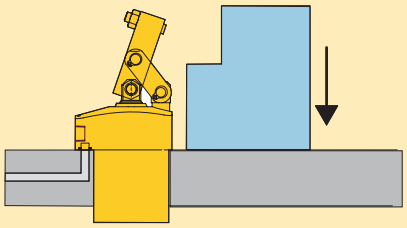
Link clamp *Application & selection*

Shown: LUCS-31

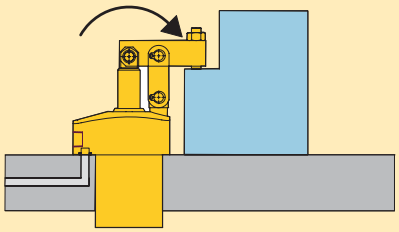
1207300018

Link clamp allows unobstructed part loading and high clamping forces. The hydraulic cylinders extend to provide clamping force, and retract to allow part removal.

Arm completely retracts to allow part loading.

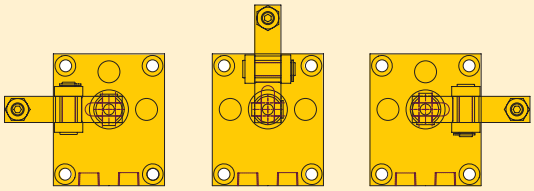


As cylinder extends, arm rotates to clamp part in place.



Arm location is changed easily without the use of tools.

Left Center Right



Quick and accurate clamping action

- Hydraulic cylinder pushes linkage, rotating clamp arm into position
- Design ensures repeatable clamping location
- Linkage can be re-positioned to clamp at 90, 180, or 270 degrees from ports
- Clamps can be mounted using supplied bolts or held in place with flange nut
- Standard arm or long arm ordered separately

Product selection

Clamping force[1)] lbs	Stroke in	Model number	Cylinder effective area in²	Oil capacity in³	Standard clamp arm (Sold separately)	Long clamp arm (Sold separately)
▼ **Single acting**						
675	0.73	**LUCS-31**	0.19	0.14	**LCAS-32**	**LCAL-32**
1750	0.93	**LUCS-81**	0.48	0.44	**LCAS-82**	**LCAL-82**
2650	1.20	**LUCS-121**	0.64	0.77	**LCAS-122**	**LCAL-122**
4200	1.40	**LUCS-191**	0.99	1.38	**LCAS-192**	**LCAL-192**
6100	1.85	**LUCS-281***	1.49	2.76	**LCAS-282**	**LCAL-282**
▼ **Double acting**						
700	0.73	**LUCD-31**	0.19	0.14	**LCAS-32**	**LCAL-32**
1800	0.93	**LUCD-81**	0.48	0.44	**LCAS-82**	**LCAL-82**
2700	1.20	**LUCD-121**	0.64	0.77	**LCAS-122**	**LCAL-122**
4300	1.40	**LUCD-191**	0.99	1.38	**LCAS-192**	**LCAL-192**
6300	1.85	**LUCD-281***	1.49	2.76	**LCAS-282**	**LCAL-282**

44 ▶

Contact Enerpac for models with metric threads and BSPP ports.

* This product is made to order. Please contact Enerpac for delivery information before specifying in your design.

Dimensions in inches [⊟◎]

Model number	Port Size	C1	C2	C3	D	D1	D2	E
▼ **Single acting**								
LUCS-31	SAE#2	1.10	1.44	2.17	1.875-16UN	2.44	2.20	28.0°
LUCS-81	SAE#2	1.18	1.56	2.48	2.50-16UN	3.23	2.76	25.4°
LUCS-121	SAE#4	1.46	1.95	3.15	3.125-16 UN	4.02	3.46	27.1°
LUCS-191	SAE#4	1.57	2.30	3.70	3.50-16 UN	4.69	4.02	27.1°
LUCS-281*	SAE#4	1.97	2.60	4.45	4.125-16 UN	5.31	4.72	27.1°
▼ **Double acting**								
LUCD-31	SAE#2	1.10	1.44	2.17	1.875-16 UN	2.44	2.20	28.0°
LUCD-81	SAE#2	1.18	1.56	2.48	2.50-16 UN	3.23	2.76	25.4°
LUCD-121	SAE#4	1.46	1.95	3.15	3.125-16 UN	4.02	3.46	27.1°
LUCD-191	SAE#4	1.57	2.30	3.70	3.50-16 UN	4.69	4.02	27.1°
LUCD-281*	SAE#4	1.97	2.60	4.45	4.125-16 UN	5.31	4.72	27.1°

Contact Enerpac for models with metric threads and BSPP ports.

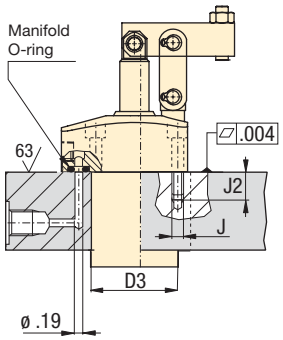
* This product is made to order. Please contact Enerpac for delivery information before specifying in your design.

Installation dimensions in inches

Pull [1] force lbs	Fixture hole Ø D3	Mounting thread J UNF	Min. depth J2	Manifold O-ring [2] ARP No. or Inside Ø x thickness
700	1.885	.250-28	0.65	-010
1800	2.510	.312-24	0.75	-010
2700	3.135	.312-24	0.75	-010
4300	3.515	.375-24	0.88	-010
6300	4.140	.500-20	0.94	-010

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

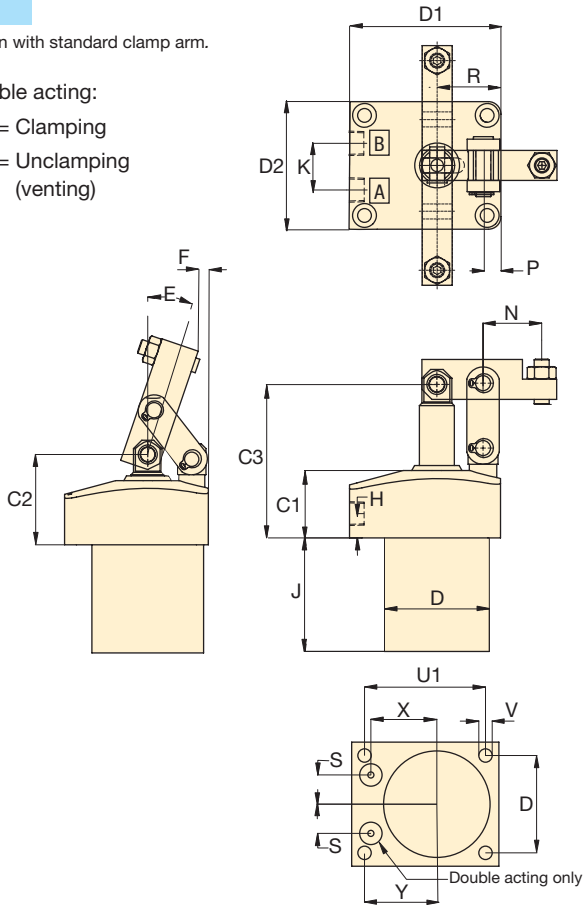
Note: Mounting bolts and O-rings included.



all models

Dimensions shown with standard clamp arm.

Double acting:
A = Clamping
B = Unclamping (venting)



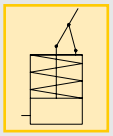
F	H	J	K	N	P	R	S	U1	U2	V	X	Y	lbs
													Single acting ▼
0.04	0.41	1.85	-	0.93	0.33	1.10	0.412	2.05	1.81	0.28	1.130	1.14	2.7
0.01	0.43	2.56	-	1.26	0.35	1.38	0.552	2.68	2.20	0.32	1.517	1.57	5.5
0.03	0.47	2.80	-	1.48	0.47	1.73	0.633	3.46	2.91	0.32	1.739	2.01	10.0
0.09	0.59	3.46	-	1.63	0.59	2.01	0.714	3.98	3.23	0.41	1.961	2.32	15.2
0.11	0.79	3.90	-	2.01	0.63	2.36	0.821	4.53	3.94	0.51	2.257	2.52	25.9
													Double acting ▼
0.04	0.41	1.85	0.79	0.93	0.30	1.10	0.857	2.05	1.81	0.28	0.799	1.14	2.7
0.01	0.43	2.56	0.94	1.26	0.41	1.38	1.000	2.68	2.20	0.32	1.191	1.57	5.5
0.03	0.47	2.80	1.18	1.48	0.55	1.73	1.039	3.46	2.91	0.32	1.484	2.01	10.0
0.09	0.59	3.46	1.30	1.63	0.57	2.01	1.112	3.98	3.23	0.41	1.926	2.32	15.2
0.11	0.79	3.90	1.50	2.01	0.61	2.36	1.181	4.53	3.94	0.51	2.046	2.52	25.9

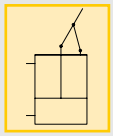
Clamp force: 700-6300 lbs

Stroke: 0.73-1.85 inch

Pressure: 500-5000 psi

E Cilindros Amarre de enlace
F Bride basculante
D Gelenkspanner





Options

Clamp arms ▷ 44

Work supports ▷ 30

Important

Single-acting cylinders use a regenerative circuit; oil is sent to both sides of the piston at the same time. This eliminates the breather port, reducing damage from coolant and contamination.

Clamp arm should be parallel to cylinder mounting surface within 3° to avoid damage to cylinder and linkage. Use the included set screw to adjust clamp arm alignment.

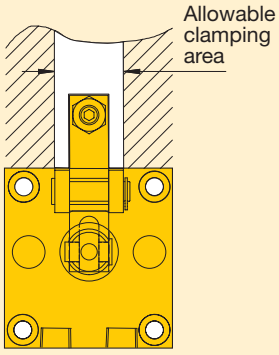
Shown: LCAS-31

1207300029

Standard arms are readily available from Enerpac to meet most applications. In applications that require a custom designed arm, the machining information is supplied on page 45.

Important

Clamp point must be within the boundaries of the anchor links on the clamp. Clamping outside of this area will cause damage to the linkage, leading to premature failure.

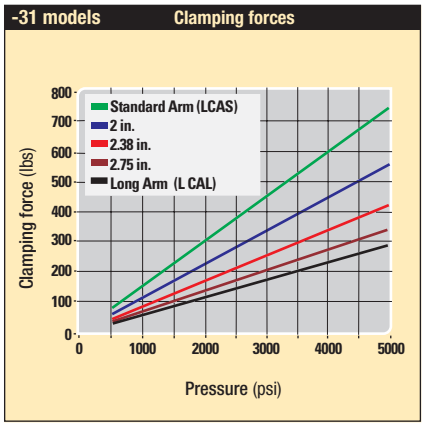


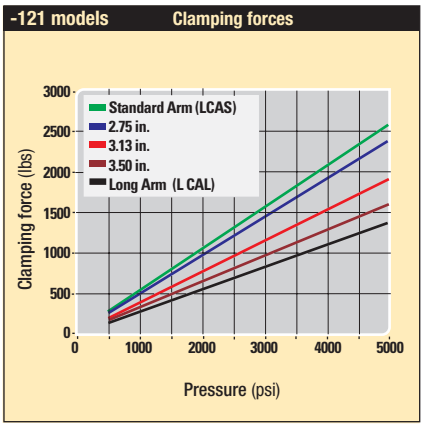
Standard or custom built

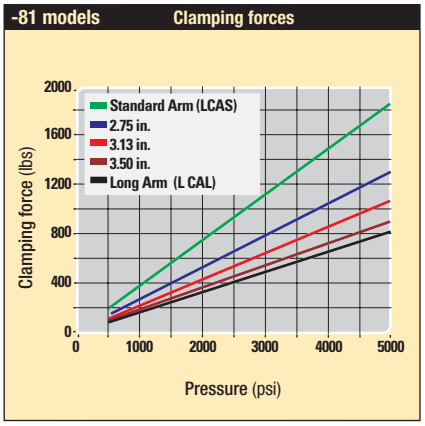
- Available from Enerpac in standard or extended length
- Standard arm includes set screw and lock nut
- Long arm can be machined on-site to match your needs
- Make your own custom arm to suit specific applications

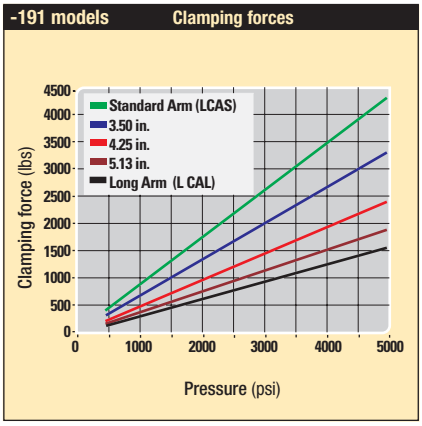
Pressure vs clamping force

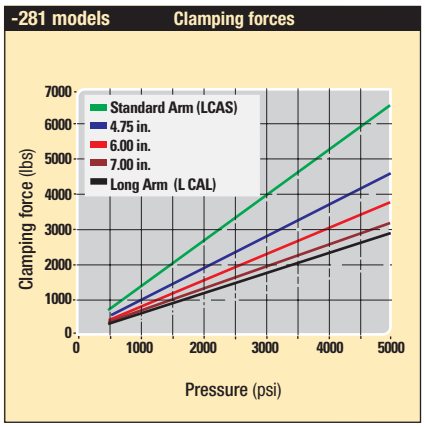
Different length clamp arms will determine the amount of clamping force transferred to the workpiece. As the length increases, the clamping force decreases.



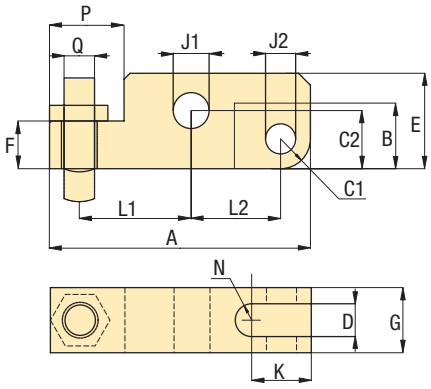








LCAS models **Standard Arm**

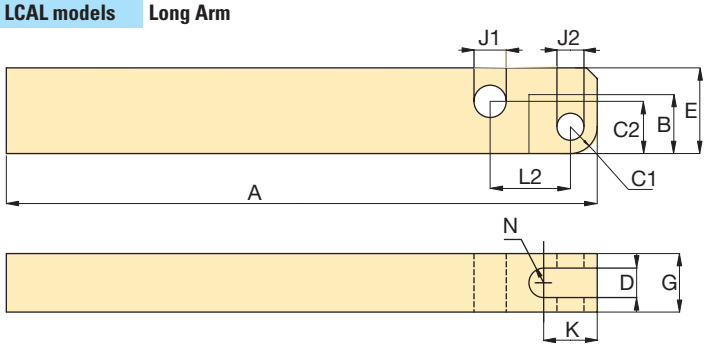


Dimensions in inches [⊕]

Clamp capacity lbs	Model number	A	B	C1	C2	D	E	F	G
▼ Standard clamp arms									
700	LCAS-32	2.13	0.51	0.24	0.37	0.24	0.63	0.31	0.47
1800	LCAS-82	2.93	0.69	0.31	0.61	0.39	0.98	0.51	0.74
2700	LCAS-122	3.44	0.87	0.39	0.77	0.43	1.26	0.63	0.86
4300	LCAS-192	4.04	1.02	0.43	0.94	0.51	1.50	0.87	0.98
6300	LCAS-282	4.92	1.20	0.51	1.14	0.63	1.77	1.06	1.25

Clamp. capacity lbs	Model number	J1	J2	K	L1	L2	N	P	Q
▼ Standard clamp arms									
700	LCAS-32	0.237-0.239	0.237-0.239	0.51	0.93	0.73	0.12	0.51	M6 x 1,0
1800	LCAS-82	0.396-0.398	0.317-0.319	0.63	1.26	0.96	0.20	0.87	M10 x 1,5
2700	LCAS-122	0.474-0.476	0.396-0.398	0.79	1.48	1.18	0.22	0.98	M12 x 1,75
4300	LCAS-192	0.593-0.595	0.474-0.476	0.94	1.63	1.42	0.26	1.22	M16 x 2,0
6300	LCAS-282	0.711-0.713	0.593-0.595	1.10	2.01	1.73	0.31	1.50	M20 x 2,5

LCAL models **Long Arm**



NOTE: Custom arms should be manufactured using this print. Make sure to follow all precautions listed.

Dimensions in inches [⊕]

Clamp. capacity lbs	Model number	A	B	C1	C2	D	E	G	J1	J2	K	L2	N
▼ Long clamp arms													
800	LCAL-32	3.35	0.51	0.24	0.37	0.24	0.63	0.47	0.237-0.239	0.237-0.239	0.51	0.73	0.12
1800	LCAL-82	4.13	0.69	0.31	0.61	0.39	0.98	0.74	0.396-0.398	0.317-0.319	0.63	0.96	0.20
2700	LCAL-122	4.33	0.87	0.39	0.77	0.43	1.26	0.86	0.474-0.476	0.396-0.398	0.79	1.18	0.22
4300	LCAL-192	6.30	1.02	0.43	0.94	0.51	1.50	0.98	0.593-0.595	0.474-0.476	0.94	1.42	0.26
6300	LCAL-282	8.66	1.20	0.51	1.14	0.63	1.77	1.25	0.711-0.713	0.593-0.595	1.10	1.73	0.31

Force: 700-6300 lbs

Pressure: 500-5000 psi

- (E) Brazos de amarre
- (F) Bras de bridage
- (D) Spannarme

Options

Work supports 30

Accessories 76

Important

Clamp arm should be parallel to cylinder mounting surface within 3° to avoid damage to cylinder and linkage. Use the included set screw to adjust clamp arm alignment.