

ENERPAC 

700 bar Hydraulics

The World Class Collection



ENERPAC[®]
INDUSTRIAL TOOLS

Hydraulic Tools and Systems
for all Industrial Applications

Enerpac 700 bar Hydraulic Cylinders:



All over the world, Enerpac cylinders provide force to major industries – construction, shipbuilding, aerospace, manufacturing, and more.

Enerpac cylinders lift naval vessels for repair, level heavy bridge sections and pull parts together for welding. They also allow for controlled positioning of heavy loads and provide power and precision as part of specialized hydraulic presses.

Enerpac hydraulic cylinders are available in more than 100 standard configurations. Whatever the application, whatever the needed capacity, size, or stroke, there's a single- or double-acting, solid or hollow plunger, lightweight or heavy-duty Enerpac cylinder to do the job for you.

New: Aluminium Cylinders, The Highest Capacity-to-Weight Ratio
Made from 7075T-6 Alloy, high-strength coatings, seal design and bearing materials, the new Aluminium Cylinder line from Enerpac can change the way you think about your cylinder applications – providing the strength of steel with the light weight, transportability and easy positioning of aluminium. See page 3 or ask for the detailed brochure now at www.enerpac.com or call.




GENERAL PURPOSE CYLINDERS



SINGLE-ACTING, SPRING RETURN

- Collar and plunger threads, base mounting holes standard on most models
- For use in all positions
- Hardened removable grooved saddles


Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
RC-50	45	16	41	1,0
RC-51	45	25	110	1,0
RC-53	45	76	165	1,5
RC-55	45	127	215	1,9
RC-57	45	177	273	2,4
RC-59	45	232	323	2,8
RC-101	101	26	89	1,8
RC-102	101	54	121	2,3
RC-104	101	105	171	3,3
RC-106	101	156	247	4,4
RC-108	101	203	298	5,4
RC-1010	101	257	349	6,4
RC-1012	101	304	400	6,8
RC-1014	101	356	450	8,2
RC-151	142	25	124	3,3
RC-152	142	51	149	4,1
RC-154	142	101	200	5,0
RC-156	142	152	271	6,8
RC-158	142	203	322	8,2
RC-1510	142	254	373	9,5
RC-1512	142	305	423	10,9
RC-1514	142	356	474	11,8
RC-251	232	26	139	5,9
RC-252	232	50	165	6,4
RC-254	232	102	215	8,2
RC-256	232	158	273	10,0
RC-258	232	210	323	12,2
RC-2510	232	261	374	14,1
RC-2512	232	311	425	16,3
RC-2514	232	362	476	17,7
RC-308	295	209	387	18,1
RC-502	498	51	176	15,0
RC-504	498	101	227	19,1
RC-506	498	159	282	23,1
RC-5013	498	337	460	37,6
RC-756	718	156	285	29,5
RC-7513	718	333	492	59,0
RC-1006	933	168	357	59,0
RC-10010	933	260	449	72,6

LOW HEIGHT CYLINDERS



SINGLE-ACTING, SPRING RETURN

- Compact and portable
- For use where others will not fit
- Maximum power-to-height ratio
- Large plunger contact area with grooved end


Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
RCS-101	101	38	88	4,1
RCS-201	201	45	98	5,0
RCS-302	295	62	117	6,8
RCS-502	435	60	122	10,9
RCS-1002	887	57	141	22,7
RSM-50	45	6	32	1,0
RSM-100	101	12	42	1,4
RSM-200	201	11	51	3,1
RSM-300	295	13	58	4,5
RSM-500	435	16	66	6,8
RSM-750	718	16	79	11,3
RSM-1000	887	16	85	14,5
RSM-1500	1386	16	100	26,3

PULL CYLINDERS



SINGLE-ACTING, SPRING RETURN

- Chrome plated plunger
- Replaceable links on BRP models
- Blow-out protection prevents rod over-extension

Model Number	Cylinder Capacity (kN)	Stroke (mm)	Extended Height (mm)	 (kg)
BRC-25	24	127	391	1,8
BRC-46	51	140	441	4,5
BRC-106	105	151	440	9,5
BRP-106C*	105	151	738	15,9
BRP-106L*	105	151	692	13,2
BRP-306	326	155	1240	48,1
BRP-606	505	152	871	53,5

*Fitted with rubber bellows for rod protection.




The Industry Standard

ALUMINIUM CYLINDERS – LIGHTWEIGHT



SINGLE-ACTING, SPRING RETURN

- Resistance to side-loads up to 10%
- Handles standard on all models
- Steel base plate and saddle


Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
RAC-202	218	50	174	3,6
RAC-204	218	100	224	4,1
RAC-206	218	150	274	4,6
RAC-302	309	50	181	4,5
RAC-304	309	100	231	5,2
RAC-306	309	150	281	5,9
RAC-502	496	50	186	8,5
RAC-504	496	100	236	9,8
RAC-506	496	150	286	11,1
RAC-1004	1002	100	271	19,6
RAC-1006	1002	150	321	21,9
RAC-1008	1002	200	371	24,2
RAC-1506	1589	150	343	33,3

Note: All available in strokes from 50 - 250 mm.



WITH LOCK NUT, SPRING RETURN

- With lock nut to secure loads mechanically
- Resistance to side-loads up to 5%
- Handles standard on all models
- Steel base plate and saddle

Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
RACL-502	496	50	236	9,3
RACL-504	496	100	286	10,6
RACL-506	496	150	336	11,9
RACL-1002	1002	50	296	21,9
RACL-1004	1002	100	346	24,2
RACL-1006	1002	150	396	26,5
RACL-1502	1589	50	323	32,2
RACL-1504	1589	100	373	36,2
RACL-1506	1589	150	423	40,2


Note: All available in strokes from 50 - 250 mm. Also with capacities of 20 and 30 ton.

HOLLOW PLUNGER



SPRING OR HYDRAULIC RETURN

- Hollow plunger design for both push and pull forces
- Safety valve in double-acting models prevents over pressurizing


Model Number	Capacity (kN)		Stroke (mm)	Collapsed Ht. (mm)	Center Hole ø (mm)	 (kg)
	push	pull				
RCH-120	125	-	8	55	19,6	1,5
RCH-121	125	-	42	120	19,6	2,8
RCH-123	125	-	76	184	19,6	4,4
RCH-202	215	-	49	162	26,9	7,7
RCH-206	215	-	155	306	26,9	14,1
RCH-302	326	-	64	178	33,3	10,9
RCH-306	326	-	155	330	33,3	21,8
RRH-307	326	213	178	330	33,3	21,0
RRH-606	576	380	166	323	53,8	35,0
RRH-6010	576	380	257	438	53,8	45,0
RRH-1001	931	612	38	165	79,2	33,0
RRH-1006	931	612	153	342	79,2	79,0

HEAVY DUTY, LONG STROKE



DOUBLE-ACTING

- Plunger and collar threads, base mounting holes for easy fixturing
- Solid plunger design; built-in safety valve
- For industrial, construction and high cycling applications


Model Number	Cyl. Capacity (kN)		Stroke (mm)	Collapsed Height (mm)	 (kg)
	push	pull			
RR-1010	101	33	254	409	12
RR-1012	101	33	305	457	14
RR-308	295	53	209	387	18
RR-3014	295	53	368	549	29
RR-506	498	103	156	331	30
RR-5013	498	103	334	509	52
RR-1006	933	435	168	357	61
RR-10013	933	435	333	524	93
RR-1506	1386	668	156	385	93

Note: Available up to 500 ton and strokes up to 1219 mm.



HOLLOW PLUNGER, SINGLE-ACTING

- Hollow plunger allows push and pull force
- Resistance to side-loads up to 10%
- Handles standard on all models
- Steel base plate and saddle
- High strength return spring for rapid cylinder retraction


Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Ht. (mm)	Center Hole ø (mm)	 (kg)
RACH-202	229	50	188	27	5,2
RACH-206	229	150	315	27	7,1
RACH-302	358	50	208	34	8,0
RACH-306	358	150	333	34	11,2
RACH-604	596	100	315	54	19,5
RACH-606	596	150	380	54	22,8
RACH-1006	1157	150	391	79	46,2

Note: All available in strokes from 50 - 250 mm. Also in 150 ton cylinder capacity.



SOLID PLUNGER, DOUBLE-ACTING

- Safety valve prevents overpressurization
- Resistance to side-loads up to 10%
- Handles standard on all models
- Steel base plate and saddle

Model Number	Cyl. Capacity (kN)		Stroke (mm)	Collapsed Height (mm)	 (kg)
	push	pull			
RAR-502	496	187	50	201	11,1
RAR-504	496	187	100	251	12,7
RAR-506	496	187	150	301	14,3
RAR-1004	1002	557	100	301	19,3
RAR-1006	1002	557	150	351	22,2
RAR-1008	1002	557	200	401	25,1
RAR-1506	1589	924	150	348	33,2

Note: All available in strokes from 50 - 250 mm. Also with capacities of 20 and 30 ton.

LOCK NUT, HIGH TONNAGE



SINGLE-ACTING, LOAD RETURN

- Safety Lock Nut for mechanical load holding
- Special synthetic coating for improved corrosion resistance and lower friction for smoother operation
- Interchangeable, hardened grooved saddles

WITH STOPRING, HIGH TONNAGE



SINGLE-ACTING, LOAD RETURN


- Integral stop ring provides piston blow-out protection
- Baked enamel outside finish and plated pistons provide superior corrosion protection
- Unique bearing design withstands sideload forces up to 10% of rated cylinder capacity without scoring
- Interchangeable, hardened grooved saddles are standard
- Plunger wiper reduces contamination ingress, extending cylinder life
- All cylinders meet PREN 1494, ANSI B-30.1, and ISO 10100 standards

DOUBLE-ACTING, HIGH TONNAGE




DOUBLE-ACTING


- Baked enamel outside finish and plated pistons provide superior corrosion protection
- Unique bearing design withstands sideload forces up to 10% of rated cylinder capacity without scoring
- Safety valve in retract side of cylinder helps to prevent damage in case of accidental over-pressurization
- Interchangeable, hardened grooved saddles are standard
- Plunger wiper reduces contamination ingress, extending cylinder life
- All cylinders meet PREN 1494, ANSI B-30.1, and ISO 10100 standards

Model Number*	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
CLL-502	496	50	164	15
CLL-506	496	150	264	25
CLL-5010	496	250	364	35
CLL-1002	929	50	187	30
CLL-1006	929	150	287	48
CLL-10010	929	250	387	64
CLL-1502	1390	50	209	53
CLL-1506	1390	150	309	78
CLL-15010	1390	250	409	104
CLL-2002	1859	50	243	83
CLL-2006	1859	150	343	117
CLL-20012	1859	300	493	170
CLL-2502	2562	50	249	116
CLL-25012	2562	300	499	234
CLL-3002	3193	50	295	173
CLL-30012	3193	300	545	323
CLL-40012	3919	300	585	441
CLL-50012	5118	300	625	617
CLL-60012	5983	300	645	737
CLL-80012	8238	300	705	1110
CLL-100012	10260	300	745	1430

* All models available in 50 mm stroke increments from 50 mm to 300 mm.

Model Number*	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	 (kg)
CLSG-502	539	50	162	17
CLSG-506	539	150	262	23
CLSG-5010	539	250	362	31
CLSG-1002	929	50	182	19
CLSG-1006	929	150	282	40
CLSG-10010	929	250	382	61
CLSG-1502	1390	50	196	39
CLSG-1506	1390	150	296	65
CLSG-15010	1390	250	396	92
CLSG-2002	1861	50	216	55
CLSG-2006	1861	150	316	91
CLSG-20012	1861	300	466	146
CLSG-25012	2565	300	485	207
CLSG-30012	3193	300	562	303
CLSG-40012	3919	300	625	421
CLSG-50012	5114	300	669	599
CLSG-60012	5987	300	679	701
CLSG-80012	8234	300	724	1058
CLSG-100012	10260	300	814	1439

* All models available in 50 mm stroke increments from 50 mm to 300 mm.

Model Number*	Capacity (kN)		Stroke (mm)	Collapsed Height (mm)	 (kg)
	push	pull			
CLRG-502	539	269	50	162	17
CLRG-506	539	269	150	262	23
CLRG-5010	539	269	250	362	31
CLRG-1002	929	433	50	179	29
CLRG-1006	929	433	150	279	40
CLRG-10010	929	433	250	379	53
CLRG-1502	1390	675	50	196	39
CLRG-1506	1390	675	150	296	65
CLRG-15010	1390	675	250	396	92
CLRG-2002	1859	885	50	212	55
CLRG-2006	1859	885	150	312	91
CLRG-20012	1859	885	300	462	146
CLRG-2502	2562	1064	50	235	89
CLRG-2506	2562	1064	150	335	136
CLRG-25012	2562	1064	300	485	207
CLRG-30012	3193	1057	300	572	303
CLRG-40012	3919	1357	300	624	421
CLRG-50012	5118	1739	300	669	599
CLRG-60012	5983	2064	300	679	701
CLRG-80012	8238	2714	300	734	1058
CLRG-100012	10260	3801	300	814	1439

* All models available in 50 mm stroke increments from 50 mm to 300 mm.


The Industry Standard

REDUCED HEIGHT, HIGH TONNAGE



SINGLE-ACTING, LOAD RETURN

- With reduced collapsed height
- Special synthetic coating for improved corrosion resistance and lower friction for smoother operation
- Overflow port functions as stroke limiter
- Interchangeable, hardened grooved saddles are standard
- Plunger wiper reduces contamination


Model Number *	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)		(kg)
CLS-502	496	50	128	14	
CLS-506	496	150	228	23	
CLS-5010	496	250	327	33	
CLS-1002	929	50	143	24	
CLS-1006	929	150	243	40	
CLS-10010	929	250	343	58	
CLS-1502	1390	50	165	43	
CLS-1506	1390	150	265	69	
CLS-15010	1390	250	365	95	
CLS-2002	1859	50	193	66	
CLS-2006	1859	150	293	101	
CLS-20012	1859	300	443	154	
CLS-2502	2562	50	193	90	
CLS-25012	2562	300	443	208	
CLS-30012	3193	300	485	288	
CLS-40012	3919	300	515	390	
CLS-50012	5118	300	545	540	
CLS-60012	5983	300	560	640	
CLS-80012	8238	300	605	950	
CLS-100012	10260	300	635	1210	

JACKS



INDUSTRIAL BOTTLE JACKS

- Cast pump linkage and beam
- Chrome plating on both plungers
- Wiper seal for extended life
- Fully serviceable
- Meets ASME B30.1, ASME PALD, PREN 1494 and CE standards


Model Number	Capacity (kN)	Stroke (mm)	Screw Ext. (mm)	Collapsed Height (mm)		(kg)
EBJL-15GC	13	457	-	552	6,4	
EBJ-2GC	18	95	70	175	3,0	
EBJL-3GC	27	508	-	668	11,8	
EBJ-4GC	36	120	70	195	4,2	
EBJ-6GC	53	130	80	210	5,5	
EBJ-8GC	71	140	80	220	6,2	
EBJ-12GC	107	155	80	240	8,0	
EBJS-12GC	107	77	43	155	6,6	
EBJ-15GC	133	150	80	240	9,4	
EBJ-20GC	178	155	80	250	11,4	
EBJS-20GC	178	79	41	165	9,0	
EBJ-30GC	267	175	-	285	25,8	
EBJ-50GC	445	105	-	240	42,0	
EBJ-100GC	890	150	-	310	90,2	

* All CLS-models available in 50 mm stroke increments from 50 mm to 300 mm.




ALUMINIUM AND STEEL JACKS (JH)

- All-directional operation on 62, 133 and 311 kN conventional models
- Two-directional operation (vertical and horizontal) on 667 and 1335 kN ton models
- Internal relief valve to prevent overloading
- Includes pumping handle

Model Number	Capacity (kN)	Stroke (mm)	Collapsed Height (mm)	Toe Height (mm)		(kg)
JHA-73	62	76	133	-	5,0	
JHA-156	133	153	247	-	13,2	
JHA-356	311	155	257	-	18,1	
JHA-756	667	153	285	-	42,6	
JHA-1506	1335	155	327	-	95,3	
JTA-76	62	153	319	50	26,3	
JTA-176	151	155	360	50	39	
JTA-356	311	153	422	65	95,3	
JH-306	267	155	254	-	26,8	
JH-506	445	154	260	-	20,8	
JH-1006	890	153	287	-	74,4	

LOAD SKATES, MACHINE LIFTS




Model Number	Capacity (kN)	Stroke (mm)	Toe Position (mm)				(kg)
			min	central	max		
SOH-10-6	75	136	20	95	169	26	
SOH-23-6	178	157	30	110	190	45	

HEAVY DUTY LOAD SKATES (ERS)

- Low profile, high stability
- Low rolling resistance

MACHINE LIFTS (SOH), SINGLE ACTING

- For lifting heavy equipment with minimum available access
- Adjustable toe starting height
- Two extendible support feet provide extra stability

Model Number	Cap.* (kN)	Includes				(kg)
		4x load skates	2x turnable swivels	2x levelling plates		
ERS-20	178	ER-10	ES-10	ELP-10	49	
ERS-30	267	ER-15	ES-15	ELP-15	55	
ERS-60	533	ER-30	ES-30	ELP-30	75	


* Sets are designed to enable two skates to take full load on uneven floor surfaces

LOW PROFILE, WITH LOCK NUT



SINGLE-ACTING, LOAD RETURN

- Extremely low profile for use in confined areas
- Lock nut for mechanical load holding safety
- Includes integral swivel saddle

Model Number	Cylinder Capacity (kN)	Stroke (mm)	Collapsed Height (mm)		(kg)
CLP-602	606	50	125	15	
CLP-1002	1027	50	137	26	
CLP-1602	1619	45	148	44	
CLP-2002	1999	45	155	57	
CLP-2502	2567	45	159	74	
CLP-4002	3916	45	178	134	
CLP-5002	5114	45	192	189	



Enerpac pumps combine with other Enerpac tools to cut re-bar, reposition heavy manufacturing equipment, drive torque wrenches and nut splitters, and power massive production punches. From hand pumps to Hushh pumps. Whether electric-, air- or gas-powered, multiple reservoir and valve configurations provide the most comprehensive pump line available to suit your most challenging application.

LIGHT WEIGHT HAND PUMPS



COMPOSITE HYDRAULIC HAND PUMPS


- Lightweight design; impact and corrosion resistant
- Low handle effort
- For single-acting tools and cylinders
- Single- and two-speed operation

STEEL HAND PUMPS




STEEL HAND PUMPS

- Durable, rugged metal design
- External load release valve
- Internal adjustable pressure relief valve
- For single- and double-acting cylinders and tools

Model Number	For Cyl.	Maximum Pressure (bar)	Displacement per Stroke (cm ³)		Usable Oil Capacity (cm ³)	 (kg)
			1st	2nd		
P-141	SA	700	-	0,90	327	2,0
P-142	SA	700	3,62	0,90	327	2,0
P-202	SA	700	3,62	0,90	901	3,4
P-391	SA	700	-	2,47	901	4,1
P-392	SA	700	11,26	2,47	901	4,1
P-802	SA	700	39,34	2,47	2540	8,2
P-842	DA	700	39,33	2,47	2540	10,0

SA = single-acting DA = double-acting


Model Number	For Cyl.	Maximum Pressure (bar)	Displacement per Stroke (cm ³)		Usable Oil Capacity (cm ³)	 (kg)
			1st	2nd		
P-39	SA	700	-	2,62	655	5,9
P-80	SA	700	16,22	2,46	2200	10,9
P-801	SA	700	16,22	2,46	4800	14,1
P-84	DA	700	16,22	2,46	2200	13,2
P-462	SA	700	126,20	4,75	7423	27,7
P-464	DA	700	126,20	4,75	7423	27,7

SA = single-acting DA = double-acting

HIGH PRESSURE HAND PUMPS




- Two-speed operation for faster fill, reduced cycle times for many testing operations (P-2282)
- 303 stainless steel construction for use with distilled water, diesters, silicones, soluble oils and petroleum (11-100, 11-400)

Model Number	Maximum Pressure (bar)	Displacement per Stroke (cm ³)		Usable Oil Capacity (cm ³)	 (kg)
		1st	2nd		
P-2282	2800	16,22	0,61	983	6,4
11-100	700	-	2,49	737	10,0
11-400	2800	-	0,62	737	10,0

AIR HYDRAULIC PUMPS



- Rugged construction – built for long life and easy service
- Swivel coupling simplifies hydraulic connection and pump operation
- Three-position treadle provides cylinder advance, hold or retract operation
- Operates in all positions for increased versatility in use and mounting (except PA-1150)
- Base mounting slots provided on PA-133

Model Number	For Cyl.	Oil Flow @ 700 bar (l/min)	Usable Oil Capacity (cm ³)	 (kg)
PA-133	SA	0,13	589	5,4
PA-1150	SA	0,13	1311	8,2



New: the latest innovation in hydraulic pumps – ZU4 Series
Simply The Best Pump You Will Ever Use!
These new pumps surpass the features and benefits of conventional electric pump design. ZU4 Series pumps are designed to last at very low operating costs. These new portable pumps are very easy-to-service. See page 7 or visit us at www.enerpac.com or ask for the detailed ZU4 Series brochure.

The Industry Standard

ELECTRIC DRIVEN HYDRAULIC PUMPS (700 BAR)



HUSHH MODULAR PUMPS

- In three motor sizes: 0,75 - 1,10 - 2,20 kW
- Available as two-stage model for reduced cycle times and improved productivity
- Multiple voltage options for a wide variety of applications
- Adjustable externable pressure relief valve
- Easy to read integrated sight glass
- Easy to customize with modular standard kits

Modelnr.	For Cyl.	Oil Flow @ 700 bar l/min	Valve Type	Usable Oil Cap. (l)	Weight (kg)
380V (two stage)					
GPED-2120W	SA	0,55	Dump	18,9	69
GPEM-3420W	DA	0,82	Man. 4/3	18,9	73
GPEM-3310W	SA	0,82	Man. 3/3	9,5	60
GPED-2310W	SA	0,55	El. 3/3	9,5	71
GPED-5440W	DA	1,64	El. 3/3	37,9	105

Other configurations available. See your local distributor



ZU4 SERIES, HIGH EFFICIENCY

- High oilflow 10,5 l/min @ 85 bar; 1,0 l/min @ 700 bar
- LCD providing essential user information
- Self test, diagnostic and programming capabilities
- High efficiency and lower operating costs: runs cooler and 18% less current draw
- 50/60-cycle universal motor 1,25 kW
- Very easy to service

Modelnumber	For Cyl.	Valve Type	Usable Oil Cap. (l)	Weight (kg)
230V / 1 phase				
Standard Electric				
-	ZU4104DE	SA Dump 3/2	4	28
ZU4204ME	ZU4204LE	SA Man. 3/3	4	26
ZU4408ME	ZU4408LE	DA Man. 4/3	8	31
-	ZU4204SE	SA El. 3/3	4	28
-	ZU4408SE	SA El. 4/3	8	38
ZU4204JE	ZU4204KE	SA Man. 3/3	4	27
ZU4408JE	ZU4408KE	DA Man. 4/3	8	32

SA = single-acting DA = double-acting



ECONOMY PUMPS

- Lightweight and compact
- Single-phase power supply
- Highest oil-flow-to-weight ratio: 3,31 l/min up to 13 bar; 0,32 l/min up to 700 bar
- Motor and valve remote control
- 50/60-cycle universal motor 0,37 kW

Modelnr.	For Cyl.	Valve Type	Usable Oil Cap. (l)	Weight (kg)
220V				
PUD-1100E	SA	Dump valve	1,9	11,8
PUJ-1200E	SA	Manual 3/2	1,9	10,0
PUD-1300E	SA	El. 3/2	1,9	12,0
PUD-1301E	SA	El. 3/2	3,8	17,5
PUM-1201E	SA	Manual 3/2	3,8	15,4
PUM-1400E	DA	Manual 4/3	1,9	13,2

SA = single-acting DA = double-acting

TURBO II AIR HYDRAULIC PUMPS



TURBO II AIR HYDRAULIC PUMPS

- Operating air pressure: 1,7 - 8,6 bar
- New design, high efficiency cast aluminium air motor
- Quiet, only 75 dBA with low air consumption of 340 l/min
- New generation air saver piston with rugged one piece design
- New heavy duty reservoir for tough applications
- External adjustable pressure relief valve
- Relief valve setting up to 700 bar

Model Number*	For Cylinder	Oil Flow @ 0 bar l/min	Oil Flow @ 700 bar l/min	Weight (kg)
PATG-1102N	SA	1,00	0,16	8,2
PAMG-1402N	DA	1,00	0,16	11,0

* 5 liter reservoir available: PATG-1105N, PAMG-1105N

AIR HYDRAULIC PUMPS



AIR HYDRAULIC PUMPS

- Twin air motor configuration delivers high-flow performance in first stage, up to 14 bar, for rapid cylinder advance
- 4 and 8 litres reservoirs for use with a wide range of cylinders and tools
- Integral shroud protects air motors and provide easy carry

Model Number (two speed)	For Cyl.	Oil Flow @ 700 bar l/min	Valve Type	Usable Oil Cap. (l)	Weight (kg)
PAM-1021	SA	0,15	Manual 3/2	2,6	22,7
PAM-1022	SA	0,15	Manual 3/2	7,6	27,2
PAM-1041	DA	0,15	Manual 4/3	2,6	22,7
PAM-1042	SA	0,15	Manual 4/3	7,6	27,2
GPAM-2310	SA	0,72	Manual 3/3	9,5	56
GPAM-2410	DA	0,72	Manual 4/3	9,5	58

SA = single-acting DA = double-acting

GASOLINE PUMPS



ATLAS PUMPS

- Patented "Genesis" technology: coaxial piston design for high performance; first-stage piston pump for improved efficiency
- High by-pass pressures improve productivity
- Available in 1,8, 3,7, 4,0 kW four-cycle motors, with 3,8-, 7,6-, 18,9-, and 37,8-liter reservoirs for use with a wide range of cylinders and tools

Model Number	Motor Size (kW)	Valve Type	Usable Oil Cap. (l)	Weight (kg)
PGM-2404R	1,8	Manual 4/3	3,8	25
PGM-2304R	1,8	Manual 3/3	3,8	25
PGM-3420R	3,7	Manual 4/3	18,9	68
PGM-5440R	4,0	Manual 4/3	37,8	93



Increase productivity, improve labor efficiency, speed operations. Enerpac high force tools, pullers, valves

and system components work with Enerpac cylinders and pumps to make hydraulic power the standard for your most challenging maintenance applications. Cost effective when compared to traditional solutions, hydraulic power lets you tackle the tough jobs with confidence.

PULLERS



POSI LOCK® PULLERS

- Patented "safety cage" jaw retention system
- Roll-threaded shafts for less effort when applying high torque
- Available in 2- and 3-jaw design as well as inside and outside pulling configuration

Model Number	Capacity (kN)	Spread of jaws (mm)	Operation	Weight (kg)
EP-106	89	12-127	manual	3,6
EP-110	178	25-381	manual	7,3
EPHR-110 ¹⁾	142	25-381	hydraulic	23
EPHR-113 ¹⁾	232	63-457	hydraulic	48

¹⁾ Includes single-acting cylinder.



MULTI-PURPOSE PULLER SETS

- Set comes with pump, hose, cylinder, gauge, adaptor and case
- Grip puller, cross bearing puller, bearing cup and bearing puller attachment also included
- Quick set-up for a variety of jobs

Model Number	Cap. (kN)	Grip Pullers		Cross Bearing		Bearing Cup		Weight (kg)
		R	S	R	S	R	S	
BHP-1752	71	252	249	462	266	110	110	37
BHP-2751G	178	300	400	571	351	140	220	90
BHP-3751G	267	387	593	711	454	145	359	172
BHP-5751G	445	700	899	863	570	145	359	298

R= max reach in mm, S= max. spread in mm

PUNCH



- Punches mild steel up to 12,7 mm thickness
- Round, oblong and square punches and dies available
- Long-life single-acting spring return design
- Portable punch set (16 kg) including metal case

Model Number	Capacity (kN)	Punch & Die Sets (included)	
MSP-351 ¹⁾	311	SPD-375	Ø 9,5 (M 8)
		SPD-438	Ø 11,1 (M 10)
		SPD-531	Ø 13,5 (M 12)
		SPD-688	Ø 17,5 (M 16)

¹⁾ set weight 21 kg.

MAINTENANCE SETS - THE UNIVERSAL HYDRAULIC TOOL BOX



- Power to push, pull, lift, press, straighten, spread and clamp
- Sets include Enerpac pump, hose, cylinder, and gauge
- Numerous attachments permit quick configuration of specialized tools

Model Number	Capacity (kN)	Number of attachments	Weight (kg)
MS2-4	22	35	26
MS2-10	50	40	63
MS2-20	116	19	95
MS2-1020	50 - 116	59	158

PIPE BENDERS



- Set includes pump, cylinder, hose, bender frame and bending shoes
- Maximum pipe capacity: (21,3 - 114,3) nominal pipe bore
- With bending angle indicator for accuracy and convenience
- In sturdy steel case

Set Model Number	Pipe Range outside diameter (mm)		Weight (kg)
	one shot	sweep	
STB-101E	21,3 - 60,3	-	57
STB-221H	33,4 - 60,3	73,0 - 114,3	130
STB-202E	42,2 - 114,3	-	212

HYDRAULIC CUTTERS



- Spring return for easy operation
- Self-contained (WMC) and pump powered (WHC) models available
- Guillotine action for easy operation
- Rotating head for operator convenience

Model Number	Cap. (kN)	Cutting Capacity			Weight (kg)
		Bar* Ø mm	Bolt* Ø mm	Wire* Ø mm	
WMC-750	40	17	17	19	3,6
WMC-1250	195	28	28	31	10,4
WMC-2000	127	31	22	50	10,9
WHC-750	40	19	19	19	3,2
WHC-1250	195	28	28	31	11,3
WHC-2000	127	31	22	50	10,4

* contact Enerpac for details

The Industry Standard

PRESSES



BENCH AND WORKSHOP PRESSES

- Optimum daylight and bed width
- Height adjustment of lower bed width
- Moveable pump table on press with electric pumps allows easy side loading of workpieces
- Standard glycerine filled gauge dual scale reading in kN and bar

Model Number	Press Cap. (kN)	Cyl. Stroke (mm)	Pump Type	Max. Daylight (mm)		Weight (kg)
				Vert.	Hor.	
VLP-106P142	101	155	a	430	432	50
VLP-106PAT1	101	155	c	430	432	55
VLP-256P392	232	159	a	1225	510	160
VLP-256PAT1	232	159	c	1225	510	165
VLP-506P802	498	159	a	994	1000	620
VLP-506GPERW	498	155	b	994	1000	670
VLP-506GPECW	498	155	b	994	1000	685
VLP-5013GPERW	498	333	b	994	1000	692
VLP-1006GPECW	933	168	b	989	1000	960
VLP-1006GPERW	933	168	b	989	1000	970
VLP-10013GPERW	933	333	b	989	1000	1010
VLP-20013GPERW	1995	333	b	1340	1220	1992

A = Handpump B = Electric C = Air

HOSES AND COUPLERS



- Thermoplastic hoses with 2800 bar burstpressure - a guaranteed 4:1 safety
- Meet DIN and SAE hose standard
- Hose lengths from 0,5 to 75 metres
- High flow coupler with 3/8"- 18 NPT oil connection, 17 l/min. maximum oil flow

Model Number	Description
H-7206	Hose length 1,8 m
H-7210	Hose length 3,0 m
H-7220	Hose length 6,1 m
HC-7206	Hose length 1,8 m, Includes CH-604
HC-7210	Hose length 3,0 m, Includes CH-604
C-604	High Flow Coupler complete
CR-400	Female High Flow Coupler Half
CH-604	Male High Flow Coupler Half



C-CLAMP PRESSES

- 44, 89 and 178 kN capacity
- Operational in all positions

ARBOR PRESSES

- Machined working surfaces for easier fixturing
- Foot mouning holes for horizontal or vertical positioning
- Slotted back simplifies loading and unloading of longer parts

Model Number	Press Type	Press Cap. (kN)	Max. Daylight (mm)		Weight (kg)
			Hor.	vert.	
A-205	C-clamp	45	51	165	7
A-210	C-clamp	101	57	228	17
A-220	C-clamp	178	70	305	38
A-310	Arbor	101	135	227	27
A-330	Arbor	295	178	260	86

CONTROL VALVES



PRESSURE AND FLOW CONTROL VALVES

- 700 bar operating pressure
- NPTF porting to insure against leakage at rated pressure
- All valves are painted, coated, or plated for corrosion resistance

Model Number	Description
V-82	Needle Valve
V-182	Needle Valve
V-8F	Needle Valve
V-9	Snubber Valve
V-10	Auto Damper Valve
V-17	Check Valve
V-42	Pilot Operated Check Valve
V-66	Manually Operated Check Valve
V-66F	Manually Operated Check Valve
V-152	Pressure Relief Valve
V-161	Sequence Valve

GAUGES



DIGITAL PRESSURE GAUGE (DGR-1)

- Two modes: automatic shut off and continuous display
- Displays in bar, psi and MPa; low pressures in KPa, MPa, HPa and mbar

GLYCERINE FILLED PRESSURE GAUGES (G)

- Dual scale reading in psi and bar.
- All pressure sensing parts sealed and dampened by glycerine
- Includes safety blow-out disk

Model Number	Connection (NPTF)	Gauge Ø (mm)	Scale Reading bar
DGR-1	1/4" Lower Mount	76	0-1000
G-2531R	1/4" Center Rear	63	0-70
G-2535L	1/4" Lower Mount	63	0-700
G-2536L	1/4" Lower Mount	63	0-1000
G-4088L	1/4" Lower Mount	100	0-700
G-4039L	1/4" Lower Mount	100	0-700

DIRECTIONAL VALVES



DIRECTIONAL CONTROL VALVES

- 3- way, 3- pos. valves to control single- acting cylinders and tools
- 4- way, 3- pos. valves to control double- acting cylinders and tools
- For pump or in-line system mounting
- Manual and solenoid (24V) operation

Model Number	Type	Function	Valve Location
VM-2	Manual 3/2	Adv./retr.	Pump
VM-3	Manual 3/2	Adv./Hold/Retr.	Pump
VM-3	Manual 3/2	Adv./Hold/Retr.	In-line
VM-4	Manual 4/3	Adv./Hold/Retr.	Pump
VC-4	Manual 4/3	Adv./Hold/Retr.	In-line
VSP-324	El. 3/3	Adv./Hold/Retr.	Pump
VSP-424	El. 4/3	Adv./Hold/Retr.	Pump



Enerpac's hydraulic torque wrench line offers the ultimate versatility for torquing requirements in today's industrial

environment. Available in both square drive and hexagon drive models, Enerpac torque wrenches are designed to meet any challenge.

SQD-Series Square Drive Wrenches:

- Square drives range from $3/4$ - $2\frac{1}{2}$ inch
- To suit sockets from 15 - 255 mm and $1\frac{1}{16}$ - 10 inch hexagon size
- Maximum torque 27000 Nm/19875 Ft.lbs at 800 bar
- Allen key drives from 14 - 70 mm and $1/2$ - $2\frac{1}{4}$ inch

HXD-Series Hexagon Cassette Wrenches:

- Hexagon Range from 30 - 130 mm and $1\frac{1}{4}$ - 5 inch
- Maximum torque 24210 Nm/17856 Ft.lbs at 800 bar.

HYDRAULIC TORQUE WRENCHES

- High torque-to-weight ratio
- High repeatability with accuracy $\pm 3\%$
- High speed, double-acting operation
- Fully corrosion resistant material
- Never-jam mechanism
- Slim nose radius
- 360° swivel hose connection
- 800 bar maximum operating pressure

Optional Allen-key Drives for SQD-Series

Expanded versatility with a wide range of metric and imperial Allen-key drives for hexagon socket head cap screws.

Metric and Imperial Hexagon Sizes for HXD-Series

Expanded versatility with the full range of metric and imperial hexagon Reducer Inserts and Holding Rings.



TORQUE WRENCH PUMPS


- Two-stage pump with automatic integrated bypass for faster torque cycles
- Transparent overlays (Nm and Ft.lbs) included with all Enerpac torque wrenches produce accurate torque settings and precise repeatability
- Customer adjustable pressure relief valve to set hydraulic working pressures
- Maximum pressure rating - 800 bar
- Available in electric (PTE) or air drive (PTA) models



NUT SPLITTERS



- Crack nuts the safe way
- Compact, ergonomic, lightweight design
- Includes spare chisel, spare set screw and wrench
- Also available in sets including lightweight hand pump and hose


Model Number	Capacity (kN)	Bolt Range (mm)	Hexagon nut sizes (mm)	 (kg)
NC-1319	49	M6 - M12	10 - 19	1,2
NC-1924	98	M12 - M16	19 - 24	2,0
NC-2432	147	M16 - M22	24 - 32	3,0
NC-3241	196	M22 - M27	32 - 41	4,4
NC-4150	343	M27 - M33	41 - 50	8,2
NC-5060	490	M33 - M39	50 - 60	11,8
NC-6075	882	M39 - M48	60 - 75	34,1

FLANGE MAINTENANCE TOOLS



PARALLEL WEDGE SPREADERS

- Integrated wedge concept: Friction-free, smooth parallel wedge movement eliminates flange damage and spreading arm failure
- Lightweight, portable, easy to use, one person operation
- Unique interlocking wedge design- no first step bending and risk of slipping out of joint
- FSM-8 mechanical version. FSH-14 hydraulic version


Model Number	Maximum Spreading Force (kN)	Tip Clearance (mm)	Maximum Spread ¹⁾ (mm)	 (kg)
FSM-8	72	6	81	6,5
FSH-14	125	6	81	7,1

¹⁾ using stepped block FSB-1



FLANGE ALIGNMENT TOOLS

- Lightweight, portable, easy to use, one person operation
- Corrects twist and rotational misalignment without additional stress in pipelines
- For most commonly used ANSI, API, BS and DIN flanges
- Can be used in any position
- Stable in position under full load
- Manual ATM-1, mechanical ATM-3. The hydraulic ATM-5 includes pump, hose and single acting cylinder RC-53

Model Number	Maximum Lifting Force (kN)	Bolt Hole Range (mm)	Flange Wall Thickness (mm)	 (kg)
ATM-1	3	17 - 27	17 - 50	2,0
ATM-3	27	25 - 54	30 - 115	9,1
ATM-5	45	31,5	80 - 203	16,2

Enerpac Integrated Hydraulic Solutions



Controlled Hydraulic Movement

At Enerpac, we specialize in designing high-force hydraulic systems required

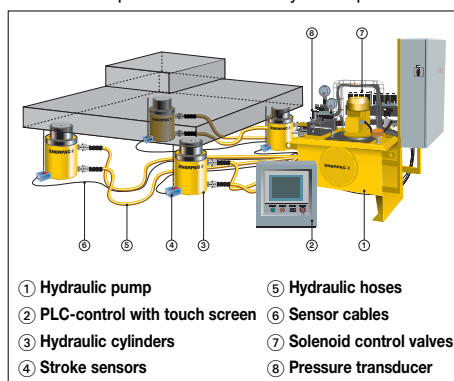
for the controlled movement of large, heavy structures. Around the world, construction experts consult with Enerpac to develop integrated hydraulic systems for the relocation, positioning, raising and lowering of structures such as bridges, tunnels and buildings. Together, with your engineers and our high-force hydraulic experience, we can develop the innovative solutions you need for the controlled hydraulic movement of those large, heavy burdens.

SYNCLIFT – SYNCHRONOUS LIFTING SYSTEMS

CONTROLLED HYDRAULIC MOVEMENT

- Up to 64 lifting points, load and stroke controlled
- Capacities from 10 up to 1000 ton per lifting point
- Load and force measurement for weighing systems
- Up to 1 mm accuracy over full plunger stroke
- PLC-control unit with user friendly touch screen
- Automatic data storage and read-out for reporting and graphical presentation
- System secured with warning and stop features to realize optimal safety

Contact Enerpac for details and system options



Maximum ¹⁾ Number of Lifting Points	Basic ²⁾ SLS-System Model Nr.	Premium ²⁾ SLS-System Model Nr.	Pump Oil Flow @ 700 bar (l/min)	Pump Res. Size (litres)
4 Points	SLS-04B	SLS-04P	1,5	150
8 Points	SLS-08B	SLS-08P	1,5	150
16 Points	SLS-16B	SLS-16P	2,1	300
24 Points	-	SLS-24P	2,1	300
32 Points	-	SLS-32P	4,0	600

¹⁾ More than 32 lifting points on request.
²⁾ Contact Enerpac for details and visit www.enerpac.com.

SYNCHOIST – HIGH PRECISION LOAD POSITIONING SYSTEMS



HIGH PRECISION LOAD POSITIONING SYSTEMS

- High precision load maneuvering, vertically and horizontally – using one crane
- Eliminates the risk of damage from oscillations of wire rope due to sudden crane starts/stops
- Vastly improving operating speed and worker safety
- Weather conditions play less critical role
- Intelligent hydraulics turn lifting into high accuracy hoisting and load positioning system
- High accuracy (+/- 1,0 mm)
- 700 bar double-acting push/pull cylinders with parachute valves for added safety in case of hose rupture or coupler damage
- Cost reduction when compared to conventional load positioning methods

THREE OPTIONS FOR SYSTEM MANAGEMENT & CONTROL:

- Manual control: stroke control and system warning functions
- Extended manual control: stroke control, load and stroke display and system warning functions
- PLC-control: fully monitored system with programmable functions using touch screen and wireless remote control and system warning functions

ENERPAC SYNCHOIST - TURNS LIFTING WITH CRANE INTO HIGH ACCURACY HOISTING AND LOAD POSITIONING

	240 ton	320 ton	440 ton
System Load Capacity	240 ton	320 ton	440 ton
Max. handling load ¹⁾	4x60 ton	4x80 ton	4x110 ton
Number of lifting points ²⁾	4	4	4
System reach	1500 mm	1500 mm	1500 mm
Cylinder configuration			
Push force @ 90 bar	10,5 ton	14,0 ton	22,0 ton
Pull force @ 700 bar	60,0 ton	80,0 ton	110,0 ton
Plunger stroke ²⁾	1500 mm	1500 mm	1500 mm
Pump single-stage			
Oil flow at 700 bar	4,0 l/min	4,0 l/min	4,0 l/min
Control options & System management³⁾			
Manual	option	option	option
Extended manual	option	option	option
PLC-control ⁴⁾	option	option	option

- ¹⁾ Subject to angle and position of lifting cylinders.
²⁾ Each cylinder equipped with parachute valve for added safety in event of hose/coupler damage.
Note: Enerpac SyncHoist have standard 4 lifting points. In the event more or less lifting points are required, contact your local Enerpac representative.
³⁾ Contact Enerpac for details and visit www.enerpac.com.
⁴⁾ Required for counterweighing (centre of gravity).

The architectural designs often require creative technological solutions. Enerpac SyncHoist System is one of them and used for roof positioning of the Palace of the Arts in Valencia (Spain). Segments are hoisted from the ground, being positioned with four fully monitored cylinders. ▶



700 bar Hydraulics



The Industrial Tools Line

Cylinders

- General Purpose
- Pancake
- Aluminium Lightweight
- Low Height
- Heavy Duty
- Hollow Plunger
- Industrial
- Pull
- Long Stroke
- Jacks
- Spread

Pumps

- Manual
- Electric Driven
- Compressed Air Driven
- Petrol Driven

System Components

- Hoses, Couplers, Oil
- Gauges, Adaptors
- Manifolds, Fittings

Valves

- 3-and 4-Way Directional
- Pressure and Flow Control

Presses

- Bench and Workshop
- Roll Frame Presses
- Arbor and C-Clamps

Pullers

- Master Pullers Sets
- Multi Purpose Puller Sets
- Posi Lock® Pullers

Tools

- Maintenance Sets
- Punches
- Machine Lifts
- Load Skates
- Cutters
- Pipe Benders

Bolting Tools

- Nut Splitters
- Flange/Wedge Spreaders
- Flange Alignment Tools
- Torque Wrenches
- Torque Wrench Pumps
- Twin Safety Hoses

Integrated Hydraulic Solutions

- Stage Lift Systems
- Synchronous Lifting Systems
- Synchronous Hoisting Systems

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Internet: www.enerpac.com

Controlled Hydraulic Movement

Enerpac SyncLift – The integrated solutions with PLC-control for synchronous lifting systems up to 64 lifting points.



Enerpac SyncHoist – Synchronous Hoisting Systems turn lifting with cranes into High Accuracy Hoisting and Load Positioning. The safe and economical solution for precise positioning of roof sections, concrete elements and other non-standard shape construction components.

Learn more about SyncHoist and view the animation at www.enerpac.com.

The Enerpac Industrial Tools Catalog E324e

A complete range of quality high force tools for all industrial applications, with local availability and after-sales service anywhere in the world. This is what has made Enerpac the recognized global market leader in it's field.



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