

Swing Clamps



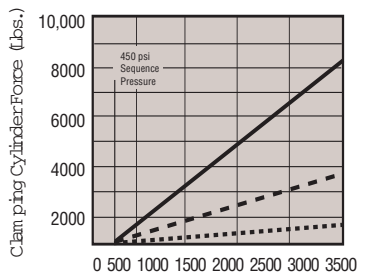
Single-screw mounting and the adjustable clamping screw make these clamps easy to reposition on the fixture to adapt to various workpiece sizes, and make set-up and adjustment faster than other methods. It also lets you clamp several workpiece sizes without changing the fixture each time. When mounted on a T-slot machine table, the need for fixtures is often eliminated.

Two separate actuators are used to perform the clamping function. First, a cylinder is used to swing the clamping arm 90° into position over the workpiece. Then a second cylinder is sequenced to pivot the clamping arm into contact with the workpiece and hold it in place.

Twelve clamps are available with maximum clamping forces of up to 8,295 lbs.: six with right hand and six with left hand swing. Minimum operating pressure is 500 psi, maximum is 3,500 psi.

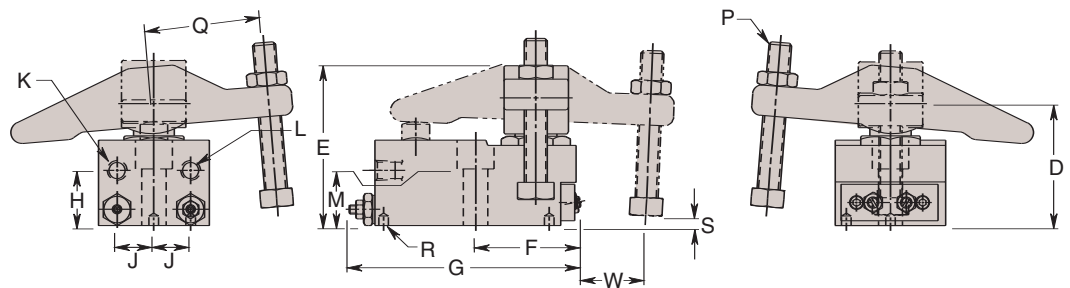
Features:

- Single or double-acting (see page 35)
- Single screw mounting
- Internal sequence valve
- Adjustable clamping screw
- T-slot mountable
- SAE and NPT ported versions



Performance
 Clamp capacity 1610
 - - - - - Clamp capacity 3780
 ——— Clamp capacity 8295

Left Hand Swing Shown



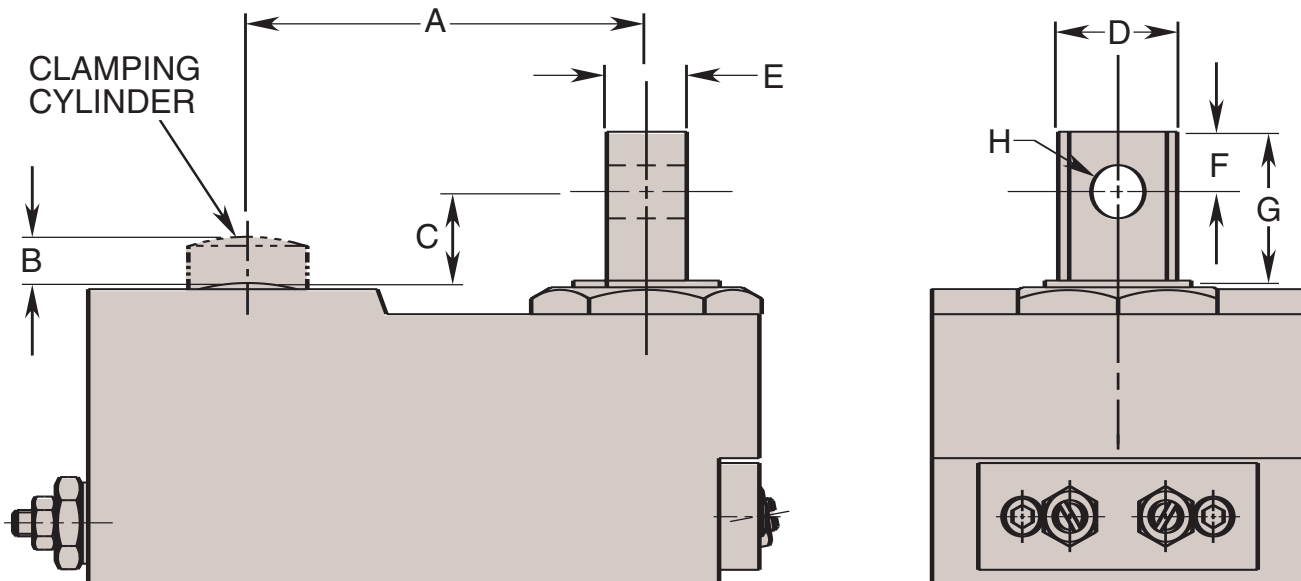
Cat. No.		Specifications							Dimensions (In Inches)								
Right Hand Swing	Left Hand Swing	*Max. Clamping Force	Oil Cap. (Cu. In.)		Min. Operating Pressure (PSI)	Max. Operating Pressure (PSI)	Max. Clamping Stroke (In.)	Max. Flow Rate (Cu. In./Min.)	Max. Swing Speed (Secs.)	A	B	C	D	E	F	G	H
			Advance	Return													
110101	110102	1610	.330				.310	45	.250	2.060	1.938	.938	2.782	3.833	2.875	5.938	1.250
110103	110104	3780	.770	.160	500	3,500	.487	15	.500	2.500	2.000	1.200	3.462	4.462	3.000	6.500	1.500
110105	110106	8295	1.520				.446	10	1.000	3.062	2.438	1.378	3.790	5.071	3.312	7.375	1.937

Cat. No.		Dimensions (In Inches)															
Right Hand Swing	Left Hand Swing	J	**K Retract Port	**L Advance Port	M	N Dia.	P Clamping Screw	Q	R		S Adjust. Range		T	U	V	W	
									Dia.	Depth	Min.	Max.					
110101	110102	.875	3/16-20 UNF SAE-4	3/16-20 UNF SAE-4	1.250	.531	1/2-13 UNC	2.250					1.500	1.219	2.750	1.375	.812
110103	110104	1.000	3/16-20 UNF SAE-4	3/16-20 UNF SAE-4	1.500	.656	3/8-11 UNC	3.125	.257	.250	.000		2.000	1.719	3.000	1.500	1.750
110105	110106	1.218	3/16-20 UNF SAE-4	3/16-20 UNF SAE-4	1.750	.781	3/8-9 UNC	3.250					2.375	2.219	3.500	1.750	1.875

NOTE: * At 3,500 psi maximum operating pressure.
 ** Advance and Retract Ports reversed on Right Hand Swing Clamps.

- Standard arm may be customized for use in specific applications.
- Standard clamping arm is 1045 steel heat treated to 38 Rc max.
- Modified/custom-designed clamping arms must be spring biased or counterweighted so that the arm pivots away from the workpiece.
- Arms must be stopped such that they do not pivot below the retracted height of the clamping cylinder.

Note: Modified arms may not have the same workpiece clamping force as standard clamps. Clamping force may be calculated by using the dimensions and cylinder force data below. Any clamp using a modified or custom arm that is longer or heavier than the standard arm, must have its flow restricted to prevent internal damage.



Cat. No.		Specifications	Dimensions (In Inches)							
Right Hand Swing	Left Hand Swing		A	B	C	D Dia.	E	F	G	H Dia.
110101	110102	*Clamping Cylinder Effective Area (Sq. In.) .44	2.794	.375	1.344	.864	.495	.488	1.133	.441
110103	110104	1.23	3.250	.500	1.063	1.114	.742	.562	1.472	.566
110105	110106	2.41	3.750	.545	.930	1.364	.866	.610	1.580	.629

NOTE: * Sequence Pressure 450 psi must be subtracted from System Operating Pressure when calculating Clamping Cylinder Force. [System Operating Pressure (PSI) - 450 psi] X Effective Area (Sq. In.) = Clamping Cylinder Force (Lbs.).