

# CLP-Series, Pancake Lock Nut Cylinders

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



- Extremely low height for use in confined areas
- Lock nut for positive and safe mechanical load holding over a long period of time
- Single-acting, load return
- Optional special synthetic coating for improved corrosion resistance and lower friction for smoother operation
- Overflow port functions as a stroke limiter
- CR-400 coupler and dust cap included on all models.

▼ 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.



## The Shortest Power Lifter



### Tilt 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.



### Hoses

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

Cylinder Capacity	Stroke	Model Number*	Cylinder Effective Area	Oil Capacity
ton (kN)	(mm)		(cm <sup>2</sup> )	(cm <sup>3</sup> )
60 (606)	50	CLP-602	86,6	432
100 (1027)	50	CLP-1002	146,8	734
160 (1619)	45	CLP-1602	231,3	1040
200 (1999)	45	CLP-2002	285,6	1285
260 (2567)	45	CLP-2502	366,8	1650
400 (3916)	45	CLP-4002	559,5	2517
520 (5114)	45	CLP-5002	730,6	3287

\* Please contact Enerpac for ordering information for CLP-cylinders with special synthetic coating.



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# Single-Acting, Pancake Lock Nut Cylinders

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

**Longer Stroke Lock Nut Cylinders**  
For longer stroke lock nut applications **CLL-Series** cylinders are the perfect choice.

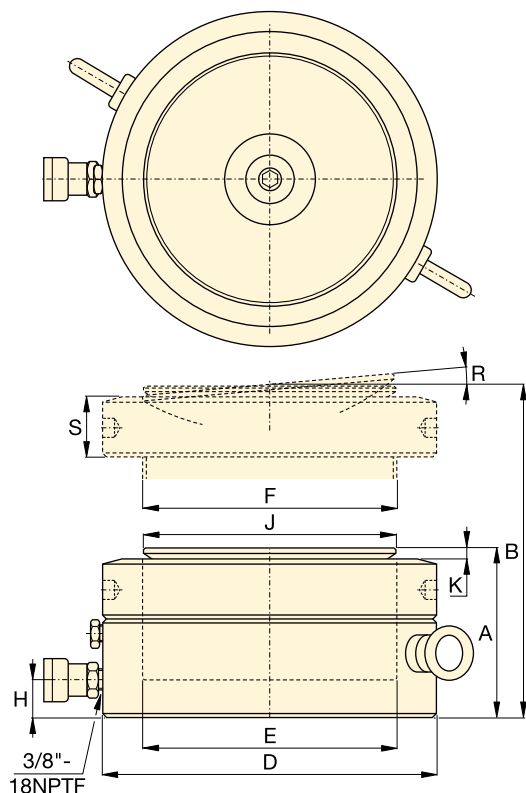
## CLP Series



Capacity:  
**60 - 520 ton**

Stroke:  
**45 - 50 mm**

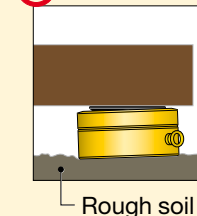
Maximum Operating Pressure:  
**700 bar**



**ALL CLP-SERIES CYLINDERS REQUIRE A SOLID LIFTING SURFACE FOR CORRECT SUPPORT.**

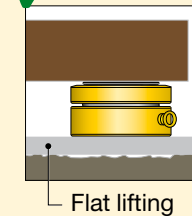
**USE OF PANCAKE CYLINDERS ON SURFACES SUCH AS SAND, MUD OR DIRT, MAY RESULT IN CYLINDER DAMAGE!**

**WRONG!**




Rough soil

**RIGHT!**



Flat lifting surface

For more safety instructions see our 'Yellow Pages'.

Collapsed Height	Extended Height	Outside Diameter	Cylinder Bore Diameter	Plunger Diameter	Base to Advance Port	Saddle Diameter	Saddle Protrusion from Plgr.	Saddle Max. Tilt Angle	Lock Nut Height		Model Number*
A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	H (mm)	J (mm)	K (mm)	R	S (mm)	(kg)	
125	175	140	105,0	Tr 104 x 4	19	96	6	5°	28	15	<b>CLP-602</b>
137	187	175	136,7	Tr 136 x 6	21	126	8	5°	31	26	<b>CLP-1002</b>
148	193	220	171,6	Tr 171 x 6	27	160	9	5°	40	44	<b>CLP-1602</b>
155	200	245	190,7	Tr 190 x 6	30	180	10	5°	43	57	<b>CLP-2002</b>
159	204	275	216,1	Tr 216 x 6	32	200	11	5°	44	74	<b>CLP-2502</b>
178	223	350	266,9	Tr 266 x 6	39	250	11	4°	55	134	<b>CLP-4002</b>
192	237	400	305,0	Tr 305 x 6	48	290	10	3°	62	189	<b>CLP-5002</b>



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# RSM, RCS-Series, Low Height Cylinders

▼ Shown from left to right: RSM-1000, RSM-300, RSM-50, RCS-1002, RCS-302



## Maximum Power-to-Height Ratio



### Saddles

All RCS-Series cylinders have plunger mounting holes for installation of tilt saddles. See table for selection and dimensional information.



### Low Clearance Lifting

The LW-16 Lifting Wedge and SOH-Series Machine Lifts are the perfect choice for lifting the first few millimeters.

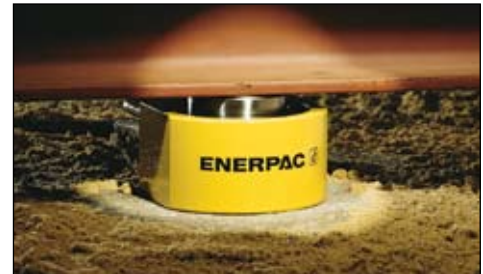
### RSM-series, Flat-Jac® Cylinders

- Compact, flat design for use where most other cylinders will not fit
- Single-acting, spring return
- RSM-750, 1000 and 1500 have handles for easy carrying
- Mounting holes permit easy fixturing
- Baked enamel finish for increased corrosion resistance
- CR-400 coupler and dust cap included on all models<sup>1)</sup>
- Hard chrome plated high quality steel plungers
- Grooved plunger ends require no saddle.

### RCS-series, Low Height Cylinders

- Lightweight, low profile design for use in confined spaces
- Single-acting, spring return
- Baked enamel finish for increased corrosion resistance
- Plunger wiper reduces contamination, extending cylinder life
- CR-400 coupler and dust cap included on all models
- Grooved plunger end with threaded holes for mounting tilt saddles
- Integral handle on RCS-1002 for easy carrying
- Plated steel plungers.

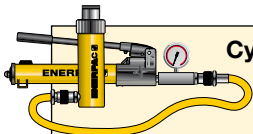
▼ Only a couple of centimeters will do for an RSM-cylinder to lift a large construction.



Cyl. Capacity ton (kN)	Stroke (mm)	Model Number	Cyl. Effect. Area (cm <sup>2</sup> )	Oil Cap. (cm <sup>3</sup> )
5 (45)	6	RSM-50 <sup>1)</sup>	6,5	4
10 (101)	12	RSM-100	14,5	18
20 (201)	11	RSM-200	28,7	32
30 (295)	13	RSM-300	42,1	55
45 (435)	16	RSM-500	62,1	99
75 (718)	16	RSM-750	102,6	164
90 (887)	16	RSM-1000	126,7	203
150 (1386)	16	RSM-1500	198,1	317
10 (101)	38	RCS-101*	14,5	55
20 (201)	45	RCS-201*	28,7	129
30 (295)	62	RCS-302*	42,1	261
45 (435)	60	RCS-502*	62,1	373
90 (887)	57	RCS-1002*	126,7	722

<sup>1)</sup> RSM-50 is fitted with an AR-400 coupler. Available as set, see note on next page.

# Single-Acting, Low Height Cylinders



## Cylinder-Pump Sets

All cylinders marked with an \* are available as sets (cylinder, gauge, couplers, hose and pump) for your ordering convenience.

## RSM, RCS Series



Capacity:

**5 - 150 ton**

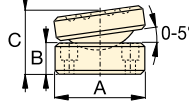
Stroke:

**6 - 62 mm**

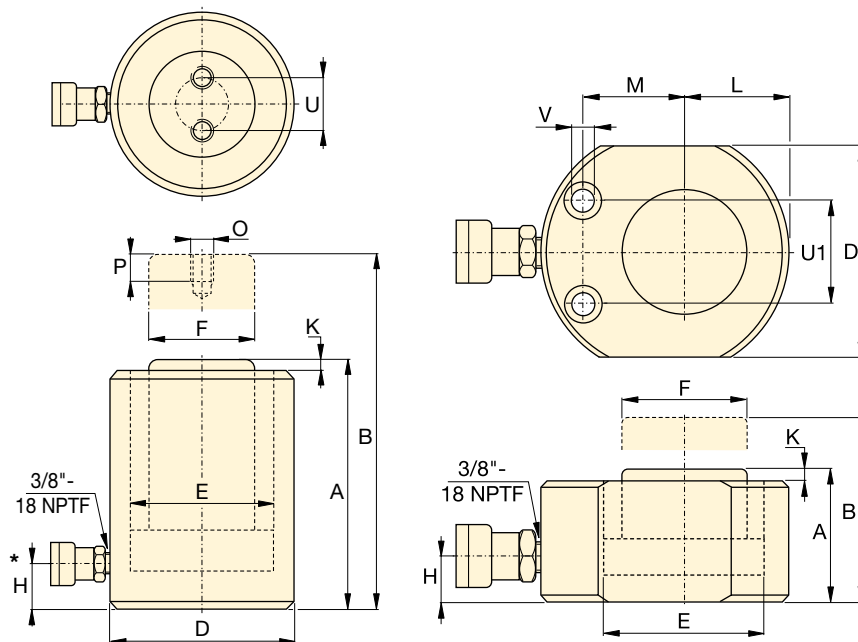
Maximum Operating Pressure:

**700 bar**

Optional Bolt On Tilt Saddle Dimensions (mm)				
For Cylinder Model:	Model Number	A	B	C*
RCS-101	CAT-11	35	11	21
RCS-201, -302, -502	CAT-51	50	15	29
RCS-1002	CAT-101	71	17	35



\* 'C' dimension equals saddle protrusion from plunger. Mounting screws are included.



### RCS-Series

\* 5° angle position of coupler on RCS-101, 201,302

### RSM-Series

RSM Cylinder Mounting Hole Dimensions (mm)				
Model Number	Bolt Circle U1	Hole Dia. V	Counter Bore Dia.	Counter Bore Depth
RSM-50	28,5	5,5	9,1	4,3
RSM-100	36,6	7,1	10,7	7,9
RSM-200	49,3	10,0	15,1	9,9
RSM-300	52,3	10,0	15,9	11,2
RSM-500	66,5	11,0	19,0	12,7
RSM-750	76,2	13,5	20,6	14,2
RSM-1000	76,2	13,5	20,6	14,2
RSM-1500	117,3	13,5	20,6	14,2

Collapsed Height	Extended Height	Outside Diameter	Cylinder Bore Dia.	Plunger Dia.	Base to Advance Port	Plunger Protrusion from Base	Plunger to Base	Plunger to Mtg. Hole	Thread	Thread Depth	Bolt Circle	Weight	Model Number
A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	H (mm)	K (mm)	L (mm)	M (mm)	O (mm)	P (mm)	U (mm)	(kg)	
32	38	58 x 41	28,7	25,4	16	1	20	22	-	-	-	1,0	RSM-50 <sup>1)</sup>
43	54	82 x 55	42,9	38,1	19	1	27	34	-	-	-	1,4	RSM-100
51	62	101 x 76	60,5	50,8	19	1	39	39	-	-	-	3,1	RSM-200
58	71	117 x 95	73,2	63,4	19	2	47	44	-	-	-	4,5	RSM-300
66	82	140 x 114	88,9	69,8	19	2	57	53	-	-	-	6,8	RSM-500
79	95	165 x 139	114,3	82,6	19	2	69	66	-	-	-	11,3	RSM-750
85	101	178 x 153	127,0	92,2	19	2	76	74	-	-	-	14,5	RSM-1000
100	116	215 x 190	158,8	114,3	23	2	95	82	-	-	-	26,3	RSM-1500
88	126	69	42,9	38,1	17	5	-	-	M4	8	26	4,1	RCS-101*
98	143	92	60,5	50,8	17	3	-	-	M5	8	40	5,0	RCS-201*
117	179	101	73,2	66,5	19	3	-	-	M5	8	40	6,8	RCS-302*
122	182	124	88,9	69,8	23	2	-	-	M5	8	40	10,9	RCS-502*
141	198	165	127,0	92,2	31	1	-	-	M8	10	55	22,7	RCS-1002*