

Type:

Multi-functional vice

View
on-line:

MFS



System:

Two clamping sliders, one central jaw, and two continuous spindles easy to rebuild in a single vice, double vice or multiple clamping vice.

Versions:

MFS-MK

Mechanical operation with lock-in discs for span adjustment, mechanical force build-up.

MFS-HD

Mechanical span adjustment, hydraulic strength build-up, return stroke through pressurised air cushions

MFS – can be used for various purposes, ideal for multi-clamping. Our vice with the greatest possible utilisation factor!

Permanently consistent Clamping force

Two independent spindles generate the same clamping force for each individual clamping.

Safe stop

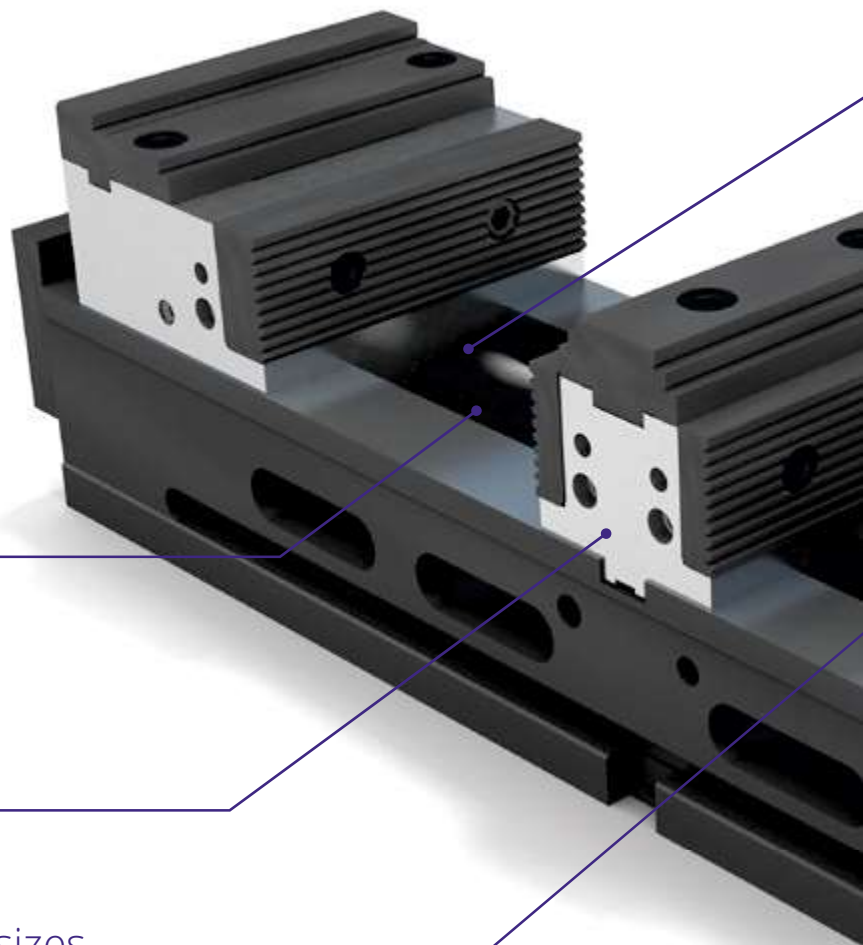
The free-standing central jaw is secured on all levels (X,Y,Z)

Variable workpiece sizes

Clamping with different workpiece sizes saves presetting and set-up times. For applications, see next page

Impressive advantages:

- ▣ Best repeat accuracy ≤ 0.01 mm
- ▣ Extended clamping range due to stepped jaw attachments



OPTIONAL:

Flat bed version
on request (p. 8)

ON REQUEST:

Bed length up to
1,200 mm

Suitable
accessories
you can find
starting from
page 96

Multi-clamping

Usage of changeover sliders enable more workpieces to be clamped, depending on the bed length.

Maximum span width

Use the maximum potential of your vice through the use of false jaws

Optional: Hydraulics

Quick loading and unloading through hydraulic pressure build-up (see page 50)

Tiltable

Hardened and smoothed side walls provide for even more flexibility (option)

Central operation for quick clamping

Ideal for the operator: Closing and clamping of only one side allows a workpiece changeover in a few seconds.



1 vice – 3 different clamping functions



MFS



Clamping of **2 blanks:**

Simple and extremely rapid movement of the clamping slider allows clamping of the similarly and differently sized workpieces. Clamping sliders may be moved together or individually to adjust the clamping range.



Clamping of **3 or more blanks:**

Rapid installation of changeover sliders enable more work pieces to be clamped. No tools required for assembly.



Clamping of **large blanks:**

Divided into three differently sized clamping ranges. After removal of the central jaw, the rear clamping slider serves as a fixed jaw. Large or long workpieces (e.g., plates, strips, etc.) may be clamped by attaching stepped jaw attachments to the fixed jaw and the movable clamping slider.





MFS-MK

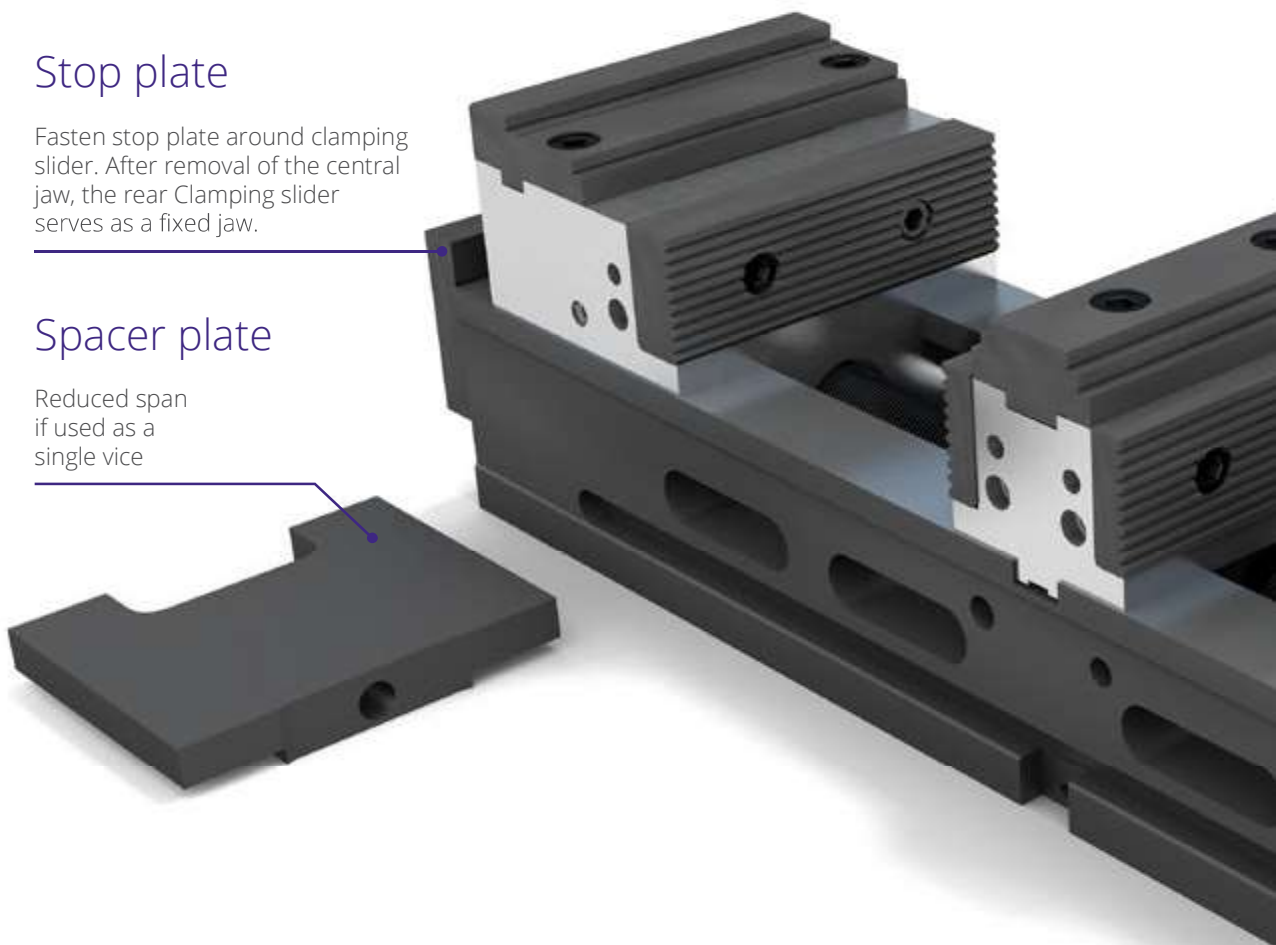
Multi-functional vice – mechanical version with cam-plate locking

Stop plate

Fasten stop plate around clamping slider. After removal of the central jaw, the rear Clamping slider serves as a fixed jaw.

Spacer plate

Reduced span
if used as a
single vice



Basic equipment:

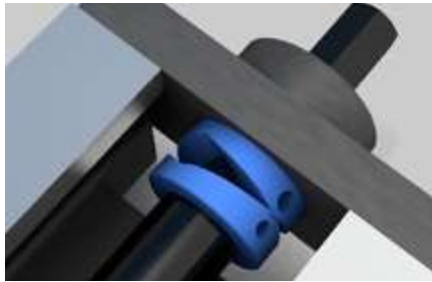
MFS-100 MK:

- ✓ 4 screw-in jaws
(longitudinally knurled)
- ✓ 1 hand crank
- ✓ 1 handrail
- ✓ 1 spacer plate with
2 locking screws

MFS-125 MK:

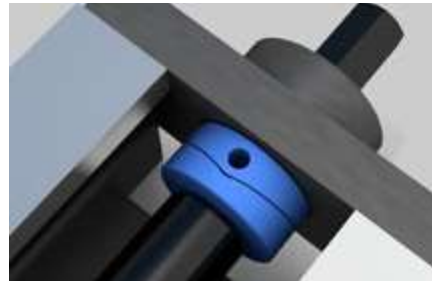
- ✓ 2 reversible screw-in jaws
(1 side knurled, 1 side smooth)
- ✓ 2 screw-in jaws longitudinally
knurled
- ✓ 1 hand crank
- ✓ 1 handrail
- ✓ 1 spacer plate with
2 locking screws

Cam-plate locking



Both spindles are rotating:

- ▶ **Adjust rear clamping range**



Front spindle is rotating:

- ▶ **Adjust front clamping range clamped on the front and rear simultaneously**



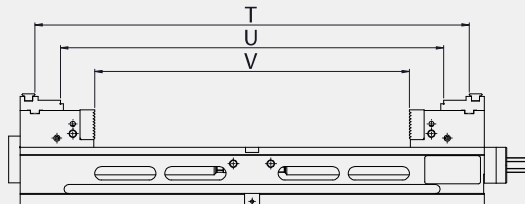
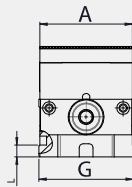
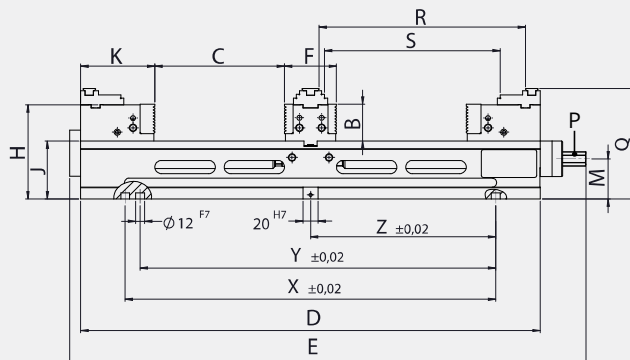
Suitable accessories you can find starting from page 96

Mechanical design with cam-plate locking

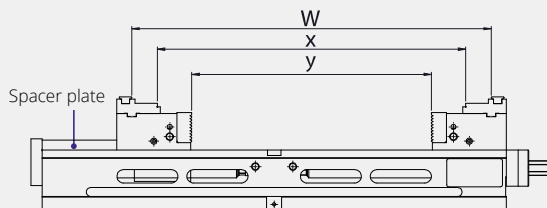


MFS-MK

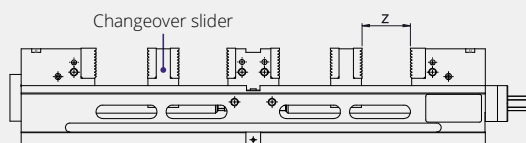
Technical drawing



Single vice with the large clamping range.
Rear clamping slider blocked in this 0 position.



Single vice with a medium clamping range.
Central jaw removed, clamping slider is attached to the rear spacer plate.



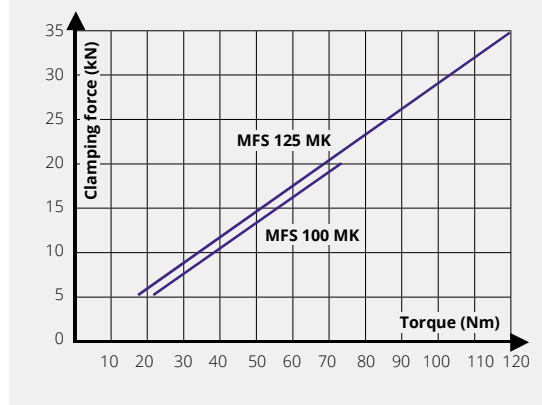
with changeover sliders as multi-duty vice.
No tools required for installation of changeover sliders.

Technical specifications

Jaw width	A
Order No.	
Order No. without jaws	
Clamping depth	B
Bed length	D
Overall length	E
Fixed jaw	F $\pm 0,02$
Total width	G
Overall height	H
Bed height	Jh7
Clamping slide	K
Metal clamping flange	L
Spindle centre point	M
Hexagonal connection SW	P
	Q
	X
	Y
	Z
Span	C
Span	R
Span	S
Span	T
Span	U
Span	V
	W
	x
	y
	z
Weight	kg
Clamping force	kN/Nm

100				125				
08481	08482	08483	08484	08580	08581	08582	08583	08584
08481	08482	08483	08484	08580	08581	08582	08583	08584
000100	000100	000100	000100	000100	000100	000100	000100	000100
44				50				
450	500	550	600	500	560	620	680	740
535	585	635	685	564	645	705	765	825
	60					70		
	104					127		
	122					128		
	78					78		
	80					100		
	14					16		
	58					54		
	14					17		
137.5				149.1				
300	300	400	400	400	400	500	500	500
280	280	-	-	-	-	480	480	480
150	150	200	200	200	200	250	250	250
0-113	0-138	0-163	0-188	0-113	0-143	0-173	0-203	0-233
84-195	84-220	84-245	84-270	102-213	102-243	102-273	102-303	102-333
52-163	52-188	52-213	52-238	64-175	64-205	64-235	64-265	64-295
416	466	516	566	458	518	578	638	698
249-360	274-410	299-460	324-510	279-390	309-450	339-510	369-570	399-630
177-288	202-338	227-388	252-438	187-298	217-358	247-418	277-478	307-538
316	366	416	466	358	418	478	538	598
149-260	174-310	199-360	224-410	179-290	209-350	239-410	269-470	299-530
77-188	102-238	127-288	152-338	87-198	117-258	147-318	177-378	207-438
0-39	0-51	0-64	0-76	0-36	0-51	0-66	0-81	0-96
31	32	33	34	46	48	51	53	55
20/72				35/120				

Clamping force diagram

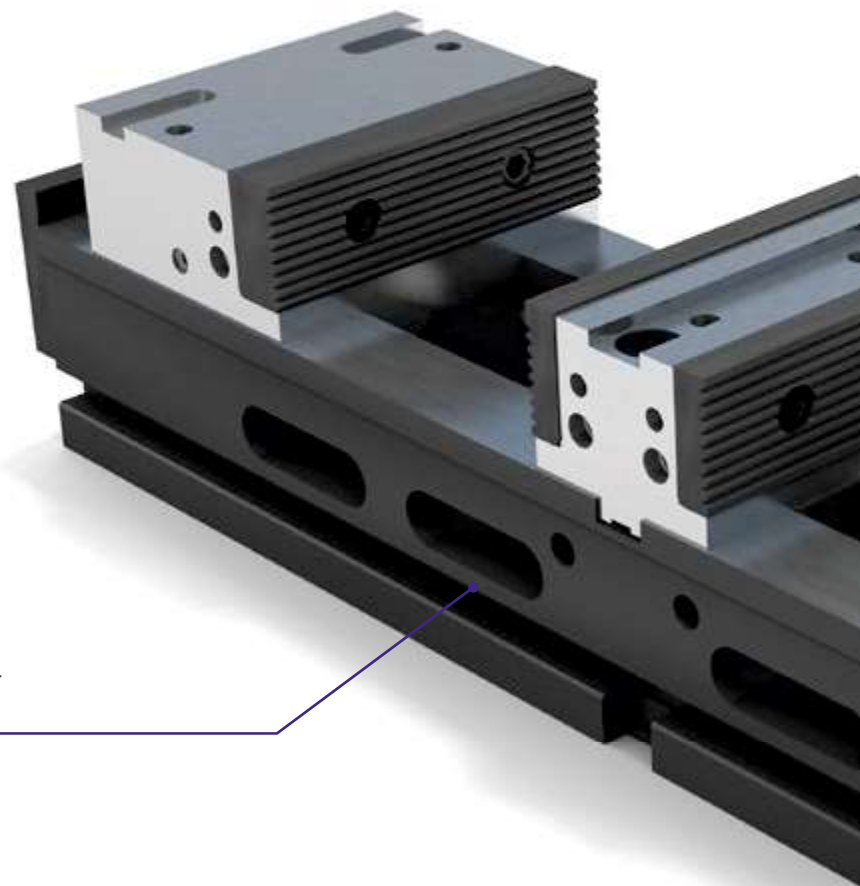


Multi-functional vice – hydraulic version



MFS-HD

Suitable accessories you can find starting from page 96



Flexible applications

such as customer-specific hydraulic solutions are described on page 54.

Basic equipment:

MFS-80 HD/MFS-100 HD:

- ✓ 4 screw-in jaws (longitudinally knurled)
- ✓ 1 spacer plate with set screw
- ✓ 1 hand crank
- ✓ 1 ball valve

MFS-125 HD:

- ✓ 2 reversible screw-in jaws
- ✓ 2 screw-in jaws (longitudinally knurled)
- ✓ 1 spacer plate with set screw
- ✓ 1 hand crank
- ✓ 1 ball valve

MFS-160 HD:

- ✓ 4 reversible screw-in jaws
- ✓ 1 spacer plate with set screw
- ✓ 1 hand crank
- ✓ 1 ball valve

Ball valve three-way plates

For separate adjustment of the two clamping ranges.
Hydraulic operation instead of cam-plate locking (p. 47).

Optional:

Hand-way poppet valve

For clamping and releasing directly on the vice



Fast release of workpieces

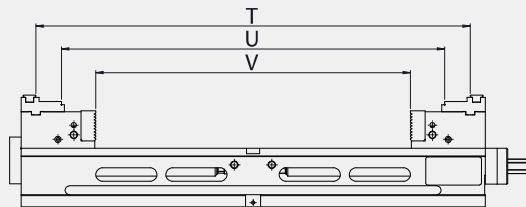
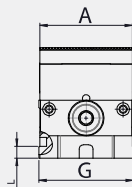
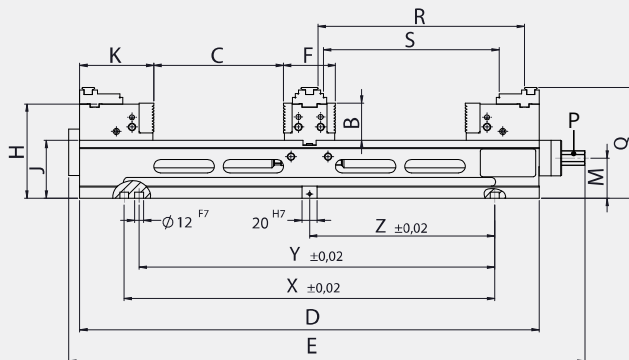
The return stroke is produced by a pressurised air cushion that can be filled through a valve.

Multi-functional vice – hydraulic version

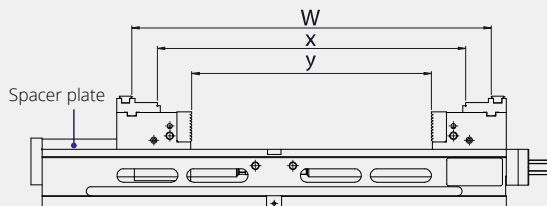


MFS-HD

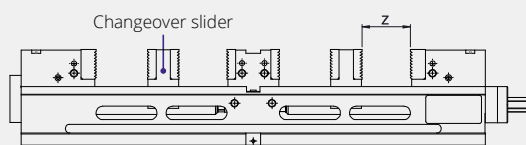
Technical drawing



Single vice with the large clamping range.
Rear clamping slider blocked in this 0 position.



Single vice with a medium clamping range.
central jaw removed, clamping slider is attached to the rear spacer plate.



with changeover sliders as multi-duty vice.
No tools required for installation of changeover sliders.

Technical specifications

Jaw width A

Order No.

Order No. without jaws

Clamping depth B

Bed length D

Overall length E

Fixed jaw $F \pm 0.02$

Total width G

Overall height H

Bed height $J h7$

Clamping slide K

Metal clamping flange L

Spindle centre point M

Hexagonal connection SW P

Q

X

Y

Z

Span C

Span R

Span S

Span T

Span U

Span V

Span W

Span x

Span y

Span z

Weight kg

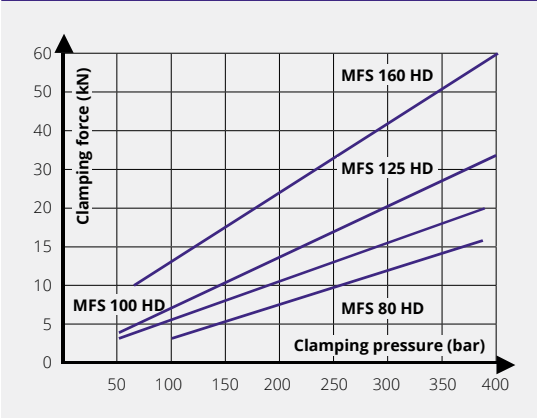
Clamping force kN

bar

Additional bed lengths (D) upon request

80		100				125				160
08333	08334	08431	08432	08433	08434	08531	08532	08533	08534	08631
08333	08334	08431	08432	08433	08434	08531	08532	08533	08534	08631
000100	000100	000100	000100	000100	000100	000100	000100	000100	000100	000100
32		44				50				54
420	460	450	500	550	600	560	620	680	740	750
504	544	535	585	635	685	645	705	765	825	797
60		60				70				90
84		104				127				161
100		122				128				144
68		78				78				90
63.5		80				100				126
12		14				16				16
51		58				54				64
12		14				14				14
115.5		137.5				146				167
300	300	300	300	400	400	300	400	500	500	500
280	280	280	280	-	-	280	-	480	480	480
150	150	150	150	200	200	150	200	250	250	250
0-116	0-136	0-113	0-138	0-163	0-188	0-143	0-173	0-203	0-233	0-204
69-185	69-205	84-195	84-220	84-245	84-270	102-243	102-273	102-303	102-333	125-329
37-153	37-173	52-163	52-188	52-213	52-238	64-205	64-235	64-265	64-295	85-289
388	428	416	466	516	566	518	578	638	698	698
175-332	215-372	249-360	274-410	299-460	324-510	309-450	339-510	369-570	399-630	220-628
136-293	197-333	177-288	202-338	277-388	252-438	217-358	247-418	277-478	307-538	294-498
211-328	232-368	316	366	416	466	418	478	538	598	394-598
155-272	176-312	149-260	174-310	199-360	224-410	209-350	239-410	269-470	299-530	324-528
116-233	137-273	77-188	102-238	127-288	152-338	117-258	147-318	177-378	207-438	194-398
0-43	0-53	0-39	0-51	0-64	0-76	0-51	0-66	0-81	0-96	-
20	21	31	32	33	34	48	51	53	55	83
15		20				30				60
380		380				380				400

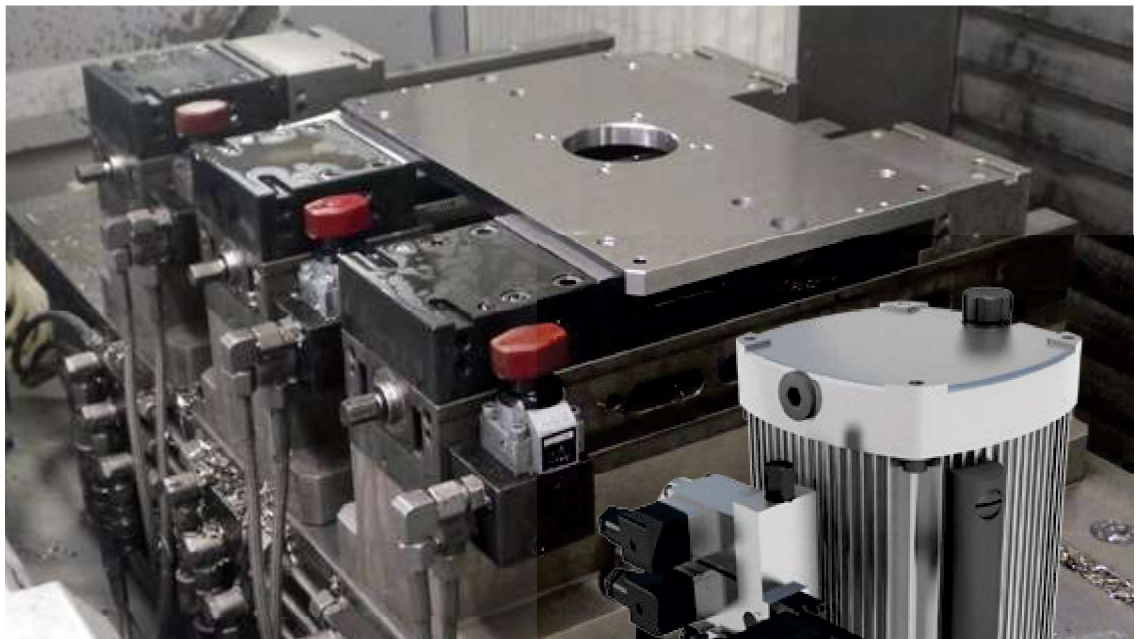
Clamping force diagram





MFS-HD

Ready to start:
Our customised hydraulic solutions
allow for immediate production:



Feel free to contact our
Technology Department specialists
for various options.

- ✦ The operation of the vice requires a hydraulic unit or a pressure booster delivering a pressure of up to 400 bar. The maximum operating pressure of the vice is 380 bar. The clamping force is adjusted via the hydraulic pressure. The return stroke is produced by a pressurised air cushion that can be filled through a valve. No permanent connection necessary, but possible (through check valve).
- ✦ Control and monitoring of the vices (operation on electric push button, foot switch, hand-way poppet valve or connection to the machine control unit via control box pp. 140-141).
- ✦ Design of the hydraulic unit with control cabinet according to their assigned tasks (unit in a simple, 1-pass or multi-circuit version)
- ✦ Clamping and release of one or several vices individually and / or jointly, etc.