



HIGH PRESSURE HYDRAULICS
PUMPS | CYLINDERS | HIGH FORCE TOOLS



Since 2001, PowerX International, LLC has been collaborating with its customers to design and supply hydraulic products and systems. PowerX was founded by fluid power industry experts. We have the technical expertise to help guide you through any of your hydraulic system and application needs.

Specializing in mobile and high pressure hydraulic cylinders and pumps, our mission is to work closely with our customers to develop innovative solutions at an affordable price. At PowerX, we believe in Quality, Commitment and Value.

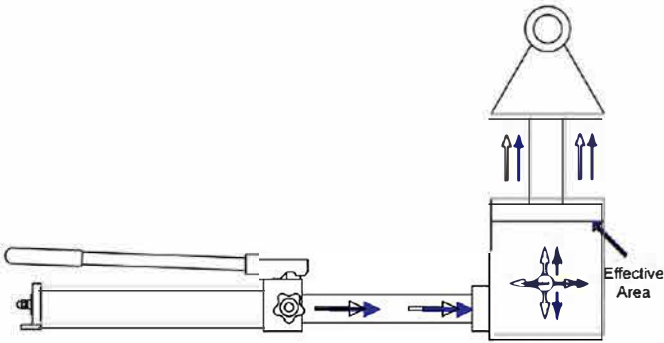
Our products are engineered to last. At PowerX we put all of our products through a rigorous battery of tests to ensure they withstand the toughest environments. Whether you are using them on a construction site, inside a mine, on an oil platform or in your factory, you can rely on PowerX products to perform at a high level every time.

Our manufacturing network and facilities are world class and employ lean manufacturing concepts, are **ISO-9000 certified**, and are on the cutting edge of machining and automation. This, coupled with our experienced engineering team, allows us to manufacture tight tolerance components to sophisticated hydraulic systems.

Our products meet or exceed the following industry standards: **ASME B30.1**, **ASME B40.1** and **SAE 100**. All of our products are backed by our lifetime warranty against any manufacturing defects.



Hydraulic Principles



The basic hydraulic system consists of a cylinder, pump and hose. Pumps can be powered manually, air or electric driven.

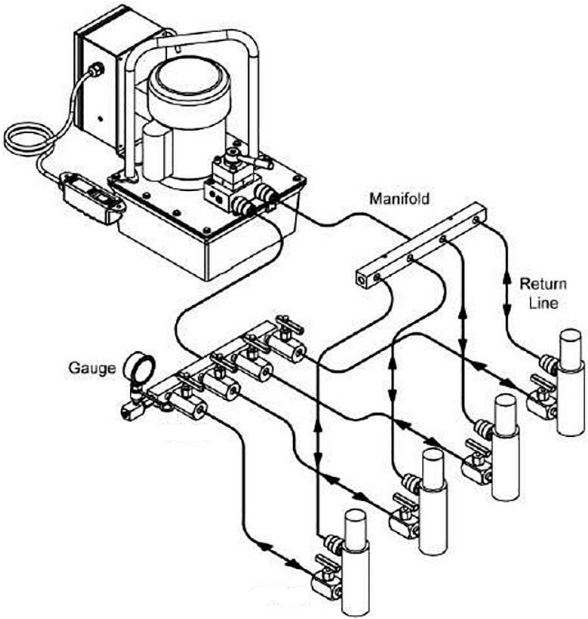


Formula for Calculation of Output Force:

$$\frac{\text{psi} \times \text{Cylinder Effective Area} \times \text{No. of Cylinders}}{2,000} = \text{Tons}$$

Formula for Calculation of Lifting Speed:

$$\frac{\text{Pump Flow Per Minute}}{\text{Cylinder Effective Area} \times \text{No. of Cylinders}} \times \text{Piston Travel} = \text{in./min.}$$



Hydraulic systems can be built to meet various application requirements. Creating a circuit which includes a manifold block with integrated needle valves for flow control is one way to individually control cylinders in a multi-point lift system.

Flow: Created by the pump.

Pressure: Created by resistance to flow.

Force: The amount of force a hydraulic cylinder can generate is equal to hydraulic pressure times the effective area of the cylinder. (Effective area is the surface area of the piston face in square inches.) For multiple cylinder systems, multiply the effective area times the number of cylinders times pressure to determine system force.

Speed: When using a "power pump" the speed at which your cylinder will lift is determined by dividing the pump's flow by the cylinder's effective area.



1. Choose The Right Cylinder.



You must know the weight of what you intend to lift and choose a cylinder with at least 20% more capacity. Be aware of possible load shift requiring more capacity at the particular lifting point.

2. Check each component before setting up.



Check each component before you set up your hydraulic system. Do not use damaged or worn components. Please contact your nearest PowerX distributor, or contact the PowerX factory if your components are worn.

3. Safety Instructions



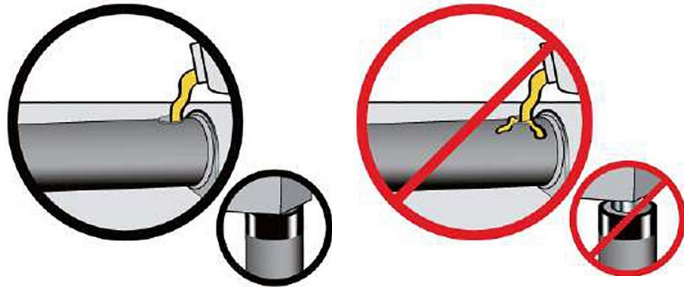
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn, or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.

4. Each Jack Or Ram Must Be Fully Supported At The Base.



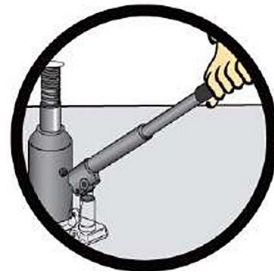
Every jack or cylinder, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.

5. Fill Oil Reservoirs With Cylinder Retracted.



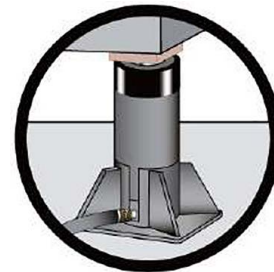
Only fill pump to recommended level, and fill only when connected cylinder is fully retracted.

6. Know How Your Hydraulics Work.



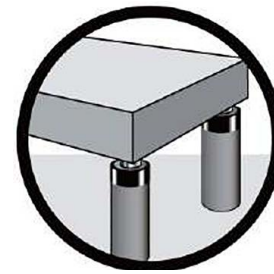
Do not use extensions or cheater bars on hydraulic jacks or hand pumps to raise a load.

7. Center The Load On The Lifting Point.



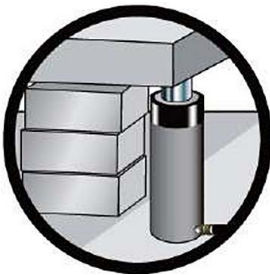
The load must be centered on the cylinder, or equally distributed on multiple cylinders. Off center loading can result in the cylinder slipping out and loss of the load.

8. When Using Multiple Cylinders, Distribute The Load Evenly.



For multiple cylinder lifts, you must be able to determine the location and number of lifting points that will allow the load to be evenly distributed to all the cylinders. This is called load balance. Size, center of gravity, and load geometry must be considered in order to correctly determine load balance.

9. Block Or Crib Your Load As It Raises.



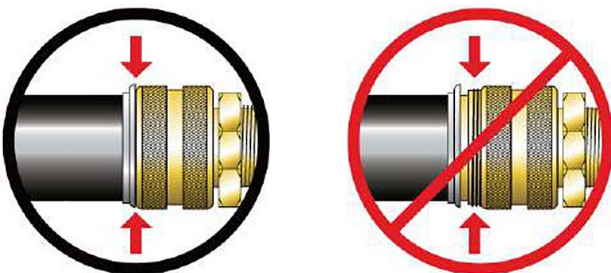
Place blocking or cribbing under the loads as you raise it. Each time you raise it higher, insert more blocking. Position yourself in a manner that will keep you clear of the load, and will not allow your hands or other body parts between the load and the cribbing.

10. Do Not Use Cylinders As Permanent Supports.



Hydraulic cylinders are not meant to be used as permanent supports, but are designed to lift and lower. If you need to hold the load for any length of time, cribbing or locknut cylinders should be used.

11. Hydraulic Connections.



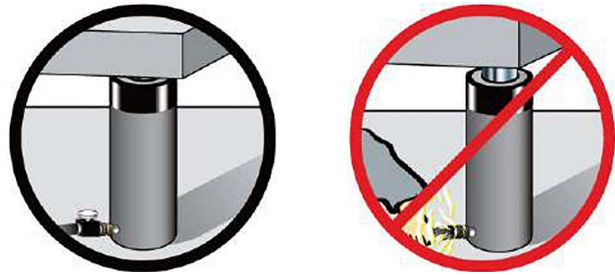
When making connections with quick couplers, make sure the couplings are fully engaged. Threaded connections such as fittings, gauges, etc. must be securely tightened and leak free. Never use excessive tightening force that may distort the fittings or strip the thread profile.

12. Avoid Extreme Heat Or Weld Splatter.



Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.

13. Hydraulic Disconnections.



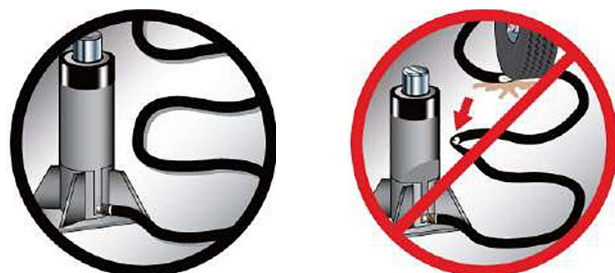
Never attempt to disconnect hydraulic hoses, fittings or couplers under pressure. Unload the cylinder, open the release screw on the hand pump and shift or open all hydraulic controls several times. If system includes a gauge, double check the gauge to insure pressure has been completely released.

14. Do Not Carry Or Drag Pumps And Cylinders By Their Hoses.



Dragging or carrying cylinders or pumps by a connected hose can damage the couplers and hoses. Using damaged couplers and hoses can be dangerous.

15. Keep Hydraulic Hoses Free Of Obstructions.



Do not drop sharp or heavy objects on hose. Keep hose out of heavy traffic areas. This will cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture. Avoid sharp bends and kinks when routing hydraulic hoses.

Cylinder / Pump Combinations

		Single Acting Cylinders																								
		C5 (All Strokes)	C10 (All Strokes)	C15-2	C15-4	C15-6	C15-8	C15-10	C15-12	C15-14	C25-1	C25-2	C25-4	C25-6	C25-8	C25-10	C25-12	C25-14	C5-2	C5-4	C5-6	C5-10	C5-13	CL00-6	CL100-10	
Hand Pump	P21L	●	*	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P37	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P43	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P61L	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P122	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P122HF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P427	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Air Hydraulic Pump	PA9-37	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PA9-61	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PA6-98B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PA6-98C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PA6-98R	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PA6-122	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PA6-231	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Electric Pump	PE28x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PX39X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	PX59x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

* 10", 12" and 14" strokes are not recommended

		Automotive Cyl.					Flat Cylinders						Low Profile Cyl.					Hole Thru Cylinders											
		CA 5-5	CA 10-6	CA 10-10	CA 25-6	CA 25-10	CA 25-14	CF5	CF10	CF20	CF30	CF50	CF75	CF100	CF150	CL10-1	CL20-2	CL30-2	CL50-2	CL100-2	CH20-2	CH30-2	CH30-6	CH60-3	CH60-6	CH100-3	CH100-6	CH100-10	
Hand Pump	P37	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	P43	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	P61L	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	P122	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P122HF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	P427	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air Hydraulic Pump	PA9-37	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PA9-61	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PA6-98B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PA6-98C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PA6-98R	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PA6-122	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
PA6-231	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Electric Pump	PE28x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PX39X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	PX59x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

		Double Acting Cylinders										
		CD10-6	CD10-10	CD10-12	CD30-8	CD30-14	CD55-6	CD55-13	CD80-6	CD80-13	CD100-6	CD100-13
Hand Pump	P122DL	●	●	●	●	●	●	●	●	●	●	●
	P427D	●	●	●	●	●	●	●	●	●	●	●
Air Hydraulic Pump	PA6-98D	●	●	●	●	●	●	●	●	●	●	●
	PA6-231D	●	●	●	●	●	●	●	●	●	●	●
	PA6-460D	●	●	●	●	●	●	●	●	●	●	●
Electric Pump	PE28x	●	●	●	●	●	●	●	●	●	●	●
	PX39X	●	●	●	●	●	●	●	●	●	●	●
	PX59x	●	●	●	●	●	●	●	●	●	●	●

Take the guesswork out of your pump and cylinder combination decisions. Use our simple guide for which pump and cylinder combinations are right for your job.

Generally Recommended	●
Marginal, Check Requirements	●
Not Recommended for Most Applications	●



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ELECTRIC PUMPS

Part Number	Motor Size (hp)	1st Stage Flow (in3/min)	2nd Stage Flow (in3/min)	Use with Cylinder	Valve Type**	Valve Function	Reservoir Capacity***
PE283	3/4	350	28	Single Acting	3W3P Manual	Advance Hold Return	2 gal 3 gal 5 gal 10 gal
PE393	1	550	39				
PE593	1 1/2		59				
PE1133	3	605	113	Double Acting	4W3P Manual		
PE284	3/4	350	23				
PE394	1	550	39				
PE594	1 1/2		59				
PE1134	3	605	113				

* See Next Page For Pump Options

DESCRIPTION

- Designed in the USA. Low noise level meets OSHA standards (80 dba).
- Two stage hydraulic system - 10,000 PSI/700 Bar capacity - first stage gerotor pump, second stage radial piston pump.
- Interchangeable control valves (2, 3, or 4-way) and reservoirs.
- One piece motor and valve mounting plate with an integral high flow unloading system.
- External adjustable relief valve for pre-setting maximum operation pressure (2,000 PSI - 10,000 PSI range).
- Standard motors are induction type, single phase, 1725 RPM, 115/230 V, 60 Hz; 3HP, 230/460 V, 3 PH, 60 Hz.*



Pump with Solenoid Valve Control



Pump with Pendant Control



Pump with Manual Control

Our pumps are fully customizable to your desired specifications. Use this matrix as a guide in creating your own custom built electric pump.

If you are looking for a pump with an output flow of 59 cu.in./min, with a manually operated 3 position 4 way valve, controlled by an on/off switch mounted on the electric motor, with a 3 gallon reservoir the model number would be a:

PE594-3MD-15B-C-01

Other electrical and motor control options are available upon request. For assistance, please call your local PowerX distributor.

		PE	59	4-03	M	A	-	15	B	-	C	-	01			
Pneumatic Powered	PA	Pump												Series	01	Design Series
Electric Powered	PE													A	No Reservoir	
Gas Engine Powered	PG													B	2 Gallon w/handles and feet (1 gallon of useable oil)	
28 Cu.In. / Min.	28												C	3 Gallon w/handles and feet (2 gallon of useable oil)		
39 Cu.In. / Min.	39												D	6 Gallon w/handles (5 gallon of useable oil)		
59 Cu.In. / Min.	59	High Pressure												E	10 Gallon w/handles (9 gallon of useable oil)	
113 Cu.In. / Min.	113	Displacement **												Reservoir Size		
No Valving	0-00												A	No Electric Motor		
Port only manifold (no valve)	0-01												B	110/220 VAC, 60 Hz, 1Ø, 1800 RPM, TEFC		
3 way, 2 position	3-02												C	110/220 VAC, 50 Hz, 1Ø, 1500 RPM, TEFC		
3 way, 3 position, tandem center	3-03												D	110/220 VAC, 60 Hz, 1Ø, 1800 RPM, TENV		
4 way, 3 position, tandem center	4-03	Valve												E	110/220 VAC, 50 Hz, 1Ø, 1500 RPM, TENV	
Manual	M												Motor frequency and frame type †			
Solenoid*	S	Valve Actuator												00	No Electric Motor	
No power cord or controls	A												05	1/2 HP		
Power cord and switch only, US*	B												07	3/4 HP (standard for the PE28 pump)		
Power cord and switch with single push button pendant (110 VAC only), US only*†	C												10	1 HP (standard for the PE39 pump)		
Power cord (w/o plug) and switch only*	D												15	1-1/2 HP (standard for the PE59 pump)		
Power cord (w/o plug) and switch with single push button pendant (110 VAC only)*†	E												30	3 HP (standard for the PE113 pump)		
Power cord single push button pendant, 24VAC pendent control. Remote, Off, Run Control (110 VAC only)*†	F												Motor Size *			
Power cord with dual push button pendant, 24VAC pendent control for 3 positions valves with solenoids (110VAC only)*†	G	Electric Controls														

* Not available on PA or PG models

† Consult PowerX International for additional voltages

** At 1725 rpm

HAND PUMPS

Part Number	Pressure Rating (psi)		Usable Oil Capacity (in3)	Reservoir Capacity (in3)	Oil Volume/Stroke (in3)		Reservoir Construction	Use with Cylinder	Weight (lbs.)
	1st Stage	2nd Stage			1st Stage	2nd Stage			
P21L	200	10,000	21	31	0.79	0.10	aluminum	S/A	5.1
P37		10,000	34	46	0.79	0.17	steel	S/A	17
P43	-	10,000	39	52	-	0.20	steel	S/A	17
P61L	200	10,000	46	61	0.79	0.10	aluminum	S/A	9.1
P122		10,000	110	128	0.79	0.17	steel	S/A	28
P122DL		10,000	99	122	0.79	0.14	aluminum	D/A	16
P122HF	400	10,000	122	153	2.4	0.17	steel	S/A	26
P213		10,000	213	213	1.8	0.20	steel	S/A	36
P427		10,000	427	427	6.89	0.24	aluminum	S/A	55
P427D		10,000	427	427	6.89	0.24	aluminum	D/A	60



P43



P61L



P122



P122DL



P427

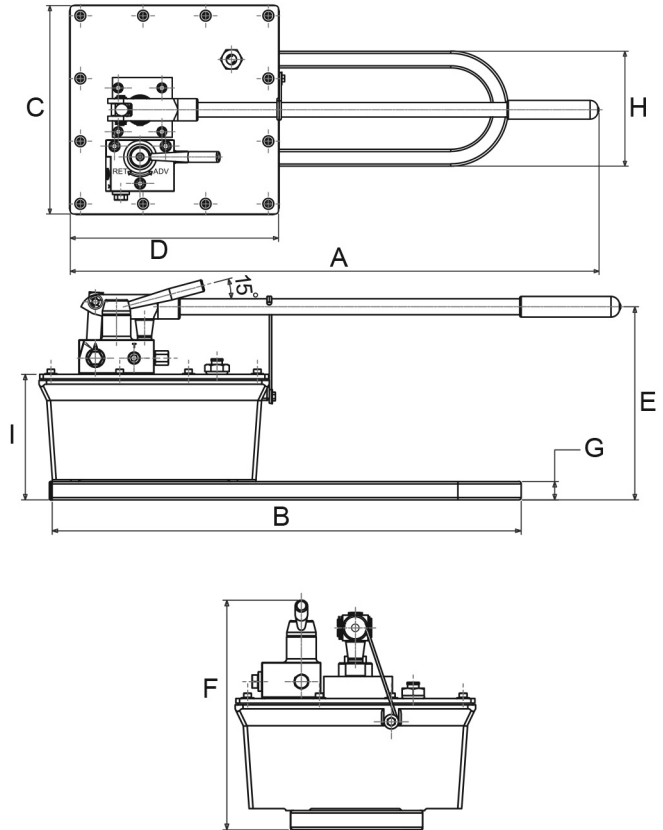
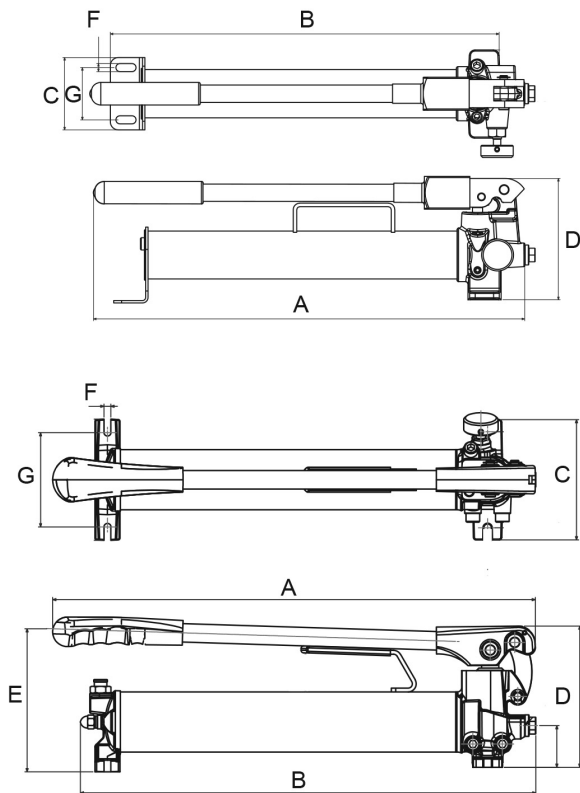


P427D

DESCRIPTION

- Rugged steel or aluminum alloy body construction and low handle efforts.
- Both single and two speed models available for single and double acting cylinders.
- Connect to double acting cylinders with no need for additional control valve or adapters needed.
- Pressure relief valves for overload protection.
- Load release valve for single acting cylinder usage.

Hand Pumps



Part Number	A (In.)	B (In.)	C (In.)	D (In.)	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)
P21L	15.40	14.21	4.81	4.99	5.11	N/A	N/A	N/A	N/A
P37	21.32	20.28	5.92	5.81	5.59	N/A	N/A	N/A	N/A
P43	25.12	21.91	5.93	5.81	5.66	N/A	N/A	N/A	N/A
P61L	21.21	19.70	4.81	5.00	5.13	N/A	N/A	N/A	N/A
P122	23.00	21.60	5.80	6.63	7.60	0.41	4.00	N/A	N/A
P122DL	24.00	22.80	5.60	5.30	5.30	N/A	N/A	N/A	N/A
P122HF	24.92	22.26	5.91	7.68	8.74	0.31	4.80	N/A	N/A
P213	24.90	20.80	5.70	6.80	7.40	0.40	3.20	N/A	N/A
P427	30.98	25.00	12.20	12.20	10.28	11.73	0.98	6.73	6.69
P427D	30.98	25.00	12.20	12.20	10.28	11.73	0.98	6.73	6.69

HAND PUMPS

Part Number	Pressure Rating (psi)		Usable Oil Capacity (in3)	Reservoir Capacity (in3)	Oil Volume/Stroke (in3)		Reservoir Construction	Use with Cylinder	Weight (lbs.)
	1st Stage	2nd Stage			1st Stage	2nd Stage			
P61L-40K	200	40,000	61	61	0.79	0.04	aluminum	S/A	11.7
P122-22K		22,000	122	122	0.79	0.06	aluminum	S/A	14.8
P61L-15K		15,000	46	61	0.79	0.10	aluminum	S/A	7.7

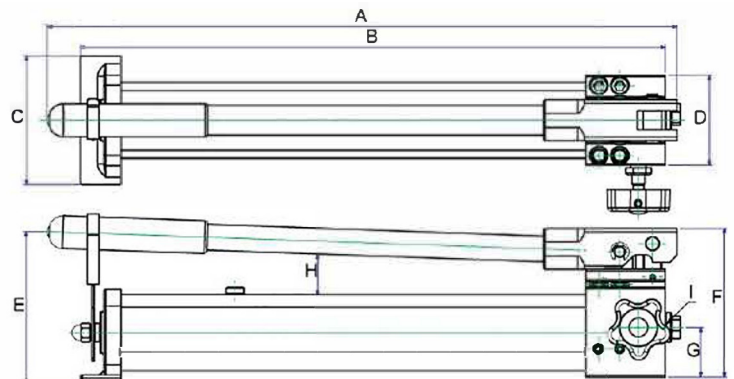


DESCRIPTION

- Rugged aluminum alloy construction with low handle efforts
- Lightweight design for easy portability
- Pressure relief valves for overload protection
- Provides ultra high pressure application at a light weight

Dimensions

Part Number	A (In.)	B (In.)	C (In.)	D (In.)	E (In.)	F (In.)	G (In.)	H (In.)
P61L-40K	24.4	19.2	3.1	5.5	4.3	6.2	1.0	1.5
P122-22K	27.5	24.8	5.9	4.0	6.0	6.2	1.9	1.5
P61L-15K	21.2	19.7	4.3	3.0	5.7	5.0	1.7	1.5



Air Over Hydraulic Pumps



PA9 shown with optional air fitting.

PA9 SERIES

AIR OVER HYDRAULIC PUMPS - PA9 SERIES

Part Number	Pressure Rating (psi)	Usable Oil (in3)	Flow rate in3/min		Reservoir Construction	Use with Cylinder	Weight (lbs.)
			No Load	10,000 psi			
PA9-37	10,000	37	132	16	aluminum alloy	S/A	12
PA9-61		61					16

AIR OVER HYDRAULIC PUMPS - PA6 SERIES

Part Number	Pressure Rating (psi)	Usable Oil (in3)	Flow Rate in3/min		Reservoir Construction	Use with Cylinder	Weight (lbs.)
			No Load	10,000 psi			
PA6-98B	3,500	98		48	cast aluminum	S/A	20
PA6-98C		98		13	cast aluminum		16
PA6-122	10,000	122	82	13	aluminum alloy	S/A	20
PA6-98R		98					23
PA6-231		231					32
PA6-122D		122				D/A	22
PA6-231D		231					32
PA6-460D		460					44

DESCRIPTION

- Air Hydraulic Turbo speed operation offering high flow at high pressure.
- Hydraulic port swivels for easy connection.
- Air pressure range 40-170 PSI.
- PA9 with mounting plate to be securely fastened.
- PA9 pumps can work in horizontal or vertical position.
- Pressure relief valve for overload protection.



PA6-98C



PA6-98R



PA6 SERIES

AIR OVER HYDRAULIC PUMPS - PA11 SERIES

Part Number	Pressure Rating (psi)	Usable Oil (in3)	Flow Rate in3/min		Reservoir Construction	Use with Cylinder	Weight (lbs.)
			No Load	3,200 psi			
PA11-122	10,000	122	143	44	aluminum alloy	S/A	20
PA11-98R		98					23
PA11-231		231					32
PA11-122D		122				D/A	22
PA11-231D		231					32
PA11-460D		460					44

DESCRIPTION

- Air Hydraulic Turbo speed operation offering high flow at high pressure.
- Hydraulic port swivels for easy connection.
- Air pressure range 40-170 PSI.
- Pressure relief valve for overload protection.



PA11 SERIES

PA11-98R

TOE JACKS

Part Number	Capacity (tons)	Stroke (in)	Min. Height (in)	Max. Handle Effort (lbs.)	Weight (lbs.)
JT2-5	2	4.73	0.67	76.4	18
JT5-5	5	4.73	1.06	49.5	49
JT10-6	10	5.71	1.22	56.2	78



DESCRIPTION

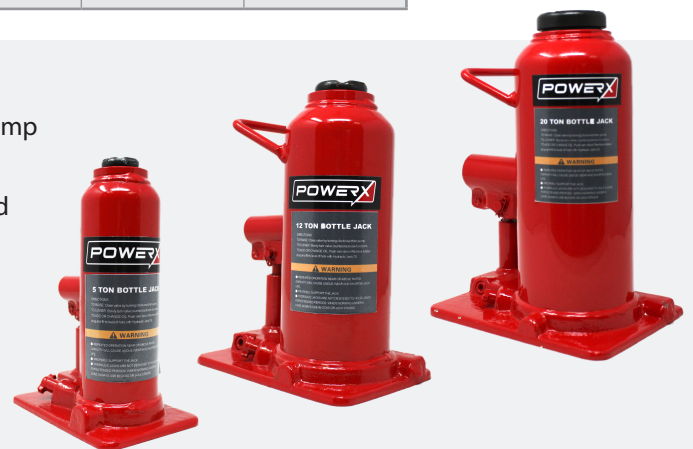
- Low toe height to fit in tight spaces.
- 5T and 10T models with swivel sockets allow access in close quarters.
- Self contained for versatility.
- Low handle operation for ease of operation.
- For structural moving, rigging, machine lifting, forklift service and more.

BOTTLE JACKS

Part Number	Capacity (tons)	Stroke (in)	Min - Max Height (in)	Ext Screw Length (in)	Saddle Dia. (in)	Weight (lbs.)
JB5-5	5	4.66	7.88 - 15.25	2.75	1.13	7.9
JBL12-4	12	3.44	6.97 - 13.38	3.00	1.67	14
JB12-6	12	5.75	9.50 - 18.38	3.13	1.50	17
JBL20-4	20	3.31	7.22 - 12.00	1.50	2.06	22
JB20-7	20	6.22	10.67 - 16.88	-	2.38	27
JB30-7	30	6.25	11.06 - 17.31	-	2.41	40

DESCRIPTION

- Heavy steel construction, cylinder, oil reservoir and pump housing are welded to the hydraulic base.
- Chrome plated rod. Pump piston is heat treated & hard chrome plated.
- Equipped with an internal load limiting device. The automatic by-pass system prevents ram over-travel.
- Operates in vertical, angled, or horizontal position.
- Load tested to 150% capacity, easy to repair.



FLAT BODY CYLINDER

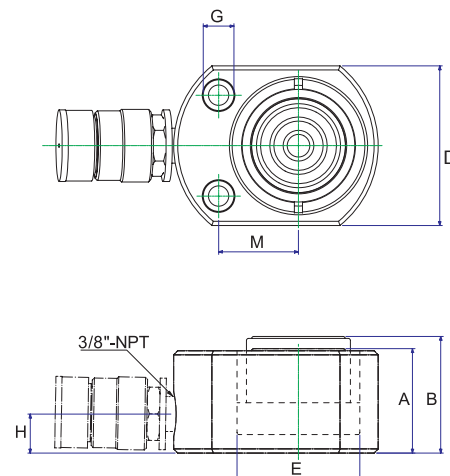


Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in ³)	(A) Collapsed Height (in)	(B) Extended Height (in)	(D) Outside Dia. (in)
CF5	5	0.25	0.25	1.28	1.53	2.31 x 1.63
CF10	10	0.44	0.98	1.69	2.13	3.25 x 2.19
CF20	20	0.44	1.95	2.03	2.47	4.00 x 3.00
CF30	30	0.50	3.25	2.31	2.81	4.63 x 3.75
CF50	50	0.63	6.07	2.63	3.25	5.50 x 4.50
CF75	75	0.63	10.03	3.13	3.75	6.50 x 5.50
CF100	100	0.63	12.39	3.38	4.00	7.00 x 6.00
CF150	150	0.67	19.34	3.94	4.61	8.86 x 7.68

Part Number	(E) Rod Diameter (in.)	Cylinder Bore (in)	Effective Area (in ²)	(H) Base to Adv. Port (in)	Rod to Base (in)	(M) Rod to Mount Hole (in)	(G) Hole Dia. (in)	Weight (lbs.)
CF5	1.00	1.13	0.99	0.63	0.81	0.88	0.20	3.0
CF10	1.50	1.69	2.24	0.75	1.09	1.34	0.28	4.0
CF20	2.00	2.38	4.43	0.75	1.56	1.56	0.40	7.0
CF30	2.50	2.88	6.51	0.75	1.88	1.75	0.40	10
CF50	2.75	3.50	9.63	0.75	2.25	2.13	0.47	15
CF75	3.25	4.50	15.92	0.75	2.75	2.63	0.53	25
CF100	3.63	5.00	19.67	0.75	3.00	2.94	0.53	32
CF150	6.50	6.25	30.70	0.91	3.38	3.35	0.53	58

DESCRIPTION

- Low profile, high tonnage steel construction.
- Single acting heavy duty spring return.
- Grooved rod end.
- 3/8" NPTF port with high flow coupler and dust cap.
- Durable exterior finish and ANSI B30.1 compliant.
- Mounting holes permit easy fixturing.

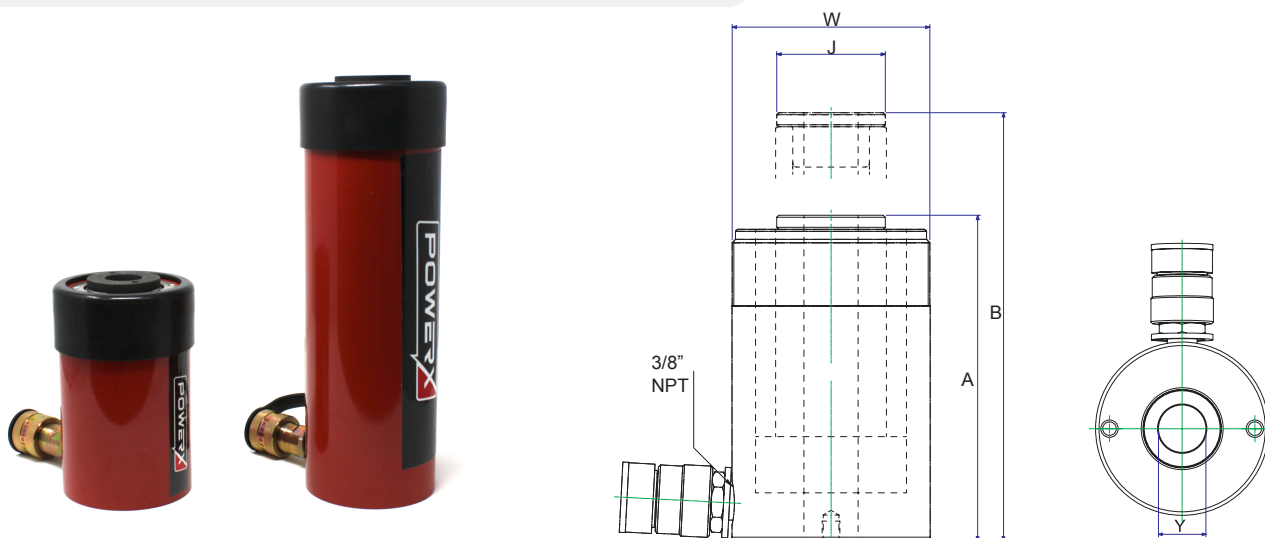


Center Hole Cylinders

Part Number	Capacity (tons)	Stroke (In.)	Oil Capacity (In ³)	(A) Collapsed Height	(Y) Center Hole Dia.	(B) Extended Height	(W) Outside Dia. (in.)	Outside Collar Thread	Inside Collar Thread	(J) Rod Dia. (In.)
CH12-0	12	0.31	0.9	2.36	0.77	2.68	2.87	2-3/4"-16"	3/4"-16"	2.09
CH12-2	12	2	4.8	4.72	0.77	6.38	2.87	2-3/4"-16"	3/4"-16"	2.09
CH12-3	12	3	8.7	7.24	0.77	10.24	2.87	2-3/4"-16"	3/4"-16"	2.09
CH20-2	20	2	8.9	6.38	1.06	8.35	3.88	3-7/8"-12"	1-9/16"-16"	2.13
CH20-6										
CH30-2	30	2	18.6	7.01	1.31	9.53	4.50	4-1/2"-12"	1-13/16"-16"	2.50
CH30-6	30	6	45.3	12.99	1.31	19.11	4.50	4-1/2"-12"	1-13/16"-16"	2.50
CH60-3	60	3	41.4	9.75	2.12	12.74	6.25	6-1/4"-12"	2-3/4"-16"	3.50
CH60-6	60	6	83.4	12.74	2.12	18.77	6.25	6-1/4"-12"	2-3/4"-16"	3.50
CH100-3	100	3	66.3	10.00	3.11	13.00	8.38	8-3/8"-12"	4"-16"	5.00
CH100-6	100	6	132.8	23.42	3.11	29.33	8.38	8-3/8"-12"	4"-16"	5.00

DESCRIPTION

- Single acting, steel construction, heavy duty spring return.
- Threaded collar, threaded rod & base mounting holes for easy fixturing.
- 3/8" NPTF port with high flow coupler and dust cap.
- Hollow chrome plated rod design allows for both, pull and push forces.
- Durable exterior finish and ANSI B30.1 compliant.



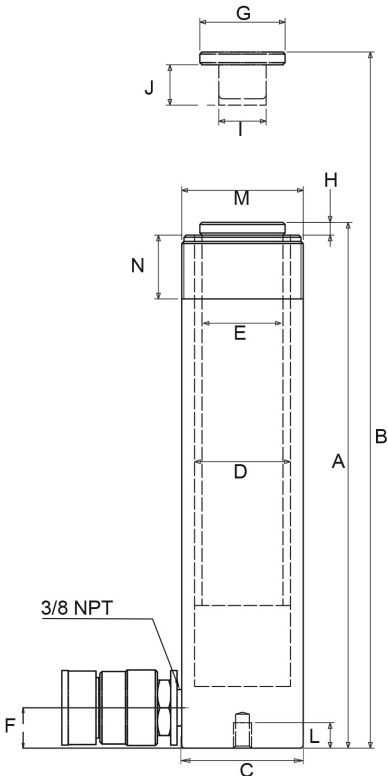


SINGLE ACTING CYLINDERS

Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in ³)	(A) Collapsed Height (in)	(B) Extended Height (in)	(C) Outside Dia. (in)	Collar Thread
C5-1	5	1	0.99	4.34	5.34	1.50	1-1/2-16
C5-3		3	2.98	6.50	9.50		
C5-5		5	4.97	8.50	13.55		
C5-7		7	6.96	10.75	17.80		
C5-9		9	9.07	12.75	21.93		
C10-1	10	1	2.24	3.62	4.62	2.25	2-1/4"-14
C10-2		2	4.75	4.86	6.91		
C10-4		4	9.23	6.85	10.88		
C10-6		6	13.70	9.86	15.76		
C10-8		8	17.89	11.85	19.80		
C10-10		10	22.65	13.85	23.80		
C10-12		12	26.81	15.87	27.83		
C10-14	14	31.40	17.72	31.75			
C15-2	15	2	6.28	5.88	7.88	2.75	2-3/4"-12
C15-4		4	12.57	7.88	11.88		
C15-6		6	18.85	10.69	16.54		
C15-8		8	25.13	12.69	20.55		
C15-10		10	31.42	14.69	24.59		
C15-12		12	37.70	16.69	28.69		
C15-14	14	43.98	18.69	32.69			
C25-1	25	1	5.25	5.40	6.44	3.35	3-5/16"-12
C25-2		2	10.31	6.83	8.84		
C25-4		4	20.63	8.78	12.74		
C25-6		6	32.23	10.79	16.95		
C25-8		8	42.55	12.80	20.77		
C25-10		10	52.86	14.80	24.78		
C25-12		12	63.18	16.73	28.98		
C25-14	14	73.49	18.74	33.00			
C55-2	55	2	22.09	6.94	8.94	5.00	5"-12
C55-4		4	44.18	8.96	12.94		
C55-6		6	69.00	11.13	17.38		
C55-10		10	110.82	15.10	25.15		
C55-13		13	146.34	18.13	31.38		
C100-6	100	6	136.67	14.06	20.69	6.99	6-7/8"-12
C100-10		10	211.45	17.69	27.94		

DESCRIPTION

- Single acting with heavy duty spring return.
- Steel construction and chrome plated rod.
- Collar threads with protective cover & base mounting holes.
- 3/8" NPTF port with high flow coupler and dust cap.
- Durable exterior finish and ANSI B30.1 compliant.



Single Acting Cylinders

(N) Thread Length (in)	(E) Rod Dia. (in)	(D) Bore Dia. (in)	Effective Area (in ²)	(F) Base to Advance Port	(G) Saddle Dia. (in)	(I) Rod Internal Thread	(J) Rod Thread Length (in)	Bolt Circle (in)	Thread	Thread Depth (in)	Weight (lbs.)
1.13	1.00	1.13	0.99	0.75	1.00	3/4"-16	0.56	1.00	1/4-20	0.56	2.3
											3.3
											4.1
											5.3
											6.1
1.13	1.50	1.69	2.24	0.75	1.50	1"-8	0.75	1.56	5/16"-18	0.50	3.9
											4.9
											6.5
											9.2
											11
											13
											15
17											
1.19	1.63	2.00	3.14	.98	1.57	1"-8	1.00	1.88	3/8"-16	0.50	9.1
											11
											15
											18
											21
											23
1.94	2.25	2.56	5.16	1.00	2.00	1-1/2"-16	1.00	2.31	1/2"-13	0.75	12
											14
											18
											22
											26
											31
											35
39											
1.75	3.13	3.75	11.04	1.38	3.15	-	-	3.75	1/2"-13	0.75	33
											39
											45
											65
1.75	4.13	5.13	20.63	1.57	4.13	-	-	5.50	3/4"-10	1.00	83
											130
											160

AUTOMOTIVE CYLINDERS

Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in ³)	Collapsed Height (in)	(A) Extended Height (in)	(G) Outside Dia. (in)	Collar Thread	(D) Thread Length (in)
CA5-5	5	5	4.97	9.28	14.28	1.5	1-1/2"-16	1.13
CA10-6	10	6	13.70	9.75	15.88	2.25	2-1/4"-14	1.13
CA10-10	10	10	22.65	13.75	23.88	2.25	2-1/4"-14	1.13
CA25-6	25	6	32.23	11.50	17.5	3.35	3-5/16"-12	1.94
CA25-10	25	10	52.86	15.5	25.5	3.35	3-5/16"-12	1.94
CA25-14	25	14	73.49	19.8	33.8	3.35	3-5/16"-12	1.94

AUTOMOTIVE CYLINDERS continued

Part Number	Rod Dia. (in)	(H) Bore Dia. (in)	Effective Area (in ²)	Base Hole Thread	Rod End Internal Thread	Weight (lbs.)
CA5-5	1.00	1.13	0.99	3/4"-14 NPT	3/4"-16	4.1
CA10-6	1.50	1.69	2.24	1-1/4"-11-1/2 NPT	1"-8	9.8
CA10-10	1.50	1.69	2.24	1-1/4"-11-1/2 NPT	1"-8	14
CA25-6	2.25	2.56	5.16	2"-11-1/2 NPT	1-1/2"-16	22
CA25-10	2.25	2.56	5.16	2"-11-1/2 NPT	1-1/2"-16	31
CA25-14	2.25	2.56	5.16	2"-11-1/2 NPT	1-1/2"-16	39

DESCRIPTION

- Single acting with heavy duty spring return.
- Collar and base threads accommodate accessories and adapters.
- 3/8" NPTF port with high flow coupler and dust cap.
- Durable exterior finish and ANSI B30.1 compliant.
- Rod end saddle, available as an option.

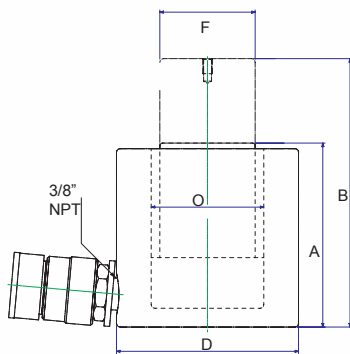


LOW PROFILE (SHORT) CYLINDERS

Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in ³)	(A) Collapsed Height (in)	(B) Extended Height (in)	(D) Outside Dia. (in)	(F) Rod Dia. (in)
CL10-1	10	1.50	3.35	3.50	4.97	2.75	1.50
CL20-2	20	1.75	7.77	3.88	5.63	3.63	2.00
CL30-2	30	2.44	15.85	4.63	7.06	4.00	2.50
CL50-2	50	2.38	22.91	5.02	7.19	4.88	2.75
CL100-2	100	2.50	44.25	5.56	7.81	6.50	3.63

LOW PROFILE (SHORT) CYLINDERS continued

Part Number	(O) Bore Dia. (in)	Effective Area (in ²)	Bolt Circle (in)	Thread	Thread Depth (in)	Weight (lbs.)
Saddle Mounting Holes						
CL10-1	1.69	2.43	1.03	M4	0.32	9
CL20-2	2.38	4.44	0.94	M5	0.32	11
CL30-2	2.88	6.50	1.42	M5	0.38	15
CL50-2	3.50	9.62	1.56	M6	0.38	24
CL100-2	5.00	19.67	2.19	M8	0.40	50



DESCRIPTION

- Single acting, steel construction, heavy duty spring return.
- Angled coupler on CL10, CL20 and CL30 allows for more compact, low profile design.
- Collar threads with protective cover & base mounting holes.
- 3/8" NPTF port with high flow couple and dust cap.
- Durable exterior finish and ANSI 830.1 compliant.



DOUBLE ACTING CYLINDERS

Part Number	Push Capacity (tons)	Pull Capacity (tons)	Stroke (in)	Oil Capacity Push (in3)	Oil Capacity Pull (in3)	(A) Collapsed Height (in)	(B) Extended Height (in)	(D) Outside Diameter (in)
CD10-6	10	4	6.00	13.50	4.60	12.10	18.10	2.88
CD10-10	10	4	10.00	22.33	8.00	16.13	26.13	2.88
CD10-12	10	4	12.00	26.80	9.00	18.00	30.00	2.88
CD25-6	24.5	7	6.25	30.68	8.42	12.47	18.72	4.00
CD30-8	30	15	8.25	53.67	25.00	15.25	23.50	4.00
CD30-14	30	15	14.50	92.70	43.00	21.63	36.13	4.00
CD55-6	55	17	6.13	67.77	21.00	13.06	19.19	5.00
CD55-13	55	17	13.13	145.17	44.00	20.06	33.19	5.00
CD80-6	80	24	6.13	97.58	29.00	13.69	19.81	5.75
CD80-13	80	24	13.13	209.00	64.00	20.69	33.81	5.75
CD100-6	100	48	6.63	136.93	63.00	14.06	20.69	7.00
CD100-13	100	48	13.00	271.17	126.00	20.63	33.75	7.00

DESCRIPTION

- Double acting, allows for both, push and pull forces.
- Ability to control cylinder speed in both extension and retraction. (additional components required).
- Steel construction and chrome plated rod.
- 10T to 100T capacity with 6" to 14-1/2" stroke.
- Collar threads for easy fixturing.
- 3/8" NPTF port with high flow coupler and dust cap.
- Durable exterior finish and ANSI B30.1 compliant.

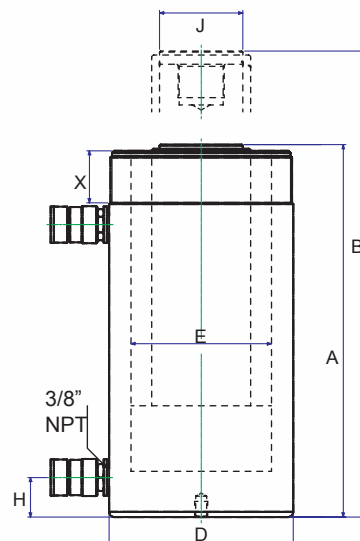


Double Acting Cylinders

(X) Collar Thread (in)	(J) Bore Diameter (in)	(E) Rod Diameter (in)	Effective Area Push (in ²)	Effective Area Pull (in ²)	(H) Base to Advance Port (in)	Bolt Circle (in)	Thread	Thread Depth (in)	Weight (lbs.)
						Base Mounting Holes			
2-1/4"-14	1.69	1.38	2.23	0.80	1.44	-	-	-	20
2-1/4"-14	1.69	1.38	2.23	0.80	1.44	-	-	-	28
2-1/4"-14	1.69	1.38	2.23	0.80	1.44	-	-	-	31
4"-12	2.50	2.13	4.91	1.35	1.00	-	-	-	40
3-5/16"-12	2.88	2.13	6.51	3.00	1.44	-	-	-	40
3-5/16"-12	2.88	2.13	6.51	3.00	1.56	-	-	-	64
5"-12	3.75	3.13	11.06	3.40	1.13	-	-	-	67
5"-12	3.75	3.13	11.06	3.40	1.13	-	-	-	115
5-3/4"-12	4.50	3.75	15.92	4.90	1.19	-	-	-	92
5-3/4"-12	4.50	3.75	15.92	4.90	1.19	-	-	-	150
6-7/8"-12	5.13	3.75	20.65	9.60	1.50	5.5	3/4"-10	1	135
6-7/8"-12	5.13	3.75	20.65	9.60	1.50	5.5	3/4"-10	1	205



For 150 ton cylinders and up, see page 28



HIGH TONNAGE DOUBLE ACTING CYLINDERS

Part Number	Push Capacity (tons)	Stroke (in)	Oil Capacity (in3)	Retracted Height (in)
CD150-2	150	2	60	7.75
CD150-6	150	6	182	11.75
CD150-12	150	12	360	17.75
CD200-2	200	2	81	8.50
CD200-6	200	6	244	12.50
CD200-8	200	8	323	14.50
CD200-12	200	12	487	18.50
CD250-6	250	6	333	13.25
CD250-18	250	12	667	19.25
CD300-2	300	2	140	12.50
CD300-6	300	6	418	16.50
CD300-12	300	12	836	22.50
CD400-6	400	6	513	18.75
CD400-12	400	12	1043	24.75
CD500-2	500	2	223	16.75
CD500-6	500	6	669	20.75
CD500-12	500	12	1338	26.75

HIGH TONNAGE SINGLE ACTING CYLINDERS

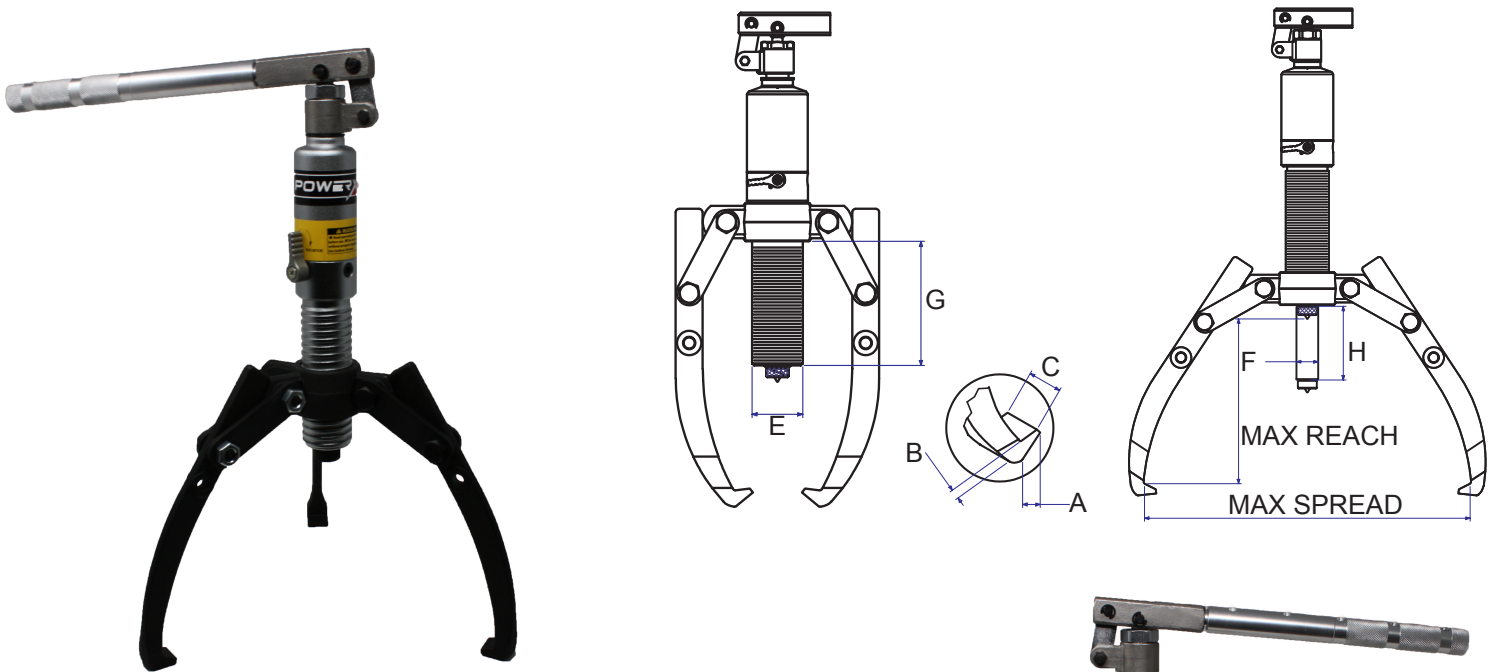
Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in3)	Retracted Height (in)
C150-6	150	6	182.00	11.65
C150-10	150	10	303	15.65
C150-12	150	12	364	17.65
C200-6	200	6	244	12.50
C200-12	200	12	487	18.50
C250-2	250	2	112	9.50
C250-6	250	6	336	13.50
C250-12	250	12	671	19.50
C300-2	300	2	140	12.50
C300-6	300	6	418	16.50
C300-12	300	12	836	22.50
C400-2	400	2	171	14.75
C400-6	400	6	513	18.75
C400-12	400	12	1026	24.75
C500-2	500	2	223	16.50
C500-6	500	6	669	20.50
C500-12	500	12	1338	26.50

SINGLE ACTING ALUMINUM CYLINDERS

Part Number	Capacity (tons)	Stroke (in)	Oil Capacity (in3)	Retracted Height (in)
CAL20-2	20	2	9.39	6.38
CAL20-4	20	4	18.24	8.39
CAL20-6	20	6	27.05	10.37
CAL30-2	30	2	14.52	7.38
CAL30-4	30	4	28.24	9.37
CAL30-6	30	6	41.97	11.38
CAL55-2	55	2	22.39	6.73
CAL55-4	55	4	45.50	8.74
CAL55-6	55	6	67.71	10.75
CAL100-2	100	2	43.80	7.76
CAL100-6	100	6	129.08	11.75



Hydraulic Pullers



DESCRIPTION

- Ideal for pulling a wide variety of parts, including bearings, bushings, wheels, gears and pulleys.
- The self-contained hydraulic pump saves space. A separate hose and pump are not needed to operate.
- Includes a 2 and 3 jaw puller, cross head puller, bearing attachment and all associated hardware.
- Safety release valve to prevent overloading.
- Five position adjustable handle allows for better positioning in tight areas.
- Easy to carry blow molded case for component storage.



HYDRAULIC PULLER KITS

Part Number	Capacity (Ton)	Reach (Max. in.)	Spread (Max. in.)	Stroke (in.) H	Pump Tip (in)			Jaw Tip (in)			Weight (lbs.)
					E	F	G	A	B	C	
HPK4	4	7.28	10.04	2.36	1.65	0.87	3.31	0.43	0.24	0.87	9.9
HPK8	8	9.05	13.78	3.35	1.97	0.98	4.80	0.43	0.39	0.98	25.4
HPK12	12	10.63	14.76	3.35	2.36	1.10	4.65	0.55	0.39	1.14	30.9
HPK20	20	14.17	20.47	4.37	3.15	1.57	6.34	0.79	1.06	1.30	44.1
HPK30	30	14.17	21.65	4.37	3.86	1.97	6.10	0.79	1.06	1.50	66.1



PORTABLE POWER PACKS

DESCRIPTION

- Snap together design for fast and easy assembly and disassembly.
- Tool components forged for rigidity and durability.
- 10,000 psi single speed pump with automatic overload system.
- Easy to carry blow molded case for components storage.
- Available in both 4 ton and 10 ton capacity kits.

Each MRK4 4 Ton Power Pack Contains:

- (1) Hydraulic Pump
- (1) 6 Foot Hose
- (1) 4 Ton 4" Stroke Cylinder
- (1) 1/2 Ton Spreader
- (4) Extension Tubes
- (1) Male Connector
- (1) Flat Base
- (1) 90 Degree "V" Base
- (1) Wedge Head
- (1) Spreader Plunger Toe
- (1) Spreader Ram Toe
- (1) Flex Head
- (1) Serrated Saddle
- (1) Blow Molded Case

Each MRK10 10 Ton Power Pack Contains:

- (1) Hydraulic Pump
- (1) 6 Foot Hose
- (1) 10 Ton 6" Stroke Cylinder
- (1) 1/2 Ton Spreader
- (4) Extension Tubes
- (1) Male Connector
- (1) Flat Base
- (1) 90 Degree "V" Base
- (1) Wedge Head
- (1) Spreader Plunger Toe
- (1) Spreader Ram Toe
- (1) Flex Head
- (1) Serrated Saddle
- (1) Blow Molded Case

HYDRAULIC SPREADERS

Part Number	Spread (in.)		Capacity (Tons)	Weight (lbs.)
	Min. (A)	Max. (B)		
PXFS15-FL	.24	.63	15	7.3
PXFS15-ST	.24	.63	15	7.3
PXFS25-FL	.31	1.0	25	17
PXHS-1000	1.3	11.9	1	25
PXHS-0750	1.0	3.0	.75	5



PXFS15-FL

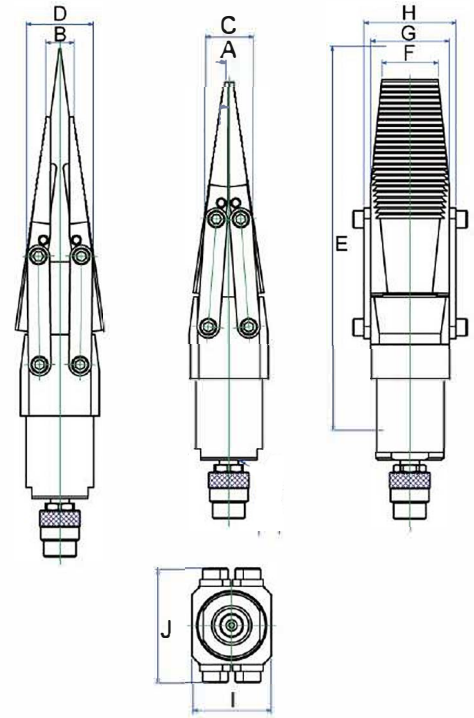
PXFS15-ST

PXFS25-FL



PXHS-1000

PXHS-0750



DESCRIPTION

- Compact design will optimize use in low clearance applications
- Lightweight for increased portability
- Manufactured from high quality hardened steel

Dimensions

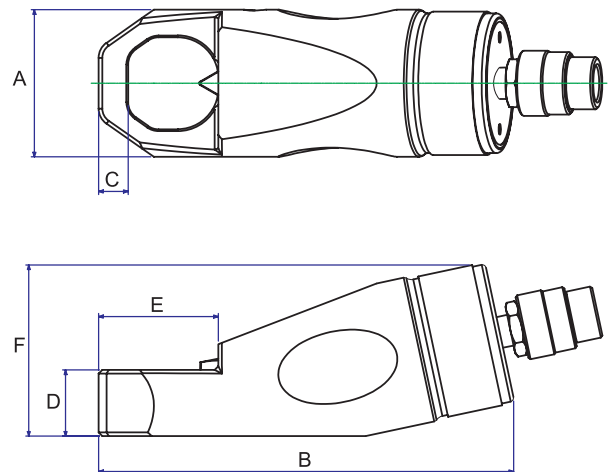
Part Number	C (In.)	D (In.)	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.)
PXFS15-FL	1.4	1.8	9.1	1.2	1.8	2.2	2.5	2.5
PXFS15-ST	1.4	1.8	9.1	1.2	1.8	2.2	2.5	2.5
PXFS25-FL	1.7	2.3	13.5	2.0	2.8	3.2	2.8	4.0
PXHS-1000	6.6	6.6	19.2	2.4	2.4	2.4	2.4	6.6
PXHS-0750	1.0	2.1	8.8	2.1	2.1	2.1	2.1	2.1

NUT SPLITTERS

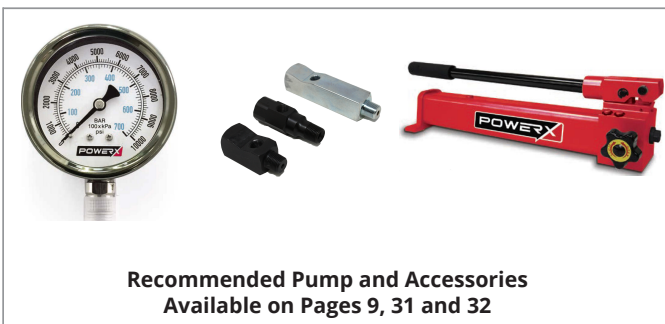
Part Number	Hexagon Nut Range (in.)	Bolt Range (in)	Capacity (Ton)	Oil Capacity (in ³)	Dimensions						Weight (lbs.)
					A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	
PXNS1924	.75 - .94	.44 - .56	10	1.22	2.36	6.58	0.39	0.98	1.57	2.68	4.6
PXNS2432	.94 - 1.13	.56 - .75	15	3.66	2.76	7.01	0.51	1.18	2.05	2.99	6.8
PXNS3241	1.13 - 1.56	.75 - 1.00	20	4.88	3.15	8.90	0.59	1.42	2.56	3.66	9.3

DESCRIPTION

- Compact design for use in confined spaces.
- All models feature a rugged one-piece cutting frame coupled to a heavy-duty hydraulic cylinder.
- Specially designed "tool steel" cutter blade cuts the nut with accuracy and precision.
- Unique angled head design to keep contact with the nut during operation.
- Angled cutter blade with radius produces greater resistance for cutting and splitting.
- Our nut splitters include a spare blade, a spare set screw and the wrench used to secure the chisel.

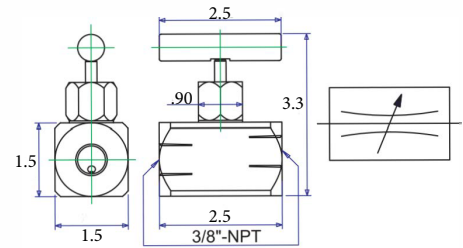


Recommended Pump and Accessories



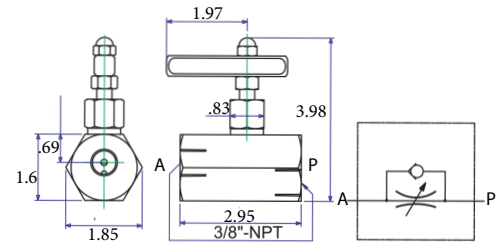
Part Number: VNO-33

- Used for normal flow control
- Can be used as a shut off valve
- Maximum working pressure : 10,000 psi / 700 Bar
- 1/4 NPT needle valve available on request



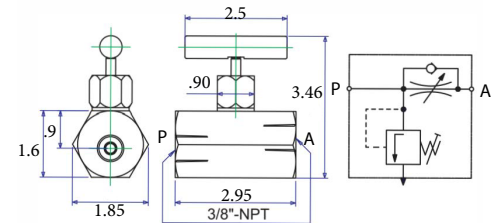
Part Number VNC-33

- Used for precise metering of flow
- Bypass flow control in return direction
- Temporary shut off only
- Maximum working pressure : 10,000 psi / 700 Bar



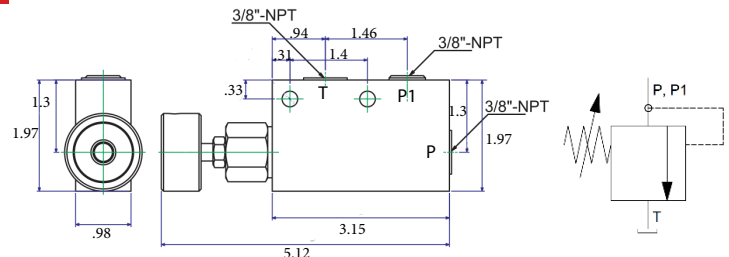
Part Number: VNR-33

- Needle valve style load holding
- Bypass flow control in return direction
- Built in pressure relief valve
- Maximum working pressure : 10,000 psi / 700 Bar



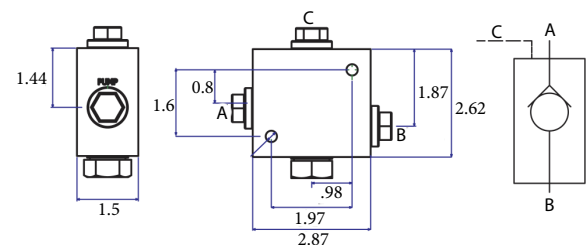
Part Number: VRO-33

- Inline pressure relief valve
- Adjustable from 100 - 10,000 psi
- Built in pressure relief valve
- Maximum working pressure : 10,000 psi / 700 Bar



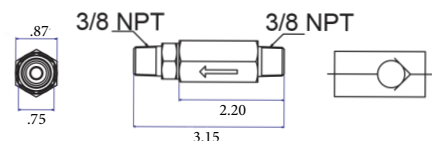
Part Number: VCP-333

- Inline pilot operated check valve
- 3/8 NPT female threads
- Maximum working pressure : 10,000 psi / 700 Bar



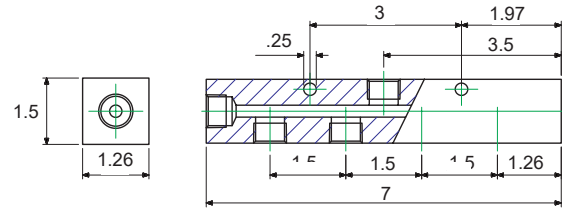
Part Number: VCO-33

- Inline check valve
- 3/8 NPT male threads
- Maximum working pressure : 10,000 psi / 700 Bar



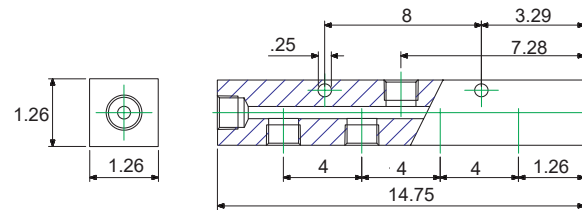
Part Number: FRM-3-7

- 7 X 3/8 NPT manifold block.
- Ideal as return manifold or when gauges are not required.
- Maximum working pressure : 10,000 psi / 700 Bar.



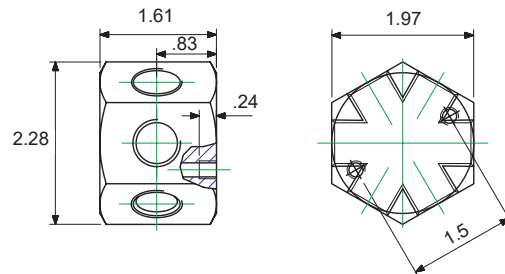
Part Number: FRM-3-14

- 7 X 3/8 NPT manifold block.
- Larger gap between ports ideal for use with gauges.
- Maximum working pressure : 10,000 psi / 700 Bar.



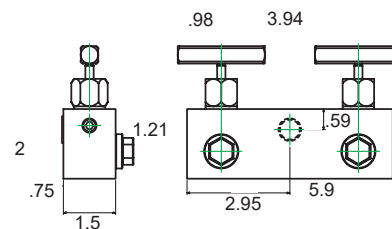
Part Number: FRM-6

- 6 X 3/8 NPT manifold block.
- Hex design to allow for multiple angle connection.
- Maximum working pressure : 10,000 psi / 700 Bar.



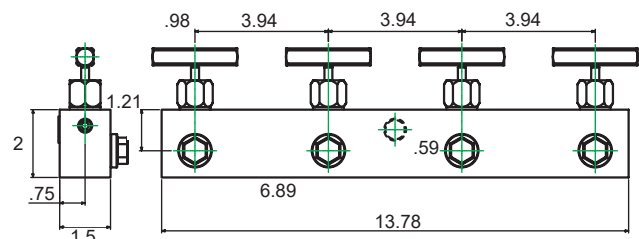
Part Number: VMN-2-3

- 3 X 3/8 NPT ports.
- Built in needle valves for 2 outlet flow control.
- Maximum working pressure : 10,000 psi / 700 Bar.



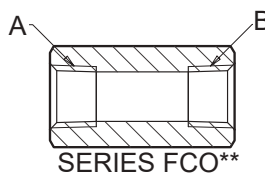
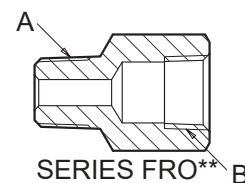
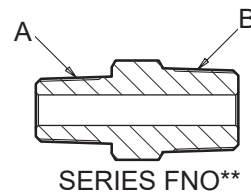
Part Number: VMN-4-3

- 5 X 3/8 NPT manifold block.
- Built in needle valves for 4 outlet flow control.
- Maximum working pressure : 10,000 psi / 700 Bar.



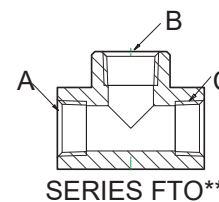
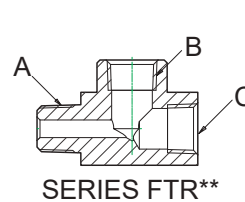
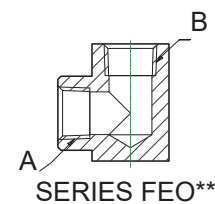
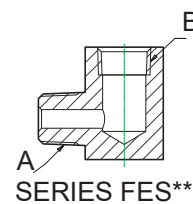
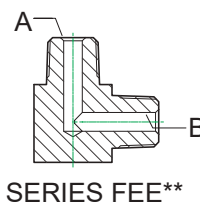
STRAIGHT CONNECTORS

Model	(A)		(B)	
	Thread	Type	Thread	Type
FNO-33	3/8 NPT	Male	3/8 NPT	Male
FNO-22	1/4 NPT	Male	1/4 NPT	Male
FNO-23	1/4 NPT	Male	3/8 NPT	Male
FRO-23	1/4 NPT	Male	3/8 NPT	Female
FRO-32	3/8 NPT	Male	1/4 NPT	Female
FCO-33	3/8 NPT	Female	3/8 NPT	Female
FCO-22	1/4 NPT	Female	1/4 NPT	Female
FCO-23	1/4 NPT	Female </td <td>3/8 NPT</td> <td>Female</td>	3/8 NPT	Female



ELBOW AND TEE CONNECTORS

Model	(A)		(B)		(C)	
	Thread	Type	Thread	Type	Thread	Type
FEE-33	3/8 NPT	Male	3/8 NPT	Male	-	-
FES-33	3/8 NPT	Male	3/8 NPT	Female	-	-
FEO-33	3/8 NPT	Female	3/8 NPT	Female	-	-
FTR-333	3/8 NPT	Male	3/8 NPT	Female	3/8 NPT	Female
FTO-222	1/4 NPT	Female	1/4 NPT	Female	1/4 NPT	Female
FTO-333	3/8 NPT	Female	3/8 NPT	Female	3/8 NPT	Female



PRESSURE GAUGES

Part Number	Face Diameter (in)	Port Size, Mount & Fill	Pressure Range (psi)	Pressure Range (bar)
GV25D	2.5	1/4" NPT, lower & no fill	0 - 10,000	0 - 700
GV40D	4			
GV25L	2.5	1/4" NPT, lower & liq. filled	0 - 25,000	0 - 1500
GV40L	4			
GV40D-25	4	Cone (1/4-28 LH), lower & no fill	0 - 25,000	0 - 1500
GV40D-40	4		0 - 40,000	0 - 2800
GV40L-25	4	Cone (1/4-28 LH), lower & liq. filled	0 - 25,000	0 - 1500
GV40L-40	4		0 - 40,000	0 - 2800



HYDRAULIC HOSES

Part Number	Diameter (in)	Length (ft)	Operating Pressure (psi)
HA25-3	1/4"	3	10,000
HA25-6	1/4"	6	
HA25-10	1/4"	10	
HA25-20	1/4"	20	
	3/8"	4	
HA38-6	3/8"	6	
HA38-10	3/8"	10	
HA38-20	3/8"	20	
HA38-50	3/8"	50	



DESCRIPTION

- Hoses are MSHA approved.
- Neoprene cover is resistant to abrasion, oil, and weather.
- Temperature range of -40° to +250°F.



HIGH FLOW COUPLERS

Part Number	Size	Operating Pressure (psi)	Type
HFC-F-375	3/8"	10,000	Female
HFC-M-375	3/8"	10,000	Male
HFC-375	3/8"	10,000	Set

DESCRIPTION

- Designed for higher flow capacities and lower pressure losses than standard couplers.
- Threaded union design allows for fast component changes.
- Couplers permit safe separation at zero psi, with minimal oil loss.

CONE FITTING "T" ASSEMBLY

Part Number	Ports	Length (in.)
PX003130	3/4-16 M x 1/4-28 LH FM x 3/8-24 LH FM	5.8



DESCRIPTION

- Designed for ultra high pressure applications, up to 40,000 psi.

GAUGE ADAPTOR

Part Number	Overall Size (in.)	Port Sizes (NPT)
FGA-332-S26	2.5 x 1 x 1	3/8", 3/8", 1/4"
FGA-332-S45	4.5 x 1 x 1	3/8", 3/8", 1/4"
FGA-332-H30	3 x 1 x 1	3/8", 3/8", 1/4"



DESCRIPTION

- Designed for high pressure applications, up to 10,000 psi.
- Stainless steel construction.

PREMIUM HYDRAULIC FLUID

Part Number	UoM	Package	Weight (lbs)
PL-1	Bottle	1 gallon	8
PL-4	Case	4 - 1 gallon bottles	30

DESCRIPTION

- Premium hydraulic fluid made from virgin oil stock.
- Resists thermal breakdown.
- Superior anti-wear protections.
- Designed to meet the most stringent requirements of all major manufactures of hydraulic equipment.





The patented steel Safety Cage locks the puller jaws securely in place at all times. This prevents the jaws from snapping back or slipping off the work surface.

The T-handle opens and closes the jaws for a one-person setup and operation. This substantially increases productivity, tool life and safety for the technician.

Manual Pullers

Posi Lock offers the safest, highest quality puller on the market. A complete line of 2- and 3-jaw manual pullers are available—ranging from 1- to 40-ton capacity.

Posi Lock also offers specialty pullers and parts for many industries, including automotive, HVAC, wind-power, and many others.

Hydraulic Pullers

Posi Lock's hydraulic puller systems make the hardest jobs easier and safer. A complete line of 2- and 3-jaw hydraulic pullers are available ranging from 5- to 200-ton capacity.



Manual Pullers: 1-Ton to 40-Ton

Manual Pullers | The Cage[®] is the Key

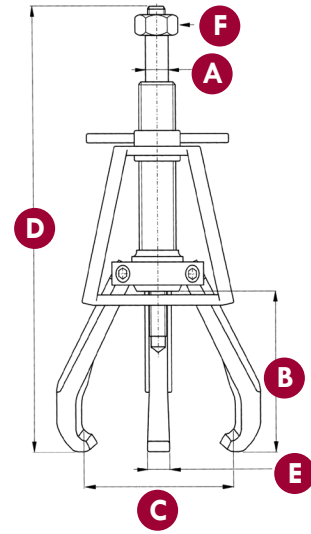
The Posi Lock[®] line of quality manual gear and bearing pullers set the standard for quickness, ease and convenience. With Posi Lock, it's strictly a one-person operation. The T-handle and Cage control the jaws at all times. This means that the opening, closing, locking and aligning of the jaws are all done automatically by simply turning the T-handle.

Posi Lock pullers have been designed for effective removal of stubborn gears, bearings, pulleys, and other press fit items from any machine in diverse industries.

CHOOSING A MANUAL PULLER

The center bolt diameter must be at least one-half (1/2) as large as the diameter of the shaft from which the object will be removed.

2- AND 3-JAW EXTERNAL PULLERS



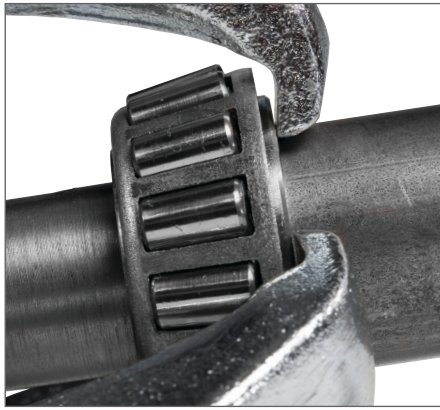
External Pullers

Model Number	Number of Jaws	Capacity Tons (kN)	Center Bolt Diameter A in. (mm)	Reach B in. (mm)	Spread Range C in. (mm)	Maximum Torque ft./lb. (N*m)	Weight lbs. (kg)	Dimensions
								Overall Length D in. (mm)
PX202	2	1 ton (9 kN)	.31 in. (7.9 mm)	2.25 in. (57 mm)	.25 to 3.25 in. (6.4 to 82.6 mm)	—	.62 lbs. (.28 kg)	5.52 in. (140.2 mm)
PX102	3	1 ton (9 kN)	.31 in. (7.9 mm)	2.25 in. (57 mm)	.25 to 3.25 in. (6.4 to 82.6 mm)	—	.68 lbs. (.31 kg)	5.52 in. (140.2 mm)
PX203	2	2 tons (18 kN)	.37 in. (9.4 mm)	3 in. (76.2 mm)	.25 to 4.5 in. (6.4 to 114.3 mm)	—	1.12 lbs. (.51 kg)	7 in. (177.8 mm)
PX103	3	2 tons (18 kN)	.37 in. (9.4 mm)	3 in. (76.2 mm)	.25 to 4.5 in. (6.4 to 114.3 mm)	—	1.3 lbs. (.59 kg)	7 in. (177.8 mm)
PX204	2	2 tons (18 kN)	.5 in. (12.7 mm)	4 in. (102 mm)	.5 to 5 in. (13 to 127 mm)	20 ft./lb. (27 N*m)	3.2 lbs. (1.5 kg)	10.05 in. (255.3 mm)
PX104	3	5 tons (44 kN)	.5 in. (12.7 mm)	4 in. (102 mm)	.5 to 5 in. (13 to 127 mm)	40 ft./lb. (54 N*m)	4.1 lbs. (1.9 kg)	10.05 in. (255.3 mm)
PX206	2	6 tons (53 kN)	.62 in. (15.8 mm)	6 in. (152 mm)	.5 to 7 in. (13 to 178 mm)	75 ft./lb. (101 N*m)	7 lbs. (3.2 kg)	13.32 in. (338.3 mm)
PX106	3	10 tons (89 kN)	.62 in. (15.8 mm)	6 in. (152 mm)	.5 to 7 in. (13 to 178 mm)	130 ft./lb. (176 N*m)	8 lbs. (3.6 kg)	13.32 in. (338.3 mm)
PX208	2	12 tons (107 kN)	.75 in. (19 mm)	8 in. (203 mm)	.75 to 12 in. (19 to 305 mm)	150 ft./lb. (203 N*m)	12 lbs. (5.4 kg)	16.25 in. (412.8 mm)
PX108	3	17 tons (151 kN)	.75 in. (19 mm)	8 in. (203 mm)	.75 to 12 in. (19 to 305 mm)	220 ft./lb. (297 N*m)	14 lbs. (6.4 kg)	16.25 in. (412.8 mm)
PX210	2	14 tons (125 kN)	.75 in. (19 mm)	9.67 in. (245 mm)	1 to 15 in. (25 to 381 mm)	175 ft./lb. (237 N*m)	13 lbs. (5.9 kg)	20.41 in. (518.4 mm)
PX110	3	20 tons (178 kN)	.75 in. (19 mm)	9.67 in. (245 mm)	1 to 15 in. (25 to 381 mm)	275 ft./lb. (372 N*m)	16 lbs. (7.3 kg)	20.41 in. (518.4 mm)
PX213	2	25 tons (222 kN)	1.12 in. (28.5 mm)	12 in. (305 mm)	2.5 to 18 in. (64 to 457 mm)	475 ft./lb. (642 N*m)	38 lbs. (17.3 kg)	27.25 in. (692.2 mm)
PX113	3	30 tons (267 kN)	1.12 in. (28.5 mm)	12 in. (305 mm)	2.5 to 18 in. (64 to 457 mm)	600 ft./lb. (811 N*m)	44 lbs. (19.9 kg)	27.25 in. (692.2 mm)
PX216	2	35 tons (311 kN)	1.25 in. (32 mm)	14 in. (356 mm)	3 to 25 in. (76 to 635 mm)	800 ft./lb. (1,081 N*m)	57 lbs. (25.9 kg)	32.04 in. (813.8 mm)
PX116	3	40 tons (356 kN)	1.25 in. (32 mm)	14 in. (356 mm)	3 to 25 in. (76 to 635 mm)	850 ft./lb. (1,149 N*m)	68 lbs. (30.9 kg)	32.04 in. (813.8 mm)

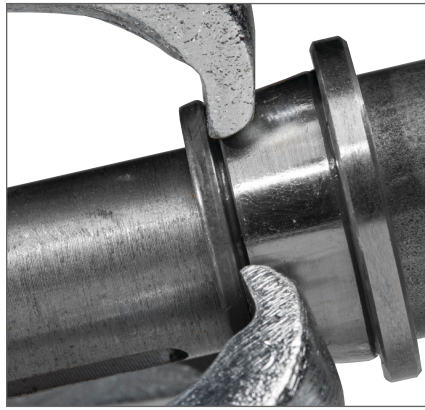
*Tip Protectors come standard with Models 204-116.

Internal Puller

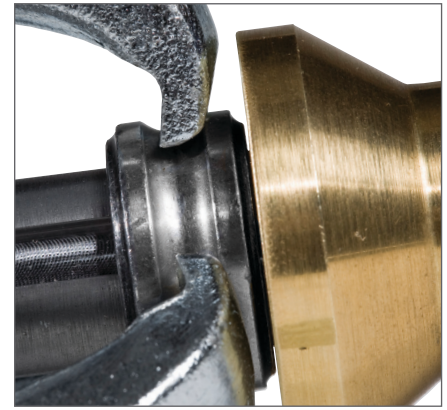
Model Number	Number of Jaws	Jaw Style	Reach A in. (mm)	Spread Range B in. (mm)	Slide Hammer Weight lbs. (kg)	Dimensions				Optional Accessories
						Overall Length C in. (mm)	Slide Rod Diameter D in. (mm)	Jaw Width E in. (mm)	Jaw Length in. (mm)	Slide Hammer Weight lbs. (kg)
PXPM16	3	Standard	Up to 2.78 in. (70.6 mm)	.56 to 4 in. (14.2 to 101.6 mm)	2.5 lbs. (1.13 kg)	29 in. (736.6 mm)	.52 in. (13.2 mm)	.33 in. (8.4 mm)	6.62 in. (168.1 mm)	5 lbs. (2.27 kg)
		Long	Up to 9 in. (228.6 mm)	1 to 5.25 in. (25.4 to 133.4 mm)	2.5 lbs. (1.13 kg)	31 in. (787.4 mm)	.52 in. (13.2 mm)	.33 in. (8.4 mm)	8.62 in. (218.9 mm)	5 lbs. (2.27 kg)



Tapered jaw design allows clamping around bearing for a perfect pull



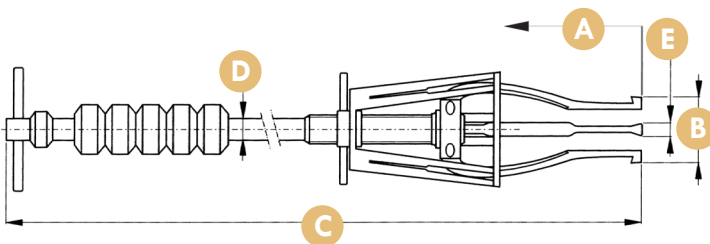
Tapered roller bearing on shaft



Lock on ball grooves and bearing races

Dimensions		Accessories						
Jaw Width	Hex Socket Size	Image		Image			Image	
E in. (mm)	F in. (mm)	Tip Protectors	Bolt Extenders	Part Number	Long Jaw Reach in. (mm)	Long jaw Spread in. (mm)	Transmission Jaws	
.25 in. (6.4 mm)	—	—	—	—	—	—	—	
.25 in. (6.4 mm)	—	—	—	—	—	—	—	
.31 in. (8 mm)	—	—	—	—	—	—	—	
.31 in. (8 mm)	—	—	—	—	—	—	—	
.62 in. (15.8 mm)	¾ in. (19 mm)	P4	X4	—	—	—	10454T	
.62 in. (15.8 mm)	¾ in. (19 mm)	P4	X4	—	—	—	10454T	
.75 in. (19 mm)	¾ in. (19 mm)	P6	X6	—	—	—	10654T	
.75 in. (19 mm)	¾ in. (19 mm)	P6	X6	—	—	—	10654T	
.88 in. (22.2 mm)	1 in. (25.4 mm)	P10	X10	11054/11054L	9.67 in. (245 mm)/16 in. (406 mm)	1.5 to 15 in. (38 to 381 mm)/2.25 to 22 in. (57 to 559 mm)	11054T	
.88 in. (22.2 mm)	1 in. (25.4 mm)	P10	X10	11054/11054L	9.67 in. (245 mm)/16 in. (406 mm)	1.5 to 15 in. (38 to 381 mm)/2.25 to 22 in. (57 to 559 mm)	11054T	
1 in. (25.4 mm)	1 in. (25.4 mm)	P10	X10	11054L	16 in. (406 mm)	2.25 to 22 in. (57 to 559 mm)	11054T	
1 in. (25.4 mm)	1 in. (25.4 mm)	P10	X10	11054L	16 in. (406 mm)	2.25 to 22 in. (57 to 559 mm)	11054T	
1.25 in. (32 mm)	1¼ in. (32 mm)	P13/16	—	11354L	20 in. (508 mm)	1.5 to 30 in. (38 to 762 mm)	—	
1.25 in. (32 mm)	1¼ in. (32 mm)	P13/16	—	11354L	20 in. (508 mm)	1.5 to 30 in. (38 to 762 mm)	—	
1.50 in. (38 mm)	1½ in. (38 mm)	P13/16	—	11654L	26 in. (660 mm)	2 to 38 in. (51 to 965 mm)	—	
1.50 in. (38 mm)	1½ in. (38 mm)	P13/16	—	11654L	26 in. (660 mm)	2 to 38 in. (51 to 965 mm)	—	

PMI6 INTERNAL PULLER



Internal Slide Hammer Puller Set | PXPM16



Set Includes:

- (1) Model 105 Internal Puller | 3-Jaw
 - (1) 10561 Slide Rod | 24 in. (609 mm)
 - (1) 10562 2.5 lb. (1.13 kg) Slide Hammer
 - (1) L5 Long Jaw Set
 - (1) Tool Board & Accessories
- Optional Accessory: 10563 5 lb. (2.27 kg) Slide Hammer

Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 15 lbs (6.8 kg)

5 to 20-Ton Capacity | PXPM4



Set Includes:

- (1) Model 104 Puller | 3-Jaw | 5 ton (44 kN)
- (1) Model 106 Puller | 3-Jaw | 10 ton (89 kN)
- (1) Model 206 Puller | 2-Jaw | 6 ton (53 kN)
- (1) Model 110 Puller | 3-Jaw | 20 ton (178 kN)
- (1) P4 Tip Protector
- (2) P6 Tip Protectors
- (1) P10 Tip Protector
- (1) Tool Board & Accessories

Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 42 lbs (19.1 kg)

6 to 20-Ton Capacity | PXPM4L



Set Includes:

- (1) Model 106 Puller | 3-Jaw | 10 ton (89 kN)
- (1) Model 206 Puller | 2-Jaw | 6 ton (53 kN)
- (1) Model 110 Puller | 3-Jaw | 20 ton (178 kN)
- (1) Model 210 Puller | 2-Jaw | 14 ton (125 kN)
- (2) P6 Tip Protectors
- (2) P10 Tip Protectors
- (1) Tool Board & Accessories

Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 50 lbs (22.7 kg)

2 to 10-Ton Capacity | PXPM4S



Set Includes:

- (1) Model 104 Puller | 3-Jaw | 5 ton (44 kN)
- (1) Model 204 Puller | 2-Jaw | 2 ton (18 kN)
- (1) Model 106 Puller | 3-Jaw | 10 ton (89 kN)
- (1) Model 206 Puller | 2-Jaw | 6 ton (53 kN)
- (2) P4 Tip Protectors
- (2) P6 Tip Protectors
- (1) Tool Board & Accessories

Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 30 lbs (13.6 kg)

2 to 20-Ton Capacity | PXPM5



Set Includes:

- (1) Model 103 Puller | 3-Jaw | 2 ton (18 kN)
- (1) Model 104 Puller | 3-Jaw | 5 ton (44 kN)
- (1) Model 106 Puller | 3-Jaw | 10 ton (89 kN)
- (1) Model 206 Puller | 2-Jaw | 6 ton (53 kN)
- (1) Model 110 Puller | 3-Jaw | 20 ton (178 kN)
- (1) P4 Tip Protector
- (2) P6 Tip Protectors
- (1) P10 Tip Protector
- (1) Tool Board & Accessories

Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 51 lbs (23.2 kg)

2 to 20-Ton Capacity | PXPM6

Set Includes:

- | | | |
|---|--|-------------------------------|
| (1) Model 104 Puller 3-Jaw 5 ton (44 kN) | (1) Model 110 Puller 3-Jaw 20 ton (178 kN) | (2) P10 Tip Protectors |
| (1) Model 204 Puller 2-Jaw 2 ton (18 kN) | (1) Model 210 Puller 2-Jaw 14 ton (125 kN) | (2) Tool Boards & Accessories |
| (1) Model 106 Puller 3-Jaw 10 ton (89 kN) | (2) P4 Tip Protectors | |
| (1) Model 206 Puller 2-Jaw 6 ton (53 kN) | (2) P6 Tip Protectors | |



Tool Board Size:
16 x 26 in.
(406 x 660 mm)

Weight:
62 lbs
(28.1 kg)

Master Puller Set | PXMPS16



Tool Board Size: 16 x 26 in. (406 x 660 mm)

Weight: 390 lbs (177 kg)

Set Includes:

- (1) Model 102 Puller | 3-Jaw | 1 ton (9 kN)
- (1) Model 202 Puller | 2-Jaw | 1 ton (9 kN)
- (1) Model 103 Puller | 3-Jaw | 2 ton (18 kN)
- (1) Model 203 Puller | 2-Jaw | 2 ton (18 kN)
- (1) Model 104 Puller | 3-Jaw | 5 ton (44 kN)
- (1) Model 204 Puller | 2-Jaw | 2 ton (18 kN)
- (1) Model 106 Puller | 3-Jaw | 10 ton (89 kN)
- (1) Model 206 Puller | 2-Jaw | 6 ton (53 kN)
- (1) Model 108 Puller | 3-Jaw | 17 ton (151 kN)
- (1) Model 208 Puller | 2-Jaw | 12 ton (107 kN)
- (1) Model 110 Puller | 3-Jaw | 20 ton (178 kN)
- (1) Model 210 Puller | 2-Jaw | 14 ton (125 kN)
- (1) Model 113 Puller | 3-Jaw | 30 ton (267 kN)
- (1) Model 213 Puller | 2-Jaw | 25 ton (222 kN)
- (1) Model 116 Puller | 3-Jaw | 40 ton (356 kN)
- (1) Model 216 Puller | 2-Jaw | 35 ton (311 kN)
- (2) P4 Tip Protectors
- (2) P6 Tip Protectors
- (4) P10 Tip Protectors
- (4) P13/16 Tip Protectors
- (2) Tool Boards & Accessories

Hydraulic Puller Systems: 5-Ton to 50-Ton



Hydraulic Puller Systems

Posi Lock's hydraulic pullers are the preferred choice of professionals around the world. Ideal for many uses, Posi Lock adds efficiency to a job that can often be frustrating and labor intensive.

Posi Lock hydraulic pullers are available in 2- or 3-jaw models and range from 5- to 200-ton capacity. Known for safety, high quality, durability, and ease of use, Posi Lock pullers are designed to help extend bearing life in applications through proper installation, removal and service.

CHOOSING A HYDRAULIC PULLER

The maximum force exerted in tons should be seven to ten times the diameter of the shaft, in inches; for example, a 1.5 inch diameter shaft would generally require a 15-ton puller.

PXPHA Series	PXPHB Series
<p>Includes:</p> <ul style="list-style-type: none"> • Puller Iron • Ram Point Set • Lift Plate 	<p>Includes:</p> <ul style="list-style-type: none"> • Puller Iron • Ram Point Set • Lift Plate • Hydraulic Cylinder 

All hydraulics are available with  components.

External Pullers				Capacity	Number of Jaws	Reach	Spread
PXPHA Series Model Number	PXPHB Series Model Number	PXPHMS Series Model Number	PXPHES Series Model Number	Tons (kN)		in. (mm)	in. (mm)
PXPHA-206	PXPHB-206	PXPHMS-206	PXPHES-206	5 tons (44 kN)	2	6 in. (152.4 mm)	.5 to 8 in. (12.7 to 203.2 mm)
PXPHA-106	PXPHB-106	PXPHMS-106	PXPHES-106	5 tons (44 kN)	3	6 in. (152.4 mm)	.5 to 8 in. (12.7 to 203.2 mm)
PXPHA-208	PXPHB-208	PXPHMS-208	PXPHES-208	10 tons (89 kN)	2	8 in. (203 mm)	.75 to 12 in. (19 to 305 mm)
PXPHA-108	PXPHB-108	PXPHMS-108	PXPHES-108	10 tons (89 kN)	3	8 in. (203 mm)	.75 to 12 in. (19 to 305 mm)
PXPHA-210	PXPHB-210	PXPHMS-210	PXPHES-210	15 tons (133 kN)	2	9.67 in. (245 mm)	1 to 15 in. (25 to 381 mm)
PXPHA-110	PXPHB-110	PXPHMS-110	PXPHES-110	15 tons (133 kN)	3	9.67 in. (245 mm)	1 to 15 in. (25 to 381 mm)
PXPHA-213	PXPHB-213	PXPHMS-213	PXPHES-213	25 tons (222 kN)	2	12 in. (305 mm)	2.5 to 18 in. (64 to 457 mm)
PXPHA-113	PXPHB-113	PXPHMS-113	PXPHES-113	25 tons (222 kN)	3	12 in. (305 mm)	2.5 to 18 in. (64 to 457 mm)
PXPHA-216	PXPHB-216	PXPHMS-216	PXPHES-216	55 tons (445 kN)	2	14 in. (356 mm)	3 to 25 in. (76 to 635 mm)
PXPHA-116	PXPHB-116	PXPHMS-116	PXPHES-116	55 tons (445 kN)	3	14 in. (356 mm)	3 to 25 in. (76 to 635 mm)

Internal/External Hydraulic Puller System| PXPH-113IE

Versatility at its finest, Posi Lock's 25-ton Internal/External hydraulic puller efficiently solves problems associated with the removal of gears, bearings, and other press fit items in diverse industries.

The redesigned, patented steel Safety Cage houses either the internal or external jaws by simply removing the ball lock pins. The internal and external slots are lined up, so you can go from internal to external in a matter of seconds.

The PXPH-113IE is available in PXPHA, PXPHB, PXPHMS, and PXPHES sets.



PXPHA Series

PXPHMS Series

- Includes:**
- Puller Iron
 - Ram Point Set
 - Lift Plate
 - Hydraulic Cylinder
 - Manual Pump
 - Gauge Adapter
 - 10,000 PSI Gauge
 - Male Coupler with dust cap
 - 10-foot heavy-duty Hose



PXPHES Series

- Includes:**
- Puller Iron
 - Ram Point Set
 - Lift Plate
 - Hydraulic Cylinder
 - 2 Stage Electric Pump
 - Gauge Adapter
 - 10,000 PSI Gauge
 - Male Coupler with dust cap
 - 10-foot heavy-duty Hose



Optional Accessories

Long Jaws/Extra Long Jaws



Part Number	Reach in. (mm)	Spread in. (mm)	Hydraulic Lift Cart	Storage Transport Cart
—	—	—	—	—
—	—	—	—	—
PX-11054/11054L	9.67 in. (245 mm)/16 in. (406 mm)	2.3 to 15.8 in. (58 to 401 mm)/1.5 to 22 in. (38 to 559 mm)	—	—
PX-11054/11054L	9.67 in. (245 mm)/16 in. (406 mm)	2.3 to 15.8 in. (58 to 401 mm)/1.5 to 22 in. (38 to 559 mm)	—	—
PXPH-11054L	16 in. (406 mm)	1.5 to 22 in. (38 to 559 mm)	—	—
PXPH-11054L	16 in. (406 mm)	1.5 to 22 in. (38 to 559 mm)	—	—
PX-11354L	20 in. (508 mm)	1.5 to 30 in. (38 to 762 mm)	C50-T	PT-2550*
PX-11354L	20 in. (508 mm)	1.5 to 30 in. (38 to 762 mm)	C50-T	PT-2550*
PXPH-21654L	26 in. (660 mm)	2 to 38 in. (51 to 965 mm)	C50-T	PT-2550*
PXPH-11654L	26 in. (660 mm)	2 to 38 in. (51 to 965 mm)	C50-T	PT-2550*

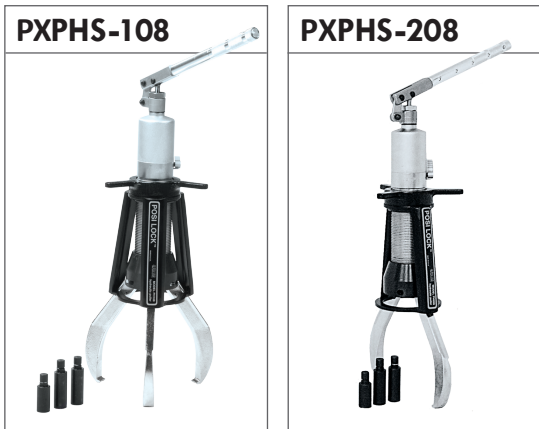
Internal/External Pullers

Model Number	Number of Jaws	Jaw Style	Reach in. (mm)	Spread Range in. (mm)	Part Number	Dimensions		
						Overall Length in. (mm)	Jaw Width in. (mm)	Jaw Length in. (mm)
PXPH-1131E	3	Internal	Up to 7 in. (177.8 mm)	8 to 21 in. (203 to 533 mm)	11354T	25.75 in. (654 mm)	1.25 in. (32 mm)	10.9 in. (277 mm)
	3	External	12 in. (305 mm)	2.5 to 18 in. (64 to 457 mm)	11354	27 in. (686 mm)	1.25 in. (32 mm)	13.7 in. (348 mm)
	3	Optional External Long	20 in. (508 mm)	1.5 to 30 in. (38 to 762 mm)	11354L	36 in. (914 mm)	1.25 in. (32 mm)	21.6 in. (549 mm)

Hydraulic Puller Sets

Self-Contained 12-Ton Hydraulic Puller Systems | PXPHS-108 & PXPHS-208

The PXPHS-108 and PXPHS-208 have many applications for all industries. These powerful, self-contained pulling systems are ideal for pulling a wide variety of press-fit parts, including bearings, gears, bushings, wheels and pulleys. You get the ease of a manual puller with the power of hydraulics.



Sets include:

- Self-contained pump/cylinder with swiveling, adjustable-length pump handle
- 108 or 208 puller assembly with standard-length jaws
- 1.9-inch (48 mm) extension rod with centering tip
- (2) 2.9-inch (74 mm) extension rods with centering tip

When ordering optional long jaws, extension rods should also be ordered to extend length of ram.

Model Number	Capacity Tons (kN)	Number of Jaws	Jaw Style	Part Number	Reach in. (mm)	Spread in. (mm)	Weight lbs. (kg)	Height in. (mm)
PXPHS-108	12 tons (107 kN)	3	Jaw	10854	8 in. (203 mm)	0.75 to 12 in. (19 to 305 mm)	38 lbs. (17.24 kg) set	24.5 in. (622 mm)
			Optional Long Jaw	11054	9.67 in. (245 mm)	2.3 to 15.8 in. (58 to 401 mm)	2.5 lbs. (1.13 kg) per jaw	26 in. (660 mm)
			Optional Extra Long Jaw	11054L	16 in. (406 mm)	1.5 to 22 in. (38 to 559 mm)	4.5 lbs. (2.05 kg) per jaw	30.5 in. (775 mm)
PXPHS-208	12 tons (107 kN)	2	Jaw	10854	8 in. (203 mm)	0.75 to 12 in. (19 to 305 mm)	36 lbs. (16.33 kg) set	24.5 in. (622 mm)
			Optional Long Jaw	11054	9.67 in. (245 mm)	2.3 to 15.8 in. (58 to 401 mm)	2.5 lbs. (1.13 kg) per jaw	26 in. (660 mm)
			Optional Extra Long Jaw	11054L	16 in. (406 mm)	1.5 to 22 in. (38 to 559 mm)	4.5 lbs. (2.05 kg) per jaw	30.5 in. (775 mm)

50-Ton Hydraulic Puller System with Cart | PXPH-50T

The PXPH-50T puller set includes all of the necessary components to tackle those large pulling jobs. The hydraulic lift cart makes moving, storing and using the 55-ton puller easy and convenient. The hydraulic lift easily raises the puller from 21 in. (533 mm) to a height of 55 in. (1397 mm). The mounting platform allows the puller to swivel a full 360 degrees. This set includes standard and long jaws to tackle any pulling job.

Set includes:

- PXPH-55T 55-ton puller
- Standard jaws
- Long jaws
- Ram Point Set
- C50-T cart
- Hydraulic cylinder
- 10,000 PSI electric two-stage pump
- Remote jog switch on electric pump with 10-foot cord (3.05 m)
- 10-foot (3.05 m) hose
- Gauge
- Coupler
- Lift Plate
- 6 in. (152 mm) ram extender
- 12 in. (305 mm) ram extender



Available with **POWERX** components.

50-ton puller shown with long jaws.

Model Number	Capacity Tons (kN)	Number of Jaws	Reach in. (mm)	Spread in. (mm)	Weight of Set lbs. (kg)	Long Jaws		
						Part Number	Reach in. (mm)	Spread in. (mm)
PXPH-55T	55 tons (445 kN)	3	14 in. (356 mm)	3 to 25 in. (76 to 635 mm)	320 lbs.* (145 kg)	PH-11654L	26 in. (660 mm)	2 to 38 in. (51 to 965 mm)

*Weight does not include hydraulic components.

100-Ton Hydraulic Puller Systems

Posi Lock's 100-ton hydraulic pullers provide maximum pulling force in applications requiring high-force removal of large gears, pulleys, wheels, sleeves and other press-fit parts. 100-Ton pullers are available in 2-jaw, vertical 2-jaw, 3-jaw, or 2/3-jaw combination. Also available with a single or double acting cylinder.

Hydraulic-actuated lift cart extends puller from the ground to a height of 5 feet (1.52 m).



PXP-100T 3-jaw puller pictured with PowerX hydraulic components.

Features and Benefits:

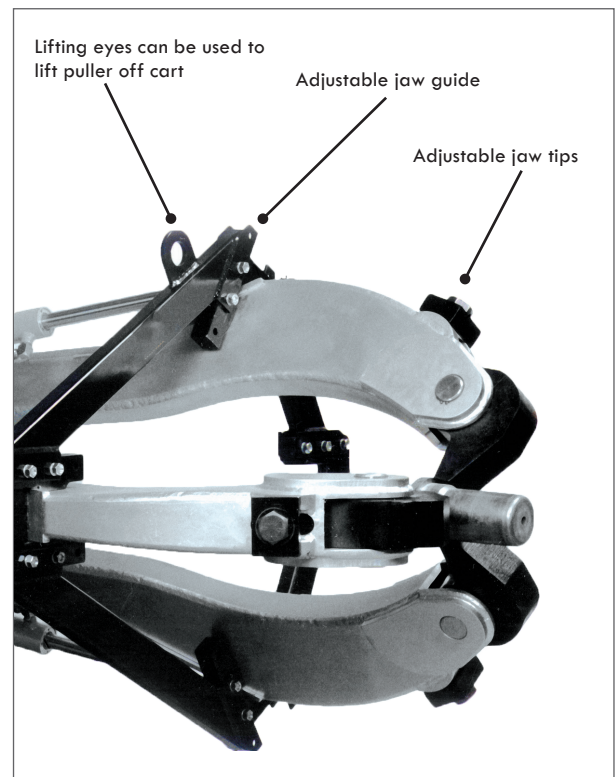
- 10,000 PSI electric two-stage pump
- Remote jog switch with 10-foot cord (3.05 m)
- 100-ton cylinder 10,000 PSI with spring return (10.25 inch stroke)
- Hydraulic-actuated lift cart extends puller from ground to a height of 5 feet (1.52 m)
- Jaws are hydraulically controlled with cylinders
- Multiple pushing adaptors
1 - 3.5 in. diameter x 9 in. (89 x 229 mm)
1 - 3.5 in. diameter x 19 in. (89 x 483 mm) 1 - 3.5 in. diameter x 29 in. (89 x 737 mm) 1 - Coupler
- Removable transport cart
- Puller can be used in horizontal and/or suspended vertical positions
- Adjustable jaw tips
- Adjustable jaw guides

Options:

- Specialized jaw tips
- Double acting cylinder

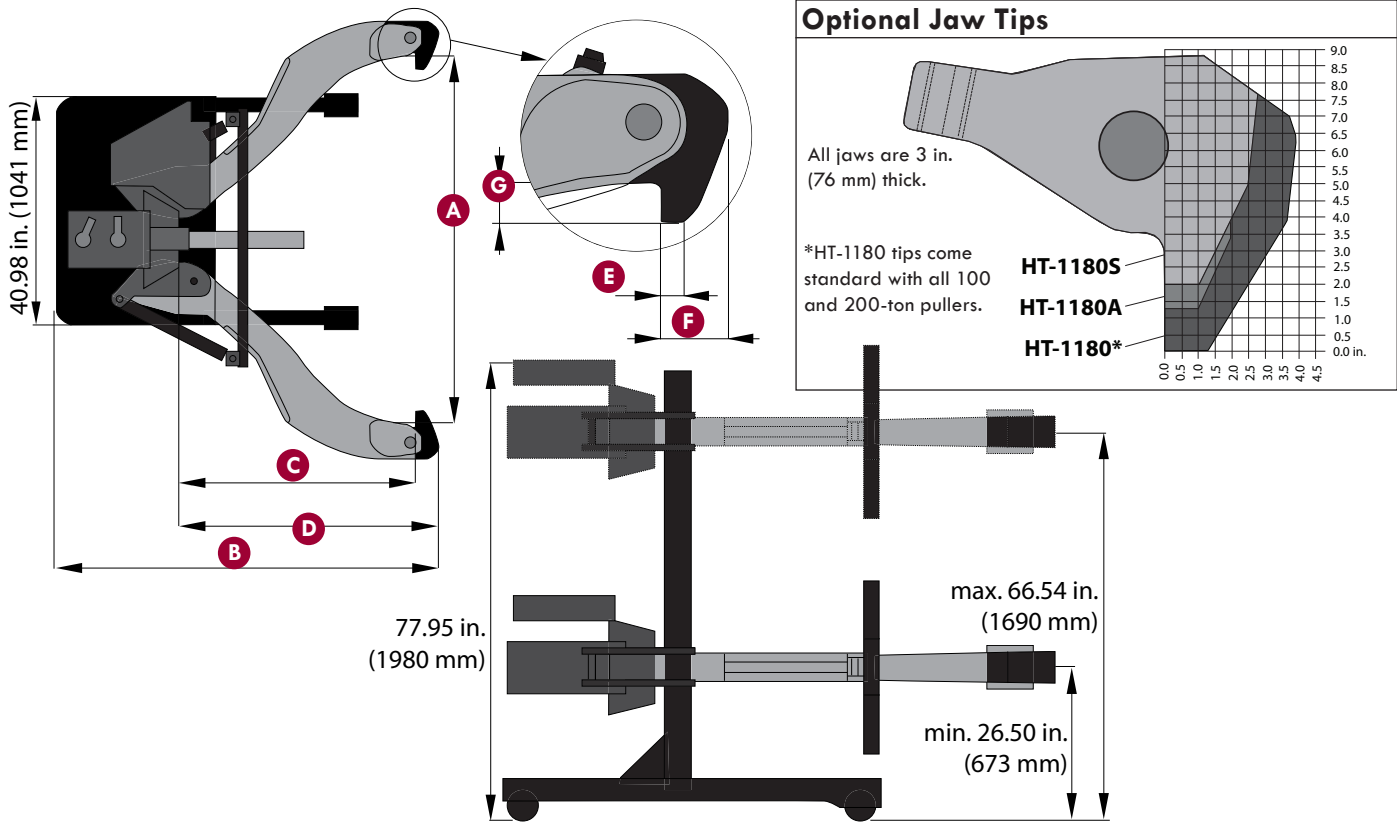


PXP-102T 2-Jaw puller pictured with PowerX hydraulic components.



100-Ton Hydraulic Puller Systems

100-Ton Models & Specifications



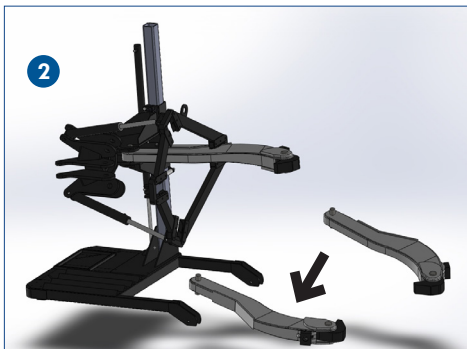
Portable 100-Ton Hydraulic Puller Systems

Model Number	Capacity Tons (kN)	Number of Jaws	Dimensions							Weight lbs. (kg)
			Spread A in. (mm)	Overall Length B in. (mm)	Reach C in. (mm)	Jaw Length D in. (mm)	Jaw Tip Width E in. (mm)	Tip Clearance F in. (mm)	Tip Depth G in. (mm)	
Single Acting										
PXPH-102T	100 tons (890 kN)	2	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	1700 lbs. (771 kg)
PXPH-100T	100 tons (890 kN)	3	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	1950 lbs. (885 kg)
PXPH-123T	100 tons (890 kN)	2/3	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	2000 lbs. (907 kg)
Single Acting Vertical										
PXPH-102TV	100 tons (890 kN)	2	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	1800 lbs. (816 kg)
Double Acting										
PXPH-102TDA	100 tons (890 kN)	2	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	1800 lbs. (816 kg)
PXPH-100TDA	100 tons (890 kN)	3	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	2050 lbs. (930 kg)
PXPH-123TDA	100 tons (890 kN)	2/3	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	2100 lbs. (953 kg)
Double Acting Vertical										
PXPH-102TVDA	100 tons (890 kN)	2	7.5 to 70 in. (191 to 1778 mm)	77 in. (1956 mm)	50 in. (1270 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	1800 lbs. (816 kg)

All hydraulics are available with **POWERX** components.

2/3 Jaw Combination 100-Ton

The PXP-123T combination 100-ton puller transforms from a 2-jaw to a 3-jaw puller in 4 easy steps. The unique cage design makes this 100-ton puller versatile enough for those tough jobs that may require a 2 or 3-jaw puller. Safety, ease of use and reduction in down time are just a few of the benefits of Posi Lock's pullers.



Transform the 2-jaw to a 3-jaw in 4 easy steps:

- 1 Starting in a 2-jaw configuration, move the cage cylinder from 2-jaw position to 3-jaw position.
- 2 Remove the jaw on the left from the 2-jaw position.
- 3 Place the jaw into the lower 3-jaw position.
- 4 Place jaw from left 2-jaw position into upper 3-jaw position to complete the 3-jaw configuration.

100-Ton Vertical

The 100-Ton vertical hydraulic puller was designed for big pulling jobs with limited jaw placement options. This two-jaw vertical puller is available with a single or double acting cylinder. This versatile puller can also be used in a suspended position.



Vertical 100-Ton Hydraulic Puller | PXP-102TV

CAUTION

It is impossible to predict the exact force required for every pulling job. Setup requirements and the size, shape and condition of the parts being pulled vary greatly.

Always wear protective eye wear.

Tools should only be used by personnel who are trained and familiar with their proper use.

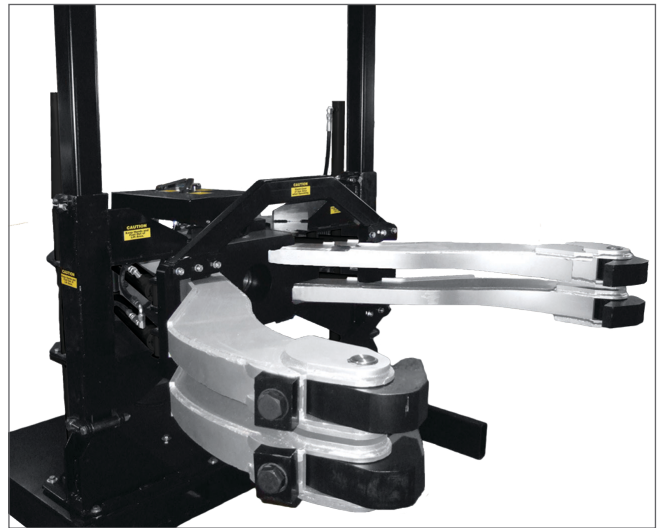
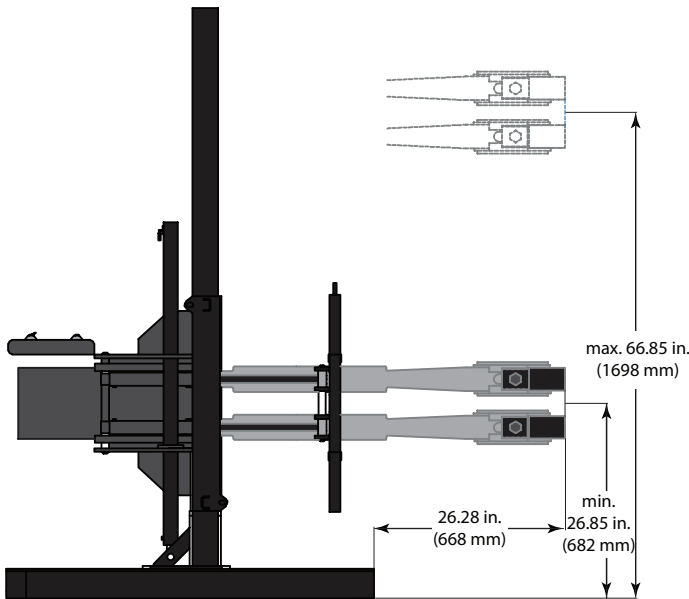
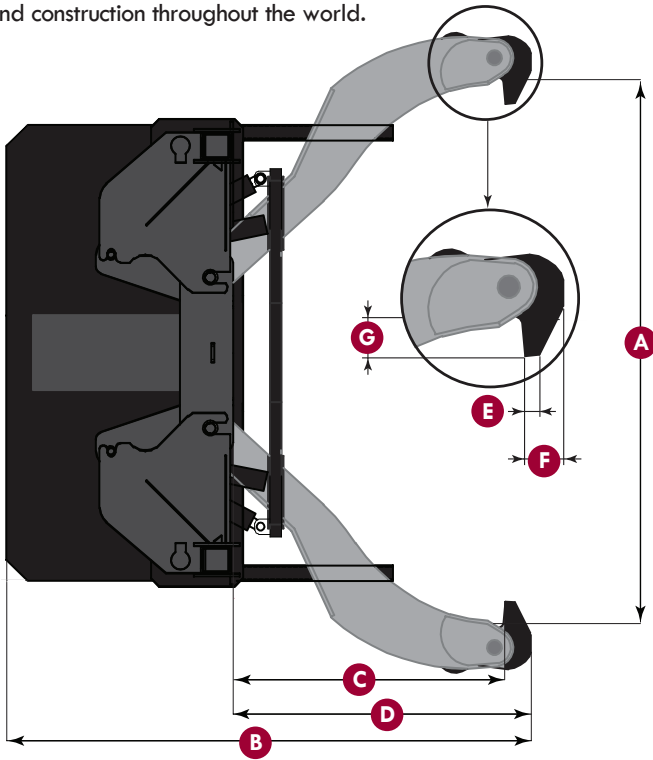
200-Ton Hydraulic Puller System

200-Ton Hydraulic Puller System | PXPB-200T

The PXPB-200T provides ultimate hydraulic muscle. It has been deemed the preferred maintenance solution for the effective removal of stubborn gears, bearings, wheels, and other press fit items from heavy machinery in various industries such as mining, railroad and construction throughout the world.

Features and Benefits:

- 10,000 PSI electric two-stage pump
- Remote jog switch with 10-foot cord (3.05 m)
- 200-ton cylinder 10,000 PSI, double acting 13.25 inch (337 mm) stroke
- Hydraulic-actuated lift cart extends puller from ground to a height of 5 feet (1.52 m)
- Jaws are hydraulically controlled with cylinders
- Multiple pushing adaptors
 - 1 - 4-in. diameter x 9-in. (102 x 229 mm)
 - 1 - 4-in. diameter x 19-in. (102 x 483 mm)
 - 1 - 4-in. diameter x 29-in. (102 x 737 mm)
 - 1 - 4-in. diameter x 39-in. (102 x 990 mm)
- Adjustable jaw tips
- Adjustable jaw guides
- Specialized jaw tips available



200-Ton Hydraulic Puller

Model Number	Capacity Tons (kN)	Number of Jaws	Dimensions							Weight lbs. (kg)
			Spread A in. (mm)	Overall Length B in. (mm)	Reach C in. (mm)	Jaw Length D in. (mm)	Jaw Tip Width E in. (mm)	Tip Clearance F in. (mm)	Tip Depth G in. (mm)	
PXPB-200T	200 tons (1779 kN)	4	8 to 70 in. (203 to 1778 mm)	78.5 in. (1994 mm)	48 in. (1219 mm)	53 in. (1346 mm)	1.25 in. (32 mm)	3.5 in. (89 mm)	3.5 in. (89 mm)	4150 lbs. (1882 kg)

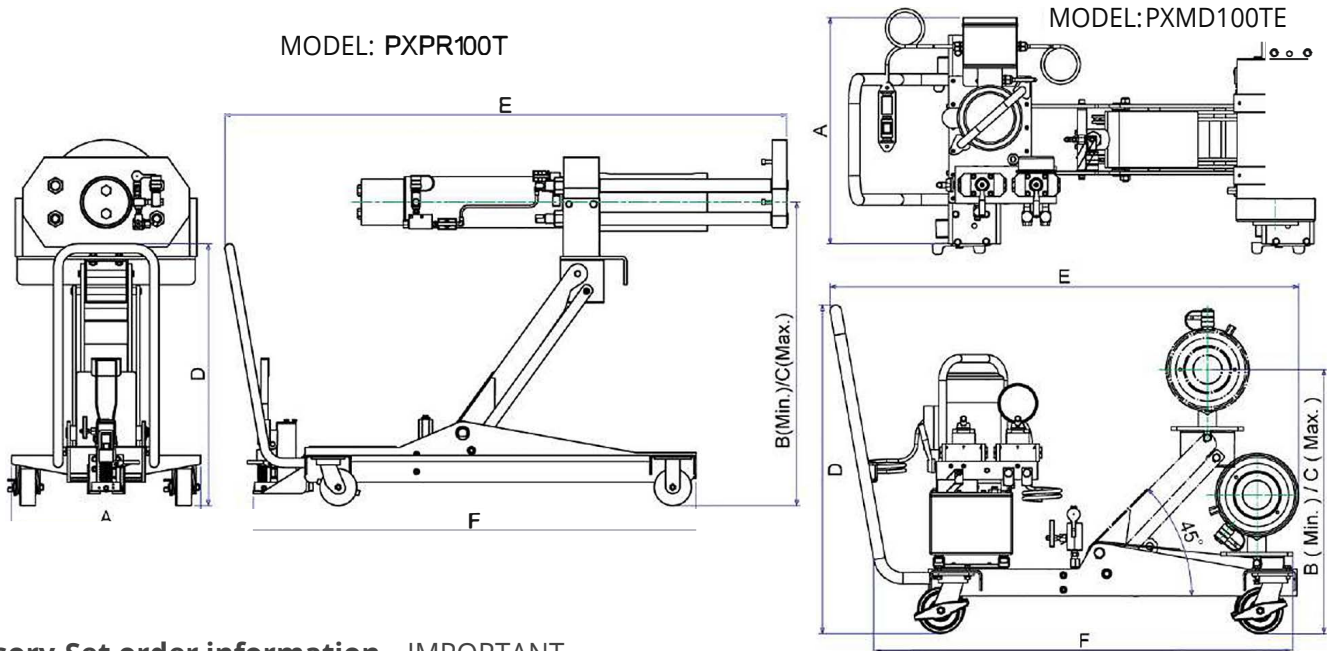
**Accessory Set for Metric & Inch (Class B - F)****Accessory Set for Inch (Class G - GG)****FEATURES**

- Dismantle or Install the tapered roller bearings easily and efficiently.
- Specially designed for the major bearing manufacturers.
- The simple, efficient and easy operation provided with the pulling force - 100 Ton.
- Single Unit with portable design for easy, convenient positioning and saving storage space.

Universal railroad axle journal roller bearing push puller

Now, we are able to provide the basic tool in most wheel shops for dismantling and installing the axlejournal roller bearings. With this equipment and know-how, you can save the maximum of time and effort on maintenance. From class B through GG, each unit service a full line of bearings with rotating end caps. Simply remove the end caps, slip the pulling shoe between the bearings and the wheel, start the pump, and the bearing will be removed within seconds under the pulling force of 100 Ton. The pulling shoe and installing tube ensure the most convenient and fast installation. The 100-ton hydraulic cylinder works under 10,000 psi.

100 Ton Push Puller (Railroad Version)



Accessory Set order information - IMPORTANT...

This accessory chart applies only to AAR configuration for vehicle maintenance applications.

Class & Size of bearing assembly - TBU & SP "Metric Accessories "

Accessory Description	#120	#130	#140	#150
Pulling Shoe Insert Adapter	PXF0436	PXF0437	PXF0438	PXF0439
Guide Tube & Cap Screw Assembly	PXE2601	PXE2602	PXE2603	PXE2604
Cap Screw	PXH0421	PXH0421	PXH0421	PXH0422
Guide Tube Adapter	PXB1248	PXB1248	PXB1248	PXB1248
Installing Tube Adapter Ring	PXD1031	PXD1032	PXD1033	PXD1034

Class & size (inch) of bearing assembly to be serviced

Accessory Description	Class B 4 1/2" x 8"	Class C 5" x 9"	Class D 5 1/2" x 10"	Class E 6" x 11"	Class EE 5 1/2" Axle	Class EE 6" Axle	Class F 6 1/2" x 12"	Class G 7" x 12"	Class G 6 1/2" Axle	Class GG 6 1/2" Axle
Pulling Shoe	No. PXF0442 is included as part of basic machine							PXF0443	PXF0443	PXF0443
Pulling Shoe Insert Adapter	PXF0440	PXF0437	PXF0438	PXF0439	PXF0439	PXF0441	PXF0441	~	~	~
Guide Tube & Cap Screw Assembly	PXF0435-1	PXF0435-2	PXE2605	PXE2606	PXE2607	PXE2608	PXE2609	PXE2611	PXE2610	PXE2612
Cap Screw	PXH0423	PXH0424	PXH0425	PXH0426	PXH0427	PXH0425	PXH0428	PXH0430	PXH0429	PXH0429
Guide Tube Adapter	PXB1247	PXB1246	PXB1246	PXB1248	PXB1248	PXB1248	PXB1248	PXB1248	PXB1248	PXB1248
Installing Tube	No. PXD1044 is included as part of basic machine							PXD1045	PXD1045	PXD1045
Installing Tube Adapter Ring	PXB1243	PXD1037	PXD1038	PXD1039	PXD1039	PXD1040	PXD1040	PXD1042	PXD1041	PXD1041

Note: Adapter listed above are for servicing the following roller bearing assemblies: Brence" Crown-Taper",

New Departure-Hyatt " HyRoll Taper ", SKF " Expediter" and T i mken"AP"-

*Screws are supplied with the guide tube and should be ordered as replacements only.

SPECIFICATIONS

Model No.	Stroke (in.)	Capacity (Ton)		A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Weight (lbs.)
		Pull	Inst.							
PXP100T	15.4	100	68	25.7	14.6	41.2	35.4	76.4 - 87	60.2	1300
PXP100TE*	15.4	100	68	25.7	14.6	41.2	35.4	76.4 - 87	60.2	1775
PXMD100TE*	10	100	68	24.7	15.1	28.8	35.8	51.1	46.3	904

*This model is equipped with the Electric Pump - PE594.

ELECTRIC PUMP - Specifications

Model No.	Acting	Reservoir Capacity (gallons)	Function	Motor (hp)	Flow (cubic in./min.)	
					1st Stage	2nd Stage
PE594	Double	3	Advance Hold Return	1 1/2	550	59

Hydraulic Bench Vise | PXPHV859A

Posi Lock's hands-free hydraulic bench vise provides 5 TONS of clamping force, plus an air control valve for variable speed and safety. Operated by a 10,000 PSI foot pump this vise allows you to have two free hands for your project. This vise can easily help complete repetitive, heavy, oversized, awkward or multi-piece jobs. The PXPHV859A has enough power to crush a half-inch nut, yet precisely clamp an egg.

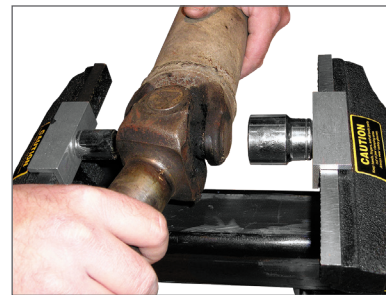
The Hydraulic Bench vise boasts 52,600 PSI tensile strength cast steel construction and operates in vertical and horizontal positions. The 8 inch jaws open up to 8 inches (203 mm). An air supply is required when using a hydraulic pump (90-175 PSI recommended). Vise may be used with other 10,000 PSI hydraulic pumps.

Available with **POWERX** components.



Hydraulic foot pump allows hands to remain free.

Hydraulic Bench Vise	
Components	Model Number
5-Ton Hydraulic Vise	PHV859A
Hold-Ets Magnetic Vise Clips	HE3
Hydraulic Components	
10,000 PSI Foot Pump	PA6-98C
Gauge, Adaptor, Hose, Coupler included	—



Bench vise used in the horizontal position.

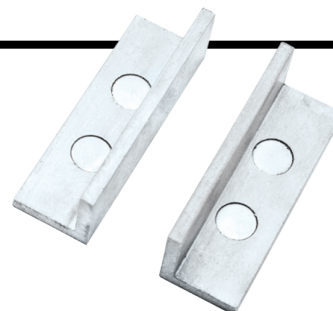


Bench vise used vertically as a press.

Magnetic Vise Clips | PXHE3

Hold-Ets magnetically hold sockets for assembling and disassembling universal joints and many other jobs. They provide 3 inches (76 mm) of rigid aluminum construction and superior magnetic locking power to hold screws, rings, c-clips, springs, and many other shapes and sizes for repair projects.

Hold-Ets make any job a one-man operation with superior strength to hold 5½ (2.49 kg) pounds vertically and 2¾ (1.24 kg) pounds horizontally. They can be used as a jaw liner for non-marking material and hold threaded objects rigid without damage to threads.



MODEL: PXSP SERIES

- Maximum working pressure: 10,000 psi / 700 Bar
- Custom sizes available
- Daylight 50T: 29 X 42 in
- Daylight 100T: 31 X 32 in
- Daylight 150T: 39 X 35 in
- Daylight 200T: 39 X 36 in
- Pump and cylinder matched for optimal operation

FEATURES

- Durable, high quality welded frame
- Fully adjustable bed
- Pendant controlled electric pump on all presses
- Worm screw adjustment for lateral cylinder positioning
- V blocks / press plate included on models up to 100 t

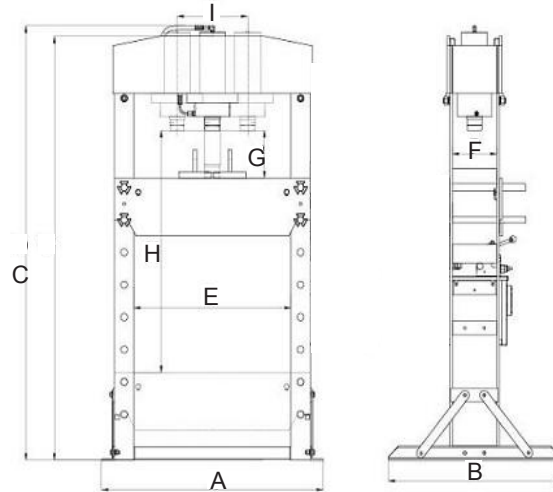
OPTIONS

- Pump available with solenoid valve or manual valve
- 115V and 220V options available
- Electric, air and hand pump options available
- Single and double acting models available
- Safety cages



SPECIFICATIONS

Model	Tons	Cylinder Stroke (in)	Single Acting	Double Acting	115V	220V	Valve Type		Pump to Cylinder speed No load / Load (sec/in)
							Manual	Solenoid	
PXSP50	50	6	✓		✓		✓		2.6 / 38
PXSP50D	50	6		✓	✓		✓		2.6 / 38
PXSP50DS	50	6		✓	✓			✓	2.6 / 38
PXSP100	100	10	✓		✓		✓		4.9 / 71
PXSP100D	100	13		✓	✓		✓		2.4 / 27
PXSP100DS1	100	13		✓				✓	2.4 / 27
PXSP100DS2	100	13		✓		✓		✓	2.0 / 11
PXSP150DS1	150	13		✓	✓			✓	3.2 / 34
PXSP150DS2	150	13		✓		✓		✓	3.2 / 17
PXSP200DS	200	13		✓		✓		✓	4.5 / 24



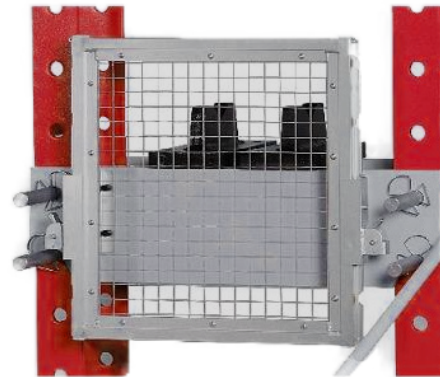
SPECIFICATIONS

Model	Tons	A	B	C	D	E	F	Working height		I
								G (min)	H (max)	
PXSP50*	55	40.8	31.5	72.1	72.2	28.7	8.1	3.1	41.7	9.6
PXSP100*	100	47.2	39	72	73.4	31	8.9	4.4	32	10
PXSP150*	150	57.2	39.2	80.1	82.2	39.4	9.4	2.5	35	13
PXSP200*	200	57.6	39.2	81.5	83	39.5	9.8	3.7	36.1	13.9

OPTIONAL ACCESSORIES

PRESS GUARD

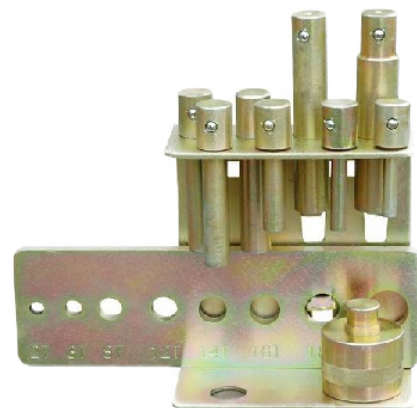
Model	Applied Model	Length A (in)	Width B (in)
PG50	PXSP55*	24.6	26.6
PG100	PXSP100	28.7	30.5
PG150	PXSP150*	24.8	38.9



Contact us for 200 ton or clear guard options

PRESS PINS

Pin set	Model	Capacity (Ton)	Dia. A (in)	Dia. B (in)	Length C (in)	Net Weight (lbs)	Gross Weight (lbs)
PPS-025	PP336	2	0.4	1.0	2.0	16.5	17.6
	PP327	3	0.5	1.0	2.4		
	PP328	8	0.6	1.0	2.4		
	PP329	12	0.7	1.0	3.3		
	PP330	14	0.8	1.0	3.3		
	PP331	16	0.9	1.0	3.3		
	PP332	18	1.0	1.0	4.3		
	PP333	20	1.2	1.0	4.3		





Warranty To Commercial Customers High Pressure Hydraulic Products

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