

Since 1940

LARZEP

HYDRAULIC

Performance under Pressure



V01/14

www.larzep.com

Since 1940

LARZEP

HYDRAULIC

GENERAL CATALOGUE

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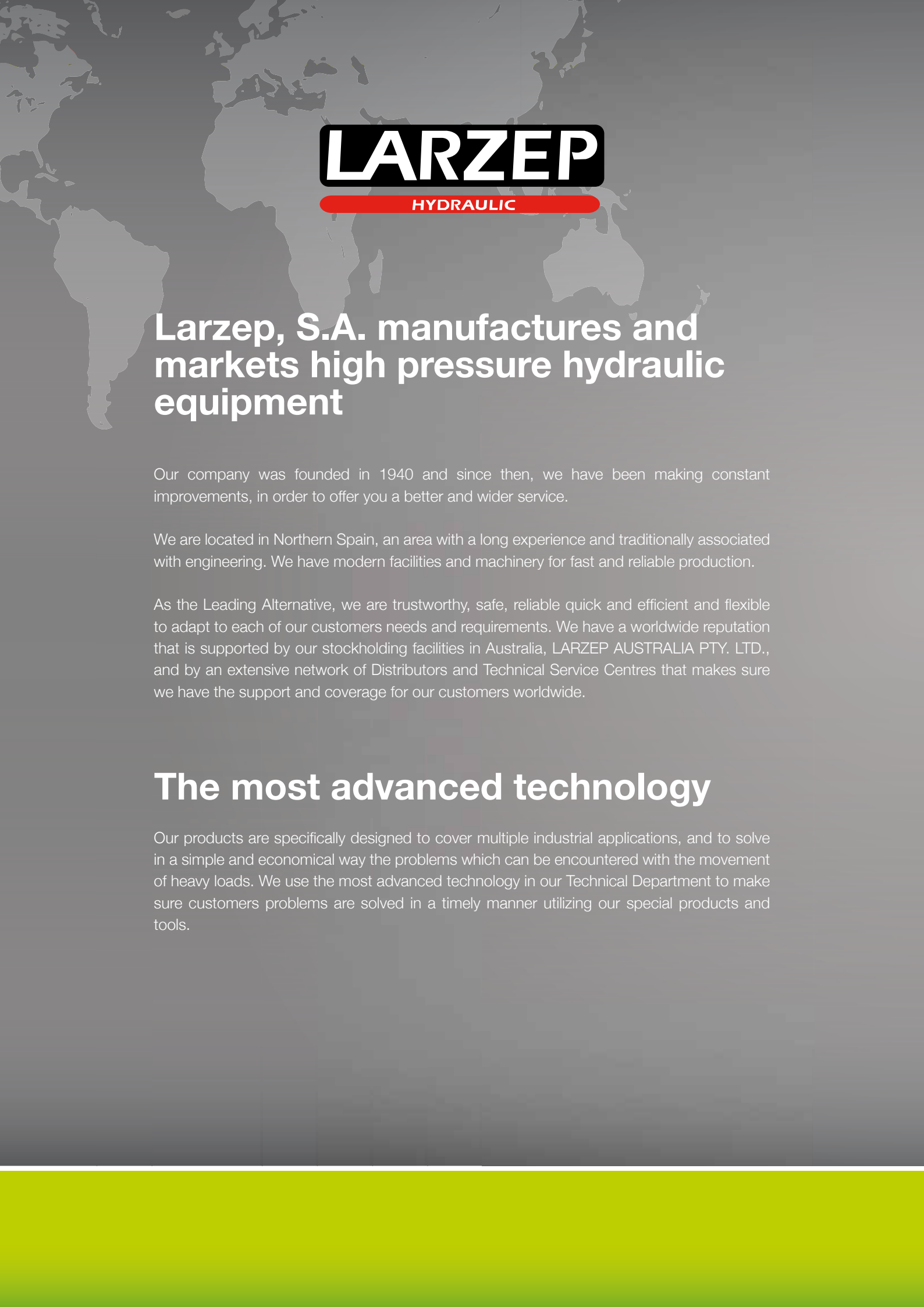
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LARZEP

HYDRAULIC

Larzep, S.A. manufactures and markets high pressure hydraulic equipment

Our company was founded in 1940 and since then, we have been making constant improvements, in order to offer you a better and wider service.

We are located in Northern Spain, an area with a long experience and traditionally associated with engineering. We have modern facilities and machinery for fast and reliable production.

As the Leading Alternative, we are trustworthy, safe, reliable quick and efficient and flexible to adapt to each of our customers needs and requirements. We have a worldwide reputation that is supported by our stockholding facilities in Australia, LARZEP AUSTRALIA PTY. LTD., and by an extensive network of Distributors and Technical Service Centres that makes sure we have the support and coverage for our customers worldwide.

The most advanced technology

Our products are specifically designed to cover multiple industrial applications, and to solve in a simple and economical way the problems which can be encountered with the movement of heavy loads. We use the most advanced technology in our Technical Department to make sure customers problems are solved in a timely manner utilizing our special products and tools.

Quality

A specific solution for each customer, with the best design and best manufacturing techniques and control, we test each product to guarantee its working life, price and reliability.

This process is supported by the Registered Firm Certificate ER-0404/1995 of UNE-EN ISO 9001:2008 standard and the application of several European and International standards which we apply for each product range. Our Quality Management System is certified since 1995.



Since 1940

LARZEP

HYDRAULIC

HYDRAULIC CYLINDERS. GENERAL FEATURES

LARZEP cylinders are made of the highest quality materials. Our wide ranges of products are able to perform all kind of industrial applications such as: lifting, pushing, pulling, bending, holding, etc. The Quality System UNE-EN ISO 9001:2008 and the compliance with the standard ANSI-B30.1 guarantees the design, manufacturing, supply and after-sales service.

All our models are tested under a safety factor of 1,5 to meet the requirements of the European Standards CE and all our products are tested individually in order to maximize the quality and the safety of all them.

- Fully comply with ANSI B30.1
- All units load tested under 125% of the nominal capacity.
- Mechanical end of stroke gland avoids over travel at full pressure.
- Cylinder bodies made out of solid high strength alloy steel.
- Hard chrome plated pistons.
- Wiper seal reduces contamination and allows longer life.
- Wear rings for long service life and high absorption of side loads.
- Hardened grooved saddles as standard, optional tilting saddles improve side load resistance.
- Heavy cylinders include carrying handles or eye bolts.
- Female coupling AZ3140 with plastic dust cap included in all cylinders.
- LARZEP designs and manufactures special cylinders and fixing systems.



Cylinders

Models	Capacity	Stroke	Cylinder type		Page
	Tn (kN)	mm			
SM	5 - 220 (45 - 2.156)	25 - 362	Single Acting Spring Return Cylinders Attachments for SM and D cylinders		6
SAM	23 - 200 (228 - 1.947)	50 - 300	Aluminium Single Acting Cylinders, Spring Return		12
SH	12 - 100 (121 - 1.018)	40 - 153	Single Acting Hollow Piston Cylinders, Spring Return		16
SAH	22 - 150 (217 - 1.407)	50 - 250	Aluminium Single Acting Cylinders, Hollow Piston, Spring Return		18
SP - SMP	10 - 100 (109 - 911)	40 - 150	Single Acting Low Height Cylinders, Load or Spring Return		22
SPR	140 - 1.100 (1.379 - 10.910)	50 - 300	Single Acting Low Height Cylinders, High Tonnage, Load Return		24
SX - SMX	4 - 150 (44 - 1.450)	6 - 16	Single Acting Low Profile Cylinders, Load or Spring Return		30
STR	30 - 1.100 (303 - 10.905)	50 - 300	Single Acting Lock Nut Cylinders, Load Return		32
SAT	30 - 200 (303 - 1.946)	50 - 300	Aluminium Single Acting Cylinders, Lock Nut, Load Return		38
SATM	30 - 200 (303 - 1.946)	50 - 300	Aluminium Single Acting Cylinders, Lock Nut, Stop Ring, Spring Return		42
STX	50 - 1.100 (486 - 10.905)	45 - 50	Single Acting Pancake Cylinders, Lock Nut Tilting Saddle, Load Return		46
SL	10 - 30 (109 - 1.380)	135 - 600	Single Acting Telescopic Cylinders		48
SSR	140 - 1.100 (1.380 - 10.916)	50 - 300	Single Acting High Tonnage Cylinders, Load Return		50
T - TE - TD	5 - 50 (54 - 483)	140 - 150	Pull Cylinders		54
D	10 - 550 (109 - 5.519)	50 - 320	Double Acting Cylinders		56
DDA	50 - 200 (487 - 1.946)	50 - 300	Aluminium Double Acting Cylinders		60
DH	30 - 150 (302 - 1.407)	38 - 250	Double Acting Hollow Piston Cylinders		64
DAH	30 - 150 (302 - 1.407)	50 - 250	Aluminium Double Acting Cylinders, Hollow Piston		66
DDR	50 - 1.100 (486 - 10.921)	50 - 300	Double Acting High Tonnage Cylinders		68
DM - DI	4 - 23 (34 - 228)	28 - 260	Double Acting Production Cylinders		72
J	5 - 100 (49 - 1.018)	40 - 362	Cylinder - Pump Sets		76

SINGLE ACTING SPRING RETURN CYLINDERS



LARZEP advantages

- Capacity from 5 to 220 Tn, stroke up to 360 mm.
- Industrial general purpose cylinders.
- Strong spring for quick retraction, can be used in all positions.
- Collar threads, piston end threads and base holes, for accessory mounting.
- Hard chrome-plated piston with wiper seal to extend cylinder life.
- Heavy cylinders have carrying handles or eye bolts as standard.



SM cylinders are equipped with hardened grooved saddles. In case of operation under side loads, LARZEP can supply tilting saddles.

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Special attachments for SM and D models.

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Coupler 3/8"-18 NPT included.

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S/A SPRING RETURN



SM

5-220 Tn.

700 bar

Body made of solid steel.

Stop ring can withstand full capacity of the cylinder.

Guiding bands to improve resistance against side loads.

Carefully read and understand the safety instructions.



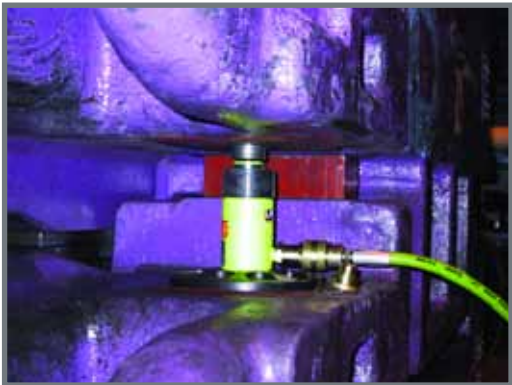
Pump and Cylinder Sets.

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Lightweight Aluminium Cylinders, SAM.

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Double Acting Cylinders, D.

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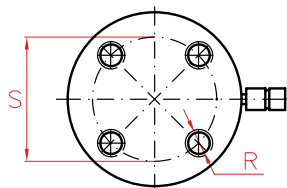
Larzep designs and manufactures special cylinders and fixing systems, upon request.



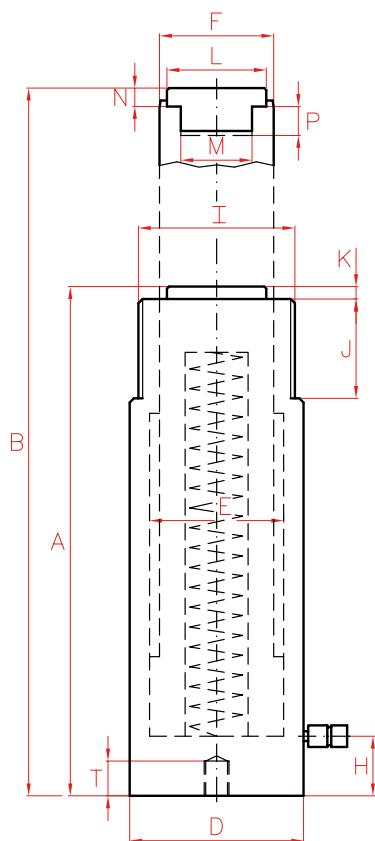
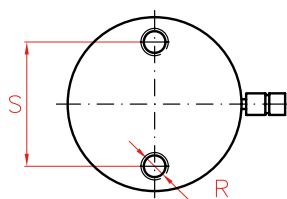
Pressure Gauges.

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Models from 100 to 140 Tn.



Models up to 75 Tn.



* SM01002 and SM01502 models are not provided with removable saddles. The top side of the piston has been heat treated to upgrade its hardness.



Capacity		Stroke	Model	Oil Cap.	A	B	D	E	F	H	I	
Tn	kN	mm	LARZEP	cm ³	mm	mm	mm	mm	mm	mm	UN	
5	49	25	SM00502	18	110	135	40	30	25	19	1 1/2"-16	
		76	SM00508	54	168	244	40	30	25	19	1 1/2"-16	
		127	SM00513	90	219	346	40	30	25	19	1 1/2"-16	
		180	SM00518	128	276	456	40	30	25	19	1 1/2"-16	
		232	SM00523	164	328	560	40	30	25	19	1 1/2"-16	
10	109	25	SM01002	40	90	115	60	45	36	20	2 1/4"-14	
		54	SM01005	86	121	175	60	45	36	20	2 1/4"-14	
		105	SM01010	167	172	277	60	45	36	20	2 1/4"-14	
		155	SM01015	247	247	402	60	45	36	20	2 1/4"-14	
		205	SM01020	326	301	506	60	45	36	20	2 1/4"-14	
		257	SM01025	409	352	609	60	45	36	20	2 1/4"-14	
		307	SM01030	489	402	709	60	45	36	20	2 1/4"-14	
		355	SM01035	565	454	809	60	45	36	20	2 1/4"-14	
15	163	25	SM01502	60	127	152	75	55	45	20	2 3/4"-16	
		54	SM01505	129	155	209	75	55	45	20	2 3/4"-16	
		105	SM01510	250	205	310	75	55	45	20	2 3/4"-16	
		155	SM01515	369	275	430	75	55	45	20	2 3/4"-16	
		205	SM01520	487	327	532	75	55	45	20	2 3/4"-16	
		257	SM01525	611	379	636	75	55	45	20	2 3/4"-16	
		307	SM01530	730	426	733	75	55	45	20	2 3/4"-16	
		355	SM01535	844	477	832	75	55	45	20	2 3/4"-16	
23	228	25	SM02302	83	140	165	85	65	56	25	3 5/16"-12	
		51	SM02305	170	166	217	85	65	56	25	3 5/16"-12	
		102	SM02310	339	217	319	85	65	56	25	3 5/16"-12	
		159	SM02315	528	277	436	85	65	56	25	3 5/16"-12	
		210	SM02321	697	327	537	85	65	56	25	3 5/16"-12	
		261	SM02326	866	379	640	85	65	56	25	3 5/16"-12	
		310	SM02331	1.029	430	740	85	65	56	25	3 5/16"-12	
		362	SM02336	1.201	480	842	85	65	56	25	3 5/16"-12	
30	303	60	SM03006	265	165	225	100	75	60	30	3 7/8"-12	
		150	SM03015	663	270	420	100	75	60	30	3 7/8"-12	
		210	SM03021	928	340	550	100	75	60	30	3 7/8"-12	
50	487	60	SM05006	426	176	236	127	95	80	35	5"-12	
		102	SM05010	723	227	329	127	95	80	35	5"-12	
		160	SM05016	1.134	285	445	127	95	80	35	5"-12	
		200	SM05020	1.418	325	525	127	95	80	35	5"-12	
		250	SM05025	1.772	376	626	127	95	80	35	5"-12	
		339	SM05034	2.402	465	804	127	95	80	35	5"-12	
75	713	160	SM07516	1.661	285	445	150	115	90	35	5 3/4"-12	
		330	SM07533	3.426	495	825	150	115	90	35	5 3/4"-12	
100	911	60	SM10006	797	180	240	177	130	110	40	6 7/8"-12	
		150	SM10015	1.991	300	450	177	130	110	40	6 7/8"-12	
		260	SM10026	3.451	449	709	177	130	110	40	6 7/8"-12	
140	1.380	60	SM14006	1.206	190	250	216	160	140	40	8 1/2"-12	
		150	SM14015	3.015	320	470	216	160	140	40	8 1/2"-12	
		260	SM14026	5.226	470	730	216	160	140	40	8 1/2"-12	
220	2.156	150	SM22015	4.710	340	490	250	200	160	40	-	

Performance under Pressure

	J	K	L	M	N	P	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	UN	mm	mm	UN	mm	mm	cm ²	kg	LARZEP	A	Model
	28	6	25	3/4"-16	6	14	1/4"-20	25	14	7	1,0	SM00502	-	-
	28	6	25	3/4"-16	6	14	1/4"-20	25	14	7	1,5	SM00508	-	-
	28	6	25	3/4"-16	6	14	1/4"-20	25	14	7	1,9	SM00513	-	-
	28	6	25	3/4"-16	6	14	1/4"-20	25	14	7	2,4	SM00518	-	-
	28	6	25	3/4"-16	6	14	1/4"-20	25	14	7	2,8	SM00523	-	-
	32	6	*	*	*	*	5/16"-18	39	12	16	1,8	SM01002	*	*
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	2,4	SM01005	140	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	3,3	SM01010	191	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	4,7	SM01015	266	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	5,7	SM01020	320	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	6,6	SM01025	371	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	7,4	SM01030	421	AZ0420
	32	6	28	1"-8	10	19	5/16"-18	39	12	16	8,4	SM01035	473	AZ0420
	32	8	*	*	*	*	3/8"-16	47	12	24	4,2	SM01502	*	*
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	5,0	SM01505	176	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	6,4	SM01510	226	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	8,5	SM01515	296	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	10,0	SM01520	348	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	11,5	SM01525	400	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	12,8	SM01530	447	AZ0423
	32	8	35	1"-8	8	25	3/8"-16	47	12	24	14,2	SM01535	498	AZ0423
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	6,0	SM02302	158	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	7,0	SM02305	184	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	8,9	SM02310	235	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	11,2	SM02315	295	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	13,0	SM02321	345	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	15,0	SM02326	397	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	16,9	SM02331	448	AZ0421
	45	10	45	1 1/2"-16	10	25	1/2"-13	58	19	33	18,8	SM02336	498	AZ0421
	48	10	45	1 1/2"-16	10	25	1/2"-13	66	19	44	9,3	SM03006	183	AZ0421
	48	10	45	1 1/2"-16	10	25	1/2"-13	66	19	44	14,6	SM03015	288	AZ0421
	48	10	45	1 1/2"-16	10	25	1/2"-13	66	19	44	18,2	SM03021	358	AZ0421
	55	5	61	-	12	-	1/2"-13	95	19	71	16,4	SM05006	203	AZ0402
	55	5	61	-	12	-	1/2"-13	95	19	71	20,7	SM05010	254	AZ0402
	55	5	61	-	12	-	1/2"-13	95	19	71	25,5	SM05016	312	AZ0402
	55	5	61	-	12	-	1/2"-13	95	19	71	29,0	SM05020	352	AZ0402
	55	5	61	-	12	-	1/2"-13	95	19	71	33,1	SM05025	403	AZ0402
	55	5	61	-	12	-	1/2"-13	95	19	71	40,4	SM05034	492	AZ0402
	55	5	61	-	12	-	3/4"-10	115	19	104	32,0	SM07516	312	AZ0402
	55	5	61	-	12	-	3/4"-10	115	19	104	54,0	SM07533	522	AZ0402
	55	5	88	-	14	-	3/4"-10	139	25	133	32,0	SM10006	213	AZ0404
	55	5	88	-	14	-	3/4"-10	139	25	133	53,0	SM10015	333	AZ0404
	55	5	88	-	14	-	3/4"-10	139	25	133	78,5	SM10026	482	AZ0404
	55	5	88	-	15	-	3/4"-10	165	25	201	52,0	SM14006	222	AZ0404
	55	5	88	-	15	-	3/4"-10	165	25	201	85,7	SM14015	352	AZ0404
	55	5	88	-	15	-	3/4"-10	165	25	201	124,5	SM14026	502	AZ0404
	-	5	111	-	15	-	-	-	-	314	116,5	SM22015	377	AZ0405

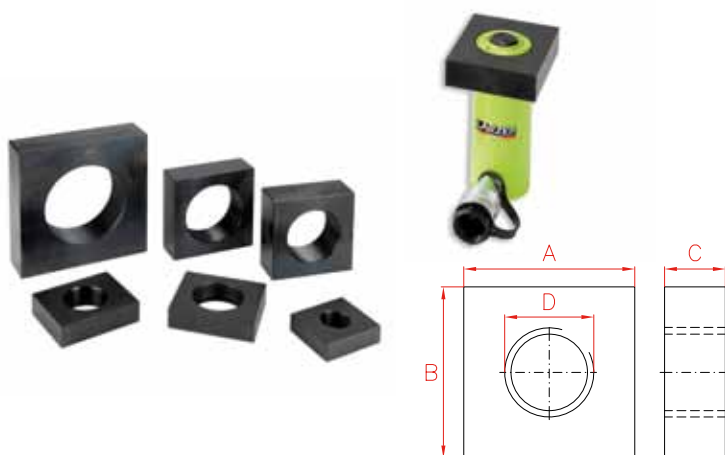
SPECIAL ATTACHMENTS FOR SM AND D MODELS

Base plate



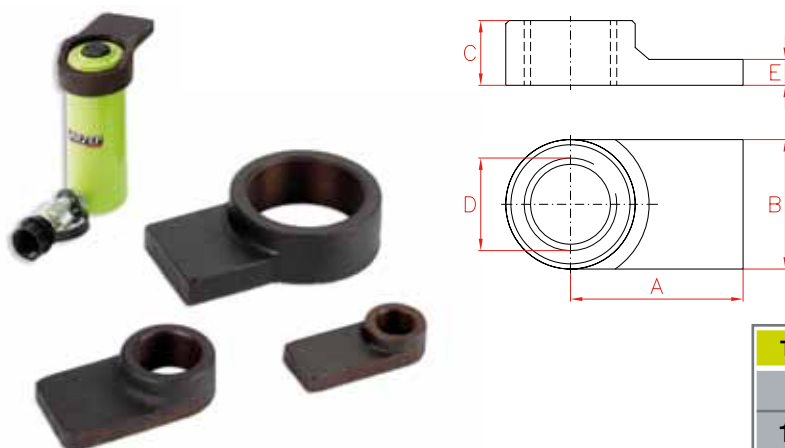
	Model	A	B	C	D	Weight
Tn	LARZEP	mm	mm	mm	mm	kg
5	SM005P	150	15	25	7,0	2,2
10	SM010P	180	15	39	8,5	4,1
15	SM015P	180	15	47	10,0	4,1
23	SM023P	215	17	58	13,5	4,9
30	SM030P	215	17	66	13,5	4,9
50	SM050P	305	22	95	13,5	13,1
75	SM075P	350	32	115	21,0	25,6
100	SM100P	400	40	139	21 (4)	29,3

Mounting block



	Model	A	B	C	D
Tn	LARZEP	mm	mm	mm	UN
5	SM005B	76	90	25	1 1/2" - 16
10	SM010B	90	114	30	2 1/4" - 14
15	SM015B	100	114	30	2 3/4" - 16
23	SM023B	127	127	45	3 5/16" - 12
30	SM030B	135	135	45	3 7/8" - 12
50	SM050B	200	200	55	5" - 12
100	SM100B	330	330	55	6 7/8" - 12

Collar toe

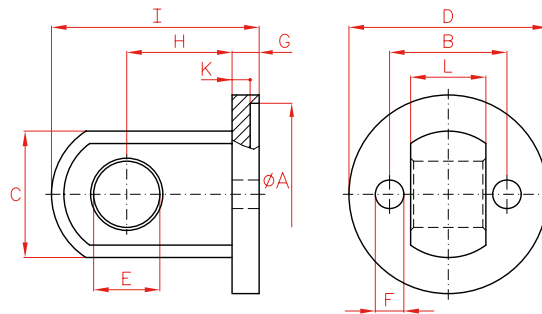


When using this accessory do not exceed 350 bar.



	Model	A	B	C	D	E
Tn	LARZEP	mm	mm	mm	UN	mm
5	SM005U	71	40	30	1 1/2" - 16	11
10	SM010U	79	60	37	2 1/4" - 14	12
23	SM023U	105	80	40	3 5/16" - 12	20

Clevis eye body

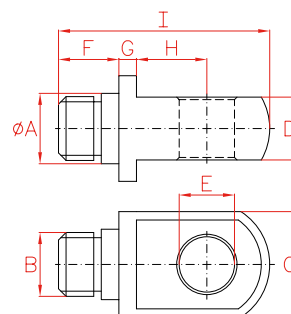


	Model	A	B	C	D	E	F	G	H	I	K	L
Tn	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
5	SM005RB	41	25	28	46	16	8	9	25	50	6	14
10	SM010RB	61	39	42	66	22	10	9	35	69	6	25
15	SM015RB	76	47	42	82	22	11	9	35	69	6	25
23	SM023RB	86	58	57	95	31	14	12	41	84	7	38

Clevis eye piston



	Model	A	B	C	D	E	F	G	H	I
Tn	LARZEP	mm	UN	mm	mm	mm	mm	mm	mm	mm
5	SM005RP	25	3/4"-16	28	14	16	15	5	19	55
10-15	SM010-15RP	28	1"-8	42	25	22	24	7	28	84
15	SM023RP	45	1/2"-16	57	38	31	27	8	35	101



Larzep designs and manufactures special cylinders and fixing systems, upon request.



ALUMINIUM SINGLE ACTING CYLINDERS, SPRING RETURN**LARZEP advantages**

- Lightweight general purpose cylinders from 23 to 200 Tn, stroke up to 300 mm.
- Made out of high strength aluminium alloy.
- Solid piston, spring return.
- All aluminium parts are treated to improve resistance and extend working life.
- 40% weight reduction when compared with steel equivalent.
- Fitted with steel base plate and saddle for wear resistance.
- Not suitable for high cycle applications.

Carefully read and understand the safety instructions.



Coupler 3/8"-18 NPT included.

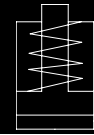
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Larzep manufactures special aluminium cylinders. For further information, contact us.



S/A ALUMINIUM CYLINDERS



SAM

23-200 Tn.

700 bar

CYLINDERS

The body, stop ring and piston of the cylinder are hard anodized to strengthen the working area and extend its working life.

The weight reduction makes them especially suitable for use in sites of difficult access.

It is highly recommended to place the cylinder on a flat area in order to avoid any damage to the base.



Lightweight Aluminium Hollow Piston Cylinders SAH.

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Double Acting Aluminium Cylinders, DDA.

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Aluminium Single Acting Cylinders with Lock Nut SAT.

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Aluminium Single Acting, Spring Return Cylinder, with Lock Nut and Stop Ring, SATM.

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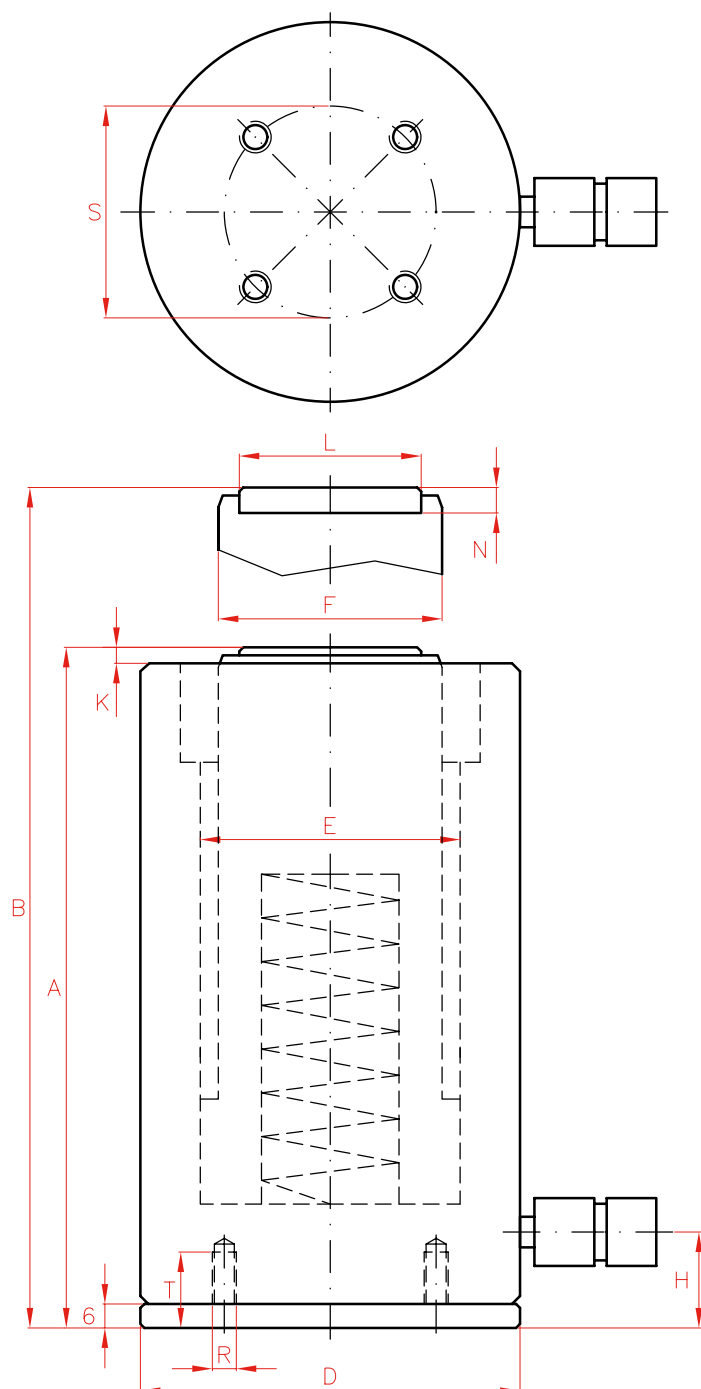
Carefully read and understand the safety instructions.



Hoses.

Page.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
23	228	50	SAM02305	166	156	
		100	SAM02310	332	206	
		150	SAM02315	497	256	
		200	SAM02320	663	306	
		250	SAM02325	830	356	
		300	SAM02330	995	406	
30	303	50	SAM03005	221	172	
		100	SAM03010	442	222	
		150	SAM03015	663	272	
		200	SAM03020	883	322	
		250	SAM03025	1.104	372	
		300	SAM03030	1.325	422	
50	487	50	SAM05005	354	180	
		100	SAM05010	709	230	
		150	SAM05015	1.063	280	
		200	SAM05020	1.417	330	
		250	SAM05025	1.772	380	
		300	SAM05030	2.126	430	
100	911	50	SAM10005	663	210	
		100	SAM10010	1.326	260	
		150	SAM10015	1.989	310	
		200	SAM10020	2.652	360	
		250	SAM10025	3.315	410	
		300	SAM10030	3.982	460	
140	1.380	50	SAM14005	1.005	225	
		100	SAM14010	2.010	275	
		150	SAM14015	3.016	325	
		200	SAM14020	4.021	375	
		250	SAM14025	5.026	425	
200	1.947	50	SAM20005	1.417	234	
		100	SAM20010	2.835	284	
		150	SAM20015	4.253	334	



Pressure Gauges.

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Optional Tilting Saddle.

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	B	D	E	F	H	K	L	N	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	cm ²	kg	LARZEP	A	Model
	206	95	65	56	24	4	45	11	M6	80	19	33	3,6	SAM02305	181	AZ0401
	306	95	65	56	24	4	45	11	M6	80	19	33	4,3	SAM02310	231	AZ0401
	406	95	65	56	24	4	45	11	M6	80	19	33	5,0	SAM02315	281	AZ0401
	506	95	65	56	24	4	45	11	M6	80	19	33	5,7	SAM02320	331	AZ0401
	606	95	65	56	24	4	45	11	M6	80	19	33	6,4	SAM02325	381	AZ0401
	706	95	65	56	24	4	45	11	M6	80	19	33	7,1	SAM02330	431	AZ0401
	222	105	75	60	24	6	45	11	M6	85	19	44	4,8	SAM03005	197	AZ0401
	322	105	75	60	24	6	45	11	M6	85	19	44	5,4	SAM03010	247	AZ0401
	422	105	75	60	24	6	45	11	M6	85	19	44	6,0	SAM03015	297	AZ0401
	522	105	75	60	24	6	45	11	M6	85	19	44	6,6	SAM03020	347	AZ0401
	622	105	75	60	24	6	45	11	M6	85	19	44	7,2	SAM03025	397	AZ0401
	722	105	75	60	24	6	45	11	M6	85	19	44	7,8	SAM03030	447	AZ0401
	230	135	95	80	26	7	61	12	M6	115	19	71	8,0	SAM05005	207	AZ0402
	330	135	95	80	26	7	61	12	M6	115	19	71	9,5	SAM05010	257	AZ0402
	430	135	95	80	26	7	61	12	M6	115	19	71	11,0	SAM05015	307	AZ0402
	530	135	95	80	26	7	61	12	M6	115	19	71	11,5	SAM05020	357	AZ0402
	630	135	95	80	26	7	61	12	M6	115	19	71	13,0	SAM05025	407	AZ0402
	730	135	95	80	26	7	61	12	M6	115	19	71	14,5	SAM05030	457	AZ0402
	260	180	130	110	32	5	88	14	M6	160	19	133	16,0	SAM10005	243	AZ0404
	360	180	130	110	32	5	88	14	M6	160	19	133	19,0	SAM10010	293	AZ0404
	460	180	130	110	32	5	88	14	M6	160	19	133	22,0	SAM10015	343	AZ0404
	560	180	130	110	32	5	88	14	M6	160	19	133	25,0	SAM10020	393	AZ0404
	660	180	130	110	32	5	88	14	M6	160	19	133	28,0	SAM10025	443	AZ0404
	760	180	130	110	32	5	88	14	M6	160	19	133	31,0	SAM10030	493	AZ0404
	275	225	160	140	43	6	88	14	M6	200	19	201	24,0	SAM14005	258	AZ0404
	375	225	160	140	43	6	88	14	M6	200	19	201	29,0	SAM14010	308	AZ0404
	475	225	160	140	43	6	88	14	M6	200	19	201	34,0	SAM14015	358	AZ0404
	575	225	160	140	43	6	88	14	M6	200	19	201	39,0	SAM14020	408	AZ0404
	675	225	160	140	43	6	88	14	M6	200	19	201	44,0	SAM14025	458	AZ0404
	284	265	190	140	51	6	111	15	M6	225	19	284	31,0	SAM20005	271	AZ0405
	384	265	190	140	51	6	111	15	M6	225	19	284	38,0	SAM20010	321	AZ0405
	484	265	190	140	51	6	111	15	M6	225	19	284	45,0	SAM20015	371	AZ0405

SINGLE ACTING HOLLOW PISTON CYLINDERS, SPRING RETURN



LARZEP advantages

- Hollow cylinders from 12 to 100 Tn, stroke up to 150 mm.
- Designed for carrying out push and pull operations.
- Tightening of cables, bars, bolts, etc. Extraction of sleeves, bearings, etc.
- Hollow hard chrome-plated piston.
- Collar threads, piston thread and base holes for easy fixing.
- Interchangeable with our complete puller range.
- Hollow plain saddle as standard. Optional solid or threaded saddles available.

Strand jacks and Post tensioning available upon request.



Carefully read and understand the safety instructions.



Capacity		Stroke	Model	Oil Cap.	A	B	C	
Tn	kN	mm	LARZEP	cm ³	mm	mm	mm	
12	121	40	SH01204	70	124	164	21	
		76	SH01208	134	176	252	21	
		150	SH01215	264	300	450	21	
22	217	50	SH02205	158	165	215	27	
		150	SH02215	474	318	468	27	
30	302	50	SH03005	220	180	230	33	
		150	SH03015	660	322	472	33	
60	578	76	SH06008	640	253	329	56	
		153	SH06015	1.288	341	494	56	
100	1.018	80	SH10008	1.187	306	386	81	



Interchangeables
Saddles: plain,
threaded or solid.

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HOLLOW PISTON CYLINDERS

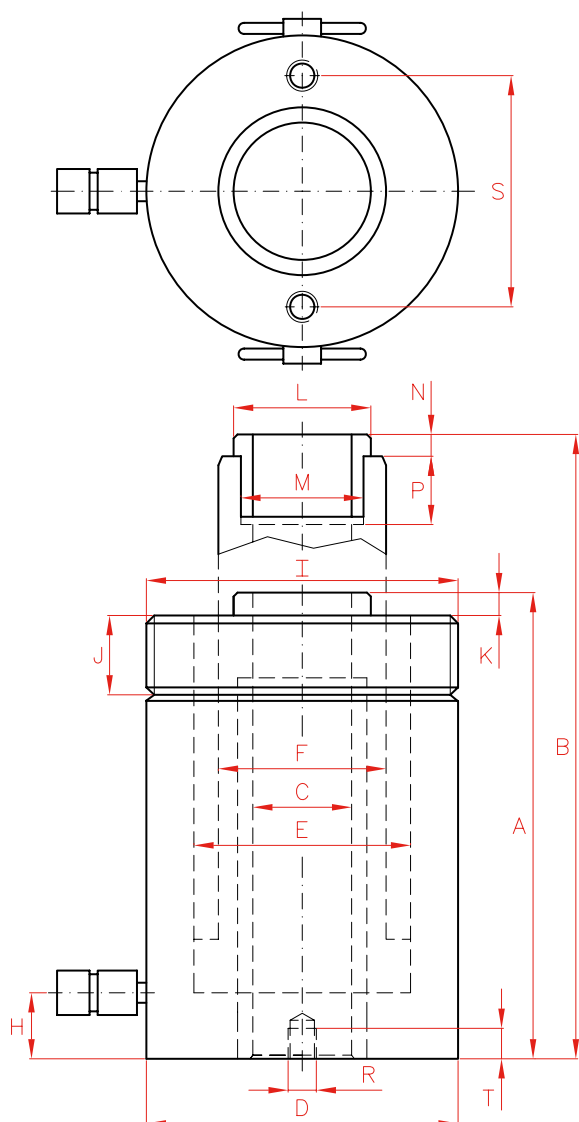


SH

12-100 Tn.

700 bar

CYLINDERS



Cylinder and Pump Sets.

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Aluminium Single Acting,
Hollow Piston Cylinders
SAH.

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Double Acting Hollow
Piston Cylinders, DH.

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	D	E	F	H	I	J	K	L	M	N	P	R	S	T	Area	Weight	Model
	mm	mm	mm	mm	UN	mm	mm	mm	UN	mm	mm	UN	mm	mm	cm ²	kg	LARZEP
	75	55	40	19	2 3/4"-16	30	3	34	M28*1,5	7	18	5/16"-18	51	12	18	4,0	SH01204
	75	55	40	19	2 3/4"-16	30	3	34	M28*1,5	7	18	5/16"-18	51	12	18	5,0	SH01208
	75	55	40	19	2 3/4"-16	30	3	34	M28*1,5	7	18	5/16"-18	51	12	18	8,5	SH01215
	105	75	56	23	3 7/8"-12	38	3	48	1 9/16"-16	8	20	3/8"-16	83	15	32	9,5	SH02205
	105	75	56	23	3 7/8"-12	38	3	48	1 9/16"-16	8	20	3/8"-16	83	15	32	18,0	SH02215
	120	90	68	26	4 1/2"-12	42	4	55	1 13/16"-16	9	22	3/8"-16	92	17	44	14,0	SH03005
	120	90	68	26	4 1/2"-12	42	4	55	1 13/16"-16	9	22	3/8"-16	92	17	44	23,5	SH03015
	165	125	95	31	6 1/4"-12	48	4	80	2 3/4"-16	12	22	1/2"-13	130	14	84	35,0	SH06008
	165	125	95	31	6 1/4"-12	48	4	80	2 3/4"-16	12	22	1/2"-13	130	14	84	44,0	SH06015
	220	170	130	37	8 3/8"-12	60	5	116	4"-16	13	25	5/8"-11	178	19	148	73,0	SH10008

**ALUMINIUM SINGLE ACTING CYLINDERS,
HOLLOW PISTON, SPRING RETURN****LARZEP advantages**

- Lightweight hollow cylinders from 22 to 100 Tn and up to 250 mm stroke.
- Made out of high strength aluminium alloy.
- Hollow piston, spring return.
- All aluminium parts are treated to improve resistance and extend working life.
- Fitted with steel base plate and saddle for wear resistance.
- 40% weight reduction when compared with steel equivalent.
- Hollow plain saddle as standard.
- Not suitable for high cycle applications.

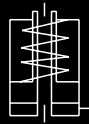
**Strand jacks and Post tensioning
available upon request.**



Carefully read and understand the safety instructions.



HOLLOW PISTON ALUM. CYL.



SAH

22-150 Tn.

700 bar

CYLINDERS



Aluminium Double Acting
Hollow Piston Cylinders
DAH.

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Larzep designs and manufactures special cylinders and fixing systems upon request.





Single Acting
Hand Pumps, W.

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Air Hydraulic
Pumps, Z, ZR.

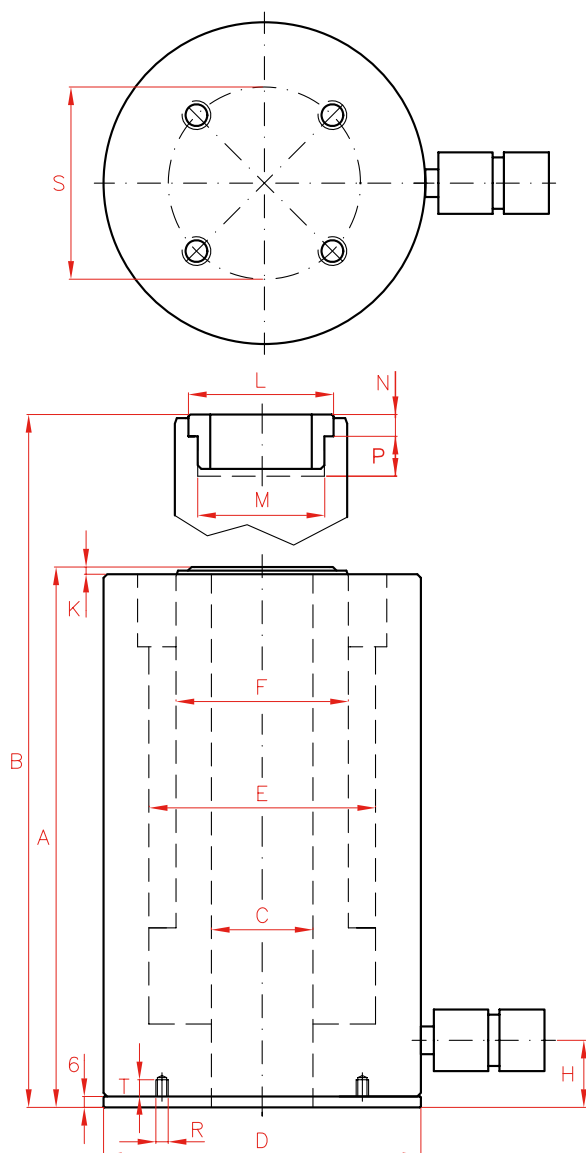
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Carefully read and understand the
safety instructions.



Hoses.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
22	217	50	SAH02205	158	183	
		100	SAH02210	316	253	
		150	SAH02215	474	323	
		200	SAH02220	632	383	
		250	SAH02225	790	448	
30	302	50	SAH03005	220	210	
		100	SAH03010	440	278	
		150	SAH03015	660	352	
		200	SAH03020	880	410	
		250	SAH03025	1.100	475	
60	578	50	SAH06005	421	243	
		100	SAH06010	842	298	
		150	SAH06015	1.263	363	
		200	SAH06020	1.684	428	
		250	SAH06025	2.105	493	
100	1.018	50	SAH10005	742	260	
		100	SAH10010	1.484	327	
		150	SAH10015	2.226	397	
		200	SAH10020	3.968	462	
		250	SAH10025	3.710	532	
150	1.407	50	SAH15005	1.025	291	
		100	SAH15010	2.049	366	
		150	SAH15015	3.074	441	
		200	SAH15020	4.098	511	
		250	SAH15025	5.123	589	



Interchangeable Saddles.

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Quick Couplers.

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Pressure Gauges.

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Coupler 3/8"-18 NPT included.

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	B	C	D	E	F	H	K	L	M	N	P	R	S	T	Area	Weight	Model
	mm	mm	mm	mm	mm	mm	mm	mm	UN	mm	mm		mm	mm	cm ²	kg	LARZEP
	233	27	100	75	56	26	3	48	1 9/16"-16	8	20	M6	85	19	32	4,5	SAH02205
	353	27	100	75	56	26	3	48	1 9/16"-16	8	20	M6	85	19	32	5,8	SAH02210
	473	27	100	75	56	26	3	48	1 9/16"-16	8	20	M6	85	19	32	7,0	SAH02215
	587	27	100	75	56	26	3	48	1 9/16"-16	8	20	M6	85	19	32	8,0	SAH02220
	698	27	100	75	56	26	3	48	1 9/16"-16	8	20	M6	85	19	32	8,8	SAH02225
	260	33	130	90	68	32	4	55	1 11/13"-16	9	22	M6	110	19	44	7,5	SAH03005
	378	33	130	90	68	32	4	55	1 11/13"-16	9	22	M6	110	19	44	10,0	SAH03010
	502	33	130	90	68	32	4	55	1 11/13"-16	9	22	M6	110	19	44	11,5	SAH03015
	610	33	130	90	68	32	4	55	1 11/13"-16	9	22	M6	110	19	44	13,0	SAH03020
	725	33	130	90	68	32	4	55	1 11/13"-16	9	22	M6	110	19	44	14,6	SAH03025
	293	56	175	125	95	37	4	80	2 3/4"-16	12	22	M6	155	19	84	16,3	SAH06005
	398	56	175	125	95	37	4	80	2 3/4"-16	12	22	M6	155	19	84	19,5	SAH06010
	513	56	175	125	95	37	4	80	2 3/4"-16	12	22	M6	155	19	84	23,4	SAH06015
	628	56	175	125	95	37	4	80	2 3/4"-16	12	22	M6	155	19	84	26,0	SAH06020
	743	56	175	125	95	37	4	80	2 3/4"-16	12	22	M6	155	19	84	32,0	SAH06025
	310	81	235	170	130	40	6	116	4"-16	13	25	M6	215	19	148	31,0	SAH10005
	427	81	235	170	130	40	6	116	4"-16	13	25	M6	215	19	148	38,0	SAH10010
	547	81	235	170	130	40	6	116	4"-16	13	25	M6	215	19	148	45,0	SAH10015
	662	81	235	170	130	40	6	116	4"-16	13	25	M6	215	19	148	53,0	SAH10020
	782	81	235	170	130	40	6	116	4"-16	13	25	M6	215	19	148	61,0	SAH10025
	341	81	260	190	150	61	10	135	4 1/4"-12	20	40	M6	220	19	205	43,0	SAH15005
	466	81	260	190	150	61	10	135	4 1/4"-12	20	40	M6	220	19	205	54,0	SAH15010
	591	81	260	190	150	61	10	135	4 1/4"-12	20	40	M6	220	19	205	61,0	SAH15015
	711	81	260	190	150	61	10	135	4 1/4"-12	20	40	M6	220	19	205	76,0	SAH15020
	839	81	260	190	150	61	10	135	4 1/4"-12	20	40	M6	220	19	205	87,0	SAH15025

**SINGLE ACTING, LOW HEIGHT CYLINDERS,
LOAD OR SPRING RETURN**



LARZEP advantages

- Capacity from 10 to 100 Tn, stroke up to 150 mm.
- Two versions: SP for load return, and SMP for spring return.
- Low profile for use in confined spaces: machinery positioning, tool fastening, load tests.
- All models are black nitrated.
- Models from 30 to 100 Tn can mount optional tilting saddle.

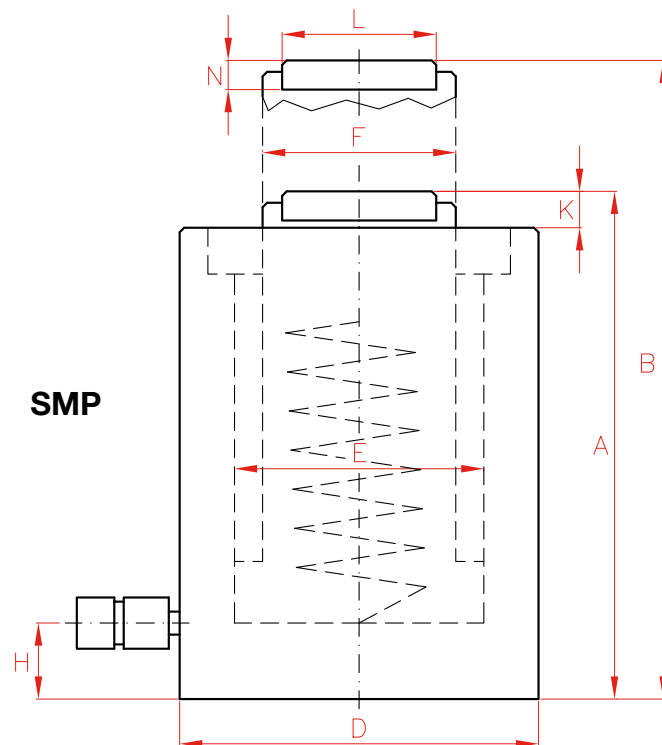
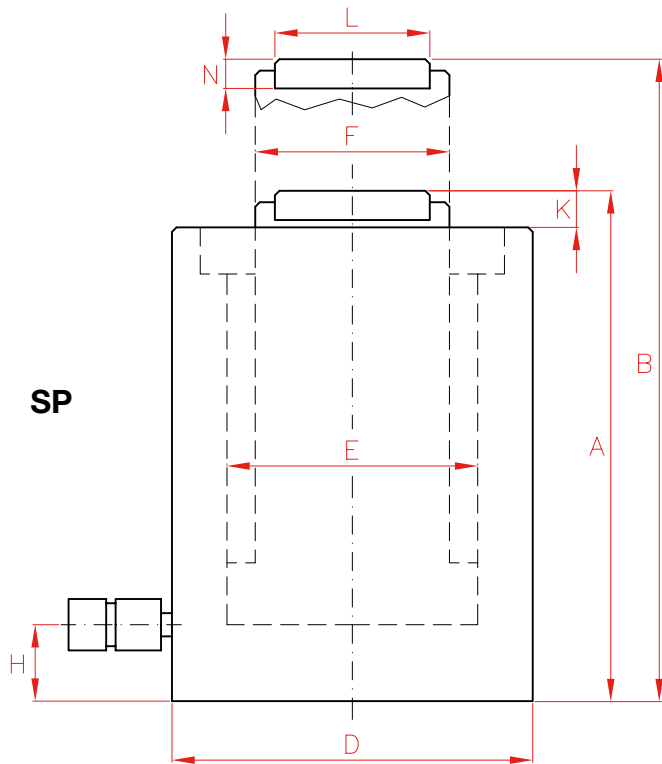
Carefully read and understand the safety instructions.



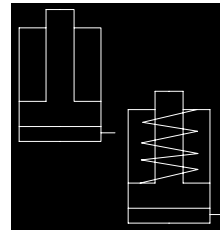
*Coupler inclined 10°

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Capacity		Stroke	Model	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	LARZEP	cm ³	mm	
10	109	40	SP01004	SMP01004	64	89	
20	214	40	SP02004	SMP02004	125	101	
30	303	60	SP03006	SMP03006	265	125	
50	486	60	SP05006	SMP05006	425	125	
100	911	60	SP10006	SMP10006	796	141	
		150	SP10015	SMP10015	1.990	254	



SINGLE ACTING CYLINDERS



SP
SMP

10-100 Tn.

700 bar

CYLINDERS



Pump and Cylinder Sets.

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Low Height, Single Acting
Cylinders, High Tonnage,
SPR.

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Optional Tilting Saddles.

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	B	D	E	F	H	K	L	N	Area	Weight	Model	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP	LARZEP	A	Model
	129	66	45	36	14*	2	-	-	16	3	SP01004	SMP01004	-	-
	141	90	63	56	14*	2	-	-	31	5	SP02004	SMP02004	-	-
	185	102	75	60	14*	2	45	11	44	8	SP03006	SMP03006	150	AZ0401
	185	127	95	80	16*	2	61	12	71	12	SP05006	SMP05006	152	AZ0402
	201	175	130	110	26	2	88	14	133	25	SP10006	SMP10006	174	AZ0404
	404	175	130	110	26	2	88	14	133	43	SP10015	SMP10015	287	AZ0404

**SINGLE ACTING, LOW HEIGHT CYLINDERS,
HIGH TONNAGE, LOAD RETURN**



LARZEP advantages

- Capacity from 140 to 1.100 Tn, stroke up to 300 mm.
- Load return.
- Mechanical end of stroke gland avoids over travel at full pressure.
- Tapped base mounting holes for easy fixing.
- Models available up to 2.000 Tn lifting capacity per cylinder.



Quick Couplers.

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**Carefully read and understand the
safety instructions.**



Pressure Gauges.

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Single Acting Lock Nut
Cylinders, STR.
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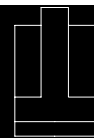


Single Acting Pancake
Lock Nut Cylinders, STX.
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Double Acting Cylinders,
Hight Tonnage, DDR.
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SINGLE ACTING CYLINDERS



SPR

140-1.100 Tn.

700 bar

CYLINDERS

Larzep designs and manufactures special
cylinders and fixing systems, upon request.





Single Acting Cylinders, High Tonnage, SSR.

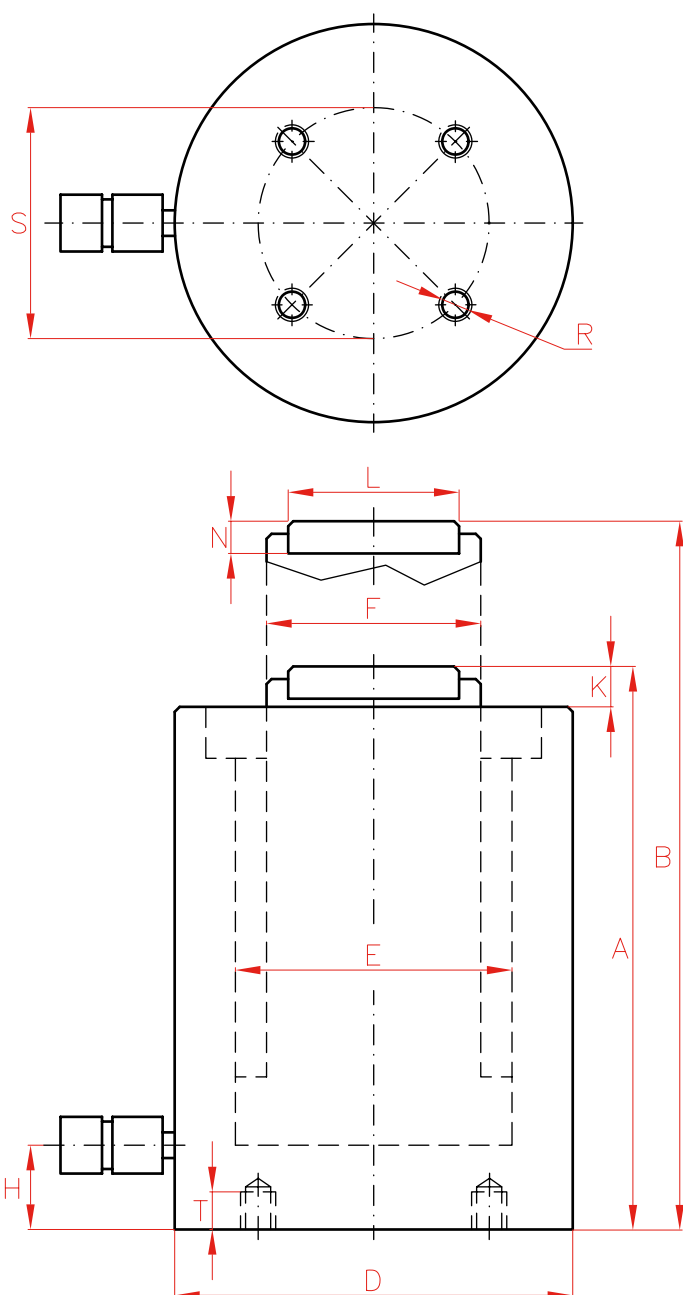
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Carefully read and understand the safety instructions.



Powerpacks.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
140	1.379	50	SPR14005	1.005	202	
		100	SPR14010	2.011	252	
		150	SPR14015	3.016	307	
		200	SPR14020	4.021	357	
		250	SPR14025	5.027	412	
		300	SPR14030	6.032	462	
220	2.155	50	SPR22005	1.571	206	
		100	SPR22010	3.142	256	
		150	SPR22015	4.712	311	
		200	SPR22020	6.283	361	
		250	SPR22025	7.854	416	
		300	SPR22030	9.425	466	
265	2.608	50	SPR26505	1.901	226	
		100	SPR26510	3.801	276	
		150	SPR26515	5.702	336	
		200	SPR26520	7.603	386	
		250	SPR26525	9.503	446	
		300	SPR26530	11.404	496	
350	3.367	50	SPR35005	2.454	236	
		100	SPR35010	4.909	286	
		150	SPR35015	7.363	341	
		200	SPR35020	9.817	391	
		250	SPR35025	12.272	446	
		300	SPR35030	14.726	496	



Coupler 3/8\"-18 NPT included.

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Flow Control Valves.

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Fittings and Manifolds.

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Optional Tilting Saddle.

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	B	D	E	F	H	K	L	N	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	cm ²	kg	LARZEP	A	Model
	252	200	160	140	36	6	88	14	M12	130	22	201	47	SPR14005	235	AZ0404
	352	200	160	140	36	6	88	14	M12	130	22	201	57	SPR14010	285	AZ0404
	457	200	160	140	36	6	88	14	M12	130	22	201	68	SPR14015	340	AZ0404
	557	200	160	140	36	6	88	14	M12	130	22	201	78	SPR14020	390	AZ0404
	662	200	160	140	36	6	88	14	M12	130	22	201	89	SPR14025	445	AZ0404
	762	200	160	140	36	6	88	14	M12	130	22	201	99	SPR14030	495	AZ0404
	256	250	200	160	40	6	111	15	M12	165	22	314	73	SPR22005	243	AZ0405
	356	250	200	160	40	6	111	15	M12	165	22	314	87	SPR22010	293	AZ0405
	461	250	200	160	40	6	111	15	M12	165	22	314	102	SPR22015	348	AZ0405
	561	250	200	160	40	6	111	15	M12	165	22	314	116	SPR22020	398	AZ0405
	666	250	200	160	40	6	111	15	M12	165	22	314	126	SPR22025	453	AZ0405
	766	250	200	160	40	6	111	15	M12	165	22	314	145	SPR22030	503	AZ0405
	276	270	220	160	45	6	131	15	M12	190	22	380	92	SPR26505	268	AZ0406
	376	270	220	160	45	6	131	15	M12	190	22	380	107	SPR26510	318	AZ0406
	486	270	220	160	45	6	131	15	M12	190	22	380	127	SPR26515	378	AZ0406
	586	270	220	160	45	6	131	15	M12	190	22	380	143	SPR26520	428	AZ0406
	696	270	220	160	45	6	131	15	M12	190	22	380	162	SPR26525	488	AZ0406
	796	270	220	160	45	6	131	15	M12	190	22	380	178	SPR26530	538	AZ0406
	286	310	250	200	50	6	178	23	M16	180	30	491	129	SPR35005	280	AZ0408
	386	310	250	200	50	6	178	23	M16	180	30	491	152	SPR35010	330	AZ0408
	491	310	250	200	50	6	178	23	M16	180	30	491	177	SPR35015	385	AZ0408
	591	310	250	200	50	6	178	23	M16	180	30	491	200	SPR35020	435	AZ0408
	696	310	250	200	50	6	178	23	M16	180	30	491	225	SPR35025	490	AZ0408
	796	310	250	200	50	6	178	23	M16	180	30	491	248	SPR35030	540	AZ0408



Coupler 3/8"-18 NPT included.

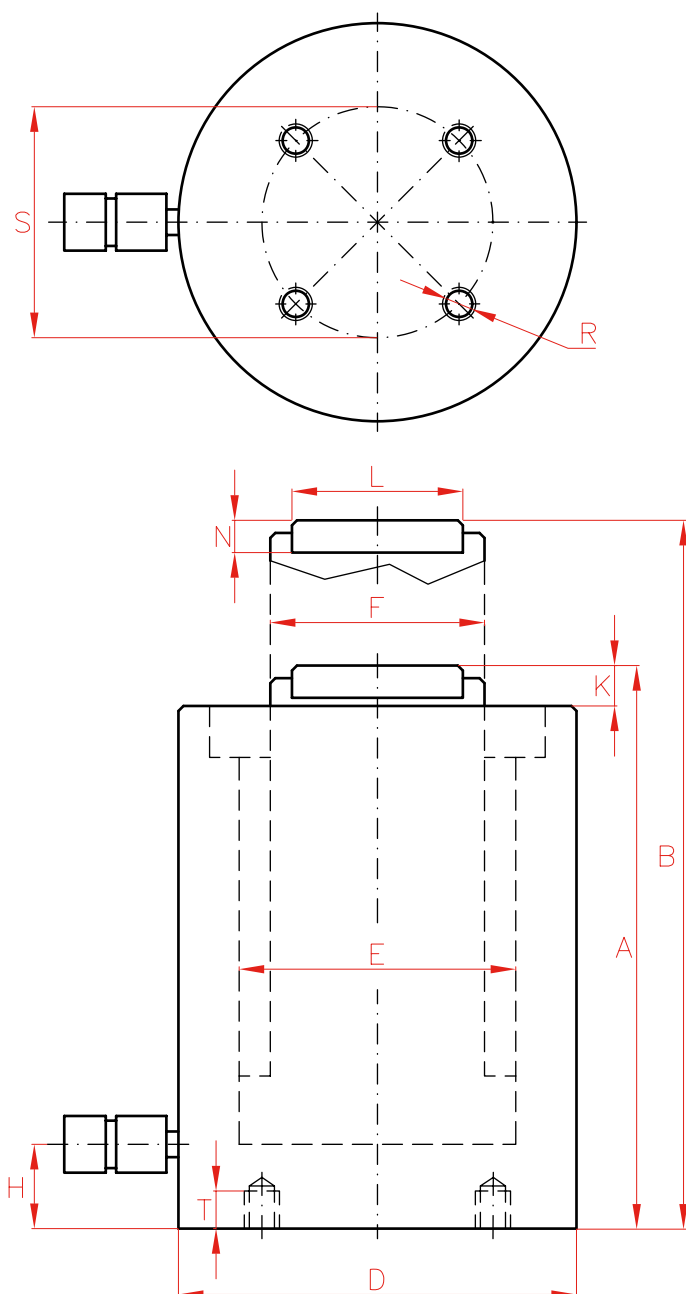
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Carefully read and understand the safety instructions.



Pressure Gauges.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
430	4.224	50	SPR43005	3.079	248	
		100	SPR43010	6.158	298	
		150	SPR43015	9.236	353	
		200	SPR43020	12.315	403	
		250	SPR43025	15.394	458	
		300	SPR43030	18.473	508	
560	5.517	50	SPR56005	4.021	268	
		100	SPR56010	8.042	318	
		150	SPR56015	12.064	373	
		200	SPR56020	16.085	423	
		250	SPR56025	20.106	488	
		300	SPR56030	24.127	538	
670	6.600	50	SPR67005	4.811	293	
		100	SPR67010	9.621	343	
		150	SPR67015	14.432	398	
		200	SPR67020	19.242	448	
		250	SPR67025	24.053	508	
		300	SPR67030	28.863	558	
880	8.621	50	SPR88005	6.283	310	
		100	SPR88010	12.566	360	
		150	SPR88015	18.850	420	
		200	SPR88020	25.133	470	
		250	SPR88025	31.416	530	
		300	SPR88030	37.699	580	
1.100	10.910	50	SPR110005	7.952	345	
		100	SPR110010	15.904	395	
		150	SPR110015	23.856	455	
		200	SPR110020	31.809	505	
		250	SPR110025	39.761	565	
		300	SPR110030	47.713	615	



Powerpacks.

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Hoses.

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Optional Tilting Saddle.

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	B	D	E	F	H	K	L	N	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	cm ²	kg	LARZEP	A	Model
	298	340	280	220	55	8	178	23	M16	205	30	616	163	SPR43005	292	AZ0408
	398	340	280	220	55	8	178	23	M16	205	30	616	189	SPR43010	342	AZ0408
	503	340	280	220	55	8	178	23	M16	205	30	616	219	SPR43015	397	AZ0408
	603	340	280	220	55	8	178	23	M16	205	30	616	245	SPR43020	447	AZ0408
	708	340	280	220	55	8	178	23	M16	205	30	616	275	SPR43025	502	AZ0408
	808	340	280	220	55	8	178	23	M16	205	30	616	301	SPR43030	552	AZ0408
	318	390	320	250	65	8	200	27	M24	250	36	804	232	SPR56005	320	AZ0411
	418	390	320	250	65	8	200	27	M24	250	36	804	267	SPR56010	370	AZ0411
	523	390	320	250	65	8	200	27	M24	250	36	804	306	SPR56015	425	AZ0411
	623	390	320	250	65	8	200	27	M24	250	36	804	340	SPR56020	475	AZ0411
	738	390	320	250	65	8	200	27	M24	250	36	804	389	SPR56025	540	AZ0411
	838	390	320	250	65	8	200	27	M24	250	36	804	423	SPR56030	590	AZ0411
	343	430	350	280	65	8	200	27	M24	275	36	962	312	SPR67005	345	AZ0411
	443	430	350	280	65	8	200	27	M24	275	36	962	355	SPR67010	395	AZ0411
	548	430	350	280	65	8	200	27	M24	275	36	962	404	SPR67015	450	AZ0411
	648	430	350	280	65	8	200	27	M24	275	36	962	447	SPR67020	500	AZ0411
	758	430	350	280	65	8	200	27	M24	275	36	962	501	SPR67025	560	AZ0411
	858	430	350	280	65	8	200	27	M24	275	36	962	545	SPR67030	610	AZ0411
	360	490	400	320	70	10	250	35	M24	330	36	1.257	428	SPR88005	380	AZ0413
	460	490	400	320	70	10	250	35	M24	330	36	1.257	484	SPR88010	430	AZ0413
	570	490	400	320	70	10	250	35	M24	330	36	1.257	555	SPR88015	490	AZ0413
	670	490	400	320	70	10	250	35	M24	330	36	1.257	611	SPR88020	540	AZ0413
	780	490	400	320	70	10	250	35	M24	330	36	1.257	681	SPR88025	600	AZ0413
	880	490	400	320	70	10	250	35	M24	330	36	1.257	737	SPR88030	650	AZ0413
	395	550	450	360	80	10	325	55	M24	375	36	1.590	598	SPR110005	465	AZ0415
	495	550	450	360	80	10	325	55	M24	375	36	1.590	670	SPR110010	515	AZ0415
	605	550	450	360	80	10	325	55	M24	375	36	1.590	740	SPR110015	575	AZ0415
	705	550	450	360	80	10	325	55	M24	375	36	1.590	803	SPR110020	625	AZ0415
	815	550	450	360	80	10	325	55	M24	375	36	1.590	883	SPR110025	685	AZ0415
	915	550	450	360	80	10	325	55	M24	375	36	1.590	943	SPR110030	735	AZ0415

**SINGLE ACTING, LOW PROFILE CYLINDERS,
LOAD OR SPRING RETURN**



LARZEP advantages

- Capacity from 4 to 150 Tn, stroke up to 16 mm.
- Two versions: SX for load return, and SMX for spring return.
- For use in confined spaces: machinery positioning, tool fastening.
- With two parallel faces for horizontal operation.
- Mounting bolt holes for easy fixing.
- Models up to 30 Tn are black nitrated.
- SX models from 50 to 150 Tn can be fitted with optional tilting saddles.



Low Height Single Acting Telescopic Cylinders, SLX.



Single Acting Hand Pumps, W.

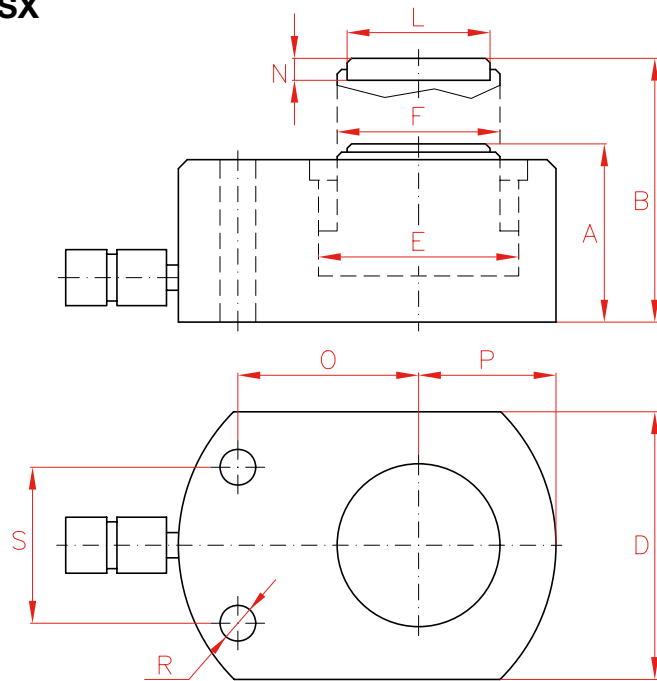
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Carefully read and understand the safety instructions.

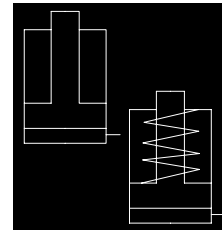


Coupler inclined 10°

SX



SINGLE ACTING CYLINDERS



SX SMX

CYLINDERS

4-150 Tn.

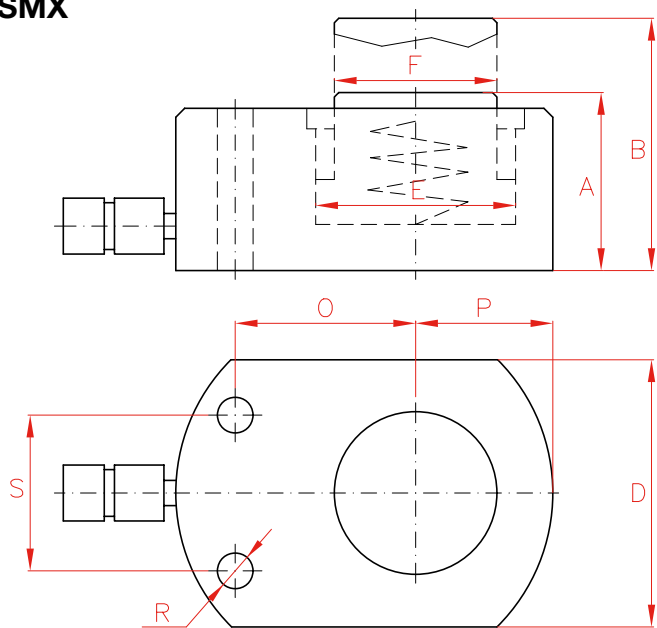
700 bar



Single Acting Cylinders,
High Tonnage, SSR

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SMX



Single Acting Pancake
Lock Nut Cylinders, STX.

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Optional Tilting Saddle for SX
models from 50 to 150 Tn.

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Capacity		Stroke	Model	Model	Oil Cap.	A	B	D	E	F	L	N	O	P	S	R	Area	Weight
Tn	kN	mm	LARZEP	LARZEP	cm ³	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg
4	44	6	SX00406	SMX00406	4	33	39	41	28,5	25	-	-	20	21	28	5,5	6	0,8
		16	SX00416	SMX00416	11	43	59	41	28,5	25	-	-	20	21	28	5,5	6	1,2
10	100	11	SX01011	SMX01011	16	43	54	56	43	38	-	-	33	29	37	6,5	15	1,6
22	228	11	SX02211	SMX02211	37	52	63	80	65	57	-	-	39	41	50	9	33	2,8
30	287	13	SX03013	SMX03013	55	59	72	95	73	60	-	-	46	47	52	11	42	4,1
50	487	16	SX05016	SMX05016	114	68	84	114	95	78	61	12	56	58	67	13	71	6,6
75	713	16	SX07516	SMX07516	167	79	95	140	115	95	76	15	66	70,5	75	13	104	12,5
100	954	16	SX10016	SMX10016	223	87	103	162	133	108	88	14	70	89	76	6,6	139	15,0
150	1.450	16	SX15016	SMX15016	338	100	116	194	164	134	111	15	78	108	117	9	211	25,0

SINGLE ACTING LOCK NUT CYLINDERS, LOAD RETURN



LARZEP advantages

- Capacity from 30 to 1.100 Tn, stroke up to 300 mm.
- The lock nut holds the load mechanically for extended periods of time.
- Load return. Lock nut tested under 50% overload.
- Hydraulic end of stroke overflow port. Red band warning. Mechanical end of stroke available as special.
- Used for foundation supporting, bridge construction and shipbuilding.

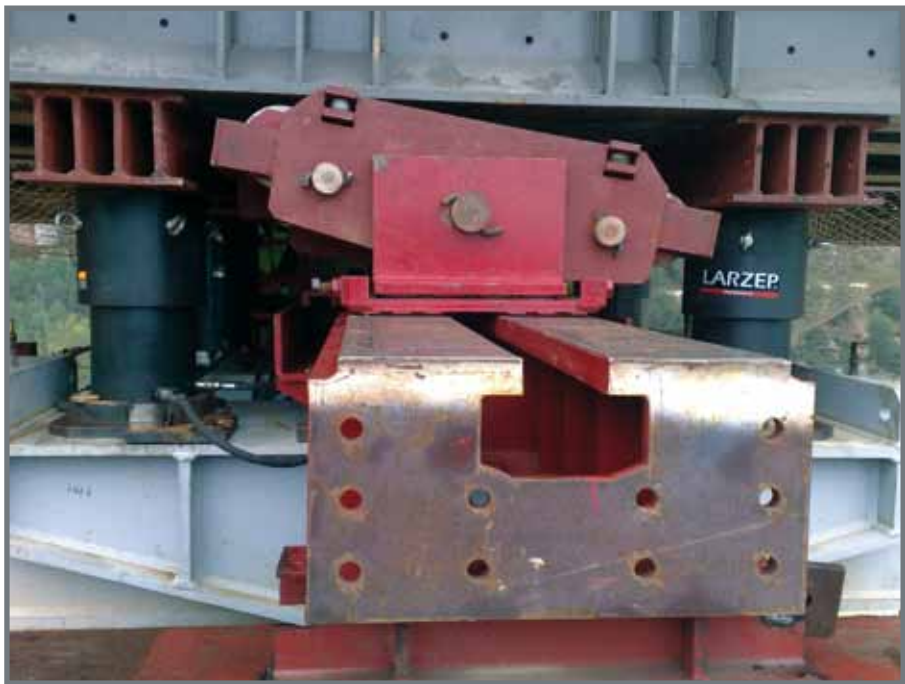
Carefully read and understand the safety instructions.



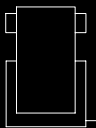
For confined spaces,
use STX models.

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S/A LOCK NUT CYLINDERS



STR

30-1.100 Tn.

700 bar

CYLINDERS



DTC models, double acting cylinders up to 2.000 Tn, low height with lock nut available upon request.



Powerpacks.

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Aluminium Single Acting Spring Return Cylinders with Lock Nut and Stop Ring, SATM.

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Aluminium Single Acting Cylinders with Lock Nut, SAT.

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Aluminium Single Acting Spring Return Cylinders with Lock Nut and Stop Ring, SATM.

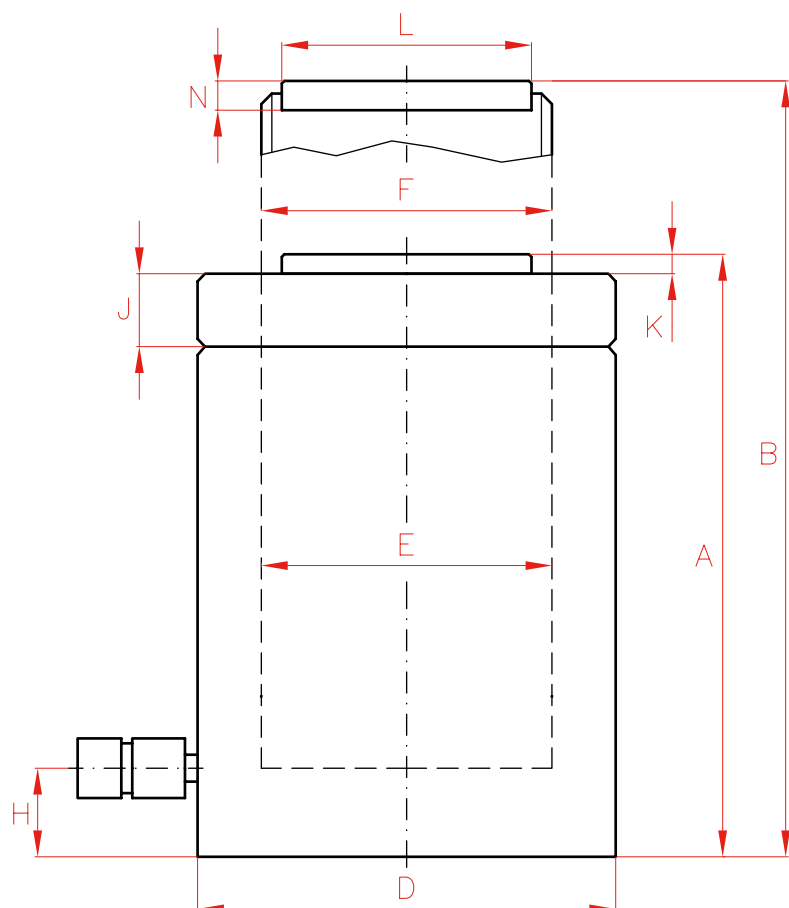
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Single Acting Hand Pumps, W.

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Carefully read and understand the safety instructions.



Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
30	303	50	STR03005	221	169	
		100	STR03010	442	219	
		150	STR03015	663	269	
		200	STR03020	884	319	
		300	STR03030	1.325	419	
50	487	50	STR05005	355	155	
		100	STR05010	709	205	
		150	STR05015	1.062	260	
		200	STR05020	1.418	310	
		250	STR05025	1.772	365	
100	911	300	STR05030	2.127	415	
		50	STR10005	664	180	
		100	STR10010	1.327	230	
		150	STR10015	1.991	285	
		200	STR10020	2.654	335	
140	1.380	250	STR10025	3.318	390	
		300	STR10030	3.981	440	
		50	STR14005	1.005	201	
		100	STR14010	2.011	251	
		150	STR14015	3.016	311	
220	2.156	200	STR14020	4.021	361	
		250	STR14025	5.026	421	
		300	STR14030	6.032	471	
		50	STR22005	1.571	208	
		100	STR22010	3.142	258	
350	3.368	150	STR22015	4.712	318	
		200	STR22020	6.283	368	
		250	STR22025	7.854	433	
		300	STR22030	9.425	483	
		50	STR35005	2.545	238	
		100	STR35010	4.909	288	
		150	STR35015	7.363	348	
		200	STR35020	9.817	398	
		250	STR35025	12.272	458	
		300	STR35030	14.726	508	



Aluminium Single Acting Cylinders with Lock Nut, SAT.

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Optional Tilting Saddle.

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	B	D	E	F	H	J	K	L	N	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP	A	Model
	219	100	75	Tr 75x4	25	30	3	45	11	44	10,3	STR03005	194	AZ0401
	319	100	75	Tr 75x4	25	30	3	45	11	44	13,2	STR03010	244	AZ0401
	419	100	75	Tr 75x4	25	30	3	45	11	44	17,2	STR03015	294	AZ0401
	519	100	75	Tr 75x4	25	30	3	45	11	44	19,2	STR03020	344	AZ0401
	719	100	75	Tr 75x4	25	30	3	45	11	44	25,9	STR03030	444	AZ0401
	205	125	95	Tr 95x4	25	21	3	61	12	71	15	STR05005	182	AZ0402
	305	125	95	Tr 95x4	25	21	3	61	12	71	20	STR05010	232	AZ0402
	410	125	95	Tr 95x4	25	21	3	61	12	71	25	STR05015	287	AZ0402
	510	125	95	Tr 95x4	25	21	3	61	12	71	30	STR05020	337	AZ0402
	615	125	95	Tr 95x4	25	21	3	61	12	71	35	STR05025	392	AZ0402
	715	125	95	Tr 95x4	25	21	3	61	12	71	40	STR05030	442	AZ0402
	230	170	130	Tr 130x6	30	31	3	88	14	133	31	STR10005	213	AZ0404
	330	170	130	Tr 130x6	30	31	3	88	14	133	40	STR10010	263	AZ0404
	435	170	130	Tr 130x6	30	31	3	88	14	133	50	STR10015	318	AZ0404
	535	170	130	Tr 130x6	30	31	3	88	14	133	59	STR10020	368	AZ0404
	640	170	130	Tr 130x6	30	31	3	88	14	133	69	STR10025	423	AZ0404
	740	170	130	Tr 130x6	30	31	3	88	14	133	78	STR10030	473	AZ0404
	251	200	160	Tr 160x6	35	38	3	88	14	201	49	STR14005	234	AZ0404
	351	200	160	Tr 160x6	35	38	3	88	14	201	61	STR14010	284	AZ0404
	461	200	160	Tr 160x6	35	38	3	88	14	201	76	STR14015	344	AZ0404
	561	200	160	Tr 160x6	35	38	3	88	14	201	88	STR14020	394	AZ0404
	671	200	160	Tr 160x6	35	38	3	88	14	201	103	STR14025	454	AZ0404
	771	200	160	Tr 160x6	35	38	3	88	14	201	115	STR14030	504	AZ0404
	258	250	200	Tr 200x6	40	40	3	111	15	314	79	STR22005	245	AZ0405
	358	250	200	Tr 200x6	40	40	3	111	15	314	98	STR22010	295	AZ0405
	468	250	200	Tr 200x6	40	40	3	111	15	314	121	STR22015	355	AZ0405
	568	250	200	Tr 200x6	40	40	3	111	15	314	140	STR22020	405	AZ0405
	683	250	200	Tr 200x6	40	40	3	111	15	314	165	STR22025	470	AZ0405
	783	250	200	Tr 200x6	40	40	3	111	15	314	184	STR22030	520	AZ0405
	288	310	250	Tr 250x6	50	50	3	178	23	491	139	STR35005	282	AZ0408
	388	310	250	Tr 250x6	50	50	3	178	23	491	169	STR35010	332	AZ0408
	498	310	250	Tr 250x6	50	50	3	178	23	491	204	STR35015	392	AZ0408
	598	310	250	Tr 250x6	50	50	3	178	23	491	233	STR35020	442	AZ0408
	708	310	250	Tr 250x6	50	50	3	178	23	491	269	STR35025	502	AZ0408
	808	310	250	Tr 250x6	50	50	3	178	23	491	298	STR35030	552	AZ0408

Carefully read and understand the safety instructions.



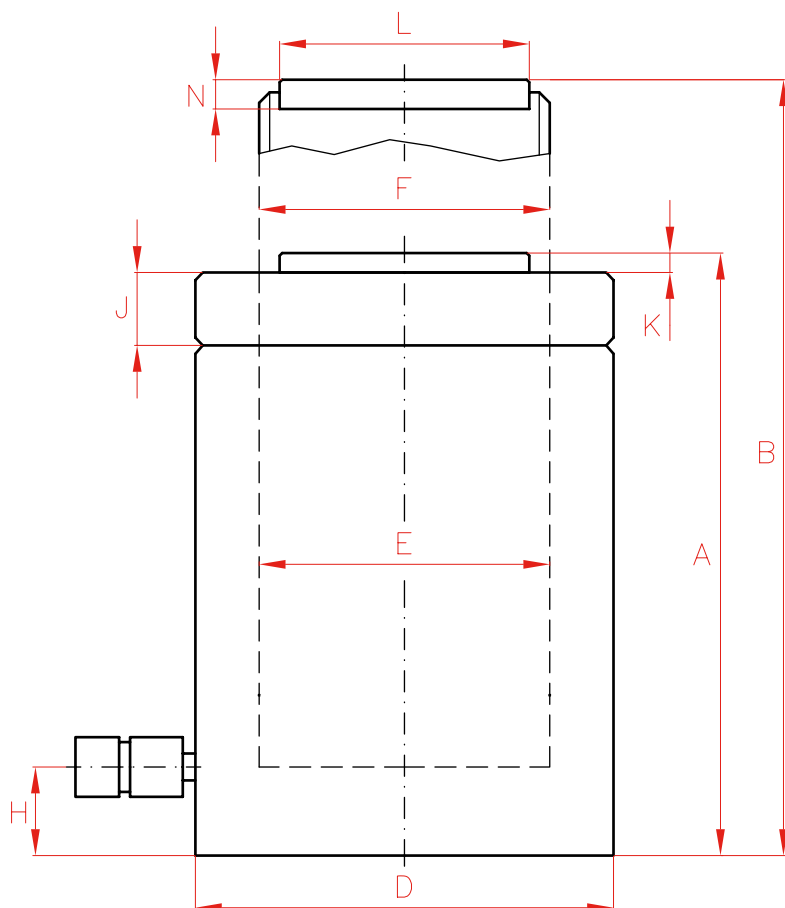
Coupler 3/8"-18 NPT included.

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Pressure Gauges.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm³	mm	
430	4.224	50	STR43005	3.079	250	
		100	STR43010	6.158	300	
		150	STR43015	9.236	365	
		200	STR43020	12.315	415	
		250	STR43025	15.394	480	
		300	STR43030	18.473	530	
560	5.517	50	STR56005	4.021	280	
		100	STR56010	8.042	330	
		150	STR56015	12.064	395	
		200	STR56020	16.085	445	
		250	STR56025	20.106	510	
		300	STR56030	24.127	560	
670	6.600	50	STR67005	4.811	305	
		100	STR67010	9.621	355	
		150	STR67015	14.432	420	
		200	STR67020	19.242	470	
		250	STR67025	24.053	535	
		300	STR67030	28.863	585	
880	8.620	50	STR88005	6.283	325	
		100	STR88010	12.566	375	
		150	STR88015	18.849	440	
		200	STR88020	25.133	490	
		250	STR88025	31.416	555	
		300	STR88030	37.699	605	
1.100	10.905	50	STR110005	7.952	340	
		100	STR110010	15.904	420	
		150	STR110015	23.856	485	
		200	STR110020	31.808	535	
		250	STR110025	39.760	600	
		300	STR110030	47.713	650	



Powerpacks.

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Hoses.

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Optional Tilting Saddle.

Page. 112

	B	D	E	F	H	J	K	L	N	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP	A	Model
	300	340	280	Tr 280x6	55	55	5	178	23	616	175	STR43005	294	AZ0408
	400	340	280	Tr 280x6	55	55	5	178	23	616	210	STR43010	344	AZ0408
	515	340	280	Tr 280x6	55	55	5	178	23	616	258	STR43015	409	AZ0408
	615	340	280	Tr 280x6	55	55	5	178	23	616	292	STR43020	459	AZ0408
	730	340	280	Tr 280x6	55	55	5	178	23	616	338	STR43025	524	AZ0408
	830	340	280	Tr 280x6	55	55	5	178	23	616	373	STR43030	574	AZ0408
	330	390	320	Tr 320x6	65	60	5	200	27	804	263	STR56005	332	AZ0411
	430	390	320	Tr 320x6	65	60	5	200	27	804	310	STR56010	382	AZ0411
	545	390	320	Tr 320x6	65	60	5	200	27	804	370	STR56015	447	AZ0411
	645	390	320	Tr 320x6	65	60	5	200	27	804	417	STR56020	497	AZ0411
	760	390	320	Tr 320x6	65	60	5	200	27	804	478	STR56025	562	AZ0411
	860	390	320	Tr 320x6	65	60	5	200	27	804	524	STR56030	612	AZ0411
	355	430	350	Tr 350x6	65	75	5	200	27	962	343	STR67005	357	AZ0411
	455	430	350	Tr 350x6	65	75	5	200	27	962	400	STR67010	407	AZ0411
	570	430	350	Tr 350x6	65	75	5	200	27	962	473	STR67015	472	AZ0411
	670	430	350	Tr 350x6	65	75	5	200	27	962	530	STR67020	522	AZ0411
	785	430	350	Tr 350x6	65	75	5	200	27	962	604	STR67025	587	AZ0411
	885	430	350	Tr 350x6	65	75	5	200	27	962	660	STR67030	637	AZ0411
	375	490	400	Tr 400x6	70	85	5	250	35	1.256	474	STR88005	395	AZ0413
	475	490	400	Tr 400x6	70	85	5	250	35	1.256	548	STR88010	445	AZ0413
	590	490	400	Tr 400x6	70	85	5	250	35	1.256	643	STR88015	510	AZ0413
	690	490	400	Tr 400x6	70	85	5	250	35	1.256	717	STR88020	560	AZ0413
	805	490	400	Tr 400x6	70	85	5	250	35	1.256	813	STR88025	625	AZ0413
	905	490	400	Tr 400x6	70	85	5	250	35	1.256	886	STR88030	675	AZ0413
	390	550	450	Tr 450x6	80	95	5	325	55	1.590	681	STR110005	460	AZ0415
	520	550	450	Tr 450x6	80	95	5	325	55	1.590	773	STR110010	540	AZ0415
	635	550	450	Tr 450x6	80	95	5	325	55	1.590	894	STR110015	605	AZ0415
	735	550	450	Tr 450x6	80	95	5	325	55	1.590	987	STR110020	655	AZ0415
	850	550	450	Tr 450x6	80	95	5	325	55	1.590	1.107	STR110025	720	AZ0415
	950	550	450	Tr 450x6	80	95	5	325	55	1.590	1.200	STR110030	770	AZ0415

ALUMINIUM SINGLE ACTING CYLINDERS, LOCK NUT, LOAD RETURN



LARZEP advantages

- Capacity from 30 to 200 Tn, stroke up to 300 mm.
- Load return. Lock nut tested under 50% overload.
- Made out of high strength aluminium alloy.
- All aluminium parts are treated to improve resistance and extend working life.
- Hydraulic end of stroke overflow port. Red band warning. Mechanical end of stroke in SATM models.
- Used for foundation supporting, bridge construction, buildings and shipbuilding.
- Lightweight. Over 40% weight reduction when compared with steel equivalent.
- Fitted with steel base plate and saddle for wear resistance.
- The lock nut holds the load mechanically for long periods of time.
- Not suitable for high cycle applications



Flow Control Valves.

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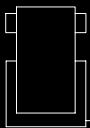


Fittings and Manifolds.

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ALUM. S/A LOCK NUT CYL.



SAT

30-200 Tn.

700 bar

CYLINDERS

Larzep designs and manufactures special cylinders and fixing systems, upon request.



Aluminium Single Acting, Spring Return Cylinders, with Lock Nut and Stop Ring, SATM.

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Single Acting Lock Nut Cylinders, Load Return, STR.

Page. 32

Carefully read and understand the safety instructions.



Aluminium Double Acting Cylinders, DDA.

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Powerpacks.

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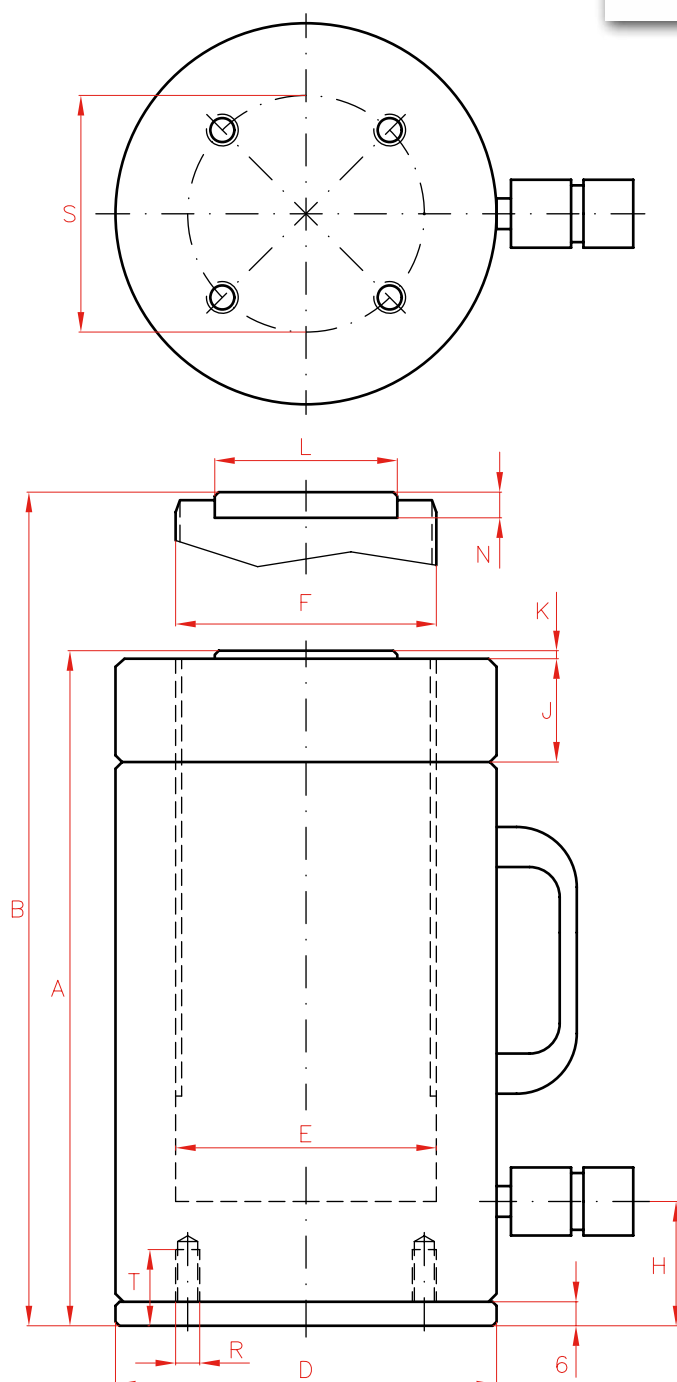
Single Acting Hand Pumps, W.

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Air Hydraulic Pumps, Z, ZR.

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Capacity		Stroke	Model	Oil Cap.	A	B	
Tn	kN	mm	LARZEP	cm ³	mm	mm	
30	303	50	SAT03005	221	173	223	
		100	SAT03010	442	223	323	
		150	SAT03015	663	273	423	
		200	SAT03020	884	333	533	
		250	SAT03025	1.104	383	633	
		300	SAT03030	1.325	433	733	
50	487	50	SAT05005	354	193	243	
		100	SAT05010	709	243	343	
		150	SAT05015	1.063	293	443	
		200	SAT05020	1.418	353	553	
		250	SAT05025	1.772	403	653	
		300	SAT05030	2.126	453	753	
100	911	50	SAT10005	664	216	266	
		100	SAT10010	1.327	266	366	
		150	SAT10015	1.991	326	476	
		200	SAT10020	2.655	376	576	
		250	SAT10025	3.318	446	696	
		300	SAT10030	3.982	496	796	
140	1.380	50	SAT14005	1.005	234	284	
		100	SAT14010	2.011	284	384	
		150	SAT14015	3.016	345	495	
		200	SAT14020	4.021	395	595	
		250	SAT14025	5.027	465	715	
		300	SAT14030	6.032	515	815	
200	1.946	50	SAT20005	1.418	249	299	
		100	SAT20010	2.835	299	399	
		150	SAT20015	4.253	364	514	
		200	SAT20020	5.671	414	614	
		250	SAT20025	7.088	479	729	
		300	SAT20030	8.506	529	829	



Hoses.

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Quick Couplers.

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Pressure Gauges.

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Optional Tilting Saddle.

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	D	E	F	H	J	K	L	N	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	cm ²	kg	LARZEP	A	Model
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	4,4	SAT03005	198	AZ0401
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	5,6	SAT03010	248	AZ0401
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	6,8	SAT03015	298	AZ0401
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	8,0	SAT03020	358	AZ0401
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	9,2	SAT03025	408	AZ0401
	105	75	Tr 75x4	24	25	3	45	11	M6	85	19	44	10,5	SAT03030	458	AZ0401
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	7,9	SAT05005	220	AZ0402
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	9,9	SAT05010	270	AZ0402
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	11,9	SAT05015	320	AZ0402
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	13,9	SAT05020	380	AZ0402
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	15,9	SAT05025	430	AZ0402
	135	95	Tr 95x4	26	35	3	61	12	M6	115	19	71	17,9	SAT05030	480	AZ0402
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	15,6	SAT10005	249	AZ0404
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	19,2	SAT10010	299	AZ0404
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	22,8	SAT10015	359	AZ0404
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	26,4	SAT10020	409	AZ0404
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	29,9	SAT10025	479	AZ0404
	180	130	Tr 130x6	32	42	3	88	14	M6	160	19	133	33,5	SAT10030	529	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	26,0	SAT14005	267	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	31,6	SAT14010	317	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	37,2	SAT14015	378	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	43,1	SAT14020	428	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	48,3	SAT14025	498	AZ0404
	225	160	Tr 160x6	43	50	3	88	14	M6	200	19	201	53,9	SAT14030	548	AZ0404
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	42,9	SAT20005	286	AZ0405
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	50,6	SAT20010	336	AZ0405
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	58,4	SAT20015	401	AZ0405
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	66,1	SAT20020	451	AZ0405
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	73,9	SAT20025	516	AZ0405
	265	190	Tr 190x6	43	60	3	111	15	M6	225	19	284	81,6	SAT20030	566	AZ0406

ALUMINIUM SINGLE ACTING CYLINDERS, LOCK NUT, STOP RING, SPRING RETURN



LARZEP advantages

- Capacity from 30 to 200 Tn, stroke up to 300 mm.
- Spring return. Lock nut tested under 50% overload.
- Mechanical end of stroke gland avoids over travel at full pressure.
- Made out of high strength aluminium alloy.
- All aluminium parts are treated to improve resistance and extend working life.
- Lightweight. Over 40% weight reduction when compared with steel equivalent.
- Fitted with steel base plate for wear resistance.
- The lock nut holds the load mechanically for extended periods of time.
- Not suitable for high cycle applications.



Quick couplers.

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Pressure Gauges.

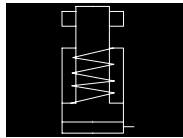
Page.

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Carefully read and understand the safety instructions.



ALUM. S/A LOCK NUT SPRING R.



SATM

30-200 Tn.

700 bar

CYLINDERS



Aluminium Single Acting Lock Nut Cylinders, SAT.

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Single Acting Pancake Cylinders, Lock Nut and Tilting Saddle, STX.

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Larzep designs and manufactures special cylinders and fixing systems, upon request.



Single Acting Lock Nut Cylinders, Load Return, STR.

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Powerpacks.

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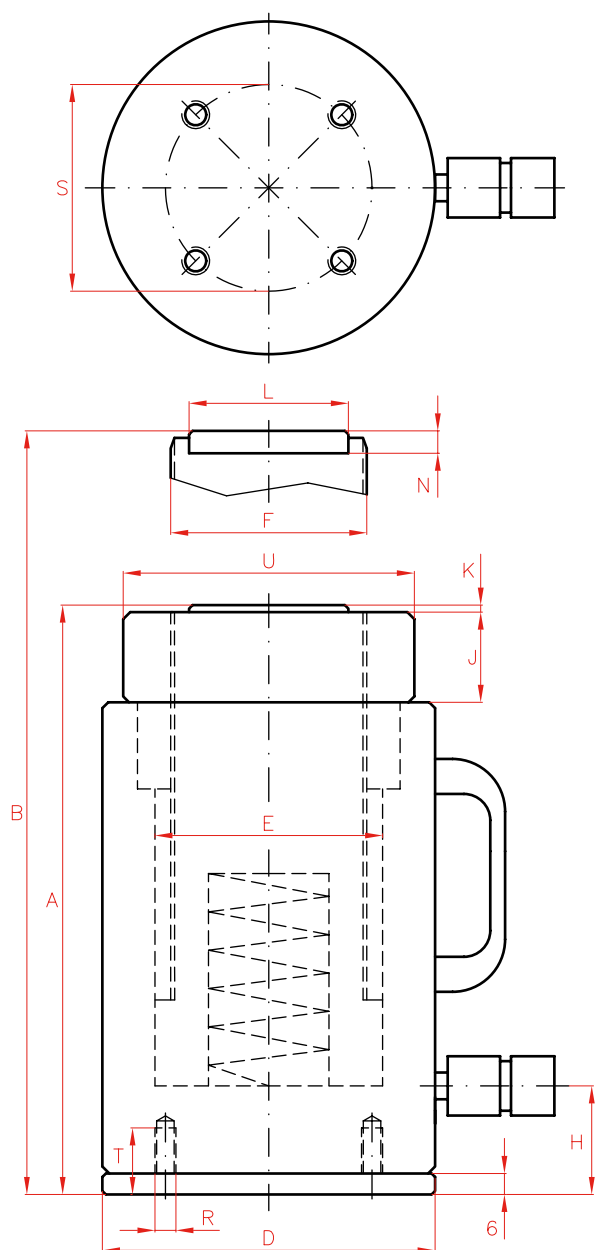
Single Acting Hand Pumps, W.

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Air Hydraulic Pumps.

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Capacity		Stroke	Model	Oil Cap.	A	B	D	
Tn	kN	mm	LARZEP	cm ³	mm	mm	mm	
30	303	50	SATM03005	221	189	239	105	
		100	SATM03010	442	239	339	105	
		150	SATM03015	663	289	439	105	
		200	SATM03020	884	339	539	105	
		250	SATM03025	1.104	389	639	105	
		300	SATM03030	1.325	439	739	105	
50	487	50	SATM05005	355	216	266	135	
		100	SATM05010	709	266	366	135	
		150	SATM05015	1.063	316	466	135	
		200	SATM05020	1.418	366	566	135	
		250	SATM05025	1.772	416	666	135	
		300	SATM05030	2.127	466	766	135	
100	911	50	SATM10005	663	258	308	180	
		100	SATM10010	1.326	308	408	180	
		150	SATM10015	1.989	358	508	180	
		200	SATM10020	2.652	408	608	180	
		250	SATM10025	3.315	458	708	180	
		300	SATM10030	3.978	508	808	180	
140	1.380	50	SATM14005	1.005	282	332	225	
		100	SATM14010	2.011	332	432	225	
		150	SATM14015	3.016	382	532	225	
		200	SATM14020	4.021	432	632	225	
		250	SATM14025	5.027	482	732	225	
		300	SATM14030	6.032	532	832	225	
200	1.946	50	SATM20005	1.418	296	346	265	
		100	SATM20010	2.835	346	446	265	
		150	SATM20015	4.253	396	546	265	
		200	SATM20020	5.670	446	646	265	
		250	SATM20025	7.088	496	746	265	
		300	SATM20030	8.506	546	846	265	



Flow Control Valves.

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Fittings and Manifolds.

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Carefully read and understand the safety instructions.



Optional Tilting Saddle.

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	E	F	H	J	K	L	N	R	S	T	U	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	cm ²	kg	LARZEP	A	Model
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	4,9	SATM03005	214	AZ0401
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	5,9	SATM03010	264	AZ0401
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	6,9	SATM03015	314	AZ0401
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	7,9	SATM03020	364	AZ0401
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	8,9	SATM03025	414	AZ0401
	75	Tr 60x4	24	35	3	45	11	M6	85	19	95	44	9,8	SATM03030	464	AZ0401
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	9,4	SATM05005	243	AZ0402
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	11,1	SATM05010	293	AZ0402
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	12,8	SATM05015	343	AZ0402
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	14,6	SATM05020	393	AZ0402
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	16,3	SATM05025	443	AZ0402
	95	Tr 80x4	26	40	3	61	12	M6	115	19	125	71	18,0	SATM05030	493	AZ0402
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	18,0	SATM10005	291	AZ0404
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	21,0	SATM10010	341	AZ0404
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	24,1	SATM10015	391	AZ0404
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	27,1	SATM10020	441	AZ0404
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	30,1	SATM10025	491	AZ0404
	130	Tr 110x4	32	50	3	88	14	M6	160	19	170	133	33,2	SATM10030	541	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	32,6	SATM14005	315	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	37,5	SATM14010	365	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	42,4	SATM14015	415	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	47,4	SATM14020	465	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	52,3	SATM14025	515	AZ0404
	160	Tr 140x6	43	60	3	88	14	M6	200	19	210	201	57,2	SATM14030	565	AZ0404
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	52,7	SATM20005	333	AZ0405
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	58,6	SATM20010	383	AZ0405
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	64,5	SATM20015	433	AZ0405
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	70,5	SATM20020	483	AZ0405
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	76,4	SATM20025	533	AZ0405
	190	Tr 170x6	51	65	3	111	15	M6	225	19	250	284	82,3	SATM20030	583	AZ0405

SINGLE ACTING, PANCAKE CYLINDERS, LOCK NUT, TILTING SADDLE



LARZEP advantages

- Capacity from 50 to 1.100 Tn, stroke up to 50 mm.
- Load return. Lock nut tested under 50% overload.
- The lock nut holds the load mechanically for extended periods of time.
- Hydraulic end of stroke overflow port. Without stop ring.
- Built-in tilting saddle to improve side load resistance.
- Special coating as standard to improve corrosion and side load resistance.



Single acting hand pumps, W.

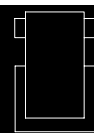
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Powerpacks.

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S/A LOCK NUT CYLINDERS



STX

50-1.100 Tn.

700 bar

CYLINDERS



Built-in Tilting Saddle.

Carefully read and understand the safety instructions.



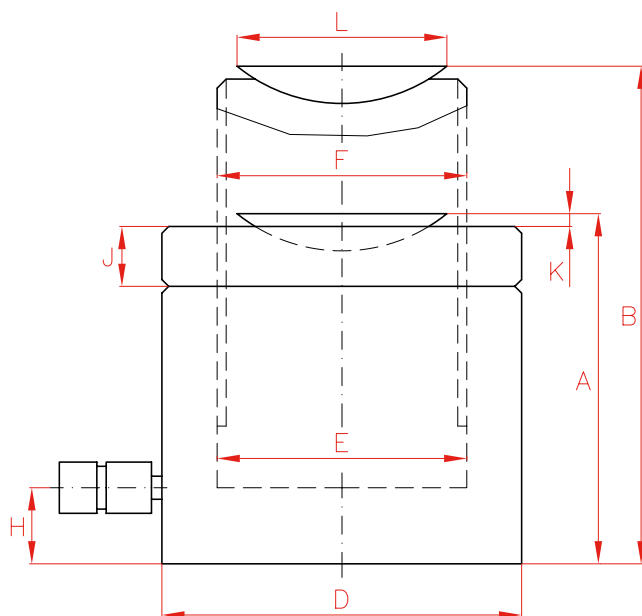
Single Acting Lock Nut Cylinders, Load Return, STR.

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Low Height Single Acting Cylinders, Load or Spring Return, SX - SMX.

Page. 30



Low Height, Single Acting Cylinders, High Tonnage, SPR.

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Capacity		Stroke	Model	Oil Cap.	A	B	D	E	F	H	J	K	L	Area	Weight
Tn	kN	mm	LARZEP	cm ³	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg
50	486	50	STX05005	355	125	175	120	95	Tr 95x4	19	21	6	92	71	11
90	911	45	STX09004	597	137	182	165	130	Tr 130x6	21	31	8	126	133	22
140	1.380	45	STX14004	905	148	193	200	160	Tr 160x6	27	38	9	148	201	39
220	2.156	45	STX22004	1.413	155	200	255	200	Tr 200x6	28	40	10	157	314	62
350	3.468	45	STX35004	2.208	178	223	310	250	Tr 250x6	35	50	11	240	491	111
430	4.227	45	STX43004	2.771	184	229	340	280	Tr 280x6	35	55	10	260	616	126
550	5.520	45	STX56004	3.618	192	237	390	320	Tr 320x6	38	60	10	295	804	193
670	6.600	45	STX67004	4.330	236	281	430	350	Tr 350x6	50	75	15	295	962	259
880	8.620	45	STX88004	5.655	268	313	490	400	Tr 400x6	60	85	20	325	1.257	482
1.100	10.905	45	STX110004	7.157	295	340	550	450	Tr 450x6	65	95	25	400	1.590	532

SINGLE ACTING TELESCOPIC CYLINDERS



LARZEP advantages

- Capacity from 10 to 30 Tn, stroke up to 600 mm.
- For applications with minimum clearance and high lift required.
- Load return.
- Double acting DL, aluminium double acting DLA and aluminium single acting SLA available as special.



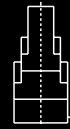
Low Height Single Acting Telescopic Cylinders, SLX.

Capacity	Model	1 st Stage			2 nd Stage			
	LARZEP	Capacity	Stroke	Area	Capacity	Stroke	Area	
Tn		kN	mm	cm ²	kN	mm	cm ²	
10	SL01027	303	135	44	109	270	16	
	SL01043	652	145	95	303	290	44	
15	SL01530	436	150	64	163	300	24	
	SL01550	842	170	123	463	340	64	
30	SL03030	652	150	95	303	300	44	
	SL03060	1.380	200	201	652	400	95	



Double Acting Telescopic Cylinder, DLA.

TELESCOPIC CYLINDERS



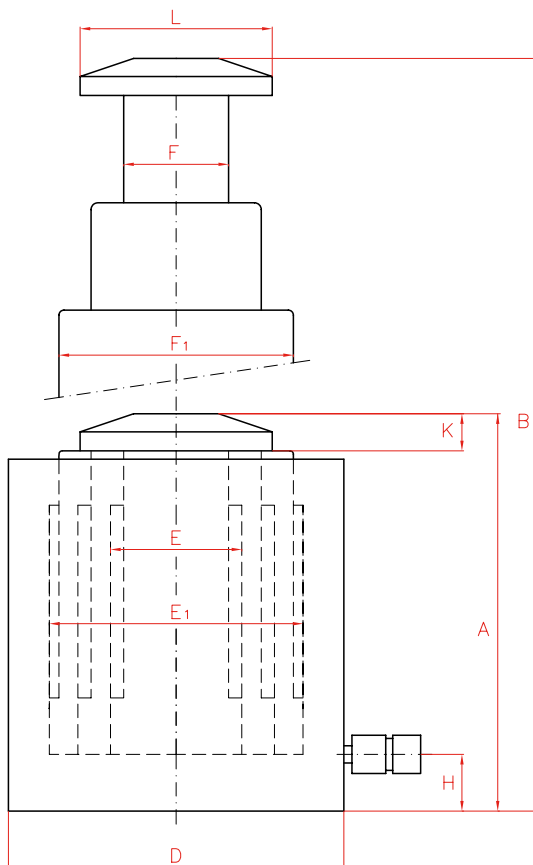
SL

10-30 Tn.

700 bar

CYLINDERS

Larzep designs and manufactures special cylinders upon request.



Telescopic Aluminium Cylinders, DLA.



Coupler 3/8"-18 NPT included.

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3 rd Stage			Model	Oil Cap.	A	B	D	E	E1	F	F1	H	K	L	Weight
Capacity	Stroke	Area	LARZEP												
kN	mm	cm ²		cm ³	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
-	-	-	SL01027	810	250	520	110	45	75	36	68	20	16	50	16,2
109	435	16	SL01043	2.250	280	715	152	45	110	36	95	21	19	75	33,4
-	-	-	SL01530	1.308	280	580	125	55	90	50	80	25	16	66	23,4
163	500	24	SL01550	3.543	320	820	175	55	125	50	110	25	19	95	50,9
-	-	-	SL03030	2.088	304	604	152	75	110	68	100	27	18	89	38,3
303	600	44	SL03060	6.803	366	966	220	75	160	68	150	27	20	123	96,2

SINGLE ACTING HIGH TONNAGE CYLINDERS, LOAD RETURN



LARZEP advantages

- Capacity from 140 to 1.100 Tn, stroke up to 300 mm.
- Load return. For weighing, lifting and positioning applications in Civil Engineering.
- Hydraulic end of stroke overflow port. For mechanical stop ring see SPR models.
- For confined spaces and loads up to 150 Tn, see SX and SP models.

Larzep designs and manufactures special cylinders up to 1.100 Tn capacity to place load cells for pile testing applications.



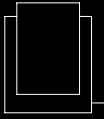
Low Height Single Acting
Cylinders, SP.

Page. 20





S/A LOAD RETURN



SSR

140-1.100 Tn.

700 bar

CYLINDERS



Low Height Single Acting
Cylinders, High Tonnage,
SPR.

Page. 24



Double Acting Cylinders,
DDR.

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Low Height Single Acting
Cylinders, Load or Spring
Return, SX - SMX.

Page. 30

Carefully read and understand the safety instructions.



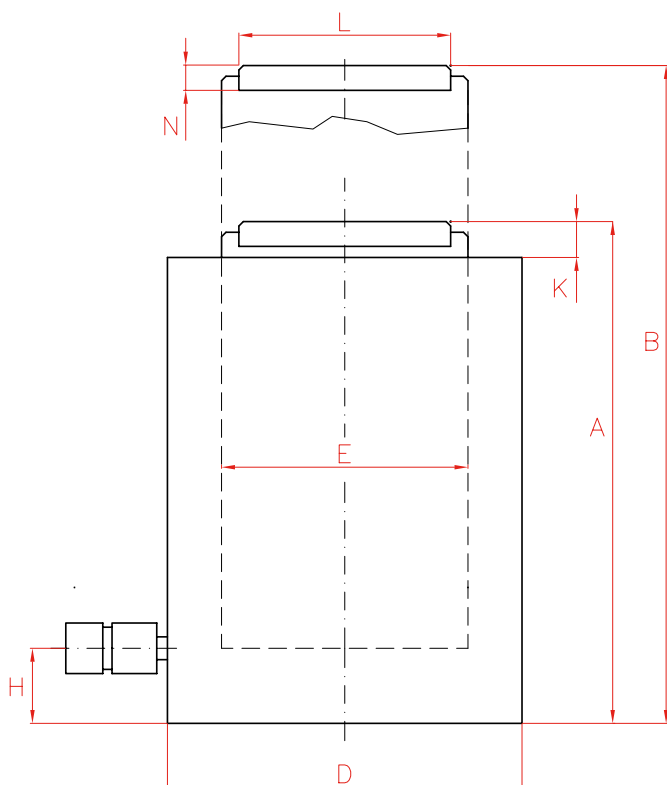
Optional Tilting Saddle.

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Powerpacks.

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Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
140	1.380	50	SSR14005	1.005	155	
		100	SSR14010	2.011	205	
		150	SSR14015	3.016	255	
		200	SSR14020	4.021	305	
		250	SSR14025	5.027	355	
		300	SSR14030	6.032	405	
220	2.156	50	SSR22005	1.571	170	
		100	SSR22010	3.142	220	
		150	SSR22015	4.712	270	
		200	SSR22020	6.283	320	
		250	SSR22025	7.854	370	
		300	SSR22030	9.425	420	
350	3.369	50	SSR35005	2.454	210	
		100	SSR35010	4.909	260	
		150	SSR35015	7.363	310	
		200	SSR35020	9.817	360	
		250	SSR35025	12.272	410	
		300	SSR35030	14.726	460	
430	4.224	50	SSR43005	3.079	215	
		100	SSR43010	6.158	265	
		150	SSR43015	9.236	315	
		200	SSR43020	12.315	365	
		250	SSR43025	15.394	415	
		300	SSR43030	18.473	465	
560	5.520	50	SSR56005	4.021	240	
		100	SSR56010	8.042	290	
		150	SSR56015	12.064	340	
		200	SSR56020	16.085	390	
		250	SSR56025	20.106	440	
		300	SSR56030	24.127	490	
670	6.600	50	SSR67005	4.811	260	
		100	SSR67010	9.621	315	
		150	SSR67015	14.432	365	
		200	SSR67020	19.242	415	
		250	SSR67025	24.053	465	
		300	SSR67030	28.863	515	
880	8.625	50	SSR88005	6.283	290	
		100	SSR88010	12.566	340	
		150	SSR88015	18.850	390	
		200	SSR88020	25.133	440	
		250	SSR88025	31.416	490	
		300	SSR88030	37.699	540	
1.100	10.916	50	SSR110005	7.952	340	
		100	SSR110010	15.904	390	
		150	SSR110015	23.856	440	
		200	SSR110020	31.809	490	
		250	SSR110025	39.761	540	
		300	SSR110030	47.713	590	

Performance under Pressure

	B	D	E	H	K	L	N	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm	mm	cm²	kg	LARZEP	A	Model
	205	200	160	35	6	88	15	201	38	SSR14005	187	AZ0404
	305	200	160	35	6	88	15	201	51	SSR14010	237	AZ0404
	405	200	160	35	6	88	15	201	63	SSR14015	287	AZ0404
	505	200	160	35	6	88	15	201	75	SSR14020	337	AZ0404
	605	200	160	35	6	88	15	201	88	SSR14025	387	AZ0404
	705	200	160	35	6	88	15	201	100	SSR14030	437	AZ0404
	220	250	200	40	7	111	15	314	64	SSR22005	207	AZ0405
	320	250	200	40	7	111	15	314	85	SSR22010	257	AZ0405
	420	250	200	40	7	111	15	314	104	SSR22015	307	AZ0405
	520	250	200	40	7	111	15	314	123	SSR22020	357	AZ0405
	620	250	200	40	7	111	15	314	143	SSR22025	407	AZ0405
	720	250	200	40	7	111	15	314	162	SSR22030	457	AZ0406
	260	310	250	50	7	178	23	491	123	SSR35005	254	AZ0408
	360	310	250	50	7	178	23	491	154	SSR35010	304	AZ0408
	460	310	250	50	7	178	23	491	184	SSR35015	354	AZ0408
	560	310	250	50	7	178	23	491	213	SSR35020	404	AZ0408
	660	310	250	50	7	178	23	491	243	SSR35025	454	AZ0408
	760	310	250	50	7	178	23	491	273	SSR35030	504	AZ0408
	265	340	280	55	7	178	23	616	151	SSR43005	259	AZ0408
	365	340	280	55	7	178	23	616	189	SSR43010	309	AZ0408
	465	340	280	55	7	178	23	616	225	SSR43015	359	AZ0408
	565	340	280	55	7	178	23	616	260	SSR43020	409	AZ0408
	665	340	280	55	7	178	23	616	296	SSR43025	459	AZ0408
	765	340	280	55	7	178	23	616	331	SSR43030	509	AZ0408
	290	390	320	60	7	200	27	804	223	SSR56005	292	AZ0411
	390	390	320	60	7	200	27	804	272	SSR56010	342	AZ0411
	490	390	320	60	7	200	27	804	319	SSR56015	392	AZ0411
	590	390	320	60	7	200	27	804	366	SSR56020	442	AZ0411
	690	390	320	60	7	200	27	804	413	SSR56025	492	AZ0411
	790	390	320	60	7	200	27	804	459	SSR56030	542	AZ0411
	310	430	350	65	7	200	27	962	294	SSR67005	312	AZ0411
	415	430	350	65	7	200	27	962	353	SSR67010	367	AZ0411
	515	430	350	65	7	200	27	962	416	SSR67015	417	AZ0411
	615	430	350	65	7	200	27	962	473	SSR67020	467	AZ0411
	715	430	350	65	7	200	27	962	530	SSR67025	517	AZ0411
	815	430	350	65	7	200	27	962	587	SSR67030	567	AZ0411
	340	490	400	70	10	250	35	1.257	423	SSR88005	360	AZ0413
	440	490	400	70	10	250	35	1.257	503	SSR88010	410	AZ0413
	540	490	400	70	10	250	35	1.257	577	SSR88015	460	AZ0413
	640	490	400	70	10	250	35	1.257	651	SSR88020	510	AZ0413
	740	490	400	70	10	250	35	1.257	725	SSR88025	560	AZ0413
	840	490	400	70	10	250	35	1.257	799	SSR88030	610	AZ0413
	390	550	450	80	10	325	55	1.590	622	SSR110005	460	AZ0415
	490	550	450	80	10	325	55	1.590	716	SSR110010	510	AZ0415
	590	550	450	80	10	325	55	1.590	810	SSR110015	560	AZ0415
	690	550	450	80	10	325	55	1.590	903	SSR110020	610	AZ0415
	790	550	450	80	10	325	55	1.590	996	SSR110025	660	AZ0415
	890	550	450	80	10	325	55	1.590	1.090	SSR110030	710	AZ0415

PULL CYLINDERS



LARZEP advantages

- Capacity from 5 to 50 Tn, stroke up to 150 mm.
- T and TE models are Spring Return. TD models are Double Acting.
- For pulling applications: to hook and join plates for welding, tensioning cables, etc.
- Optional rubber rod cover for piston protection extends cylinder life.
- Optional telescopic metallic rod cover especially suitable for welding applications.
- T series pull cylinders are available as options for the CA series maintenance sets. Plunger and base threads match the CA series accessories.

* Models equipped with metallic rod cover have a 30 mm shorter stroke.



Carefully read and understand the safety instructions.



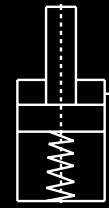
Capacity		Stroke	Model	Oil Cap.	A	
Tn	kN	mm	LARZEP	cm ³	mm	
5	54	140	T00514/5G	110	306	
		140	T00514/10G	110	306	
10	93	140	T01015	190	308	
		150*	TE01015	204	576*	
30	302	150*	TD01015	356	576*	
		150*	TE03015	660	723*	
50	483	150*	TD03015	954	723*	
		150*	TE05015	1.056	757*	
		150*	TD05015	1.425	757*	



Maintenance Unit.

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PULL CYLINDERS

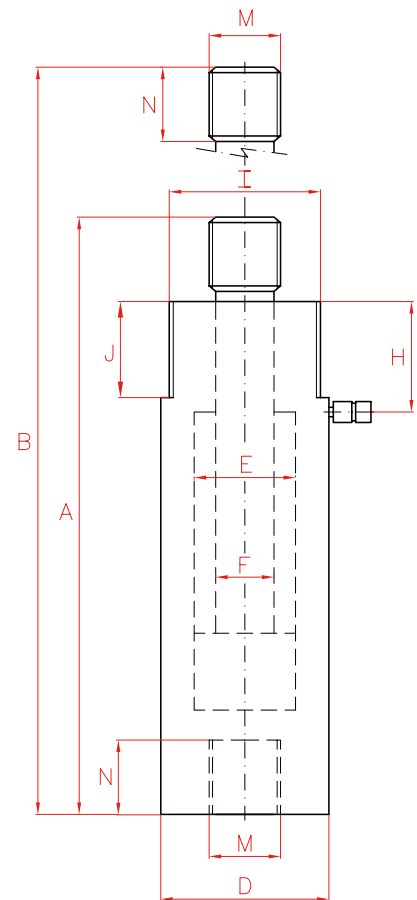
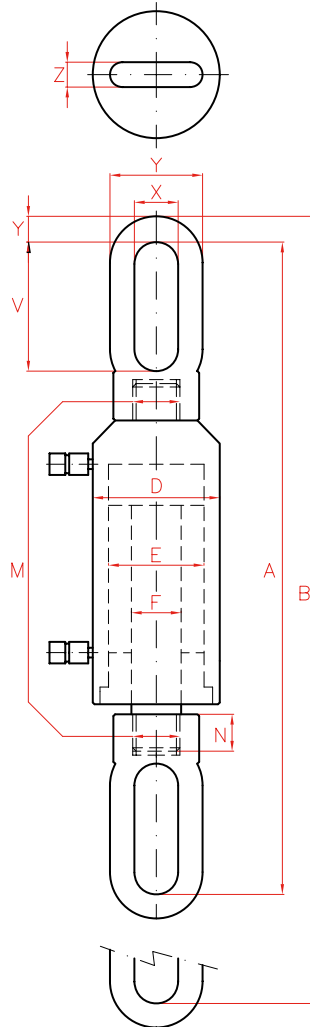
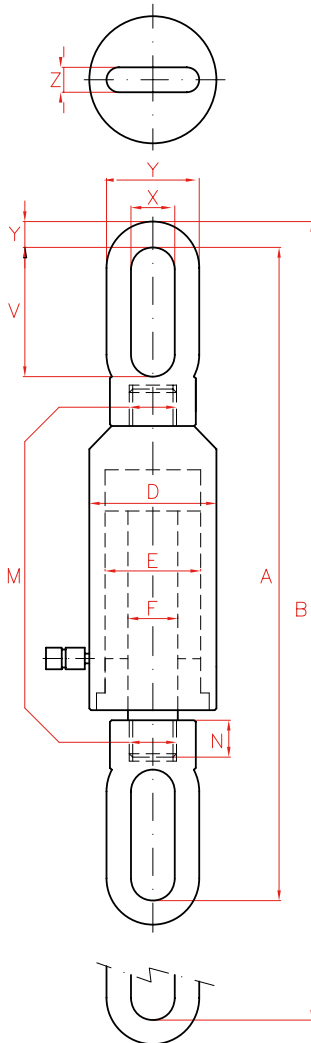


T
TE
TD

CYLINDERS

5-50 Tn.

700 bar



	B	D	E	F	M	N	I	J	H	U	V	X	Y	Z	Area	Weight	Model
	mm	mm	mm	mm		mm	UN	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP
	446	60	45	32	3/4" BSP	25	2 1/4" UNS	25	46	-	-	-	-	-	7,9	6,7	T00514/5G
	446	60	45	32	1 1/4" BSP	25	2 1/4" UNS	25	46	-	-	-	-	-	7,9	6,7	T00514/10G
	448	85	55	36	1 3/4" BSP	30	3 5/16" UNS	40	55	-	-	-	-	-	13,6	10,0	T01015
	726	86	55	36	M30x2	25	-	-	-	107	109	46	30,5	30,5	13,5	14,9	TE01015
	726	86	55	36	M30x2	25	-	-	-	107	109	46	30,5	30,5	13,5	14,9	TD01015
	873	125	90	50	M40x2	45	-	-	-	108	153	50	29	29	43,9	32,0	TE03015
	873	125	90	50	M40x2	45	-	-	-	108	153	50	29	29	43,9	32,0	TD03015
	907	148	110	56	M52x2	60	-	-	-	130	150	50	70	39	70,3	60,0	TE05015
	907	148	110	56	M52x2	60	-	-	-	130	150	50	70	39	70,3	60,0	TD05015

DOUBLE ACTING CYLINDERS



LARZEP advantages

- Capacity from 10 to 550 Tn, stroke up to 300 mm as standard.
- For push and pull applications.
- For heavy duty applications, high precision and involving high cycle life.
- Guide and sealing system of highest quality.
- Internal safety valve to prevent accidental over-pressure.
- Collar threads, piston end threads and base mounting holes for easy fixing and pull operations.
- Compatible with SM accessories.
- Longer stroke models up to 1.500 mm upon request.

Carefully read and understand the safety instructions.



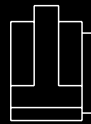
Special attachments for SM and D models.

Page.

10



DOUBLE ACTING CYLINDERS



D

10-550 Tn.

700 bar

CYLINDERS



Larzep designs and manufactures special cylinders up to 1.500 mm stroke upon request.



Larzep designs and manufactures Pin Pushers upon request.



Double Acting Hollow Piston Cylinders, DH.

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Double Acting High Tonnage Cylinders, DDR.

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Aluminium Double Acting Cylinder, DDA.

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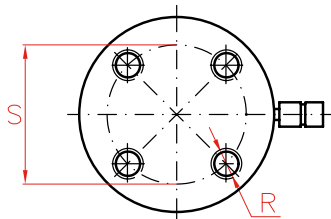
Fittings and Manifolds.

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Larzep designs and manufactures special cylinders up to 1.500 mm stroke upon request.



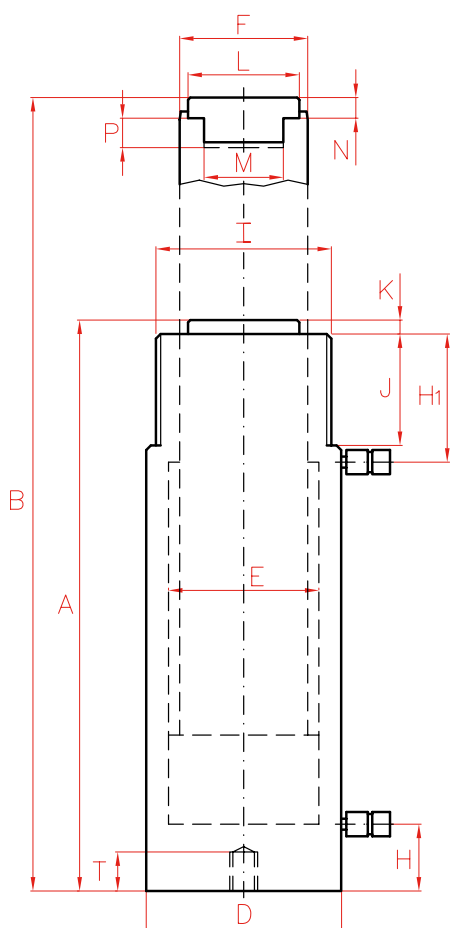
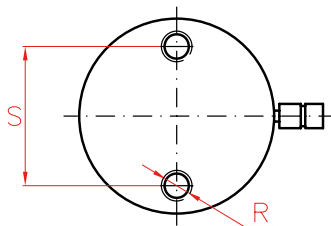
Models from 50 to 550 Tn.



Pressure Gauges.

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Models up to 30 Tn.



Capacity	Stroke	Model	Capacity (kN)		Oil Cap.	A	B	D	E	F	
Tn	mm	LARZEP	Push	Pull	cm³	mm	mm	mm	mm	mm	
10	160	D01016	109	20	255	310	470	60	45	36	
	250	D01025	109	20	398	400	650	60	45	36	
	320	D01032	109	20	509	470	790	60	45	36	
20	160	D02016	214	53	499	320	480	83	63	45	
	250	D02025	214	53	779	410	660	83	63	45	
	320	D02032	214	53	997	480	800	83	63	45	
30	160	D03016	303	68	707	335	495	100	75	56	
	320	D03032	303	68	1.413	495	815	100	75	56	
50	160	D05016	486	72	1.134	335	495	127	95	80	
	320	D05032	486	72	2.267	510	830	127	95	80	
75	160	D07516	712	140	1.661	338	498	150	115	90	
	320	D07532	712	140	3.322	512	832	150	115	90	
100	160	D10016	911	189	2.123	339	499	177	130	100	
	320	D10032	911	189	4.245	509	829	177	130	100	
150	50	D15005	1.380	370	1.005	258	308	215	160	110	
	150	D15015	1.380	370	3.015	378	528	215	160	110	
	300	D15030	1.380	370	6.029	528	828	215	160	110	
200	50	D20005	2.156	560	1.570	274	324	265	200	140	
	150	D20015	2.156	560	4.710	394	544	265	200	140	
	300	D20030	2.156	560	9.420	544	844	265	200	140	
350	50	D35005	3.368	1.014	2.454	299	349	330	250	160	
	150	D35015	3.368	1.014	7.359	419	569	330	250	160	
	300	D35030	3.368	1.014	14.718	569	869	330	250	160	
550	50	D55005	5.519	1.714	4.020	383	433	430	320	200	
	150	D55015	5.519	1.714	12.058	518	668	430	320	200	
	300	D55030	5.519	1.714	24.116	668	968	430	320	200	



Flow Control Valves.

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Quick Couplers.

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Double Acting Hand Pumps, X.

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Optional Tilting Saddle.

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	H	H1	I	J	K	L	M	N	P	R	S	T	Area	Weight	Model	With tilting saddle	
	mm	mm	UN	mm	mm	mm	UN	mm	mm	UN	mm	mm	cm ²	kg	LARZEP	A	Model
	20	53,5	2 1/4"-14	32	7	28	1"-8	10	24	5/16"-18	39	12	16	6,4	D01016	329	AZ0420
	20	53,5	2 1/4"-14	32	7	28	1"-8	10	24	5/16"-18	39	12	16	8,0	D01025	419	AZ0420
	20	53,5	2 1/4"-14	32	7	28	1"-8	10	24	5/16"-18	39	12	16	9,5	D01032	489	AZ0420
	20	60	3 1/4"-12	40	8	35	1"-8	8	24	1/2"-13	58	15	31	11,7	D02016	341	AZ0423
	20	60	3 1/4"-12	40	8	35	1"-8	8	24	1/2"-13	58	15	31	14,5	D02025	431	AZ0423
	20	60	3 1/4"-12	40	8	35	1"-8	8	24	1/2"-13	58	15	31	16,8	D02032	501	AZ0423
	26	77	3 7/8"-12	48	10	45	1 1/2"-16	10	25	1/2"-13	66	15	44	18,9	D03016	353	AZ0421
	26	77	3 7/8"-12	48	10	45	1 1/2"-16	10	25	1/2"-13	66	15	44	26,6	D03032	513	AZ0421
	28	70	5"-12	50	10	61	1 3/4"-12	10	25	1/2"-13	95	15	71	30,8	D05016	363	AZ0422
	28	85	5"-12	50	10	61	1 3/4"-12	10	25	1/2"-13	95	15	71	44,8	D05032	538	AZ0422
	30	70	5 3/4"-12	50	10	61	1 3/4"-12	10	25	1/2"-13	100	18	104	42,0	D07516	366	AZ0422
	30	80	5 3/4"-12	50	10	61	1 3/4"-12	10	25	1/2"-13	100	18	104	60,6	D07532	540	AZ0422
	38	70	6 7/8"-12	50	10	88	1 3/4"-12	16	30	3/4"-10	139	18	133	51,8	D10016	361	AZ0422
	38	84	6 7/8"-12	50	10	88	1 3/4"-12	16	30	3/4"-10	139	18	133	84,1	D10032	531	AZ0422
	49	85	8"-12	55	10	88	2 1/2"-12	15	40	3/4"-16	158	25	201	66,0	D15005	279	AZ0424
	49	85	8"-12	55	10	88	2 1/2"-12	15	40	3/4"-16	158	25	201	90,0	D15015	410	AZ0424
	49	85	8"-12	55	10	88	2 1/2"-12	15	40	3/4"-16	158	25	201	119,0	D15030	560	AZ0424
	65	85	9 3/4"-12	55	10	111	2 1/2"-12	19	60	1"-8	127	25	314	105,0	D20005	307	AZ0425
	65	85	9 3/4"-12	55	10	111	2 1/2"-12	19	60	1"-8	127	25	314	151,0	D20015	427	AZ0425
	65	85	9 3/4"-12	55	10	111	2 1/2"-12	19	60	1"-8	127	25	314	191,0	D20030	577	AZ0425
	85	90	12 1/4"-12	60	10	131	3"-12	15	70	1 1/4"-7	158	40	491	189,0	D35005	-	-
	85	90	12 1/4"-12	60	10	131	3"-12	15	70	1 1/4"-7	158	40	491	247,0	D35015	-	-
	85	90	12 1/4"-12	60	10	131	3"-12	15	70	1 1/4"-7	158	40	491	346,0	D35030	-	-
	110	120	15 5/8"-8	80	15	178	4"-12	26	85	1 3/4"-5	203	55	804	396,0	D55005	-	-
	110	120	15 5/8"-8	80	15	178	4"-12	26	85	1 3/4"-5	203	55	804	504,0	D55015	-	-
	110	120	15 5/8"-8	80	15	178	4"-12	26	85	1 3/4"-5	203	55	804	625,0	D55030	-	-

ALUMINIUM DOUBLE ACTING CYLINDERS



LARZEP advantages

- Capacity from 50 to 200 Tn, stroke up to 300 mm.
- Made out of high strength aluminium alloy.
- All aluminium parts are treated to improve resistance and extend working life.
- Lightweight. Over 40% weight reduction when compared with steel equivalent.
- Fitted with steel base plate for wear resistance.
- Internal safety valve to prevent accidental over-pressure.
- Not suitable for high cycle applications

Carefully read and understand the safety instructions.



Flow Control Valves

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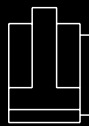
Double Acting Hand Pumps, X.

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Larzep designs and manufactures special cylinders and fixing systems, upon request.



ALUMINIUM D/A CYLINDERS



DDA

50-200 Tn.

700 bar

CYLINDERS



Step by step aluminium cylinders.



Double Acting High Tonnage Cylinders, DDR.

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Double Acting Aluminium Cylinders, Hollow Piston, DAH.

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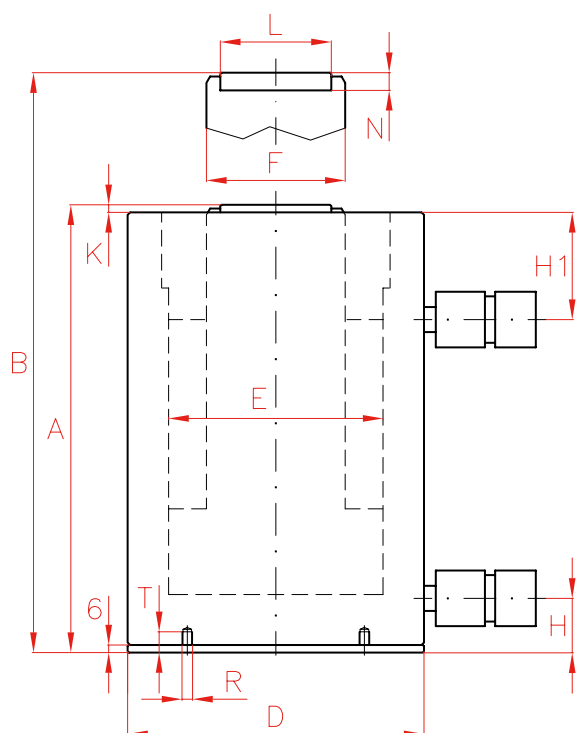
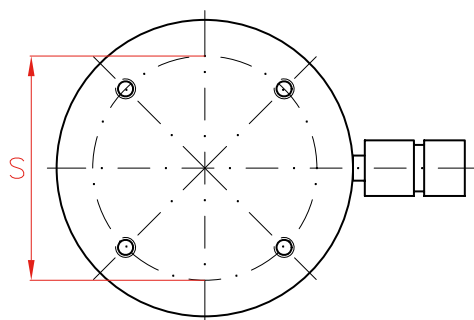
Powerpacks.

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Air Hydraulic Pumps, Z.

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Capacity	Stroke	Model	Capacity (kN)		Oil Cap.	A	
Tn	mm	LARZEP	Push	Pull	cm ³	mm	
50	50	DDA05005	487	92	354	198	
	100	DDA05010	487	92	709	248	
	150	DDA05015	487	92	1.063	298	
	200	DDA05020	487	92	1.418	348	
	250	DDA05025	487	92	1.772	398	
	300	DDA05030	487	92	2.126	448	
75	50	DDA07505	713	137	520	215	
	100	DDA07510	713	137	1.039	265	
	150	DDA07515	713	137	1.558	315	
	200	DDA07520	713	137	2.077	365	
	250	DDA07525	713	137	2.597	415	
	300	DDA07530	713	137	3.116	465	
100	50	DDA10005	911	130	664	230	
	100	DDA10010	911	130	1.327	280	
	150	DDA10015	911	130	1.991	330	
	200	DDA10020	911	130	2.655	380	
	250	DDA10025	911	130	3.318	430	
	300	DDA10030	911	130	3.982	480	
140	50	DDA14005	1.380	364	1.135	255	
	100	DDA14010	1.380	364	2.270	305	
	150	DDA14015	1.380	364	3.405	355	
	200	DDA14020	1.380	364	4.539	405	
	250	DDA14025	1.380	364	5.675	455	
	300	DDA14030	1.380	364	6.809	505	
200	50	DDA20005	1.946	483	1.418	259	
	100	DDA20010	1.946	483	2.835	309	
	150	DDA20015	1.946	483	4.253	359	
	200	DDA20020	1.946	483	5.670	409	
	250	DDA20025	1.946	483	7.088	459	
	300	DDA20030	1.946	483	8.506	509	



Quick Couplers.

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Carefully read and understand the safety instructions.



Optional Tilting Saddle.

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	B	D	E	F	H	H1	K	L	N	S	R	T	Area	Weight	Model	With tilting saddle	
	mm	mm	mm	mm	mm	mm		mm	mm	mm		mm	cm ²	kg	LARZEP	A	Model
	248	135	95	75	26	60	7	61	12	115	M6	19	71	8,0	DDA05005	225	AZ0402
	348	135	95	75	26	60	7	61	12	115	M6	19	71	9,7	DDA05010	275	AZ0402
	448	135	95	75	26	60	7	61	12	115	M6	19	71	11,3	DDA05015	325	AZ0402
	548	135	95	75	26	60	7	61	12	115	M6	19	71	12,9	DDA05020	375	AZ0402
	648	135	95	75	26	60	7	61	12	115	M6	19	71	14,6	DDA05025	425	AZ0402
	748	135	95	75	26	60	7	61	12	115	M6	19	71	16,2	DDA05030	475	AZ0402
	265	160	115	90	32	70	6	61	12	140	M6	19	104	11,8	DDA07505	242	AZ0402
	365	160	115	90	32	70	6	61	12	140	M6	19	104	14,0	DDA07510	292	AZ0402
	465	160	115	90	32	70	6	61	12	140	M6	19	104	16,3	DDA07515	342	AZ0402
	565	160	115	90	32	70	6	61	12	140	M6	19	104	18,6	DDA07520	392	AZ0402
	665	160	115	90	32	70	6	61	12	140	M6	19	104	20,8	DDA07525	442	AZ0402
	765	160	115	90	32	70	6	61	12	140	M6	19	104	23,1	DDA07530	492	AZ0402
	280	180	130	110	32	70	5	88	14	160	M6	19	133	16,1	DDA10005	263	AZ0404
	380	180	130	110	32	70	5	88	14	160	M6	19	133	19,2	DDA10010	313	AZ0404
	480	180	130	110	32	70	5	88	14	160	M6	19	133	22,2	DDA10015	363	AZ0404
	580	180	130	110	32	70	5	88	14	160	M6	19	133	25,3	DDA10020	413	AZ0404
	680	180	130	110	32	70	5	88	14	160	M6	19	133	28,3	DDA10025	463	AZ0404
	780	180	130	110	32	70	5	88	14	160	M6	19	133	31,3	DDA10030	513	AZ0404
	305	225	160	110	43	85	6	88	14	200	M6	19	201	28,2	DDA14005	288	AZ0404
	405	225	160	110	43	85	6	88	14	200	M6	19	201	32,3	DDA14010	338	AZ0404
	505	225	160	110	43	85	6	88	14	200	M6	19	201	36,4	DDA14015	388	AZ0404
	605	225	160	110	43	85	6	88	14	200	M6	19	201	40,5	DDA14020	438	AZ0404
	705	225	160	110	43	85	6	88	14	200	M6	19	201	44,6	DDA14025	488	AZ0404
	805	225	160	110	43	85	6	88	14	200	M6	19	201	48,7	DDA14030	538	AZ0404
	309	265	190	140	51	85	6	111	15	225	M6	19	284	40,0	DDA20005	296	AZ0405
	409	265	190	140	51	85	6	111	15	225	M6	19	284	45,9	DDA20010	346	AZ0405
	509	265	190	140	51	85	6	111	15	225	M6	19	284	51,8	DDA20015	396	AZ0405
	609	265	190	140	51	85	6	111	15	225	M6	19	284	57,8	DDA20020	446	AZ0405
	709	265	190	140	51	85	6	111	15	225	M6	19	284	63,7	DDA20025	496	AZ0405
	809	265	190	140	51	85	6	111	15	225	M6	19	284	69,6	DDA20030	546	AZ0405

DOUBLE ACTING HOLLOW PISTON CYLINDERS



LARZEP advantages

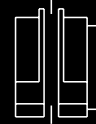
- Capacity from 30 to 150 Tn, stroke up to 250 mm.
- For push and pull operations: Tensioning cables and bolts, pulling sleeves and bearings.
- Collar thread, piston end thread and base holes for easy fixing.
- External safety valve to prevent accidental over-pressure.
- Hollow plain saddle as standard. Optional solid or threaded saddles available.

Carefully read and understand the safety instructions.



Capacity	Stroke	Model	Capacity (kN)		Oil Cap.	A	B	C	D	
Tn	mm	LARZEP	Push	Pull	cm ³	mm	mm	mm	mm	
30	150	DH03015	302	173	660	300	450	33	120	
	250	DH03025	302	173	1.100	400	650	33	120	
60	80	DH06008	578	356	674	249	329	56	165	
	150	DH06015	578	356	1.263	319	469	56	165	
	250	DH06025	578	356	2.105	419	669	56	165	
100	38	DH10004	1.018	647	564	197	235	81	220	
	76	DH10008	1.018	647	1.128	255	331	81	220	
	150	DH10015	1.018	647	2.226	335	485	81	220	
	250	DH10025	1.018	647	3.709	465	715	81	220	
150	200	DH15020	1.407	566	4.096	375	575	81	250	

D/A HOLLOW PISTON CYL.

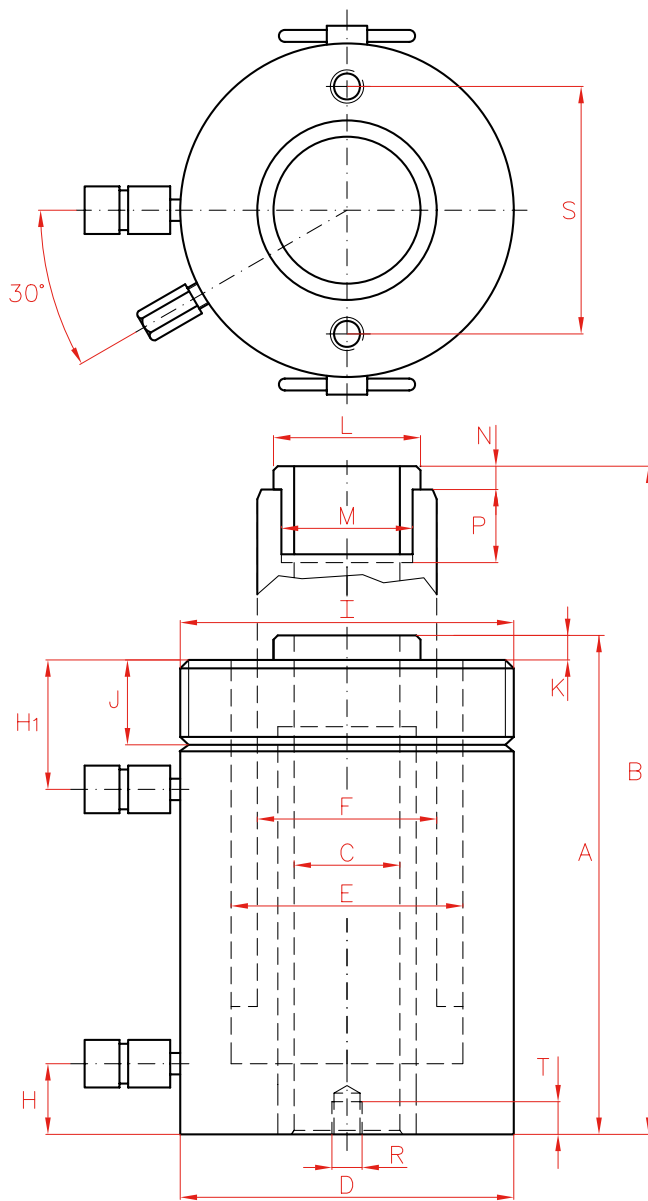


DH

30-150 Tn.

700 bar

CYLINDERS



Aluminium Double Acting
Cylinders, Hollow Piston,
DAH.

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	E	F	H	H1	I	J	K	L	M	N	P	R	S	T	Area	Weight	Model
	mm	mm	mm	mm	UN	mm	mm	mm	UN	mm	mm	UN	mm	mm	cm ²	kg	LARZEP
	90	70	27	61	4 1/2"-12	42	4	55	1 13/16"-16	9	22	3/8"-16	92,2	17	44	22	DH03015
	90	70	27	61	4 1/2"-12	42	4	55	1 13/16"-16	9	22	3/8"-16	92,2	17	44	28	DH03025
	125	95	31	66	6 1/4"-12	48	5	80	2 3/4"-16	12	22	1/2"-13	130,3	14	84	35	DH06008
	125	95	31	66	6 1/4"-12	48	5	80	2 3/4"-16	12	22	1/2"-13	130,3	14	84	42	DH06015
	125	95	31	66	6 1/4"-12	48	5	80	2 3/4"-16	12	22	1/2"-13	130,3	14	84	53	DH06025
	170	130	37	60	-	-	5	116	4"-16	13	25	5/8"-11	177,8	19	149	48	DH10004
	170	130	37	80	8 3/8"-12	60	5	116	4"-16	13	25	5/8"-11	177,8	19	149	60	DH10008
	170	130	37	80	8 3/8"-12	60	5	116	4"-16	13	25	5/8"-11	177,8	19	149	76	DH10015
	170	130	37	80	8 3/8"-12	60	5	116	4"-16	13	25	5/8"-11	177,8	19	149	102	DH10025
	190	160	37	60	-	-	10	135	4 1/4"-12	20	40	-	-	-	205	116	DH15020

ALUMINIUM DOUBLE ACTING, HOLLOW PISTON CYLINDERS

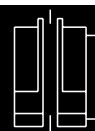


LARZEP advantages

- Capacity from 30 to 150 Tn, stroke up to 250 mm.
- For push and pull operations: Tensioning cables and bolts, pulling sleeves and bearings.
- Made out of high strength aluminium alloy.
- All aluminium parts are treated to improve resistance and extend working life.
- Lightweight. Over 40% weight reduction when compared with steel equivalent.
- Fitted with steel base plate for wear resistance.
- External safety valve to prevent accidental over-pressure.
- Hollow plain saddle as standard. Optional solid or threaded saddles available.
- Not suitable for high cycle applications.

Capacity	Stroke	Model	Capacity (kN)		Oil Cap.	
Tn	mm	LARZEP	Push	Pull	cm ³	
30	50	DAH03005	302	173	220	
	100	DAH03010	302	173	440	
	150	DAH03015	302	173	660	
	200	DAH03020	302	173	880	
	250	DAH03025	302	173	1.100	
60	50	DAH06005	578	356	421	
	100	DAH06010	578	356	842	
	150	DAH06015	578	356	1.263	
	200	DAH06020	578	356	1.684	
	250	DAH06025	578	356	2.105	
100	50	DAH10005	1.019	647	742	
	100	DAH10010	1.019	647	1.484	
	150	DAH10015	1.019	647	2.226	
	200	DAH10020	1.019	647	2.968	
	250	DAH10025	1.019	647	3.710	
150	50	DAH15005	1.408	567	1.025	
	100	DAH15010	1.408	567	2.050	
	150	DAH15015	1.408	567	3.075	
	200	DAH15020	1.408	567	4.100	
	250	DAH15025	1.408	567	5.125	

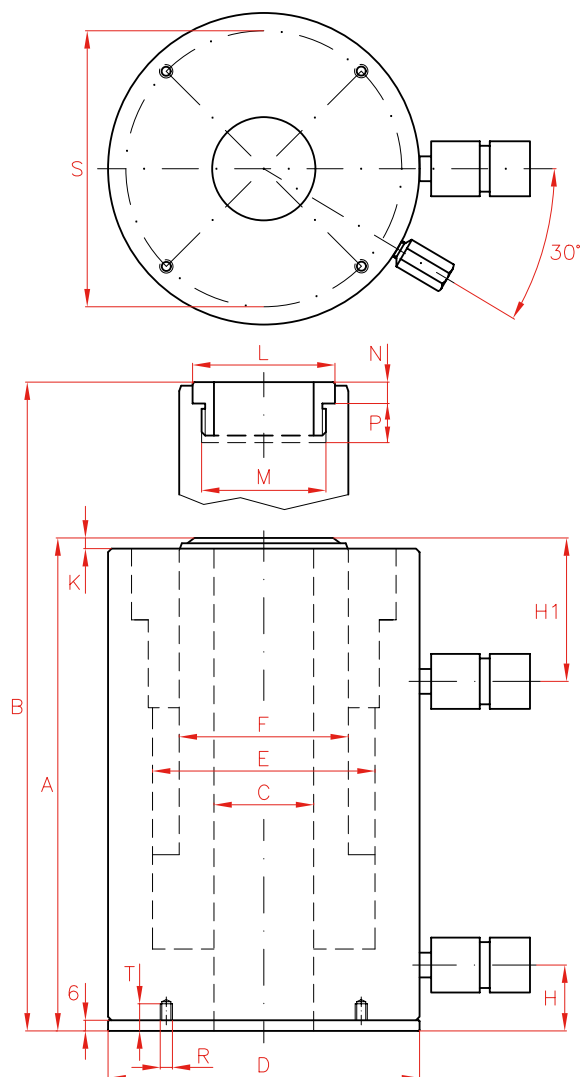
ALUM. D/A HOLLOW PISTON



DAH

30-150 Tn.

700 bar



Double Acting Hollow
Piston Cylinders, DH.

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Powerpacks.

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	A	B	C	D	E	F	H	H1	K	L	M	N	P	R	S	T	Area	Weight	Model
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	UN	mm	mm		mm	mm	cm ²	kg	LARZEP
	217	267	33	130	90	70	32	61	4	55	1 11/13"-16	9	22	M6	110	19	44	7	DAH03005
	267	367	33	130	90	70	32	61	4	55	1 11/13"-16	9	22	M6	110	19	44	9	DAH03010
	317	467	33	130	90	70	32	61	4	55	1 11/13"-16	9	22	M6	110	19	44	12	DAH03015
	367	567	33	130	90	70	32	61	4	55	1 11/13"-16	9	22	M6	110	19	44	13	DAH03020
	417	667	33	130	90	70	32	61	4	55	1 11/13"-16	9	22	M6	110	19	44	15	DAH03025
	225	275	56	175	125	95	37	66	4	80	2 3/4"-16	12	22	M6	155	19	84	13	DAH06005
	275	375	56	175	125	95	37	66	4	80	2 3/4"-16	12	22	M6	155	19	84	16	DAH06010
	325	475	56	175	125	95	37	66	4	80	2 3/4"-16	12	22	M6	155	19	84	19	DAH06015
	375	575	56	175	125	95	37	66	4	80	2 3/4"-16	12	22	M6	155	19	84	22	DAH06020
	425	675	56	175	125	95	37	66	4	80	2 3/4"-16	12	22	M6	155	19	84	25	DAH06025
	256	306	81	235	170	130	40	80	6	116	4"-16	13	25	M6	215	19	148	27	DAH10005
	306	406	81	235	170	130	40	80	6	116	4"-16	13	25	M6	215	19	148	33	DAH10010
	356	506	81	235	170	130	40	80	6	116	4"-16	13	25	M6	215	19	148	38	DAH10015
	406	606	81	235	170	130	40	80	6	116	4"-16	13	25	M6	215	19	148	43	DAH10020
	456	706	81	235	170	130	40	80	6	116	4"-16	13	25	M6	215	19	148	49	DAH10025
	261	311	81	260	190	160	50	80	10	135	4 1/4"-12	20	40	M6	240	19	205	36	DAH15005
	311	411	81	260	190	160	50	80	10	135	4 1/4"-12	20	40	M6	240	19	205	43	DAH15010
	361	511	81	260	190	160	50	80	10	135	4 1/4"-12	20	40	M6	240	19	205	51	DAH15015
	411	611	81	260	190	160	50	80	10	135	4 1/4"-12	20	40	M6	240	19	205	57	DAH15020
	461	711	81	260	190	160	50	80	10	135	4 1/4"-12	20	40	M6	240	19	205	64	DAH15025

DOUBLE ACTING HIGH TONNAGE CYLINDERS



LARZEP advantages

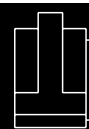
- Capacity from 50 to 1.100 Tn, stroke up to 300 mm.
- For harsh conditions in both vertical and horizontal positions.
- External safety valve to prevent accidental over-pressure.
- On request, DDR cylinders can be supplied with threads or other special features such as lock nuts, sleeves, etc.
- Models available up to 2.000 Tn lifting capacity per cylinder.

NEW MODELS 50 and 100 Tn.

Larzep designs and manufactures DDR special cylinders up to 2.000 Tn to place load cells for pile testing applications.

Capacity	Stroke	Model	Capacity (kN)		
Tn	mm	LARZEP	Push	Pull	
50	50	DDR05005	486	141	
	100	DDR05010	486	141	
	150	DDR05015	486	141	
	200	DDR05020	486	141	
	250	DDR05025	486	141	
	300	DDR05030	486	141	
100	50	DDR10005	911	372	
	100	DDR10010	911	372	
	150	DDR10015	911	372	
	200	DDR10020	911	372	
	250	DDR10025	911	372	
	300	DDR10030	911	372	
140	50	DDR14005	1.380	728	
	100	DDR14010	1.380	728	
	150	DDR14015	1.380	728	
	200	DDR14020	1.380	728	
	250	DDR14025	1.380	728	
	300	DDR14030	1.380	728	

DOUBLE ACTING CYLINDERS

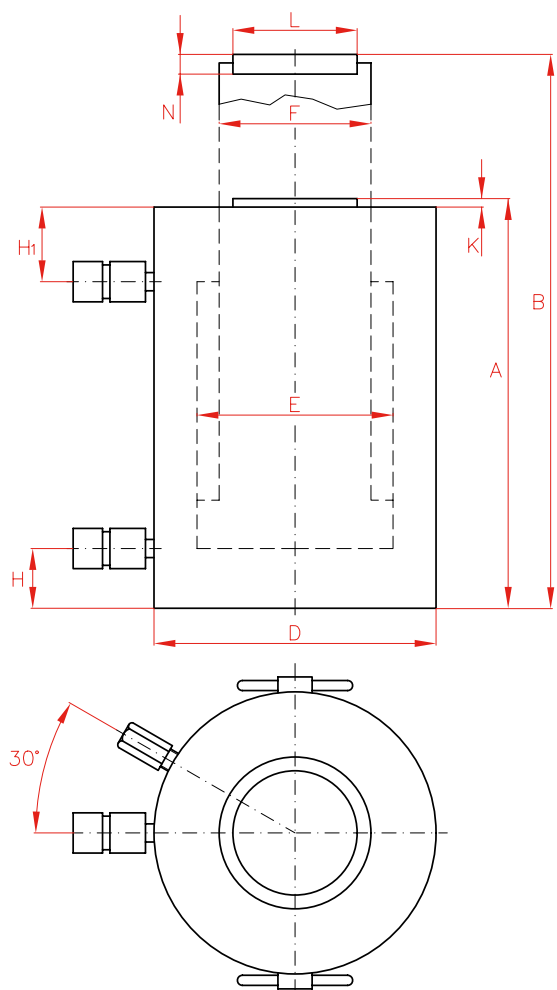


DDR

50-1.100 Tn.

700 bar

CYLINDERS



Low Height Single Acting Cylinders, High Tonnage, SPR.

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Single Acting Pancake Lock Nut Cylinders, STX.

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Optional Tilting Saddle.

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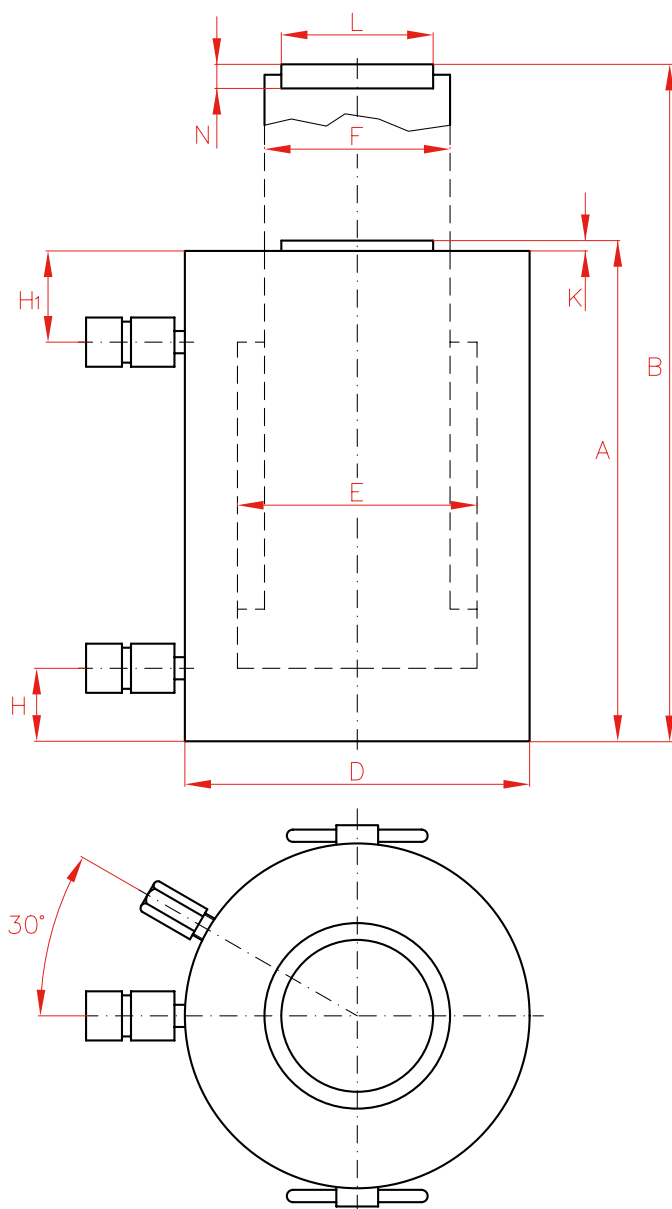
	Oil Cap.	A	B	D	E	F	H	H1	K	L	N	Area	Weight	Model	With tilting saddle	
	cm ³	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP	A	Model
	354	216	266	127	95	80	30	80	6	61	12	71	20	DDR05005	243	AZ0402
	709	266	366	127	95	80	30	80	6	61	12	71	24	DDR05010	293	AZ0402
	1.063	316	466	127	95	80	30	80	6	61	12	71	28	DDR05015	343	AZ0402
	1.418	366	566	127	95	80	30	80	6	61	12	71	32	DDR05020	393	AZ0402
	1.772	416	666	127	95	80	30	80	6	61	12	71	36	DDR05025	443	AZ0402
	2.126	466	766	127	95	80	30	80	6	61	12	71	40	DDR05030	493	AZ0402
	664	196	246	170	130	100	30	60	6	88	14	133	31	DDR10005	229	AZ0404
	1.327	246	346	170	130	100	30	60	6	88	14	133	39	DDR10010	279	AZ0404
	1.991	296	446	170	130	100	30	60	6	88	14	133	47	DDR10015	329	AZ0404
	2.655	346	546	170	130	100	30	60	6	88	14	133	56	DDR10020	379	AZ0404
	3.318	401	651	170	130	100	30	65	6	88	14	133	65	DDR10025	434	AZ0404
	3.982	451	751	170	130	100	30	65	6	88	14	133	72	DDR10030	484	AZ0404
	1.005	201	251	200	160	110	35	60	6	88	14	201	44	DDR14005	234	AZ0404
	2.011	251	351	200	160	110	35	60	6	88	14	201	51	DDR14010	284	AZ0404
	3.016	306	456	200	160	110	35	65	6	88	14	201	59	DDR14015	339	AZ0404
	4.021	356	556	200	160	110	35	65	6	88	14	201	66	DDR14020	389	AZ0404
	5.027	411	661	200	160	110	35	70	6	88	14	201	74	DDR14025	444	AZ0404
	6.032	461	761	200	160	110	35	70	6	88	14	201	81	DDR14030	494	AZ0404



Optional Tilting Saddle.

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Carefully read and understand the safety instructions.



Capacity	Stroke	Model	Capacity (kN)		
Tn	mm	LARZEP	Push	Pull	
220	50	DDR22005	2.156	1.100	
	100	DDR22010	2.156	1.100	
	150	DDR22015	2.156	1.100	
	200	DDR22020	2.156	1.100	
	250	DDR22025	2.156	1.100	
	300	DDR22030	2.156	1.100	
350	50	DDR35005	3.370	1.213	
	100	DDR35010	3.370	1.213	
	150	DDR35015	3.370	1.213	
	200	DDR35020	3.370	1.213	
	250	DDR35025	3.370	1.213	
	300	DDR35030	3.370	1.213	
430	50	DDR43005	4.224	1.618	
	100	DDR43010	4.224	1.618	
	150	DDR43015	4.224	1.618	
	200	DDR43020	4.224	1.618	
	250	DDR43025	4.224	1.618	
	300	DDR43030	4.224	1.618	
560	50	DDR56005	5.521	2.152	
	100	DDR56010	5.521	2.152	
	150	DDR56015	5.521	2.152	
	200	DDR56020	5.521	2.152	
	250	DDR56025	5.521	2.152	
	300	DDR56030	5.521	2.152	
670	50	DDR67005	6.600	2.378	
	100	DDR67010	6.600	2.378	
	150	DDR67015	6.600	2.378	
	200	DDR67020	6.600	2.378	
	250	DDR67025	6.600	2.378	
	300	DDR67030	6.600	2.378	
880	50	DDR88005	8.626	3.106	
	100	DDR88010	8.626	3.106	
	150	DDR88015	8.626	3.106	
	200	DDR88020	8.626	3.106	
	250	DDR88025	8.626	3.106	
	300	DDR88030	8.626	3.106	
1.100	50	DDR110005	10.921	3.932	
	100	DDR110010	10.921	3.932	
	150	DDR110015	10.921	3.932	
	200	DDR110020	10.921	3.932	
	250	DDR110025	10.921	3.932	
	300	DDR110030	10.921	3.932	

Performance under Pressure

	Oil Cap.	A	B	D	E	F	H	H1	K	L	N	Area	Weight	Model	With tilting saddle	
	cm ³	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	kg	LARZEP	A	Model
	1.571	216	266	250	200	140	40	70	6	111	15	314	75	DDR22005	253	AZ0405
	3.142	266	366	250	200	140	40	70	6	111	15	314	86	DDR22010	303	AZ0405
	4.712	326	476	250	200	140	40	75	6	111	15	314	101	DDR22015	363	AZ0405
	6.283	376	576	250	200	140	40	75	6	111	15	314	112	DDR22020	413	AZ0405
	7.854	436	686	250	200	140	40	80	6	111	15	314	127	DDR22025	473	AZ0405
	9.425	486	786	250	200	140	40	80	6	111	15	314	139	DDR22030	523	AZ0405
	2.454	236	286	310	250	200	50	80	6	178	23	491	127	DDR35005	280	AZ0408
	4.909	286	386	310	250	200	50	80	6	178	23	491	148	DDR35010	330	AZ0408
	7.363	341	491	310	250	200	50	80	6	178	23	491	175	DDR35015	385	AZ0408
	9.817	391	591	310	250	200	50	80	6	178	23	491	195	DDR35020	435	AZ0408
	12.272	451	701	310	250	200	50	85	6	178	23	491	222	DDR35025	495	AZ0408
	14.726	501	801	310	250	200	50	85	6	178	23	491	243	DDR35030	545	AZ0408
	3.079	248	298	340	280	220	55	85	8	178	23	616	164	DDR43005	292	AZ0408
	6.158	298	398	340	280	220	55	85	8	178	23	616	188	DDR43010	342	AZ0408
	9.236	353	503	340	280	220	55	85	8	178	23	616	215	DDR43015	397	AZ0408
	12.315	403	603	340	280	220	55	85	8	178	23	616	239	DDR43020	447	AZ0408
	15.394	458	708	340	280	220	55	85	8	178	23	616	266	DDR43025	502	AZ0408
	18.473	508	808	340	280	220	55	85	8	178	23	616	290	DDR43030	552	AZ0408
	4.021	268	318	390	320	250	65	90	8	200	27	804	234	DDR56005	320	AZ0411
	8.042	318	418	390	320	250	65	90	8	200	27	804	266	DDR56010	370	AZ0411
	12.064	373	523	390	320	250	65	90	8	200	27	804	301	DDR56015	425	AZ0411
	16.085	423	623	390	320	250	65	90	8	200	27	804	332	DDR56020	475	AZ0411
	20.106	488	738	390	320	250	65	100	8	200	27	804	377	DDR56025	540	AZ0411
	24.127	538	838	390	320	250	65	100	8	200	27	804	408	DDR56030	590	AZ0411
	4.811	293	343	430	350	280	65	105	8	200	27	962	315	DDR67005	345	AZ0411
	9.621	343	443	430	350	280	65	105	8	200	27	962	355	DDR67010	395	AZ0411
	14.432	398	548	430	350	280	65	105	8	200	27	962	400	DDR67015	450	AZ0411
	19.242	448	648	430	350	280	65	105	8	200	27	962	439	DDR67020	500	AZ0411
	24.053	508	758	430	350	280	65	105	8	200	27	962	490	DDR67025	560	AZ0411
	28.863	558	858	430	350	280	65	105	8	200	27	962	530	DDR67030	610	AZ0411
	6.283	310	360	490	400	320	70	115	10	250	35	1.257	434	DDR88005	380	AZ0413
	12.566	360	460	490	400	320	70	115	10	250	35	1.257	485	DDR88010	430	AZ0413
	18.850	420	570	490	400	320	70	115	10	250	35	1.257	551	DDR88015	490	AZ0413
	25.133	470	670	490	400	320	70	115	10	250	35	1.257	602	DDR88020	540	AZ0413
	31.416	530	780	490	400	320	70	115	10	250	35	1.257	668	DDR88025	600	AZ0413
	37.699	580	880	490	400	320	70	115	10	250	35	1.257	719	DDR88030	650	AZ0413
	7.952	330	380	550	450	360	80	125	10	325	55	1.590	578	DDR110005	450	AZ0415
	15.904	380	480	550	450	360	80	125	10	325	55	1.590	648	DDR110010	500	AZ0415
	23.856	440	590	550	450	360	80	125	10	325	55	1.590	731	DDR110015	560	AZ0415
	31.809	490	690	550	450	360	80	125	10	325	55	1.590	795	DDR110020	610	AZ0415
	39.761	550	800	550	450	360	80	125	10	325	55	1.590	878	DDR110025	670	AZ0415
	47.713	600	900	550	450	360	80	125	10	325	55	1.590	960	DDR110030	720	AZ0415

DOUBLE ACTING PRODUCTION CYLINDERS



LARZEP advantages

- Capacity from 4 to 23 Tn, stroke up to 260 mm.
- For carrying out push and pull operations.
- Black nitrated to improve corrosion resistance.
- Designed for long life in production applications.
- Big range of mounting accessories: flanges, mounting blocks, nuts and clevis eyes.
- Metric threads, DM models or UN threads, DI models.



Mounting Accessories.

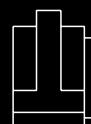
Page.

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Warning: DM and DI models are not equipped with safety valve to prevent accidental over-pressure.



DOUBLE ACTING CYLINDERS



DM DI

CYLINDERS

4-23 Tn.

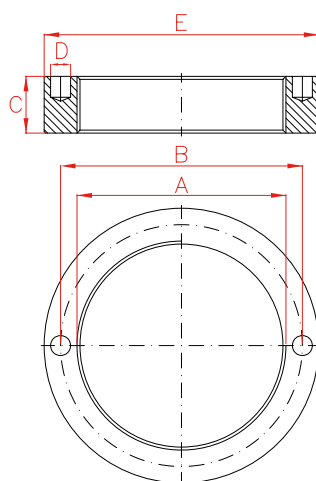
700 bar

ATTACHMENTS FOR DM AND DI CYLINDERS

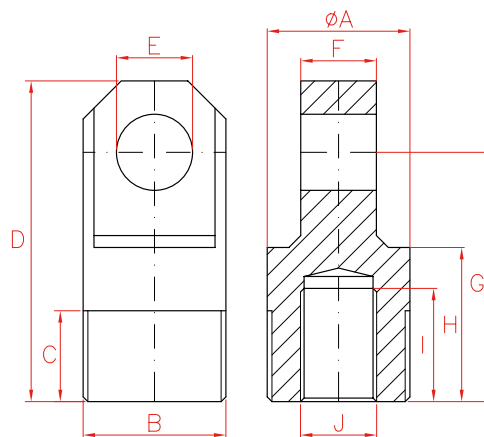
Nuts

Model	A	B	C	D	E	Weight
LARZEP		mm	mm	mm	mm	kg
DM004RB	M42x1.5	49,5	9,5	6,3	57	0,1
DM008RB	M56x2	65,5	12,7	6,7	75	0,1
DM015RB	M70x2	81,0	19,0	6,7	92	0,4
DM023RB	M85x2	96,5	25,4	6,7	108	0,7

Model	A	B	C	D	E	Weight
LARZEP	UN	mm	mm	mm	mm	kg
DI004RB	1 3/8"-12	49,5	9,5	6,3	57	0,1
DI008RB	2"-12	65,5	12,7	6,7	75	0,1
DI015RB	2 5/8"-16	81,0	19,0	6,7	92	0,4
DI023RB	3 1/4"-16	96,5	25,4	6,7	108	0,7



Clevis eyes



Model	A	B	C	D	E	F	G	H	I	J	Weight
LARZEP	mm		mm	mm	mm	mm	mm	mm	mm		kg
DM004RP	30	M30x1.5	19,1	67,4	16	15,9	52,4	32,4	23,8	M16x1,5	0,2
DM008RP	42	M42x1.5	25,4	78,1	20	25,4	57,1	37,1	23,8	M22x1,5	0,6
DM015RP	56	M56x2	25,4	105,8	25	31,9	77,8	52,8	30,2	M30x1,5	1,3
DM023RP	70	M70x2	25,4	112,8	32	38,2	77,8	50,3	27,0	M42x1,5	2,1

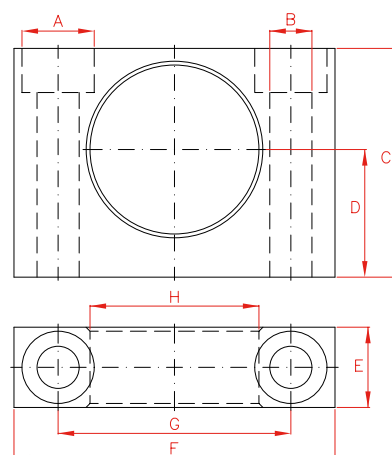
Model	A	B	C	D	E	F	G	H	I	J	Weight
LARZEP	mm	UN	mm	mm	mm	mm	mm	mm	mm	UN	kg
DI004RP	30	1 1/8"-20	19,1	67,4	16	15,9	52,4	32,4	23,8	1 1/2"-20	0,2
DI008RP	42	1 11/16"-18	25,4	78,1	20	25,4	57,1	37,1	23,8	3/4"-16	0,6
DI015RP	56	2 3/16"-16	25,4	105,8	25	31,9	77,8	52,8	30,2	1 1/8"-12	1,3
DI023RP	70	2 3/4"-16	25,4	112,8	32	38,2	77,8	50,3	27,0	1 1/2"-12	2,1

ATTACHMENTS FOR DM AND DI CYLINDERS

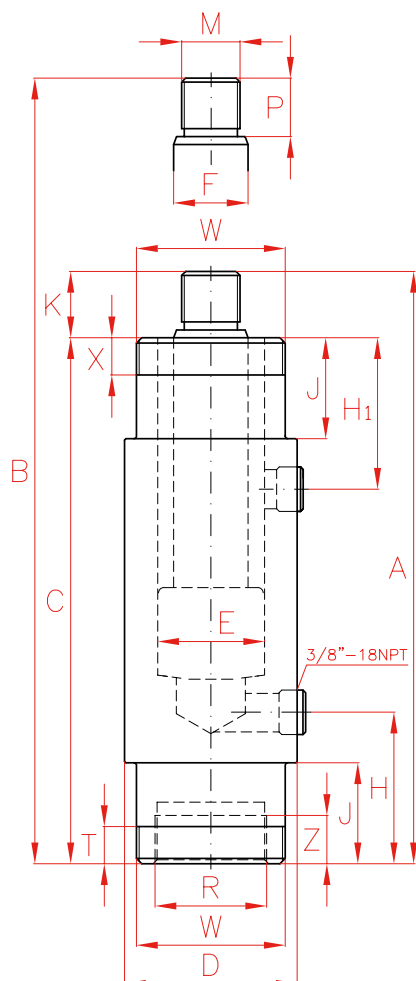
Mounting blocks

Model	A	B	C	D	E	F	G	H	Weight
LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	kg
DM004RC	18	10,5	57,0	31,8	20	80	58,0	42,1	0,4
DM008RC	21	13,5	82,5	44,5	25	105	78,0	56,1	1,2
DM015RC	28	20,0	100,0	52,4	35	127	95,2	70,1	2,9
DM023RC	36	26,5	125,0	63,5	45	159	117,5	85,1	4,5

Model	A	B	C	D	E	F	G	H	Weight
LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	kg
DI004RC	16	10,5	57,0	31,8	19,3	72,6	50,8	35,1	0,4
DI008RC	20	13,5	82,5	44,5	25,4	101,6	73,2	50,9	1,2
DI015RC	28	20,0	101,6	52,3	35,0	127,0	95,5	66,9	2,9
DI023RC	36	26,5	125,0	63,5	45,0	159,0	117,4	82,7	4,5



NOTE: 4Tn cylinders have 1/4" BSP thread for the couplers.



CYLINDERS WITH METRIC THREAD - DM

Capacity	Stroke	Model	Capacity (kN)		Area (cm ²)		Oil Cap.	A	
Tn	mm	LARZEP	Push	Pull	Push	Pull	cm ³	mm	
4	28	DM00403	34	12	5	2	14	186	
	79	DM00408	34	12	5	2	39	237	
	155	DM00416	34	12	5	2	76	313	
8	28	DM00803	86	44	13	6	35	223	
	79	DM00808	86	44	13	6	99	274	
	155	DM00816	86	44	13	6	195	350	
	257	DM00826	86	44	13	6	323	452	
15	159	DM01516	139	73	20	11	323	389	
	260	DM01526	139	73	20	11	527	490	
23	159	DM02316	228	93	33	14	527	425	
	260	DM02326	228	93	33	14	863	526	

CYLINDERS WITH UN THREAD - DI

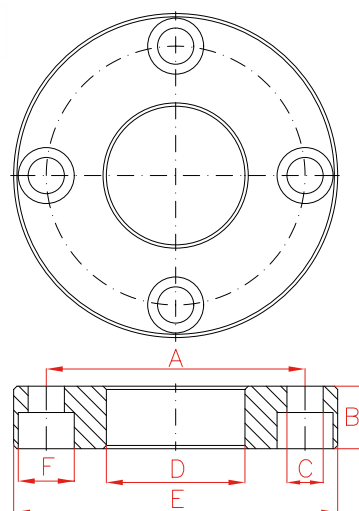
Capacity	Stroke	Model	Capacity (kN)		Area (cm ²)		Oil Cap.	A	
Tn	mm	LARZEP	Push	Pull	Push	Pull	cm ³	mm	
4	28	DI00403	34	12	5	2	14	186	
	79	DI00408	34	12	5	2	39	237	
	155	DI00416	34	12	5	2	76	313	
8	28	DI00803	86	44	13	6	35	223	
	79	DI00808	86	44	13	6	99	274	
	155	DI00816	86	44	13	6	195	350	
	257	DI00826	86	44	13	6	323	452	
15	159	DI01516	139	73	20	11	323	389	
	260	DI01526	139	73	20	11	527	490	
23	159	DI02316	228	93	33	14	527	425	
	260	DI02326	228	93	33	14	863	526	

ATTACHMENTS FOR DM AND DI CYLINDERS

Flanges

Model	A	B	C	D	E	F	Weight
LARZEP	mm	mm	mm	mm	mm	mm	kg
DM004RS	78,6	19,0	11,0	42,1	98,4	17	1,0
DM008RS	98,4	25,4	11,0	56,1	120,5	17	2,1
DM015RS	115,9	35,0	13,4	70,1	143,0	18	3,8
DM023RS	135,7	44,5	17,0	85,1	165,0	22	6,0

Model	A	B	C	D	E	F	Weight
LARZEP	mm	mm	mm	mm	mm	mm	kg
DI004RS	78,6	19,0	10,4	35,1	98,4	15	1,0
DI008RS	98,5	25,4	10,5	50,9	120,7	15	2,1
DI015RS	115,9	35,0	13,5	66,8	143,0	20	3,8
DI023RS	135,7	44,5	17,0	82,7	165,0	23	6,0



	B	C	D	E	F	H	H1	K	J	M	P	R	W	X	Z	Weight	Model
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	LARZEP
	214	162	51	25	20	47	61	24	29	M16x1.5	19	M30x1.5	M42x1.5	11	9	2,0	DM00403
	316	213	51	25	20	47	61	24	29	M16x1.5	19	M30x1.5	M42x1.5	11	9	2,9	DM00408
	468	289	51	25	20	47	61	24	29	M16x1.5	19	M30x1.5	M42x1.5	11	9	3,9	DM00416
	251	198	65	40	28	75	57	25	38	M22x1.5	22	M42x1.5	M56x2	14	14	4,2	DM00803
	353	249	65	40	28	75	57	25	38	M22x1.5	22	M42x1.5	M56x2	14	14	5,3	DM00808
	505	325	65	40	28	75	57	25	38	M22x1.5	22	M42x1.5	M56x2	14	14	6,8	DM00816
	709	427	65	40	28	75	57	25	38	M22x1.5	22	M42x1.5	M56x2	14	14	9,0	DM00826
	548	359	80	51	35	73	95	30	54	M30x1.5	28	M56x2	M70x2	22	24	9,0	DM01516
	750	460	80	51	35	73	95	30	54	M30x1.5	28	M56x2	M70x2	22	24	11,7	DM01526
	584	398	92	65	50	89	110	27	70	M42x1.5	25	M70x2	M85x2	29	26	17,0	DM02316
	786	499	92	65	50	89	110	27	70	M42x1.5	25	M70x2	M85x2	29	26	21,0	DM02326

	B	C	D	E	F	H	H1	K	J	M	P	R	W	X	Z	Weight	Model
	mm	mm	mm	mm	mm	mm	mm	mm	mm	UN	mm	UN	UN	mm	mm	kg	LARZEP
	214	162	51	25	20	47	61	24	29	1/2"-20	19	1 1/8"-20	1 3/8"-12	11	9	2,0	DI00403
	316	213	51	25	20	47	61	24	29	1/2"-20	19	1 1/8"-20	1 3/8"-12	11	9	2,9	DI00408
	468	289	51	25	20	47	61	24	29	1/2"-20	19	1 1/8"-20	1 3/8"-12	11	9	3,9	DI00416
	251	198	65	40	28	75	57	25	38	3/4"-16	22	1 11/16"-18	2"-12	14	14	3,7	DI00803
	353	249	65	40	28	75	57	25	38	3/4"-16	22	1 11/16"-18	2"-12	14	14	4,7	DI00808
	505	325	65	40	28	75	57	25	38	3/4"-16	22	1 11/16"-18	2"-12	14	14	6,4	DI00816
	709	427	65	40	28	75	57	25	38	3/4"-16	22	1 11/16"-18	2"-12	14	14	9,0	DI00826
	548	359	80	51	35	73	95	30	54	1 1/8"-12	28	2 3/16"-16	2 5/8"-16	22	24	9,0	DI01516
	750	460	80	51	35	73	95	30	54	1 1/8"-12	28	2 3/16"-16	2 5/8"-16	22	24	11,7	DI01526
	584	398	92	65	50	89	110	27	70	1 1/2"-12	25	2 3/4"-16	3 1/4"-16	29	26	17,0	DI02316
	786	499	92	65	50	89	110	27	70	1 1/2"-12	25	2 3/4"-16	3 1/4"-16	29	26	21,0	DI02326

CYLINDER - PUMP SETS



LARZEP advantages

- All sets include 2 m hose (AP2020), male coupler (AZ3120), pressure gauge (AV10006) and gauge adaptor (AZ1502).
- Available with hand pump or air hydraulic pump.
- Available Cylinder-Pump set without pressure gauge or gauge adaptor. Add 'G' to the reference.



Hand Pumps, W.

Page. 80



Air Hydraulic Pumps, Z.

Page. 82

SINGLE ACTING CYLINDERS

J

5-100 Tn.

700 bar

CYLINDERS

Carefully read and understand the safety instructions.



SINGLE ACTING, SPRING RETURN CYLINDER

Capacity		Stroke	Closed Height	Cylinder	Hand Pump 1 stage	Hand Pump 1 stage	Hand Pump 2 stage	Hand Pump 2 stage	Hand Pump 2 stage	Air Hydraulic Pump
Tn	kN	mm	mm	LARZEP	W00307	W10707	W20707	W21207	W22307	Z12107
5	49	76	168	SM00508	JM00508					JMZ00508
		127	219	SM00513	JM00513					JMZ00513
10	109	54	121	SM01005	JM01005					JMZ01005
		155	247	SM01015		JM01015				JMZ01015
		257	352	SM01025			JM01025			JMZ01025
15	163	105	205	SM01510		JM01510				JMZ01510
		155	275	SM01515			JM01515			JMZ01515
23	228	51	166	SM02305		JM02305				JMZ02305
		102	217	SM02310		JM02310				JMZ02310
		159	277	SM02315			JM02315			JMZ02315
		261	379	SM02326				JM02326		JMZ02336
		362	480	SM02336					JM02336	JMZ02336
30	303	210	340	SM03021					JM03021	JMZ03021
50	487	160	285	SM05016					JM05016	JMZ05016
100	911	150	300	SM10015					JM10015	JMZ10015

LOW HEIGHT, SINGLE ACTING, SPRING RETURN CYLINDER

Capacity		Stroke	Closed Height	Cylinder	Hand Pump 1 stage	Hand Pump 1 stage	Hand Pump 2 stage	Hand Pump 2 stage	Hand Pump 2 stage	Air Hydraulic Pump
Tn	kN	mm	mm	LARZEP	W00307	W10707	W20707	W21207	W22307	Z12107
10	109	40	89	SMP01004	JP01004					JPZ01004
20	214	40	101	SMP02004		JP02004				JPZ02004
30	303	60	125	SMP03006			JP03006			JPZ03006
50	486	60	125	SMP05006			JP05006			JPZ05006
100	911	60	141	SMP10006				JP10006		JPZ10006

SINGLE ACTING, HOLLOW PISTON CYLINDER

Capacity		Stroke	Closed Height	Cylinder	Hand Pump 1 stage	Hand Pump 1 stage	Hand Pump 2 stage	Hand Pump 2 stage	Hand Pump 2 stage	Air Hydraulic Pump
Tn	kN	mm	mm	LARZEP	W00307	W10707	W20707	W21207	W22307	Z12107
12	121	40	124	SH01204	JH01204					JHZ01204
22	217	50	165	SH02205		JH02205				JHZ02205
30	302	50	180	SH03005			JH03005			JHZ03005
60	578	76	253	SH06008				JH06008		JHZ06008
100	1.018	80	306	SH10008					JH10008	JHZ10008

Since 1940

LARZEP

HYDRAULIC

HYDRAULIC PUMPS. GENERAL FEATURES

- Hand pumps, Air hydraulic pumps, Modular pumps, Manual, Electric, Air and Petrol hydraulic powerpacks, Synchronized lifting systems, Split-Flow powerpacks, Hydrotest pumps, Battery powered pumps and Torque wrench pumps available as standard.
- 700 bar pumps as standard.
- 700 and 1.000 bar air hydraulic pumps.
- From 70 to 2.900 bar hydrotest pumps.
- Wide range of reservoirs, from 240cc in hand pumps to 150 litres in standard powerpacks. Possibility to manufacture powerpacks up to 1.000 litres.
- Powerpacks according to ATEX standards upon request.



Pumps

Models	Pump type	Max. Oil Capacity	Max. Flow Rate		Page
		litre	l/min		
W	Hydraulic Single Acting Hand Pumps	7,5	4,6		80
X	Hydraulic Double Acting Hand Pumps	7,5	4,6		80
Z - ZR	Air Hydraulic Pumps 700 bar	20	0,14		82
Z	Air Hydraulic Pumps 1.000 bar	4	0,08		82
HAM	Hydraulic Powerpacks Manual valve	100	4		84
HAE	Hydraulic Powerpacks Solenoid valve	100	4		86
HAM - HAE	HAM and HAE Powerpacks Table				88
HAZ	Air Hydraulic Pumps	100	2,2		90
HAG	Petrol Hydraulic Pumps	50	0,51		91
B - C - H P - R - T	Accessories for Powerpacks				92
HAS	Synchronized Lifting Systems	150	2,1		94
HFM - HFE	Split-Flow Powerpacks	150	2,1		96
WI	Modular Hand Pumps				99
HAP	Hydrotest Pumps	7	16		100
HAP2900BT	Bolt Tensioner Pump	7	0,26		100
HAB	Battery Powered Portable Hydraulic Pump	2,3	0,16		102
HAT	Torque Wrench Pumps	14	4		103

HYDRAULIC HAND PUMPS

W



X



LARZEP advantages

- W series pumps are for use with Single Acting cylinders.
- X series pumps are fitted with 4-way 3 position valve for use with Double Acting cylinders.
- The pump range includes single and two speed models. Two speed models provide rapid cylinder advance until contact is made with the load.
- Hydraulic port on all models is 3/8"-NPT female.
- W and X series pumps are fitted with internal safety valves to prevent overpressure.
- WP01207 model is foot pedal operated.
- All pumps except W00307 are fitted with handle clips for ease of carrying.

SINGLE ACTING

Model	Speeds	Usable oil	Handle effort	
LARZEP	No.	cm ³	kg	
W00307	1	240	51	
W10707	1	660	49	
W20707	2	660	49	
WP01207	2	1.200	-	
W11207	1	1.200	49	
W21207	2	1.200	49	
W22307	2	2.400	49	
W24307	2	4.200	49	
W07807	2	7.500	41	

DOUBLE ACTING

Model	Speeds	Usable oil	Handle effort	
LARZEP	No.	cm ³	kg	
X22307	2	2.400	49	
X24307	2	4.200	49	
X07807	2	7.500	41	

HYDRAULIC HAND PUMPS



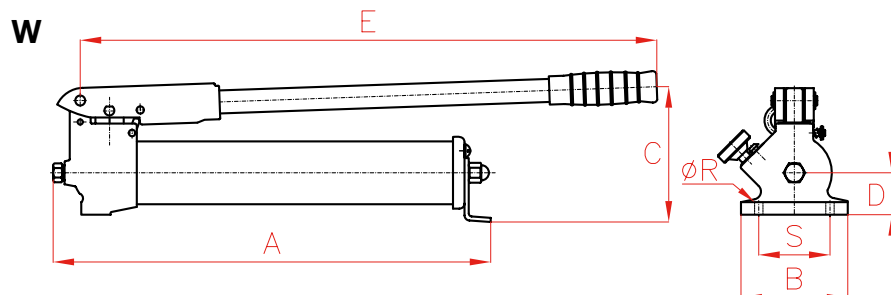
W-X

0,24-7,5 litres

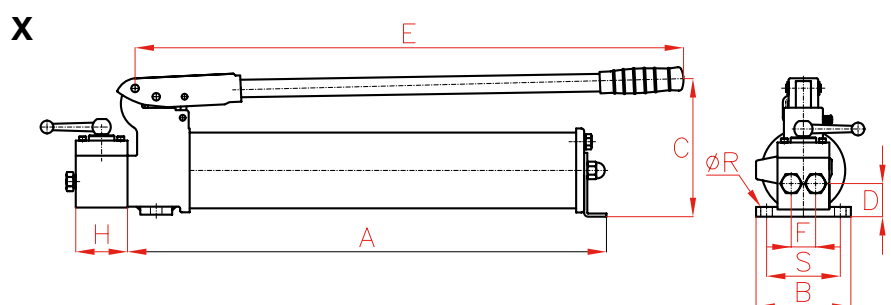
700 bar

PUMPS

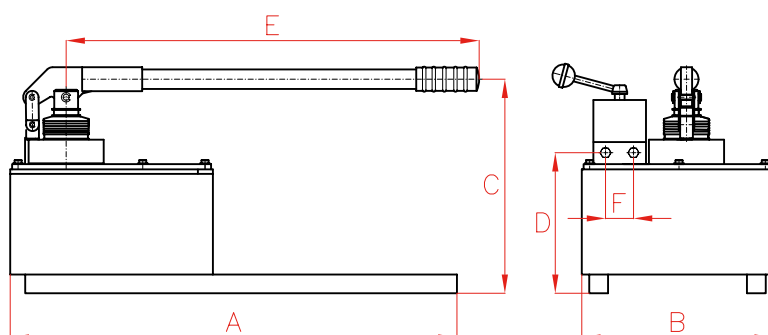
SINGLE ACTING



DOUBLE ACTING



W07807
X07807



WP01207 pump, foot pedal operated.



W07807, X07807 pumps.

Oil displacement per stroke (cm ³)		Pressure rating (bar)		A	B	C	D	E	R	S	Weight	Model
1 st Stage	2 nd Stage	1 st Stage	2 nd Stage	mm	mm	mm	mm	mm	mm	mm	kg	LARZEP
-	2,2	-	700	350	100	110	25	380	-	-	2,7	W00307
-	2,6	-	700	500	100	150	40	560	-	-	5,5	W10707
8,1	2,0	20	700	500	100	150	40	560	-	-	5,5	W20707
13,2	2,2	20	700	550	170	190	75	495	-	-	10,6	WP01207
-	2,6	-	700	545	100	175	40	560	-	-	6,5	W11207
8,1	2,0	20	700	545	100	175	40	560	-	-	6,5	W21207
13,2	2,2	20	700	560	108	210	55	560	8,5	86	12,0	W22307
16,5	2,8	20	700	570	108	210	75	560	8,5	86	20,0	W24307
120,0	4,6	20	700	610	242	250	232	643	-	-	30,0	W07807

Oil disp. per stroke (cm ³)		Pressure rating (bar)		A	B	C	D	E	F	H	R	S	Weight	Model
1 st Stage	2 nd Stage	1 st Stage	2 nd Stage	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	LARZEP
13,2	2,2	20	700	560	108	210	55	560	40	50	8,5	86	14	X22307
16,5	2,8	20	700	570	108	210	75	560	40	50	8,5	86	23	X24307
120,0	4,6	20	700	610	242	250	232	643	30	-	-	-	32	X07807

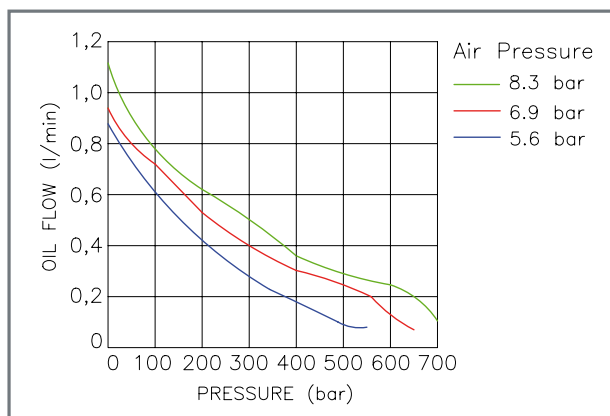
AIR HYDRAULIC PUMPS



LARZEP advantages

- On Z models for Single Acting cylinders, the pedal acts as the control valve, by controlling advance, hold and retract functions. In 'hold' mode, the pump maintains the output pressure.
- On ZR models, for Single Acting cylinders, operation is controlled by a remote pendant.
- Double Acting models are fitted with a manual 4-way 3 position control valve.
- The hydraulic port on all models is 3/8"-NPT female.
- Working pressures 700 bar and 1.000 bar.
- Easily accessible adjustable relief valve.
- 4, 7, 10 and 20 litre pumps are fitted with steel tanks.
- Optional steel base plate available for Z12107 part number.
- Also available aluminium free models.
- Air Pressure: 2,8 - 10 bar.
- Air Consumption: 400 N l/min.
- 700 bar Flow Rate: 0,14 l/min.
- 1.000 bar Flow Rate: 0,08 l/min.

OIL FLOW - PRESSURE CHART





AIR HYDRAULIC PUMPS



Z-ZR

2,1-20 litres

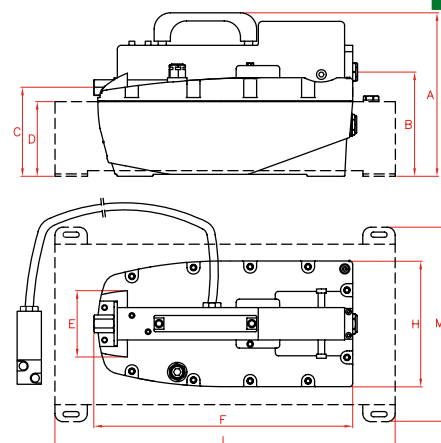
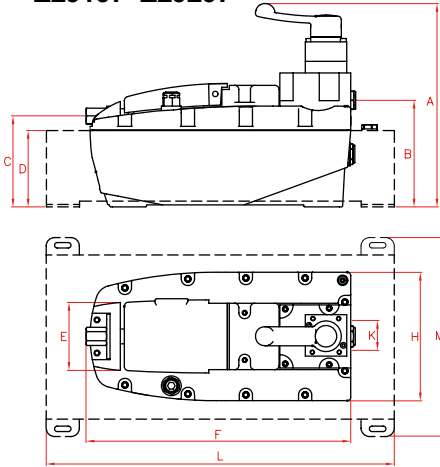
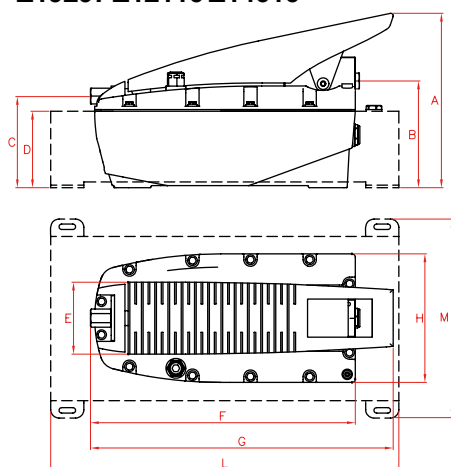
700-1.000 bar

PUMPS

Z12107 Z14007 Z17007 Z19107
Z19207 Z12110 Z14010

Z22107 Z24007 Z27007
Z29107 Z29207

ZR12107 ZR14007 ZR17007
ZR19107 ZR19207



700 BAR WORKING PRESSURE

Type	Oil capacity	Model	A	B	C	D	E	F	G	H	K	L	M	Weight
	litres	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
Single Acting	2,1	Z12107	209	127	109	-	87	320	364	155	-	-	-	7,6
Single Acting	4,0	Z14007	221	139	120	104	87	320	364	155	-	420	240	14,4
Single Acting	6,9	Z17007	221	139	120	104	87	320	364	155	-	630	240	19,2
Single Acting	10,0	Z19107	221	139	120	104	87	320	364	155	-	630	308	21,8
Single Acting	20,0	Z19207	221	139	120	104	87	320	364	155	-	850	420	29,1
Double Acting	2,1	Z22107	233	129	109	-	87	320	-	155	36	-	-	8,4
Double Acting	4,0	Z24007	244	140	120	104	87	320	-	155	36	420	240	15,2
Double Acting	6,9	Z27007	244	140	120	104	87	320	-	155	36	630	240	20,4
Double Acting	10,0	Z29107	244	140	120	104	87	320	-	155	36	630	308	23,0
Double Acting	20,0	Z29207	244	140	120	104	87	320	-	155	36	850	420	30,3
Single Acting	2,1	ZR12107	218	127	109	-	87	322	-	155	-	-	-	8,6
Single Acting	4,0	ZR14007	229	139	120	104	87	322	-	155	-	420	240	15,2
Single Acting	6,9	ZR17007	229	139	120	104	87	322	-	155	-	630	240	20,4
Single Acting	10,0	ZR19107	229	139	120	104	87	322	-	155	-	630	308	23,0
Single Acting	20,0	ZR19207	229	139	120	104	87	322	-	155	-	850	420	30,3

1.000 BAR WORKING PRESSURE

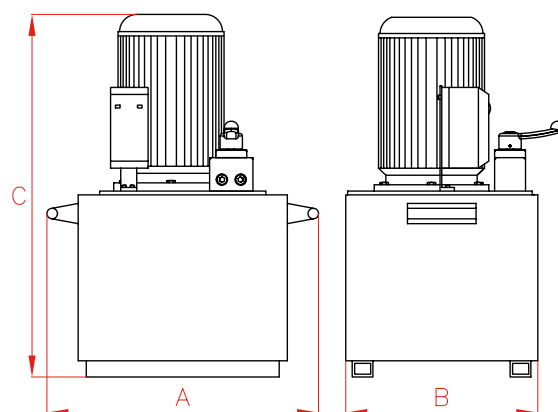
Type	Oil capacity	Model	A	B	C	D	E	F	G	H	K	L	M	Weight
	litres	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
Single Acting	2,1	Z12110	209	127	109	-	87	320	364	155	-	-	-	7,6
Single Acting	4,0	Z14010	221	139	120	104	87	320	364	155	-	420	240	14,4

HYDRAULIC POWERPACKS (MANUAL VALVE)



LARZEP advantages

- Manual directional control valves.
- Also available HAE model, remote pendant controlled solenoid valves.
- **The manual control valve is easily converted from double acting to single acting operation.**
- Internal safety valve set at 700 bar to prevent overpressure.
- External adjustable pressure relief valve.
- For use with single acting or double acting cylinders for heavy lifting or production applications.
- Options: roll bars, oil cooler, pressure transducer, wheel kit, pedal and remote motor control. See page 92.



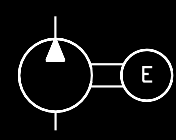
Capacity	A	B	C
l	mm	mm	mm
2,5	220	160	400
5	280	200	481
8,5 - 10	340	247	525
12,5 - 14	368	290	548
25	450	325	667
50	540	415	752
100	830	500	837



Hydraulic Powerpacks with Solenoid Valve, HAE.

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HYDRAULIC POWERPACKS



HAM

2,5-100 litres

700 bar

PUMPS

50-60 Hz 3 phase								
Tank	Flow at 700 bar	Flow at 60 bar	230 V		400/415 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
2,5	0,36	-	HAM1122	HAM1142	HAM1124	HAM1144	0,56	16
5	0,51	-	HAM2222	HAM2242	HAM2224	HAM2244	0,75	21
5	0,36	4	HAM7222	HAM7242	HAM7224	HAM7244	0,75	21
8,5	0,70	-	HAM3322	HAM3342	HAM3324	HAM3344	1,00	34
8,5	1,17	-	HAM4322	HAM4342	HAM4324	HAM4344	1,50	34
10	0,36	4	HAM7322	HAM7342	HAM7324	HAM7344	0,75	26
12,5	1,17	-	HAM4422	HAM4442	HAM4424	HAM4444	1,50	46
14	0,36	4	HAM7422	HAM7442	HAM7424	HAM7444	0,75	31
25	2,20	-	HAM5522	HAM5542	HAM5524	HAM5544	3,00	73
25	2,20	13*	HAM8522	HAM8542	HAM8524	HAM8544	4,00	86
50	2,20	13*	HAM8622	HAM8642	HAM8624	HAM8644	4,00	128
50	4,00	29*	HAM9622	HAM9642	HAM9624	HAM9644	5,50	156
100	4,00	29*	HAM9722	HAM9742	HAM9724	HAM9744	5,50	240

* Flow at 100 bar

50 Hz Single Phase								
Tank	Flow at 700 bar	Flow at 60 bar	115 V		230 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
5	0,36	-	HAM1225	HAM1245	HAM1221	HAM1241	0,75	26
5	0,51	-	HAM2225	HAM2245	HAM2221	HAM2241	0,75	29
5	0,36	4	HAM7225	HAM7245	HAM7221	HAM7241	0,75	29
10	0,36	4	HAM7325	HAM7345	HAM7321	HAM7341	0,75	34
12,5	1,17	-	HAM4425	HAM4445	HAM4421	HAM4441	2,20	57
14	0,36	4	HAM7425	HAM7445	HAM7421	HAM7441	0,75	39

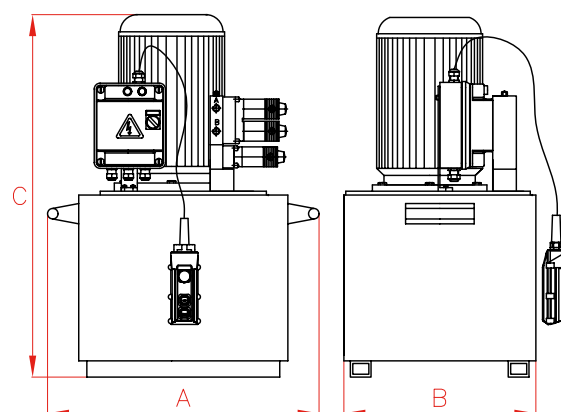
60 Hz Single Phase								
Tank	Flow at 700 bar	Flow at 60 bar	115 V		230 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
5	0,36	-	HAM1226	HAM1246	HAM1223	HAM1243	0,75	26
5	0,51	-	HAM2226	HAM2246	HAM2223	HAM2243	0,75	29
5	0,36	4	HAM7226	HAM7246	HAM7223	HAM7243	0,75	29
10	0,36	4	HAM7326	HAM7346	HAM7323	HAM7343	0,75	34
12,5	1,17	-	HAM4426	HAM4446	HAM4423	HAM4443	2,20	57
14	0,36	4	HAM7426	HAM7446	HAM7423	HAM7443	0,75	39

HYDRAULIC POWERPACKS (SOLENOID VALVE)



LARZEP advantages

- Remote pendant controlled solenoid valves with up, down and emergency stop button.
- Internal safety valve set at 700 bar to prevent overpressure.
- External adjustable pressure relief valve.
- For use with single acting or double acting cylinders for heavy lifting or production applications.
- Supplied with a 3 metre cable with remote pendant.
- Options: roll bars, oil cooler, pressure transducer, wheel kit and pedal. See page 92.



Capacity	A	B	C
l	mm	mm	mm
2,5	220	160	400
5	280	200	481
8,5-10	340	247	525
12,5-14	368	290	548
25	450	325	667
50	540	415	752
100	830	500	837

Larzep designs and manufactures powerpacks upon request according to ATEX standards.

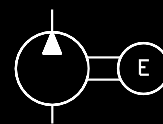




Synchronized Lifting
Systems, HAS.

Page. 94

HYDRAULIC POWERPACKS



HAE

2,5-100 litres

700 bar

PUMPS

50-60 Hz 3 phase								
Tank	Flow at 700 bar	Flow at 60 bar	230 V		400/415 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
2,5	0,36	-	HAE1162	HAE1172	HAE1164	HAE1174	0,56	22
5	0,51	-	HAE2262	HAE2272	HAE2264	HAE2274	0,75	27
5	0,36	4	HAE7262	HAE7272	HAE7264	HAE7274	0,75	27
8,5	0,70	-	HAE3362	HAE3372	HAE3364	HAE3374	1,00	40
8,5	1,17	-	HAE4362	HAE4372	HAE4364	HAE4374	1,50	40
10	0,36	4	HAE7362	HAE7372	HAE7364	HAE7374	0,75	32
12,5	1,17	-	HAE4462	HAE4472	HAE4464	HAE4474	1,50	52
14	0,36	4	HAE7462	HAE7472	HAE7464	HAE7474	0,75	37
25	2,20	-	HAE5562	HAE5572	HAE5564	HAE5574	3,00	79
25	2,20	13*	HAE8562	HAE8572	HAE8564	HAE8574	4,00	89
50	2,20	13*	HAE8662	HAE8672	HAE8664	HAE8674	4,00	131
50	4,00	29*	HAE9662	HAE9672	HAE9664	HAE9674	5,50	159
100	4,00	29*	HAE9762	HAE9772	HAE9764	HAE9774	5,50	243

* Flow at 100 bar

50 Hz Single Phase								
Tank	Flow at 700 bar	Flow at 60 bar	115 V		230 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
5	0,36	-	HAE1265	HAE1275	HAE1261	HAE1271	0,75	32
5	0,51	-	HAE2265	HAE2275	HAE2261	HAE2271	0,75	35
5	0,36	4	HAE7265	HAE7275	HAE7261	HAE7271	0,75	35
10	0,36	4	HAE7365	HAE7375	HAE7361	HAE7371	0,75	40
12,5	1,17	-	HAE4465	HAE4475	HAE4461	HAE4471	2,20	63
14	0,36	4	HAE7465	HAE7475	HAE7461	HAE7471	0,75	45

60 Hz Single Phase								
Tank	Flow at 700 bar	Flow at 60 bar	115 V		230 V		Power	Weight
I	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
5	0,36	-	HAE1266	HAE1276	HAE1263	HAE1273	0,75	32
5	0,51	-	HAE2266	HAE2276	HAE2263	HAE2273	0,75	35
5	0,36	4	HAE7266	HAE7276	HAE7263	HAE7273	0,75	35
10	0,36	4	HAE7366	HAE7376	HAE7363	HAE7373	0,75	40
12,5	1,17	-	HAE4466	HAE4476	HAE4463	HAE4473	2,20	63
14	0,36	4	HAE7466	HAE7476	HAE7463	HAE7473	0,75	45

HAM, HAE Powerpacks table

LARZEP 700 bar Electric Hydraulic Powerpacks provide high performance in a compact package with super quiet operation.

The range of powerpacks includes:

1. Manual directional control valves (HAM versions) or remote pendant controlled solenoid valves (HAE versions).
2. Eight different pumps, one or two speeds, from 0.36 to 4 l/min at 700 bar.
3. Seven tank sizes from 2.5 to 100 litre capacity.

4. Eight control valves, 2, 3 and 4 ways and 2 or 3 positions.

5. Single-phase (115V or 230V) or three-phase motor (230V or 400/415V).

6. Options: Remote pendant, oil cooler, roll bar, wheel kit, pedal and pressure transducer. See page 92.

The powerpacks are available in configurations to suit single acting or double acting cylinders for heavy lifting or production applications.

Build your powerpack using the charts numbered from 1 to 6.

HA	1. Operation	2. Pump	3. Tank	4. Valve HAM	4. Valve HAE	5. Motor	6. Options
HA	M (Manual)	1	1	0		1	B Remote pendant (For HAM)
	E (Solenoid)	2	2	1		2	C Roll bar
		3	3	2		3	H Oil cooler
		4	4	4		4	P Foot switch
		5	5	5	5	5	R Wheels
		7	6	6	6	6	T Pressure transducer
		8	7	7	7		
		9		8			

I.E: HA E 7 4 7 2 C R
1 2 3 4 5 6 6

HA. Powerpack

1. Manual (M) or Solenoid (E) operated

2. Pump

3. Tank

4. Valve

5. Motor

6. Options

Hydraulic Powerpack with Solenoid Valve, with roll bar and wheels.

2 speeds pump, 4 - 0,36 l/min flow.

14 litres tank.

4/3 valve, double acting.

3 phase, 230V, 50/60 Hz motor.



HAE7472CR

2. PUMP MODEL

Pump	No. of speeds	Oil flow (l/min) at low pressure	Oil flow (l/min) at 700 bar	Minimum tank size (l)	3 phase kW	Single phase kW
1	1	0,36	0,36	5	0,56	0,75
	1	0,36	0,36	only 2,5	0,56	--
2	1	0,51	0,51	5	0,75	0,75
3	1	0,70	0,70	8,5	1,00	1,50
4	1	1,17	1,17	8,5	1,50	2,20
5	1	2,20	2,20	12,5	3,00	--
7	2	4,00	0,36	2,5	0,75	0,75
8	2	13,00	2,20	25	4,00	--
9	2	29,00	4,00	50	5,50	--

3. TANK MODEL

Tank	Oil effective capacity (l)	Length (mm)	Width (mm)	Height (mm)
1	2,5	220	160	≤400
2	5	280	200	≤481
3	10 (8,5)	340	247	≤525
4	14 (12,5)	368	290	≤548
5	25	450	325	≤667
6	50	540	415	≤752
7	100	830	500	≤837

Up to 14 litres: aluminium tank; from 25 litres on: steel tank

Pump / Tank combinations.

Pump / Tank combinations shown in green are standard. Other possible combinations are shown in white.

Standard	2,5 L	5 L	10 L (* 8,5)	14 L (* 12,5)	25 L	50 L	100 L
1 Speed Pump/ Tank	11	12	13	14	15	16	
		22	23	24	25	26	
			*33	*34	35	36	
			*43	*44	45	46	
				*54	55	56	
2 Speed Pump/ Tank	71	72	73	74	75	76	
					85	86	87
						96	97

Powerpacks with * contain 1,5 litres of oil less in the tank, due to the volume of the coupling in pumps no. 3, 4 and 5.

Pump combinations 11, 33, 43 and 71 combinations are not available with single-phase motors due to size of motor.

Higher power series 5, 8 and 9 pumps (3kW, 4kW and 5.5kW) are not available in single phase versions.

4. VALVE MODEL

Valve	Ways / Positions	Function	Single / Double acting	Locking**
0	2/2	Advance-Retract auto	Single	No
1	3/2	Advance-Retract	Single	Yes
2	3/3	Advance-Hold-Retract	Single	Yes
4	4/3	Advance-Hold-Retract	Double	Yes
5	3/2	Advance-Retract	Single	No
6	3/3	Advance-Hold-Retract	Single	No
7	4/3	Advance-Hold-Retract	Double	No
8	4/1	No valve	--	--

** Locking valves stay in the selected position.

For Non locking valves, the handle or push button must be continuously pressed to delivery oil.

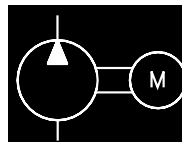
5. MOTOR MODEL

Motor	Voltage (V)	Phases	Hz
1	230	1	50
2	230	3	50/60
3	230	1	60
4	400/415	3	50/60
5	115	1	50
6	115	1	60

AIR HYDRAULIC PUMPS



AIR HYDRAULIC PUMPS



HAZ

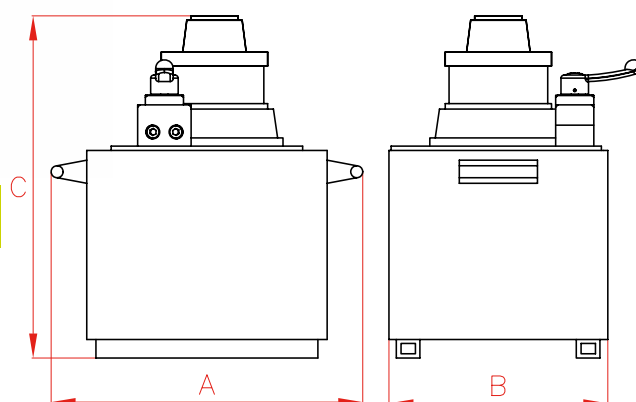
14-100 litres

700 bar

PUMPS

LARZEP advantages

- Powered by a rotary vane air motor suitable for use in hazardous environments.
- **The manual control valve is easily converted from double acting to single acting operation.**
- Internal safety valve set at 700 bar to prevent overpressure.
- External adjustable pressure relief valve.
- Roll bar and wheel kits available as options on request.



Capacity	A	B	C
l	mm	mm	mm
14	368	290	410
25	450	325	540
50	540	415	742
100	830	500	812

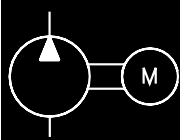
Tank	Flow at 700 bar	Flow at 60 bar	Air consump. at 5,6 bar	Valve Function	Single/A	Double/A	Power	Weight
l	l/min	l/min	l/sec				kW	kg
14	0,36	4	30	Advance-Hold-Retract	HAZ742	HAZ744	3,0	32
25	1,17	-	50	Advance-Hold-Retract	HAZ452	HAZ454	3,7	57
50	2,20	-	80	Advance-Hold-Retract	HAZ562	HAZ564	6,6	109
100	2,20	13*	80	Advance-Hold-Retract	HAZ872	HAZ874	6,6	184

* Flow at 100 bar

PETROL HYDRAULIC PUMPS



PETROL HYDRAULIC PUMPS



HAG

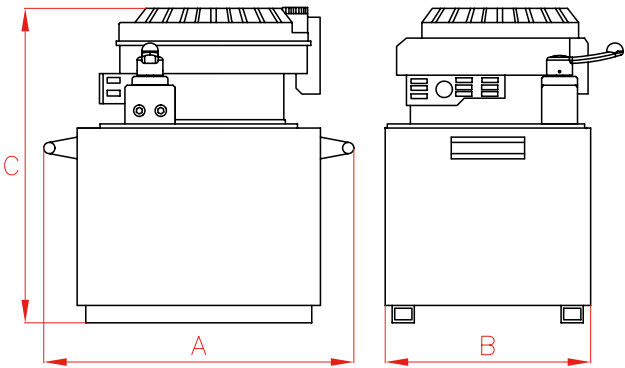
14-50 litres

700 bar

PUMPS

LARZEP advantages

- Powered by a gasoline engine. For operation in remote locations where electric supply is not available.
- **The manual control valve is easily converted from double acting to single acting operation.**
- Internal safety valve set at 700 bar to prevent overpressure.
- External adjustable pressure relief valve.
- Roll bar and wheel kits available as options on request.



Capacity	A	B	C
l	mm	mm	mm
14	368	290	665
25	450	325	760
50	540	415	860

Tank	Flow at 700 bar	Flow at 60 bar	Valve Function	Single/A	Double/A	Power	Weight
l	l/min	l/min				kW	kg
14	0,51	-	Advance-Hold-Retract	HAG242	HAG244	3,6	39
25	0,51	-	Advance-Hold-Retract	HAG252	HAG254	3,6	63
50	0,51	-	Advance-Hold-Retract	HAG262	HAG264	3,6	96
14	0,36	4	Advance-Hold-Retract	HAG742	HAG744	3,6	36
25	0,36	4	Advance-Hold-Retract	HAG752	HAG754	3,6	60
50	0,36	4	Advance-Hold-Retract	HAG762	HAG764	3,6	93

ACCESSORIES FOR POWERPACKS

B Remote Pendant

- With 3 metre long cable.
- For the remote operation of the motor in HAM series, 'ON' button starts the motor and when it stops when the button is released.
- HAE series are supplied with the remote pendant as standard, with up, down and emergency stop button.
- Remote pendant not available for HAG and HAZ.



H Oil Cooler

- When the powerpack is used continuously.



C Roll Bar

- Protects pump and its components: motor, valves, etc.



R Wheel Kit

- Makes much more portable heavy powerpacks.



P Pedal

- Optional instead of remote pendant.
- With 3 metres long cable.
- For the remote operation of the motor in HAM series.
- For the remote operation of the movements in HAE series.



T Pressure Transducer

- Excellent stability and accuracy.
- For reliable pressure measurement.
- Compatible with most Panel Meters and Controllers.
- Ideal for OEM applications.
- Pressure ranges: 0-700 bar.



SYNCHRONIZED LIFTING SYSTEMS



LARZEP advantages

- Allows operation of up to 64 hydraulic actuators or jacks from single or multiple pumps, using a single remote control.
- Ultrasonic measurement, wire transducers or internal inductive stroke transducers. Optional pressure transducers.
- Sensors feedback to a PLC controller and touchscreen or laptop control LCD display.
- The system provides the ability for one operator to actuate jacks in number of configurations to perform lifting, pushing, pulling or lowering of loads synchronously.
- The PLC unit automatically adjusts the flow rate from the pump to ensure an equal displacement from each jack, regardless of load.
- Jacks working up to 700 bar working pressure of varying strokes and tonnages.

Carefully read and understand the safety instructions.

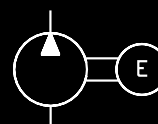


Advantages

- The system will evenly lift lower, push or pull offset loads.
- Programmable to allow for variable jacking point heights.
- Programmable to lift, push, pull or lower to a pre-determined height or distance.
- Safe, it provides remote operation.
- Data logging available to record strokes and loads of each cylinder during long periods of time, at user configured intervals.
- Laptop operated systems include the possibility to record data: position and pressure of each jack during long periods of time, showing graphs of the movement, with the possibility to export the data to a spreadsheet format.



SYNCHRONIZED LIFTING SYSTEM



HAS

100-150 litres

700 bar

PUMPS



Touchscreen.

50 Hz 3 phase							
Outlets	Tank	Flow at 700 bar	230 V		400/415 V		Power
No.	l	l/min	Single/A	Double/A	Single/A	Double/A	kW
4	100	0,34	HAS41762	HAS41772	HAS41764	HAS41774	2,2
		0,60	HAS42762	HAS42772	HAS42764	HAS42774	3,0
		0,76	HAS43762	HAS43772	HAS43764	HAS43774	4,0
		0,94	HAS44762	HAS44772	HAS44764	HAS44774	5,5
		2,10	HAS45762	HAS45772	HAS45764	HAS45774	11,0
	150	0,34	HAS41862	HAS41872	HAS41864	HAS41874	2,2
		0,60	HAS42862	HAS42872	HAS42864	HAS42874	3,0
		0,76	HAS43862	HAS43872	HAS43864	HAS43874	4,0
		0,94	HAS44862	HAS44872	HAS44864	HAS44874	5,5
		2,10	HAS45862	HAS45872	HAS45864	HAS45874	11,0
6	100	0,34	HAS61762	HAS61772	HAS61764	HAS61774	3,0
		0,60	HAS62762	HAS62772	HAS62764	HAS62774	5,5
		0,76	HAS63762	HAS63772	HAS63764	HAS63774	7,5
	150	0,34	HAS61862	HAS61872	HAS61864	HAS61874	3,0
		0,60	HAS62862	HAS62872	HAS62864	HAS62874	5,5
		0,76	HAS63862	HAS63872	HAS63864	HAS63874	7,5
8	150	0,60	HAS82862	HAS82872	HAS82864	HAS82874	7,5
		0,94*	HAS84862	HAS84872	HAS84864	HAS84874	7,5

* Maximum working pressure 450 bar

SPLIT-FLOW POWERPACKS



LARZEP advantages

- Simultaneous lifting system to power 2, 4, 6 or 8 single or double acting cylinders.
- Remote pendant allows independent control of the lifting or lowering.
- Simultaneous lifting with less than 2% flow difference between outlets.
- Manual directional control valves (HFM versions) or remote pendant controlled solenoid valves (HFE versions).
- Suitable for most of the applications where a uniform lifting is required. Maximum gap around 1mm.
- HFE solenoid valve powerpacks are supplied with a remote pendant with 5 metre cable.
- Options: roll bars, oil cooler, wheel kit and remote control, to motor control (HFM).



Hoses.

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Quick couplers.

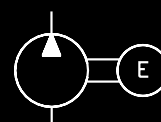
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Directional Control Valves.

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SPLIT-FLOW POWERPACKS



HFM
HFE

PUMPS

50-150 litres

700 bar



Synchronized Lifting Systems, HAS.

Page. 94

Carefully read and understand the safety instructions.



HFM (MANUAL VALVE)

50-60 Hz 3 phase							
Outlets	Tank	Flow at 700 bar	230 V		400/415 V		Power
No.	l	l/min	Single/A	Double/A	Single/A	Double/A	kW
2	50	0,60	HFM22622	HFM22642	HFM22624	HFM22644	3,0
		0,76	HFM23622	HFM23642	HFM23624	HFM23644	4,0
	100	0,60	HFM22722	HFM22742	HFM22724	HFM22744	3,0
		0,76	HFM23722	HFM23742	HFM23724	HFM23744	4,0
	150	0,60	HFM22822	HFM22842	HFM22824	HFM22844	3,0
		0,76	HFM23822	HFM23842	HFM23824	HFM23844	4,0
4	100	0,34	HFM41722	HFM41742	HFM41724	HFM41744	2,2
		0,60	HFM42722	HFM42742	HFM42724	HFM42744	3,0
		0,76	HFM43722	HFM43742	HFM43724	HFM43744	4,0
		0,94	HFM44722	HFM44742	HFM44724	HFM44744	5,5
		2,10	HFM45722	HFM45742	HFM45724	HFM45744	11,0
	150	0,34	HFM41822	HFM41842	HFM41824	HFM41844	2,2
		0,60	HFM42822	HFM42842	HFM42824	HFM42844	3,0
		0,76	HFM43822	HFM43842	HFM43824	HFM43844	4,0
		0,94	HFM44822	HFM44842	HFM44824	HFM44844	5,5
		2,10	HFM45822	HFM45842	HFM45824	HFM45844	11,0
6	100	0,34	HFM61722	HFM61742	HFM61724	HFM61744	3,0
		0,60	HFM62722	HFM62742	HFM62724	HFM62744	5,5
		0,76	HFM63722	HFM63742	HFM63724	HFM63744	7,5
	150	0,34	HFM61822	HFM61842	HFM61824	HFM61844	3,0
		0,60	HFM62822	HFM62842	HFM62824	HFM62844	5,5
		0,76	HFM63822	HFM63842	HFM63824	HFM63844	7,5
8	150	0,60	HFM82822	HFM82842	HFM82824	HFM82844	7,5
		0,94*	HFM84822	HFM84842	HFM84824	HFM84844	7,5

* Maximum working pressure 450 bar



Remote Pendant in HFE

- Allows the individual or simultaneous movement of each cylinder when lifting or lowering.
- Advance/retract switch selects the position of the solenoid valves in HFE.
- Individual buttons for each cylinder to operate them independently or at the same time in HFE.
- Simultaneous button moves all the jacks at the same time in HFE.
- To improve the control over lowering of the cylinders it is highly recommended to use AZ5255 lowering valves.
- Can also be supplied with independent remote pendants for each exit in HFE.
- To make the retraction of single acting spring return cylinders easier, once the lifting is completed and the cylinders are not under load, a switch in the electric box allows automatic retraction of the cylinder.

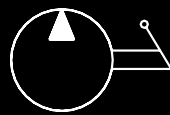
HFE (SOLENOID VALVE)

50-60 Hz 3 phase							
Outlets	Tank	Flow at 700 bar	230 V		400/415 V		Power
No.	l	l/min	Single/A	Double/A	Single/A	Double/A	kW
2	50	0,60	HFE22662	HFE22672	HFE22664	HFE22674	3,0
		0,76	HFE23662	HFE23672	HFE23664	HFE23674	4,0
	100	0,60	HFE22762	HFE22772	HFE22764	HFE22774	3,0
		0,76	HFE23762	HFE23772	HFE23764	HFE23774	4,0
	150	0,60	HFE22862	HFE22872	HFE22864	HFE22874	3,0
		0,76	HFE23862	HFE23872	HFE23864	HFE23874	4,0
4	100	0,34	HFE41762	HFE41772	HFE41764	HFE41774	2,2
		0,60	HFE42762	HFE42772	HFE42764	HFE42774	3,0
		0,76	HFE43762	HFE43772	HFE43764	HFE43774	4,0
		0,94	HFE44762	HFE44772	HFE44764	HFE44774	5,5
		2,10	HFE45762	HFE45772	HFE45764	HFE45774	11,0
	150	0,34	HFE41862	HFE41872	HFE41864	HFE41874	2,2
		0,60	HFE42862	HFE42872	HFE42864	HFE42874	3,0
		0,76	HFE43862	HFE43872	HFE43864	HFE43874	4,0
		0,94	HFE44862	HFE44872	HFE44864	HFE44874	5,5
		2,10	HFE45862	HFE45872	HFE45864	HFE45874	11,0
6	100	0,34	HFE61762	HFE61772	HFE61764	HFE61774	3,0
		0,60	HFE62762	HFE62772	HFE62764	HFE62774	5,5
		0,76	HFE63762	HFE63772	HFE63764	HFE63774	7,5
	150	0,34	HFE61862	HFE61872	HFE61864	HFE61874	3,0
		0,60	HFE62862	HFE62872	HFE62864	HFE62874	5,5
		0,76	HFE63862	HFE63872	HFE63864	HFE63874	7,5
8	150	0,60	HFE82862	HFE82872	HFE82864	HFE82874	7,5
		0,94*	HFE84862	HFE84872	HFE84864	HFE84874	7,5

* Maximum working pressure 450 bar

MODULAR HAND PUMPS

MODULAR HAND PUMPS



WI

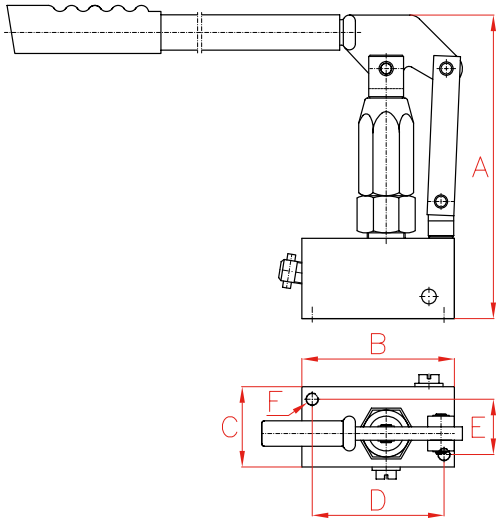
700 bar

PUMPS



LARZEP advantages

- Wide range with different working pressures.
- Lightweight with tapped holes in the base for easy mounting.
- All models are black nitrated.
- Designed for use with external reservoirs.
- Operating lever included.
- Tank is not included.



Working Pressure	Model	Max. Pressure	Piston ø	Oil per Stroke	Port Size	A	B	C	D	E	F	Weight
kg/cm ²	LARZEP	kg/cm ²	mm	cm ³		mm	mm	mm	mm	mm		kg
1.500	WI1500	1.500	6	1	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	5,3
700	WI1400	1.400	10	3	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	5,3
400	WI700	700	13	4	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	5,3
200	WI210	300	19	10	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	5,3
100	WI100	200	26	18	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	5,7
40	WI040	80	38	36	3/8"-18NPT	230	114	57	98,5	41,3	3/8"-16UNC	7,0

AIR DRIVEN HYDROTEST PUMPS - STANDARD FLOW



LARZEP advantages

- 10 Models Available, from 70 bar to 2.900 bar.
- Engineered and designed for easy operation.
- Compact and lightweight steel frame for full protection and handling.
- Fully integrated and protected pressure gauge.
- Clearly labelled controls for improved safety.
- Supplied with air inlet connector, air filter, air pressure regulator, air lubricator, air pressure gauge, air pressure limit valve, pump on/off control, oil pressure gauge.
- All pumps work with water or oil.
- All pumps supplied complete with a full test certificate as standard.
- High pressure fittings and any length of high pressure hose available from stock.
- Oil / Water Reservoir: 7 litres.
- Working Air Pressure: 1.7 to 6.9 bar.
- Air Inlet Port: 1/2" NPTF Female.
- Air Consumption: 0,79 m³/min.
- Sound Level: 90 dBA.
- Weight: 20 kg.
- Hydraulic Pressure Gauge: Dual scale bar/psi.
- Options: Chart recorders - Integral or free standing, Chart recorder pens and charts, Stroke counter, Stainless steel framework, External connection to liquid supply to increase available fluid during testing, USB connection for laptop including software.

Additional Hydrotest Pump models

- High flow pumps Hydrotest Pumps (Double the speed of standard) - 10 Models Available.
- Ultra high flow double acting Hydrotest Pumps up to 35 litres per minute.
- Tailor made custom Hydrotest Sytems/Test Rigs for multiple testing.
- Electric Hydrotest Pumps.



HYDROTEST PUMPS



HAP

7 litres

70-2.900 bar

PUMPS

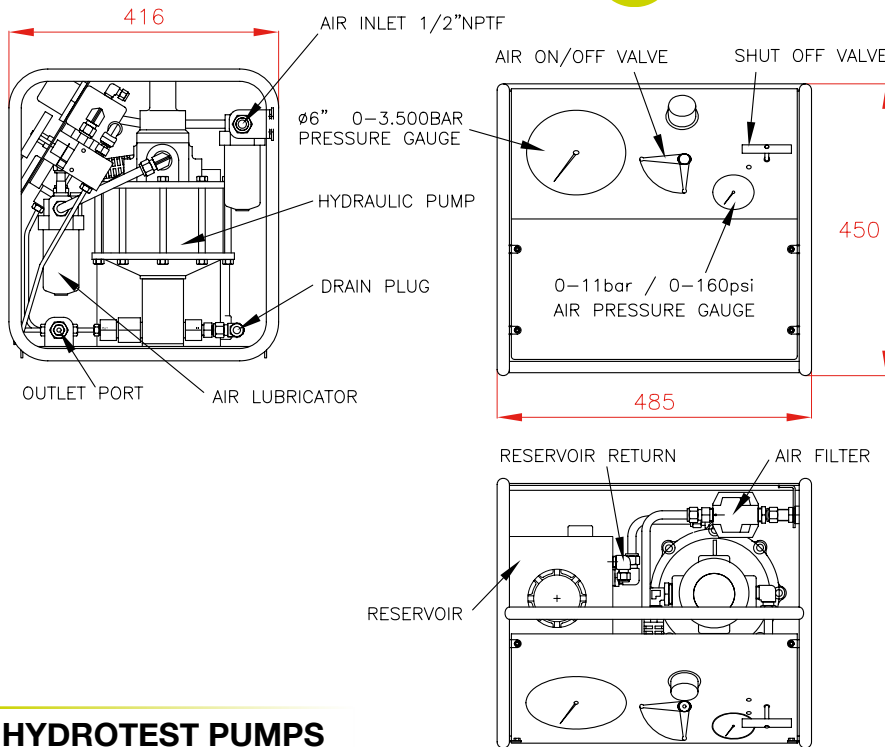


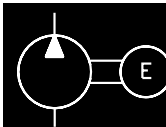
Chart Recorder

HYDROTEST PUMPS

Hydrotest Pump	Maximum Hydraulic Pressure (bar)			Flow (l/min)			Outlet Port
	Air 6.9 bar	Air 5.1 bar	Air 4.1 bar	20% Max. P	50% Max. P	80% Max. P	Female
HAP0070	70	55	40	16,2	11,0	3,7	1/2" NPTF
HAP0130	130	100	80	8,5	6,0	3,9	1/2" NPTF
HAP0180	180	150	100	6,1	4,7	2,6	1/2" NPTF
HAP0250	250	200	150	4,1	3,1	2,0	1/2" NPTF
HAP0400	400	320	240	2,6	1,8	1,2	1/2" NPTF
HAP0740	740	600	440	1,2	0,9	0,6	1/2" NPTF
HAP1300	1.300	1.000	770	0,4	0,3	0,2	9/16"-18UNF
HAP1900	1.900	1.500	1.100	0,7	0,5	0,3	9/16"-18UNF
HAP2900	2.900	2.300	1.800	0,3	0,2	0,1	9/16"-18UNF

BOLT TENSIONER PUMP

Bolt Tensioner Pump	Maximum Hydraulic Pressure (bar)			Flow (l/min)			Outlet Port
	Air 6.9 bar	Air 5.1 bar	Air 4.1 bar	20% Max. P	50% Max. P	80% Max. P	Coupler
HAP2900BT	1.500	1.500	760	0,3	0,2	0,1	AZ3341

BATTERY POWERED PUMP

HAB
2,3 litres
700 bar

PUMPS

BATTERY POWERED PORTABLE HYDRAULIC PUMP

LARZEP advantages

- 3 litres tank.
- Internal safety valve set at 700 bar to prevent overpressure.
- 3/2 valve with load holding position.
- Lightweight and easy portability.
- For use with cutters and crimping tools.
- Supplied with 2 batteries, 230V charger and a metal box.

OPTIONAL ACCESSORIES:

- 150W Charger Converter. From 12 or 24V battery to 230V equipment.

Oil Capacity	Flow at 700 bar	Model	Voltage	Battery	Dimensions			Weight
					Length	Width	Height	
l	l/min	LARZEP	V	A-h	mm	mm	mm	kg
2,3	0,16	HAB1101	14,4	3	220	170	300	8,5

Battery	Voltage	Battery Life	Charger			Charging Temperature
Li-ion		Al/Steel Cable 570/40	Charging Time	Input	Output	
A-h	V	Cuts	Minutes	V (AC) / Hz	V (DC) / A	°C
4	14,4	70	40	100-240 / 50-60	14,4 / 4,0	-10 to 40

TORQUE WRENCH PUMPS



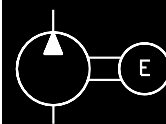
LARZEP advantages

- Tanks from 5 to 14 litres.
- Push button controlled solenoid valves.
- Internal safety valve set at 700 bar to prevent overpressure.
- Precision adjustable pressure regulating valve.
- 4 ways / 2 positions valve.
- For use with double acting torque wrenches only.
- Supplied with a 3 metre cable with remote pendant.
- Easy to operate: Pressing the button advances the tool and when releasing it retracts automatically.
- Option: Oil cooler. Add 'H' to the reference.

Tank	Flow at 700 bar	Flow at 30 bar	Valve	50 Hz Single Phase		60Hz Single Phase		Power	Weight
I	l/min	l/min	ways/positions	230 V	115 V	230 V	115 V	kW	kg
5	0,36	4	4/2	HAT7291	HAT7295	HAT7293	HAT7296	0,75	34,4
10	0,36	4	4/2	HAT7391	HAT7395	HAT7393	HAT7396	0,75	40,6
14	0,36	4	4/2	HAT7491	HAT7495	HAT7493	HAT7496	0,75	44,4

Tank	Flow at 700 bar	Flow at 30 bar	Valve	50/60 Hz 3 Phase		Power	Weight
I	l/min	l/min	ways/positions	230 V	400 V	kW	kg
5	0,36	4	4/2	HAT7292	HAT7294	0,75	31,4
10	0,36	4	4/2	HAT7392	HAT7394	0,75	37,6
14	0,36	4	4/2	HAT7492	HAT7494	0,75	41,4

TORQUE WRENCH PUMPS



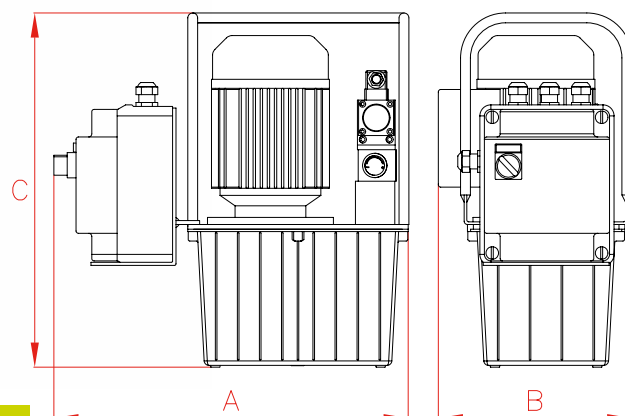
HAT

5-14 litres

700 bar

PUMPS

Capacity	A	B	C
I	mm	mm	mm
5	460	280	540
10	500	350	600
14	540	368	615



Since 1940

LARZEP

HYDRAULIC

ACCESSORIES. GENERAL FEATURES

- Wide range of accessories to optimize our products performance.
- Hoses, Couplers, Tilting saddles, Hollow saddles, Flow control valves, Fittings and Manifolds, Pressure gauges and Directional control valves are available as standard.
- Wide range of standard hoses up to 100 metres and 720 bar working pressure. Available hoses for 1.100 and 1.800 bar working pressure and Twin hoses for torque wrenches.
- Low flow and high flow quick couplers available as standard. Working pressure: 700 bar, 1.000 bar and 1.500 bar.
- Wide range of Flow control valves: Snubber valves, Flow regulating valves with 2 or 4 outlets, Manually operated check valve, Single way flow regulating valve, Check valve, Pressure relief valve and Pilot operated check valve.
- Tilting saddles highly recommended for its use with side loads. Hollow saddles used in hollow piston cylinders specially in pulling and tensioning operations.
- Wide range of fittings and manifolds for multiple applications.
- Glycerine filled pressure gauges for monitoring working pressure and force. Available digital pressure gauges.
- 3- or 4- ways directional control valves for single and double acting cylinders, suitable for remote operation.



Accessories



Models	Accessories type		Page
AP - AR	Hoses		106
AZ89	Hydraulic Oil		107
AZ3	Couplers		108
AZ5	Flow Control Valves		110
AZ04 - AZ05	Saddles		112
AZ1	Fittings and Manifolds		114
AV-AVD-AT-AY	Pressure Gauges		116
AZ8 - AZ9	Directional Control Valves		117

HYDRAULIC HOSES



LARZEP advantages

- 4:1 Safety Factor.
- Wide range of standard hoses. Hoses can be supplied in any length to order.
- Rubber Guard on both ends.
- 3/8"-NPT thread on each end. Can be supplied with couplers on one or both ends.
- Internal Diameter 6,4mm; Oil Capacity: 35 cm³ per metre.
- Internal Diameter 9,5mm; Oil Capacity: 75 cm³ per metre.
- Twin hoses for torque wrenches available. AR model.
- 1.100, 1.800 and 2.800 bar working pressure hoses available.

Carefully read and understand the safety instructions.



Never exceed the maximum working pressure of the hose.



Never disconnect the hose when the system is pressurized.



HYDRAULIC HOSES

AP

0,8-100 m length

700-1.800 bar

ACCESSORIES

Apply 2 rounds of Teflon around all 3/8" NPT threads of the system, in the thread direction, leaving the first thread uncovered to prevent the tape breaking and entering the hydraulic system. Torque: 80 Nm.



MAXIMUM WORKING PRESSURE 700 BAR

Int. ø	End1	End2	Pressure	Length						
				0,8 m	1,5 m	2 m	3 m	4 m	6 m	10 m
6,4	3/8"-NPT	3/8"-NPT	720	AP2008	AP2015	AP2020	AP2030	AP2040	AP2060	AP2100
6,4	3/8"-NPT	AZ3120	720	AP2008G	AP2015G	AP2020G	AP2030G	AP2040G	AP2060G	AP2100G
6,4	AZ3120	AZ3120	720	AP2008G2	AP2015G2	AP2020G2	AP2030G2	AP2040G2	AP2060G2	AP2100G2
9,5	3/8"-NPT	3/8"-NPT	700	AP4008	AP4015	AP4020	AP4030	AP4040	AP4060	AP4100
9,5	3/8"-NPT	AZ3120	700	AP4008G	AP4015G	AP4020G	AP4030G	AP4040G	AP4060G	AP4100G
9,5	AZ3120	AZ3120	700	AP4008G2	AP4015G2	AP4020G2	AP4030G2	AP4040G2	AP4060G2	AP4100G2

TWIN HOSES AR, FOR TORQUE WRENCHES - MAXIMUM WORKING PRESSURE 700 BAR

Int. ø	End1	End2	Pressure	Length							
				0,8 m	1,5 m	2 m	3 m	4 m	6 m	8 m	10 m
6,4	2 x 3/8"-NPT	2 x 3/8"-NPT	700	AR2008	AR2015	AR2020	AR2030	AR2040	AR2060	AR2080	AR2100

MAXIMUM WORKING PRESSURE 1.100 BAR

Int. ø	End1	End2	Pressure	Length							
				0,8 m	1,5 m	2 m	3 m	4 m	6 m	8 m	10 m
6,4	3/8"-NPT	3/8"-NPT	1.100	AP3008	AP3015	AP3020	AP3030	AP3040	AP3060	AP3080	AP3100

MAXIMUM WORKING PRESSURE 1.800 BAR

Int. ø	End1	End2	Pressure	Length							
				0,8 m	1,5 m	2 m	3 m	4 m	6 m	8 m	10 m
6,4	1/4"-BSP	1/4"-BSP	1.800	AP5008	AP5015	AP5020	AP5030	AP5040	AP5060	AP5080	AP5100

HYDRAULIC OIL



Model	Capacity (l)	For use with
AZ8901	5	Hand Pumps, Jacks
AZ8902	5	Powerpacks

HYDRAULIC COUPLERS



LARZEP advantages

- Low flow and high flow couplers, from 6 to 40 litres/min.
- 700 and 1.000 bar couplers have 3/8"-18 NPT thread. 1.500 bar couplers have 1/4"-BSP thread.
- Male and Female couplers can be supplied separately.
- Steel dust cup available for AZ3120, AZ3140 and AZ3141 couplers.
- AZ3321, AZ3322, AZ3324, AZ3325, AZ3341, AZ3344 and AZ3345: ball quick couplers to guarantee easy and quick connection.
- AZ3120, AZ3140 and AZ3141: standard high flow couplers.
- AZ3220 and AZ3240: low flow couplers. Only used in Maintenance Sets.
- All standard cylinders are supplied with AZ3140 female coupler.
- All cutters are supplied with AZ3321 male ball coupler.

Carefully read and understand the safety instructions.



Never apply pressure to the coupler when it is disconnected.



Apply 2 rounds of Teflon around all 3/8" NPT threads of the system, in the thread direction, leaving the first thread uncovered to prevent the tape breaking and entering the hydraulic system. Torque: 80 Nm.



HYDRAULIC COUPLERS

AZ3

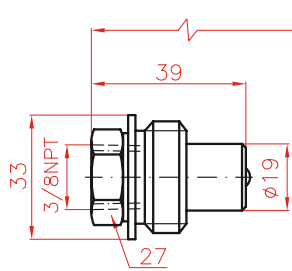
6 - 40 l/min

700-1.500 bar

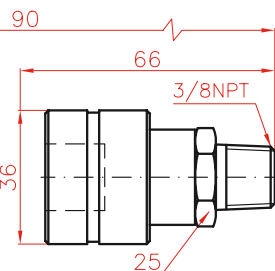
ACCESSORIES

HIGH FLOW COUPLERS 700 BAR

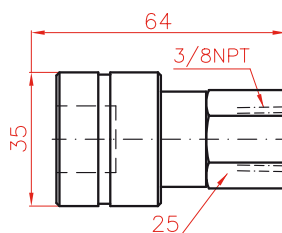
AZ3120



AZ3140

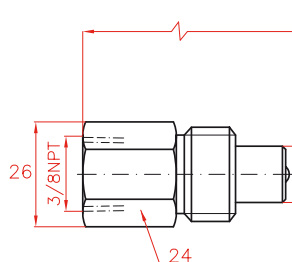


AZ3141

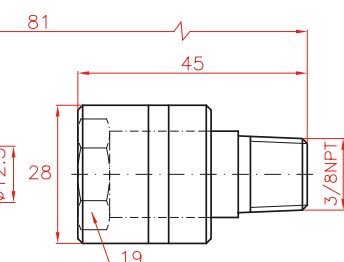


LOW FLOW COUPLERS 700 BAR

AZ3220



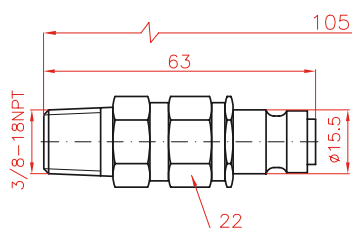
AZ3240



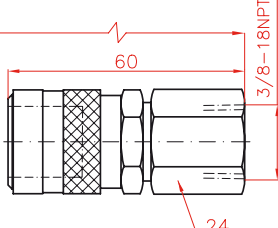
Steel dust cup available:
AZ3144 for female couplers AZ3140
and AZ3141. AZ3124 for male coupler
AZ3120

1.000 BAR BALL COUPLERS

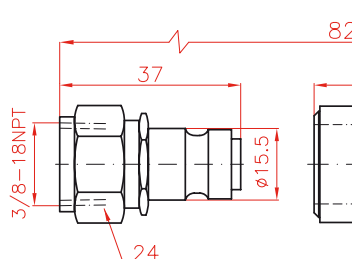
AZ3321



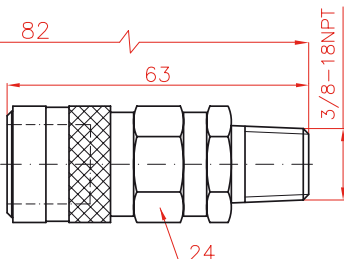
AZ3341



AZ3325



AZ3345

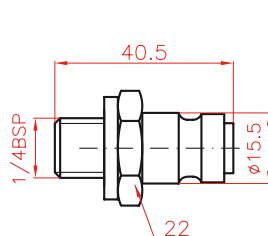


Plastic dust cup AZ3103 available to
suit AZ3120, AZ3140 and AZ3141
couplers.

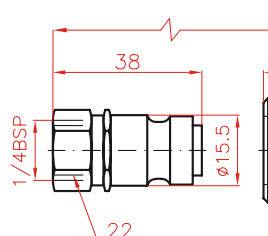
Flow l/min	Coupling	Model	Thread	Pressure bar
		LARZEP		
40	Male	AZ3120	Female 3/8"NPT	700
	Female	AZ3140	Male 3/8"NPT	700
	Female	AZ3141	Female 3/8"NPT	700
7	Male	AZ3220	Female 3/8"NPT	700
	Female	AZ3240	Male 3/8"NPT	700
6	Male	AZ3321	Male 3/8"NPT	1.000
	Male	AZ3325	Female 3/8"NPT	1.000
	Female	AZ3341	Female 3/8"NPT	1.000
	Female	AZ3345	Male 3/8"NPT	1.000
6	Male	AZ3322	Male 1/4"BSP	1.500
	Male	AZ3324	Female 1/4"BSP	1.500
	Female	AZ3344	Female 1/4"BSP	1.500

1.500 BAR BALL COUPLERS

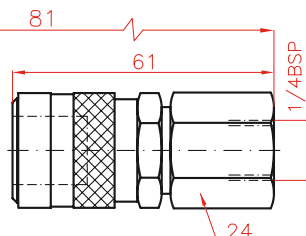
AZ3322



AZ3324



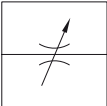
AZ3344

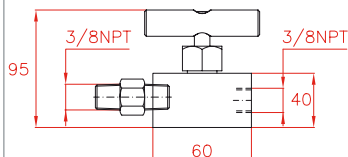


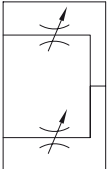
AZ3321, AZ3322, AZ3324
and AZ3325 male couplers are
connectable with AZ3341, AZ3344
and AZ3345 female couplers.

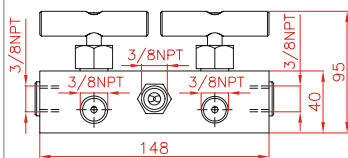
FLOW CONTROL VALVES

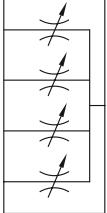


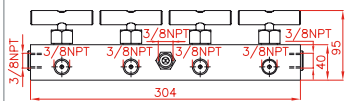
Model	SNUBBER VALVE	Symbol	
AZ5121	Used for flow control and load holding when closed. Also suitable for use as a gauge snubber.		



Model	MANIFOLD WITH FLOW REGULATING VALVE, 2 OUTLETS	Symbol	
AZ5122	Used for flow control of two outlets from one pressure source.		



Model	MANIFOLD WITH FLOW REGULATING VALVE, 4 OUTLETS	Symbol	
AZ5124	Used for flow control of four outlets from one pressure source.		



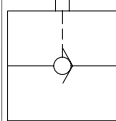
LARZEP advantages

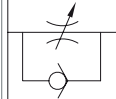
- All flow and pressure control valves are designed for 700 bar working pressure.
- All valves have 3/8"-NPT pressure ports to prevent leakage.

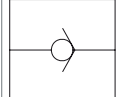
FLOW CONTROL VALVES

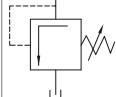
AZ5

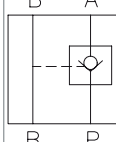
700 bar

Model	MANUALLY OPERATED CHECK VALVE	Symbol	
AZ5200	Open allows oil flow in both directions. Closed allows oil flow in one direction only, holding the load in the other one.		

Model	SINGLE WAY FLOW REGULATING VALVE	Symbol	
AZ5255	Open allows free flow in both directions. Similar to AZ5200, allows free oil flow in one direction and in the other it can be regulated or completely closed.		

Model	CHECK VALVE	Symbol	
AZ5500	Allows oil flow in one direction only.		

Model	PRESSURE RELIEF VALVE	Symbol	
AZ5600	Regulates the pressure in the hydraulic circuit. From 50 to 700 bar. Supplied with a 0.9 metre return line hose kit.		

Model	PILOT OPERATED CHECK VALVE	Symbol	
AZ5700	Load holding valve used with double-acting cylinders which is released by pilot pressure from the return line.		

SADDLES



LARZEP advantages

TILTING SADDLES AZ04

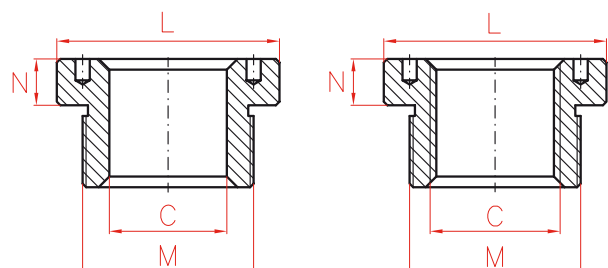
- Highly recommended for its use with side loads.
- These saddles allow up to 5° tilt angle.
- Push-in or threaded to suit various cylinder models.

HOLLOW SADDLES AZ05

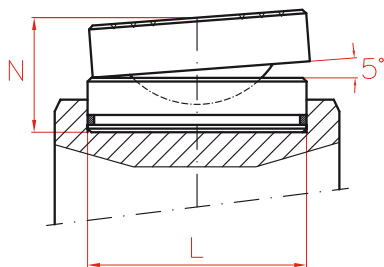
- Used in hollow piston cylinders.
- Especially used in pulling operations and as support.
- These saddles can be plain, threaded or solid.



AZ05 HOLLOW SADDLES



AZ04 TILTING SADDLES



SADDLES

AZ04

AZ05

700 bar

ACCESSORIES

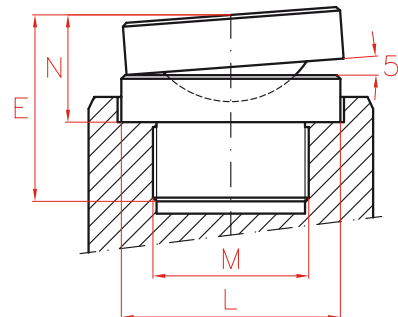
TILTING SADDLES

Model	L	N	Weight	Cylinder Model
LARZEP	mm	mm	kg	
AZ0401	45	36	0,4	SAM023-SAM030-SP030-SMP030-STR030-SAT030-SATM030
AZ0402	61	39	0,8	SM050-SM075-SAM050-SP050-SMP050-SX050-STR050-SAT050-SATM050-DDA050-DDA075-DDR050
AZ0404	88	47	2,2	SM100-SM140-SAM100-SAM140-SP100-SMP100-SPR140-SX100-SX150-STR100-STR140-SAT100-SAT140-SATM100-SATM140-SSR140-DDA100-DDA140-DDR100-DDR140
AZ0405	111	52	4,0	SM220-SAM200-SPR220-STR220-SAT200-SATM200-SSR220-DDA200-DDR220
AZ0406	131	57	6,0	SPR265
AZ0408	178	67	13,0	SPR350-SPR430-STR350-STR430-SSR350-SSR430-DDR350-DDR430
AZ0411	200	79	19,3	SPR560-SPR670-STR560-STR670-SSR560-SSR670-DDR560-DDR670
AZ0413	250	105	40,0	SPR880-STR880-SSR880-DDR880
AZ0415	325	175	113,0	SPR1100-SSR1100-DDR1100

THREADED TILTING SADDLES

Model	L	M	N	E	Weight	Cylinder Model
LARZEP	mm		mm	mm	kg	
AZ0420	28	1"-8	29	43	0,2	SM010-D010
AZ0423	35	1"-8	29	49	0,3	SM015-D020
AZ0421	45	1 1/2"-16	28	50	0,4	SM023-SM030-D030
AZ0422	61	1 3/4"-12	38	58	0,7	D050-D075-D100
AZ0424	88	2 1/2"-12	47	82	2,5	D150
AZ0425	111	2 1/2"-12	52	107	4,5	D200
AZ0431	34	M28x1,5	29	44	0,3	SH012
AZ0432	48	1 9/16"-16	29	46	0,5	SH022
AZ0433	55	1 13/16"-16	37	57	0,6	SH030-SAH030-DH030-DAH030
AZ0434	80	2 3/4"-16	47	67	2,3	SH060-SAH060-DH060-DAH060
AZ0435	116	2 1/2"-12	52	76	5,5	SH100-SAH100-DH100-DAH100

AZ04 THREADED TILTING SADDLES



HOLLOW SADDLES

Standard Plain					Cylinder Model	Optional Threaded				
Model	C	L	M	N		Model	C	L	M	N
LARZEP	mm	mm		mm		LARZEP		mm		mm
AZ0531	19,5	34	M28x1,5	7	SH012	AZ0551	3/4"-16	34	M28x1,5	7
AZ0532	27,0	48	1 9/16"-16	8	SH022	AZ0552	1"-8	48	1 9/16"-16	8
AZ0533	33,4	55	1 13/16"-16	9	SH030-SAH030-DH030-DAH030	AZ0553	1 1/4"-7	55	1 13/16"-16	9
AZ0536	56,0	80	2 3/4"-16	12	SH060-SAH060-DH060-DAH060	AZ0556	1 5/8"-5 1/2	80	2 3/4"-16	12
AZ0540	81,0	116	4"-16	13	SH100-SAH100-DH100-DAH100	AZ0560	2 1/2"-8	116	4"-16	13
AZ0545	81,0	135	4 1/4"-16	20	DH150-DAH150	AZ0565	2 1/2"-8	135	4 1/4"-16	20

FITTINGS AND MANIFOLDS

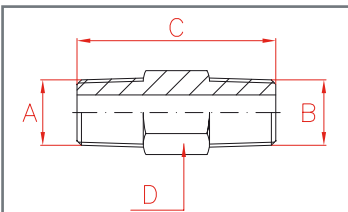


LARZEP advantages

- Wide range of Fittings and Manifolds for multiple applications.
- On request, LARZEP can supply other accessories to special requirements of threads and sizes.

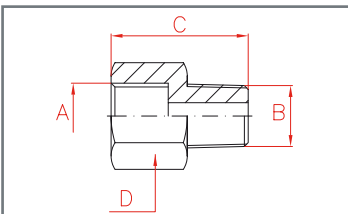
HEXAGON NIPPLE

Model	A	B	C	D
LARZEP			mm	mm
AZ1102	3/8"-NPT	3/8"-NPT	45	19
AZ1103	3/8"-NPT	3/8"-NPT	66	19
AZ1104	3/8"-NPT	3/8"-NPT	100	22



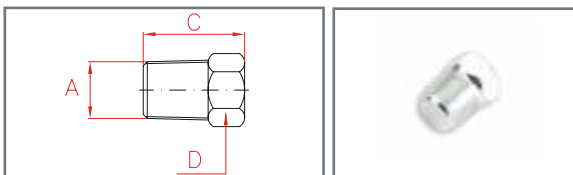
ADAPTOR

Model	A	B	C	D
LARZEP			mm	mm
AZ1112	3/8"-BSP	3/8"-NPT	36	27
AZ1113	3/8"-NPT	1/4"-BSP	36	27
AZ1114	3/8"-NPT	3/8"-BSP	36	22

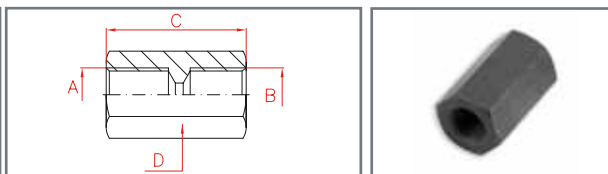


AZ1**700 bar****PLUG**

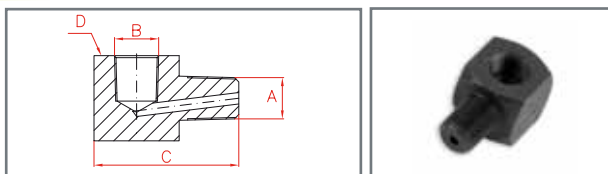
Model	A	C	D
LARZEP		mm	mm
AZ1182	3/8"-NPT	24	18
AZ1183	1/2"-NPT	28	22

**COUPLING**

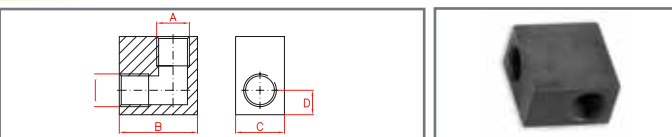
Model	A	B	C	D
LARZEP			mm	mm
AZ1142	3/8"-NPT	3/8"-BSP	45	27
AZ1143	3/8"-NPT	3/8"-NPT	45	27

**ADAPTOR ELBOW**

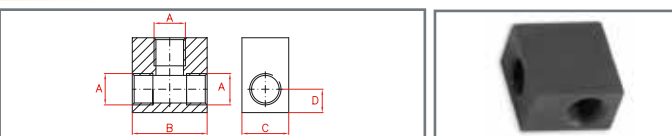
Model	A	B	C	D
LARZEP			mm	mm
AZ1511	3/8"-NPT	3/8"-BSP	51	30
AZ1512	3/8"-NPT	3/8"-NPT	51	30

**ELBOW**

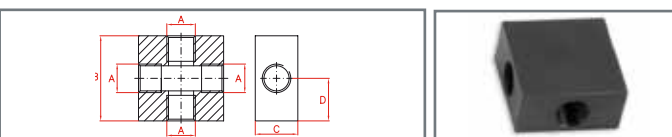
Model	A	B	C	D
LARZEP		mm	mm	mm
AZ1202	3/8"-NPT	40	25	12,5

**TEE**

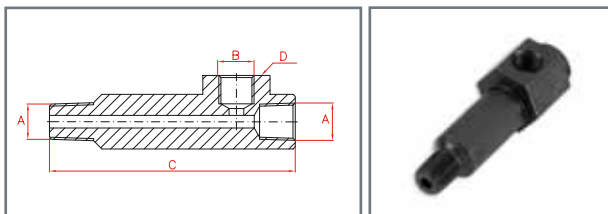
Model	A	B	C	D
LARZEP		mm	mm	mm
AZ1242	3/8"-NPT	40	25	12,5

**CROSS**

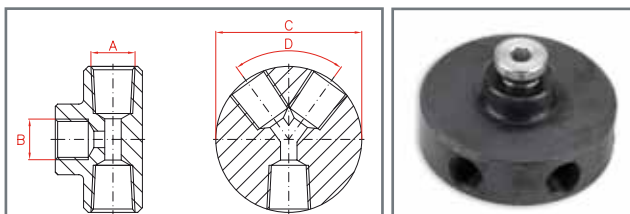
Model	A	B	C	D
LARZEP		mm	mm	mm
AZ1282	3/8"-NPT	50	25	24

**GAUGE ADAPTOR**

Model	A	B	C	D
LARZEP			mm	mm
AZ1501	3/8"-NPT	3/8"-BSP	117	35
AZ1502	3/8"-NPT	1/4"-NPT	98	35
AZ1507	3/8"-NPT	1/4"-BSP	98	35

**MANIFOLDS**

Model	A	B	C	D	Ports
LARZEP			mm		
AZ1602	3/8"-NPT	3/8"-BSP	62	90°	2
AZ1604	3/8"-NPT	3/8"-BSP	82	60°	4
AZ1606	3/8"-NPT	3/8"-BSP	102	48°	6



PRESSURE GAUGES



PRESSURE GAUGES

AV - AVD AT - AY

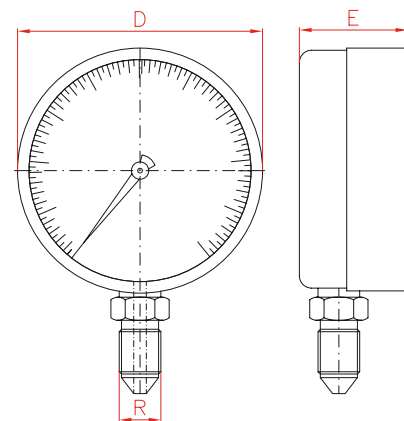
5-250 Tn.

0-1.000 bar

ACCESSORIES

LARZEP advantages

- High accuracy gauges, $\pm 1.6\%$ full scale.
- Essential for monitoring working pressure or force.
- Available as system pressure gauges or as dual scale gauges to measure load on specific cylinders.
- Glycerine filled gauges.
- Gauge adaptor AZ1502 for AV10006. For all other gauges use AZ1501 gauge adaptor.



NOTE: Do not exceed the 70% of the nominal capacity of the gauge.



Digital pressure gauge:
Reference: AVD07080.
Thread: 1/4"-BSP.
Gauge adaptor: AZ1507.

Used with	Model	Type		Scale	D	E	R	Gauge Adaptor
	LARZEP	Tn	kg/cm ²		mm	mm		
All Cylinders	AV10006	-	700	50	68	31	1/4"-NPT	AZ1502
	AV10008	-	700	20	80	35	3/8"-BSP	AZ1501
	AV10010	-	700	10	100	35	3/8"-BSP	AZ1501
Cylinders	AT00410	5 / 10	700	-	100	35	3/8"-BSP	AZ1501
	AT03010	30 / 50	700	-	100	35	3/8"-BSP	AZ1501
	AT07510	75 / 100	700	-	100	35	3/8"-BSP	AZ1501
	AT15010	150 / 200	700	-	100	35	3/8"-BSP	AZ1501
Press 10 Tn	AY01008	10	-	0,5	80	35	3/8"-BSP	AZ1501
Press 20 Tn	AT01610	16 / 23	700	-	100	35	3/8"-BSP	AZ1501
Press 30 Tn	AY03008	30	-	2	80	35	3/8"-BSP	AZ1501
Press 60 Tn	AY06010	60	-	2	100	35	3/8"-BSP	AZ1501
Press 120 Tn	AY12010	120	-	4	100	35	3/8"-BSP	AZ1501
Press 250 Tn	AY25010	250	-	5	100	35	3/8"-BSP	AZ1501

DIRECTIONAL CONTROL VALVES

AZ8

AZ9

4-30 l/min

700 bar

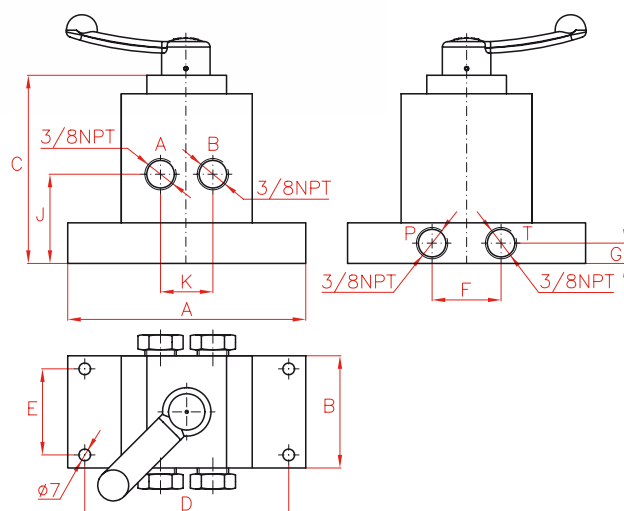
ACCESSORIES

DIRECTIONAL CONTROL VALVES



LARZEP advantages

- 3- or 4- ways directional control valves for single and double acting cylinders.
- Manually operated, without spring to center.
- Suitable for remote operation.
- Possibility to select open or closed centre.



Symbol	Flow	Model	Operation	Central	A	B	C	D	E	F	G	J	K
	l/min	LARZEP	Remote	Position	mm	mm	mm	mm	mm	mm	mm	mm	mm
	4	AZ8300	Single act.	Open Centre	128	50	107	113	36,0	86	20	60	-
	30	AZ9300	Single act.	Open Centre	128	70	127	113	50,8	54	25	63	-
	4	AZ8301	Single act.	Closed Centre	128	50	107	113	36,0	86	20	60	-
	30	AZ9301	Single act.	Closed Centre	128	70	127	113	50,8	54	25	63	-
	4	AZ8500	Double act.	Open Centre	128	50	107	113	36,0	86	20	60	30
	30	AZ9500	Double act.	Open Centre	128	70	127	113	50,8	54	25	63	38
	4	AZ8501	Double act.	Closed Centre	128	50	107	113	36,0	86	20	60	30
	30	AZ9501	Double act.	Closed Centre	128	70	127	113	50,8	54	25	63	38

Since 1940

LARZEP

HYDRAULIC

TOOLS. GENERAL FEATURES

- Our tools make easier the most complicated and heavy duties with high security and accuracy.
- Wide range of tools including: Chain cutters, Cable cutters, Nut-splitters, Pullers, Spread cylinders, Dynamometers and Load cells, Toe jacks, Lifting cushions, Square drive and Hexagon Torque wrenches, Punching heads and Crimping tools.
- Chain cutters designed for chain and high resistance bar cutting. Available with either built-in pump, or for powering by a separate pump.
- Cable cutters for operation in any place and position, the cable cutters make heavy jobs easier in forced and uncomfortable positions or on difficult access places like poles, shafts or high-voltage towers.
- Nut-splitters designed to work either cutting or deforming nuts, depending on the material grade.
- Wide range of Pullers from 5 to 50 Tn to cover most pulling applications. Available in 2 and 3 Jaws puller, Cross Bearing puller, Bearing Cup puller, Bearing puller and Self-centering pullers.
- Spread cylinders are used for many tasks in confined access situations.
- Dynamometers from 5 to 100 Tn, are used to measure tension. Load Cells from 5 to 220 Tn, measure compression loads. Used in pile testing applications.
- Toe jacks are compact and lightweight for easy transportation. Are used for lifting load in reduced access situations.
- Pneumatic lifting cushions made of friction resistant material. Often used in rescue operations, rubble lifting in collapses and other lifting applications with very limited access.
- Torque wrenches are designed to tighten and loosen nuts requiring accurate high torque during bolt tightening and maximum torque during bolt loosening.
- Lightweight, easy transportable punching heads are designed for round, square or oblong puncher holes in mild steel sheets.
- Compression crimping tools for low, medium and high voltage terminals and sleeves.



Tools

Models	Capacity	Tool type		Page
	Tn (kN)			
CK	13-112 (135-1.120)	Hydraulic Chain Cutters		120
CC	5-43 (50-437)	Hydraulic Cable Cutters		122
CN	13-113 (135-1.134)	Nut-Splitters		124
FU - FV - FZ	5-50	Hydraulic Pullers		126
FA	10-50	Self-Centering Pullers		129
AU	5-60	Hydraulic Toe Jacks		130
CY	0.8-1 (8-10)	Spread Cylinders		131
CT - C	5-150 (44-1.449)	Dynamometers & Load Cells		132
AA	6-65	Lifting Cushions		134
LAS	1.100-72.000 Nm	Square Drive Hydraulic Torque Wrenches		135
LAX	2.300-44.500 Nm	Low Profile Hydraulic Hexagon Torque Wrenches		138
PH	15-45	Portable Hydraulic Punching Heads		142
CB - CH - CM	5-100	Hydraulic Crimping Tools		143

HYDRAULIC CHAIN CUTTERS



LARZEP advantages

- Maximum working pressure 700 bar.
- CK0016 model includes an integral hand pump. Other models are powered by an external hand, air, electric, or petrol pump.
- CK0216, CK0230 and CK0250 models are double acting, for fast retraction.
- All models are provided with a male ball quick coupler AZ3321.
- Available battery powered portable pump HAB1101.



Air Hydraulic Pump
Z12107.

Page.

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Battery Powered Portable
Hydraulic Pump HAB1101.

Page.

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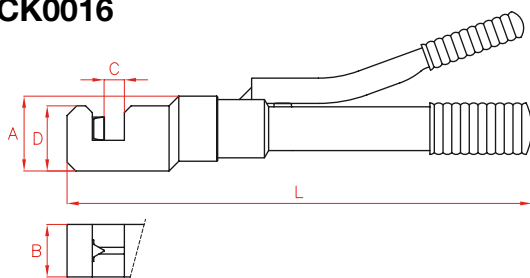


Manual
Powerpack, HAM.

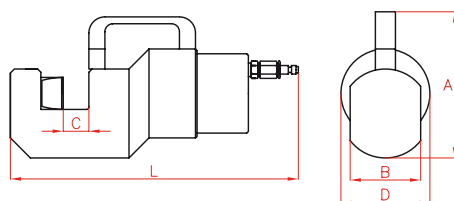
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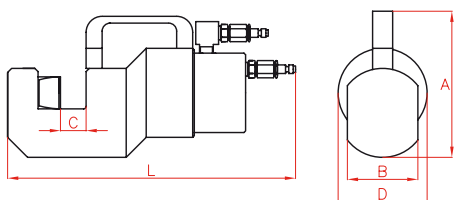
CK0016



CK0116 - CK0130



CK0216 - CK0230 - CK0250



HYDRAULIC CHAIN CUTTERS

CK

13-112 Tn

ø 0-50 mm

700 bar

TOOLS

Model	Replacement Blades	
	Mobile	Fixed
CK0016	CRK16/1	CRK16/2
CK0116	CRK16/1	CRK16/2
CK0130	CRK30/1	CRK30/2
CK0216	CRK16/1	CRK16/2
CK0230	CRK30/1	CRK30/2
CK0250	CRK50/1	CRK50/2

* maximum ø

Model	Capacity	Oil Cap.	Weight	A	B	C	D	L	Chain*	Strenght	Standards	Bar*	Strenght
LARZEP	kN	cm ³	kg	mm	mm	mm	mm	mm	mm	by grades		mm	N/mm ²
CK0016	135	-	5,8	81,5	54	20	68	489	19	28 - 43 - 50	ASTM - 413	19	700
											DIN 5684	15	1.000
									14	60 - 80	DIN 5685	13	1.400
CK0116	135	38	4,8	81,5	54	19,5	68	290	19	28 - 43 - 50	ASTM - 413	19	700
											DIN 5684	15	1.000
									14	60 - 80	DIN 5685	13	1.400
CK0130	390	182	16,8	183	88	31,5	113	360	30	28 - 43 - 50	ASTM - 413	30	700
											DIN 5684	25	1.000
									20	60 - 80	DIN 766	20	1.400
CK0216	135	38	8,4	126	54	19,5	81	343	19	28 - 43 - 50	ASTM - 413	19	700
											DIN 5684	15	1.000
									14	60 - 80	DIN 5685	13	1.400
CK0230	345	161	16,0	183	88	30	113	412	30	28 - 43 - 50	ASTM - 413	30	700
											DIN 5684	25	1.000
									20	60 - 80	DIN 766	20	1.400
CK0250	1.120	842	68,0	228	120	52	207	475	50	28 - 43 - 50	DIN 5684	50	700
												45	1.000
									40	60 - 80	DIN 685	40	1.400
												35	1.600

HYDRAULIC CABLE CUTTERS



LARZEP advantages

- Maximum working pressure 700 bar.
- Single acting models have spring return.
- CC0260 model is double acting and is especially recommended for sub-sea applications. Optionally we can supply special seal kits for deep water operation.
- CC0018, CC0040 and CC0075 models are self contained, with integral pump to enable working in difficult positions. These tools are supplied with a relief valve to prevent overload.
- Plastic carry box included for easy transport and tool protection.
- Rotating heads for easy operation.
- Installing replacement blades is a simple operation.
- All models are provided with a male ball quick coupler AZ3321.

Model	Capacity	Oil Capacity	L	C	Weight	Wire Rope ø		
						Aluminium with copper	Aluminium with steel	
LARZEP	kN	cm ³	mm	mm	kg	mm	mm	
CC0018	70	-	385	19	2,8	18	18	
CC0040	135	-	490	41	5,6	40	40	
CC0075	70	-	650	77	6,6	40	*	
CC0118	70	24	19	18	2,0	18	18	
CC0140	135	86	41	40	5,3	40	40	
CC0160	437	420	64	60	15,8	60	60	
CC0175	70	74	77	75	5,5	40	*	
CC0190	109	149	92	90	10,0	35	*	
CC01120	109	203	122	120	11,7	35	*	
CC0260	390	431	480	64	24,6	60	60	

* This unit is not designed to cut this material. Any attempt to do so may result in personal injury or damage to the unit and will void the warranty.

HYDRAULIC CABLE CUTTERS

CC

5-43 Tn

Ø 12-120 mm

700 bar

TOOLS



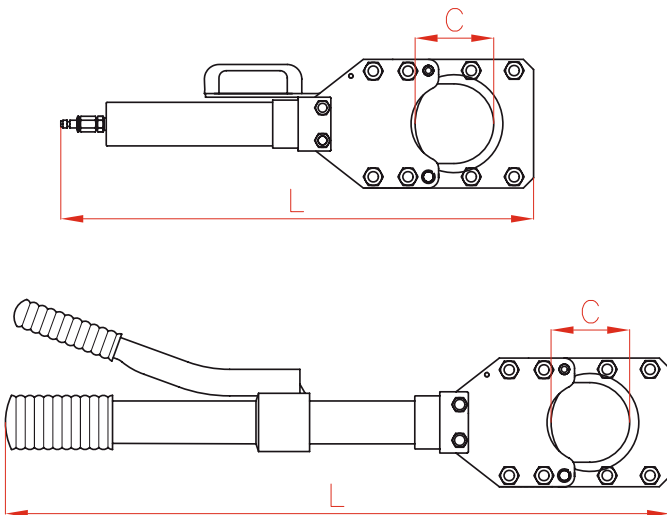
Air Hydraulic Pump Z12107.

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Battery Powered Portable Hydraulic Pump HAB1101.

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Model	Replacement Blades
LARZEP	LARZEP
CC0018	CRC18
CC0040	CRC35-40
CC0075	CRC75
CC0118	CRC18
CC0140	CRC35-40
CC0160	CRC0160
CC0175	CRC75
CC0190	CRC0190
CC01120	CRC01120
CC0260	CRC0160

Cable ø			Steel Rope ø ¹⁾		Bar ø ²⁾			Model
Telephone	Lead Shielded	Underground	Rope	Wire	Steel	Copper alloy	Aluminium alloy	
mm	mm	mm	mm	mm	mm	mm	mm	LARZEP
18	18	18	18	1	12	15	15	CC0018
40	40	40	32	1	20	30	30	CC0040
75	75	75	*	*	*	*	*	CC0075
18	18	18	18	1	12	15	15	CC0118
40	40	40	32	1	20	30	30	CC0140
60	60	60	60	2	25	35	35	CC0160
75	75	75	*	*	*	*	*	CC0175
90	90	90	*	*	*	*	*	CC0190
120	120	120	*	*	*	*	*	CC01120
60	60	60	60	2	25	35	35	CC0260

Shown diameters are only for guidance.

1) Max. Strenght 1.800 N/mm² 2) Max. Strenght 400 N/mm²

NUT-SPLITTERS



LARZEP advantages

- Designed to work in two different ways, depending on the material grade of the nuts, either cutting or deforming them, allowing nut removal.
- CN0024 Model with integral pump, provides more comfort.
- CN0224 Model especially designed to cut guard rail nuts.
- CN0324 Model, with open design, especially suitable for limited access situations.
- Plastic carry box included for easy transport and tool protection.
- Relief valve on CN0024 to avoid overloading.
- All models are provided with a male ball quick coupler AZ3321.



Air Hydraulic Pump
Z12107.

Page.

82



Battery Powered Portable
Hydraulic Pump HAB1101.

Page.

102

Caution: The tool cuts materials with a resistance lower than 500 N/mm² and deforms all materials up to a resistance of 1.250 N/mm².



NUT-SPLITTERS

CN

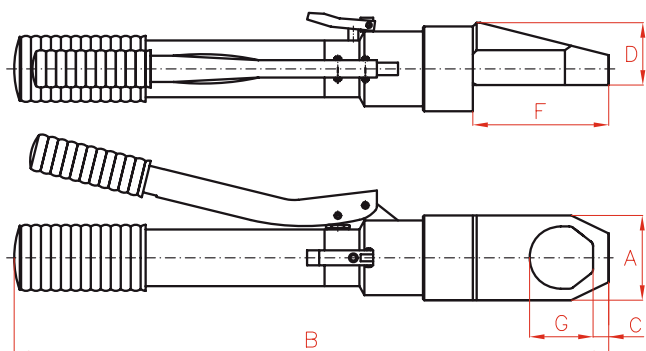
13-113 Tn

M10-M80

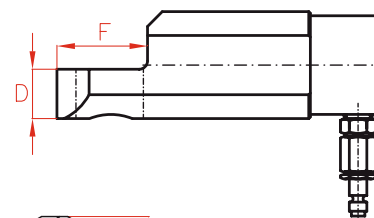
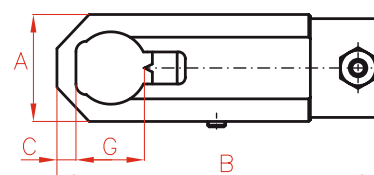
700 bar

TOOLS

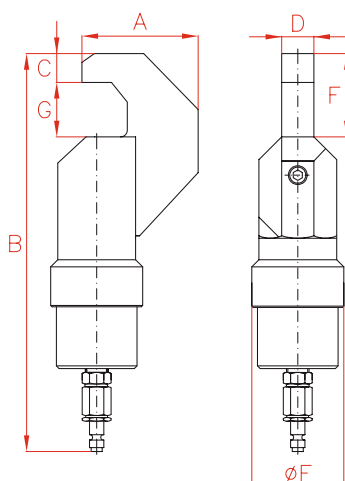
CN0024



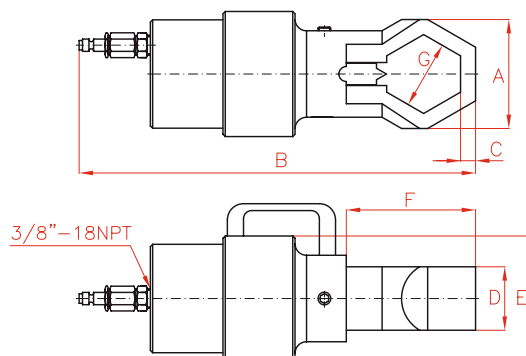
CN0224-CN0233



CN0324



CN0152-CN0180



Model	A	B	C	D	E	F	G
LARZEP	mm	mm	mm	mm	mm	mm	mm
CN0024	68	471	13	51	-	108	48
CN0152	131	368	17	55	120	136	83
CN0180	185	435	37	90	200	202	120
CN0224	65	207	12	30	-	56	40
CN0233	106	270	24	55	-	84	59
CN0324	87	296	22	24	69	62	38

Model	Nut	Across Flats
LARZEP	ASTM A 194	mm
CN0024	M12 - M27	19 - 41
CN0152	M27 - M52	41 - 80
CN0180	M68 - M80	100 - 115
CN0224	M10 - M24	17 - 36
CN0233	M24 - M36	36 - 55
CN0324	M10 - M24	17 - 36

Model	Capacity	Volumen	Lenght	Weight	Quality			Minimun	Replacement Blade
LARZEP	kN	cm ³	mm	kg	12.9	8.8	5.6	ASTM A 194	LARZEP
CN0024	135	-	471	4,8	M24 7/8"	M27 1"	M27 1"	M12 1/2"	CRN24
CN0152	437	296	368	14,0	M52 2"	M52 2"	M52 2"	M27 1"	CRN33-52
CN0180	1.134	479	435	40,0	M80 3"	M80 3"	M80 3"	M68 2-1/2"	CRN0180
CN0224	135	47	207	3,7	M24 7/8"	M24 7/8"	M24 7/8"	M10 3/8"	CRN0224
CN0233	345	156	270	12,2	M33 2"	M36 1-1/4"	M36 1-1/4"	M24 7/8"	CRN0233
CN0324	135	49	296	5,0	-	M24 7/8"	M24 7/8"	M10 3/8"	CRN0324

HYDRAULIC PULLERS



LARZEP advantages

- Wide range of models from 5 to 50 Tn suitable for most maintenance pulling applications.
- Manufactured in high quality forged steel, includes hydraulic components and all mechanical components:
 - Hydraulic part: Includes cylinder, pump, hose, pressure gauge, gauge adaptor, male coupling and hollow saddle.
 - Mechanic part: Includes 2 Jaws puller (FX), 3 Jaws puller (FV) and Complete Cross Bearing puller (FZ) that includes: Simple Cross Bearing puller with long and short extension pieces (FT), Bearing Cup puller (FI) and Bearing puller (FR).
- 2 jaw puller (FX), 3 jaw puller (FV), simple cross bearing puller (FT) and complete cross bearing puller (FZ) include hydraulic components and mechanical components.
- All pullers are delivered in a strong wooden box for ease of transport and storage.



UNIVERSAL HYDRAULIC PULLERS - FU

(Include hydraulic and mechanic part)

Capacity (Tn)	5	10	20	30	50
Model	FU0500	FU1000	FU2000	FU3000	FU5000
Hydraulic Part	JH00518/1	JH01204/1	JH02205/1	JH03005/1	JH06008/1
Mechanic Part	FU0500/M	FU1000/M	FU2000/M	FU3000/M	FU5000/M

HYDRAULIC PULLERS

FU-FV-FZ

5-50 Tn.

700 bar

TOOLS

HYDRAULIC PART

Capacity (Tn)	5	10	20	30	50
Model	JH00518/1	JH01204/1	JH02205/1	JH03005/1	JH06008/1
Cylinder	SM00518	SH01204	SH02205	SH03005	SH06008
Pump	W00307	W00307	W10707	W22307	W22307
Hose	AP2015	AP2015	AP2015	AP2015	AP2020
Gauge adaptor	AZ1501	AZ1501	AZ1501	AZ1501	AZ1501
Pressure gauge	AV10008	AV10008	AV10008	AV10008	AV10008
Male half coupling	AZ3120	AZ3120	AZ3120	AZ3120	AZ3120
Hollow saddle	-	AZ0551	AZ0552	AZ0553	AZ0556

MECHANIC PART

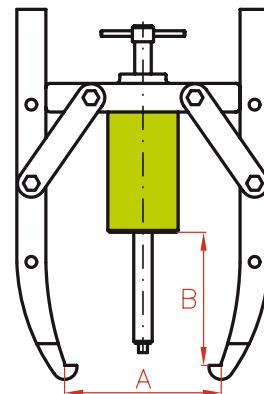
Capacity (Tn)	5	10	20	30	50				
Model	FU0500/M	FU1000/M	FU2000/M	FU3000/M	FU5000/M	FV	FX	FZ	FT
Jaw	FU0507	FU1007	FU2007	FU3007	FU5007	3	2	-	-
3 Jaws crosshead	-	-	FU2008	FU3008	FU5008	*	-	-	-
2 Jaws crosshead	-	-	FU2009	FU3009	FU5009	*	*	-	-
2 and 3 Jaws crosshead	FU0508	FU1008	-	-	-	*	*	-	-
Arms	FU0510	FU1010	FU2010	FU3010	FU5010	6	4	-	-
Jaws bolts + Nuts	FU0511	FU1011	FU2011	FU3011	FU5011	6	4	-	-
Slinde + Handle	-	FU1012	FU2012	FU3012	FU5012	*	*	*	*
Short bolts (2)	-	14A0330	14A0074	14A0075	14A0076	*	*	-	-
Bearing puller	FR1000	FR1000	FR2000	FR3000	FR5000	-	-	*	-
Gross crosshead	FU0517	FU1017	FU2017	FU3017	FU5017	-	-	*	*
Blank nuts (2)	FU1018	FU1018	FU2018	FU3018	FU5018	-	-	*	*
Washer (2)	FU1019	FU1019	FU2019	FU3019	FU5019	-	-	*	*
Slides (2)	FU0520	FU1020	FU2020	FU3020	FU5020	-	-	*	*
Fixing nuts (2)	FU0521	FU2021	FU2021	FU3021	FU5021	-	-	*	*
Large extenders (2)	FU0522	FU1022	FU2022	FU3022	FU5022	-	-	*	*
Short extenders (2)	FU0523	FU1023	FU2023	FU3023	FU5023	-	-	*	*
Bearing cup puller	-	FI1000	FI2000	FI3000	FI5000	-	-	*	-
Point protector	FU0525	FU1025	FU2025	FU5025	FU5025	*	*	*	*
Connection nuts (2)	14B0050	14B0051	14B0029	14B0030	14B0031	-	-	*	*
Long bolts (2)	-	14A0331	14A0098	14A0099	14A0100	-	-	*	*

* Included

- Not available

JAWS PULLER FX - FV (Include hydraulic and mechanic part)

Capacity	2 JAWS			3 JAWS		
	Model	A max.	B max.	Model	A max.	B max.
Tn	LARZEP	mm	mm	LARZEP	mm	mm
5	FV0500	240	225	FV0500	240	225
10	FV1000	350	320	FV1000	350	320
20	FX2000	480	340	FV2000	480	340
30	FX3000	580	420	FV3000	680	420
50	FX5000	920	727	FV5000	1.080	750



FULL CROSS BEARING PULLER - FZ

(Include hydraulic and mechanic part: $FZ = FT + FI + FR$)

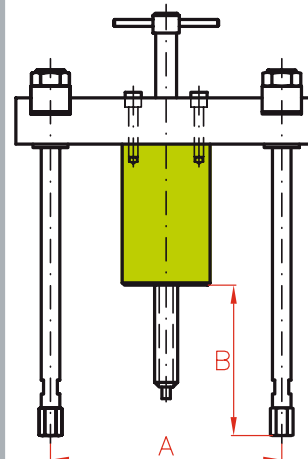
Capacity	Model	Simple Cross Bearing Puller	Bearing Cup Puller	Bearing Puller
Tn	LARZEP	FT	FI	FR
5	FZ0500	FT0500	-	FR1000
10	FZ1000	FT1000	FI1000	FR1000
20	FZ2000	FT2000	FI2000	FR2000
30	FZ3000	FT3000	FI3000	FR3000
50	FZ5000	FT5000	FI5000	FR5000

FZ

SIMPLE CROSS BEARING PULLER - FT

(Include hydraulic and mechanic part)

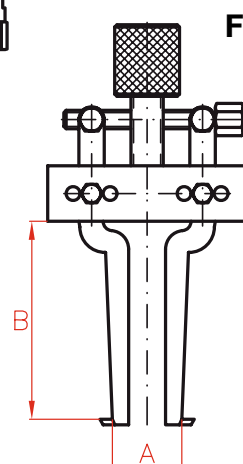
Capacity	Model	A min.	A max.	B max.
Tn	LARZEP	mm	mm	mm
5	FT0500	40	185	170
10	FT1000	115	260	300
20	FT2000	170	345	265
30	FT3000	180	440	284
50	FT5000	220	580	447



FT

BEARING CUP PULLER - FI (Only mechanic part)

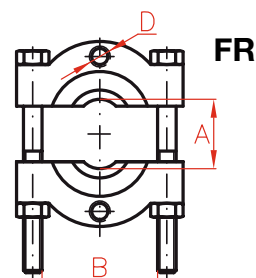
Capacity	Model	A min.	A max.	B
Tn	LARZEP	mm	mm	mm
10	FI1000	40	145	115
20	FI2000	40	145	115
30	FI3000	60	240	150
50	FI5000	60	240	150



FI

BEARING PULLER - FR (Only mechanic part)

Capacity	Model	A min.	A max.	B	D
Tn	LARZEP	mm	mm	mm	UN
5 - 10	FR1000	10	110	130	5/8" UNF-18
20	FR2000	12	134	155	5/8" UNF-18
30	FR3000	17	250	260	1" UNF-14
50	FR5000	35	300	300	1 1/4" UNF-12



FR

SELF-CENTERING PULLERS

FA

10-50 Tn.

700 bar

TOOLS

SELF-CENTERING PULLERS



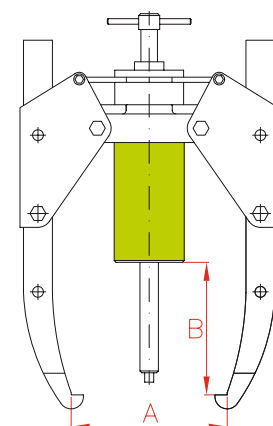
LARZEP advantages

- Self-Centering Puller available in 10, 20, 30 and 50 Tn versions.
- Ergonomic, self-centering of the jaws provides easy and safe setups on pulling jobs.
- The large jaw opening allows bigger diameter reach and spread which makes the puller more versatile.
- FA Self-Centering Pullers include the hydraulic components and mechanical components.

Model	A	B max.	Weight
LARZEP	mm	mm	kg
FA1000	50-350	320	25
FA2000	70-480	340	49
FA3000	90-680	420	76
FA5000	120-1.080	750	177

Capacity (Tn)	10	20	30	50
Model	FA1000	FA2000	FA3000	FA5000
Hydraulic part*	JH01204/1	JH02205/1	JH03005/1	JH06008/1
Mechanic part	FA1000/M	FA2000/M	FA3000/M	FA5000/M

*See page 127.



HYDRAULIC TOE JACKS

LARZEP advantages

- Compact and lightweight jacks for easy transportation.
- Load can be lifted with either toe or main plunger.
- Fitted with relief valve to prevent overloading.
- Excellent for lifting loads in limited access situations.
- Pumping handle included.

Capacity	Model	Toe Capacity	Stroke	Length	Width	Toe Height	Closed Height	Weight
Tn	LARZEP	Tn	mm	mm	mm	mm	mm	kg
5	AU00518	5	178	219	63	41	327	18
20	AU02015	8	152	246	121	67	280	15
	AU02030	8	305	246	121	67	456	23
30	AU03015	12	152	273	140	73	281	21
	AU03030	12	305	273	140	73	472	32
60	AU06015	24	152	342	190	73	327	44
	AU06030	24	305	342	190	73	540	65

SPREAD CYLINDERS

CY

0,8-1 Tn.

700 bar

TOOLS

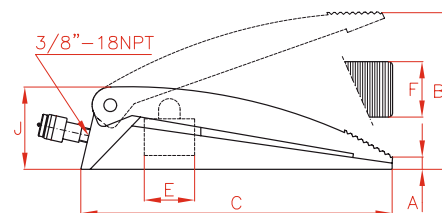
SPREAD CYLINDERS



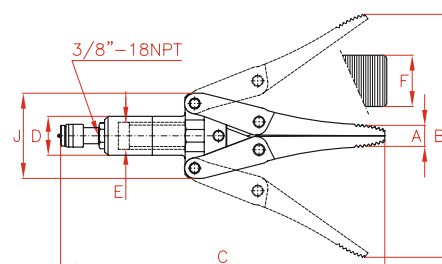
LARZEP advantages

- CY series spreaders are used for many tasks in confined access situations.
- CY0109G is used for very confined situations and CY00822G is used for greater spreading distance.
- CY0109G and CY00822G models are supplied with AZ3140 high flow female couplers.
- Also available CY0109 and CY00822 fitted with AZ3240 low flow female coupler.

CY0109G



CY00822G



Capacity		Stroke	Model	Oil Cap.	Area	A	B	C	D	E	F	J	Weight
Tn	kN	mm	LARZEP	cm ³	cm ²	mm	mm	mm	mm	mm	mm	mm	kg
1	10	75	CY0109G	10	7	15	90	225	-	29	55	55	2
0,8	8	189	CY00822G	63	15	31	220	443	58	43	50	124	7

DYNAMOMETERS & LOAD CELLS



LARZEP advantages

- Accuracy ± 4 % full scale.
- From 5 to 100 Tn versions available for dynamometers, and from 5 to 150 Tn versions for load cells. Contact us for other capacities.
- Includes glycerine filled gauges with maximum indicating pointer.

CT DYNAMOMETERS

- Measure loads in compression.
- Can be used for measuring tension loads in cables, tensile testing and can be used as a weighing device.

Larzep designs and manufactures special cylinders to place a load cell for pile testing.



C LOAD CONTROL CELLS

- Portable compression load cells, measure loads in compression.
- Remote mounted gauges with hose available on request.

CT - C

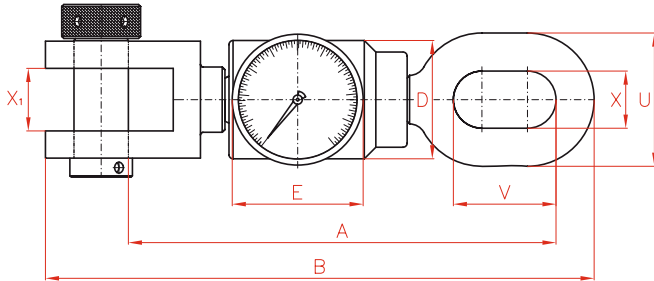
5-150 Tn.

700 bar

TOOL

DYNAMOMETERS

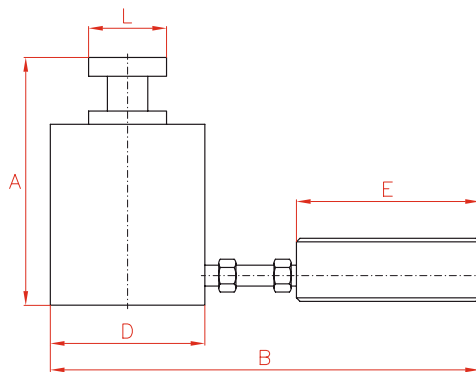
CT



Capacity		Model	A	B	D	E	U	V	X	X1	Weight	Gauge	
Tn	kN	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	kg	Model	Scale (Tn)
5	49	CT00525	328	397	87	100	98	98	42	46	12,5	AX00510	0,05
10	98	CT01025	367	446	102	100	107	108	46	50	18,5	AX01010	0,1
30	303	CT03025	447	563	125	100	108	153	50	70	27,0	AX03010	0,3
50	486	CT05025	643	793	148	100	130	150	50	50	50,0	AX05010	0,5
100	1.026	CT10025	726	851	260	100	296	146	146	146	120,0	AX10010	1

LOAD CELLS

C



DDR200015 cylinder. 2.000 Tn capacity cylinder to place a load cell for pile testing.

Capacity		Model	A	B	D	E	L	Weight	Gauge	
Tn	kN	LARZEP	mm	mm	mm	mm	mm	kg	Model	Scale (Tn)
5	44	C00510	43	212	60	100	25	1,9	AX00510	0,05
10	99	C01010	54	235	83	100	38	2,3	AX01010	0,1
30	287	C03010	72	266	114	100	60	4,8	AX03010	0,3
50	486	C05010	84	292	140	100	61	7,3	AX05010	0,5
100	953	C10010	103	330	178	100	88	15,7	AX10010	1
150	1.449	C15010	116	368	216	100	111	25,7	AX15010	1,5

LIFTING CUSHIONS

LARZEP advantages

- Pneumatic cushion made of friction resistant material.
- Collapsed height of 28 mm.
- Working pressure: 8 bar.
- 1/4" NPT female coupler included.
- Excellent for lifting loads at restricted spaces.
- Used in rescue operations, rubble lifting in collapses and other lifting applications with very limited access.
- Use two cushions to increase the lifting height.
- Hoses, couplers and control valves are available.

Model	Valve	Weight
LARZEP	Outlet No.	kg
AZN6100	1	1,1
AZN6501	2	2,2

Model	Hose
LARZEP	m
AZN2020	2
AZN2040	4
AZN2100	10

Model	Coupler
LARZEP	1/4" NPT
AZN3021	Male
AZN3041	Female

Model	Max. Capacity*	Stroke	Volume	Dimensions	Weight
LARZEP	Tn	mm	l	mm	kg
AA00617	6	175	4,5	300x300x28	2,5
AA01423	14	235	11,7	420x420x28	6
AA01928	19	280	23,4	510x510x28	8
AA03034	30	345	41,4	620x620x28	12
AA04341	43	410	72,0	750x750x28	17
AA06550	65	500	139,5	920x920x28	23

* Maximum capacity when using the maximum effective lifting area.

SQUARE DRIVE TORQUE WRENCHES

LAS

1.100-72.000 Nm

700 bar

TOOLS

SQUARE DRIVE HYDRAULIC TORQUE WRENCHES



LARZEP advantages

- Designed to tighten and loosen nuts requiring accurate high torque during bolt tightening and maximum torque during bolt loosening.
- Body construction made of Aluminium-Titanium alloy, provides high strength, tenacity, lightness and agility.
- 360° x 180° swivelling oil connection for ease of use.
- Adjustable reaction arm with 60 positions in 360°. Easy positioning that provides the maximum torque at any angle.
- Reaction pawl prevents the backward movement, enhances efficiency and torque accuracy.
- Wide range of heavy-duty impact sockets made of Chromium-Molybdenum alloy steel.
- Pressure/Torque cross table on the body cover for quicker checking of torque value.
- All models include square drive insert LASQ.
- Several models of torque wrench pumps HAT available.

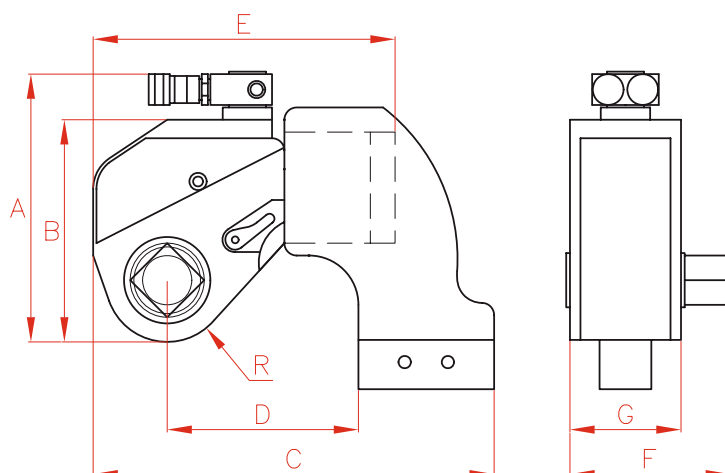
Choose the most suitable model for the application from the wide range available and ensure that it will not exceed 80% of its nominal capacity during normal operation.



Remember that when loosening bolts or nuts a torque value higher than tightening torque is required.

Depending on conditions, the loosening torque can reach 2,5 times the tightening torque.





Torque (Nm)		Model	Square Drive	A	B	C	D	E	F	G	R	Weight
Min.	Max.	LARZEP	"	mm	mm	mm	mm	mm	mm	mm	mm	kg
110	1.100	LAS01	3/4"	108	76	139	68	110,8	66	42	20	1,8
180	1.800	LAS02	3/4"	131	96	173,5	85	144,5	72	50	26	2,5
450	4.500	LAS04	1"	176	127	229,0	114	178,0	95	68	34	5,0
750	7.500	LAS07	1 1/2"	199	149	270,5	137	210,5	123	80	39	8,0
1.080	10.700	LAS10	1 1/2"	217	167	293,0	153	222,0	134	90	47	11,0
1.550	15.500	LAS15	1 1/2"	232	182	317,5	154	245,3	142	100	51	15,0
2.660	26.600	LAS26	2 1/2"	270	220	383,5	186	307,5	183	120	59	26,5
3.470	34.700	LAS34	2 1/2"	297	247	401,0	199	323,0	200	137	66	35,0
4.865	48.600	LAS48	2 1/2"	332	282	465,5	241	372,5	216	153	77	50,0
7.200	72.000	LAS72	2 1/2"	341	291	516,0	259	400,0	223	160	81	57,0



Torque Wrench
Pumps, HAT.

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Couplers.

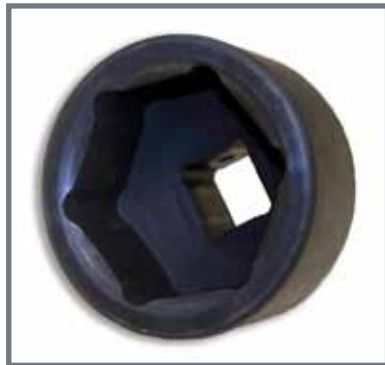
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Twin Hoses
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HEAVY-DUTY IMPACT SOCKETS



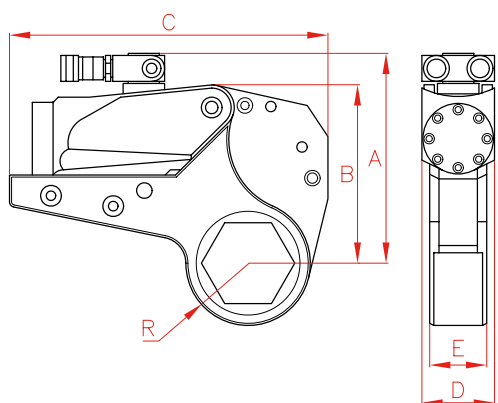
Hexagon	Thread	Model	Model	Model	Model
mm (A/F)	M	3/4"	1"	1 1/2"	2 1/2"
22	M14	LASS07022	-	-	-
24	M16	LASS07024	-	-	-
27	M18	LASS07027	LASS10027	-	-
30	M20	LASS07030	LASS10030	-	-
32	M22	LASS07032	LASS10032	LASS15032	-
36	M24	LASS07036	LASS10036	LASS15036	-
41	M27	LASS07041	LASS10041	LASS15041	-
46	M30	LASS07046	LASS10046	LASS15046	-
50	M33	LASS07050	LASS10050	LASS15050	-
55	M36	LASS07055	LASS10055	LASS15055	LASS25055
60	M39	-	LASS10060	LASS15060	LASS25060
65	M42	-	LASS10065	LASS15065	LASS25065
70	M45	-	LASS10070	LASS15070	LASS25070
75	M48	-	LASS10075	LASS15075	LASS25075
80	M52	-	LASS10080	LASS15080	LASS25080
85	M56	-	LASS10085	LASS15085	LASS25085
90	M60	-	LASS10090	LASS15090	LASS25090
95	M64	-	LASS10095	LASS15095	LASS25095
100	M68	-	-	LASS15100	LASS25100
105	M72	-	-	LASS15105	LASS25105
110	M76	-	-	LASS15110	LASS25110
115	M80	-	-	LASS15115	LASS25115
120	M85	-	-	LASS15120	LASS25120
130	M90	-	-	LASS15130	LASS25130
135	M95	-	-	LASS15135	LASS25135
145	M100	-	-	LASS15145	LASS25145
150	M105	-	-	LASS15150	LASS25150
155	M110	-	-	-	LASS25155
165	M115	-	-	-	LASS25165
175	M120	-	-	-	LASS25175
180	M125	-	-	-	LASS25180

LOW PROFILE HYDRAULIC HEXAGON TORQUE WRENCHES



LARZEP advantages

- Designed to tighten and loosen directly nuts requiring accurate high torque during bolt tightening and maximum torque during bolt loosening.
- The wrenches consist of a cylinder (LAX_ _) and an interchangeable hexagonal ratchet link (LAX_ _H_ _). Example: If you need a torque wrench for 50 mm hexagon with a maximum torque of 5.800 Nm, part numbers to specify LAX06 + LAX06H050.
- Wide range of interchangeable ratchet links, from 19 mm to 175 mm hexagon A/F.
- Wide range of hexagonal reducer inserts to extend the range of nut size as option.
- Body construction made of Aluminium-Titanium alloy, provides high strength, tenacity, lightness and agility.
- 360° x 180° swivelling oil connection for ease of use.
- Fine pitch reaction pawl enhances efficiency and torque accuracy.
- Long lever arm of force, improves the reliability.
- Hexagon design, provides more accurate torque due to the direct action of the wrench on the nut.
- Available several models of torque wrench pumps HAT.



HEXAGONAL TORQUE WRENCHES

LAX

2.300-44.500 Nm

700 bar

TOOLS

Torque	Cylinder		Ratchet Link			Dimensions				
Maximum Torque	Model	Weight	Model	Hexagon	Weight	A	B	C	D	E
Nm	LARZEP	kg	LARZEP	mm	kg	mm	mm	mm	mm	mm
2.300	LAX02	1,0	LAX02H_ _ _	19 to 55	1,6	126	102	196	51	32
2.400		1,0		60	1,7	129	105	196	51	32
5.800	LAX06	2,0	LAX06H_ _ _	32 to 65	4,4	177	136	245	66	42
6.400		2,0		70 to 80	4,6	187	146	246	66	42
10.900	LAX11	3,3	LAX11H_ _ _	41 to 95	8,0	207	169	300	83	53
11.700		3,3		100 to 105	8,4	216	178	301	83	53
18.500	LAX18	5,5	LAX18H_ _ _	50 to 117	11,6	239	204	361	99	64
41.800	LAX44	11,4	LAX44H_ _ _	85 to 155	29,0	303	272	430	131	85
44.500		11,4		160 to 175	30,0	315	285	441	131	85



Cylinder



Ratchet Link



Reducer Inserts



Couplers.

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Torque Wrench Pumps, HAT.

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Twin Hoses AR.

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RATCHET LINKS & HEXAGONAL REDUCER INSERTS

RATCHET LINKS				HEXAGONAL REDUCER INSERTS					
Model	Thread	Hexagon	R	Model	Reducer	Model	Reducer	Model	Reducer
LAX02	M	mm (A/F)	mm	LAX02	mm (A/F)	LAX02	mm (A/F)	LAX02	mm (A/F)
LAX02H019	M12	19	27	-	-	-	-	-	-
LAX02H022	M14	22	27	-	-	-	-	-	-
LAX02H027	M18	27	27	-	-	-	-	-	-
LAX02H030	M20	30	29	-	-	-	-	-	-
LAX02H032	M20	32	29	LAX02R032027	32 - 27	-	-	-	-
LAX02H034	M22	34	31	-	-	-	-	-	-
LAX02H036	M24	36	31	LAX02R036030	36 - 30	LAX02R036027	36 - 27	-	-
LAX02H041	M27	41	34	LAX02R041032	41 - 32	LAX02R041030	41 - 30	LAX02R041027	41 - 27
LAX02H046	M30	46	37	LAX02R046036	46 - 36	LAX02R046032	46 - 32	LAX02R046030	46 - 30
LAX02H050	M33	50	40	LAX02R050041	50 - 41	LAX02R050036	50 - 36	LAX02R050032	50 - 32
LAX02H055	M36	55	43	LAX02R055046	55 - 46	LAX02R055041	55 - 41	LAX02R055036	55 - 36
LAX02H060	M39	60	46	LAX02R060050	60 - 50	LAX02R060046	60 - 46	LAX02R060041	60 - 41

RATCHET LINKS				HEXAGONAL REDUCER INSERTS					
Model	Thread	Hexagon	R	Model	Reducer	Model	Reducer	Model	Reducer
LAX06	M	mm (A/F)	mm	LAX06	mm (A/F)	LAX06	mm (A/F)	LAX06	mm (A/F)
LAX06H032	M22	32	36	LAX06R032027	32 - 27	-	-	-	-
LAX06H036	M24	36	36	LAX06R036030	36 - 30	LAX06R036027	36 - 27	-	-
LAX06H041	M27	41	39	LAX06R041032	41 - 32	LAX06R041030	41 - 30	LAX06R041027	41 - 27
LAX06H046	M30	46	42	LAX06R046036	46 - 36	LAX06R046032	46 - 32	LAX06R046030	46 - 30
LAX06H050	M33	50	44	LAX06R050041	50 - 41	LAX06R050036	50 - 36	LAX06R050032	50 - 32
LAX06H055	M36	55	46	LAX06R055046	55 - 46	LAX06R055041	55 - 41	LAX06R055036	55 - 36
LAX06H060	M39	60	50	LAX06R060050	60 - 50	LAX06R060046	60 - 46	LAX06R060041	60 - 41
LAX06H065	M42	65	53	LAX06R065055	65 - 55	LAX06R065050	65 - 50	LAX06R065046	65 - 46
LAX06H070	M45	70	56	LAX06R070060	70 - 60	LAX06R070055	70 - 65	LAX06R070050	70 - 50
LAX06H075	M48	75	59	LAX06R075065	75 - 65	LAX06R075060	75 - 60	LAX06R075055	75 - 55
LAX06H080	M52	80	61	LAX06R080070	80 - 70	LAX06R080065	80 - 65	LAX06R080060	80 - 60

RATCHET LINKS				HEXAGONAL REDUCER INSERTS					
Model	Thread	Hexagon	R	Model	Reducer	Model	Reducer	Model	Reducer
LAX11	M	mm (A/F)	mm	LAX11	mm (A/F)	LAX11	mm (A/F)	LAX11	mm (A/F)
LAX11H041	M27	41	46	-	-	-	-	-	-
LAX11H046	M30	46	46	-	-	-	-	-	-
LAX11H050	M33	50	46	-	-	-	-	-	-
LAX11H055	M36	55	50	LAX11R055046	55 - 46	LAX11R055041	55 - 41	-	-
LAX11H060	M39	60	52	LAX11R060050	60 - 50	LAX11R060046	60 - 46	-	-
LAX11H065	M42	65	55	LAX11R065055	65 - 55	LAX11R065050	65 - 50	LAX11R065045	65 - 45
LAX11H070	M45	70	58	LAX11R070060	70 - 60	LAX11R070055	70 - 55	LAX11R070050	70 - 50
LAX11H075	M48	75	60	LAX11R075065	75 - 65	LAX11R075060	75 - 60	LAX11R075055	75 - 55
LAX11H080	M52	80	63	LAX11R080070	80 - 70	LAX11R080065	80 - 65	LAX11R080060	80 - 60
LAX11H085	M56	85	66	LAX11R085075	85 - 75	LAX11R085070	85 - 70	LAX11R085065	85 - 65
LAX11H090	M60	90	69	LAX11R090080	90 - 80	LAX11R090075	90 - 75	LAX11R090070	90 - 70
LAX11H095	M64	95	71	LAX11R095075	95 - 75	LAX11R095070	95 - 70	LAX11R095065	95 - 65
LAX11H100	M68	100	75	LAX11R100080	100 - 80	LAX11R100075	100 - 75	LAX11R100070	100 - 70
LAX11H105	M72	105	78	LAX11R105085	105 - 85	LAX11R105080	105 - 80	LAX11R105075	105 - 75



Ratchet Link



Reducer Inserts

RATCHET LINKS				HEXAGONAL REDUCER INSERTS					
Model	Thread	Hexagon	R	Model	Reducer	Model	Reducer	Model	Reducer
LAX18	M	mm (A/F)	mm	LAX18	mm (A/F)	LAX18	mm (A/F)	LAX18	mm (A/F)
LAX18H050	M33	50	27	-	-	-	-	-	-
LAX18H055	M36	55	27	-	-	-	-	-	-
LAX18H060	M39	60	27	-	-	-	-	-	-
LAX18H065	M42	65	29	-	-	-	-	-	-
LAX18H070	M45	70	29	-	-	-	-	-	-
LAX18H075	M48	75	31	LAX18R075065	75 - 65	-	-	-	-
LAX18H080	M52	80	31	LAX18R080070	80 - 70	LAX18R080065	80 - 65	-	-
LAX18H085	M56	85	34	LAX18R085075	85 - 75	LAX18R085070	85 - 70	LAX18R085065	85 - 65
LAX18H090	M60	90	37	LAX18R090080	90 - 80	LAX18R090075	90 - 75	LAX18R090070	90 - 70
LAX18H095	M64	95	40	LAX18R095085	95 - 85	LAX18R095080	95 - 80	LAX18R095075	95 - 75
LAX18H100	M68	100	31	LAX18R100090	100 - 90	LAX18R100085	100 - 85	LAX18R100080	100 - 80
LAX18H105	M72	105	34	LAX18R105095	105 - 95	LAX18R105090	105 - 90	LAX18R105085	105 - 85
LAX18H110	M76	110	37	LAX18R110100	110 - 100	LAX18R110095	110 - 95	LAX18R110090	110 - 90
LAX18H115	M80	115	40	LAX18R115105	115 - 105	LAX18R115100	115 - 100	LAX18R115095	115 - 95
LAX18H117	M80	117	40	LAX18R117105	117 - 105	LAX18R117100	117 - 100	LAX18R117095	117 - 95

RATCHET LINKS				HEXAGONAL REDUCER INSERTS					
Model	Thread	Hexagon	R	Model	Reducer	Model	Reducer	Model	Reducer
LAX44	M	mm (A/F)	mm	LAX44	mm (A/F)	LAX44	mm (A/F)	LAX44	mm (A/F)
LAX44H085	M56	85	78	-	-	-	-	-	-
LAX44H090	M60	90	78	LAX44R090080	90 - 80	-	-	-	-
LAX44H095	M64	95	83	LAX44R095085	95 - 85	LAX44R095080	95 - 80	-	-
LAX44H100	M68	100	83	LAX44R100090	100 - 90	LAX44R100085	100 - 85	LAX44R100080	100 - 80
LAX44H105	M72	105	89	LAX44R105095	105 - 95	LAX44R105090	105 - 90	-	-
LAX44H110	M76	110	89	LAX44R110100	110 - 100	LAX44R110095	110 - 95	LAX44R110090	110 - 90
LAX44H115	M80	115	95	LAX44R115105	115 - 105	LAX44R115100	115 - 100	LAX44R115095	115 - 95
LAX44H117	M80	117	95	-	-	-	-	-	-
LAX44H120	M85	120	95	LAX44R120110	120 - 110	LAX44R120105	120 - 105	LAX44R120100	120 - 100
LAX44H125	M85	125	101	-	-	-	-	-	-
LAX44H130	M90	130	101	LAX44R130120	130 - 120	LAX44R130115	130 - 115	LAX44R130110	130 - 110
LAX44H135	M95	135	104	-	-	-	-	-	-
LAX44H140	M95	140	110	-	-	-	-	-	-
LAX44H145	M100	145	110	LAX44R145130	145 - 130	LAX44R145120	145 - 120	LAX44R145115	145 - 115
LAX44H150	M105	150	116	-	-	-	-	-	-
LAX44H155	M110	155	116	LAX44R155145	155 - 145	LAX44R155130	155 - 130	LAX44R155120	155 - 120
LAX44H160	M110	160	128	LAX44R160150	160 - 150	LAX44R160145	160 - 145	LAX44R160140	160 - 140
LAX44H165	M115	165	128	LAX44R165155	165 - 155	LAX44R165150	165 - 150	LAX44R165145	165 - 145
LAX44H170	M120	170	128	LAX44R170160	170 - 160	LAX44R170155	170 - 155	LAX44R170150	170 - 150
LAX44H175	M120	175	128	LAX44R175165	175 - 165	LAX44R175160	175 - 160	LAX44R175155	175 - 155

PORTABLE HYDRAULIC PUNCHING HEADS

PH

15-45 Tn.

700 bar

TOOLS



LARZEP advantages

- From 15 to 45 Tn.
- Direct punching hydraulic machine designed for round, square or oblong punched holes in mild steel plate.
- Lightweight, easy transport and handling, especially in confined spaces.
- Provided with a male ball quick coupler AZ3321.
- Used in electric conducting towers, metallic structures, bridges, etc.
- For punches on all type of plates I-L-T. Depending on material, indicate if 14% or 8% inclination punches are needed.
- Material thickness depends on its hardness and should not exceed hole diameter. Up to 12,7 mm thickness in mild steel.
- Material maximum strength: 37 kg/mm².
- Working pressure: 700 bar.

Capacity	Model	Punching ø min - max	Maximum Thickness	Distance to edge	Dimensions	Weight
Tn	LARZEP	mm	mm	mm	mm	kg
15	PH015	6 - 18	7	40	80 x 170 x 280	8,5
35	PH035	6,4 - 20,6	12,7	70	120 x 250 x 360	15,0
45	PH045	8 - 24	16	110	150 x 360 x 450	40,0

CRIMPING TOOLS

CB-CH-CM

5-100 Tn.

700 bar

TOOLS

HYDRAULIC CRIMPING TOOLS



LARZEP advantages

- Hydraulic compression tools for low voltage terminals and sleeves. Models up to 20 Tn.
- Hydraulic compression tools for medium and high voltage aluminium and steel terminals and sleeves. Models from 50 to 100 Tn.
- Three types of hydraulic crimping tools are available: self contained (CM), battery powered (CB) or crimping head only (CH).
- With audible safety valve to limit the crimping force. Models up to 20 Tn.
- Maximum working pressure 700 bar, except CB05 model: 450 bar.
- Dies are interchangeable between models of the same capacity. Dies are not included in the tool.
- Box included for easy transport and tool protection.

CRIMPING HEADS

- CH, hydraulic compression head, with AZ3321 quick coupler to connect to a hydraulic pump with a maximum working pressure of 700 bar.
- Models from 5 to 100 Tn.
- CH050D and CH100D are double acting models.
- Applications for 50 and 100 Tn models: Compression clamps and sleeves for: Aluminium conductors steel reinforced (ACSR), Aluminium conductors (AAC), Aluminium alloy conductors (AAAC), Aluminium conductors alloy reinforced (ACAR).



CH005



CH020



CH012



CH012C

Capacity		Model	Oil Cap.	Stroke	ø max. connector	Dimensions	Weight
Tn	kN	LARZEP	cm ³	mm	mm	mm	kg
5	55	CH005	50	15	25	185 x 75	1,5
12	120	CH012	50	25	35	240 x 85	2,7
		CH012C	50	25	35	225 x 130	3,2
20	200	CH020	50	45	58	345 x 140	8,5
50	500	CH050	303	38	60	350 x ø140	17,0
		CH050D	303	38	60	350 x ø140	17,0
100	1.000	CH100	314	22	75	365 x ø190	40,0
		CH100D	314	22	75	365 x ø190	40,0



CH050



CH050D

SELF-CONTAINED CRIMPING TOOLS

- CM, hydraulic compression tool with integral pump.
- Models from 5 to 20 Tn.
- With 180° rotating head.
- CM05 model lightweight and compact. Ideal for use in confined spaces.
- CM12 model, suitable for deep indenting underground lines (16 - 240 mm²), as well as other general compression applications. Adaptors available.
- Two-stage CM12C model, a fast one for terminal fixing and a slow one for the crimping action.



CH0100



CH0100D



CM05



CM12

Capacity		Model	Stroke	ø max. connector	Dimensions	Weight
Tn	kN	LARZEP	mm	mm	mm	kg
5	55	CM05	15	25	350 x 120	2,4
12	120	CM12	25	35	480 x 160	4,3
		CM12C	25	35	470 x 160	5,5



CM12C

BATTERY POWERED CRIMPING TOOLS

- CB, electro hydraulic portable tool with rechargeable battery and quick retract mechanism.
- Models from 5 to 20 Tn.
- With 180° rotating head.
- Two-stage CB12 model, suitable for deep indenting underground lines (16 - 240 mm²), as well as other general compression applications. Adaptors available.
- Supplied with 2 batteries 14V - 3 A·h, 1 charger and 1 safety belt.
- Optional accessories: 150W Charger Converter. From 12 or 24V battery to 230V equipment.

CRIMPING TOOLS

CB-CH-CM

5-100 Tn.

700 bar

TOOLS



CB05



CB12



CB12C

Capacity		Model	Oil Cap.	Stroke	ø max. connector	Dimensions	Weight
Tn	kN	LARZEP	cm ³	mm	mm	mm	kg
5	55	CB05	100	16	25	315 x 230	3,4
12	120	CB12	100	25	35	350 x 280	6,4
		CB12C	100	25	35	380 x 280	6,6

Battery (Ref. CBB)				Charger (Ref. CBC)	
Voltage	Li-ion	Battery Life	Max. compression duration	Input	Ouput
14,4 V	3 A·h	91 compressions (Cu 150mm ²)	CB05: 6" - CB12: 11" - CB12C: 10"	100-240 VAC 50-60 Hz	14,4 VDC 4 A·h

MAXIMUM SECTION FOR APPLICATIONS

Model	Sleeves and preinsulated terminals				Tubular Cu	Tubular Al
	MJPT	MJB	CPTA	CPTAU	Sleeves and terminals	
LARZEP	mm ² (mcm)	mm ²	mm ² (mcm)	mm ² (mcm)	mm ² (mcm)	mm ² (mcm)
CM05 - CH05	150 (350)	25 (#2)	150 (350)	150 (350)	240 (500)	150 (350)
CB05	150 (350)	25 (#2)	150 (350)	150 (350)	240 (500)	150 (350)
CB12, CH12, CM12	150 (350)	25 (#2)	150 (350)	150 (350)	400 (750)	300 (600)
CB12C, CH12C, CM12C	150 (350)	25 (#2)	150 (350)	150 (350)	400 (750)	300 (600)
CH020	150 (350)	25 (#2)	150 (350)	150 (350)	630 (1.250)	500 (1.000)

Model	Tubular Cu	Connectors	Bimetallic terminal	DIN 46234 Terminal
	DIN 46235	'C' Type	Norm EDF HN-68-S-90	DIN 46230 Terminal
LARZEP	mm ² (mcm)	mm ² (mcm)	mm ² (mcm)	mm ²
CM05 - CH05	185 (400)	50/50 (2/0-2/0)	-	-
CB05	185 (400)	50/50 (2/0-2/0)	-	70 (3/0)
CB12, CH12, CM12	185 (400)	185 (400)	240 (500)	-
CB12C, CH12C, CM12C	185 (400)	185 (400)	-	-
CH020	630 (1.250)	185 (400)	630 (1.250)	-

Since 1940

LARZEP

HYDRAULIC

AUTOMOTIVE. GENERAL FEATURES

- Wide range of jacks and automotive products including: Bottle jacks, High lift transmission jacks, Trolley jacks, Portable cranes, Hydraulic tables, Air service jacks, High tonnage air service jacks, Pipe benders, Presses, Maintenance units and Lightweight rescue unit.
- Bottle jacks from 2 to 50 Tn. Also available telescopic jacks and with pressure gauge.
- High lift hydraulic transmission jacks have 4 wheels for easy manoeuvrability. The adaptable head allows a variety of jobs to be undertaken safely.
- Trolley jacks are save and have a precise control during lifting or lowering operations.
- Portable hydraulic cranes with an extendable jib to increase reach and with heavy duty wheels and swivel rear castor for easy movement.
- Single lift or double lift hydraulic tables available as standard. The tables can be blocked at different heights with safety pins.
- Three telescopic air service jacks available as standard. Easy to operate, with the control located on the end of the handle and with three-position handle to place the jack under the load SAFELY.
- High tonnage air service jacks from 30 to 150 Tn with one, two or three stages. Easy to operate, with the control located on the end of the handle and with three-position handle to place the jack under the load SAFELY.
- Hydraulic pipe benders suitable for carrying out operations with plumbing pipes from 3/8" to 6". Available with electric, air hydraulic or hand pump.
- Presses from 10 to 250 Tn with strong bench mount frame (EC models 10 and 20 Tn) or floor mounted H frame. Available with electric, air hydraulic or hand pump.
- Maintenance unit designed for operations such as pushing, separating, joining, lifting, compressing, stretching and fixing.
- Lightweight rescue unit do not need for external power. It is used for separating, cutting and pushing, the three basic operations in a rescue.



Automotive

Models	Capacity Tn	Tool type		Page
A - AB - AC	2-50	Hydraulic Bottle Jacks		148
AF	0.25-1.5	High Lift Hydraulic Transmission Jacks		150
B	2-20	Trolley Jacks		151
DLG	0.5-2	Portable Hydraulic Cranes		152
F	0.5-1.5	Hydraulic Tables		153
HN	30-80	Air Service Jacks		154
HL	60-150	High Tonnage Air Service Jacks		156
VA - VB - VC - VZ	3/8-6 inch	Hydraulic Pipe Benders		158
EC - EE - EM - EZ	10-250	Hydraulic Presses		160
CA	5-20	Maintenance Sets		164
CS	0.7-7	Lightweight Rescue Unit		168



HYDRAULIC BOTTLE JACKS



LARZEP advantages

- From 2 to 50 Tn.
- Up to 30Tn 'A' Models are single stage with screw extension.
- 20Tn and 30Tn 'AC' versions are supplied with pressure gauge, calibrated to read in tonnes with $\pm 1,6\%$ accuracy.
- 'AB' versions are telescopic with two hydraulic extensions.
- All models with safety relief valve.
- Forged material base.
- Supplied with zinc plated handle and individual cardboard box.
- Bottle jacks will operate horizontally, provided that the pump element is at the lowest point.

Carefully read and understand the safety instructions.





Bottle jack with lock nut



50 Tn, 2 speed,
long stroke bottle jack

HYDRAULIC BOTTLE JACKS

A-AB-AC

2-50 Tn.

700 bar

AUTOMOTIVE

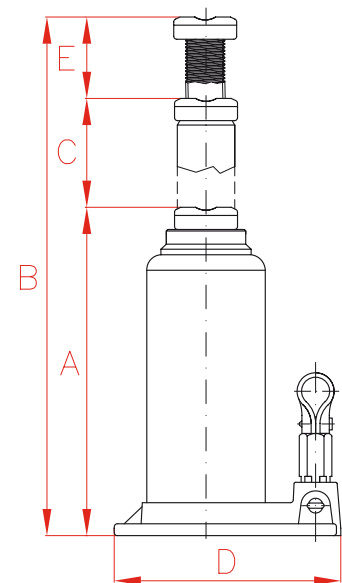
Larzep designs and manufactures special
jacks, upon request.



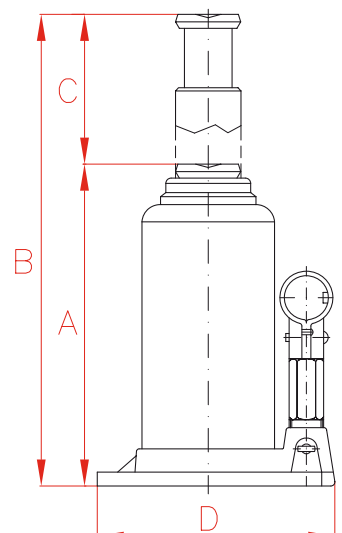
BOTTLE JACKS - A

Capacity	Model	A	B	C	D	Screw E	Weight
Tn	LARZEP	mm	mm	mm	mm	mm	kg
2	A40211	172	372	112	103x105	88	3,9
3	A40311	172	372	112	103x105	88	3,9
5	A40515	212	468	146	110x112	110	5,0
8	A40815	220	483	148	124x127	115	7,5
10	A41015	220	483	148	124x127	115	7,5
15	A41515	231	498	154	140x142	113	10,1
20	A22014	214	421	142	160x168	65	8,5
30	A23014	222	429	142	154x164	65	11,0
50	A25014	216	361	145	180x190	-	19,9

A-AC



AB



BOTTLE JACKS WITH PRESSURE GAUGE - AC

Capacity	Model	A	B	C	D	Screw E	Weight
Tn	LARZEP	mm	mm	mm	mm	mm	kg
20	AC22014	214	421	142	160x168	65	8,7
30	AC23014	222	429	142	154x164	65	11,2

TELESCOPIC BOTTLE JACKS - AB

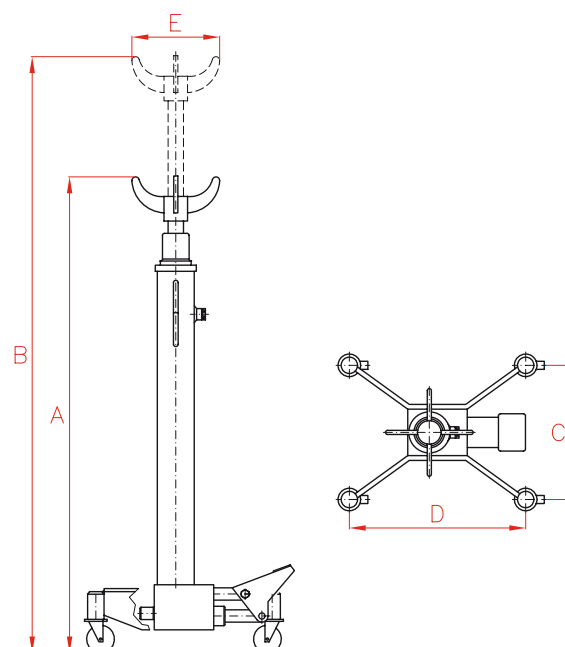
Capacity	Model	A	B	C	D	Weight
Tn	LARZEP	mm	mm	mm	mm	kg
4	AB40434	265	610	345	124 x 128	7,5
10	AB21027	249	519	270	154 x 164	13,0

HIGH LIFT HYDRAULIC TRANSMISSION JACKS



LARZEP advantages

- From 250 to 1.500 kg lifting capacity.
- Hand operated release valve. Dead Man.
- Chrome plated piston.
- 4 castor wheels for easy manoeuvrability.
- Foot operated pump keeps hands free.
- Load saddle swivels to enable all direction operation.
- Packed in strong cardboard box.
- An adaptable head allows a variety of jobs to be undertaken safely.



Capacity	Model	A	B	C	D	E	Weight
kg	LARZEP	mm	mm	mm	mm	mm	kg
250	AF25082	1.100	1.910	440	480	315	24
500	AF50080	1.130	1.930	410	510	320	35
1.000	AF100080	1.150	1.930	530	530	370	42
1.500	AF150080	1.150	1.930	550	610	380	60

TROLLEY JACKS

B

2-20 Tn.

700 bar

AUTOMOTIVE

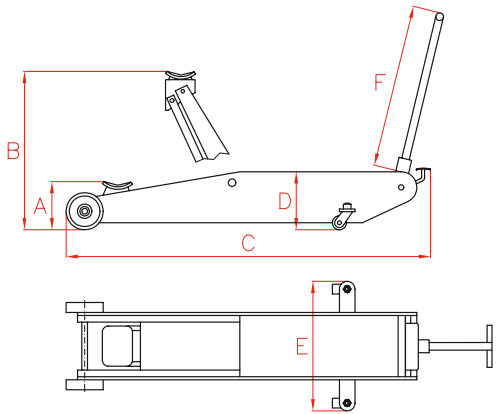
TROLLEY JACKS



LARZEP advantages

- From 2 to 20 Tn.
- Two wide wheels to support the load and castor wheels for easier manoeuvrability.
- Handle features integral safety release mechanism to prevent accidental release.
- Rugged frame construction for heavy-duty operation.
- Safe and precise control during lifting or lowering operations.
- Foot pedal to provide quick approach.
- Safety valve avoids overpressure.
- End of stroke limiting valve.

Capacity	Stroke	Model	A	B	C	D	E	F	Weight
Tn	mm	LARZEP	mm	mm	mm	mm	mm	mm	kg
2	470	B02047	110	580	1.250	160	275	865	45
3	440	B03044	120	560	1.270	185	280	865	53
7	440	B07044	160	600	1.600	220	300	960	90
10	440	B10044	160	600	1.740	265	330	962	120
15	420	B15042	180	600	1.910	275	335	960	150
20	420	B20042	180	600	1.910	290	340	961	165



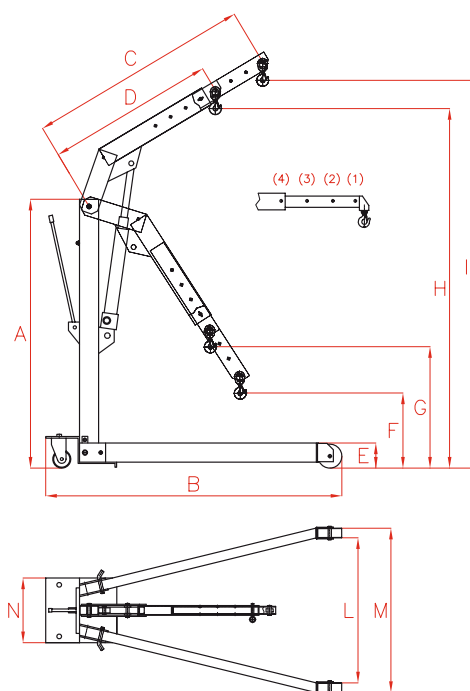
PORTABLE HYDRAULIC CRANES



Model	4 / 3 / 2 / 1 Jib position
LARZEP	kg
DLG005	500 - 400 - 350 - 250
DLG010	1.000 - 800 - 600 - 300
DLG020	2.000 - 1.800 - 1.700 - 1.600

LARZEP advantages

- From 500 to 2.000 kg lifting capacity.
- Heavy duty wheels and swivel rear castor for easy movement.
- Exceptionally versatile due to their compact dimensions when folded up.
- Fitted with a safety relief valve to prevent overloading.
- All models are fitted with an extendable jib to increase reach.
- Special lowering valve in all models for safer and better control of descent. If the knob is released accidentally, the arm stops.



Capacity	Model	A	B	C	D	E	F	G	H	I	L	M	N	Weight
kg	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
500	DLG005	1.540	1.530	1.320	1.010	143	100	400	2.040	2.190	730	860	430	83
1.000	DLG010	1.560	1.600	1.300	1.000	170	110	400	2.240	2.420	880	1.000	540	99
2.000	DLG020	1.700	2.000	1.540	1.240	200	0	300	2.520	2.770	1.055	1.220	620	175

HYDRAULIC TABLES

F

500-1.500 kg.

700 bar

AUTOMOTIVE

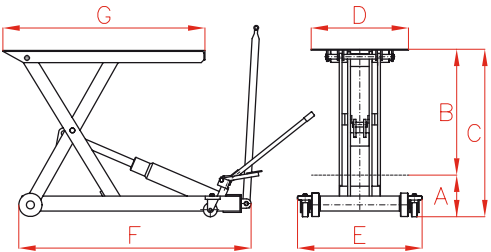
HYDRAULIC TABLES



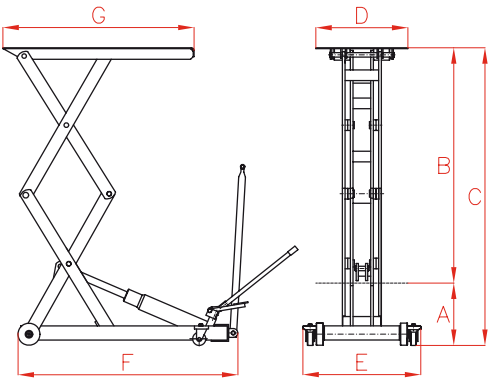
LARZEP advantages

- Model F01571, single lift 1.500 kg capacity and 915 mm high.
- Model F005121, double lift 500 kg capacity and 1.600 mm high.
- A foot pedal is fitted to advance the lifting table quickly to contact the load. The operating handle is then used to lift the load.
- Special lowering valve means that the process is safe and controlled. Overload safety relief valve.
- The frame is in accordance with lifting table security standards.
- "T" operating handle facilitates easier operation.
- The table can be locked at different heights with safety pins.
- Strong steel platform, 1m x 0,5m.
- Heavy duty swivel castors.

F01571



F005121



Capacity	Model	A	B	C	D	E	F	G	Weight
kg	LARZEP	mm	mm	mm	mm	mm	mm	mm	kg
500	F005121	270	1.285	1.555	520	666	1.242	1.080	182
1.500	F01571	235	675	910	520	666	1.242	1.080	141

AIR SERVICE JACK



LARZEP advantages

- From 30 to 80 Tn.
- Telescopic models with two and three stages.
- Operated by an air/hydraulic pump. Air pressure required: 8 to 12 bar.
- Ram return is automatic. Constant and controlled speed under load, can be increased without load.
- Check valves guarantee load holding, even if an air or oil pipe is accidentally broken.
- Equipped with an overpressure safety valve as protection against overloading.
- Three-position handle can be lowered to place the jack under the load.
- A hardened serrated load saddle and extension pieces of 70 and 120 mm are supplied as standard.
- Easy to operate, with the control located on the end of handle.



AIR SERVICE JACKS

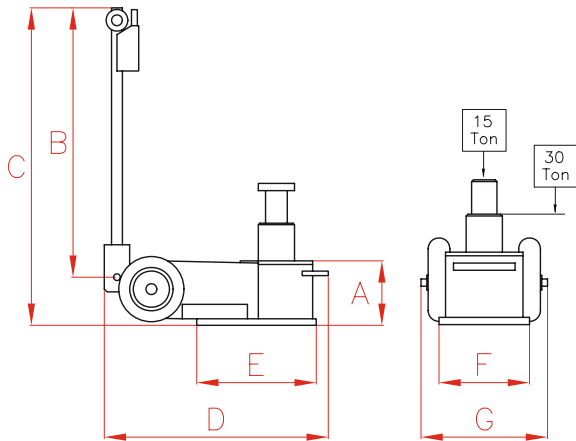
HN

30-80 Tn.

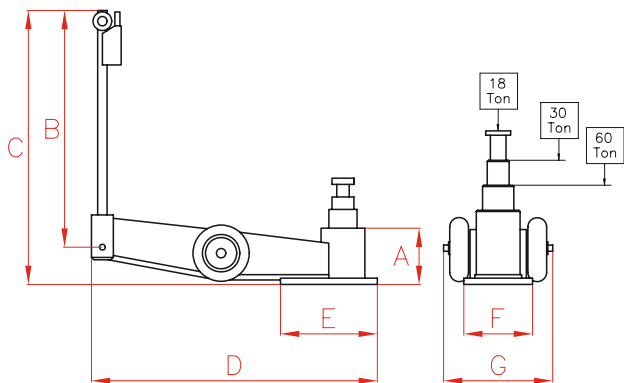
8-12 bar

AUTOMOTIVE

HN231

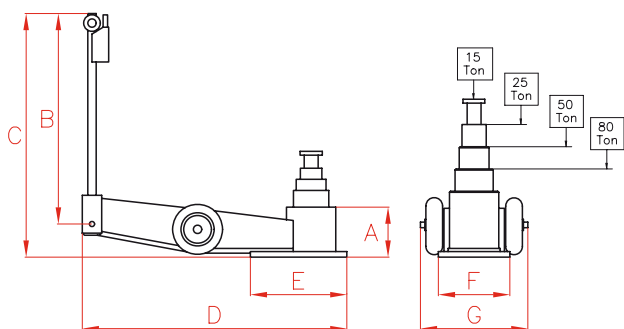


HN360



Extension pieces of 70 and 120 mm are supplied as standard.

HN480



High Tonnage Air Service Jacks, HL.

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Capacity	Stroke	Model	A	B	C	D	E	F	G	Weight
Tn	mm	LARZEP	mm	mm	mm	mm	mm	mm	mm	kg
15/30	88+83	HN231	150	1.315	1.400	525	270	206	300	39
18/30/60	91+72+74	HN360	180	1.310	1.395	980	320	240	350	70
15/25/50/80	66+56+68+60	HN480	180	1.310	1.395	980	320	240	350	78

HIGH TONNAGE AIR SERVICE JACK



LARZEP advantages

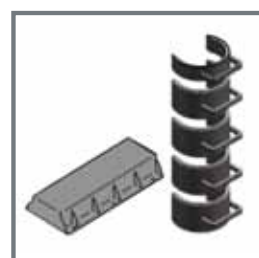
- From 60 to 150 Tn.
- Models with one stage and telescopic with two and three stages.
- Operated by an air/hydraulic pump. Air pressure required: 8 to 12 bar.
- Air inlet port: 1/2" BSP.
- Dual descent valve for greater control.
- Fitted with self sealing pneumatic tyres for easy manoeuvrability.
- Special hooks for transport.
- Ram return is automatic. Constant and controlled speed under load, can be increased without load.
- Check valves guarantee load holding, even if an air or oil pipe is accidentally broken.
- Equipped with an overpressure safety valve as protection against overloading.
- Three-position handle can be lowered to place the jack under the load.
- Easy to operate, with the control located on the end of handle.
- Wide range of optional accessories: remote pendant, manual emergency pump, safety load blocks, safety block holder, safety blocks kit, extensions and extension holder.



Safety block

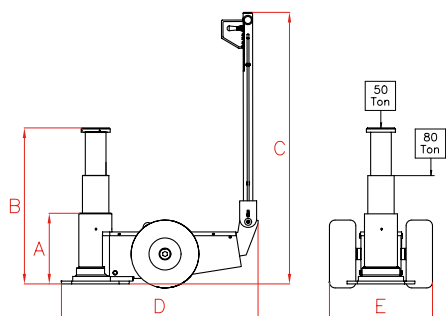


Holder

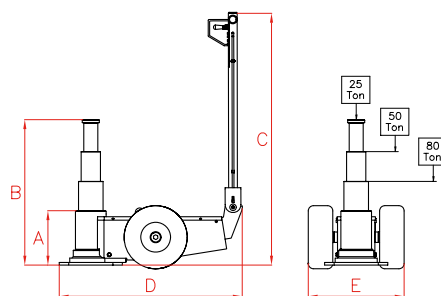


Kit

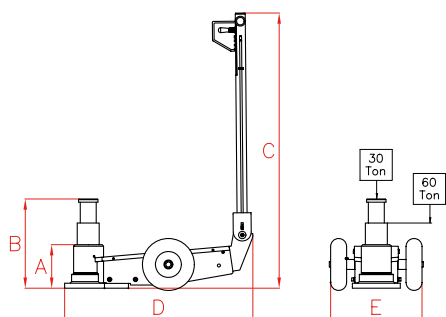
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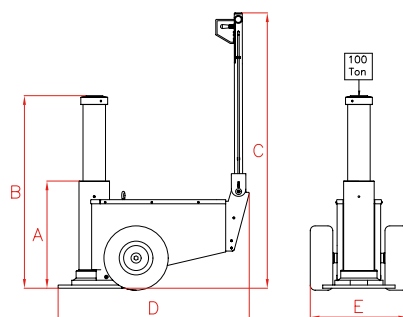
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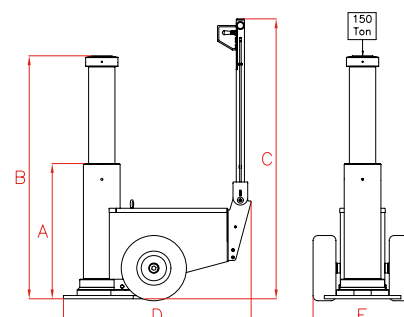
HL06022



HL10044



HL15055



HIGH TONNAGE AIR JACKS

HL

60-150 Tn.

8-12 bar

AUTOMOTIVE

Capacity	Stroke	Model	A	B	C	D	E	Weight
Tn	mm	LARZEP	mm	mm	mm	mm	mm	kg
30/60	110+117	HL06022	220	447	1.385	940	460	93
50/80	196+222	HL08042	420	838	1.440	1.039	540	161
25/50/80	167+171+180	HL08052	341	859	1.440	1.040	540	143
100	445	HL10044	725	1.170	1.720	1.180	610	290
150	554	HL15055	900	1.454	1.720	1.250	620	385



Extensions



Extension Holder

ACCESORIES (Optional)

Model	Extension Holder		Extensions							
LARZEP	Right	Left	10 mm	70 mm	120 mm	150 mm	200 mm	250 mm	300 mm	
HL06022	-	-	HLE06001	HLE06007	HLE06012	-	-	-	-	
HL08042	HLT080R	HLT080L	-	-	-	HLE08015	-	HLE08025	HLE08030	
HL08052	HLT080R	HLT080L	-	-	-	HLE08015	-	HLE08025	HLE08030	
HL10044	HLT150R	HLT150L	-	-	-	-	HLE15020	HLE15025	HLE15030	
HL15055	HLT150R	HLT150L	-	-	-	-	HLE15020	HLE15025	HLE15030	

Model	Safety Blocks				
LARZEP	50mm M/F	100mm M/F	100mm F/F	Holder	Kit*
HL06022	-	-	-	-	-
HL08042	HLB05017M	HLB10017M	HLB10017F	HLC100	HLS100
HL08052	HLB05017M	HLB10017M	HLB10017F	HLC100	HLS100
HL10044	HLB05017M	HLB10017M	HLB10017F	HLC100	HLS100
HL15055	HLB05021M	HLB10021M	HLB10021F	HLC150	HLS150

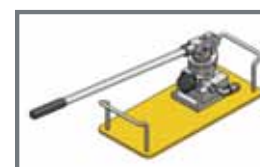
*Safety blocks kit HLS100: HLB05017M + 3xHLB10017M + HLB10017F + HLC100

*Safety blocks kit HLS150: HLB05021M + 4xHLB10021M + HLB10021F + HLC150

Model	Remote Pendant	Manual Pump
All models	HLR	HLH



HLR



HLH

HYDRAULIC PIPE BENDERS



LARZEP advantages

- Suitable for carrying out bending operations with plumbing pipes.
- Pipe bending capacities of up to 2", 3" and 6" NB.
- Models: with hand pump (VA, VB), with electric pump (VC), or with air/hydraulic pump (VZ).
- Equipped with a safety relief valve to prevent overpressure.
- Delivered in sturdy wooden storage boxes.
- VB1227 model equipped with a tripod stand.



Hand Pumps, W.

Page.

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Air Hydraulic Pump
Z12107.

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Manual Powerpacks,
HAM.

Page.

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VC7532

HYDRAULIC PIPE BENDERS

VA - VB
VC - VZ

3/8 - 6 inch

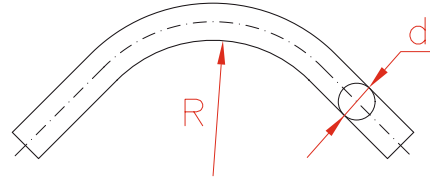
700 bar

AUTOMOTIVE

HYDRAULIC PIPE BENDERS

Pipe	Model	Pump type				Cylinder	Stroke	Tripod stand	Weight
"	LARZEP	Bottle Jack	Hand	Electric	Air	LARZEP	mm	*	kg
3/8 - 2"	VA1227	AV1227	-	-	-	AV1227	285	-	61
	VB1227	AV1227	-	-	-	AV1227	285	*	70
	VA1225	-	W10707	-	-	SM01025	257	-	55
	VZ1225	-	-	-	Z12107	SM01025	257	-	57
	VC1225	-	-	HAM1211	-	SM01025	257	-	90
1/2 - 3"	VA1536	-	W21207	-	-	SM01535	355	-	75
	VZ1536	-	-	-	Z12107	SM01535	355	-	77
	VC1536	-	-	HAM1211	-	SM01535	355	-	120
1/2 - 6"	VC7532	-	-	HAM7244	-	D07532	320	-	465

BENDING SHOES



VA1227, VB1227, VA1225, VZ1225, VC1225

Nominal Bore	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
External Diameter d (mm)	17,2	21,3	26,9	33,7	42,4	48,3	60,3
Maximun Wall Thickness (mm)	2,9	3,2	3,2	4,0	4,0	4,0	4,5
Bend Radius R (mm)	60	85	120	140	175	210	260

VA1536, VZ1536, VC1536

Nominal Bore	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
External Diameter d (mm)	21,3	26,9	33,7	42,4	48,3	60,3	76,1	88,9
Maximun Wall Thickness (mm)	3,2	3,2	4,0	4,0	4,0	4,5	4,5	4,8
Bend Radius R (mm)	40	60	80	100	115	165	245	290

VC7532

Nominal Bore	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
External Diameter d (mm)	21,3	26,9	33,7	42,4	48,3	60,3	76,1	88,9	114,0	141,0	168,0
Maximun Wall Thickness (mm)	3,2	3,2	4,0	4,0	4,0	4,5	4,5	4,8	5,4	5,4	5,4
Bend Radius R (mm)	40	60	80	100	115	165	245	290	550	650	750

HYDRAULIC PRESSES



LARZEP advantages

- Extremely sturdy frames, made from welded steel profiles, available as bench mount (EC series) and floor mounted H-Frame models.
- Models are available powered by hand pump, air/hydraulic pump or electric/hydraulic pump. CE versions are fitted with remote motor control.
- Table height is adjustable on floor mounted models, manually on 30 Tn, winch on 60 Tn and 120 Tn models and hydraulically from the main ram on 250 Tn models.
- Vee blocks and a pressure gauge reading in tons are supplied as standard on all models.
- The hydraulic cylinder on the ECM and ECZ bench presses can be easily removed and used in other applications.
- On the 30 Tn EM and EZ presses, the hydraulic cylinder is equipped with a screw extension designed to minimise the pumping action required.
- The EM models incorporate a two-speed hand pump for quick approach of the piston to the work piece.



Larzep designs and manufactures special presses upon request.



HYDRAULIC PRESSES

EC - EE
EM - EZ

10-250 Tn.

700 bar

The hydraulic cylinder can be easily removed and used in other applications.



On the 30 Tn EM and EZ presses, the hydraulic cylinder is equipped with a screw extension designed to minimise the pumping action required.



Vee blocks and pressure gauge reading in tons are supplied as standard on all models.



10 Tn and 20 Tn EC series.
Bench mount presses.



Air Hydraulic Pump
Z12107.

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Hand Pumps, W.

Page. 80

Capacity	Frame		E	H max.	Stroke	Model	Pump Type				
Tn	Bench Mount	Floor Mount	mm	mm	mm	LARZEP	Hand	Electric	Air	Model	
10	*	-	350	352	130	ECM01113	*	-	-	W10707	
	*	-	350	352	130	ECZ01113	-	-	*	Z12107	
	*	-	350	352	130	ECE01113	-	*	-	HAM7224	
	*	-	350	352	130	ECE01113-CE	-	*	-	HAM7224B	
20	*	-	500	330	130	ECM02013	*	-	-	W10707	
	*	-	500	330	130	ECZ02013	-	-	*	Z12107	
	*	-	500	330	130	ECE02013	-	*	-	HAM7224	
	*	-	500	330	130	ECE02013-CE	-	*	-	HAM7224B	
30	-	*	500	930	95	EM03012	*	-	-	W00807	
	-	*	500	930	95	EZ03012	-	-	*	Z12107	
	-	*	500	930	160	EE03116	-	*	-	HAM7244	
	-	*	500	930	160	EE03116-CE	-	*	-	HAM7244B	
60	-	*	860	935	180	EM06018	*	-	-	W23007	
	-	*	860	935	180	EZ06018	-	-	*	Z12107	
	-	*	860	935	180	EE06018	-	*	-	HAM7244	
	-	*	860	935	180	EE06018-CE	-	*	-	HAM7244B	
120	-	*	880	910	180	EZ12018	-	-	*	Z24007	
	-	*	880	910	180	EE12018	-	*	-	HAM7344	
	-	*	880	910	180	EE12018-CE	-	*	-	HAM7344B	
250	-	*	1.080	1.000	300	EE25030-CE	-	*	-	HAM8544B	

Model	A	B	C	D	E	F	H min	H max.	I	K	M	N	O
LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
ECM01113	720	440	220	80	350	170	-	352	80	-	400	198	12
ECZ01113	720	440	220	80	350	170	-	352	80	-	400	198	12
ECE01113	720	440	220	80	350	170	-	352	80	-	400	198	12
ECE01113-CE	720	440	220	80	350	170	-	352	80	-	400	198	12
ECM02013	785	610	325	120	500	240	-	330	140	-	570	285	12
ECZ02013	785	610	325	120	500	240	-	330	140	-	570	285	12
ECE02013	785	610	325	120	500	240	-	330	140	-	570	285	12
ECE02013-CE	785	610	325	120	500	240	-	330	140	-	570	285	12
EM03012	1.780	698	650	125	500	245	30	930	140	120	280	150	27
EZ03012	1.780	698	650	125	500	245	30	930	140	-	280	150	27
EE03116	1.780	698	650	125	500	245	30	930	140	275	280	150	27
EE03116-CE	1.780	698	650	125	500	245	30	930	140	275	280	150	27
EM06018	1.960	1.150	800	205	860	385	110	935	260	150	237	165	41
EZ06018	1.960	1.150	800	205	860	385	110	935	260	-	237	165	41
EE06018	1.960	1.150	800	205	860	385	110	935	260	275	237	165	41
EE06018-CE	1.960	1.150	800	205	860	385	110	935	260	275	237	165	41
EZ12018	2.010	1.240	800	308	880	510	80	910	300	-	277	165	51
EE12018	2.010	1.240	800	308	880	510	80	910	300	275	277	165	51
EE12018-CE	2.010	1.240	800	308	880	510	80	910	300	275	277	165	51
EE25030-CE	2.256	1.640	1.000	318	1.080	486	100	1.000	487	-	130	225	80

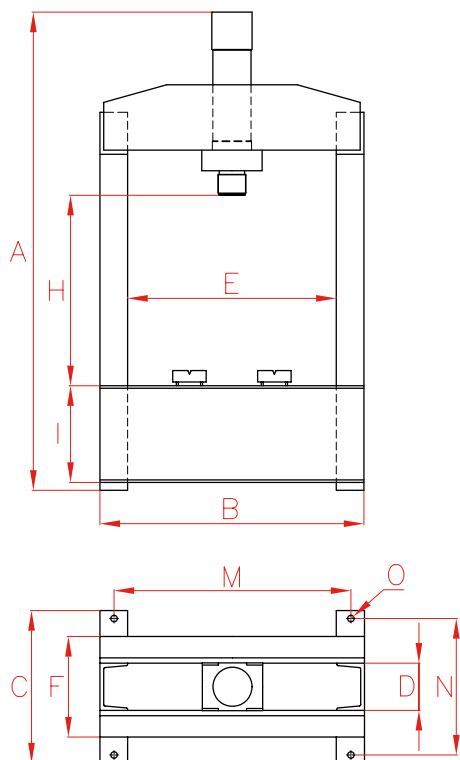
Cylinder type				Oil Cap.	Advance speed*		Weight	Model
S/A	D/A	Screw	Model	cm ³	Fast	Slow	kg	LARZEP
*	-	-	KC01113	214	-	1,7	41	ECM01113
*	-	-	KC01113	214	-	1,8	42	ECZ01113
*	-	-	KC01113	214	31,0	5,8	75	ECE01113
*	-	-	KC01113	214	31,0	5,8	80	ECE01113-CE
*	-	-	KC02013	431	5,5	0,9	85	ECM02013
*	-	-	KC02013	431	-	1,2	90	ECZ02013
*	-	-	KC02013	431	21,0	3,9	150	ECE02013
*	-	-	KC02013	431	21,0	3,9	155	ECE02013-CE
*	-	65	SM03012	419	2,9	0,4	120	EM03012
*	-	65	SM03012	419	-	0,6	121	EZ03012
-	*	-	D03016	707	11,3	2,1	135	EE03116
-	*	-	D03016	707	11,3	2,1	140	EE03116-CE
*	-	-	SM06018	1.558	1,5	0,2	455	EM06018
*	-	-	SM06018	1.558	-	0,4	456	EZ06018
-	*	-	D06018	1.558	5,7	1,0	480	EE06018
-	*	-	D06018	1.558	5,7	1,0	485	EE06018-CE
-	*	-	D12018	3.180	-	0,2	720	EZ12018
-	*	-	D12018	3.180	2,8	0,5	750	EE12018
-	*	-	D12018	3.180	2,8	0,5	755	EE12018-CE
-	*	-	D25030	10.390	4,3	1,0	2.100	EE25030-CE

* Hand Pump (mm/stroke)

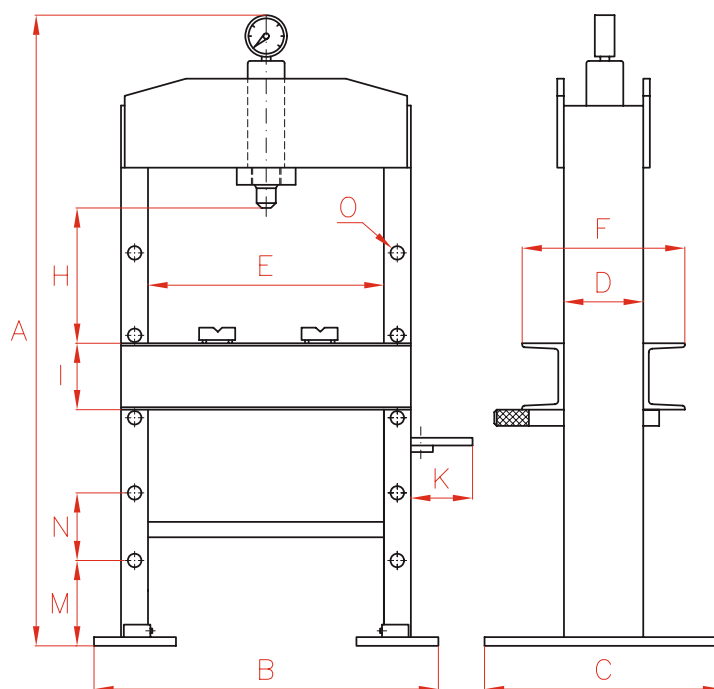
* Electric Pump (mm/sec.)

* Air Pump (mm/sec.)

10 and 20 Tn PRESSES



30, 60, 120 and 250 Tn PRESSES



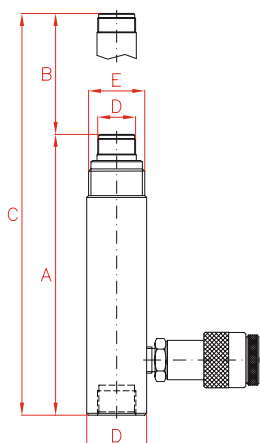
MAINTENANCE SETS



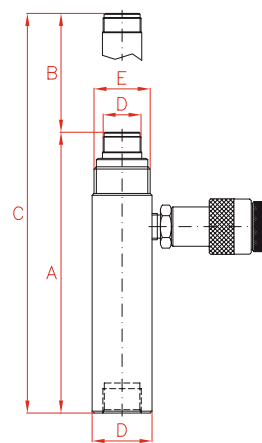
LARZEP advantages

- Made of a series of attachments that combined with the pump, cylinder and hose, enable configuration of specific tools designed for various operations such as pushing, separating, joining, lifting, compressing, stretching and fixing.
- 5, 10 and 20 Tn models available.
- Supplied in a storage/transport case.

KC



T



Capacity	Model	A	B	C	D	E
Tn	LARZEP	mm	mm	mm	BSP	UN
5	KC00511	237	115	352	3/4"-14 BSP	1 1/2"-16 UN
10	KC01113	274	133	409	1 1/4"-11 BSP	2 1/4"-14 UNS
20	KC02013	286	130	416	1 3/4"-11 BSP	3 5/16"-11 UN
5	T00514/5*	306	140	446	3/4"-14 BSP	2 1/4"-14 UNS
5	T00514/10*	306	140	446	1 1/4"-11 BSP	2 1/4"-14 UNS
10	T01015*	308	140	448	1 3/4"-11 BSP	3 5/16"-11 UN

* Optional

MAINTENANCE SETS

CA

5-20 Tn.

350 bar

AUTOMOTIVE

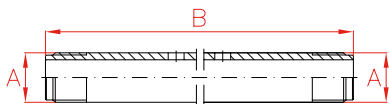
The cylinder provides the indicated nominal force, but as some attachments can induce cylinder side loading, the unit can only be used at 50% of its capacity, at a MAXIMUM WORKING PRESSURE of 350 bar.



	Capacity (Tn)	5	5	10	10	20	20
No.	Model	CA0510	CA0513	CA1110	CA1113	CA2010	CA2013
1	Case	CA051301	CA051301	CA101301	CA101301	CA101301	CA101301
2	Pump	W00307	W00307	W10707	W10707	W10707	W10707
3	Hose	AP2015	AP2015	AP2015	AP2015	AP2015	AP2015
4	Coupling	AZ3220	AZ3220	AZ3220	AZ3220	AZ3220	AZ3220
5	Cylinder	KC00511	KC00511	KC01113	KC01113	KC02013	KC02013
7	Tube M	CA051307	CA051307	CA101307	CA101307	-	-
8	Tube L	CA051308	CA051308	CA101308	CA101308	CA201308	CA201308
9	Tube X	CA051309	CA051309	CA101309	CA101309	CA201309	CA201309
10	Tube XL	CA051310	CA051310	CA101310	CA101310	CA201310	CA201310
11	Collar toe ram	CA051311	CA051311	CA101311	CA101311	CA201311	CA201311
12	Collar toe plunger	CA051312	CA051312	CA101312	CA101312	-	-
13	Pipe coupling (3)	CA051313	CA051313	CA101313	CA101313	CA201313	CA201313
14	Male connector	CA051314	CA051314	CA101314	CA101314	CA201314	CA201314
15	Head	CA051315	CA051315	CA101315	CA101315	CA201315(2)	CA201315(2)
16	Rubber head (2)	CA051316	CA051316	CA101316	CA101316	-	-
17	Base	CA051317	CA051317	CA101317	CA101317	-	-
18	“V”	CA051318	CA051318	CA101318	CA101318	-	-
19	Wedge head	CA051319	CA051319	CA101319	CA101319	-	-
20	Slip-lock extension	CA051320	CA051320	CA101320	CA101320	-	-
21	Locking pin (2)	CA051321	CA051321	CA101321	CA101321	-	-
22	Collar clamp head	CA051322	CA051322	CA101322	CA101322	-	-
23	Lock-on clamp toe	CA051323	CA051323	CA101323	CA101323	-	-
24	Spread cylinder	-	CY0109	-	CY0109	-	CY00822
25	Chain	-	CA051325	-	CA101325	-	CA201325
26	Single chain plate	-	CA051326	-	CA101326	-	CA201326
27	Double chain plate	-	CA051327	-	CA101327	-	-
28	Base (2)	-	-	-	-	CA201328	CA201328
29	Pulling cylinder*	T00514/5	T00514/5	T00514/10	T00514/10	T01015	T01015
30	Pressure gauge	AV10006	AV10006	AV10006	AV10006	AV10006	AV10006
31	Gauge adaptor	AZ1502	AZ1502	AZ1502	AZ1502	AZ1502	AZ1502

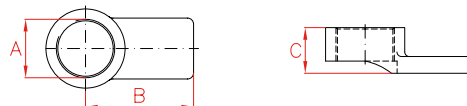
* Optional

7-8-9-10 TUBE



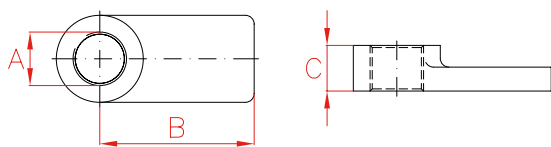
Reference	A	B
CA051307	3/4"-14 BSP	125
CA051308	3/4"-14 BSP	250
CA051309	3/4"-14 BSP	450
CA051310	3/4"-14 BSP	575
CA101307	1 1/4"-11 BSP	130
CA101308	1 1/4"-11 BSP	250
CA101309	1 1/4"-11 BSP	450
CA101310	1 1/4"-11 BSP	700
CA201308	1 3/4"-11 BSP	220
CA201309	1 3/4"-11 BSP	480
CA201310	1 3/4"-11 BSP	700

11 COLLAR TOE RAM



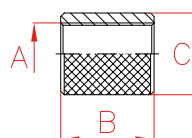
Reference	A	B	C	D
CA051311	1 1/2"-16 UN	71	31	42
CA101311	2 1/4"-14 UNS	79	38	61
CA201311	3 5/16"-12 UN	110	41	73

12 COLLAR TOE PLUNGER



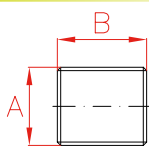
Reference	A	B	C	D
CA051312	3/4"-14 BSP	71	22	42
CA101312	1 1/4"-11 BSP	80	32	60

13 PIPE COUPLING



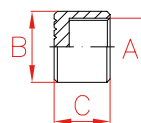
Reference	A	B	C
CA051313	3/4"-14 BSP	40	35,0
CA101313	1 1/4"-11 BSP	49	55,5
CA201313	1 3/4"-11 BSP	70	52,0

14 MALE CONNECTOR



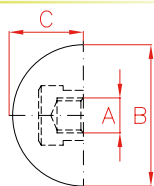
Reference	A	B
CA051314	3/4"-14 BSP	36
CA101314	1 1/4"-11 BSP	52
CA201314	1 3/4"-11 BSP	54

15 HEAD



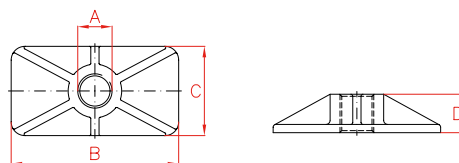
Reference	A	B	C
CA051315	3/4"-14 BSP	33	26
CA101315	1 1/4"-11 BSP	51	34
CA201315	1 3/4"-11 BSP	69	48

16 RUBBER HEAD



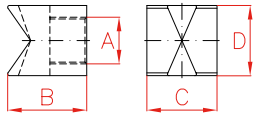
Reference	A	B	C
CA051316	3/4"-14 BSP	80	50
CA101316	1 1/4"-11 BSP	90	55

17 BASE



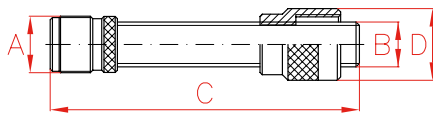
Reference	A	B	C	D
CA051317	3/4"-14 BSP	123	65	30
CA101317	1 1/4"-11 BSP	164	102	31

18 "V"



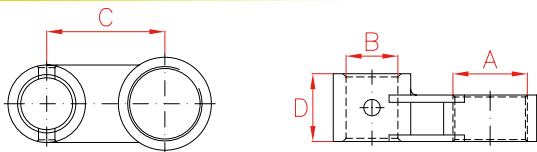
Reference	A	B	C	D
CA051318	3/4"-14 BSP	46	40	38
CA101318	1 1/4"-11 BSP	60	69	56

20 SLIP-LOCK EXTENSION



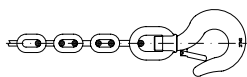
Reference	A	B	C	D
CA051320	3/4"-14 BSP	M20x2,5	138	32
CA101320	1 1/4"-11 BSP	Tr30 - 5	151	54

22 COLLAR CLAMP HEAD



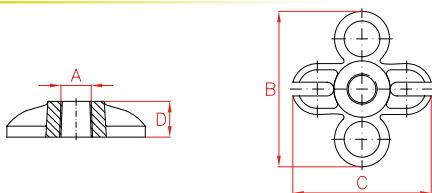
Reference	A	B	C	D
CA051322	1 1/2"-16 UN	26,7	61	36
CA101322	2 1/4"-14 UNS	42,2	68	41

25 CHAIN



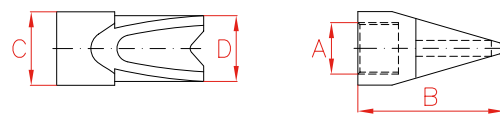
Reference	Length
CA051325	1 metre
CA101325	1 metre
CA201325	1 metre

27 DOUBLE CHAIN PLATE



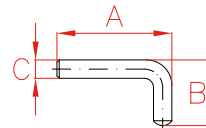
Reference	A	B	C	D
CA051327	3/4"-14 BSP	113	101	27
CA101327	1 1/4"-11 BSP	145	140	31

19 WEDGE HEAD



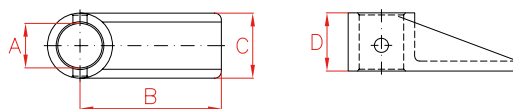
Reference	A	B	C	D
CA051319	3/4"-14 BSP	77	40	34
CA101319	1 1/4"-11 BSP	99	55	43

21 LOCKING PIN



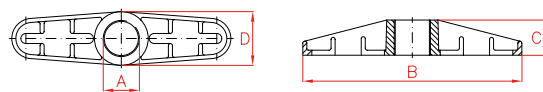
Reference	A	B	C
CA051321	50	27	8
CA101321	76	42	12

23 LOCK-ON CLAMP TOE



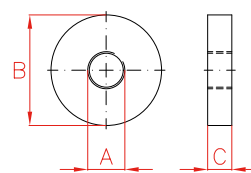
Reference	A	B	C	D
CA051323	26,7	87	39	36
CA101323	42,7	100	62	41

26 SINGLE CHAIN PLATE



Reference	A	B	C	D
CA051326	1 1/2"-16 UN	218	35	53
CA101326	2 1/4"-14 UNS	268	42	81
CA201326	3 5/16"-12 UN	385	60	109

28 BASE



Reference	A	B	C
CA201328	1 3/4"-11 BSP	128	28

LIGHTWEIGHT RESCUE UNIT

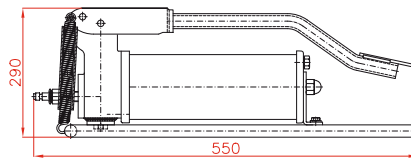


LARZEP advantages

- Lightweight, self contained rescue unit. No need for external power. Can be handled by just one person.
- Consists of a foot operated pump, cutting shears, two spread cylinders and a hydraulic cylinder with extensions and support heads.
- For separating, cutting and pushing, the three basic operations in a rescue.
- The tools are connected individually to the pump via a hydraulic hose, equipped with all the necessary quick-connect fittings.
- The size of the tool enables the user to operate effectively even in hard-to-reach places.
- Two speed pump, for fast approach and automatic changeover when load is contacted.
- Pumping is carried out via the foot pedal, leaving hands free to hold the tool.
- Internal spring provides rapid cylinder retraction.
- The unit is supplied with a storage/carry case equipped with wheels and a retracting handle.

LIGHTWEIGHT RESCUE UNIT	CS45
Pump	WP01205
Cutter	CD045
Spread cylinder	CY0109-CS
Spread cylinder	CY00822-CS
Cylinder	SM00427
Total weight	45 kg

PUMP	Ref. WP01205
Usable oil:	1.200 cm ³
Oil displacement per stroke	
1st stage (20 bar):	13 cm ³
2nd stage (550 bar):	2 cm ³
Weight:	10,6 kg



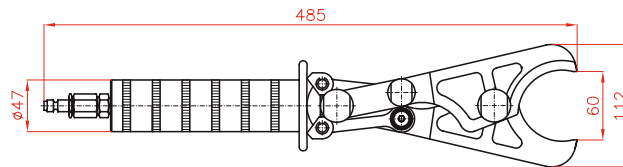
LIGHTWEIGHT RESCUE UNIT

CS

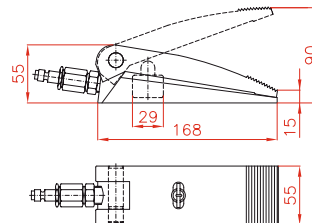
0,7-7 Tn.

550 bar

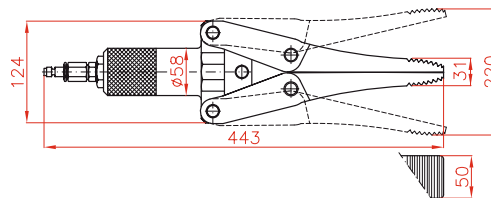
CUTTER	Ref. CD045
Capacity:	7 Tn
Maximum pressure:	550 bar
Clearance:	60 mm
Effective area:	12,5 cm ²
Oil capacity:	43,9 cm ³
Weight:	4,3 kg



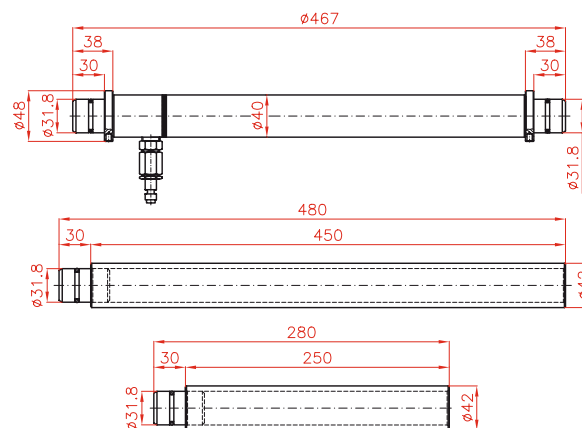
SPREAD CYLINDER	Ref. CY0109-CS
Capacity:	0,7 Tn
Maximum pressure:	700 bar
Closed tip clearance:	15 mm
Open tip clearance:	90 mm
Effective area:	6,6 cm ²
Oil capacity:	10 cm ³
Weight:	1,9 kg



SPREAD CYLINDER	Ref. CY00822-CS
Capacity:	0,8 Tn
Maximum pressure:	550 bar
Closed tip clearance:	31 mm
Open tip clearance:	220 mm
Effective area:	14,5 cm ²
Oil capacity:	76,8 cm ³
Weight:	6,2 kg

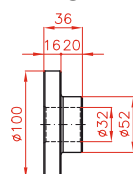


CYLINDER	Ref. SM00427
Capacity:	3,8 Tn
Maximum pressure:	700 bar
Collapsed height:	467 mm
Stroke:	275 mm
Effective area:	7,06 cm ²
Oil capacity:	194,3 cm ³
Weight:	3,6 kg
Extension tubes:	250/400 mm

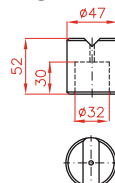


ACCESORIES
"V" saddle
"X" saddle
Base
Handspike
Hose (3 m)

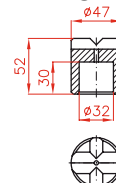
BASE



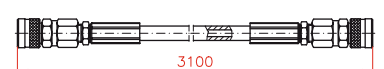
"V" SADDLE



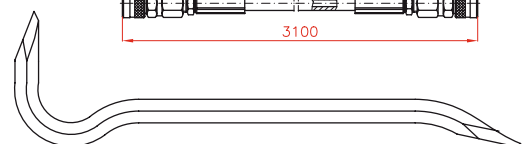
"X" SADDLE



HOSE



HANDSPIKE



Since 1940

LARZEP

HYDRAULIC

SPECIAL PRODUCTS AND APPLICATIONS

With more than 70 years of experience in the hydraulic sector, LARZEP designs and manufactures high pressure hydraulic equipment for the movement of heavy loads. Cylinders up to 2.000 Tn lifting capacity, synchronous lifting systems for a precise control of the load.

Our engineers are continuously developing special products and producing the drawings to build special hydraulic tools that represent 30% of our sales in record beating times, no matter if it's a one off, or a big batch.

All our cylinders are designed according to ASME B30.1 and manufactured in our production facility located in Mallabia, in the North of Spain.

Our biggest advantage against our competitors is our flexibility and quick delivery time. Contact our Technical Department to discuss your requirements, indicating type of product, quantity, capacity, stroke, or any another additional feature you may require.

KIEV OLYMPIC STADIUM



Larzep manufactured the whole lot of double acting hollow bore cylinders for the construction of the new roof of the Olympic Stadium in Kiev.

108 cylinders of 220 ton and 150 mm stroke and 60 cylinders of 120 ton and 150 mm stroke were supplied. Over 30.000 tons of pulling capacity in total.

The cylinders were used to tension all the cables of the roof simultaneously.



Special Products & Applications

OIL RIG RETRIEVAL



A hanger retrieval system developed with LARZEP products, for a major Oil & Gas operator in the North Sea.

The system consists in 4 Double acting 215 ton Hollow Bore Cylinders with 460 mm stroke, completely black nitrated to avoid rust in the North Sea environment and 2 pneumatic powered hydraulic pumps with safety double circuit each.



CATERPILLAR PIN PUSHER



Double acting cylinders D35030, 350 ton and 300 mm stroke were used together with a HAM7645 110 volt 2.1 litre per minute power pack with remote control pendant for safety and ease operation.

The tool was used for the removal of caterpillars pins on Earth moving equipment.



The pin was pushed through; in this case it took 251 metric tonnes to break the grip of the pin which was very badly worn.

The system is strongly recommended by Health and Safety Authorities, as means of protection for the operators.

CYLINDERS



Double acting cylinder with lock nut and gear wheel.



Double acting cylinders, hollow piston with AZ5700 pilot operated check valve integrated.



Double acting cylinders with tilting saddle and ceramic coat.



Double acting cylinder with lock nut. 1.500 Tn capacity and 500 mm stroke.



Double acting cylinder with special saddle.



Double acting cylinders with lock nut and tilting saddle. Support a 10% side load.



Double piston cylinder.



Double acting cylinder with 1.250 mm stroke.



1.100 Tn single acting cylinder. With lock nut and base plate.



1.000 Tn single acting cylinder with lock nut and tilting saddle. Supports a 12% side load.

STEP BY STEP

- Double acting
- Available in steel or aluminium
- Capacity: from 50 to 400 Tn
- Stroke: 155 mm
- Different step plate dimensions
- Optional tilting saddle



STRAND JACKS

- Double acting + Single acting
- Available in steel or aluminium
- Capacity: up to 400 Tn
- Suitable for different wedge and cable manufacturers
- Several configurations available



BOLT TENSIONERS

- Single acting
- Working pressure: 1.500 bar
- Capacity: from 23 to 265 Tn
- Bolt size: from M16 to M100



PUMPS & POWERPACKS



Synchronized Lifting system, 1.000 litres oil capacity. With 2 synchronized outlets + 2 manual outlets. Flow 25.5 l/min.



Hydraulic powerpack, 600 litres capacity, with 4 pumps and 4 exits each. Each pump is connected to the 4 solenoid valves.



Hydraulic powerpack, 600 litres capacity with 3 different pumps to work at different pressures and flows.



10 litres Petrol powerpack with manual pump, 2 valves and by-pass.



Powerpack with solenoid valve and by-pass, to work with 4 cylinders independently.



Petrol powerpacks for re-railing applications.



50 litres powerpacks with roll bar, wheels and heat exchanger.



50 litres hydraulic powerpack with 6 parallel ways.

SYNCHRONIZED LIFTING SYSTEMS



Larzep supplied the seven 500 Tn lifting cylinders for the tub lift-and-split, twenty two 100 Tn cylinders along with an electric power pack incorporating valving controlled electronically via a PLC, all controlled by the laptop for work on the 6400 Tn Marion dragline.

Larzep lifting system contribute to successful maintenance lift on massive Queensland Dragline.

The job was to remove the Marion 8750 Series B's tub, which weights 942 Tn for maintenance. This is understood to be a world-first for the mining industry.

Two jacking frames, each with 1.000 Tn working load limit, were used for this procedure. Each jacking frame housed two 500 Tn Larzep cylinders.

The remaining three of the seven jacks of 500 Tn capacity were fitted in custom-built jacking haunches at 120 degrees around the circumference of the tub to allow for the lowering and raising of the tub for the removal and installation phases.



The control point for the jacking system was a laptop computer, easy to use, allowing jacking accuracies of multiple cylinders to within 1 mm.

The modular lifting system allows up to three-capacity hydraulic power packs to be connected to a programmable logic controller. This, in turn, was controlled from the laptop computer.



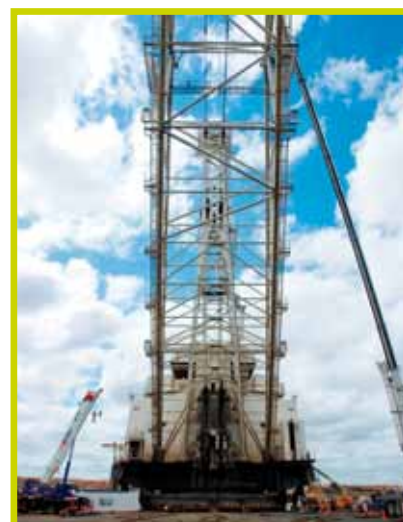
The laptop screen allows users to highlight which cylinder they want to be operating. You can move them individually or they can be synchronized for whatever task required.

Linear and pressure transducer on each cylinder let the operator see on the laptop screen the displacement of each jacking cylinder and the hydraulic pressure in each cylinder in real time.

Total mass and centre of gravity also can be shown on the screen.



Users even have enough control over the cylinder to tilt the load if necessary.



PRESSES



30 Tn capacity and 90 mm stroke press with 50 litres powerpack with 4 ways.



140 Tn capacity and 250 mm stroke press with special protection.



Double acting 50 Tn capacity and 370 mm stroke press with powerpack.



Precision press for production purposes with safety systems.



Wheel crusher. 23Tn capacity and 800 mm stroke.



Heavy duty press, 1.500 Tn capacity and 150 mm stroke press with 50 litres powerpack with solenoid control.



Moving column press, 200 Tn capacity.

APPLICATIONS



Since 1940

LARZEP

HYDRAULIC

THINK SAFETY – THINK GREEN – THINK LARZEP

ESSENTIAL SAFETY REQUIREMENTS

	Place the equipment on a flat and solid area. Define stable zones for applying the load and safety zones for operators, separating them through the use of hoses of enough length. Use our base plates if necessary.	
	Secure the load mechanically once the movement has been completed and avoid operating underneath them.	
	Center the load in the cylinder. Use the entire cylinder's useful support surface, both on the head and on the base. Use tilting saddles under side loads.	
	Do not expose the equipment to intense heat sources (welding), nor to temperatures above 65°C.	
	Remove loads before carrying out maintenance operations and always work in clean, well-lit areas.	
	Include control elements (pressure gauges) in the installation in order to enable the operator to monitor the pressure in the system and ensure that the equipment's nominal capacity is never exceeded. Be prepared to use safety valves and accessories if safety criteria demand it.	
	The cylinder controls should be activated manually, as should the connections between elements equipped with couplers.	
	Once you have finished using the device, check that it has not been damaged, clean it and protect it ready for storage. If there are worn or damaged pieces, replace them with new ones.	
	Clean the couplers before connecting and ensure the connections are perfect (first insert as far as the coupler will go and then screw it by hand). A bad connection may result in improper functioning and may even generate a safety hazard.	
	Install the device in such a way as to ensure that the hoses are not subjected to sharp or forced bends or thrust actions that may cause them to break. Never disconnect the hoses when the system is pressurized.	

Technical Information

	The correct union of a pump to a cylinder via a hydraulic hose constitutes a machine designed for lifting, pulling, folding and retaining operations, etc., that, due to its high thrust capacity requires safe use in order to avoid accident risk.
	Carefully read and understand the instruction manual and practise using the equipment before application.
	Choose the most suitable model for the application from the wide range available, and make sure that it will not exceed 80% of its nominal capacity and stroke during normal operation.
	Use protective goggles for eye protection.
	Use safety shoes for feet protection.
	Use protective gloves for hand protection.
	Do not modify the device (welded parts, lengthening drive levers, etc.).
	Do not use the hoses for transporting the device. Use the handles on the cylinders (when appropriate) and set the pump lever to the transport position.
	When filling the pump with oil, use always LARZEP hydraulic oil. Fill only to the indicated level and remember that the cylinder piston should be retracted.
	Before using a pump from other manufacturer, contact LARZEP's Technical Department. Otherwise, LARZEP will not be liable for any damage that may arise.
	Before starting operation, check that the installation is correct, the operator position is safe and the working zone is out of bounds to all personnel.
	In all cases, the operator should have received adequate training regarding the handling of the device and logical safety criteria associated with the movement of heavy loads.
	Never exceed the maximum working pressure of the cylinder. Ensure that all the equipment and accessories are suitable for the maximum working pressure.

CYLINDER SELECTION

In order to select the right cylinder according your needs, please answer these questions:

Total load to lift: _____ ton.

Number of cylinders required: _____

Stroke required: _____ millimetres.

Closed height required: _____ millimetres.

Single or Double acting cylinder: _____

Hollow or Solid piston: _____

Spring or Load return: _____

Push or Pull application: _____

Lock nut is required? _____

Tilting saddle is required? _____

Threads, Hollows,... are required? _____

Special treatment is required? _____

ATTENTION: Do not exceed the 80% of the nominal capacity and stroke of the cylinder.

Taking into account all the above, we will show you all the different options you can use.
To finish choosing the cylinder required, please keep in mind the application of the cylinder.
Visit our website **www.larzep.com** and find the applications of each type of cylinder.



Visit our website **www.larzep.com** and use the Cylinder Selection application.



PUMP SELECTION

1. Select the right cylinder, keeping in mind the recommended use of 80% of its nominal rating of both, load and stroke.
2. Select the pump according to the oil volume and the number of cylinders in operation.

In order to select the right pump according your needs, please answer these questions:

HAND PUMPS

Single or Double acting: _____
 Number of cylinders required: _____
 Cylinder capacity: _____ ton.
 Cylinder stroke: _____ millimetres.
 Total hose length: _____ metres.

POWER PACKS

Single or Double acting: _____
 Number of cylinders required: _____
 Cylinder capacity: _____ ton.
 Cylinder stroke: _____ millimetres.
 Total hose length: _____ metres.
 Manual or Solenoid valve: _____
 Load holding is required? _____
 Single or Three phase: _____
 Voltage: _____ V.
 Frequency: _____ Hz.
 1 or 2 stage: _____
 Remote pendant (for HAM) is required? _____
 Roll bar, Wheel kit, Heat exchanger, Pedal or Pressure transducer are required? _____



NOTE: Add 35 cm³ of oil per metre of hose used when the internal diameter of the hose is 6,4 mm.

Capacity	Stroke (mm)												
Tn	25	50	75	100	125	150	175	200	225	250	300	325	350
5													
10													
15													
23													
30													
50													
75													
100													
140													
220													

Single Acting W00307
 Double Acting X22307

Single Acting W10707 - W20707
 Double Acting X22307

Single Acting W11207 - W21207
 Double Acting X22307

Single Acting W22307
 Double Acting X22307

Single Acting W24307
 Double Acting X24307

Single Acting W07807
 Double Acting X07807

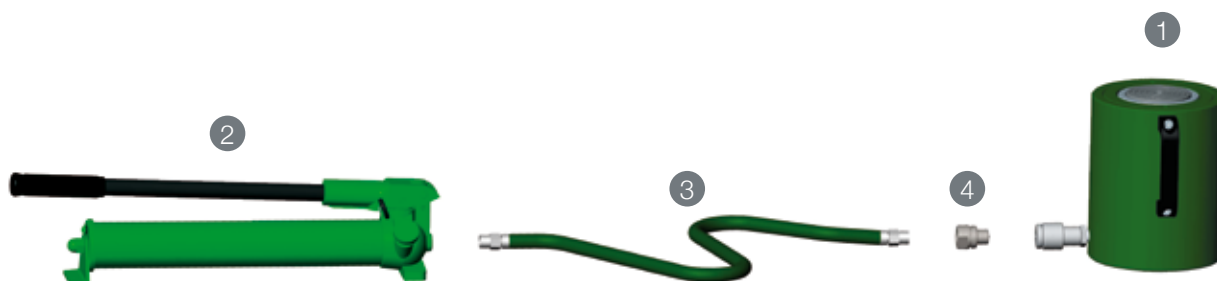
Single Acting HAM, HAE, HAG, HAZ
 Double Acting HAM, HAE, HAG, HAZ

Visit our website www.larzep.com and use the Pump Selection application.

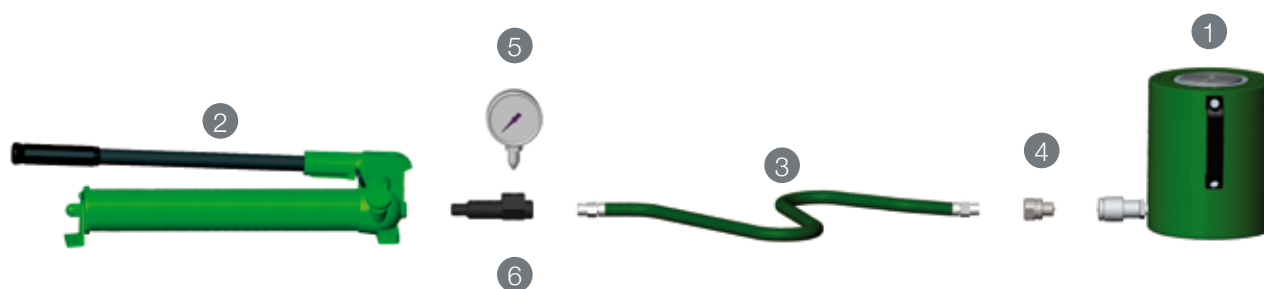


SINGLE ACTING ASSEMBLIES

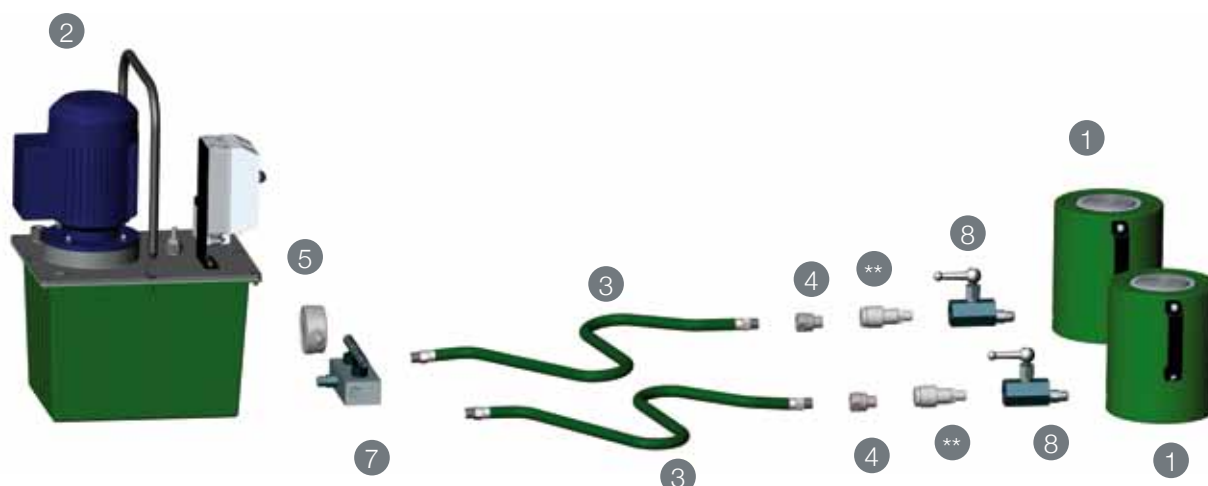
BASIC SYSTEM



COMPLETE SYSTEM

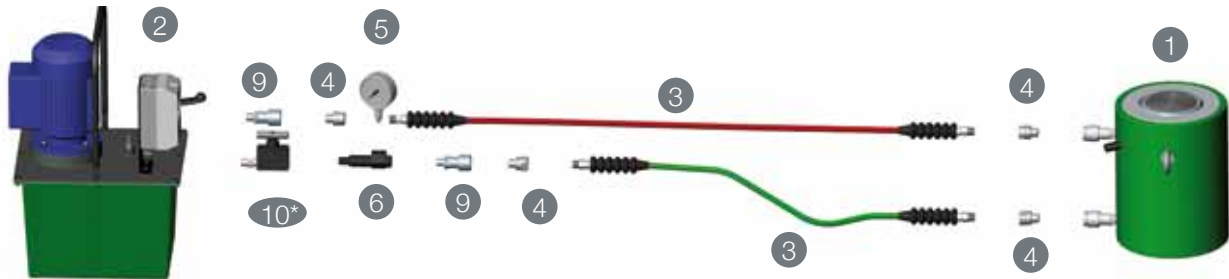


COMPLET SYSTEM WITH SEVERAL CYLINDERS

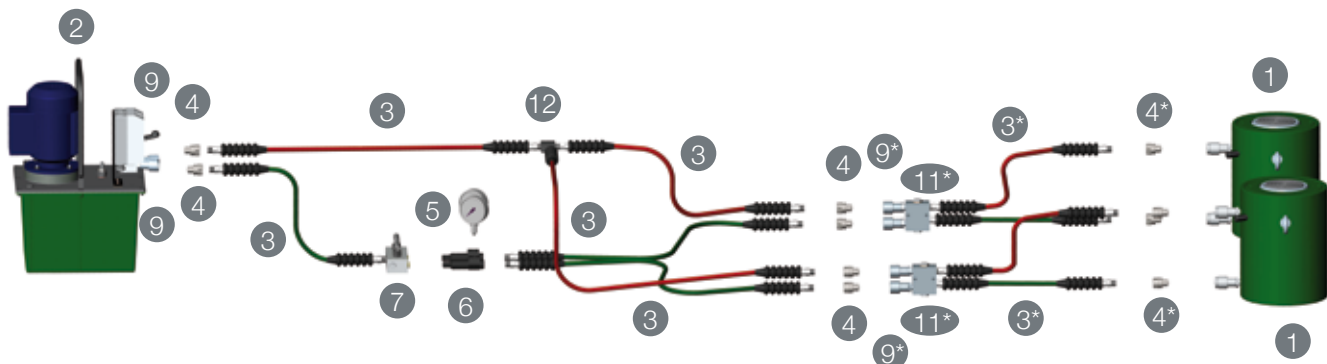


DOUBLE ACTING ASSEMBLIES

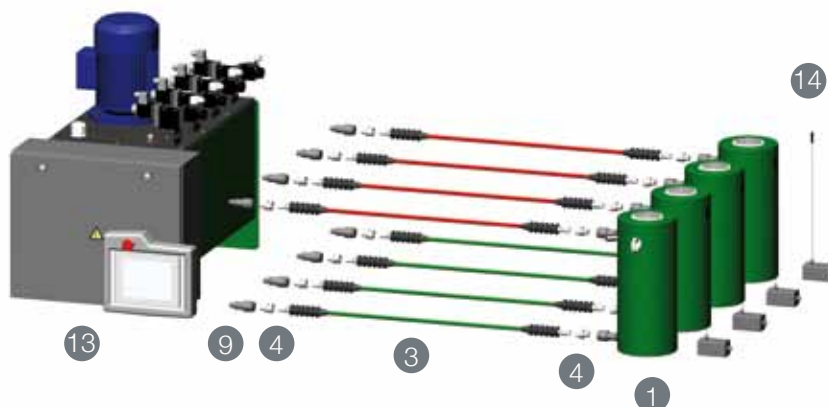
BASIC SYSTEM



COMPLET SYSTEM WITH SEVERAL CYLINDERS



SYNCHRONIZED LIFTING SYSTEM AND SPLIT-FLOW



- 1 - Cylinder
- 2 - Pump / Powerpack
- 3 - Hose
- 4 - Male Coupler
- 5 - Pressure Gauge
- 6 - Gauge Adaptor
- 7 - Flow Regulating Valve
- 8 - Check Valve
- 9 - Female Coupler
- 10 - Snubber Valve
- 11 - Pilot Operated Check Valve
- 12 - Tee
- 13 - Synchronized powerpack/Split-Flow
- 14 - Stroke Transducer
- * Optional
- ** Female coupler included in the cylinder

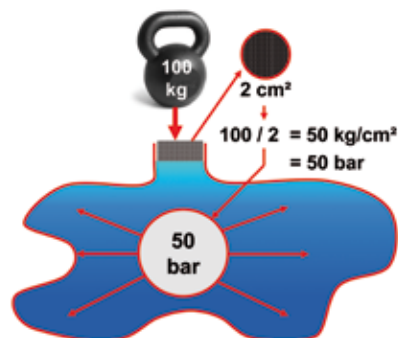
BASIC HYDRAULICS

PASCAL'S LAW

Pressure applied at any point upon a confined fluid is transmitted undiminished in all directions.

The hydraulic pressure at any point within the fluid is the same in all directions.

Hydraulic pressure is measured as a force per unit of area:
 $\text{kg} / \text{cm}^2 = \text{bar}$



FORCE

The force that a hydraulic cylinder can apply depends on the effective area of the cylinder and the hydraulic pressure.

Force (kg) = Hydraulic Pressure (bar) x Cylinder Effective Area (cm²)

$$F (\text{kg}) = P (\text{bar}) \times A (\text{cm}^2)$$

OIL CAPACITY

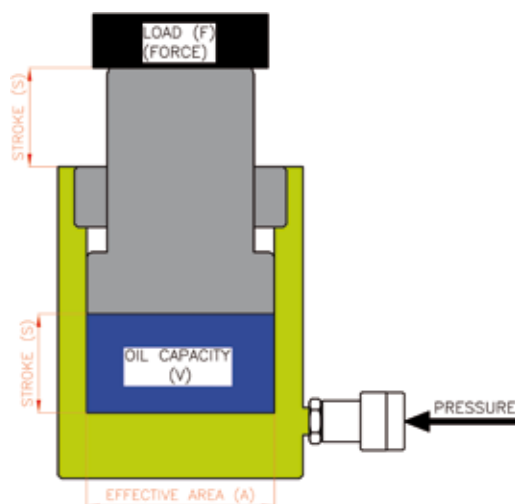
When a hydraulic cylinder is operated by a hand pump, the cylinder plunger moves a certain distance per pump actuation. This distance depends on the cylinder's effective area and on the pump's oil flow per stroke.

Minimum effective tank volume of pump is the sum of the oil volume of all cylinders and all hoses.

The volume of oil required for a cylinder is which need to achieve the full stroke of the cylinder.

Cylinder Oil Capacity (cm³) = Cylinder Effective Area (cm²) x Cylinder Stroke (cm)

$$V (\text{cm}^3) = A (\text{cm}^2) \times S (\text{cm})$$



The oil flow always chooses the line of least resistance in a hydraulic system. When using more than one hydraulic cylinder, each cylinder lifts at its own speed. When the cylinders have the same capacity, first will start moving the cylinder at the point of the lightest load and last the cylinder at the point of the heaviest load.

To make sure that the oil flow can be controlled to operate all the cylinders uniformly to lift the load horizontally, a control valve or a synchronized lifting system must be used.

UNIT CONVERTER

LENGTH

1 mm	= 0.039 in
1 cm	= 0.393 in
1 m	= 3.28 ft
1 in	= 25.4 mm
1 in	= 0.083 ft
1 ft	= 4 in
1 ft	= 0.305 m

MASS

1 kg	= 2.205 lb
1 kg	= 35.27 oz
1 t	= 1000 kg
1 t	= 2205 lb
1 t	= 1.1 ton (short)
1 lb	= 0.453 kg
1 ton (short)	= 907.18 kg
1 ton (short)	= 0.907 t
1 ton (short)	= 2000 lb

FORCE

1 kg	= 9.8 N
1 N	= 0.1019 kg
1 N	= 0.225 lb
1 kN	= 0.1019 t
1 kN	= 224.8 lb
1 lb	= 4.448 N

POWER

1 kW	= 1.359 hp
1 hp	= 0.735 kW
1 w	= 1 J/s

AREA

1 cm ²	= 0.155 in ²
1 m ²	= 10.76 ft ²
1 in ²	= 6.45 cm ²
1 in ²	= 645 mm ²

PRESSURE

1 bar	= 0.1 MPa
1 bar	= 10 N/cm ²
1 bar	= 1.0197 kg/cm ²
1 bar	= 14.5 psi
1 Pa	= 1 N/m ²
1 kPa	= 0.145 psi
1 MPa	= 10 bar
1 N/cm ²	= 0.1 bar
1 kg/cm ²	= 0.98 bar
1 psi	= 0.069 bar
1 psi	= 1 lb/in ²

TORQUE

1 kg·m	= 9.8 N·m
1 kg·m	= 86.79 lb·in
1 kg·m	= 7.233 lb·ft
1 N·m	= 0.1019 kg·m
1 N·m	= 8.85 lb·in
1 N·m	= 0.737 lb·ft
1 lb·ft	= 0.138 kg·m
1 lb·ft	= 1.356 N·m
1 lb·ft	= 12 lb·in
1 lb·in	= 0.0115 kg·m
1 lb·in	= 0.113 N·m

VOLUME

1 cm ³	= 0.061 in ³
1 m ³	= 1000 l
1 m ³	= 1.3 yard ³
1 ml	= 1 cm ³
1 ml	= 0.035 oz-liq
1 l	= 1000 cm ³
1 l	= 0.264 gal (US)
1 l	= 0.219 gal (UK)
1 l	= 61.023 in ³
1 l	= 0.035 ft ³
1 l	= 1.056 quart
1 in ³	= 16.387 cm ³
1 in ³	= 0.016 l
1 in ³	= 0.576 oz-liq
1 in ³	= 0.017 quart
1 gal (UK)	= 4.546 l
1 gal (US)	= 3.785 l
1 gal (US)	= 3785 cm ³
1 gal (US)	= 231 in ³
1 gal (US)	= 0.133 ft ³
1 quart	= 0.946 l

FLOW

1 l/min	= 1000 cm ³ /min
1 l/min	= 0.264 gal/min (US)
1 l/min	= 0.22 gal/min (UK)
1 cm ³ /min	= 0.61 in ³ /min
1 in ³ /min	= 16.4 cm ³ /min
1 gal/min (US)	= 3.785 l/min

TEMPERATURE

(°C × 1.8) + 32	= °F
(°F - 32) / 1.8	= °C

Visit our website www.larzep.com and use the Automatic Unit Converter.



VALVES INFORMATION

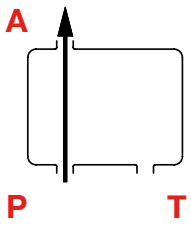
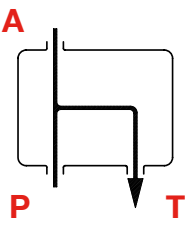
CONTROL OF SINGLE ACTING CYLINDERS

Single acting cylinders require 3-way valve.

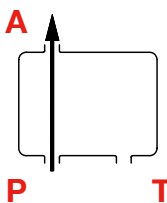
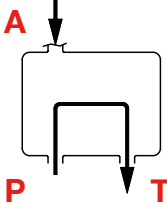
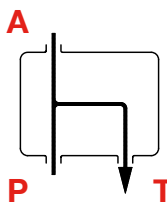
3-way valve has 3 ports: P pump, T tank and A cylinder.

3-way valve can have 2 or 3 positions.

- **2 position valve** can only control the advance or the retraction of the cylinder.

ADVANCE: Oil flows from the pump P to the cylinder A. The cylinder will extend.	RETRACT: Oil flows from the cylinder A and pump P to the tank T. The cylinder will retract.
	

- **3 position valve** controls advance, hold and retraction of the cylinder.

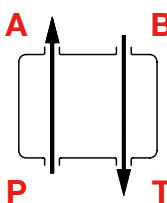
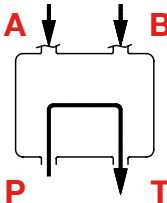
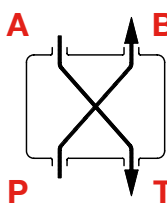
ADVANCE: Oil flows from the pump P to the cylinder A. The cylinder will extend.	HOLD: Oil flows from the pump P to the tank T. A port is closed and holds the pressure maintaining the extended position.	RETRACT: Oil flows from the cylinder A and pump P to the tank T. The cylinder will retract.
		

CONTROL OF DOUBLE ACTING CYLINDERS

Double acting cylinders require 4-way valve.

4-way valve has 4 ports: P pressure, T tank, A advance and B retract.

4-way valve has 3 positions. 3 position valve can advance, hold and retract the cylinder.

ADVANCE: Oil flows from the pump P to the advance port A and from the return port B to the tank. The cylinder will extend.	HOLD: Oil flows from the pump P to the tank T. A and B ports are closed and hold the pressure maintaining the extended position.	RETRACT: Oil flows from the pump P to the retract port B and from the advance port A to the tank T. The cylinder will retract.
		

TORQUE TIGHTENING

The main function of the bolts and nuts is to create a clamping force across the joint which is able to sustain the operation conditions without loosening.

TIGHTENING METHODS

The most used methods to tighten threaded fasteners are Torque, which is rotation of the nut or bolt head, or Direct Tension to stretch the fastener.

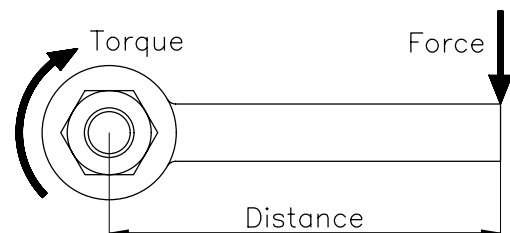
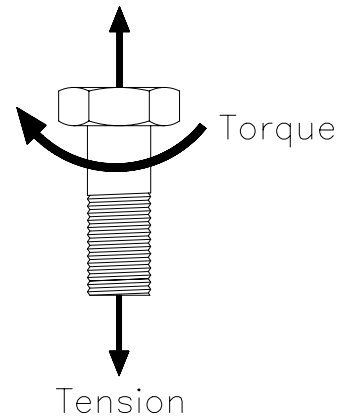
Hooke's Law states that the stress in a bolt is directly proportional to its strain, provided the applied force is kept within the materials elastic limits.

A fastener should be tightened until it has a retained tension of 40-60% of its elastic limit.

For a threaded fastener to a correctly hold components together it must be stretched or tensioned to a known accurate amount.

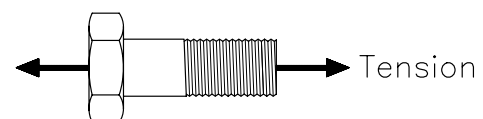
Torque: It is the turning or twisting force extended on a nut or bolt head. It is the product of two measurements: force and distance (N·m in the metric system).

The amount of torque to be applied to a threaded fastener depends on several factors: design application, type of joint, size, length and quantity of fasteners to be used and type of thread lubricant.



Loosening a nut or bolt usually requires more torque than tightening, mainly due to corrosion and deformation in the bolt and nut threads. Depending on conditions, breakout torque can take up to 2 ½ times the input torque.

Direct tension: It is applied to the fastener using a hydraulic tensioning device commonly known as a hydraulic stud bolt tensioner.

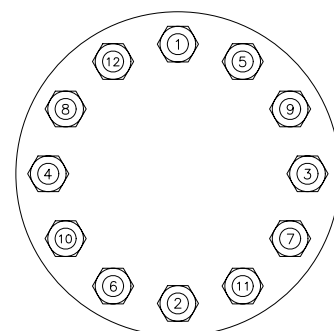


TORQUE PATTERN

When all bolts cannot be tensioned or tightened simultaneously and only can tighten one bolt at a time, this can result in point loading and load scatter.

To avoid this, start tightening the bolts sequentially following the pattern shown, starting with a first pass at 25% of the final required torque, a second pass at 50% and a third pass at 100%.

Finally, perform a final check pass on each bolt working clockwise from bolt 1 at 100% of the required torque to ensure all bolts are uniformly tightened.







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