

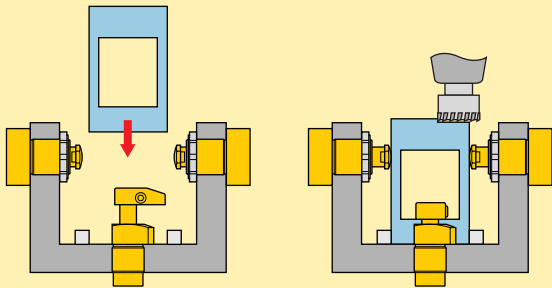
Swing cylinders *Application & selection*

Shown: SCRD-122, SULD-22, MPFL-50

Swing cylinders
Work supports



► Enerpac swing cylinders allow unobstructed part fixturing and placement. The plunger rod and the attached clamp arm, rotate 90 degrees in either a clockwise or counter clockwise direction, then travel down an additional distance to clamp against the fixtured part. Upon release of clamping pressure, the clamp arm rotates back 90 degrees in the opposite direction to allow for part removal and new part placement.



■ *Swing cylinders used in conjunction with work supports and other Enerpac components to positively hold the workpieces during machining operations.*



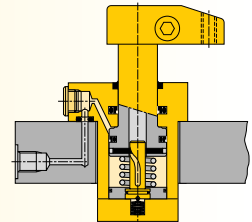
Compact and full featured design

- Compact design allows for efficient fixture layout
- Variety of mounting styles to meet design needs
- Double and single-acting cylinders to suit a variety of hydraulic requirements
- Choice of porting styles to meet system and design requirements
- All cylinders are available as left and right turning models
- Large ball and cam design on 22, 52 and 121 models, allows swing rotation to be changed easily
- Kick-out mechanism on 92, 202, and 352 models prevents damage to cylinder from high flow rates or misapplication

i Select your swing cylinder type:

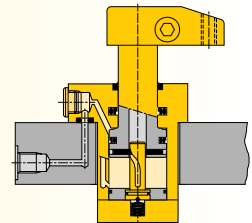
Single-acting

- The obvious choice when there are few system restrictions, and there are not many units retracting simultaneously
- Fewer valving requirements which results in a less complex circuit
- Innovative clamp arm design allows quick and secure arm positioning



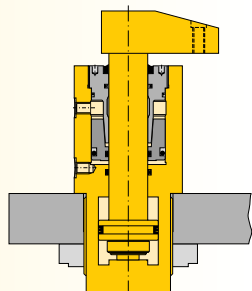
Double-acting

- Used when greater control is required during the unclamp cycle
- When timing sequences are critical: less sensitive to system back pressures, resulting from long tube lengths or numerous components being retracted at the same time
- Innovative clamp arm design allows quick and secure arm positioning



Collet-Lok® Positive locking

- Enerpac Collet-Lok® positive locking cylinders are designed to mechanically hold the workpiece while hydraulic pressure is removed. After machining, hydraulic pressure is applied to unclamp the workpiece
- Used when live hydraulics are not available during the clamp cycle or when parts must be held for long periods of time
- This design is an industry exclusive



For Collet-Lok® Positive locking swing cylinders, see □22 ▶

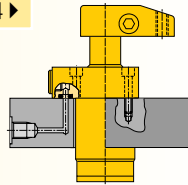


Select your mounting method:

SU series, Upper flange mounting

- Flexible design allows for manifold or threaded oil port connection
- Fixture hole does not require tight tolerances
- Easy installation with only 3 or 4 mounting bolts

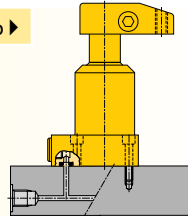
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SL series, Lower flange mounting

- Flexible design allows for manifold or threaded port connection
- No fixture hole required
- Easy installation with only 3 or 4 mounting bolts

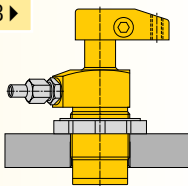
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ST series, Threaded body mounting

- Body thread for precise cylinder height positioning
- Threaded oil port connection
- Can be threaded directly into the fixture and secured in position by means of standard flange nuts

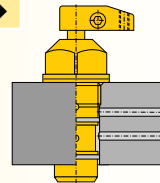
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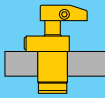

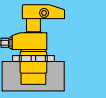
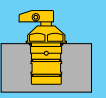
SC series, Cartridge mounting

- Minimal space required on fixture
- External plumbing not required
- Allows close positioning of adjoining units
- Cylinder can be completely recessed in fixture

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Product selection

Clamping force ¹⁾	Stroke		Upper flange	Lower flange	Threaded body	Cartridge
	mm	mm				
kN	clamping	total				
▼ Single-acting						
			Model number ²⁾			
2,1	8,1	16,5	SURS-22	SLRS-22	STRS-22	SCRS-22
4,9	9,9	22,6	SURS-52	SLRS-52	STRS-52	SCRS-52
8,0	11,9	22,1	SURS-92	SLRS-92	STRS-92	-
10,7	12,7	28,4	SURS-121	SLRS-121	STRS-121	SCRS-122
17,4	14,0	27,9	SURS-202	SLRS-202	STRS-202	-
33,1	16,0	30,0	SURS-352	SLRS-352	STRS-352	-
▼ Double-acting						
			Model number ²⁾			
2,2	8,1	16,5	SURD-22	SLRD-22	STRD-22	SCRD-22
5,6	9,9	22,6	SURD-52	SLRD-52	STRD-52	SCRD-52
9,0	11,9	22,1	SURD-92	SLRD-92	STRD-92	-
9,0	32,0	41,9	SURDL-92	-	-	-
11,6	12,7	28,4	SURD-121	SLRD-121	STRD-121	SCRD-122
11,6	31,8	47,5	SURDL-121	-	-	-
18,7	14,0	27,9	SURD-202	SLRD-202	STRD-202	-
33,8	16,0	30,0	SURD-352	SLRD-352	STRD-352	-
33,8	31,8	46,5	SURDL-352	-	-	-
▼ Collet-Lok® Positive locking						
			Model number ²⁾			
4,4	8,1	23,9	-	MPFR-50	-	-
8,9	11,9	27,9	-	MPFR-100	MPTR-100	-
37,8	9,9	41,9	-	MPFR-300	MPTR-300	-

¹⁾ With standard clamp arm. Clamp arms are sold separately (10, 24). Clamping forces for single-acting models are reduced in order to overcome return spring force.

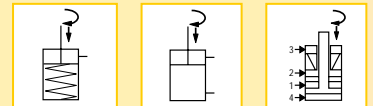
²⁾ For left turning swing cylinders replace the R in the model number for an L.

Force: 2,1 - 37,8 kN

Stroke: 16,5 - 47,5 mm

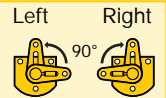
Pressure: 35 - 350 bar

- E** Cilindros giratorios
- F** Vérins de bridage pivotants
- D** Schwenkspannzylinder



Options

Available as both left and right turning



Clamp arms

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Work supports

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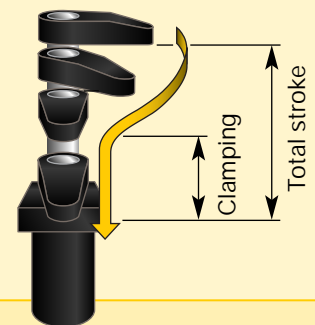
Sequence Valves

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Important

Actual clamping may only take place when the cylinder has completed it's 90° swing.



Other swing angles available upon request. Contact Enerpac for info.