Swing cylinders - Lower flange models

Shown: SLRD-52, SLRS-202

98-039

No fixture hole required

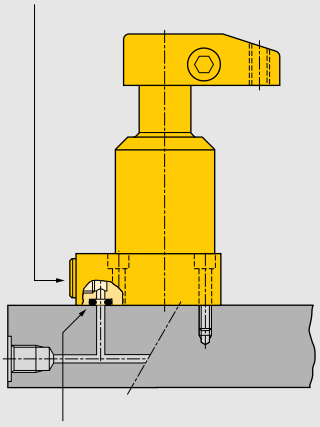
...cylinder can be bolted directly to fixture

- Flexible design allows for manifold or threaded port connection
- No fixture hole preparation required
- Easiest mounting preparation in the swing cylinder line
- Symmetrical rectangular flange design enables clamping at three sides of the cylinder
- Allows extra large parts to be clamped

SL series

Enerpac lower flange series swing cylinders can be bolted to the fixture, allowing easy installation of the unit and does not require machined fixture holes. Hydraulic connections are made through SAE or BSPP oil connection or the standard integrated O-ring ports.

BSPP oil connection



Integrated O-ring port

Lower flange swing cylinders mounted to the face of the fixture.

98-002

Product selection

Clamping force [1] kN	Stroke mm Clamp.	Stroke mm Total	Left turning 90°	Right turning 90°	Cylinder effective area cm² Clamp	Cylinder effective area cm² Un-clamp	Oil capacity cm³ Clamp	Oil capacity cm³ Un-clamp	Max. oil flow[1] l/min	Standard clamp arm Sold separately 24
▼ **Single-acting**			**Model number** [2]							
2,1	8	16,5	**SLLS-22**	**SLRS-22**	0,77	–	1,31	–	0,2	**CAS-22**
4,9	10	22,6	**SLLS-52**	**SLRS-52**	1,81	–	4,10	–	0,4	**CAS-52**
8,0	12	22,1	**SLLS-92**	**SLRS-92**	3,16	–	6,88	–	1,0	**CAS-92**
10,7	13	28,4	**SLLS-121**	**SLRS-121**	4,06	–	11,47	–	1,6	**CAS-121**
17,4	14	27,9	**SLLS-202**	**SLRS-202**	7,10	–	19,99	–	2,3	**CAS-202**
33,1	16	30,0	**SLLS-352**	**SLRS-352**	12,39	–	37,20	–	3,9	**CAS-352**
▼ **Double-acting**			**Model number** [2]							
2,2	8	16,5	**SLLD-22**	**SLRD-22**	0,77	1,55	1,31	2,62	0,2	**CAS-22**
5,6	10	22,6	**SLLD-52**	**SLRD-52**	1,81	3,81	4,10	8,69	0,4	**CAS-52**
9,0	12	22,1	**SLLD-92**	**SLRD-92**	3,26	8,06	6,88	17,70	1,0	**CAS-92**
11,6	13	28,4	**SLLD-121**	**SLRD-121**	4,06	7,94	11,47	22,94	1,6	**CAS-121**
18,7	14	27,9	**SLLD-202**	**SLRD-202**	7,10	15,26	19,99	42,61	2,3	**CAS-202**
33,8	16	30,0	**SLLD-352**	**SLRD-352**	12,39	23,74	37,20	71,38	3,9	**CAS-352**

[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 models with straight plunger movement, replace L or R with S.

Note: Call Enerpac to order models with SAE port connections.

Dimensions in mm [⊳⊕]

Left turning models	A	C	D ø	D1	D2	F ø	H	K	M	N	P
▼ **Single-acting**											
SLLS-22	112	96,5	27,9	47,2	45	10	14	16	–	15,5	24
SLLS-52	134,9	115,6	34,8	54,1	57	16	14	19	–	19,1	40
SLLS-92	151	126,1	47,8	70,1	54	25	12	25	15,5	26,9	45
SLLS-121	171	141,4	47,8	66,8	73	22	16	30	–	25,4	51
SLLS-202	173	142,9	63,8	85,1	70	32	12	30	23,6	35,1	55
SLLS-352	195	151,0	80,0	100,1	89	38	12	40	27,9	44,5	68
▼ **Double-acting**											
SLLD-22	112	96,5	27,9	47,2	45	10	14	16	–	15,5	24
SLLD-52	134,9	115,6	34,8	54,1	57	16	14	19	–	19,1	40
SLLD-92	151	126,1	47,8	70,1	54	25	12	25	–	26,9	45
SLLD-121	171	126,0	47,8	66,8	73	22	16	30	–	25,4	51
SLLD-202	173	142,9	63,8	85,1	70	32	12	30	–	35,1	55
SLLD-352	195	151,0	80,0	100,1	89	38	12	40	–	44,5	68

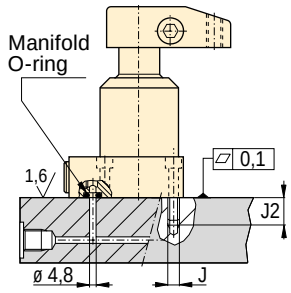
Note: Dimensions shown with standard clamp arm.

Installation dimensions in mm

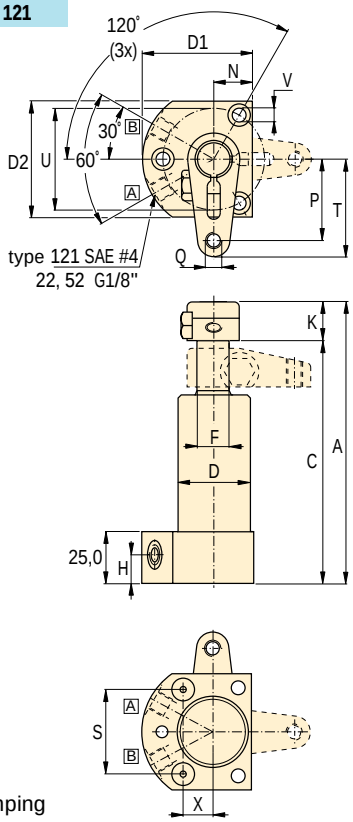
Clamping force [1] kN	Mounting thread J	Minimum thread depth J2	Manifold O-ring [2] ARP nr. or Inside Ø x thickness
2,2	M5	16,5	568-010
5,6	M6	16,5	568-011
9,0	M6	15,0	4,32 x 3,53
11,6	.312-24 UNF	20,3	568-011
18,7	M8	17,0	4,32 x 3,53
33,8	M10	18,8	4,32 x 3,53

[1] With standard clamp arm.
[2] Polyurethane, 92 Durometer

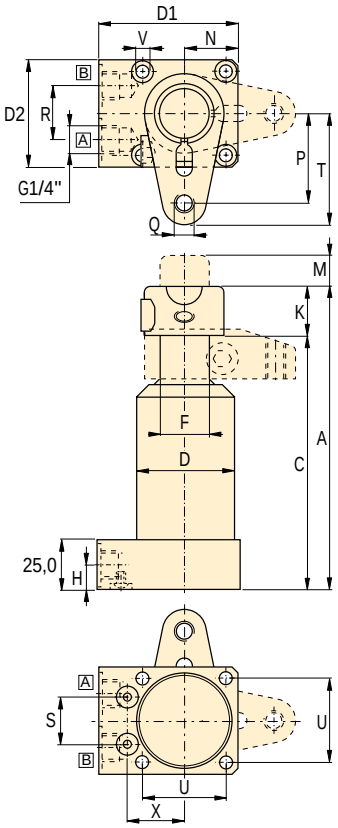
Note: Mounting bolts and O-rings included.



-22, 52, 121



-92, 202, 352



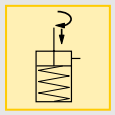
A = Clamping
B = Unclamping (venting)

	Q	R	S	T	U	V ø	X	kg	Right turning models
									Single-acting ▼
	M6x1	–	21,0	31	40	5,6	18,1	0,5	SLRS-22
	M8x1,25	–	41,0	48	50	6,9	14,3	1,1	SLRS-52
	M10x1,5	26	23,6	56	42	6,9	28,7	2,0	SLRS-92
	.375-16UN	–	52,4	62	64	8,9	18,4	1,6	SLRS-121
	M12x1,75	26	29,0	70	55	8,4	35,1	3,5	SLRS-202
	M16x2	25	34,4	83	70	10,7	41,6	5,5	SLRS-352
									Double-acting ▼
	M8x1,25	–	21,0	31	40	5,6	18,1	0,5	SLRD-22
	.312-18UN	–	41,0	48	50	6,9	14,3	1,1	SLRD-52
	M10x1,5	–	23,6	56	42	6,9	28,7	2,0	SLRD-92
	.375-16UN	–	52,4	62	64	8,9	18,4	1,6	SLRD-121
	M12x1,75	26	29,0	70	55	8,4	35,1	3,5	SLRD-202
	M16x2	25	34,4	83	70	10,7	41,6	5,5	SLRD-352

Note: U = Bolt circle, U1 = Manifold port circle.

Force: 2,1 - 33,8 kN
Stroke: 16,5 - 30,0 mm
Pressure: 34 - 350 bar

(E) Cilindros giratorios
(F) Vérins de bridage pivotants
(D) Schwenkspannzylinder



Options

Clamp arms 24

Work supports 28

Collet-Lok® swing cylinders 22

Sequence Valves 92

Important

Single-acting cylinders can be vented through the manifold port.

The lower flange swing cylinder has a bolt pattern which is identical to its upper flange equivalent, enabling interchangeability.

In case there is a risk of machining coolants and debris being inhaled via the breather vent, it is recommended to pipe this port to an area outside the fixture that is protected from machining coolants and debris.

Do not exceed maximum flow rates.