

HYDRAULIC CYLINDER DOUBLE ACTING

ARR SERIES

Capacity: 10-520 TON
Double Acting, Hydraulic-Return
700 Bar (10,000 psi)

FEATURES

- Double acting operation for fast, controlled piston retraction.
- Built-in safety valve prevents accidental over-pressurization.
- Collar, piston threads, and base mounting holes enable easy fixturing (most models).
- Hardened, and E-coated snap-in type saddle prevents piston jamming and mushrooming.
- Hardened and Chromed piston reduces wear and corrosion.
- Convenient carrying handles or eye bolts on larger models for ease carrying and positioning.
- Environmentally friendly coating process provides a durable anti-corrosion finish.
- Rugged, ACR-400 Female couplers with dust covers provided.
- Complies with ASME B30.1 standards.

These long stroke ARR-cylinders are attached in a sliding and guiding system pulling the arched roof assembly of Athens Olympic Stadium step by step into the final position.



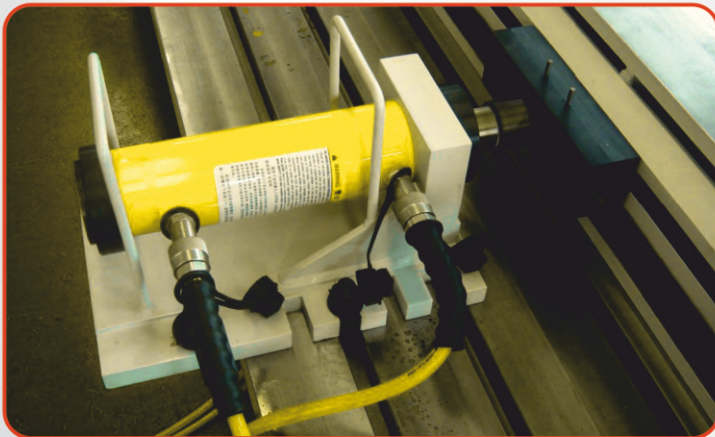
Optional Snap-in Saddles

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

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

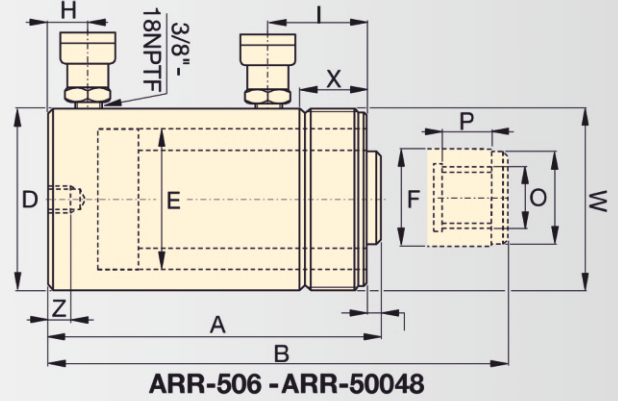
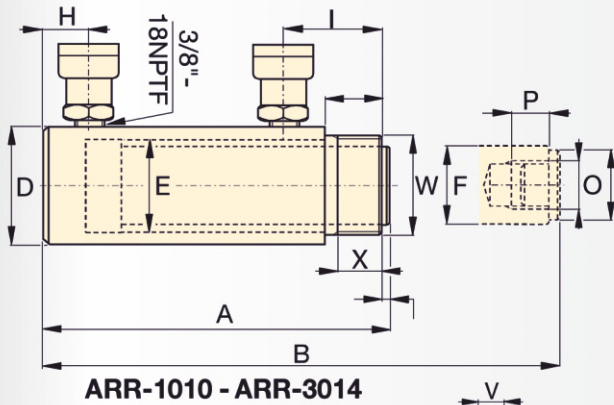
Standard Saddles:

Grooved	ARR-1010, 1012	A-102G
	ARR-308, 3014	A-252G



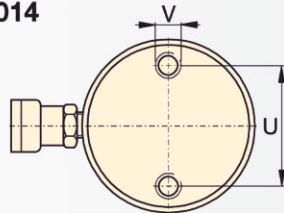
ARR-cylinders provide power and precision in a special hydraulic press.





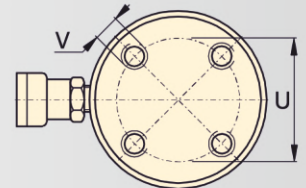
ARR-4006 - ARR-50048

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



ARR-1006 - ARR-30048

No mounting holes on:
ARR-506, 5013
ARR-756, 7513
ARR-1502, 15013



For full features see previous page.

Model Number	Cylinder Capacity ton	Stroke (mm)	Max. Cylinder Capacity (kN)		Cylinder Effective Area (cm ²)		Oil Capacity (cm ³)		Coll. Height A (mm)	Ext. Height B (mm)	Outside Dia. D (mm)	Cyl. Bore Dia. E (mm)	Plgr. Dia. F (mm)	Base to Adv. Port H (mm)	Top to Ret. Port I (mm)	Plunger Internal Thread O	Plunger Thread Length P (mm)	Collar Thread W	Collar Thread Length X (mm)	Weight (kg)
			Push	Pull	Push	Pull	Push	Pull												
ARR-1010 *	10	254	101	33	14,5	4,8	368	122	409	663	73	42,9	34,9	36	57	1"-8	25	2 1/4"-14	26	12
ARR-1012 *		305	101	33	14,5	4,8	442	147	457	762	73	42,9	34,9	36	57	1"-8	25	2 1/4"-14	26	14
ARR-308 *	30	209	295	53	42,1	19,1	879	400	395	604	101	73,2	54,1	39	81	1 1/2"-16	25	3 7/16"-12	49	18
ARR-3014 *		368	295	53	42,1	19,1	1549	703	549	917	101	73,2	54,1	39	81	1 1/2"-16	25	3 7/16"-12	49	29
ARR-506	50	156	498	103	71,2	21,5	1111	335	331	487	127	95,2	79,5	28	76	1"-12	25	5"-12	44	30
ARR-5013		334	498	103	71,2	21,5	2378	718	509	843	127	95,2	79,5	28	76	1"-12	25	5"-12	44	52
ARR-5020		511	498	103	71,2	21,5	3638	1099	733	1244	127	95,2	79,5	57	76	1"-12	25	5"-12	44	68
ARR-756	75	156	718	156	102,6	31,4	1601	490	347	503	146	114,3	95,2	30	76	1"-12	38	5 3/4"-12	38	41
ARR-7513		333	718	156	102,6	31,4	3417	1046	525	858	146	114,3	95,2	30	81	1"-12	38	5 3/4"-12	38	68
ARR-1006	95	168	933	435	133,3	62,2	2238	1045	357	525	177	130,3	95,2	38	71	1 3/4"-12	35	6 7/8"-12	50	61
ARR-10013		333	933	435	133,3	62,2	4439	2071	524	857	177	130,3	95,2	38	71	1 3/4"-12	35	6 7/8"-12	50	93
ARR-10018		460	933	435	133,3	62,2	6132	2861	687	1147	177	130,3	95,2	41	92	1 3/4"-12	35	6 7/8"-12	50	117
ARR-1502	140	57	1386	668	198,1	95,4	1129	544	196	253	203	158,8	114,3	22	66	-	-	-	-	49
ARR-1506		156	1386	668	198,1	95,4	3090	1488	385	541	203	158,8	114,3	49	84	3 3/8"-16	35	8"-12	55	93
ARR-15013		333	1386	668	198,1	95,4	6597	3177	582	915	203	158,8	114,3	49	84	3 3/8"-16	35	8"-12	55	124
ARR-15032		815	1386	668	198,1	95,4	16145	7775	1116	1931	203	158,8	114,3	76	88	3 3/8"-16	35	8"-12	55	238
ARR-2006	200	152	1995	1017	285,0	145,3	4332	2209	430	582	247	190,5	133,4	57	96	-	-	-	-	147
ARR-20013		330	1995	1017	285,0	145,3	9405	4795	608	938	247	190,5	133,4	57	96	2 1/2"-12	63	9 3/4"-12	54	199
ARR-20018		457	1995	1017	285,0	145,3	13025	6640	765	1222	247	190,5	133,4	85	101	2 1/2"-12	63	9 3/4"-12	54	204
ARR-20024		610	1995	1017	285,0	145,3	17385	8863	917	1527	247	190,5	133,4	85	101	2 1/2"-12	63	9 3/4"-12	54	279
ARR-20036		914	1995	1017	285,0	145,3	26049	13280	1222	2136	247	190,5	133,4	85	101	2 1/2"-12	63	9 3/4"-12	54	383
ARR-20048		1219	1995	1017	285,0	145,3	34741	17712	1527	2746	247	190,5	133,4	85	101	2 1/2"-12	63	9 3/4"-12	54	483
ARR-3006	325	153	3201	1703	457,3	243,2	6997	3721	485	638	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	200
ARR-30012		305	3201	1703	457,3	243,2	13947	7418	638	943	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	312
ARR-30018		457	3201	1703	457,3	243,2	20889	11114	790	1247	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	385
ARR-30024		609	3201	1703	457,3	243,2	27850	14811	943	1552	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	469
ARR-30036		915	3201	1703	457,3	243,2	41843	22253	1247	2162	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	628
ARR-30048		1219	3201	1703	457,3	243,2	55745	29646	1552	2771	311	241,3	165,1	88	114	2 1/2"-12	82	12 1/4"-12	58	780
ARR-4006	440	152	4292	2297	613,1	328,1	9319	4987	538	690	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	303
ARR-40012		305	4292	2297	613,1	328,1	18700	10007	690	995	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	399
ARR-40018		457	4292	2297	613,1	328,1	28018	14995	843	1300	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	453
ARR-40024		610	4292	2297	613,1	328,1	37400	20014	995	1605	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	597
ARR-40036		914	4292	2297	613,1	328,1	56037	29988	1300	2214	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	792
ARR-40048		1219	4292	2297	613,1	328,1	74737	39996	1605	2824	358	279,4	190,5	108	133	3"-12	95	14 1/8"-8	65	980
ARR-5006	520	153	5108	2838	729,7	405,4	11164	6203	577	730	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	432
ARR-50012		305	5108	2838	729,7	405,4	22256	12365	730	1035	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	589
ARR-50018		457	5108	2838	729,7	405,4	33347	18526	882	1339	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	680
ARR-50024		609	5108	2838	729,7	405,4	44440	24689	1035	1644	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	816
ARR-50036		915	5108	2838	729,7	405,4	66768	36973	1339	2254	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	1002
ARR-50048		1219	5108	2838	729,7	405,4	88951	49418	1644	2863	397	304,8	203,2	120	152	3 3/4"-12	108	15 5/8"-8	79	1224

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