Enerpac Hydraulic Presses

Enerpac Hydraulic Presses are available in a variety of capacities and sizes. The press frames are designed for maximum strength and durability. Strong frames and powerful high-pressure hydraulics will provide years of dependable service in many applications.

Enerpac Presses are available in H-Frame, Roll-Frame, Arbor, C-Clamp and Bench models.

Available in capacities from 10 to 200 ton, each Enerpac press consists of three basic high quality components: press frame, power source and hydraulic cylinder.

These Press features increase productivity and broaden the range of applications:

Side-to-side cylinder movement

Lateral movement capability of cylinder in upper bed.

Hydra-Lift

Standard on many Enerpac IP-Series Presses, the exclusive Hydra-Lift™ offers effortless adjustment to the press daylight by use of a hydraulic lift.

Press Section Overview

Available in capacities from 10 to 200 ton, each Enerpac press consists of three basic high quality components: a press frame, a power source and a cylinder.

Press Frame
Press frames include features like workpiece side-loading and height adjustment of the upper and lower bed.

Power Source
Depending on the production requirements, Enerpac presses can be powered by manual, air-hydraulic and electric-drive power sources.

Cylinder
Depending on the application, double-acting cylinders offer increased efficiency. Check out the Selection Charts for the press best suited for your needs.

Gauge
All H-Frame, Roll-Frame and Bench Presses feature an easy to monitor pressure/force gauge for increased safety, gauge adaptor and hose(s).

Capacity ton (kN)	Press type and functions		Series	Page
10 - 200 (101 - 1995)	H-Frame Presses	IP		148 ▶
50 - 200 (498 - 1995)	Roll-Frame Presses	IPR		152 ▶
5 - 20 (45 - 178)	C-Clamp Presses	A		154 ▶
10 - 30 (101 - 295)	Arbor Presses	A		154 ▶
10 (101)	Bench Presses	VLP		154 ▶
–	Custom Hydraulic Presses			156 ▶
900 - 90.000 kg	Tension Meters Load Cells	TM LH		157 ▶

IMPORTANT!

The pressframe of the workshop presses are exclusively designed for pressing operations, not for pulling. For pulling applications please contact Enerpac.

In order to fully comply with CE regulations, some presses must be equipped with specific safety components, such as spring centered valves, two-hand control devices, guards or others.

Enerpac standard general purpose presses are supplied without guards, and have a plunger speed of less than 10 mm/second.

However, your application may require that measures should be taken to reduce the risk of injury to operators and other personnel by providing appropriate safeguarding, training and conducting a risk assessment, which eliminates or reduces danger.

Health & safety within your workplace is your responsibility, not that of Enerpac.

Advice on such matters is available from your local enforcement agency. If you require any further information on Enerpac accessories that may help you conform to the Machinery Directive or European legislation contact Enerpac.

▼ IPE5060A, H-Frame Press

- **Quality welded frame for maximum strength and long life**
- **Exclusive "Hydra-Lift" bed for effortless adjustment of the vertical daylight (10 ton models are manual)**
- **Roller head design is standard to allow movement and locking of the cylinder from side to side (10-ton, 25-ton and 30-ton are manual)**
- **All models in the Quick Selection Chart have been matched to a pump, cylinder, hose, gauge and gauge adaptor offering the complete package.**

◀ *An Enerpac H-Frame press quickly removes the shaft from this assembly.*

Great Possibilities Great Performance

Cylinder Mounting Block

Allows cylinder mounting into a press frame, while also allowing side to side adjustment of cylinder position.

Hydra-Lift

Allows easy and effortless daylaylight adjustment. Standard on most IP-Series H-Frame Presses.

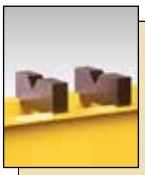
Page: 151

Pressure & Force Gauges

All press models include a GF-Series gauge and gauge adaptor, matching the press capacity. GF-Series indicate the pressure (bar) and force (kN).

Hoses

All IP-Series H-Frame Presses include hose(s), offering the complete package.



V-Blocks

These V-Blocks are designed for easy fixturing of round stock and other non-uniform materials. Featuring precise fit into the press bolster.

Page: 151

Safety Screen

Universal moveable safety screen to be positioned before any press.

- Aluminium safety screen with polycarbonate glass
- Versatile use and protection
- Lockable wheels for easy positioning.

Description	Model Number
Universal Safety Screen	**XLPSS1**

▲ *Press with safety cage to ensure additional operator safety.*

IP Series

Press Capacity:
10 - 200 ton

Maximum Daylight x Max. Bed Width:
1525 x 1225 mm

Maximum Operating Pressure:
700 bar

10 ton Bench Presses

For 10 ton VLP-Series Bench Presses selection see:

Page: 154

▼ QUICK SELECTION CHART

For more technical information see next page.

Press Capacity ton (kN)	Maximum Bed Daylight (mm)	Maximum Bed Width (mm)	Power Source					Press Model Number	Cylinder			Speed * (mm/sec)	
			Type			Valve							
			Man.	Elec.	Air	Man.	Elec.				Stroke (mm)	Rapid Advance	Pressing
10 (101)	1525	456		●		●		**IPE1215A**	●		254	38	3,7
	1525	456			●	●		**IPA1220A**	●		254	23	2,9
	1525	456	●			●		**IPH1240A**	●		254	[7,8]	[1,7]
	1525	456	●			●		**IPH1234A**		●	254	[11,2]	[1,7]
	1525	456			●	●		**IPA1244A**		●	254	23	2,9
25 (232)	1388	733		●		●		**IPE2505A**	●		152	17	1,6
	1388	733		●			●	**IPE2510A**	●		355	30,9	2,8
	1388	733			●	●		**IPA2520A**	●		355	10	1,3
	1388	733	●			●		**IPH2531A**	●		355	[4,9]	[0,7]
30 (295)	1388	733			●	●		**IPA3071A**		●	355	42,0	0,6
	1388	733		●			●	**IPE3060A**		●	355	24,3	2,2
	1388	733	●			●		**IPH3080A**		●	355	[3,7]	[0,6]
50 (498)	1406	745		●			●	**IPE5010A**	●		330	20,8	1,9
	1406	745	●			●		**IPH5031A**	●		159	[2,3]	[0,3]
	1406	745		●			●	**IPE5005A**	●		159	7,7	0,7
	1406	745			●	●		**IPA5073A**		●	330	32,6	3,1
	1406	745		●			●	**IPE5060A**		●	330	20,8	1,9
	1406	745	●			●		**IPH5080A**		●	330	[17,7]	[0,7]
100 (933)	1096	885			●	●		**IPA10023A**	●		254	17,4	1,6
	1096	885		●			●	**IPE10010A**	●		254	11,1	1,0
	1096	885	●			●		**IPH10030A**	●		254	[8,8]	[0,3]
	1096	885		●			●	**IPE10060A**		●	330	11,1	1,0
	1096	885	●			●		**IPH10080A**		●	152	[8,8]	[0,3]
150 (1386)	1323	1225		●			●	**IPE15065A**		●	330	9,8	1,4
200 (1995)	1323	1225		●			●	**IPE20065A**		●	330	6,8	1,0

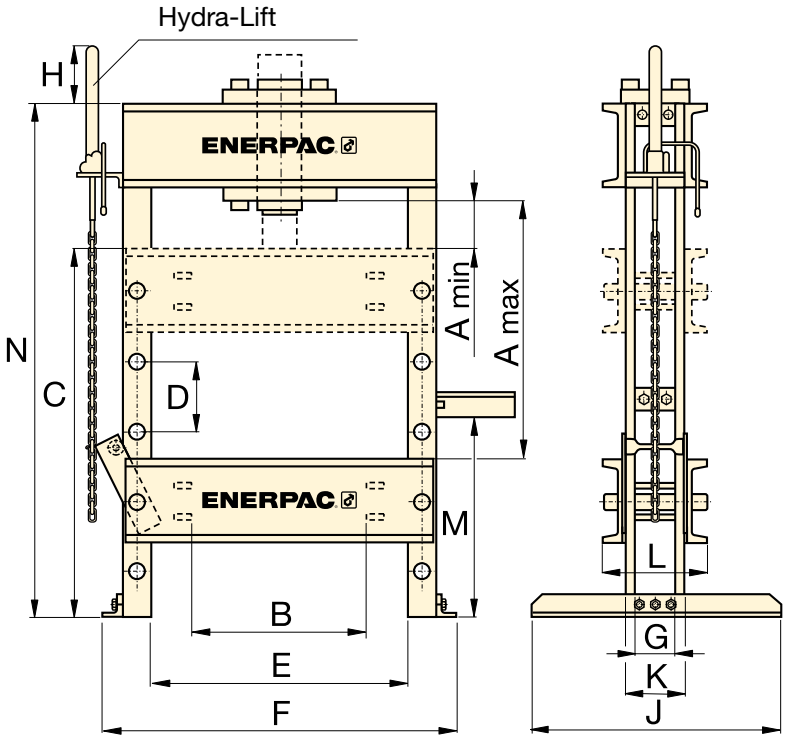
* [...]= Millimetres per stroke of pump handle.

Hydra-Lift™

Allows easy, effortless daylight adjustment. Standard on all 25 to 200 ton H-Frame presses.

To be used with H-Frame Press Capacity	Hydra-Lift™ Model Number
25 to 100 ton	**IPL100**
150 and 200 ton	**IPL101**

IMPORTANT: Hydra-Lift™ is not designed to withstand full cylinder capacity, only to be used for bed positioning.



IP-Series H-Frame Presses

◀ For full features see previous page.

Press Capacity ton (kN)	Press Model Number	Pump Model Number	Page:	Cylinder Model Number	Page:	H-Frame Press Dimensions (mm) A (max.)	A (min.)	B	C	D	E	F
10 (101)	**IPE1215A**	PUJ1200E	**90**	RC1010	**6**	1525	128	–	1599	127	456	635
	IPA1220A	XA11	**114**	RC1010	**6**	1525	128	–	1599	127	456	635
	IPH1240A	P392	**76**	RC1010	**6**	1525	128	–	1599	127	456	635
	IPH1234A	P84	**78**	RR1010	**40**	1525	128	–	1599	127	456	635
	IPA1244A	XA11VG	**114**	RR1010	**40**	1525	128	–	1599	127	456	635
25 (232)	**IPE2505A**	PUJ1200E	**90**	RC256	**6**	1388	180	–	1450	301	733	1028
	IPE2510A	ZE3310SE	**104**	RC2514	**6**	1388	180	–	1450	301	733	1028
	IPA2520A	XA12	**114**	RC2514	**6**	1388	180	–	1450	301	733	1028
	IPH2531A	P80	**78**	RC2514	**6**	1388	180	–	1450	301	733	1028
30 (295)	**IPA3071A**	PAM1042	**97**	RR3014	**40**	1388	242	–	1450	301	733	1028
	IPE3060A	ZE3410SE	**104**	RR3014	**40**	1388	242	–	1450	301	733	1028
	IPH3080A	P84	**78**	RR3014	**40**	1388	242	–	1450	301	733	1028
50 (498)	**IPE5010A**	ZE4310SE	**104**	RC5013	**6**	1406	195	530	1371	263	745	1085
	IPH5031A	P80	**78**	RC506	**6**	1406	195	530	1371	263	745	1085
	IPE5005A	PUJ1200E	**90**	RC506	**6**	1406	195	530	1371	263	745	1085
	IPA5073A	ZA4410MX	**116**	RR5013	**6**	1406	195	530	1371	263	745	1085
	IPE5060A	ZE4410SE	**104**	RR5013	**40**	1406	195	530	1371	263	745	1085
	IPH5080A	P464	**78**	RR5013	**40**	1406	195	530	1371	263	745	1085
100 (933)	**IPA10023A**	ZA4210MX	**116**	RC10010	**6**	1096	145	600	1296	300	885	1289
	IPE10010A	ZE4310SE	**104**	RC10010	**6**	1096	145	600	1296	300	885	1289
	IPH10030A	P462	**78**	RC10010	**6**	1096	145	600	1296	300	885	1289
	IPE10060A	ZE4410SE	**104**	RR10013	**40**	1096	145	600	1296	300	885	1289
	IPH10080A	P464	**78**	RR1006	**40**	1096	145	600	1296	300	885	1289
150 (1386)	**IPE15065A**	ZE5420SW	**104**	RR15013	**40**	1323	307	975	1485	254	1225	1725
200 (1995)	**IPE20065A**	ZE5420SW	**104**	RR20013	**40**	1323	307	975	1485	254	1225	1725

Optional V-Blocks

To facilitate positioning of pipes and bars, or placed upside-down, to serve as a convenient worktable.
Featuring precise fit into the press bolster.
Each model number includes two V-blocks.

To be used with press model	V-Blocks Model Nr.
10 ton H-frame	**A136**
25 & 30 ton H-frame	**A130**
50 ton IP H-frame	**A150**
100 ton H-frame	**A175**
150 & 200 ton H-frame	**A200R**

IMPORTANT!

The pressframe of the workshop presses are exclusively designed for pressing operations, not for pulling. For pulling applications please contact Enerpac.

IP Series

Press Capacity:
10 - 200 ton

Maximum Daylight x Max. Bed Width:
1525 x 1225 mm

Maximum Operating Pressure:
700 bar

H-Frame Press Dimensions (mm)								Press Model Number
G	H	J	K	L	M	N	(kg)	
–	–	755	100	210	818	1829	98	**IPE1215A**
–	–	755	100	210	818	1829	81	**IPA1220A**
–	–	755	100	210	818	1829	81	**IPH1240A**
–	–	755	100	210	818	1829	98	**IPH1234A**
–	–	755	100	210	818	1829	89	**IPA1244A**
101	336	762	133	309	855	1930	264	**IPE2505A**
101	336	762	133	309	855	1930	298	**IPE2510A**
101	336	762	133	309	855	1930	256	**IPA2520A**
101	336	762	133	309	855	1930	263	**IPH2531A**
101	336	762	133	309	855	1930	301	**IPA3071A**
101	336	762	133	309	855	1930	339	**IPE3060A**
101	336	762	133	309	855	1930	273	**IPH3080A**
127	222	914	212	394	790	1930	523	**IPE5010A**
127	222	914	212	394	790	1930	430	**IPH5031A**
127	222	914	212	394	790	1930	440	**IPE5005A**
127	222	914	212	394	790	1930	541	**IPA5073A**
127	222	914	212	394	790	1930	533	**IPE5060A**
127	222	914	212	394	790	1930	489	**IPH5080A**
160	222	950	268	468	663	1930	787	**IPA10023A**
160	222	950	268	468	663	1930	809	**IPE10010A**
160	222	950	268	468	663	1930	764	**IPH10030A**
160	222	950	268	468	663	1930	823	**IPE10060A**
160	222	950	268	468	663	1930	752	**IPH10080A**
257	175	1148	382	582	1094	2273	1900	**IPE15065A**
257	175	1148	382	582	1094	2273	1951	**IPE20065A**

Pressure & Force Gauges

All press models include a GF-Series gauge and gauge adaptor, matching the press capacity. GF-Series indicate the pressure (bar) and force (kN).

Press Capacity ton (kN)	Gauge Model Number	Adaptor Model Number
10 (101)	**GF10B**	**GA2**
25 (232)	**GF20B**	**GA2**
30 (295)	**GF835B**	**GA3**
50 (498)	**GF50B**	**GA2**
100 (933)	**GF871B**	**GA3**
150 (1386)	**GF200B**	**GA3**
200 (1995)	**GF200B**	**GA3**

For more information on gauges, please refer to the System Components section.

Page: 136

Spring Centred Valves

To convert standard VM-Series manual valves use the spring centered valves kits.

For valve model	Model Number
VM33, VM43	**VMC3343K**
VM33L, VM43L	**VMC3343KL**

▼ Shown: **IPR5075A**

- **Quality welded frame for maximum strength and long life**
- **Frame rolls easily on 4 steel roller bearings**
- **Exclusive 'Hydra-Lift' bolster for effortless adjustment of the vertical daylight**
- **Standad roller head design allows lateral movement and locking of the cylinder up to 300 mm left or right of centre**
- **All models in the quick selection chart have been matched to an electric pump, double-acting cylinder, hose and gauge, offering the complete package**
- **Roll-Frame design features a stationary bed with the ability to support heavy loads**
- **Hydraulic clamp cylinder locks roll-frame into position.**

Expert Designed Versatility

Hydra-Lift™

Allows easy, effortless daylight adjustment. Standard on all IPR-Series Roll-Frame Presses.

To be used with IPR-Roll-Frame Press Capacity	Hydra-Lift™ Model Number
50 & 100 ton	**IPLR100**
200 ton	**IPLR101**

IMPORTANT: Hydra-Lift™ is not designed to withstand full cylinder capacity, only to be used for bed positioning.

Cylinder adjustment

Cylinder adjustment allows horizontal side to side cylinder positioning.

Optional V-Blocks

To facilitate positioning of pipes and bars, or placed upside-down, to serve as a convenient worktable. Featuring precise fit into the press bolster. Each model number includes two V-blocks.

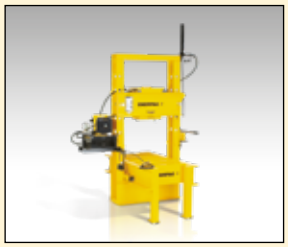
To be used with press model	V-Blocks Model Number
200 ton IPR-Press	**A200R**

▼ **SELECTION CHART**

Press Capacity ton (kN)	Vertical Daylight A (mm) min.	Vertical Daylight A (mm) max.	Maximum Bed Width E (mm)	Electric Pump Model Number	Page	Press Model Number	Double-Acting Cylinder Stroke (mm)	Model Number	Page	Speed (mm/sec) Rapid Advance	Pressing
50 (498)	131	922	813	ZE4410SE	**104**	**IPR5075A**	334	RR5013	**40**	20,8	1,9
100 (933)	320	1208	886	ZE5410SW	**104**	**IPR10075A**	333	RR10013	**40**	14,5	2,1
200 (1995)	376	1138	1222	ZE5420SW	**104**	**IPR20075A**	330	RR20013	**40**	7,2	1,0

▲ *For offshore application high capacity spring loaded cylinders need to be assembled and tested. A special 100 ton roll frame press, with long stroke cylinder has been constructed. All movements are operated and monitored through a PLC controlled pendant.*

IPR Series

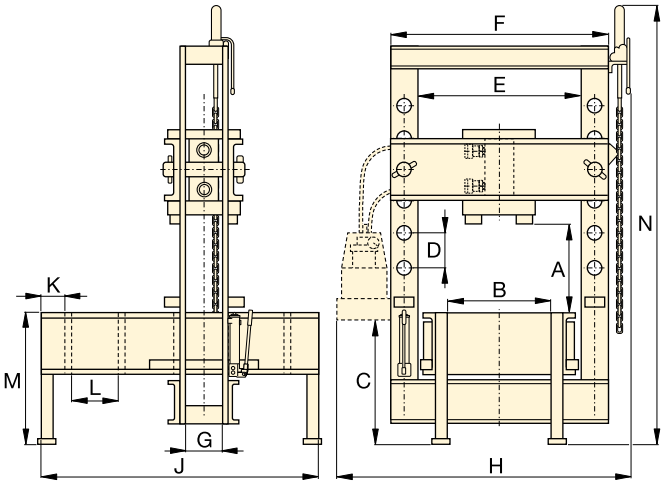


Capacity:
50 - 200 ton

Maximum Daylight x Width:
1208 x 1222 mm

Maximum Operating Pressure:
700 bar

IMPORTANT!
The frameworks of the presses are exclusively designed for pressing operations, not for pulling. For pulling applications please contact Enerpac.



Pressure & Force Gauges
All press models include a GF-Series gauge and gauge adaptor, matching the press capacity. GF-Series indicate the pressure (bar) and force (kN).

Press Capacity ton	Gauge Model Number	Adaptor Model Number
50	**GF50B**	**GA2**
100	**GF871B**	**GA3**
200	**GF200B**	**GA3**

For more information on gauges, please refer to the System Components section.

Page: 136

Spring Centred Valves
Manual valves on electric and air pumps of Enerpac presses are Spring Centred Valves. The handle will automatically move into the neutral valve position when released.

Page: 123

Roll-Frame Press Dimensions (mm)															
A (min.-max.)	B	C	D	E	F	G	H	J	K	L	M	N	(kg)	Press Model Number
131 - 922	686	971	264	813	1006	102	1557	1626	216	270	800	2629	917	**IPR5075A**
320 - 1208	706	965	222	886	1140	143	1588	1677	220	270	800	2778	1767	**IPR10075A**
376 - 1138	1010	933	254	1222	1622	257	2197	1631	380	381	889	3115	4186	**IPR20075A**

▼ Shown from left to right: **A220, A330, A310**

C-Clamp Presses

- **5, 10 and 20 ton capacity**
- **Operational in all positions.**

Arbor Presses

- **10 and 30 ton capacity**
- **Foot mounting holes for horizontal or vertical positioning**
- **Machined working surfaces for easier fixturing**
- **Slotted back to simplify loading and unloading of longer parts.**

VLP-Series Bench Presses

- **10 ton press with hand pump or air pump, cylinder, hose, gauge and gauge adaptor.**

Shown: **VLP106P142** ▶

The Standard Workshop Tools

Push Pin A183

For applications requiring precision pressing, such as shaft removal and insertion. This attachment fits 10 ton cylinders and requires the use of a threaded adaptor saddle (**A13**).

Page: 182

Smooth Saddle A185

For pressing applications of delicate parts, such as aluminium castings, this saddle (see item 11 on page 183) decreases surface marks during the pressing application. Requires 10 ton cylinder and threaded adaptor saddle (**A13**).

Optional V-Blocks

To facilitate positioning of pipes and bars, or placed upside-down, to serve as a convenient worktable. Each modelnr includes 2x V-block.

To be used with press model	V-Blocks Modelnr.
10 ton VLP-Bench Presses	**VB10**

IMPORTANT! For high-cycle production applications, the C-Clamp and Arbor presses should be limited to 50% of their capacity.

▼ *A310 Arbor Press*

▼ **SELECTION CHART**

Press Type	Press Capacity ton (kN)	Maximum Vertical Daylight (mm)	Maximum Bed Width (mm)	Press Model Number	Recommended cylinder * must be ordered separately ** Must be limited to 20 ton.	Page:
C-Clamp	**5** (45)	165	51	**A205**	5 ton RC-cylinder *	6
	10 (101)	228	57	**A210**	10 ton RC-cylinder *	6
	20 (178)	305	69	**A220**	25 ton RC-cylinder **	6
Arbor	**10** (101)	230	135	**A310**	10 ton RC-cylinder *	6
	30 (295)	254	178	**A330**	RC308 *	6

Press Capacity ton (kN)	Maximum Daylight (mm) Vertical	Horizontal	Bench Press Model Number	Power Source included: Pump Type Man.	Air	Pump Model Nr.	Page:	Cylinder included: Stroke (mm)	Cylinder Model Nr.	Page:
10 (101)	430	435	**VLP106P142**	●		P142	76	156	RC106	6
	430	435	**VLP106PAT1**		●	PATG1102N	112	156	RC106	6

▲ *RC308 cylinder mounted in A330 Arbor Press powered by a PATG-Turbo Air pump for controlled pressing of bearings for sprockets of weaving machines. The V152 Pressure Relief Valve controls the pressing force.*

A VLP Series

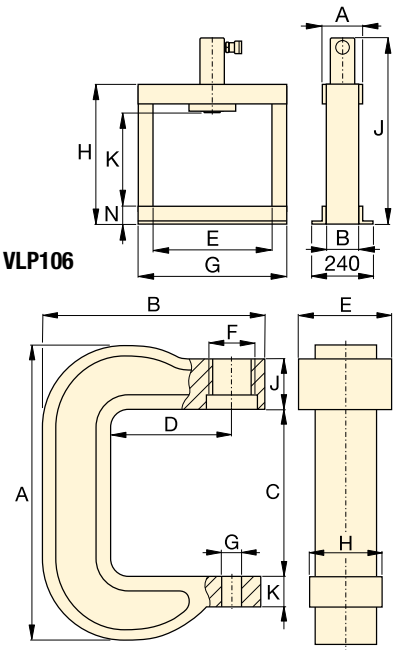
Capacity:
5 - 30 ton

Maximum Daylight x Width:
430 x 435 mm

Maximum Operating Pressure:
700 bar

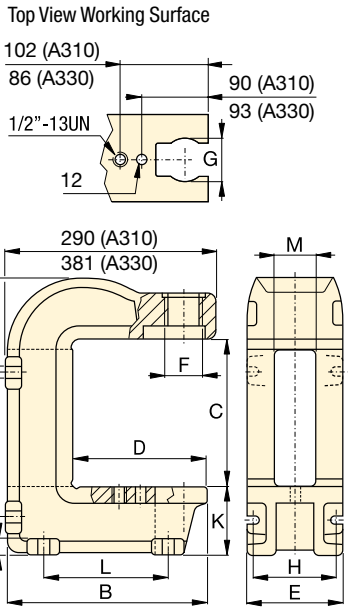
Pumps and Cylinders

Pump, cylinder, hose, gauge and gauge adaptor for C-Clamps and Arbor Presses must be ordered separately.



VLP106

A205, A210, A220



A310, A330

▲ *VB10 V-Blocks are used in this VLP106P142 bench press to bend flat steel bar. The hydraulic pressure can be checked with the gauge.*

Press Dimensions (mm)															Press Model Number
A	B	C	D	E	F	G	H	J	K	L	M	N	O	(kg)	
291	203	165	95	73	1½" -16 UNS	26	51	66	25	–	–	–	–	7	**A205**
406	283	228	152	83	2¼"-14 UNS	26	76	64	41	–	–	–	–	17	**A210**
540	346	305	152	121	3 5/16"-12 UNS	26	95	70	44	–	–	–	–	38	**A220**
414	281	230	184	151	2¼"-14 UNS	63	122	19	95	175	65	54	219	28	**A310**
563	356	254	188	178	3 5/16"-12 UNS	63	140	28	168	203	67	99	276	100	**A330**

Speed (mm/s) **		Dimensions (mm)									Bench Press Model Number
Rapid Advance	Pressing	A	B	E	G	H	J	K	N	(kg)	
{2,5} **	{0,6} **	110	80	435	542	620	748	430	80	49	**VLP106P142**
10,0	1,8	110	80	435	542	620	748	430	80	54	**VLP106PAT1**

** {…} = advance speed in mm per handpump stroke.

Custom Hydraulic Presses

ENERPAC

With decades of experience and in-house capabilities look to Enerpac to help find solutions to your customization needs.

Next to our large range of standard workshop presses, Enerpac offers the possibility of customization. Because many customers have specific requirements, we offer turn-key project management, including design, engineering and manufacturing. As the market leader, we listen to our customers and with our world wide experience we offer the best solutions, especially when safety is not negotiable. Whether a longer stroke, wider frame or complete new design is required, our custom product group has many years of experience in multiple industries to deliver a solution that meets or exceeds expectations.

Overview Custom Presses

▲ *Enerpac's hydraulic presses can be configured to fulfill a broad range of applications. Each press is designed and manufactured according to customer specifications and in cooperation with our engineering team.*

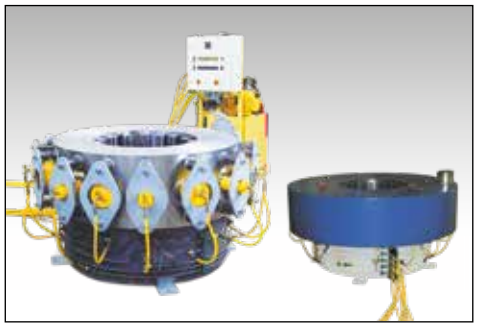
CUSTOMIZABLE FEATURES:

- Capacity
- Cylinder Stroke
- Pump Type
- Controls
- Guarding
- Daylight Dimensions

CONFIGURATIONS:

- Vertical and horizontal press
- Cylinders mounted in upper and lower bolsters
- Height built to customer specifications
- Daylight (vertical and horizontal) built to customer specifications

◀ *Fully Automated PLC-Controlled 1800-Ton, High-Accuracy Press. The pressing and heating cycle, during the production of magnetic acceleration coils, required high force and high- accuracy to ensure absolute quality*



◀ *600 Ton High-Accuracy Collar Press. For the production of accelerator coils, sheet metal needs to be formed into a specific shape and size.*

◀ *50 ton Workshop Press for maintenance jobs.*

▼ Shown: **LH102** and **TM5** (in middle)

TM LH Series

Capacity:
900 - 90.000 kg

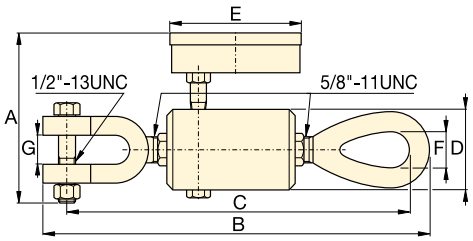
Accuracy, % of full scale:
± 2%

TM and LH models are 100% tested to verify accuracy within a ± 2% range.

If your application requires a calibrated tool, it must be submitted for certification testing. Certification is NOT available from Enerpac.

Tension Meter TM5

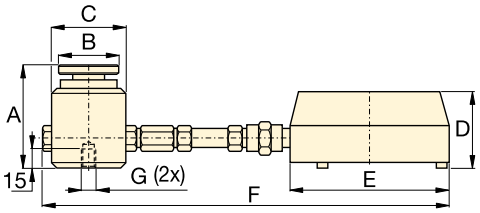
- **Accuracy ± 2% of full scale**
- **Zinc and bronze plated to resist corrosion**
- **Dual-range readout in kilograms and pounds**
- **Maximum indicating pointer reading for pre-selected forces or to maintain force readings**
- **Cushioned metal case provides safe storage and transport.**



TM5

Load Cells LH-Series

- **Accuracy ± 2% of full scale**
- **Swivel loading pad reduces eccentric loading for improved accuracy**
- **Maximum indicating pointer reading pre-selected forces or to maintain maximum force readings**
- **Dual-range readout in kilograms and pounds.**



LH-Series

▼ **SELECTION CHART**

Type	Gauge Capacity (kg)	Gauge Capacity (lbs)	Model Number	Minimum Reading (kg)	Minimum Reading (lbs)	Gauge Scale Increments (kg)	Gauge Scale Increments (lbs)	Dimensions (mm) A	B	C	D	E	F	G *
Direct Mounted	4.500	10.000	**TM5**	500	1.000	100	100	120	247	236	50	93	22	19
Direct Mounted Load Cell	900	2.000	**LH10**	100	200	20	20	77	44	57	60	101	215	¼"- 20, 44,5 BC
	4.500	10.000	**LH50**	500	1.000	100	100	77	44	57	60	101	215	¼"- 20, 44,5 BC
Remote Mounted with 0,6 m Hose	900	2.000	**LH102**	100	200	20	20	77	44	57	60	147	846	¼"- 20, 44,5 BC
	4.500	10.000	**LH502**	500	1.000	100	100	77	44	57	60	147	846	¼"- 20, 44,5 BC
	9.000	20.000	**LH1002**	1.000	2.000	200	200	77	44	57	60	147	846	¼"- 20, 44,5 BC
Remote Mounted with 1,8 m Hose	21.000	50.000	**LH2506**	3.000	5.000	500	500	101	69	85	60	147	2094	⅜"- 24, 63 BC
	45.000	100.000	**LH5006**	5.000	5.000	1.000	1.000	132	101	127	60	147	2135	⅜"- 24, 89 BC
	90.000	200.000	**LH10006**	10.000	10.000	1.000	2.500	158	127	158	60	147	2166	⅜"- 24, 102 BC

* BC = Bolt Circle