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## VICES AND CLAMPING:

## Designed by FORZA for more than 50 years.

## Specially designed vises for drilling and

 tapping machines.They are also very useful in small machining operations.
e also have a wide range of vices

## or milling machines and

 machining centers.190-191- 5 Quick clamp vice ..... 192
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## TOOLS HOLDERS AND KNURLING TOOLS



Knurling tools .201-202


Professional vice for any drilling and threading operations.


Bullet points

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


Construida en fundición nodular


|  | Ref. | A | B | $\begin{gathered} \mathrm{H} \\ \text { (Height) } \end{gathered}$ | X | D | E | Lenght | Clamps | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 33/65M | 65 | 76 | 49 | 3 | 26 | 19 | 207 | - | 2,8 |
|  | 33/85M | 85 | 90 | 54 | 3 | 26 | 22 | 242 | - | 4,8 |
|  | 33/100M | 105 | 116 | 66 | 4 | 32 | 24 | 310 | 12560 | 9,0 |
|  | 33/125M | 125 | 157 | 83 | 4,5 | 42 | 27 | 395 | 12560 | 16,2 |
|  | 33/150M | 150 | 190 | 95 | 6 | 52 | 27 | 470 | 12560 | 25,2 |

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.


Bullet points

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



Construida en fundición nodular

| Ref. | A | B | H <br> (Height) | X | D | E | Lenght | Clamps | D |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33/85P | 85 | 90 | 54 | 3 | 26 | 22 | 242 | - | 5,8 |
| 33/100P | 125 | 116 | 66 | 4 | 32 | 24 | 310 | 12560 | 10,3 |
| 33/125P | 125 | 157 | 83 | 4,5 | 42 | 27 | 395 | 12560 | 18,2 |

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.


## Bullet points

- Grooved chanel 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).


Construida en fundición nodular


| Ref. | To | B | D | G | T | X | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 2} / 85$ | 85 | 95 | 25,5 | 188 | 25 | 3 | 4,0 |
| $\mathbf{8 2} 100$ | 100 | 105 | 31,5 | 241 | 40 | 4 | 8,5 |
| $\mathbf{8 2} / 125$ | 125 | 116 | 41,5 | 300 | 40 | 4,5 | 14,7 |
| $\mathbf{8 2} / 150$ | 150 | 160 | 52,5 | 345 | 40 | 6 | 19,6 |

Suitable vice for drilling and threading big pieces.


## Bullet points

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

Swivel base for drilling vices 28A150.


| Ref. | Base height | External <br> Diameter | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{B 2 8 1 5 0}$ | 25,5 | 275 | 11,0 |



Quick clamping vice for drilling, threading and light milling works for mass production.

Bullet points


- It allows to clamp and release the part in tenths of second.
- Each vise is supplied with stepped jaws and two sets of soft jaws.


| Ref. | A | B | C | D | E | F | Clamps | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 8 / 8 0}$ | 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 |

Selfcentering drilling vice for drilling, threading and light milling.

## Bullet points

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



## SWIVEL BASES FOR SERIE 33

Swivel base for drilling vices for 33 and 82 serie.
They can be used as two jaw chuck in lathe machines.


| Ref. | Clamps | 年 | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{3 3 6 5 9 8}$ | 336560 | $33 / 65$ | 2,2 |
| 338598 | 336560 | $33 / 85-82 / 85$ | 2,9 |
| $\mathbf{3 3 1 0 0 9 8}$ | 12560 | $33 / 100-82 / 100$ | 6,0 |
| 3312598 | 12560 | $33 / 125-82 / 125$ | 8,7 |
| 3315098 | 12560 | $33 / 150-82 / 150$ | 9,5 |

## PINS FOR SERIE 33

clamping rod for drilling vices for 33 and 82 serie.

SET SOFT JAWS SERIE 33


Soft jaws set por drilling vices for serie 33.

| Ref. | 0 | $\Delta$ |
| :---: | :---: | :---: |
| 336550 | 33/65 | 0,3 |
| 338550 | 33/85 | 0,4 |
| 3310050 | 33/100 | 0,6 |
| 3312550 | 33/125 | 0,9 |
| 3315050 | 33/150 | 1,9 |

## NORMAL SET JAWS SERIE 33

Normal set of stepped jaws for drilling vices for serie 33.


| Ref. | Step | 金0000 | $\Delta$ |
| :---: | :---: | :---: | :---: |
| 336514 | 3 | 33/65 | 0,1 |
| 338514 | 3 | 33/85 | 0,2 |
| 3310014 | 4 | 33/100 | 0,3 |
| 3312514 | 4,5 | 33/125 | 0,4 |
| 3315014 | 6 | 33/150 | 0,9 |

SET PRISMATIC JAWS WITH STEP SERIE 33

Prismatic stepped jaws for drilling vices for serie 33.


## T NUT SERIE 33

T nuts for drilling vices for 33 and 82 serie.


| Ref. | Canal | M | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: |
| $\mathbf{3 3 1 2 1 4 0 8}$ | for $12-14$ | M8 | 0,1 |
| $\mathbf{3 3 1 6 1 8 0 8}$ | for $16-18$ | M8 | 0,1 |
| $\mathbf{3 3 1 2 1 4 1 0}$ | for $12-14$ | M10 | 0,1 |
| $\mathbf{3 3 1 6 1 8 1 0}$ | for $16-18$ | M10 | 0,1 |
| $\mathbf{3 3 1 6 1 8 1 4}$ | for $16-18$ | M14 | 0,1 |
| $\mathbf{3 3 2 0 2 2 1 4}$ | for 20-22 | M14 | 0,1 |




Vice for special works such as long pieces, dies and other specific clamping needs.
It is supplied in sets of 2 units plus a 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 | $\Delta$ | D |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $34 / 60$ | $52-60$ | 62 | 138 | 19 | 42 | 34 | 12 | 4,2 |
| $34 / 62$ | $82-92$ | 62 | 175 | 19 | 74 | 57 | 12 | 8,0 |
| $34 / 79$ | $66-78$ | 82 | 170 | 24 | 53 | 45 | 12 | 9,2 |
| $34 / 112$ | $90-105$ | 115 | 240 | 31 | 84 | 65 | 17 | 26,5 |



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 | $\Delta$ | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 346000 | $52-60$ | 62 | 138 | 19 | 42 | 34 | 12 | 2,0 |
| 346200 | $82-92$ | 62 | 175 | 19 | 74 | 57 | 12 | 3,9 |
| 347900 | $66-78$ | 82 | 170 | 24 | 53 | 45 | 12 | 4,5 |
| 3411200 | $90-105$ | 115 | 240 | 31 | 84 | 65 | 17 | 12,3 |



Designed vices for clamping thin or round pieces in milling or drilling machines.
Descending effect vice supplied in sets of 4 units/each.
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 | D |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $35 / 45$ | 45 | $0-13$ | 20 | 60 | 23 | 6,4 |



Designed vices for clamping thin or round pieces in milling or drilling machines.

Bullet points


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


| Ref. | To | B | C | D | E | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 354500 | 45 | $0-13$ | 20 | 60 | 23 | 1,6 |

Plain vice for clamping very low height pieces.
Specifically designed for clamping large metal sheets in machines. Low T-support for the movable jaw holder.


Bullet points

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


| Ref. | A | B | C | D | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $36 / 60$ | 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 |

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 | D |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 6 6 0 0 0}$ | 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 |



Vices for clamping extremely thin parts.
Bullet points

- The jaw is practically 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 | $\Delta$ D |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 7 / 1 2}$ | 11,5 | 20 | 8 | 16 | 28 | 0,4 |
| $\mathbf{3 7 / 1 4}$ | 13,5 | 23 | 9 | 18 | 40 | 0,6 |
| $37 / 16$ | 15,5 | 26 | 10 | 21 | 45 | 0,8 |
| $\mathbf{3 7 / 1 8}$ | 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 |



Vices for clamping extremely thin parts.
Bullet points

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

|  |  | Ref. | A | B | E | c | D | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 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 |



Suitable clamps for clamping tooling and molds.
Bullet points

- Clamp, that due to the deisng 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 than the piece and it is perfect for placing toolings and dies.


| Ref. | L (Length) | A | T | $\Delta \boldsymbol{D}$ |
| ---: | :---: | :---: | :---: | :---: |
| $39 / 56$ | 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 |
|  |  |  |  |  |

BENCH VICES SERIE 88

Manufactured in forged steel.
Steel hardeness 45-51 HRC.
Square guide.
Tempered steel hardened jaws.
Induction tempered anvil base.

| Ref. | Height | Height | Anvil | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 8 / 1 0 0 N}$ | 100 | 65 | $35 \times 40$ | 6,4 |
| $\mathbf{8 8 / 1 2 5 N}$ | 125 | 80 | $53 \times 70$ | 11,8 |
| $\mathbf{8 8 / 1 5 0 N}$ | 200 | 100 | $66 \times 80$ | 19,0 |

## SLOTED ALUMINIUN JAWS

Magnetized aluminium jaws. They protect the pieces while working.


Bullet points

- Very easy to place.

| Ref. | A | B | C | D | $\checkmark$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 8 1 0 0 5 1}$ | 102 | 29 | 20 | 25 | 0,1 |
| $\mathbf{8 8 1 2 5 5 1}$ | 128 | 29 | 20 | 25 | 0,2 |
| $\mathbf{8 8 1 5 0 5 1}$ | 153 | 29 | 20 | 25 | 0,2 |



## PRISMATIC ALUMINIUN JAWS



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 | $\Delta$ | A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\xrightarrow{+\mathrm{HC}}$ |

## SPECIAL PLASTIC JAWS

Plastic jaws. They protect the pieces while working.
Bullet points

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

| Ref. | A | B | C | E | D | $\Delta \boldsymbol{D}$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 8 1 0 0 5 3}$ | 100 | 30 | 25 | 49 | 25 | 0,1 |
| $\mathbf{8 8 1 2 5 5 3}$ | 124 | 30 | 25 | 49 | 25 | 0,2 |
| $\mathbf{8 8 1 5 0 5 3}$ | 148 | 30 | 25 | 64 | 25 | 0,2 |



## PLASTIC JAWS

Plastic jaws. They protect the pieces while working.

## Bullet points



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

| Ref. | A | B | C | D | D |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 8 1 0 0 5 4}$ | 123 | 30 | 25 | 25 | 0,1 |
| $\mathbf{8 8 1 2 5 5 4}$ | 100 | 30 | 25 | 25 | 0,2 |
| $\mathbf{8 8 1 5 0 5 4}$ | 148 | 30 | 25 | 25 | 0,2 |



Quick clamping for tooling.
The handle rotates 90 degrees.


Lever travel according to pin position

*for all models except P56001

| Ref. | Maximum strength | Degrees | To | A1 | A3 | A6 | B | B1 | C | C1 | C2 | D | F | H | L | L1 | L3 | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P56001 | $450 \mathrm{~N}-45 \mathrm{~kg}$ | 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 | $3400 \mathrm{~N}-340 \mathrm{~kg}$ | 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 clamping for tooling.
The handle rotates 90 degrees.
 Vertical clamping.

C2


| Ref. | Maximum <br> strength | Length | Degrees | A | B | C | DA |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 clamping for tooling.
The handle rotates 90 degrees.
Vertical clamping.


| Ref. | To | B | C | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| P56201 | 19 | 32 | 14 | 0,3 |



## 1 mm helicoidal 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 | D |
| ---: | :---: | :---: | :---: | :---: |
| M1/8 | 16 | 16 | 140 | 0,4 |



1 mm helicoidal knurl set included.
The head's turn allows to align the knrul 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.




## 1 mm helicoidal knurl set included.

Spindle for making pressure over the knurling.
Either straight or cross knurling are possible.


Bullet points

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

| Ref. | A | B | C | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| ME20/50 | 25 | 18 | 210 | 1,1 |




Rectas


Helicoidales

Toolholders with blades and hard metal chip included.

## Bullet points

- It is very easy to sharpen the blade.


| Ref. | A | B | C | Blade | $\Delta \Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 410 | 22 | 24 | 160 | $10 \times 8 \times 45$ | 0,8 |
| 412 | 28 | 32 | 180 | $12 \times 10 \times 55$ | 1,6 |

ooiholders for rolling and countering.
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 | $\Delta \boldsymbol{D}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{5 0 8 D}$ | 20 | 14 | 125 | $6-8$ | 0,3 |
| $\mathbf{5 0 8 1}$ | 20 | 14 | 125 | $6-8$ | 0,3 |
| $\mathbf{5 1 0 D}$ | 24 | 18 | 155 | $8-10$ | 0,6 |
| $\mathbf{5 1 0 1}$ | 24 | 18 | 155 | $8-10$ | 0,6 |
| $\mathbf{5 1 2 D}$ | 30 | 24 | 180 | $10-12$ | 1,1 |
| $\mathbf{5 1 2 \boldsymbol { 1 }}$ | 30 | 24 | 180 | $10-12$ | 1,1 |



Toolholders for rolling and countering.
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 | $\boldsymbol{\Delta}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{6 0 8 D}$ | 19 | 13,5 | 126 | $6-8$ | 0,3 |
| $\mathbf{6 0 8 I}$ | 19 | 13,5 | 126 | $6-8$ | 0,3 |
| $\mathbf{6 1 0 D}$ | 24 | 18 | 155 | $8-10$ | 0,6 |
| $\mathbf{6 1 0}$ | 24 | 18 | 155 | $8-10$ | 0,6 |
| $\mathbf{6 1 2 D}$ | 30 | 24 | 180 | $10-12$ | 1,2 |
| $\mathbf{6 1 2 1}$ | 30 | 24 | 180 | $10-12$ | 1,2 |

Toolholder with cutting blade.
Allows great use of the blade.


Blades not included.
Bullet points

- Straight attack for rigid lathe machines.


| Ref. | A | B | C | Blade | $\Delta \mathrm{A}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 701T | 19,5 | 15 | 153 | $2,5 \times 15-2 \times 13$ | 0,4 |
| 702T | 26 | 13 | 153 | $2,5 \times 15-2 \times 13$ | 0,4 |
| 703T | 35 | 16 | 178 | $3,5 \times 19-4 \times 22$ | 1,0 |

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

| Ref. | A diameter | B | Blade <br> diameter | $\Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $\mathbf{8 0 9 M}$ | 9 | 115 | 4 | 0,3 |
| $\mathbf{8 1 5 M}$ | 15 | 170 | 8 | 0,6 |
| $\mathbf{8 1 8 M}$ | 18 | 220 | 8 | 1,1 |
| $\mathbf{8 2 2 M}$ | 22 | 260 | 10 | 1,8 |
| $\mathbf{8 2 6 M}$ | 26 | 285 | 10 | 2,5 |
| $\mathbf{8 3 0 M}$ | 30 | 330 | 12 | 3,5 |

TOOL HOLDERS SERIE 900


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 |

Toolholders for turning and facing.
Blades not included.


Bullet points

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

| Ref. | A | B | C | Blade | D |
| ---: | :---: | :---: | :---: | :---: | :---: |
| CCN1 | 17,5 | 16 | 158 | $2,5 \times 15-2 \times 13$ | 0,6 |

For lathe and filing machine.


The clamping of the blade is very safe.
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 | $\Delta \Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| L10 | 18 | 34 | 175 | 10 | 0,8 |

Specific tool holder for lathes.
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 | D |
| ---: | :---: | :---: | :---: | :---: | :---: |
| L300 | 12 | 24 | 195 | 8 | 0,9 |
| L500 | 20 | 28 | 210 | 10 | 1,3 |

## TURNING AND FACING TOOL HOLDERS

Lathe toolholder with steel chip breaker.
Blades are not included.
Bullet points

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

| Ref. | A | B | C | Blade | $\boldsymbol{\Delta}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TN1 | 19 | 16 | 195 | 8 | 0,5 |
| TN2 | 24 | 18 | 200 | 10 | 1,0 |
| TN3 | 26 | 29 | 235 | 12 | 2,1 |

Toolholder for rolling 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 | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| WN2 | 24 | 18 | 200 | 10 | 1,1 |
| WN3 | 26 | 29 | 235 | 12 | 2,1 |

# We have a catalog of machine vices 

## Machine Vices and Milling Hedas

- Integrated clamping vice towers
- Descending machine vices
- Guides machine vices
- Machine vices for large pieces
- 5 axis machine vices
- Vices for cubes
- Grinding machine vices
- Internal milling heads




## Tombstones

- A specific and inexpensive tooling that allows you to leave it stopped when you are not manufacturing parts and assemble it in minutes when needed.
- We manufacture towers of machine vices to the
size you need.
- We look for specific tooling (cheaper), we avoid universal tooling (much more expensive).
- We have incredibly reduced lead times and prices to manufacture custom tooling. We carry out the tooling study completely free of charge. We include the sending of the designs in 3D files.


## Descending machine vices

Different series depending on the required precision: -Series 30, Guided, oscillating, Vices for cubes, split vices, self-centering, double vices and vices for making squares.

- Manufactured in hardened steel. F155.
- Interchangeable locks: mechanical, hydraulic, torque multipliers and oil pneumatic.
- Jaw width from 100 to 300 mm .
- Vices openings from 100 to 600 mm .
- Main accessories: extensions, lifting blocks, clamps, key nuts, work stops, swivel base, parallel, prismatic jaws, soft. jaws, etc.


## 5 axes machine vices

- Latest generation of vices for this type of machines.
- Carriages with two anchoring positions to the jaw holder.
- Reversible jaw holder.
- Spindles with trapezoidal thread.
- Reversible jaws: Flat on one side and indented on the other side.
- Made of hardened steel. F155.


## Double position vices

- Double vices transformable into self-centering vices.
- Double vices with two spindles.
- Aluminum machined jaw holders.
- Lower positioning spindle for greater jaw capacity.


## Grinding machine vices

- High precision grinding machine vices with high precision on any of their faces.
- Sinus and multi-angular vices.
- We also have conventional vices for milling machines, threading machines and other machines.


## Milling heads

- Internal milling head.
- For milling works inside parts.
- It replaces broaching and mortising works.

5 different sizes.

- Milling head extensions.
- Suitable for working with milling cutters,
keyways and threaded cutters.

> 50 years of experience in the manufacture of machine vices and milling heads.




Wrenches designed to remove crenellated Km nuts without damaging them.

Bullet points


- They practically have the same diameter as the nuts.

| Ref. | KM | $\emptyset A$ | $\varnothing$ П | ØС | M | Square Drive | $\Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| 961231 | 23 | 132 | 141 | 156 | 80 | $1 "$ | 5,4 |
| 961241 | 24 | 137 | 146 | 161 | 80 | 1" | 5,7 |
| 961301 | 30 | 177 | 186 | 201 | 90 | 1" | 9,5 |

KM removal wrench extension for 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 | $\varnothing \mathrm{A}$ | $\varnothing \mathrm{B}$ | $\varnothing \mathrm{C}$ | N | $\varnothing$ |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |



Wrenches designed to remove crenellated Km nuts without damaging them.
It includes the short lenght 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 lenght of the extension..


| Ref. |
| ---: |
| 96104 |
| 96105 |
| 96106 |
| 96107 |
| 96108 |
| 96109 |
| 96110 |
| 96111 |
| 96112 |
| 96113 |
| 96114 |


| KM | $\varnothing \mathrm{A}$ | $\varnothing \mathrm{B}$ | $\varnothing \mathrm{C}$ | L | M | N | Square Drive | $\Delta \Delta$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 18 | 28,5 | 34 | 124 | 40 | 100 | $1 / 2^{\prime \prime}$ | 0,6 |
| 5 | 24 | 34,5 | 40 | 124 | 40 | 100 | $1 / 2^{\prime \prime}$ | 0,8 |
| 6 | 31 | 41,5 | 47 | 134 | 40 | 100 | $1 / 2^{\prime \prime}$ | 1,0 |
| 7 | 36 | 48,5 | 54 | 134 | 40 | 100 | $1 / 2^{\prime \prime}$ | 1,2 |
| 8 | 42 | 53,5 | 60 | 134 | 40 | 100 | $1 / 2^{\prime \prime}$ | 1,5 |
| 9 | 47 | 58 | 67 | 144 | 40 | 110 | $1 / 2^{\prime \prime}$ | 1,9 |
| 10 | 52 | 65 | 72 | 144 | 40 | 40 | $1 / 2^{\prime \prime}$ | 2,1 |
| 11 | 57 | 70,5 | 77 | 144 | 50 | 110 | $3 / 4^{\prime \prime}$ | 2,5 |
| 12 | 62 | 76 | 82 | 144 | 50 | 110 | $3 / 4^{\prime \prime}$ | 2,6 |
| 13 | 67 | 80 | 87 | 153 | 50 | 120 | $3 / 4$ " | 3,3 |
| 14 | 74 | 86 | 94 | 153 | 50 | 120 | $3 / 4^{\prime \prime}$ | 3,6 |

## KM LOCK NUTS REMOVAL WRENCH EXHIBITOR

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 <br> extension | Suitcase | $\Delta \Delta$ |
| ---: | :---: | :---: | :---: | :---: |
| $9 \mathbf{9 6 7 0 0 A}$ | 961081,961091 <br> and 961101 | 96104,96105, <br> 96106 and 96107 | - | 6,0 |
| 96700 M | 961081,961091 <br> and 961101 | 96104,96105, <br> 96106 and 96107 | 96800 | 29,0 |

> DO YOU KNOW HOW TO USE KMI NUI REMOVAL WRENCHESR


EXHIBITORS AND SETS


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 | $\Delta \Delta$ |
| ---: | :---: | :---: |
| $\mathbf{9 6 8 0 0}$ | KM4 to KM10 | 3,0 |



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 lenght of the extension.

| Ref. | Contains | $\Delta \Delta$ |
| ---: | :---: | :---: |
| 96801 | KM4 to KM7 <br> completes | 4,0 |



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 lenght of the extension.


| Ref. | Contains | $\Delta \Delta$ |
| ---: | :---: | :---: |
| 96802 | KM4 to KM10 <br> completes | 5,0 |

