## **RAR, Double-Acting, Aluminium Cylinders**

#### ENERPAC 🖉 POWERFUL SOLUTIONS. GLOBAL FORCE.

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



- Double-acting for rapid retraction, regardless of hose • lengths or system losses
- Composite bearings increase cylinder life and sideload resistance
- · Hard-Coat finish on all surfaces resists damage and extends cylinder life
- Handles included on all models •
- Steel base plate and saddle for protection against load-induced damage
- Integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity
- Built-in safety valve prevents accidental over-pressurization.

# The Lightweight **Solution for Tensioning and** Testing







All RAR-cylinders are equipped with bolt-on removable hardened steel saddles. For Tilt Saddles see next page. Page:



Hoses

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

specify only Enerpac hydraulic hoses.

120 Page:

19



## **Optimum Performance**

Enerpac's range of Z-Class electric pumps, fitted with manual or solenoid operated 4-way valves, offer optimum

combinations with RAR cylinders.



An RAR-506 was easy to position under a bulldozer for repair of frame member.



## SELECTION CHART

Cylinder Capacity @ 700	Stroke	Model Number *	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		
bar			(kN)		(cm <sup>2</sup> )		(cm <sup>3</sup> )		
ton	(mm)		Push	Pull	Push	Pull	Push	Pull	
50	50	RAR-502	496	187	70,9	26,7	354	134	
	100	RAR-504	496	187	70,9	26,7	709	267	
	150	RAR-506	496	187	70,9	26,7	1063	401	
100	100	RAR-1004	1002	557	143,1	79,5	1431	795	
	150	RAR-1006	1002	557	143,1	79,5	2147	1193	
	200	RAR-1008	1002	557	143,1	79,5	2863	1590	
150	150	RAR-1506	1589	924	227,0	132,0	3405	1980	

\* Note: Every RAR-cylinder is available with a stroke of 50, 100, 150, 200 and 250 mm.

# **Double-Acting, Aluminium Cylinders**



### Aluminium versus Steel

Aluminium cylinders, while offering the most lightweight solution, also have some unique limitations due to material properties. It differs from steel in that it has a lower finite fatigue life. Aluminium cylinders should NOT be used in high-cycle applications such as production.

**Steel Base Plate Mounting Holes** 

Thread

v

(mm)

M6

M6

M6

Thread

Depth 1)

Ζ

(mm)

12

12

12

Bolt

Circle

U

(mm)

110

165

200

four (4) base plate bolts M6.

<sup>1)</sup> Including Base Plate Height of 6 mm and

Cylinder

Model /

**RAR-50** 

**RAR-100** 

**RAR-150** 

ton

Capacity

The Enerpac line of aluminium cylinders are designed to provide 5000 cycles at their recommended pressure. **This limit should not be exceeded**. In normal lifting and many maintenance applications, this should provide a lifetime of use.

Optional Bolt-on Tilt Saddle Dimensions (mm)								
For Cylinder Model / Capacity ton	Tilt Saddle Model Number	Tilt Saddle Diameter J1	Saddle Protrusion from Plunger K1					
RAR-50	CATG-50	50	24	K1 0-5				
RAR-100	CATG-150	91	31					
RAR-150	CATG-200	118	35					



## <u>Capacity:</u> 50 - 150 ton

Stroke: 50 - 200 mm

Maximum Operating Pressure: **700 bar** 

<u>3/8"-</u> 18NPTF	B
н	
	UD

#### Steel Base Plate

The steel base plate protects the cylinder from damage, it should not be removed.

The base holes in these aluminium cylinders are designed for securing the steel base plate. They will not withstand the capacity of the cylinder.

Do not use the base holes in these aluminium cylinders to attach any device to the cylinder.



#### Standard Features

- CR-400 coupler and dustcap included on all models.
- All cylinders meet ASME B-30.1 and ISO 10100 standards.

Collapsed Height	Extended Height	Outside Diameter	Cylinder Bore Diameter	Plunger Diameter	Bottom to Advance Port	Top to Retract Port	Saddle Diameter	Saddle Protrusion from Plunger	Ĺ	Model Number *
A	В	D	E	F	Н	I	J	K		
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)	
201	251	145	95	75	30	56	50	3	11,1	RAR-502
251	351	145	95	75	30	56	50	3	12,7	RAR-504
 301	451	145	95	75	30	56	50	3	14,3	RAR-506
301	401	185	135	90	43	80	94	3	19,3	RAR-1004
351	501	185	135	90	43	80	94	3	22,2	RAR-1006
 401	601	185	135	90	43	80	94	3	25,1	RAR-1008
 348	498	230	170	110	38	75	113	3	33,2	RAR-1506