

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	Accesories 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



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.

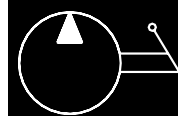
SINGLE ACTING

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



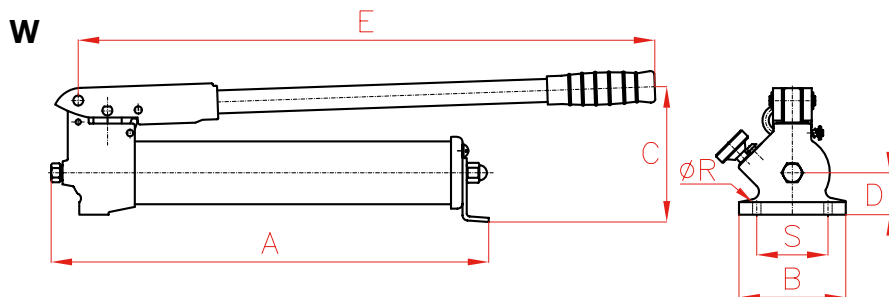
W-X

0,24-7,5 litres

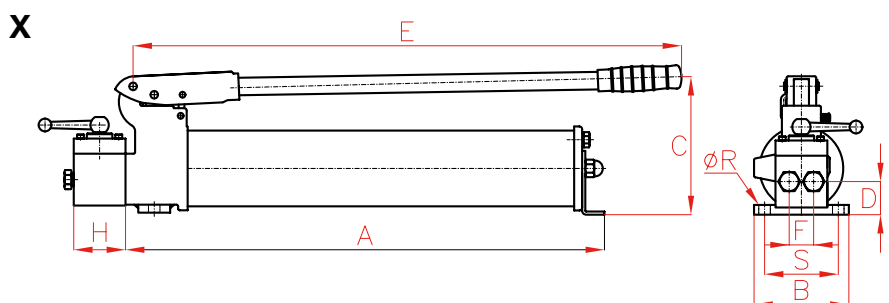
700 bar

PUMPS

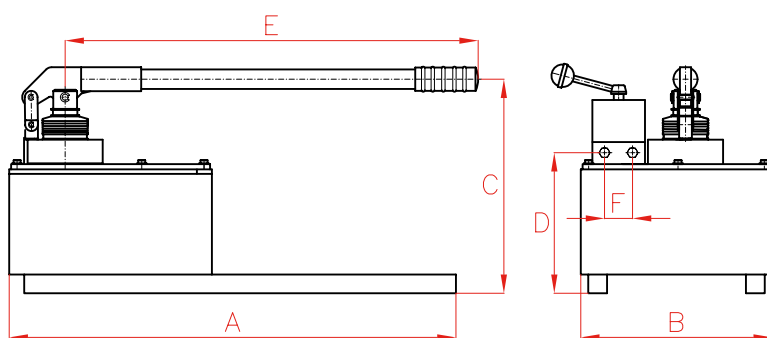
SINGLE ACTING



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

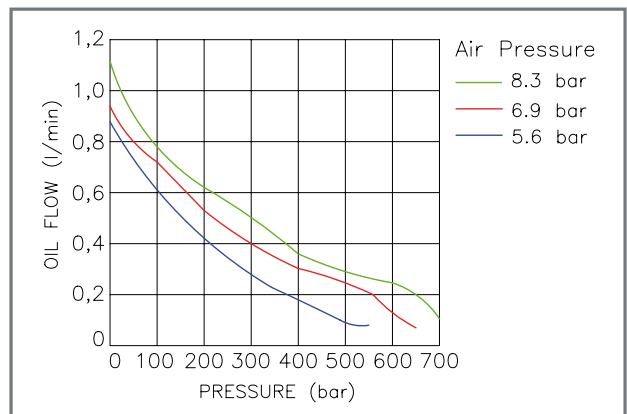
AIR HYDRAULIC PUMPS



LARZEP advantages

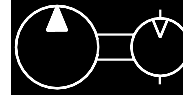
- On Z models for Single Acting cylinders, the pedal acts as the control valve, by controlling advance, hold and retract functions. In 'hold' mode, the pump maintains the output pressure.
- On ZR models, for Single Acting cylinders, operation is controlled by a remote pendant.
- Double Acting models 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



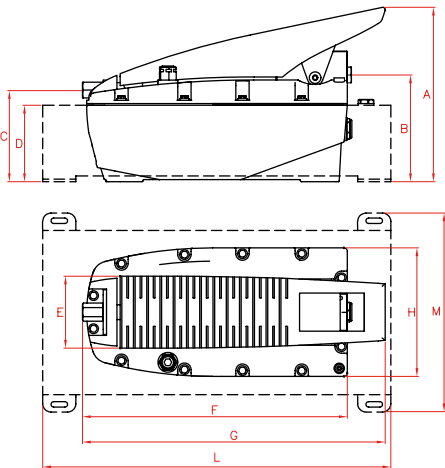
Z-ZR

2,1-20 litres

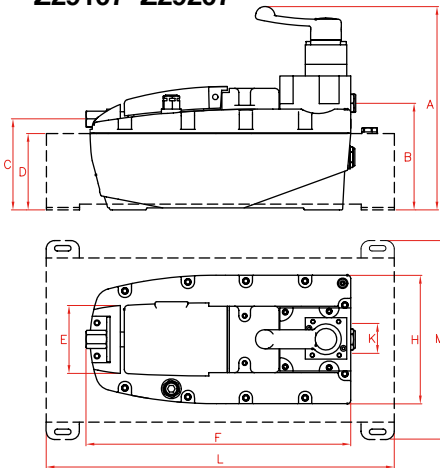
700-1.000 bar

PUMPS

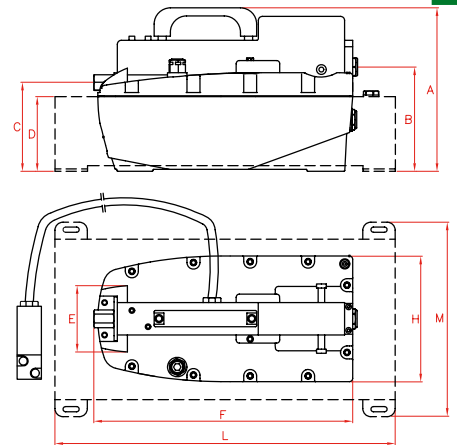
Z12107 Z14007 Z17007 Z19107
Z19207 Z12110 Z14010



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

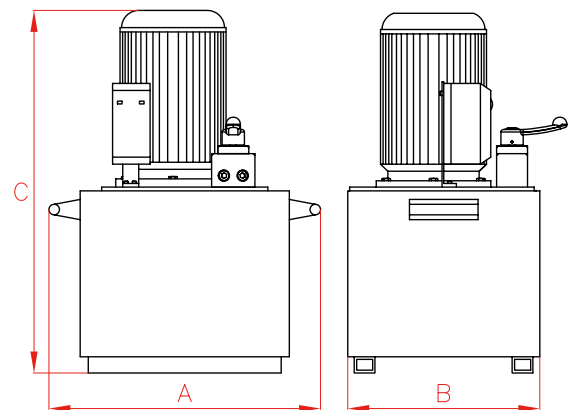
Type	Oil capacity	Model	A	B	C	D	E	F	G	H	K	L	M	Weight
	litres	LARZEP	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
Single Acting	2,1	Z12110	209	127	109	-	87	320	364	155	-	-	-	7,6
Single Acting	4,0	Z14010	221	139	120	104	87	320	364	155	-	420	240	14,4

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.



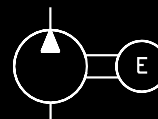
Capacity	A	B	C
l	mm	mm	mm
2,5	220	160	400
5	280	200	481
8,5 - 10	340	247	525
12,5 - 14	368	290	548
25	450	325	667
50	540	415	752
100	830	500	837



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
l	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
l	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

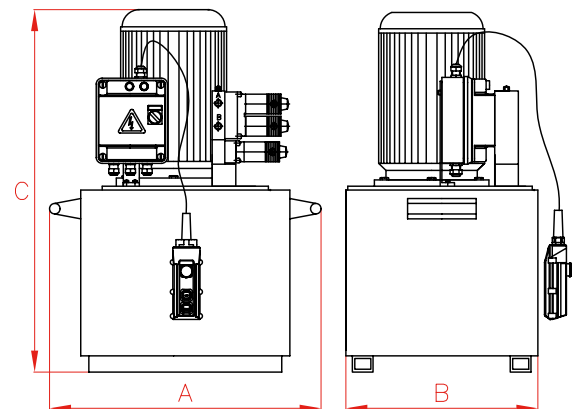
60 Hz Single Phase								
Tank	Flow at 700 bar	Flow at 60 bar	115 V		230 V		Power	Weight
l	l/min	l/min	Single/A	Double/A	Single/A	Double/A	kW	kg
5	0,36	-	HAM1226	HAM1246	HAM1223	HAM1243	0,75	26
5	0,51	-	HAM2226	HAM2246	HAM2223	HAM2243	0,75	29
5	0,36	4	HAM7226	HAM7246	HAM7223	HAM7243	0,75	29
10	0,36	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.



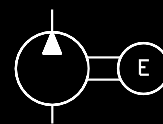
Performance under Pressure



Synchronized Lifting Systems, HAS.

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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
l	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
l	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
l	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	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.

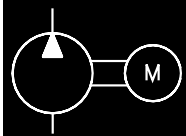
5. MOTOR MODEL

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

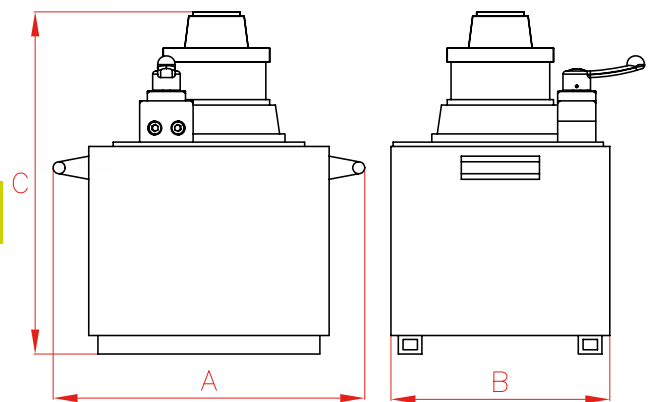
14-100 litres

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

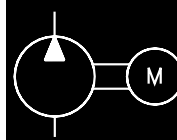
Tank	Flow at 700 bar	Flow at 60 bar	Air consump. at 5,6 bar	Valve Function	Single/A	Double/A	Power	Weight
l	l/min	l/min	l/sec				kW	kg
14	0,36	4	30	Advance-Hold-Retract	HAZ742	HAZ744	3,0	32
25	1,17	-	50	Advance-Hold-Retract	HAZ452	HAZ454	3,7	57
50	2,20	-	80	Advance-Hold-Retract	HAZ562	HAZ564	6,6	109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

* Flow at 100 bar

PETROL HYDRAULIC PUMPS



PETROL HYDRAULIC PUMPS



HAG

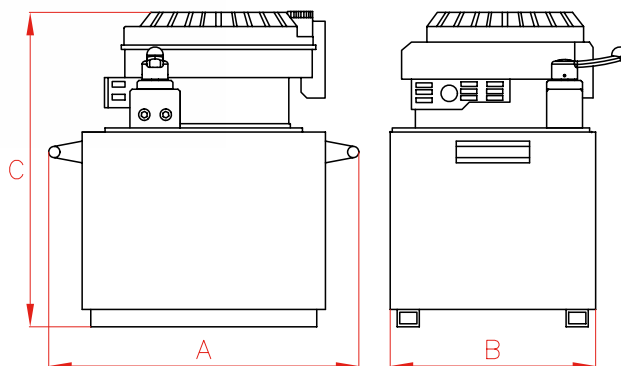
14-50 litres

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.

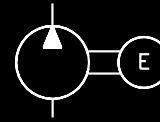


Advantages

- 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.

Page. 106



Quick couplers.

Page. 108



Directional Control Valves.

Page. 117

SPLIT-FLOW POWERPACKS

HFM
HFE

50-150 litres

700 bar

PUMPS



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

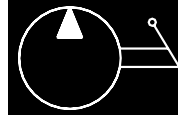
- Allows the individual or simultaneous movement of each cylinder when lifting or lowering.
- Advance/retract switch selects the position of the solenoid valves in HFE.
- Individual buttons for each cylinder to operate them independently or at the same time in HFE.
- Simultaneous button moves all the 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



WI

700 bar

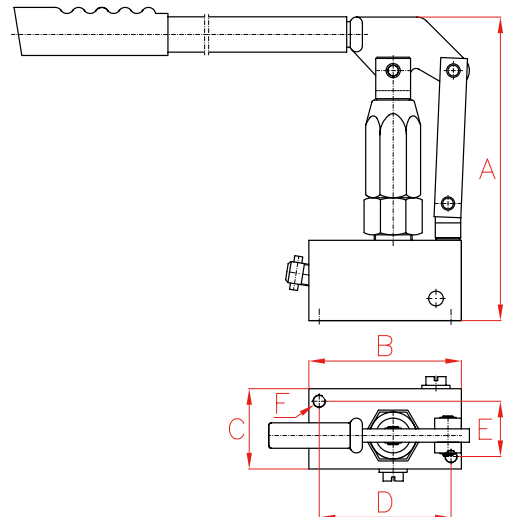
PUMPS

MODULAR HAND 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

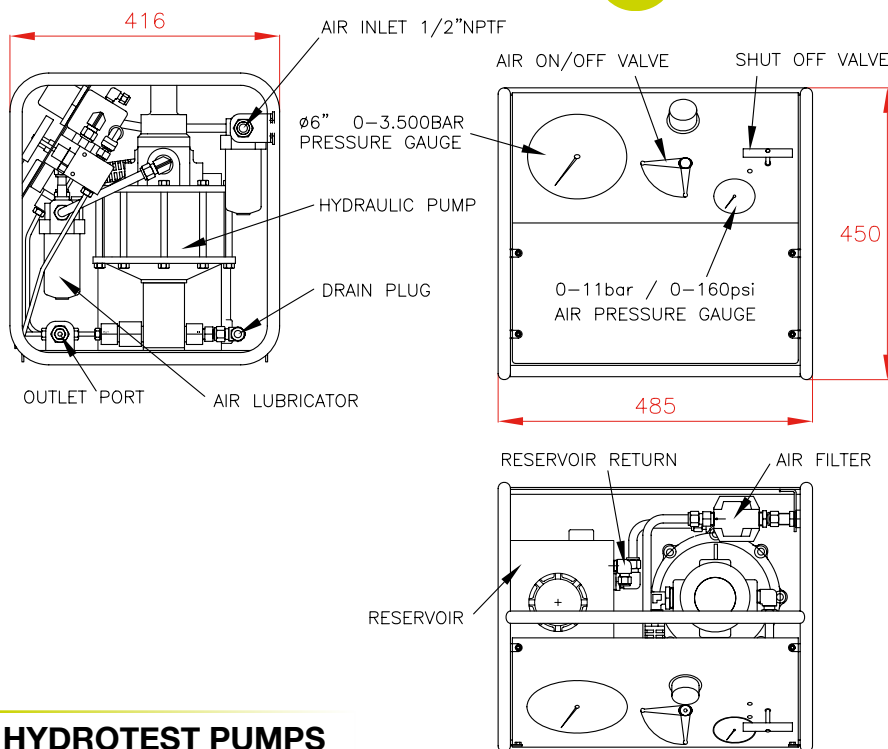


Chart Recorder

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	
LARZEP							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

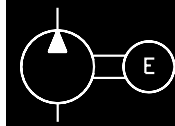
BOLT TENSIONER PUMP

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	
LARZEP							Coupler
HAP2900BT	1.500	1.500	760	0,3	0,2	0,1	AZ3341

BATTERY POWERED PORTABLE HYDRAULIC PUMP



BATTERY POWERED PUMP



HAB

2,3 litres

700 bar

PUMPS

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
			Charging Time	Input	Ouput	
Li-ion		Al/Steel Cable 570/40	Minutes	V (AC) / Hz	V (DC) / A	°C
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



TORQUE WRENCH PUMPS

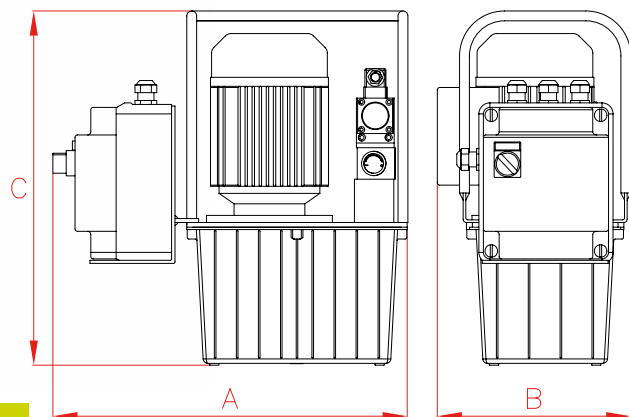
HAT

5-14 litres

700 bar

PUMPS

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



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
				230 V	115 V	230 V	115 V		
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
				230 V	400 V		
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