

Since



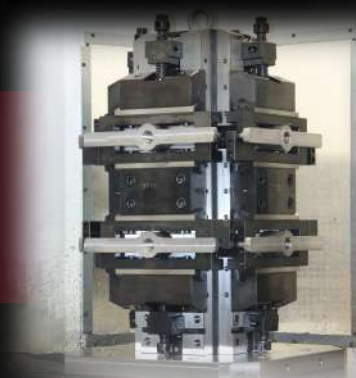
1969

YOUR ALL-IN-ONE WORKHOLDING PARTNER IN MACHINING



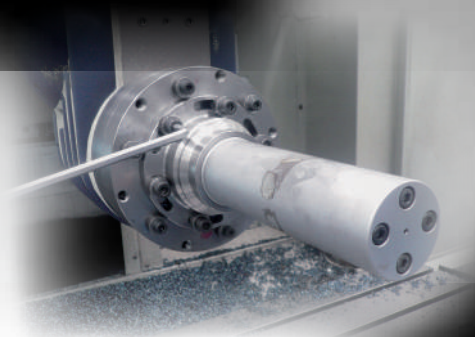
HIGH PRECISION VICES

SECURE AND PRECISE VICES FOR
5-AXIS MACHINES

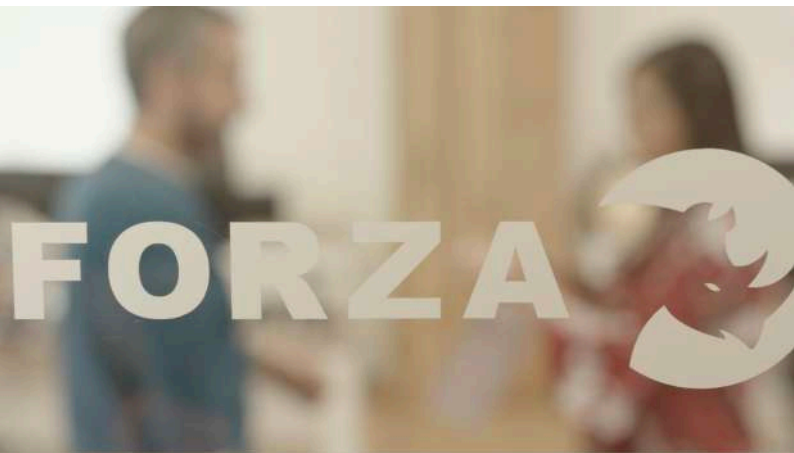


FLEXIBLE VICES FOR HIGH-EFFICIENCY
MULTI-PALLET SYSTEMS

INTERNAL MILLING HEADS
FOR INTERNAL KEYWAYS



www.forza.es



50 YEARS GAINING EXPERIENCE ON DESIGNING AND MANUFACTURING HAND TOOLS

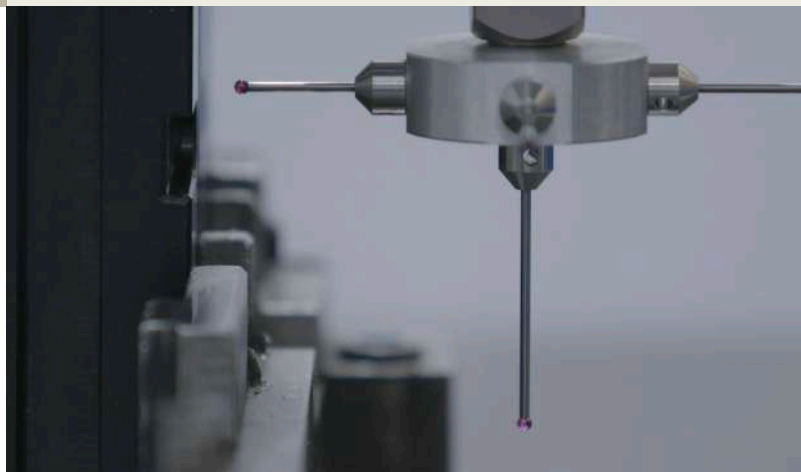
Antonio Sampedro founded Forza, a family owned business pioneer in the Spanish special tools manufacturing market. Mr. Sampedro was not only an entrepreneur but most importantly, he had a passion for metal working combined with a continued thirst for new products and tools and manufacturing process development.

Throughout this time, Forza has been faithful to the values that inspired him.

THE TOP QUALITY OF THE TOOLS IT IS OUR BEST GUARANTEE

50 years banking on quality in design, manufacturing and service. The prestige of our products lies in a strategic focus on innovation, tailor made tools and over the top raw material. Forza is a leading manufacturer of Special tools relied on a team of committed young professional bringing a large breath of experience.

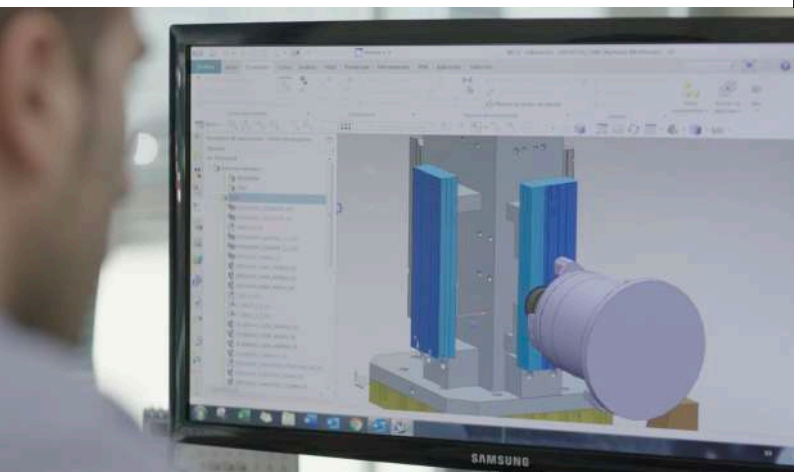
We have a deep sense of quality that it is reflected into a full warranty on all the parts we produce.



“UNLIMITED” MANUFACTURING CAPABILITY OF CUSTOMIZED PRODUCTS.

The enthusiasm and hard work of our I+D department together with Engineering are expressed on our complete catalogue that includes an extensive range of demanded hand tools (specialized on pulling solutions) but also knockout metal punches, Automotive tools and machine vices as well.

Our customers and potential customer's needs are our high priority and we are completely opened for the designing and manufacturing of new customized products.



ENVIROMENTAL SUSTAINABILITY COMPROMISE

At FORZA we proudly follow stringent environmental, energy saving, waste selection and raw material recycling principals. Thanks to our 3 plants, we generate more than 100KW/h annually through our solar panels installation. This figure amounts to approximately 1607 trees/year for carbon dioxide consumption.





INSPIRED FOR THE FUTURE

EMPOWERED BY THE PAST



PRECISION VICES

8-11

Descending effect vices



12-14

Double positions vices



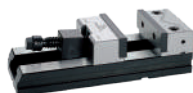
15-16

Self centering vices



17-18

Straight jaws vices



SOLUTIONS FOR BIG PIECES



Lifting blocks and extenders

32



Split machine vices

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High jaws machine vices

35



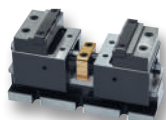
Other vices

36-40

VICES FOR 5 AXES MACHINES

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Self centering vices for 5 axis machines



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Large vices for 5 axis machines



SOLUTIONS FOR MULTI-PALLET SYSTEMS



Towers for horizontal machining centers

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OTHER VICES

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Classic vices and vices with protected spindle



60

Grinding machine vices



DRILL PRESS VICES



Drill press vices

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Milling heads



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Milling heads accessories



CLAMPING TOOLS



Clamps and magnetic holders

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Bench vices and accessories

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TOOLS HOLDERS AND KNURLING TOOLS

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Knurling tools



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Tool holders



KM AND KMT NUTS SPANNERS



KM and KMT lock removal spanners

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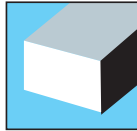
KM spanner sets

88

Nodular casting material



Hardened steel



Quick course selection



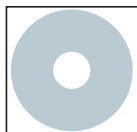
Finishing tolerance



Interchangeable lock



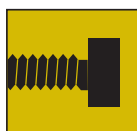
Swivel base admitted



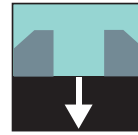
Guide movable jaws support



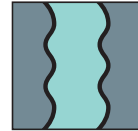
Mechanical lock



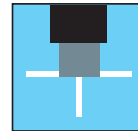
Jaws with descending effect



Soft jaws



Control certificate



With alinement keyways



Parallelism < 0,02 mm



DOESN'T admit swivel base



Oscillating movable jaws support



Clamps





Precision vices

The classics, now with zero-point system



FORZA®

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PERFECT MACHINE VICES
30
*Classic
choise*

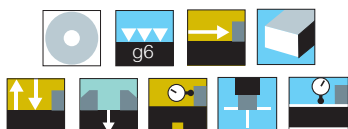

High precision vices for all machining works including milling, drilling and grinding.

Manufactured in hardened steel 60 HRc (20MnCr5).

The vices can be fastened either to a T slot table or for zero point upon request.

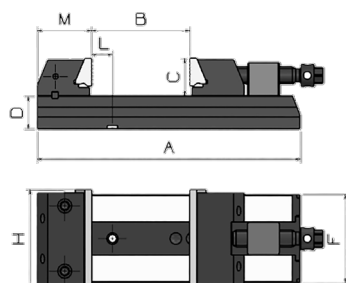
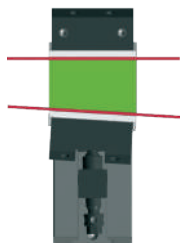
Bullet points

- Non guided vice with oscillating jaw holder for a better clamping adjustment. The non guided mechanism allows the clamping of irregular pieces.
- While clamping, the descending jaw effect perfectly places the working piece over the vice body or parallel.
- Interchangeable locks.
- Hexagonal head spindle with a hole for fastening with a handle.
- 2 sets of clamps are included.

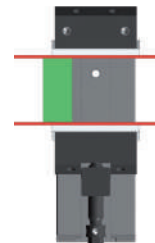
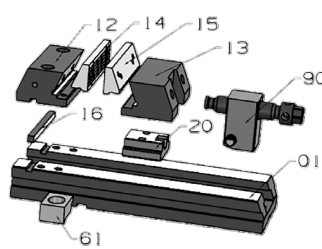


Each vice includes a certificate with measurements of the main dimensions, made with a Zeiss machine.

NON guided vices with
oscillating effect



Guided vices without
oscillating effect



Includes oscillating T

Ref.		A	B	C	D	F	H	L	M				Ref.	
30/100	8,9	250	109	33,5	37	90	100	18,6	51.5	12561	12	B/100	30/100G	7,5
30/100L	8,0	296	150	33,5	37	90	100	18,60	51.5	12561	12	B/100	30/100GL	8,6
30/125	14,1	300	130	40	42	110	125	22,0	66	12561	12	B/125	30/125G	13,9
30/125L	14,6	346	175	40	42	110	125	22,0	66	12561	12	B/125	30/125GL	15,4
30/125S	14,8	371	200	40	42	110	125	22,0	66	12561	12	B/125	-	-
30/150	27,0	402	200	56	51	135	150	32,2	83	15061	16	B/150	30/150G	27,0
30/150L	28,0	452	250	56	51	135	150	32,2	83	15061	16	B/150	30/150GL	31,0
30/150S	31,7	503	300	56	51	135	150	32,2	83	15061	16	B/150	30/150GS	29,0
30/150X	32,8	527	325	56	51	135	150	32,2	83	15061	16	B/150	30/150GX	33,0
30/175	34,0	432	225	58	56	135	175	35,0	85	15061	16	B/150	30/175G	34,3
30/175L	36,5	482	275	58	56	135	175	35,0	85	15061	16	B/150	30/175GL	36,5
30/175S	39,9	556	350	58	56	135	175	35,0	85	15061	16	B/150	30/175GS	43,7
30/175X	42,4	610	400	58	56	135	175	35	85	15061	16	B/150	30/175GX	43,0
30/200	48,5	470	250	66	61	160	200	52,2	92,5	20061	16	B/200	30/200G	48,5
30/200L	51,5	520	300	66	61	160	200	52,2	92,5	20061	16	B/200	30/200GL	52,0
30/200S	53,7	570	350	66	61	160	200	52,2	93	20061	16	B/200	30/200GS	54,6
30/200X	55,2	595	375	66	61	160	200	52,2	92,5	20061	16	B/200	30/200GX	56,1
30/200XL	57,8	675	455	66	61	160	200	52,2	92,5	20061	16	B/200	-	-
30/250	70,0	530	300	76	66	200	250	47,5	97,5	20061	20		30/250G	70,0
30/250L	75,0	580	350	76	66	200	250	47,5	97,5	20061	20		30/250GL	75,0
30/250S	85,0	680	450	76	66	200	250	47,5	97,5	20061	20		30/250GS	85,0
30/250X	92,0	755	525	76	66	200	250	47,5	97,5	20061	20		30/250GX	93,0
30/300	130,0	670	390	83	79	245	300	38,5	121.5	30061	20		-	-
30/300L	145,0	770	490	83	79	245	300	38,5	121.5	30061	20		-	-
30/300S	160,0	870	590	83	79	245	300	38,5	121.5	30061	20		-	-



REINFORCED PERFECT VICE 30/125

30R



High-Precision Vice for All Types of Work: Milling, Drilling and Grinding
Manufactured in case-hardened steel (20MnCr5).
Reinforced spindle block up to 5-ton clamping force.

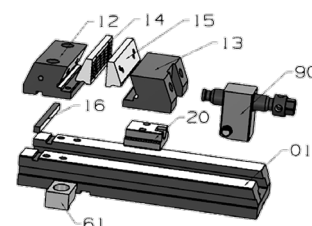


Bullet points

- Non guided vice with oscillating jaw holder for a better clamping adjustment. The non guided mechanism allows the clamping of irregular pieces.
- While clamping, the descending jaw effect perfectly places the working piece over the vice body or parallel.
- 2 sets of clamps are included.



Ref.	A	B	C	D	F	H	L	M			
30/125R	345	140	53	49	115	125	3,0	82,5	15061	16	21,5
30/125RL	395	189	53	49	115	125	3,0	82,5	15061	16	23,0
30/125RS	418	218	53	49	115	125	3,0	82,5	15061	16	27,0

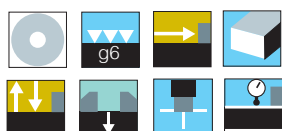
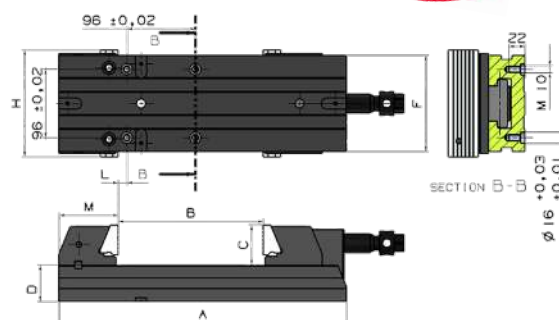


PERFECT VICE WITH ZERO POINT

Classic serie 30 with zero point



NEW

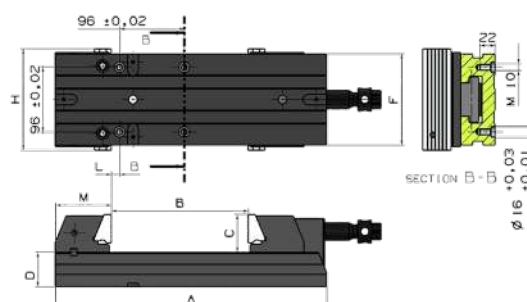


Ref.	A	B	C	D	M	H	L	Zero point	
30/125A1	300	130	40	42	66	125	37	96	14,1
30/125LA1	346	175	40	42	66	125	37	96	14,6
30/150A1	402	200	56	51	83	150	12	96	27,0
30/150CA1	306	100	56	51	83	150	12	96	23,0
30/150LA1	457	250	56	51	83	150	12	96	28,0

REINFORCED PERFECT VICE 30/125 WITH ZERO POINT

Reinforced spindle block up to 5Ton clamping force

NEW



Ref.	A	B	C	D	M	H	L	Zero point	
30/125LRA1	400	200	52	49	82,5	125	15	96	19,0
30/125RA1	345	150	52	49	82,5	125	15	96	18,0

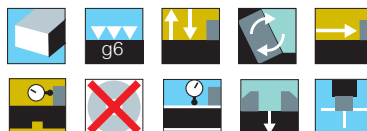
MACHINE VICES FOR HORIZONTAL MACHINES
60

High precision vices suitable for horizontal machining centres with a multipallet automation.

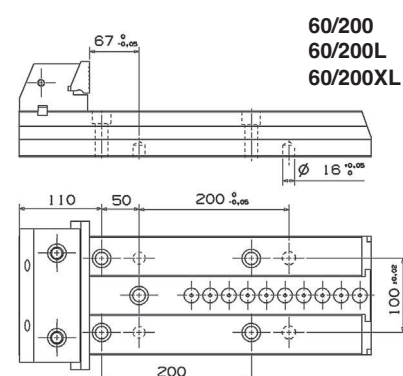
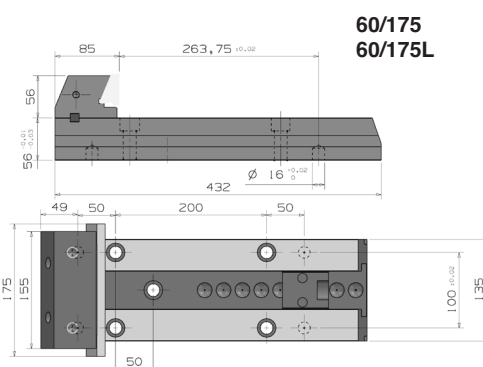
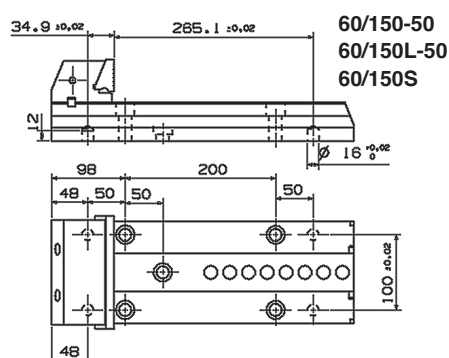
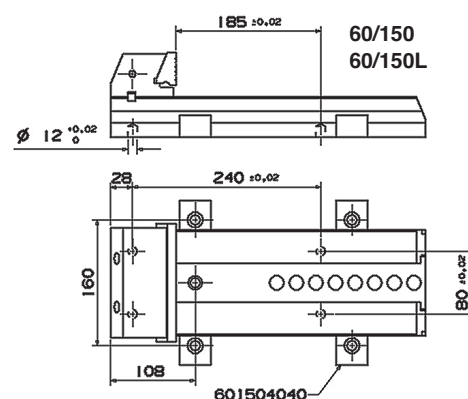
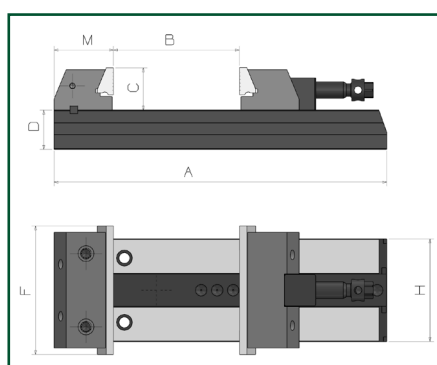
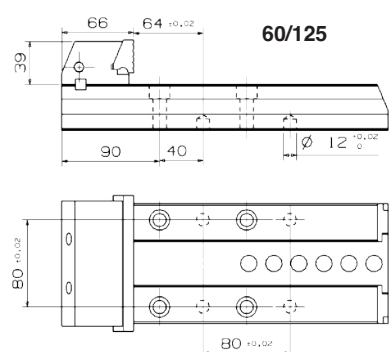
Manufactured in hardened steel 60 HRc (20MnCr5).


Bullet points

- The pin step is standardized on machining center pallets
- Descending effect jaws.
- Movable jaw holder with oscillating effect for a better piece adjustment.
- Interchangeable locks.



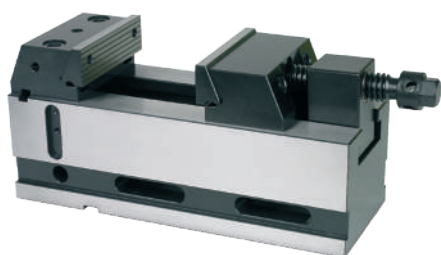
Ref.	A	B	C	D	F	H	P	⚖
60/125	328	130	40	42	110	125	40	14,0
60/125L	346	175	40	42	110	125	40	15,0
60/150	402	200	56	51	135	150	40	28,0
60/150-50	403	200	56	51	135	150	50	27,0
60/150L	452	250	56	51	135	150	40	30,0
60/150L-50	452	250	56	51	135	150	50	29,0
60/150S	503	300	56	51	135	150	31,7	32,0
60/150S	503	300	56	51	135	150	31,7	32,0
60/175	432	225	58	56	135	175	50	34,0
60/175L	482	275	58	56	135	175	50	37,0
60/200	470	250	66	61	160	200	50	44,0
60/200L	520	300	66	61	160	200	50	49,0
60/200XL	830	600	66	61	160	200	50	69,0





MACHINE VICES TO SQUARE

30V

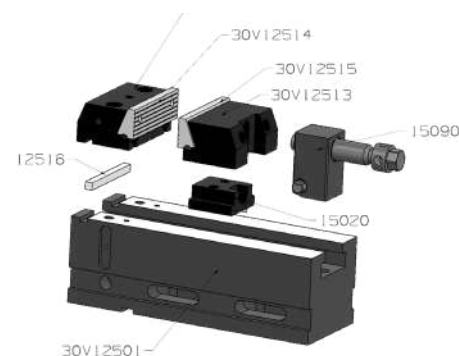
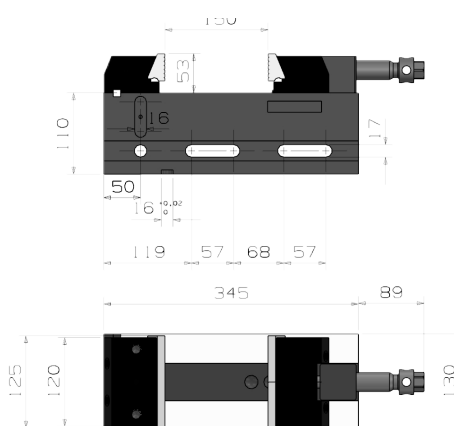
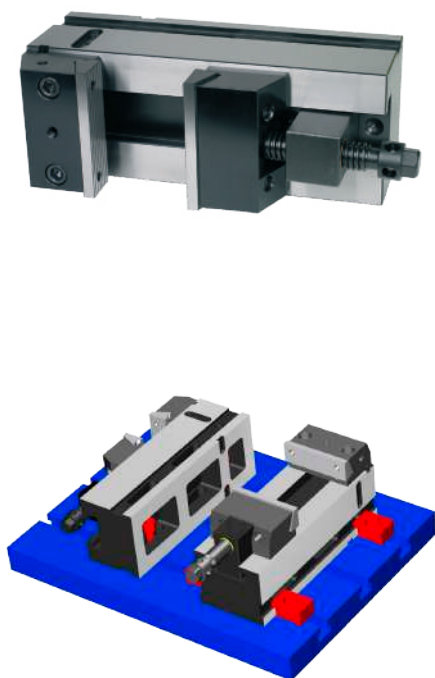


Vice that guarantees a perfect square of the piece on an easy way without rotating the milling head.
Manufactured in hardened steel 60 HRc (20MnCr5).



Bullet points

- Interchangeable locks.
- Descending effect jaws.



Ref.	A	B			
30V125	345	140	15061	16	45,0



follow these steps for a perfect square



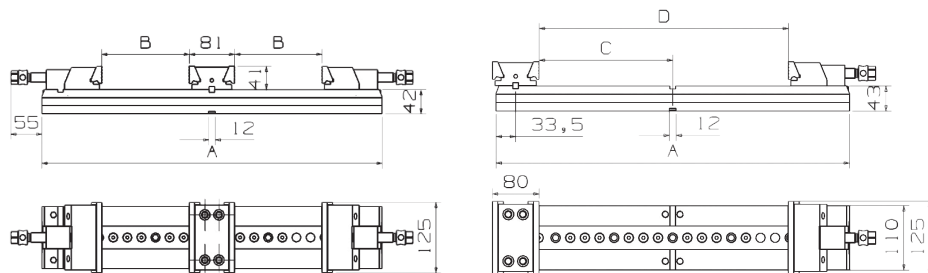
DESCENDING EFFECT DOUBLE POSITION VICE 125MM JAW WIDTH



High precision double vice with 125mm jaws width and descending effect designed for machining 2 pieces at the same time. Manufactured in hardened steel 60HRC (20MnCr5).

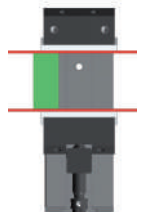
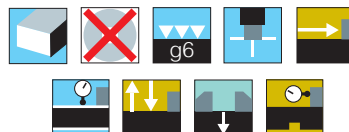
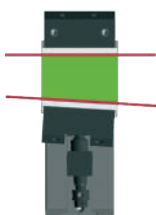
Bullet points

- Two different ways of working with the same vice.
- Double vice: with the possibility of fixing the central jaw holder and clamping two workpieces independently
- Standard vice: It can be modified to a normal vice for machining big size pieces while removing the central jaw holder.
- The 4 jaws have a descending effect.
- Guided or non guided availability.



NON guided vices with oscillating effect

Guided vices without oscillating effect



Ref.		A	B	D	C	Type		Ref.		Includes
DD125/500	24,5	504	102	320	178	Double	12561	DD125/500G	22,0	2 T oscillatings
DD125/500-1	19,5	504	320	320	178	Simple	12561	DD125/500G-1	19,7	1 T oscillatings
DD125/600	25,0	604	152	425	228	Double	12561	DD125/600G	25,0	2 T oscillatings
DD125/600-1	21,0	604	425	425	228	Simple	12561	DD125/600G-1	21,0	1 T oscillatings

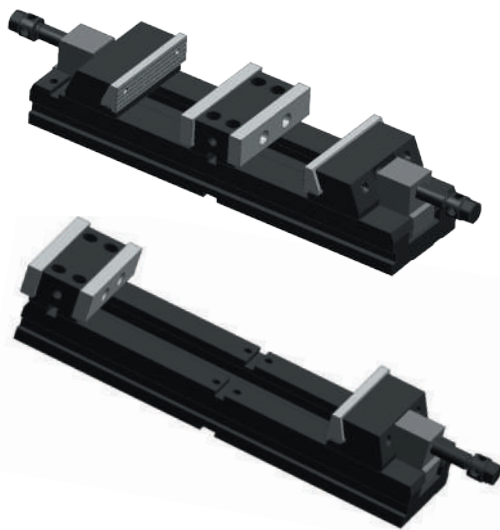
Double position vice includes 2 oscillating T and simple vices includes 1 oscillating T
Sets of clamps no included.





DOUBLE POSITION VICE 125MM JAW WIDTH

30DF



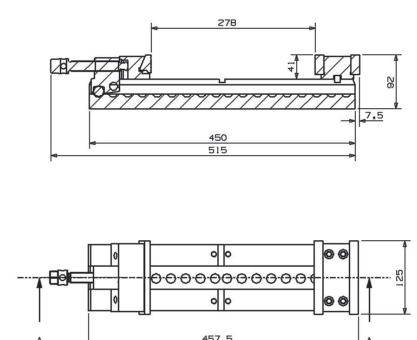
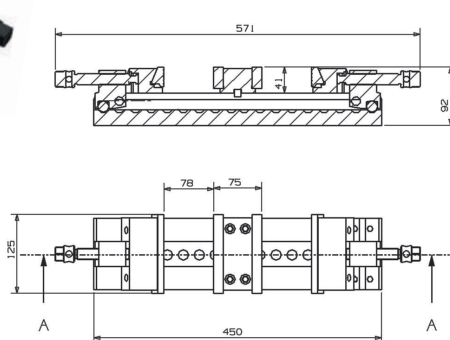
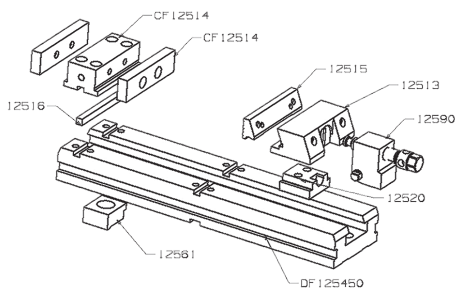
Double vice with straight jaws and descending effect.

The central jaw holder can be fastened in the central part and it allows to fasten two pieces independently.

It is also possible to place at the end of the vice body. In this way, it will be a normal vice with a wide opening.

**Bullet points**

- Non guided vice for a better clamping of irregular pieces.
- Two different uses with the same vice.
- Oscillating jaws holder for a better piece adjustment.



Ref.	A	B	2xb	Lenght	Maximum jaws distance pos.1	Maximum jaws distance pos.2		
DF125/450	450	278	78	450	78	278	12561	24,0

DESCENDING EFFECT DOUBLE POSITION VICE 150MM JAW WIDTH

30D



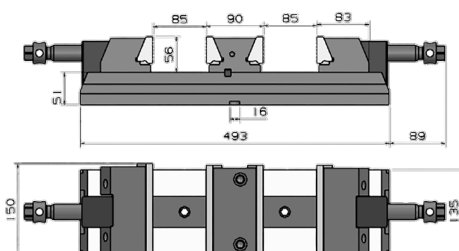
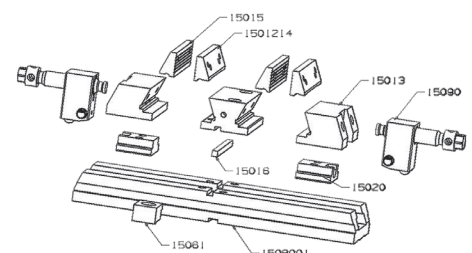
High precision double vice with 150mm jaws width and descending effect.

Designed for machining 2 pieces at the same time.

Manufactured in hardened steel 60HRC (20MnCr5).

**Bullet points**

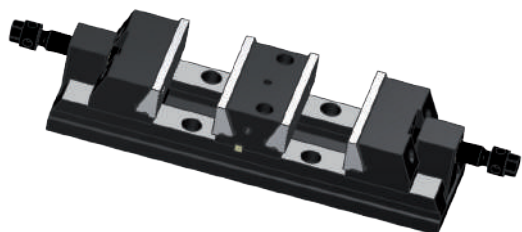
- Very compact vices.
- Oscillating jaws holders which adapt to the piece geometry.
- Suitable vices for working with oil neumatic cylinderes (reference 15080).



Ref.	A	B	C	Width		
30/150D	493	90	56	150	16	15061

DOBLE POSITION VICE FOR TOMBSTONE SERIE 60D

60/150D



High precision double vice with 150mm jaws width descending effect.

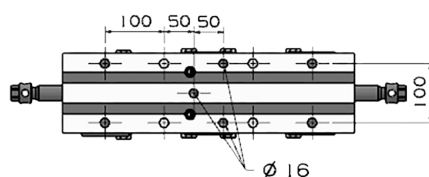
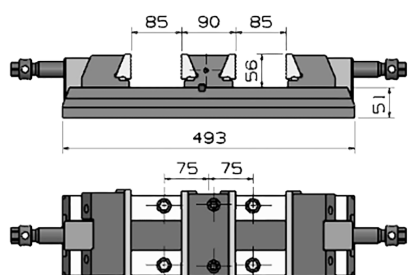
Designed for machining 2 pieces at the same time on horizontal machining centers with cubes.

Manufactured in hardened steel 60HRC (20MnCr5).

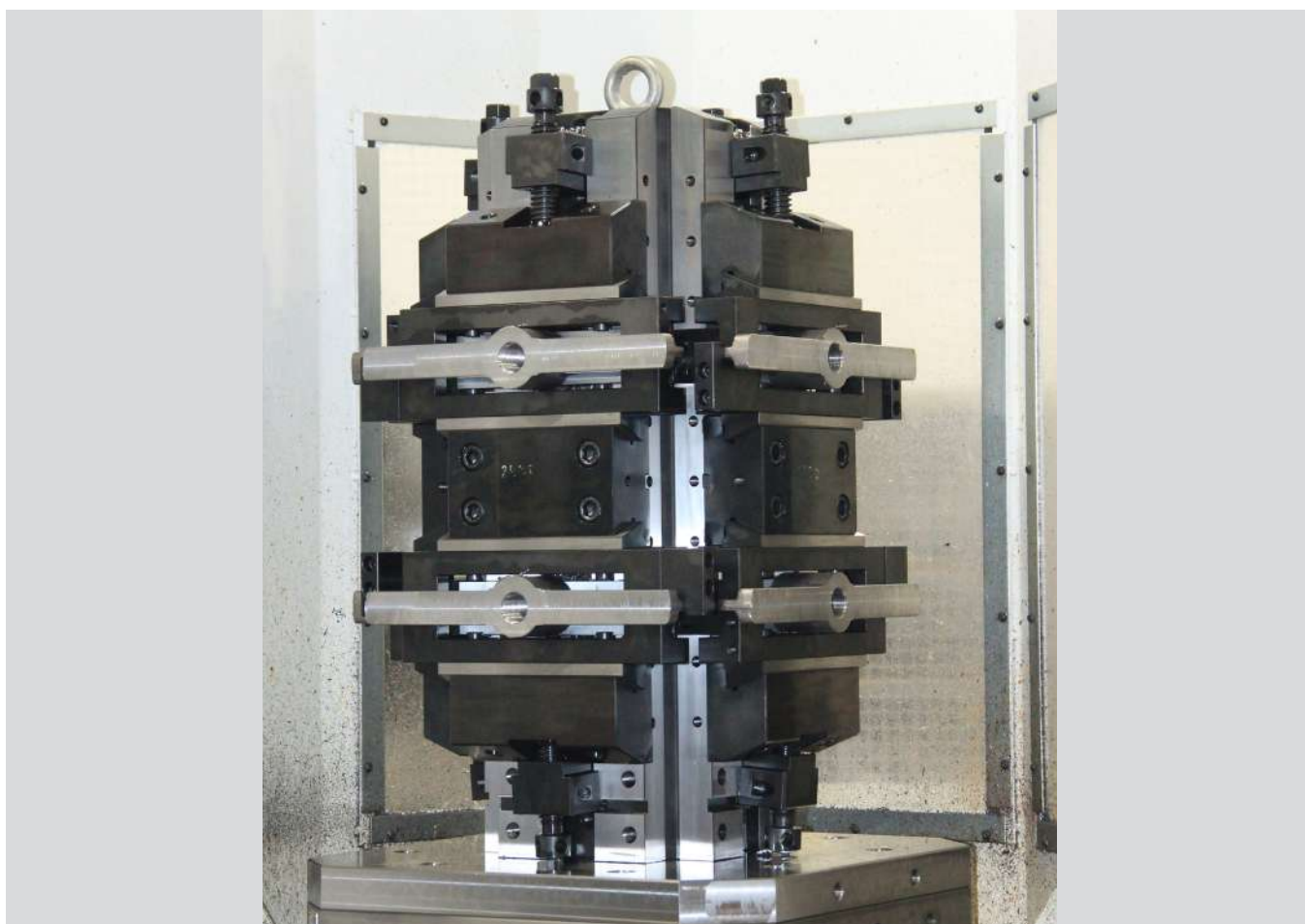


Bullet points

- Double vice: this vices fastens two pieces independently.
- The 4 jaws have a descending effect.
- Oscillating jaw holders that adapt to the piece geometry.



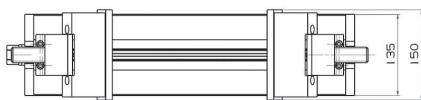
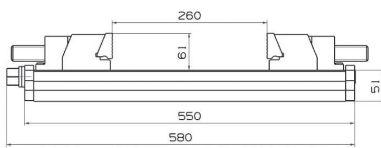
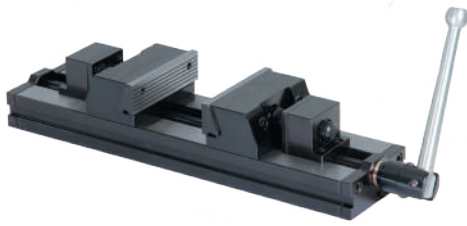
Ref.	A	B	C	Width		Pitch	
60/150D	493	90	56	150	16	50	40,0





HIGH CLAMPING FORCE SELF-CENTERING VICE

26

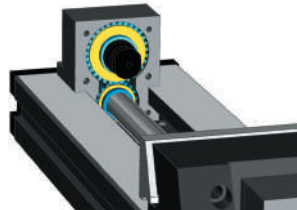


High strength vice with self centering mechanism suitable for any machining work or even grinding.
Manufactured in hardened steel 60 HRC (20MnCr5).



Bullet points

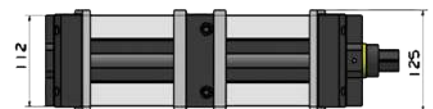
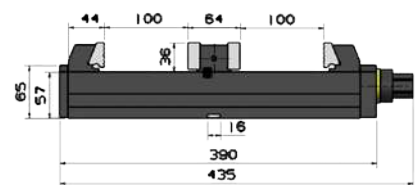
- Multiplier system in the spindle block which reduces the fastening effort.
- Selfcentering mechanism that assures the clamping center.
- Descending jaws effect.



Ref.	A	A1	B	C	D	H		
26/150	584	550	255	61	51	150	15061	37,4

TWIN-SELF CENTERING VICES

CF

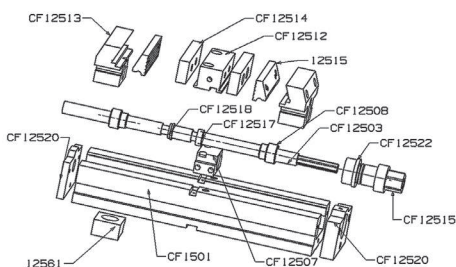
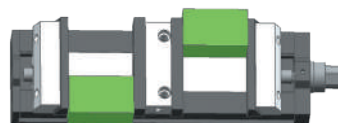


High precision selfcentering vices appropriate for manufacturing either two pieces or two operations simultaneously.
Manufactured in hardened steel 60HRC (20MnCr5).



Bullet points

- Fixed position spindle for a more convenient handling. It does not change the vice maximum opening.
- Removable fixed part for clamping one big size piece.
- Selfcentering mechanism that assures the clamping center.
- Descending effect jaws.



Ref.	A	B	Maximum distance jaw	Width		
CF/125	435	100	260	125	12	12561 21,0

TWIN SELF-CENTERING VICE WITH MACHINABLE JAWS

CFA

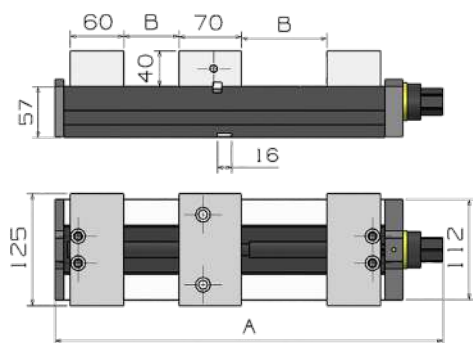


Twin vice with selfcentering mechanism with aluminium jaw holders for machining depending on the geomtry of the manufactured piece. Vice body manufactured in hardened steel 60HRC (20MnCr5). Vices can be fastened either with clamps to the T table and valid as well under request for zero point. Clamps not included.

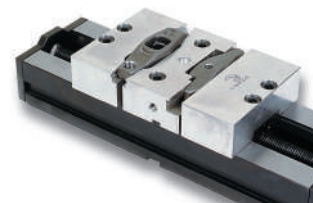


Bullet points

- Aluminium jaws help the fastening tooling manufacture.
- Fixed position spindle for a more convenient handling. It does not change the vice maximum opening.
- Selfcentering mechanism that assures the clamping center.



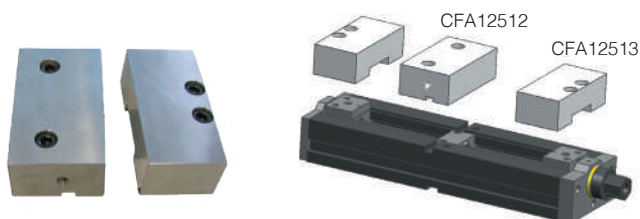
CFA/125 Application



Ref.	A	B	Width	Base height			
CFA125	435	84	125	57	16	12561	20,0

MACHINABLE ALUMINIUM JAW HOLDER

CFA12510

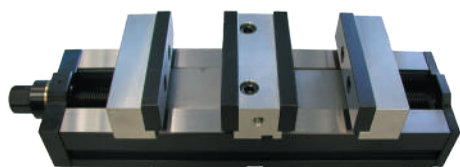


Aluminium jaws to be machined according to the shape of the workpieces to be manufactured

Ref.	
CFA12512	0,9
CFA12513	0,8

TWIN SELF-CENTERING VICE WITH ALUMINIUM JAW HOLDERS

CFB

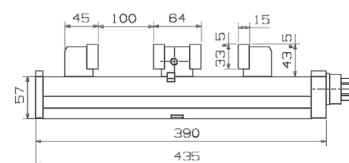
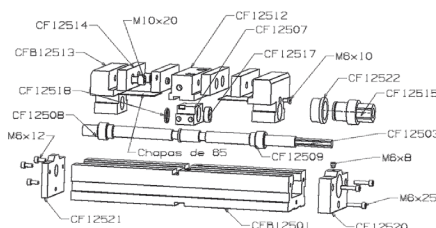


Twin vices with selfcentering mechanism with aluminium jaw holders and tempered straight jaws. Vice body and jaws manufactured in hardened steel 60HRC (20MnCr5). Vices can be fastened either with clamps to the T table and valid as well under request for zero point. Clamps not included.



Bullet points

- Tempered straight jaws up to 60HRC for a better clamping of the piece.
- Fix positioning spindle for more convenient handling. The total length does not change the vice maximum opening.
- Selfcentering mechanism for assuring the clamping center.

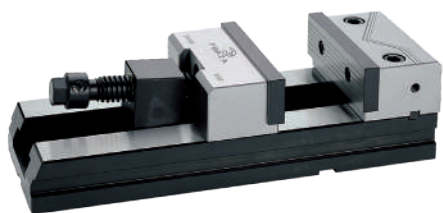


Ref.	A	B	Width	Base height			
CFB125	435	100	125	57	16	12561	20,0



STRAIGHT JAWS VICE

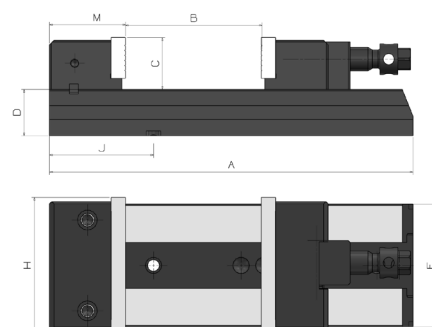
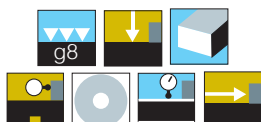
29



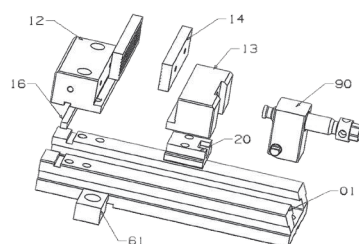
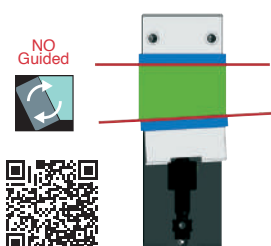
Precision mechanical vices with straight jaws for all machining works including milling, drilling and grinding.

Bullet points

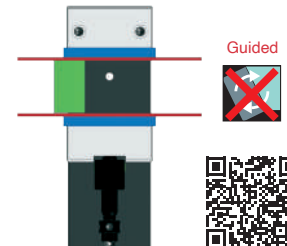
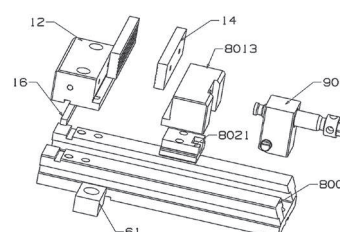
- Non guided vice for a better clamping of irregular pieces. The jaw adapts to the piece.
- Interchangeable locks.
- 2 sets of clamps are required.
- Hexagonal head spindle with a hole for clamping with a handle.
- By tightening the spindle, the work piece does not lift.
- It is possible to be assembled in a swivel base.



Vice
NO Guided



Vice
Guided

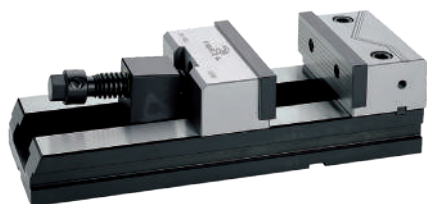


Ref.		A	B	C	D	F	H	J	M				Ref.	
29/100	10,1	250	109	34	37	90	100	70	50	12561	12	B/100	29/100G	10,1
29/100L	9,1	296	150	34	37	90	100	70	50	12561	12	B/100	29/100GL	9,1
29/125	14,1	300	130	40	42	110	125	88	64	12561	12	B/125	29/125G	13,2
29/125L	14,6	346	175	40	42	110	125	88	64	12561	12	B/125	29/125GL	14,7
29/125S	14,9	371	200	40	42	110	125	88	64	12561	12	B/125	-	-
29/150	29,0	402	200	56	51	135	150	115	84	15061	16	B/150	29/150G	30,0
29/150L	27,0	452	250	56	51	135	150	115	84	15061	16	B/150	29/150GL	27,0
29/150S	30,7	503	300	56	51	135	150	115	84	15061	16	B/150	29/150GS	33,0
29/150X	31,8	528	335	56	51	135	150	115	84	15061	16	B/150	-	-
29/175	34,0	432	225	58,5	56	135	175	120	86	15061	16	B/150	29/175G	34,0
29/175L	36,5	482	275	58,5	56	135	175	120	86	15061	16	B/150	29/175GL	36,5
29/175S	40,0	556	350	58,5	56	135	175	120	86	15061	16	B/150	29/175GS	40,0
29/175X	42,5	610	400	58,5	56	135	175	120	86	15061	16	B/150	-	-
29/200	47,0	470	250	65,5	61	160	200	145	92,5	20061	16	B/200	29/200G	44,0
29/200L	50,5	520	300	65,5	61	160	200	145	92,5	20061	16	B/200	29/200GL	50,5
29/200S	52,5	570	350	65,5	61	160	200	145	92,5	20061	16	B/200	29/200GS	52,5
29/200X	58,5	595	375	65,5	61	160	200	145	92,5	20061	16	B/200	-	-
29/200XL	65,5	675	455	65,5	61	160	200	145	92,5	20061	16	B/200	-	-

STRAIGHT JAW FORZA VICE FOR ZERO POINT

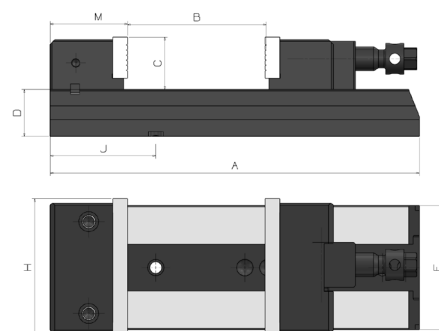
29P0

Precision mechanical vices with straight jaws for all machining works including milling, drilling and grinding.



Bullet points

- Non guided vice for a better clamping of irregular pieces. The jaw adapts to the piece.
- Interchangeable locks.
- 2 sets of clamps are required.
- Hexagonal head spindle with a hole for clamping with a handle.
- By tightening the spindle, the work piece does not lift.
- It is possible to be assembled in a swivel base.
- With **zero point**.



Ref.	A	B	C	D	F	H	J	M	Punto cero		
29/125A1	300	130	40	42	110	125	88	64	96	12	14,1
29/125LA1	346	175	40	42	110	125	88	64	96	12	14,6
29/150CA1	306	130	56	51	135	150	115	84	96	16	23,0
29/150A1	402	200	56	51	135	150	115	84	96	16	27,0

GUARANTEED QUALITY

Video of a vice on a three dimensional ZEISS machine

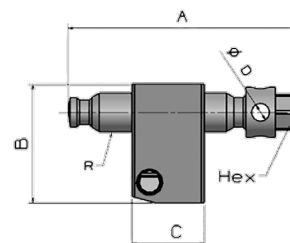
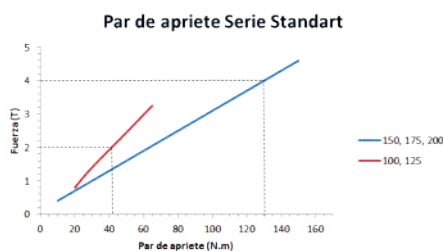




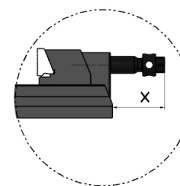
COMPLETE HORIZONTAL AND MECHANICAL SPINDLE BLOCK



Complete mechanical block with spindle included.
It can be assembled on vices serie 30, 29 and 60.



Ref.	A	B	C	ØD	Hexagon	R	X		TON	
10090	120	52	45	10	21	M18x2,5	65	100	2	0,7
12590	120	52	45	10	21	M18x2,5	60	125	2	1,0
15090	154	80	49	12	24	TR26x5	85	150 - 175 - 200	4	2,0
25090	154	99	50	18	24	TR26x5	85	250	4	3,1
3030090	189	105	68	18	28	TR30x5	100	300	6	4,3



COMPLETE VERTICAL AND MECHANICAL SPINDLE BLOCK

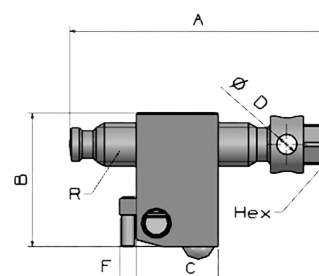


Complete mechanical block with spindle included.
It can be assembled on vices serie 30, 29 and 60.
When this spindle is mounted in the vice,
the maximum opening is reduced by **F**.

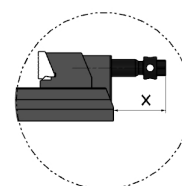


Bullet points

- It is suggested when the vice is in a vertical position in horizontal machining centers.



Ref.	A	B	C	ØD	Hexagon	R	X	F		TON	
12594	120	52	22	10	21	M18x2,5	60	9	125	2	1,0
15094	154	80	24	12	24	TR26x5	85	11	150 - 175 - 200	4	2,0
25094	255	99	24	18	24	TR26x5	85	11	250	4	3,1



COMPLETE SPINDLE SPARE PARTS

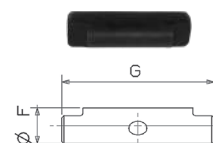
Standard spindle



Short spindle



Replacement bolt



Bronze sleeve



	Ref.	A	R (Thread)	C	Ø		Ref.	A		Ref.	A	F		Ref.	
100	10002	120	M18x2,5	21	10	0,2	10022	104	0,2	10008	13	13	0,1	-	-
125	10002	120	M18x2,5	21	10	0,2	10022	104	0,2	12508	14	14	0,1	-	-
150-175-200	15002	154	TR26X5	24	12	0,5	15022	134	0,4	15008	16	16	0,1	15011	0,1
250	15002	154	TR26X5	24	12	0,5	15022	134	0,2	25008	18	18	0,2	15011	0,1
300	3030002	189	TR30X5	28	18	0,8	-	-	-	3030008	18	18	0,2	3030011	0,4

MECHANICAL BLOCK WITHOUT SPINDLE

Horizontal Spindle



Ref.		
10091	100	0,4
12591	125	0,8
15091	150-200	1,4
25091	250	1,6
3030091	300	3,5

Vertical spindle

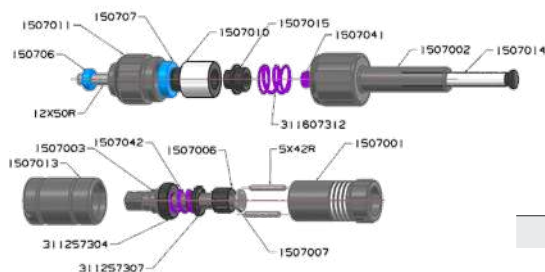
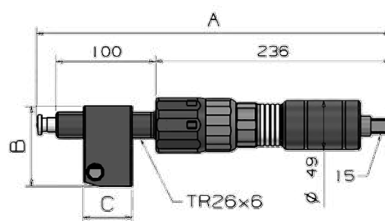


Ref.		
125942	125	0,4
150942	150-200	1,1
250942	250	2,5

HYDRAULIC TORQUE MULTIPLIER



This 5 T spindle works with an oil closed tank.
While introducing the piston, the force is multiplied because of the diameters difference.
For machine vices serie 29,30 y 60.



Ref.	A (Total length)	B (Taco height)	C (Taco width)		Stroke	
15070	355	80	80	150-175-200	2mm	8,2
30020070	355	80	140	All serie 300		8,0

MECHANICAL TORQUE MULTIPLIER

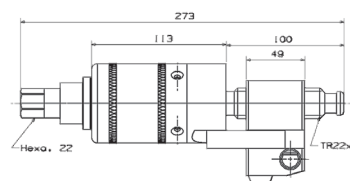
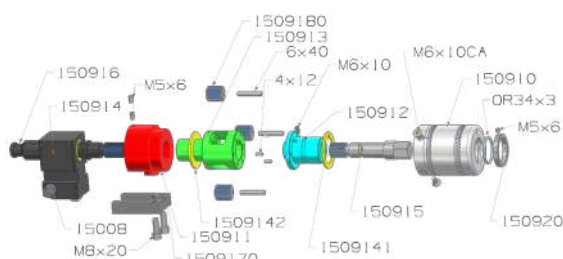


The torque multiplication system is carried out by an internal planetary gear mechanism that multiplies the clamping force by 4.
It can be assembled on vices serie 30, 29 and 60.

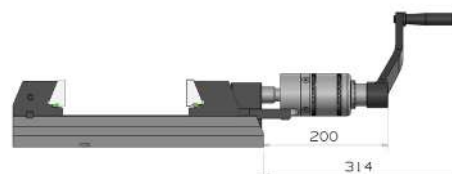


Bullet points

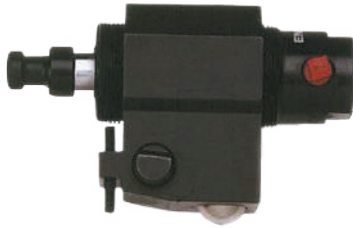
- It includes an angular measurement system to measure the clamping tons.
- Unlimited clamping stroke.



Ref.		
15092	150-175-200	5,8

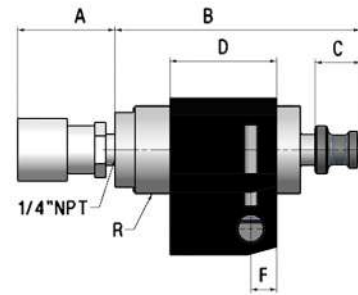


COMPLETE HYDRAULIC SPINDLE



When this spindle is assembled into the vice, the maximum opening is reduced by "F".

It is essential to use an oleo-pneumatic pump to operate the spindles.



Ref.	A	B	C	D	R	TON		F	Stroke	
10080	53	95	23	45	M36x 1,5	2	100	7	13	0,9
12580	53	95	23	48	M36 x 1,5	2	125	10	13	1,2
15080	53	128	25	58	M48 x 1,5	5	150-200	27	25	2,4
25080	53	128	25	51	M48 x 1,5	5	250	20	25	3,1

HYDRAULIC PUMP



Pump to operate the oilpneumatic spindles.

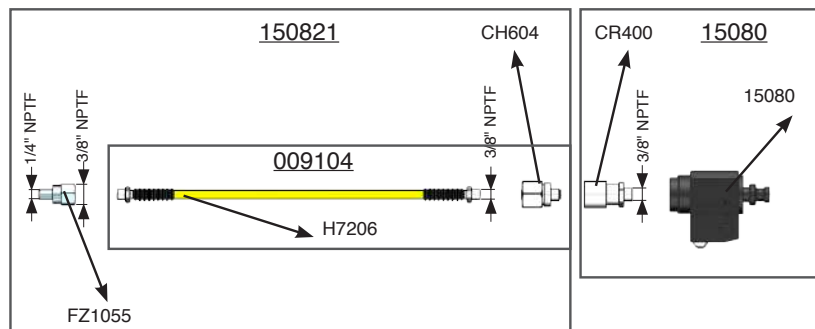
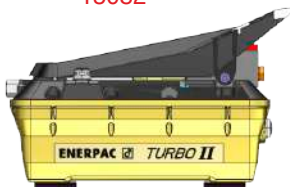


Ref.	Pressure	Hose	
15082	350	Included	10,0

Ref.	Description	
150821	Hose with connectors	1,1
150822	Distributor with 2 outlets + fittings	0,2
150823	Distributor with 3 outlets + fittings	0,3

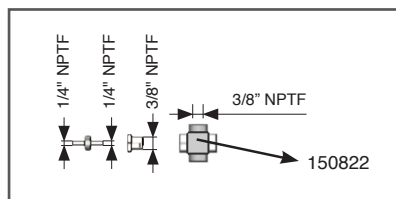
ONE PUMP ONE VICE

15082



ONE PUMP TWO VICES

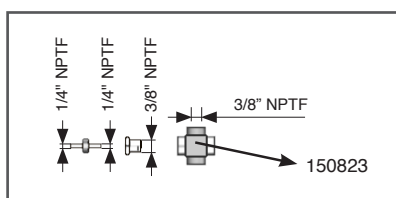
15082



+	009104	+	15080
+	009104	+	15080

ONE PUMP THREE VICES

15082



+	009104	+	15080
+	009104	+	15080
+	009104	+	15080



SWIVEL BASE FOR VICES

B100



Swivel base for vices.

It allows the vice to rotate and slide to adjust the center.

Compatible with Series 29, 30 and 60.



Ref.				
B/100	100	14	12560	6,5
B/125	125	14	12560	9,5
B/150	150-175	16	15060	14,0
B/200	200	16	15060	20,0

CLAMP FOR SWIVEL BASE

125600



Clamps for clamping the swivel base to the T table.

Set of 2 units.

All the clamps are supplied for M16 screws.

For machine vices serie 29, 30 and 60.



Ref.	A	B	C	M	d	D		
12560	48	40	19.5	10	17	25	B/100 - B/125	0,5
15060	57	40	22	12	17	25	B/150 - B/200	0,8

PARALLELS WITH SIMPLE FORM CLAMPS

150P400



All the parallels include the clamps.

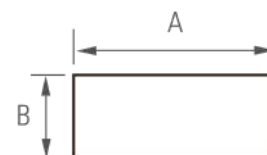
The clamp holds the parallel in order to avoid any movement while working.

16mm thickness.

For machine vices serie 29,30 and 60.

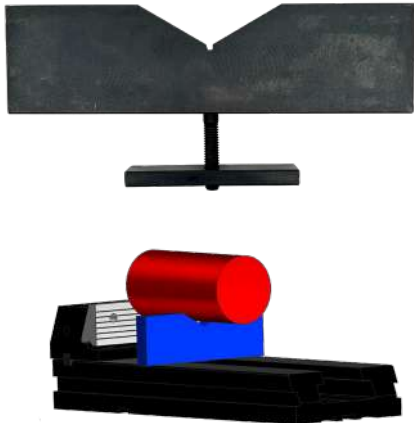


Ref.	A	B	
150P40	150	40	0,8
150P45	150	45	0,8
150P50	150	50	0,8
175P42	175	42	0,9
175P47	175	47	0,9
175P52	175	52	0,9
200P52	200	52	1,3
200P57	200	57	1,3
200P62	200	62	1,3



PARALLELS WITH CLAMPS V FORM

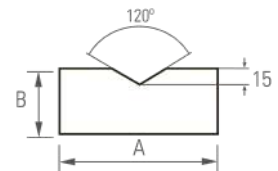
150P40V0



All the parallels include the clamps.
The clamp holds the parallel in order to avoid any movement while working.
16mm thickness.
For machine vices serie 29,30 and 60.



Ref.	A	B	
150P40V	150	40	0,8
150P45V	150	45	0,8
150P50V	150	50	0,8
175P42V	175	42	0,9
175P47V	175	47	1,0
175P52V	175	52	1,0
200P52V	200	52	1,3
200P57V	200	57	1,3
200P62V	200	62	1,3



PARALLELS WITH CLAMPS W FORM

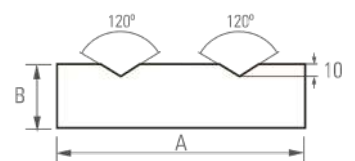
150P40W0



All the parallels include the clamping clamp.
The clamp holds the parallel in order to avoid any movement while working.
16mm thickness.
For machine vices serie 29,30 and 60.



Ref.	A	B	
150P40W	150	40	0,8
150P45W	150	45	0,8
150P50W	150	50	0,9
175P42W	175	42	1,0
175P47W	175	47	1,0
175P52W	175	52	1,0
200P52W	200	52	1,3
200P57W	200	57	1,3
200P62W	200	62	1,3



PARALLELS WITH QUICK CLAMPING SUPPORT

125999

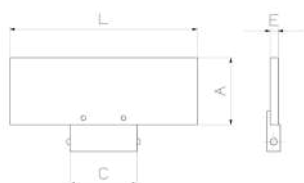


Parallels with quick support for vices serie 29,30 and 60.
Supplied in sets of 2 units.
For machine vices serie 29, 30 and 60.



Bullet points

- It is assembled to the vice central slot with a “click” thanks to a clamping spring.
- It is more precise than working with stepped jaws.



Ref.	A	L (Length)	E		
12599930	30	110	4	125	0,3
12599935	35	110	4	125	0,3
15099940	40	140	6	150	0,6
15099950	50	140	6	150	0,7
20099950	50	180	6	200	0,9
20099958	58	180	6	200	1,1

SOFT JAWS

100500



Soft machining jaws manufactured of C45.
Supplied in sets of 2 units.
Valid for all vices serie 30 and 60.



Bullet points

- Designed to custom-machine them in order to clamp specific geometry parts.

Ref.		A (Jaw length)	B	C	
10050	100	100	30	20	0,9
12550	125	125	36	23	1,6
15050	150	150	47	28	3,0
17550	175	175	47	28	3,5
20050	200	200	47	28	4,0

PRISMATICS JAWS

100530



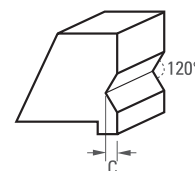
Prismatic jaws made of hardened steel 60HRC(20MnCr5).
A set consists on 2 units.
Valid for all vices serie 30 and 60.



Bullet points

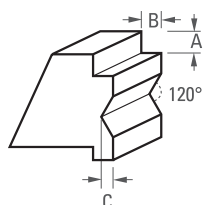
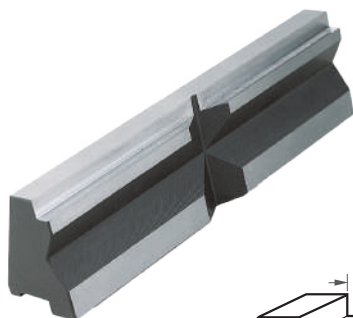
- Specially designed for clamping cylindrical pieces.

Ref.		C	
10053	100	3	0,5
12553	125	4	1,0
15053	150	5	2,1
17553	175	5	2,5
20053	200	5	2,4



STEPPED PRISMATIC JAWS

100510



Stepped prismatic jaws made of hardened steel 60HRC (20MnCr5).
A set consists on 2 units.
Valid for all vices serie 30 and 60.

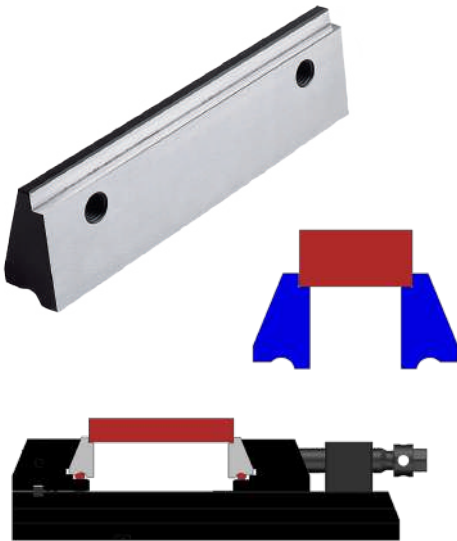


Bullet points

- Designed to clamp pieces avoiding lifting blocks or parallel.
- Designed to clamp cylindrical parts.

Ref.		A	B	C	
10051	100	4	3	3	0,5
12551	125	4	4	4	1,0
15051	150	6	5	5	4,2
17551	175	6	5	5	2,4
20051	200	6	5	5	2,7

STEPPED SMOOTH JAWS

100520


Stepped smooth jaws manufactured of hardened steel 60HRC (20MnCr5).

A set consists on 2 units.

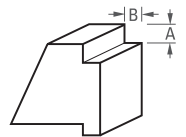
Valid for all vices serie 30 and 60.

Bullet points

- Designed for clamping parts avoiding lifting blocks or parallel.



Ref.		A	B	
10052	100	4	3	0,6
12552	125	4	4	0,8
15052	150	6	5	1,7
17552	175	6	5	2,0
20052	200	6	6	2,2



SMOOTH JAWS

100540


Smooth jaws manufactured of hardened steel 60HRC (20MnCr5).

A set consists on 2 units.

Valid for all vices serie 30 and 60.



Ref.		
10054	100	0,6
12554	125	0,8
15054	150	1,8
17554	175	1,9
20054	200	2,3
25054	250	3,3
3030054	300	6,0

STANDARD JAWS

100550


Standard jaws manufactured of hardened steel at 60HRC (20MnCr5).

A set consists on 2 units.

Valid for all vices serie 30 and 60.



Ref.		Mobile/fixed jaw width	Mobile/fixed jaw height	Mobile/fixed jaw thickness	
10055	100	100	42	25	0,3
12555	125	125	42	25	0,8
15055	150	150	42	25	1,8
17555	175	175	42	25	1,9
20055	200	200	42	25	2,3
25055	250	250	50	30	3,3
3030055	300	300	55	32	6,0

JAWS WITH POSITIONING PINS



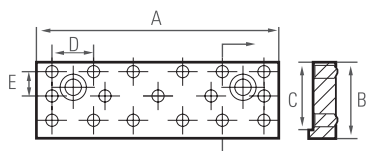
Positioning pins jaws.

Supplied in a set of 2 units + 12 pins and 4 clamping screws.
Valid for all vices serie 30 and 60.



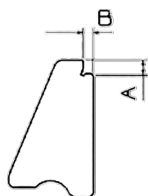
Bullet points

- Designed to achieve a better clamping, specially in irregular geometries without the need of pre-machining.
- Interchangeable pines for flexible positioning.



Ref.		
12556	125	1,0
15056	150	1,6
17556	175	1,9
20056	200	2,1
3030056	300	3,6

SERRATED STEP JAWS FOR SERIE 30



Serrated step jaws

Supplied in sets of 2 units.

For Series 30 and 60 vices.

Manufactured in Hardened steel 60HRc (F522).



Bullets points

- Designed to grip the piece at 3 mm height and machine it completely.
- No pre-marking station needed.
- Highly recommended for irregular parts (forging, casting, laser cutting).

Ref.	A	B		
10057D	4	3	100	0,6
12557D	4	3	125	0,7
15057D	4	3	150	1,5
17557D	4	3	175	2,0
20057D	4	3	200	2,2

SERRATED JAWS FOR SERIE 30



Serrated Jaws

Supplied in sets of 2 units.

Compatible with Series 30 and 60 vices.

Manufactured in Hardened steel 60HRc (F522).



Bullets points

- No pre-marking station needed.
- Highly recommended for irregular parts (forging, casting, laser cutting)

Ref.		Tooth height	
10058D	100	3	0,6
12558D	125	3	0,8
15058D	150	3	0,8
17558D	175	3	1,9
20058D	200	3	2,3

SERRATED STEP JAWS FOR SERIE 29

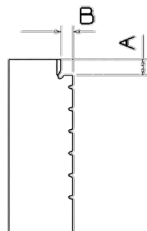


Serrated step jaws
Supplied in sets of 2 units.
For series 29 vices.
Manufactured in hardened steel 57HRc (F522).



Bullet points

- Designed to grip the part at 3 mm height and machine it completely.
- No pre-marking station needed.
- Highly recommended for irregular parts (forging, casting, laser cutting)



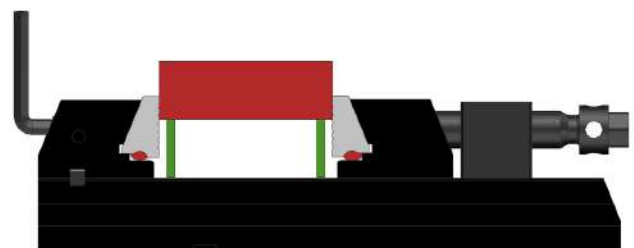
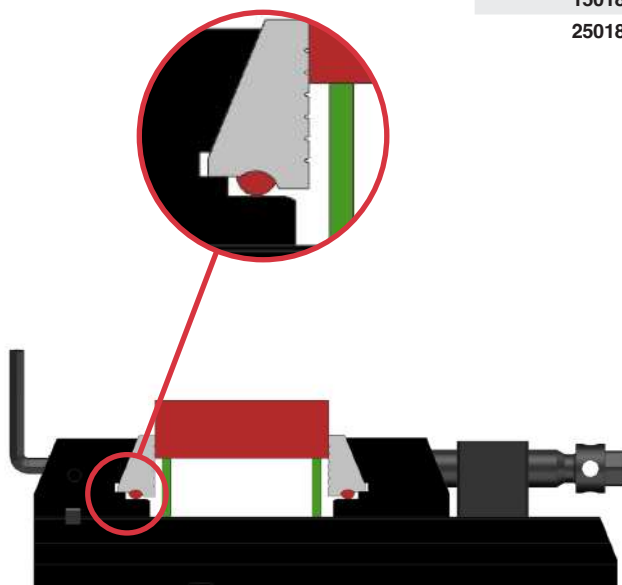
Ref.	A	B		
2910024	4	3	100	0,3
2912524	4	3	125	0,4
2915024	4	3	150	0,8
2917524	4	3	175	1,0
2920024	4	3	200	1,3

SQUARE RUBBERS

Set of 4 units for machine vices serie 30 and 60 with descending effect.
Note: It is suggested to change yearly the rubbers.
For machine vices serie 30 and 60.

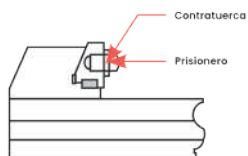


Ref.		
10018	100	0,1
12518	125	0,1
15018	150 - 175 - 200	0,1
25018	250 - 300	0,1



LOCKING BOLT
100590

Set of 4 units to provide four strong clamping points.
Suitable for clamping high irregular pieces or rough parts (forged, cast, flame-cut, etc.).



Ref.		Locknut	
10059	100 - 125	M-8	0,1
15059	rest	M-10	0,1

ARTICULATED HANDLE
15004

Articulated handle for vices.
For machine vices serie 29,30 y 60.

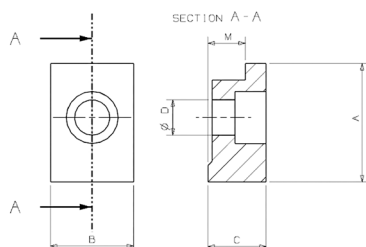

Bullet points

- 24mm hexagonal wrench very comfortable on machines with lack of space.

Ref.	Description	
15004	150 - 175 - 200 - 250	0,9

CLAMPS FOR MACHINE VICES
125610

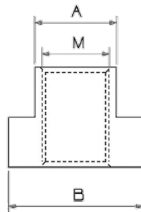
Clamps for standard vices serie 29, 30 and 60.
All the clamps are supplied for M16 screws.
Set of 2 units.



Ref.	A	B	C	M	d	D		
12561	50	40	23.5	14	17	25	100 - 125	0,5
15061	57	38	27	18	17	25	150 - 175	0,8
20061	62	42	35	22.5	17	25	200 - 250	0,8
3030061	62	45	42	32	17	25	300	2,7

T SLOTS

150T



Nuts for fixing the vices to T-slotted tables.

Bullet points

- Manufactured for not damaging the channels of the T table.



Ref.	A	B	Metric	
150T16	16	25	M-14	0,1
395644	18	28	M-16	0,1
395645	20	32	M-16	0,1
395646	22	35	M-16	0,2
395647	24	40	M-16	0,3

ALIGNEMENT KEYNUTS

125400



Alignment keynuts for machine vices serie 29, 30 and 60.
Keynuts are indispensable for a perfect vice alignment.
Set of 2 units.



Ref.	Measures			Ref.	Measures		
12540	12/12	100-125	0,1	15043	16/20	125-150-200	0,1
12541	12/14	100-125	0,1	15044	16/22	125-150-200	0,1
12544	12/16	100-125	0,1	15048	16/28	125-150-200	0,2
12547	12/18	100-125	0,1	15045	18/18	250-300	0,1
12549	12/22	100-125	0,1	15046	18/20	250-300	0,1
12543	14/14	100-125	0,1	15049	18/22	250-300	0,1
12545	14/16	100-125	0,1	25043	20/18	250-300	0,1
15040	16/14	125-150-200	0,1	25044	20/20	250-300	0,1
15041	16/16	125-150-200	0,1	25045	20/22	250-300	0,1
15042	16/18	125-150-200	0,1	25048	20/28	250-300	0,2



Machine vices general
key points



T SUPPORTS

100T



Tipo 1

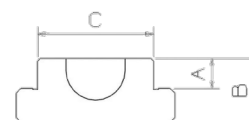


Tipo 2



Tipo 3

Lower T support of the mobile jaw.
For machine vices serie 29,30 and 60.



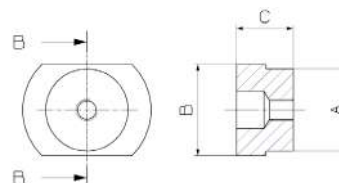
Ref.	Type	Description	A	B	C		
10020	1	Standard oscillating T	8	20	3,5	100	0,2
17521	1	Standard oscillating T	16	27	49	175	0,6
10021	1	Standard oscillating T	11	20	3,5	100	0,2
12520	1	Standard oscillating T	11	20	3,5	125	0,4
15020	1	Standard oscillating T	11	20	3,5	150	0,6
20020	2	Standard oscillating T	12.5	27	49	200	0,7
25020	2	Standard oscillating T	16	29	69	250	1,0
3030020	3	Standard oscillating T	18	33	69	300	1,5
1008020	1	Standard oscillating T	11	23	32.5	100G	0,3
1008021	1	Standard guided T	11	23	32.9	100G	0,4
1258020	1	Standard oscillating T	13	26	40.9	125G	0,4
1258021	1	Standard guided T	13	26	40.9	125G	0,4
1508020	1	Standard oscillating T	16	28.5	50.9	150G	0,6
1508021	1	Standard guided T	16	28.5	50.9	150G	0,7
2008020	2	Standard oscillating T	16	28.5	50.9	200G	0,9
2008021	2	Standard guided T	16	28.5	50.9	200G	0,9
2508021	2	Standard guided T	16	29	70.9	250G	0,9

LIFTING EYE BOLT

15035



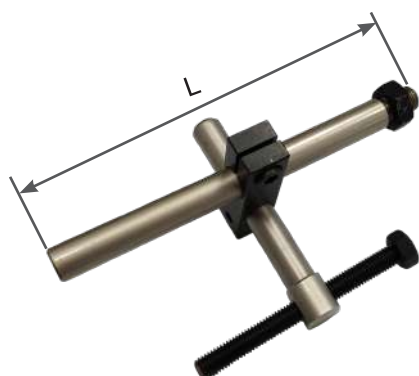
To safely lift vices.
Locking system in order not to slide.
For machine vices serie 29,30 and 60.



Ref.	A	B	C		
15035	45	50	31	150 - 200	0,8

WORK STOP

100580



Essential work stop in any kind of vice for lateral positioning.
For machine vices serie 29,30 and 60.

Bullet points

- Available in normal and long length (L).
- With a smart design to fix it easily and extremely precise.



Ref.		Lenght	
10058	100	90	0,4
10058L	100	120	0,5
15058	rest	90	0,4
15058L	rest	120	0,5



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VICE BODIES EXTENSIONS



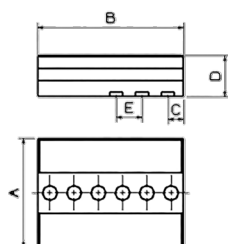
Body vice extensions.

Note: the extensions are valid for Serie 30, 29 and 60.

The extensions are not guided, but can be used with the guided jaws by exchanging the guided T for the oscillating T. (included in the serie 30)

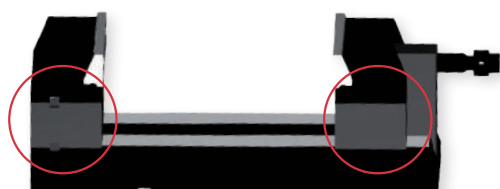
Bullet points

- Manufactured in hardened steel 20MnCr5 at 60HRc.
- Reversibles: Three keyways on each side so 6 different clamping positions are achieved in the machine.



Ref.	A	B	C	D			
1252211	110	150	15	21	1251261	125	3,6
1502211	135	180	19	32	15061	150	6,5
1752211	135	180	19	32	15061	175	7,5
2002211	160	200	24	32	2001261	200	11,7
2502211	200	242	31	36	20061	250	19,5

LIFTING BLOCKS

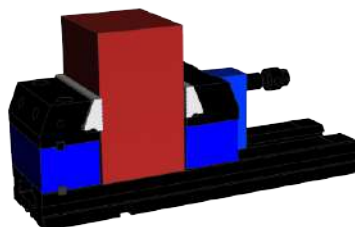
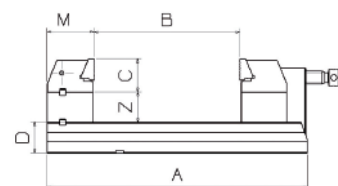
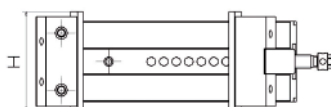
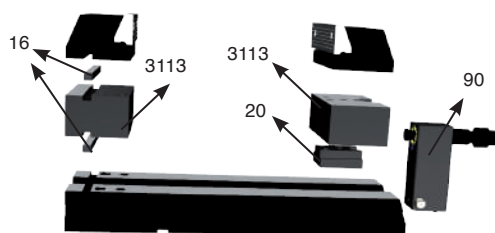


Lifting block for serie 30 and 60 perfect vices.

Non guided blocks suitable for non guided vices. In case of guided vices it is necessary to get a non guided T.

Bullet points

- Manufactured in hardened steel 20MnCr5 at 60HRc.



Set of 2 lifting block, spindle blocks keynut and screws are included.

Ref.	C	Z	H		Taco	
12531	40	30	125	125	30012590	4,5
15031	56	60	150	150	30015090	12,9
20031	66	60	200	200	30020090	18,5
25031	76	60	250	250	30025090	21,5
30030031	83	60	300	300	30030090	34,5



SPLIT VICES

30P

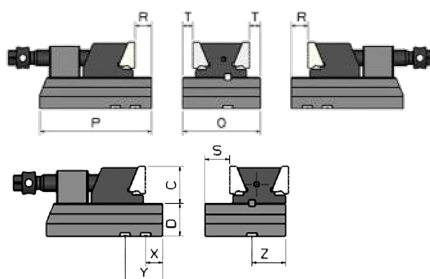
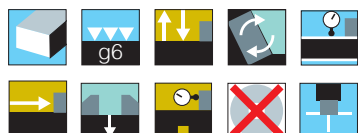


Split vice suitable for machining large pieces.
Manufactured in hardened steel 60 HRc (20MnCr5).
2 sets of clamps are included.

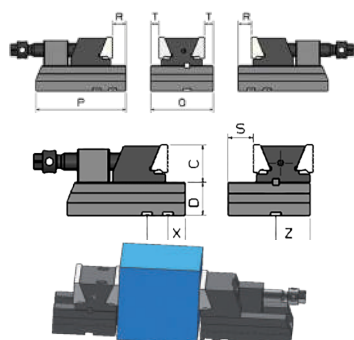


Bullet points

- The fixed part is reversible so 2 different clamping alternatives are available, placing the piece at the body vice or directly on the T table.
- Interchangeable locks.
- Descending jaws effect.



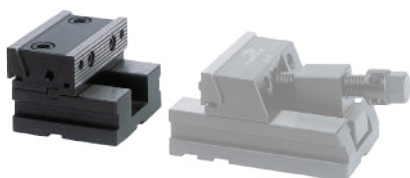
Video of machining with split vices.



Ref.	C	D	P	Q	R	S	T	X	Y			
30/100P	33,5	37	140	90	50	32	16	17	42	12	1251261	10,0
30/125P	40	42	150	103	55	33	16	22	50	12	1251261	13,5
30/150P	56	51	180	125	58	38	18	26	58	16	1501261	25,1
30/200P	66	61	190	140	63	44	22	26	58	16	2001261	44,4

SPLIT VICE FIX PART

30PF



Fix part of the split vice suitable for machining large pieces.
Manufactured in hardened steel 60 HRc (20MnCr5).



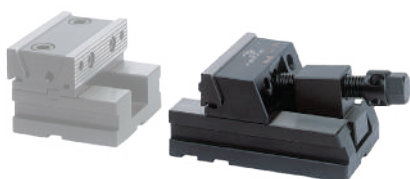
Bullet points

- Descending jaw effect.
- The fixed part is reversible so 2 different clamping alternatives available, placing the piece at the body vice or directly on the T table.

Ref.	C	Q	T			
30/100PF	33,5	90	16	12	1251261	4,6
30/125PF	41	103	16	12	1251261	8,3
30/150PF	56	125	18	16	1501261	12,3
30/200PF	66	140	22	16	2001261	20,5

SPLIT VICE MOVABLE PART

30PM



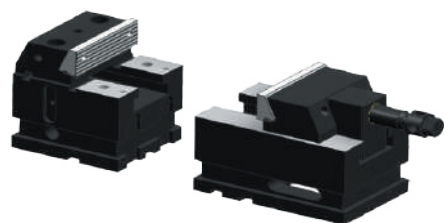
Movable part of the split vice suitable for machining large pieces.
Manufactured in hardened steel 60 HRc (F20MnCr5).



Bullet points

- Interchangeable locks.
- Descending jaws effect.

Ref.	C	P	R			
30/100PM	33,5	140	50	12	1251261	5,4
30/125PM	41	150	55	12	1251261	8,3
30/150PM	56	180	58	16	1501261	14,6
30/200PM	66	190	63	16	2001261	24,1

HIGH SPLIT MACHINE VICES
30VP


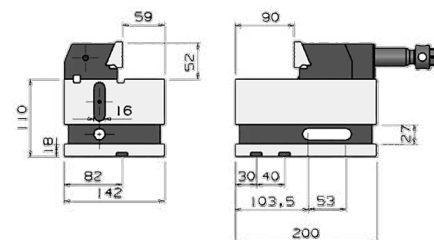
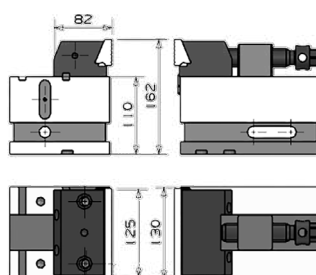
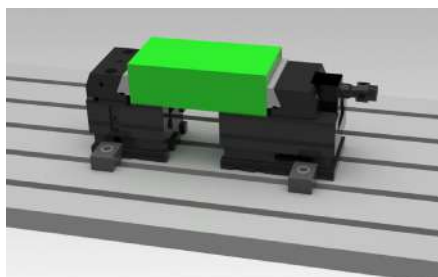
Suitable vice for clamping large pieces.
Manufactured in hardened steel 60 HRc (20MnCr5)
2 sets of clamps are included.


Bullet points

- The fixed part is reversible so two clamping heights are available:
Height placing the piece to the vice body.
Height placing the piece on the T table.
- Jaws with descending effect.



Application video



Ref.	A			
30V125P	390	15061	16	48,0

CLAMPS FOR SPLIT VICES
125161

Clamps for split vices serie 30P and 30VP
All the clamps supplied for M16 screws.
Set of 2 units.

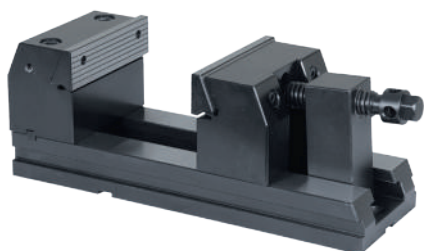


Ref.	A	B	C	M	d	D		
1251261	48	40	23.5	16	17	25	100 - 125	0,5
1501261	57	40	32	19.5	17	25	150	0,8
2001261	57	45	38	29.5	17	25	200	1,0



HIGH JAW MACHINE VICES

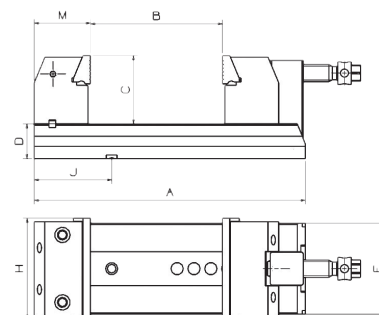
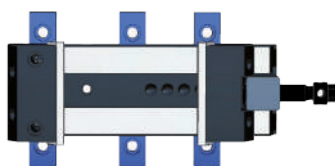
300



Vices for machining high height pieces.
Manufactured in hardened steel 60 HRc (20MnCr5).

**Bullet points**

- Jaws with descending effect. While clamping, the descending jaw effect perfectly place the working piece over the vice body or parallel.
- Oscillating movable jaw holder for a better piece adjustment.
- It is strongly suggested to assemble the vice with 3 set of clamps.



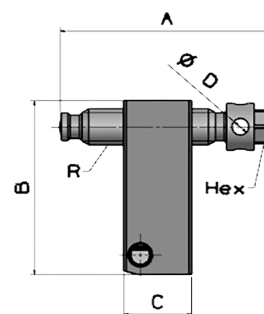
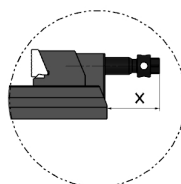
Ref.	A	B	C	D	F	H	J	M			
300/150	402	200	101	51	135	150	115	83	15061	16	35,0
300/150L	452	250	101	51	135	150	115	83	15061	16	37,0
300/200	470	250	130	61	160	200	145	93	20061	16	68,0
300/200L	520	300	130	61	160	200	145	93	20061	16	71,0
300/200S	570	350	130	61	160	200	145	93	20061	16	72,0
300/200X	595	375	130	61	160	200	145	93	20061	16	74,0

With Zero Point

Ref.	A	B	C	D	F	H	J	M	Punto zero			
300/200SA1	570	350	130	61	160	200	145	93	96	20061	16	72,0

COMPLETE MECHANICAL SPINDLE FOR SERIE 300 AND LIFTING BLOCKS

Complete mechanical block with spindle included.
It can be assembled on vices serie 30 and 60.



Ref.	A	B	C	ØD	Hexagon	R	X		TON	
30012590	120		42	10	21	M18 x 2,5	60	Lifting block 12531	2	1,4
30015090	154	125	49	12	24	TR26x5	85	300/150	4	2,9
30020090	154	140	59	12	24	TR26x5	85	300/200 and lifting block 15031	4	3,6
30025090	154	157	62	18	24	TR26x5	85	Lifting block 25031	4	5,5
30030090	189	165	76	18	28	TR30x5	100	Lifting block 30031	6	7,5

FLEXIBLE FORZA VICES FOR LARGE PIECES

30F

NEW

**FLEXIBLE
VERSATILE
WITH 2
ADJUSTABLE
JAW HOLDERS**

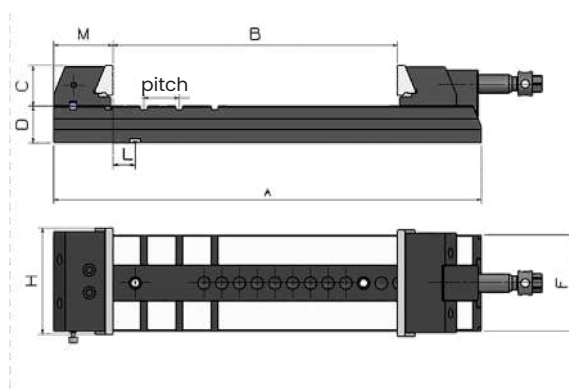
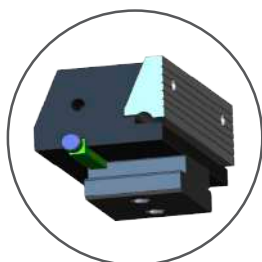
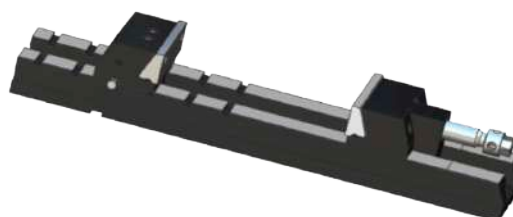
New Serie 30F Vices equipped with a **fixed jaw holder adjustable with a mobile T-slot and a key with a screw for special tool-free locking.**

Manufactured in hardened steel 60 HRc (20MnCr5).

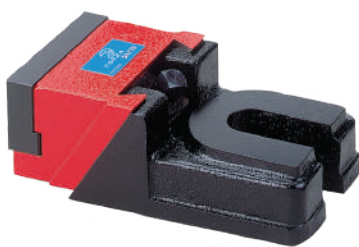


Bullet points

- Non guided vice with oscillating jaw holder for a better clamping adjustment. The non guided mechanism allows the clamping of irregular pieces.
- While clamping, the descending jaw effect perfectly places the working piece over the vice body or parallel.
- Interchangeable locks.
- Hex head spindle with a hole for clamping with a handle.
- 2 sets of clamps are included.



Ref.	A	B	C	D	F	H	L	M			Pitch	
30/150XLF	603	400	56	51	135	150	32.2	83	15061	16	3X50	40,0
30/150XSF	653	450	56	51	135	150	32.2	83	15061	16	4X50	43,0
30/150XXF	703	500	56	51	135	150	32.2	83	15061	16	5X50	45,0


INDIVIDUAL SLIDING VICE SERIE 34
3460000


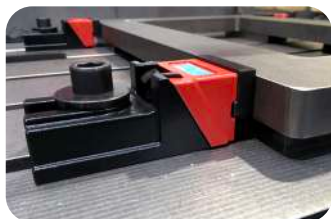
Vice for special works such as long pieces, dies and other specific clamping needs.

Descending effect vice, supplied individually.

The vice separately does not include the wrench.


Bullet points

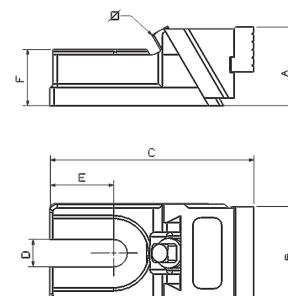
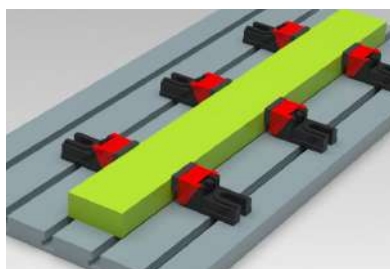
- Lathe machine wrench for a better clamping.
- The descending effect avoids any lift up of the piece.



Ref.	A	B	C	D	E	F	H		Wrench
346000	52-60	62	138	19	42	34	12	2,0	346019
346200	82-92	62	175	19	74	57	12	3,9	346019
347900	66-78	82	170	24	53	45	12	4,5	346019
3411200	90-105	115	240	31	84	65	17	12,3	346019

STANDARD VICES SERIE 34
34

It is supplied in sets of 2 units plus a wrench.



Ref.	A	B	C	D	E	F	H		Wrench
34/60	52-60	62	138	19	42	34	12	4,2	346019
34/62	82-92	62	175	19	74	57	12	8,0	346019
34/79	66-78	82	170	24	53	45	12	9,2	346019
34/112	90-105	115	240	31	84	65	17	26,5	346019

WRENCH FOR STANDARD VICE SERIE 34
346019

Tools designed to tighten standard vices.
Also known as a lathe machine type.



Ref.	Square	
346019	12	0,2
3411219	17	0,5

INDIVIDUAL SLIDING VICE SERIE 35
354000


Vices for clamping thin workpieces on milling or drilling machine

Bullet points

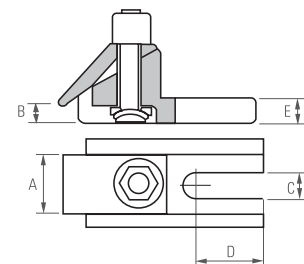
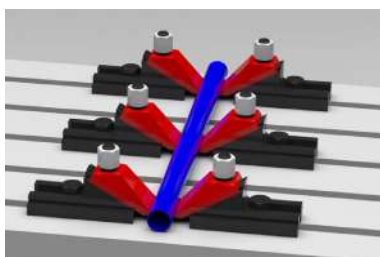
- The descending effect avoids any lift up of the piece.
- Specifically designed for clamping big sizes sheets in different machines.



Ref.	A	B	C	D	E	
354500	45	0-13	20	60	23	1,6

SLIDING JAW VICES SERIE 35
35

Descending effect vice supplied in sets of 4 units/each.



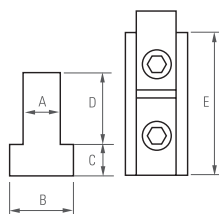
Ref.	A	B	C	D	E	
35/45	45	0-13	20	60	23	6,4

INDIVIDUAL T SLOT VICES SERIE 37
37120000


Vice for clamping extremely thin workpieces.

Bullet points

- The jaw is hidden in the channel of the machine.



Ref.	A	B	E	C	D	
371200	11,5	20	8	16	28	0,1
371400	13,5	23	9	18	40	0,1
371600	15,5	26	10	21	45	0,2
371800	17,5	29	11	24	45	0,3
372000	19,5	33	13	26	50	0,4
372200	21,5	35	14	29	53	0,4

T SLOT VICES SERIE 37

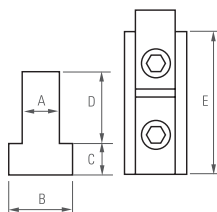
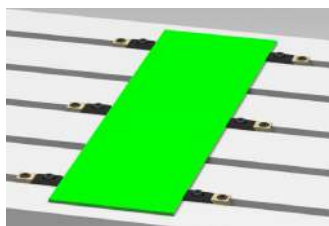
37 CANAL



Vices for clamping extremely thin parts.

Bullet points

- The jaw is hidden in the channel of the machine.
- The T slot vices are supplied in sets of 4 units each.



Ref.	A	B	C	D	E	⚖️
37/12	11,5	20	8	16	28	0,4
37/14	13,5	23	9	18	40	0,6
37/16	15,5	26	10	21	45	0,8
37/18	17,5	29	11	24	45	1,0
37/20	19,5	33	13	26	50	1,5
37/22	21,5	35	14	29	53	1,7

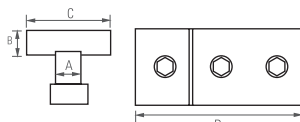
INDIVIDUAL PLAIN VICE SERIE 36

36600

Plain vice for clamping very low-height pieces.
Specifically designed for clamping large metal sheets in machines.

Bullet points

- The oscillating jaw allows to fasten very small height pieces.

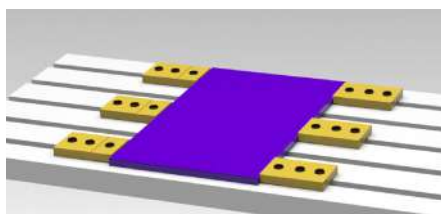
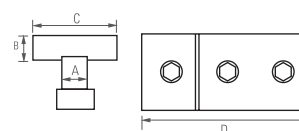
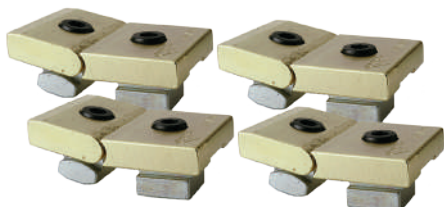


Ref.	A	B	C	D	⚖️
366000	15.5	12	60	75	0,6
366400	17.5	15	60	105	0,9
366500	19.5	15	60	105	1,0
366600	21.5	15	60	105	1,1
367800	17.5	15	80	125	1,9
367900	19.5	15	80	125	1,8
368000	21.5	15	80	125	1,8

PLAIN VICES SERIE 36

36

Supplied in sets of 4 units.



Ref.	A	B	C	D	⚖️
36/60	15,5	12	60	75	2,3
36/64	17,5	15	60	105	4,0
36/65	19,5	15	60	105	4,3
36/66	21,5	15	60	105	4,6
36/78	17,5	15	80	125	8,1
36/79	19,5	15	80	125	7,2
36/80	21,5	15	80	125	7,1

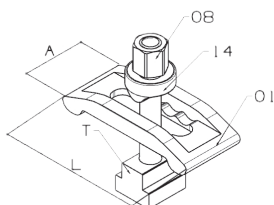
ARCHED CLAMPS

39

Suitable clamps for clamping tooling, molds and dies.

Bullet points

- Clamps that, due to the desing of the vice body and nut-shaped washer, does not need to work in horizontal position, and can also be assembled bended.
- Its design allows the use of lifting blocks of different sizes depending on the piece and it is perfect for placing toolings and dies.



See
video



Ref.	L (Length)	A	T	⚖
39/56	123	56	18	1,0
39/57	123	56	20	1,1
39/58	123	56	22	1,2
39/59	123	56	24	1,2
39/70	160	70	22	1,9
39/71	160	70	24	2,1
39/72	160	70	28	2,2





5-Axis vices

for medium and large machines



FORZA®

www.forza.es

SELF CENTERING 5 AXIS MACHINE VICES ZERO POINT
24A

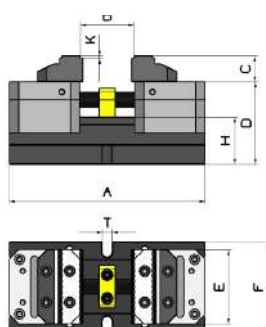
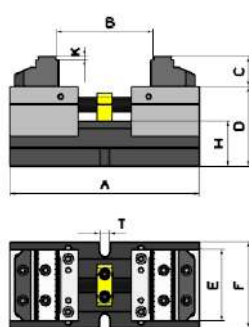
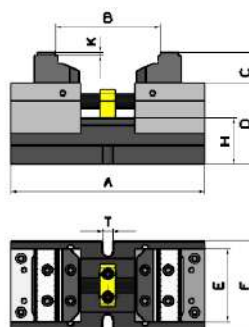
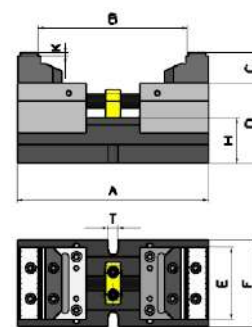

A professional, versatile, and highly flexible clamping solution. Manufactured from case-hardening steel according to DIN 14CrMo13.

Base body and jaw holders hardened to 60 HRC.
Fully ground with finishing tolerances of 0.02 mm.
Clamping force: 2 tons.


Puntos Clave

- **Versatility: 4 jaws in 1** – The jaw holders have 2 or 3 reversible positions (one serrated side and one smooth side).
- **Modular Design:** Compatible with accessories such as jaw holders for hardened steel and round workpieces..
- **Durability:** Fully protected trapezoidal spindle. The central spindle support is made of bronze.
- **No Pre-Marking Station Required:** Jaws made of F522 hardened to 60 HRC. Minimum clamping height of 3 mm.
- Zero-point clamping or standard clamps.

Ref. Serie 24 standard	Ref. Serie 24 zero point	Body length (A)	Jaw holder height C	Body and slide height D	Body height H	Jaw holder width E	Body width F	T slot width	KEY SLOT POSITIONS	ZERO POINT PITCH	
24/75	24/75A0	192	28	90	50	75	70	13	2	52	9,2
24/95	24/95A1	250	33	105	60	95	115	13	2	96	20,0
24/100	24/100A1	374	33	105	60	100	115	13	3	96	24,0
24/125C	24/125CA1	250	33	105	60	125	115	13	2	96	20,0
24/125	24/125A1	374	33	105	60	125	115	13	3	96	24,0

Position 1A

Position 1B

Position 2A

Position 2B

POS. 1A
POS. 1B
POS. 2A
POS. 2B

Ref. Serie 24 standard	Ref. Serie 24 zero point	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)
24/75	24/75A0	6	60	60	110	60	110	110	155
24/95	24/95A1	6	68	66	128	73	173	133	195
24/100	24/100A1	8	134	72	254	68	198	132	318
24/125C	24/125CA1	6	68	66	128	73	173	133	195
24/125	24/125A1	8	134	72	254	68	198	132	318



JAWS HOLDER FOR HARDENED STEELS

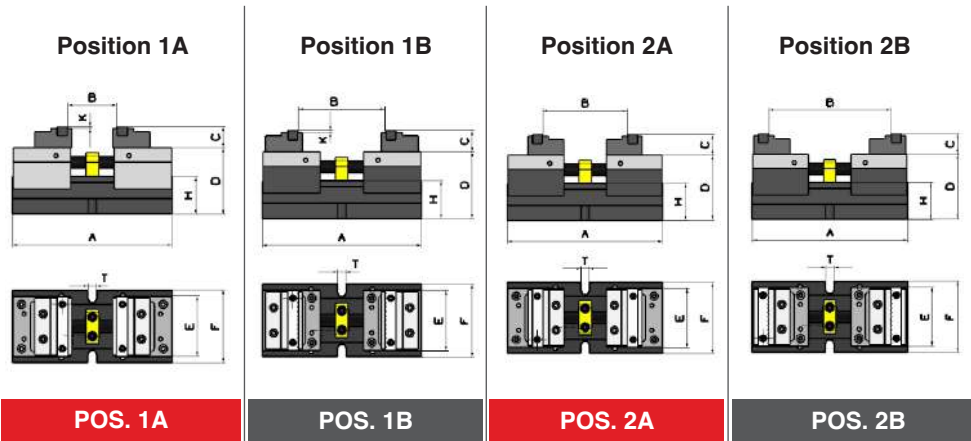


Jaw holder accessory compatible with the 24-series vise, suitable for serrated jaws or jaws with pins for clamping treated materials.



Puntos Clave

- Versatility in clamping: Designed to be used with vises from the 24 series, expanding clamping options and adaptability to different workpieces.
- Time and cost savings: By eliminating the need to machine parts before clamping, preparation times and associated costs are reduced.



JAW HOLDER	JAWS		C Height jaw holder	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)	Opening (B min)	Opening (B Max)
2407513	2407526/24	24/75A0	28/27	15	60	60	110	60	110	110	155
2409513	2409526/24	24/95A1	35/33	16	76	76	136	76	136	136	196
2409513	2410026/24	24/100A1	35/33	18	144	78	264	78	204	138	324
2412513	2412526/24	24/125CA1	35/33	16	76	76	136	76	136	136	196
		24/125A1	35/33	18	144	78	264	78	204	138	324



SERRATED JAW INSERTS FOR SERIES 24



Jaws with pins inserted from F522, hardened to 60 HRC, for clamping treated parts.
The clamping height of the workpiece is 3 mm.



Ref.	A	B		
2407526	75	15	24/75	0,20
2409526	95	17	24/95	0,20
2410026	100	17	24/100	0,20
2412526	125	17	24/125	0,30

SERRATED STEP JAW PLATES SET FOR SERIE 24

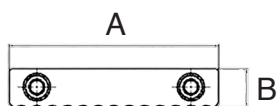


For all types of steels, even treated.
Manufactured in hardened 57HRc (F522).



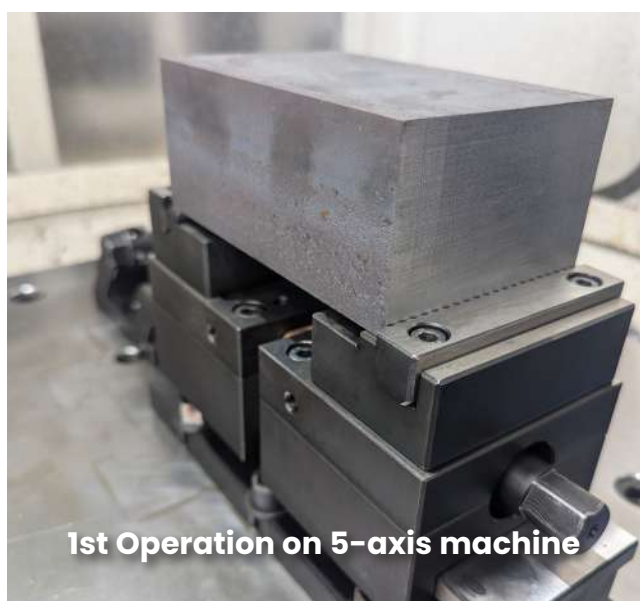
Bullet points

- Designed to grip the piece at a height of 3 mm and fully machine it in 5-axis machine.
- No pre-marking station needed.
- Available with the jaw holder 240.



Ref.	A	B		
2407524	75	15	75	0,10
2409524	95	17	95	0,20
2410024	100	17	100	0,20
2412524	125	17	125	0,30

Supplied
per unit.



1st Operation on 5-axis machine



2nd operation with 30 series vices



JAWS FOR ROUND PIECES



New jaw holders designed to clamp round parts of different diameters.

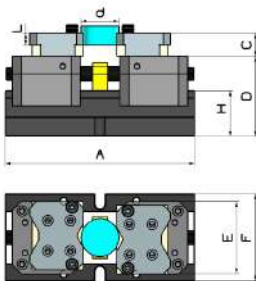
Bullet points:

- Versatility in clamping: Allows secure holding of round parts with the 24-series vise, without the need for a chuck.
- Compatibility: Designed to be used with vises from the 24 series, expanding clamping options and adaptability to different setups.
- Time and cost savings: By eliminating the need to machine parts before clamping, preparation times and associated costs are reduced.

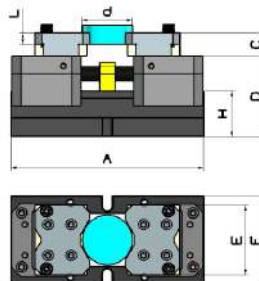


IN V											
Ref.	POS. 1A		POS. 1B		POS. 2A		POS. 2B		C Jaw height		
	Diameter min (d)	Diameter Max (d)	-	-	Diameter min (d)	Diameter Max (d)	Diameter min (d)	Diameter Max (d)			
2407531	10	35	-	-	36	56			24	24/75A0	0,57
2409531	17	50	-	-	50	68	68	88	30	24/95A1 24/100A1 24/125A1	1,20

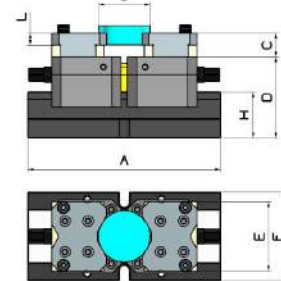
Position 1A



Position 2A

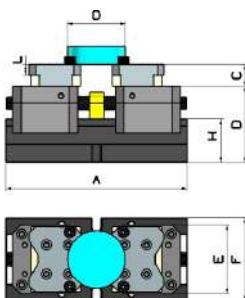


Position 2B

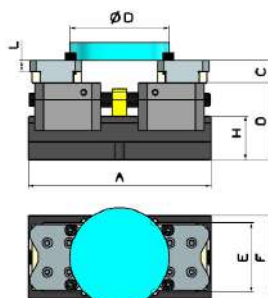


IN ROLLERS											
Ref.	POS. 1A		POS. 1B		POS. 2A		POS. 2B		C Jaw height		
	Diameter min (D)	Diameter Max (D)	Diameter min (D)	Diameter Max (D)	Diameter min (D)	Diameter Max (D)	Diameter min (D)	Diameter Max (D)			
2407531	43	88	88	108	63	104	102	148	24	24/75A0	
2409531	70	100	102	150	108	158	158	216	30	24/95A1 24/100A1 24/125A1	

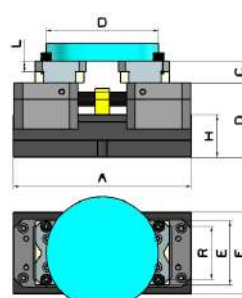
Position 1A



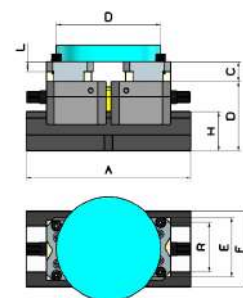
Position 1B

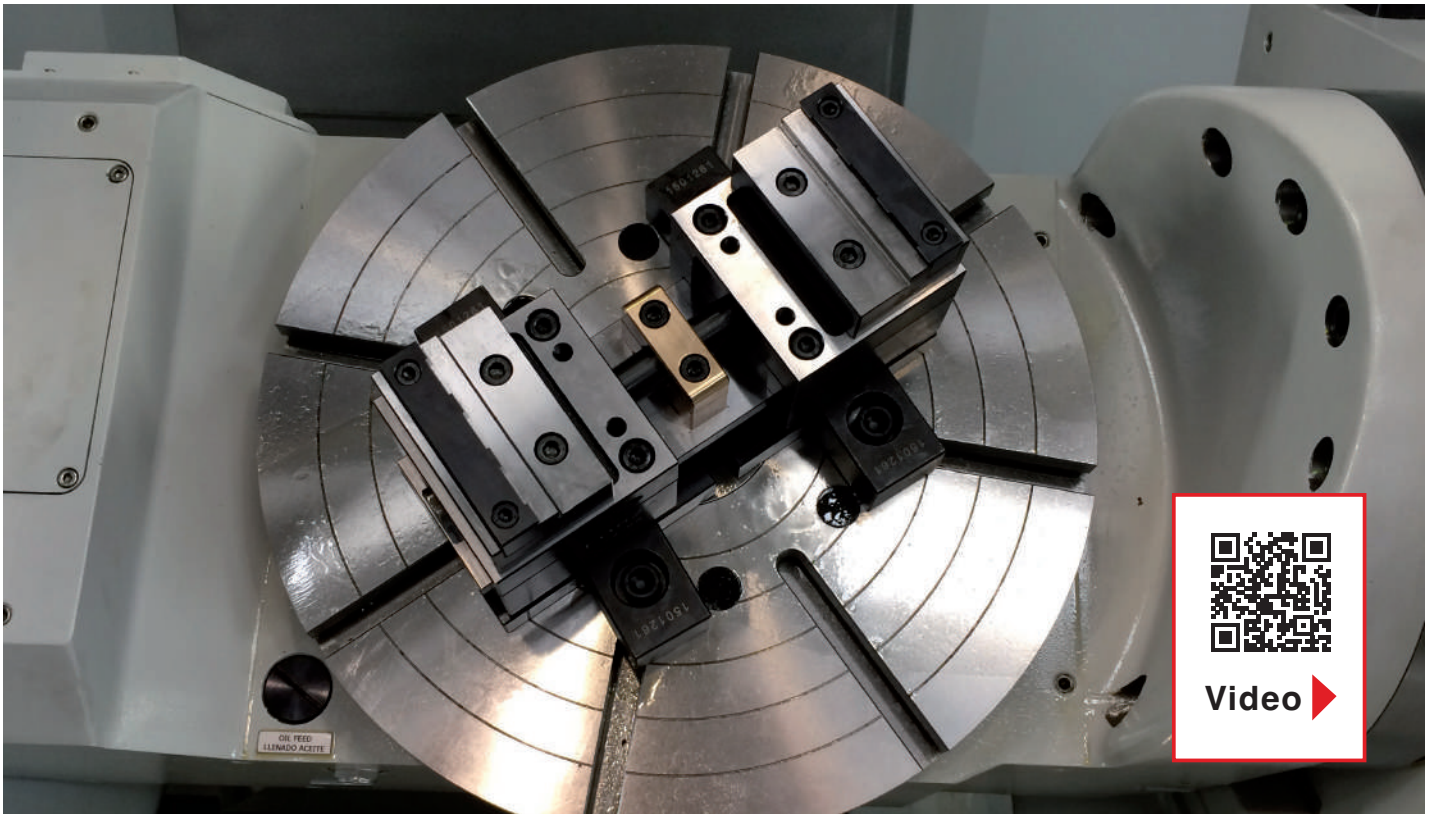


Position 2A

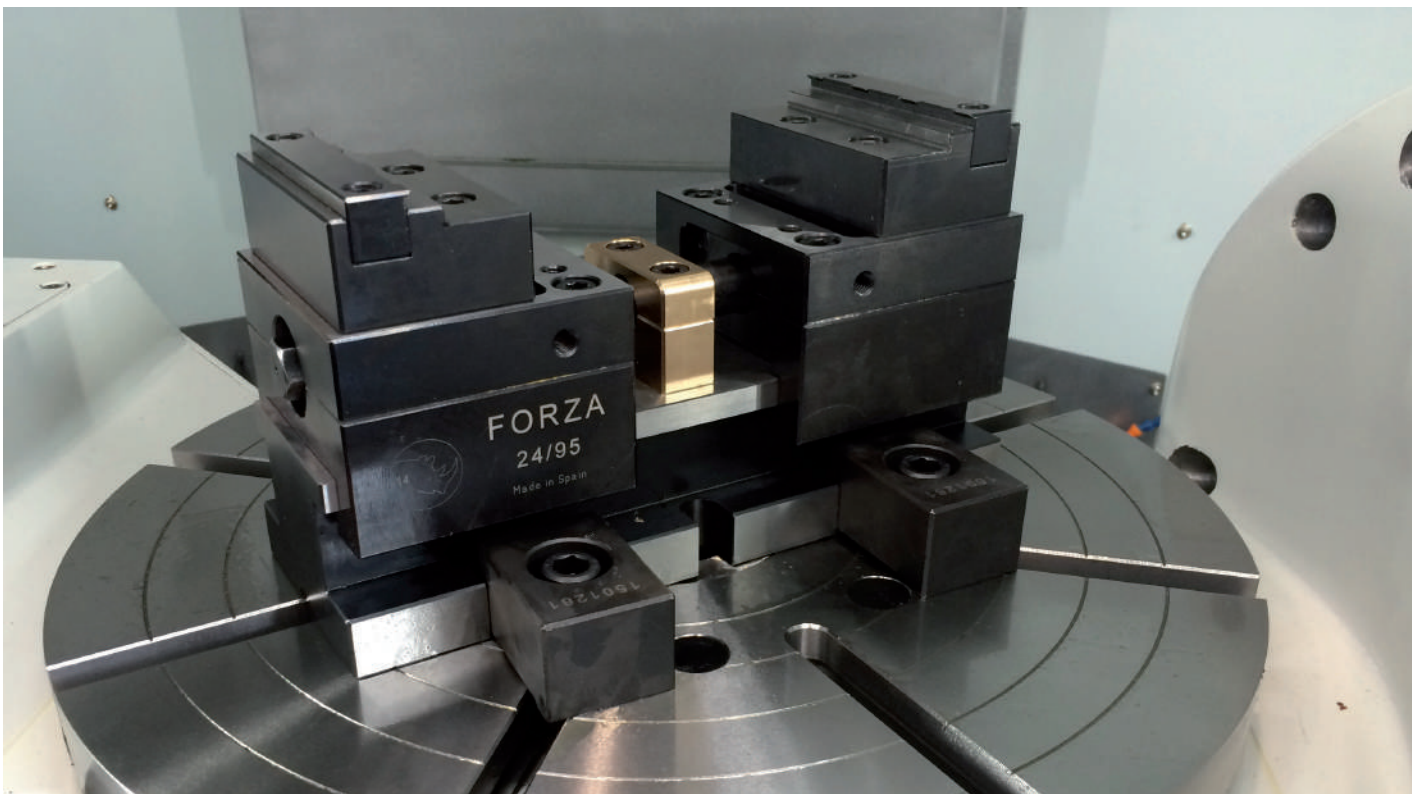


Position 2B





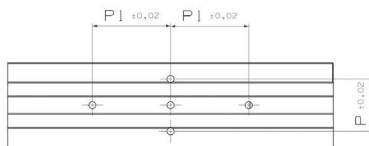
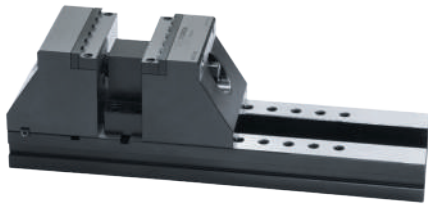
Self-centering system for higher precision





5 AXIS MACHINE VICE MAX LINE

25



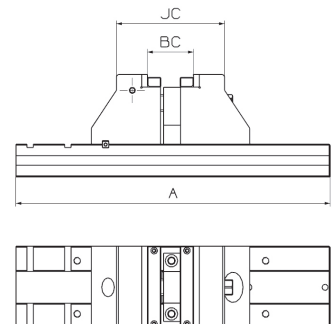
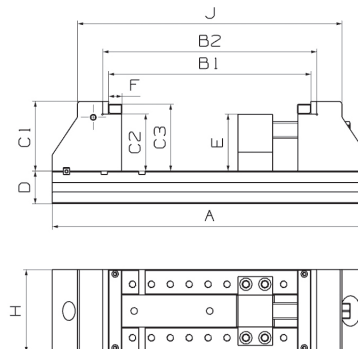
Vice specially designed for 5 axis machines which clamp the part only on a few millimeters.

Manufactured in hardened steel 20MnCr5.



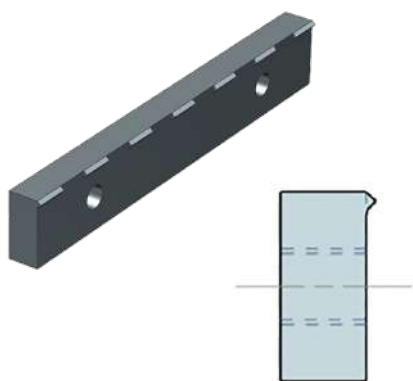
Bullet points

- The fix jaw holder has 3 different clamping positions.
- The spindle is completely hidden and it incorporates bearings that improve the clamping.
- The jaws holder can be machined for regulating the jaws step height.
- Reversible jaws, straight on one side and grip jaw-plates on the other.
- 5 tons clamping force.



Ref.	A	BC	B1	B2	C1	C2	C3	D	E	F	H	JC	J	P	P1		
25/130	500	74	320	340	110	90	105	51	90	21	130	171	420	80	120	20061	42,0
25/130L	600	74	420	440	110	90	105	51	90	21	130	171	520	80	120	20061	45,0
25/160	470	-	220	270	190	150	160	61	150	30	160		360			20061	77,0
25/175	590	74	370	400	150	125	140	76	122	25	175	182	480	100	100	20061	89,0
25/175L	710	74	490	520	150	125	140	76	122	25	175	182	600	100	100	20061	98,0



DENTED JAW FOR VICE SERIE 25
2510014


Jaws with milled teeth for improved grip on the workpiece.
For vices serie 25.
Supplied per unit



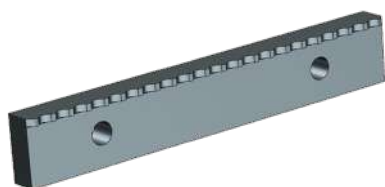
Ref.	Lenght	Width	Geometry		
2513014	130	9	Rectangular notch	25/130	0,2
2517514	175	15	Rectangular notch	25/175	0,5

MACHINED SERRATED JAWS
2510024


Jaws with milled teeth for improved grip on the workpiece.
For vices serie 25.
Supplied per unit



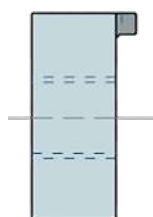
Ref.	Lenght	Width	Geometry		
2513024	130	9	Grooved	25/130	0,2
2517524	175	15	Grooved	25/175	0,5

GRIP JAW FOR VICE SERIE 25
2510024D


Grip Jaws for Series 25
Supplied individually.
Manufactured in hardened 58HRc (F522).

Bullet points

- Designed to achieve a better clamping, especially on irregular geometries without the need of pre-machining.



Ref.	Lenght	Width	Geometry		
2513024D	130	9	Dented	25/130	0,2
2517524D	175	15	Dented	25/175	0,5



Solutions for multi- palet systems



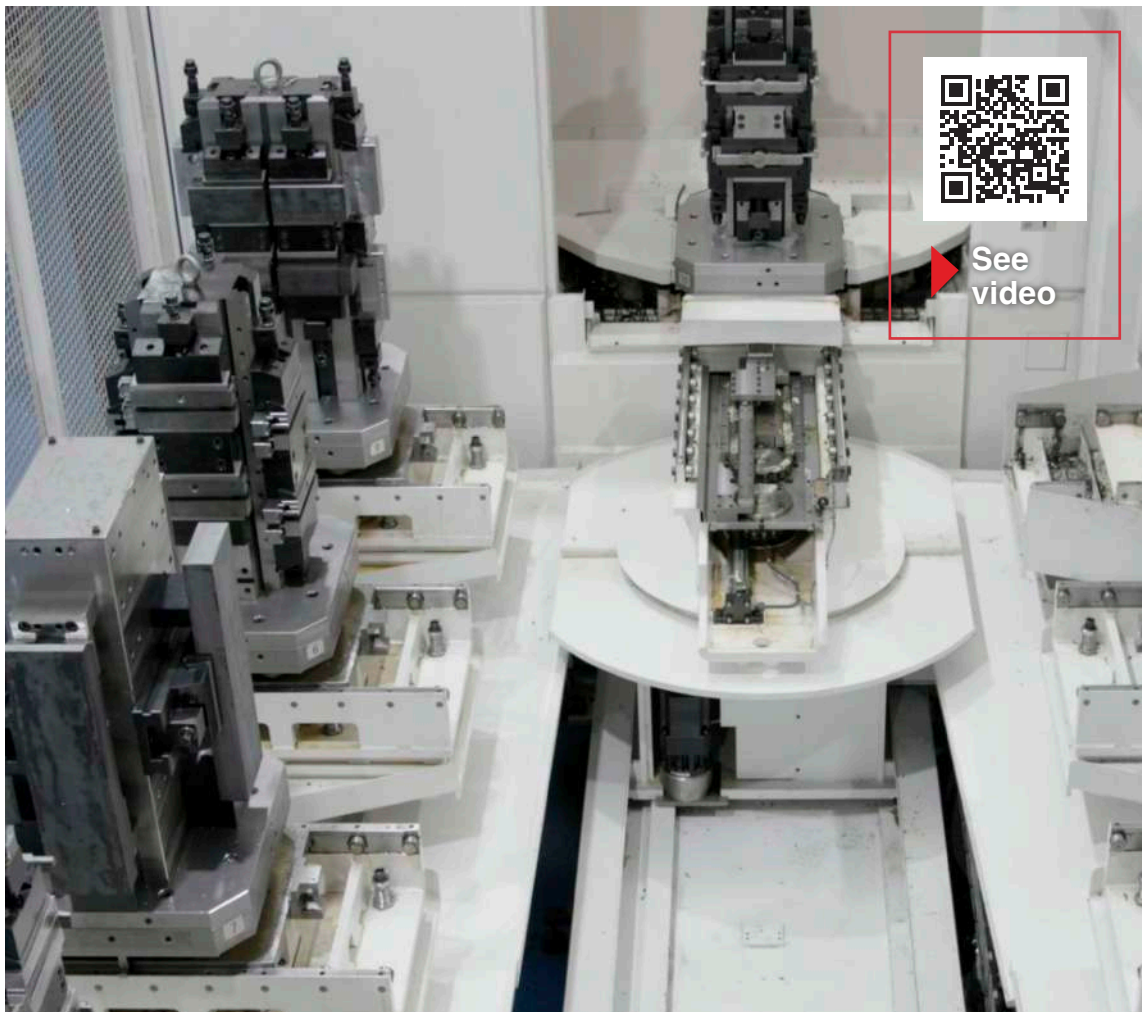
FORZA[®]

www.forza.es

Integrated clamping vice tower

Tombstones designed for the Automation of Horizontal Machining Centers with multipallet system. These tombstones are designed to remain on standby while the machine is not in production and can be mounted in seconds

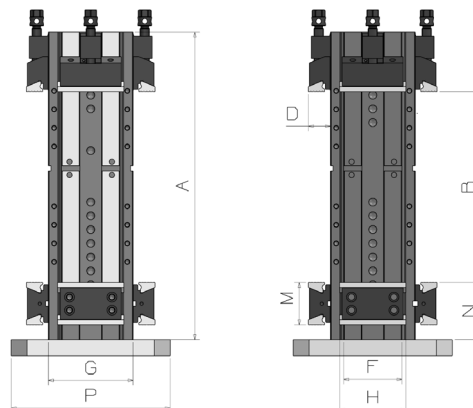
- **Time savings during part changeovers.**
- **High precision:** Ground and parallel surfaces ensure accurate and repeatable clamping.
- **Increased productivity** by allowing multiple parts to be clamped simultaneously, optimizing table space usage.
- **Superior rigidity** due to the absence of moving modules.
- **Reduced setup time and fewer errors:** Being fully integrated, they require fewer adjustments and offer faster setup than traditional systems.



TOMBSTONE WITH SINGLE INTEGRATED VICES

40CD

Tombstone with single jaw holder integrated vices.
Pallet not included.
Manufactured in hardened steel 60 HRc (20MnCr5).
Can be adapted into 4-jaw towers with increased clamping range.

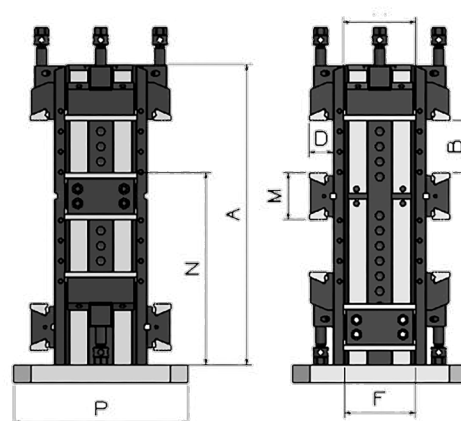
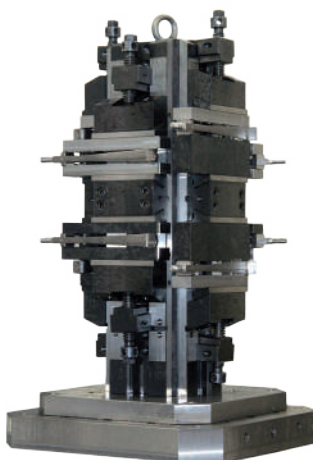


Ref.	A (Tower Height)	B (Apertura)	D (Jaw height)	F (Body width)	G (Cube width)	H (Jaw Width)	M (Fixed jaw piece Height)	N (Fixed jaw Height)	P (Pallet)	⚖️
40C125X580U	581	360	42	110	160	125	81	108	400	104,0
40C125X525U	525	300	42	126	200	125	81	108		132,0
40CE125X525U	525	300	42	126	268	125	81	110		228,0
40C150X400	430	180	56	135	195	150	92	92		135,0
40CE150X720U	704	395	56	150	196	150	95	180		195,0
40C200X690	690	165	61	160	250	200	125	303		395,0

TOMBSTONE WITH DOUBLE INTEGRATED VICES

40C

Tombstone with double jaw holder integrated vices.
Palet not included.
Manufactured in hardened steel, hardened to 60 HRC.
The fixed jaw holder can be mounted on the bottom side to clamp four large parts.
Convertible into a single-sided tombstone.



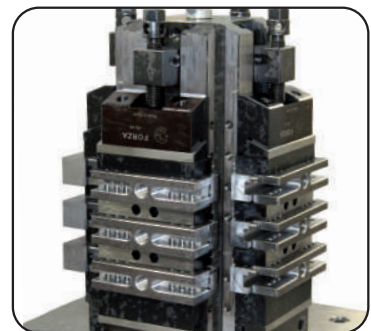
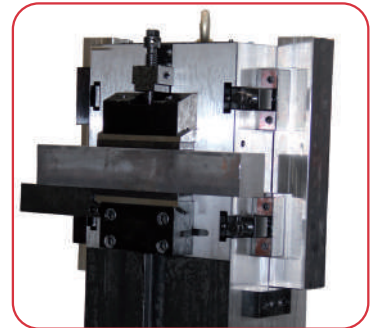
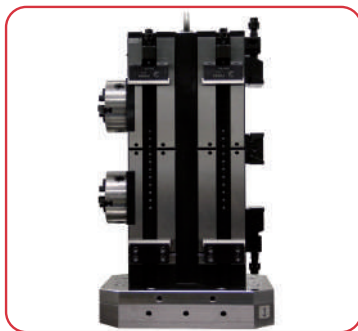
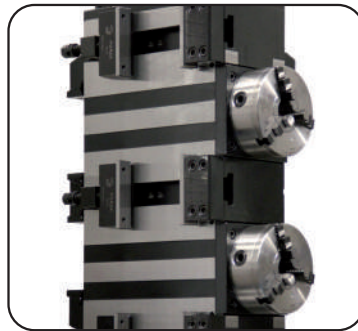
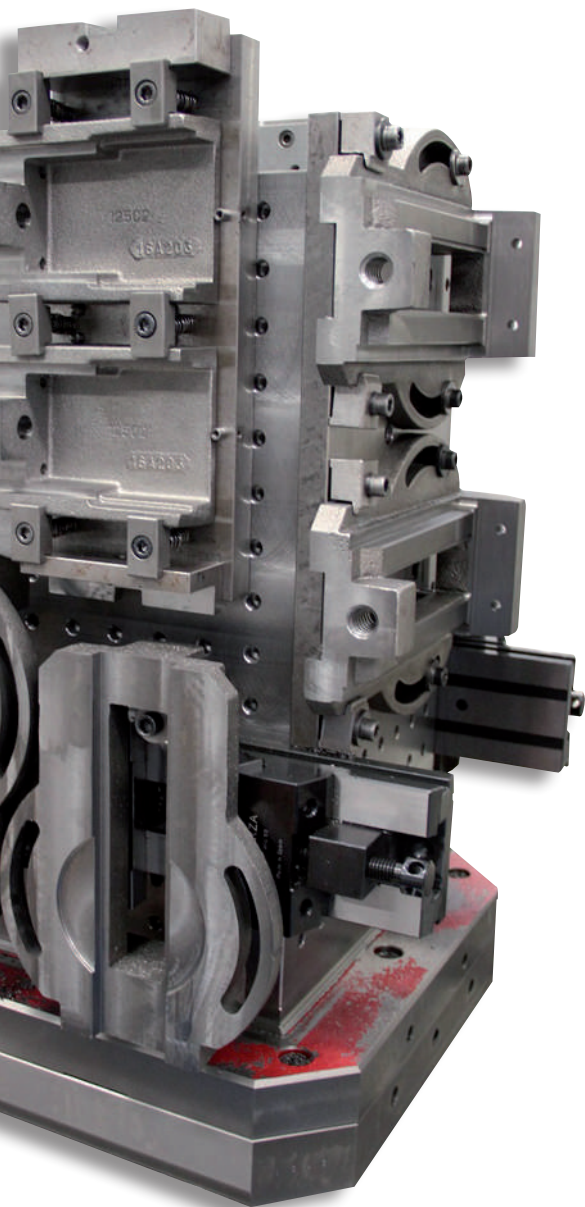
Ref.	A (Tower Height)	2XB (Opening)	D (Jaw height)	F (Body width)	G (Cube width)	H (Jaw Width)	M (Fixed jaw piece Height)	N (Fixed jaw Height)	P (Pallet)	⚖️
40CE125X525	525	90	42	126	268	125	81	250	400	237,0
40C125X525	525	85	42	126	200	125	81	330		145,0
40C125X580	581	105	42	110	160	125	81	363		116,0
40CE150X720	704	140	56	150	196	150	95	340		215,0

Custom-Made Tombstones and Pyramids

At Forza, we manufacture all types of toolings, including tombstones and pyramids

CUSTOM-DESIGNED AND MANUFACTURED TOOLING

- We aim to provide cost-effective and optimized custom tooling compared to universal systems, with simple and ergonomic setup.
- We offer highly competitive lead times and pricing for custom tooling. We offer a complete tooling engineering review free of charge and we include delivery of 3D files.



5-Axis Machining Pyramids

NEW

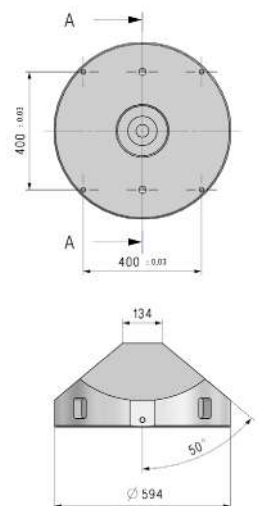
Made from high-strength aluminum, ensuring durability while keeping the structure lightweight. Available as raw models for custom tooling machining or pre-configured to mount vices or zero-point plates

RAW PYRAMID FOR MACHINING

42P60000



Designed for all types of 5-axis machining centers. Enables multi-part clamping and full machining accessibility. Made from high-strength aluminum; Up to 3 times lighter. **The user can machine the faces to mount any required tooling.** Compatible with a wide range of Forza vices.



Ref.	Base diameter	Maximum height	Angle	⚖️
42P6000	597	285	50	138,0



PYRAMID FOR MOUNTING 4 VICES 125MM JAW WIDTH

42P60010

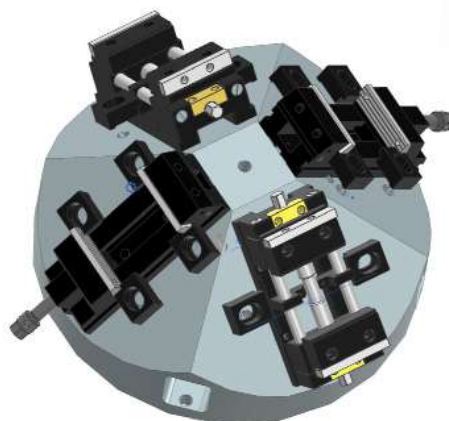
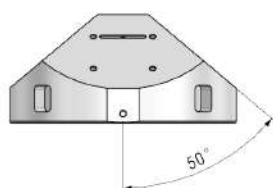
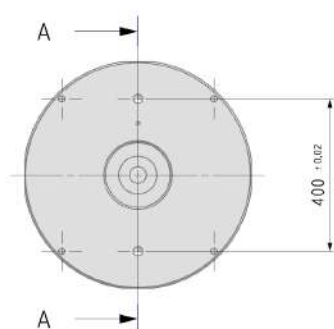
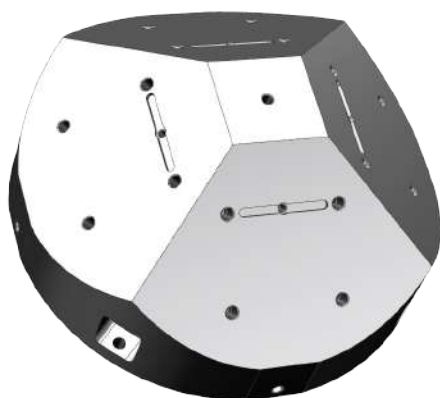


Made from high-strength aluminum, ensuring durability and making them lightweight.
Pyramid Prepared to Mount 125 mm jaw width vices.

Example configuration:
2 x 380/100 vices with serrated jaws for the first operation.
2 x 30/100 vices with descending effect jaws for the second operation.

*Vices not included

NEW



Ref.	Base diameter	Maximum height	Angle	
42P6001	597	285	50	138,0





PYRAMID FOR MOUNTING 4 VICES ZERO POINT

42P60001A10



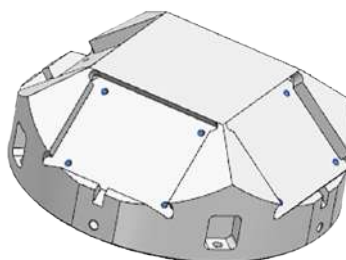
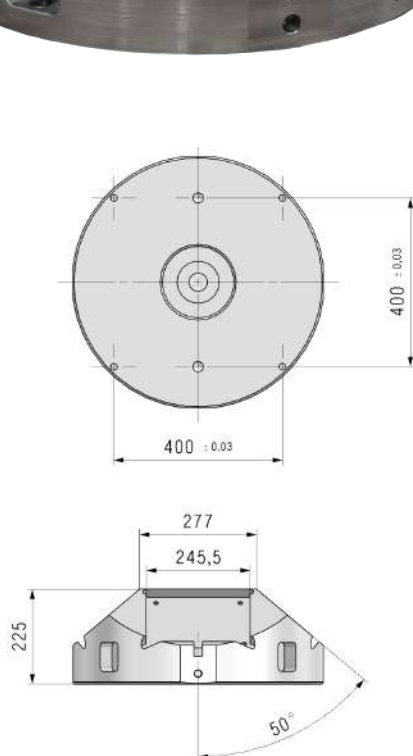
Made from high-strength aluminum, ensuring durability and making them lightweight.

Pyramid prepared to mount zero-point plates where the user can install 4 toolings.

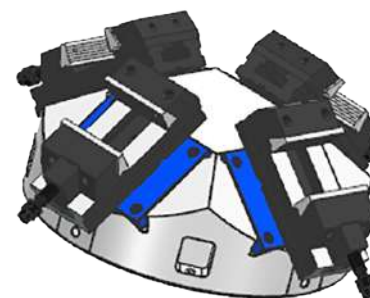
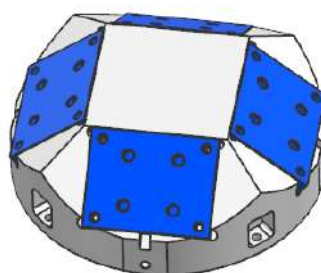


We present an example with 4 clamps mounted on the zero point.
4 x 30/125 vices mounted on zero-point system.

*Vices and zero-point system not included.



NEW



Ref.	Base diameter	Maximum height	Angle	
42P60001A1	597	225	50	117,0



Video

PYRAMID WITH 4 VICES

42P60140

Made from high-strength aluminum, ensuring durability and making them lightweight.
Pyramides full equipped with 125 jaws width vices.

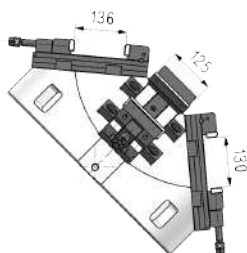
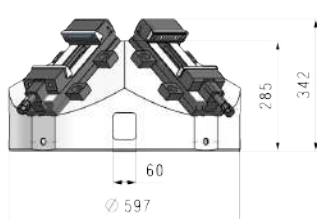


***Vices already included.**

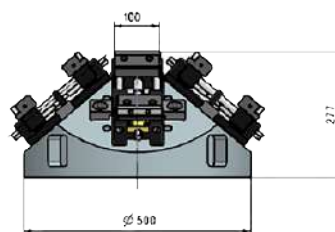


Ref.	Base diameter	Maximum height	Angle	Vices included	
42P6014	597	342	50	2ud. 30/125 2ud. 29/125	190,0
42P5034	497	277	50	4 ud. 380/100	180,0

42P6014



42P5034



2 straight-jaws vices 29/125, with dented and stepped (3 mm) jaws for the first operation.
2 descending effect vices 30/125. It includes jaws designed for the second operation.



2 vices 380/100, with dented and stepped jaws (3 mm) for the first operation.
Reversible jaw holders with smooth jaws for the second operation



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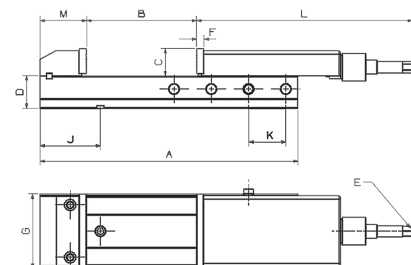
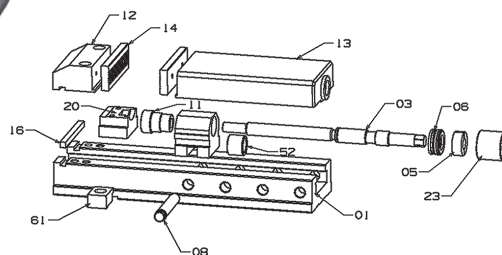
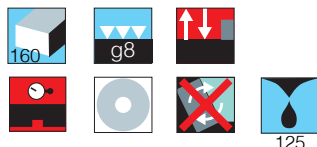
Other machine vices

CLASSIC MECHANICAL VICE WITH ALUMINUM JAW HOLDER
31

Standard vice with a mechanical spindle for machining operations in CNC machines.


Bullet points

- Mechanical spindle equipped with an axial bearing to reduce the effort.
- Protected spindle that prevents damage.
- Four or five opening positions selectable with a bolt.
- Aluminum trolley with hard anodizing, same strength as steel but three times lighter (only reference 160mm)



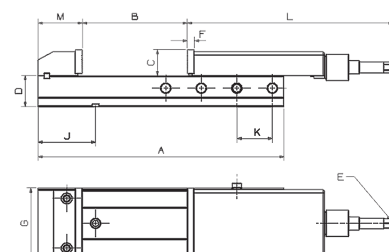
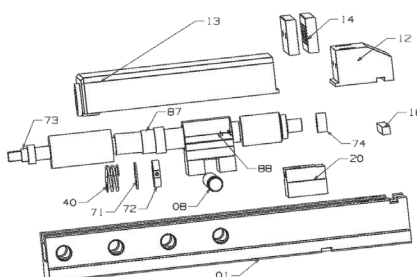
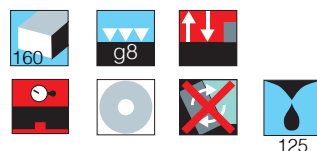
Ref.	A	B	C	D	E	F	G	J	K	L	M				
31/125-	430	210	48	66	14	12	125	115	60	355	85	15061	16	GN/125	26,0
31/125L	490	270	48	66	14	12	125	115	60	355	85	15061	16	GN/125	28,5
31/160	554	325	59	70	22	16	160	130	80	465	107	1501261	16	GN/160	49,0
31/160L	634	400	59	70	22	16	160	130	80	465	107	1501261	16	GN/160	53,7

HYDRAULIC MECHANICAL VICE WITH ALUMINUM JAW HOLDER
31H

Standard vices with an hydraulic spindle for machining operations in CNC machines.


Bullet points

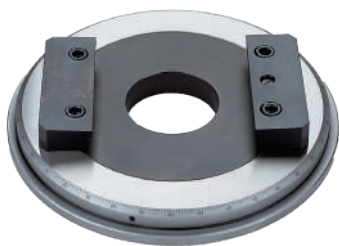
- Protected spindle that prevents damages.
- Four or five opening positions selectable with a bolt.
- Aluminum trolley with hard anodizing, same strength as steel but three times lighter (only reference 160mm)



Ref.	A	B	C	D	E	F	G	J	K	L	M				
31/125H-	430	210	48	66	14	12	125	115	60	355	85	15061	16	GN/125	26,0
31/125HL	490	270	48	66	14	12	125	115	60	355	85	15061	16	GN/125	28,5
31/160H	554	295	59	70	16	16	160	130	80	482	107	1501261	16	GN/160	49,0
31/160HL	634	375	59	70	16	16	160	130	80	482	107	1501261	16	GN/160	53,7

SWIVEL BASE FOR VICES SERIE 31

GN125



Swivel base for vices serie 31 and 31H.
It allows vice rotation and sliding it to change the center.



Ref.				
GN/125	125	16	15060	14,0
GN/160	160	16	15060	20,0

COMPLETE HANDLE FOR VICES SERIE 31

31125190



Complete handle for serie 31.



Ref.	Square	Handle length		
3112519	15	170	31/125, 31/125H; 31/160H	0,3
3116019	22	200	31/160; 31/160L	0,4

PROTECTED SPINDLE VICE

27

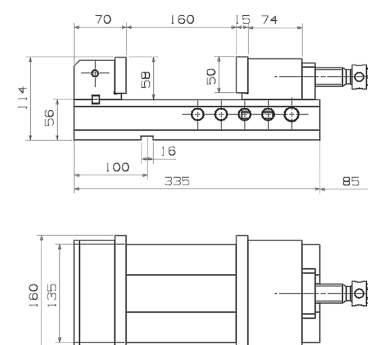
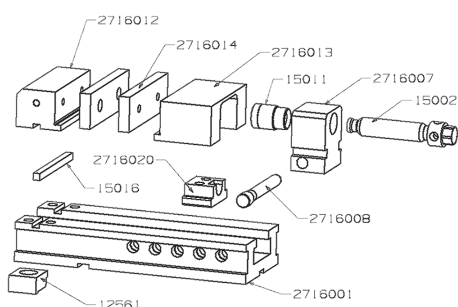


Vices with a protected spindle that avoids from being damaged.
Manufactured in hardened steel 60 HRc (20MnCr5).



Bullet points

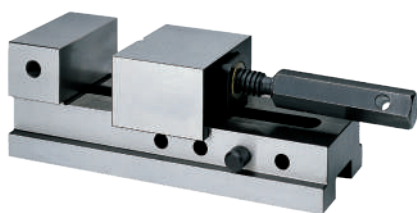
- Opening position selection with a lateral bolt.
- Tight clamping of the pieces without lifting them from the base.
- Non guided vice for a better clamping of irregular pieces.



Ref.	Opening	Width	Height	
27/160	160	160	114	26,5

HIGH PRECISION VICE FOR GRINDING MACHINE

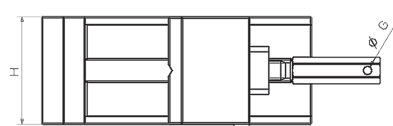
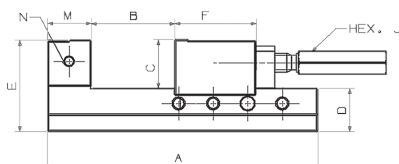
32N



Professional vices desgined for high precision grinding work.

Bullet points

- Manufactured in hardened steel 20MnCr5 at 60HRc.
- Perfect clamping in regards to adjustable positions by a bolt.
- Tolerance in parallelism and perpendicularity of $\pm 0,01$ mm.
- It can be laterally positioned to assist with squaring.
- Trapezoidal spindle that improves the clamping.



Ref.	A	B	C	D	E	F	ØG	H	J	M	⚖
32/50N	148	70	25	25	50	45	8	50	14	25	2,0
32/75N	194	91	34	34	68	57	8	75	19	35	4,5
32/100N	250	123	45	40	85	75	6	100	22	40	9,5

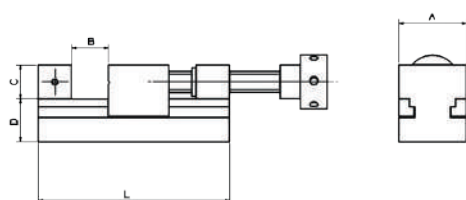
VICE FOR GRINDING MACHINE

32D

Vices for grinding machine.

Bullet points

- Manufactured in hardened steel 20MnCr5 at 60HRc.
- Trapezoidal spindle that improves the clamping.
- General tolerance in parallelism and perpendicularity of $\pm 0,03$ mm.
- It can be laterally positioned to assist with squaring.



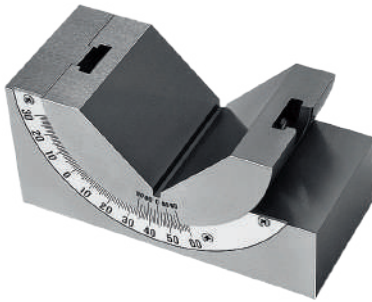
Ref.	A	B	C (jaw height)	D	L (Length)	⚖
32/60D	60	55	25	25	110	2,4
32/80D	80	100	40	44	220	6,5
32/100D	100	125	50	50	260	13,0
32/125D	125	160	40	50	300	19,5
32/150D	150	175	50	50	315	23,8





MULTI-ANGULAR POSITIONER

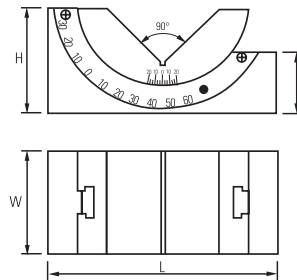
32M



Perfect item for the angular positioning of the pieces.

Bullet points

- Pieces clamping in different angular positions.



Ref.	H	W	L (Length)	h	
32/46M	47	46	102	28	1,5

VICES FOR DRILLING AND TAPPING MACHINES

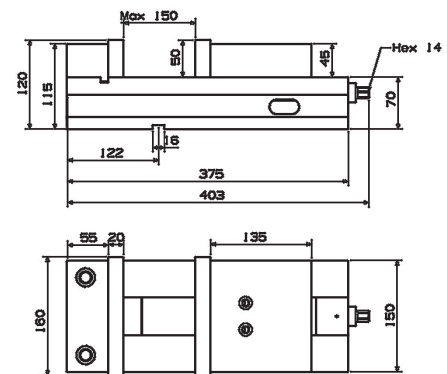
28



Suitable vice for drilling and threading big pieces.

Bullet points

- Spindle protected to avoid damage.
- The articulate handle avoids any collision with any obstacle: milling T table, etc.
- Tempered steel body for greater resistance and aluminum jaw holder and clamping block.



Ref.	A	B	Width	C	D	Height	
28A150	403	150	160	150	70	120	28,5

SWIVEL BASE FOR 28A150

B28150



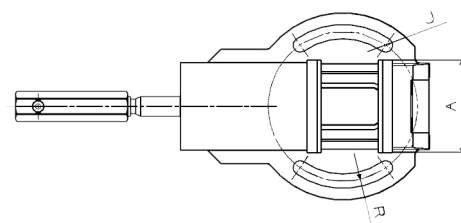
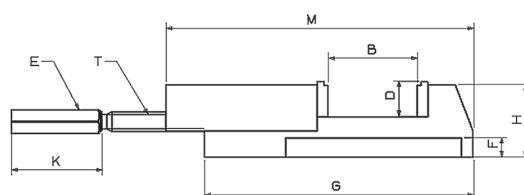
Swivel base for drilling vices 28A150.



Ref.	Base height	External Diameter	
B28150	25,5	275	11,0

DRILL VICE SERIE 33M
33M


Construida en fundición nodular



Professional vice for any drilling and threading operations.
The slots distance on the drill table should be between T1 and T2.


Bullet points

- Supplied with hardened stepped jaws.
- Protected spindle that prevents damage.
- Grooved channels for making the clamping easier.
- No clamps needed.

Ref.	A	B	H (Height)	X	D	E	M (Length)	K	T	R	T1 slot distance	T2 slot distance	With Screws		
33/65M	65	76	49	3	26	19	207	81	TR14x3	52.5	86	105	M8	12560	2,8
33/85M	85	90	54	3	26	22	242	81	TR18x4	62	100	124	M8	12560	4,8
33/100M	105	116	66	4	32	24	310	90	TR20x4	81	133	162	M10	12560	9,0
33/125M	125	157	83	4,5	42	27	395	102	TR22x5	97.5	169	195	M14	12560	16,2
33/150M	150	190	95	6	52	27	470	102	TR22x5	105	182	210	M14	12560	25,2

PROFESSIONAL VICE SERIE 33
33P


Professional vice for any drilling and threading operations.
It includes: clamping rod, set of prismatic jaws, set of soft jaws and 2 T nuts 12/14 and 16/18.
The slots on the drill table should be between T1 and T2.


Bullet points

- Supplied with hardened stepped jaws.
- Protected spindle that prevents damage.
- Grooved channels for making the clamping easier.
- No clamps needed.

Ref.	A	B	H (Height)	X	D	E	M (Length)	K	T	R	T1 slot distance	T2 slot distance	With Screws		
33/85P	85	90	54	3	26	22	242	81	TR18x4	62	100	124	M8	12560	5,8
33/100P	125	116	66	4	32	24	310	90	TR20x4	81	133	162	M10	12560	10,3
33/125P	125	157	83	4,5	42	27	395	102	TR22x5	97.5	169	195	M14	12560	18,2

SERIE 82 ECONOMY

82

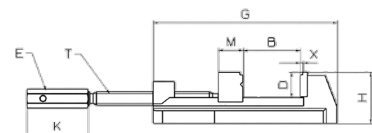


Construida en fundición nodular

Light vice for any type of drilling and threading work. It contains the same parts as the serie 33 except for the jaw holder and the movable jaw. It is a monoblock piece. The slots distance on the drill table should be between T1 and T2.

Bullet points

- Grooved channels for making the clamping easier.
- No clamps needed.
- Clamping block with two 90 degrees prisms and with a step.
- It is possible to use swivel base (optional).



Ref.	A	B	D	G	T	X	E	K	T	R	T1 slot distance	T2 slot distance	With Screws	
82/85	85	95	26	188	25	3	22	81	TR18x4	62	100	124	M8	4,0
82/100	100	116	32	241	40	4	24	90	TR20x4	81	133	162	M10	8,5
82/125	125	160	42	300	40	4,5	27	102	TR22x5	97.5	169	195	M14	14,7
82/150	150	190	52	345	40	6	27	102	TR22x5	105	182	210	M14	19,6

SWIVEL BASE FOR DRILL VICE SERIE 33

330098

Swivel base for drilling vices.

The vice, with the swivel base can be used as a two jaw chuck on a lathe machine. For 33 and 82 serie.



Ref.			
336598	336560	33/65	2,2
338598	336560	33/85 - 82/85	2,9
3310098	12560	33/100 - 82/100	6,0
3312598	12560	33/125 - 82/125	8,7
3315098	12560	33/150 - 82/150	9,5

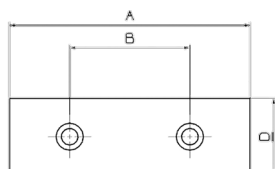
FIND OUT THE DIFFERENT TYPES OF DRILLING CLAMPS

Video



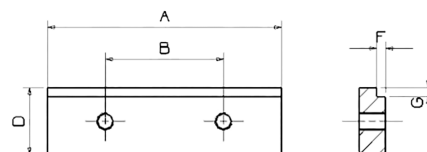
SOFT JAWS SERIE 22
330050

Soft jaws set for drilling vices for serie 33.



Ref.	A	B (Hole spacing)	D (Jaw height)	Feature		
336550	65	26	25	Soft	33/65	0,3
338550	85	45	25	Soft	33/85	0,4
3310050	105	53	30	Soft	33/100	0,6
3312550	125	65	40	Soft	33/125	0,9
3315050	150	75	48	Soft	33/150	1,9

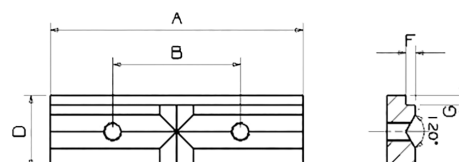
NORMAL SET JAWS SERIE 33
330014

 Normal set of stepped jaws for drilling vices for serie 33.
 Supplied per unit


Ref.	A	B (Hole spacing)	D (Jaw height)	F (High step)	G (Step width)	Feature		
336514	65	26	25	3	3	Estándar	33/65	0,1
338514	85	45	25	3	3	Estándar	33/85	0,2
3310014	105	53	30	4	4	Estándar	33/100	0,3
3312514	125	65	40	4.5	4.5	Estándar	33/125	0,4
3315014	150	75	48	6	6	Estándar	33/150	0,9

SET PRISMATIC JAWS WITH STEP SERIE 33
330051

Prismatic stepped jaws for drilling vices for serie 33.



Ref.	A	B (Hole spacing)	D (Jaw height)	F (High step)	G (Step width)	Feature		
336551	65	26	25	3	3	Prisma 120°	33/65	0,2
338551	85	45	25	3	3	Prisma 120°	33/85	0,4
3310051	105	53	30	4	4	Prisma 120°	33/100	0,5
3312551	125	65	40	4.5	4.5	Prisma 120°	33/125	0,8
3315051	150	75	48	6	6	Prisma 120°	33/150	1,7

CLAMPING ROD FOR SERIE 33 AND 82

3365090

Clamping rods for serie 33 and 82 drill vices.



Ref.		Ø	Lenght	
336509	65 and 85	8	120	0,1
111893	100, 125 and 150	10	150	0,1

T NUT SERIE 33

331214080

T nuts for 33 and 82 serie drilling vices.



Ref.	Canal	M		
33121408	for 12-14	M8	65 AND 85	0,1
33161808	for 16-18	M8	65 AND 85	0,1
33121410	for 12 -14	M10	100 AND 125	0,1
33161810	for 16 -18	M10	100 AND 125	0,1
33161814	for 16 - 18	M14	150	0,1
33202214	for 20-22	M14	150	0,1

37 SERIE SELF CENTERING VICE

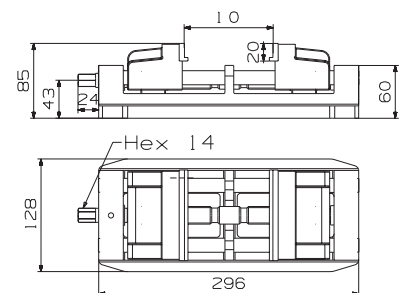
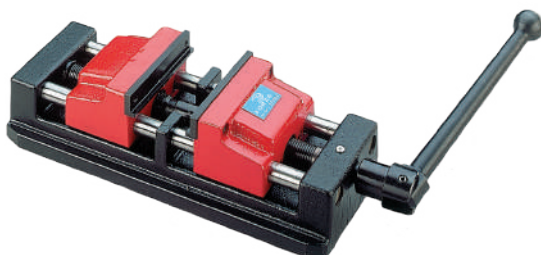
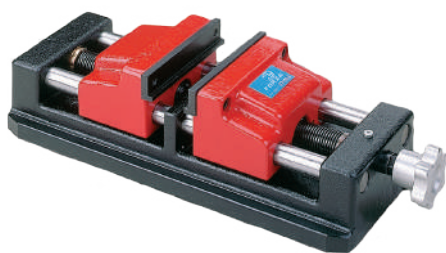
37

Self-centering vice for machining operations such as drilling, threading, and light milling.



Bullet points

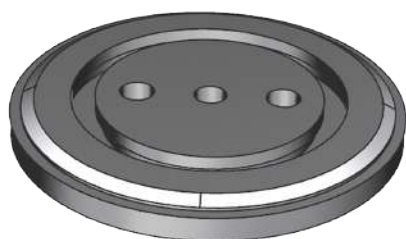
- It fastens in the center of the piece.
- Swivel base could be used.
- 2 sets of soft jaws included.
- Supplied with stepped jaws.



Ref.	Adjustment		Height	Jaw	Opening	
37/103	Handle		85	103	110	11,9
37/103B	Handle	3710398	85	103	110	17,5
37/103BP	Knob	3710398	85	103	110	16,7
37/103P	Knob		85	103	110	11,6

SWIVEL VICE FOR VICE SERIE 37

37103980



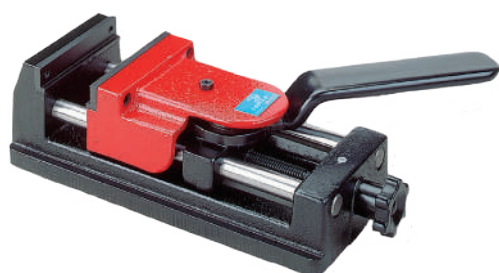
Swivel base for drilling vices.
The vice, using the swivel base can be used as a two jaw chuck on a lathe machine.
For 33 and 82 serie.



Ref.			
3710398	12561	37/103	4,7

SERIE 38 QUICK CLAMP VICE

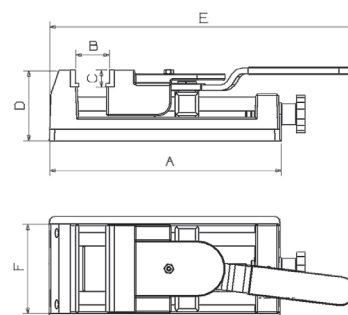
38



Quick clamping vice for drilling, threading and light milling works for a high-production.

Bullet points

- It allows to clamp and release the part a few second.
- Each vice is supplied with stepped jaws and two sets of soft jaws.



Ref.	A	B	C	D	E	F		
38/80	230	80	20	75	385	80	12561	7,0
38/103	275	90	20	85	420	103	12561	10,5
38/125	400	125	30	105	555	125	15061	25,0



Milling heads

For milling internal keyways



FORZA[®]

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COMPLETE INTERNAL MILLING HEAD

CAFN



See manual



Internal milling head designed for machining keyways.

To set up the CAF into the milling head, it's necessary the manufacturing of an adaptation plate (see operating instructions and end of this chapter).

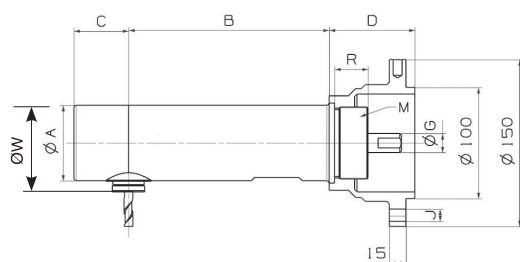
it's supplied with driving cone (ISO 40 or 50), the biggest diameter collet and all drivers.

Transmission relation 2:1.

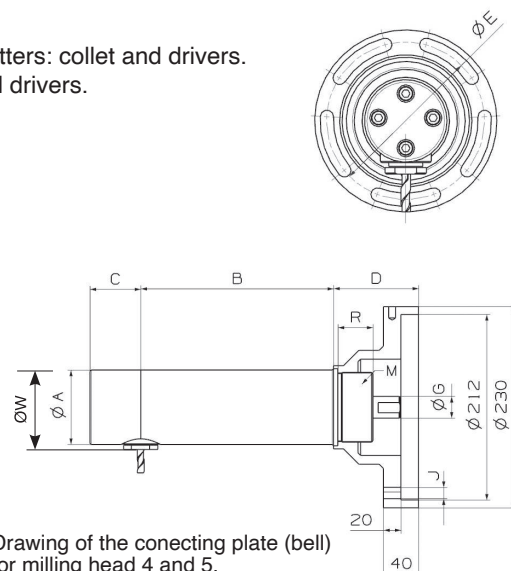
Maximum input speed 3.000 r.p.m.

Bullet points

- There are two kinds of clamping for the cutters: collet and drivers.
- Supplied together with ER type collets and drivers.



Drawing of the connecting plate (bell) for milling head 1, 2 and 3.



Drawing of the connecting plate (bell) for milling head 4 and 5.

Ref.	W Working ø min	A (Head ø)	B (Working length)	C (Head flight)	ø plate mooring	Drag ø	Drag plane distance	ø clamping screw	Head thread	Head thread length	Mooring		Driving cones	REPARATION Wrench
CAFN1	42	35	106	16	130	14	11	11	M35x1,5	16	Collet Ø6	5,6	711130 711140 711150	96107
CAFN2	54	47	132	35	130	15	13	11	M45x1,5	18	Collet Ø8	6,7	712130 712140 712150	96109
CAFN3	78	68	180	50	130	18	15	11	M65x2	30	Collet Ø10 and mill holder	12,4	713140 713150	96113
CAFN4	95	85	220	58	196	25	22	13	M80x2	40	Collet Ø12 and mill holder	26,4	714140 714150	961161
CAFN5	130	113	282	76	196	30	25	13	M105x2	42	Collet Ø16 and mill holder	42,5	715140 715150	961211

INTERNAL MILLING HEAD WITHOUT ADAPTOR PLATE

71000

It is the main part of the milling head.
Neither the drivers not the plate are included.
The biggest diameter collet is included.



Ref.	
71110	1,0
71210	2,0
71310	6,0
71410	11,5
71510	24,0


ADAPTERS DIN2080 FOR MILLING HEADS
711101

These adapters convert FORZA cones DIN69871 into DIN2080.



Ref.	
711141	0,1
711151	0,1

DRIVERS KEYWAY END MILLS

All drives are included in complete CAF 4 and 5.
Keyway drivers.



Ref.	ØShaft	Milling head	
714216	16	CAFN4	0,2
715216	16	CAFN5	0,3
715222	22	CAFN5	0,3

DRIVERS FOR THREADED END MILLS

Drivers and threaded milling cutters.
All drivers are included in CAF 3, 4 and 5.



Ref.	Thread	Milling head	
713110	M10	CAFN3	0,1
714110	M10	CAFN4	0,2
714112	M12	CAFN4	0,2
715110	M10	CAFN5	0,3
715112	M12	CAFN5	0,3
715116	M13	CAFN5	0,3

COLLETS
711900

Standard collets high precision ER type.
The largest diameter collet is included together with the milling head.



Ref.	Ø	Milling head	ER	⚖
711904	4	1		0,1
711905	5	1		0,1
711906	6	1		0,1
712904	4	2	11	0,1
712905	5	2	11	0,1
712906	6	2	11	0,1
712907	7	2	11	0,1
712908	8	2	11 special	0,1
713906	6	3	16	0,1
713907	7	3	16	0,1
713908	8	3	16	0,1
713910	10	3	16	0,1
714904	4	4	20	0,1

Ref.	Ø	Milling head	ER	⚖
714906	6	4	20	0,1
714907	7	4	20	0,1
714908	8	4	20	0,1
714910	10	4	20	0,1
714912	12	4	20	0,1
715906	6	5	25	0,1
715908	8	5	25	0,1
715909	9	5	25	0,1
715910	10	5	25	0,1
715912	12	5	25	0,1
715914	14	5	25	0,1
715916	16	5	25	0,1

DRIVING CONES
7111300

These cones connect the milling head to the machine shaft.
When ordering the milling head, please specify the desired cone type. The cone is included in the price of the milling head.



Old model



New model

Ref.	ISO	CAF	⚖	Adapter DIN2080
711130	30	1	0,4	
711140	40	1	1,1	711141
711150	50	1	2,7	711151
712130	30	2	0,4	
712140	40	2	1,1	711141
712150	50	2	2,7	711151
713140	40	3	1,1	711141
713150	50	3	2,7	711151
714140	40	4	1,1	711141
714150	50	4	2,7	711151
715140	40	5	1,1	711141
715150	50	5	2,7	711151


TURRET ADAPTOR
711T

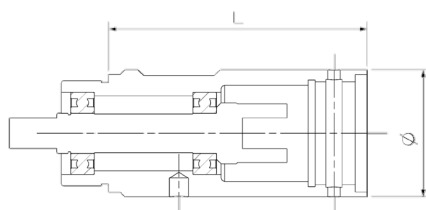
Mounting on a turret milling machine.



Ref.	Measures	
711000	For CAF 1	0,8
712000	For CAF 2	4,1

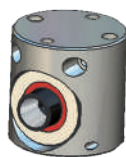
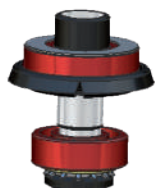
EXTENSIONS
710000


They lengthen the maximum length milling of the heads.
2 consecutive extensions can be mounted.
Other extensions measures can be manufactured upon request.



Ref.	L	Ø Exterior	Milling head	
711020	90	45	1	1,0
711030	120	45	1	1,3
712020	100	54	2	1,3
712030	150	54	2	1,9
713020	125	78	3	3,6
713030	175	78	3	3,9
714020	150	95	4	6,1
714030	220	95	4	8,9
715020	200	128	5	17,5
715030	320	128	5	26,7


 Milling head in action –
video demonstration


QUICK REPAIR KIT HEAD OF TRANSMISSION COMPLETE GROUP
7120120


All parts required to replace the dented ring gear.
Simply open the headstock cover, remove the damaged assembly,
and replace it with this unit.
Very quick repair, no adjustment needed.



Ref.	Milling head	
712012	2	0,5
713012	3	1,0
714012	4	1,9
715012	5	7,0



The user can send us the used gear set for repair and keep it as a spare part.

Head	Ref. Content	Description	Quantity
CAF 2 712012	712002	Gear	1
	712303	Gear support	1
	713402	Nut KM-2	1
	713513	Bearing 51103	1
	713600	Bearing 16004	1
	713622	Bearing 6202	1

Head	Ref. Content	Description	Quantity
CAF 3 713012	713002	Gear	1
	713303	Gear support	1
	713304	Plate	1
	713311	Adjusting washer	1
	713402	Nut KM-2	1
	713513	Bearing 51103	1
	713600	Bearing 16004	1
	713622	Bearing 6202	1
	MB2	Security plate	1

Head	Ref. Content	Description	Quantity
CAF 4 714012	714002	Gear	1
	714303	Gear support	1
	714304	Platillo	1
	714402	Nut KM-4 M20x1	1
	714511	Bearing 51105	1
	714600	Bearing 6005	1
	714604	Bearing 6004	1
	M6x12	Allen screw M6x12	1
	MB2	Security plate	1

Head	Ref. Content	Description	Quantity
CAF 5 715012	715002	Gear	1
	715303	Gear support	1
	715300	Cup washer	1
	715304	Plate	1
	715406	Nut KM-5	1
	715515	Bearing 51205	1
	714600	Bearing 005	1
	715606	Bearing 6006	1
	M8x16	Allen screw M8x16	1
	MB2	Security plate	1


QUICK REPAIR KIT COMPLETE SHAFT GROUP
7120110


All parts required to replace the pinion shaft from the milling head, quickly and easily.
Simply unscrew the damaged one (it comes out as a complete unit) and insert the new one.

Pinion engagement must be adjusted by advancing the thread.



Ref.	Milling head	
712011	2	0,5
713011	3	0,7
714011	4	1,4
715011	5	2,6



The user can send us the used sprocket set for repair and keep it as a spare part.

Head	Ref. Content	Description	Quantity
CAF 2 712011	712001	Sprocket	1
	712307	Bearing holder	1
	712304	Bearing carrier washer	1
	712618	Bearing 61803	1
	712602	Bearing 6002	1
	DI26	Seeger ring internal 26mm	1
	D15	External rings 15 mm	1

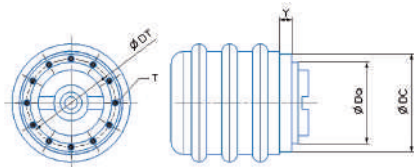
Head	Ref. Content	Description	Quantity
CAF 3 713011	713001	Sprocket	1
	713307	Bearing holder	1
	713317	Bearing carrier washer	1
	713619	Bearing 61803	1
	713623	Bearing 6003	1
	DI28	Internal ring 28 mm	1
	SW17	External rings 17 mm	1

Head	Ref. Content	Description	Quantity
CAF 4 714011	714001	Sprocket	1
	714307	Bearing holder	1
	714600	Bearing 6005	2
	DI47	Seeger ring internal 7x1,75	1
	DI25	External rings 25 mm	1

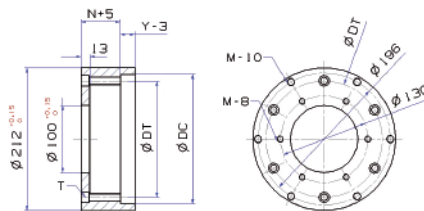
Head	Ref. Content	Description	Quantity
CAF 5 715011	715001	Sprocket	1
	715307	Bearing holder	1
	715606	Bearing 6006	1
	715626	Bearing 6203	1
	DI55	Seeger ring internal 55x2	1
	D30	External rings 30 mm	1

Manufacture the coupling plate

Head



Coupling plate



Measure the milling head DC dimension.

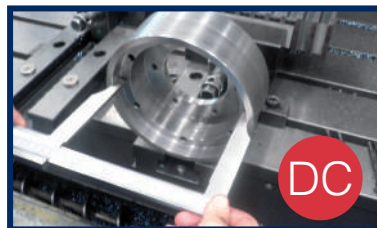


Measure the milling head DT dimension.

Video of how to make coupling plat 



Measure the milling head depth.

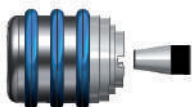


The DC dimension of the head is the same as the one of the plate.



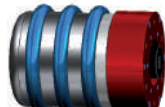
Assembly the milling head

1



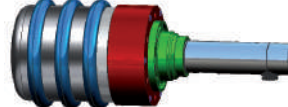
Mount the ISO cone on the machine.

2



Assemble the coupling plate.

3



Assemble the milling head.

Milling head assembling 





Other tools
and accessories for the
machining workshop

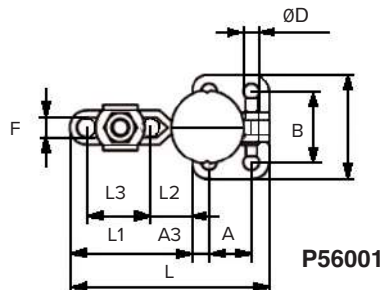
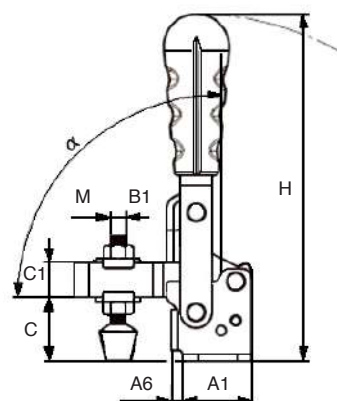
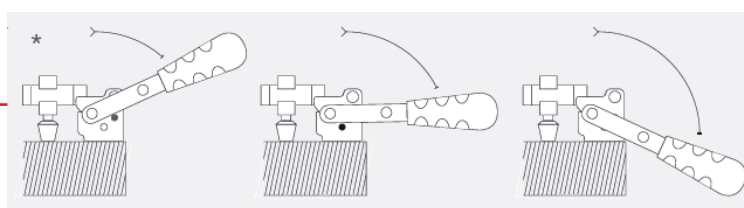


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QUICK VERTICAL TOGGLE CLAMPS
P560010

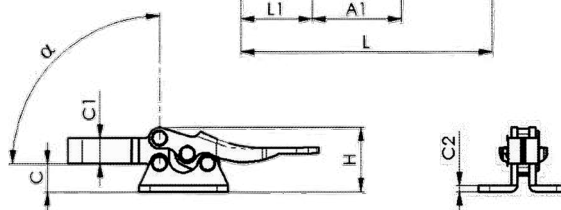
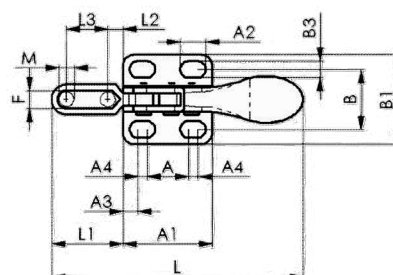
Quick clamping for tooling.
The handle rotates 90 degrees.
Vertical clamping.


P56001

Other models


Ref.	Maximum strength	Degrees	A	A1	A3	A6	B	B1	C	C1	C2	D	F	H	L	L1	L3	⚖
P56001	450N-45kg	67.40	16	26	5	-	23,4	33,4	19	8	2	4,4	5	77	50,4	24,4	16,4	0,1
P56002	1500N-150kg	93	12,7	27	7	-	26,9	37,9	23	11	3	5,1	6	111	70	42,9	21,5	0,2
P56003	2500N-250kg	90.40	19	35	8	5,5	32	47	32	17,5	3,2	7,1	8,9	175	90	55	28	0,4
P56004	3400N-340kg	90	32	50	9	10	45	64	42	22	4	8,3	10,6	218	143	92,8	60,5	0,8
P56005	3600N-360kg	101	32	50,8	9,5	12,2	45	64	50,8	22,5	3	8,6	13,4	224	176	125	82,5	1,1

QUICK HORIZONTAL TOGGLE CLAMPS
P560500

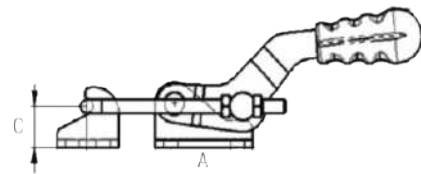
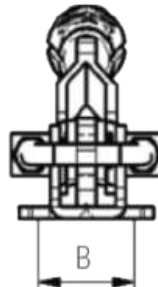
Quick clamping for tooling.
The handle rotates 90 degrees.
Vertical clamping.



Ref.	Maximum strength	Length	Degrees	A	B	C	⚖
P56050	380N-38kg	68	87	11,1	19	7,4	0,1
P56051	700N-70kg	105	94	13,5	19	19	0,1
P56052	900N-90kg	162	96	26	28	25	0,2
P56053	2200N-220kg	189	95	26	31	34	0,4
P56054	3400N-340kg	269	95	41,2	43	45	0,9


QUICK CLAMP HOOK
P56201

Quick clamping for tooling.
The handle rotates 90 degrees.
Vertical clamping.



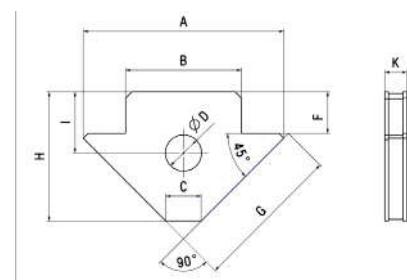
Ref.	A	B	C	
P56201	19	32	14	0,3

MAGNETIC HOLDERS
P290030

Ferrite magnet protected with bakelite resistant to high temperatures.
For welding 45° and 90° angles.
2,5mm thick steel sheet joined with threaded screws.


Bullet points

- Very useful for holding steel parts either in welding or measuring works.



Ref.	A	B	C	ØD	F	G	H	I	K	
P29003	85	15	14	24	25	91	82	37	14.5	0,3
P29004	110	18	28	29	33	118	102.5	48.5	17.5	0,7
P29005	140	20	39	40	39	153	128	60	20.5	1,2

SERIES 88SP BENCH VICE

88SP



Robust and high-quality construction

Bullet points

- The guides are machined for a perfect fit.
- Hardened and ground jaws.



Ref.	Opening	Jaw	Depth		Base giratoria
88/100SP	132	102	74	10,0	88/100G
88/150SP	206	153	95	21,0	88/150G
88/200SP	225	203	105	26,0	88/200G

SWIVEL BASE FOR BENCH VICE

88G



Ref.	
88/100G	1,7
88/150G	1,9
88/200G	2,6





SLOTTED ALUMINIUM JAW



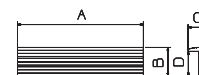
Magnetized aluminium jaws.
They protect the pieces while working.

Bullet points

- Very easy to place.



Ref.	A	B	C	D	
8810051	102	29	20	25	0,1
8812551	128	29	20	25	0,2
8815051	153	29	20	25	0,2



PRISMATIC ALUMINIUM JAW



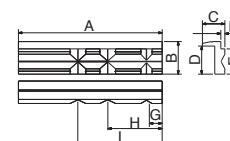
Magnetized aluminium jaws.
They protect the pieces while working.

Bullet points

- Very easy to place.
- With V and stepped.



Ref.	A	B	C	D	E	F	G	H	
8810052	102	29	20	25	3	22	14	48	0,1
8812552	128	29	20	25	3	22	14	48	0,2
8815052	153	29	20	25	3	22	14	48	0,2



SPECIAL PLASTIC JAW



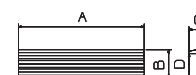
Plastic jaws that protect the pieces while working.

Bullet points

- Very easy to place.
- With V and different positions.



Ref.	A	B	C	E	D	
8810053	100	30	25	49	25	0,1
8812553	124	30	25	49	25	0,2
8815053	148	30	25	64	25	0,2



PLASTIC JAW



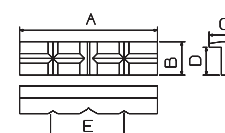
Plastic jaws that protect the pieces while working.

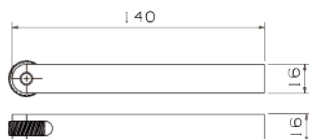
Bullet points

- Very easy to place.
- Knurled surface for improving the clamping.



Ref.	A	B	C	D	
8810054	123	30	25	25	0,1
8812554	100	30	25	25	0,2
8815054	148	30	25	25	0,2



KNURLING TOOLS M1


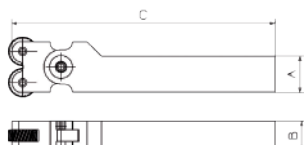
1 mm straight knurl included.

Bullet points

- Specifically for straight knurling on small lathe machines.
- It is possible to reach quite close to the lathe machine plate.



Ref.	A	B	C	
M1/8	16	16	140	0,4

KNURLING TOOLS M2


1mm helicoidal knurl set included.

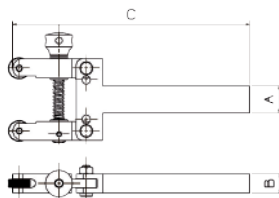
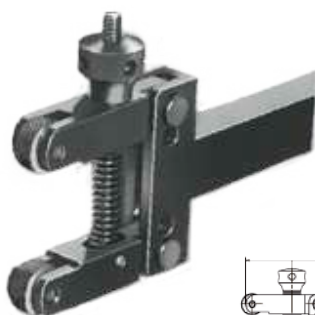
The head's turn allows to align the knurl to the working piece. Either straight or cross knurling are possible.

Bullet points

- For knurling parts where the slimness of the part allows to do it.



Ref.	A	B	C	
M2/20	25	20	185	0,8
MF2/20	19,5	20	185	0,8

KNURLING TOOLS ME20


1mm helicoidal knurl set included.

Spindle for making pressure over the knurling.

Either straight or cross knurling are possible.

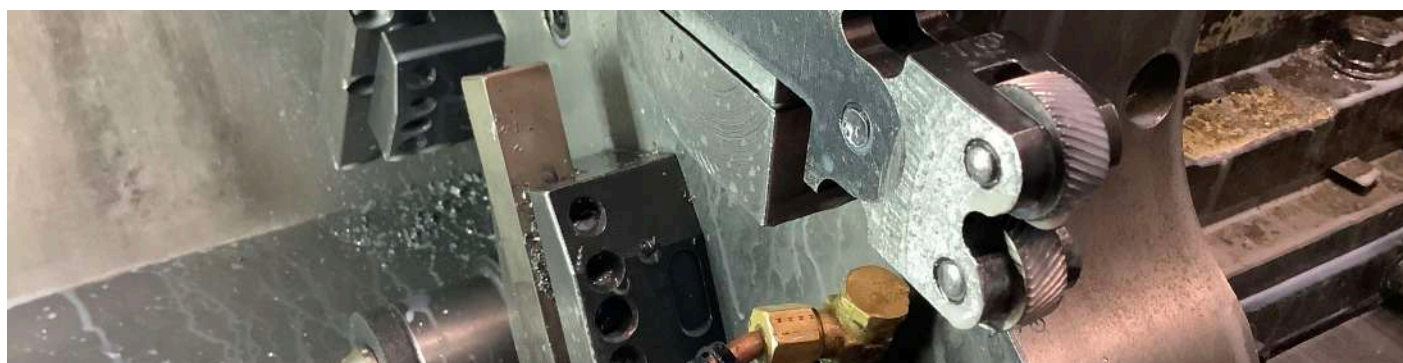
For round workpieces with a diameter from 5 to 50 mm

Bullet points

- For knurling parts where the slimness does not allow pushing with the knurl.



Ref.	A	B	C	
ME20/50	25	18	210	1,1



HSS KNURLS

HSS 8% Co knurls.
Supplied in sets of 2 units.
Diameter of the knurls 20mm and diameter of the hole of the knurl 6mm.



Bullet points

- It can knurl steel up to 125kg/mm².

Ref.	Knurl type	Knurl width	Pitch	
0,6	Straight unit	8	0,6	0,1
1,00	Straight unit	8	1	0,1
1,25	Straight unit	8	1,25	0,1
1,50	Straight unit	8	1,5	0,1
1,75	Straight unit	8	1,75	0,1
0,6H	Helicoidals set	8	0,6	0,1
0,6R	Straights set	8	0,6	0,1
1H	Helicoidals set	8	1	0,1
1R	Straights set	8	1	0,1
1,25H	Helicoidals set	8	1,25	0,1
1,25R	Straights set	8	1,25	0,1
1,50H	Helicoidals set	8	1,5	0,1
1,50R	Straights set	8	1,5	0,1
1,75H	Helicoidals set	8	1,75	0,1
1,75R	Straights set	8	1,75	0,1

TOOL HOLDERS SERIE 400

Toolholder with carbide-tipped insert and chip breaker.
Suitable for rough turning with heavy cuts.
Blade included.



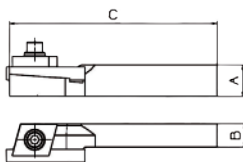
Bullet points

- It is very easy to sharpen the blade.

Ref.	A	B	C	Blade	
410	22	24	160	10x8x45	0,8
412	28	32	180	12x10x55	1,6

TOOL HOLDERS SERIE 500

Toolholders for turning and facing
Angled blade position.
Angle of incidence 4 degrees.
Blades not included.



Bullet points

- There is no need to do "an exit" to the blade.

Ref.	A	B	C	Blade	
508D	20	14	125	6-8	0,3
508I	20	14	125	6-8	0,3
510D	24	18	155	8-10	0,6
510I	24	18	155	8-10	0,6
512D	30	24	180	10-12	1,1
512I	30	24	180	10-12	1,1

TOOL HOLDERS SERIE 600

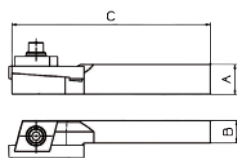


Toolholders for turning and facing
Straight blade position.
Angle of incidence 4 degrees.
Blades not included.



Bullet points

- There is no need to do "an exit" to the blade.



Ref.	A	B	C	Blade	
608D	19	13,5	126	6-8	0,3
608I	19	13,5	126	6-8	0,3
610D	24	18	155	8-10	0,6
610I	24	18	155	8-10	0,6
612D	30	24	180	10-12	1,2
612I	30	24	180	10-12	1,2

SERIE 700 PART OF

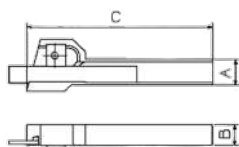


Toolholder with cutting blade for parting
Allows great use of the blade.
Blades not included.



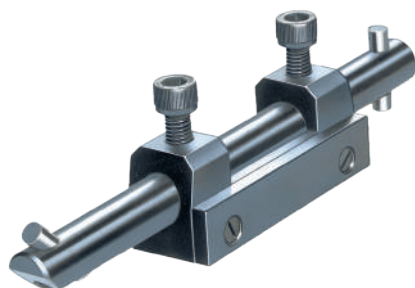
Bullet points

- Straight attack for rigid lathe machines.



Ref.	A	B	C	Blade	
701T	19,5	15	153	2,5x15-2x13	0,4
702T	26	13	153	2,5x15-2x13	0,4
703T	35	16	178	3,5x19-4x22	1,0

SERIE 800M INTERNAL TOOL HOLDERS

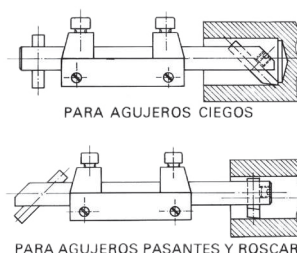


Equipped with two HSS steel blades.
For blind holes, through and thread.



Bullet points

- Inside boring.



Ref.	A diameter	B	Blade diameter	
809M	9	115	4	0,3
815M	15	170	8	0,6
818M	18	220	8	1,1
822M	22	260	10	1,8
826M	26	285	10	2,5
830M	30	330	12	3,5

SERIE 900 TOOL HOLDERS FOR FACING AND TURNING



Toolholders for turning and facing.
Blades not included.

Bullet points

- There is no need to wedge while looking for the center. Just take out the blades.



Ref.	A	B	C	Blade	
906RD	25	14	130	6-8	0,3
906RI	25	14	130	6-8	0,3
908RD	32	18	155	8-10	0,6
908RI	32	18	155	8-10	0,6
910RD	38	22	250	10-12	1,5
910RI	38	22	250	10-12	1,5

SERIE CC PART OFF



Toolholder for parting-off.
Its design absorbs cutting vibrations when using less rigid lathe machines
Blade not included.

Bullet points

- There is no need to do "an exit" to the blade.



Ref.	A	B	C	Blade	
CCN1	17,5	16	158	2,5x15-2x13	0,6

WEDGE L10 FOR LATHE AND SHAPER MACHINE



For lathe and shaper machines
Very secure blade clamping system.
Blades not included.

Bullet points

- There is no need to wedge while looking for the center. Just take out the blades.



Ref.	A	B	C	Blade	
L10	18	34	175	10	0,8

SERIE FOR SHAPER MACHINE

L3000

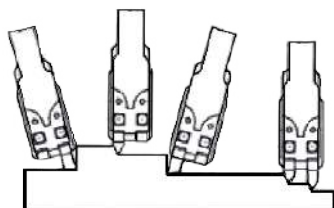


Specific tool holder for shapper machine.
Blades are not included.



Bullet points

- It can work either clockwise or anticlock wise.
- I can rough down and finish at the same time.



Ref.	A	B	C	Blade	
L300	12	24	195	8	0,9
L500	20	28	210	10	1,3

TURNING AND FACING TOOL HOLDERS

TN



Lathe machine toolholder with steel chip breaker.
Blades are not included.



Bullet points

- The blade does not need an exit.
- There is no need to wedge while looking for the center.

Ref.	A	B	C	Blade	
TN1	19	16	195	8	0,5
TN2	24	18	200	10	1,0
TN3	26	29	235	12	2,1

TOOL HOLDERS SERIE W

WN20



Toolholder for turning with widia chip breaker.
Blades are not included.



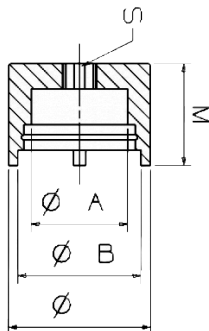
Bullet points

- There is no need to do "an exit" to the blade.

Ref.	A	B	C	Blade	
WN2	24	18	200	10	1,1
WN3	26	29	235	12	2,1

SHORT SPANNERS

96100C



Wrenches designed to remove crenellated Km nuts without damaging them.

Bullet points

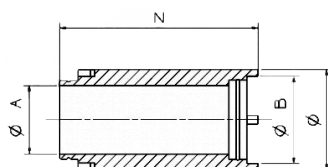
- They practically have the same diameter as the nuts.



Ref.	KM	ØA	ØB	ØC	M	Square Drive	⚖
961010	0	10	15	18	30	Hex16	0,1
961011	1	12	18	22	30	Hex18	0,1
961021	2	12	21	25	35	Hex20	0,1
961031	3	18	25	28	40	1/2"	0,1
961041	4	18	28,5	34	40	1/2"	0,2
961051	5	24	34,5	40	40	1/2"	0,2
961061	6	31	42	47	40	1/2"	0,3
961071	7	36	49	54	40	1/2"	0,4
961081	8	42	54	60	40	1/2"	0,4
961091	9	47	58	67	40	1/2"	0,6
961101	10	52	65	72	40	1/2"	0,6
961111	11	57	70,5	77	50	3/4"	0,8
961121	12	62	76	82	50	3/4"	0,9
961131	13	67	80	87	50	3/4"	1,3
961141	14	74	86	94	50	3/4"	1,5
961151	15	80	89	102	80	1"	2,5
961161	16	87	98	109	80	1"	2,8
961171	17	92	104	114	80	1"	3,0
961181	18	102	114	124	80	1"	3,5
961191	19	107	119	129	80	1"	3,8
961201	20	112	121	136	80	1"	4,2
961211	21	122	133	146	80	1"	4,7
961221	22	127	138	151	80	1"	5,3
961231	23	132	141	156	80	1"	5,4
961241	24	137	146	161	80	1"	5,7
961251	25	140	146	166	90	1"	6,5
961281	28	160	171	186	90	1"	8,0
961301	30	177	186	201	90	1"	9,5

EXTENSION FOR SPANNERS

96100P



KM removal wrench extension to enlarge the wrench length.

Bullet points

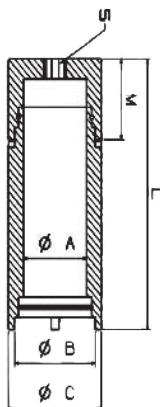
- They practically have the same diameter as the nut.
- It allows extracting in deep and lack of space applications thanks to an extension.



Ref.	KM	ØA	ØB	ØC	N	⚖
961042	4	18	28,5	34	100	0,4
961052	5	24	35	40	100	0,5
961062	6	31	42	47	100	0,7
961072	7	36	49	54	100	0,9
961082	8	52	54	60	100	1,1
961092	9	47	58	67	110	1,3
961102	10	52	65	72	110	1,4
961112	11	57	70,5	77	110	1,6
961122	12	62	76	82	110	1,7
961132	13	67	80	87	120	2,0
961142	14	74	86	94	120	2,2
961252	25	140	151	166	130	5,4
961282	28	160	171	186	130	6,0

COMPLETE SPANNERS

96101



Wrenches designed to remove crenellated Km nuts without damaging them.

It includes the short length removal wrench and the extension.

Bullet points

- They practically have the same diameter as the nut.
- It allows extracting in deep and lack of space applications thanks to the length of the extension.



Ref.	KM	ØA	ØB	ØC	L	M	N	Square Drive	⚖
96104	4	18	28,5	34	124	40	100	1/2"	0,6
96105	5	24	34,5	40	124	40	100	1/2"	0,8
96106	6	31	41,5	47	134	40	100	1/2"	1,0
96107	7	36	48,5	54	134	40	100	1/2"	1,2
96108	8	42	53,5	60	134	40	100	1/2"	1,5
96109	9	47	58	67	144	40	110	1/2"	1,9
96110	10	52	65	72	144	40	110	1/2"	2,1
96111	11	57	70,5	77	144	50	110	3/4"	2,5
96112	12	62	76	82	144	50	110	3/4"	2,6
96113	13	67	80	87	153	50	120	3/4"	3,3
96114	14	74	86	94	153	50	120	3/4"	3,6

KM LOCK NUTS REMOVAL WRENCH EXHIBITOR

96700



Showroom metal display.

Bullet points

- They practically have the same diameter as the nut.
- It allows extracting in deep and lack of space applications thanks to an extension.



Ref.	Short spanner	Spanner and extension	Suitcase	⚖
96700A	961081, 961091 and 961101	96104, 96105, 96106 and 96107	-	6,0
96700M	961081, 961091 and 961101	96104, 96105, 96106 and 96107	96800	29,0

DO YOU KNOW HOW TO USE KM NUT REMOVAL WRENCHES?



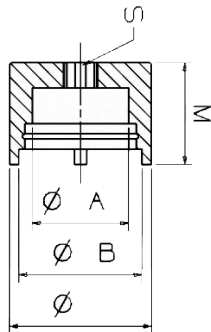
FORZA WRENCH FOR KMT NUTS

96500



The KMT nut has locking screws and the crenellations are at 60 degrees and 120 degrees.

The tool is designed with millimetre precision, ensuring that its diameter matches almost perfectly with that of the KMT nut, minimising the risk of damage and allowing a secure and firm engagement.



Ref.	KMT	ØA	ØB	ØC	M	Drag square	⚖
965041	4	26	36,7	42	45	1/2"	0,3
965051	5	30	40,8	46	45	1/2"	0,4
965061	6	35	45,8	51	45	1/2"	0,4
965071	7	40	50,8	56	45	1/2"	0,5
965081	8	50	60,7	67	45	1/2"	0,6
965091	9	55	65,7	72	45	1/2"	0,8
965101	10	60	69,9	77	50	1/2"	0,9
965111	11	65	79,5	87	50	3/4"	1,2
965121	12	70	83,5	92	53	3/4"	1,3

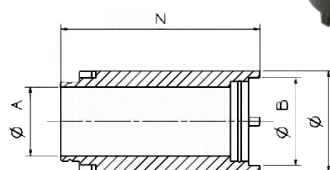
FORZA EXTENSION FOR KMT KEY

96500P



The KMT Wrench Extension is a tool specifically designed to facilitate work with KMT nuts in situations where access is limited or in deep, tight spaces.

This extension has a design that practically matches the diameter of the KMT nut, allowing for a secure and stable connection during use.



Ref.	KMT	ØA	ØB	ØC	N	⚖
965042	4	26	36,7	42	100	0,6
965122	12	70	83,6	92	141	2,7

96800 SHORT KM SPANNER SET
96800


Cases with a complete range of KM lock nut removal wrenches.
High quality plastic case.

Bullet points

- They practically have the same diameter as the nut.



Ref.	Contains	
96800	KM4 to KM10	3,0

96801 COMPLETE KM SPANNER SET
96801


Case with a complete range of KM lock nut removal wrenches.
High quality plastic case.

Bullet points

- They practically have the same diameter as the nut.
- It allows extracting in deep and lack of space applications thanks to the length of the extension.



Ref.	Contains	
96801	KM4 to KM7 completes	4,0

96802 COMPLETE KM SPANNER SET
96802


Case with a complete range of KM lock nut removal wrenches.
High quality plastic case.

Bullet points

- They practically have the same diameter as the nut.
- It allows extracting in deep and lack of space applications thanks to the length of the extension.



Ref.	Contains	
96802	KM4 to KM10 completes	5,0



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1,00	81	1258020	30	150P40V	23	24/100	42	29/125A1	18
1,25	81	1258021	30	150P40W	23	24/100A1	42	29/125G	17
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1,50H	81	125942	20	150P50	22	24/75	42	29/125S	17
1,50R	81	12599930	23	150P50V	23	24/75A0	42	29/150	17
1,75	81	12599935	23	150P50W	23	24/95	42	29/150A1	18
1,75H	81	15002	19	150T16	29	24/95A1	42	29/150CA1	18
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10020	30	15018	27	17552	25	2409513	43	29/150S	17
10021	30	15020	30	17553	24	2409524	44	29/150X	17
10022	19	15022	19	17554	25	2409526	44	29/175	17
10050	24	1502211	32	17555	25	2409531	45	29/175G	17
10051	24	15031	32	17556	26	2410024	44	29/175GL	17
10052	25	15035	30	17557D	26	2410026	44	29/175GS	17
10053	24	15040	29	17558D	26	2412513	43	29/175L	17
10054	25	15041	29	175P42	22	2412524	44	29/175S	17
10055	25	15042	29	175P42V	23	2412526	44	29/175X	17
10057D	26	15043	29	175P42W	23	25/130	47	29/200	17
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111893	65	15054	25	20020	30	25043	29	2915024	27
12508	19	15055	25	2002211	32	25044	29	2917524	27
1251261	34	15056	26	20031	32	25045	29	2920024	27
12518	27	15057D	26	20050	24	25048	29	30/100	8
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12543	29	15061	28	20056	26	25091	20	30/100PM	33
12544	29	15070	20	20057D	26	25094	19	30/125	8
12545	29	15080	21	20058D	26	250942	20	30/125A1	9
12547	29	1508020	30	20061	28	2513014	48	30/125G	8
12549	29	1508021	30	2008020	30	2513024	48	30/125GL	8
12550	24	15082	21	2008021	30	2513024D	48	30/125L	8
12551	24	150821	21	20099950	23	2517514	48	30/125LA1	9
12552	25	150822	21	20099958	23	2517524	48	30/125LRA1	9
12553	24	150823	21	200P52	22	2517524D	48	30/125P	33
12554	25	15090	19	200P52V	23	26/150	15	30/125PF	33
12555	25	15091	20	200P52W	23	27/160	59	30/125PM	33
12556	26	15092	20	200P57	22	28A150	61	30/125R	9
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30/150P	33	3030061	28	338598	63	40C125X525	51	712011	73
30/150PF	33	3030090	19	34/112	37	40C125X525U	51	712012	72
30/150PM	33	3030091	20	34/60	37	40C125X580	51	712020	71
30/150S	8	30V125	11	34/62	37	40C125X580U	51	712030	71
30/150X	8	30V125P	34	34/79	37	40C150X400	51	71210	68
30/150XLF	36	31/125-	58	3411200	37	40C200X690	51	712130	70
30/150XSF	36	31/125H-	58	3411219	37	40CE125X525	51	712140	70
30/150XXF	36	31/125HL	58	346000	37	40CE125X525U	51	712150	70
30/175	8	31/125L	58	346019	37	40CE150X720	51	712904	70
30/175G	8	31/160	58	346200	37	40CE150X720U	51	712905	70
30/175GL	8	31/160H	58	347900	37	410	81	712906	70
30/175GS	8	31/160HL	58	35/45	38	412	81	712907	70
30/175GX	8	31/160L	58	354500	38	42P5034	56	712908	70
30/175L	8	3112519	59	36/60	39	42P6000	53	713011	73
30/175S	8	3116019	59	36/64	39	42P60001A1	55	713012	72
30/175X	8	32/100D	60	36/65	39	42P6001	54	713020	71
30/200	8	32/100N	60	36/66	39	42P6014	56	713030	71
30/200G	8	32/125D	60	36/78	39	508D	81	71310	68
30/200GL	8	32/150D	60	36/79	39	508I	81	713110	69
30/200GS	8	32/46M	61	36/80	39	510D	81	713140	70
30/200GX	8	32/50N	60	366000	39	510I	81	713150	70
30/200L	8	32/60D	60	366400	39	512D	81	713906	70
30/200P	33	32/75N	60	366500	39	512I	81	713907	70
30/200PF	33	32/80D	60	366600	39	60/125	10	713908	70
30/200PM	33	33/100M	62	367800	39	60/125L	10	713910	70
30/200S	8	33/100P	62	367900	39	60/150	10	714011	73
30/200X	8	33/125M	62	368000	39	60/150-50	10	714012	72
30/200XL	8	33/125P	62	37/103	65	60/150D	14	714020	71
30/250	8	33/150M	62	37/103B	65	60/150L	10	714030	71
30/250G	8	33/65M	62	37/103BP	65	60/150L-50	10	71410	68
30/250GL	8	33/85M	62	37/103P	65	60/150S	10	714110	69
30/250GS	8	33/85P	62	37/12	39	60/175	10	714112	69
30/250GX	8	3310014	64	37/14	39	60/175L	10	714140	70
30/250L	8	3310050	64	37/16	39	60/200	10	714150	70
30/250S	8	3310051	64	37/18	39	60/200L	10	714216	69
30/250X	8	3310098	63	37/20	39	60/200XL	10	714904	70
30/300	8	33121408	65	37/22	39	608D	82	714906	70
30/300L	8	33121410	65	3710398	66	608I	82	714907	70
30/300S	8	3312514	64	371200	38	610D	82	714908	70
300/150	35	3312550	64	371400	38	610I	82	714910	70
300/150L	35	3312551	64	371600	38	612D	82	714912	70
300/200	35	3312598	63	371800	38	612I	82	715011	73
300/200L	35	3315014	64	372000	38	701T	82	715012	72
300/200S	35	3315050	64	372200	38	702T	82	715020	71
300/200X	35	3315051	64	38/103	66	703T	82	715030	71
30015090	35	3315098	63	38/125	66	711000	71	71510	68

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Thanks to our R&D team and the way our production plans manufacture, we are in position of providing a flexible and quick solution to the markets with an aim of being known as a trustful and responsible company.

**“Always
excellence”**

Prices & confirmations

It will be charged a processing fee of 5 euros if the minimum invoice value of 50 euros is not met.

FORZA offers are subject to confirmation and without obligation.

Return of goods

FORZA is not obliged to accept the return of goods. FORZA shall only take back goods if the goods are current, in their original packaging and resalable. Additionally, FORZA has to consent the return in writing beforehand. These must be returned free of charge.

A credit note for goods returned is made with 85% of the calculated price. Costs for any reprocessing or new packaging shall be deducted additionally. The credit note can only be credited with new deliveries of goods.

Warranty

Lifetime warranty covering material and manufacturing defects

Delivery periods, delivery dates

Periods and deadlines set by FORZA for deliveries and performances always apply only approximately, unless a fixed period or a fixed deadline is expressly assured or agreed.

FORZA Community

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Here you will find the current price list.

Also in excel format!



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San Miguel de Acha, 24
01010 VITORIA · España



Teléfono:
+34 945 24 97 16



export@forza.es
www.forza.es



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