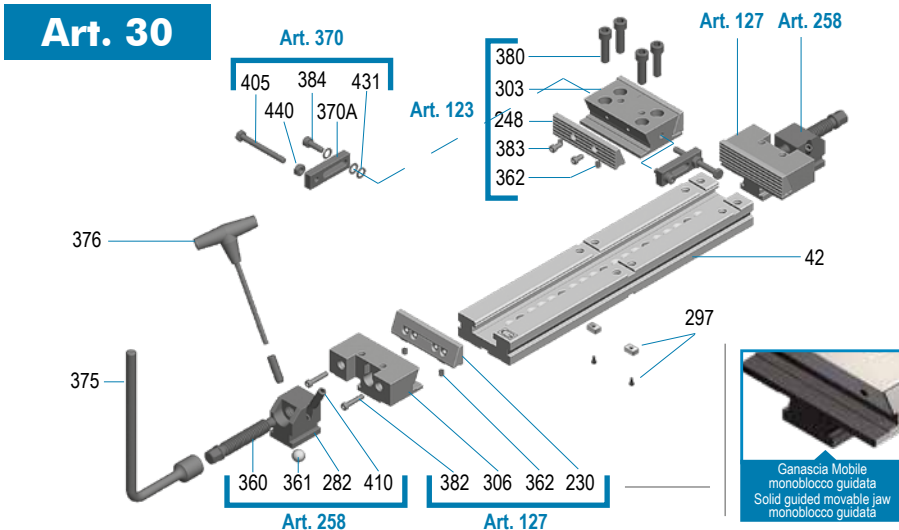


5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
96	102	108	114	120	155	163	171	179	187	195	213
3.35.20600	3.35.30600	3.35.40600	3.35.50600	3.35.60600	3.36.20600	3.36.30600	3.36.40600	3.36.50600	3.36.60600	3.36.70600	3.36.80600
2.833	3.114	3.396	3.680	3.963	4.047	4.388	4.726	5.065	5.405	5.746	6.085

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313	4.31.35000 131		4.31.36000 148
	53		68
Art. 212	1.21.25000 214		1.21.26000 297
Art. 217	2.21.75000 297		2.21.76000 506
Art. 242G	1.24.2G500 232		1.24.2G600 304
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49



Art.	Pag.
42	2.30
230	4.9
248	4.9
282	4.34
297	4.33
303	4.27
306	4.27
360	4.34
361	4.34
362	4.26
370A	4.33

Art.	Pag.
375	4.33
376	4.33
380	4.26
382	4.26
383	4.26
384	4.26
405	4.33
410	4.34
431	4.26
440	4.26
-	-



Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270
Art. 32 Morsa XL a doppia apertura con ganasce ridotte rettificate. (Maggior Pressione) Double opening XL vise with narrow ground jaws (Higher Pressure)	W	75	95	125		145			
	B	30	40	50		60			
	C	35	40	50		58			
	D	460	520	580	680	666	766	866	966
	G	75	95	125		145			
	kg	13.5	19.5	36	40	56	61	66	71
	Cod.	3.31.00720	3.32.10720	3.33.20720	3.33.30720	3.34.20720	3.34.30720	3.34.40720	3.34.50720
€	1.011	1.344	1.659	1.809	1.935	2.094	2.252	2.412	

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313R Piastrine magnetiche parallele piane Magnetic parallel plates	Cod.	4.31.3R100		4.31.3R200		4.31.3R300		4.11.3R400	
		€	60	78	98			115	
H		23	33	43				53	

Art. 213 Ganascia mobile intermedia (da usare con Art. 313R) Intermediate movable jaw (to be used with Art. 313R)	Cod.	1.21.31000		1.21.32000		1.21.33000		1.21.34000	
		€	89	108	142			178	

Art. 218 Ganascia mobile prismatica Prismatic movable jaw	Cod.	2.21.81000		2.21.82000		2.21.83000		2.21.84000	
		€	141	117	166			225	

Art. 243G Piastra ganascia ridotta con inserti GRIP Narrow width jaw plate with GRIP inserts	Cod.	1.24.3G100		1.24.3G200		1.24.3G300		1.24.3G400	
		€	109	119	129			170	

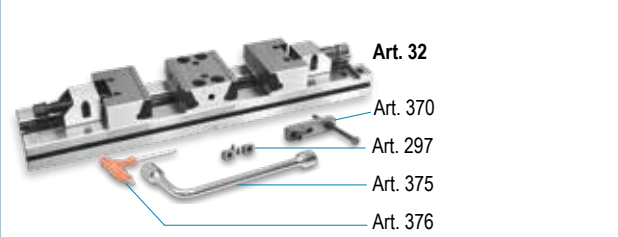
Art. 271 Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	Cod.	2.27.11000		2.27.12000		2.27.13000		2.27.14000	
		€	314	322	331			361	

Art. 271 Art. 403 Art. 393	Cod.	4.39.11000		4.39.12000		4.39.13000		4.39.14000	
		€	1.530	1.542	1.549			1.576	

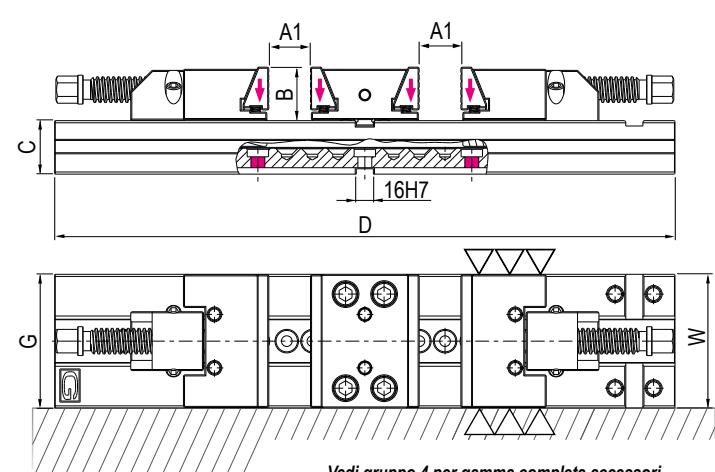
Art. 392 Pneumatico / Air control	Cod.	4.39.21000		4.39.22000		4.39.23000		4.39.24000	
		€	1.489	1.499	1.508			1.535	

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

- Dotazione standard:**
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00






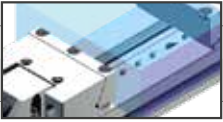

- Standard equipment:**
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

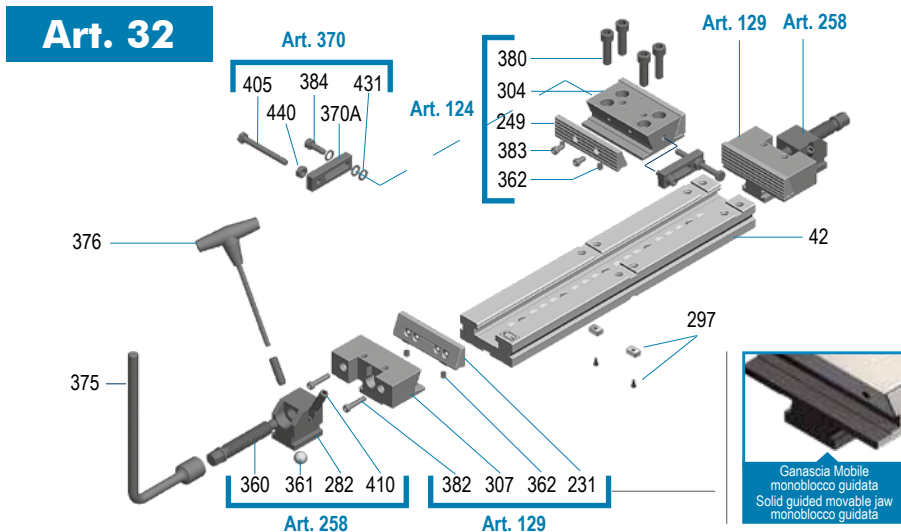


5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
93	99	105	108	117	144	152	160	168	176	184	202
3.35.20720	3.35.30720	3.35.40720	3.35.50720	3.35.60720	3.36.20720	3.36.30720	3.36.40720	3.36.50720	3.36.60720	3.36.70720	3.36.80720
3.147	3.461	3.774	4.087	4.405	4.498	4.875	5.253	5.630	6.007	6.385	6.759

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313R	4.31.3R500 131 53		4.31.3R600 148 68
Art. 213	1.21.35000 214		1.21.36000 297
Art. 218	2.21.85000 297		2.21.86000 506
Art. 243G	1.24.3G500 212		1.24.3G600 284
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49



Art.	Pag.	Art.	Pag.
42	2.30	375	4.33
231	4.9	376	4.33
249	4.9	380	4.26
282	4.34	382	4.26
297	4.33	383	4.26
304	4.27	384	4.26
307	4.27	405	4.33
360	4.34	410	4.34
361	4.34	431	4.26
362	4.26	440	4.26
370A	4.33	-	-

2

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4		
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN		
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270	
Art. 34 Morsa XL a doppia apertura con ganasce a piastre piane Double opening XL vise with straight-plate jaws 	W	100	125	150		175				
	B	30	40	50		60				
	C	35	40	50		58				
	D	460	520	580	680	666	766	866	966	
	G	75	95	125		145				
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8	59.8	
	Cod.	2.34.19000	2.34.21000	2.34.31100	2.34.31600	2.34.41200	2.34.41700	2.34.42200	2.34.42700	
	€	909	1.211	1.492	1.628	1.740	1.885	2.029	2.170	
	Monoblocco - Solid									

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313 Piastrine magnetiche parallele piane Magnetic parallel plates	H	Cod.		4.31.31000		4.31.32000		4.31.33000		4.31.34000	
		€	60	78	98						
H	23	33	43							53	

Art. 212 Ganascia mobile intermedia (da usare con Art. 313) Intermediate movable jaw (to be used with Art. 313)	H	Cod.		1.21.21000		1.21.22000		1.21.23000		1.21.24000	
		€	89	108	142						

Art. 246 Piastra piana in acciaio lavorabile Machinable steel straight jaw plate	Cod.	1.65.16200		1.65.26200		1.65.36200		1.65.46200	
		€	55	60	72				

Art. 246G NEW! Piastra piana con inserti GRIP Straight jaw plate with GRIP inserts	Cod.	1.24.6G100		1.24.6G200		1.24.6G300		1.24.6G400	
		€	109	119	150				

Art. 271 Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	Cod.	2.27.11000		2.27.12000		2.27.13000		2.27.14000	
		€	314	322	331				

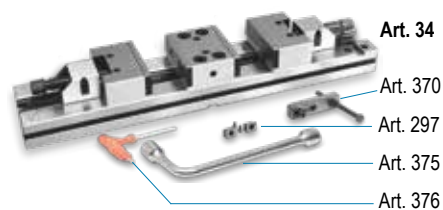
Art. 271 Art. 403 Art. 393	Art. 391 CNC / CNC	Cod.	4.39.11000		4.39.12000		4.39.13000		4.39.14000	
			€	1.530	1.542	1.549				

Art. 392 Pneumatico / Air control	Cod.	4.39.21000		4.39.22000		4.39.23000		4.39.24000	
		€	1.489	1.499	1.508				

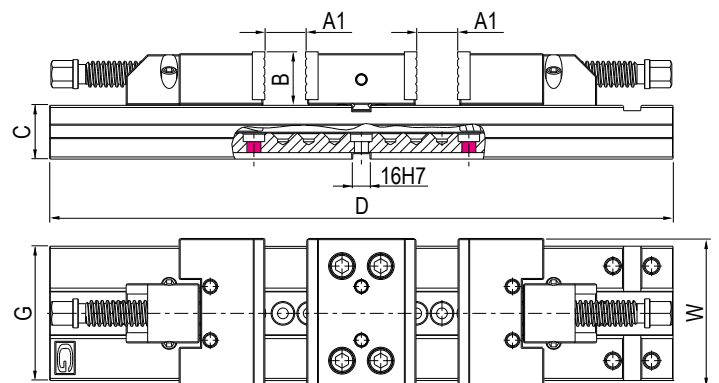
 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morsa. Vedi da pag. 4.38 a 4.49

Dotazione standard:

- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00


Standard equipment:



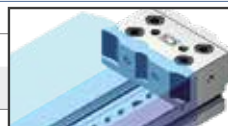
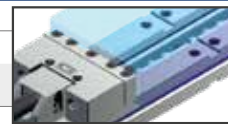

- 2 workstops Art. 370
 - 1 pair of positioning key-nuts Art. 297
(Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

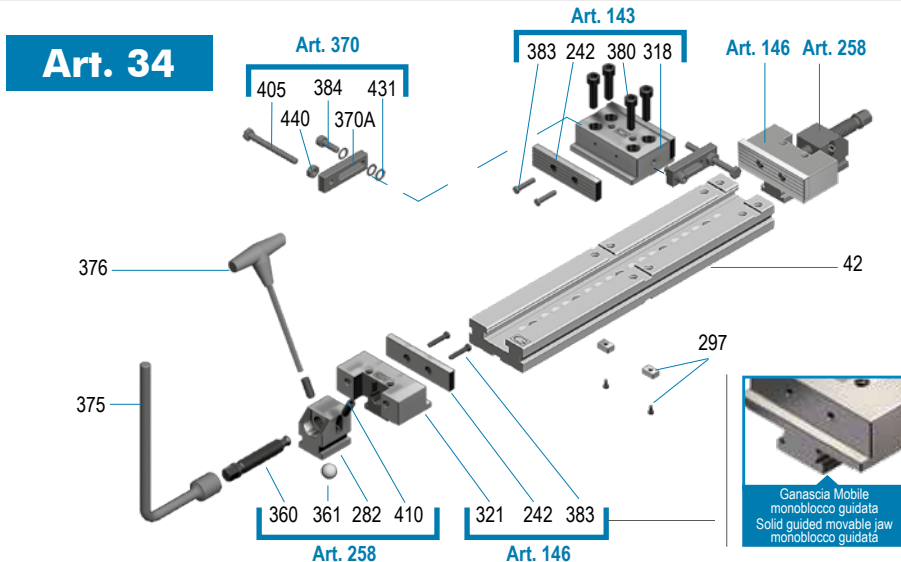


5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.34.51500	2.34.52000	2.34.52500	2.34.53000	2.34.53500	2.34.61600	2.34.62100	2.34.62600	2.34.63100	2.34.63600	2.34.64100	2.34.64600
2.833	3.114	3.396	3.680	3.963	4.047	4.388	4.726	5.065	5.405	5.746	6.085

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313	4.31.35000	131		4.31.36000	148
	53			68	
Art. 212	1.21.25000	214		1.21.26000	297
Art. 246	1.65.56200	124		1.65.66200	166
Art. 246G	1.24.6G500	232		1.24.6G600	304
Art. 271	2.27.15000	519		2.27.16000	615
Art. 391	4.39.15000	1.729		4.39.16000	1.818
Art. 392	4.39.25000	1.688		4.39.26000	1.777

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See from page 4.38 to 4.49



Art.	Pag.	Art.	Pag.
42	2.30	380	4.26
242	4.11	383	4.26
282	4.34	384	4.26
297	4.33	405	4.33
318	4.28	410	4.34
321	4.28	431	4.26
360	4.34	440	4.26
361	4.34	-	-
370A	4.33	-	-
375	4.33	-	-
376	4.33	-	-

2

Tipo (grandezza) morsa Vise type (size)	kN	1 16 kN	2 25 kN	3 30 kN		4 30 kN				
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270	
Art. 35 Morsa XL a doppia apertura con piastre ganasce GRIP a forte serraggio (ridotte rettificata) Double opening XL vise with GRIP jaw-plates for strongest clamping (narrow with ground)	W	75	95	125		145				
	B	30	40	50		60				
	C	35	40	50		58				
	D	460	520	580	680	666	766	866	966	
	G	75	95	125		145				
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8	59.8	
	Cod.	2.35.19000	2.35.21000	2.35.31100	2.35.31600	2.35.41200	2.35.41700	2.35.42200	2.35.42700	
	€	1.011	1.344	1.659	1.809	1.935	2.094	2.252	2.412	
	Monoblocco - Solid									

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 313R	Cod.	4.31.3R100	4.31.3R200	4.31.3R300	4.11.3R400
Piastre magnetiche parallele piane Magnetic parallel plates	€	60	78	98	115
H		23	33	43	53

Art. 218	Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000
Ganascia mobile prismatica Prismatic movable jaw	€	141	117	166	225

Art. 247	Cod.	1.65.17200	1.65.27200	1.65.37200	1.65.47200
Piastra piana in acciaio lavorabile Machinable steel straight jaw plate	€	56	61	74	90

Art. 247G	Cod.	1.24.7G100	1.24.7G200	1.24.7G300	1.24.7G400
Piastra piana ridotta con inserti GRIP Narrow width straight jaw plate with GRIP inserts	€	109	119	129	170

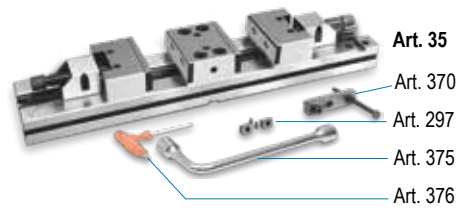
Art. 271	Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
Supporto di serraggio con cilindro idraulico Clamping support with hydraulic cylinder	€	314	322	331	361

Art. 271	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Art. 271	€	1.530	1.542	1.549	1.576
CNC / CNC					

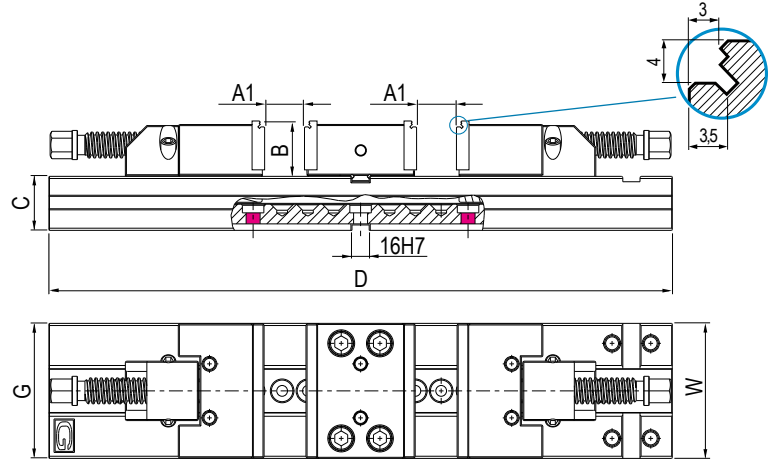
Art. 391	Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
Art. 391	€	1.489	1.499	1.508	1.535
Pneumatico / Air control					

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morsa. Vedi da pag. 4.38 a 4.49

- Dotazione standard:**
- 2 arresti laterali Art. 370
 - 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
 - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7): € 88,00








- Standard equipment:**
- 2 workstops Art. 370
 - 1 pair of positioning key-nuts Art. 297
(Standard for 16 mm slot. Other dimensions available on request without price change)
 - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each calibrated hole (F7 tolerance): € 88,00

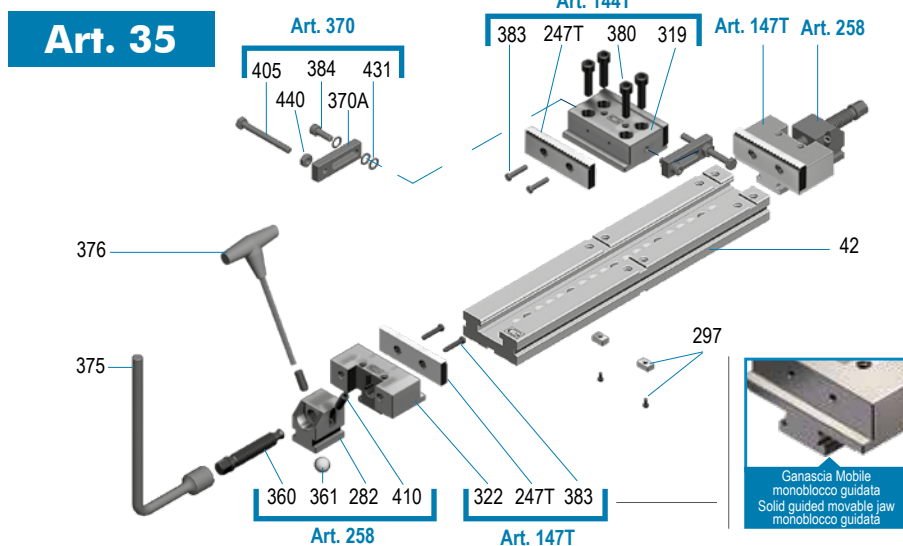

 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.35.51500	2.35.52000	2.35.52500	2.35.53000	2.35.53500	2.35.61600	2.35.62100	2.35.62600	2.35.63100	2.35.63600	2.35.64100	2.35.64600
3.147	3.461	3.774	4.087	4.405	4.498	4.875	5.253	5.630	6.007	6.385	6.759

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

Art. 313R	4.31.3R500 131 53		4.31.3R600 148 68
Art. 218	2.21.85000 297		2.21.86000 506
Art. 247	1.65.57200 126		1.65.67200 168
Art. 247G	1.24.7G500 212		1.24.7G600 284
Art. 271	2.27.15000 519		2.27.16000 615
Art. 391	4.39.15000 1.729		4.39.16000 1.818
Art. 392	4.39.25000 1.688		4.39.26000 1.777

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49



Art.	Pag.	Art.	Pag.
42	2.30	380	4.26
247T	4.11	383	4.26
282	4.34	384	4.26
297	4.33	405	4.33
319	4.28	410	4.34
322	4.28	431	4.26
360	4.34	440	4.26
361	4.34	-	-
370A	4.33	-	-
375	4.33	-	-
376	4.33	-	-

MORSE XL CON PIASTRE GANASCE A CAMBIO RAPIDO

XL VISES WITH QUICK MANUAL CHANGE JAW PLATES

Dotata del geniale sistema a pettine per la rapida sostituzione delle piastre ganasce discendenti !
Innovative comb system for quick pull-down jaw plate change !

1 ALTISSIMA RIPETIBILITÀ DI POSIZIONAMENTO

con particolari perfettamente in squadra

1 HIGHEST REPOSITIONING ACCURACY

with perfect square workpieces.

2 RICONFIGURAZIONE RAPIDISSIMA

grazie alla piastra ganascia intercambiabile manualmente

2 GREAT SAVINGS IN VISE RESETTING TIMES

thanks to the manual interchangeable quick jaw plate

3 EFFETTO DISCENDENTE

Effetto discendente amplificato e migliorato e migliore protezione dai trucioli grazie al sistema a pettine

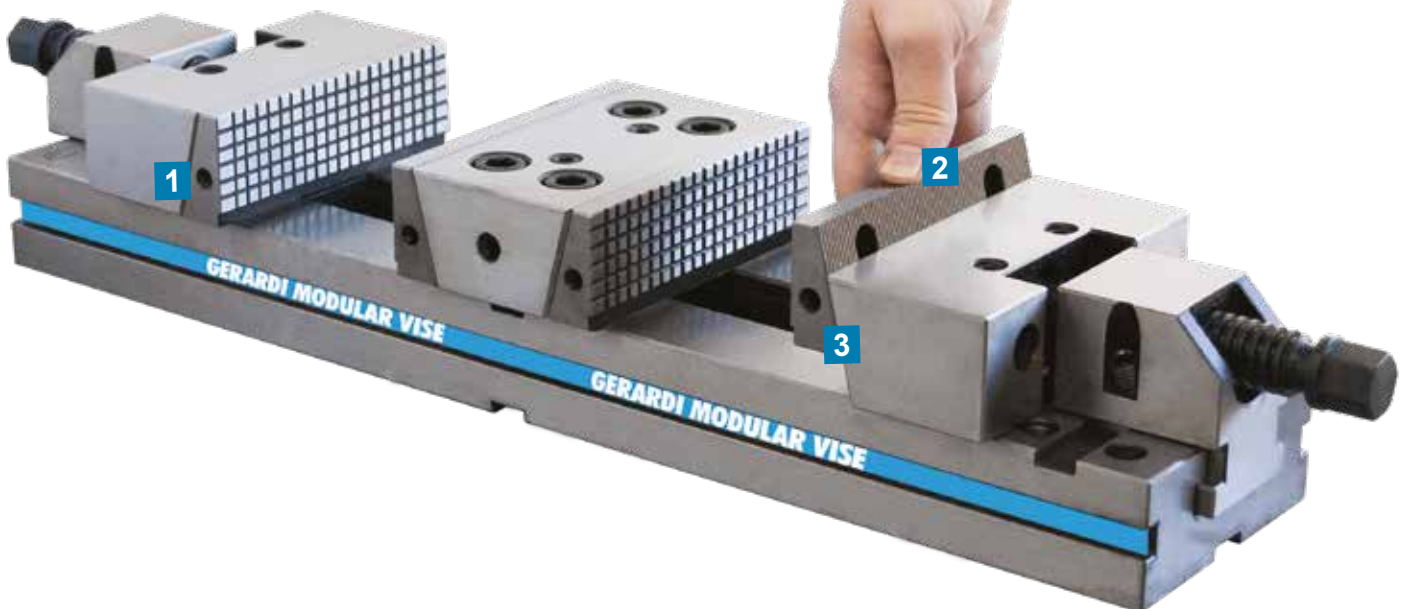
3 PULL DOWN ACTION

Increased and better pull down action and better protection from chips thanks to the comb system

Morsa con piastre ganasce a cambio rapido manuale (Sistema a pettine)

Vise with quick manual change jaw plates (Comb system)

Art. 30A



CARATTERISTICHE E VANTAGGI

- USURA INESISTENTE
- RAPIDITA' DEI SERRAGGI
- MODULARITA' & VERSATILITA'
- PRECISIONI $\pm 0,02$ mm
- RIGIDITA' & SICUREZZA
- DESIGN COMPATTO E MANEGGEVOLEZZA

Si rimanda a quanto esposto a pag. 1.4 e 1.5 (morse serie STANDARD)

TECHNICAL FEATURES and ADVANTAGES

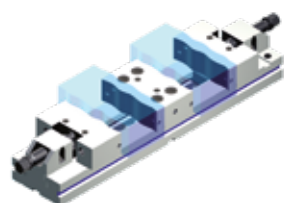
- NO WEAR
- QUICK CLAMPING
- MODULARITY & VERSATILITY
- HIGHEST ACCURACIES $\pm 0,02$ mm
- RIGIDITY & SAFETY
- SPACE SAVING DESIGN & HANDY

See pag. 1.4 and 1.5 (STANDARD series vises)

PIASTRE GANASCE DISCENDENTI INTERCAMBIABILI MANUALMENTE

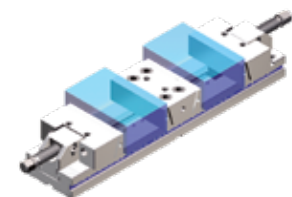
PULL DOWN JAW PLATES INTERCHANGEABLE by HAND

2



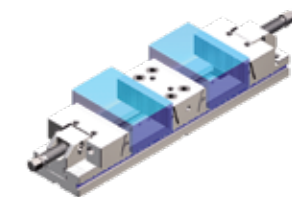
Art. 230B

Dolce
Soft



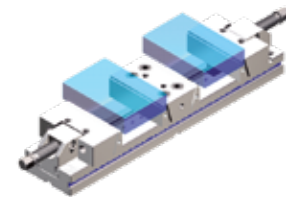
Art. 230C

Liscia
Smooth



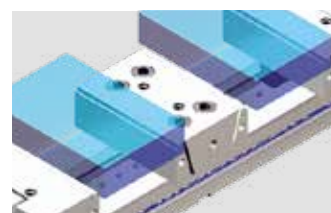
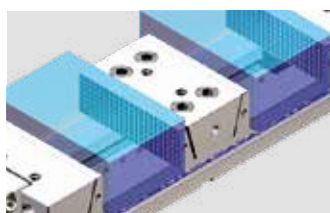
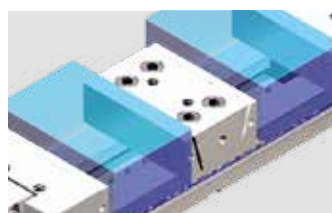
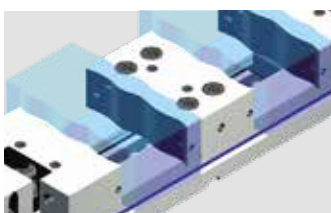
Art. 230D

Zigrinata
Serrated



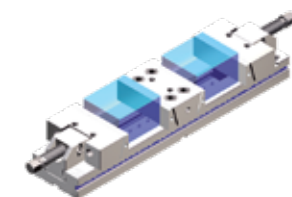
Art. 230E

Con gradino
With step



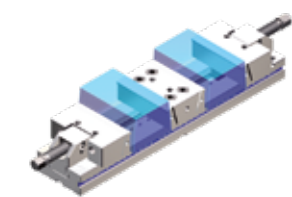
Art. 230F

Prismatica
Prismatic



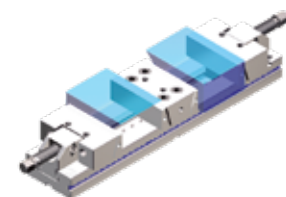
Art. 230G

Con arresto a 90°
With 90° stop



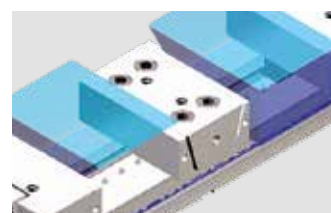
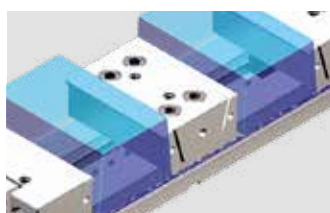
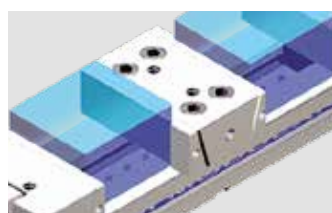
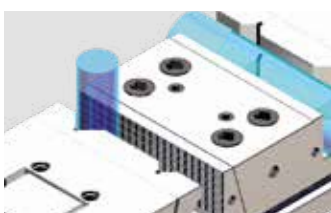
Art. 230H

Bombata
Round



Art. 230M

Angolo di 30° o 45°
30° or 45° angle



PORTAPIASTRE / THE RACK

Completo di piastre ganasce a cambio rapido a gradino Art.230E
Complete of quick change step jaw plates Art.230E

Vedi Pag. 4.19 - See Page.4.19

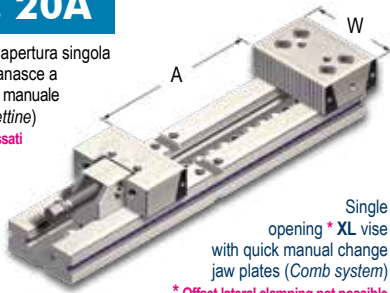
2

Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700
	W	96	121	146			171		
	B	28	38	48			58		
	C	35	40	50			58		
	D	460	520	580	680	666	766	866	966
	G	75	95	125			145		
	kg	6.8	12.9	25.5	29	37	42	47	52
	Cod.	2.20.A1290	2.20.A2320	2.20.A3360	2.20.A3460	2.20.A4400	2.20.A4500	2.20.A4600	2.20.A4700
	€	817	1.099	1.366	1.513	1.594	1.753	1.908	2.070

Art. 20A

Morsa *XL a apertura singola con piastre ganasce a cambio rapido manuale (Sistema a pettine)

* Serraggi disassati lateralmente non possibili

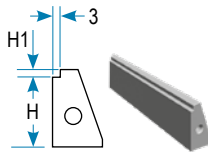


Single opening *XL vise with quick manual change jaw plates (Comb system)

* Offset lateral clamping not possible

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 230E

Piastra ganascia intercambiabile Interchangeable jaw plate

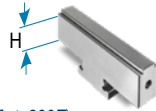


	Cod.	4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
	€	81	89	108	135
	H	23	33	43	53
	H1	5	5	5	5

Art. 212

Ganascia mobile intermedia (da usare con Art. 230E)

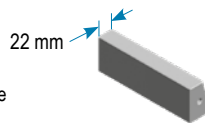
Intermediate movable jaw (to be used with Art. 230E)



	Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
	€	89	108	142	178

Art. 230B

Piastra ganascia intercambiabile dolce Soft interchangeable jaw plate



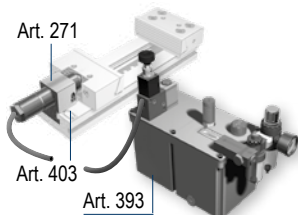
	Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
	€	66	72	86	109

Art. 230F

Piastra ganascia intercambiabile prismatica Prismatic interchangeable jaw plate



	Cod.	4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401
	€	107	116	139	176


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

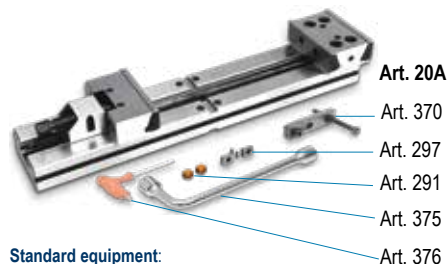
	Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
	€	1.530	1.542	1.549	1.576
	Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
	€	1.489	1.499	1.508	1.535

 Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

Dotazione standard:

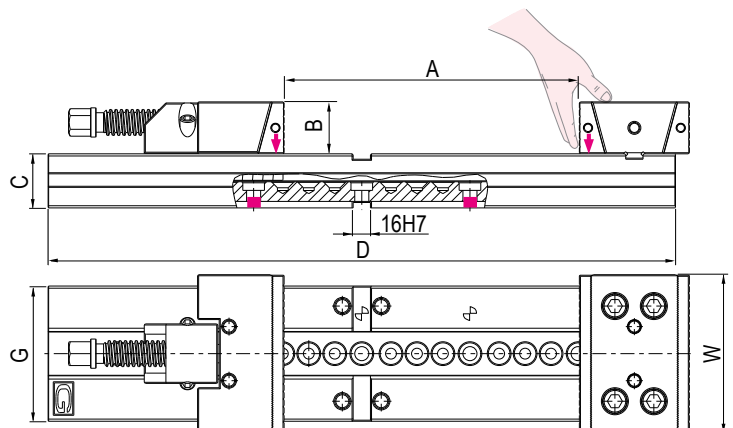
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 2 tappi Art. 291 ■ 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (tolleranza F7): € 88,00


Standard equipment:

- 1 workshop Art. 370
- 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
- 2 inserts Art. 291 ■ 1 box wrench Art. 375 ■ 1 T-wrench Art. 376

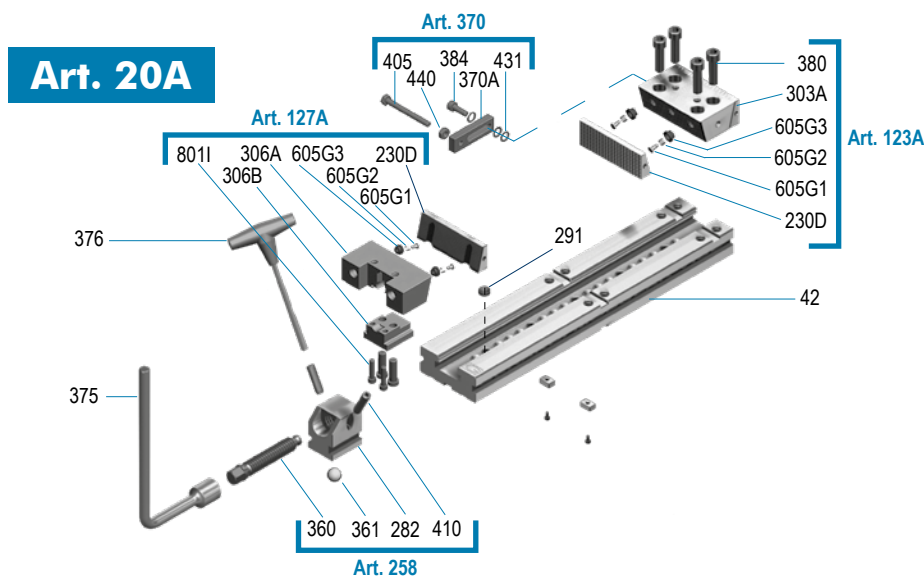
Extra charge for each calibrated hole (F7 tolerance): € 88,00


 Vedi gruppo 4 per gamma completa accessori
 See group 4 for complete range of accessories

5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		196						296			
		63						78			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
64	69	74	79	84	95	105	115	125	135	145	155
2.20.A5500	2.20.A5600	2.20.A5700	2.20.A5800	2.20.A5900	2.20.A6500	2.20.A6600	2.20.A6700	2.20.A6800	2.20.A6900	2.20.A6100	2.20.A6110
2.706	3.020	3.336	3.649	3.963	3.774	4.152	4.530	4.906	5.284	5.661	6.037

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

	4.23.0E501			4.23.0E601
Art. 230E	192			253
H	53			68
H1	10			10
	1.21.25000			1.21.26000
Art. 212	214			297
	4.23.0B501			4.23.0B601
Art. 230B	153			202
	4.23.0F501			4.23.0F601
Art. 230F	248			328
	4.39.15000			4.39.16000
Art. 391	1.729			1.818
	4.39.25000			4.39.26000
Art. 392	1.688			1.777

 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49


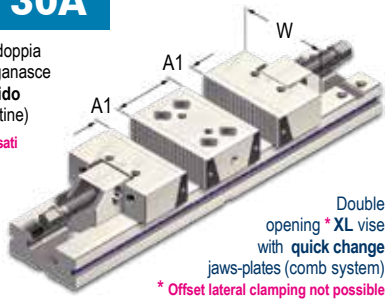
Art.	Pag.	Art.	Pag.
42	2.30	376	4.33
230D	4.19	380	4.26
282	4.34	384	4.26
291	4.33	405	4.33
297	4.33	410	4.34
303A	4.28	431	4.26
306A	4.28	440	4.26
306B	4.28	605G1	4.20
360	4.34	605G2	4.20
361	4.34	605G3	4.20
370A	4.33	801I	5.61
375	4.33	-	-

2

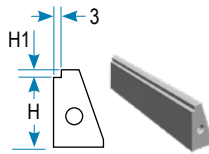
Tipo (grandezza) morsa / Vise type (size)	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	30 kN	30 kN	30 kN	
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270
Art. 30A	W	96	121		146			171	
	B	28	38		48			58	
	C	35	40		50			58	
	D	460	520	580	680	666	766	866	966
	G	75	95		125			145	
	kg	6.8	12.9	25.5	29	37	42	47	52
	Cod.	2.30.A1900	2.30.A2100	2.30.A3110	2.30.A3160	2.30.A4120	2.30.A4170	2.30.A4220	2.30.A4270
	€	1.011	1.344	1.659	1.809	1.935	2.094	2.252	2.412

Morsa *XL a doppia apertura con ganasce a cambio rapido (sistema a pettine)

* Serraggi disassati lateralmente non possibili


Art. 230E

Piastra ganascia intercambiabile
Interchangeable jaw plate



Cod.	4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
€	81	89	108	135
H	23	33	43	53
H1	5	5	5	5

Art. 212

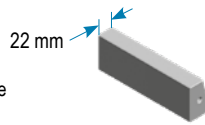
Ganascia mobile intermedia
(da usare con Art. 230E)
Intermediate movable jaw (to be used with Art. 230E)



Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
€	89	108	142	178

Art. 230B

Piastra ganascia intercambiabile dolce
Soft interchangeable jaw plate



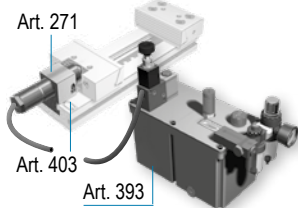
Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
€	66	72	86	109

Art. 230F

Piastra ganascia intercambiabile prismatica
Prismatic interchangeable jaw plate



Cod.	4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401
€	107	116	139	176



Art. 391
CNC / CNC

Art. 392
Pneumatico / Air control

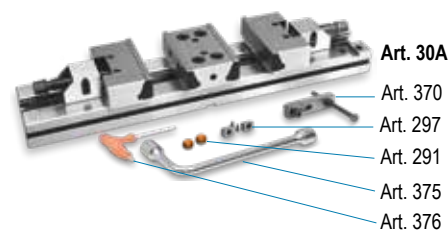
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
€	1.530	1.542	1.549	1.576
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
€	1.489	1.499	1.508	1.535

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei** o **indipendenti**, da 2 a 6 morse. Vedi da pag. 4.38 a 4.49

Dotazione standard:

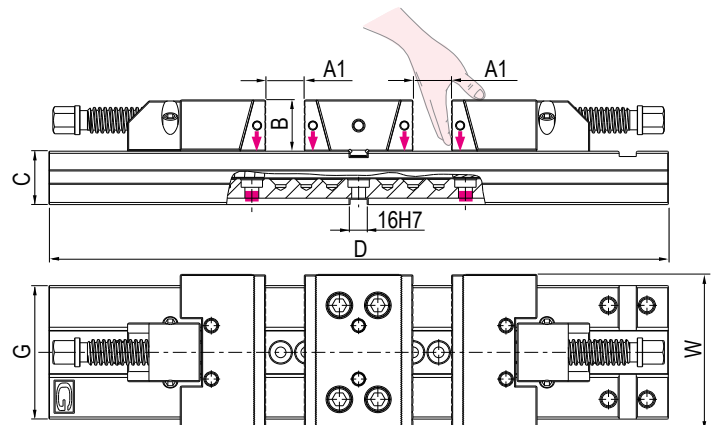
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 2 tappi Art. 291 ■ 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (tolleranza F7): € 88,00


Standard equipment:

- 2 workstops Art. 370
- 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
- 2 inserts Art. 291 ■ 1 box wrench Art. 375 ■ 1 T-wrench Art. 376

Extra charge for each calibrated hole (F7 tolerance): € 88,00

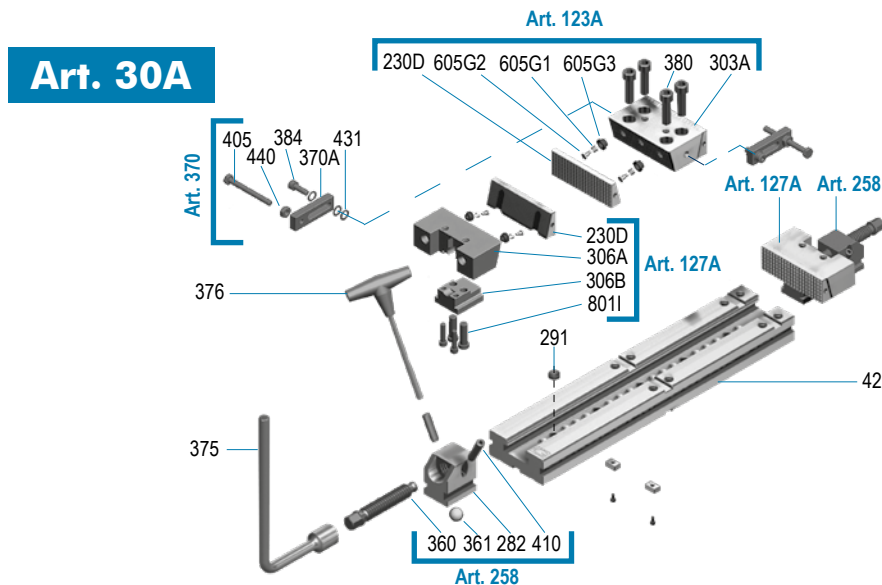


Vedi gruppo 4 per gamma completa accessori
See group 4 for complete range of accessories

5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
		196						296			
		63						78			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
64	69	74	79	84	95	105	115	125	135	145	155
2.30.A5150	2.30.A5200	2.30.A5250	2.30.A5300	2.30.A5350	2.30.A6160	2.30.A6210	2.30.A6260	2.30.A6310	2.30.A6360	2.30.A6410	2.30.A6460
3.147	3.461	3.774	4.087	4.405	4.498	4.875	5.253	5.630	6.007	6.385	6.759

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

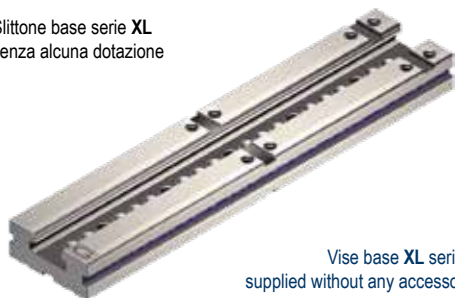
4.23.0E501		4.23.0E601
Art. 230E	192	253
H	53	68
H1	10	10
1.21.25000		1.21.26000
Art. 212	214	297
4.23.0B501		4.23.0B601
Art. 230B	153	202
4.23.0F501		4.23.0F601
Art. 230F	248	328
4.39.15000		4.39.16000
Art. 391	1.729	1.818
4.39.25000		4.39.26000
Art. 392	1.688	1.777

 Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping *simultaneous* or *independent*, from 2 to 6 vises. See from page 4.38 to 4.49


Art.	Pag.
42	2.30
230D	4.17
282	4.34
291	4.33
297	4.33
303A	4.28
306A	4.28
306B	4.28
360	4.34
361	4.34
370A	4.33
375	4.33

Art.	Pag.
376	4.33
380	4.26
384	4.26
405	4.33
410	4.34
431	4.26
440	4.26
605G1	4.20
605G2	4.20
605G3	4.20
801I	5.61
-	-

Tipo (grandezza) morsa / Vise type (size)
1
2
3
4
Art. 42

 Slittone base serie **XL**
 senza alcuna dotazione

 Vise base **XL** series
 supplied without any accessory

D	450	520	580	680	666	766	866	966
kg	6.6	10.7	20.7	24.7	30.2	34.8	39.3	43.8
Cod.	1.80.11460	1.80.21520	1.80.31580	1.80.31680	1.80.41666	1.80.41766	1.80.41866	1.80.41966
€	382	527	671	795	783	916	1.048	1.181

 Versione normale: Cave da 16 mm (H7)
 Versione opzionale: Fori rettificati e calibrati con tolleranza F7
 Extra per ogni foro calibrato (Tolleranza F7): € 88,00

Art. 42Z

 Slittone base serie **Zero Point**
 senza alcuna dotazione

 Vise base **Zero Point** series
 supplied without any accessory

D	450	520	580	680	666	766	866	966
kg	6.4	10.5	20.5	24.5	29.9	34.5	39	43.5
Cod.	2.42.Z1460	2.42.Z2520	2.42.Z3580	2.42.Z3680	2.42.Z4666	2.42.Z4766	2.42.Z4866	2.42.Z4966
€	500	645	788	912	901	1.034	1.166	1.417

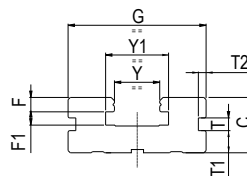
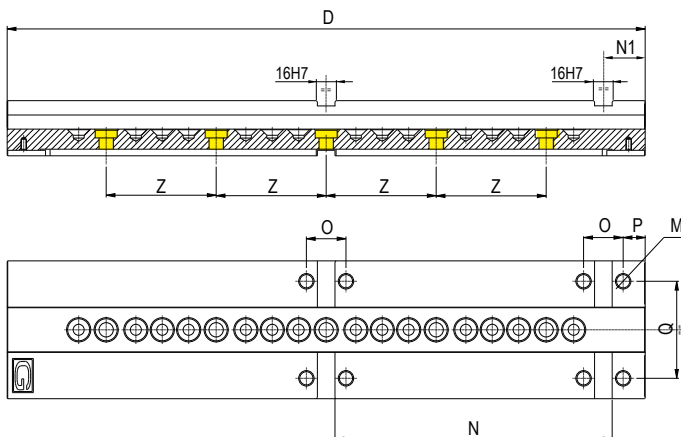
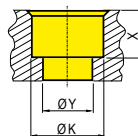
 Versione normale: Cave da 16 mm (H7)
 Versione opzionale: Fori rettificati e calibrati con tolleranza F7
 Extra per ogni foro calibrato (Tolleranza F7): € 88,00

Tolleranza / Tolerance

- 0,02

C	35	40	50	680	38				
D	450	520	580	680	666	766	866	966	
F	10	12	13				15		
F1	10	10	12				18		
G	75	95	125				145		
Y	21	28	41				51		
Y1	31	41	57				70		
M	M10	M12	M14				M16		
N	195	225	252	302	293	343	393	443	
N1	35	35	38				40		
O	32	32	36				36		
P	19	19	20				22		
Q	50	62	88				100		
T	9,5	9,5	11,5				11,5		
T1	15	15	20				20		
T2	5	5	7				7		
Z	100	100	100				100		

Art. 42

 Slittone base serie **XL** / Vise base **XL** series

Dettaglio foro per vite TCEI / TCEI screw hole details


Type	1	2	3	4	5	6
X	4,5	5,5	8	8	17	17
ØY	6,5	8,5	13	13	17	17
ØK	10,5	13,5	19	19	26	26

5					6						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
64	69	74	79	84	95	105	115	125	135	145	155
1.80.51805	1.80.51905	1.80.51005	1.80.51105	1.80.51205	1.80.61900	1.80.61000	1.80.61100	1.80.61200	1.80.61300	1.80.61400	1.80.61500
1.322	1.630	1.895	2.158	2.422	1.852	2.203	2.511	2.862	3.214	3.522	3.874

Normal version: 16 mm slots (H7)
 Optional version: Ground calibrated holes F7 tolerance
 Extra for each calibrated hole (F7 tolerance): € 88,00

805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
60	65	70	75	80	91	101	111	121	131	141	151
2.42.Z5805	2.42.Z5905	2.42.Z5005	2.42.Z5105	2.42.Z5205	2.42.Z6900	2.42.Z6100	2.42.Z6110	2.42.Z6120	2.42.Z6130	2.42.Z6140	2.42.Z6150
1.440	1.748	2.013	2.276	2.540	1.970	2.320	2.629	2.981	3.332	3.640	3.993

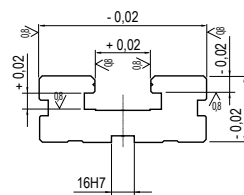
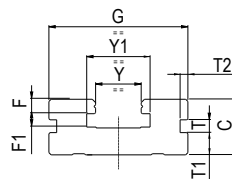
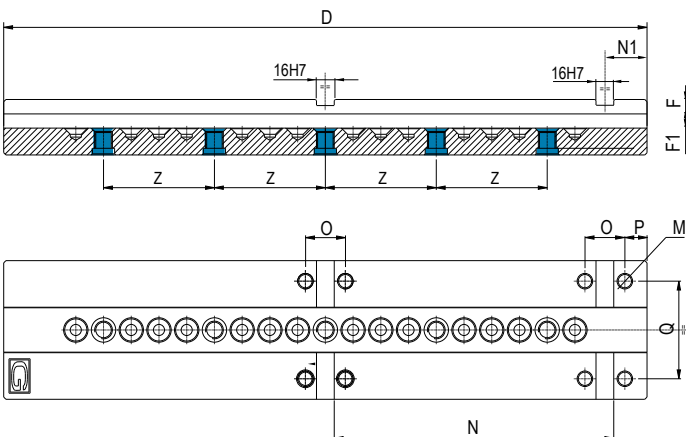
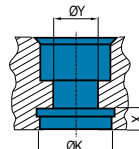
Normal version: 16 mm slots (H7)
 Optional version: Ground calibrated holes F7 tolerance
 Extra for each calibrated hole (F7 tolerance): € 88,00

		70								78		
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
		20								20		
		18								18		
		170								195		
		61								71		
		80								90		
		M20								M20		
357,5	407,5	457,5	507,5	557,5	405	455	505	555	605	655	707	
		45								45		
		44								44		
		23								23		
		120								133		
		17,5								17,5		
		26								26		
		10								10		
		100								100		

Art. 42Z

Slittone base serie Zero Point / Vise base Zero Point series

Tolleranze generiche per morse XL / XL vise generic tolerances


Dettaglio foro per Zero Point / Zero Point hole details


Type	1	2	3	4	5	6
X						6
Y	M16	M16	M16	M16	M16	M16
Ø K						20

DIAGRAMMI SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA

DIAGRAMS MECHANICAL CLAMPING WITH TORQUE WRENCH

2



GRUPPI DI SERRAGGIO MECCANICI

 (**Art. 258** e similari)

I diagrammi seguenti consentono di determinare le forze di serraggio ottenibili con le morse di varia grandezza (da 1 a 6), in funzione del momento applicato

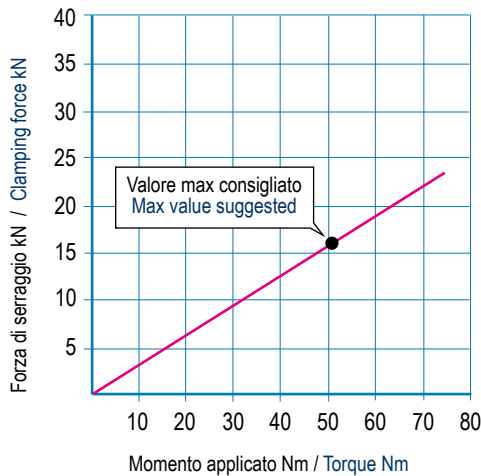
MECHANICAL CLAMPING DEVICES

 (**Art. 258** and similar)

The following diagrams give the clamping force that can be obtained with each vise type (size 1 to 6) depending on the torque

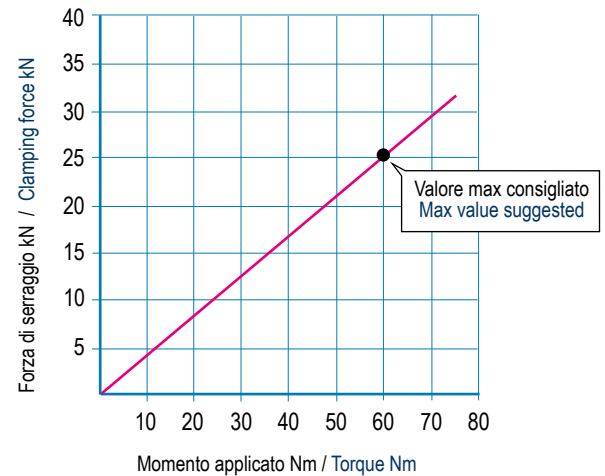
MORSE MODULARI XL TIPO 1

XL MODULAR VISES TYPE 1

 Vite M12 - Passo 1,75mm
 Screw M12 - Pitch 1,75mm


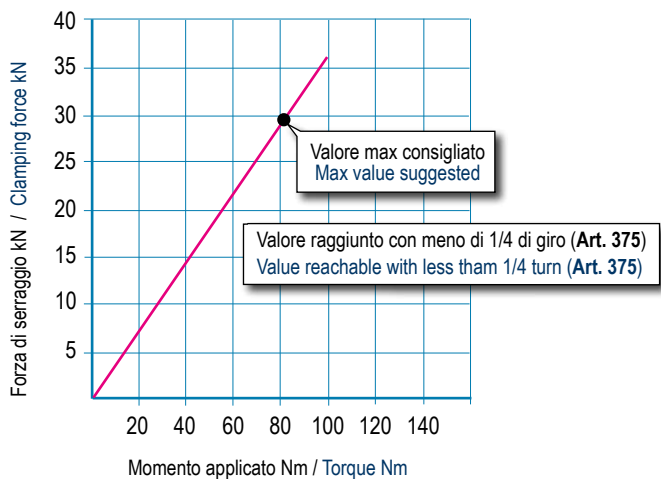
MORSE MODULARI XL TIPO 2

XL MODULAR VISES TYPE 2

 Vite TPN18 - Passo 4mm
 Screw TPN18 - Pitch 4mm


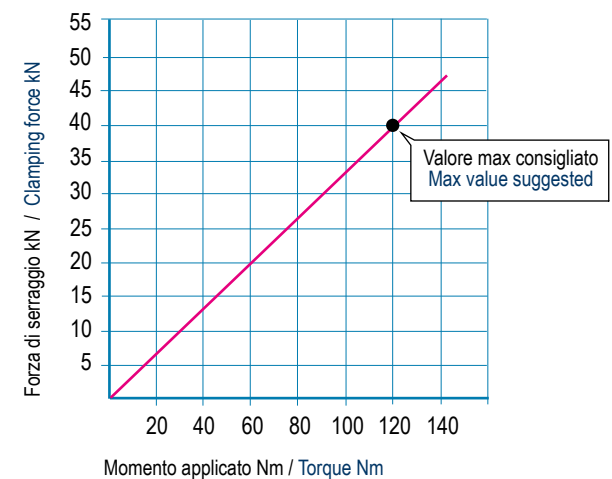
MORSE MODULARI XL TIPO 3-4

XL MODULAR VISES TYPE 3-4

 Vite TPN24 - Passo 5mm
 Screw TPN24 - Pitch 5mm


MORSE MODULARI XL TIPO 5-6

XL MODULAR VISES TYPE 5-6

 Vite TPN30 - Passo 5mm
 Screw TPN30 - Pitch 5mm

 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.