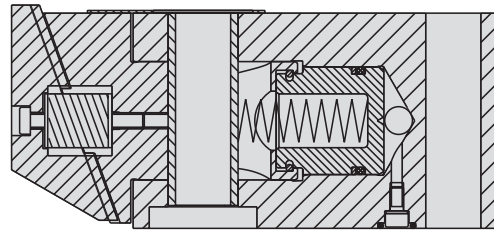


Special Use Clamps

Pull-Down Clamp Manifold Mounted Specifications and Dimensions



ILMV153109 REV E

Single Acting Pull-Down Clamp, Spring Return, Manifold Mounted

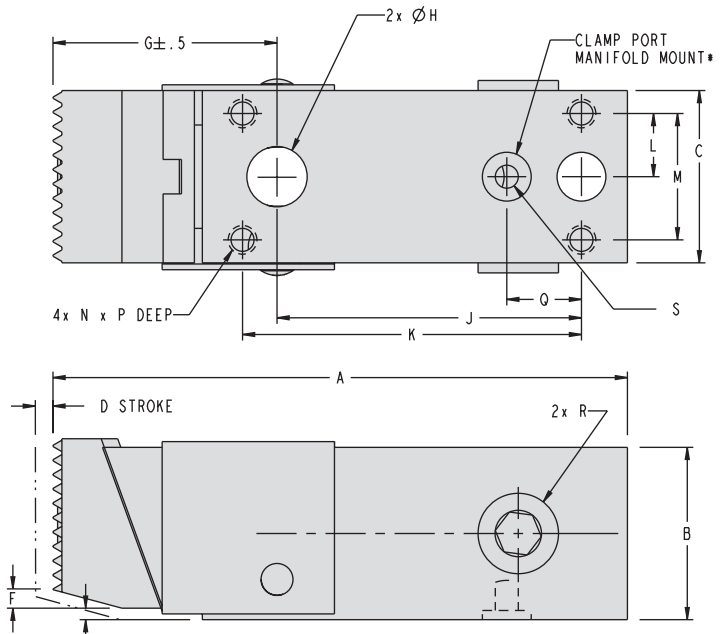
E-5

- Used whenever edge face clamping is desired.
- Generates straight clamping motion and force along with pull-down clamping force to hold and pull down parts.
- Pull-down force is approximately 1/3 of the respective clamping force.
- Standard version with serrated and hardened jaw, complete with mounting bolts (ISO). Optional jaws are available on page E-7.
- Manifold oil supply only.

Jaws and pistons are connected by a joint that avoids the introduction of a bending movement to the piston and extends clamp life.

Body of burnished tempered steel with case-hardened ground pistons for long life.

Fastened with two mounting bolts from above and four bolts from the bottom to insure maximum hold within operating limits.



NOTE!
VERTICAL TRAVEL SHOULD BE RESTRICTED
SO THAT STROKE "E" CANNOT BE EXCEEDED

* FOR MANIFOLD MOUNTING, REMOVE THE (S) SCREW AND SEALING WASHER AND INSTALL THE INCLUDED O-RING.

ILMV153104 REV E

Specifications

Model No.	Force at 400 bar (40 MPa) (kN)	Stroke D (mm)	Oil Volume (cm ³)	Mounting Bolt 2 pieces	Torque Maximum (Nm)	Spring Force Minimum (N)	Weight (g)
Single Acting (S/A) Cylinders, actuated hydraulically 1 direction, spring returned.							
41-5311-05	4.5	5	0.57	M8 x 45	21	60	670
41-5311-20	20	8	4	M12 x 80	72	160	2500
41-5311-32	32	10	8	M16 x 100	180	210	4700
41-5311-50	50	12	15	M20 x 120	350	340	8800

Dimensions

Model No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
Single Acting (S/A) Cylinders, actuated hydraulically 1 direction, spring returned.																	
41-5311-05	100	30	30	5	2	3	39	8.5	53	59	11	22	M5	6	13	G 1/8	M3
41-5311-20	135	50	50	8	3	14	58	12.5	67	74	18	36	M8	12	14	G 1/4	M5
41-5311-32	149.5	65	65	10	3	17	63.5	16.5	72	83	23.5	47	M10	16	17.5	G 1/4	M5
41-5311-50	180	80	80	12	3	19	71	20.5	93	104	30	60	M12	25	21	G 1/4	M5

All dimensions are in mm.

NOTE: Do not overstress mounting bolts.
Observe maximum permissible torque.

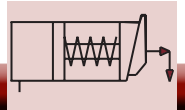
Maximum operating pressure 400 bar (40 MPa)

For proper sealing, the mating surface must be flat within 0.08 mm with a maximum surface roughness of 1.6 μm R_a.

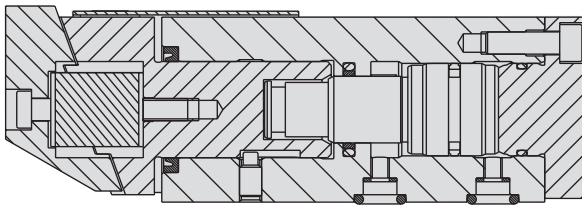
O-ring for Manifold Mounting Included

O-Ring Model No.	Description 90 Dur. HNBR	Clamp Model No.
39-0510-43	4.6 x 2	41-5311-05
39-0510-44	9 x 2.5	41-5311-20
		41-5311-32
		41-5311-50

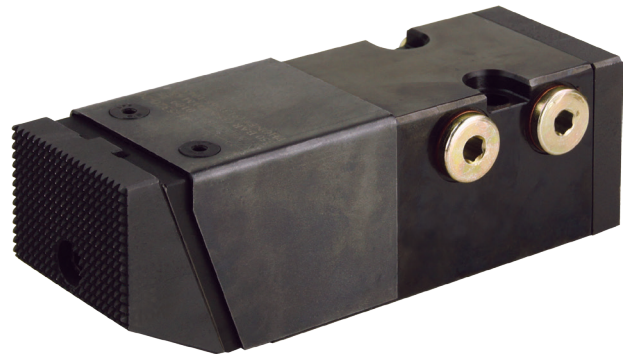
Special Use Clamps



Pull-Down Clamp Double Acting Specifications and Dimensions



ILMVI53110 REV D

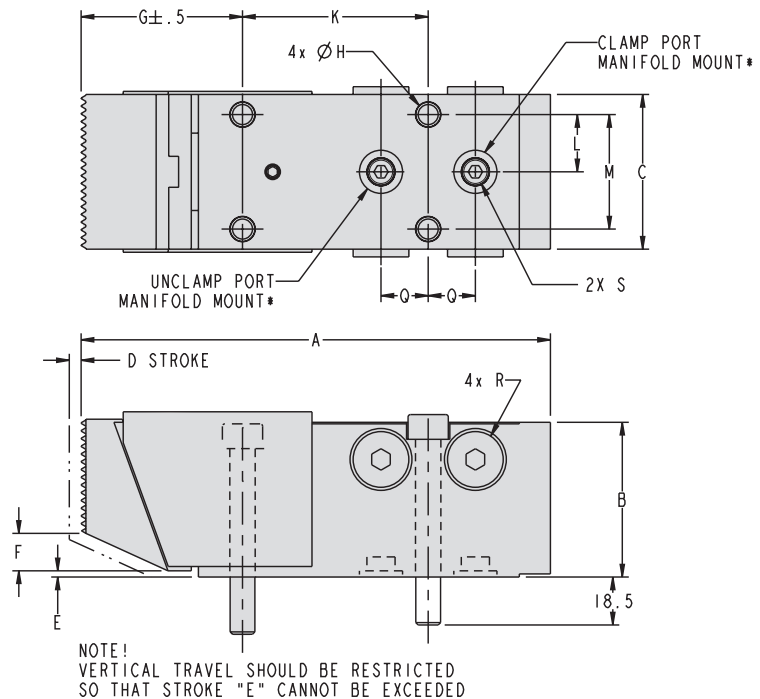


Double Acting Pull-Down Clamp

- Use whenever lateral clamping is desired.
- Body material is burnished tempered steel with case-hardened ground pistons.
- Generates straight and pull-down clamping force.
- Pull-down force is approximately 1/3 of the respective clamping force.
- The shipped version has serrated and hardened jaws, complete with mounting bolts. Other optional jaws are available on page E-7.
- To protect against contamination a wiper is installed at the clamping bolt.
- Complete with four (4) fastening screws.
- Oil supply through threaded ports or manifold.

Double acting design assures clamp release for automated or time critical operation.

Jaws and pistons are connected by a joint that avoids the introduction of a bending movement to the piston and extends clamp life.



NOTE!
VERTICAL TRAVEL SHOULD BE RESTRICTED
SO THAT STROKE "E" CANNOT BE EXCEEDED

ILMVI53107 REV D

E-6

Specifications

Model No.	Force at 400 bar (40 MPa) (kN)		Stroke D (mm)	Oil Volume (cm ³)		Mounting Bolt 4X	Max. Screw Torque (Nm)	Weight (g)
	Clamp	Unclamp		Clamp	Unclamp			
Double Acting (D/A) Cylinders, actuated hydraulically both directions.								
41-5320-20	20	9.6	10	4.9	2.5	M8 x 60	25	2900

Dimensions

Model No.	A	B	C	D	E	F	G	H	K	L	M	Q	R	S
Double Acting (D/A) Cylinders, actuated hydraulically both directions.														
41-5320-20	156	50	50	10	3	14	56.5	8.5	60	18.5	37	15.25	G 1/4	M5

All dimensions are in mm.

O-Ring for Manifold Mounting

O-Ring Model No.	Description
39-0510-44	9 x 2.5, 90 Dur, HNBR

NOTE: For manifold mounting, remove the M5 screw and sealing washer then insert the included O-ring.

For proper sealing, the mating surface must be flat within 0.08 mm with a maximum surface roughness of 1.6 μm R_a .

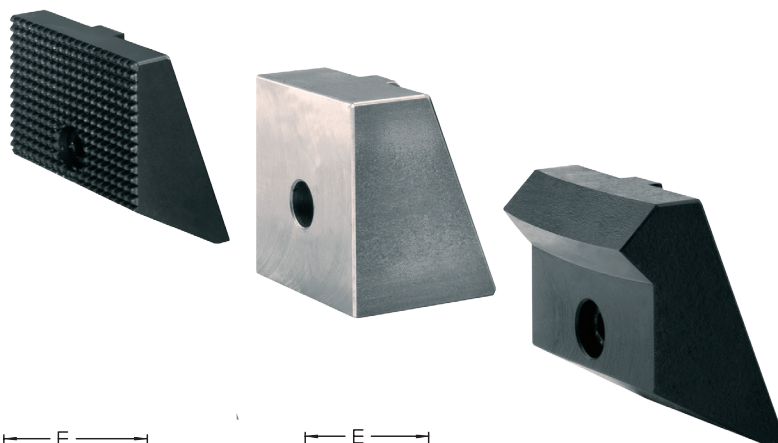


Special Use Clamps

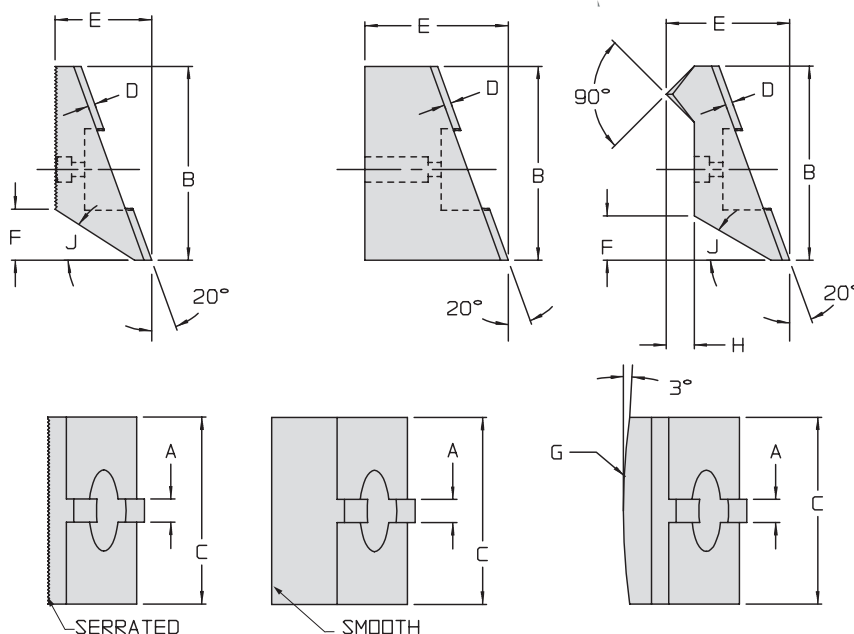
Pull-Down Clamp Jaws

Pull-Down Clamp Jaws

- Hardened and tempered steel (except smooth jaws).
- Serrated Jaws can be used for all workpieces with normal clamping force.
- Smooth Jaws are not hardened and treated and can be shaped into any clamping form or ground flush for sensitive workpieces.
- Clamping Jaws with clamping edge are well suited for workpieces with hard and very uneven surfaces.



Special jaws are available in the configurations illustrated on this page (nominal extra cost). These configurations fit most special applications nearly eliminating the need for high cost, specific application special orders.



ILMV153106 REV B

Dimensions										
Jaw Model No.	Clamp Models	A	B	C	D	E ± 0.5	F	G	H	J
Serrated Clamping Jaws										
41-5305-01	41-5311-05	6	29.5	30	2.5	22	3	-	-	15°
41-5320-01	41-5311-20 41-5320-20	10	50	50	3	31.5	14	-	-	30°
41-5332-01	41-5311-32	10	65	65	3	37	17.5	-	-	30°
41-5350-01	41-5311-50	10	80	80	3	39.5	19	-	-	30°
Smooth Clamping Jaws										
41-5305-02	41-5311-05	6	29.5	30	2.7	32	-	-	-	-
41-5320-02	41-5311-20 41-5320-20	10	50	50	3	41.5	-	-	-	-
41-5332-02	41-5311-32	10	65	65	3	52	-	-	-	-
41-5350-02	41-5311-50	10	80	80	3	59.5	-	-	-	-
Clamping Jaws with Clamping Edge										
41-5305-03	41-5311-05	6	29.5	30	2.7	27	4	300	5	15°
41-5320-03	41-5311-20 41-5320-20	10	50	50	3	39.5	14	200	8	30°
41-5332-03	41-5311-32	10	65	65	3	47	17	300	10	30°
41-5350-03	41-5311-50	10	80	80	3	51	19	300	12	30°

All dimensions are in mm.

