

▼ Shown from left to right: RAR-5010, RAR-308 and RAR-204



- Integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity
- Built-in safety valve prevents accidental over-pressurization
- Hard-Kote finish on all surfaces resists damage and extends cylinder life
- Double-acting for rapid retraction, regardless of hose lengths and system losses
- Composite bearings prevent metal to metal contact, increasing cylinder life and resistance to side-loads of up to 10%
- Steel baseplate and saddle for protection against load-induced damage



◀ An RAR-308 was easy to position under a bulldozer for repair of frame member.

The Lightweight Solution for Double-Acting Applications



Saddles

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



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.



Optimum Performance

Enerpac's range of Titan electric pumps, fitted with manual or solenoid operated 4-way valves, offer optimum combinations with RAR cylinders.



Aluminum Lock Nut Cylinders

When lightweight, positive mechanical load holding is required, the RACL-Series of Aluminum cylinders offers

all the features of the RAR-Series, with the advantage of a mechanical Lock Nut.



Standard Features

- CR-400 coupler and dust cap
- Handles are standard on 50, 100 and 150-ton models; optional on 20 and 30-ton models.
- All cylinders meet ASME B-30.1 and ISO 10100 standards

Double-Acting Aluminum Cylinders



Aluminum vs. Steel

Aluminum cylinders, while offering the most lightweight solution for many lifting, stressing and lowering applications, also have some unique limitations due to material properties.

Aluminum differs from steel in that it has a lower finite fatigue life. This means aluminum cylinders should NOT be used in high-cycle applications such as production.

The Enerpac line of aluminum cylinders are designed to provide 5,000 full-pressure cycles. **This limit should not be exceeded.** In normal lifting and many maintenance applications, this should provide a lifetime of use.

RAR Series



Capacity:

20-150 tons

Stroke:

1.97-9.84 inch

Maximum Operating Pressure:

10,000 psi

▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity (tons) Nominal [maximum]	Stroke (in)	Model Number	Maximum Cylinder Capacity @ 10,000 psi (tons)	Cylinder Effective Area (in ²)	Oil Capacity (in ³)	Collapsed Height (in)
20 [24]	1.97	RAR-202•	24.2	4.83	9.51	7.44
	3.94	RAR-204•	24.2	4.83	19.02	9.41
	5.91	RAR-206•	24.2	4.83	28.53	11.38
	7.87	RAR-208•	24.2	4.83	38.05	13.35
	9.84	RAR-2010•	24.2	4.83	47.56	15.31
30 [34]	1.97	RAR-302•	34.2	6.85	13.48	7.91
	3.94	RAR-304	34.2	6.85	26.96	9.88
	5.91	RAR-306	34.2	6.85	40.44	11.85
	7.87	RAR-308	34.2	6.85	53.92	13.82
	9.84	RAR-3010•	34.2	6.85	67.40	15.79
50 [55]	1.97	RAR-502•	54.9	10.99	21.63	7.91
	3.94	RAR-504	54.9	10.99	43.25	9.88
	5.91	RAR-506	54.9	10.99	64.88	11.85
	7.87	RAR-508	54.9	10.99	86.51	13.82
	9.84	RAR-5010•	54.9	10.99	108.14	15.79
100 [111]	1.97	RAR-1002•	110.9	22.19	43.67	9.88
	3.94	RAR-1004	110.9	22.19	87.35	11.85
	5.91	RAR-1006	110.9	22.19	131.02	13.82
	7.87	RAR-1008	110.9	22.19	174.70	15.79
	9.84	RAR-10010•	110.9	22.19	218.37	17.76
150 [176]	1.97	RAR-1502•	175.9	35.18	69.26	9.96
	3.94	RAR-1504•	175.9	35.18	138.51	11.93
	5.91	RAR-1506•	175.9	35.18	207.77	13.90
	7.87	RAR-1508•	175.9	35.18	277.02	15.87
	9.84	RAR-15010•	175.9	35.18	346.28	17.83

• Made to order. Consult Enerpac for delivery.



For complex lifting applications...

Contact your distributor or your nearest Enerpac office for advice and technical assistance in the layout of your ideal PC Synchronous Lift System.



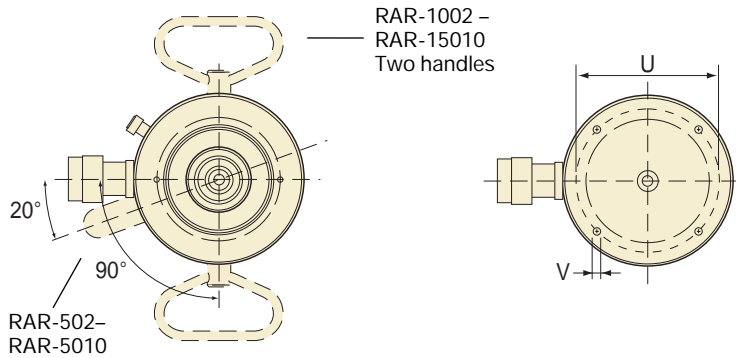
Order your free copy of the Enerpac brochure, *Hydraulic Systems for Bridge and Structural Engineering*. Call or visit us at

www.enerpac.com.



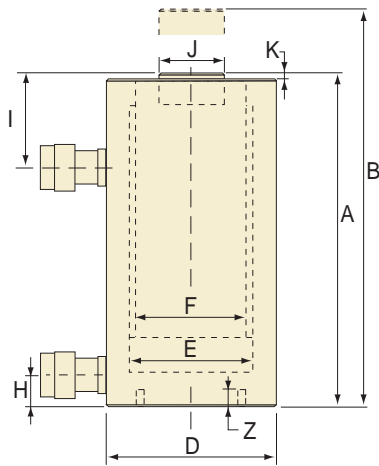
Baseplate Mounting Holes

Mounting holes are for fixturing of the baseplate only. They will not withstand the capacity of the cylinder.



Baseplate Mounting Hole Dimensions (in)			
Model / Capacity ton	Bolt Circle U	Thread Size (mm) V	Min. Thread Depth ¹⁾ Z
RAR-20	3.66	M6 x 1.0	.24
RAR-30	4.13	M6 x 1.0	.24
RAR-50	4.33	M6 x 1.0	.24
RAR-100	6.50	M6 x 1.0	.24
RAR-150	7.87	M6 x 1.0	.24

¹⁾Dimensions exclude standard baseplate height 0.24".



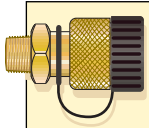
Baseplate not shown.

◀ For full features see page 14.

Cylinder Capacity (tons) Nominal [maximum]	Stroke (in)	Model Number	Maximum Cylinder Capacity @ 10,000 psi (tons)	Cylinder Effective Area (in ²)	Oil Capacity (in ³)	Collapsed Height* A (in)
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100 [111]	1.97	RAR-1002•	110.9	22.19	43.67	9.88
	3.94	RAR-1004•	110.9	22.19	87.35	11.85
	5.91	RAR-1006•	110.9	22.19	131.02	13.82
	7.87	RAR-1008•	110.9	22.19	174.70	15.79
	9.84	RAR-10010•	110.9	22.19	218.37	17.76
150 [176]	1.97	RAR-1502•	175.9	35.18	69.26	9.96
	3.94	RAR-1504•	175.9	35.18	138.51	11.93
	5.91	RAR-1506•	175.9	35.18	207.77	13.90
	7.87	RAR-1508•	175.9	35.18	277.02	15.87
	9.84	RAR-15010•	175.9	35.18	346.28	17.83

• Made to order. Consult Enerpac for delivery.

Double-Acting Aluminum Cylinders



Couplers Included!
CR-400 couplers included on all models. Fits all HC-Series hoses.

RAR Series



Capacity:
20-150 tons

Stroke:
1.97-9.84 inch

Maximum Operating Pressure:
10,000 psi

Extended Height*	Outside Ø	Cylinder Bore Ø	Plunger Ø	Base to Advance Port* H	Top to Retract Port I	Standard Saddle Ø J	Saddle Protrusion from Plunger K	Weight (lbs)	Model Number
B (in)	D (in)	E (in)	F (in)	H (in)	I (in)	J (in)	K (in)		
9.41	4.45	2.48	1.57	1.18	1.97	1.57	.12	14.3	RAR-202•
13.35	4.45	2.48	1.57	1.18	1.97	1.57	.12	15.6	RAR-204•
17.28	4.45	2.48	1.57	1.18	1.97	1.57	.12	18.3	RAR-206•
21.22	4.45	2.48	1.57	1.18	1.97	1.57	.12	20.7	RAR-208•
25.16	4.45	2.48	1.57	1.18	1.97	1.57	.12	23.1	RAR-2010•
9.88	4.92	2.95	1.97	1.18	2.17	1.57	.12	16.9	RAR-302•
13.82	4.92	2.95	1.97	1.18	2.17	1.57	.12	20.0	RAR-304
17.76	4.92	2.95	1.97	1.18	2.17	1.57	.12	22.9	RAR-306
21.69	4.92	2.95	1.97	1.18	2.17	1.57	.12	26.2	RAR-308
25.63	4.92	2.95	1.97	1.18	2.17	1.57	.12	29.3	RAR-3010•
9.88	5.71	3.74	2.95	1.18	2.20	1.97	.12	23.1	RAR-502•
13.82	5.71	3.74	2.95	1.18	2.20	1.97	.12	27.3	RAR-504
17.76	5.71	3.74	2.95	1.18	2.20	1.97	.12	31.7	RAR-506
21.69	5.71	3.74	2.95	1.18	2.20	1.97	.12	36.3	RAR-508
25.63	5.71	3.74	2.95	1.18	2.20	1.97	.12	40.7	RAR-5010•
11.85	7.28	5.31	3.54	1.70	3.15	3.70	.12	40.5	RAR-1002•
15.79	7.28	5.31	3.54	1.70	3.15	3.70	.12	46.2	RAR-1004
19.72	7.28	5.31	3.54	1.70	3.15	3.70	.12	52.1	RAR-1006
23.66	7.28	5.31	3.54	1.70	3.15	3.70	.12	58.3	RAR-1008
27.60	7.28	5.31	3.54	1.70	3.15	3.70	.12	64.2	RAR-10010•
11.93	9.06	6.69	4.33	1.50	2.95	4.45	.12	67.5	RAR-1502•
15.87	9.06	6.69	4.33	1.50	2.95	4.45	.12	76.6	RAR-1504•
19.80	9.06	6.69	4.33	1.50	2.95	4.45	.12	85.1	RAR-1506•
23.74	9.06	6.69	4.33	1.50	2.95	4.45	.12	95.5	RAR-1508•
27.68	9.06	6.69	4.33	1.50	2.95	4.45	.12	104.3	RAR-15010•

* Dimensions include standard baseplate height of 0.24".