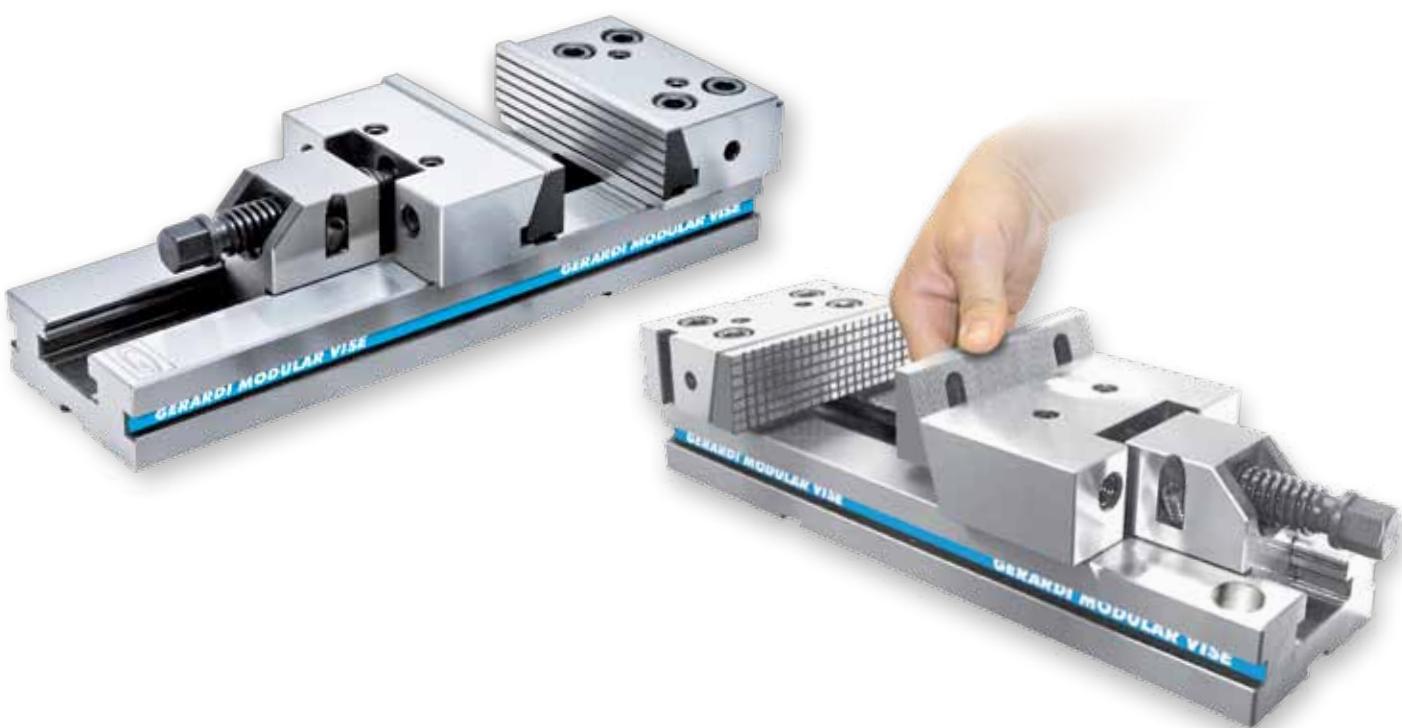


1

CAPITOLO
CHAPTER

STD e StandardFLEX *MORSE e CUBI-MORSA - VISES and VISE-TOWERS*



MORSE serie OK series VISES



Valigetta di campionatura
Sample Kit case for Art.1



Art. 981

MORSE MODULARI DI PRECISIONE
PRECISION MODULAR VISES

MORSE e CUBI serie STANDARD

STANDARD series VISES and CUBES

Pagg. 1.2 - 1.42

La morsa componibile **GERARDI** è costruita con il concetto di **intercambiabilità** di tutti gli elementi componenti l'attrezzatura e con la certezza di poter usare più morse sulla stessa macchina con **posizionamento ed allineamento perfetto in pochi secondi**.

Tutto ciò è possibile per l'elevato grado di precisione della morsa stessa ed in particolare per quanto riguarda: l'altezza della base, l'allineamento con tasselli di cava longitudinale rispetto alla ganascia fissa, la perpendicolarità della ganascia fissa rispetto alla base ed il parallelismo dei piani della base. Tali caratteristiche consentono di risolverei più svariati e complicati problemi di fissaggio in pochi istanti con l'uso di più morse.

All **GERARDI** vises and accessories are modular and components of all our vises will **interchange** with perfect alignment.

The vises can be matched side to side with the **highest precision and minimum of set up times** thanks to many fixed reference points.

All this is possible thanks to the high precision of the vise particularly as regards: the base high, the alignment with longitudinal key-nuts with respect to the fixed jaw, the perpendicularity of the fixed jaw with respect to the vise base and the parallelism of the base top and bottom surfaces. Those features allows us to solve the most varied and complicated problems of clamping in a few seconds with the use of more vises.

USURA INESISTENTE

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

NO WEAR

Thanks to the manufacturing with only the most suitable materials and to the structure of the vise components (developed using computer customised softwares and the experience gained during many years spent working on the specific field).

High alloyed quality resistance steel, case hardened HRC 60 ±2, is used in manufacturing all the Gerardi vises and accessories in order to give maximum rigidity, high performances and no wear. As evidence we give **5 YEARS WARRANTY** on all the vises and mechanical components.

RAPIDITÀ DEI SERRAGGI

Grazie allo **scorrimento del gruppo di serraggio** nella guida della base (a cremagliera) fino in prossimità del pezzo da lavorare dove si adatterà automaticamente alla nicchia più vicina. L'operazione di serraggio si conclude agendo sulla vite di bloccaggio.

Oltre a quello manuale meccanico, sono disponibili

4 ulteriori sistemi di serraggio intercambiabili e indipendenti:

QUICK CLAMPING

Thanks to the **clamping device sliding in the vise base slide** (compact rack type) till the proximity of the workpiece.

The clamping is completed with the main screw.

Besides the manual mechanic system,

4 further interchangeable and independent clamping systems are available:

- 1- 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.

MODULARITÀ

Tutte le morsse ed accessori sono elementi componibili, intercambiabili e perfettamente allineabili fra loro e con i quali è possibile ottenere differenti soluzioni di bloccaggio.

Secondo tale principio l'unico elemento che differenzia le attrezature con identica larghezza di presa è la base (la cui lunghezza determina la massima apertura della morsa), mentre gli altri componenti sono identici. Mediante l'aggiunta o semplice sostituzione di alcuni particolari si può variare la tipologia di bloccaggio secondo le proprie esigenze

utilizzando la stessa attrezzatura acquistata in un primo momento (bloccaggi singoli, con base girevole, doppi, verticali, di pezzi piani, tondi, piatti e grezzi, manuali, idraulici o pneumatici).

MODULARITY

All vises and accessories are modular and components of all our vises will interchange with perfect alignment to provide different workholding solutions. With this basic principle the only difference between fixtures with the same width of clamping is the base (whose length determines the maximum opening of the vise), while the rest of components have same dimensions. Through the simple addition or substitution of some particulars You can change the type of clamping as Your needs require using the same fixture purchased before (single clamping, swivel base, double, vertical, smooth or round or flat or rough workpieces, manual, hydraulic or pneumatic).

Quattro fori filettati supplementari e la parte posteriore di ciascuna ganascia rettificata permettono di incrementare la capacità di apertura di circa l'80% tramite il fissaggio di appositi elementi di prolunga (Art.132 e 133 da ordinare separatamente).

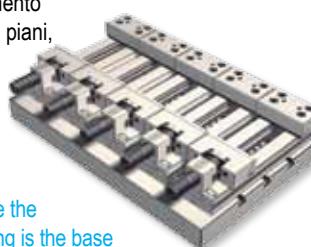
4 extra tapped holes with ground back jaw rear face increase maximum opening capacity of about 80% with the addition of jaw extensions (Art.132 and 133 to be ordered separately).

Art. 1



DESIGN COMPATTO E MANEGGEVOLEZZA

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

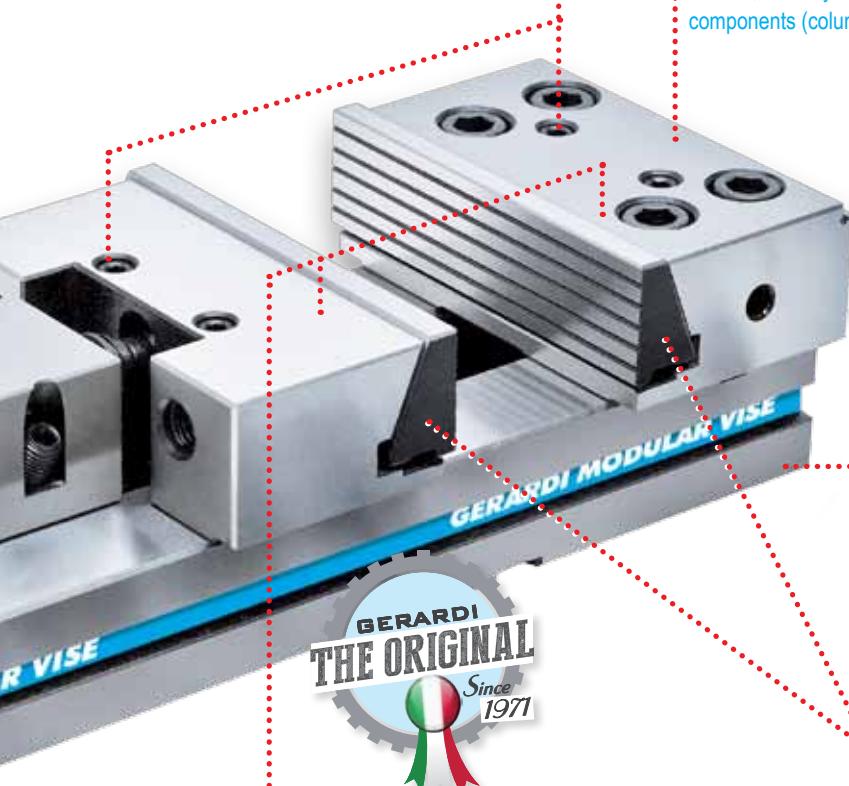


SPACE SAVING DESIGN & HANDY

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

La morsa più diffusa (ed imitata) nel mondo ! Il trinomio perfetto: Convenienza, Qualità, Versatilità

The most popular (and copied) vise in the world !
The perfect mix: Price, Quality, Versatility



VERSATILITÀ

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

VERSATILITY

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

La ganascia fissa con gradino posteriore di 5x5 mm consente, una volta ruotata di 180°, il perfetto accoppiamento al gradino della ganascia prismatica mobile (Art.217) ordinabile separatamente: è così possibile il serraggio di pezzi piatti senza parallele e di tondi sia in orizzontale che in verticale. Inoltre è disponibile una **vastissima gamma di ganasce** nonché un sistema di parallele piane e angolari per le più svariate applicazioni e la lavorazione di pezzi di qualsiasi forma e dimensione. **Illimitata gamma di aperture possibili.**

Fixed jaw with 5x5 mm step matchable to the prismatic movable jaw (Art.217 to be ordered separately) which allows to clamp plates without parallels and round workpieces vertical & horizontal way. Vertical, sideway and gang operation are possible with the appropriate components (column, narrow width jaws, etc.) **Unlimited clamping range.**

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 sulla base di ciascuna morsa.

Naturalmente tutto ciò consente oltre alle precisioni dichiarate **tempi di installazione ristrettissimi.**

HIGHEST ACCURACIES $\pm 0,02$ mm

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

RIGIDITA' & SICUREZZA

Entrambe le ganasce sono costruite in corpo unico (non esistono slitte o tasselli di fissaggio) per garantire una maggiore rigidità e nessuna flessione.

RIGIDITY & SAFETY

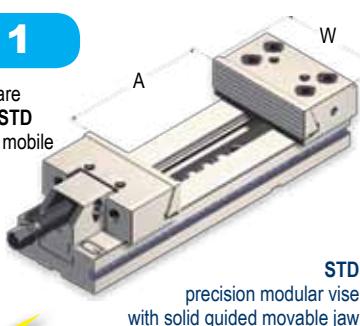
Both jaws bodies are built in one solid piece (no slides or key-nuts): in order to guarantee higher rigidity & no bendings.

Entrambe le piastre ganasce sono costruite con **un angolo di spinta verso il basso**. Ciò assicura, nel momento della chiusura, una trazione del pezzo contro la base della morsa (per trascinamento) e, di conseguenza, un bloccaggio sicuro e preciso.

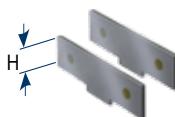
Both jaw plates are manufactured with a **pull down angle**. This ensure, during the clamping operation, a downward run of the workpiece against the vise base (by dragging) and thus a precise and safety clamping.



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4
		16 kN	25 kN	30 kN	30 kN
Apertura massima / Maximum spread	A	100	150	200	300
	W	100	125	150	175
Art. 1	B	30	40	50	60
Morsa modulare di precisione STD con ganascia mobile monoblocco guidata	C	35	40	50	58
	D	270	345	420	520
STD precision modular vise with solid guided movable jaw	G	75	95	125	145
	kg	6.8	12.9	25.5	29
	Cod.	3.01.00000	3.02.10000	3.03.20000	3.03.30000
				3.04.20000	3.04.30000
				3.04.40000	3.04.50000

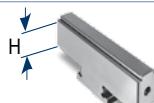


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

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

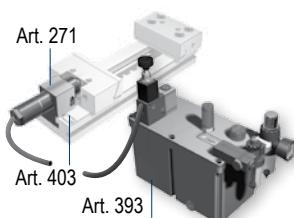
Ganascia mobile prismatica
Prismatic movable jaw

Cod. 2.21.71000 2.21.72000 2.21.73000 2.21.74000

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

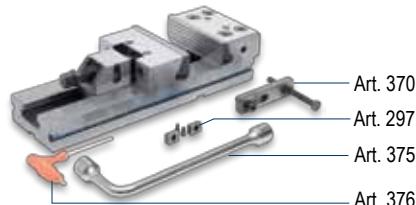
Cod. 4.39.21000 4.39.22000 4.39.23000 4.39.24000

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:

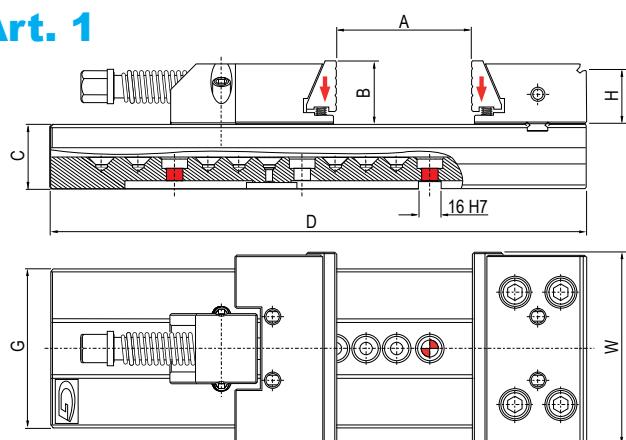
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

Art. 1

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. 1

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



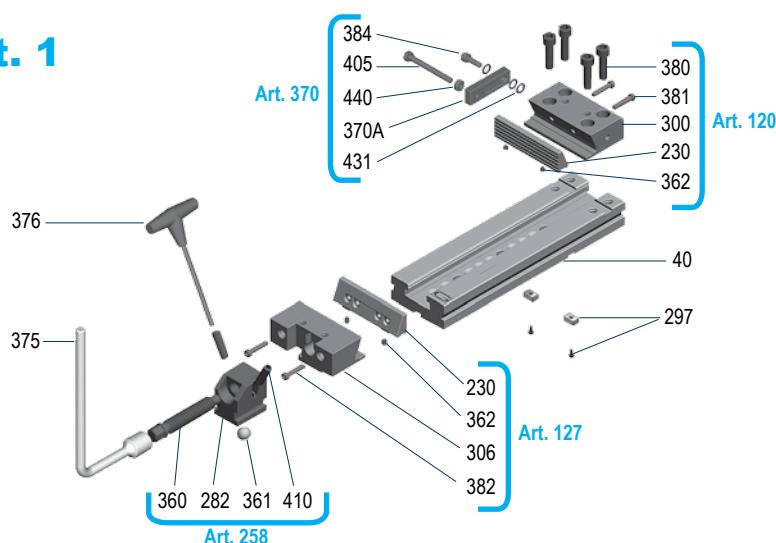
5 40 kN					6 40 kN							
200	300	400	500	600	200	300	400	500	600	700	800	
200										300		
	65									80		
	70									78		
495	595	695	795	895	535	635	735	835	935	1035	1135	
			170							195		
64	69	74	79	84	95	105	115	125	135	145	155	
3.05.20000	3.05.30000	3.05.40000	3.05.50000	3.05.60000	3.06.20000	3.06.30000	3.06.40000	3.06.50000	3.06.60000	3.06.70000	3.06.80000	

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. 1

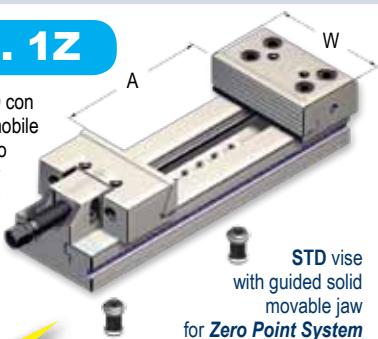


Art.	Pag.	Art.	Pag.
40	1.20	376	4.27
230	4.7	380	4.20
282	4.28	381	4.20
297	4.27	382	4.20
300	4.21	384	4.20
306	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-
375	4.27	-	-



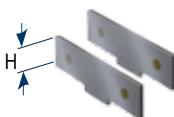
Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 kN	30 kN	30 kN	30 kN	400	400	500	500	
Apertura massima / Maximum spread	A	100	150	200	300	200	300	400	500	500	
	W	100	125	150				175			
Art. 1Z	B	30	40	50				60			
Morsa STD con ganascia mobile monoblocco guidata per Zero Point	C	35	40	50				58			
	D	270	345	420	520	455	555	655	755		
	G	75	95	125				145			
	kg	7.3	13.2	26.2	29.7	37.9	43	48.1	53.2		
	Cod.	1.1Z.10000	1.1Z.20000	1.1Z.32000	1.1Z.33000	1.1Z.42000	11Z.43000	1.1Z.44000	1.1Z.45000		

STD vise
with guided solid
movable jaw
for *Zero Point System*



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

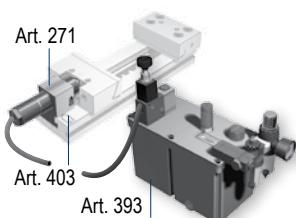
Cod.	2.21.71000	2.21.72000	2.21.73000	2.21.74000
H				

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

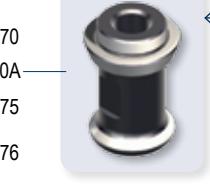
Dotazione standard:

- 1 arresto laterale Art. 370
- 2 tiranti Art. 10A
- 1 chiave a pipa Art. 375
- 1 chiave a "T" Art. 376

Art. 1Z



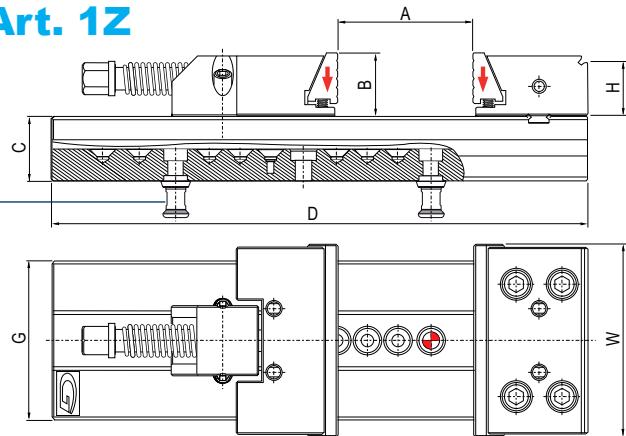
Art. 10A



Standard equipment:

- 1 workstop Art. 370
- 2 pullstuds Art. 10A
- 1 box wrench Art. 375
- 1 T-wrench Art. 376

Art. 1Z



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

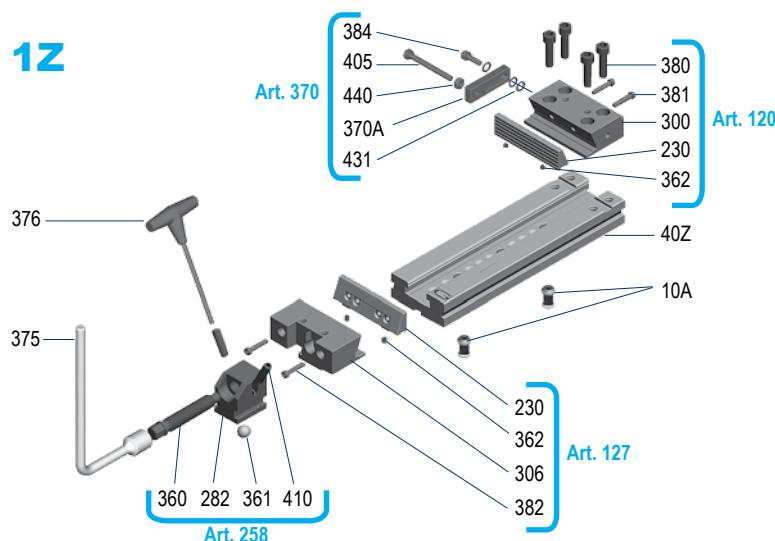


UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES!

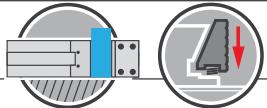
Art. 313	4.31.35000 53		4.31.36000 68
Art. 212	1.21.25000		1.21.26000
Art. 217	2.21.75000		2.21.76000
Art. 271	2.27.15000		2.27.16000
Art. 391	4.39.15000		4.39.16000
Art. 392	4.39.25000		4.39.26000

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. 1z

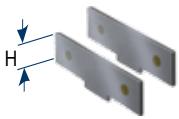


Art.	Pag.	Art.	Pag.
10A	9.25	376	4.27
40Z	1.20	380	4.20
230	4.7	381	4.20
282	4.28	382	4.20
300	4.21	384	4.20
306	4.21	405	4.27
360	4.28	410	4.28
361	4.28	431	4.20
362	4.20	440	4.20
370A	4.27	-	-
375	4.27	-	-



Tipo (grandezza) morsa / Vise (type) size	kN	1		2		3		4			
		16 kN	25 kN	30 kN	400	500					
Apertura massima / Maximum spread	A	100	150	200	300	200	300	400	500		
Art. 12											
Morsa STD con ganasce ridotte rettificate	A	W	75	95	125			145			
	B	30	40	50				60			
	C	35	40	50				58			
	D	270	345	420	520	455	555	655	755		
	G	75	95	125				145			
	kg	6.2	11.9	24.2	27.8	35	39	46	51		
	Cod.	3.01.00120	3.02.10120	3.03.20120	3.03.30120	3.04.20120	3.04.30120	3.04.40120	3.04.50120		

STD vise with narrow width 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

Ganaschia 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

Ganaschia mobile prismatica
Prismatic movable jaw

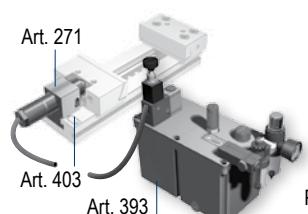
Cod. 2.21.81000 2.21.82000 2.21.83000 2.21.84000

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

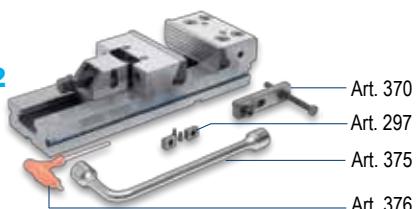
Cod. 4.39.21000 4.39.22000 4.39.23000 4.39.24000

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:

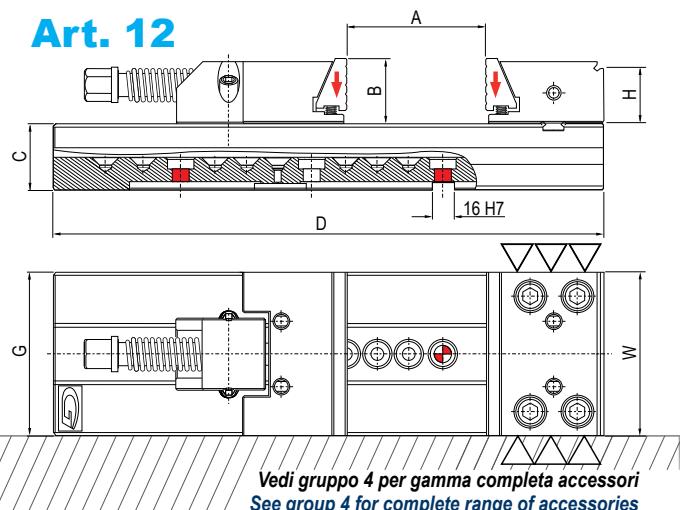
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

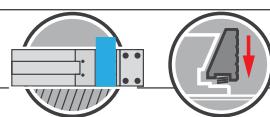
Extra per ogni foro calibrato (toleranza F7):

Art. 12

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. 12

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

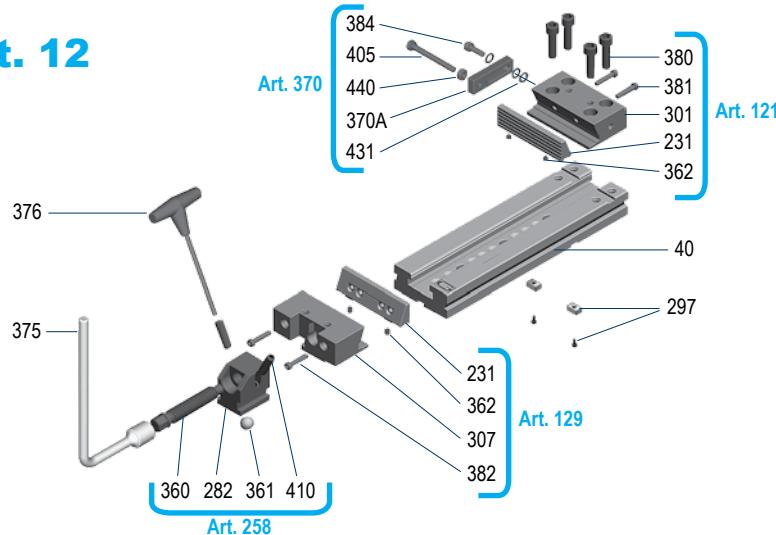


5 40 kN					6 40 kN							
200	300	400	500	600	200	300	400	500	600	700	800	
170								195				
65								80				
70								78				
495	595	695	795	895	535	635	735	835	935	1035	1135	
170								195				
62	67	72	77	82	88	98	108	118	128	138	148	
3.05.20120	3.05.30120	3.05.40120	3.05.50120	3.05.60120	3.06.20120	3.06.30120	3.06.40120	3.06.50120	3.06.60120	3.06.70120	3.06.80120	

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. 12**Art.** **Pag.**

40 1.20

231 4.7

282 4.28

297 4.27

301 4.21

307 4.21

360 4.28

361 4.28

362 4.20

370A 4.27

Art. **Pag.**

375 4.27

376 4.27

380 4.20

381 4.20

382 4.20

384 4.20

405 4.27

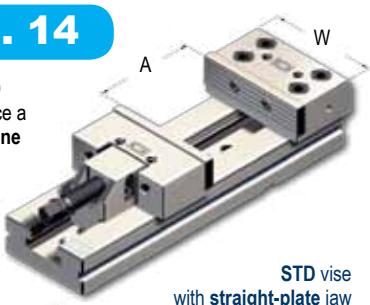
410 4.28

431 4.20

440 4.20



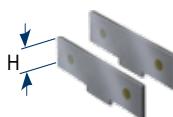
Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4				
		16 kN	25 kN	30 kN	30 kN				
Apertura massima / Maximum spread	A	100	150	200	300	200	300	400	500
Art. 14									
Morsa STD con ganasce a piastra piana	A	100	125	150				175	
	W	100							
	B	30	40	50				60	
	C	35	40	50				58	
	D	270	345	420	520	455	555	655	755
	G	75	95	125				145	
	kg	6.8	12.9	25.5	29	37	42	47	52
	Cod.	1.14.10000	1.14.20000	1.14.32000	1.14.33000	1.14.42000	1.14.43000	1.14.44000	1.14.45000



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. 246

Piastra piana in acciaio lavorabile
Machinable steel straight jaw plate



Cod.	1.24.61000	1.24.62000	1.24.63000	1.24.64000

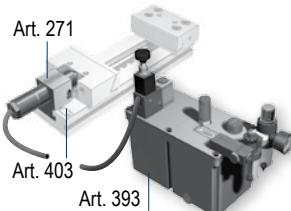
Art. 271

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. 271


Art. 391

CNC / CNC

Art. 392

Pneumatico / Air control

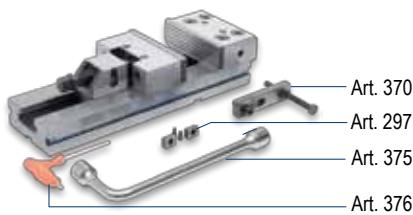
Cod.	4.39.11000	4.39.12000	4.39.13000	4.39.14000
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

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:

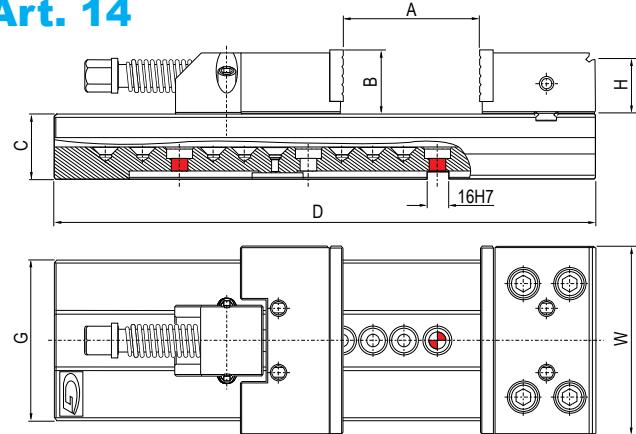
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

Art. 14

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. 14


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

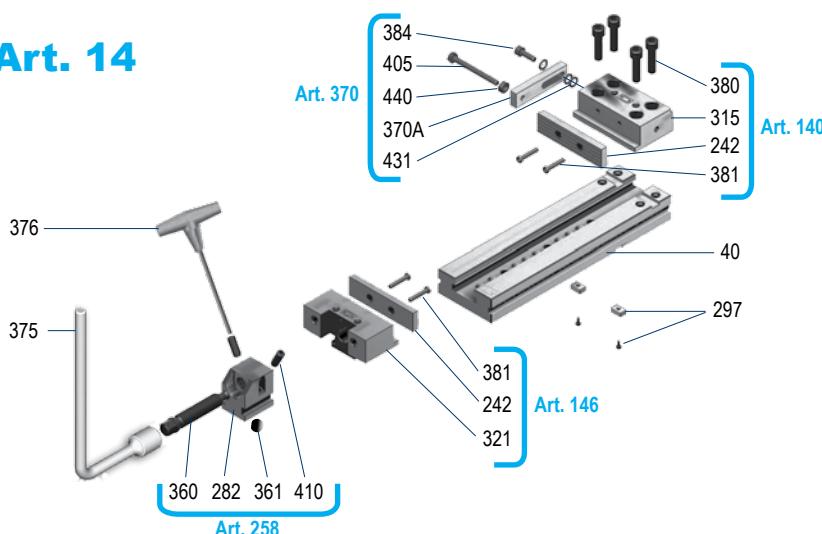
5 40 kN					6 40 kN							
200	300	400	500	600	200	300	400	500	600	700	800	
200									300			
	65								80			
	70								78			
495	595	695	795	895	535	635	735	835	935	1035	1135	
			170						195			
64	69	74	79	84	95	105	115	125	135	145	155	
1.14.52000	1.14.53000	1.14.54000	1.14.55000	1.14.56000	1.14.62000	1.14.63000	1.14.64000	1.14.65000	1.14.66000	1.14.67000	1.14.68000	

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

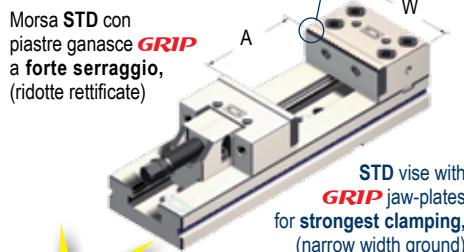
Art. 14

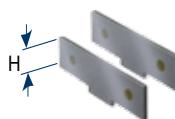


Art.	Pag.	Art.	Pag.
40	1.20	380	4.18
242	4.9	381	4.18
282	4.28	384	4.18
297	4.27	405	4.25
315	4.22	410	4.26
321	4.22	431	4.18
360	4.28	440	4.18
361	4.28	-	-
370A	4.27	-	-
375	4.27	-	-
376	4.28	-	-



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4		
		16 kN	25 kN	30 kN	30 kN		
Apertura massima / Maximum spread	A	100	150	200	300	200	300
	W	75	95	125			145
Morsa STD con piastre ganasce GRIP a forte serraggio, (ridotte rettificate)	B	30	40	50			60
	C	35	40	50			58
STD vise with GRIP jaw-plates for strongest clamping, (narrow width ground)	D	270	345	420	520	455	555
	G	75	95	125			145
	kg	6.2	11.9	24.2	27.8	35	39
	Cod.	1.15.10000	1.15.20000	1.15.32000	1.15.33000	1.15.42000	1.15.43000
						1.15.44000	1.15.45000

Art. 15

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 ridotta in acciaio lavorabile
Machinable steel narrow width straight jaw plate


Cod.	1.24.71000	1.24.72000	1.24.73000	1.24.74000

Art. 218

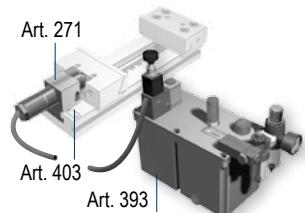
Ganascia mobile prismatica
Prismatic movable jaw


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

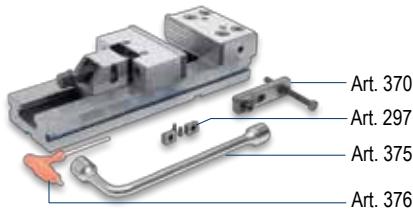
Cod.	4.39.21000	4.39.22000	4.39.23000	4.39.24000

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

Dotazione standard:

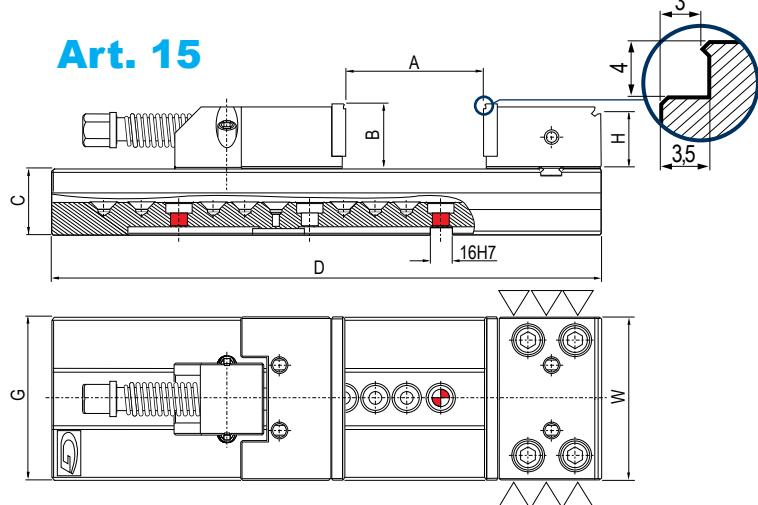
- 1 arresto laterale Art. 370
- 1 coppia di tasselli di posizionamento Art. 297
(Standard per cava da 16 mm; altre dimensioni a richiesta senza variazione di prezzo)
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Extra per ogni foro calibrato (toleranza F7):

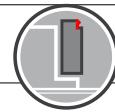
Art. 15

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. 15


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



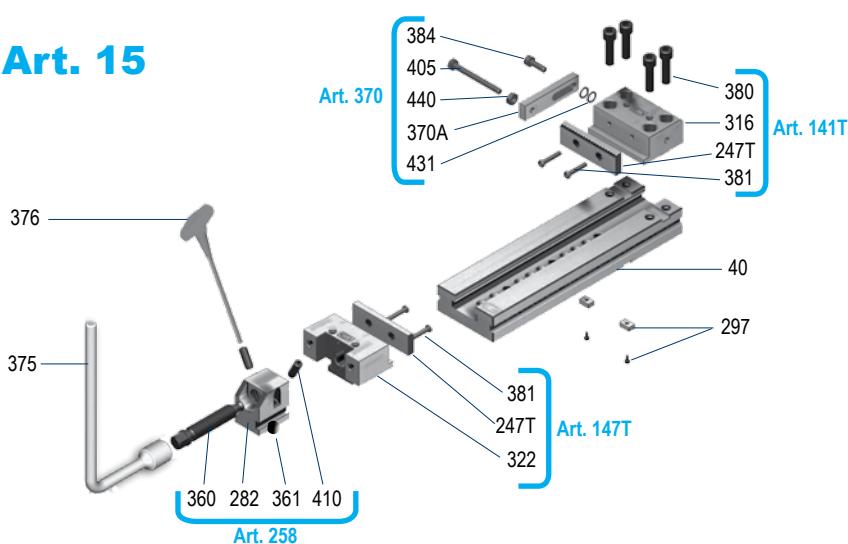
5 40 kN					6 40 kN							
200	300	400	500	600	200	300	400	500	600	700	800	
170								195				
	65							80				
	70							78				
495	595	695	795	895	535	635	735	835	935	1035	1135	
	170							195				
62	67	72	77	82	88	98	108	118	128	138	148	
1.15.52000	1.15.53000	1.15.54000	1.15.55000	1.15.56000	1.15.62000	1.15.63000	1.15.64000	1.15.65000	1.15.66000	1.15.67000	1.15.68000	

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. 15



Art.	Pag.	Art.	Pag.
40	1.20	380	4.20
247T	4.9	381	4.20
282	4.28	384	4.20
297	4.27	405	4.27
316	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	4.28	-	-

MORSE e CUBI serie StandardFLEX

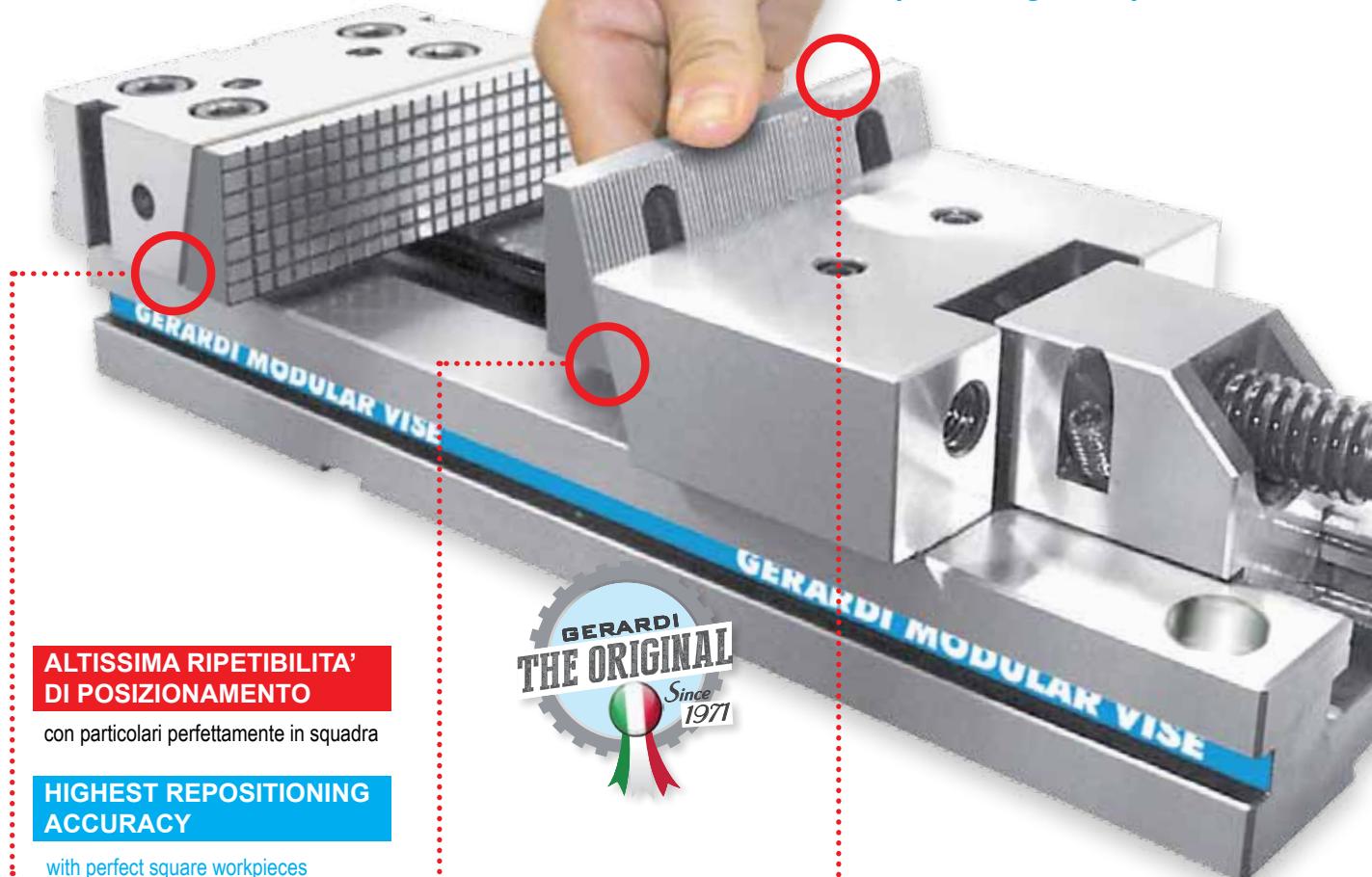
StandardFLEX series VISES and CUBES

Pagg. 1.16 - 1.36

Art. 1A

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 ganascia
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**

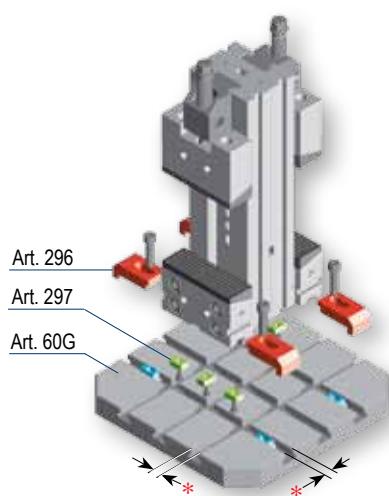


“VALIGETTA-CONVENIENZA”
disponibile su richiesta / Minimo 8 pezzi a scelta
“SAVING-BAG”
choose the jaw plate you need / Minimum 8 pcs

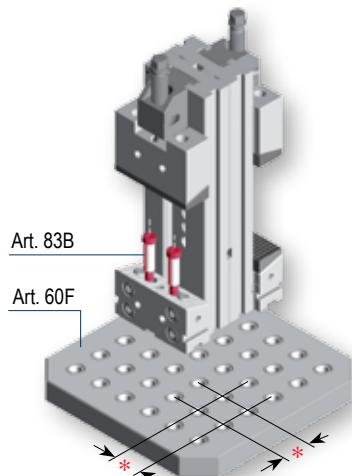


POSSIBILITA' DI ACCOPIAMENTO VERTICALE

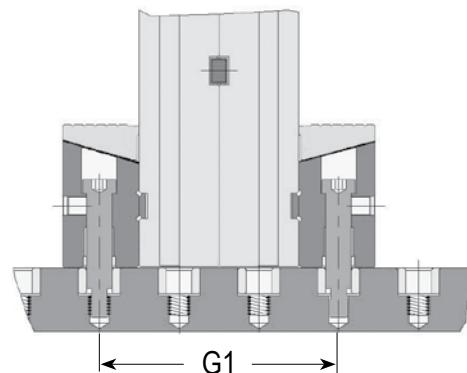
VERTICAL GANG OPERATION



Ancoraggio e posizionamento con staffe e chiavette
Positioning and clamping through vise clamps



Ancoraggio e posizionamento a reticolo
Grid clamping and positioning



Tipo morsa / Vise type	3	4	5	6
G1 mm	150	200	250	

Esempio di montaggio in verticale di 2 morsi StandardFLEX contrapposte su piani a reticolo Ø 16 mm. Passo 50 mm

Example of version mounting of 2 StandardFLEX vises back to back on grid base Ø 16 mm. 50 mm Pitch



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4			
		16 kN	25 kN	30 kN	30 kN			
Apertura massima / Maximum spread	A	100	150	200	300	200	300	400
	W	96	121	146			171	
Art. 1A	B	28	38	48			58	
Morsa StandardFLEX con piastre ganasce a cambio rapido manuale (Sistema a pettine)	C	35	40	50			58	
	D	270	345	420	520	455	555	655
StandardFLEX vise with quick manual jaw plates change (Comb system)	G	75	95	125			145	
	kg	6.8	12.9	25.5	29	37	42	47
	Cod.	1.1A.10000	1.1A.20000	1.1A.32000	1.1A.33000	1.1A.42000	1.1A.43000	1.1A.44000
								1.1A.45000


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 230E		Cod. 4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
Piastra ganascia intercambiabile		H	23	33	43
Interchangeable jaw plate		H1	5	5	5
					53
Art. 212		Cod. 1.21.21000	1.21.22000	1.21.23000	1.21.24000
Ganascia mobile intermedia (da usare con Art. 230E)		H			
Intermediate movable jaw (to be used with Art. 230E)					
Art. 230B		Cod. 4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
Piastra ganascia intercambiabile dolce		22 mm			
Soft interchangeable jaw plate					
Art. 230F		Cod. 4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401
Piastra ganascia intercambiabile prismatica					
Prismatic interchangeable jaw plate					
Art. 271		Cod. 4.39.11000	4.39.12000	4.39.13000	4.39.14000
Art. 403					
Art. 393					
Art. 391	CNC / CNC	Cod. 4.39.21000	4.39.22000	4.39.23000	4.39.24000
Art. 392	Pneumatico / Air control				

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

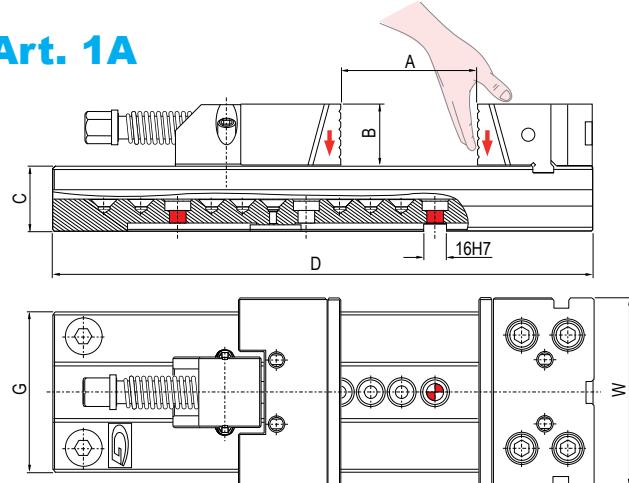
Fori rettificati e calibrati con tolleranza F7 già inclusi nel prezzo

Art. 1A

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

Ground calibrated holes F7 tolerance already included in the price

Art. 1A

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

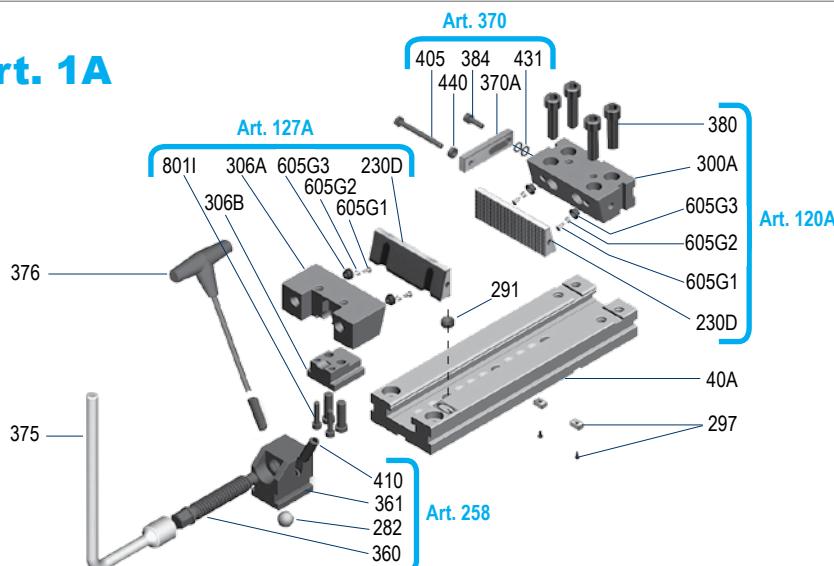


UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES !

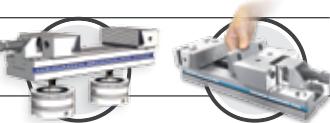
Art. 230E	4.23.0E501 H 53 H1 10		4.23.0E601 68 10
Art. 212	1.21.25000		1.21.26000
Art. 230B	4.23.0B501		4.23.0B601
Art. 230F	4.23.0F501		4.23.0F601
Art. 391	4.39.15000		4.39.16000
Art. 392	4.39.25000		4.39.26000

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

Art. 1A

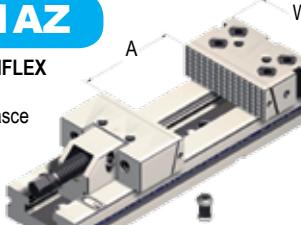


Art.	Pag.	Art.	Pag.
40A	1.20	376	4.27
230D	4.13	380	4.20
282	4.28	384	4.20
291	-	405	4.27
297	4.27	410	4.12
300A	4.22	431	4.20
306A	4.22	440	4.20
306B	4.22	605G1	6.31
360	4.28	605G2	6.31
361	4.28	605G3	6.31
370A	4.27	801I	5.54
375	4.27	-	-



Tipo (grandezza) morsa / Vise (type) size	kN	1	2	3	4				
		16 kN	25 kN	30 kN	30 kN				
Apertura massima / Maximum spread	A	100	150	200	300	200	300	400	500
	W	96	121	146				171	
Art. 1AZ	B	28	38	48				58	
Morsa StandardFLEX per Zero Point con piastre ganasce a cambio rapido manuale	C	35	40	50				58	
	D	270	345	420	520	455	555	655	755
	G	75	95	125				145	
	kg	7.3	13.2	26.2	29.7	37.9	43	48.1	53.2
	Cod.	1.1A.Z1000	1.1A.Z2000	1.1A.Z3200	1.1A.Z3300	1.1A.Z4200	1.1A.Z4300	1.1A.Z4400	1.1A.Z4500

StandardFLEX vise for Zero Point System with quick manual change jaw-plates


AMPLIA LE TUE APPLICAZIONI TRAMITE GLI ACCESSORI MODULARI !

Art. 230E		Cod. 4.23.0E101	4.23.0E201	4.23.0E301	4.23.0E401
Piastra ganascia intercambiabile Interchangeable jaw plate		H	23	33	43
		H1	5	5	5
					53
					5
Art. 212		Cod. 1.21.21000	1.21.22000	1.21.23000	1.21.24000
Ganascia mobile intermedia (da usare con Art. 230E)					
Intermediate movable jaw (to be used with Art. 230E)					
Art. 230B		Cod. 4.23.0B101	4.23.0B201	4.23.0B301	4.23.0B401
Piastra ganascia intercambiabile dolce Soft interchangeable jaw plate					
Art. 230F		Cod. 4.23.0F101	4.23.0F201	4.23.0F301	4.23.0F401
Piastra ganascia intercambiabile prismatica Prismatic interchangeable jaw plate					
Art. 271		Cod. 4.39.11000	4.39.12000	4.39.13000	4.39.14000
Art. 391					
CNC / CNC					
Art. 392		Cod. 4.39.21000	4.39.22000	4.39.23000	4.39.24000
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

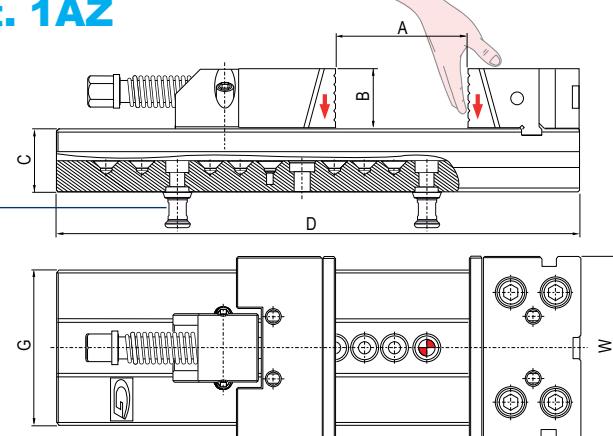
Dotazione standard:

- 1 arresto laterale Art. 370
- 2 tiranti Art. 10A
- 2 tappi Art. 291
- 1 chiave a pipa Art. 375 ■ 1 chiave a "T" Art. 376

Art. 1AZ

Standard equipment:

- 1 workstop Art. 370
- 2 pullstuds Art. 10A
- 2 inserts Art. 291
- 1 box wrench Art. 375 ■ 1 T-wrench Art. 376

Art. 1AZ
Art. 10A

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

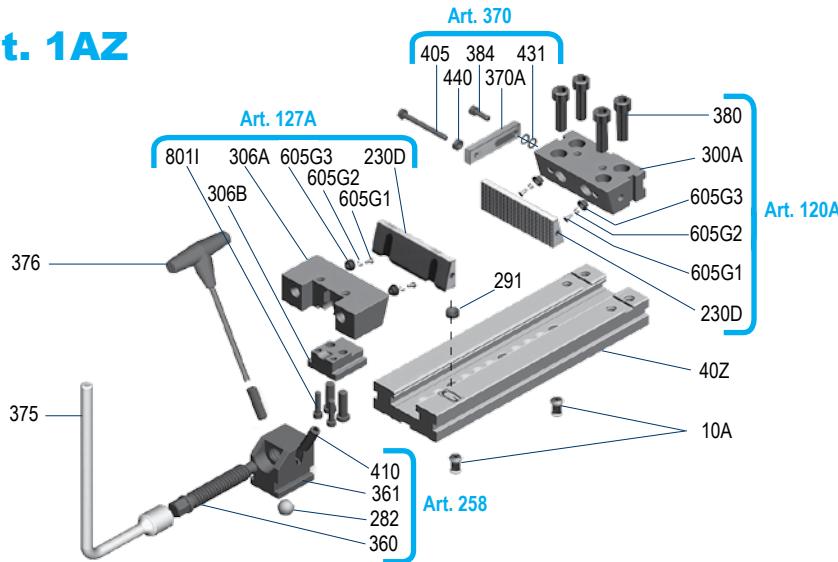


UPGRADE YOUR VISE APPLICATIONS THROUGH MODULAR ACCESSORIES

Art. 230E	4.23.0E501		4.23.0E601
H	53		68
H1	10		10
	1.21.25000		1.21.26000
Art. 212			
	4.23.0B501		4.23.0B601
Art. 230B			
	4.23.0F501		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. 1AZ



Art.	Pag.	Art.	Pag.
10A	9.25	376	4.27
40Z	1.20	380	4.20
230D	4.11	384	4.20
282	4.28	405	4.27
291	-	410	4.12
300A	4.27	431	4.20
306A	4.22	440	4.20
306B	4.22	605G1	6.31
360	4.28	605G2	6.31
361	4.26	605G3	6.31
370A	4.25	801I	5.54
375	4.25	-	-

Tipo (grandezza) morsa / Vise (type) size	1	2	3	4					
Art. 40	C D G K N U Z kg Cod.	35 270 75 - 3 111 100 3,8 1.80.10270	40 345 95 - 2 111 100 7,3 1.80.20345	50 420 125 100 3 122,5 100 15,1 1.80.30420	58 520 145 100 4 100 100 18,7 1.80.30520	58 455 145 100 3 129 100 20,6 1.80.40455	655 555 100 25,2 1.80.40555	755 655 129 29,7 1.80.40655	5 6 34,5 1.80.40755
Slittone base serie STD senza alcuna dotazione									
Vise base STD series supplied without any accessory									

Art. 40A

Slittone base serie StandardFLEX senza alcuna dotazione



Vise base StandardFLEX series supplied without any accessory

kg	3,8	7,3	15,1	18,7	20,6	25,2	29,7	34,5
Cod.	1.40.A1000	1.40.A2000	1.40.A3200	1.40.A3300	1.40.A4200	1.40.A4300	1.40.A4400	1.40.A4500

Art. 40Z

Slittone base serie Zero Point senza alcuna dotazione

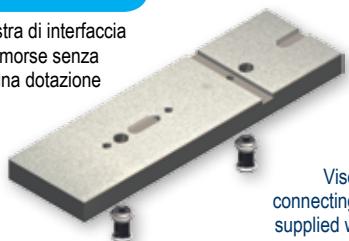


Vise base Zero Point series supplied without any accessory

ZZ	200	200	200	200/250	200	200/250	250/300	250/300
kg	4	8	15,5	19	21	25,5	30	35
Cod.	1.40.Z1000	1.40.Z2000	1.40.Z3200	1.40.Z3300	1.40.Z4200	1.40.Z4300	1.40.Z4400	1.40.Z4500

Art. 62

Piastra di interfaccia per morse senza alcuna dotazione

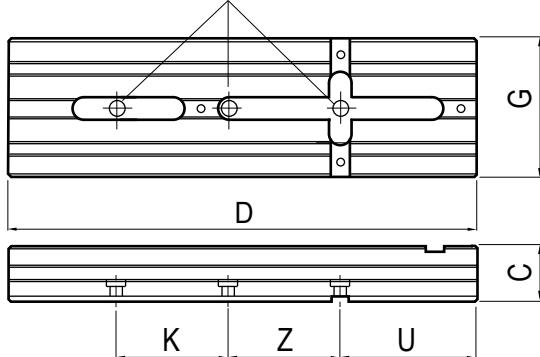


Vise base connecting plate supplied without any accessory

C1	28	28	33	33
UU	86	86	97,5	97,5
ZZ	200	200	200	200/250
kg	4,5	7,2	13,5	16,7
Cod.	1.62.11000	1.62.21500	1.62.32000	1.62.33000

Art. 40

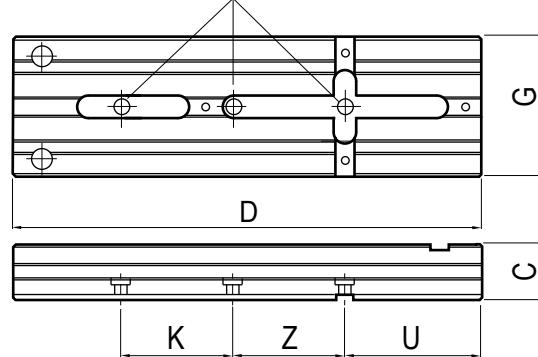
N Fori / Holes



Versione normale: Cave da 16 mm (H7)
Normal version: 16 mm slots (H7)

Art. 40A

N Fori / Holes



Versione normale: Cave da 16H7 e fori calibrati Ø 16F7
Normal version: 16H7 slot and calibrated holes Ø 16F7

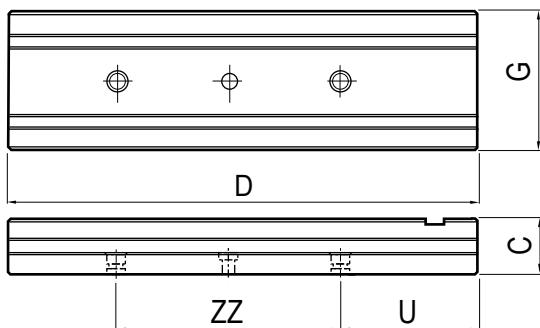
5					6							
70								78				
495	595	695	795	895	535	635	735	835	935	1035	1135	
170								195				
2	3	4	5	6	4	5	6	7	8	9	10	
100								100				
145								152				
100								100				
32,6	39,2	45,8	52,5	59	47	56	65	74	83	61	100	
1.80.50495	1.80.50595	1.80.50695	1.80.50795	1.80.50895	1.80.60535	1.80.60635	1.80.60735	1.80.60835	1.80.60935	1.80.60035	1.80.60135	

32,6	39,2	45,8	52,5	59	47	56	65	74	83	91	100	
1.40.A5200	1.40.A5300	1.40.A5400	1.40.A5500	1.40.A5600	1.40.A6200	1.40.A6300	1.40.A6400	1.40.A6500	1.40.A6600	1.40.A6700	1.40.A6800	

200	200/250	250/300	250/300	300	250/300	250/300	300	300	300	300	300	300
33	40	46	53	59	47	56	65	74	83	91	100	
1.40.Z5200	1.40.Z5300	1.40.Z5400	1.40.Z5500	1.40.Z5600	1.40.Z6200	1.40.Z6300	1.40.Z6400	1.40.Z6500	1.40.Z6600	1.40.Z6700	1.40.Z6800	

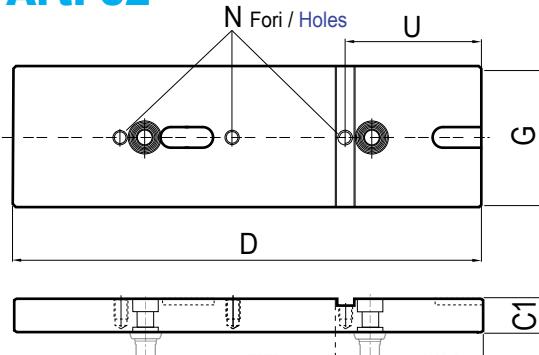
38					38							
120					127							
200	200/250	250/300	250/300	300	250/300	250/300	300	300	300	300	300	300
25	30	35	40	45	31	36,7	42,5	48,3	54	59,8	65,6	
1.62.52000	1.62.53000	1.62.54000	1.62.55000	1.62.56000	1.62.62000	1.62.63000	1.62.64000	1.62.65000	1.62.66000	1.62.67000	1.62.68000	

Art. 40Z



Versione normale: 2 o 3 fori filettati per tiranti Art. 10A
Normal version: 2-3 holes threaded for pull studs Art. 10A

Art. 62



Art. 10A
Tiranti Art. 10A non in dotazione
Pull studs Art. 10A not included in the standard equipment

Tipo (grandezza) morsa / Vise (type) size

1

2

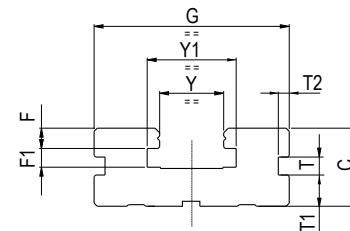
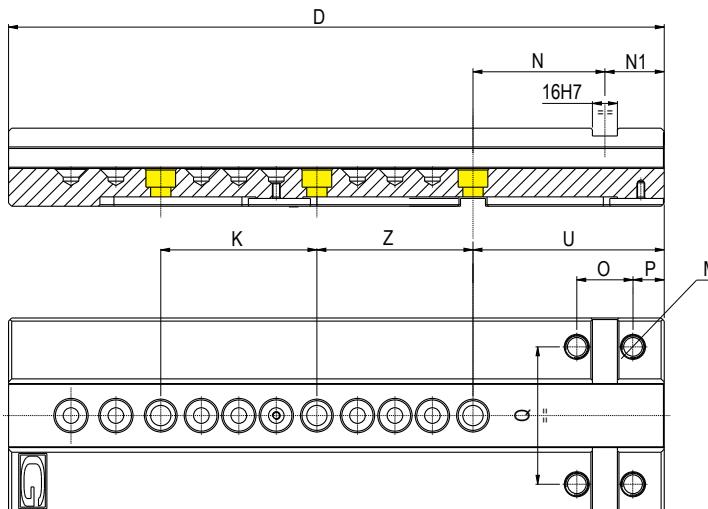
3

4

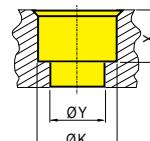
Tolleranza / Tolerance

- 0,02	C	35	40	50		58		
-	D	270	345	420	520	455	555	655
- 0,02	F	10	12	13		15		
+ 0,02	F1	10	10	12		18		
- 0,02	G	75	95	125		145		
+ 0,02	Y	21	28	41		51		
-	Y1	31	41	57		70		
-	M	M10	M12	M14		M16		
-	N	76	76	84,5		89		
-	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		
-	U	111	111	122,5		129		
-	K	-	-	100		100		
-	Z	100	100	100		100		

Art. 40 Slittone base serie STD / Vise base STD series

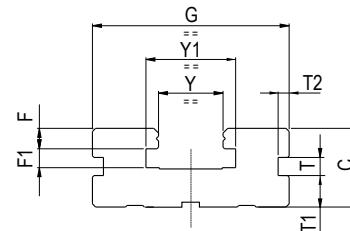
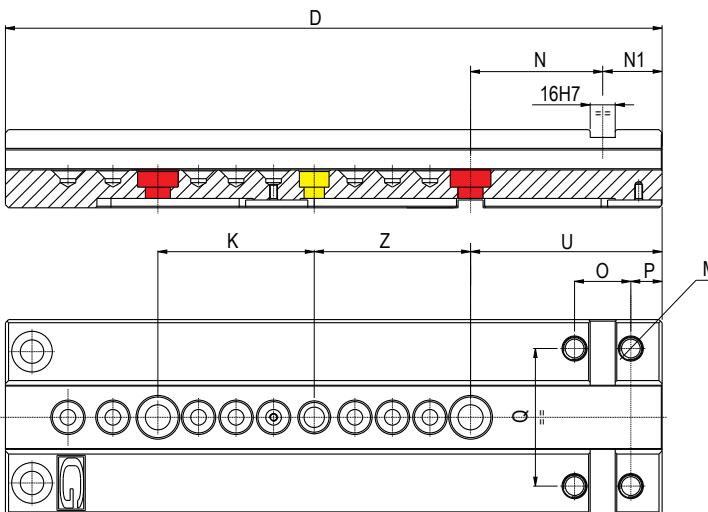


Dettaglio foro per vite TCEI / TCEI screw hole details

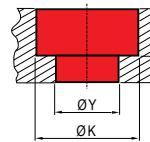


Type	1	2	3	4	5	6
X	4,5	5,5	8	8	17	17
Ø Y	6,5	8,5	13	13	17	17
Ø K	10,5	13,5	19	19	26	26

Art. 40A Slittone base serie StandardFLEX / Vise base StandardFLEX series



Dettaglio foro per vite calibrata / Calibrated screw hole details

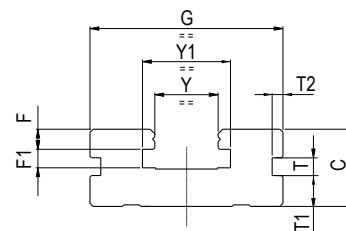
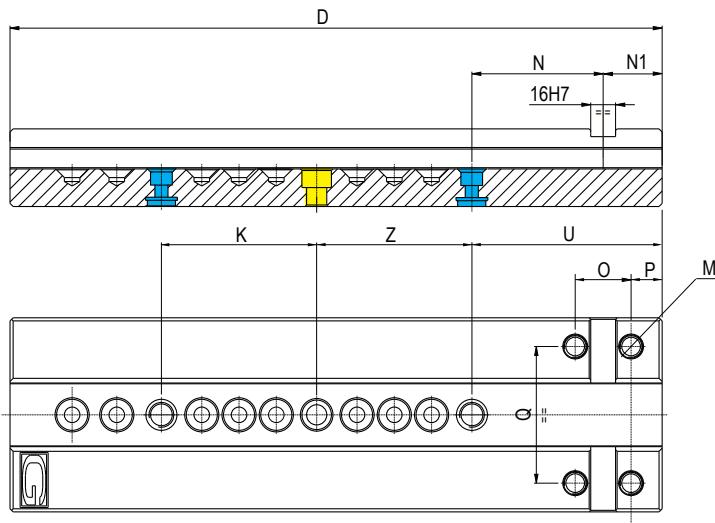


Type	1	2	3	4	5	6
X	8			11		
Ø Y	16F7			16F7		
Ø K	21			25		

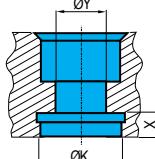
5

6

		70					78				
495	595	695	795	895	535	635	735	835	935	1035	1135
20		20				20					
18		18				18					
170						195					
61							71				
80							90				
M20							M20				
100							107				
45							45				
44							44				
23							23				
120							133				
17,5							17,5				
26							26				
10							10				
145							152				
100							100				
100							100				

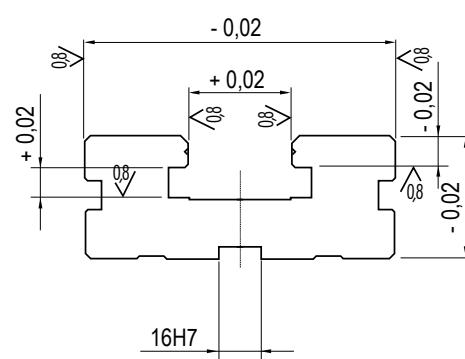
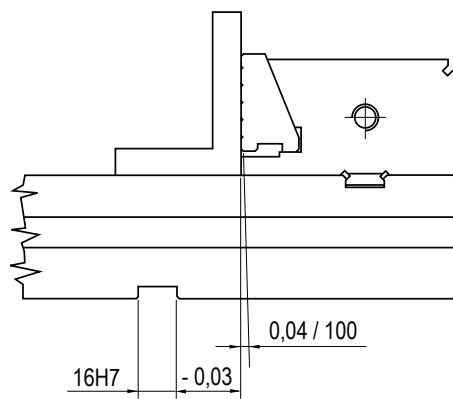
Art. 40Z Slittone base serie ZERO POINT / Vise base ZERO POINT series


Dettaglio foro per Zero Point / Zero Point hole details



Type	1	2	3	4	5	6
X					6	
Ø Y					13	
Ø K					20	

Tolleranze generiche per morse XL / XL vise generic tolerances



Tipo (grandezza) morsa / Vise (type) size

	1	16 kN
kN	80	130
W	100	
B	30	
D	250	300
E	300	350
G	75	
G1	120	
J	77,9	
L	300	
M	33	
N	85	
kg	37	42
Cod.	3.70.00801	3.70.01301

Art. 700

Cubomorsa modulare standard
in monoblocco

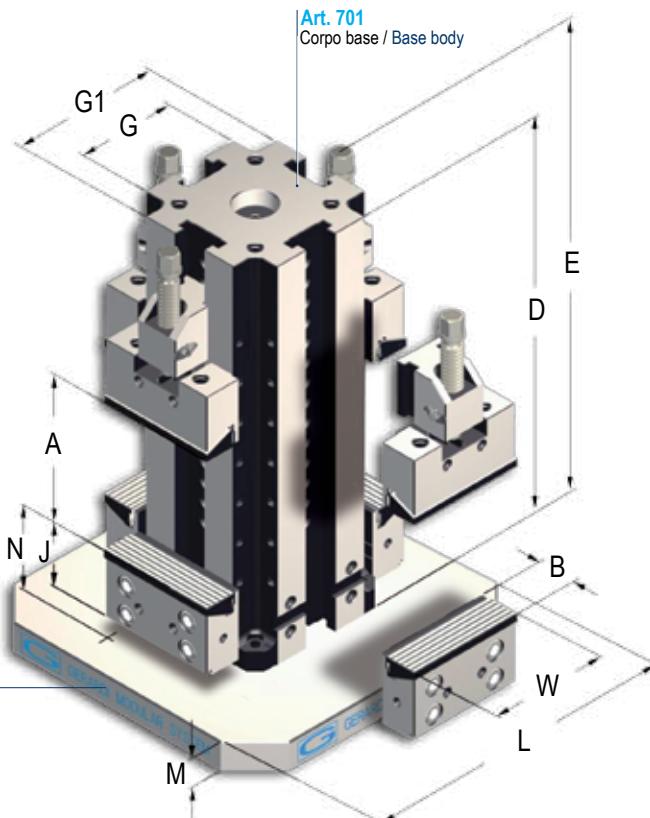
Standard modular vise tower
in solid body

Dotazione standard:

- 4 arresti laterali Art. 370
- 2 coppie 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

Standard equipment:

- 4 workstops Art. 370
- 2 pairs of positioning key-nuts Art. 297
(Standard for 16 mm slot;
other widths available on request without price change)
- 1 box wrench Art. 375
- 1 "T"- wrench Art. 376



Art. 828 (Extra)

Tipo (grandezza) morsa / Vise (type) size

	1	16 kN
A	100	
D	270 *	
E	320	
P	75 *	
kg	10	
Cod.	1.75.01000	

Art. 750

Morse standard montate verticalmente
N° 4 morse STD Art. 1+ N° 1 Art. 450

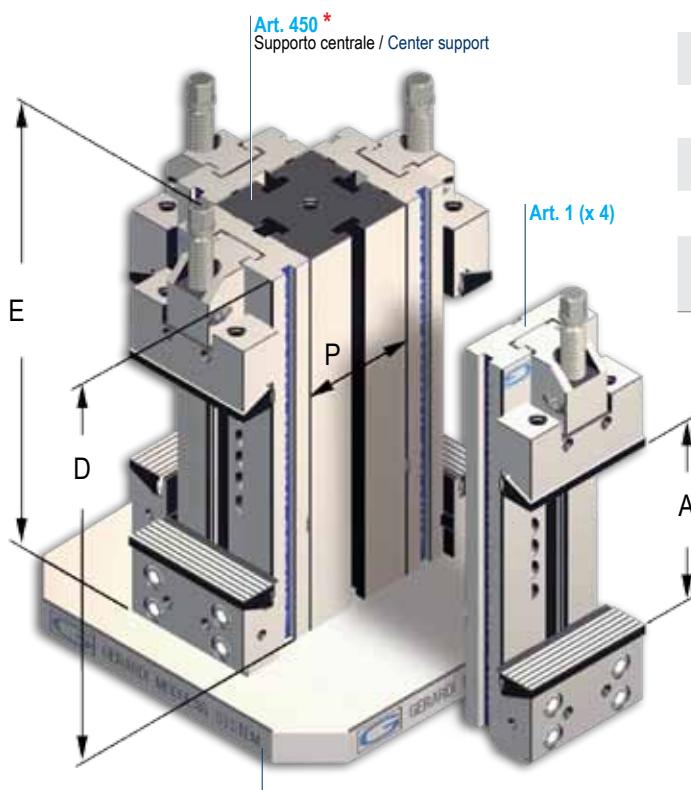
Standard vises vertically mounted
N° 4 vises STD Art. 1+ N° 1 Art. 450

Dotazione standard:

- 4 arresti laterali Art. 370
- 2 coppie 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

Standard equipment:

- 4 workstops Art. 370
- 2 pairs of positioning key-nuts Art. 297
(Standard for 16 mm slot;
other widths available on request without price change)
- 1 box wrench Art. 375
- 1 "T"- wrench Art. 376



Art. 828 (Extra)

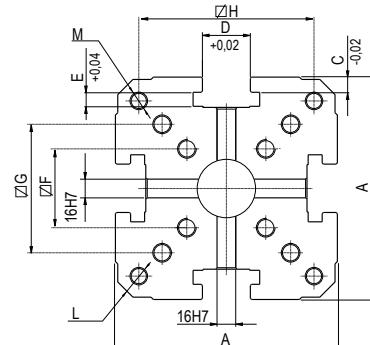
* Altre dimensioni a richiesta / Other dimensions on request

2 25 kN		3 30 kN			4 30 kN				5 40 kN		6 40 kN
155	205	170	270	370	145	245	345	445	-	-	-
125		150			175				200	300	
40			50			60			-		
350	400	400	500	600	400	500	600	700	-	-	-
430	480	470	570	670	475	575	675	775	-	-	-
95		125			145				170	195	
160			190			230			*	*	
77,9		89,4			96,9				*	*	
350			400			450			*	*	
33		38			38				-	-	
85			102			111			-	-	
83	96	137	160	183	197	230	263	296	-	-	-
3.70.01552	3.70.02052	3.70.01803	3.70.02803	3.70.03803	3.70.01454	3.70.02454	3.70.034 54	3.70.04454	-	-	-
									-	-	-

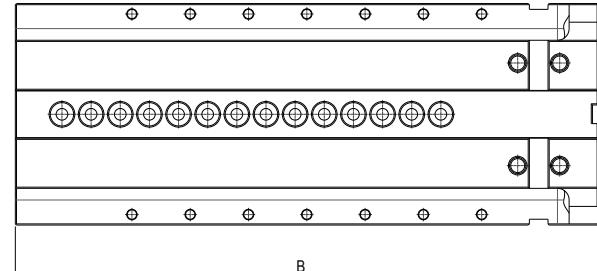
* Altre dimensioni a richiesta / Other dimensions on request

2 25 kN		3 30 kN		4 30 kN				5 40 kN			6 40 kN		
150	200	300	200	300	400	500	200	300	400	300	400	500	
345*	420	520	455	555	655	755	495	595	695	635	735	835	
345	450	550	455				-			-			
95*	125		145				170			195			
19	46		68				98			145			
1.75.02000	1.75.03200	1.75.03300	1.75.04200	1.75.04300	1.75.04400	1.75.04500	1.75.05200	1.75.05300	1.75.05400	1.75.06300	1.75.06400	1.75.06500	

Tipo (grandezza) morsa / Vise (type) size



Art. 701

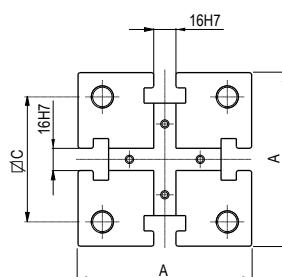


Senza alcuna dotazione
Without accessory equipment

Art. 701

Corpo slittone standard
Body for standard vise tower

Tipo (grandezza) morsa / Vise (type) size

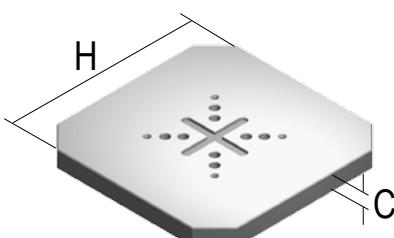


Art. 450

Senza alcuna dotazione
Without accessory equipment

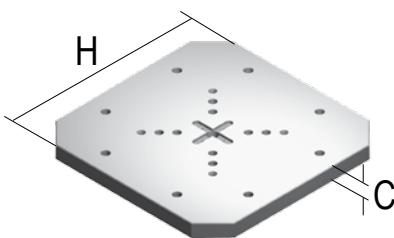
Art. 450

Supporto centrale per montaggio morse
modulari standard in verticale. Dolce o temprato.
Center support for vertical arrangement of standard
modular vises. Soft or hardened



Art. 828

Piastra base per cubo-morsa
Head plate for vise-tower



Art. 828A

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

	1	2	3	4	5	6
A	120	160	190	200	*	*
B	250	300	350	400	400	500
C	10	12	13	15	20	20
D	21	28	41	51	61	71
E	10	10	12	18	18	18
F	40	54	70	80	80	
G	70	84	110	134	134	
H	-	120	150	200	210	
L	M12	M16	M16	M20	M20	*
M	-	Ø 13	Ø 13	Ø 13	Ø 13	
kg	25	30	64	73	92	115
Cod.	1.70.10801	1.70.11301	1.70.11552	1.70.12052	1.70.11803	1.70.12803
					1.70.10803	1.70.11454
					1.70.12454	1.70.13454
					1.70.14454	

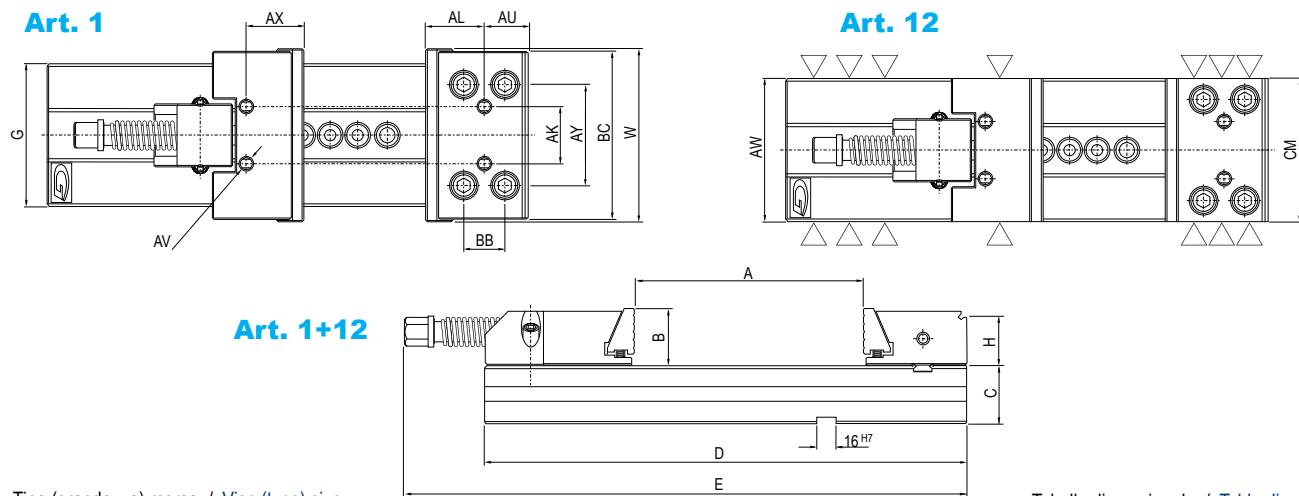
* A richiesta / On request

	1	2	3	4	5	6
A	75	95	125	145	170	195
B	270	345	420	520	495	595
C	50	60	90	110	110	*
D	M12	M16	M16	M16	M20	*
kg	10	19	46	68	98	145
Cod.	1.45.01000	1.45.02000	1.45.03420	1.45.03520	1.45.04455	1.45.04555
					1.45.04655	1.45.04755
					1.45.05495	1.45.05595
					1.45.05695	1.45.06635
					1.45.06735	1.45.06835

* A richiesta / On request

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

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

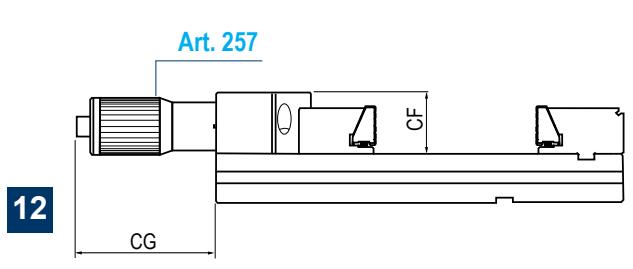
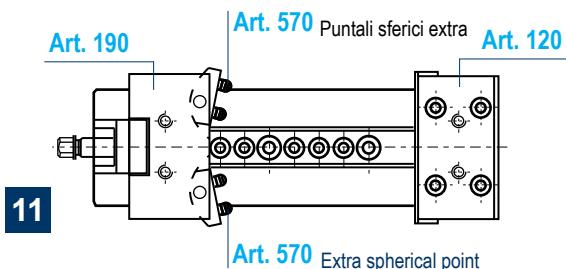
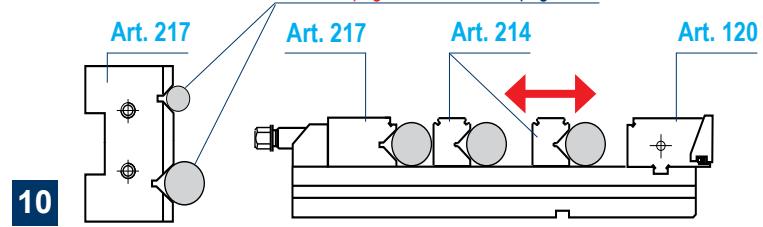
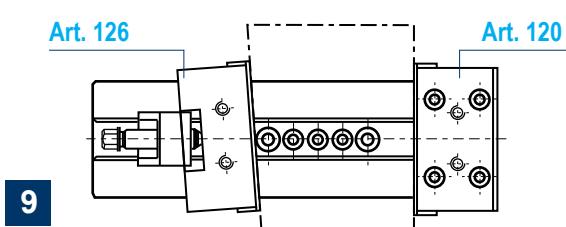
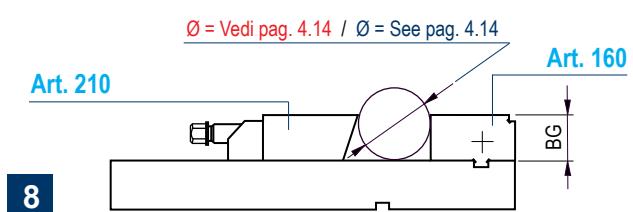
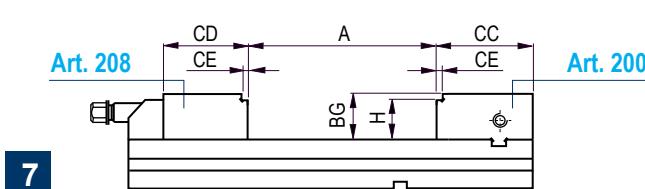
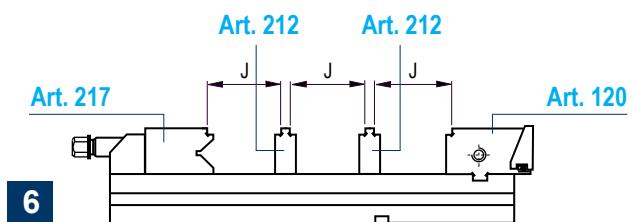
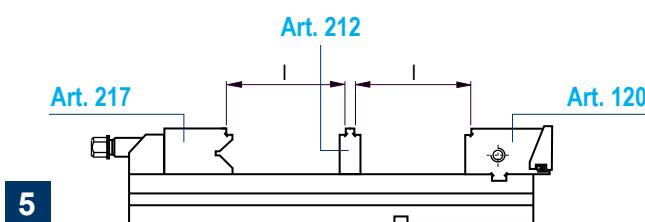
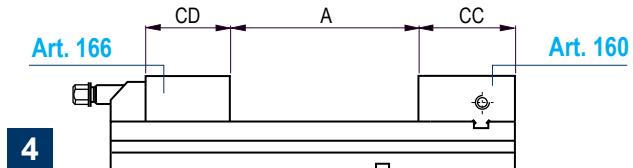
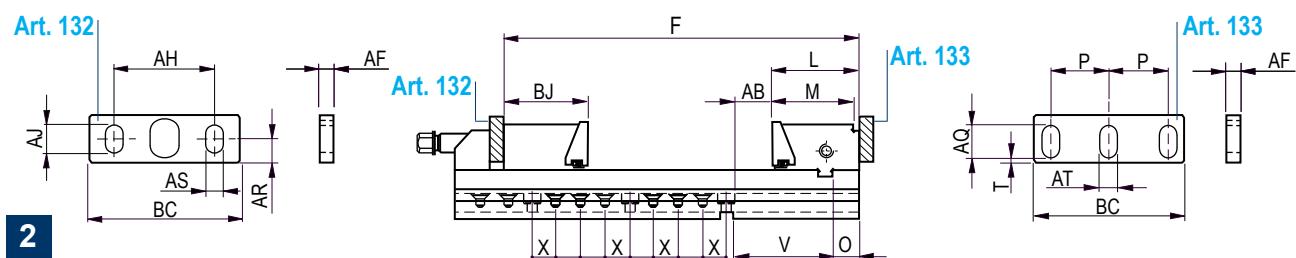
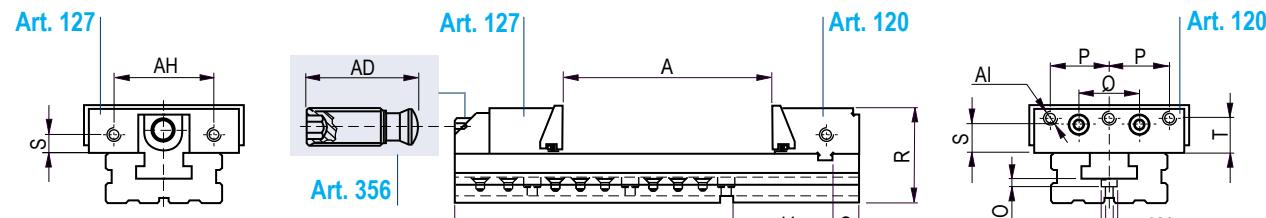


Tipo (grandezza) morsa / Vise (type) size

Tabella dimensionale / Table dimension

mm	1	2	3	4				5				6					
W	100	125	150	175				200				300					
A	100	150	200	300	200	300	400	500	200	300	400	500	600	200	300	400	500
B	30	40	50		60					65					80		
C	35	40	50		58					70					78		
D	270	345	420	520	455	555	655	755	495	595	695	795	895	535	635	735	835
E	320	425	500	600	530	630	730	830	580	680	780	880	980	630	730	830	930
F	225	285	370	470	385	485	585	685	410	510	610	710	810	440	540	640	740
G	75	95	125		145					170					195		
H	23	33	43		53					53					68		
I	55	70	110	160	110	160	210	260	105	165	205	265	305	115	165	215	265
J	34	50	70	104	70	104	137	170	67	107	134	174	200	74	107	140	174
K	124	174	226	326	226	326	426	526	236	336	436	536	636	236	336	436	536

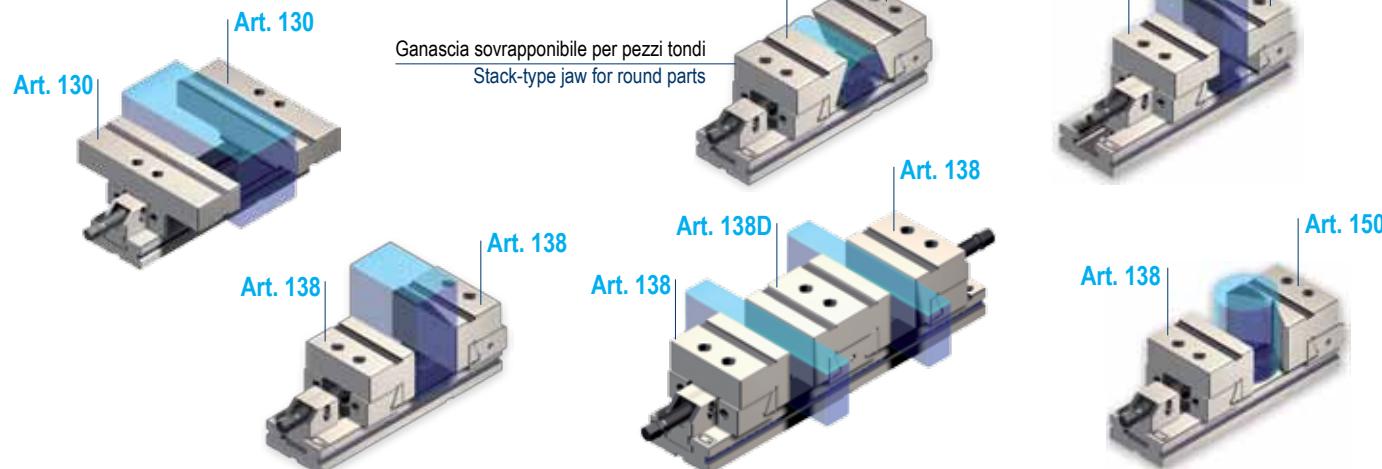
mm	1	2	3	4	5	6	Tolleranza Tolerance	mm	1	2	3	4	5	6	Tolleranza Tolerance
L	54	77.9	89.4	96.9	113.4	120.4	- 0.04	AO	4.5	5.5	12.5	12.5	17	17	
M	72.9	72.9	84.4	91.9	108.4	115.4	- 0.04	AP	15	15	20	20	26	26	
N	10	10	12	18	18	18	+ 0.02	AQ	16	18	26	26	29	30	
O	27	27	30	32	37	37	± 0.02	AR	18	24	26	34	31	38	
P	38	50	62	72.5	83	120		AS	11	17	17	17	21	21	
R	65	80	100	118	135	158		AT	11	11	13	13	13	17	
S	18	23	29	37.5	37.5	47.5		AU	35.5	35.5	38.5	41.5	47	47	
T	16	20.5	27.5	36.5	34	46		AV	M8	M10	M12	M12	M16	M16	
U	111	111	122.5	129	145	152		AX	20	23	28	28	34	38	
V	76	76	84.5	89	100	107	± 0.02	AY	50	62	88	100	120	133	
W	-	-	100	100	100	100		AZ	M10	M12	M14	M16	M20	M20	
X	20	25	25	25	33.33	33.33		BB	32	32	36	36	44	44	
Y	21	28	41	51	61	71	+ 0.02	BC	96	121	146	171	196	296	
Z	100	100	100	100	100	100		BG	28	38	48	58	63	78	
AA	10	12	13	15	20	20	- 0.02	BJ	50	60	80	90	100	120	
AB	25.6	25.6	25.6	25.6	25.6	25.6	+ 0.02	BL	180	225	290	320	370	400	
AC	31	41	57	70	80	90		BM	9.5	9.5	11.5	11.5	17.5	17.5	
AD	53	73	81	101	113	135		CC	77	77	88.5	96	112	117	
AF	13	18	18	18	18	18		CD	48	58	78	88	98	117	
AG	M10	M16	M16	M16	M20	M20		CE	5	5	5	5	5	5	
AH	62	80	90	116	138	184		CF	-	-	64	64	71	-	
AI	M10	M10	M12	M12	M12	M12		CG	-	-	100	100	128	-	
AJ	14	19	24	29	31.5	39		CH	5.5	8	11	17	17	24	
AK	38	38	50	50	76	240		CI	24.5	32	39	43	48	56	
AX	25.6	42.4	50.1	55.4	66.4	73.4		CJ	12	12	13	13	18	18	
AL	42.4	42.4	50.9	55.4	66.4	73.4		-	-	-	-	-	-	-	
AM	4.5	5.5	12.5	12.5	17	17		-	-	-	-	-	-	-	
AN	10	13	19	19	25	25		-	-	-	-	-	-	-	



Tipo (grandezza) morsa / Vise (type) size	1	2	3	4	5	6
Ganascia piana sovrapponibile fissa o mobile Straight stack-type jaw fixed or movable	Cod. Art. 130 2.13.01000 Cod. Art. 130S 2.13.0S100	2.13.02000 2.13.0S200	2.13.03000 2.13.0S300	2.13.04000 2.13.0S400	2.13.05000 2.13.0S500	2.13.06000 2.13.0S600
Art. 130 (130S) Extra large / Extra width	Cad / Each					
Ganascia sovrapponibile per pezzi tondi fissa o mobile Stack-type jaw round parts fixed or movable	Cod. Art. 131 2.13.11000 Cod. Art. 131A 2.13.1A100	2.13.12000 2.13.1A200	2.13.13000 2.13.1A300	2.13.14000 2.13.1A400	2.13.15000 2.13.1A500	2.13.16000 2.13.1A600
Art. 131 (131S) Larghezza normale / Normal width	Cod. Art. 131S 2.13.1S100 Cod. Art. 131AS 2.13.1AS10	2.13.1S200 2.13.1AS20	2.13.1S300 2.13.1AS30	2.13.1S400 2.13.1AS40	2.13.1S500 2.13.1AS50	2.13.1S600 2.13.1AS60
Art. 131A (131AS) Larghezza super ridotta / Super narrow width	Cad / Each					
Ganascia piana sovrapponibile fissa o mobile Straight stack-type jaw fixed or movable	Cod. Art. 136 2.13.61000 Cod. Art. 137 2.13.71000	2.13.62000 2.13.72000	2.13.63000 2.13.73000	2.13.64000 2.13.74000	2.13.65000 2.13.75000	2.13.66000 2.13.76000
Art. 136 (136S) Larghezza normale / Normal width	Cod. Art. 136S 2.13.6S100 Cod. Art. 137S 2.13.7S100	2.13.6S200 2.13.7S200	2.13.6S300 2.13.7S300	2.13.6S400 2.13.7S400	2.13.6S500 2.13.7S500	2.13.6S600 2.13.7S600
Art. 137 (137S) Larghezza super ridotta / Super narrow width	Cad / Each					
Ganascia a squadra sovrapponibile fissa o mobile Square stack-type jaw fixed or movable	Cod. Art. 138 2.13.81000 Cod. Art. 139 2.13.91000	2.13.82000 2.13.92000	2.13.83000 2.13.93000	2.13.84000 2.13.94000	2.13.85000 2.13.95000	2.13.86000 2.13.96000
Art. 138 (138S) Larghezza normale / Normal width	Cod. Art. 138S 2.13.8S100 Cod. Art. 139S 2.13.9S100	2.13.8S200 2.13.9S200	2.13.8S300 2.13.9S300	2.13.8S400 2.13.9S400	2.13.8S500 2.13.9S500	2.13.8S600 2.13.9S600
Art. 139 (139S) Larghezza super ridotta / Super narrow width	Cad / Each					
Ganascia a squadra sovrapponibile doppia Double square jaw stack-type	Cod. Art. 138D 2.13.8D100 Cod. Art. 139D 2.13.9D100	2.13.8D200 2.13.9D200	2.13.8D300 2.13.9D300	2.13.8D400 2.13.9D400	2.13.8D500 2.13.9D500	2.13.8D600 2.13.9D600
Art. 138D (138DS) Larghezza normale / Normal width	Cod. Art. 138DS 2.13.8DS10 Cod. Art. 139DS 2.13.9DS10	2.13.8DS20 2.13.9DS20	2.13.8DS30 2.13.9DS30	2.13.8DS40 2.13.9DS40	2.13.8DS50 2.13.9DS50	2.13.8DS60 2.13.9DS60
Art. 139D (139DS) Larghezza super ridotta / Super narrow width	Cad / Each					
Ganascia prismatica sovrapponibile fissa o mobile Stack-type prismatic jaw fixed or movable	Cod. Art. 150 1.15.01000 Cod. Art. 150A 1.15.0A100	1.15.02000 1.15.0A200	1.15.03000 1.15.0A300	1.15.04000 1.15.0A400	1.15.05000 1.15.0A500	1.15.06000 1.15.0A600
Art. 150 (150S) Larghezza normale / Normal width	Cod. Art. 150S 1.15.0S100 Cod. Art. 150AS 1.15.0AS10	1.15.0S200 1.15.0AS20	1.15.0S300 1.15.0AS30	1.15.0S400 1.15.0AS40	1.15.0S500 1.15.0AS50	1.15.0S600 1.15.0AS60
Art. 150A (150AS) Larghezza super ridotta / Super narrow width	Cad / Each					

Versione "S" in acciaio lavorabile / "S" type in soft steel

Esempi di applicazione / Typical arrangements

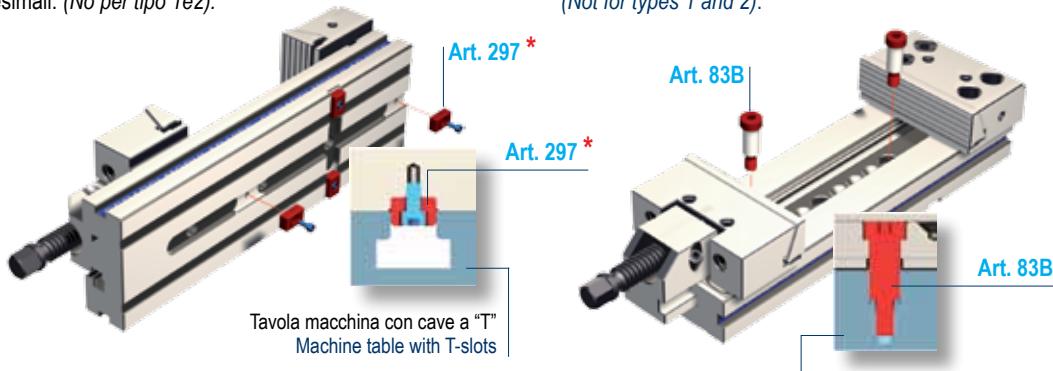


ISTRUZIONI PER UN CORRETTO UTILIZZO INSTRUCTIONS FOR A PROPER USE

POSIZIONAMENTO

Le morsi della serie **STANDARD** e **StandardFLEX** possono essere posizionate orizzontalmente oppure in verticale sulla tavola della macchina o su sovratavola.

Il posizionamento e l'allineamento avviene tramite chiavette a 16 H7. Si può anche allineare la morsa tramite viti calibrate, garantendo tolleranze centesimali. (No per tipo 1e2).



* La dotazione standard comprende 1 sola coppia di tasselli di posizionamento Art. 297
* Standard equipment includes only 1 pair of positioning key nuts Art. 297

CONTROLLO ALLINEAMENTO TRA CAVA TRASVERSALE E GANASCIA FISSA

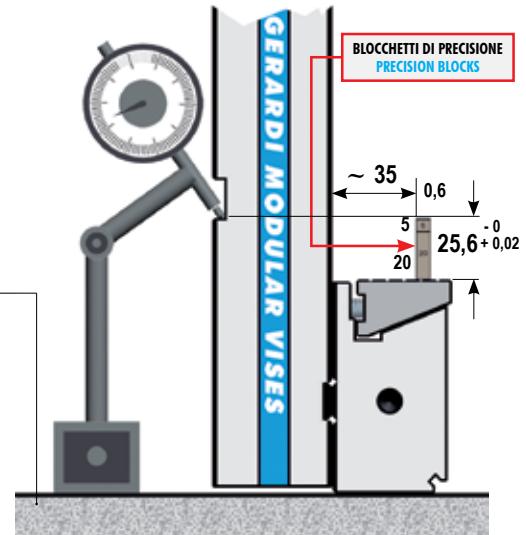
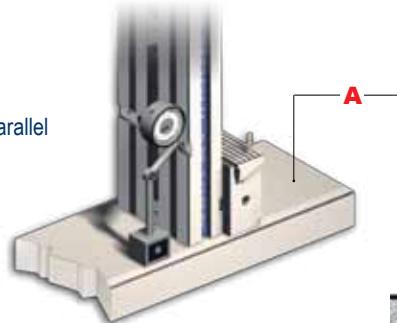
Posizionare la morsa verticalmente assicurandosi che sia perfettamente parallela al piano di appoggio **A** nei due sensi.

Successivamente, con un comparatore centesimale, controllare il parallelismo del piano cava e della ganascia fissa.

ALIGNMENT BETWEEN THE CROSS KEYWAY AND THE FIXED JAW PLATE

Set the vise vertically ensuring that it is perfectly at parallel to the table **A** in both sides.

Then with an indicator check the parallelism of the keyway and its alignment with the fixed jaw plate.



ANCORAGGIO

L'ancoraggio può avvenire tramite viti centrali o staffe laterali.

La scelta più valida rimane comunque il fissaggio tramite staffe laterali (Art. 296).

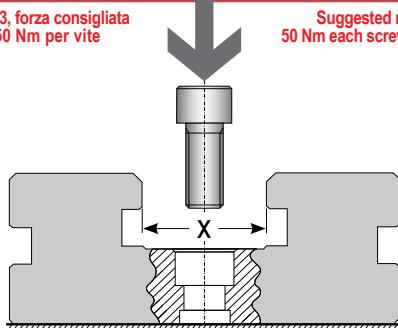
Due morsi parallele allineate tramite chiavetta centrale, viti calibrate o riferimenti laterali, mantengono lo stesso riferimento sulle ganasce fisse con tolleranza pari a **0,02 mm**.

Lo staffaggio della morsa con questo metodo **NON è consigliabile** perché la sua quota X può flettere e compromettere lo scorrimento della ganascia mobile su questo asse

Hard tightening down of the vise to the machine table by this method is **NOT recommended** as it can distort gap X and prevent the moving jaw from sliding

Per morsa tipo 3, forza consigliata massima 50 Nm per vite

Suggested max torque 50 Nm each screw for type 3 vise



VISE CLAMPING ON THE MACHINE TABLE

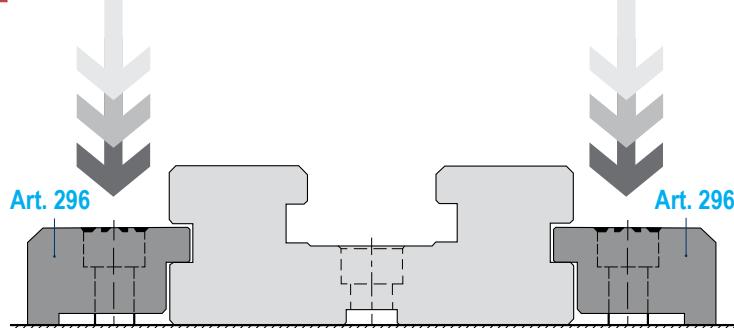
The clamping on the machine table can be made through screws from the central groove or through side clamps.

The best clamping choice is through side clamps (Art. 296).

Two vises aligned through central cross keys or ground screws or side lateral reference points guarantee the same reference and alignment on the fixed jaw section with accuracy within **0,02 mm**.

IL METODO CORRETTO E' QUESTO

THIS IS THE RIGHT WAY



ISTRUZIONI PER UN CORRETTO UTILIZZO

INSTRUCTIONS FOR A PROPER USE

OPERAZIONI PER UN CORRETTO SERRAGGIO DEI PEZZI

Le illustrazioni si riferiscono all' Art. 1 "STANDARD"

- 1** - Assicurarsi che la morsa sia correttamente posizionata e ancorata alla tavola della macchina e che la ganascia fissa Art. 120 / 120A sia correttamente fissata. (Fig. 1)

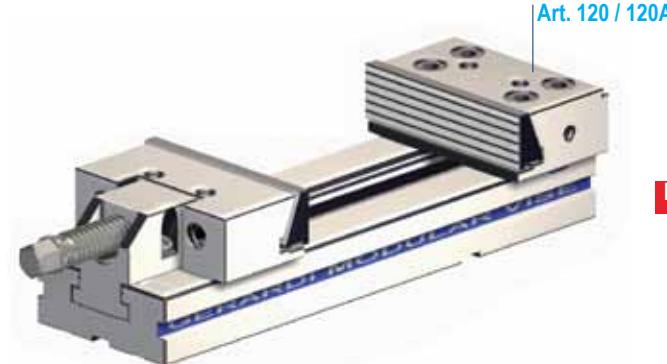


Fig. 1 | Pic. 1

ACTIONS FOR THE BEST WORK-PIECE CLAMPING

Pictures refer to Art. 1 "STANDARD" vise

- 1** - Ensure that the vise is properly positioned and clamped to the machine table and that the fixed jaw Art.120 / 120A is properly assembled. (Pic.1)

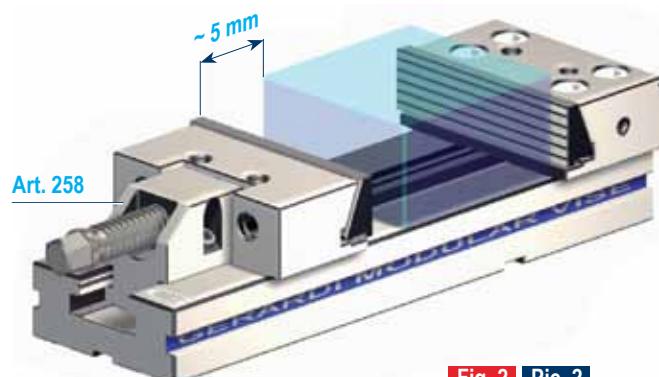
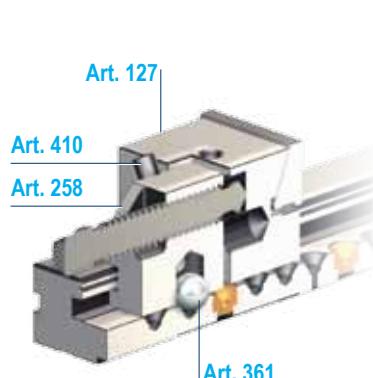


Fig. 2 | Pic. 2

- 2** - Posizionare la ganascia mobile Art. 127 / 127A allentando i due grani Art. 410 per consentire il sollevamento della sfera calibrata Art. 361 e quindi lo spostamento di tutto il gruppo di serraggio Art. 258 in una posizione più idonea sullo slittone di base, lasciando circa 5 mm di aria rispetto al pezzo da serrare. (Fig. 2)

- 2** - Position the movable jaw Art.120 / 120A loosening the 2 set screws Art.410 in order to allow the ground ball Art.361 lift and then move the Art.258 blocking group in the most proper position on the vise base leaving roughly 5 mm space with respect to the workpiece to clamp. (Pic.2)

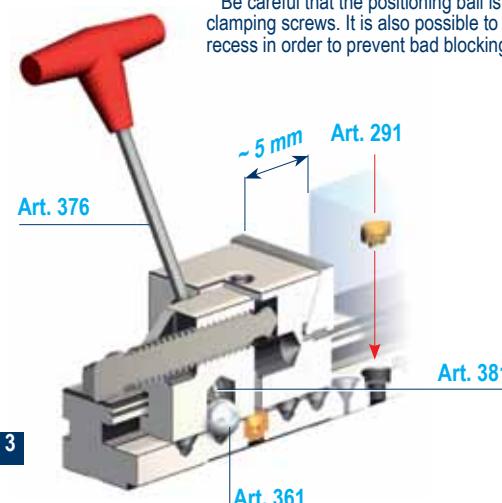


Fig. 3 | Pic. 3

- 3** - Nello stringere i due grani Art. 410 mediante la chiave Art. 376, (agendo in senso orario) per assicurarsi che la sfera di posizionamento Art. 361, sia correttamente posizionata in una sede sferica.

Fare attenzione che tale sfera non venga posizionata in una incassatura delle viti di ancoraggio. E' possibile posizionare l'apposito inserto Art. 291 con sede sferica per prevenire incastri. (Fig. 3)

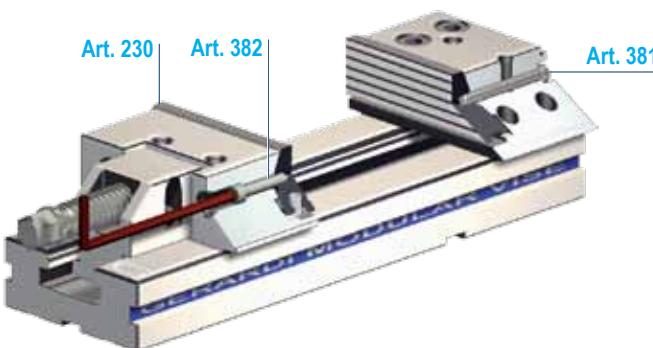
- 3** - Tightening the 2 set screws Art.410 through the T-wrench Art.376 to ensure that the positioning ball Art.361 is properly positioned in a spherical recess.

Be careful that the positioning ball is not pushed in the hole used for the vise clamping screws. It is also possible to use a proper insert Art. 291 with spherical recess in order to prevent bad blocking of the ball. (Pic. 3)

ISTRUZIONI PER UN CORRETTO UTILIZZO INSTRUCTIONS FOR A PROPER USE

UTILIZZO DELL'OPZIONE "EFFETTO DISCENDENTE"

4- Nel caso di morse **Art. 1**, volendo avvalersi della opzione piastre ganasce discendenti, allentare di 1/4 di giro le viti **Art. 381 / 382** (Fig. 4) per permettere alle piastre ganasce discendenti **Art. 230** di scorrere dall'alto verso il basso, ottenendo così un serraggio del pezzo verso la base morsa.



Solo per morse Standard - Only for Standard Vises

Allentando le viti di 1/4 di giro si ha un sollevamento della piastra della ganascia **Art. 230** grazie alla spinta della molla **Art. 362**.

Loosing the screws of 1/4 of a turn you get a jaw plate **Art.230** lift because of the spring **Art.362** action.

"PULL DOWN" ACTION OPTION

4- Using **Art.1** vises, if the pull down option is required, loose of 1/4 of a turn the screws **Art.381 / 382** (Pic.4) in order to allow the jaw plates **Art.230** to run downward getting a perfect clamping of the workpiece against the vise base.

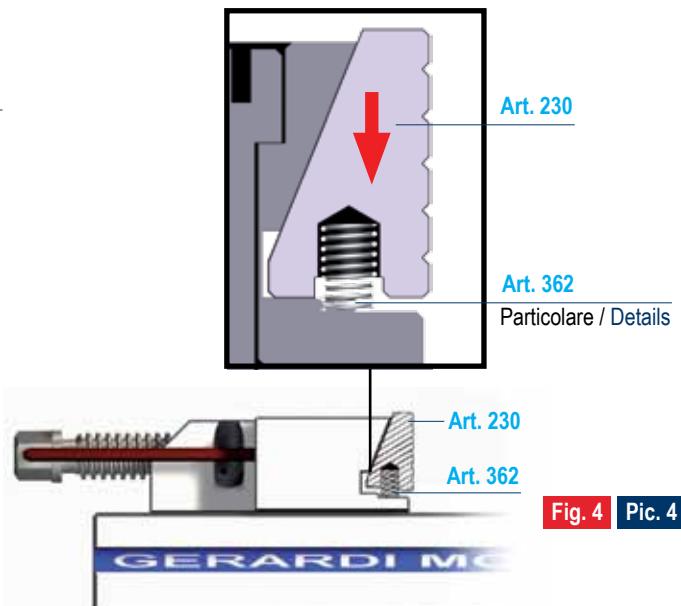


Fig. 4 | Pic. 4

5- Posizionare il pezzo da serrare sullo slittone **Art. 40 o 40A** e tenerlo contro la ganascia fissa **Art. 120 o 120A**.
Per un corretto posizionamento del pezzo ci si può avvalere dei riferimenti laterali **Art. 370**. (Fig. 5)

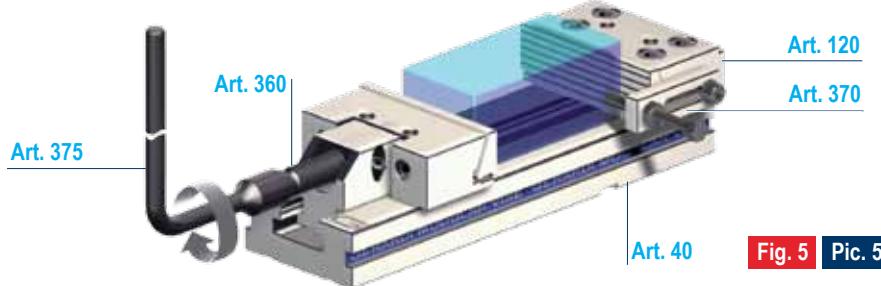


Fig. 5 | Pic. 5

6- Serrare il pezzo agendo in senso orario sulla vite di spinta **Art. 360** (Fig. 5) mediante la chiave in dotazione **Art. 375** senza utilizzare tubi o martelli. Attenzione: nel serraggio basta 1/4 di giro della chiave dal momento in cui la ganascia tocca il particolare (valori indicativi in tabella). (Fig. 6)

5- Position the workpiece on the vise base **Art.40 or 40A** and push it against the fixed jaw **Art.120 or 120A**.
For a proper workpiece positioning you can use the work-stop **Art.370**. (Pic.5)

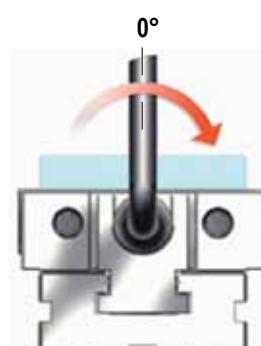
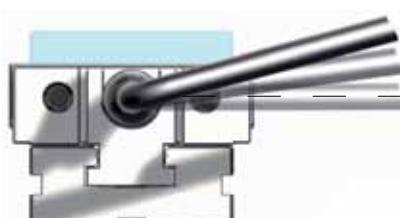


Fig. 6 | Pic. 6

6- Clamp the workpiece turning clockwise the main spindle Art.360 through the box wrench **Art.375** without using tubes or hammers.
Attention: for the right clamping operation 1/4 of a turn of the box wrench is enough (see table below). (Pic.6)

Valori indicativi delle forze di serraggio raggiunte a 90°
Clamping force indicative values at 90°

Tipo (grandezza) Type (size)	1	2	3	4	5	6
Kn	1,2	2,6	3,6	4,6	5	5



90° max

COME SERRARE IL PEZZO HOW TO CLAMP A WORKPIECE

Per serrare correttamente il pezzo è consigliabile utilizzare una chiave dinamometrica da regolare in base al tipo di morsa e alla forza che si vuole ottenere.

AVVERTENZA

Per una maggior precisione e ripetibilità delle lavorazioni, attenersi alle seguenti disposizioni:

- ① *Serrare il particolare con una chiave dinamometrica, regolata secondo la tabella "PROVE DI SERRAGGIO".*
- ② *Individuare il momento ideale tramite comparatore posizionato sul pezzo, quindi procedere nelle lavorazioni richieste.*
- ③ *Serrare eventuali particolari simili con la medesima forza di serraggio.*

In order to clamp the work-piece in the most proper way it is recommended the use of a torque wrench to be adjusted according to the vise type and the clamping power desired or needed.

WARNING

For an increased machining accuracy and repeatability use the following instructions:

- ① *Clamp the workpiece with a torque wrench set according to the "CLAMPING TEST" table.*
- ② *Set the right torque through a clock indicator positioned on the workpiece, then proceed with the machining operations.*
- ③ *Clamp next similar workpieces with the same clamping power.*

PROVE DI SERRAGGIO / CLAMPING TEST Art. 1 e Art. 1A

Eseguite a temperatura ambiente (20°) con chiave dinamometrica

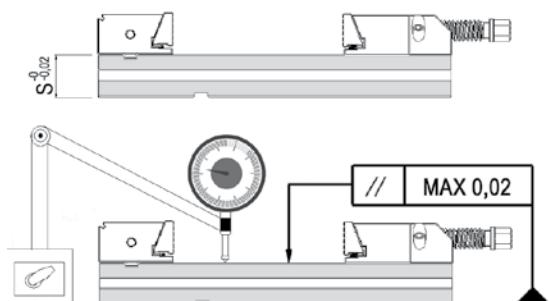
Test made with 20° temperature with torque wrench

Esempio: con una morsa TIPO 3, applicando con chiave dinamometrica un momento di **60 Nm**, si ottiene una forza di serraggio di **25 Kn**

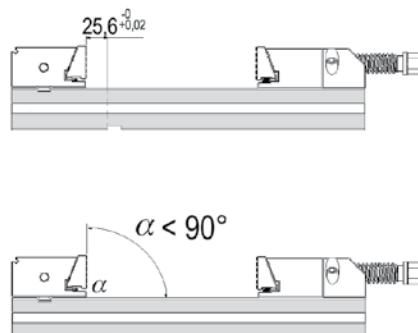
Example: with a vise TYPE 3 (jaw width 150 mm), using torque wrench set at **60 Nm**, you can get a clamping power of **25 Kn**

TIPO TYPE	Momento applicato = Nm Wrench power = Nm	Forza di serraggio = Kn Clamping force = Kn
1	30	10
	50	16 MAX
2	20	8
	40	16
3 / 4	60	25 MAX
	80	30 MAX
5 / 6	80	30
	120	40 MAX

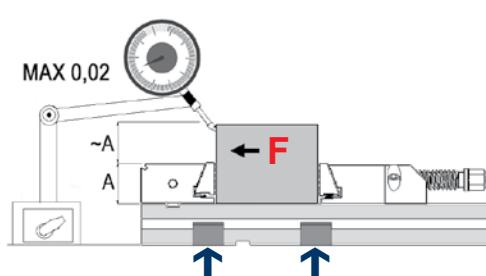
TOLLERANZE GEOMETRICHE



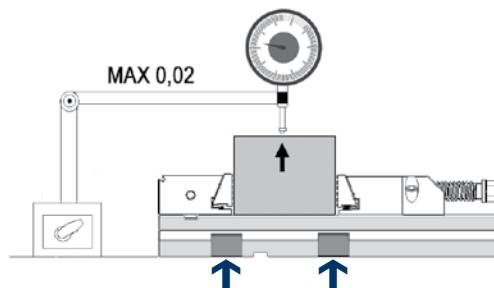
GEOMETRIC ACCURACIES



TOLLERANZE DINAMICHE



DYNAMIC ACCURACIES



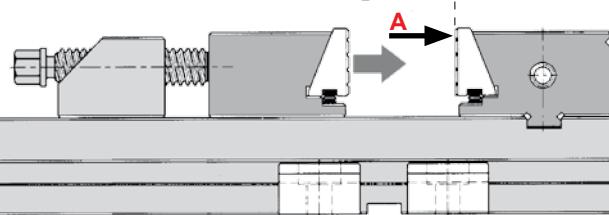
Morsa ancorata con 2 coppie di staffe Art. 296 / Vise clamped with n. 2 pairs of Art. 296

Valori di flessione nel punto "A" in relazione alle forze di serraggio **PER MORSE TIPO 3**

Deflection values at "A" in relation to clamping powers **FOR TYPE 3 VISES**

60 kn	→	0.1 mm
50 kn	→	0.07 mm
40 kn	→	0.05 mm
30 kn	→	0.03 mm
20 kn	→	0.02 mm
10 kn	→	0.01 mm
5 kn	→	0.004 mm
2 kn	→	0.002 mm

1 kgf . m = 9.806 Nm



SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA

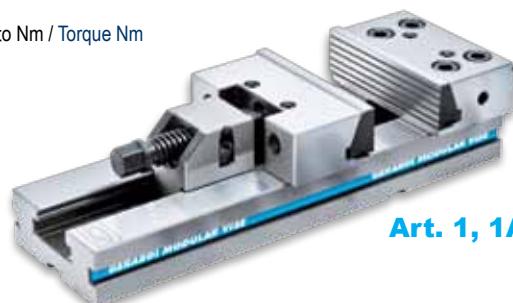
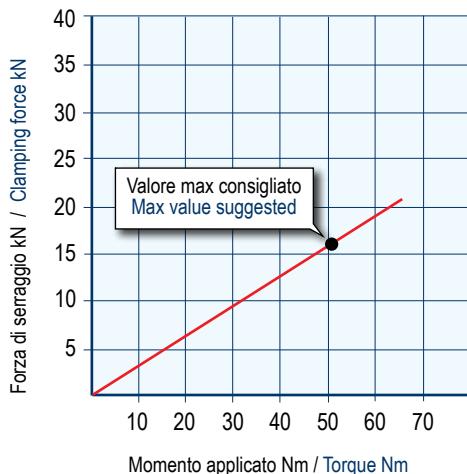
MECHANICAL CLAMPING WITH TORQUE WRENCH

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

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

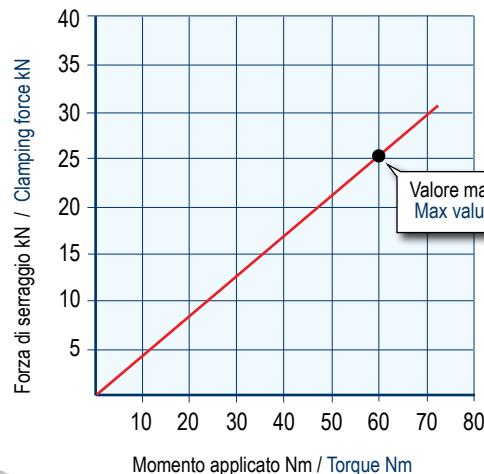
MORSE STD e StandardFLEX TIPO STD and StandardFLEX VISES TYPE 1

Vite M14 - Passo 2 mm
Screw M14 - Pitch 2 mm



MORSE STD e StandardFLEX TIPO STD and StandardFLEX VISES TYPE 2

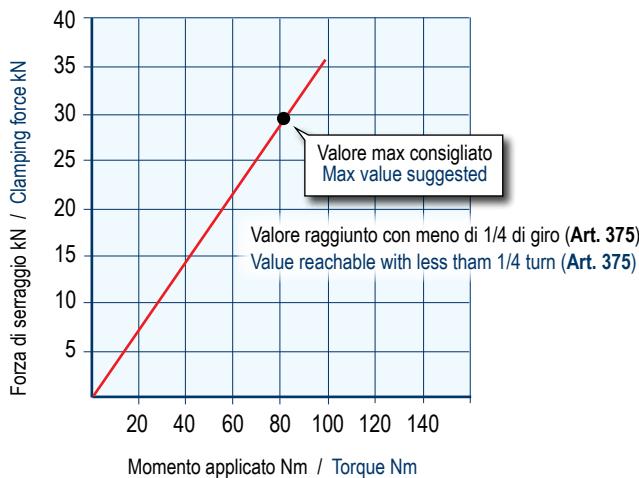
Vite Ø 18 - Passo 4 mm
Screw Ø 18 - Pitch 4 mm



Art. 1, 1A, 700

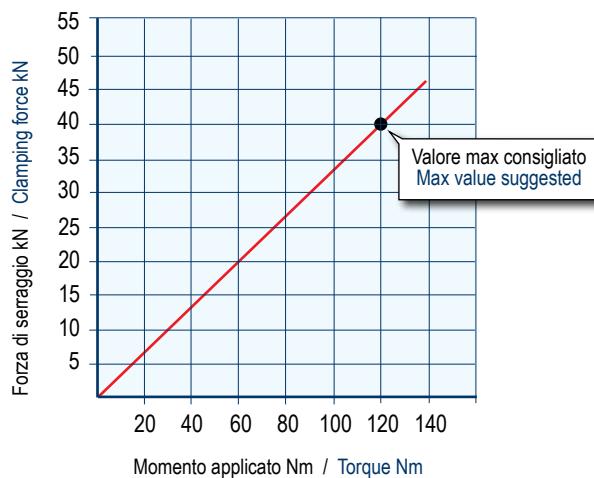
MORSE STD e StandardFLEX TIPO STD and StandardFLEX VISES TYPE 3-4

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



MORSE STD e StandardFLEX TIPO STD and StandardFLEX VISES TYPE 5-6

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

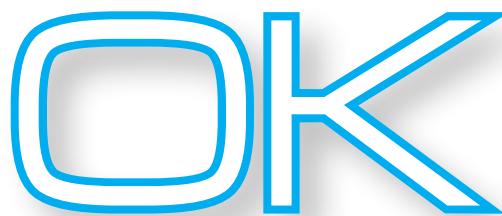


NB: Alcuni fattori, come la lubrificazione, lo staffaggio, gli attriti ed altro, possono modificare i valori indicati fino a ± 10%.
Per un corretto utilizzo non superare i valori indicati nel grafico

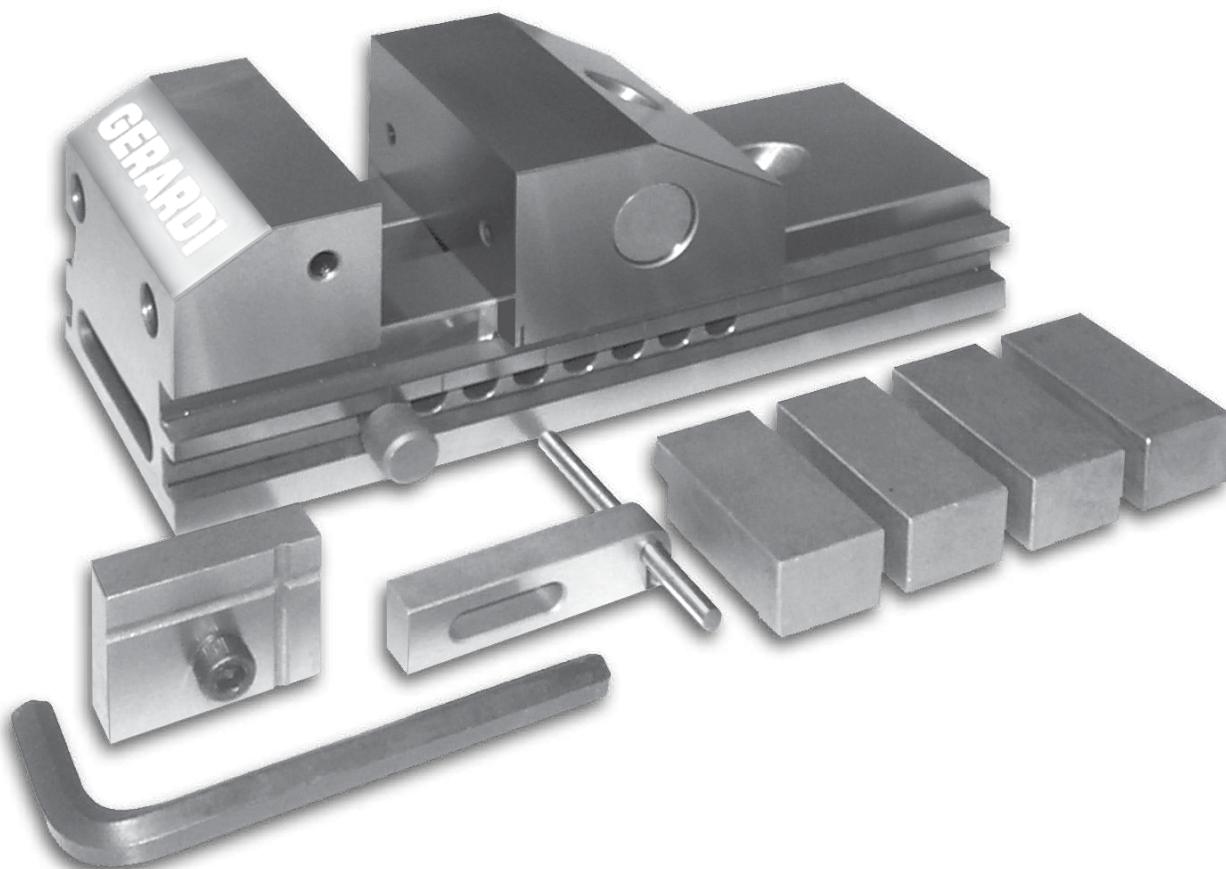
Some factors such as lubrication, clamping on the machine table, frictions and more can modify above values within a ± 10% range. For optimum operation do not exceed chart values.

MORSE MODULARI DI PRECISIONE
PRECISION MODULAR VISSES

1



MORSE serie OK
OK series VISES



3 MICRONS ACCURACY

Una serie di morse per le esigenze più impegnative e per lavori con le tolleranze più ristrette
A series of vises for the highest accuracy operations

L' ALTISSIMA PRECISIONE E' OK THE HIGHEST ACCURACY VISE IS OK

Principali caratteristiche delle morse serie OK

- Superfici rettificate, temperate e lappate
- Ortagonalità e parallelismo: 0,003 mm / 100 mm
- Ideali per operazioni di controllo, rettifica, elettroerosione e fresatura

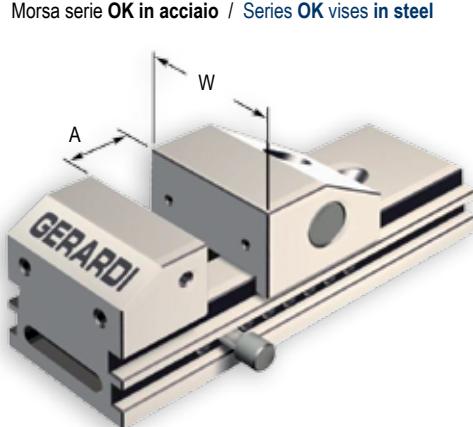
Main OK vises technical features

- All case hardened and hardened HRC 60 steel
- Squaresness and parallelism: 0,003 mm / 100 mm
- Ideal for grinding E.D.M. machine and for milling operations also for checking and control



3 MICRONS ACCURACY

Tipo (grandezza) morsa / Vise (type) size	kN	0	1	2 160 kN	3 160 kN	4 180 kN	5 180 kN	6 180 kN	7 180 kN	8 200 kN
Apertura massima / Maximum spread	A	27	80	100	120	160	180	200	260	200
Art. 666	W	30	60	75	100	125	125	125	125	160
Morsa serie OK in acciaio / Series OK vises in steel	B	15	28	40	45	50	50	50	50	63
	C	15	28	35	42	50	50	50	50	63
	D	75	175	220	260	330	350	370	430	410
	E	15	40	50	55	65	65	65	65	80
	F	33	55	50	85	105	105	105	110	130
	kg	0,28	2,820	5,820	10,740	19,450	20,080	20,720	26,720	38
	Cod.	3.66.60000	3.66.61000	3.66.62000	3.66.63000	3.66.64000	3.66.65000	3.66.66000	3.66.67000	3.66.68000



Art. 666S

Morsa serie OK in acciaio Tipo *X4 CR14 per elettroerosione. Stesse caratteristiche dell'Art. 666

Series OK vises in steel Type X4 CR14 for E.D.M. machines. Same characteristic and dimension of the Art. 666

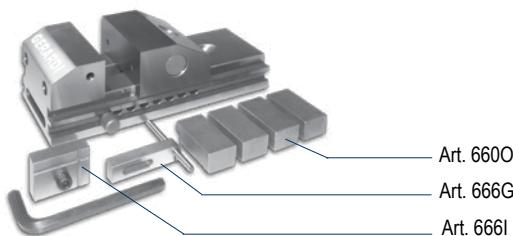
* Acciaio temprato a basso contenuto di ferro (Max resistenza alla corrosione dopo tempra, rinvenimento e rettifica)
 Low carbon hardened steel (max resistance against corrosion after hardening process and grinding operations)

Cod.	3.66.6S000	3.66.6S100	3.66.6S200	3.66.6S300	3.66.6S400	3.66.6S500	3.66.6S600	3.66.6S700	3.66.6S800

Dotazione standard:

- 4 staffe di fissaggio Art. 666O
- 1 arresto laterale fisso Art. 666G ■ 1 arresto laterale mobile Art. 666I

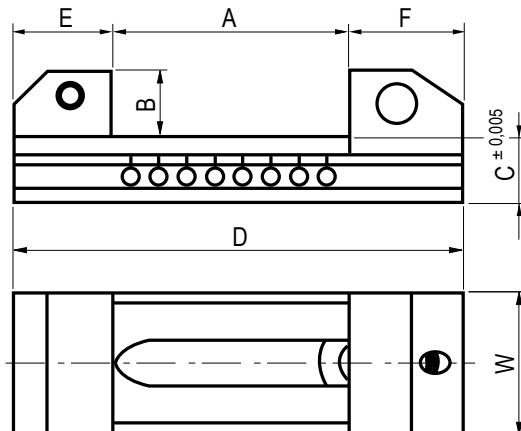
Art. 666 / Art. 666S



Standard equipment:

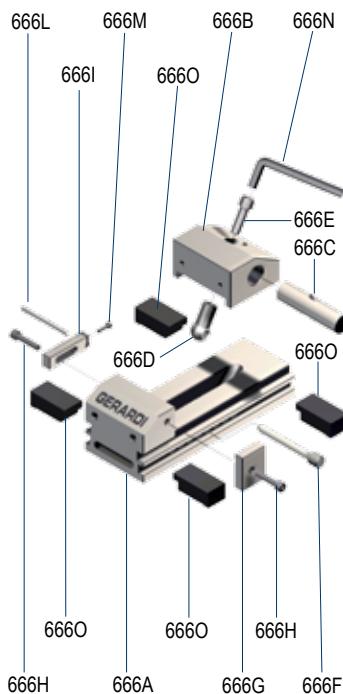
- 4 clamping jaws Art. 666O
- 1 fixed work stop Art. 666G ■ 1 movable work stop Art. 666I

Art. 666 / Art. 666S



Tipo (grandezza) morsa / Vise (type) size	0	1	2 160 kN	3 160 kN	4 180 kN	5 180 kN	6 180 kN	7 180 kN	8 200 kN
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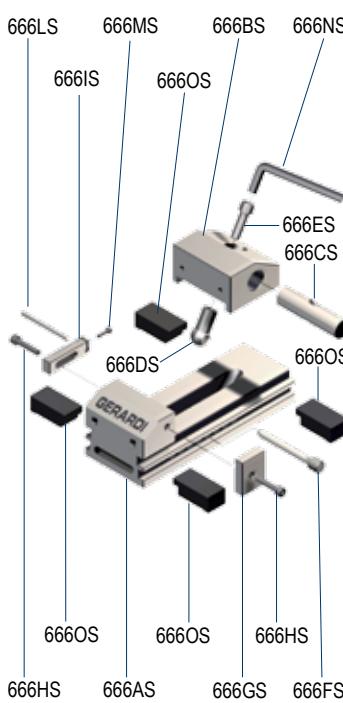
Parti di ricambio per Art. 666 / Spare parts for Art. 666

Art. 666

Art. 666A	Cod. 7.66.6A000	7.66.6A100	7.66.6A200	7.66.6A300	7.66.6A400	7.66.6A500	7.66.6A600	7.66.6A700	7.66.6A800
Art. 666B	Cod. 7.66.6B000	7.66.6B100	7.66.6B200	7.66.6B300	7.66.6B400	7.66.6B500	7.66.6B600	7.66.6B700	7.66.6B800
Art. 666C	Cod. 7.66.6C000	7.66.6C100	7.66.6C200	7.66.6C300	7.66.6C400	7.66.6C500	7.66.6C600	7.66.6C700	7.66.6C800
Art. 666D	Cod. 7.66.6D000	7.66.6D100	7.66.6D200	7.66.6D300	7.66.6D400	7.66.6D500	7.66.6D600	7.66.6D700	7.66.6D800
Art. 666E	Cod. 7.66.6E000	7.66.6E100	7.66.6E200	7.66.6E300	7.66.6E400	7.66.6E500	7.66.6E600	7.66.6E700	7.66.6E800
Art. 666F	Cod. 7.66.6F000	7.66.6F100	7.66.6F200	7.66.6F300	7.66.6F400	7.66.6F500	7.66.6F600	7.66.6F700	7.66.6F800
Art. 666G	Cod. 7.66.6G000	7.66.6G100	7.66.6G200	7.66.6G300	7.66.6G400	7.66.6G500	7.66.6G600	7.66.6G700	7.66.6G800
Art. 666H	Cod. 7.66.6H000	7.66.6H100	7.66.6H200	7.66.6H300	7.66.6H400	7.66.6H500	7.66.6H600	7.66.6H700	7.66.6H800
Art. 666I	Cod. 7.66.6I000	7.66.6I100	7.66.6I200	7.66.6I300	7.66.6I400	7.66.6I500	7.66.6I600	7.66.6I700	7.66.6I800
Art. 666L	Cod. 7.66.6L000	7.66.6L100	7.66.6L200	7.66.6L300	7.66.6L400	7.66.6L500	7.66.6L600	7.66.6L700	7.66.6L800
Art. 666M	Cod. 7.66.6M000	7.66.6M100	7.66.6M200	7.66.6M300	7.66.6M400	7.66.6M500	7.66.6M600	7.66.6M700	7.66.6M800
Art. 666N	Cod. 7.66.6N000	7.66.6N100	7.66.6N200	7.66.6N300	7.66.6N400	7.66.6N500	7.66.6N600	7.66.6N700	7.66.6N800
Art. 666O	Cod. 7.66.6O000	7.66.6O100	7.66.6O200	7.66.6O300	7.66.6O400	7.66.6O500	7.66.6O600	7.66.6O700	7.66.6O800

Tipo (grandezza) morsa / Vise (type) size	0	1	2 160 kN	3 160 kN	4 180 kN	5 180 kN	6 180 kN	7 180 kN	8 200 kN
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Parti di ricambio in acciaio inox per Art. 666S / Spare parts in stainless steel for Art. 666S

Art. 666S

Art. 666AS	Cod. 7.66.6AS00	7.66.6AS10	7.66.6AS20	7.66.6AS30	7.66.6AS40	7.66.6AS50	7.66.6AS60	7.66.6AS70	7.66.6AS80
Art. 666BS	Cod. 7.66.6BS00	7.66.6BS10	7.66.6BS20	7.66.6BS30	7.66.6BS40	7.66.6BS50	7.66.6BS60	7.66.6BS70	7.66.6BS80
Art. 666CS	Cod. 7.66.6CS00	7.66.6CS10	7.66.6CS20	7.66.6CS30	7.66.6CS40	7.66.6CS50	7.66.6CS60	7.66.6CS70	7.66.6CS80
Art. 666DS	Cod. 7.66.6DS00	7.66.6DS10	7.66.6DS20	7.66.6DS30	7.66.6DS40	7.66.6DS50	7.66.6DS60	7.66.6DS70	7.66.6DS80
Art. 666ES	Cod. 7.66.6ES00	7.66.6ES10	7.66.6ES20	7.66.6ES30	7.66.6ES40	7.66.6ES50	7.66.6ES60	7.66.6ES70	7.66.6ES80
Art. 666FS	Cod. 7.66.6FS00	7.66.6FS10	7.66.6FS20	7.66.6FS30	7.66.6FS40	7.66.6FS50	7.66.6FS60	7.66.6FS70	7.66.6FS80
Art. 666GS	Cod. 7.66.6GS00	7.66.6GS10	7.66.6GS20	7.66.6GS30	7.66.6GS40	7.66.6GS50	7.66.6GS60	7.66.6GS70	7.66.6GS80
Art. 666HS	Cod. 7.66.6HS00	7.66.6HS10	7.66.6HS20	7.66.6HS30	7.66.6HS40	7.66.6HS50	7.66.6HS60	7.66.6HS70	7.66.6HS80
Art. 666IS	Cod. 7.66.6IS00	7.66.6IS10	7.66.6IS20	7.66.6IS30	7.66.6IS40	7.66.6IS50	7.66.6IS60	7.66.6IS70	7.66.6IS80
Art. 666LS	Cod. 7.66.6LS00	7.66.6LS10	7.66.6LS20	7.66.6LS30	7.66.6LS40	7.66.6LS50	7.66.6LS60	7.66.6LS70	7.66.6LS80
Art. 666MS	Cod. 7.66.6MS00	7.66.6MS10	7.66.6MS20	7.66.6MS30	7.66.6MS40	7.66.6MS50	7.66.6MS60	7.66.6MS70	7.66.6MS80
Art. 666NS	Cod. 7.66.6NS00	7.66.6NS10	7.66.6NS20	7.66.6NS30	7.66.6NS40	7.66.6NS50	7.66.6NS60	7.66.6NS70	7.66.6NS80
Art. 666OS	Cod. 7.66.6OS00	7.66.6OS10	7.66.6OS20	7.66.6OS30	7.66.6OS40	7.66.6OS50	7.66.6OS60	7.66.6OS70	7.66.6OS80

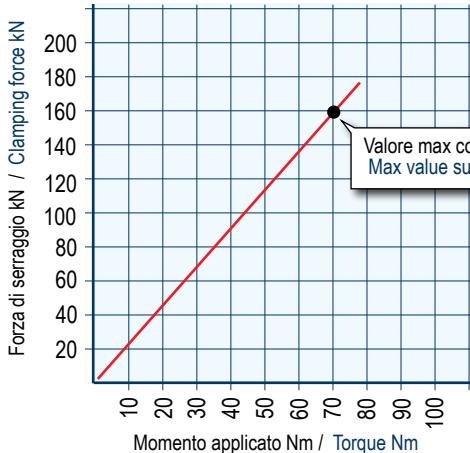
SERRAGGIO MECCANICO CON CHIAVE DINAMOMETRICA
MECHANICAL CLAMPING WITH TORQUE WRENCH

I diagrammi seguenti consentono di determinare le forze di serraggio ottenibili con le morse di varia grandezza (da 2 a 8), in funzione del momento applicato

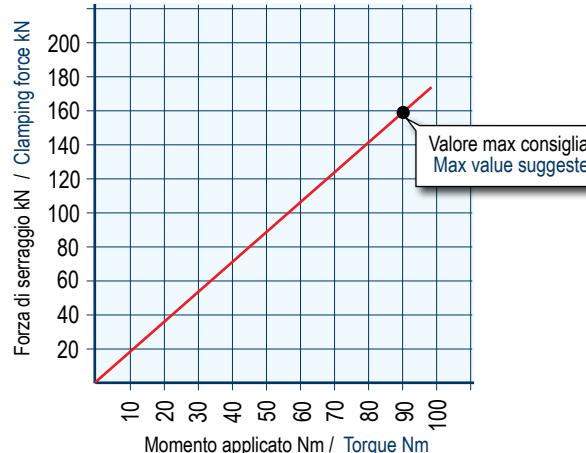
The following diagrams give the clamping force that can be obtained with each vise type (size 2 to 8) depending on the torque

**MORSE OK TIPO
OK VISES TYPE 2**

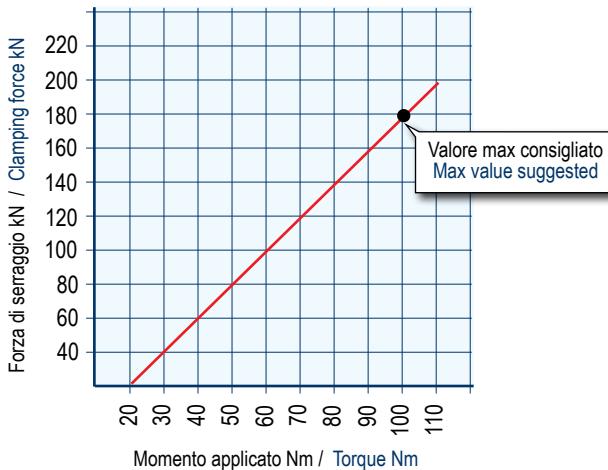
Chiave dinamometrica BETA 610/10X
Torque wrench BETA 610/10X


**MORSE OK TIPO
OK VISES TYPE 3**

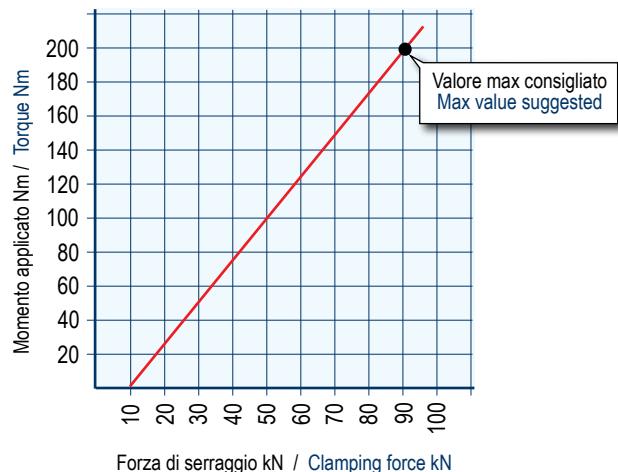
Chiave dinamometrica BETA 610/10X
Torque wrench BETA 610/10X


Art. 666 - Art. 666S
**MORSE OK TIPO
OK VISES TYPE 4-5-6-7**

Chiave dinamometrica BETA 610/10X
Torque wrench BETA 610/10X


**MORSE OK TIPO
OK VISES TYPE 8**

Chiave dinamometrica BETA 610/10X
Torque wrench BETA 610/10X



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 factors as lubrication, clamping on the machine table, frictions and more can modify above values within a $\pm 10\%$ range.

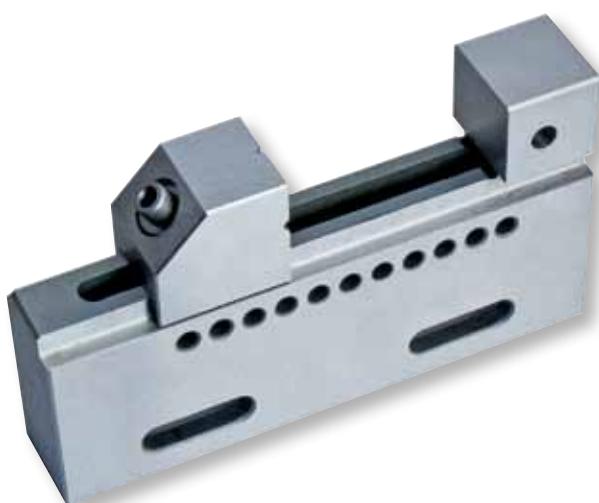
For optimum operation do not exceed chart values.

Tipo (grandezza) morsa / Vise (type) size	1	2	3		
Apertura massima / Maximum spread	A	100	120	160	
Art. 667	Morse di precisione con barraseno (0 - 90°) Precision sine vises (0 - 90°)	W	75	100	125
	B	32	45	50	
	C	95	116	139	
	D	214	244	303,5	
	E	150	200	240	
	kg	9	15	26	
	Cod.	1.66.71000	1.66.72000	1.66.73000	

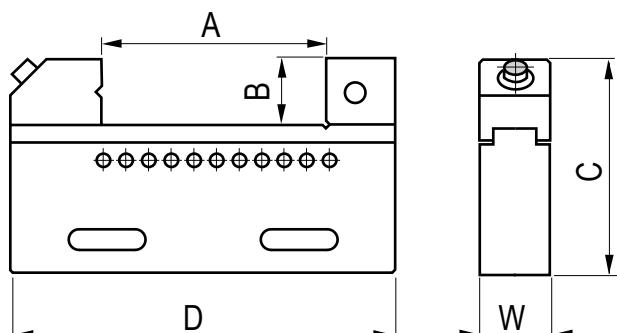


Dotazione standard: 2 chiavi di servizio Art. 376
Standard equipment: 2 wrenches Art. 376

Tipo (grandezza) morsa / Vise (type) size	1	2	3		
Apertura massima / Maximum spread	A	100	150	214	
Art. 668	Morse di precisione in acciaio inox Stainless steel precision vises	W	32	32	36
	B	30	35	40	
	C	95	100	110	
	D	170	226	300	
	kg	4	5	6	
	Cod.	1.66.81000	1.66.82000	1.66.83000	



Dotazione standard: 1 chiave di servizio Art. 376
Standard equipment: 1 wrench Art. 376



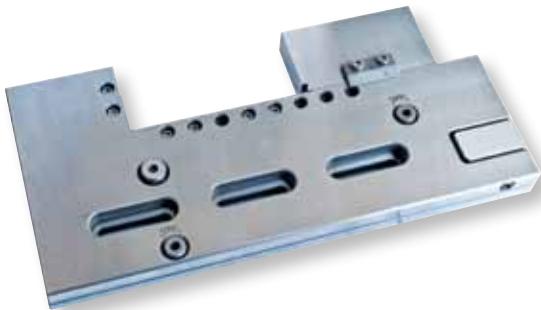
Dati dimensionali / Dimensional data

Art. 669

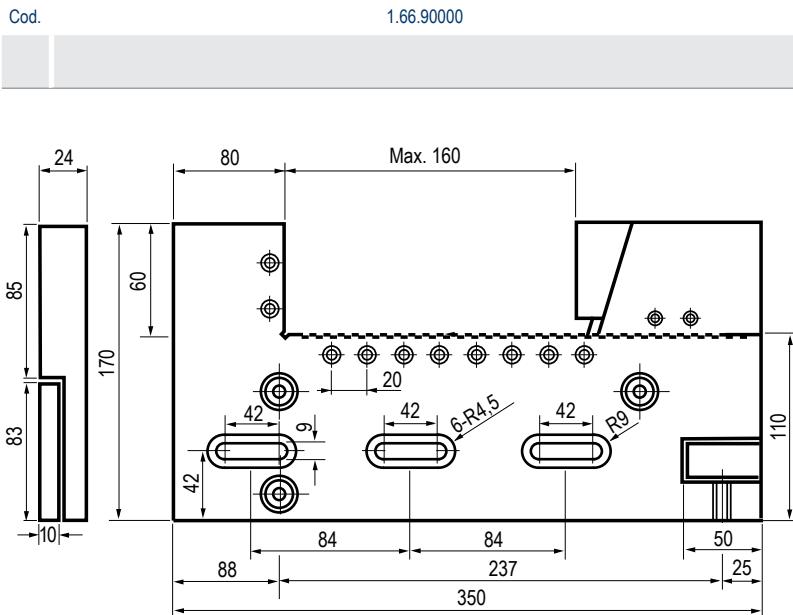
Morse regolabili per elettroerosione
Adjustable EDM vises

Le morse regolabili per elettroerosione sono costruite in **materiale inossidabile** (acciaio INOX). Garantiscono rigidità, alta precisione, grande forza di serraggio e facilità di utilizzo.

Adjustable EDM vises adopt advanced **stainless steel material**, rigid, high precision, strong clamping force, easy to use.



Dotazione standard: 2 chiavi di servizio Art. 376
Standard equipment: 2 wrenches Art. 376



Tipo (grandezza) morsa / Vise (type) size

	1	2
Apertura massima / Maximum spread	A 130	130
Forza di serraggio / Clamping force	kN 150	300
	W 105	130
	B 40	45
	C 105	110
	D 317	370
	E 130	160
kg	29,5	42
Cod.	1.67.11000	1.67.12000

Art. 671

Morse pneumatiche / Pneumatic vises

Ingresso aria 3/4" gas - Ø 8 - 7bar
Air inlet 3/4" gas - Ø 8 - 7bar



Tipo / Type 1



Tipo / Type 2

Dotazione standard: 1 arresto laterale Art. 370
Raccordo per aria (1/4" gas - Ø8) Art. PN04
Standard equipment: Workstop Art 370
Air connection (1/4" gas - Ø8) Art. PN04

- Costruita in acciaio di alta qualità, cementato e temprato Durezza HRC58-62
- Ortegualità e parallelismo: 0,02 mm
- Superficie rettificate, temprate e lappate
- Utilizzabili con pressione aria a 6bar (Connessione 1/4" gas)

- Made in high-quality alloy steel, case harden HRC58-62
- Squareness and parallelism: 0,02 mm
- Ideal for grinding E.D.M. machine and for milling operations also for checking and control
- Rating air pressure is 6bar (Air inlet - 1/4 " gas)

