

# RR-Series, Double-Acting Cylinders

▼ Shown from left to right: RR-10013, RR-1502, RR-20013, RR-1010, RR-7513



- Collar threads, plunger threads and base mounting holes for easy fixturing (on most models)
- Baked enamel finish for increased corrosion resistance
- Removable hardened saddles protect plunger during lifting and pressing
- Built-in safety valve prevents accidental over-pressurization
- CR-400 couplers and dust caps included on all models
- Plunger wiper reduces contamination, extending cylinder life.

▼ A lateral bridge slide method was utilized to slide the new bridge into position. Two RR-Series double acting hydraulic cylinders with ZU4-Series electric pumps were used to push the bridge into position over PTFE sliding elements.



## Most Versatile Performers

Rugged enough for the toughest job site uses and precision designed for high-cycle industrial uses.



## Saddles

RR-Series cylinders up to 75 ton have plunger mounting holes for installation of CAT-Series tilt saddles.

Page: 37



## Optimum Performance

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

Page: 90

▼ RR-cylinders provide power and precision in a special hydraulic press.



# Double-Acting Long Stroke Cylinders



## Pump Selection

A double-acting cylinder must be powered by a pump with a 4-way valve.

Page: **71**

## ▼ QUICK SELECTION CHART

For complete technical information see next page.

Cylinder Capacity ton (kN)	Stroke (mm)	Model Number	Cylinder Effective Area (cm <sup>2</sup> )		Oil Capacity (cm <sup>3</sup> )		Coll. Height (mm)
			Push	Pull	Push	Pull	
<b>10</b> (101)	254	<b>RR-1010</b>	14,5	4,8	368	122	409
	305	<b>RR-1012</b>	14,5	4,8	442	147	457
<b>30</b> (295)	209	<b>RR-308</b>	42,1	19,1	879	400	395
	368	<b>RR-3014</b>	42,1	19,1	1549	703	549
<b>50</b> (498)	156	<b>RR-506</b>	71,2	21,5	1111	335	331
	334	<b>RR-5013</b>	71,2	21,5	2378	718	509
	511	<b>RR-5020</b>	71,2	21,5	3638	1099	733
<b>75</b> (718)	156	<b>RR-756</b>	102,6	31,4	1601	490	347
	333	<b>RR-7513</b>	102,6	31,4	3417	1046	525
<b>95</b> (933)	168	<b>RR-1006</b>	133,3	62,2	2238	1045	357
	333	<b>RR-10013</b>	133,3	62,2	4439	2071	524
	460	<b>RR-10018</b>	133,3	62,2	6132	2861	687
<b>140</b> (1386)	57	<b>RR-1502</b>	198,1	95,4	1129	544	196
	156	<b>RR-1506</b>	198,1	95,4	3090	1488	385
	333	<b>RR-15013</b>	198,1	95,4	6597	3177	582
	815	<b>RR-15032</b>	198,1	95,4	16145	7775	1116
<b>200</b> (1995)	152	<b>RR-2006</b>	285,0	145,3	4332	2209	430
	330	<b>RR-20013</b>	285,0	145,3	9405	4795	608
	457	<b>RR-20018</b>	285,0	145,3	13025	6640	765
	610	<b>RR-20024</b>	285,0	145,3	17385	8863	917
	914	<b>RR-20036</b>	285,0	145,3	26049	13280	1222
<b>325</b> (3201)	1219	<b>RR-20048</b>	285,0	145,3	34741	17712	1527
	153	<b>RR-3006</b>	457,3	243,2	6997	3721	485
	305	<b>RR-30012</b>	457,3	243,2	13947	7418	638
	457	<b>RR-30018</b>	457,3	243,2	20889	11114	790
	609	<b>RR-30024</b>	457,3	243,2	27850	14811	943
	915	<b>RR-30036</b>	457,3	243,2	41843	22253	1247
<b>440</b> (4292)	1219	<b>RR-30048</b>	457,3	243,2	55745	29646	1552
	152	<b>RR-4006</b>	613,1	328,1	9319	4987	538
	305	<b>RR-40012</b>	613,1	328,1	18700	10007	690
	457	<b>RR-40018</b>	613,1	328,1	28018	14995	843
	610	<b>RR-40024</b>	613,1	328,1	37400	20014	995
	914	<b>RR-40036</b>	613,1	328,1	56037	29988	1300
	1219	<b>RR-40048</b>	613,1	328,1	74737	39996	1605
<b>520</b> (5108)	153	<b>RR-5006</b>	729,7	405,4	11164	6203	577
	305	<b>RR-50012</b>	729,7	405,4	22256	12365	730
	457	<b>RR-50018</b>	729,7	405,4	33347	18526	882
	609	<b>RR-50024</b>	729,7	405,4	44440	24689	1035
	915	<b>RR-50036</b>	729,7	405,4	66768	36973	1339
	1219	<b>RR-50048</b>	729,7	405,4	88951	49418	1644

## RR Series



Capacity:

**10 - 520 ton**

Stroke:

**57 - 1219 mm**

Maximum Operating Pressure:

**700 bar**



### Energpac HCR-Series

If your application does not require high cycle, Energpac HCR-Series cylinders may be the right alternative.

Page: **48**



### Speed Chart

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

Page: **273**



### Optional Snap-in Saddles

Optional snap-in saddles for RR-Series double-acting cylinders:

Saddle Type	Cylinder Model Number	Saddle Model Number
Flat	RR-1010, 1012	<b>A-102F</b>
	RR-1010, 1012	<b>CAT-10</b>
Tilt	RR-308, 3014	<b>CAT-50</b>
	RR-506, 5013	<b>CAT-100</b>
	RR-5020, 756	
	RR-7513	

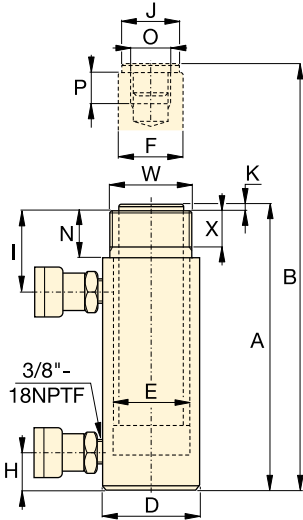
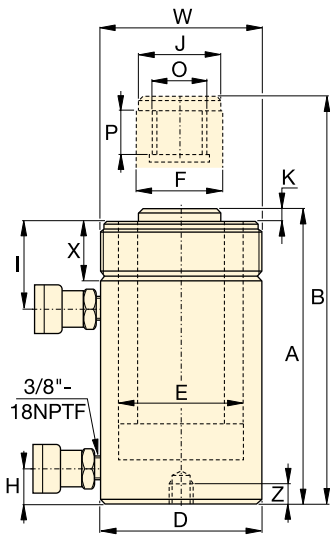
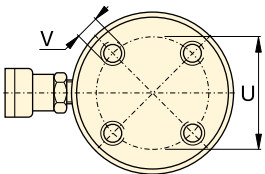
### Standard Saddles:

Grooved	RR-1010, 1012	<b>A-102G</b>
	RR-308, 3014	<b>A-252G</b>

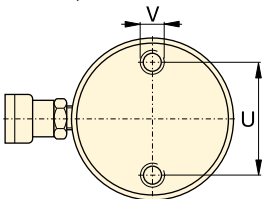
For additional information on saddles:

Page: **10**

# RR-Series, Double-Acting Cylinders


**RR-1010 - RR-3014**

**RR-506 - RR-50048**

**RR-1006 - RR-30048**

No mounting holes on:  
 RR-506, 5013  
 RR-756, 7513  
 RR-1502, 15032


**RR-4006 - RR-50048**

Base mounting hole location is for reference only, as it is affected by assembly.



Cylinder retract capacity for certain RR cylinders may be less than theoretical values, as a result of reduced relief valve pressure settings:

RR-308/3014: 275 bar  
 RR-506/5013/5020: 480 bar  
 RR-756/7513: 495 bar

◀ For full features see previous page.

Cylinder Capacity	Stroke	Model Number	Max. Cylinder Capacity (kN)		Cylinder Effective Area (cm <sup>2</sup> )		Oil Capacity (cm <sup>3</sup> )		Coll. Height	Ext. Height	Outside Dia.
			ton	(mm)	Push	Pull	Push	Pull	Push	Pull	A (mm)
10	254	RR-1010 *	101	33	14,5	4,8	368	122	409	663	73
	305	RR-1012 *	101	33	14,5	4,8	442	147	457	762	73
30	209	RR-308 *	295	53	42,1	19,1	879	400	395	604	101
	368	RR-3014 *	295	53	42,1	19,1	1549	703	549	917	101
50	156	RR-506	498	103	71,2	21,5	1111	335	331	487	127
	334	RR-5013	498	103	71,2	21,5	2378	718	509	843	127
	511	RR-5020	498	103	71,2	21,5	3638	1099	733	1244	127
75	156	RR-756	718	156	102,6	31,4	1601	490	347	503	146
	333	RR-7513	718	156	102,6	31,4	3417	1046	525	858	146
95	168	RR-1006	933	435	133,3	62,2	2238	1045	357	525	177
	333	RR-10013	933	435	133,3	62,2	4439	2071	524	857	177
	460	RR-10018	933	435	133,3	62,2	6132	2861	687	1147	177
140	57	RR-1502	1386	668	198,1	95,4	1129	544	196	253	203
	156	RR-1506	1386	668	198,1	95,4	3090	1488	385	541	203
	333	RR-15013	1386	668	198,1	95,4	6597	3177	582	915	203
	815	RR-15032	1386	668	198,1	95,4	16145	7775	1116	1931	203
200	152	RR-2006	1995	1017	285,0	145,3	4332	2209	430	582	247
	330	RR-20013	1995	1017	285,0	145,3	9405	4795	608	938	247
	457	RR-20018	1995	1017	285,0	145,3	13025	6640	765	1222	247
	610	RR-20024	1995	1017	285,0	145,3	17385	8863	917	1527	247
	914	RR-20036	1995	1017	285,0	145,3	26049	13280	1222	2136	247
	1219	RR-20048	1995	1017	285,0	145,3	34741	17712	1527	2746	247
325	153	RR-3006	3201	1703	457,3	243,2	6997	3721	485	638	311
	305	RR-30012	3201	1703	457,3	243,2	13947	7418	638	943	311
	457	RR-30018	3201	1703	457,3	243,2	20889	11114	790	1247	311
	609	RR-30024	3201	1703	457,3	243,2	27850	14811	943	1552	311
	915	RR-30036	3201	1703	457,3	243,2	41843	22253	1247	2162	311
	1219	RR-30048	3201	1703	457,3	243,2	55745	29646	1552	2771	311
440	152	RR-4006	4292	2297	613,1	328,1	9319	4987	538	690	358
	305	RR-40012	4292	2297	613,1	328,1	18700	10007	690	995	358
	457	RR-40018	4292	2297	613,1	328,1	28018	14995	843	1300	358
	610	RR-40024	4292	2297	613,1	328,1	37400	20014	995	1605	358
	914	RR-40036	4292	2297	613,1	328,1	56037	29988	1300	2214	358
	1219	RR-40048	4292	2297	613,1	328,1	74737	39996	1605	2824	358
520	153	RR-5006	5108	2838	729,7	405,4	11164	6203	577	730	397
	305	RR-50012	5108	2838	729,7	405,4	22256	12365	730	1035	397
	457	RR-50018	5108	2838	729,7	405,4	33347	18526	882	1339	397
	609	RR-50024	5108	2838	729,7	405,4	44440	24689	1035	1644	397
	915	RR-50036	5108	2838	729,7	405,4	66768	36973	1339	2254	397
	1219	RR-50048	5108	2838	729,7	405,4	88951	49418	1644	2863	397

\* For RR-1010 and RR-1012: N = 32 mm; for RR-308 and RR-3014: N = 55 mm.

# Double-Acting Long Stroke Cylinders


Capacity:  
**10 - 520 ton**

Stroke:  
**57 - 1219 mm**

Maximum Operating Pressure:  
**700 bar**

**RR**  
Series



Cyl. Bore Dia. E (mm)	Plgr. Dia. F (mm)	Base to Adv. Port H (mm)	Top to Ret. Port I (mm)	Saddle Dia. J (mm)	Saddle Protr. fr. Plgr. K (mm)	Plunger Internal Thread O	Plunger Thread Length P (mm)	Base Mounting Holes			Collar Thread W	Collar Thread Length X (mm)	 (kg)	Model Number
								Bolt Circle U (mm)	Thread V	Thread Depth Z (mm)				
42,9	34,9	36	57	35	6	1" - 8	25	-	-	-	2 1/4" - 14	26	12	RR-1010*
42,9	34,9	36	57	35	6	1" - 8	25	-	-	-	2 1/4" - 14	26	14	RR-1012*
73,2	54,1	39	81	50	10	1 1/2" - 16	25	-	-	-	3 5/16" - 12	49	18	RR-308*
73,2	54,1	39	81	50	10	1 1/2" - 16	25	-	-	-	3 5/16" - 12	49	29	RR-3014*
95,2	79,5	28	76	71	2	1" - 12	25	-	-	-	5" - 12	44	30	RR-506
95,2	79,5	28	76	71	2	1" - 12	25	-	-	-	5" - 12	44	52	RR-5013
95,2	79,5	57	76	71	2	1" - 12	25	76	1/2" - 13	25	5" - 12	44	68	RR-5020
114,3	95,2	30	76	71	6	1" - 12	38	-	-	-	5 3/4" - 12	38	41	RR-756
114,3	95,2	30	81	71	6	1" - 12	38	-	-	-	5 3/4" - 12	38	68	RR-7513
130,3	95,2	38	71	76	3	1 3/4" - 12	35	139	3/4" - 10	25	6 7/8" - 12	50	61	RR-1006
130,3	95,2	38	71	76	3	1 3/4" - 12	35	139	3/4" - 10	25	6 7/8" - 12	50	93	RR-10013
130,3	95,2	41	92	76	3	1 3/4" - 12	35	139	3/4" - 10	25	6 7/8" - 12	50	117	RR-10018
158,8	114,3	22	66	95	19	-	-	-	-	-	-	-	49	RR-1502
158,8	114,3	49	84	114	19	3 3/8" - 16	35	158	3/4" - 16	28	8" - 12	55	93	RR-1506
158,8	114,3	49	84	114	19	3 3/8" - 16	35	158	3/4" - 16	28	8" - 12	55	124	RR-15013
158,8	114,3	76	88	114	19	3 3/8" - 16	35	-	-	-	8" - 12	55	238	RR-15032
190,5	133,4	57	96	133	22	-	-	127	1" - 8	25	-	-	147	RR-2006
190,5	133,4	57	96	133	22	2 1/2" - 12	63	127	1" - 8	25	9 3/4" - 12	54	199	RR-20013
190,5	133,4	85	101	133	22	2 1/2" - 12	63	127	1" - 8	25	9 3/4" - 12	54	204	RR-20018
190,5	133,4	85	101	133	22	2 1/2" - 12	63	127	1" - 8	25	9 3/4" - 12	54	279	RR-20024
190,5	133,4	85	101	133	22	2 1/2" - 12	63	127	1" - 8	25	9 3/4" - 12	54	383	RR-20036
190,5	133,4	85	101	133	22	2 1/2" - 12	63	127	1" - 8	25	9 3/4" - 12	54	483	RR-20048
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	200	RR-3006
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	312	RR-30012
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	385	RR-30018
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	469	RR-30024
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	628	RR-30036
241,3	165,1	88	114	165	28	2 1/2" - 12	82	158	1 1/4" - 7	44	12 1/4" - 12	58	780	RR-30048
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	303	RR-4006
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	399	RR-40012
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	453	RR-40018
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	597	RR-40024
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	792	RR-40036
279,4	190,5	108	133	190	28	3" - 12	95	203	1 1/2" - 6	50	14 1/8" - 8	65	980	RR-40048
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	432	RR-5006
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	589	RR-50012
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	680	RR-50018
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	816	RR-50024
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	1002	RR-50036
304,8	203,2	120	152	203	28	3 1/4" - 12	108	203	1 3/4" - 5	57	15 5/8" - 8	79	1224	RR-50048