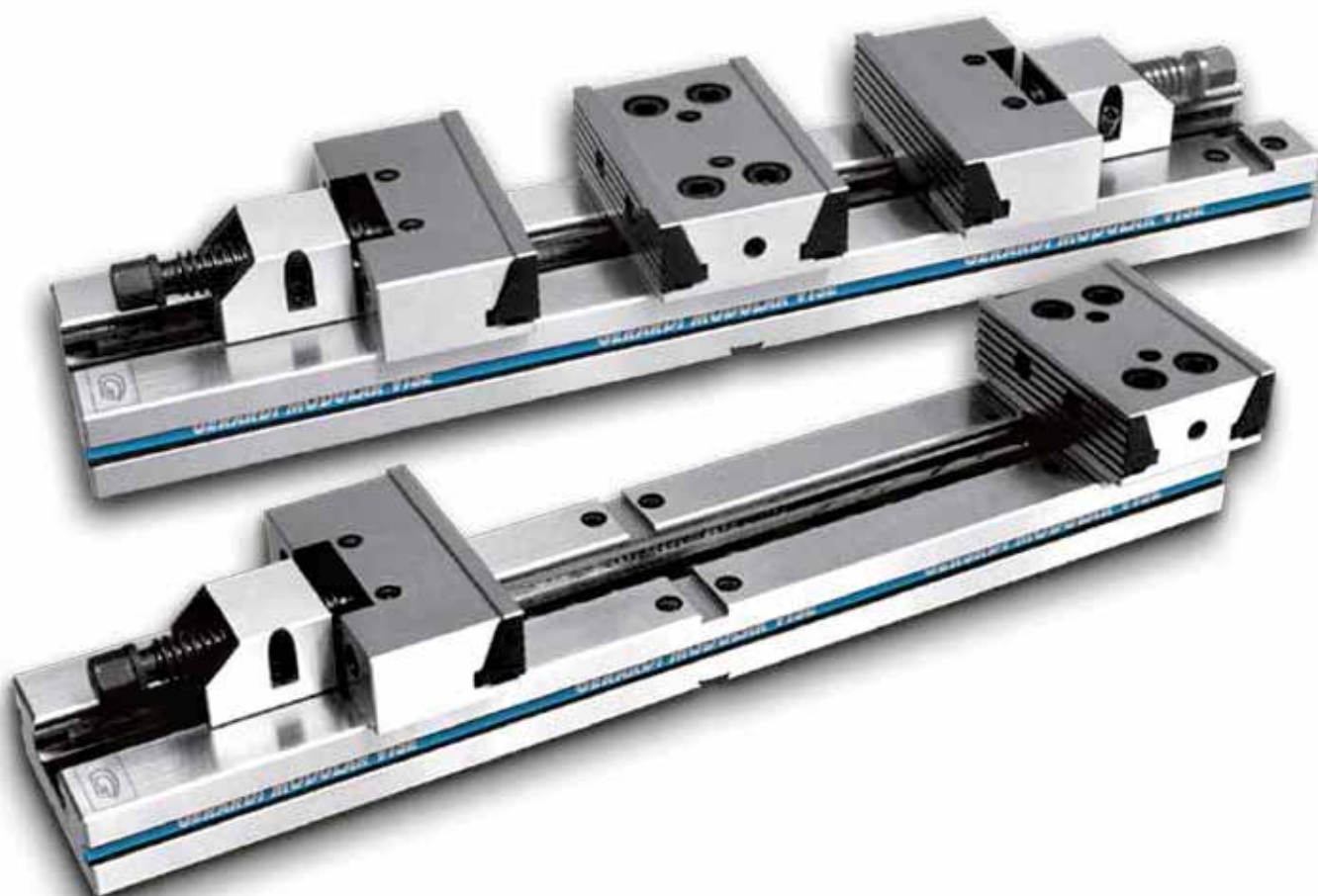


*STD e StandardFLEX*  
*MORSE Serie XL - XL VISES Series*



MORSE MODULARI DI PRECISIONE  
PRECISION MODULAR VISES

# MORSE serie XL

## XL series VISES

Pagg. 2.2 - 2.30

2

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:

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

*L'operazione è in termini di secondi.*

### 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- 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 varietà di pezzi di dimensioni insolite e di piastre (con le appropriate ganasce). La notevole gamma di dimensioni e lunghezze delle basi garantisce il soddisfacimento di ogni esigenza, nonché una rigidità notevole dell'attrezzatura. Esiste la possibilità comunque di connettere due basi singole tramite un'apposita **ganascia fissa doppia di collegamento** 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.

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 great opening.

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.

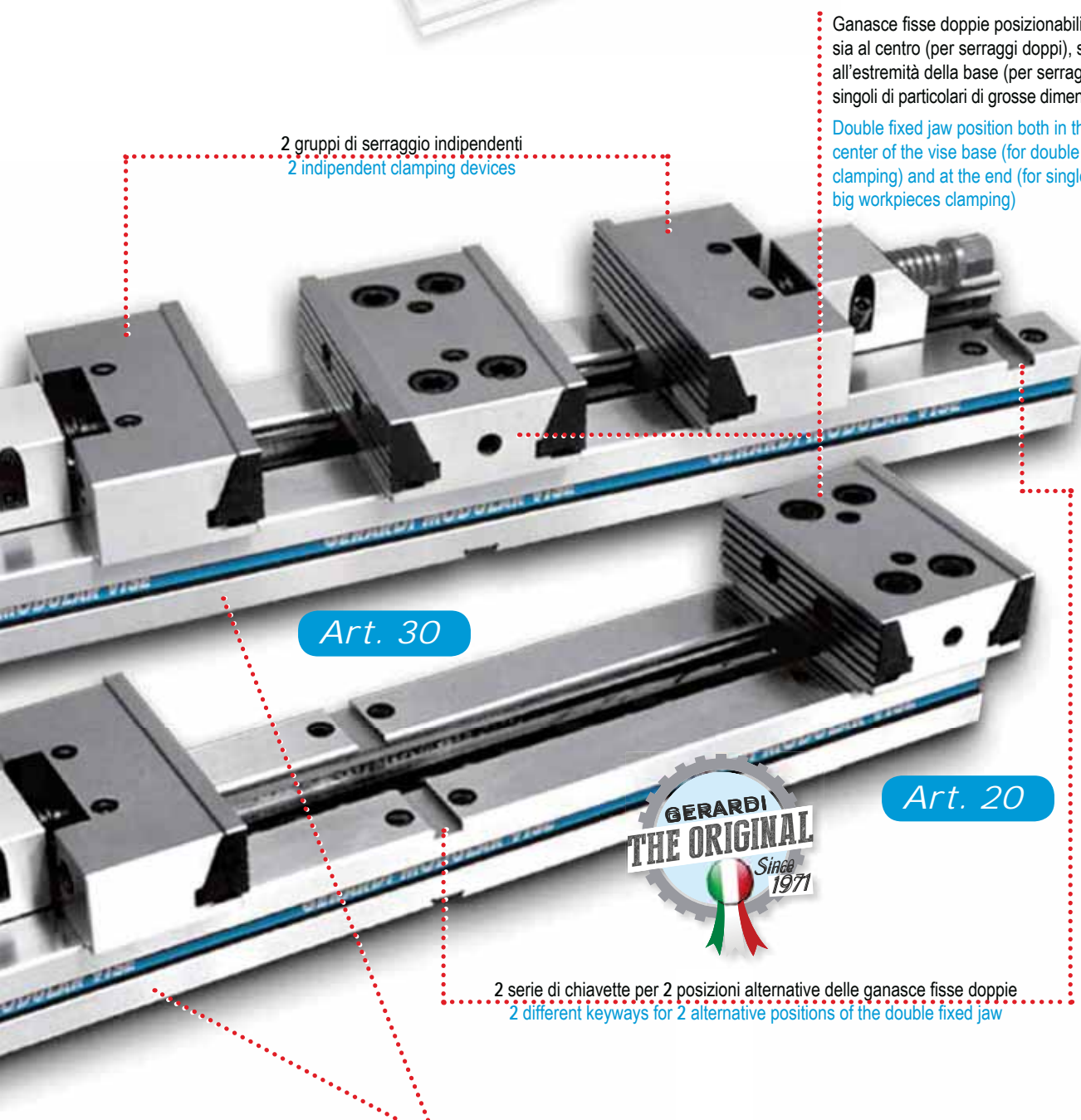
- ✓ reduction of total number of loading and unloading with consequence save of dead times/interruptions if machine is not working,
- ✓ reduction (50%) of total tool changing time,
- ✓ lower moving time from a series of pieces to another,
- ✓ lower machine wear,
- ✓ more time the operator can walk away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



2 gruppi di serraggio indipendenti  
2 independent clamping devices

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

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

Art. 30

Art. 20



2 serie di chiavette per 2 posizioni alternative delle ganasce fisse doppie  
2 different keyways for 2 alternative positions of the double fixed jaw

La dimensione XL singola permette il serraggio di particolari di varie dimensioni e di ottenere una morsa XL.

Very large opening. The satisfaction of the widest range of workpieces is achieved by itself because:

The satisfaction of the widest range of workpieces is achieved by itself because:

**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.

**HIGHEST PRECISIONS ± 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.

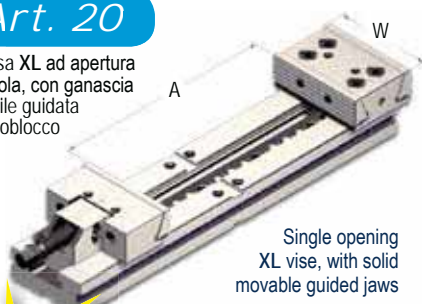


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	400	500	600	700
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**

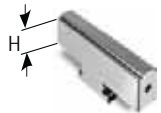
Piastre magnetiche parallele piane  
Magnetic parallel plates



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
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**Art. 217**

Ganascia mobile prismatica  
Prismatic movable jaw



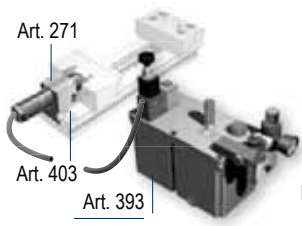
Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
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**Art. 271**

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

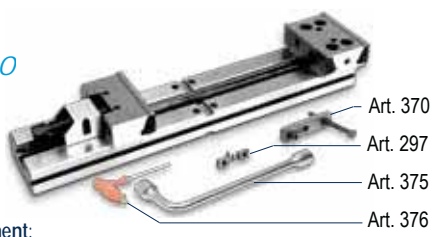
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000
------	------------	------------	------------	------------

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 morse. 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 (tolleranza F7):

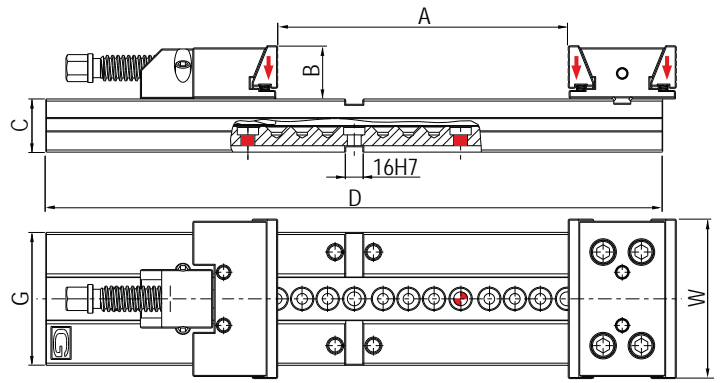
**Art. 20**



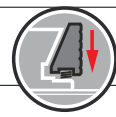
Standard equipment:

- 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

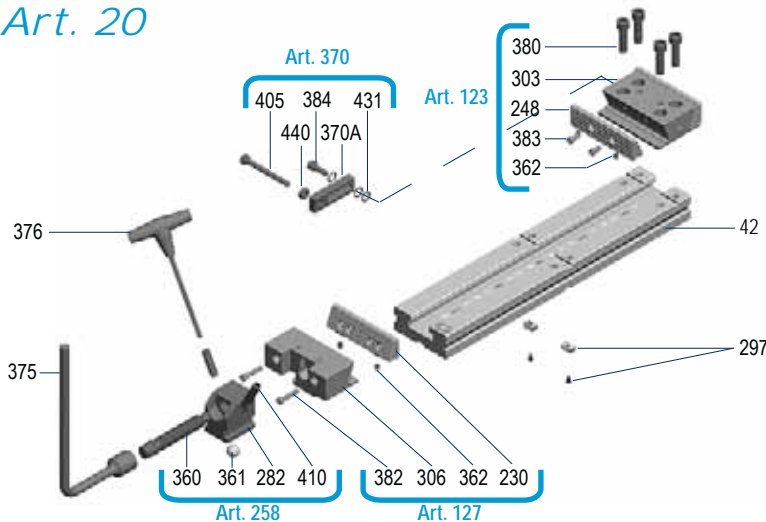
2

**UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !**

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

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	-	-

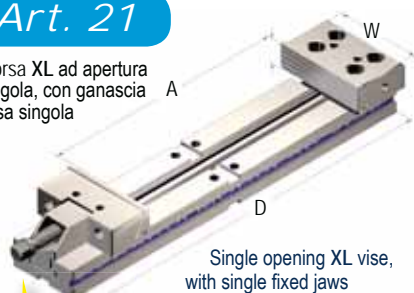


2

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	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**

Morsa XL ad apertura singola, con ganascia fissa singola

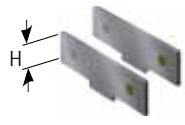


Single opening XL vise, with single fixed jaws

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313**

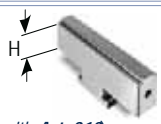
Piastre magnetiche parallele piane  
Magnetic parallel plates



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

**Art. 217**

Ganascia mobile prismatica  
Prismatic movable jaw



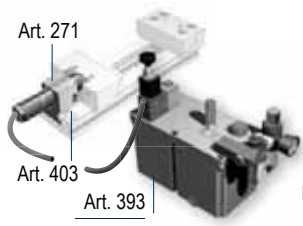
Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
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**Art. 271**

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

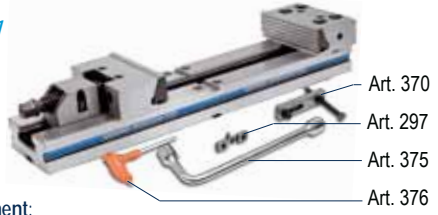
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 morse. 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 (tolleranza F7):

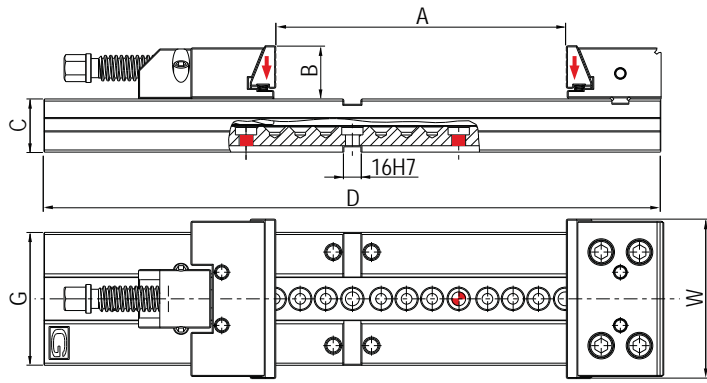
**Art. 21**



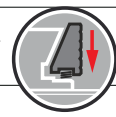
Standard equipment:

- 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. 21**



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



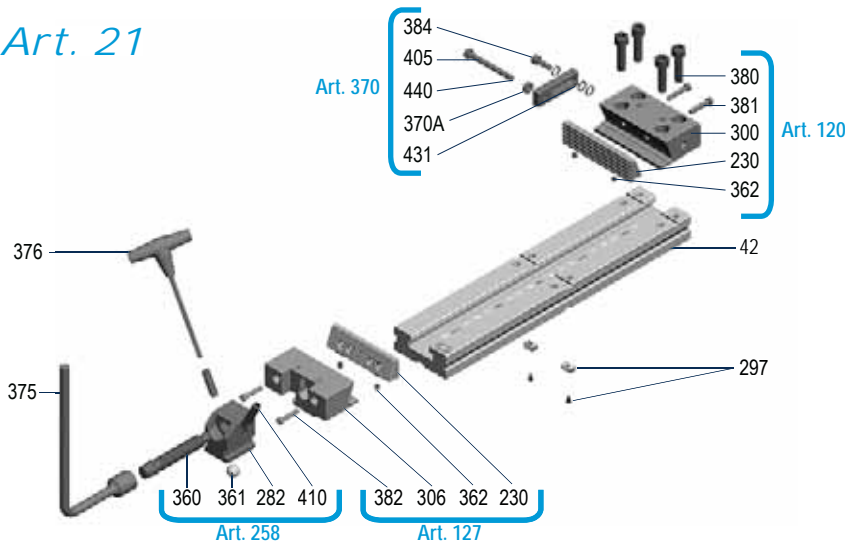
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		200						300			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
64	69	74	79	84	95	105	115	125	135	145	155
2.21.55000	2.21.56000	2.21.57000	2.21.58000	2.21.59000	2.21.65000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

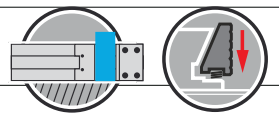
4.31.35000		4.31.36000
<b>Art. 313</b>		
53		68
1.21.25000		1.21.26000
<b>Art. 212</b>		
2.21.75000		2.21.76000
<b>Art. 217</b>		
2.27.15000		2.27.16000
<b>Art. 271</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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	-	-

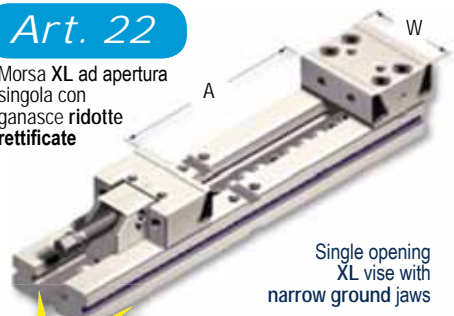


2

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	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**

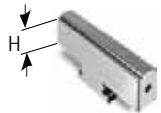
Piastre magnetiche parallele piane  
Magnetic parallel plates



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

**Art. 213**

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

**Art. 218**

Ganascia mobile prismatica  
Prismatic movable jaw



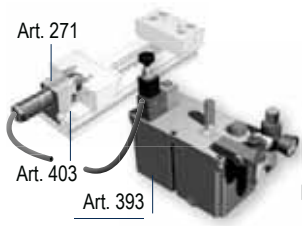
Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000
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**Art. 271**

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

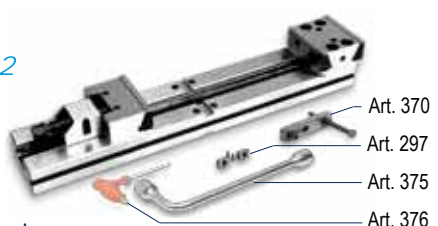
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 morse. 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 (tolleranza F7):

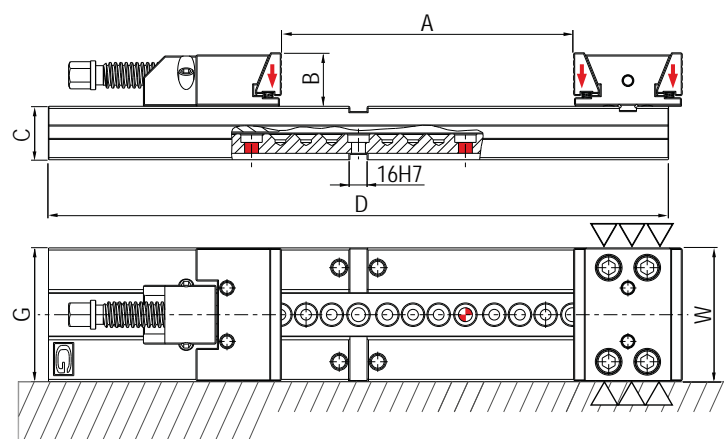
**Art. 22**



Standard equipment:

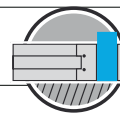
- 1 workstop Art. 370
  - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
  - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each ground hole (F7 tolerance):

**Art. 22**



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





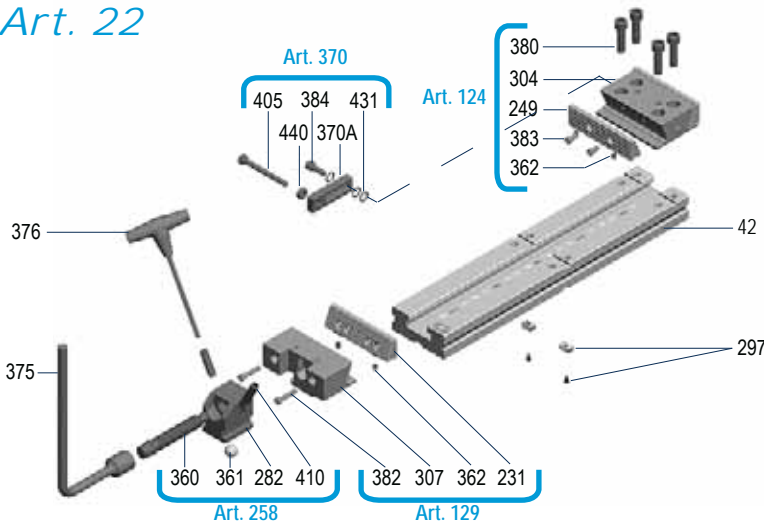
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
3.25.20220	3.25.30220	3.25.40220	3.25.50220	3.25.60220	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
<b>Art. 313R</b>		
53		68
1.21.35000		1.21.36000
<b>Art. 213</b>		
2.21.85000		2.21.86000
<b>Art. 218</b>		
2.27.15000		2.27.16000
<b>Art. 271</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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	-	-

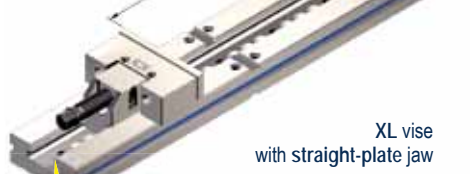


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	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

**Art. 24**

Morsa XL con ganasce a piastre piane



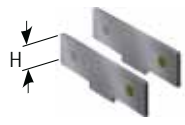
XL vise with straight-plate jaw



**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313**

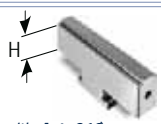
Piastre magnetiche parallele piane  
Magnetic parallel plates



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

**Art. 246**

Piastra piana in acciaio lavorabile  
Machinable steel straight jaw plate



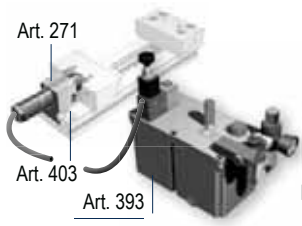
Cod.	1.24.61000	1.24.62000	1.24.63000	1.24.64000
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**Art. 271**

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

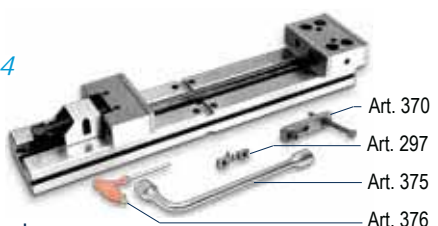
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 morse. 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 (tolleranza F7):

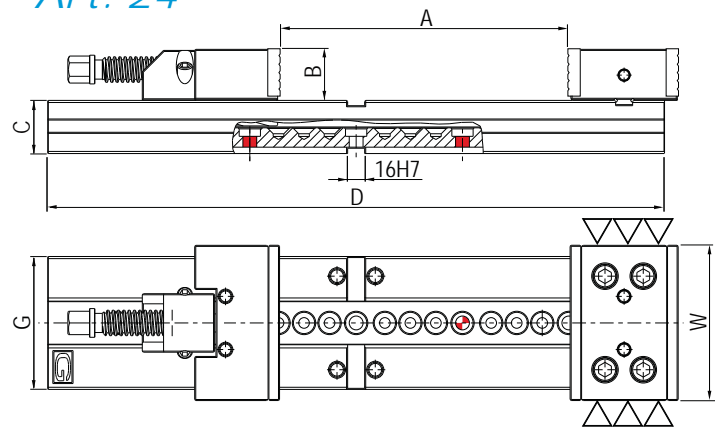
**Art. 24**



**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



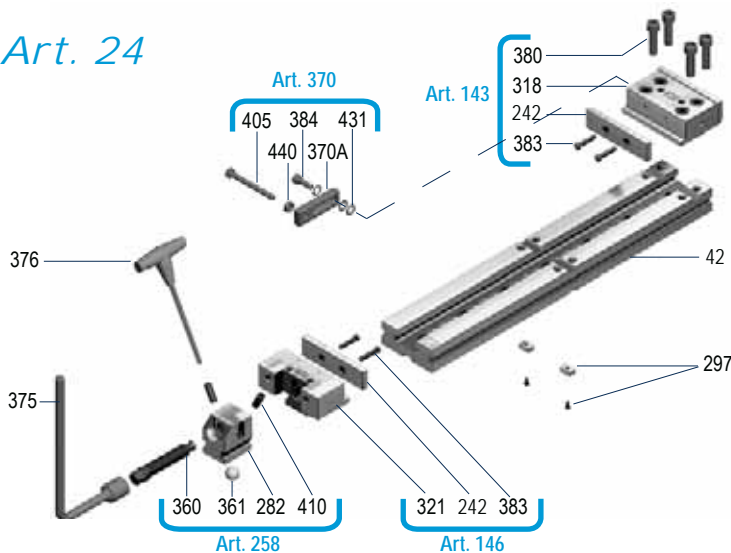
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
200					300						
65					80						
70					78						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170					195						
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.24.55000	2.24.56000	2.24.57000	2.24.58000	2.24.59000	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 !**

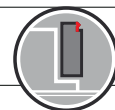
4.31.35000		4.31.36000
<b>Art. 313</b>		
53		68
1.21.25000		1.21.26000
<b>Art. 212</b>		
1.24.65000		1.24.66000
<b>Art. 246</b>		
2.27.15000		2.27.16000
<b>Art. 271</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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	-	-



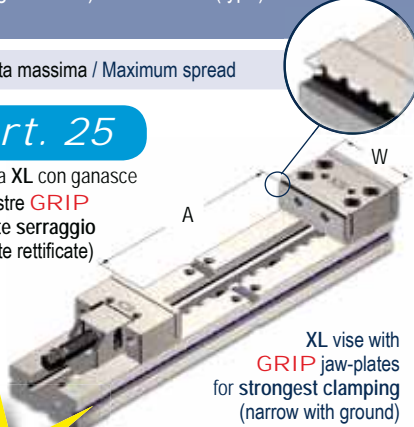
2

Tipo (grandezza) morsa / Vise (type) size

	kN	1 16 kN	2 25 kN	3 30 kN	4 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)

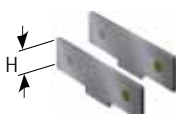


XL vise with GRIP jaw-plates for strongest clamping (narrow with ground)

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313R**

Piastrine 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
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**Art. 218**

Ganascia mobile prismatica  
 Prismatic movable jaw



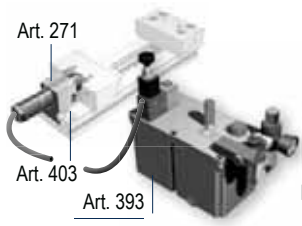
Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000
------	------------	------------	------------	------------

**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
------	------------	------------	------------	------------

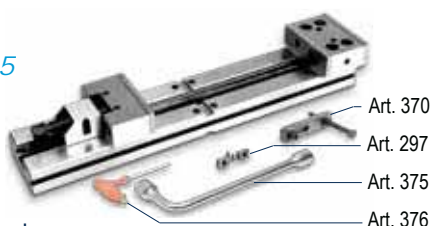
Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 morse. Vedi pagg. 4.28, 4.29, 4.30

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 (tolleranza F7):

**Art. 25**

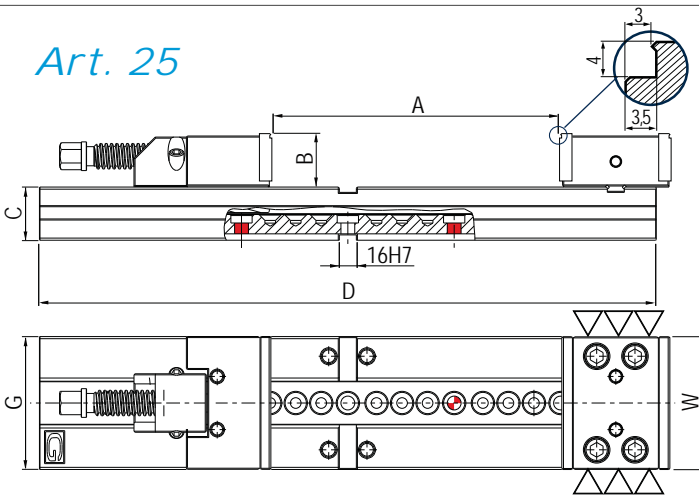


Standard equipment:

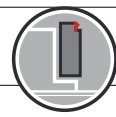
- 1 workstop Art. 370
- 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
- 1 box wrench Art. 375 ■ 1 T-wrench Art. 376

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



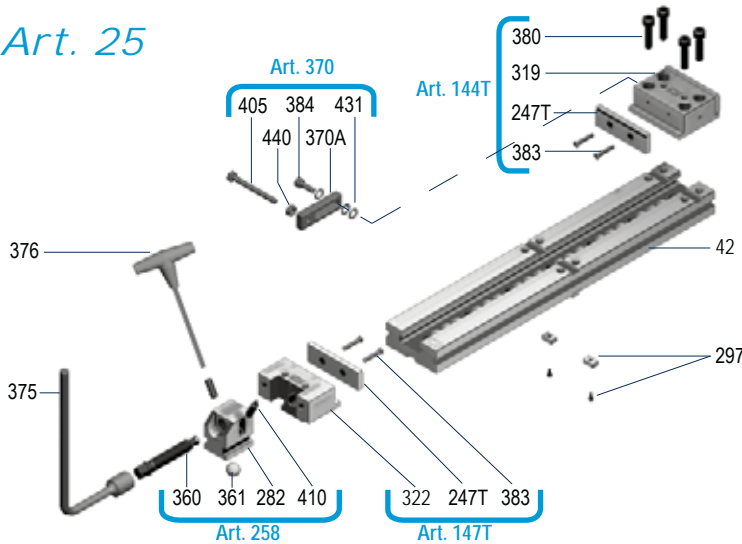
5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
		170						195			
		65						80			
		70						78			
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
		170						195			
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
2.25.55000	2.25.56000	2.25.57000	2.25.58000	2.25.59000	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
<b>Art. 313R</b>		
53		68
1.24.75000		1.24.76000
<b>Art. 247</b>		
2.21.85000		2.21.86000
<b>Art. 218</b>		
2.27.15000		2.27.16000
<b>Art. 271</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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	-	-

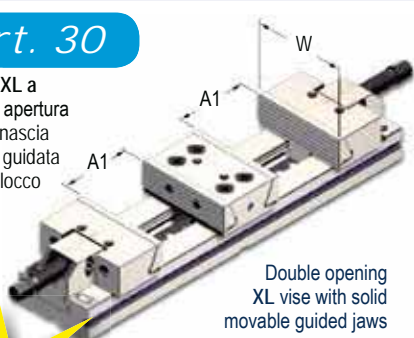


2

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
	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

**Art. 30**

Morsa XL a doppia apertura con ganascia mobile guidata monoblocco

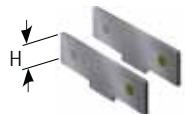


Double opening XL vise with solid movable guided jaws

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313**

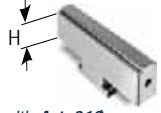
Piastre magnetiche parallele piane  
Magnetic parallel plates



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
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**Art. 217**

Ganascia mobile prismatica  
Prismatic movable jaw



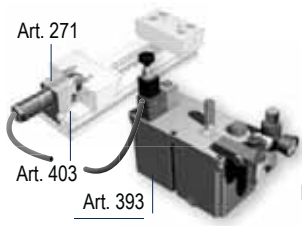
Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
------	------------	------------	------------	------------

**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

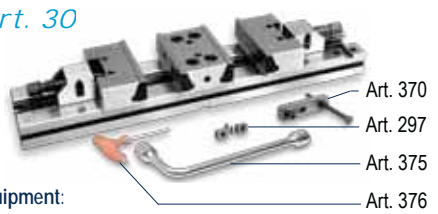
**Art. 392**  
Pneumatico / Air control

Cod.	4.39.21000	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

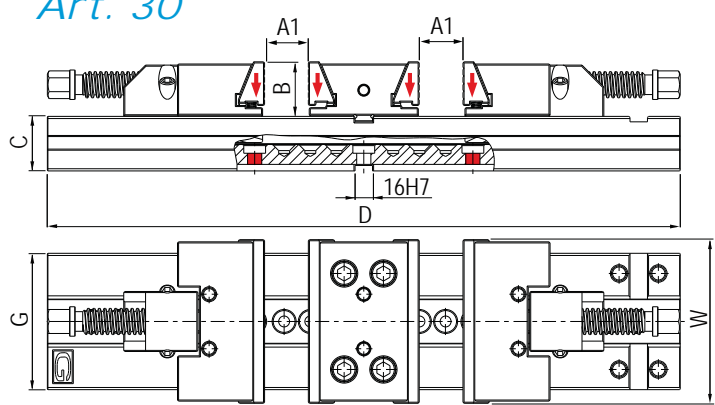
- Dotazione standard:
- 2 arresti laterali Art. 370
  - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
  - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7):

**Art. 30**

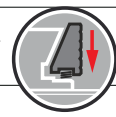


- Standard equipment:
- 2 workstops Art. 370
  - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
  - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each ground hole (F7 tolerance):

**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

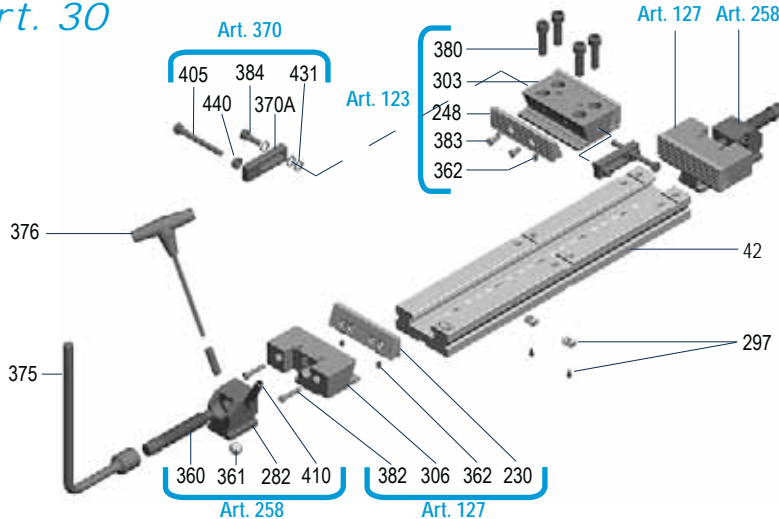
2

**UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !**

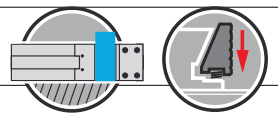
4.31.35000		4.31.36000
<b>Art. 313</b>		
53		68
1.21.25000		1.21.26000
<b>Art. 212</b>		
2.21.75000		2.21.76000
<b>Art. 217</b>		
2.27.15000		2.27.16000
<b>Art. 271</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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	-	-

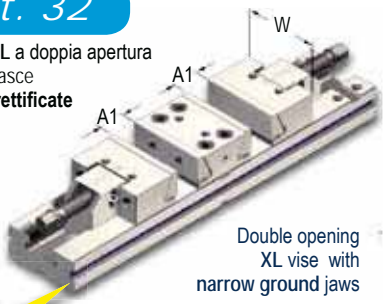


2

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	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

**Art. 32**

Morsa XL a doppia apertura con ganasce ridotte rettificate

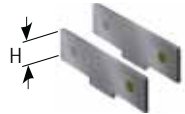


Double opening XL vise with narrow ground jaws

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313R**

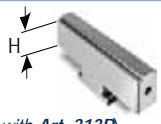
Piastre magnetiche parallele piane  
Magnetic parallel plates



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

**Art. 213**

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

**Art. 218**

Ganascia mobile prismatica  
Prismatic movable jaw



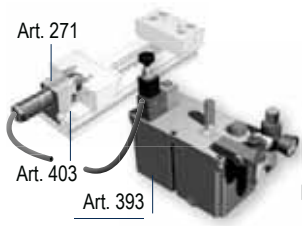
Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000
------	------------	------------	------------	------------

**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

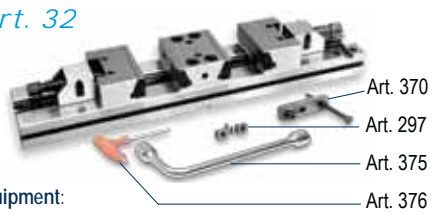
**Art. 392**  
Pneumatico / Air control

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 morse. Vedi pagg. 4.32, 4.33, 4.34

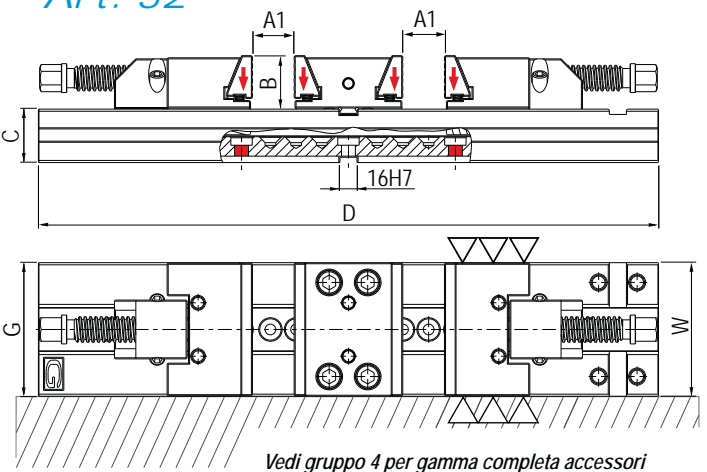
- Dotazione standard:
- 2 arresti laterali Art. 370
  - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
  - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7):

**Art. 32**



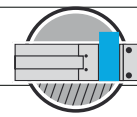
- Standard equipment:
- 2 workstops Art. 370
  - 1 pair of positioning key-nuts Art. 297 (Standard for 16 mm slot. Other dimensions available on request without price change)
  - 1 box wrench Art. 375 ■ 1 T-wrench Art. 376
- Extra charge for each ground hole (F7 tolerance):

**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

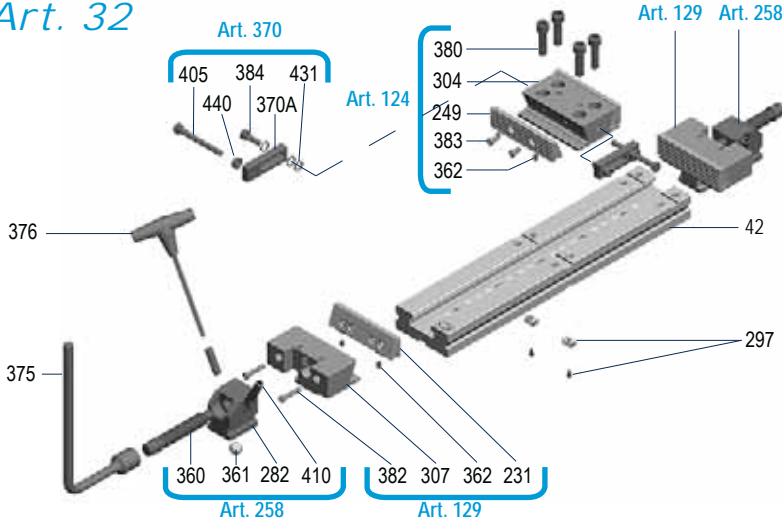
2

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	-	-

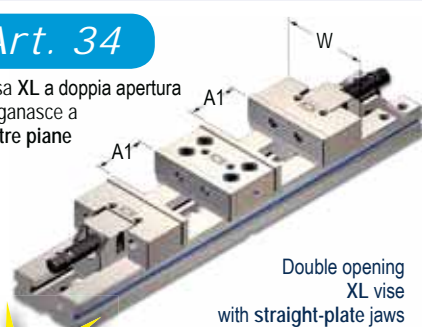


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4	
		16 kN	25 kN	30 kN		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	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

**Art. 34**

Morsa XL a doppia apertura con ganasce a piastre piane

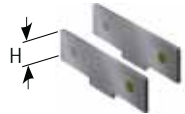


Double opening XL vise with straight-plate jaws

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 313**

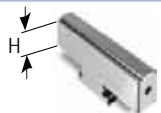
Piastre magnetiche parallele piane  
Magnetic parallel plates



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

**Art. 246**

Piastra piana in acciaio lavorabile  
Machinable steel straight jaw plate



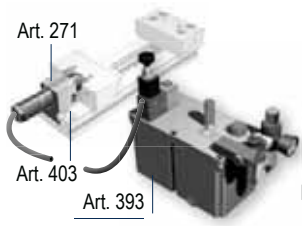
Cod.	2.24.61000	2.24.62000	2.24.63000	2.24.64000
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**Art. 271**

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

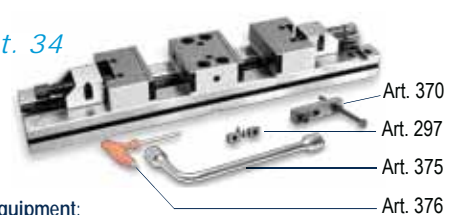
**Art. 392**  
Pneumatico / Air control

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 morse. Vedi pagg. 4.32, 4.33, 4.34

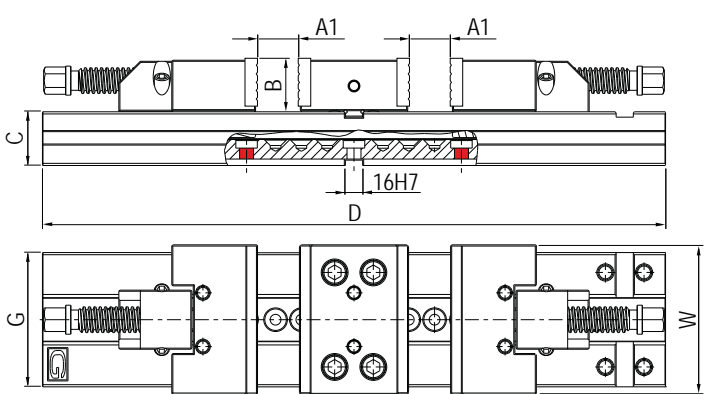
- Dotazione standard:
- 2 arresti laterali Art. 370
  - 1 coppia di tasselli di posizionamento Art. 297 (Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
  - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7):

**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

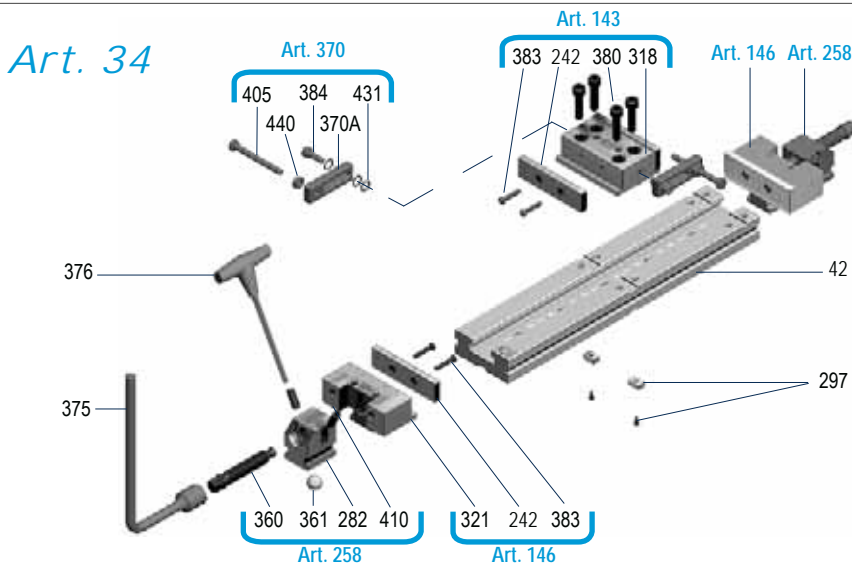


5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
200					300						
65					80						
70					78						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170					195						
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
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

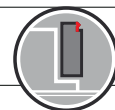
**UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !**

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

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.	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	-	-

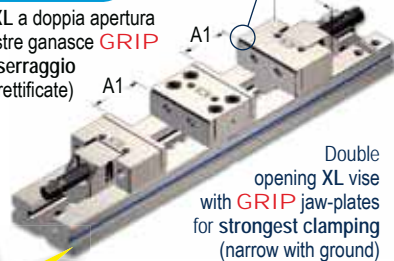


2

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
	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

**Art. 35**

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

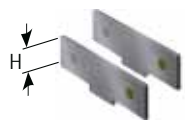


Double opening XL vise with GRIP jaw-plates for strongest clamping (narrow with ground)

**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	4.31.3R400
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
H				

**Art. 218**

Ganascia mobile prismatica  
 Prismatic movable jaw



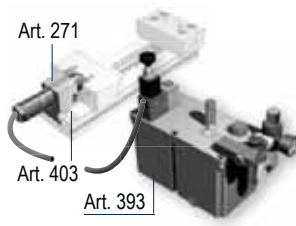
Cod.	2.21.81000	2.21.82000	2.21.83000	2.21.84000

**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

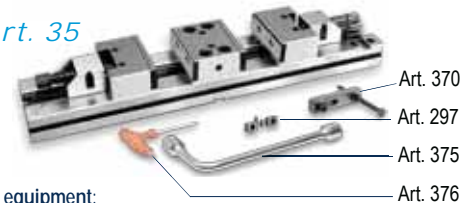
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

Servocomandi oleopneumatici (completi di 1 cilindro e supporto) per serraggi multipli *contemporanei* o *indipendenti*, da 2 a 6 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)
  - 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376
- Extra per ogni foro calibrato (tolleranza F7):

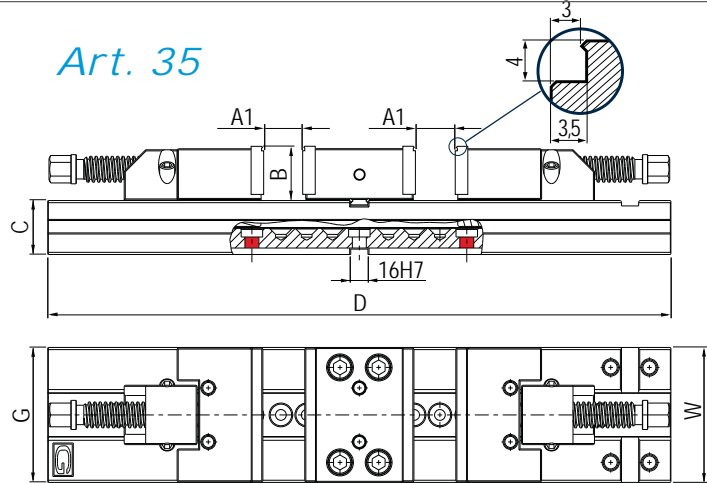
**Art. 35**



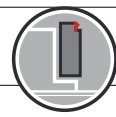
Standard equipment:

- 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



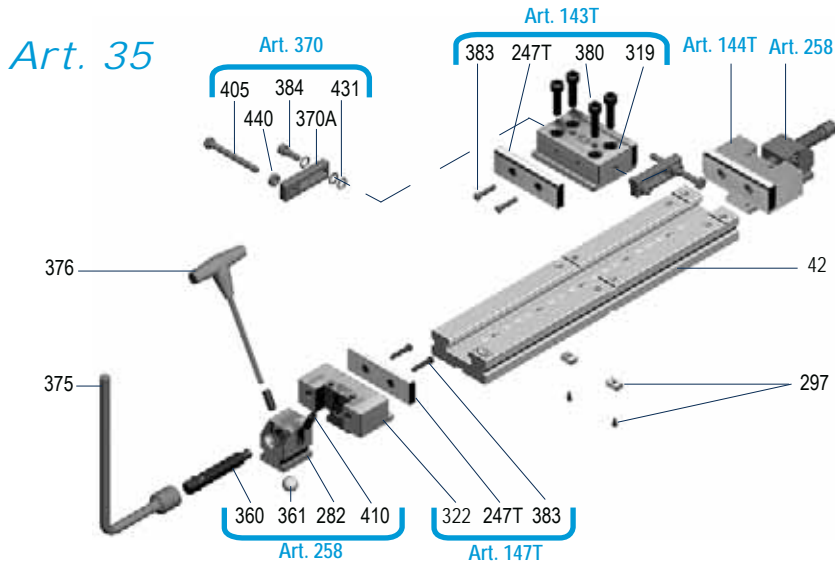
5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
170					195						
65					80						
70					78						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170					195						
82.5	88.5	96.5	103.5	110.5	116	129	139	149	159	169	179
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

2

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.	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

Art. 30A

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

Vise with quick manual  
change jaw plates  
(Comb system)



## ALTISSIMA RIPETIBILITA' 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 ganasce  
intercambiabile manualmente

## GREAT SAVINGS IN VISE RESETTING TIMES

thanks to the manual interchangeable  
quick jaw plate

## 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. 1.2 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

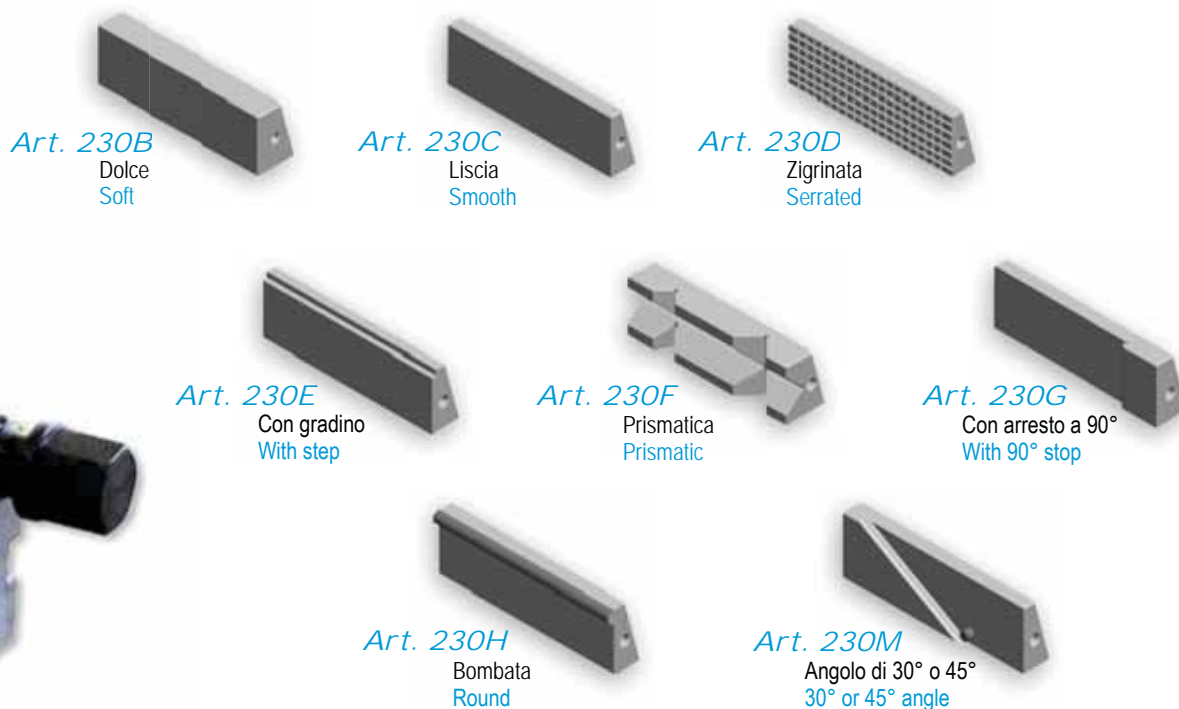
See pag. 1.2 and 1.3 (STANDARD series vises)

**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 !**

2

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



**"VALIGETTA-CONVENIENZA"**  
disponibile su richiesta / Minimo 8 pezzi a scelta

**"SAVING-BAG"**  
choose the jaw plate you need / Minimum 8 pcs

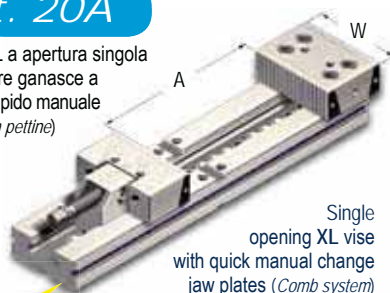


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	400	500	600	700
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

**Art. 20A**

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

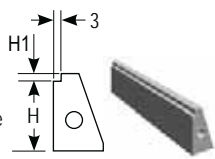


Single opening XL vise with quick manual change jaw plates (Comb system)

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 230E**

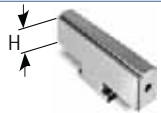
Piastra ganascia intercambiabile Interchangeable jaw plate



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**

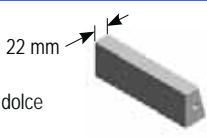
Ganascia mobile intermedia (da usare con Art. 230E) Intermediate movable jaw (to be used with Art. 230E)



Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000
------	------------	------------	------------	------------

**Art. 230B**

Piastra ganascia intercambiabile dolce Soft interchangeable jaw plate



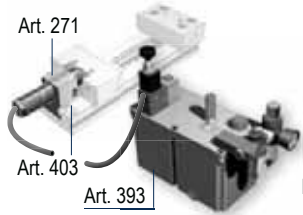
Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
------	------------	------------	------------	------------

**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

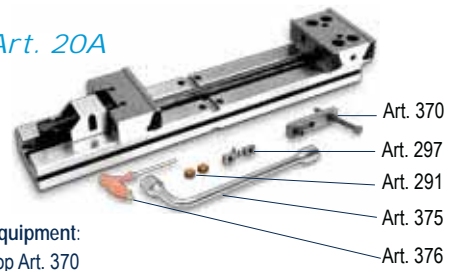
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

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:**

- 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):

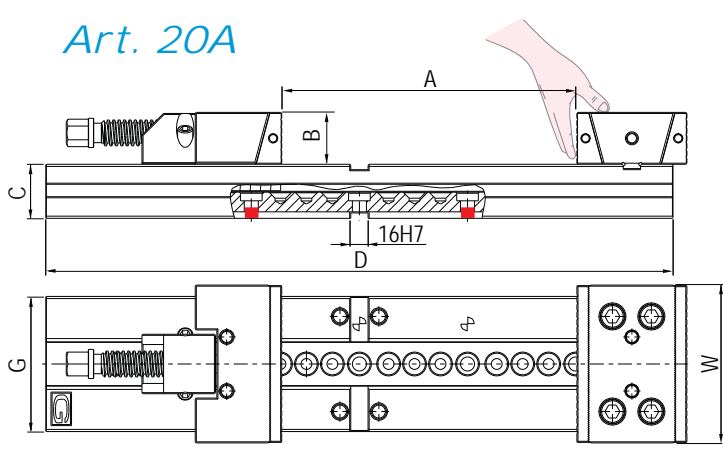
**Art. 20A**



**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



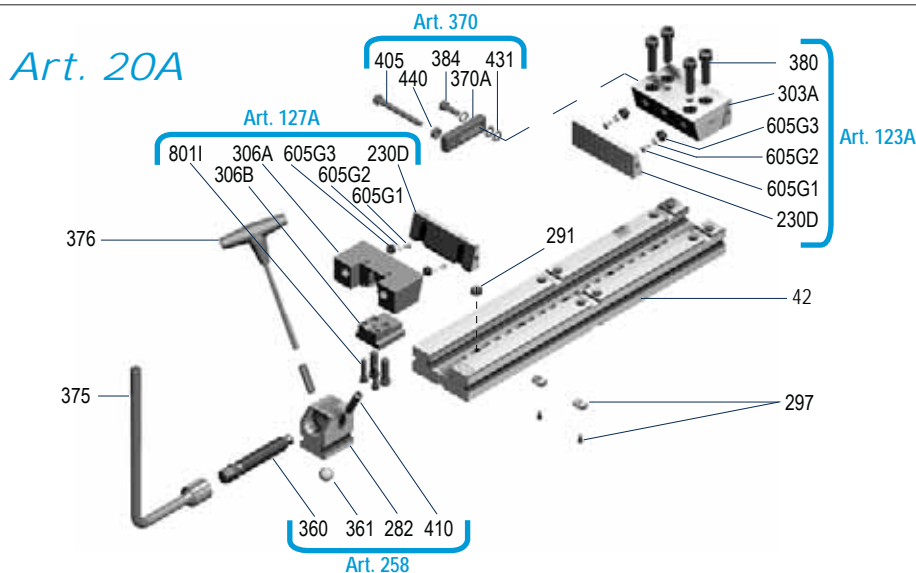


5 40 kN					6 40 kN						
500	600	700	800	900	500	600	700	800	900	1000	1100
196					296						
63					78						
70					78						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170					195						
64	69	74	79	84	95	105	115	125	135	145	155
2.20.A5500	2.20.A5600	2.20.A5700	2.20.A5800	2.20.A5900	2.20.A6500	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		4.23.0E601
<b>Art. 230E</b>		
H	53	68
H1	10	10
1.21.25000		1.21.26000
<b>Art. 212</b>		
4.23.0B501		4.23.0B601
<b>Art. 230B</b>		
4.23.0F501		4.23.0F601
<b>Art. 230F</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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.	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	-	-

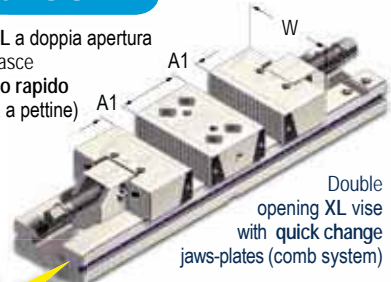


2

Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4	
		16 kN	25 kN	30 kN	30 kN	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
	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**

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

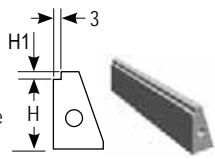


Double opening XL vise with quick change jaws-plates (comb system)

**AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !**

**Art. 230E**

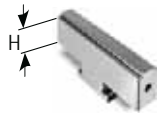
Piastra ganascia intercambiabile Interchangeable jaw plate



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**

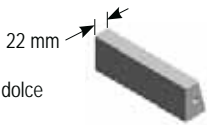
Ganascia mobile intermedia (da usare con Art. 230E) Intermediate movable jaw (to be used with Art. 230E)



Cod.	1.21.21000	1.21.22000	1.21.23000	1.21.24000

**Art. 230B**

Piastra ganascia intercambiabile dolce Soft interchangeable jaw plate



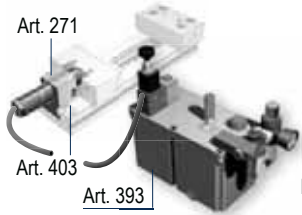
Cod.	4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401

**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

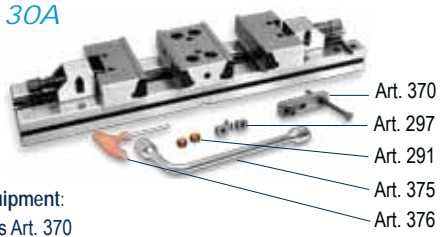
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

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 (tolleranza F7):

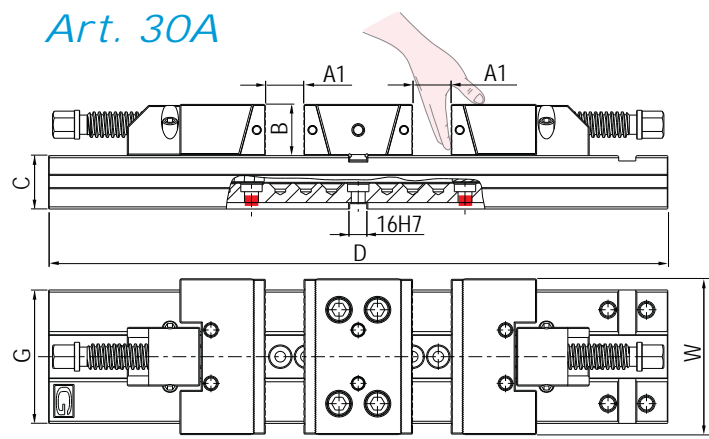
**Art. 30A**



**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



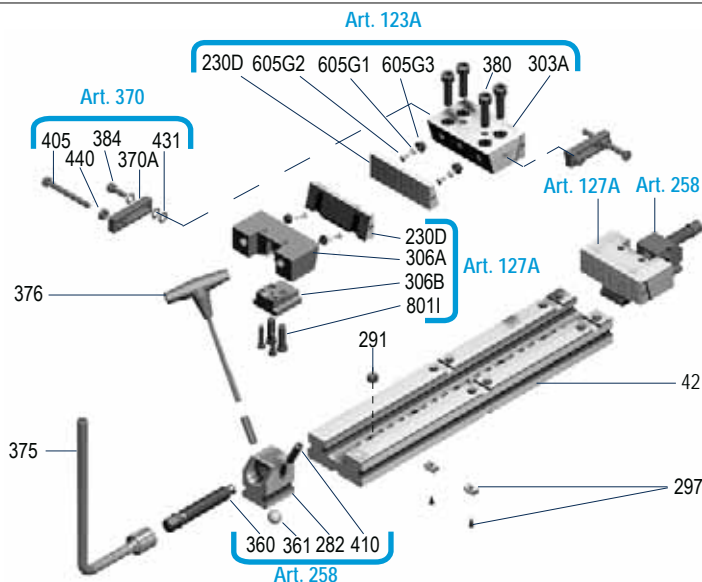
5 40 kN					6 40 kN						
2 x 150	2 x 200	2 x 250	2 x 300	2 x 350	2 x 160	2 x 210	2 x 260	2 x 310	2 x 360	2 x 410	2 x 460
196					296						
63					78						
70					78						
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500
170					195						
64	69	74	79	84	95	105	115	125	135	145	155
2.30.A5150	2.30.A5200	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		4.23.0E601
<b>Art. 230E</b>		
H	53	68
H1	10	10
1.21.25000		1.21.26000
<b>Art. 212</b>		
4.23.0B501		4.23.0B601
<b>Art. 230B</b>		
4.23.0F501		4.23.0F601
<b>Art. 230F</b>		
4.39.15000		4.39.16000
<b>Art. 391</b>		
4.39.25000		4.39.26000
<b>Art. 392</b>		

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

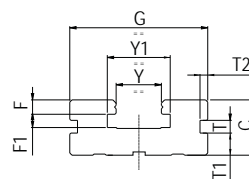
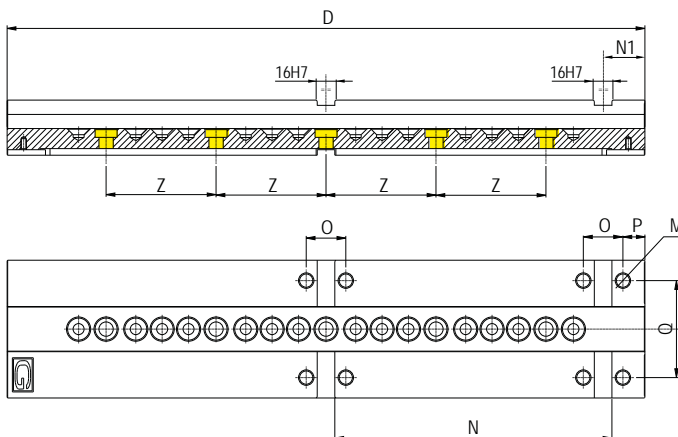
kg	6.4	10.5	20.5	24.5	29.9	34.5	39	43.5
Cod.	2.42.Z1460	2.42.Z2520	2.42.Z3580	2.42.Z3680	2.42.Z4666	2.42.Z4766	2.42.Z4866	2.42.Z4966

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

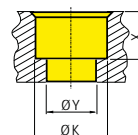
Tolleranza / Tolerance

- 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
ØY	6,5	8,5	13	13	17	17
ØK	10,5	13,5	19	19	26	26

5	6
---	---

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):

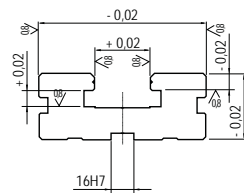
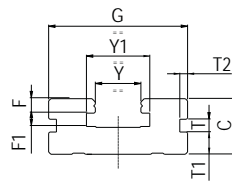
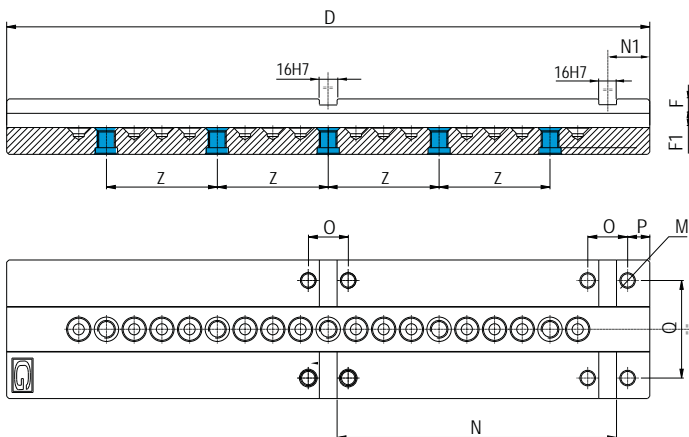
60	65	70	75	80	91	101	111	121	131	141	151
2.42.Z5805	2.42.Z5905	2.42.Z5005	2.42.Z5105	2.42.Z5205	2.42.Z6900	2.42.Z6100	2.42.Z6110	2.42.Z6120	2.42.Z6130	2.42.Z6140	2.42.Z6150

Normal version: 16 mm slots (H7)  
 Optional version: Ground calibrated holes F7 tolerance  
 Extra for each ground hole (F7 tolerance):

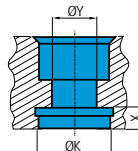
		70										
805	905	1005	1105	1205	900	1000	1100	1200	1300	1400	1500	
		20										
		18										
		170										
		61										
		80										
		M20										
357,5	407,5	457,5	507,5	557,5	405	455	505	555	605	655	707	
		45										
		44										
		23										
		120										
		17,5										
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

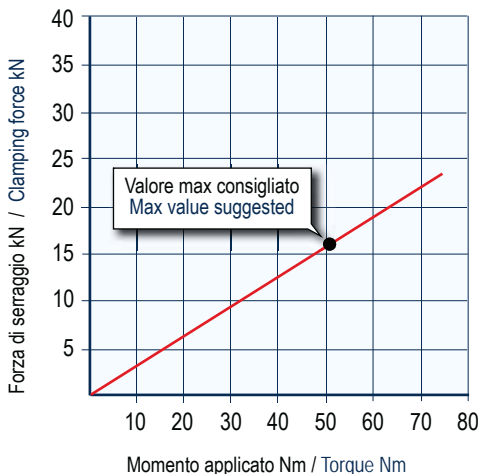
I diagrammi seguenti consentono di determinare le forze di serraggio ottenibili con le morse di varia grandezza (da 1 a 6), in funzione del momento applicato

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) as a function of the torque

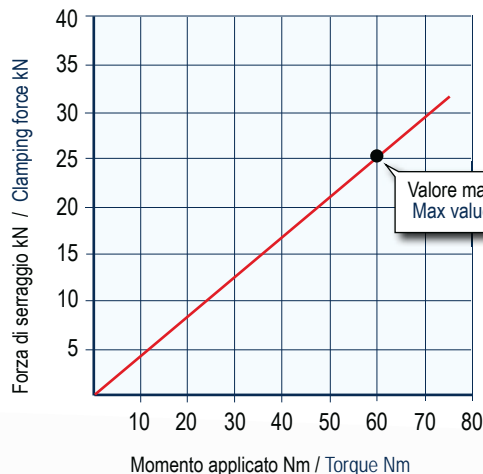
**MORSE MODULARI XL TIPO 1**  
**XL MODULAR VISES TYPE 1**

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



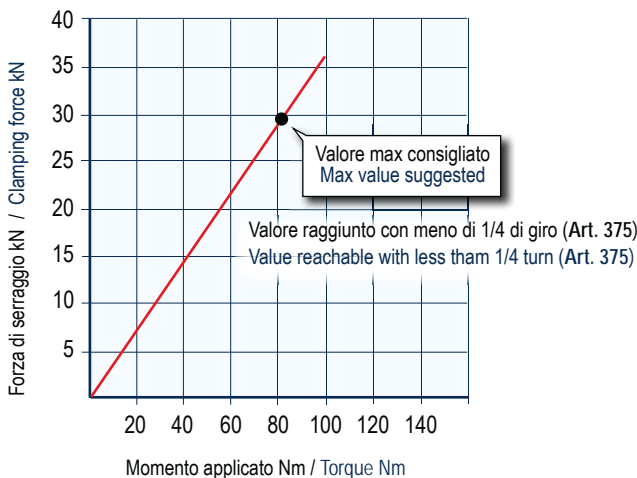
**MORSE MODULARI XL TIPO 2**  
**XL MODULAR VISES TYPE 2**

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



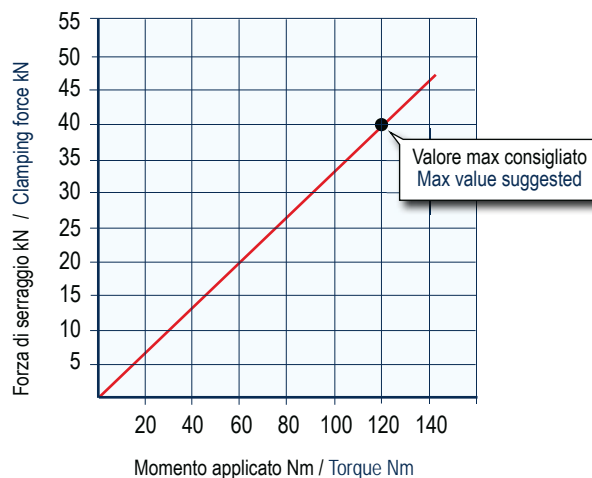
**MORSE MODULARI XL TIPO 3-4**  
**XL MODULAR VISES TYPE 3-4**

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



**MORSE MODULARI XL TIPO 5-6**  
**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.