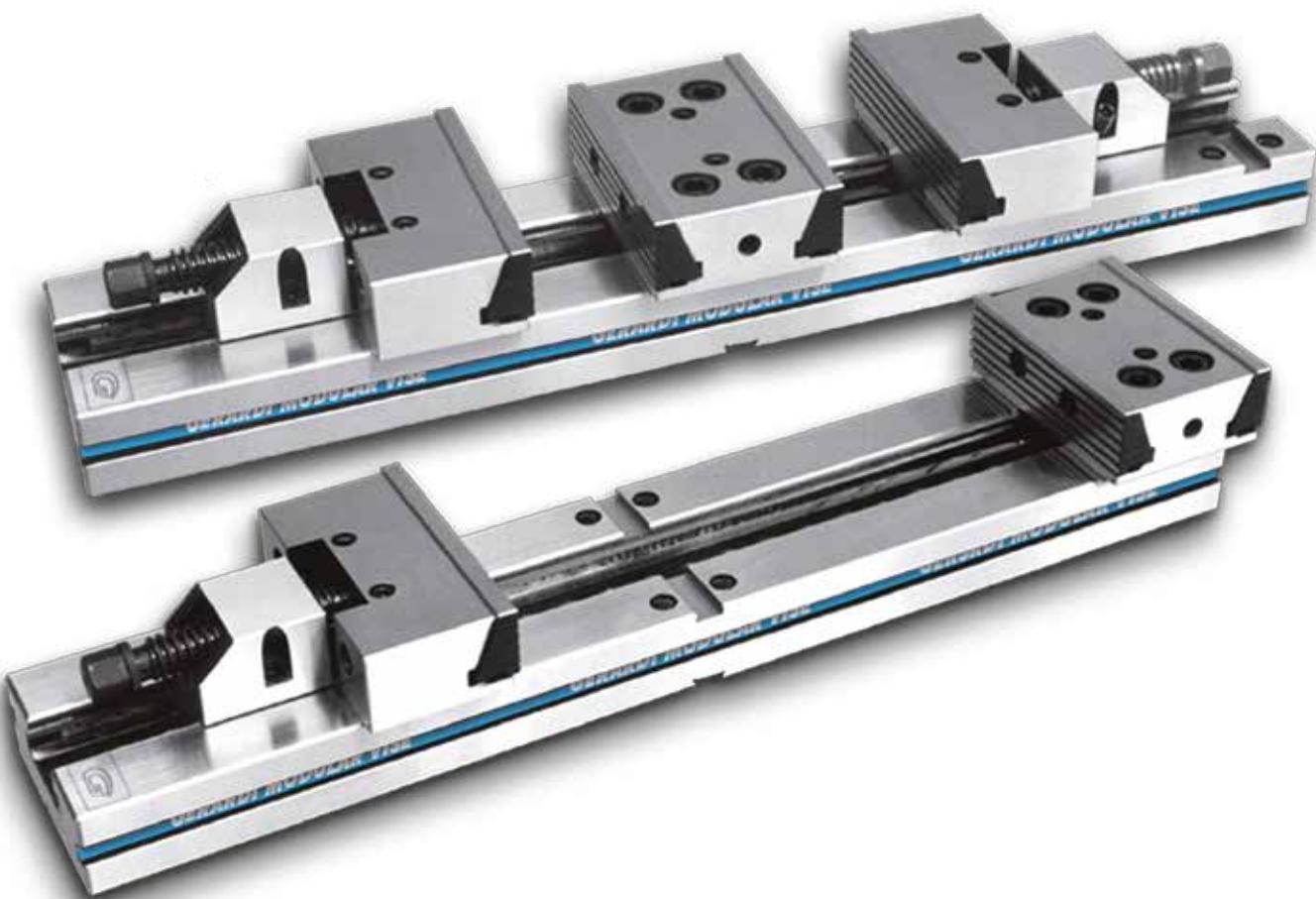


2

STD e StandardFLEX *MORSE Serie XL - XL VISES Series*



MORSE MODULARI DI PRECISIONE
PRECISION MODULAR VISSES

MORSE serie XL

XL series VISES

Pagg. 2.2 - 2.30

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.

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.

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.

Naturalmente anche per le morse **XL** sono disponibili

4 ulteriori sistemi di serraggio intercambiabili e indipendenti oltre a quello manuale meccanico illustrato nella foto:

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.

Of course even for **XL** vises besides the manual mechanic system,

4 further interchangeable and independent clamping systems are available:

- 1- Idraulici
- 2- Pneumatici
- 3- Idraulici manuali
- 4- Idraulici elettrici.

L'operazione è in termini di secondi.

- 1- Hydraulic
- 2- Pneumatic
- 3- Manual hydraulic
- 4- Electrical hydraulic.

The change needs only few seconds.

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 doppia** permette di lavorare su pezzi di dimensioni insolite e di piastre (con le appropriate ganasce). La notevole gamma di dimensioni e le lunghezze delle basi garantisce il soddisfacimento di tutte le esigenze di lavorazione.

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 little effort. Double XL vise allows to machine more workpieces using the total length of the machine tool, this means to increase productivity of the workcycle and of the machine.

- ✓ 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.

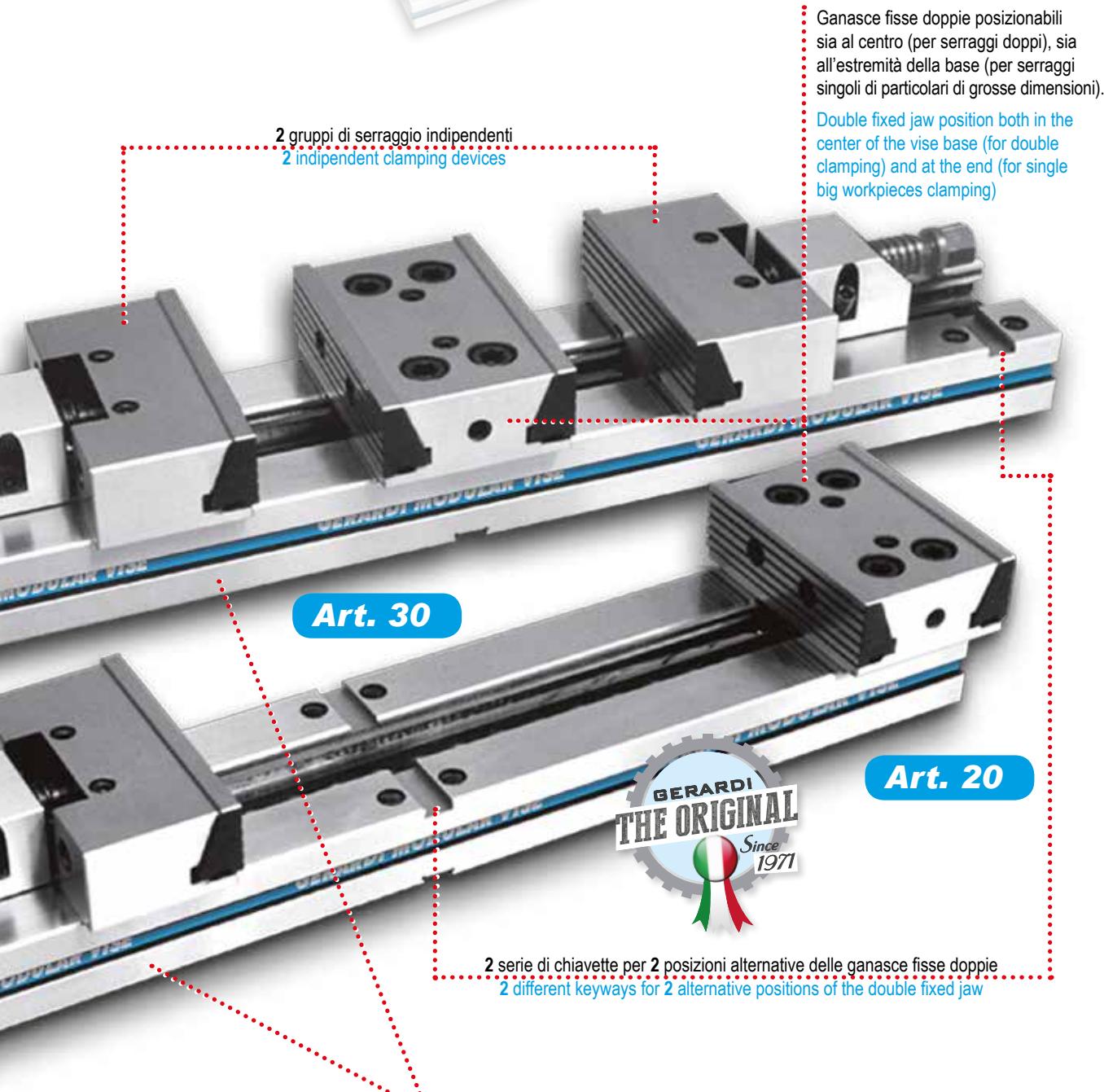
In conclusion all this allows to reduce to a minimum dead times/interruptions and consequently faster payback period of machines and fixtures.

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 possibility to work on a 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 a double vise from 2 standard single bases. On request all vises can be supplied with key-nuts of different sizes or with ground holes.



Le Morse XL derivano il loro nome dalla dimensione della base che è extra large, cioè molto più lunga delle normali Morse STD !

XL vises derive their name from the vise base dimension, which is extra large that is much longer than STD vises !



sione XL singola permette il serrag-
cimento delle più svariate necessità
ento per ottenere una morsa XL

ry large opening.
e itself because:

the satisfaction of the widest
et one XL vise starting

PRECISIONI $\pm 0,02$ mm

Slittone base con tutte le superfici di scorrimento ed accoppiamento rettificate. L'allineamento agli assi della macchina avviene grazie alle **chiavette longitudinali e trasversali** (16H7) o fori di posizionamento ($\varnothing 16$ 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**.

HIGHEST PRECISIONS $\pm 0,02$ mm

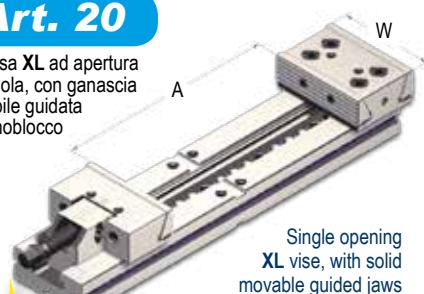
Solid vise base. Every sliding and coupling surface is ground. Centesimal tolerances are guaranteed by checking cycles with CNC measuring machine. The perfect alignment with the machine axis is given by **longitudinal and cross keyways** (16H7) upon specific request by positioning holes ($\varnothing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

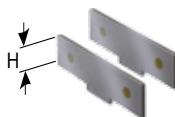

2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 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		

Art. 20

Morsa XL ad apertura singola, con ganascia mobile guidata monoblocco


Single opening
XL vise, with solid
movable guided jaws

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
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
H				

Art. 217

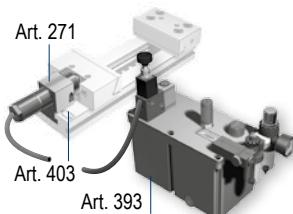
Ganascia mobile prismatica
Prismatic movable jaw

Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
H				

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
H				


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
H				

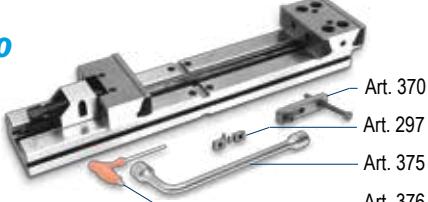
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
H				

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

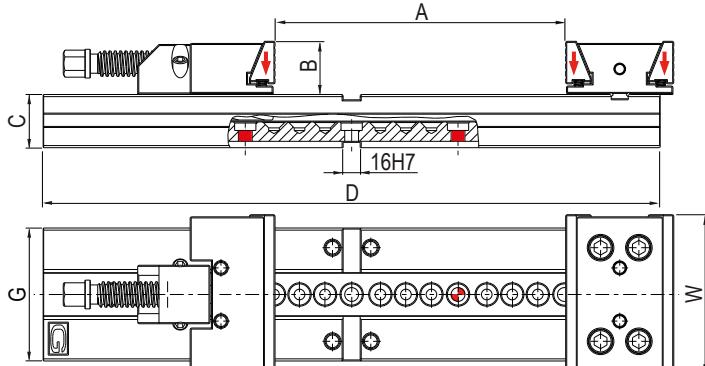
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

Art. 20

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 ground hole (F7 tolerance):

Art. 20

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



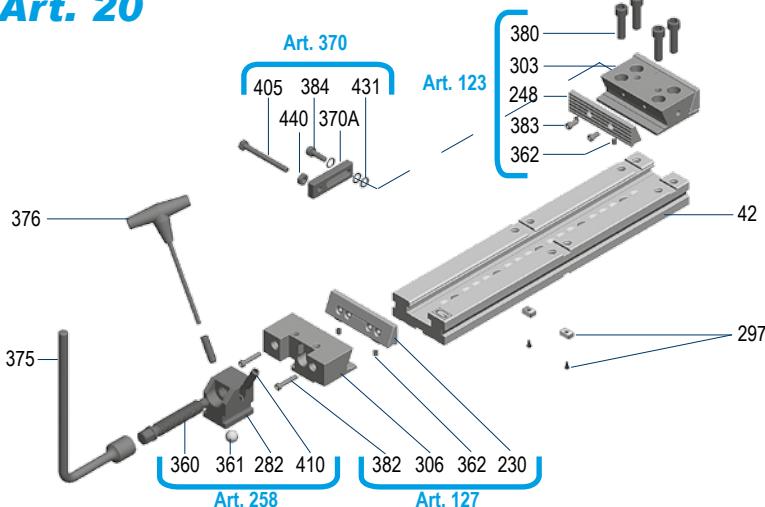
5 40 kN					6 40 kN							
500	600	700	800	900	500	600	700	800	900	1000	1100	
200								300				
65								80				
70								78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
64	69	74	79	84	95	105	115	125	135	145	155	
3.25.20000	3.25.30000	3.25.40000	3.25.50000	3.25.60000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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.35000		4.31.36000
Art. 313		
53		68
1.21.25000		1.21.26000
Art. 212		
2.21.75000		2.21.76000
Art. 217		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

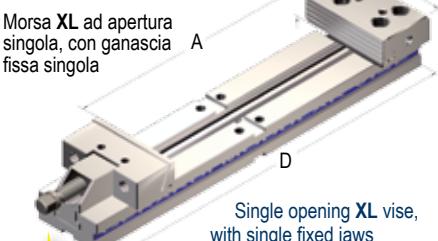
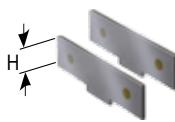
Art. 20



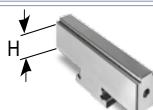
Art.	Pag.	Art.	Pag.
42	2.28	375	4.27
230	4.7	376	4.27
248	4.7	380	4.20
282	4.28	382	4.20
297	4.27	383	4.20
303	4.21	384	4.20
306	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	384	4.20
	-	382	-
	-	306	-
	-	362	-
	-	230	-
	-	297	-


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 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.	2.21.00000	2.21.23200	2.21.33600	2.21.34600	2.21.44000	2.21.45000	2.21.46000	2.21.47000		

Art. 21

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313


Cod.	4.31.31000	4.31.32000	4.31.33000	4.31.34000
H	23	33	43	53

Art. 212


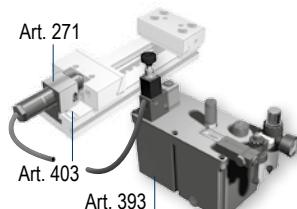
Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
H				

Art. 217


Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
H				

Art. 271


Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000
H				


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
H				

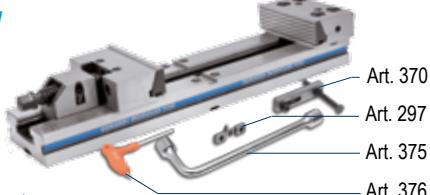
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
H				

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

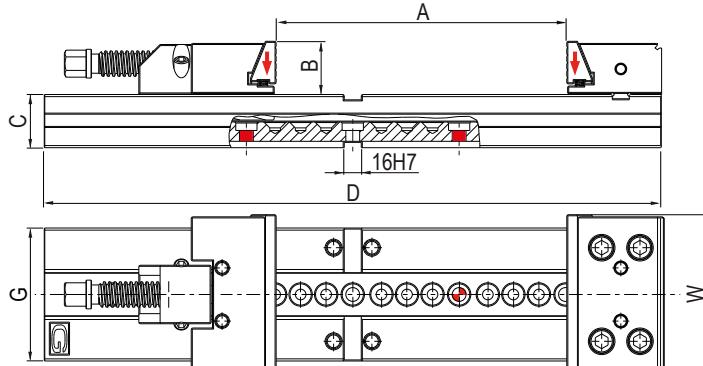
Dotazione standard:

- 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 (toleranza F7):

Art. 21


Extra charge for each ground hole (F7 tolerance):

Art. 21

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



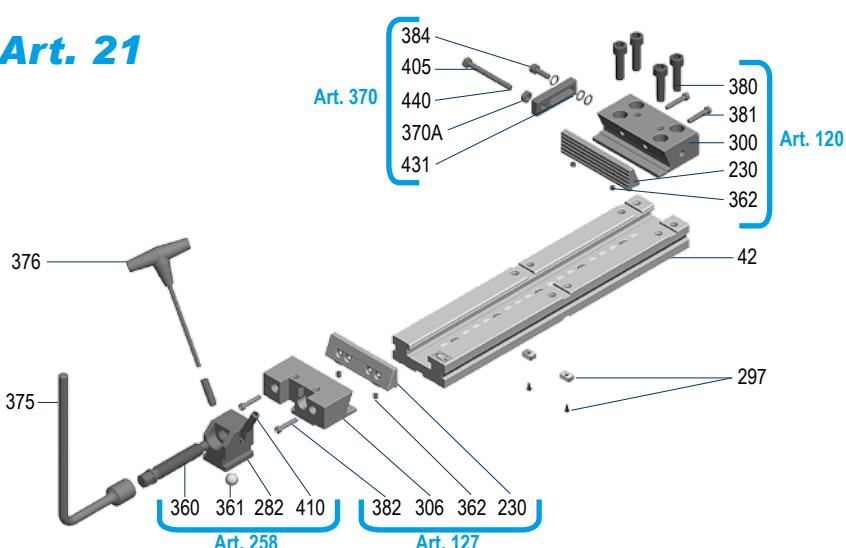
5 40 kN					6 40 kN							
500	600	700	800	900	500	600	700	800	900	1000	1100	
200								300				
65								80				
70								78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
64	69	74	79	84	95	105	115	125	135	145	155	
2.21.55000	2.21.56000	2.21.57000	2.21.58000	2.21.59000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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

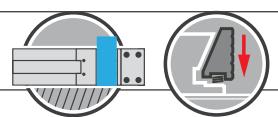
4.31.35000		4.31.36000
Art. 313		
53		68
1.21.25000		1.21.26000
Art. 212		
2.21.75000		2.21.76000
Art. 217		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 21



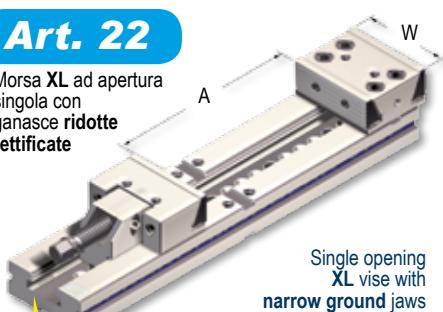
Art.	Pag.	Art.	Pag.
42	2.24	375	4.25
230	4.7	376	4.25
248	4.5	380	4.20
282	4.26	382	4.18
297	4.25	383	4.18
300	4.19	384	4.20
306	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-



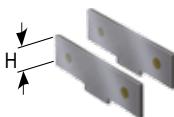
Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 kN	30 kN	30 kN						
Apertura massima / Maximum spread	A	290	320	360	460	400	500	600	700		
	W	75	95		125				145		
	B	30	40		50				60		
	C	35	40		50				58		
	D	460	520	580	680	666	766	866	966		
	G	75	95		125				145		
	kg	9.4	15.8	29.8	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		

Art. 22

Morsa XL ad apertura singola con ganasce ridotte rettificate



Single opening XL vise with narrow ground jaws

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313R

Piastre magnetiche parallele piane
Magnetic parallel plates

Cod. 4.31.3R100 4.31.3R200 4.31.3R300 4.31.3R400

H 23 33 43 53

Art. 213

Ganasca 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

Art. 218

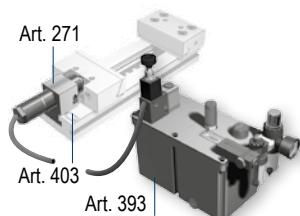
Ganasca mobile prismatica
Prismatic movable jaw

Cod. 2.21.81000 2.21.82000 2.21.83000 2.21.84000

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


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod. 4.39.11000 4.39.12000 4.39.13000 4.39.14000

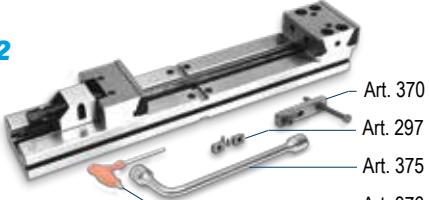
Cod. 4.39.21000 4.39.22000 4.39.23000 4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli contemporanei o indipendenti, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

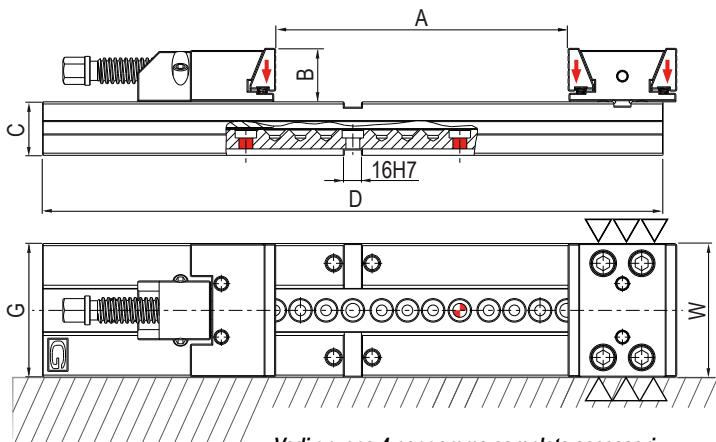
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

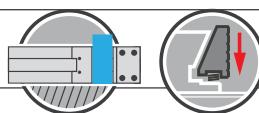
Extra per ogni foro calibrato (toleranza F7):

Art. 22

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 ground hole (F7 tolerance):

Art. 22

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



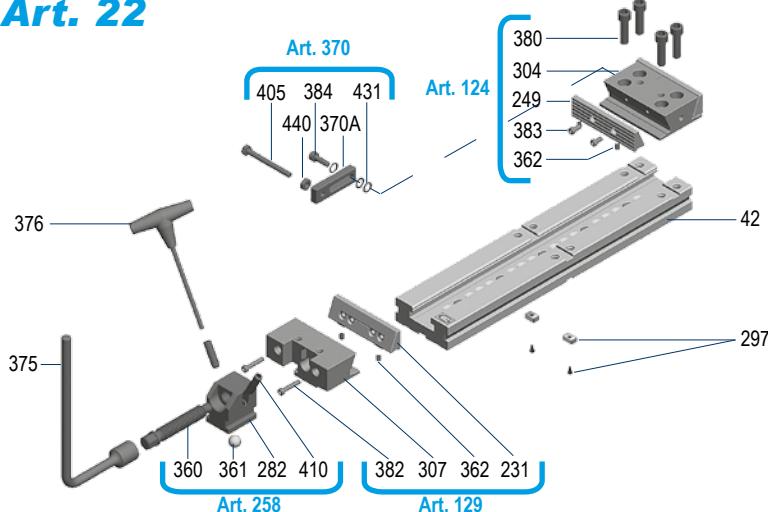
5 40 kN					6 40 kN							
500	600	700	800	900	500	600	700	800	900	1000	1100	
170								195				
65								80				
70								78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179	
3.25.20220	3.25.30220	3.25.40220	3.25.50220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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.3R500		4.31.3R600
Art. 313R		
53		68
1.21.35000		1.21.36000
Art. 213		
2.21.85000		2.21.86000
Art. 218		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

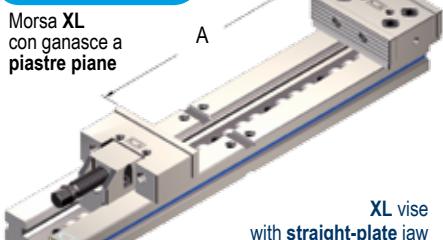
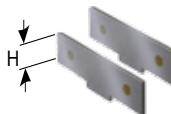
Art. 22



Art.	Pag.	Art.	Pag.
42	2.28	375	4.27
231	4.7	376	4.27
249	4.7	380	4.20
282	4.28	382	4.20
297	4.27	383	4.20
304	4.21	384	4.20
307	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-

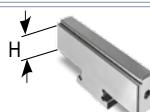

2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 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		

Art. 24

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313

Piastra magnetica parallela piana
Magnetic parallel plates

Cod. 4.31.31000 4.31.32000 4.31.33000 4.31.34000

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

Art. 246

Piastra piana in acciaio lavorabile
Machinable steel straight jaw plate

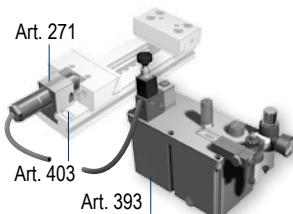
Cod. 1.24.61000 1.24.62000 1.24.63000 1.24.64000

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


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod. 4.39.11000 4.39.12000 4.39.13000 4.39.14000

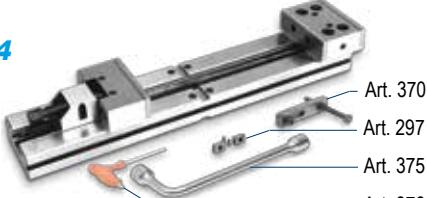
Cod. 4.39.21000 4.39.22000 4.39.23000 4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

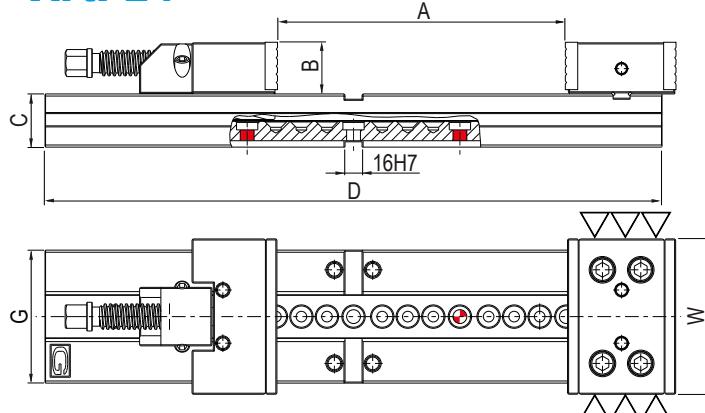
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

Art. 24

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 ground hole (F7 tolerance):

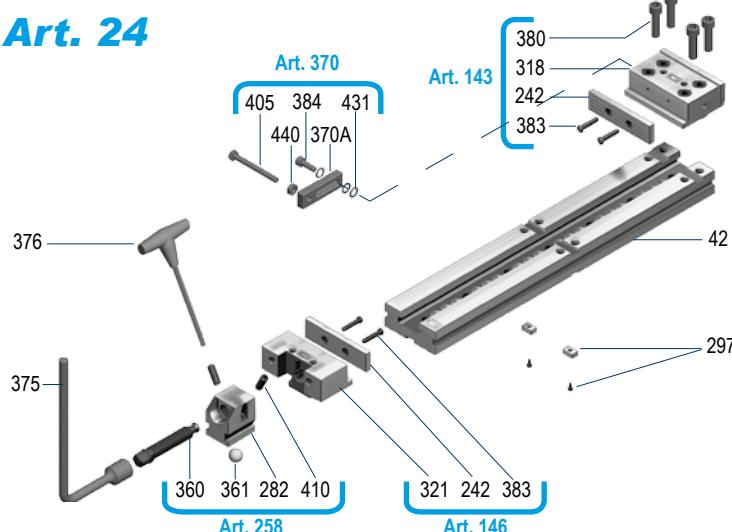
Art. 24

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	

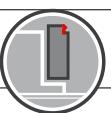
UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.35000		4.31.36000
Art. 313		
53		68
1.21.25000		1.21.26000
Art. 212		
1.24.65000		1.24.66000
Art. 246		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

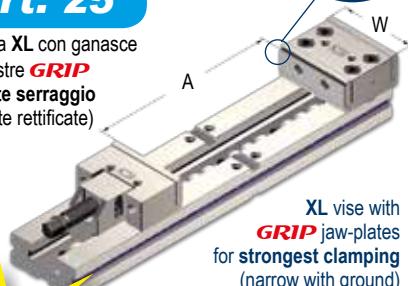
Art. 24

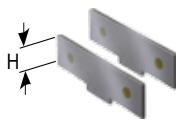
Art.	Pag.	Art.	Pag.
42	2.28	380	4.20
242	4.9	383	4.20
282	4.28	384	4.20
297	4.27	405	4.27
318	4.22	410	4.28
321	4.22	431	4.20
360	4.28	440	4.20
361	4.28	-	-
370A	4.27	-	-
375	4.27	-	-
376	4.27	-	-



Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 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		

Art. 25

Morsa XL con ganasce a piastre **GRIP** a forte serraggio (ridotte rettificate)

XL vise with
GRIP jaw-plates
for strongest clamping
(narrow with ground)

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313R

Piastre magnetiche parallele piane
Magnetic parallel plates

Cod.	4.31.3R100	4.31.3R200	4.31.3R300	4.11.3R400
H	23	33	43	53

Art. 247

Piastra piana in acciaio lavorabile
Machinable steel straight jaw plate

Cod.	1.24.71000	1.24.72000	1.24.73000	1.24.74000

Art. 218

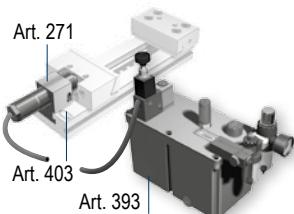
Ganasce mobile prismatica
Prismatic movable jaw

Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000

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


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000

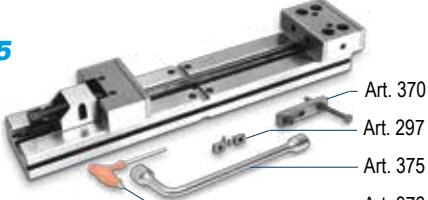
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.28, 4.29, 4.30

Dotazione standard:

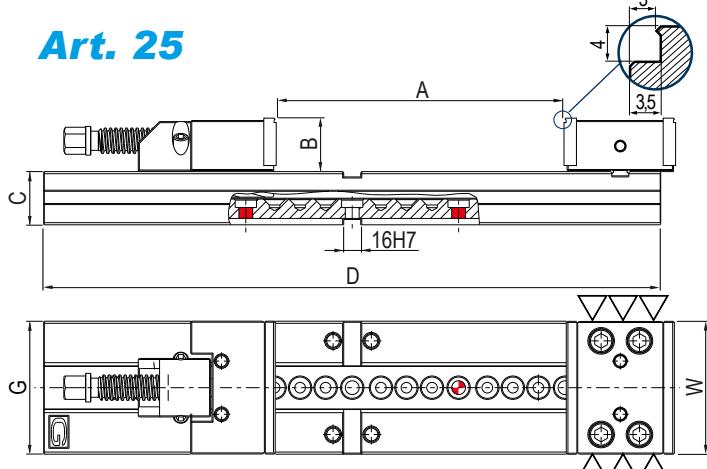
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

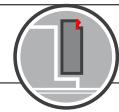
Extra per ogni foro calibrato (toleranza F7):

Art. 25

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 ground hole (F7 tolerance):

Art. 25

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



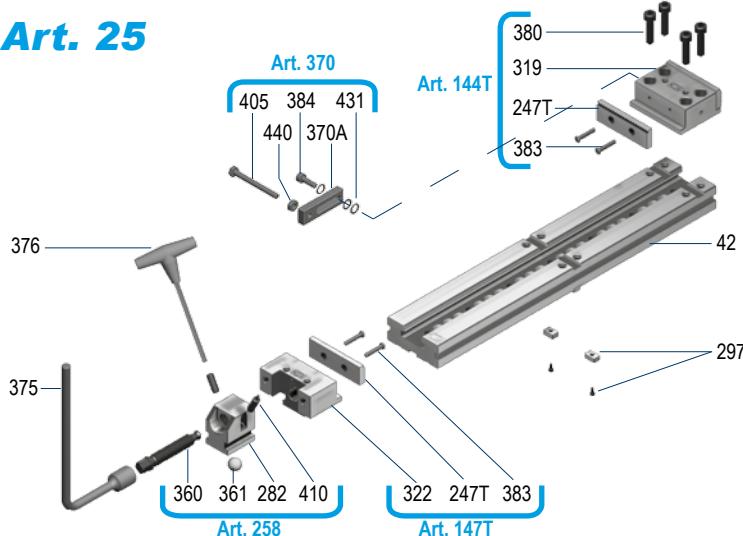
5 40 kN					6 40 kN							
500	600	700	800	900	500	600	700	800	900	1000	1100	
170								195				
	65							80				
	70							78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179	
2.25.55000	2.25.56000	2.25.57000	2.25.58000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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.3R500		4.31.3R600
Art. 313R		
53		68
1.24.75000		1.24.76000
Art. 247		
2.21.85000		2.21.86000
Art. 218		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.28, 4.29, 4.30

Art. 25



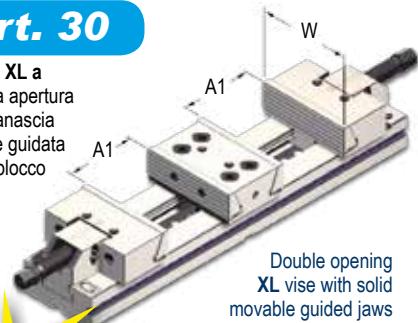
Art.	Pag.	Art.	Pag.
42	2.28	380	4.20
247T	4.9	383	4.20
282	4.8	384	4.20
297	4.27	405	4.27
319	4.22	410	4.28
322	4.22	431	4.20
360	4.28	440	4.20
361	4.28	-	-
370A	4.27	-	-
375	4.27	-	-
376	4.27	-	-



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3		4		
		16 kN	25 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
	W	100	125		150		175	
	B	30	40		50		60	
	C	35	40		50		58	
	D	460	520	580	680	666	766	866
	G	75	95		125		145	
	kg	14.5	21	39	43	59	64	69
	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

Art. 30

Morsa XL a doppia apertura con ganascia mobile guidata monoblocco



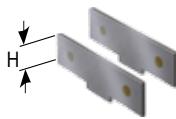
Double opening
XL vise with solid
movable guided jaws



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
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
H				

Art. 217

Ganascia mobile prismatica
Prismatic movable jaw



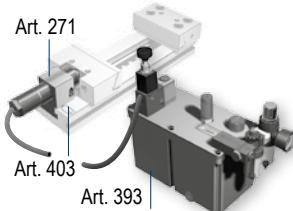
Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
H				

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
H				


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
H				

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

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

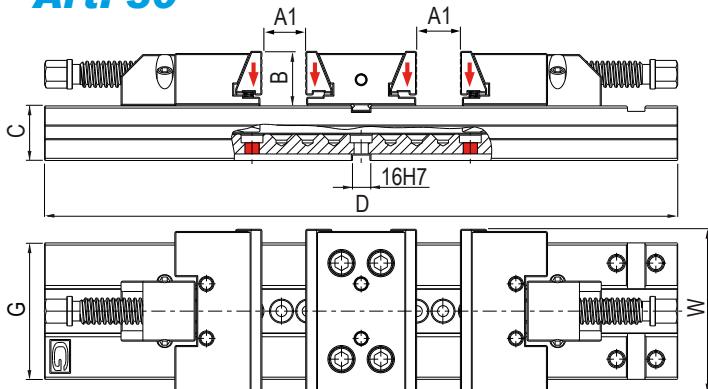
Extra per ogni foro calibrato (toleranza F7):

Art. 30

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 ground hole (F7 tolerance):

Art. 30


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



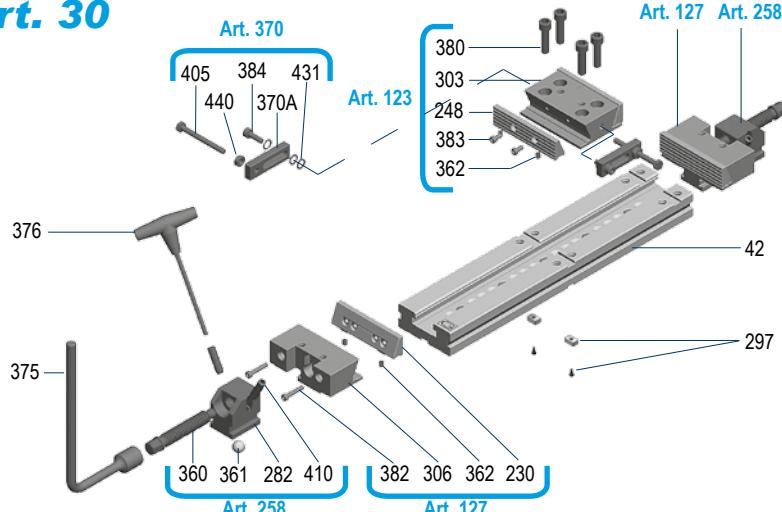
5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
200							300				
65							80				
70							78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170							195				
96	102	108	114	120	155	163	171	179	187	195	213
3.35.20600	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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

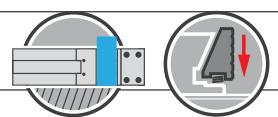
4.31.35000		4.31.36000
Art. 313		
53		68
1.21.25000		1.21.26000
Art. 212		
2.21.75000		2.21.76000
Art. 217		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 30



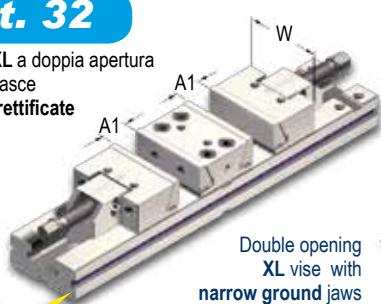
Art.	Pag.	Art.	Pag.
42	2.28	375	4.27
230	4.7	376	4.27
248	4.7	380	4.20
282	4.28	382	4.20
297	4.28	383	4.20
303	4.21	384	4.20
306	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-

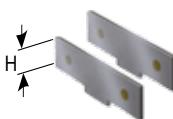


Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3		4		
		16 kN	25 kN	30 kN				
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220
	W	75	95		125			145
	B	30	40		50			60
Morsa XL a doppia apertura con ganasce ridotte rettificate	C	35	40		50			58
	D	460	520	580	680	666	766	866
Double opening XL vise with narrow ground jaws	G	75	95		125			145
	kg	13.5	19.5	36	40	56	61	66
	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

Art. 32

Morsa XL a doppia apertura con ganasce ridotte rettificate


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313R

Piastre magnetiche parallele piane
Magnetic parallel plates


Cod. 4.31.3R100 4.31.3R200 4.31.3R300 4.31.3R400

H 23 33 43 53

Art. 213

Ganasca 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

Art. 218

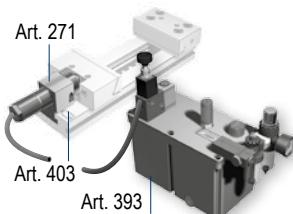
Ganasca mobile prismatica
Prismatic movable jaw


Cod. 2.21.81000 2.21.82000 2.21.83000 2.21.84000

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


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod. 4.39.11000 4.39.12000 4.39.13000 4.39.14000

Cod. 4.39.21000 4.39.22000 4.39.23000 4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli contemporanei o indipendenti, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

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

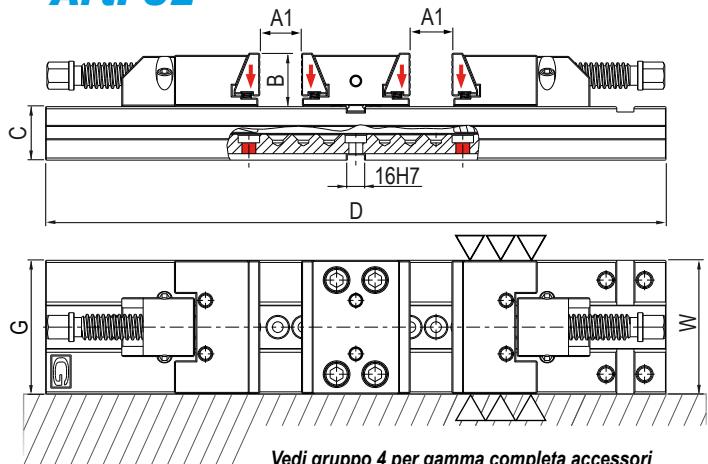
Extra per ogni foro calibrato (toleranza F7):

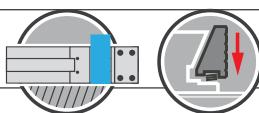
Art. 32

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 ground hole (F7 tolerance):

Art. 32

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



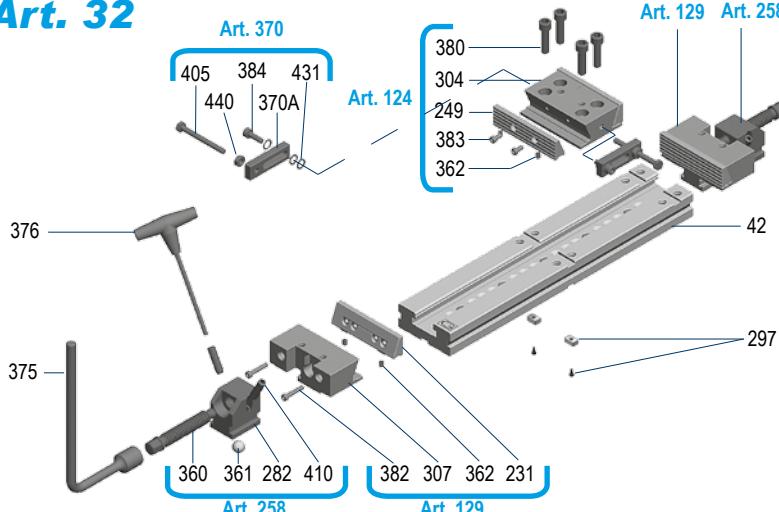
5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
170							195				
	65						80				
	70						78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
	170						195				
93	99	105	108	117	144	152	160	168	176	184	202
3.35.20720	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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.3R500		4.31.3R600
Art. 313R		
53		68
1.21.35000		1.21.36000
Art. 213		
2.21.85000		2.21.86000
Art. 218		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

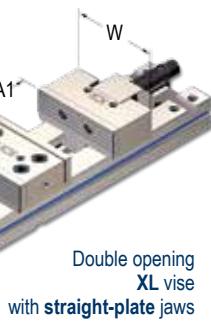
Art. 32

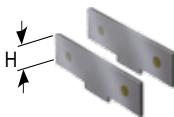


Art.	Pag.	Art.	Pag.
42	2.28	375	4.27
231	4.7	376	4.27
249	4.7	380	4.20
282	4.28	382	4.20
297	4.27	383	4.20
304	4.21	384	4.20
307	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-


2

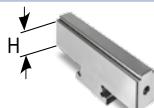
Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3		4		
		16 kN	25 kN	30 kN				
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220
Art. 34								
Morsa XL a doppia apertura con ganasce a piastre piane	A1	W 100	125	150			175	
	A1	B 30	40	50			60	
	A1	C 35	40	50			58	
	A1	D 460	520	580	680	666	766	866
	A1	G 75	95	125			145	
	A1	kg 9.4	15.8	29.8	32.8	44.8	49.8	54.8
	A1	Cod. 2.34.19000	2.34.21000	2.34.31100	2.34.31600	2.34.41200	2.34.41700	2.34.42200
	A1							2.34.42700


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
H	23	33	43	53

Art. 212

Ganasca 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
H				

Art. 246

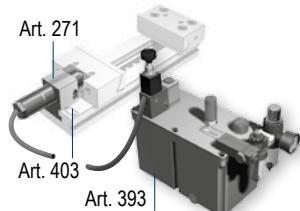
Piastra piana in acciaio lavorabile
Machinable steel straight jaw plate


Cod.	2.24.61000	2.24.62000	2.24.63000	2.24.64000

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


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000

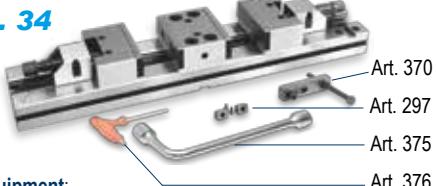
Cod.	4.39.21000	4.39.22000	4.39.23000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

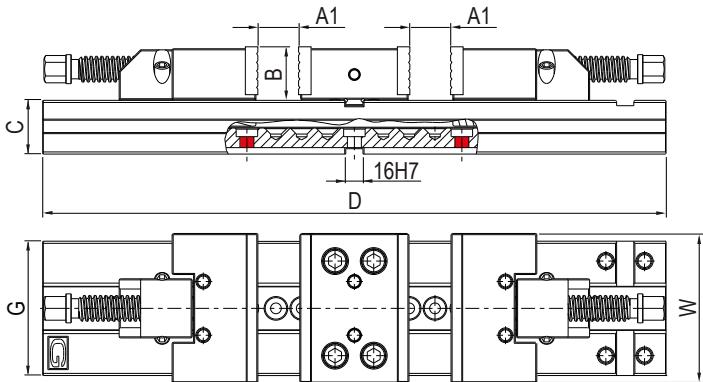
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

Art. 34

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 ground hole (F7 tolerance):

Art. 34

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

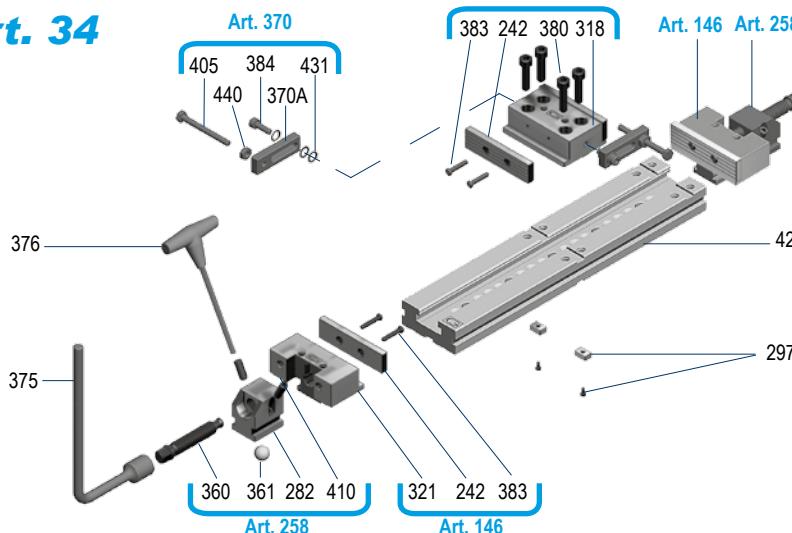
5 40 kN					6 40 kN							
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460	
200								300				
65								80				
70								78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	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	

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.35000		4.31.36000
Art. 313		
53		68
1.21.25000		1.21.26000
Art. 212		
2.24.65000		2.24.66000
Art. 246		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 34



Art. 143

Art. 146 Art. 258

Art. Pag.

Art. Pag.

42 2.28

380 4.20

242 4.9

383 4.20

282 4.28

384 4.20

297 4.27

405 4.27

318 4.27

410 4.28

321 4.22

431 4.20

360 4.28

440 4.20

361 4.28

- -

370A 4.27

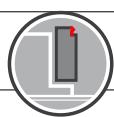
- -

375 4.27

- -

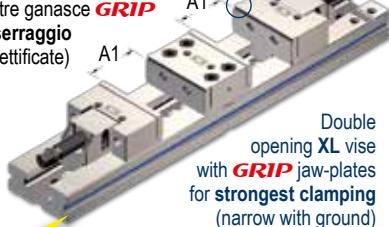
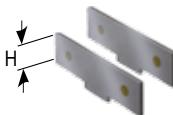
376 4.27

- -



Tipo (grandezza) morsa / Vise (type) size	(kN)	1	2	3		4		
		16 kN	25 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
	W	75	95		125			145
	B	30	40		50			60
	C	35	40		50			58
	D	460	520	580	680	666	766	866
	G	75	95		125			145
	kg	9.4	15.8	29.8	32.8	44.8	49.8	54.8
	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

Art. 35

Morsa XL a doppia apertura con piastre ganasce **GRIP** a forte serraggio (ridotte rettificate)

AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !
Art. 313R


Cod.	4.31.3R100	4.31.3R200	4.31.3R300	4.31.3R400
H	23	33	43	53

Art. 247

Piastra piana in acciaio lavorabile
Machinable steel straight jaw plate

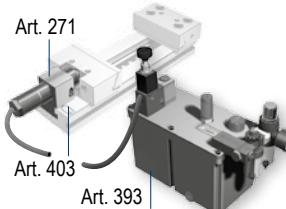

Cod.	1.24.71000	1.24.72000	1.24.73000	1.24.74000

Art. 218


Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000

Art. 271


Cod.	2.27.11000	2.27.12000	2.27.13000	2.27.14000


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000

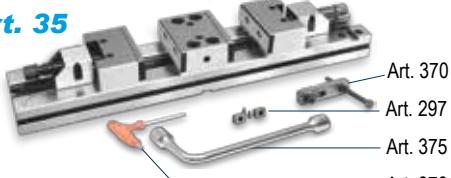
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

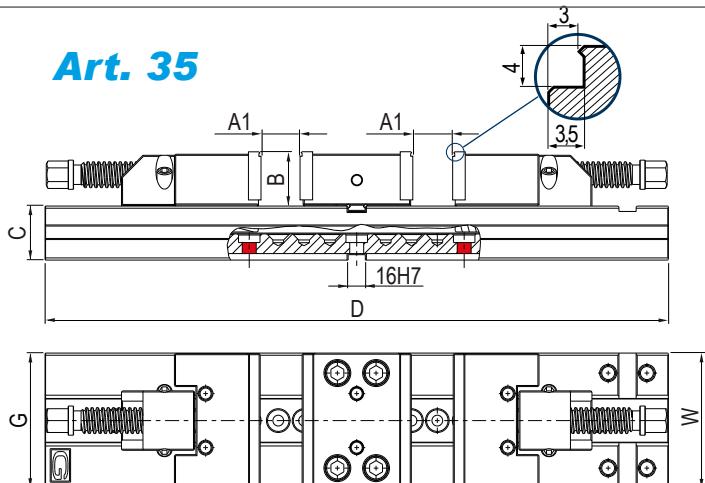
- 2 arresti laterali Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

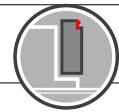
Extra per ogni foro calibrato (toleranza F7):

Art. 35

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 ground hole (F7 tolerance):

Art. 35

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



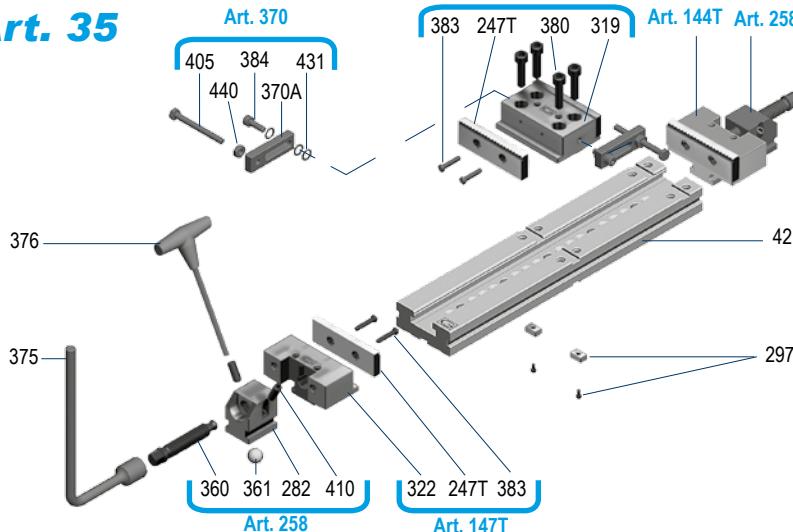
5 40 kN					6 40 kN							
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460	
170					195							
65					80							
70					78							
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170					195							
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	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	

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.31.3R500		4.31.3R600
Art. 313R		
53		68
1.24.75000		1.24.76000
Art. 247		
2.21.85000		2.21.86000
Art. 218		
2.27.15000		2.27.16000
Art. 271		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 35



Art.	Pag.	Art.	Pag.
42	2.28	380	4.20
247T	4.9	383	4.20
282	4.8	384	4.20
297	4.27	405	4.27
319	4.22	410	4.28
322	4.22	431	4.20
360	4.28	440	4.20
361	4.28	-	-
370A	4.27	-	-
375	4.27	-	-
376	4.27	-	-

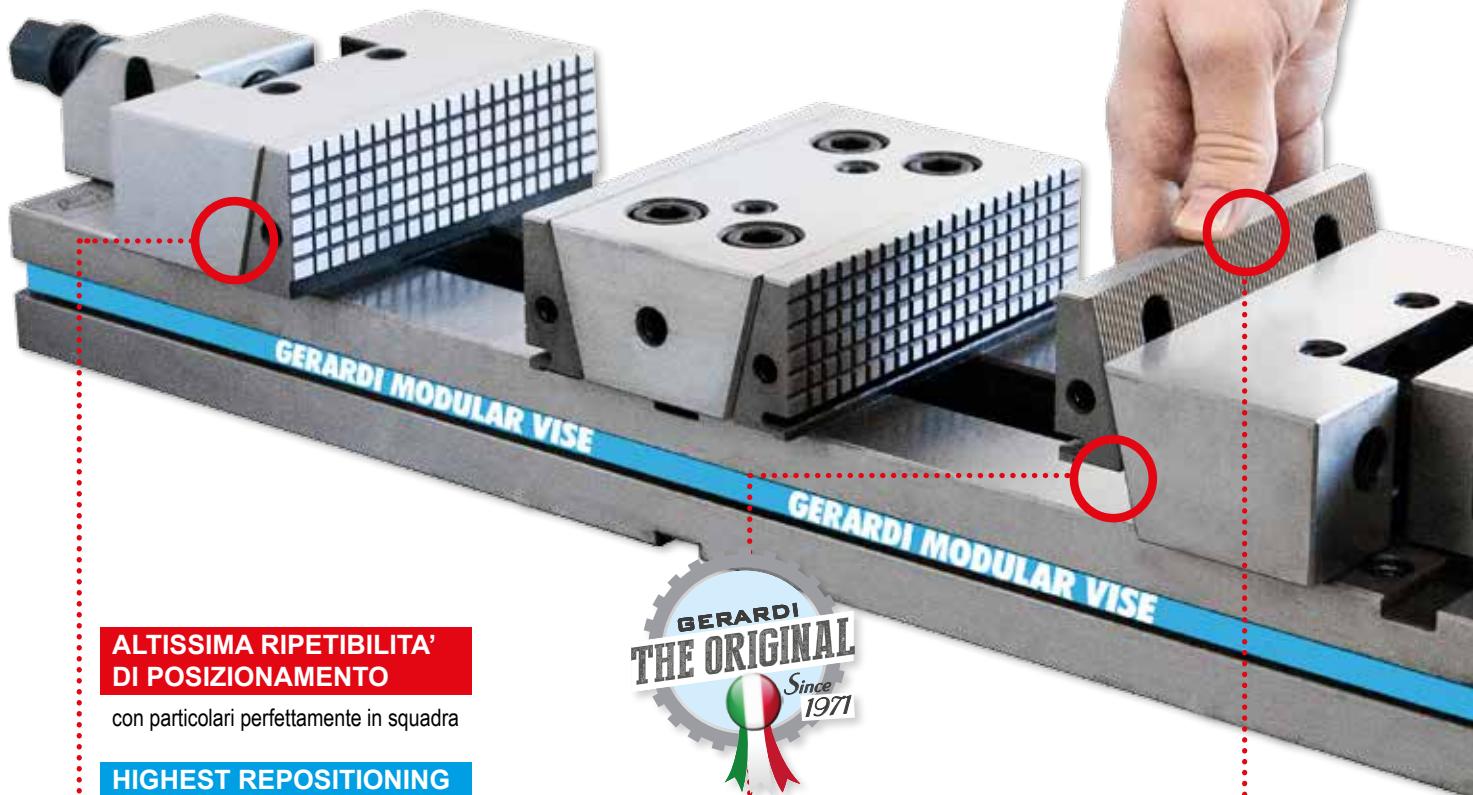
MORSE serie XL XL VISES series

2

Art. 30A

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

**Vise with quick manual
change jaw plates
(Comb system)**



ALTISSIMA RIPETIBILITÀ DI POSIZIONAMENTO

con particolari perfettamente in squadra

HIGHEST REPOSITIONING ACCURACY

with perfect square workpieces

EFFETTO DISCENDENTE AMPLIFICATO E MIGLIORATO E MIGLIORE PROTEZIONE DAI TRUCIOLI

grazie al sistema a pettine

INCREASED AND BETTER PULL DOWN ACTION AND BETTER PROTECTION FROM CHIPS

thanks to the comb system

RICONFIGURAZIONE RAPIDISSIMA

grazie alla piastra ganasca
intercambiabile manualmente

GREAT SAWINGS IN VISE RESETTING TIMES

thanks to the manual interchangeable
quick jaw plate

CARATTERISTICHE E VANTAGGI

- USURA INESISTENTE
- RAPIDITÀ DEI SERRAGGI
- MODULARITÀ & VERSATILITÀ
- PRECISIONI $\pm 0,02$ mm
- RIGIDITÀ & SICUREZZA
- DESIGN COMPATTO E MANEGGEVOLEZZA

Si rimanda a quanto esposto a pag. 1.2 e 1.3 (morse serie STANDARD)

TECHNICAL FEATURES AND ADVANTAGES

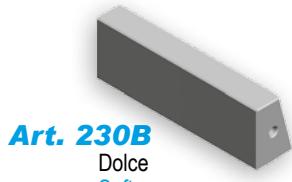
- NO WEAR
- QUICK CLAMPING
- MODULARITY & VERSATILITY
- HIGHEST ACCURACIES $\pm 0,02$ mm
- RIGIDITY & SAFETY
- SPACE SAVING DESIGN & HANDY

See pag. 1.2 and 1.3 (STANDARD series vises)

**La morsa più evoluta
dotata del geniale sistema a pettine per la rapida sostituzione
delle piastre ganasce discendenti !**

**The most recent vise !
Innovative comb system for quick pull-down jaw plate changes !**

**PIASTRE GANASCE DISCENDENTI INTERCAMBIABILI MANUALMENTE
PULL DOWN JAW PLATES INTERCHANGEABLE BY HAND**



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



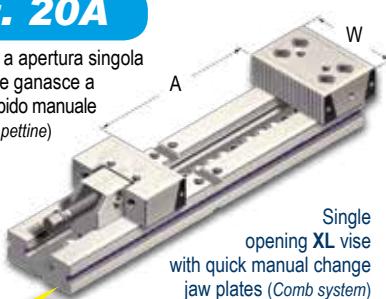
Art. 230M
Angolo di 30° o 45°
30° or 45° angle



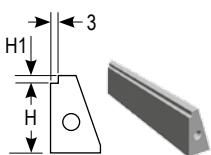
“VALIGETTA-CONVENIENZA”
disponibile su richiesta | Minimo 8 pezzi a scelta
“SAVING-BAG”
choose the jaw plate you need | Minimum 8 pcs



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4
		16 kN	25 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	290	320	360	460
	W	96	121	146	171
Art. 20A	B	28	38	48	58
Morsa XL a apertura singola con piastre ganasce a cambio rapido manuale (Sistema a pettine)	C	35	40	50	58
	D	460	520	580	680
Single opening XL vise with quick manual change jaw plates (Comb system)	G	75	95	125	145
	kg	6.8	12.9	25.5	29
	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



AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 230E

Piastra ganascia intercambiabile
Interchangeable jaw plate

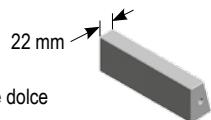
Cod.	4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
H	23	33	43	53
H1	5	5	5	5

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

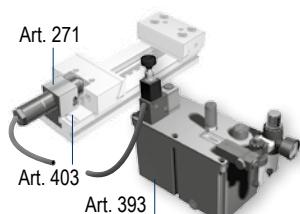
Art. 230B

Piastra ganascia intercambiabile dolce
Soft interchangeable jaw plate

Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401

Art. 230F

Piastra ganascia intercambiabile prismatica
Prismatic interchangeable jaw plate

Cod.	4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401


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 morsi. Vedi pagg. 4.32, 4.33, 4.34

Dotazione standard:

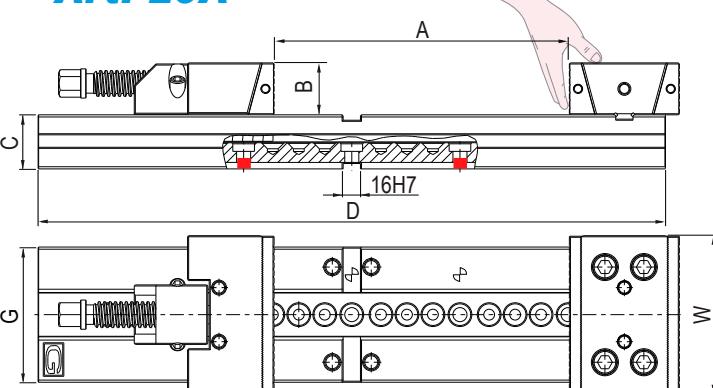
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 2 tappi Art. 291 ■ 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):


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)
- 2 inserts Art. 291 ■ 1 box wrench Art. 375 ■ 1 T-wrench Art. 376

Extra charge for each ground hole (F7 tolerance):

Art. 20A

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



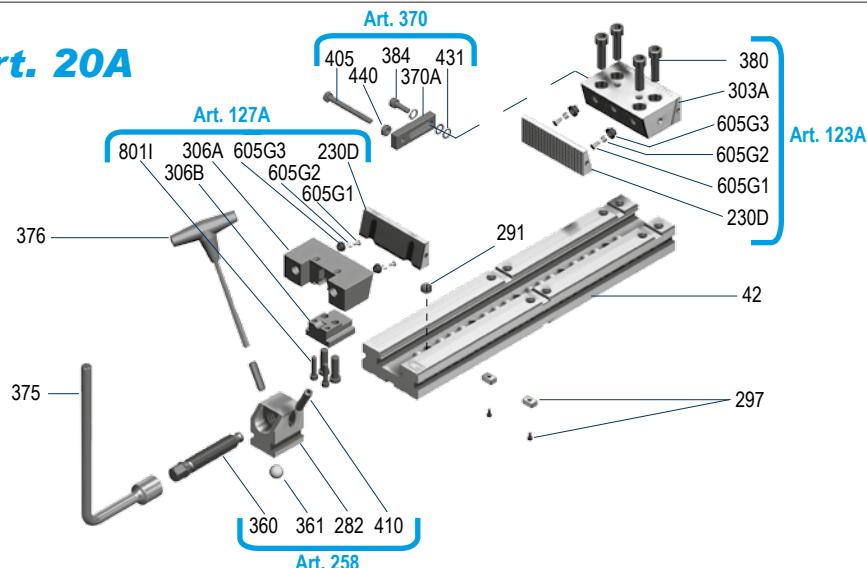
5 40 kN					6 40 kN							
500	600	700	800	900	500	600	700	800	900	1000	1100	
196								296				
63								78				
70								78				
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170								195				
64	69	74	79	84	95	105	115	125	135	145	155	
2.20.A5500	2.20.A5600	2.20.A5700	2.20.A5800	2.20.A5900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

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.23.0E501	A modular vise component with a height H of 53 and a height H1 of 10.	4.23.0E601
Art. 230E		
H	53	68
H1	10	10
1.21.25000	A modular vise component.	1.21.26000
Art. 212		
4.23.0B501	A modular vise component.	4.23.0B601
Art. 230B		
4.23.0F501	A modular vise component.	4.23.0F601
Art. 230F		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 20A



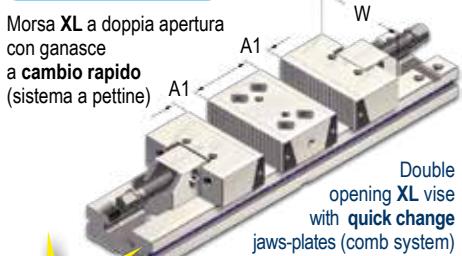
Art.	Pag.	Art.	Pag.
42	2.28	376	4.27
230D	4.13	380	4.20
282	4.28	384	4.20
291	-	405	4.27
297	4.27	410	4.28
303A	4.22	431	4.20
306A	4.22	440	4.20
306B	4.22	605G1	6.31
360	4.28	605G2	6.31
361	4.28	605G3	6.31
370A	4.27	801I	5.54
375	4.27	-	-



2

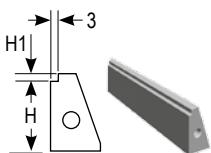
Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4				
		16 kN	25 kN	30 kN	30 kN				
Apertura massima / Maximum spread	A1	2 x 90	2 x 100	2 x 110	2 x 160	2 x 120	2 x 170	2 x 220	2 x 270
	W	96	121		146			171	
	B	28	38		48			58	
	C	35	40		50			58	
	D	460	520	580	680	666	766	866	966
	G	75	95		125			145	
	kg	6.8	12.9	25.5	29	37	42	47	52
	Cod.	2.30.A190	2.30.A2100	2.30.A3110	2.30.A3160	2.30.A4120	2.30.A4170	2.30.A4220	2.30.A4270

Art. 30A



AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 230E



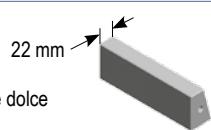
Cod.	4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
H	23	33	43	53
H1	5	5	5	5

Art. 212



Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
H				

Art. 230B



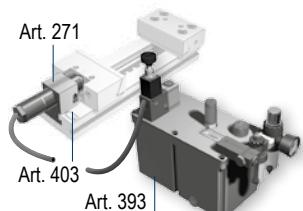
Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
22 mm				

Art. 230F



Cod.	4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401

Piastra ganascia intercambiabile prismatica
Prismatic interchangeable jaw plate



Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000

Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

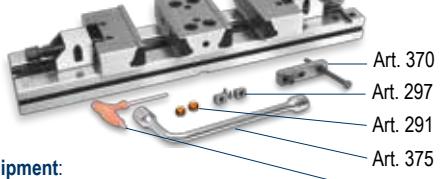
Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli **contemporanei o indipendenti**, da 2 a 6 morse. Vedi pagg. 4.32, 4.33, 4.34

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 (toleranza F7):

Art. 30A

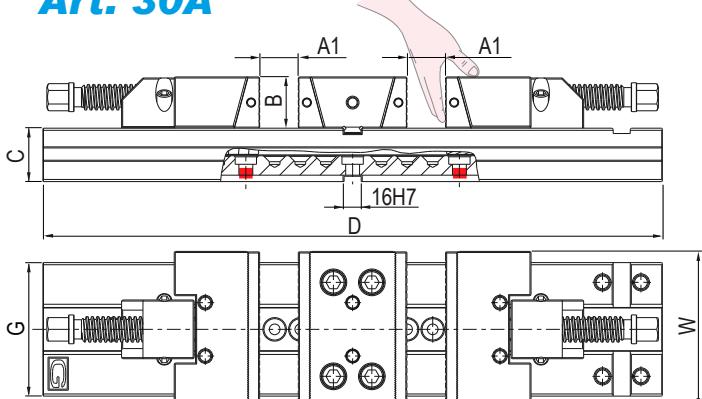


Standard equipment:

- 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 ground hole (F7 tolerance):

Art. 30A



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



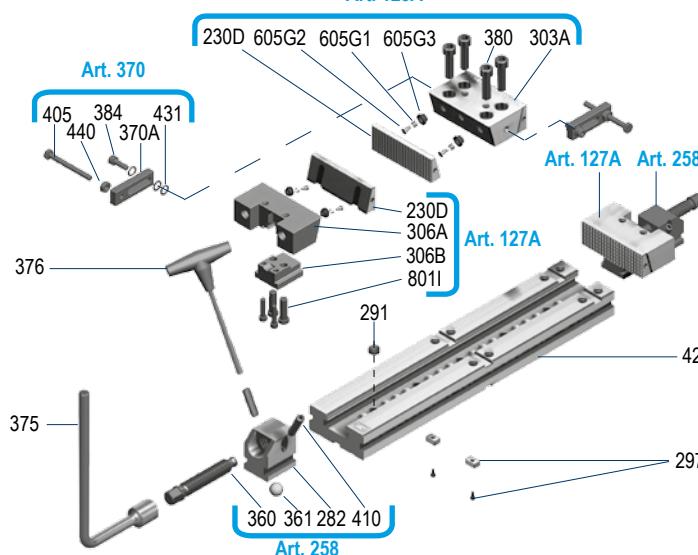
5 40 kN					6 40 kN							
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460	
196					296							
63					78							
70					78							
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
170					195							
64	69	74	79	84	95	105	115	125	135	145	155	
2.30.A5150	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	

UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

4.23.0E501	A modular vise component with a height of 53mm and a width of 10mm.	4.23.0E601
Art. 230E		
H	53	68
H1	10	10
1.21.25000	A modular vise component with a height of 53mm and a width of 10mm.	1.21.26000
Art. 212		
4.23.0B501	A modular vise component with a height of 53mm and a width of 10mm.	4.23.0B601
Art. 230B		
4.23.0F501	A modular vise component with a height of 53mm and a width of 10mm.	4.23.0F601
Art. 230F		
4.39.15000		4.39.16000
Art. 391		
4.39.25000		4.39.26000
Art. 392		

Pneumo-hydraulic servo units (complete of hydraulic cylinder + support) for multiple clamping **simultaneous** or **independent**, from 2 to 6 vises. See pagg. 4.32, 4.33, 4.34

Art. 30A



Art.	Pag.	Art.	Pag.
42	2.28	376	4.27
230D	4.13	380	4.20
282	4.28	384	4.20
291	-	405	4.27
297	4.27	410	4.28
303A	4.22	431	4.20
306A	4.22	440	4.20
306B	4.22	605G1	6.31
360	4.28	605G2	6.31
361	4.28	605G3	6.31
370A	4.27	801I	5.54
375	4.27	-	-

Tipo (grandezza) morsa / Vise (type) size

1

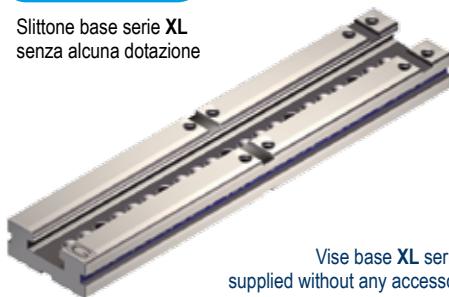
2

3

4

Art. 42

Slittone base serie **XL**
senza alcuna dotazione



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

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

Versione normale: Cave da 16 mm (H7)

Versione opzionale: Fori rettificati e calibrati con tolleranza F7

Extra per ogni foro calibrato (Tolleranza F7):

Art. 42Z

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



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

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

Versione normale: Cave da 16 mm (H7)

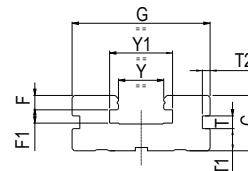
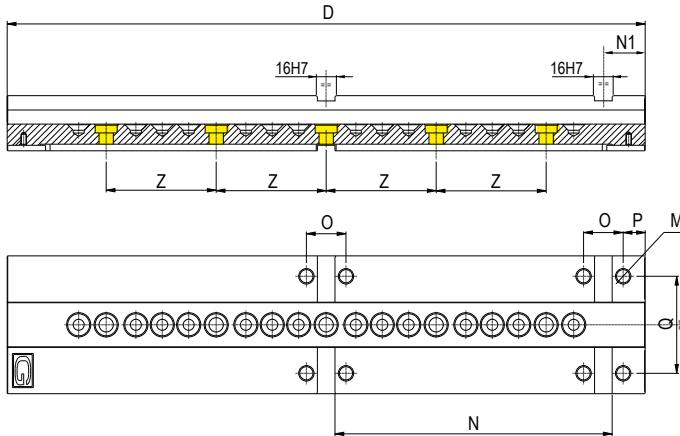
Versione opzionale: Fori rettificati e calibrati con tolleranza F7

Extra per ogni foro calibrato (Tolleranza F7):

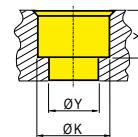
Tolleranza / Tolerance

- 0,02	C	35	40	50			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
Ø Y	6,5	8,5	13	13	17	17
Ø K	10,5	13,5	19	19	26	26

5

6

2

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

Normal version: 16 mm slots (H7)

Optional version: Ground calibrated holes F7 tolerance

Extra for each ground hole (F7 tolerance):

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

Normal version: 16 mm slots (H7)

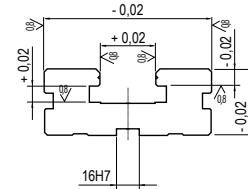
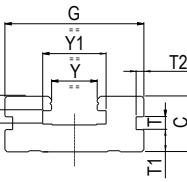
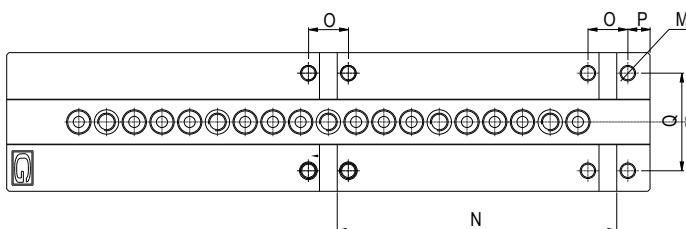
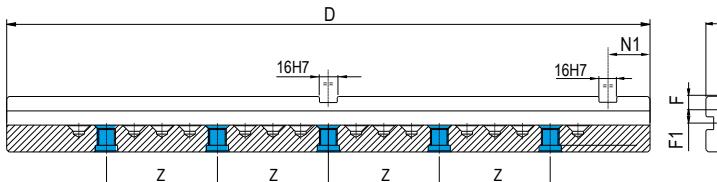
Optional version: Ground calibrated holes F7 tolerance

Extra for each ground hole (F7 tolerance):

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		

SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA

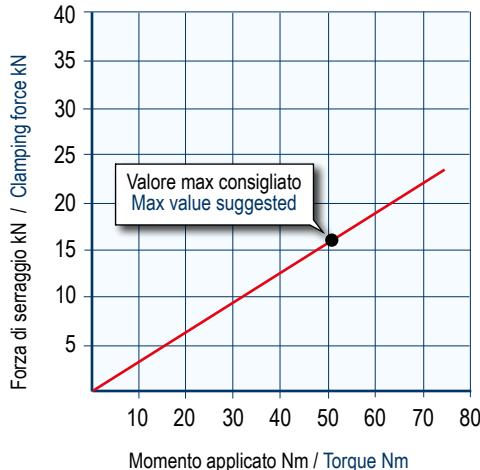
MECHANICAL CLAMPING WITH TORQUE WRENCH

GRUPPI DI SERRAGGIO MECCANICI (**Art. 258 e similari**)

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

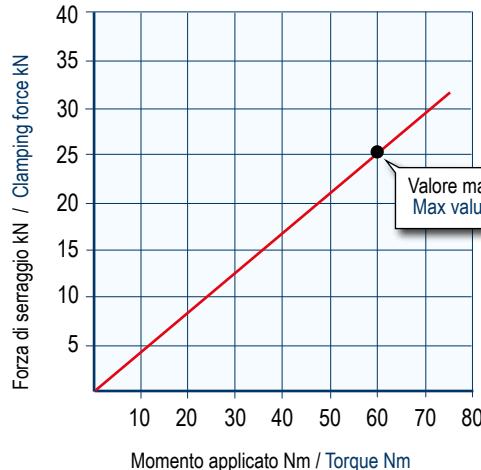
MORSE MODULARI XL TIPO XL MODULAR VISES TYPE 1

Vite Ø 14 - Passo 4 mm
Screw Ø 14 - Pitch 4 mm



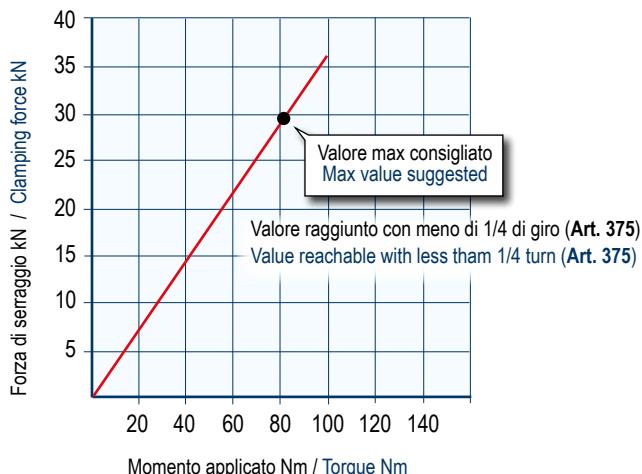
MORSE MODULARI XL TIPO XL MODULAR VISES TYPE 2

Vite Ø 18 - Passo 4 mm
Screw Ø 18 - Pitch 4 mm



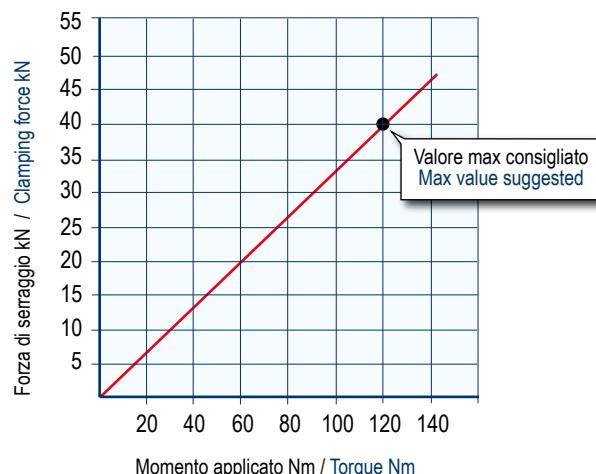
MORSE MODULARI XL TIPO XL MODULAR VISES TYPE 3-4

Vite Ø 24 - Passo 5 mm
Screw Ø 24 - Pitch 5 mm



MORSE MODULARI XL TIPO XL MODULAR VISES TYPE 5-6

Vite Ø 30 - Passo 5 mm
Screw Ø 30 - Pitch 5 mm



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.