

▼ Shown from left to right: CLP-2002, CLP-5002



The Shortest Power Lifter

- Flat design for use in confined areas
- Safety lock nut for mechanical load holding
- Single-acting load return
- Special bearing design resists sideload forces
- Overflow port functions as a stroke limiter
- CR-400 coupler and dust cap included on all models



Saddles

All CLP-Series cylinders include integral tilt saddles with maximum tilt angles up to 5°.



Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the

System Components section for a full range of gauges.

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Hoses

Enerpac offers a complete line of high-quality hydraulic hoses. To ensure the integrity of your system, specify only Enerpac hydraulic hoses.

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▼ Only the extreme low height CLP-cylinder fits in this confined area to lift the construction. The V-82 needle valve is used to control cylinder speed during lifting and lowering.



Cylinder Capacity (ton) [maximum]	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Oil Capacity (in ³)
60 [67.1]	1.97	CLP-602	13.42	26.42
100 [113.7]	1.97	CLP-1002	22.75	44.78
160 [179.2]	1.77	CLP-1602	35.85	63.51
200 [221.3]	1.77	CLP-2002	44.27	78.43
250 [284.2]	1.77	CLP-2502	56.85	100.72
400 [433.6]	1.77	CLP-4002	86.72	153.64
500 [566.2]	1.77	CLP-5002	113.25	200.63

Single-Acting, Pancake Lock Nut Cylinders



Speed Chart

See the Enerpac Cylinder Speed Chart in our "Yellow Pages" to determine your approximate cylinder speed.

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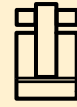


Longer Stroke Lock Nut Cylinders

For lock nut applications that require longer stroke lengths, see **CLL-Series** cylinders.

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CLP Series



Capacity:

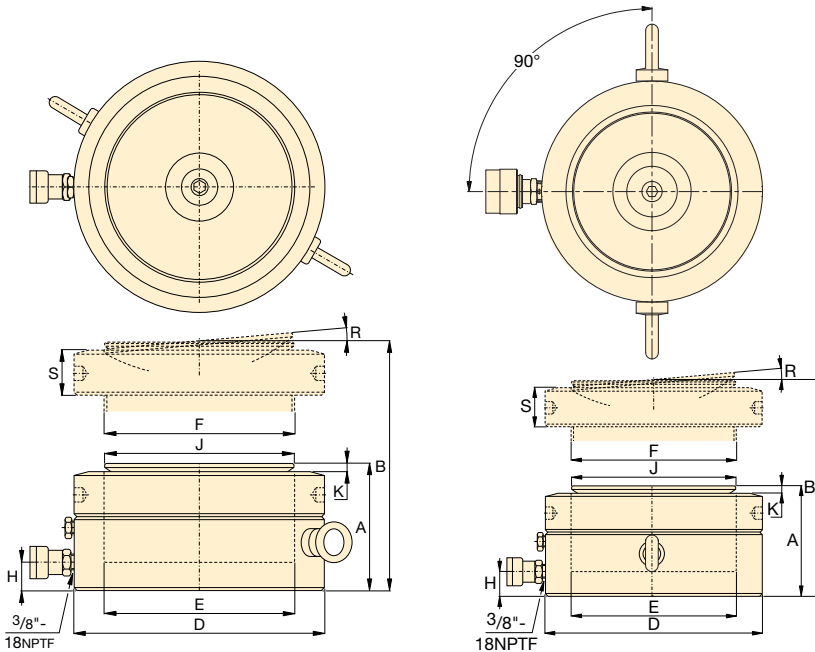
60-500 tons

Stroke:

1.77-1.97 inches

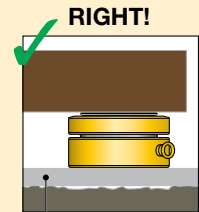
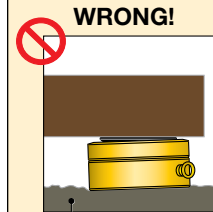
Maximum Operating Pressure:

10,000 psi



All CLP-series cylinders require a solid lifting surface for correct support.

Use of pancake cylinders on surfaces such as sand, mud or dirt may result in cylinder damage!



For more safety instructions see our "Yellow Pages".

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Collapsed Height	Extended Height	Outside Diameter	Cyl. Bore Diameter	Plunger Diameter	Base to Advance Port	Saddle Diameter	Saddle Protrusion from Plng.	Saddle Max. Tilt Angle	Lock Nut Height	Weight	Model Number
A (in)	B (in)	D (in)	E (in)	F (mm)	H (in)	J (in)	K (in)	R	S (in)	(lbs)	
4.92	6.89	5.51	4.13	Tr 104 x 4	.75	3.78	.24	5°	1.10	33	CLP-602
5.39	7.36	6.89	5.38	Tr 136 x 6	.83	4.96	.31	5°	1.22	57	CLP-1002
5.83	7.60	8.66	6.76	Tr 171 x 6	1.06	6.30	.35	5°	1.57	97	CLP-1602
6.10	7.87	9.65	7.51	Tr 190 x 6	1.18	7.09	.39	5°	1.69	125	CLP-2002
6.26	8.03	10.83	8.51	Tr 216 x 6	1.26	7.87	.43	5°	1.73	163	CLP-2502
7.01	8.78	13.78	10.51	Tr 266 x 6	1.54	9.84	.43	4°	2.17	295	CLP-4002
7.56	9.33	15.75	12.01	Tr 305 x 6	1.89	11.42	.39	3°	2.44	416	CLP-5002

▼ Shown from left to right: CLL-5010, CLL-502, CLL-1006



- Single-acting, load return
- Safety Lock Nut for mechanical load holding
- Special synthetic coating for improved corrosion resistance and lower friction for smoother operation
- Overflow port functions as a stroke limiter
- Interchangeable, hardened grooved saddles are standard
- CR-400 coupler and dust cap included on all models.

▼ For this curved bridge, CLL-cylinders were used to support the concrete beams, to level the pierhead and to place 4000 ton slide bearings between pier and pierhead.



To Secure Loads Mechanically



Saddles

All CLL cylinders are equipped with bolt-on removable grooved saddles.

For information on optional tilt saddles, see selection chart at next page.

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Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the

System Components Section for a full range of gauges.

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Low Height - High Tonnage


When low height with high force is required, Pancake Cylinders with lock nut offer the solution to lift the first few centimetres.

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Single-Acting, Lock Nut Cylinders

▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Collapsed Height	
ton (kN)	(mm)		(cm ²)	(cm ³)	(mm)	(kg)
50 (496)	50	CLL-502	70,9	355	164	15
	100	CLL-504	70,9	709	214	20
	150	CLL-506	70,9	1064	264	25
	200	CLL-508	70,9	1418	314	30
	250	CLL-5010	70,9	1773	364	35
	300	CLL-5012	70,9	2127	414	40
100 (929)	50	CLL-1002	132,7	664	187	30
	100	CLL-1004	132,7	1327	237	39
	150	CLL-1006	132,7	1991	287	48
	200	CLL-1008	132,7	2654	337	56
	250	CLL-10010	132,7	3318	387	64
	300	CLL-10012	132,7	3981	437	73
150 (1390)	50	CLL-1502	198,6	993	209	53
	100	CLL-1504	198,6	1986	259	66
	150	CLL-1506	198,6	2979	309	78
	200	CLL-1508	198,6	3972	359	92
	250	CLL-15010	198,6	4965	409	104
	300	CLL-15012	198,6	5958	459	117
200 (1859)	50	CLL-2002	265,6	1330	243	83
	150	CLL-2006	265,6	3989	343	117
	300	CLL-20012	265,6	7995	493	170
250 (2562)	50	CLL-2502	366,1	1832	249	116
	150	CLL-2506	366,1	5496	349	162
	300	CLL-25012	366,1	10995	499	234
300 (3193)	50	CLL-3002	456,2	2281	295	173
	150	CLL-3006	456,2	6843	395	233
	300	CLL-30012	456,2	13740	545	323
400 (3919)	50	CLL-4002	559,9	2800	335	250
	150	CLL-4006	559,9	8399	435	327
	300	CLL-40012	559,9	16800	585	441
500 (5118)	50	CLL-5002	731,1	3653	375	367
	150	CLL-5006	731,1	10959	475	466
	300	CLL-50012	731,1	21930	625	617
600 (5983)	50	CLL-6002	854,8	4277	395	446
	150	CLL-6006	854,8	12830	495	562
	300	CLL-60012	854,8	25650	645	737
800 (8238)	50	CLL-8002	1176,9	5882	455	709
	150	CLL-8006	1176,9	17645	555	870
	300	CLL-80012	1176,9	35370	705	1110
1000 (10260)	50	CLL-10002	1466,4	7329	495	949
	150	CLL-10006	1466,4	21986	595	1141
	300	CLL-100012	1466,4	43980	745	1430

CLL Series



Capacity:

50 - 1000 ton

Stroke:

50 - 300 mm

Maximum Operating Pressure:

700 bar



Higher Capacities

1500 and 2000 ton models are available on request.

Additional Stroke Lengths

Models above 150 ton are also available with standard stroke lengths of 100, 200 and 250 mm. Please contact Enerpac for ordering information.



Lifting an Unbalanced Load?

See our 'Yellow Pages' for multi-cylinder set-ups.

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Speed Chart

See the Cylinder Speed Chart in our 'Yellow Pages' section to determine the approximate cylinder speed.

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Optional features

To add an optional feature to your cylinders, add the following suffix to the end of the model number.

Spring return

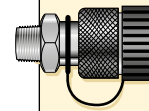
E001

Example:

- For CLL-5006 cylinder with spring return, order: **CLL-5006E001**

Technical specifications for these features are available from Enerpac.

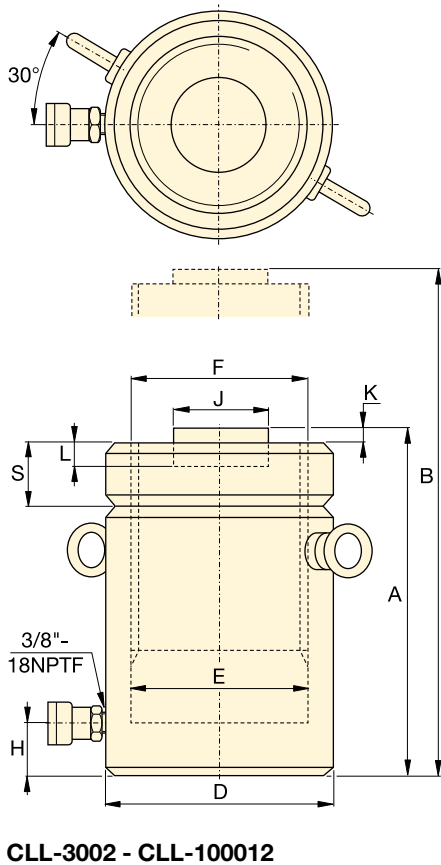
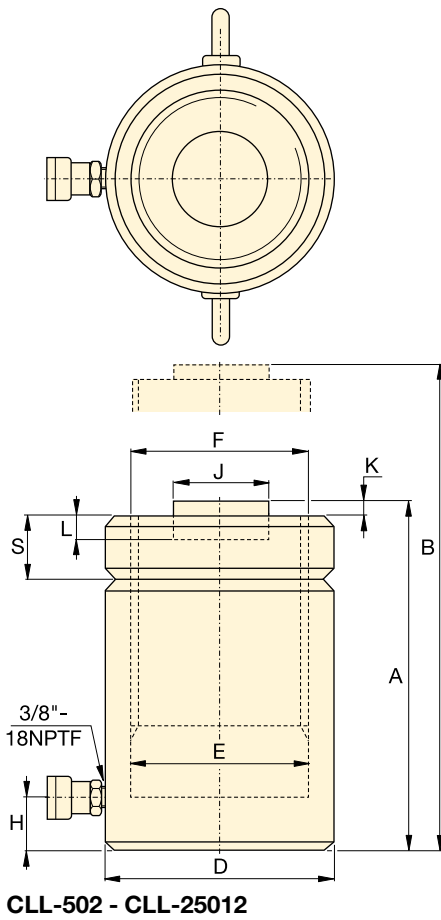
CLL-Series, Lock Nut Cylinders



Couplers Included!

CR-400 couplers included on all models. Fit all HC-Series hoses.

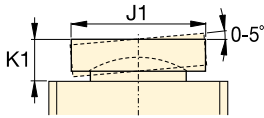
◀ For full features see previous page.



Cylinder Capacity ton (kN)	Stroke (mm)	Model Number	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)
50 (496)	50	CLL-502	70,9	355
	100	CLL-504	70,9	709
	150	CLL-506	70,9	1064
	200	CLL-508	70,9	1418
	250	CLL-5010	70,9	1773
	300	CLL-5012	70,9	2127
100 (929)	50	CLL-1002	132,7	664
	100	CLL-1004	132,7	1327
	150	CLL-1006	132,7	1991
	200	CLL-1008	132,7	2654
	250	CLL-10010	132,7	3318
	300	CLL-10012	132,7	3981
150 (1390)	50	CLL-1502	198,6	993
	100	CLL-1504	198,6	1986
	150	CLL-1506	198,6	2979
	200	CLL-1508	198,6	3972
	250	CLL-15010	198,6	4965
	300	CLL-15012	198,6	5958
200 (1859)	50	CLL-2002	265,6	1330
	150	CLL-2006	265,6	3989
	300	CLL-20012	265,6	7995
250 (2562)	50	CLL-2502	366,1	1832
	150	CLL-2506	366,1	5496
	300	CLL-25012	366,1	10995
300 (3193)	50	CLL-3002	456,2	2281
	150	CLL-3006	456,2	6843
	300	CLL-30012	456,2	13740
400 (3919)	50	CLL-4002	559,9	2800
	150	CLL-4006	559,9	8399
	300	CLL-40012	559,9	16800
500 (5118)	50	CLL-5002	731,1	3653
	150	CLL-5006	731,1	10959
	300	CLL-50012	731,1	21930
600 (5983)	50	CLL-6002	854,8	4277
	150	CLL-6006	854,8	12830
	300	CLL-60012	854,8	25650
800 (8238)	50	CLL-8002	1176,9	5882
	150	CLL-8006	1176,9	17645
	300	CLL-80012	1176,9	35370
1000 (10260)	50	CLL-10002	1466,4	7329
	150	CLL-10006	1466,4	21986
	300	CLL-100012	1466,4	43980

Single-Acting, Lock Nut Cylinders

Optional Tilt Saddle *



Capacity:

50 - 1000 ton

Stroke:

50 - 300 mm

Maximum Operating Pressure:

700 bar

CLL Series



Coll. Height A (mm)	Ext. Height B (mm)	Outs. Dia. D (mm)	Cyl. Bore Dia. E (mm)	Plunger Dia. (threaded) F (mm)	Base to Adv. Port H (mm)	Standard Saddle Dia. J (mm)	Saddle Protr. from Plgr. K (mm)	Depth of Plunger Hole L (mm)	Lock-nut Height S (mm)	Weight (kg)	Model Number	* Optional Tilt Saddle		
												Saddle Dia. J1 (mm)	Saddle Height K1 (mm)	Saddle Model Number
164	214	125	95,0	Tr 95 x 4	30	71	2	13	36	15	CLL-502	71	24	CAT-100
214	314	125	95,0	Tr 95 x 4	30	71	2	13	36	20	CLL-504	71	24	CAT-100
264	414	125	95,0	Tr 95 x 4	30	71	2	13	36	25	CLL-506	71	24	CAT-100
314	514	125	95,0	Tr 95 x 4	30	71	2	13	36	30	CLL-508	71	24	CAT-100
364	614	125	95,0	Tr 95 x 4	30	71	2	13	36	35	CLL-5010	71	24	CAT-100
414	714	125	95,0	Tr 95 x 4	30	71	2	13	36	40	CLL-5012	71	24	CAT-100
187	237	165	130,0	Tr 130 x 6	30	71	2	13	44	30	CLL-1002	71	24	CAT-100
237	337	165	130,0	Tr 130 x 6	30	71	2	13	44	39	CLL-1004	71	24	CAT-100
287	437	165	130,0	Tr 130 x 6	30	71	2	13	44	48	CLL-1006	71	24	CAT-100
337	537	165	130,0	Tr 130 x 6	30	71	2	13	44	56	CLL-1008	71	24	CAT-100
387	637	165	130,0	Tr 130 x 6	30	71	2	13	44	64	CLL-10010	71	24	CAT-100
437	737	165	130,0	Tr 130 x 6	30	71	2	13	44	73	CLL-10012	71	24	CAT-100
209	259	205	159,0	Tr 159 x 6	39	130	2	25	44	53	CLL-1502	130	20	CAT-200
259	359	205	159,0	Tr 159 x 6	39	130	2	25	44	66	CLL-1504	130	20	CAT-200
309	459	205	159,0	Tr 159 x 6	39	130	2	25	44	78	CLL-1506	130	20	CAT-200
359	559	205	159,0	Tr 159 x 6	39	130	2	25	44	92	CLL-1508	130	20	CAT-200
409	659	205	159,0	Tr 159 x 6	39	130	2	25	44	104	CLL-15010	130	20	CAT-200
459	759	205	159,0	Tr 159 x 6	39	130	2	25	44	117	CLL-15012	130	20	CAT-200
243	293	235	184,0	Tr 184 x 6	50	130	2	25	50	83	CLL-2002	130	20	CAT-200
343	493	235	184,0	Tr 184 x 6	50	130	2	25	50	117	CLL-2006	130	20	CAT-200
493	793	235	184,0	Tr 184 x 6	50	130	2	25	50	170	CLL-20012	130	20	CAT-200
249	299	275	216,0	Tr 216 x 6	50	150	2	25	56	116	CLL-2502	150	21	CAT-250
349	499	275	216,0	Tr 216 x 6	50	150	2	25	56	162	CLL-2506	150	21	CAT-250
499	799	275	216,0	Tr 216 x 6	50	150	2	25	56	234	CLL-25012	150	21	CAT-250
295	345	310	241,0	Tr 241 x 6	59	139	5	25	60	173	CLL-3002	195	75	CAT-300
395	545	310	241,0	Tr 241 x 6	59	139	5	25	60	233	CLL-3006	195	75	CAT-300
545	845	310	241,0	Tr 241 x 6	59	139	5	25	60	323	CLL-30012	195	75	CAT-300
335	385	350	267,0	Tr 266 x 6	70	159	5	25	70	250	CLL-4002	225	85	CAT-400
435	585	350	267,0	Tr 266 x 6	70	159	5	25	70	327	CLL-4006	225	85	CAT-400
585	885	350	267,0	Tr 266 x 6	70	159	5	25	70	441	CLL-40012	225	85	CAT-400
375	425	400	305,0	Tr 305 x 6	80	179	5	25	80	367	CLL-5002	250	91	CAT-500
475	625	400	305,0	Tr 305 x 6	80	179	5	25	80	466	CLL-5006	250	91	CAT-500
625	925	400	305,0	Tr 305 x 6	80	179	5	25	80	617	CLL-50012	250	91	CAT-500
395	445	430	330,0	Tr 330 x 6	85	194	5	25	85	446	CLL-6002	275	96	CAT-600
495	645	430	330,0	Tr 330 x 6	85	194	5	25	85	562	CLL-6006	275	96	CAT-600
645	945	430	330,0	Tr 330 x 6	85	194	5	25	85	737	CLL-60012	275	96	CAT-600
455	505	505	387,0	Tr 387 x 6	100	224	5	25	100	709	CLL-8002	320	123	CAT-800
555	705	505	387,0	Tr 387 x 6	100	224	5	25	100	870	CLL-8006	320	123	CAT-800
705	1005	505	387,0	Tr 387 x 6	100	224	5	25	100	1110	CLL-80012	320	123	CAT-800
495	545	560	432,0	Tr 432 x 6	110	249	5	25	110	949	CLL-10002	360	136	CAT-1000
595	745	560	432,0	Tr 432 x 6	110	249	5	25	110	1141	CLL-10006	360	136	CAT-1000
745	1045	560	432,0	Tr 432 x 6	110	249	5	25	110	1430	CLL-100012	360	136	CAT-1000