Self-centering Vise
MPI 2-Jaws

MPI is a hydraulically or pneumatically actuated 2-jaw self-centering vise with high flexibility, accuracy and long life. The vises are available with standard stroke, or long stroke.

Advantages

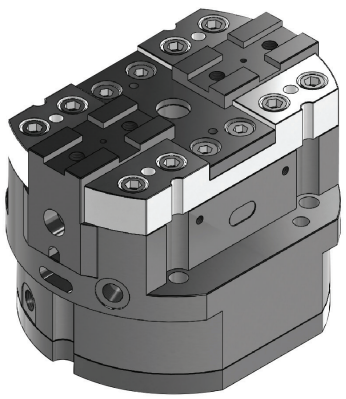
- Precise wedge-hook mechanism allows machining accuracy
- High force drive for secure clamping
- Extended clamping range with long jaw guidance
- Optimum jaw guides (hardened, sturdy, low-backlash) allow high clamping forces and a long service life
- Lean outer contour for optimal accessibility of the machine spindle to the workpiece
- Pneumatic drive: 5-30 bar
- Hydraulic drive: up to 30, up to 60 or up to 200 bar
- Optimized lubrication system for consistently high clamping forces
- Base jaws for tongues and grooves
- All functional parts are hardened and ground to ensure a high repeatability

SPECIFICATIONS

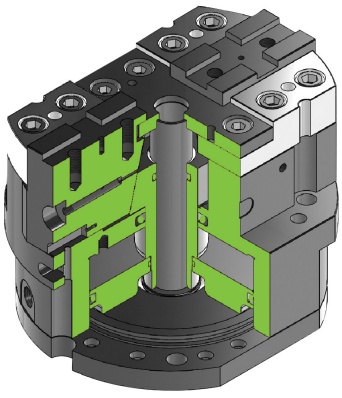
Model	Stroke per jaw	Closing force per jaw @ 30 bar	Total closing force @ 30 bar	Pressure*	Repeatability	Fluid consumption double stroke	Weight
MPI52 short stroke	3.1 mm	1232 N	2464 N	5-30 bar	±0.01 mm	10.1 cm³	0.58 Kg
	0.12 in	276.98 lb	553.96 lb	73-435 psi	±0.0004 in	0.62 in³	1.28 lb
MPI52 long stroke	5 mm	781 N	1562 N	5-30 bar	±0.01 mm	10.1 cm³	0.58 Kg
	0.39 in	175.58 lb	351.17 lb	73-435 psi	±0.0004 in	0.62 in³	1.28 lb
MPI85 short stroke	6.3 mm	3993 N	7986 N	5-30 bar	±0.01 mm	63.87 cm³	2 Kg
	0.25 in	897.71 lb	1795.41 lb	73-435 psi	±0.0004 in	3.90 in³	4.41 lb
MPI85 long stroke	10 mm	2530 N	5060 N	5-30 bar	±0.01 mm	63.87 cm³	2 Kg
	0.79 in	568.79 lb	1137.59 lb	73-435 psi	±0.0004 in	3.90 in³	4.41 lb
MPI110 short stroke	7 mm	7035 N	14069 N	5-30 bar	±0.01 mm	125.13 cm³	4.4 Kg
	0.28 in	1581.61 lb	3162.99 lb	73-435 psi	±0.0004 in	7.64 in³	9.70 lb
MPI110 long stroke	11.1 mm	4461 N	8921 N	5-30 bar	±0.01 mm	125.13 cm³	4.4 Kg
	0.87 in	1002.92 lb	2005.62 lb	73-435 psi	±0.0004 in	7.64 in³	9.70 lb
MPI140 short stroke	9 mm	10940 N	21879 N	5-30 bar	±0.01 mm	248.55 cm³	8.6 Kg
	0.35 in	2459.53 lb	4918.84 lb	73-435 psi	±0.0004 in	15.17 in³	18.96 lb
MPI140 long stroke	14.2 mm	6930 N	13860 N	5-30 bar	±0.01 mm	248.55 cm³	8.6 Kg
	1.12 in	1558.00 lb	3116.01 lb	73-435 psi	±0.0004 in	15.17 in³	18.96 lb
MPI170 short stroke	11.4 mm	17089 N	34177 N	5-30 bar	±0.01 mm	491.74 cm³	15.1 Kg
	0.45 in	3841.95 lb	7683.67 lb	73-435 psi	±0.0004 in	30.01 in³	33.29 lb
MPI170 long stroke	18 mm	10830 N	21659 N	5-30 bar	±0.01 mm	491.74 cm³	15.1 Kg
	1.42 in	2434.80 lb	4869.38 lb	73-435 psi	±0.0004 in	30.01 in³	33.29 lb

*Versions Available **30, 60 and 200 bar (435, 870 and 2900 psi)**
Ambient Temperature **5 - 60 °C (41 - 140 °F)**
Noise Emission (Sound Pressure) **≤ 70 dB(A) in any direction**

SECTIONAL DIAGRAM

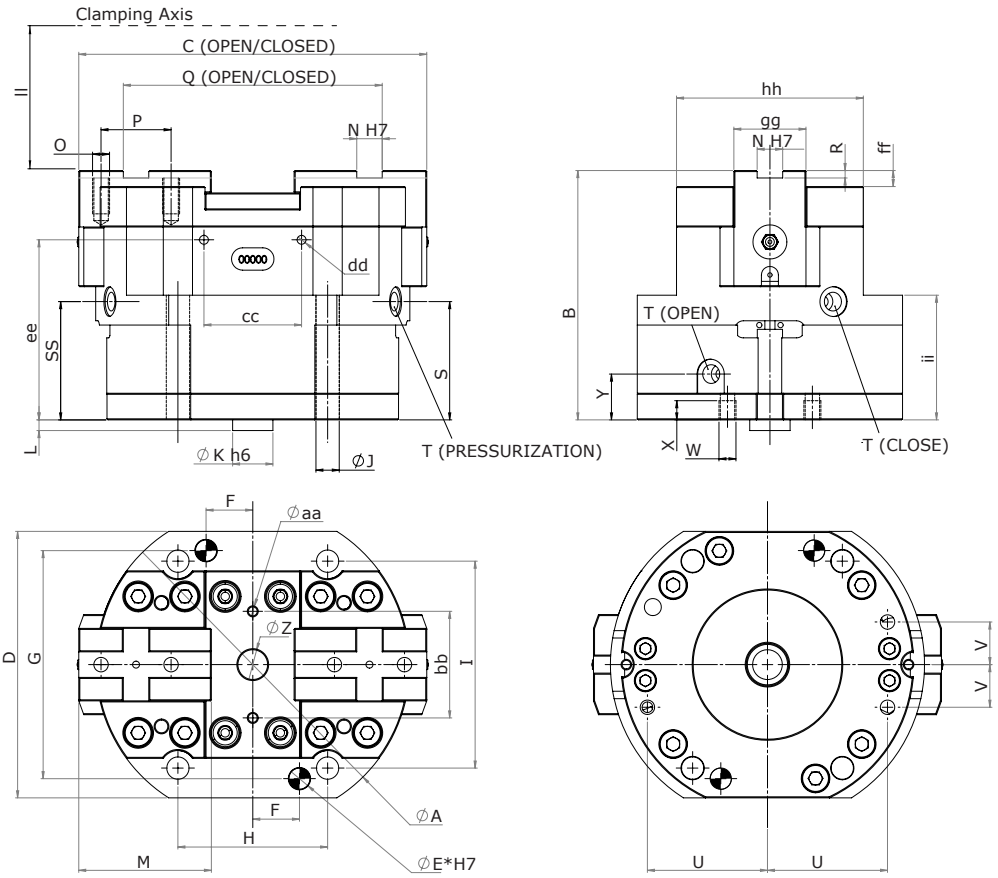


For a better operation of the vise
please consider the distance between the clamping point
and the top surface of the jaws.



PRODUCT INFORMATION

MPI 2-Jaws



* Finished holoes on request

	A	B	Short stroke C open	Short stroke C closed	Long stroke C open	Long stroke C closed	D	E	F	G	H	I	J	K	L	Short stroke M	Long stoke M	N	O	P	Short stroke Q open
MPI 52	55 (2.17)	50 (1.97)	61.4 (2.42)	55.2 (2.17)	65.2 (2.57)	55.2 (2.17)	49 (1.93)	4 (0.16)	-	41.5 (1.63)	26 (1.02)	35.5 (1.40)	4.5 (0.18)	8 (0.31)	4 (0.16)	25 (0.98)	26.7 (1.05)	5 (0.20)	M4	12 (0.47)	43.8 (1.72)
MPI 85	90 (3.54)	73 (2.87)	101.7 (4.00)	89.1 (3.51)	114.2 (4.50)	94.2 (3.71)	77 (3.03)	6 (0.24)	13 (0.51)	65 (2.56)	42.3 (1.67)	58.25 (2.29)	6.5 (0.26)	14 (0.55)	5.5 (0.22)	40 (1.57)	46 (1.81)	8 (0.31)	M6	20 (0.79)	75.1 (2.96)
MPI 110	118 (4.65)	91 (3.58)	131.6 (5.18)	117.6 (4.63)	139.7 (5.50)	117.5 (4.63)	100 (3.94)	8 (0.31)	18 (0.71)	86 (3.39)	55.84 (2.20)	76.86 (3.03)	9 (0.35)	16 (0.63)	5.5 (0.22)	49.5 (1.95)	53 (2.09)	10 (0.39)	M8	25 (0.98)	99.2 (3.91)
MPI 140	148 (5.83)	117 (4.61)	164 (6.46)	146 (5.75)	177 (6.97)	148.6 (5.85)	125 (4.92)	10 (0.39)	22 (0.87)	107 (4.21)	70.53 (2.78)	97.08 (3.82)	11 (0.43)	20 (0.79)	5 (0.20)	62.5 (2.46)	68 (2.68)	12 (0.47)	M8	33 (1.30)	122 (4.80)
MPI 170	180 (7.09)	138 (5.43)	201.6 (7.94)	178.8 (7.04)	217.3 (8.56)	181.3 (7.14)	150 (5.91)	10 (0.39)	34 (1.34)	126 (4.96)	99 (3.90)	107 (4.21)	11.5 (0.45)	25 (0.98)	4.5 (0.18)	77 (3.03)	85 (3.35)	16 (0.63)	M10	40 (1.57)	143 (5.63)

	Short stroke Q closed	Long stroke Q open	Long stroke Q closed	R	S	T	U	V	W	X	Y	Z	aa	bb	cc	dd	ee	ff	gg	hh	ii	ll max
MPI 52	37.6 (1.48)	50.6 (1.99)	40.6 (1.60)	2 (0.08)	25.2 (0.99)	M5	19.5 (0.77)	8.5 (0.33)	M3	5 (0.20)	10.5 (0.41)	-	-	-	-	-	-	3 (0.12)	12 (0.47)	32 (1.26)	29.5 (1.16)	25 (0.98)
MPI 85	62.5 (2.46)	87.2 (3.43)	67.2 (2.65)	3.5 (0.14)	35 (1.38)	M5	33.17 (1.31)	14 (0.55)	M5	5 (0.20)	13 (0.51)	6 (0.24)	M4	26 (1.02)	26 (1.02)	M4	53 (2.09)	4 (0.16)	20 (0.79)	53 (2.09)	38 (1.50)	35 (1.38)
MPI 110	85.2 (3.35)	107.3 (4.22)	85.1 (3.35)	3.5 (0.14)	44.5 (1.75)	1/8" Gas	44 (1.73)	16 (0.63)	M5	7 (0.28)	18 (0.71)	10 (0.39)	M5	36 (1.42)	36 (1.42)	M5	60.5 (2.38)	4.5 (0.18)	26 (1.02)	70 (2.76)	46.5 (1.83)	45 (1.78)
MPI 140	104 (4.09)	135 (5.31)	106.6 (4.20)	3.5 (0.14)	50.5 (1.99)	1/8" Gas	56.57 (2.23)	20 (0.79)	M8	9 (0.35)	21.5 (0.85)	-	M5	50 (1.97)	46 (1.81)	M5	84.5 (3.33)	7.5 (0.30)	34 (1.34)	88 (3.46)	58.5 (2.30)	60 (2.36)
MPI 170	120.2 (4.73)	158.7 (6.25)	122.7 (4.83)	4 (0.16)	66 (2.60)	1/8" Gas	68 (2.68)	24.5 (0.96)	M8	9 (0.35)	24 (0.94)	-	M5	60 (2.36)	65 (2.56)	M5	98 (3.86)	6 (0.24)	40 (1.57)	105 (4.13)	69 (2.72)	80 (3.15)

*** Dimensions are in millimeters (inches).**
**** All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification.**

Applied Robotics™
Solutions in reach
Applied Robotics
648 Saratoga Road
Glenville, NY 12302 USA
Tel. +1 518 384 1000 Fax +1.5183841200
info@appliedrobotics.com
www.appliedrobotics.com

EFFECTO GROUP S.p.A.
Via Roma, 141/143
28017 San Maurizio d'Opaglio (NO) - Italy
Tel. +39 0322 96142 Fax +39 0322 967453
info@effectogroup.com
www.effectogroup.com

02.2020_Rev.02_EU