

POWERRAM

HYDRAULIC TOOLS



Professional Hydraulic Tools

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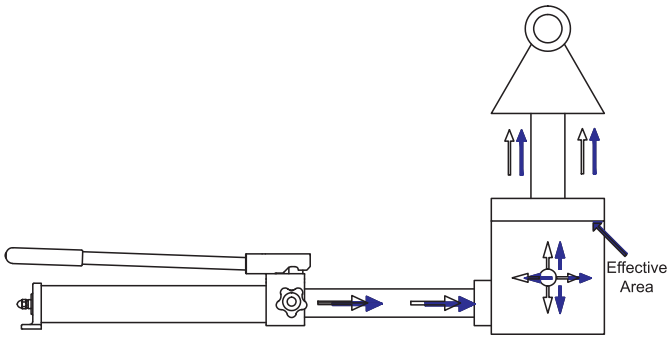
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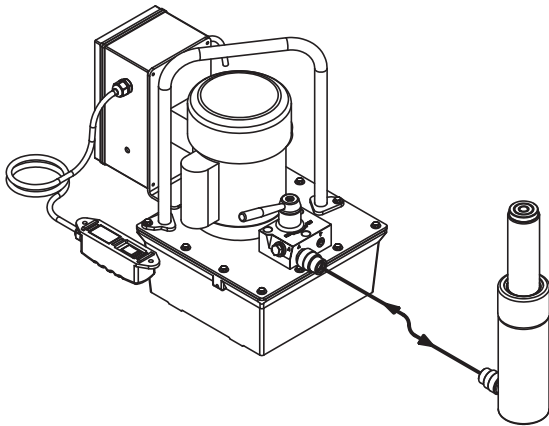
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The basic hydraulic system consists of a single acting cylinder, The pump can be powered by an electric motor, air power and also machanic driven by hand or foot pumps.

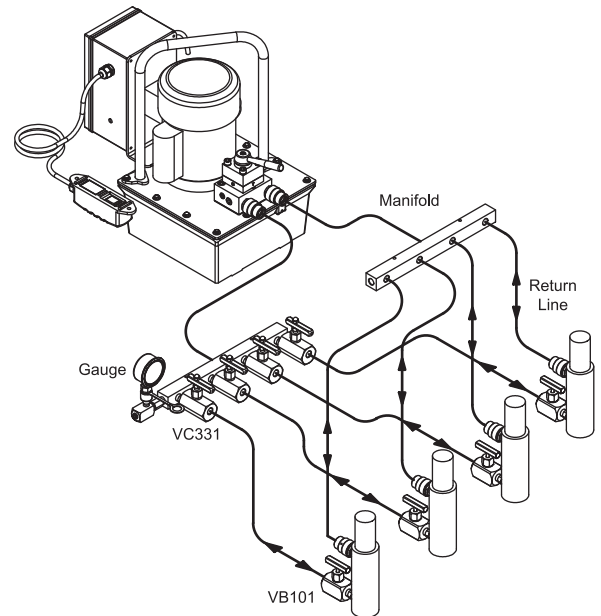


Flow: is created by pump.

Pressure: is created by resistance to flow. This resistance is usually the result of a load.

Force: The amount of force a hydraulic cylinder can be generated is equal to hydraulic pressure times the effective area of the cylinder. (Effective area is the surface of the piston face in cm².)

For mutiple cylinder systems, multiply the effective area times the number of cylinders times pressure to determine the system force.



Many different system arrangements can be achieved by using a remote mounted directional valve. Remote valves are ideal when system control is desired away from the pump. Hydraulic connections are quick and convenient when you use inline manifolds to control upto 4 double-acting cylinders.

■ Formula for Calculation of Output Force:

$$\frac{\text{bar} \times \text{Cylinder Effective Area} \times \text{No. of Cylinders}}{1000 \text{ kgs}} = \text{Metric Tons}$$

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.

■ Formula for Calculation of Lifiting Speed

$$\frac{\text{Pump Flow per Minute}}{\text{Cylinder Effective Area} \times \text{No. of Cylinders}} = \text{Piston Travel (mm / min)}$$

■ Metric Conversion Chart

1 U.S. Gallon = 3.785 Liters
= 3.785 cu./cm

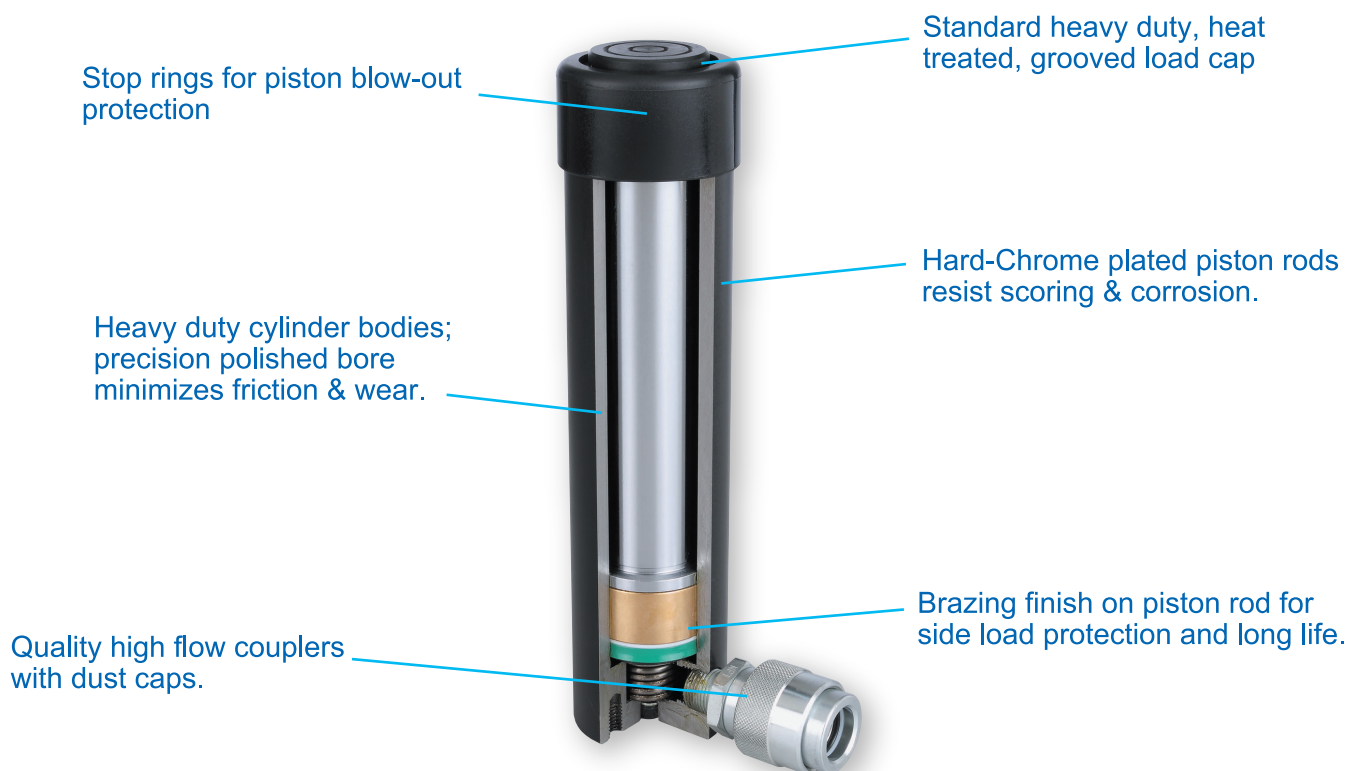
1Cubic Inch = 16.39 cu./cm
1 Bar = 14.7 psi

1 Metric Ton = 2,205 lbs
= 1,000 kgs

1 Ton (short) = 2,000 lbs
= 907.18 kgs

1kPa = 6.9 psi
1 inch = 2.54 cm
= 25.4 mm

1 Meter = 39.37 in.
1 Horsepower = 745.7 Watts



FEATURES

1. Wide Variety

Powerram offers the wide selection of cylinder design, capacity and stroke to match your daily requirements.

2. Built for Rugged Industrial/Construction Use

All Powerram cylinders meet worldwide Safety Standards. Stop rings, plated pistons and heavy duty construction provide trouble free operation and long life.

3. Spring Return

Heavy duty with steel plated spring provide fast and completed retraction after cycle, and retain the tension longer. Long lasting spring contribute substantially to the cylinder life.

4. Versatile Fixtures

Threaded collars and internal plunger threads withstand full loading for maximum flexibility in fixturing.

5. Piston Blow-Out Protection

All Powerram cylinders incorporate a positive piston stop to limit piston travel at the end of the stroke, allowing the cylinder to be operated at full stroke. Piston stops add strength and safety to your Powerram cylinder.

6. Protection from Contamination

Rod wiper clean the rod surface during retraction, protecting the inner cylinder assembly from dirt, moisture and other contaminants that may reduce the strength of the piston stroke.

7. Protection from Outside

Most POWERRAM cylinders have Black Nitriding Finish which provide sustainable protection against moisture and other contaminant.

All aluminum cylinders have hard anodized finish.

8. POWERRAM cylinders fully comply to ANSI/ASME B30.1.

SUMMARY OF CYLINDERS

Series	Description	Type	Capacity (ton)	Stroke (mm)	Page
NSSS	Standard, Spring Return	Single Acting	4.5 - 100	25.4 - 406	07
NSHS / NRHS	Hollow, Spring Return	Single Acting	10 - 100	8 - 160	09
NSCS	Compact, Spring Return	Single Acting	10 - 100	38 - 62	10
NSLS	Flat, Spring Return	Single Acting	5 - 150	6 - 17	11
NSLS	Telescopic, Load Return	Single Acting	10 - 20	13 - 25	12
JLLC	Lock Nut, Load Return	Single Acting	50 - 1000	50 - 300	13 - 14
JLPC	Lock Nut, Low height, Load Return	Single Acting	60 - 250	45 - 50	15
SSA	Aluminum, Standard, Spring Return	Single Acting	20 - 100	50 - 250	03
ACHC	Aluminum, Hollow, Spring Return	Single Acting	20 - 60	50 - 150	04
ALNC	Aluminum, Lock Nut, Spring Return	Single Acting	20 - 100	50 - 250	06
ADHC	Aluminum, Hollow	Double Acting	30 - 60	50 - 250	05
NDAC	Standard	Double Acting	10 - 100	150 - 470	16
NDAH	Hollow	Double Acting	30 - 100	76 - 257	17

ALUMINUM CYLINDERS



MODEL:SSA-SERIES

Capacity: 20 - 100 Ton

Stroke: 50 - 250 mm

Spring Return, Single Acting

Max. Working Pressure: 700 bar / 10,000 psi

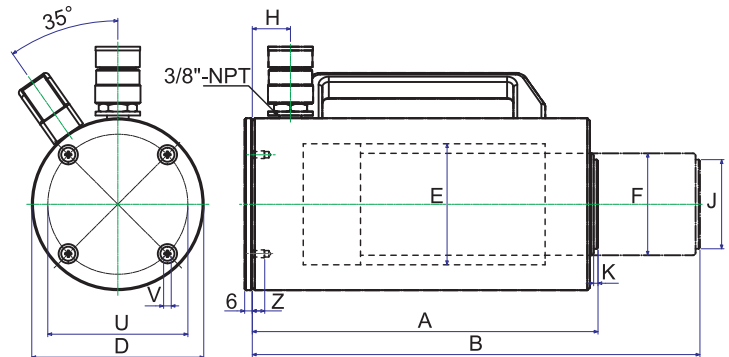


FEATURES

- Half weight of the steel cylinders.
- Heavy duty spring for fast & full retraction.
- Large saddle surface for side load protection.
- Carrying handles are equipped for all models.
- Hard-Anodized coating reduces wear & corrosion.
- Rod wiper protects inner rod from dirt.
- Stop rings for piston blow-out protection.

Base Plate Mounting Holes Dimensions(mm)

Model No./ Capacity (ton)	Bolt Circle U (mm)	Thread V (mm)	Thread Depth Z (mm)
SSA-20	70	M6x1.0	20
SSA-30	80	M6x1.0	10
SSA-50	110	M6x1.0	10
SSA-100	160	M6x1.0	10



SPECIFICATIONS

Model No.	Capacity (ton)	Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)	Collapsed Height A (mm)	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Weight (kgs)
SSA202	20	50	33.2	166	168	218	92	62	55	25	40	3	4.3
SSA204		100	33.2	332	218	318	92	62	55	25	40	3	5.0
SSA206		150	33.2	498	268	418	92	62	55	25	40	3	5.7
SSA208		200	33.2	664	318	518	92	62	55	25	40	3	6.5
SSA302	30	50	44.2	221	175	225	110	75	60	25	40	3	6.0
SSA304		100	44.2	442	225	325	110	75	60	25	40	3	6.9
SSA306		150	44.2	663	275	425	110	75	60	25	40	3	7.9
SSA308		200	44.2	884	325	525	110	75	60	25	40	3	8.8
SSA502	50	50	70.9	354.5	171	221	135	95	80	30	70	6	7.7
SSA504		100	70.9	709	221	321	135	95	80	30	70	6	9.1
SSA506		150	70.9	1063.5	271	421	135	95	80	30	70	6	11.7
SSA508		200	70.9	1418	321	521	135	95	80	30	70	6	13.5
SSA5010	100	250	70.9	1772.5	371	621	135	95	80	30	70	6	16.4
SSA1002		50	143	715	185	235	200	135	105	45	70	6	17.2
SSA1004		100	143	1430	235	335	200	135	105	45	70	6	21.0
SSA1006		150	143	2145	285	435	200	135	105	45	70	6	25.1
SSA1008		200	143	2860	335	535	200	135	105	45	70	6	28.5
SSA10010		250	143	3575	385	635	200	135	105	45	70	6	30.7

ALUMINUM CYLINDERS



MODEL:ACHC-SERIES

Capacity: 20 - 60 Tons

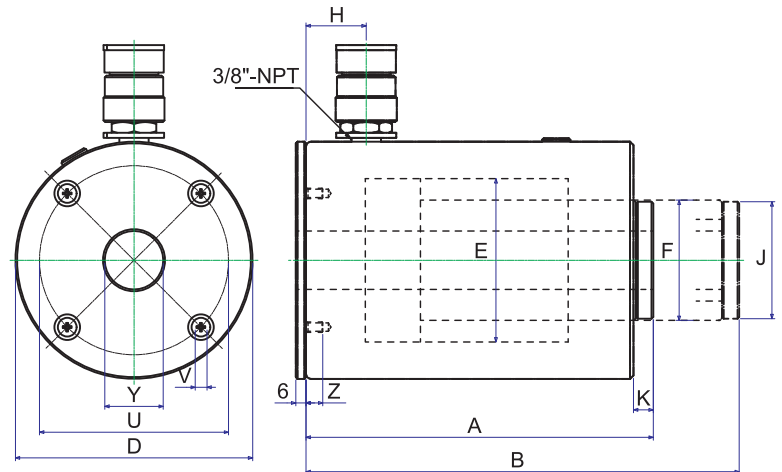
Stroke: 50 - 150 mm

Spring Return, Hollow Type

Max. Working Pressure: 700 bar / 10,000 psi

FEATURES

- Half weight of the steel cylinders.
- Heavy duty spring for fast & full retraction.
- Chrome plated center hole for extra protection.
- Carrying handles are equipped with all models.
- Hard-Anodized coating reduces wear & corrosion.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner rod from dirt.



Base Plate Mounting Holes Dimensions(mm)

Model No./ Capacity (ton)	Bolt Circle U (mm)	Thread V (mm)	Thread Depth Z (mm)
ACHC-20	80	M6×1.0	10
ACHC-30	110	M6×1.0	10
ACHC-60	160	M6×1.0	10

SPECIFICATIONS

Model No.	Cylinder Capacity (ton)	Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)	Collapsed Height A (mm)	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Center Hole Dia. Y (mm)	Weight (kg)
ACHC202	20	50	34	170	175	225	110	75	55	30	54	8	27	4.3
ACHC204		100		340	245	345	110	75	55	30	54	8	27	6.5
ACHC206		150		510	315	465	110	75	55	30	54	8	27	8.0
ACHC302	30	50	55	275	202	252	138	95	70	35	68	11.5	34	8.4
ACHC304		100		550	264.5	364.5	138	95	70	35	68	11.5	34	11.8
ACHC306		150		825	327	477	138	95	70	35	68	11.5	34	12.8
ACHC602	60	50	89.5	448	250	300	200	125	100	50	89	14	54	23.0
ACHC604		100		895	300	400	200	125	100	50	89	14	54	26.3
ACHC606		150		1342	350	500	200	125	100	50	89	14	54	27.0

ALUMINUM CYLINDERS

POWERRAM
HYDRAULIC TOOLS

MODEL:ADHC-SERIES

Capacity: 30 & 60 Tons

Stroke: 50 - 250 mm

Hollow, Double Acting

Max. Working Pressure: 700 bar / 10,000 psi

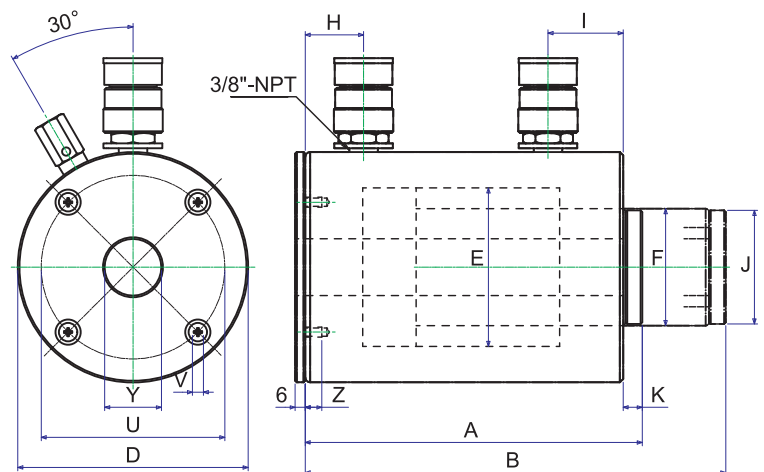


FEATURES

- Half weight of the steel cylinders.
- Steel piston regarding protection against load damage.
- Chrome plated center sleeve for extra protection.
- Carrying handles are equipped with all models.
- Hard-Anodized coating reduces wear & corrosion.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner rod from dirt.

Base Plate Mounting Holes Dimensions(mm)

Model No./ Capacity (ton)	Bolt Circle U (mm)	Thread V (mm)	Thread Depth Z (mm)
ADHC-30	110	M6×1.0	10
ADHC-60	160	M6×1.0	10



SPECIFICATIONS

Model No.	Maximum Cylinder Capacity (ton)	Stroke (mm)	Maximum Cylinder Capacity (tons)		Cylinder Effective Area (cm ²)		Oil Capacity (cm ³)		Collapsed Height A (mm)	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Top to Retract Port I (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Center Hole Diameter Y (mm)	Weight (kgs)
			Push	Pull	Push	Pull	Push	Pull											
ADHC302	30	50	38.5	22.7	55	32.4	275	162	202	252	138	95	70	35	45	68	11.5	34	9.6
ADHC306		150					825	486	327	477	138	95	70	35	45	68	11.5	34	14.8
ADHC3010		250					1374	810	430	680	138	95	70	35	45	68	11.5	34	16.0
ADHC602	60	50	62.6	31	89.5	44.2	448	221	250	300	200	125	100	50	50	89	14	54	15.5
ADHC606		150					1342	662	350	500	200	125	100	50	50	89	14	54	23.0
ADHC6010		250					2237	1104	433	683	200	125	100	50	50	89	14	54	30.5

ALUMINUM CYLINDERS

POWERRAM
HYDRAULIC TOOLS



MODEL:ALNC-SERIES

Capacity: 20 - 100 Ton

Stroke: 50 - 250 mm

Spring Return, Lock Nut Type

Max. Working Pressure: 700 bar / 10,000 psi

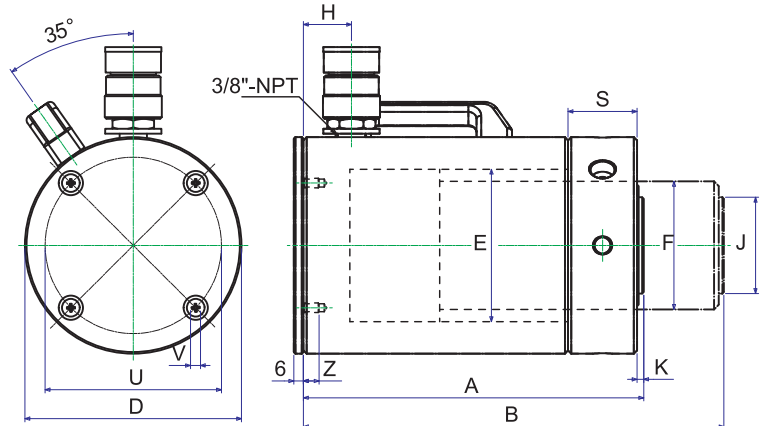


FEATURES

- Half weight of the steel cylinders.
- Locknut extend load holding period safely.
- Large saddle surface for side load protection.
- Carrying handles are equipped with all models.
- Hard-Anodized coating reduces wear & corrosion.
- Stop rings for piston blow-out protection.
- Heavy duty spring for fast and full retraction.

Base Plate Mounting Holes Dimensions(mm)

Model No./ Capacity (ton)	Bolt Circle U (mm)	Thread V (mm)	Thread Depth Z (mm)
ALNC-20	70	M6×1.0	10
ALNC-30	80	M6×1.0	10
ALNC-50	110	M6×1.0	10
ALNC-100	160	M6×1.0	10



SPECIFICATIONS

Model No.	Capacity (ton)	Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)	Collapsed Height A (mm)	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter (threaded) F (mm)	Base to Advance Port H (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Lock Nut Height S (mm)	Weight (kgs)
ALNC202	20	50	30.2	151	193	243	92	62	Tr55×3	25	40	3	25	4.8
ALNC204		100	30.2	302	243	343	92	62	Tr55×3	25	40	3	25	5.7
ALNC206		150	30.2	453	293	443	92	62	Tr55×3	25	40	3	25	6.3
ALNC208		200	30.2	604	343	543	92	62	Tr55×3	25	40	3	25	6.9
ALNC302	30	50	44.2	221	205	255	110	75	Tr60×3	25	40	3	30	6.9
ALNC304		100	44.2	442	255	355	110	75	Tr60×3	25	40	3	30	7.7
ALNC306		150	44.2	662	305	455	110	75	Tr60×3	25	40	3	30	8.6
ALNC308		200	44.2	883	355	555	110	75	Tr60×3	25	40	3	30	9.6
ALNC502	50	50	70.8	354	212	262	135	95	Tr80×4	30	60	3	43	9.3
ALNC504		100	70.8	708	262	362	135	95	Tr80×4	30	60	3	43	10.7
ALNC506		150	70.8	1063	312	462	135	95	Tr80×4	30	60	3	43	14.5
ALNC508		200	70.8	1417	362	562	135	95	Tr80×4	30	60	3	43	14.5
ALNC5010	100	250	70.8	1771	412	662	135	95	Tr80×4	30	60	3	43	16.5
ALNC1002		50	143	715	235	285	200	135	Tr105×6	45	70	3	51	21.9
ALNC1004		100	143	1431	285	385	200	135	Tr105×6	45	70	3	51	25.2
ALNC1006		150	143	2146	335	485	200	135	Tr105×6	45	70	3	51	29.2
ALNC1008		200	143	2861	385	585	200	135	Tr105×6	45	70	3	51	33.0
ALNC10010		250	143	3577	435	685	200	135	Tr105×6	45	70	3	51	35.4



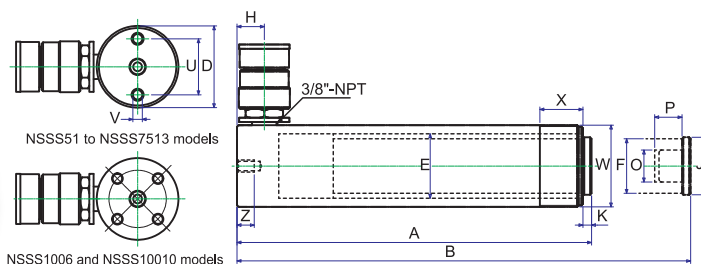
MODEL: NSSS-SERIES

Capacity: 4.5 - 100 Ton

Stroke: 25.4 - 406 mm

Max. Working Pressure: 700 bar / 10,000 psi

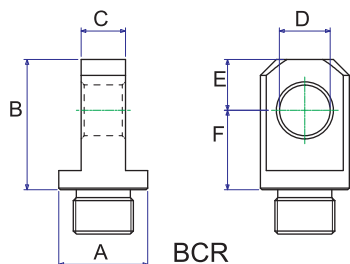
- All cylinders are single acting with spring return.
- Pistons hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.



NSSS-SERIES, STANDARD CYLINDERS

Model	Capacity (ton)	Stroke (mm)	Oil Cap (cm ³)	HEIGHT(mm)		D Ø mm	E Ø mm	F Ø mm	H mm	J mm	K mm	O Ø UN	P mm	U mm	V Ø UNC	Z mm	W Ø UN	X mm	Weight (kgs)
				RETRACTED	EXTENDED														
NSSS51	4.5	26	17	110	136		28.6						14						1
NSSS53		76	54	165	241		30						14						1.5
NSSS55	5	127	90	216	343	38	30	25.4	19	25	6	3/4"-16	14	25	1/4"-20	14	1 1/2"-16	28	1.9
NSSS57		183	129	273	456		30						16						2.4
NSSS59		232	164	324	556		30						16						2.8
NSSS101		25.4	36.5	90	115.4		42.8			—	—	#10-24UN	6.5						1.8
NSSS102		51	73	121	172		42.8			40	6	1"-8	19						2.3
NSSS104		101	145	171	272		42.8			40	6	1"-8	19						3.3
NSSS106	10	152.5	242	247	399.5	57	45	38	19	40	6	1"-8	19		5/16"-18	13	2 1/4"-14	30	4.4
NSSS108		203.5	323	298	501.5		45			40	6	1"-8	19	39					5.4
NSSS1010		255.5	406	350	605.5		45			40	6	1"-8	19						6.4
NSSS1012		305.5	486	400	705.5		45			40	6	1"-8	19						6.8
NSSS1014		356.5	567	451	807.5		45			40	6	1"-8	19						8.2
NSSS151		26.5	63	124	150.5				19										3.3
NSSS152		52.5	125	149.6	202.1				19										4.1
NSSS154		102.5	243	200	302.5				19										5
NSSS156		153	363	271.6	424.6				25										6.8
NSSS158	15	203.5	483	322	525.5	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	13	2 3/4"-16	30	8.2
NSSS1510		254.5	604	373	627.5				25										9.5
NSSS1512		305	724	424	729				25										10.9
NSSS1514		355.7	845	474.6	830.3				25										11.8
NSSS1516		406	824	523	829				25										12.8
NSSS251		25.5	98	139.5	165														5.9
NSSS252		51	196	165	216														6.4
NSSS254		102	392	216	318														8.2
NSSS256		158.5	610	273	431.5														10
NSSS258	25	209.5	806	324	533.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	19	3 5/16"-12	50	12.2
NSSS2510		260.5	1002	375	635.5														14.1
NSSS2512		311	1196	425.5	736.5														16.3
NSSS2514		361.5	1390.5	476	837.5														17.7
NSSS308	30	209.5	925	387.5	597	103	75	60	57	50	10.5	1 1/2"-16	25.4	—	—	—	4"-12	50	18.1
NSSS502		51	361	177	228														15
NSSS504		101.5	719	229	330.5														19.1
NSSS506	50	157.5	1116	283	440.5	127	95	80	33	70	3	—	—	95	1/2"-13	19	5"-12	55	23.1
NSSS508		203	1446	349	552														27.1
NSSS5010		260	1853	385	645														30.4
NSSS5013		335.5	2377	461	796.5														37.6
NSSS756		155	1752	285	440														29.5
NSSS7513	75	333.5	3770	491	824.5	152	120	95	30	70	3	—	—	—	—	—	5 3/4"-12	45	59
NSSS1002		50	715	238	288														43
NSSS1004		100	1430	288	388														50
NSSS1006	100	170	2432	358	528	177	135	105	40	70	3	—	—	139	3/4"-10	25	6 7/8"-12	45	59
NSSS10010		260	3720	448	708														72.6

Accessories for NSSS series

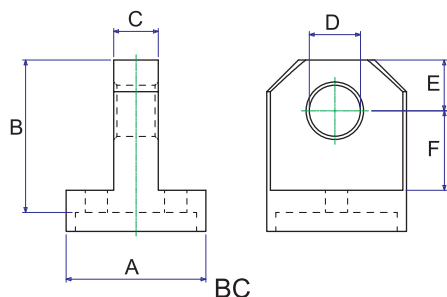


BCR

For NSSS 5, 10, 15 & 25 Ton

Piston Clevis

Model	A	B	C	D	E	F
BCR5	28	41	14	16	16	25
BCR10	43	59	25	22.3	25	34
BCR15	43	62	25	22.3	25	37
BCR25	57	74	38	31.8	31	43

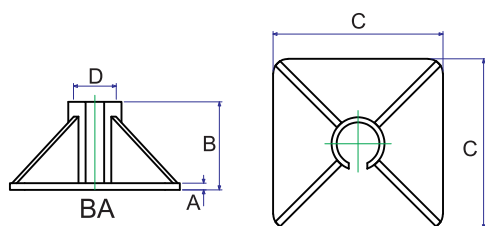


BC

For NSSS 5, 10, 15 & 25 Ton

Base Clevis

Model	A	B	C	D	E	F
BC5	44	48	14	16	16	25
BC10	63	67	25	22.3	25	35
BC15	78.5	67	25	22.3	25	35
BC25	95	79	38	31.8	31	41



BA

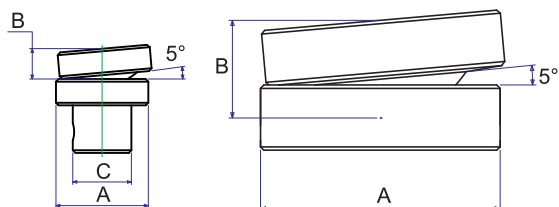
BA10 for NSSS102 through NSSS1014 BA25 for NSSS252 through NSSS2514

Cylinder Bases

Model	A	B	C	D
BA10	10	123	230	58
BA25	16	128	280	89

ATS10 & ATS25

ATS-100



ATS10 for NSSS10T ATS25 for NSSS25T through NSSS30T ATS100 for NSSS50T through NSSS100T

Accessories Tilt Saddles

Model	A	B	C
ATS10	40	11.5	22.2
ATS25	50	14	36.3
ATS100	70	28.5	-

MODEL: NSHS & NRHS SERIES

Capacity: 10 - 100 Ton

Stroke: 8 - 160 mm

Max. Working Pressure: 700 bar / 10,000 psi

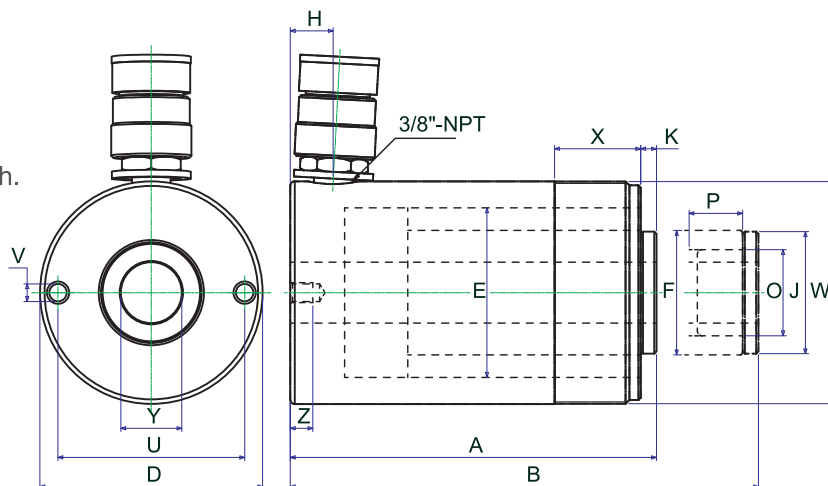


FEATURES

- All cylinders are single acting with spring return.
- Pistons hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.
- Use in combination with hand / foot pumps (Page 18-28), and accessories (page 71-77)

NRHS SERIES

- Get the fast retracting speed by Tension spring design.
- Enlarged Plunger size provide stronger gripping force.



NSHS & NRHS SERIES, HOLLOW PLUNGER CYLINDERS

Model	Capacity (ton)	Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Cap (cm ³)	A HEIGHT(mm)		D Ø mm	E Ø mm	F Ø mm	H mm	J mm	K mm	O Ø UN	P mm	U mm	V Ø UN	Z mm	W Ø UN	X mm	Y Centre Hole Ø mm	Weight (kgs)
					RETRACTED	EXTENDED															
NSHS120	12	8	18.5	14.8	60	68	73	54	35	12.5	—	—	3/4"-16	16	50.8	5/16"-18	9	2 3/4"-16	33	19.5	1.8
NSHS121		42	18.9	79	120	162		55		19			—	—			12.7				3.1
NSHS1211		42	18.9	79	120	162		55		19			3/4"-16	16			12.7				3.1
NSHS123		76	18.9	143.2	184	260		55		19			—	—			12.7				4.5
NSHS202	20	51	34	173	162	213	98.5	75	55	19	54	7	1 9/16"-16	25	82.6	3/8"-16	9.4	3 7/8"-12	38	27	7.5
NSHS206		155	34	527	306	461		75		19			1 9/16"-16	25			9.4				13.5
NSHS302	30	65	47.8	310	178.5	243.5	117	90	65	21.5	59.9	0.5	1 7/8"-16	25	92	3/8"-16	14	4 1/2"-12	42	34	20.4
NSHS306		160	47.8	763	330	490		90		21.5			1 7/8"-16	25			14				20.4
NSHS603	60	76	89.6	680	247.5	323.5	158.6	125	90	32	89	12.5	2 3/4"-16	25	130	1/2"-13	14	6 1/4"-12	50	54	26.8
NSHS606		152	89.6	1360	323.5	475.5		125		32			2 3/4"-16	25			14				34
NSHS1003	100	76	143	1085	254	330	213	165	125	38	125	12	4"-16	30	178	5/8"-11	19	8 3/8"-12	60	79	50.1
NRHS102	10	63.5	14.9	42.6	135.5	199	76.2	60	52.4	25.4	52	0.5	1 3/4"-12	15	60.3	1/4"-20UNC	10	—	—	19.5	4
NRHS108		203	14.9	302.3	287.5	490.5		60		25.4			1 3/4"-12	15			10				8.5
NRHS302	30	63.5	42.7	271	158.5	222	121	95	79.9	30	79.5	1.5	2 3/4"-12	20	95.3	7/16"-20UNF	14	4 3/4"-20UN	38	33.3	11.4
NRHS306		152.5	42.7	651	247.5	400		95		30			2 3/4"-12	20			14				11.4



MODEL: NSCS-SERIES

Capacity: 10 - 100 Ton

Stroke: 38 - 62 mm

Max. Working Pressure: 700 bar / 10,000 psi

- All cylinders are single acting with spring return.
- Pistons hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.



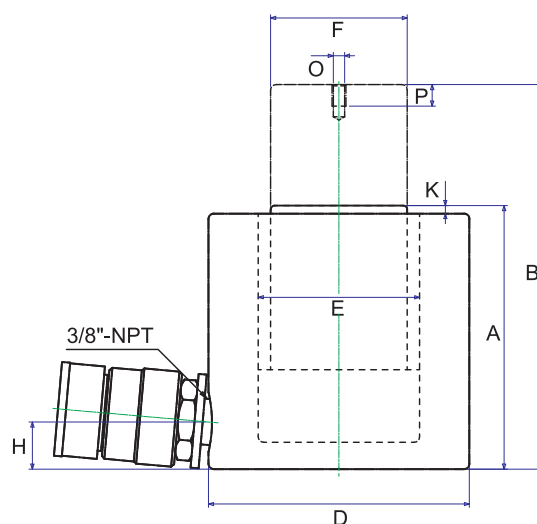
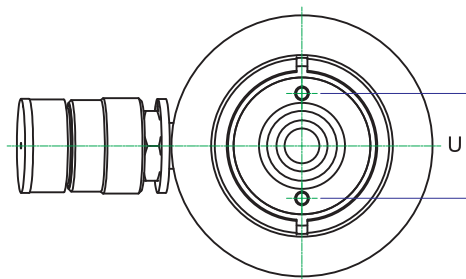
Hand / Foot Pumps

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High Pressure Accessories

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NSCS-SERIES, COMPACT CYLINDERS

Model	Capacity (ton)	Stroke (mm)	Oil Cap (cm ³)	A		C	D	E	F	H	K	V	G	O	P	U	L	M	Weight (kgs)
				HEIGHT(mm)	HEIGHT(mm)														
				RETRACTED	EXTENDED														
NSCS101	10	38	55.0	88	126	—	78	42.8	38	17.5	5	—	—	M4	8	26	—	—	4.1
NSCS201	20	45	127.0	98	143	—	97	60	50.8	17.5	3	—	—	M5	9	39	—	—	5
NSCS302	30	62	274.0	117	179	—	107	75	63.5	19	3	—	—	M5	8	39	—	—	6.8
NSCS502	50	60.5	429.0	127	187.5	—	127	95	70	19	2	—	—	M5	8	39	—	—	10.9
NSCS1002	100	58	830.0	146.5	204.5	—	165	135	92	25	1.5	—	—	M8	10	55	—	—	22.7



MODEL: NSLS-SERIES

Capacity: 5 - 150 Ton

Stroke: 6 - 17 mm

Max. Working Pressure: 700 bar / 10,000 psi

- All cylinders are single acting with spring return.
- Pistons hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.



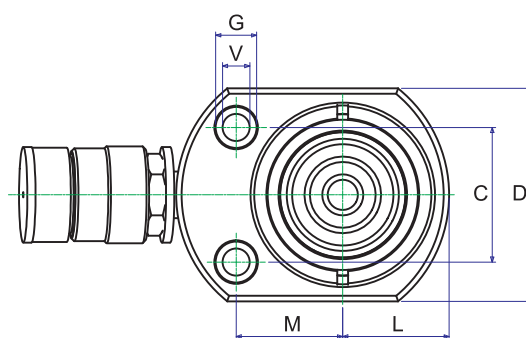
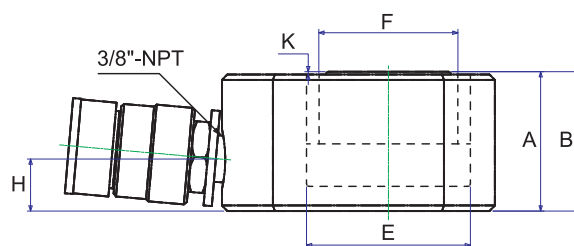
Hand / Foot Pumps

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High Pressure Accessories

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NSLS-SERIES, FLAT CYLINDERS

Model	Capacity (ton)	Stroke (mm)	Oil Cap (cm ³)	A		C	D	E	F	H	K	V	G	O	P	U	L	M	Weight (kgs)
				RETRACTED	EXTENDED														
NSLS50	5	6	4.5	33	39	28.5	58.5×44	31	25.4	16	1	5.3	9.5	—	—	—	22	22	0.7
NSLS100	10	12	18.0	42	54	36.5	82.5×60	44	38	19	1	7.5	11	—	—	—	30	34	1.6
NSLS200	20	12	34.0	51	63	49.3	100×78	60	50.8	19	1	10	15	—	—	—	39	39	2.6
NSLS300	30	13	54.0	58	71	52.3	117.5×95	73	63.5	19	2	10	16	—	—	—	47.5	47.5	4.5
NSLS500	50	16	113.0	66	82	66.5	145×115	95	70	19	2	11	19	—	—	—	57.5	58	6.8
NSLS750	75	16	180.0	79	95	76.2	170×145	120	82.5	19	2	13.5	20.5	—	—	—	72.5	70	11.3
NSLS1000	100	16	229.0	85	101	76.2	185×160	135	92	19	2	13.5	20.5	—	—	—	80	78	14.5
NSLS1500	150	17	363.0	100	117	117	225×195	165	115	23	2	13.5	20.5	—	—	—	97.5	85	26.3

MODEL: NSLS-TELESCOPIC SERIES

Capacity: 10 ~ 35 Ton

Stroke: 13 - 135 mm

Max. Working Pressure: 700 bar / 10,000 psi



NSLS20-10



NSLS10-05



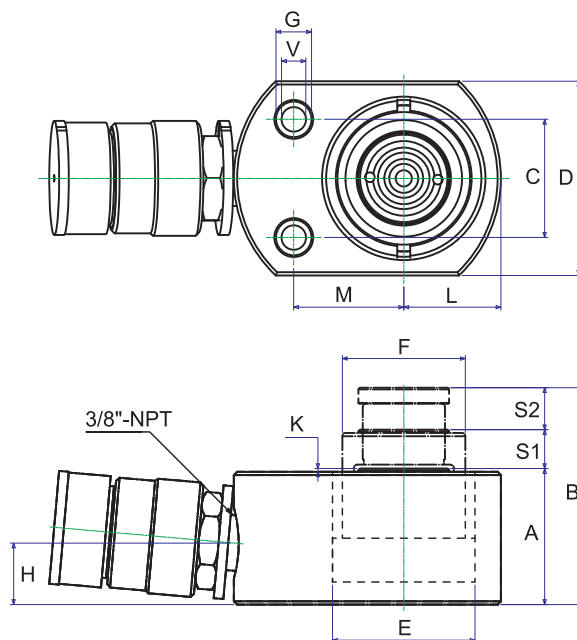
NSLS35-14

FEATURES

- NSLS Telescopic Cylinders have a build-in matting and long stroke.
- They are perfect for those who works with different types of service job in tight spaces and want to combine large forces with long stroke.
- Available in three different sizes: 10+5 Ton, 20+10 Ton and 35+14 Ton.
- Single Acting, Load Return
- Pistons hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.
- Use in combination with hand / foot pumps (Page 19-30), and accessories (page 73-79)

CAUTION!

To prevent damage to the compact system, always load the load at the middle of the lifting piston.



NSLS TELESCOPIC CYLINDERS

Model No.	Capacity (ton)		Stroke (mm)		Effective Area(cm ²)		Oil Cap (cm ³)	A	B	C mm	D mm	E Ø mm	F Ø mm	H mm	K mm	V Ø mm	G Ø mm	L mm	M mm	Weight (kgs)
	1st	2nd	S1	S2	1st	2nd		Height(mm)												
								RETRACTED	EXTENDED											
NSLS10-05	10	5	12	13	15.2	7.5	29	42	67	36.5	82.5×60	44	38	19	1	7.5	11	30	34	1.6
NSLS20-10	20	10	12	13	28.3	15.2	55	51	76	49.3	100×78	60	50.8	19	1	10	15	39	39	2.6
NSLS35-14	35	14	135	135	50	20	944	283	553	—	—	80	67	20	46	—	—	—	—	16.1

LOCK NUT CYLINDERS

MODEL:JLLC-SERIES

Capacity: 50 - 1,000 Tons

Stroke: 50 - 300 mm

Max. working pressure: 700 bar / 10,000 psi

Load Return, Lock Nut



FEATURES

- Single-acting, load return.
- Safety Lock nut for mechanical load holding.
- Chrome plated for preventing corrosion and lower friction for smoother operation.
- Withstands side load forces up to 5% of rated cylinder capacity without scoring.
- Overflow port for piston protection.
- Interchangeable, hardened, grooved saddle are standard.
- High flow coupler and dust cap included on all models.

SPECIFICATIONS

Model No.	Capacity (ton)	Stroke (mm)	Collapsed Height A (mm)	Extended Height B (mm)	Weight (kgs)
JLLC502	50	50	164	214	15
JLLC506		150	264	414	25
JLLC5010		250	364	614	35
JLLC1002	100	50	187	237	30
JLLC1006		150	287	437	48
JLLC10010		250	387	637	64
JLLC1502	150	50	209	259	53
JLLC1506		150	309	459	78
JLLC15012		300	459	759	117
JLLC2002	200	50	243	293	83
JLLC2006		150	343	493	117
JLLC20012		300	493	793	170
JLLC3002	300	50	295	345	173
JLLC3006		150	395	545	233
JLLC30012		300	545	845	323
JLLC4002	400	50	335	385	250
JLLC4006		150	435	585	327
JLLC40012		300	585	885	441
JLLC5002	500	50	375	425	367
JLLC5006		150	475	625	466
JLLC50012		300	625	925	617
JLLC6002	600	50	395	445	446
JLLC6006		150	495	645	562
JLLC60012		300	645	945	737
JLLC8002	800	50	455	505	709
JLLC8006		150	555	705	870
JLLC80012		300	705	1005	1110
JLLC10002	1000	50	495	545	949
JLLC10006		150	595	745	1141
JLLC100012		300	745	1045	1430

Hand / Foot Pumps

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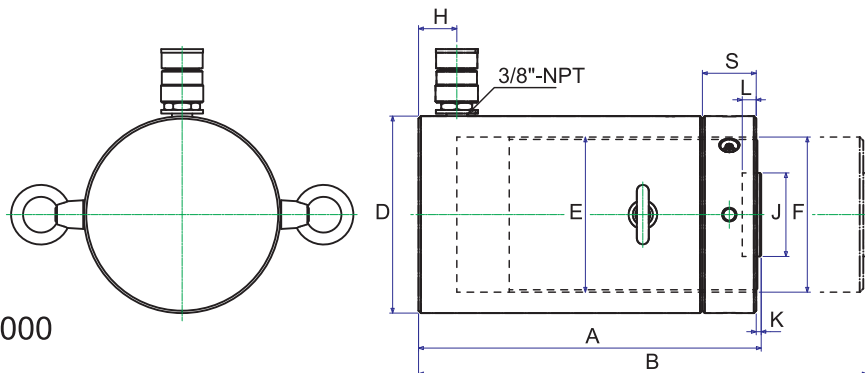
Power Pumps

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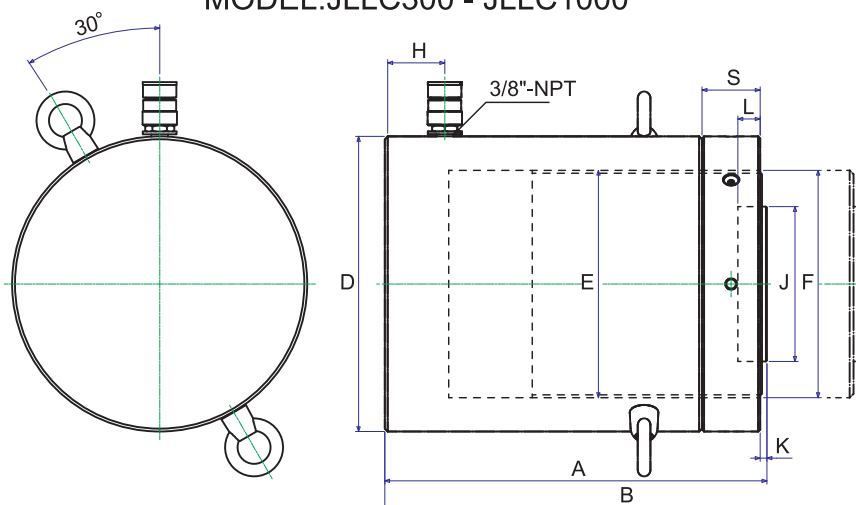


LOCK NUT CYLINDERS

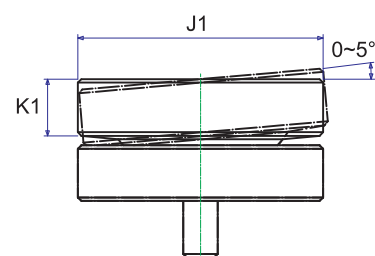
MODEL:JLLC50 - JLLC200



MODEL:JLLC300 - JLLC1000



TSA-Optional Tilt Saddle



Model No.	Cylinder Effective Area (cm ²)	Oil Capacity (c.c.)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Depth of Plumger Hole L (mm)	Lock Nut Height S (mm)	Model No.	Optional Tilt Saddle		
												Dia. J1 (mm)	Height K1 (mm)	Model Number
JLLC502	70.9	354.5	125	95	Tr95×4	20	70	4	13	35	JLLC502	70	22	TSA-100
JLLC506	70.9	1063.5	125	95	Tr95×4	20	70	4	13	35	JLLC506	70	22	TSA-100
JLLC5010	70.9	1772.5	125	95	Tr95×4	20	70	4	13	35	JLLC5010	70	22	TSA-100
JLLC1002	133	665	165	130	Tr130×4	32	70	4	13	45	JLLC1002	70	22	TSA-100
JLLC1006	133	1995	165	130	Tr130×4	32	70	4	13	45	JLLC1006	70	22	TSA-100
JLLC10010	133	3325	165	130	Tr130×4	32	70	4	13	45	JLLC10010	70	22	TSA-100
JLLC1502	201	1005	205	160	Tr160×6	49	125	4	25	45	JLLC1502	125	20	TSA-200
JLLC1506	201	3015	205	160	Tr160×6	49	125	4	25	45	JLLC1506	125	20	TSA-200
JLLC15012	201	6030	205	160	Tr160×6	49	125	4	25	45	JLLC15012	125	20	TSA-200
JLLC2002	269	1345	235	185	Tr185×6	52	125	4	25	50	JLLC2002	125	20	TSA-200
JLLC2006	269	4035	235	185	Tr185×6	52	125	4	25	50	JLLC2006	125	20	TSA-200
JLLC20012	269	8070	235	185	Tr185×6	52	125	4	25	50	JLLC20012	125	20	TSA-200
JLLC3002	433.5	2167.5	305	235	Tr235×6	62	160	5	25	60	JLLC3002	195	75	TSA-300
JLLC3006	433.5	6502.5	305	235	Tr235×6	62	160	5	25	60	JLLC3006	195	75	TSA-300
JLLC30012	433.5	13005	305	235	Tr235×6	62	160	5	25	60	JLLC30012	195	75	TSA-300
JLLC4002	551	2755	355	265	Tr265×6	76	160	5	25	70	JLLC4002	225	85	TSA-400
JLLC4006	551	8265	355	265	Tr265×6	76	160	5	25	70	JLLC4006	225	85	TSA-400
JLLC40012	551	16530	355	265	Tr265×6	76	160	5	25	70	JLLC40012	225	85	TSA-400
JLLC5002	706.5	3532.5	395	300	Tr300×6	81	180	5	25	80	JLLC5002	250	90	TSA-500
JLLC5006	706.5	10597.5	395	300	Tr300×6	81	180	5	25	80	JLLC5006	250	90	TSA-500
JLLC50012	706.5	21195	395	300	Tr300×6	81	180	5	25	80	JLLC50012	250	90	TSA-500
JLLC6002	854.9	4274	425	330	Tr330×6	89	195	5	25	85	JLLC6002	275	95	TSA-600
JLLC6006	854.9	12823	425	330	Tr330×6	89	195	5	25	85	JLLC6006	275	95	TSA-600
JLLC60012	854.9	25646	425	330	Tr330×6	89	195	5	25	85	JLLC60012	275	95	TSA-600
JLLC8002	1194	5970	505	390	Tr390×6	105	225	5	25	100	JLLC8002	320	120	TSA-800
JLLC8006	1194	17910	505	390	Tr390×6	105	225	5	25	100	JLLC8006	320	120	TSA-800
JLLC80012	1194	35820	505	390	Tr390×6	105	225	5	25	100	JLLC80012	320	120	TSA-800
JLLC10002	1451.5	7257	555	430	Tr430×6	108	250	5	25	110	JLLC10002	360	135	TSA-1000
JLLC10006	1451.5	21772	555	430	Tr430×6	108	250	5	25	110	JLLC10006	360	135	TSA-1000
JLLC100012	1451.5	43544	555	430	Tr430×6	108	250	5	25	110	JLLC100012	360	135	TSA-1000

LOCK NUT CYLINDERS

POWERRAM
HYDRAULIC TOOLS



MODEL: JLPC-SERIES

Capacity: 60 - 250 Tons

Stroke: 45 & 50 mm

Max. working pressure: 700 bar / 10,000 psi

Load Return



FEATURES

- Extremely low height for use in confined areas.
- Single-acting, load return.
- Lock nut for positive and safe load holding over a long period of time.
- Chrome plated for preventing corrosion and lower friction for smoother operation.
- Withstands sideload forces up to 3% of rated cylinder capacity without scoring.
- Overflow port functions as a stroke limiter.
- High flow coupler and dust cap included on all models.

Hand / Foot Pumps

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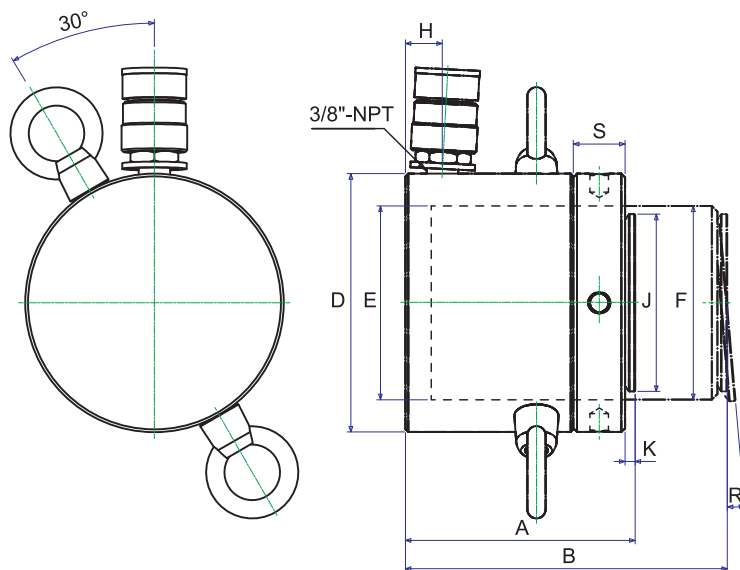


Power Pumps

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MODEL: JLPC60 - 250



SPECIFICATIONS

Model No.	Cylinder Capacity (ton)	Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Capacity (c.c.)	Collapsed Height A (mm)	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diam E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	Saddle Max. Tilt Angle R	Lock Nut Height S (mm)
JLPC602	60	50	86.6	433	124	174	140	105	Tr105x6	20	96	5	5°	28
JLPC1002	100		143	715	137	187	175	135	Tr135x6	21	126	8	5°	31
JLPC1502	150		214	963	148	193	220	165	Tr165x6	27	150	9	5°	40
JLPC2002	200	45	283	1273.5	155	200	245	190	Tr190x6	30	180	10	5°	43
JLPC2502	250		363	1633	159	204	275	215	Tr215x6	32	200	11	5°	44

DOUBLE-ACTING CYLINDERS

POWERRAM
HYDRAULIC TOOLS



MODEL:NDAC-SERIES

Capacity: 10 - 100 Tons

Stroke: 150 - 470 mm

Max. working pressure: 700 bar / 10,000 psi

Double-Acting

FEATURES

- Perfect for construction, shipyard, utility, mining and equipment maintenance shops.
- Piston hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.

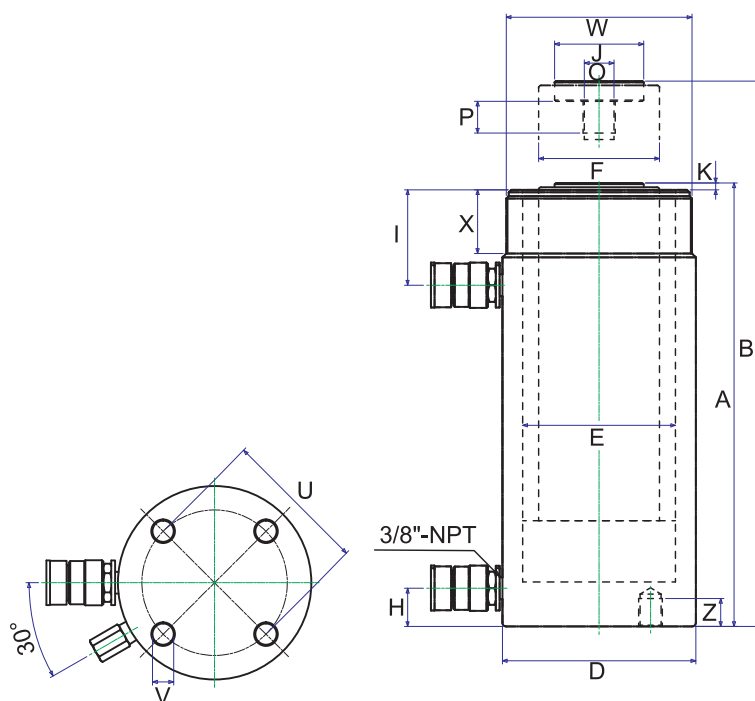
Hand / Foot Pumps

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Power Pumps

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SPECIFICATIONS

Model No.	Cap. (ton)		Stroke (mm)	Oil Cap. (cm ³)		A B Height(mm)		D Ømm	E Ømm	F Ømm	H mm	I mm	J Ømm	K mm	O ØUN	P mm	U mm	V Ø UNC	Z mm	W ØUN	X mm	Y Center Hole (Ø mm)	Weight (kgs)
	Push	Pull		Push	Pull	Retracted	Extended																
NDAC1010	10	4	251	399	144	408	659	78	45	36	36.5	55	40	8	1"-8	25.4	--	--	--	2 1/4"-14	27	--	13
NDAC1012			301	478	172	458	759																15
NDAC308	30	14	209	923	426	387	596	103	75	55	25	75	50	12	1 1/2"-16	25.4	--	--	--	4"-12	50	--	20
NDAC3014			368	1625	751	547	915																29
NDAC506			150	1062	309	331	481																29
NDAC5013	50	14	330	2338	680	511	841	127	95	80	30	70	70	5	1"-12	25.4	88.9	5/8"-11	22	5"-12	50	--	43
NDAC5018			470	3330	968	675	1145				52												59
NDAC756	75	29.5	155	1752	654	348	503	152	120	95	30	75	70	5	1"-12	38	114.3	3/4"-10	22	5 3/4"-12	45	--	40
NDAC7513			333	3764	1405	526	859																58
NDAC1006	100	50.6	160	2289	1155	358	518	177	135	95	38	71	80	5	1 3/4"-12	35	139.7	3/4"-10	25	6 7/8"-12	50	--	59
NDAC10013			330	4721	2383	528	858																83

DOUBLE-ACTING CYLINDERS



MODEL:NDAH-SERIES

Capacity: 30 - 100 Tons

Stroke: 76 - 257 mm

Max. working pressure: 700 bar / 10,000 psi

Double-Acting, Hollow Plunger

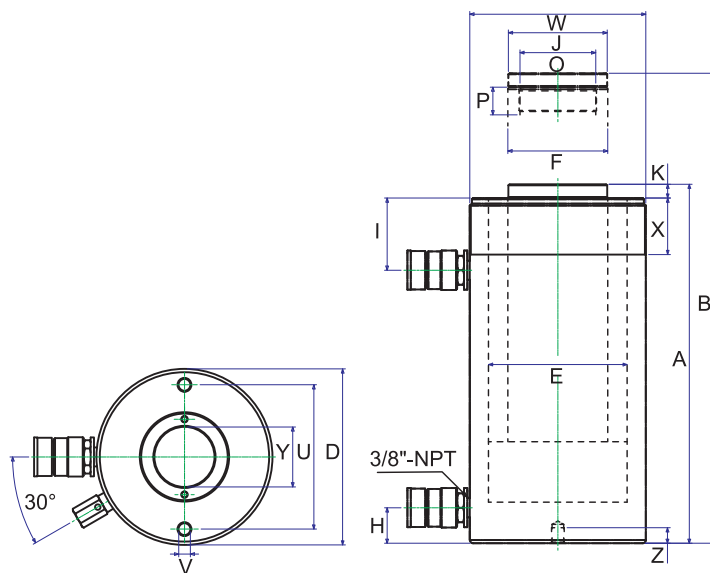
FEATURES

- Perfect for construction, shipyard, utility, mining and equipment maintenance shops.
- Piston hard chromed.
- Cylinders inside roll-polished.
- Cylinders outside blasted with black nitriding finish.

Hand / Foot Pumps Page 19-30



Power Pumps Page 31-42



SPECIFICATIONS

Model No.	Capacity (ton)		Stroke (mm)	Cylinder Effective Area (cm ²)	Oil Cap. (cm ³)		A B Height(mm)		D Ø mm	E Ø mm	F Ø mm	H mm	I mm	J Ø mm	K mm	O Ø UN	P mm	U mm	V Ø UNC	Z mm	W Ø UN	X mm	Y Center Hole (Ø mm)	Weight (kgs)
	Push	Pull			Push	Pull	Retracted	Extended																
NDAH307	30	21	178	47.8	849	541	330	508	117	90	65	21.5	60.5	60	0.5 10	17/8"-16	25	92	3/8"-16	14	4 1/2"-12	42	34	22
NDAH3010			257	47.8	1226	782	431	688																27
NDAH603			89	89.6	797	526	247.5	336.5																28
NDAH606	60	41	165	89.6	1477	975	323.5	488.5	158.6	125	90	32	65	89	12.5	2 3/4"-16	25	130	1/2"-13	14	6 1/4"-12	50	54	35
NDAH6010			257	89.6	2300	1518	437.5	694.5																45
NDAH1003	100	64	76	143	1086	692	254	330	213	165	125	38	82	125	12	4"-16	30	178	5/8"-11	19	8 3/8"-12	60	79	52
NDAH1006			152	143	2172	1384	325	477																65
NDAH10010			256	143	3656	2331	462	718																88

INTRODUCTION - PUMPS



P902



HB350



HP80D



AHP703D



P350A



FHB600



AP13



AP3000S



AP921



EP420DS

Summary of Pumps

Series	Description	Type	Pressure Rating (Bar)	Oil Cap. (c.c.)	Page
P90X	Heavy Duty Hand Pumps	2 stages	700 - 1000	450 - 2500	19
AHP / UHP	Aluminum Hand Pumps	2 stages	700 - 2800	500 - 2000	20
HA - HF	Steel Hand Pumps	1 or 2 stages	200 - 700	350 - 2500	21
PA / PB	Heavy Duty Hand Pumps	1 or 2 stages	200 - 700	350 - 700	22
Pump BG	Hand Pump Packages	2 stages	200 - 2800	350 - 2500	23
HP	Big Reservoir & Heavy Duty Hand Pumps	2 stages	700	3500 - 8000	24 - 25
P350/550/1000	Special Hand Pumps	2 stages	700	350 - 1000	26 - 28
PH	Special Pump Heads	1 stage	52 - 827	-	29
FHA / FHB	Foot Pumps	1 or 2 stages	700	350 - 700	30
AP	Air Pumps	Air / Hydraulic	700	750 - 8000	31 - 36
EP	Electric Pumps	Brushless	700	3000 - 100L	37 - 42

HEAVY-DUTY HAND PUMPS

POWERRAM
HYDRAULIC TOOLS



P901

P902



P903



P904



P904D



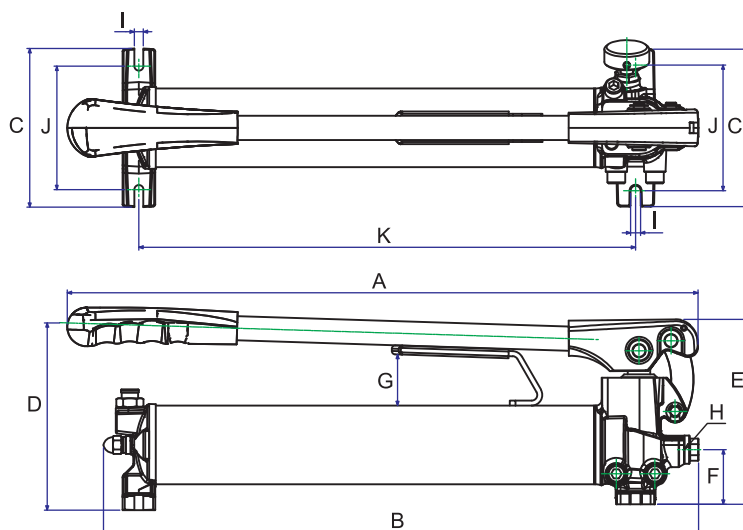
P905

MODEL: P90 SERIES

Dual speed models
Max. working pressure:
700 - 1000 bar

FEATURES

- High pressure hydraulic hand pumps are the solution for tough jobs.
- Reduced handle effort and ergonomic grip for less operator fatigue.
- Dual-speed operation for fast and easy operation.
- Vent free reservoir eliminates spills.
- Quick grip handle allows for easy transport.
- Integral reservoir with over-pressurization protection.
- Chrome plated plunger and wiper system for durable, long lasting performance.
- **P904D** equipped with Control valve for applying with double action cylinders.



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Usable Oil Capacity (c.c.)	Oil Volume per stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	Weight (kgs)
	1st stage	2nd stage			1st stage	2nd stage												
P901	20	700	450	300	19.4	1.2	447	369.5	140	163	164	48.5	45	3/8"NPT	8	112	282	6.5
P902	20	700	850	750	19.4	2.8	560	530	140	167	164	48.5	45		8	112	442	7.8
P903	20	700	1600	1400	19.4	2.8	633	597.5	140	170	164	48.5	36.5		8	112	510	10
P904	27.5	700	2500	2200	39.5	2.8	633	578	150	208	195	55	46		8	121	502	13.5
P904D	27.5	700	2500	2200	35.6	2.8	633	609	150	208	195	38	47		8	121	502	15
P905	20	1000	850	750	19.4	1.2	560	530	140	167	164	48.5	45		8	112	442	7.8

ALUMINUM HAND PUMPS

POWERRAM
HYDRAULIC TOOLS



AHP703D



UHP2800

MODEL: AHP & UHP SERIES

Dual-speed models

Large 3/8" NPT pressure port for maximum flow

Max. working pressure: 700 - 2800 bar

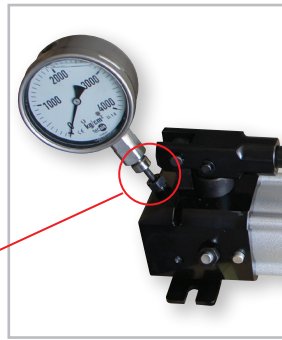
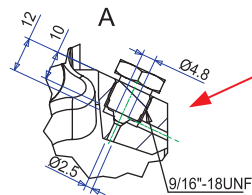


AHP705



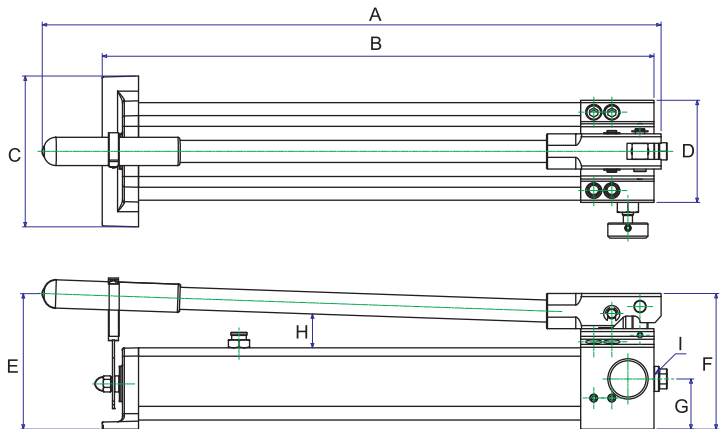
AHP701

The gauge can be mounted directly on **UHP2800JQ**, the cone thread for gauge port is 9/16"-18UNF



FEATURES

- Rugged construction and light handle efforts.
- Aluminum Alloy construction and handy release knob with anti-losing mechanism are truly suitable to industrial requirements and your daily works.
- The light weight design is ideally for easy operation and portability.
- Double action design on **AHP703D** is ideal for double acting cylinders, no extra control valve and adapters are requested.
- **UHP2800** brings you special ultra high pressure application but with light weight.
- **UHP2800JQ** directly mounted with Pressure gauge and no extra adaptors needed. More efficient and convenient.



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I	Weight (kgs)
	1st stage	2nd stage			1st stage	2nd stage										
AHP701	20	700	500	350	12.9	1.65	391	361	110	77	140	127	42.5	37	3/8"-NPT	2.3
AHP702	20	700	1000	750	12.9	1.65	542	513	110	77	130	127	42.5			3.5
AHP703	20	700	2000	1620	12.9	2.30	623	556	150	102	135	135	50			6
AHP703D	20	700	2000	1620	12.9	2.30	623	556	150	102	135	135	24/37			7.0
AHP704	20	1000	1000	750	12.9	1.65	539	501	110	77	145	127	42.5			3.5
AHP705	20	1500	2000	1620	12.9	1.00	699	629	150	102	152	157	50	37	3/4"-16UNF	6.7
UHP2800	20	2800	1000	700	12.9	0.65	620	488	79.5	140	157	156.5	26		3/4"-16UNF	6.7
UHP2800JQ	20	2800	1000	700	12.9	0.65	617	568	79.5	140	157	156.5	93		G 1/4"	6.7

STEEL HAND PUMPS



HA600

MODEL: HA-HF SERIES

Single & Dual-speed models

Large 3/8" NPT pressure port for maximum flow.

Max. working pressure: 200 & 700 bar



HC1500



HE2000



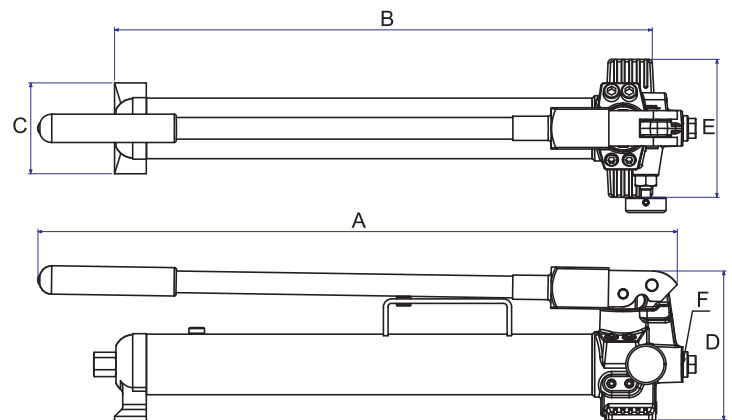
HE2421



HB350

FEATURES

- Rugged construction and light handle efforts.
- Handy release knobs with anti-leaking mechanism are truly suitable to industrial requirement and your daily works.
- Both single and Dual-speed models are available.
- Internal overload relief valve prevents pump from being used beyond its rated capacity.
- External adjustable relief valve with anti-losing mechanism design.
- Carrying handle for easy portability.
- **HE2421** equipped with Control valve for applying with double action cylinders.



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Oil Port Thread F	Weight (kgs)
	1st Stage	2nd Stage			1st Stage	2nd Stage							
HB350	20	200	350	250	13.0	2.8	342	310	66	148	137	3/8 NPT	5.9
HB600	20	700	750	550	13.0	2.8	542	480	90	148	137	3/8 NPT	7.6
HB700	20	700	850	640	13.0	2.8	633	528	90	148	137	3/8 NPT	8
HC1500	20	700	1500	1200	13.0	2.8	633	551	106	200	142	3/8 NPT	11.2
HC2500	20	700	2500	2200	13.0	2.8	713	632	106	200	142	3/8 NPT	12
HE2000	20	700	2100	1800	13.0	2.8	580	523	140	189	148	3/8 NPT	11.5
HE2421	20	700	2100	1800	13.0	2.8	580	523	140	189	148	-	12.0
HF350	20	700	350	280	7.0	1.0	343	310	66	127	142	3/8 NPT	5.5
HA350	200		350	280	3.2		332	292	90	148	137	3/8 NPT	5.7
HA600	700		750	550	3.2		542	478	90	148	137	3/8 NPT	7.1
HA700	700		850	640	3.2		632	526	90	148	137	3/8 NPT	7.6
HD300	700		300	200	2.8		330	283	90	127	130	1/4 NPT	4.4
HD500	700		500	400	2.8		530	469	90	127	130	1/4 NPT	5.4

HEAVY-DUTY HAND PUMPS

POWERRAM
HYDRAULIC TOOLS

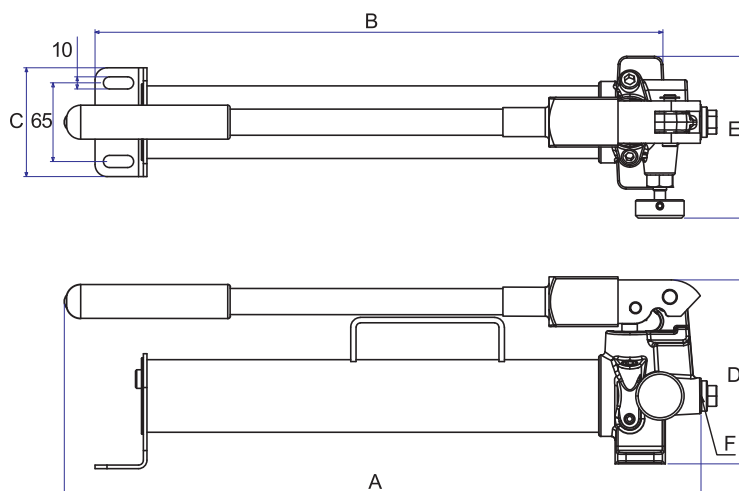
MODEL: PA & PB SERIES

Single & Dual-speed models
Large 3/8" NPT pressure port for max. flow
Low handle force for easy operation
Max. working pressure: 200 & 700 bar



FEATURES

- POWERRAM heavy duty hand pumps are feature with forged and welded construction to prevent collision and deformation.
- Professional choice for a wide range of industrial applications.
- Both single and Dual-speed models are available.
- Internal overload valve relief prevents pump from being used beyond its rated capacity.
- External adjustable relief valve with anti-losing mechanism design.
- Carrying handle for easy portability.



SINGLE-SPEED HEAVY-DUTY HAND PUMPS

Model No.	Pressure Rating (bar)	Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Oil Port Thread F	Weight (kgs)
PA350	200	250	3.1	335	295	90	146	128	3/8 NPT	5
PA600	700	550	3.1	545	485	90	146	128	3/8 NPT	6.1
PA700	700	640	3.1	632	533	90	146	128	3/8 NPT	6.5

TWO-SPEED HEAVY-DUTY HAND PUMPS

Model No.	Pressure Rating (bar)		Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Oil Port Thread F	Weight (kgs)
	1st Stage	2nd Stage		1st Stage	2nd Stage							
PB350	20	200	250	13.0	2.8	335	303	90	146	128	3/8 NPT	5.5
PB600	20	700	550	13.0	2.8	545	493	90	146	128	3/8 NPT	7
PB700	20	700	640	13.0	2.8	590	541	90	146	128	3/8 NPT	7.3

HAND PUMP PACKAGES



MODEL: PUMP BG SERIES

Dual-speed models

Low handle effort for easy operation

Max. working pressure: 200 - 2,800 bar



FEATURES

- Packed with steel case for easy storage and portable works.
- 700 bar pump sets are including gauge adaptor, pressure gauge and 1.5mtrs hose.
- 1000 - 2800 bar pump sets are including ultra high pressure gauge and hose for special applications.

SPECIFICATIONS

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		Pressure Gauge	Hydraulic Hose	Weight (kg)
	1st Stage	2nd Stage		1st Stage	2nd Stage			
PB350BG	13.8	200	350	13.0	2.8	1000 bar / 2-1/2" Dial	3/8NPT / 5 feet long	12.4
PB600BG	13.8	700	600	13.0	2.8			13.8
PB700BG	13.8	700	700	13.0	2.8			14.0
HC1500BG	13.8	700	1500	13.0	2.8			22.6
HC2000BG	13.8	700	2000	13.0	2.8			24.8
AHP701BG	20	700	500	12.9	1.65			10.4
AHP702BG	20	700	1000	12.9	1.65			11.1
AHP703BG	20	700	2000	12.9	2.30			18.1
AHP703DBG	20	700	2000	12.9	2.30			21.0
P901BG	20	700	450	19.4	1.2			14.6
P902BG	20	700	850	19.4	2.8			15.4
P903BG	20	700	1600	19.4	2.8			22.1
P904BG	27.5	700	2500	39.5	2.8	1600 bar / 4" Dial	G1/4 / 6 feet long	34.5
P904DBG	27.5	700	2500	35.6	2.8			37.0
P905BG	20	1000	850	19.4	1.2			30.5
AHP704BG	20	1000	1000	12.9	1.65			24.5
AHP705BG	20	1500	2000	12.9	1.00			27.0
UHP2800BG	20	2800	1000	12.9	0.65	4000 bar / 4" Dial	G1/4 / 6 feet long	28.0

HEAVY DUTY HAND PUMPS

POWERRAM
HYDRAULIC TOOLS

MODEL: HP35 & HP50 Series

Dual-speed model

Large 3/8" NPT pressure port for maximum flow.

Max. working pressure: 700 bar



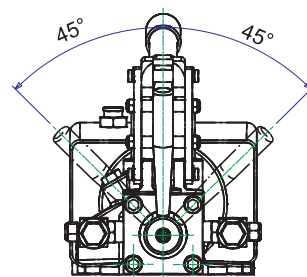
HP35



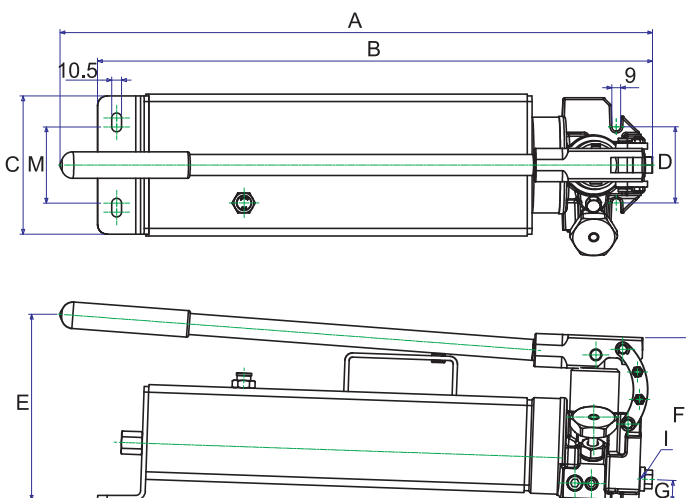
HP35D

FEATURES

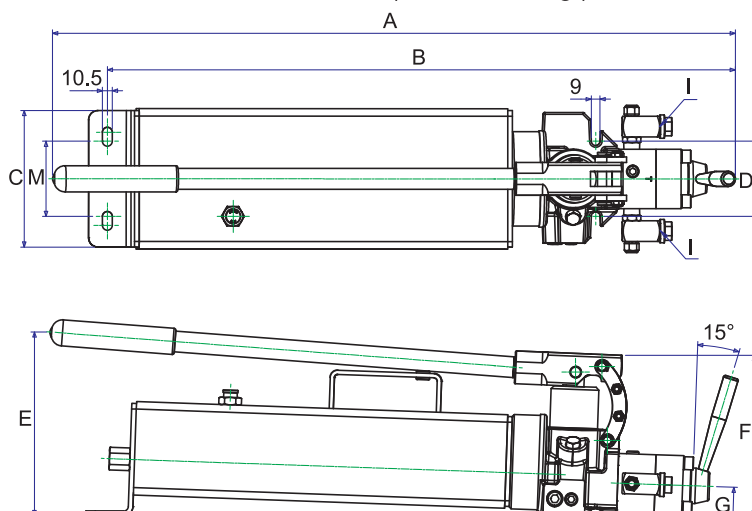
- Steel casting tank.
- Internal overload relief valve prevents pump from being used beyond its rated capacity.
- HP35D & HP50D are ideal for double-acting cylinder without the need for additional control valve.



MODEL: HP35 / HP50



MODEL: HP35D / HP50D (Double-Acting)



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Usable Oil Cap. (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	I (mm)	M (mm)	Weight (kg)
	1st stage	2nd stage			1st stage	2nd stage										
HP35	28	700	3500	2950	30	3	626	586	146	80.5	196	171.5	22.4	3/8"NPT	80.5	16.5
HP35D	28	700	3500	2950	30	3	741	680	146	80.5	196	171.5	35	3/8"NPT	80.5	19.0
HP50	28	700	5000	4450	30	3	626	586	146	80.5	196	171.5	22.4	3/8"NPT	80.5	20.0
HP50D	28	700	5000	4450	30	3	741	680	146	80.5	196	171.5	35	3/8"NPT	80.5	22.5

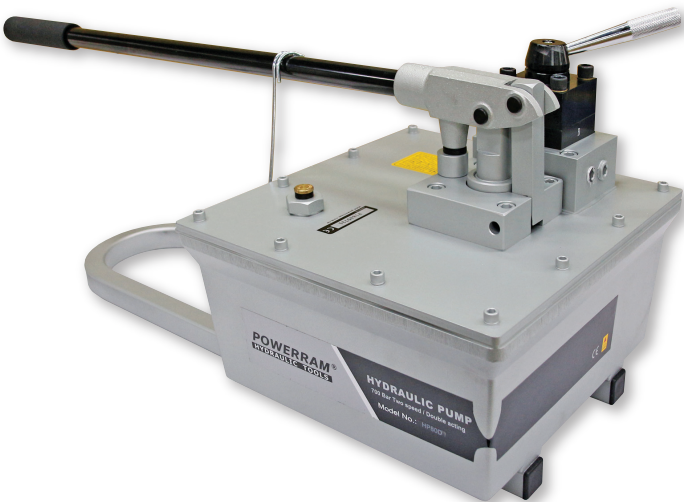
7L RESERVOIR HAND PUMPS

MODEL: HP80 & HP80D

Dual-speed models
 Large 3/8" NPT pressure port for max. flow
 Heavy-Duty, Large reservoir
 Max. working pressure: 700 bar



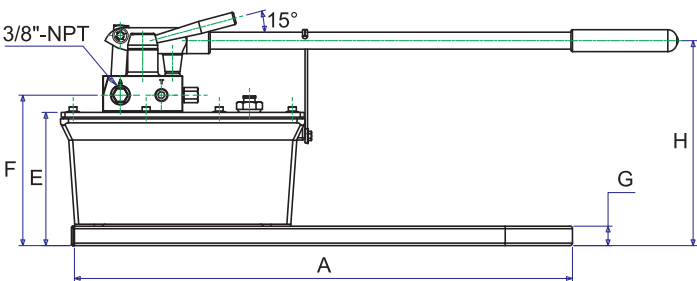
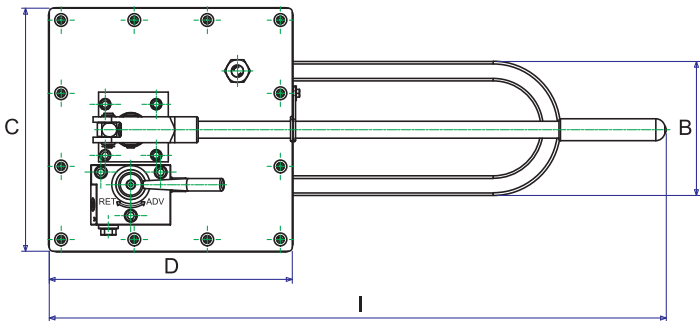
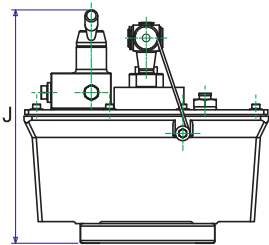
HP80



HP80D

FEATURES

- Casting tank made of steel.
- Internal overload relief valve prevents pump from being used beyond its rated capacity.
- HP80D is ideal for double-acting cylinders without the need for additional control valve.



SPECIFICATION

Model No.	Pressure Rating (bar)		Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	Weight (kg)
	1st stage	2nd stage		1st stage	2nd stage											
HP80	27.5	700	8000	113	4	635	171	310	310	170	192	25	261	787	298	24.7
HP80D	27.5	700	8000	113	4	635	171	310	310	170	196	25	261	787	298	27.5

SPECIAL HAND PUMPS



P350A



P350B



P350D

MODEL: P350 SERIES

Dual-speed models

Could be operated in any directions

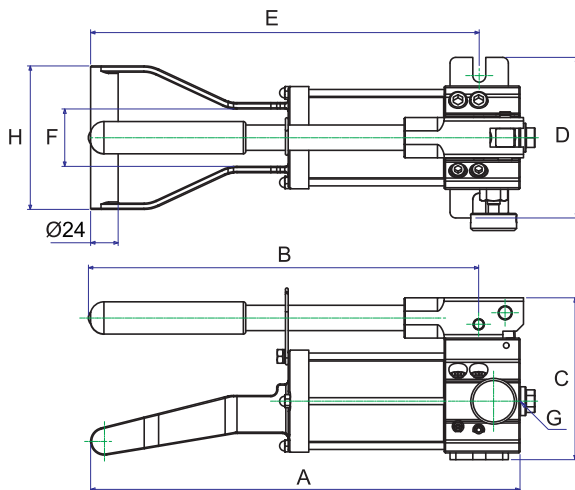
Large 3/8" NPT pressure port for max. flow

Max. working pressure: 700 bar

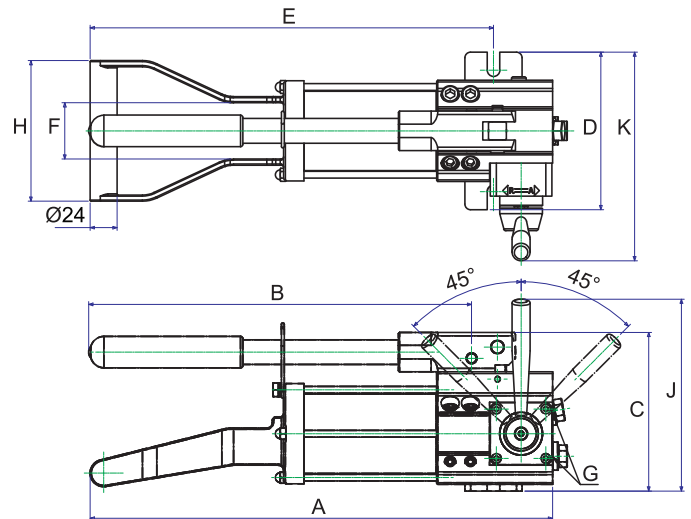
FEATURES

- Special design with aluminum alloy construction as much light weight is ideally for easy portability and maneuvering.
- The sealed oil reservoir design allows the hand pumps to be operated at all angels without the risk of air contamination and oil spills.
- The best optional hand pumps allow for sub-sea operation.
- Unique design of triangle hand-held base is easy to carry & operate.
- A: Single-port hand pump is used for one single-acting cylinder
- B: Twin-port hand pump is used for two single-acting cylinders simultaneously
- D: Double-acting hand pump is used for one double-acting cylinder

MODEL: P350A & P350B



MODEL: P350D



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	Weight (kgs)
	1st stage	2nd stage		1st stage	2nd stage											
P350A	20	700	350	5.8	0.9	374	340	140	140	338.5	50	3/8"-NPT	125	—	—	4.4
P350B	20	700	350	5.8	0.9	421	340	140	140	363.5	50	3/8"-NPT	125	—	—	6.2
P350D	20	700	350	5.8	0.9	411	340	140	140	358.5	50	3/8"-NPT	125	171	185	5.3

SPECIAL HAND PUMPS

POWERRAM
HYDRAULIC TOOLS



P550A



P550D

MODEL: P550 SERIES

Dual-speed models

Could be operated in any directions

Large 3/8" NPT pressure port for max. flow

Max. working pressure: 700 bar

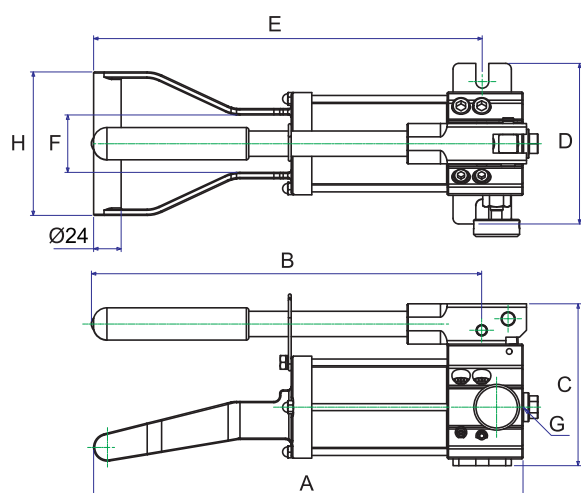


P550B

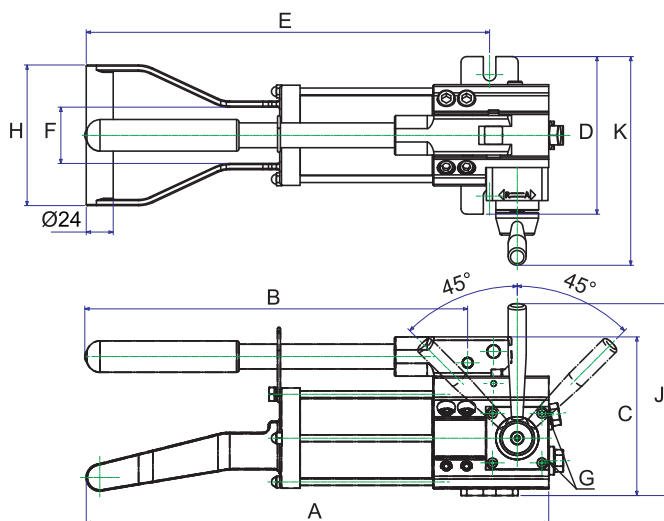
FEATURES

- Special design with aluminum alloy construction as much light weight is ideally for easy portability and maneuvering.
- The sealed oil reservoir design allows the hand pumps to be operated at all angels without the risk of air contamination and oil spills.
- The best optional hand pumps allow for sub-sea operation.
- Unique design of triangle hand-held base is easy to carry & operate.
- A: Single-port hand pump is used for one single-acting cylinder
- B: Twin-port hand pump is used for two single-acting cylinders simultaneously
- D: Double-acting hand pump is used for one double-acting cylinder

MODEL: P550A & P550B



MODEL: P550D



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	Weight (kgs)
	1st stage	2nd stage		1st stage	2nd stage											
P550A	20	700	550	5.8	0.9	494	463	140	140	458.5	50	3/8"-NPT	125	—	—	6
P550B	20	700	550	5.8	0.9	541	463	140	140	483.5	50	3/8"-NPT	125	—	—	7.1
P550D	20	700	550	5.8	0.9	531	463	140	140	478.5	50	3/8"-NPT	125	171	185	5.5

SPECIAL HAND PUMPS



P1000A



P1000D



P1000B

MODEL: P1000 SERIES

Dual-speed models

Could be operated in any directions

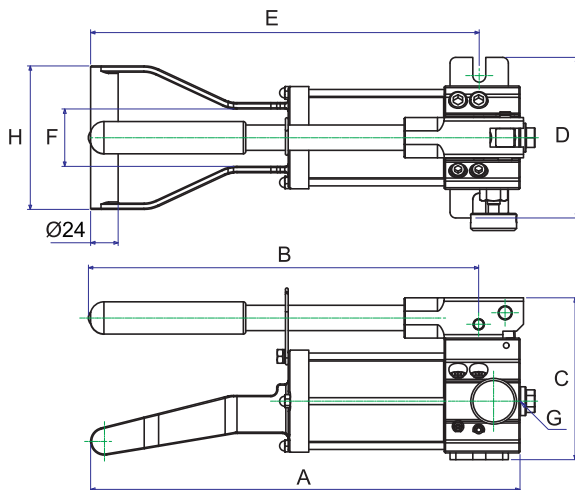
Large 3/8" NPT pressure port for max. flow

Max. working pressure: 700 bar

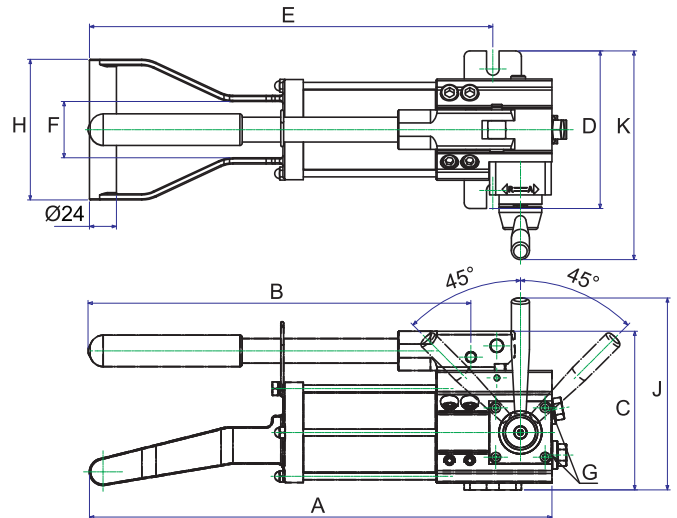
FEATURES

- Special design with aluminum alloy construction as much light weight is ideally for easy portability and maneuvering.
- The sealed oil reservoir design allows the hand pumps to be operated at all angels without the risk of air contamination and oil spills.
- The best optional hand pumps allow for sub-sea operation.
- Unique design of triangle hand-held base is easy to carry & operate.
- A: Single-port hand pump is used for one single-acting cylinder
- B: Twin-port hand pump is used for two single-acting cylinders simultaneously
- D: Double-acting hand pump is used for one double-acting cylinder

MODEL: P1000A & P1000B



MODEL: P1000D



SPECIFICATIONS

Model No.	Pressure Rating (bar)		Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	Weight (kgs)
	1st stage	2nd stage		1st stage	2nd stage											
P1000A	20	700	1000	5.8	0.9	694	568	140	140	658.5	50	3/8"-NPT	125	—	—	6.6
P1000B	20	700	1000	5.8	0.9	741	568	140	140	683.5	50	3/8"-NPT	125	—	—	8.3
P1000D	20	700	1000	5.8	0.9	731	568	140	140	678.5	50	3/8"-NPT	125	171	185	7.7

SPECIAL PUMP HEAD

POWERRAM
HYDRAULIC TOOLS

MODEL: PH SERIES

Large 3/8" NPT pressure port

Max Volume/Stroke: 2.36 - 34 c.c.

Max. working pressure: 52 - 827 bar



PH1003



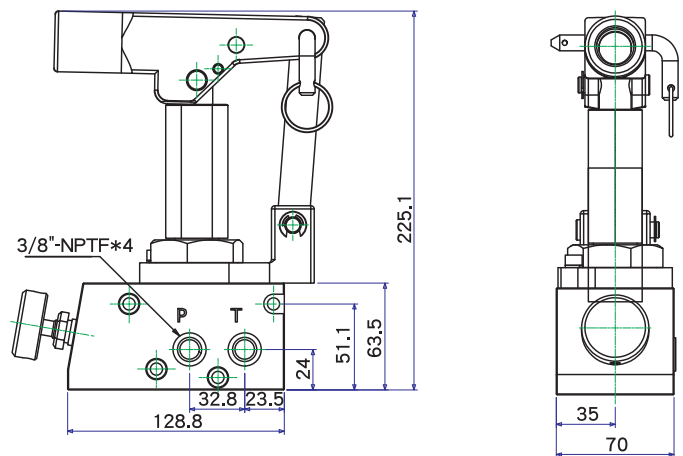
PH1004



PH1006

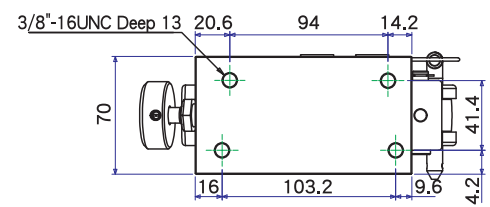
FEATURES

- The aluminum alloy pump block manifold and forged pump housing are ideally for easy portability maneuvering and flexible fixture.
- Can be used to pressurize water, chemical liquids to run the pipe leakage testing and maintenance jobs.
- Wide range of operating pressure to select from.



SPECIFICATIONS

Model No.	Operating Pressure (bar)	Volume per Stroke (cm ³)	Max. Handle Effort (kg)	Weight (kg)
PH1003	827	2.36	30	4.4
PH1004	448	3.80	25	5.5
PH1006	206	8.50	26	5.9
PH1008	69	14.70	15	6.1
PH1012	52	34.0	26	5.7



STEEL FOOT PUMPS

POWERRAM
HYDRAULIC TOOLS

MODEL: FHA & FHB SERIES

Single & Dual-speed models
Large 3/8" NPT pressure port for max. flow
Low handle force for easy operation
Max. working pressure: 700 bar



FEATURES

- Unique foot pumps are characterized by their the exquisite design durability and stability.
- Foot-operated pump and release pedal provide the for operating in different working conditions.
- Both Single and Dual-Speed are available.
- Foot pedal with spring return is convenience and easy to use.
- Internal overload valve prevents pump from being used beyond its rated capacity.

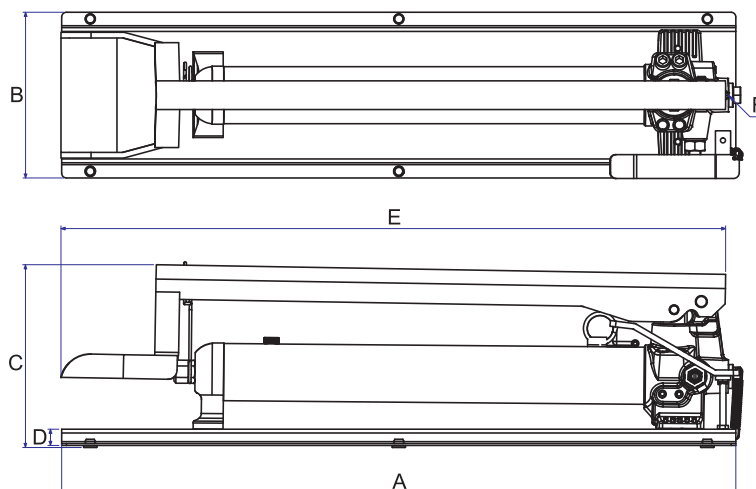
Hoses & Adaptors

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Manifolds & Control Valves

Page 73-79



SPECIFICATION

Model No.	Pressure Rating (bar)		Usable Oil Capacity (c.c.)	Oil Volume Per Stroke (c.c.)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Oil Port Thread F	Weight (kg)
	1st Stage	2nd Stage		1st Stage	2nd Stage							
FHA350	700		350	3.1		474	174	192	17	461	3/8 NPT	8.4
FHA600	700		600	3.1		660	174	192	17	647	3/8 NPT	10.3
FHA700	700		700	3.1		708	174	192	17	695	3/8 NPT	11.5
FHB350	13.8	700	350	13.0	2.8	474	174	192	17	461	3/8 NPT	8.8
FHB600	13.8	700	600	13.0	2.8	660	174	192	17	647	3/8 NPT	10.8
FHB700	13.8	700	700	13.0	2.8	708	174	192	17	695	3/8 NPT	12

AIR HYDRAULIC FOOT PUMP

MODEL: AP921 & AP922

Single acting model

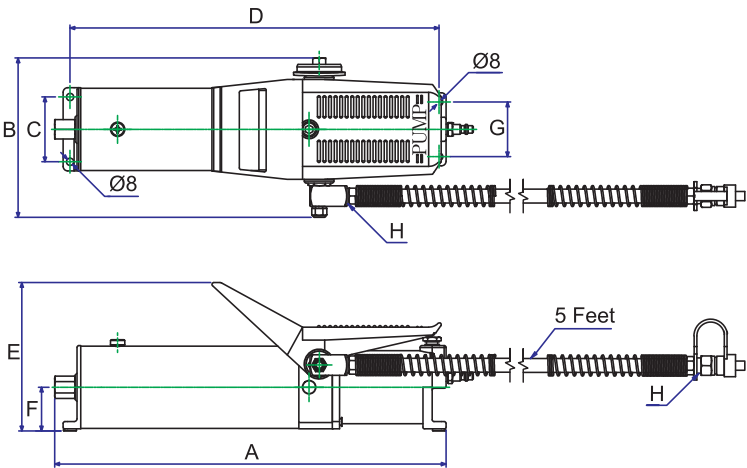
Max. working pressure: 700 bar



AP921

FEATURES

- Air-power hydraulic pump is designed for using with single-acting cylinders and tools.
- Rugged construction that most components are made of Aluminum alloy and built for long service life, easy operation and portability.
- Automatic overload relief valve setting as 10,000 psi protects components in hydraulic system and ensure work safety.
- New Inlet & Outlet design features low exhausting air volume, quiet effect and can be operated in all directions.



SPECIFICATION

Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP921	Single	10,000	—	Advance	700	—	—	100
AP922	Single	10,000	—	Advance	700	—	—	100

Model No.	Input Air Pressure (kg)	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
AP921	7-10	850	750	423	170	70	399	160	47	59	1/4" NPT	6.1
AP922	7-10	850	750	423	170	70	399	160	47	59	3/8" NPT	6.1

AIR HYDRAULIC FOOT PUMP

POWERRAM
HYDRAULIC TOOLS

MODEL: AP1600 SERIES

Single & Double acting models
Max. working pressure: 700 bar



AP1600D

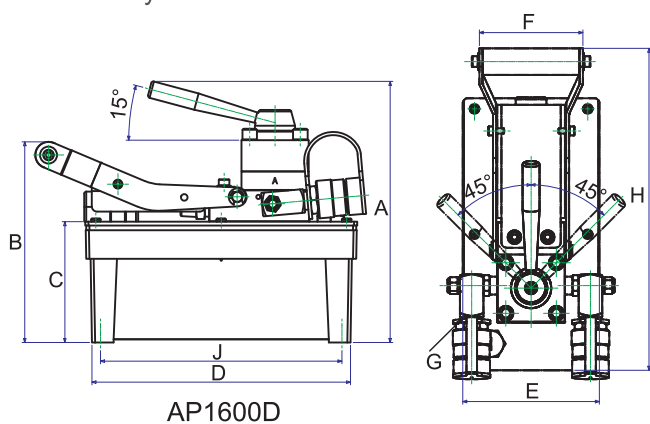


AP1600S

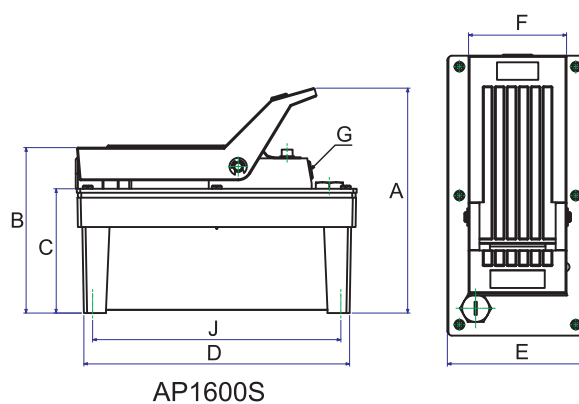
FEATURES

- Air-power hydraulic pump is designed for using with single-acting cylinders and tools.
- Rugged construction and most components are made of Aluminum alloy and built for long service life, easy operation and portability.
- Automatic overload relief valve setting as 10,000 psi protects components in hydraulic system and ensure work safety.

- New Inlet & Outlet design features low exhausting air volume, quiet effect and can be operated in all directions.
- Oil capacity can be modified according to your specific application.



AP1600D



AP1600S

SPECIFICATION

Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP1600S	Single	10,000	---	Advance	1250	---	---	195
AP1600D	Double	10,000	3 Position / 4 Way	Advance/ Hold/ Retract	1250	---	---	195

Model No.	Input Air Pressure (kg)	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	Weight (kg)
AP1600S	7-10	1600	1300	207	152	114	244	129	90	3/8"-NPT	—	228	7.3
AP1600D	7-10	1600	1300	207	152	114	244	129	98	3/8"-NPT	304	228	9.3

AIR HYDRAULIC FOOT PUMP

POWERRAM
HYDRAULIC TOOLS

MODEL: AP3000 SERIES

Single & Double acting models
Max. working pressure: 700 bar



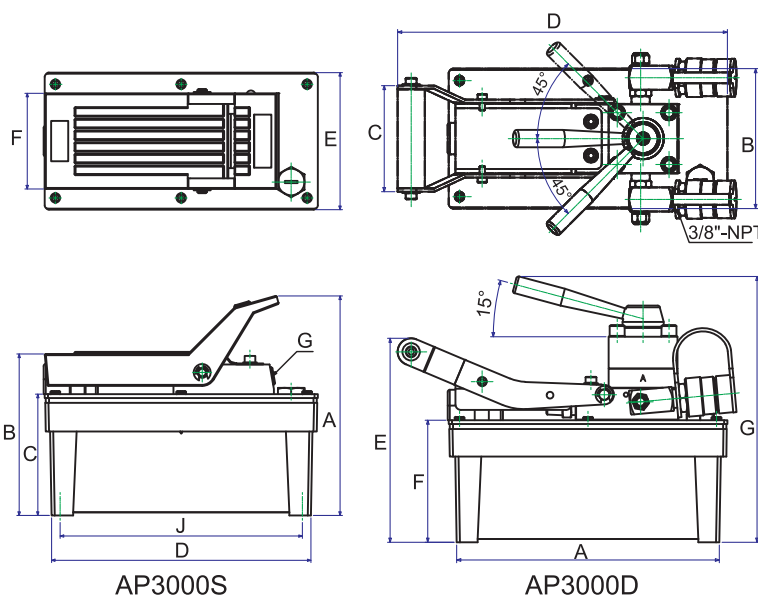
AP3000D



AP3000S

FEATURES

- Air-power hydraulic pump is designed for using with single-acting cylinders and tools.
- Rugged construction and most components are made of Aluminum alloy and built for long service life, easy operation and portability.
- Automatic overload relief valve setting as 10,000 psi protects components in hydraulic system and ensure work safety.
- New Inlet & Outlet design features low exhausting air volume, quiet effect and can be operated in all directions.
- Oil capacity can be modified according to your specific application.



Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP3000S	Single	10,000	---	Advance	1250	---	---	195
AP3000D	Double	10,000	3 Position / 4 Way	Advance/ Hold/ Retract	1250	---	---	195

Model No.	Input Air Pressure (kg)	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	Weight (kg)
AP3000S	7-10	3000	2500	247	190	114	309	160	90	3/8"-NPT	—	289	9.1
AP3000D	7-10	3000	2500	247	190	114	309	160	98	3/8"-NPT	343	289	12.0

AIR HYDRAULIC FOOT PUMP

POWERRAM
HYDRAULIC TOOLS

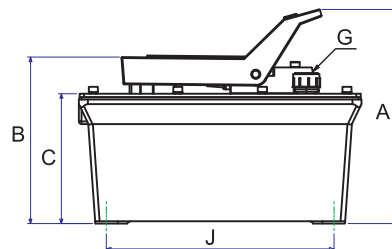
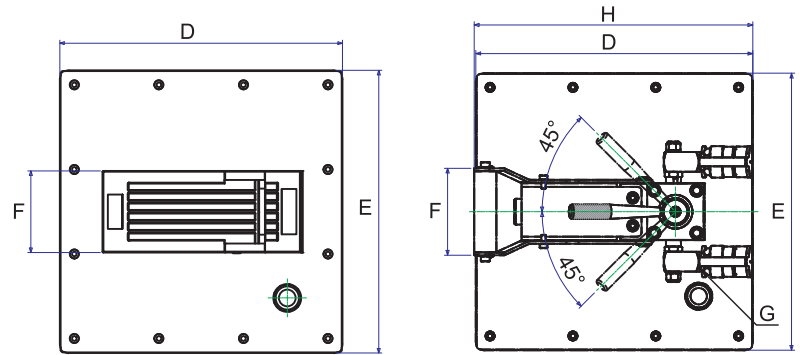
MODEL: AP8000 SERIES

Single & Double acting models

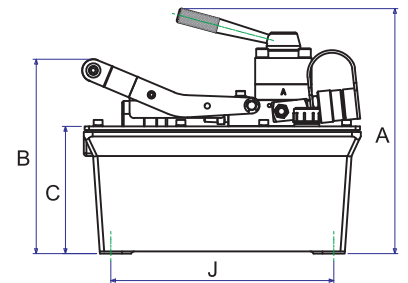
Max. working pressure: 700 bar



AP8000S



AP8000S



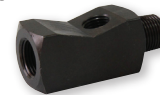
AP8000D

FEATURES

- Air-power hydraulic pump is designed for using with single-acting cylinders and tools.
- Rugged construction and most components are made of Aluminum alloy and built for long service life, easy operation and portability.
- Automatic overload relief valve setting as 10,000 psi protects components in hydraulic system and ensure work safety.
- New Inlet & Outlet design features low exhausting air volume, quiet effect and can be operated in all directions.
- Oil capacity can be modified according to your specific application.

Hoses & Adaptors

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Manifolds & Control Valves

Page 73-79



SPECIFICATION

Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP8000S	Single	10,000	---	Advance	1250	---	---	195
AP8000D	Double	10,000	3 Position / 4 Way	Advance/ Hold/ Retract	1250	---	---	195

Model No.	Input Air Pressure (kg)	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	Weight (kg)
AP8000S	7-10	8000	7200	236	184	143	311.6	311.6	90	3/8"-NPT	—	251	19.1
AP8000D	7-10	8000	7200	276	218	143	311.6	311.6	98	3/8"-NPT	313	251	31.5

AIR HYDRAULIC PUMP

POWERRAM
HYDRAULIC TOOLS

MODEL: AP13 SERIES

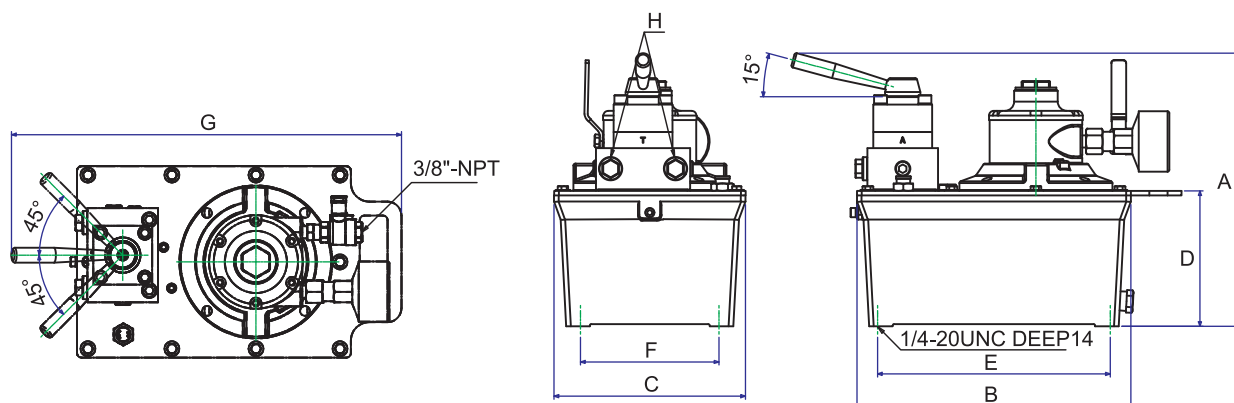
Single & Double acting models

Max. working pressure: 700 BAR



FEATURES

- Dual-speed operation for fast speed cylinder advance.
- 3L durable aluminum reservoir design.
- Air motor capable of starting under full load.
- Automatic over-load relief valve protects components of the hydraulic systems and ensures safe operation.



SPECIFICATION

Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP13S	Single	10,000	2 Position / 2 Way	Advance /Retract	4000	2800	330	280
AP13D	Double	10,000	3 Position / 4 Way	Advance/ Hold/ Retract	4000	2800	330	280

* Actual flow will vary from the on site conditions.

* AP13S: Pressure will be held when the motor is shut off.

Model No.	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
AP13S	3000	2400	287	295.5	206.5	146.2	251	149.4	350	3/8"-NPT	14.4
AP13D	3000	2400	295	295.5	206.5	146.2	251	149.4	421	3/8"-NPT	15.4

AIR HYDRAULIC PUMP

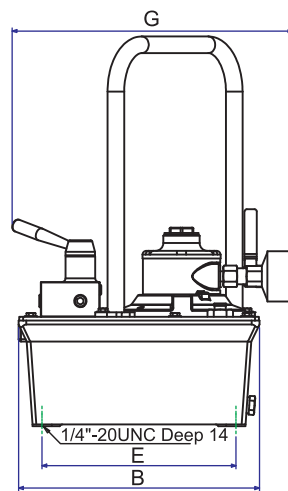
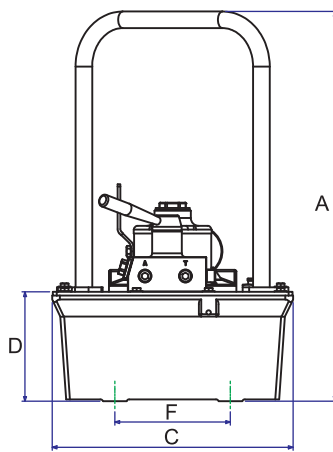
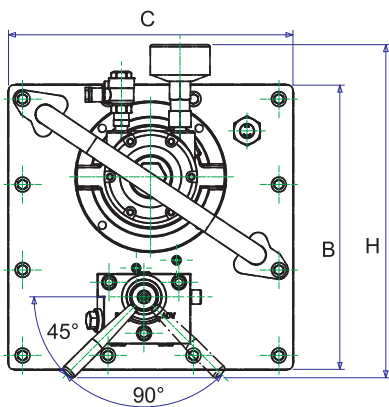


MODEL: AP18 SERIES

Single & Double acting models
Max. working pressure: 700 BAR

FEATURES

- Dual-speed operation for fast speed cylinder advance.
- 8L durable aliminum reservoir design.
- Air motor capable of starting under full load.
- Automatic over-load relief valve protects components of the hydraulic systems and ensures safe operation.



SPECIFICATION

Model No.	Acting	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*			
			Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
AP18S	Single	10,000	2 Position / 2 Way	Advance /Retract	4000	2800	330	280
AP18D	Double	10,000	3 Position / 4 Way	Advance/ Hold/ Retract	4000	2800	330	280

* Acutal flow will vary from the on site conditions.

* AP18S: Pressure will be held when the motor is shut off.

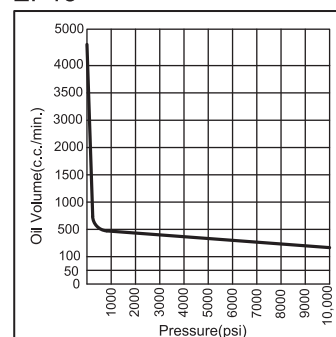
Model No.	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
AP18S	8000	7200	504	312	312	141.5	251	149.4	363	3/8"-NPT	21.5
AP18D	8000	7200	504	312	312	141.5	251	149.4	408	3/8"-NPT	22

MODEL: EP13 SERIES

ELECTRIC PUMPS, 3 LITER,
700 BAR/10,000psi



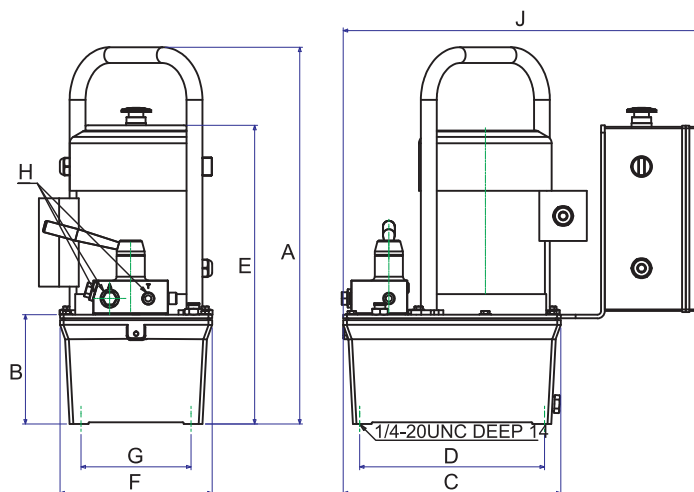
EP13



FEATURES

- Original pumps are built with 1/2 HP, 220V, 50/60Hz, Single phases universal brushless motor.
- Internal relief valve (700 bars) protects the components and work safety.
- Pumps are included with 24V, 3 meters remote control cord.
- Quiet pumps comply OSHA noise limitation (80dBA at 700bar).
- EP13D specially designed for double-acting cylinders without the need for additional control valve and adapters.
- Conform to CE standards.
- **Both models are available with Solenoid Valve version.**

MODEL:EP13S



SPECIFICATION

Model No.	Acting	RPM 50/60 Hz	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	Motor	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*(60Hz)			
							Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
EP13S EP13SS*	Single	2860 / 3450	3,000	2,400	0.45 kW 110V / 220V	10,000	2 Position / 2 Way	Hold /Retract	4,000	2,800	330	280
EP13D EP13DS*	Double	2860 / 3450	3,000	2,400	50 / 60 Hz Single Phase	10,000	3 Position / 4 Way	Adv./Hold /Retract	4,000	2,800	330	280

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H	J (mm)	Weight (kg)
EP13 Series	511.5	148.5	295.5	251	406	206.5	149.4	3/8"-NPT	485	27

* Solenoid Valve version.

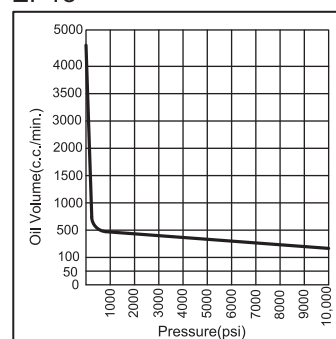
** The weight is excluding the hydraulic oil.



MODEL: EP18 SERIES

ELECTRIC PUMPS, 8 LITER,
700 BAR/10,000psi

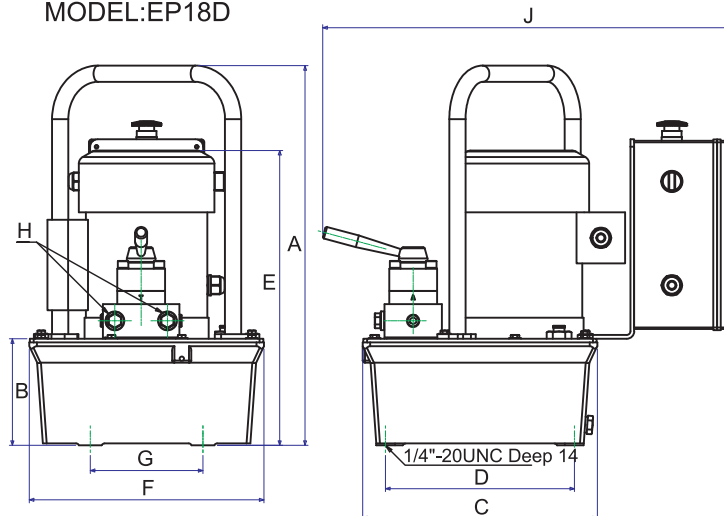
EP18



FEATURES

- Original pumps are built with 1/2 HP, 220V, 50/60Hz, Single phases universal brushless motor.
- Internal relief valve (700 bars) protects the components and work safety.
- Pumps are included with 24V, 3 meters remote control cord.
- Quiet pumps comply OSHA noise limitation (80dBA at 700bar).
- EP18D specially designed for double-acting cylinders without the need for additional control valve and adapters.
- Conform to CE standards.
- **Both models are available with Solenoid Valve version.**

MODEL:EP18D



SPECIFICATION

Model No.	Acting	RPM 50/60 Hz	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	Motor	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min. @)*(60Hz)			
							Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
EP18S	Single	2860 / 3450	8,000	7,200	0.45 kW 110V / 220V 50 / 60 Hz Single Phase	10,000	2 Position / 2 Way	Hold /Retract	4,000	2,800	330	280
EP18SS*												
EP18D	Double	2860 / 3450	8,000	7,200		10,000	3 Position / 4 Way	Adv./Hold /Retract	4,000	2,800	330	280
EP18DS*												

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H	J (mm)	Weight (kg)
EP18 Series	504	141.5	311.6	251	391.5	311.6	149.4	3/8"-NPT	543.5	32

* Solenoid Valve version.

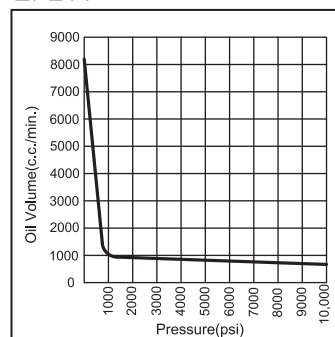
** The weight is excluding the hydraulic oil.

MODEL: EP211 SERIES

ELECTRIC PUMPS, 11 LITER,
700 BAR/10,000psi



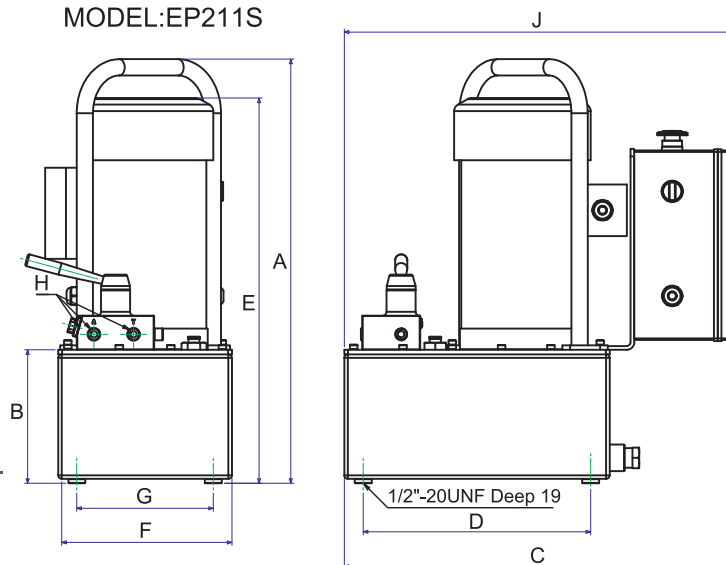
EP211



FEATURES

- Original pumps are built with 1 1/2 HP, 220V, 50/60Hz, Single phases universal brushless motor.
- Internal relief valve (700 bars) protects the components and work safety.
- Pumps are included with 24V, 3 meters remote control cord.
- Quiet pumps comply OSHA noise limitation (80dBA at 700bar).
- EP211D specially designed for double-acting cylinders without the need for additional control valve and adapters.
- Conform to CE standards.
- **Both models are available with Solenoid Valve version.**

MODEL:EP211S



SPECIFICATION

Model No.	Acting	RPM 50/60 Hz	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	Motor	Max. Pressure Output (psi)	Valve		Oil Del. (c.c./min.@)*(60Hz)			
							Type	Function	0(psi)	100(psi)	5000(psi)	10000(psi)
EP211S	Single	2860 / 3450	11,000	9,500	1.12 kW 110V / 220V 50 / 60 Hz Single Phase	10,000	2 Position / 2 Way	Hold /Retract	8,200	7,400	840	750
EP211SS*												
EP211D	Double	2860 / 3450	11,000	9,500		10,000	3 Position / 4 Way	Adv./Hold /Retract	8,200	7,400	840	750
EP211DS*												

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H	J (mm)	Weight (kg)
EP211 Series	559	176	515.5	300	391.5	224.4	180	3/8"-NPT	515.5	40

* Solenoid Valve version.

** The weight is excluding the hydraulic oil.

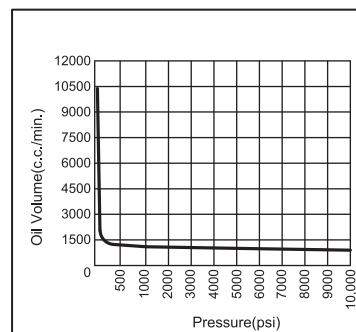
MODEL: EP320 SERIES

ELECTRIC PUMPS, 1.48KW, 20 LITER
700 BAR/10,000psi



EP320D

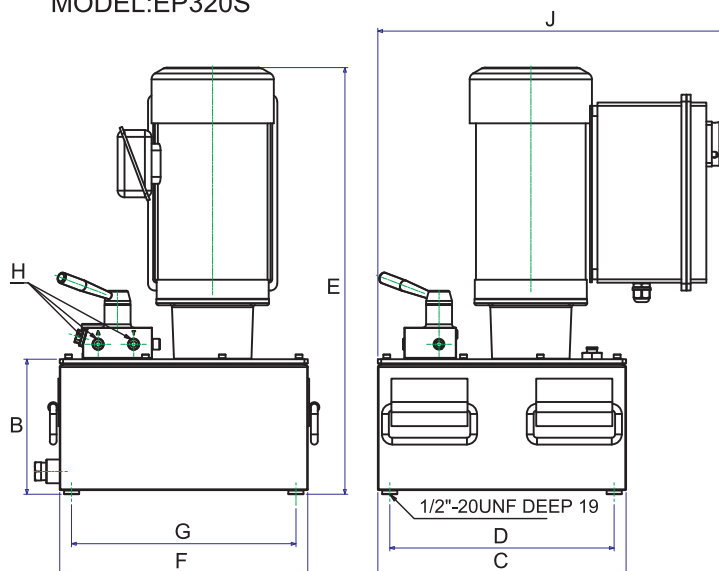
EP320



FEATURES

- Original pumps are built with 1.48KW, 220/380V, 50/60Hz, 3 phases universal brushless motor.
- Internal relief valve (700 bars) protects the components and work safety.
- Pumps are included with 24V, 3 meters remote control cord.
- Quiet pumps comply OSHA noise limitation (80dBA at 700bar).
- EP320D specially designed for double-acting cylinders without the need for additional control valve and adapters.
- Internal relief valve limits pressure to 10,000 psi. External relief valve is adjustable from 1,000 to 10,000 psi.
- Conform to CE standards.
- Both models are available with Solenoid Valve version.**

MODEL:EP320S



SPECIFICATION

Model No.	Acting	RPM 50/60 Hz	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	Motor	Max. Pressure Output (psi)	Valve		Oil Del.(c.c./min.@)*(60Hz)			
							Type	Function	100(psi)	1000(psi)	5000(psi)	10000(psi)
EP320S EP320SS*	Single	1435 / 1735	20,000	18,000	1.48 kW 220V / 380V 50 / 60 Hz 3 Phase	10,000	2 Position / 2 Way	Hold /Retract	9,500	1,020	980	900
EP320D EP320DS*	Double	1435 / 1735	20,000	18,000		10,000	3 Position / 4 Way	Adv./Hold /Retract	9,500	1,020	980	900

1.48KW, 220V, 50Hz, Single Phase motor is also available for all models.

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H	J (mm)	Weight (kg)
EP320 Series	—	198.5	365	330	627.5	365	330	3/8"-NPT	512	56

* Solenoid Valve version.

** The weight is excluding the hydraulic oil.

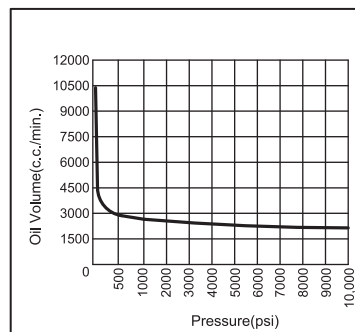


EP420DS

MODEL: EP420 SERIES

ELECTRIC PUMPS, 2.24KW, 20 LITER
700 BAR/10,000psi

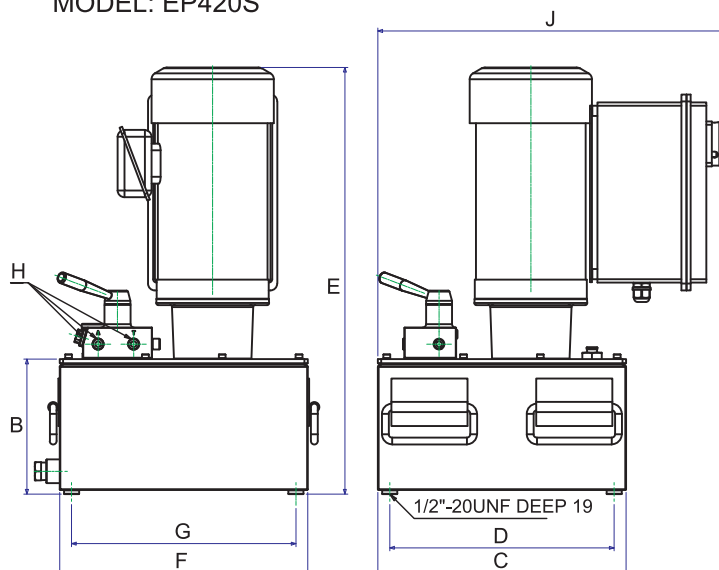
EP420



FEATURES

- Original pumps are built with 2.24KW, 220/380V, 50/60Hz, 3 phases universal brushless motor.
- Internal relief valve (700 bars) protects the components and work safety.
- Pumps are included with 24V, 3 meters remote control cord.
- Quiet pumps comply OSHA noise limitation (80dBA at 700bar).
- EP420D specially designed for double-acting cylinders without the need for additional control valve and adapters.
- Internal relief valve limits pressure to 10,000 psi. External relief valve is adjustable from 1,000 to 10,000 psi.
- Conform to CE standards.
- **Both models are available with Solenoid Valve version.**

MODEL: EP420S



SPECIFICATION

Model No.	Acting	RPM 50/60 Hz	Reservoir Capacity (c.c.)	Usable Oil Capacity (c.c.)	Motor	Max. Pressure Output (psi)	Valve		Oil Del.(c.c./min. @)*(60Hz)			
							Type	Function	100(psi)	1000(psi)	5000(psi)	10000(psi)
EP420S EP420SS*	Single	1435 / 1735	20,000	18,000	2.24 kW 220V / 380V 50/60 Hz	10,000	2 Position / 2 Way	Hold /Retract	9,500	2,450	1,950	1,800
EP420D EP420DS*	Double	1435 / 1735	20,000	18,000	3 Phase	10,000	3 Position / 4 Way	Adv./Hold /Retract	9,500	2,450	1,950	1,800

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H	J (mm)	Weight (kg)
EP420 Series	—	198.5	365	330	627.5	365	330	3/8"-NPT	512	65

* Solenoid Valve version.

** The weight is excluding the hydraulic oil.

ELECTRIC PUMPS

POWERRAM
HYDRAULIC TOOLS

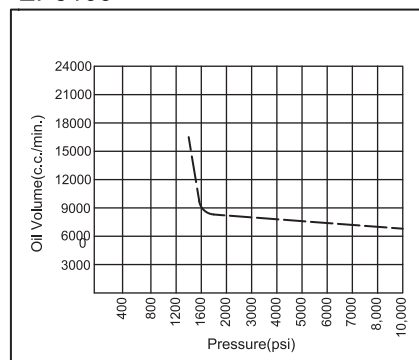


MODEL: EP5100

USABLE OIL CAP. :80L

OIL CAPACITY: 100L

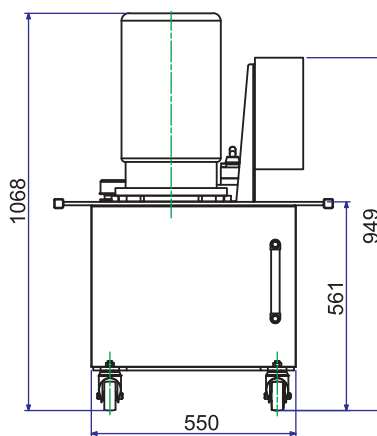
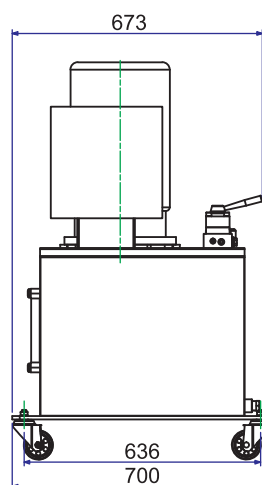
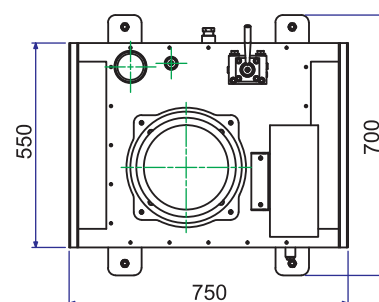
EP5100



EP5100DS

FEATURES

- Dual-speed high output pump delivers up to 16 l/min of oil.
- Low noise level of 73 - 80 dBA.
- Pump prewired at factory with 7.46kW, 380V, 50 Hz, 3 phase universal brushless motor.
- 24 volt control circuits on units with remote controls for user/operator safety.
- 3 phase motor with thermal overload protection and has all the electric components necessary to operate the pump.
- Power switch are 24 volts. EP5100D has a 4-way/3-position manual valve. EP5100DS has a 4-way/3-position solenoid valve with a 24 volt remote switch.
- 100L (80L usable) reservoir has a low oil level sight gauge.



SPECIFICATION

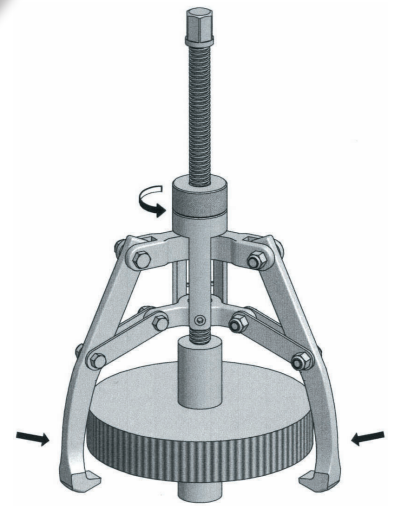
Model No.	RPM	Reservoir Capacity (liter)	Usable Oil Capacity (liter)	Motor	Max. Pressure Output (psi)	Amp Draw @10,000psi	Valve		Oil Del. (liter/ min. @)*			
							Type	Function	220(psi)	1300(psi)	5000(psi)	10000(psi)
EP5100D	1437	100	80	7.46kW/ 380V 50 Hz / 3 phase	10,000	6	3 Position / 4 Way	Adv./Hold /Retract	16	14	6	5.6
EP5100DS												

Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight* (kg)
EP5100 series	1069	561	550	700	636	750	240

* The weight is excluding the hydraulic oil.

MECHANICAL EASY PULLERS (2,3 WAY)

POWERRAM
HYDRAULIC TOOLS



SIMPLE AND EASY PULLING JOB

The most simple and efficient design, the screw-Operated jaws bring the users to position the puller on the part quickly and precisely with one person operating only.

USER-FRIENDLY

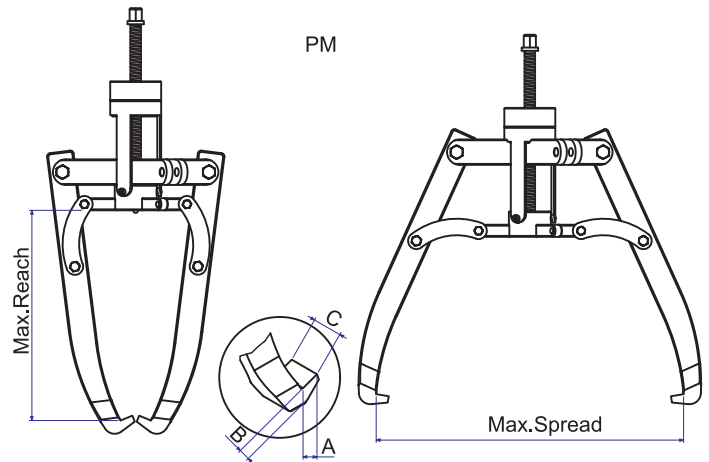
- 3 or 2 fixed jaws for easy positioning and self-centering.
- Available in six sizes with a maximum pulling force from 2 Ton to 10 Ton.

SAFE

- Self-centering function prevents the damage to the shaft and work piece being pulled.

SAVING COST

- Easy operating by one person which save time and work efficiently
- The first 2 or 3 way mechanical puller in the world, also a good choice to save cost by one price for two pullers.



SPECIFICATIONS

Capacity	Model No.	Jaws	Reach (Max. mm)	Spread (Max. mm)	Shaft Dim.	Jaw Tip (mm)			Weight (kg)
						A	B	C	
2 Ton	PM50	3	80	120	Ø5/8"x8T	8	6	15	1.3
2 Ton	PM52	2	80	120	Ø5/8"x8T	8	6	15	0.9
5 Ton	PM100	3	160	250	Ø3/4"x8T	11	10	25	3.7
5 Ton	PM102	2	160	250	Ø3/4"x8T	11	10	25	3.1
10 Ton	PM150	3	230	380	Ø7/8"x6T	14	10	29	8.8
10 Ton	PM152	2	230	380	Ø7/8"x6T	14	10	29	6.7

Patented in USA, Germany, S. Korea, Taiwan, P.R.C.....etc.

MANUAL EASY PULLERS - 2/3 WAY

POWERRAM
HYDRAULIC TOOLS



SIMPLE AND EASY PULLING JOB

The most simple and efficient design, Screw-Operated Jaws bring the users to position the puller on the part quickly and correctly with just one person operating only.

USER-FRIENDLY

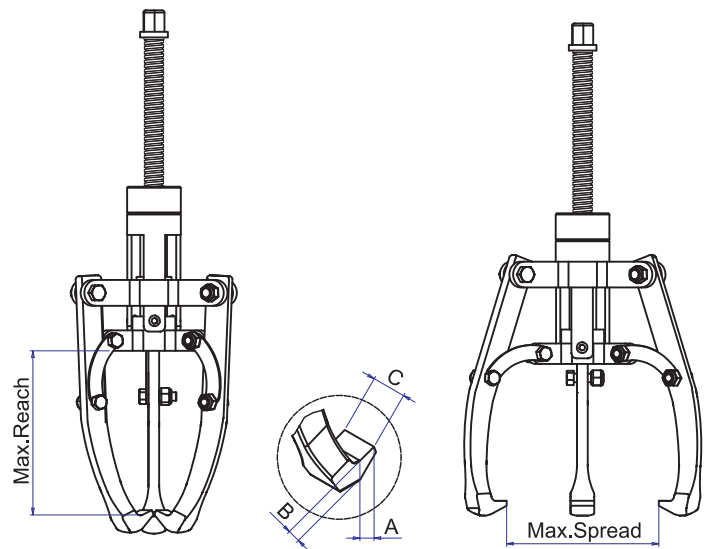
- 3 and/or 2 fixed jaws for easy positioning and self-centering.
- Available in six sizes with a maximum pulling force from 2 Tons to 12 Tons.

SAFE

- Self-positioning centring prevent the damage to the shaft as well.

SAVING COST

- Conveniently positioning, efficiently pulling help to save manpower and operating time.
- The first 2 / 3 way manual easy puller in the world which brings users the two options in one model as the best choice to save the cost.



SPECIFICATIONS

Capacity	Model No.	Reach (Max. mm)	Spread (Max. mm)	Shaft Dimension		Jaw Tip (mm)			Weight (kg)
				Thread	Length (mm)	A	B	C	
2 Ton	PM55	80	120	Ø5/8"x11T	24	8	6	15	1.6
3 Ton	PM85	120	140	Ø5/8"x11T	28	6	7	15	2.3
5 Ton	PM105	160	270	Ø3/4"x10T	34	11	10	25	4.3
8 Ton	PM125	210	300	Ø3/4"x10T	39	13	14	27	6.1
10 Ton	PM155	250	380	Ø7/8"x14T	47	14	10	29	9.6
12 Ton	PM175	250	440	Ø7/8"x14T	47	14	10	29	11.2

Patented in USA, Germany, S. Korea, Taiwan, P.R.C.....etc.

HYDRAULIC PULLERS

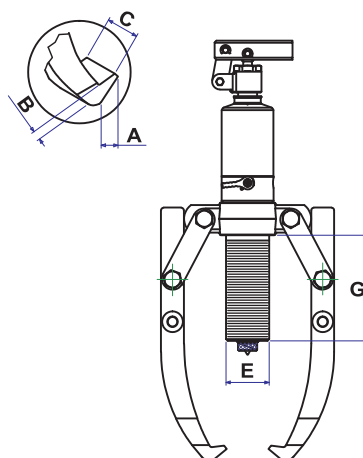
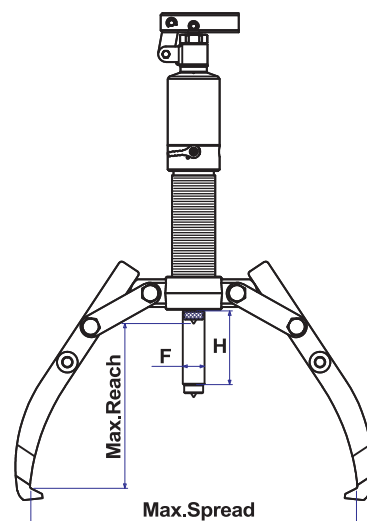
POWERRAM
HYDRAULIC TOOLS

MODEL:PM SERIES



FEATURES

- Exchangeable 2 or 3 arm combination puller is very practical and economical.
- 360° Rotary Socket.
- Self-contained hydraulic pump and puller body with integral safety valve.
- Spring loaded live centering nut for easy job (removable).
- Four stages of foldable & removable handle saves the handle force during operation.
- Patented design of two stages stroking for PM2000 & PM3000, the first stage being as fast stroking for quickly connecting with object, and the second stage being as high hydraulic output for pulling job.
- The extension rods can be used for extra reach when necessary.



ACCESSORIES

Model No.	Part No.	Length of Long Arm (mm)	Max. Reach	Max. Spread
PM400	C0948	295	222	300
PM600	C0949	335	260	363
PM800	C0950	395	308	445
PM1200	C0951	435	340	420
PM2000	C0960	555	428	540
PM3000	C0961	555	428	620

SPECIFICATIONS

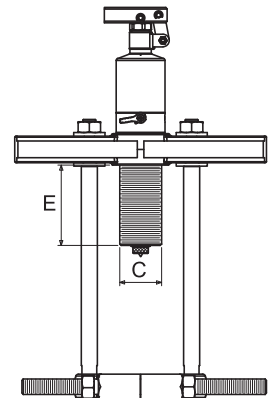
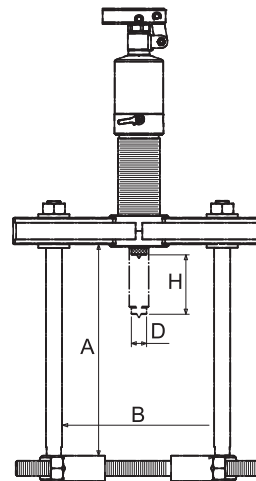
Capacity	Model No.	Reach (Max. mm)	Spread (Max. mm)	Stroke (mm)	Pump Tip (mm)				Jaw Tip (mm)			Weight (kg)
				H	E	F	G		A	B	C	
4 Ton	PM400	185	255	60	42	22	84		11	6	22	8.3
6 Ton	PM600	220	330	70	45	23	94		13	10	22	8.5
8 Ton	PM800	230	350	85	50	25	122		11	10	25	12.0
12 Ton	PM1200	270	375	85	60	28	118		14	10	29	17.2
20 Ton	PM2000	360	520	111	80	40	160		20	27	33	38.2
30 Ton	PM3000	360	550	111	98	50	155		20	27	38	50.6

HYDRAULIC PULLERS - PACKAGE MODELS

POWERRAM
HYDRAULIC TOOLS

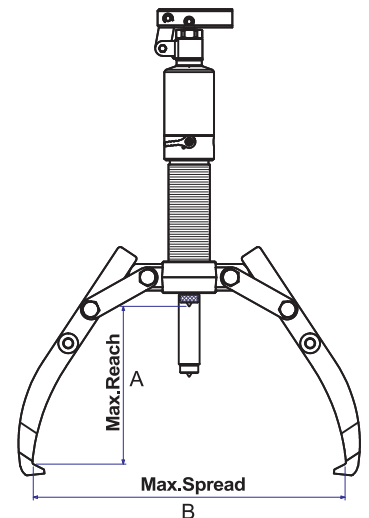
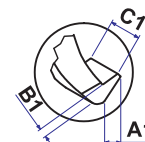
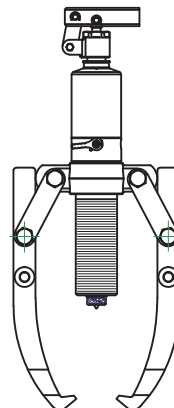


- One completed set (4 ~ 8 Ton) with two kinds of puller for user's convenience.



FEATURES

- Four stages of foldable & removable handle saves the handle force during operation.
- 360° Rotary Socket.
- Self-contained hydraulic pump and puller body with integral safety valve.
- Spring loaded live centering nut for easy job (removable).
- 2 jaws puller cross head with manganous-phosphate plated for rust proof and durability.
- Package including puller body, jaw assembly, cross bearing, extension bar and blow molded case for practical and safe works.



SPECIFICATIONS

Capacity	Model No.	Reach (Max. mm)	Spread (Max. mm)	Stroke (mm)	Pump Tip (mm)			Jaw Tip (mm)			Weight (kg)
		A	B	H	C	D	E	A1	B1	C1	
4 Ton	PM420	185/224	255/145	60	42	22	84	11	6	22	12.4
6 Ton	PM620	220/255	330/220	70	45	23	90	13	10	22	17.0
8 Ton	PM820	230/255	350/230	85	50	25	122	11	10	25	20.0
12 Ton	PM1220	270/298	375/310	85	60	28	115	14	10	29	17.2 / 20.6 (puller / acc. set)

SEPARATE HYDRAULIC PULLERS

POWERRAM
HYDRAULIC TOOLS

MODEL:PR SERIES



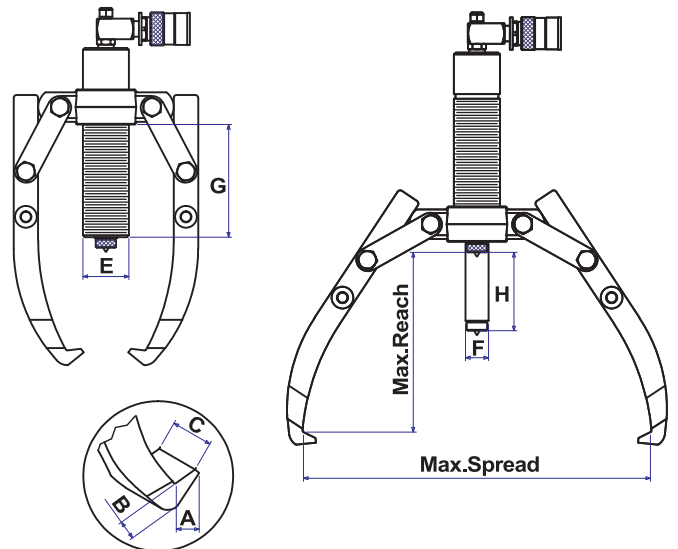
FEATURES

- Heat treated & chrome plated hydraulic cylinder rod provides linear force.
- Easily release valve.
- Spring loaded live centering nut for easy job (removable).
- 2/3 jaws combination puller cross head with manganous-phosphate plated for rust proof and durability.
- Heat treated forged alloy steel cross bolts & jaws with manganous-phosphate plated for rust proof and long life service.
- Suggested Hand Pumps:
4 ~ 12 Ton: PB600BG or AHP701BG
20 ~ 30 Ton: PB700BG or AHP702BG



ACCESSORIES

Model No.	Part No.	Length of Long Arm (mm)	Max. Reach	Max. Spread
PR400	C0948	295	222	300
PR800	C0950	395	308	445
PR1200	C0951	435	340	420
PR2000	C0960	555	428	540
PR3000	C0961	555	428	620



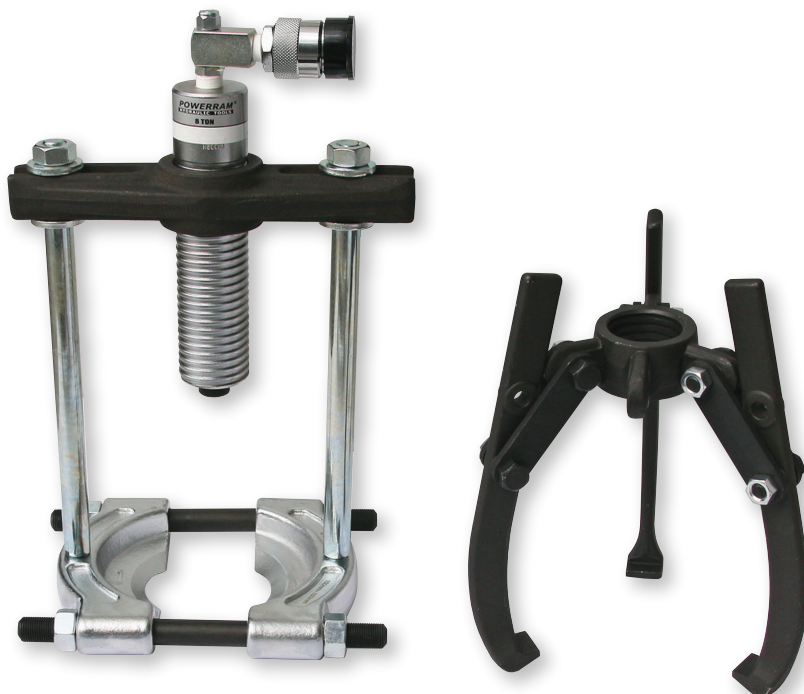
SPECIFICATIONS

Capacity	Model No.	Reach (Max. mm)	Spread (Max. mm)	Stroke (mm)	Pump Tip (mm)			Jaw Tip (mm)			Weight (kg)
				H	E	F	G	A	B	C	
4 Ton	PR400	185	255	60	42	22	84	11	6	22	8.0
8 Ton	PR800	230	350	85	50	25	122	11	10	25	12.0
12 Ton	PR1200	270	375	85	60	28	118	14	10	29	12.7
20 Ton	PR2000	360	520	111	80	40	161	20	27	33	39.3
30 Ton	PR3000	360	550	111	98	50	155	20	27	38	51.5

SEPARATE HYDRAULIC PULLERS - PACKAGE MODELS

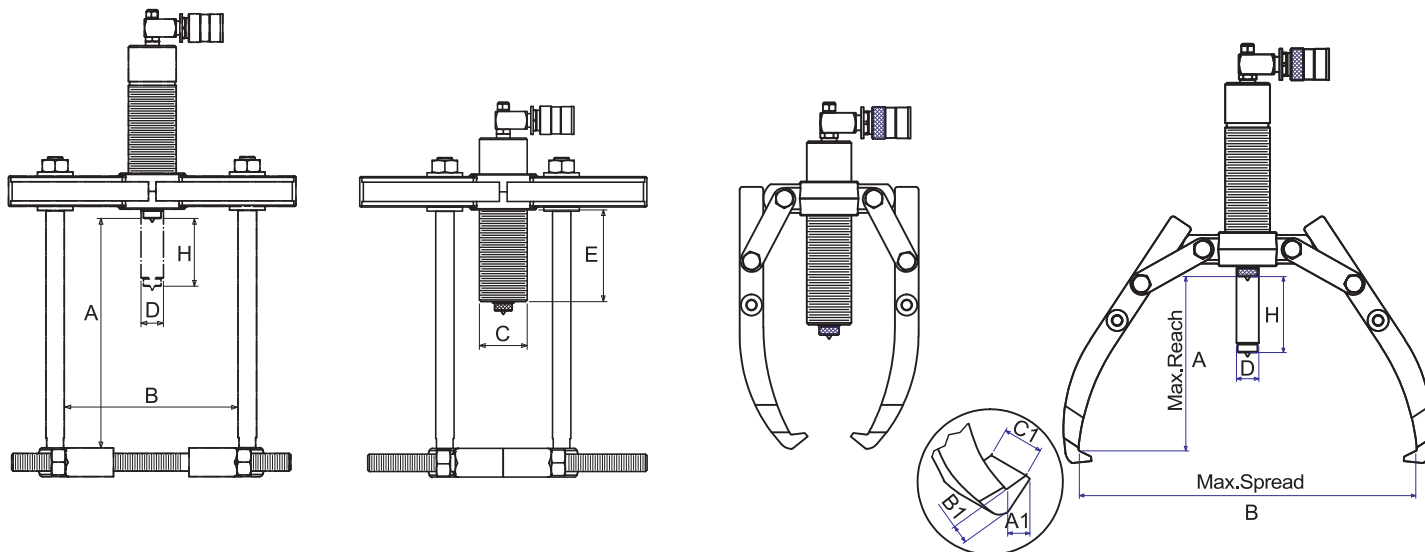
POWERRAM
HYDRAULIC TOOLS

MODEL: PR420 - PR1220



FEATURES

- Heat treated & chrome plated hydraulic cylinder rod provides linear force.
- Easily release valve.
- Spring loaded live centering nut for easy job (removable).
- 2 jaws puller cross head with manganous-phosphoate plated for rust proof and durability.
- Heat treated,chrome plated & alloy steel stud for rust proof and free reach.
- Package including puller body, jaw assembly, cross bearing, extension bar and blow molded case for practical and safe works.
- Suggested Hand Pumps:
4 ~ 12 Ton: PB600BG or AHP701BG
20 ~ 30 Ton: PB700BG or AHP702BG



SPECIFICATIONS

Capacity	Model No.	Reach (Max. mm)	Spread (Max. mm)	Stroke (mm)	Pump Tip (mm)			Jaw Tip (mm)			Weight (kg)
		A	B	H	C	D	E	A1	B1	C1	
4 Ton	PR420	185/224	255/145	60	42	22	84	11	6	22	10.8
8 Ton	PR820	230/255	350/230	85	50	25	122	11	10	25	17.9
12 Ton	PR1220	270/298	375/310	85	60	28	115	14	10	29	12.7 / 21.3

HYDRAULIC EASY PULLERS

POWERRAM
HYDRAULIC TOOLS

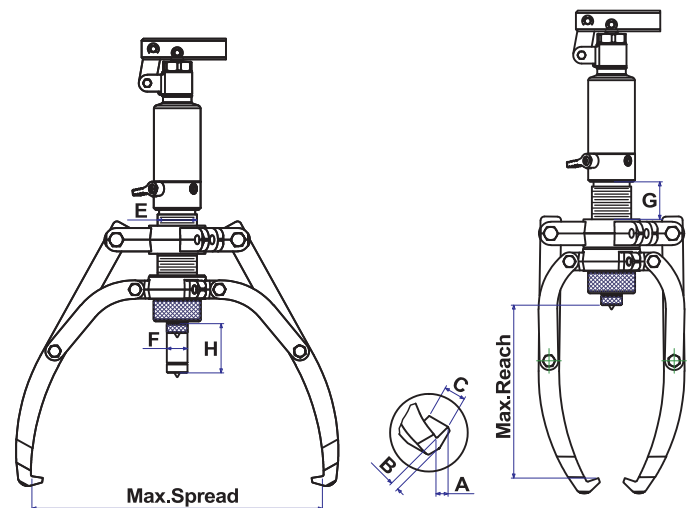
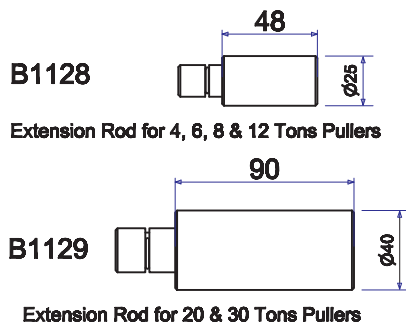
The first 2/3 way Hydraulic Easy Puller in the world !



FEATURES

- Self-centering and fast-acting jaws are absolutely user-friendly for operating.
- 360° Rotary socket can be operated in all direction.
- The extension rods can be used for extra reach when necessary.
- The self-contained hydraulic pump provide easy job without the necessary of additaional cylinder, pump & hose.
- The integral safety valve can prevent the puller being overloaded.
- The convertible 2 / 3 way hydraulic easy puller provide the best and cost saving choice for the users.

Puller Assembled Package



SPECIFICATIONS

Capacity	Model No.	Max. Spread (mm)	Min. Reach (mm)	Min. Spread (mm)	Max. Reach (mm)	Stroke (mm)	Pump Tip (mm)				Jaw Tip (mm)			Weight (kg)
						H	E	F	G	A	B	C		
4 Ton	PME400	315	150	83	190	60	42	22	40	13	10	22	9.3	
6 Ton	PME600	390	185	90	230	70	45	23	50	13	10	22	9.8	
8 Ton	PME800	460	225	110	280	85	50	25	70	13	13	27.5	15.3	
12 Ton	PME1200	515	240	120	300	85	60	28	70	15	16.5	29	18.4	
20 Ton	PME2000	520	250	160	325	111	80	40	62	18	20	33	46.0	
30 Ton	PME3000	620	330	190	415	111	98	50	85	18	20	38	61.8	

Patented in USA, Germany, Taiwan, P.R.C.....etc.

SEPARATE HYDRAULIC EASY PULLERS

POWERRAM
HYDRAULIC TOOLS

MODEL:PRE SERIES



PRE800



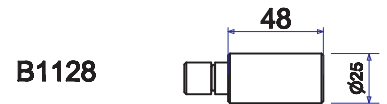
PRE1200



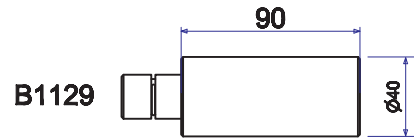
PRE2000

FEATURES

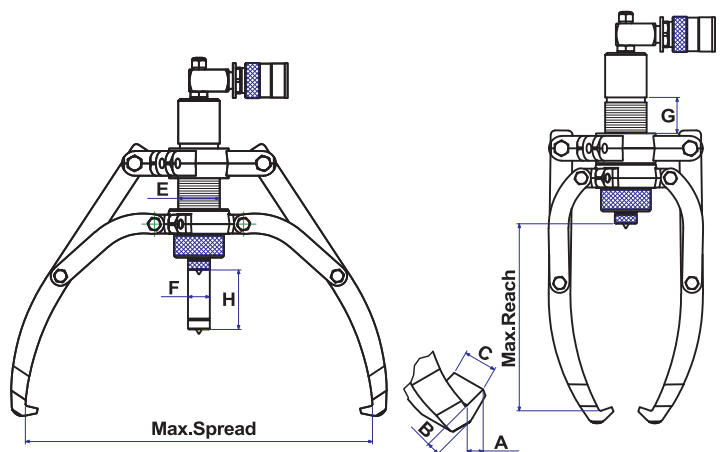
- Self-centering and fast-acting jaws are absolutely user-friendly for operating.
- 360° Rotary socket can be operated in all direction.
- The extension rods can be used for extra reach when necessary.
- The integral safety valve can prevent the puller being overloaded.
- The convertible 2 / 3 way hydraulic easy puller provide the best and cost saving choice for the users.
- Suggested Hand Pumps:
4 ~ 12 Ton: PB600BG or AHP701BG
20 ~ 30 Ton: PB700BG or AHP702BG



B1128
Extension Rod for 4, 6, 8 & 12 Tons Pullers



B1129
Extension Rod for 20 & 30 Tons Pullers



SPECIFICATIONS

Capacity	Model No.	Max. Spread (mm)	Min. Reach (mm)	Min. Spread (mm)	Max. Reach (mm)	Stroke (mm)	Pump Tip (mm)				Jaw Tip (mm)			Weight (kg)
						H	E	F	G	A	B	C		
4 Ton	PRE400	315	150	83	190	60	42	22	40	13	10	22	7.4	
8 Ton	PRE800	460	225	110	280	85	50	25	70	13	13	27.5	14.0	
12 Ton	PRE1200	515	240	120	300	85	60	28	70	15	16.5	29	17.0	
20 Ton	PRE2000	520	250	160	325	111	80	40	62	20	27	33	36.7	
30 Ton	PRE3000	620	330	190	415	111	98	50	85	20	27	38	56.5	

Patented in USA, Germany, Taiwan, P.R.C.....etc.

PUSH PULLER / THREE-IN-ONE

POWERRAM
HYDRAULIC TOOLS

The first Three-in-one push puller in the world !



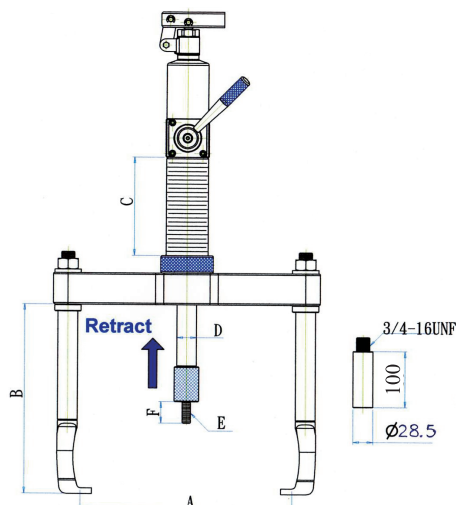
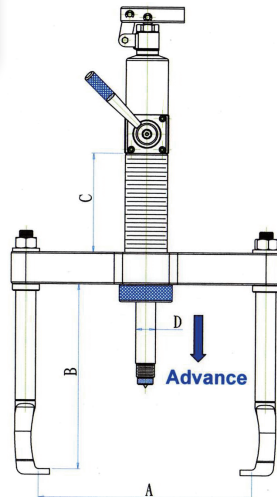
PD12080

SIMPLE, EASY

The patented unique design provides the users to get the three-in-one tool for installing, outer pulling and inner pulling with the great convenience and safety.

The push puller is specially designed for having combined works on pushing and pulling. This creates one tool to provide the both of most even force for pushing and pulling with great convenience.

The pushing jaw heads on the inner ring of the bearing which prevents the force and/or heat from being transmitted through the outer ring and the rolling parts, minimizing the risk of bearing damaged.



INNER PULLING



PUSHING



OUTER PULLING



MD6203

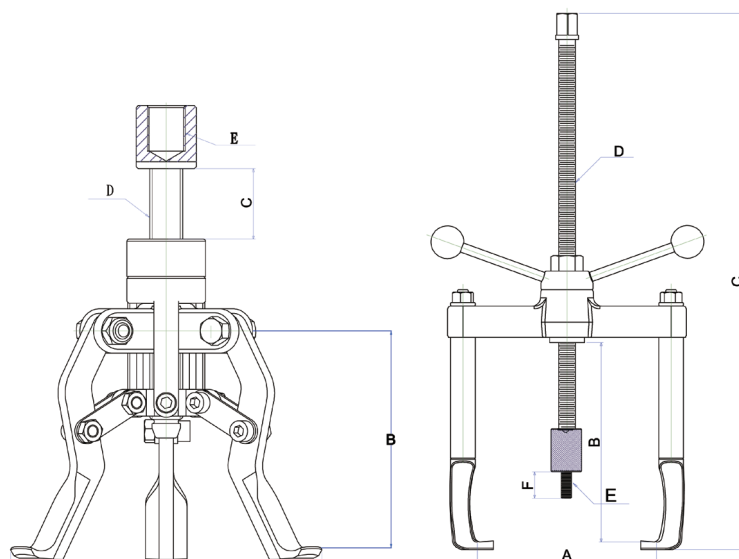
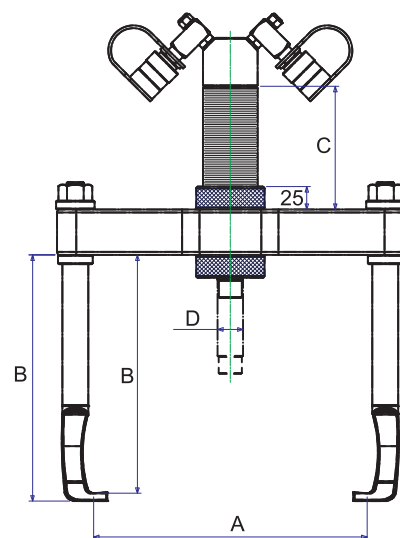
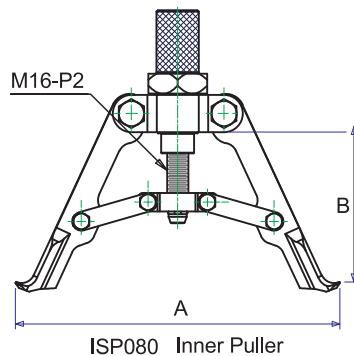
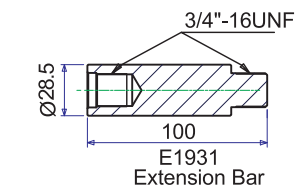
PUSH PULLER / THREE-IN-ONE

POWERRAM
HYDRAULIC TOOLS

The first Three-in-one push puller in the world !



PDR12080



USER-FRIENDLY

- Unique & Patented double action pump body to provide the pushing and pulling force.
- Unique jaw design for installing and outer pulling without removing and changing.
- Three jaw structure provides the even and constant force whenever for installing, outer pulling and inner pulling.
- The extension bars can be used where necessary for reach.
- Self-centering design on inner puller provides the even force and prevent the jaws from sliding off during operating.

SAFE

- The built-in safety valve prevents the user being harmed and work object being damaged by rated pressure which can not be reset or adjusted.
- Most parts are forged SCM440 alloy steel, creating a durable and safe product.

COST SAVING

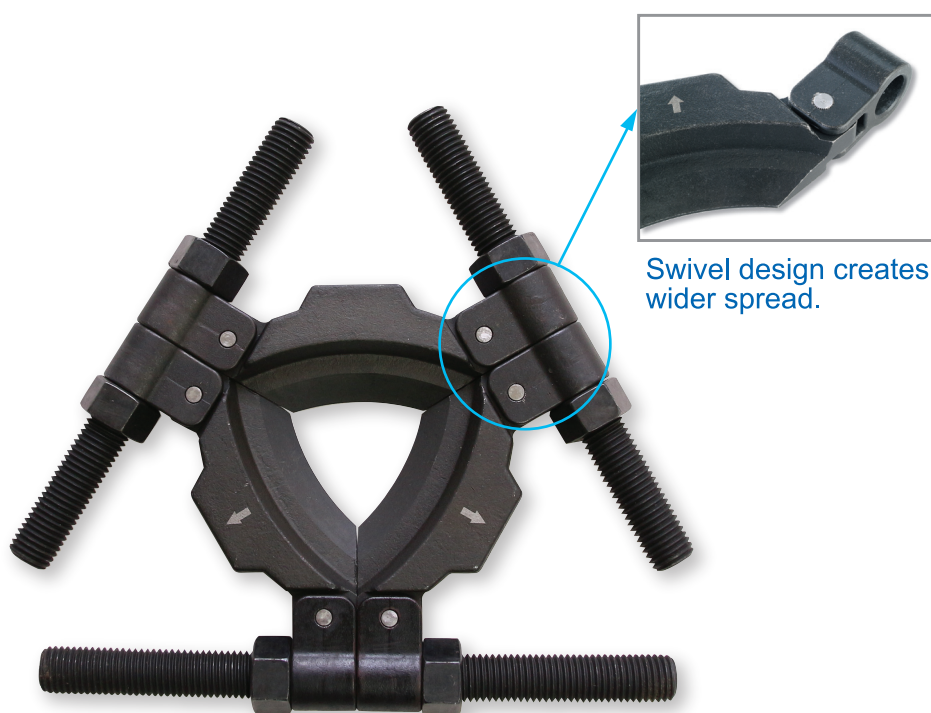
- The Three-in-One design reduces tool-reset time and duration of operation.
- This push puller is ideal for installing and dismantling a wide variety of press-fit parts, including bushings, wheels, bearings, gears and pulleys.

SPECIFICATIONS

Model No.	Operation	Output (Tons)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kgs)
PD12080	Installing	8	44-280	270	135	28	M12-P1.75	34	36
	Outer Pulling	12	85-300	260	135	28	---	---	---
	Inner Pulling	8	90-245	130-150	---	---	1"-12UNF	---	---
PDR12080	Installing	8	44-280	270	135	28	M12-P1.75	34	34
	Outer Pulling	12	85-300	260	135	28	---	---	---
	Inner Pulling	8	90-245	130-150	---	---	1"-12UNF	---	---
MD6203	Installing	8	70-206	240	720	3/4"-10UNC	M12-P1.75	34	12
	Outer Pulling	8	29-186	230	720	3/4"-10UNC	---	---	---
	Inner Pulling	8	52-150	130-150	34	5/8"-11UNC	3/4"-10UNC	---	---

Hand pumps suggested for PDR12080: AHP703D or P550D.

TRI-SECTION PLATES



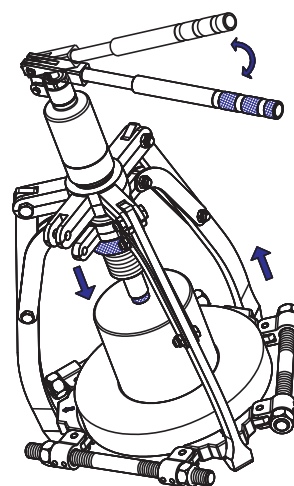
Spreading - Rear Side



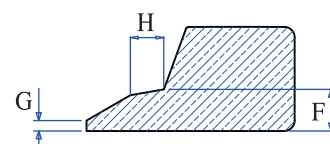
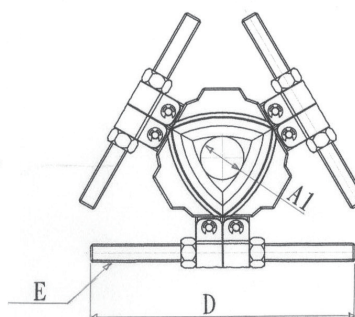
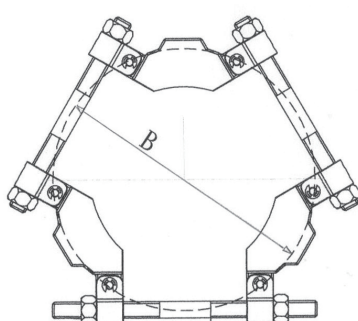
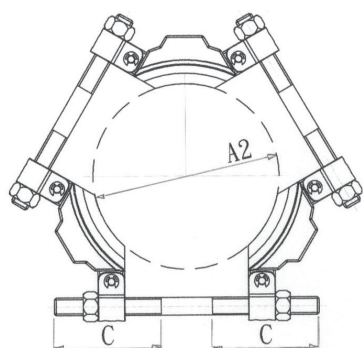
Spreading - Front Side

USER-FRIENDLY & SAFE

- Unique & patented swivel design creates the max. spread.
- The tri-section construction provides the even force distribution, preventing bearing from locking and/or tilting on the shaft during dismantling.
- Suitable for combination usage with all three-armed hydraulic pullers.
- Available in a wide range, covering the most common shaft sizes.
- The firm grip behind inner and outer rings of bearing ensures the pulling force being transmitted through the moving parts and preventing the damaging of bearing.



Easy Operating



SPECIFICATIONS (mm)

Model No.	Available Shaft Dia.		Spread B (Max.)	C	D	E	F	G	H	Capacity (Ton)	Weight (kg)
	A1	A2									
ET3-160	26	160	216	105	240	5/8"-11UNC	8	2	6.5	6	3.5
ET3-210	50	210	280	117	285	7/8"-14UNF	10	2	9	8	5.5
ET3-340	90	340	460	175	430	1 1/4"-12UNF	14	2	8	20	18
ET3-495	140	495	660	235	610	1 3/4"-12UNF	20	2	12	30	45

TRI-SECTION PULLERS

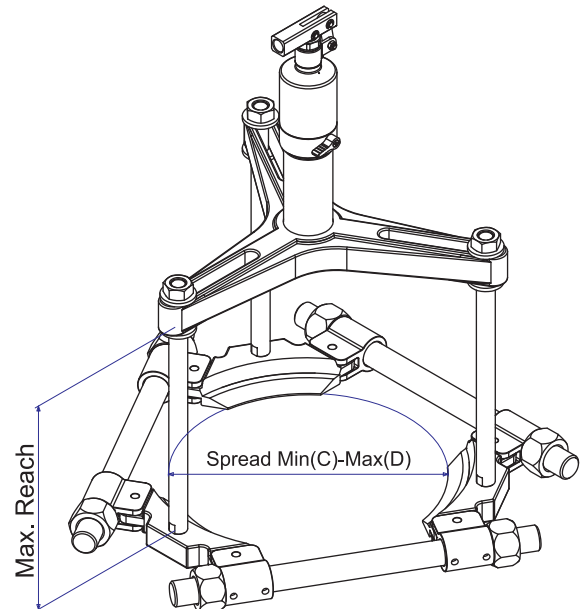
POWERRAM
HYDRAULIC TOOLS



Steel Case - Package

FEATURES

- The set including Tri-section plate for convenient and safe pulling job.
- Wedge-shaped edge allows removal of the most hard-to-grip components.
- The firm grip behind bearing's inner & outer rings ensures the pulling force not to be transmitted through the rolling parts.
- The tri-section plates design creates the most even force distribution and the maximizing spread.



SPECIFICATIONS

Capacity	Model No.	Reach (Max. mm)	Spread (mm)		Pump Body Model No.	Overall Width (mm)	Weight (kg)
			C (Min.)	D (Max.)			
4 Ton	P3412	211	30	160	PM401	240	19
6 Ton	P3612	243	50	210	PM601	285	29
8 Ton	P3812	243	50	270	PM801	460	32
12 Ton	P31212	284	90	340	PM1201	660	65

Universal Bearing Attachments

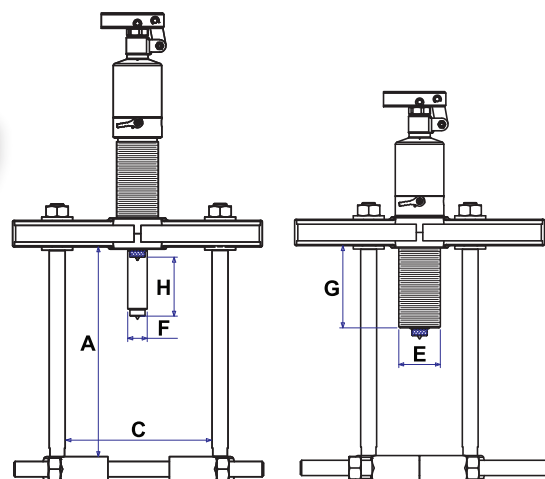
Cross Bearing Pullers

POWERRAM
HYDRAULIC TOOLS



FEATURES

- Forged of high strength steel alloy.
- Heat treated, Chrome plated for rust proof and durable life.
- Wedge-shaped edges allow removal of the most hard-to-grip components.
- Cross bearing pullers are easy to be applied on the most difficult parts for fast and efficient removal.



TECHNICAL DATA - Cross Bearing Pullers

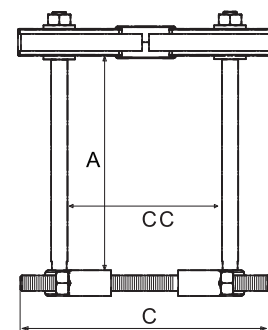
Model No.	Capacity (Ton)	Reach (Max. mm) A	Spread (Max. mm) C	Stroke (mm) H	Pump Tip (mm)		
					E	F	G
PM410	4	224	145	60	42	22	84
PM610	6	255	220	70	45	23	90
PM810	8	255	230	85	50	25	122
PM1210	12	298	310	85	60	28	115

* Including the hydraulic pump body and bearing attachment.

TECHNICAL DATA - Accessory Set

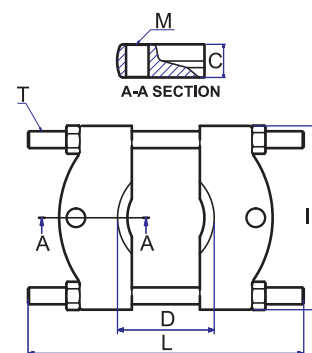
Model No.	Capacity (Ton)	A (mm)	D (mm) Min-Max	C (mm)	CC (mm) Min-Max	Thread (inch)	Bearing Attachment	Weight (kgs)
P412	4	224	12 - 70	163	100 - 145	1/2"- 13UNC	YC9015	6.5
P612	6	255	28 - 150	260	115 - 220	5/8"- 11UNC	YC9025	10.5
P812	8	255	28 - 150	260	110 - 230	5/8"- 11UNC	YC9025	10.5
P1212	12	298	20 - 200	360	140 - 310	3/4"- 10UNC	YC9035	11.5

* Excluding the hydraulic pump body.



TECHNICAL DATA - Bearing Attachments

Model No.	D Min - Max (mm)	C (mm)	L (mm)	I (mm)	ØT (inch)	ØM (inch)	Weight (kgs)
YC9005	5-60	17	120	92	3/8-24UNF	3/8-16UNC	0.7
YC9010	15-60	20	135	130	1/2-20UNF	3/8-16UNC	1.5
YC9015	12-70	27	165	156	5/8-18UNF	1/2-12UNC	2.5
YC9025	28-150	33	275	207	3/4-16UNF	5/8-11UNC	5.5
YC9035	20-200	38.5	350	240	1-14UN	3/4-10UNC	11
YC9035A	20-200	38.5	350	240	1-14UN	1-14UN	11



50 TON EASY PULLER

POWERRAM
HYDRAULIC TOOLS



FEATURES

- Double acting cylinder for holding, opening and closing the jaws for safe and secure grip on job.
- The easy jaw operating system prevent puller jaws from sliding and/or springing off the work object always.
- Self-centering design keeps the arms slide inwards or outwards simultaneously.
- Electric Pump advances and retracts the pushing cylinder only to prevent operating errors from happening.
- 50 Ton Cylinder is single-acting, spring return type with a maximum working pressure of 10,000 psi.
- Electric Hydraulic pump is two stage version ; the low pressure stage provides the fast stroking to save time ; the high pressure stage is controlled by remote hand switch.
- Puller can be adjusted 5 degree vertically.
- The cart has two swivel castors which can provide the movement of cart easily.

- Four extensions are included for the needs on extra stroke.
- PRE50T is designed as the competitive version for costwise option.

*** This model is patented in Taiwan & Germany, and patent pending in USA & PRC.**

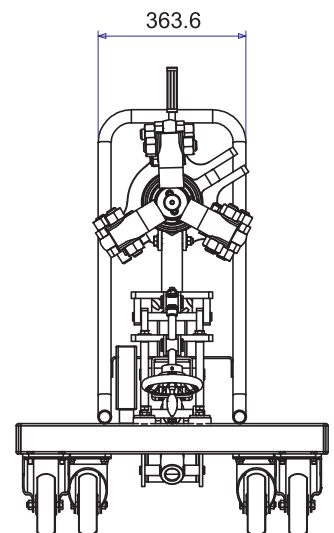
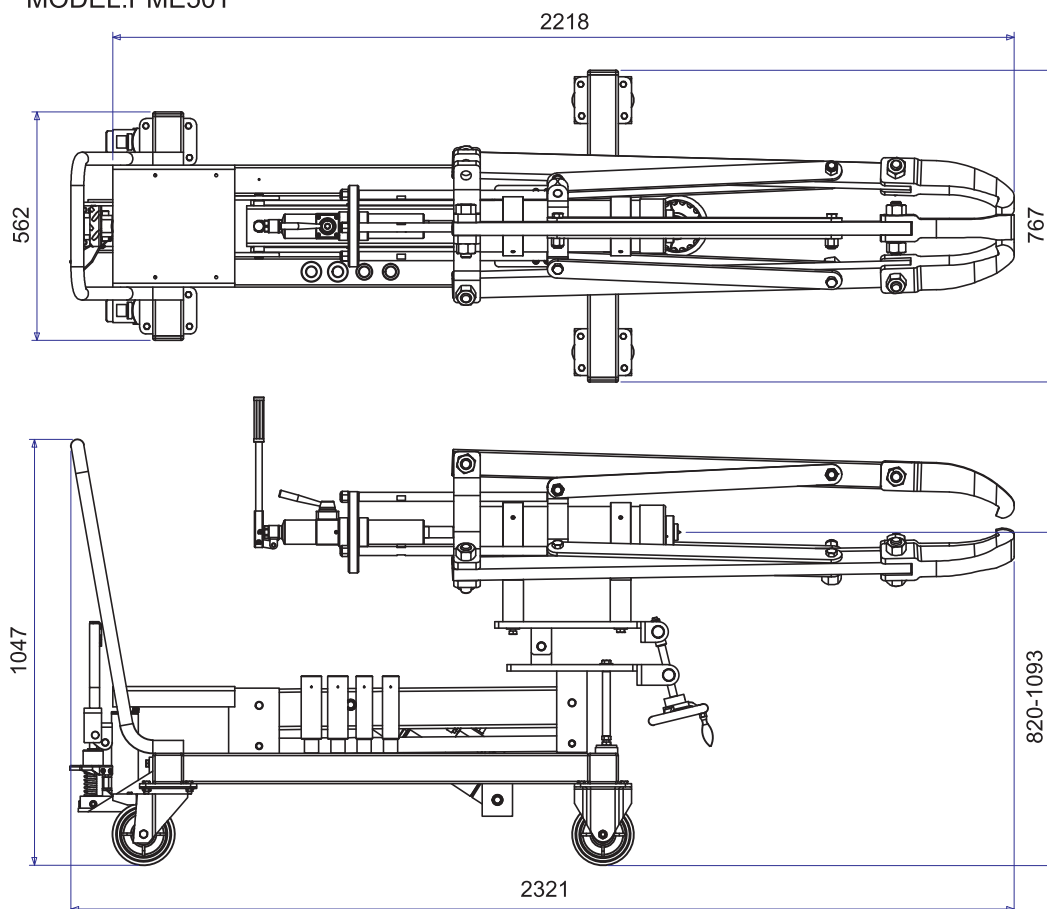
PRE50T
(Short Jaw Model)



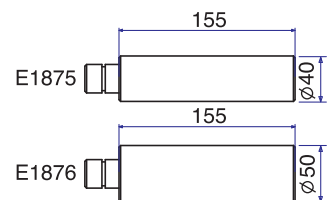
50 TON EASY PULLER

POWERRAM
HYDRAULIC TOOLS

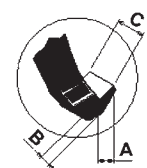
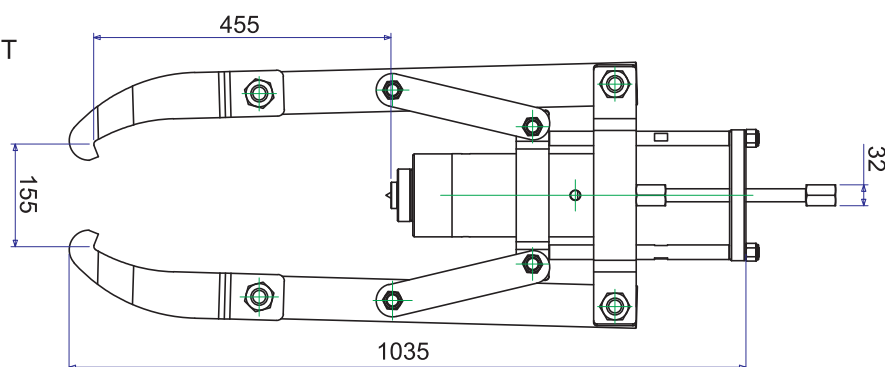
MODEL:PME50T



Extension Rods



MODEL:PRE50T



Jaw Tip

SPECIFICATIONS

Model No.	Reach (Max/mm)	Spread (Min-Max)	Stroke (mm)	Overall Dimensions (mm)	Power Source	Weight (kgs)	Jaw Tip			Extension Rod***	
							A	B	C	E1876	E1875
PME50TE*	780	200-1250	330	2545x800x1155	220V / 50Hz	400				2	2
PME50T	780	200-1250	330	2545x800x1155	---	369	23	35	60	2	2
PRE50T**	455	160-860	159	364x1035	---	140				1	1

* This model is equipped with Electric Pump - EP18S.

** The hand pump is not included in this model, recommend model is AHP703.

*** Quantity of extension rod are included.

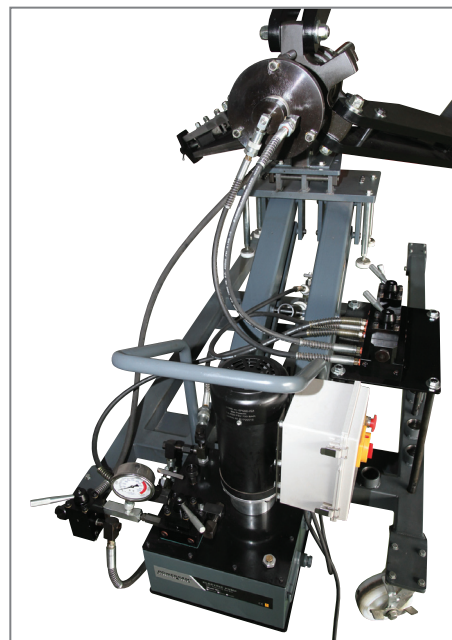
ELECTRIC PUMP - Specification

Model No.	Acting	Reservoir Capacity (c.c.)	Function	Motor	Oil Del. (c.c./min. @)			
					0 psi	100 psi	5000 psi	10000 psi
EP18S	Single	8000	Hold/Retract	0.45KW 220V 50/60 Hz Single Phase	4000	2800	330	280

100 & 150 TON EASY PULLER

POWERRAM
HYDRAULIC TOOLS

**Simple & Easy, User-Friendly,
Safety and Cost Saving - Our Goals Always!**



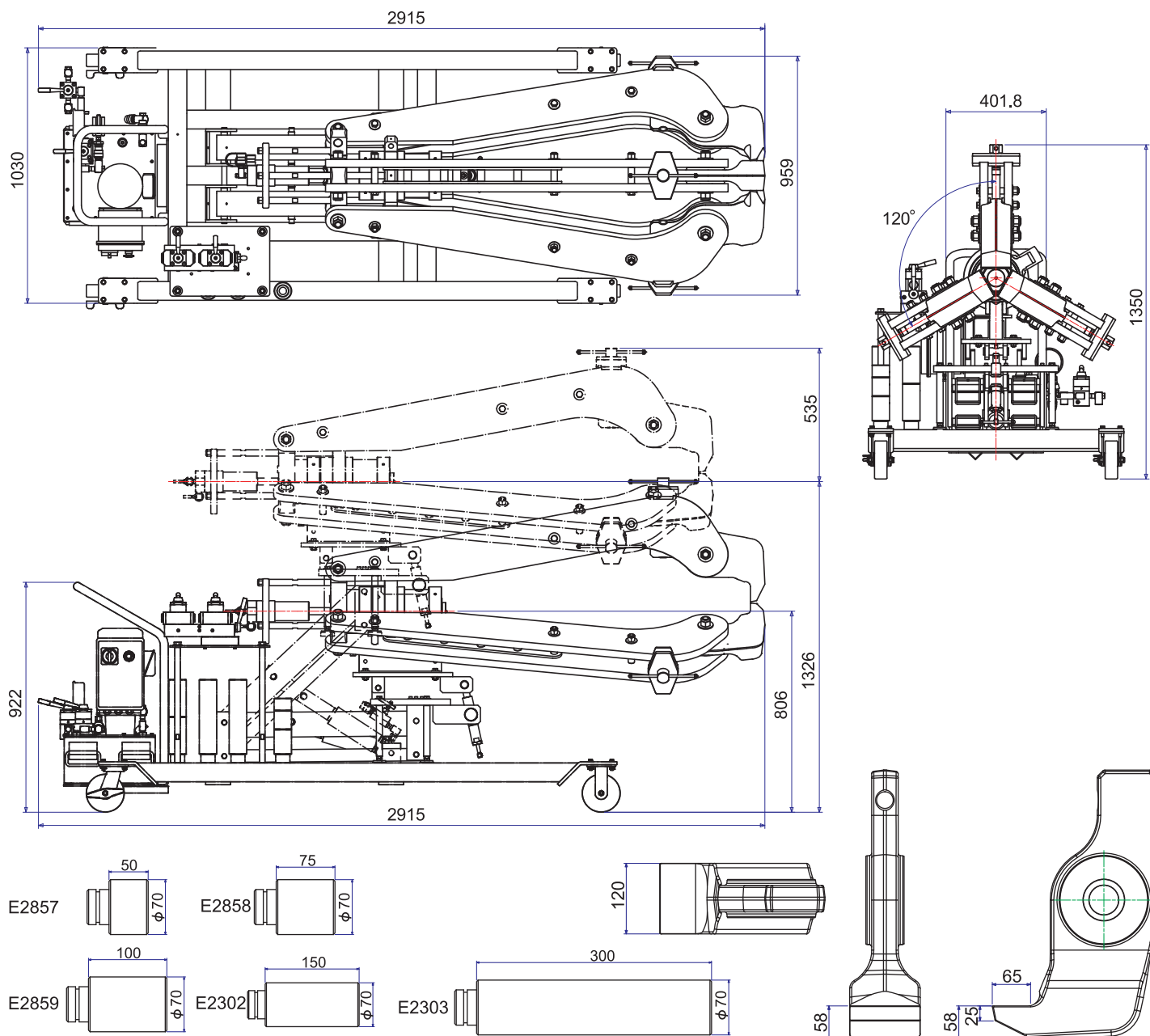
FEATURES

- Double acting hydraulic system for holding, opening & closing jaws for safe & secure grip on work object always.
- Self-centering design keeps puller jaws clamp work object evenly and automatically.
- Electrical Hydraulic Pump advances and retracts the pushing cylinder only to prevent operating errors from happening.
- The easy jaw head adjusting system prevents puller jaws from sliding and spring off the work object being pulled always.
- Puller can be converted into 2 or 3-WAY configurations.
- Puller can be adjusted with 5 degree up/down of puller centerline for precisely positioning.
- The cart swivel castors provide movement of cart easily.
- Electrical Hydraulic Pump is two stage version ; the low pressure stage provides the fast stroking to save time ; the high pressure stage is controlled by remote switch.
- 100 Ton Cylinder is 2-stages, spring return type with a maximum working pressure of 10,000 psi.
- Five extension adapters are standard attachments for the needs on extra stroke.
- **Integrated Control System for operating Lift and Push easily and efficiently by Electric Pump only. (Equipment on requesting)**

*** These models are patented in Taiwan, Germany, USA & PRC.**

100 TON EASY PULLER

POWERRAM
HYDRAULIC TOOLS



EXTENSIONS & JAW TIP

Part No.	Dia. (mm)	Length (mm)	Qty (pc)	Jaw Tip Dimensions (mm)
E2857	70	50	1	Tip Depth: 65 Tip Clearance: 25 - 58 Tip Width: 120
E2858		75	1	
E2859		100	1	
E2302		150	2	
E2303		300	2	

SPECIFICATIONS

Model No.	Reach (Min-Max)	Spread (Min-Max)	Stroke (mm)	Overall Dimensions (mm)	Power Sources	Weight (kgs)
PME100T	952-1220	300-1500	270	2915x1035x1350	---	1083
PME100TE*	952-1220	300-1500	270	2915x1035x1350	---	1189

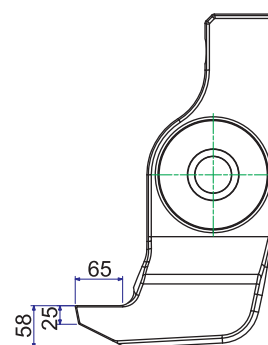
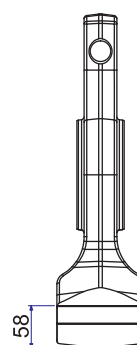
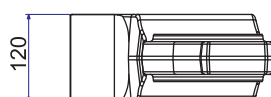
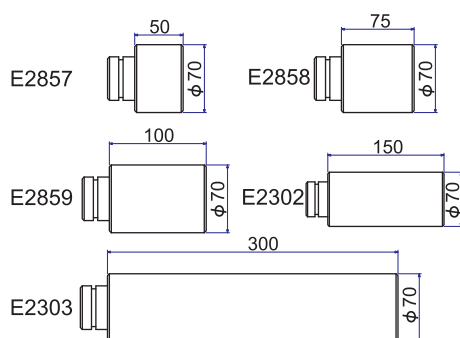
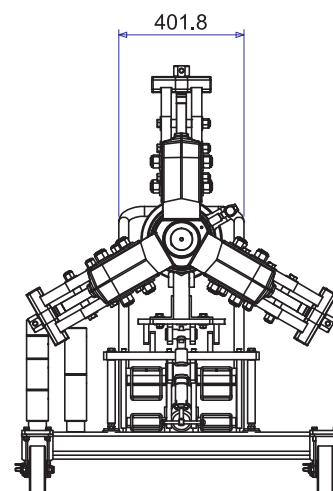
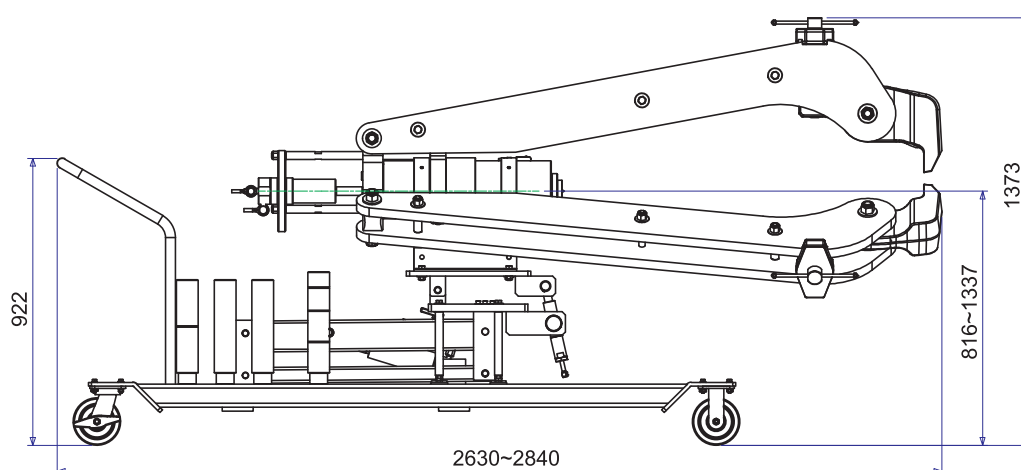
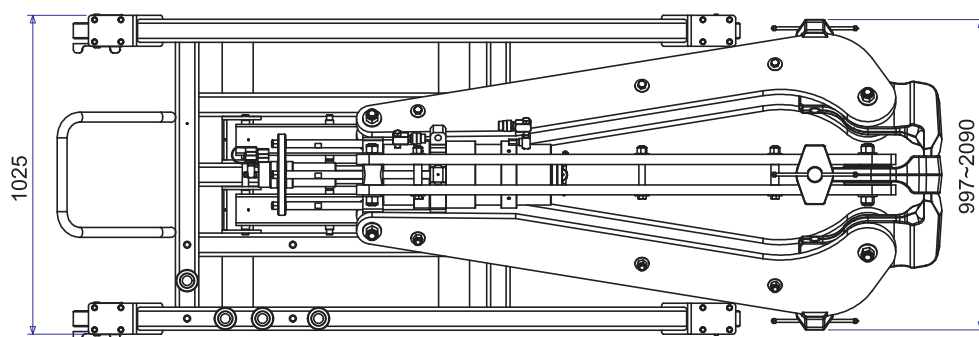
* This model is equipped with the Electric Pumps according to Customer's requirement.

* ELECTRIC PUMPS:

We suggest two models of EP211 & EP420 as the options.
Please contact with our distributors for further information.

150 TON EASY PULLER

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EXTENSIONS & JAW TIP

Part No.	Dia. (mm)	Length (mm)	Qty (pc)	Jaw Tip Dimensions (mm)
E2857	70	50	1	Tip Depth: 65 Tip Clearance: 25 - 58 Tip Width: 120
E2858		75	1	
E2859		100	2	
E2302		150	2	
E2303		300	2	

SPECIFICATIONS

Model No.	Reach (Min-Max)	Spread (Min-Max)	Stroke (mm)	Overall Dimensions (mm)	Power Sources	Weight (kgs)
PME150T	970-1175	300-1650	330	2990x1030x1390	—	1158
PME150TE*	970-1175	300-1650	330	2990x1030x1390	EP420	1223

* This model is equipped with the Electric Pump - EP420 & Control Panel System.

100 Ton Push Puller (Railroad Version)

POWERRAM
HYDRAULIC TOOLS



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 much.
- The basic equipment in most wheel shops.

Universal railroad axle journal roller bearing push puller

Now, we are available to provide the basic tool in the most wheel shops for dismantling and installing the axle journal roller bearings. With this proper equipment and know-how, you can save the maximum of time and effort on maintenance for sure.

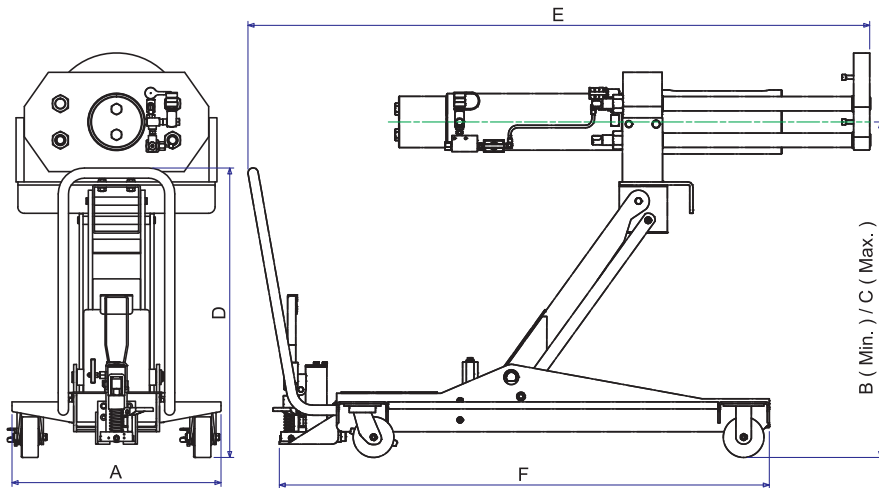
From class B through GG, each unit service a full line of bearings with rotating end caps. Simply remove the end caps, slip the pulling shoe between the bearings and the wheel, start the pump, the bearing being removed within seconds under the pulling force of 100 Ton easily.

The pulling shoe and installing tube ensure the most convenient and fast installation. 100-ton hydraulic cylinder is working under 10,000 psi always.

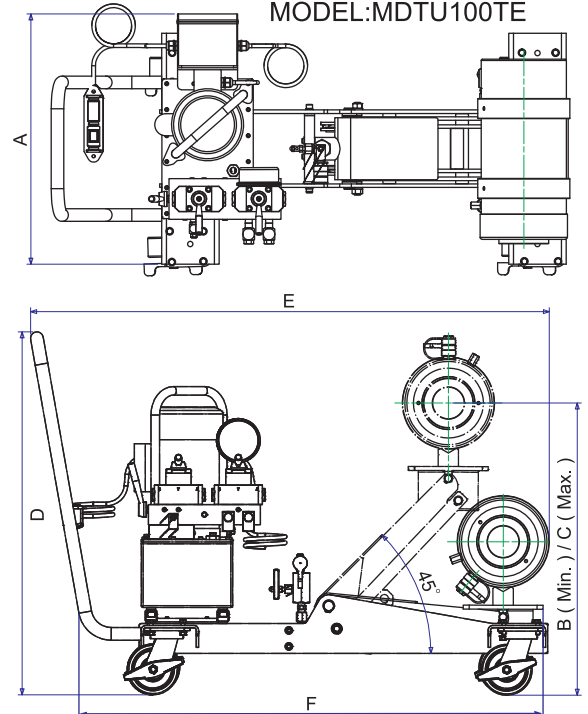
100 Ton Push Puller (Railroad Version)

POWERRAM
HYDRAULIC TOOLS

MODEL: BRBP100T



MODEL:MDTU100TE



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	F0436	F0437	F0438	F0439
Guide Tube & Cap Screw Assembly	E2601	E2602	E2603	E2604
Cap Screw**	H0421	H0421	H0421	H0422
Guide Tube Adapter	B1248	B1248	B1248	B1248
Installing Tube Adapter Ring	D1031	D1032	D1033	D1034

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

Accessory Description	Class B 4 1/4" 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. F0442 is included as part of basic machine							F0443	F0443	F0443
Pulling Shoe Insert Adapter	F0440	F0437	F0438	F0439	F0439	F0441	F0441	---	---	---
Guide Tube & Cap Screw Assembly	F0435-1	F0435-2	E2605	E2606	E2607	E2608	E2609	E2611	E2610	E2612
Cap Screw**	H0423	H0424	H0425	H0426	H0427	H0425	H0428	H0430	H0429	H0429
Guide Tube Adapter	B1247	B1246	B1246	B1248	B1248	B1248	B1248	B1248	B1248	B1248
Installing Tube	No. D1044 is included as part of basic machine							D1045	D1045	D1045
Installing Tube Adapter Ring	B1243	D1037	D1038	D1039	D1039	D1040	D1040	D1042	D1041	D1041

Note: Adapter listed above are for servicing the following roller bearing assemblies: Brenco " Crown-Taper ", New Departure-Hyatt " HyRoll Taper ", SKF " Expediter " and Timken " AP ".

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

SPECIFICATIONS

Model No.	Stroke (mm)	Capacity (Ton)		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg)
		Pull	Inst.							
BRBP100T	392	100	68	652	370	1047	900	1940-2209	1530	590
BRBP100TE*	392	100	68	652	370	1047	900	1940-2209	1530	805
MDTU100TE*	254	100	68	627	384	731	909	1299	1175	410

* This model is equipped with the Electric Pump - EP211D.

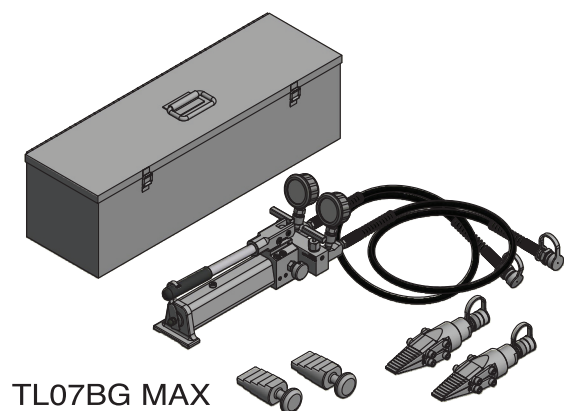
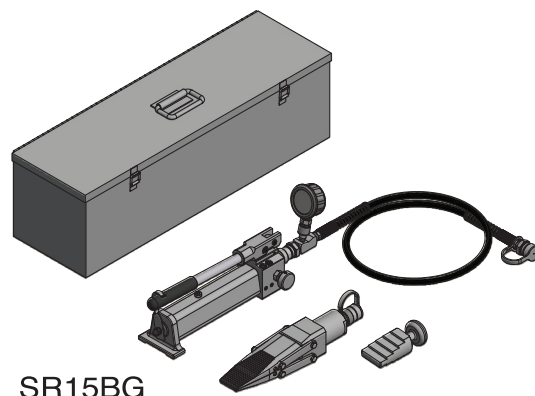
ELECTRIC PUMP - Specifications

Model No.	Acting	Reservoir Capacity (c.c.)	Function	Motor	Oil Del. (c.c./min. @)			
					0(psi)	100(psi)	5000(psi)	10000(psi)
EP211D	Double	11000	Adv./Hold /Retract	1.12KW 220V 50/60 Hz Single Phase	8200	7400	840	750

HYDRAULICAL SPREADERS

POWERRAM
HYDRAULIC TOOLS

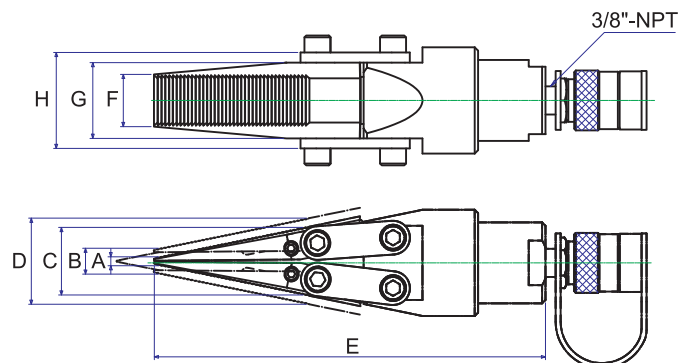
Loads are lifted perpendicularly!



FEATURES

- Ideal for numerous industrial maintenance repair jobs.
- Accurate height adjustments (for instance shaft alignment) can easily be executed by one person.
- Easy, light and very practical to use.
- Particularly suitable when available space is very limited. from 5 to 40 mm.
- Due to the reduced thickness of the jaws, made of high quality hardened steel, these multi-functional wedges can be used for jobs where working space is extremely limited.
- **Package models are also available, please contact with the authorized distributors for details.**

SR07-TL07



SPECIFICATIONS

Model No.	Capacity Tons	Spread (mm)		Stroke (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kgs)
		Min - A	Max - B								
SR07	15	5	15	25	40	50	232	31	45	57	3.5
SR07BG	15	5	15	25	40	50	232	31	45	57	14.5
SR07BG MAX	15 x 2	5	15	25	40	50	232	31	45	57	27.0
TL07	15	5	15	25	36	46	232	31	45	57	3.5
TL07BG	15	5	15	25	36	46	232	31	45	57	14.5
TL07BG MAX	15 x 2	5	15	25	36	46	232	31	45	57	27.0
SR15	25	7	23	65	42.5	59	342	50.5	70	82	8.0
SR15BG	25	7	23	65	42.5	59	342	50.5	70	82	24.0
SR15BG MAX	25 x 2	7	23	65	42.5	59	342	50.5	70	82	36.0

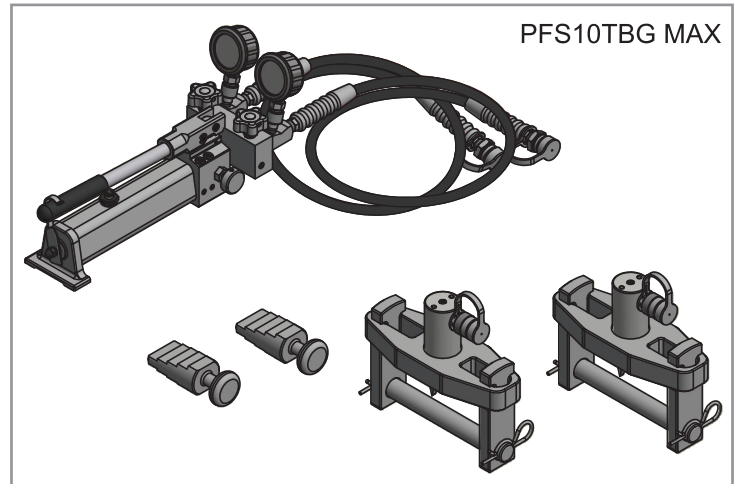
HYDRAULIC FLANGE SPREADER - PFS10T

POWERRAM
HYDRAULIC TOOLS



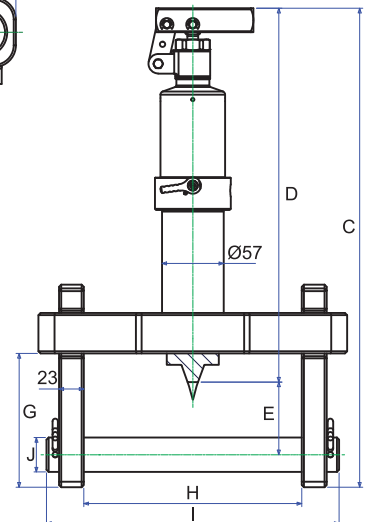
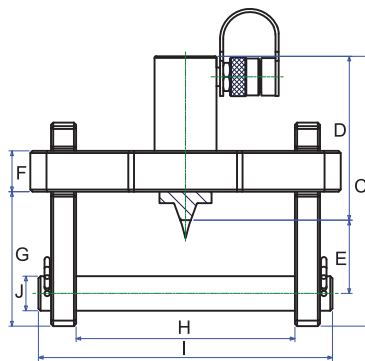
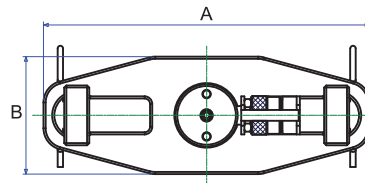
FEATURES

- Suggest to use in sets for an even and higher spreading force.
- The claw widths are adjustable from 104 mm to 216 mm for wide range usage.
- All models are including safety block to remove the spreader and hold the loading.
- PFS10TI has a built-in hydraulic system, therefore the hand pump, hose and gauge are not necessary.



SPECIFICATIONS

Model No.	Package included				
	Hand Pump	1.5M Hose & Coupler	Gauge & Adaptor	Safety Block	Steel Case
PFS10T MIN	--	--	--	V	--
PFS10TBG	V	V	V	V	V
PFS10TBG MAX	V	x 2	x 2	x 2	V
PFS10TI	--	--	--	V	V



SPECIFICATIONS

Model No.	Flange Thickness H (mm)	Stud Size J (mm)	Standard Wedge (mm)	Capacity (Ton)	Stroke (mm)	Oil Capacity (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	I (mm)	Weight (kg)
PFS10T MIN	104-216	Ø 31.75	3.3 - 28.7	10	51	73	300	108	248	151	67	37.5	123.5	285	15
PFS10TBG	104-216	Ø 31.75	3.3 - 28.7	10	51	73	300	108	248	151	67	37.5	123.5	285	25.2
PFS10TBG MAX	104-216	Ø 31.75	3.3 - 28.7	10 x 2	51	73	300	108	248	151	67	37.5	123.5	285	46.6
PFS10TI	104-216	Ø 31.75	3.3 - 28.7	10	54	73	300	108	442	375	67	37.5	123.5	285	17.5

NUT SPLITTERS

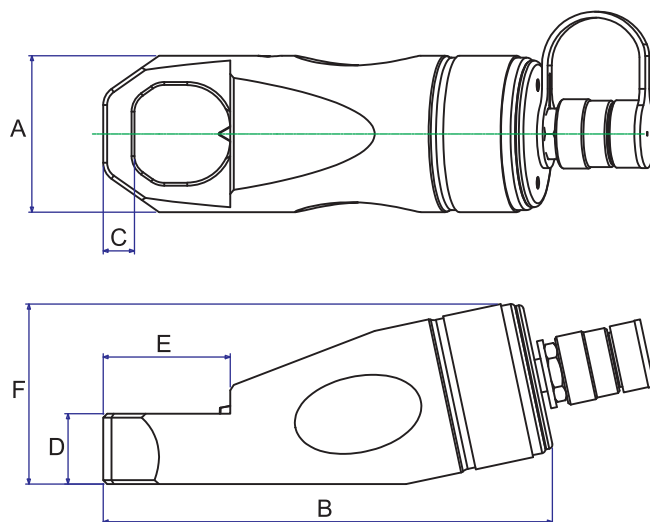
MODEL: HNS SERIES

Capacity: 10 - 50 Tons



FEATURES

- Compact design used in confined space with enough force to split the rusted nuts.
- 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 to the precise point where it cracks.
- Unique angled head design to keep full contact with the nut being penetrated.
- Unique angled cutter blade with radius to have the greater resistance to cutting and breaking nuts.
- 5 popular models applicable to cover the most range of nuts.



SPECIFICATIONS

Model No.	Hexagon Nut Range (mm)	Bolt Range (mm)	Capacity (ton)	Oil Capacity (c.c.)	Dimensions(in)						Weight (kg)
					A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	
HNS1924	19-24	M12-M16	10	18	60	171.5	10	25	40	68	2.6
HNS2432	24-32	M16-M22	15	40	70	192	13	30	52	79	3.6
HNS3241	32-41	M22-M27	20	68	80	230	16	36	65	92	5.5
HNS4150	41-50	M27-M33	35	150	100	286	21	45	76	116	11.2
HNS5060	50-60	M33-M39	50	250	117	321	24	54.5	92	134	15.1

Notes: The Hardness of Nut Material must not exceed HRC-44.

Should not be used on stainless steel nuts and/or square shape nuts.

TOE JACKS

POWERRAM
HYDRAULIC TOOLS

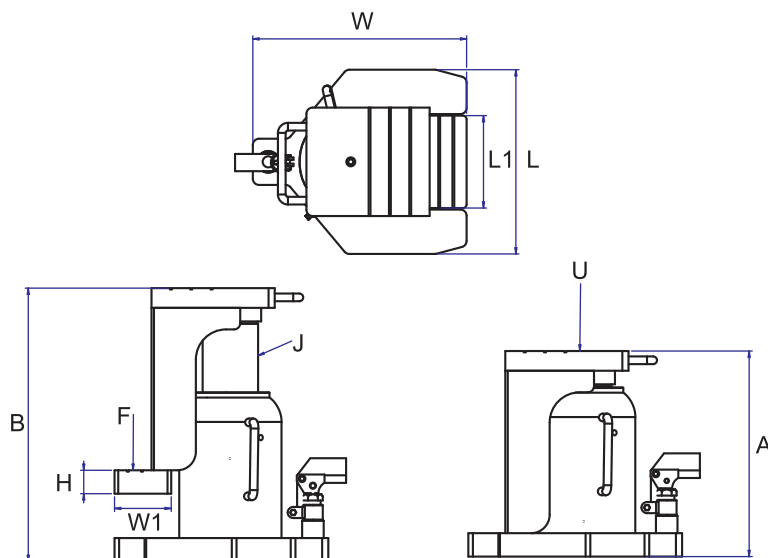
MODEL: TOE SERIES

Capacity: 2.5 - 50 Tons



FEATURES

- Heat treated & chrome plated hydraulic rod provide longer seal life and optimum performance.
- Internal safety valve prevents toe jack from being used beyond its rated capacity.
- Housing welding onto the forged base ensures to be free of leakage problem.
- High strength Toe-Lift for long life use.
- Low toe heights fit in tight clearances.
- Swivel sockets for easy operation.
- Can be operated quickly by hand without a loading.
- Removable handle saves the handle force during operation.
- Max. Working Pressure 700 bar / 10,000 psi



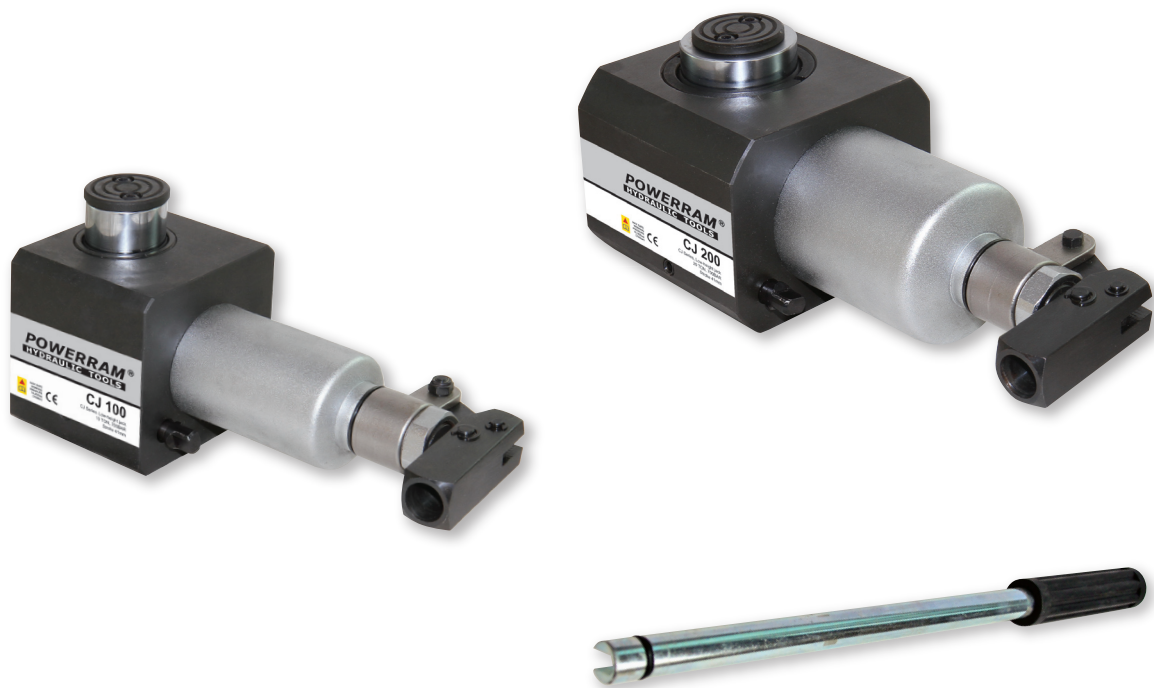
SPECIFICATIONS

MODEL	TOP CAP. U(tons)	TOE-LIFT CAP. F(tons)	STROKE (mm)	MIN. HEIGHT A(mm)	MAX. HEIGHT B(mm)	PISTON ROD DIA. J(mm)	BASE DIMENSIONS LxW(mm)	HEIGHT H(mm)	TOE-LIFT L1xW1(mm)	WEIGHT (Kgs)
TOE-025	2.5	1.2	100	194	294	19	140X190	19	65X50	7.8
TOE-040	4	2	110	204	314	25	150X200	19	65X50	9.0
TOE-060	6	3	110	212	322	36	160X217	19	65X50	11.3
TOE-100	10	5	130	258	388	40	189X242	22	75X55	17
TOE-160	16	8	131	275	406	52	211X256	25	90X55	25.7
TOE-200	20	10	140	303	443	56	228X274	25	100X60	33.1
TOE-300	30	15	147	322	469	70	259X305	32	110X60	52
TOE-500	50	25	148	333	481	90	299X347	38	150X60	84

LOW-HEIGHT JACKS

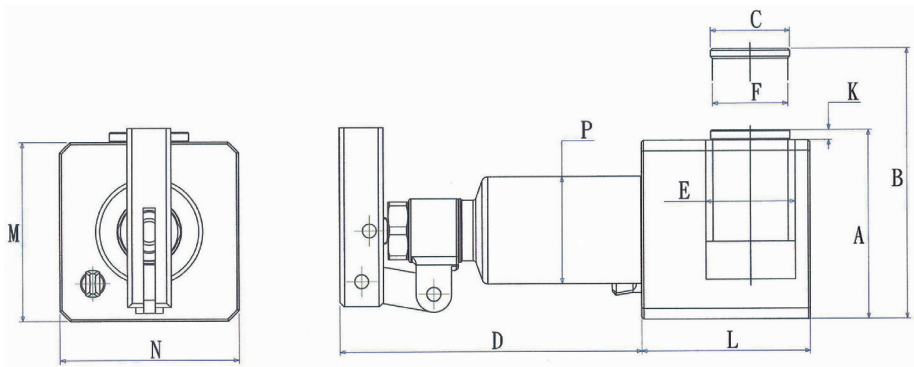
MODEL: CJ SERIES

Capacity: 10 - 20 Tons



FEATURES

- Integrated pump & spring return cylinders, with low build-in height.
- Max. working pressure: 10,000 psi / 700 bar.
- Hard chromed piston
- Ram inside roll polished
- Perfect for jobs with limited space, for example: positioning machines, mounting tools or load tests.



SPECIFICATIONS

Model No.	Cap. (Ton)	Stroke (mm)	Oil Cap. (cm ³)	Height (mm)		C Ømm	D mm	E Ømm	F Ømm	H mm	K mm	L mm	M mm	N mm	P Ømm	Weight (kg)
				Retracted	Extended											
CJ100	10	40	155	95	135	40	152.5	45	37.95	407.5	4.9	85	90	90	53.8	6.8
CJ200	20	41	250	95	136	40	152.5	65	50.8	407.5	4.9	110	90	110	69.8	9.6

BOTTLE JACKS & AIR / HYDRAULIC JACKS

POWERRAM
HYDRAULIC TOOLS



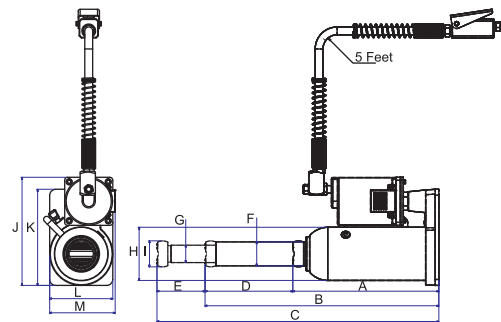
AJB300



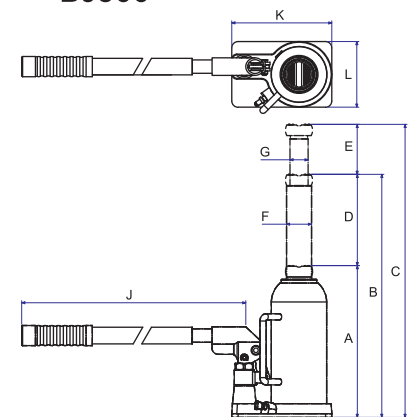
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BJ500



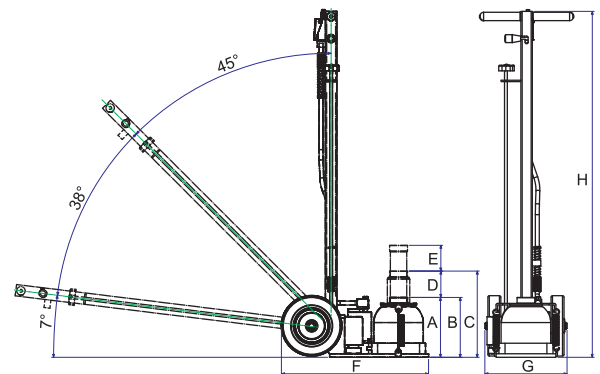
AJ system



BJ system

FEATURES

- Low profile design for most of Industrial applications.
- Forging base as the strongest construction to catch the needs in Industry market.
- Design of housing welding onto the forged base prevent the leakage problem.
- Telescopic design of AJ120, AJ220, BJ120, BJ220, AJB1527 & AJB2035 reaches the extra height during operating to save time and labor cost.
- AJBseries are equipped with two large Dia. rubber wheels provide easy and well mobility works.
- Air/Hydraulic design make you free from pumping handle also with the most efficiency and time saving.



AJB system

SPECIFICATIONS

Model No.	Capacity (ton)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)	M (mm)	Handle Length (mm)	Weight (kg)
AJ120	12	243	389	469	146	80	40	29	88.5	43	180	160	105	109	290	10.0
AJ220	22	240	369	449	129	80	56	38	114	54	207	—	130	—	290	15.1
AJ300	30	279	423	—	144	—	65	—	140	—	235	—	150	154	290	26.0
AJ500	50	304	452	—	148	—	75	—	165.5	—	260	—	180	—	290	39.4
BJ120	12	243	389	469	146	80	40	29	88.5	43	507	160	105	—	500	8.8
BJ220	22	240	369	449	129	80	56	38	114	54	507	190	130	—	500	14.0
BJ300	30	279	423	—	144	—	65	—	140	—	507	235	150	—	500	27.0
BJ500	50	304	452	—	148	—	75	—	165.5	—	507	260	180	—	500	36.8
AJB1527	15/27	200	287	374	87	87	490	274	1155	—	—	—	—	—	—	38.5
AJB2035	20/35	200	287	374	87	87	490	274	1155	—	—	—	—	—	—	45.0
AJB300	30	247	345	—	98	—	460	274	1155	—	—	—	—	—	—	43.0
AJB500	50	266	367	—	101	—	490	274	1155	—	—	—	—	—	—	53.5

* All handle length is 630mm.

PORTABLE POWER KITS

POWERRAM
HYDRAULIC TOOLS



FEATURES

- Quick "snap together" design for fast and easy assembly and disassembly.
- Extra thick extension tubes design for more strength and bendless.
- Blow molded case for organized component storage and easy to carry. The case for 10 Ton kit has wheels for good mobility.
- Single-speed pump delivers 10,000 psi and with automatic overload system against operator injury.
- Flexible hydraulic hose with spring guards at both ends.
- Dropping forged pump base and rugged welded constructions prevent collision and deformation.
- Components are also made by forging with the best rigidity and strength to ensure never broken during operation with high safety.
- Each components are connected through female connector for easy operation.



PA904A

PA904A

ITEM	PARTS NO.	DESCRIPTION
01	PA350	Hydraulic Pump
02	HS236	Hose 6 feet
03	RA404	4 Ton Ram, 4" Stroke, 1/4NPT
04	SR05A	1/2 Ton spreader ram
05	B0523	16" Extension tube
06	B0524	12" Extension tube
07	B0525	8" Extension tube
08	B0526	4" Extension tube
09	B0467	Male connector
10	F0180	Flat base
11	F0181	90° "V" base
12	F0182	Wedge head
13	F0183	Spreader Plunger Toe
14	F0184	Spreader Ram Toe
15	B0013	Flex head
16	F0179	Serrated saddle
17	G0026	Blow molded case

N.W. 18.6KG G.W. 19.6KG CUFT. 1.4'

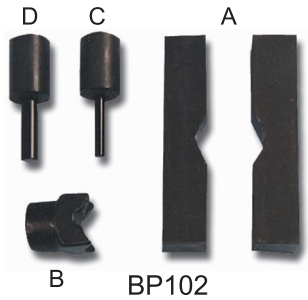
PA910A

ITEM	PARTS NO.	DESCRIPTION
01	PA600	Hydraulic Pump
02	HS336	Hose 6 feet
03	RA106L	10 Ton Ram, 6" Stroke, 3/8NPT
04	SR05E	1/2 Ton spreader ram
05	B0519	19" Extension tube
06	B0520	14" Extension tube
07	B0521	10" Extension tube
08	B0522	5" Extension tube
09	B0406	Male connector
10	F0174	Flat base
11	F0175	90° "V" base
12	F0176	Wedge head
13	F0177	Spreader Plunger Toe
14	F0178	Spreader Ram Toe
15	B0083	Flex head
16	F0173	Serrated saddle
17	G0021	Blow molded case with wheels

N.W. 36.5KG G.W. 37.5KG CUFT. 2.6'

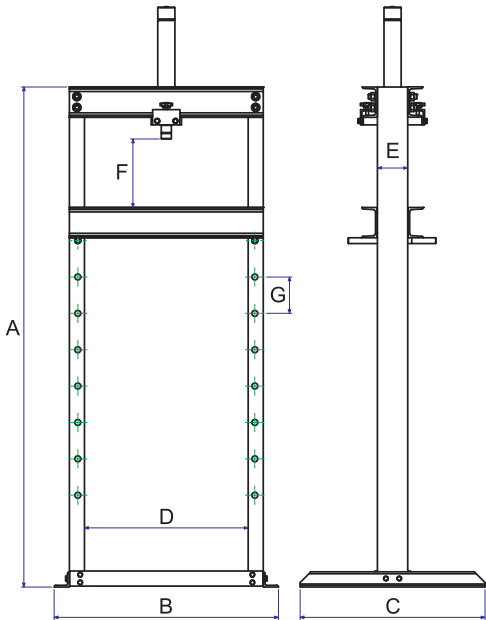
MODEL: SP1301 / SP1401

Capacity: 10 Tons



FEATURES

- Rugged steel frame provides maximum firmness to prevent bending.
- Multiple working position for press bed.
- Steel cross support prevent the frame from bending while loading.
- Single-acting and spring return cylinders with 10" stroke is horizontal movement on head channel.
- Available in 10 Tons models, with optional manual or air-hydraulic pump.



Accessory Set

	A	B	C	D	
Part No. / Item	Long V-block	V base	Ram pushing adapter	Ram pushing adapter	Weight (kgs)
BP102	E0650	E0175	B0547 (1/2" shank)	B0548 (3/4" shank)	9.5

SPECIFICATIONS

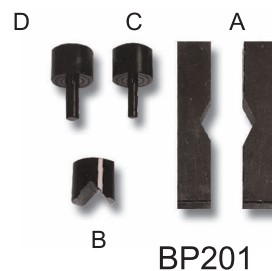
Model No.	Capacity (ton)	Stroke (mm)	Pump Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kgs)
SP1301	10	254	HB700	1650	740	610	540	100	255-1065	120	87
SP1401	10	254	PTS900A	1650	740	610	540	100	255-1065	120	90

SHOP PRESSES

POWERRAM
HYDRAULIC TOOLS

MODEL: SP2101 / SP2201 / SP3201

Capacity: 20 -30 Tons

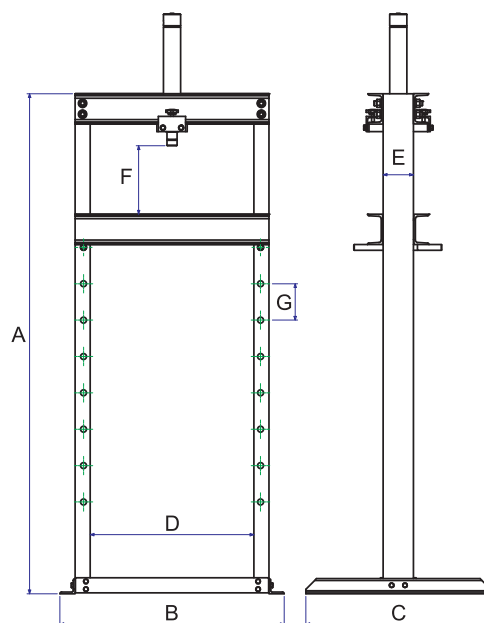


FEATURES

- Rugged steel frame provides maximum firmness to prevent bending.
- Multiple working position for press bed.
- Steel cross support prevent the frame from bending while loading.
- Single-acting and spring return cylinders with 5" & 8" stroke is horizontal movement on head channel.

Accessory Set

	A	B	C	D	
Part No. / Item	Long V-block	V base	Ram pushing adapter	Ram pushing adapter	Weight (kgs)
BP201	E0662	E0064	B0562 (3/4" shank)	B0563 (1" shank)	17.0



SPECIFICATIONS

Model No.	Capacity (ton)	Stroke (mm)	Pump Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kgs)
SP2101	20	128	HB700	1650	790	700	510	125	233-1072	120	183
SP2201	20	128	PTS900A	1650	790	700	510	125	233-1072	120	186
SP3101	30	204	HC1500	1631	920	700	620	150	306-1025	120	244
SP3201	30	204	PTS900A	1631	920	700	620	150	306-1025	120	249

SHOP PRESSES

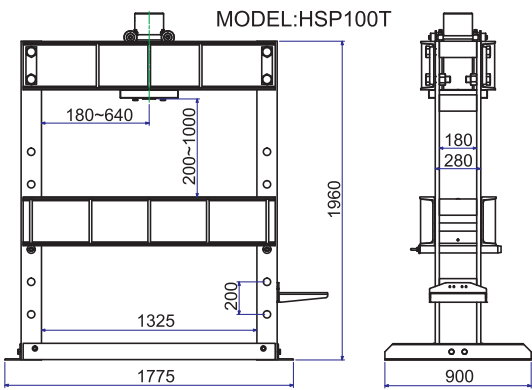
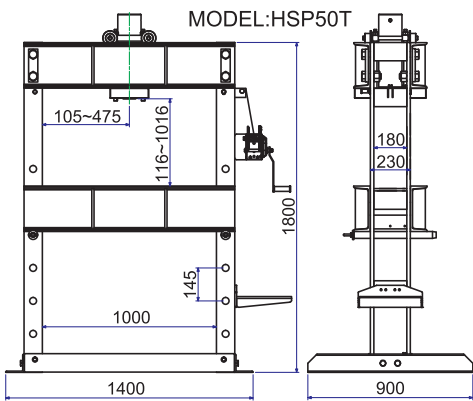
MODEL: HSP50T / HSP100T

Capacity: 50-100 Tons



FEATURES

- Ideal for the pressing job in the workshops.
- Rugged steel frame provide maximum rigidity and never bended.
- Multiple working positions for press bed.
- Steel cross brace prevents the frame from spreading under the load.
- 100 Ton, Single Acting, 13" Stroke Cylinder is available for requesting.
- 100 Ton, Double Acting, 18" Stroke Cylinder is available for requesting.
- 50 Ton shop presses: Hand Pump, Air Pump & Electric Pump are available upon request.
- 100 Ton shop presses: Electric Pump is available as the optional version.



Specifications for reference:

Model No.	Capacity (ton)	Stroke (mm)	Pump Type	Max. Pressure Output (psi)	Reservoir Capacity (c.c.)	Motor	Weight (kg)	Accessory Set *
HSP5013H	50	330	HP80	10,000	7,000	-	440	* Long V-Blocks * V-Base * Ram pushing adaptor
HSP5013S	50	330	EP18S	10,000	8,000	0.45kW / 220V 50/60 Hz Single Phase	480	
HSP5018D	50	457	EP18D	10,000	8,000	0.45kW / 220V 50/60 Hz Single Phase	480	
HSP10013S	100	330	EP211S	10,000	11,000	1.12kW 220V 50/60 Hz, Single Phase	840	* Long V-Blocks * V-Base
HSP10018D	100	457	EP211D	10,000	11,000	1.12kW 220V 50/60 Hz, Single Phase	840	

*The above accessory sets will be changed according to the Selected Cylinder.

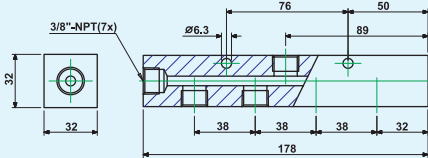
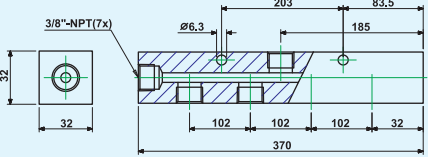
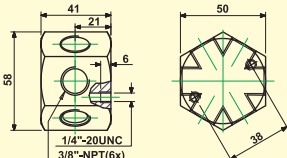
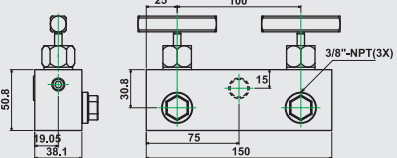
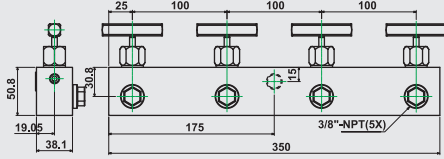
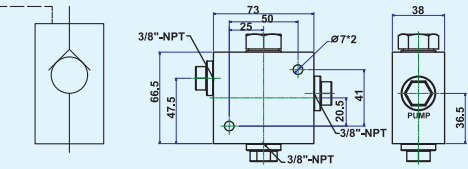
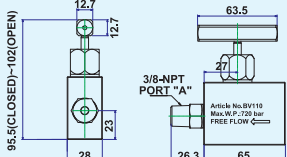
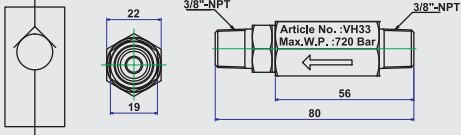
ACCESSORIES

Max. Working Pressure - 700 bar / 10,000 psi

System Components

With the simple and complete line of hydraulic hoses, couplers, fittings, manifolds, gauges and valves, POWERRAM has the accessories to complete your hydraulic system and ensure the operating efficiency, long life and safety of your hydraulic equipment.

MANIFOLDS

Model No.	Dimensions (mm)		Description
JP64			7 Female ports - 178 mm Long
JP65			7 Female ports - 370 mm long Available directly mounting of control valves
JP66			6-Port Hexagon Type
VB201			Premounted Manifolds
VB401			Available as split-flow valve to control two / four single-acting cylinders simultaneously.
BV42			Pilot Check Valve
BV110			Restrictor Valve
VH33			Non-return Valve

ACCESSORIES

Max. Working Pressure - 700 bar / 10,000 psi

FITTINGS

Model No.	Description	Dimensions (mm)
ADL101	Elbow	
ADL102	Elbow	
ADL202	Elbow	
ADL303	Elbow	
ADC303	Elbow	
ADE303	Elbow	
ADT101	Tee	
ADT202	Tee	
ADT303	Tee	
ADG303	Tee	
ADG323	Tee	
ADF102	Adaptor	
ADF203	Adaptor	
ADF302	Adaptor	

Model No.	Description	Dimensions (mm)
ADF303	Adaptor	
ADF304	Adaptor	
ADI202	Connector	
ADI203	Connector	
ADI303	Connector	
ADO101	Hexagon Nipple	
ADO202	Hexagon Nipple	
ADO2031	Reducing Connector	
ADO203	Reducing Connector	
ADO204	Hexagon Nipple	
ADO205	Hexagon Nipple	
ADO303	Hexagon Nipple	
BG9705	Swivel Connector	

ACCESSORIES

Max. Working Pressure - 700 bar / 10,000 psi

Directional Control Valve

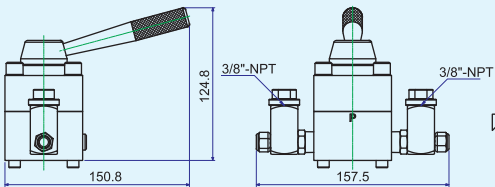
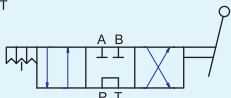
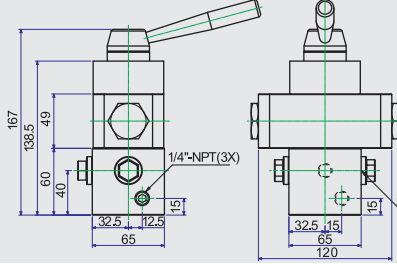
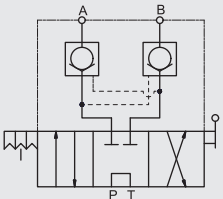
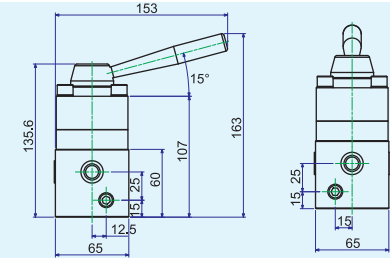
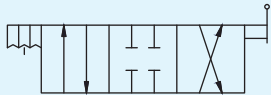
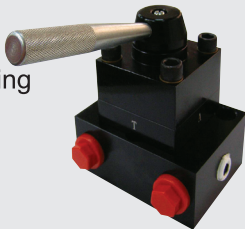
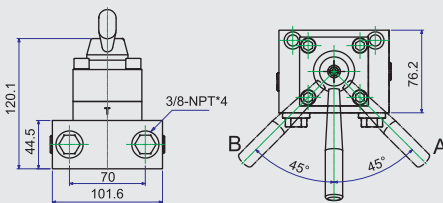
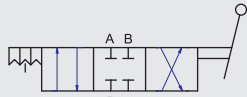
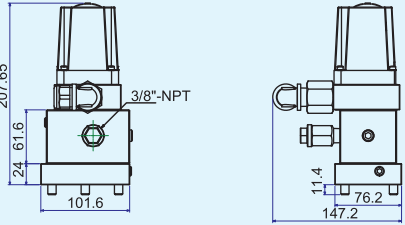
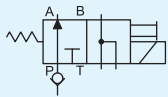
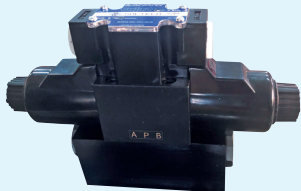
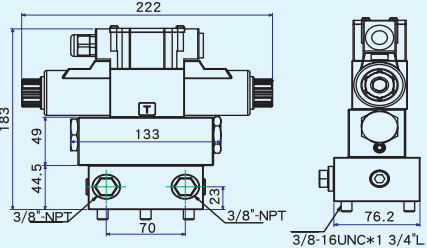
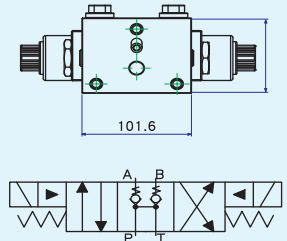
Model No.	Description	Dimensions (mm)
B1014	2 Position / 2 Way Valve No need to hold the pressure	
BP421	For using with single- or double acting cylinders. Manual, Advance / Hold / Retract	
BP422	Manual, Advance / Hold / Retract	
BP423	Manual, Advance / Hold / Retract Available models HP80D, AP13D, AP18D, EP13D, EP18D, EP211D, EP320D & EP420D	
BP42R	BP42R is the upper section of BP423 as enclosed only.	
BP425	Manual, Advance / Hold / Retract, Lock for load holding.	

ACCESSORIES

POWERRAM
HYDRAULIC TOOLS

Max. Working Pressure - 700 bar / 10,000 psi

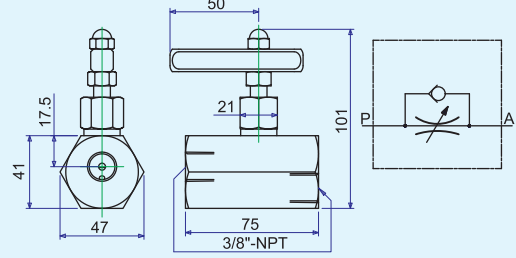
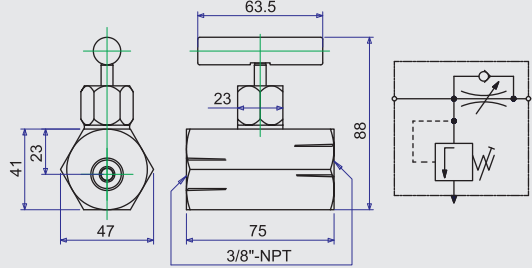
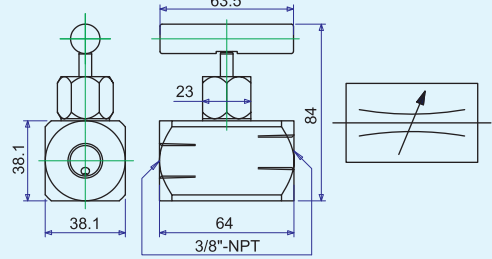
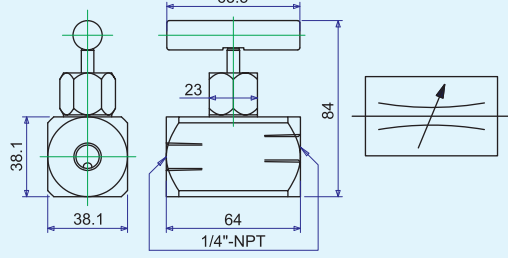
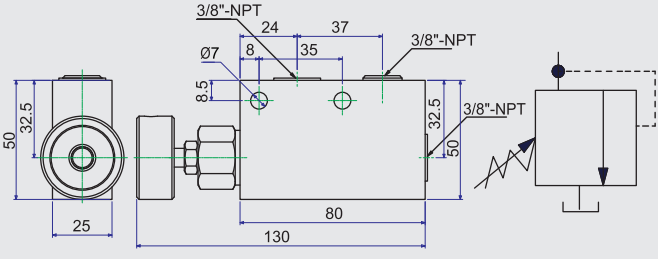
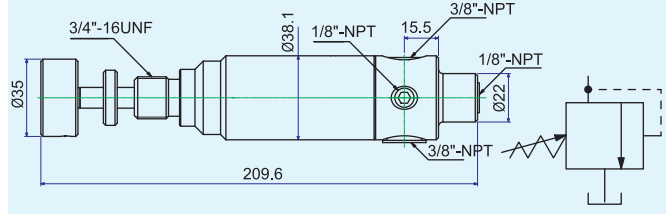
Directional Control Valves

Model No.	Description	Dimensions (mm)		
BP426	BP426 is similar to BP421, but used on HP35D only.			
BP427	Manual, Advance / Hold / Retract, Lock for load holding.			
BP430	BP430 is similar to BP422, but with closed center.			
BP432	Overlooking & mounting dimensions is same as BP423, but with closed center.			
SV32	3 Way / 2 Position Solenoid Valve for Single-acting cylinders 24V / 110V / 220V			
SV43	4 Way / 3 Position Solenoid Valve for Double-acting cylinders 24V / 110V / 220V			

ACCESSORIES

Max. Working Pressure - 700 bar / 10,000 psi

Flow Control Valves

Model No.	Description	Dimensions (mm)
VC331	Needle Valve To control cylinder speed, also can be used as shut-off valve for temporary holding. But not recommended to use for precise flow control.	 
VB66	Manually Operated Check Valve Used with single or double acting cylinders for load holding. Upon cylinder retracting, valve is manually opened to allow oil flowing back to the tank and with auto overload relief design.	 
VB101	Needle Valve (3/8"NPT ports) To be used as shut-off valve for temporary holding. Same as VB66, but without auto overload relief design.	 
VB102	Needle Valve (1/4"NPT ports) To be used as shut-off valve for temporary holding. Same as VB66 but without auto overload relief design	 
BG9623	In-line Pressure Relief Valve Used with single or double acting cylinders for remote locations in a hydraulic circuit where maximum pressure requirements are less than basic overload setting in a pump.	 
PRV9633	In-line Pressure Regulator Valve Used for single or double acting cylinders to permit adjusting operating pressures at various values below relief valve setting of pump.	 

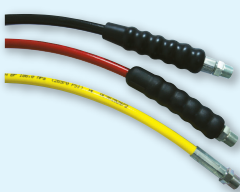
Max. Working Pressure - 700 bar / 10,000 psi

HOSES

- Heavy duty hoses rated at 700 bar, meet IJ-1000 specification as worldwide safety standards.
- Hoses are black rubber coated with two layers of steel braided reinforcement.
- Flexible hoses with spring guard at both ends to protect adaptors.

Description	Model No.	End One	End Two	Length		I/D	
				(feet)	(mtr)	(inch)	(mm)
Rubber Hoses 	HS225	1/4" NPT	1/4" NPT	5	1.5	1/4	6.4
	HS235	1/4" NPT	3/8" NPT	5	1.5	1/4	6.4
	HS226	1/4" NPT	1/4" NPT	6	1.8	1/4	6.4
	HS236	1/4" NPT	3/8" NPT	6	1.8	1/4	6.4
	HS332	3/8" NPT	3/8" NPT	2	0.6	1/4	6.4
	HS333	3/8" NPT	3/8" NPT	3	0.9	1/4	6.4
	HS335	3/8" NPT	3/8" NPT	5	1.5	1/4	6.4
	HS336	3/8" NPT	3/8" NPT	6	1.8	1/4	6.4
	HS337	3/8" NPT	3/8" NPT	7	2.1	1/4	6.4
	HS338	3/8" NPT	3/8" NPT	8	2.4	1/4	6.4
	HS3310	3/8" NPT	3/8" NPT	10	3.0	1/4	6.4
	HS3312	3/8" NPT	3/8" NPT	12	3.6	1/4	6.4
	HS3315	3/8" NPT	3/8" NPT	15	4.5	1/4	6.4
	HS3320	3/8" NPT	3/8" NPT	20	6.0	1/4	6.4

Rubber Hoses(High Flow) 	HFHS332	3/8" NPT	3/8" NPT	2	0.6	3/8	9.4
	HFHS333	3/8" NPT	3/8" NPT	3	0.9	3/8	9.4
	HFHS335	3/8" NPT	3/8" NPT	5	1.5	3/8	9.4
	HFHS336	3/8" NPT	3/8" NPT	6	1.8	3/8	9.4
	HFHS338	3/8" NPT	3/8" NPT	8	2.4	3/8	9.4
	HFHS3310	3/8" NPT	3/8" NPT	10	3.0	3/8	9.4

Polyurethane Hose 	PHS332	3/8" NPT	3/8" NPT	2	0.6	1/4	6.3
	PHS333	3/8" NPT	3/8" NPT	3	1.0	1/4	6.3
	PHS335	3/8" NPT	3/8" NPT	5	1.5	1/4	6.3
	PHS336	3/8" NPT	3/8" NPT	6	1.8	1/4	6.3
	PHS337B	3/8" NPT	3/8" NPT	7	2.1	1/4	6.3
	PHS338	3/8" NPT	3/8" NPT	8	2.4	1/4	6.3
	PHS3310	3/8" NPT	3/8" NPT	10	3.0	1/4	6.3
	PHS3312	3/8" NPT	3/8" NPT	12	3.6	1/4	6.3
	PHS3315	3/8" NPT	3/8" NPT	15	4.5	1/4	6.3
	PHS3320	3/8" NPT	3/8" NPT	20	6.0	1/4	6.3
	PHS3330	3/8" NPT	3/8" NPT	30	9.0	1/4	6.3

Polyurethane Hose (High Flow) 	HPHS332	3/8" NPT	3/8" NPT	2	0.6	3/8	9.7
	HPHS333	3/8" NPT	3/8" NPT	3	1.0	3/8	9.7
	HPHS335	3/8" NPT	3/8" NPT	5	1.5	3/8	9.7
	HPHS336	3/8" NPT	3/8" NPT	6	1.8	3/8	9.7
	HPHS338	3/8" NPT	3/8" NPT	8	2.4	3/8	9.7
	HPHS3310	3/8" NPT	3/8" NPT	10	3.0	3/8	9.7
	HPHS3312	3/8" NPT	3/8" NPT	12	3.6	3/8	9.7
	HPHS3315	3/8" NPT	3/8" NPT	15	4.5	3/8	9.7
	HPHS3320	3/8" NPT	3/8" NPT	20	6.0	3/8	9.7
	HPHS3330	3/8" NPT	3/8" NPT	30	9.0	3/8	9.7

ACCESSORIES

POWERRAM
HYDRAULIC TOOLS

Max. Working Pressure - 700 bar / 10,000 psi



COUPLERS

Image	Model No. (Set)	Specification	Model No.
	CP210	NEEDLE (Plastic caps for both ends) RAM HALF: 1/4 NPT HOSE HALF: 1/4 NPT	CP211 CP212
	CP230	NEEDLE (Metal cover for Ram half) RAM HALF: 1/4 NPT HOSE HALF: 1/4 NPT	CP231 CP232
	CP380	NEEDLE (Plastic caps for both ends) RAM HALF: 3/8 NPT HOSE HALF: 3/8 NPT	CP381 CP382
	CP330B	BALL (Plastic caps for both ends) RAM HALF: 3/8 NPT HOSE HALF: 3/8 NPT	CP331B CP332B
	CP350	NEEDLE (Metal cover for Ram half) RAM HALF: 3/8 NPT HOSE HALF: 3/8 NPT	CP351 CP352
	CP430	NO-SPILL RAM HALF: 3/8 NPT HOSE HALF: 3/8 NPT	CP431 CP432

HYDRAULIC OIL

- Used for 700 bar cylinders / hand pumps (transparent) and electric pumps (blue color).
- Contains anti-rust, anti-wear, anti-oxidant and anti-foaming additives.
- High quality hydraulic oil with low pour point.

Model No.	Specification
HO1L	ISO 15 Grade, 1L Package
HO2L	ISO 15 Grade, 2L Package
HO4L	ISO 15 Grade, 4L Package
HO5L	ISO 15 Grade, 5L Package

GAUGES

Description	Model No.	Specification
	M0039	Liquid filled dampens needle vibration. Calibrated to read in bar, psi. Dial - 2-1/2" ; Thread Size: 1/4NPT Accuracy, Meet DIN Standard $\pm 1.6\%$ of full scale.
	M0136	All Features same as M0039 Except with Dial - 100 mm.
	P1710	All Stainless Steel Pressure Gauge Vibration-free display & long service life by filling glycerin. Measuring ranges: 0~1600 bar & 0~4000 bar Dial: 100mm Thread: M16 x 1.5 Accuracy class 1.6, meet EN 837-1 standard.

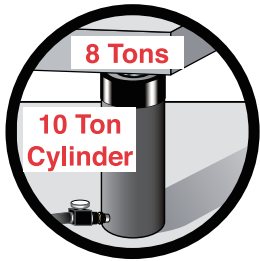
GAUGE ADAPTORS

Model No.	Dimensions (mm)
E0567	
E1336	
E1343	
E1745	
MA323	

SAFETY TIPS

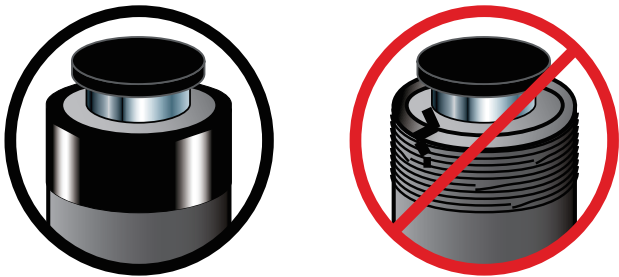
POWERRAM
HYDRAULIC TOOLS

1. Choose the right ram.



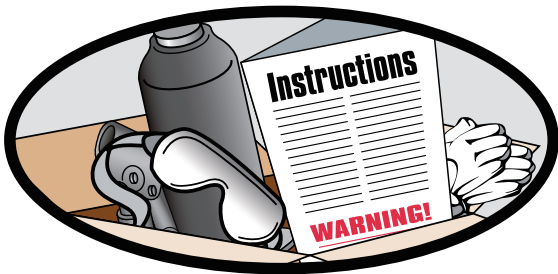
You must know the weight of what you intend to lift and choose a ram with at least 20% more capacity. Be aware of possible load shift requiring more capacity at the particular lifting point.

2. Check each components



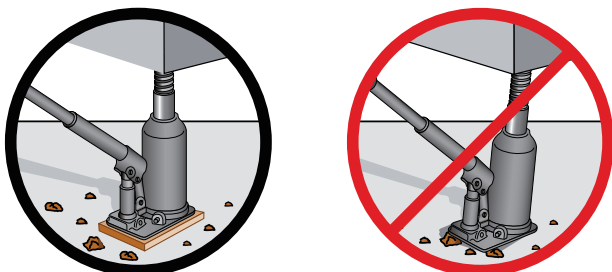
Check each component before you set up your hydraulic system. Do not use damaged or worn components. Turn them in for repair or replacement.

3. Safety instructions.



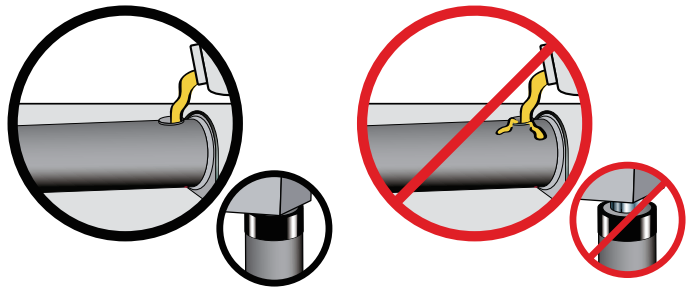
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn, or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.

4. Each jack or ram must be fully supported at the base.



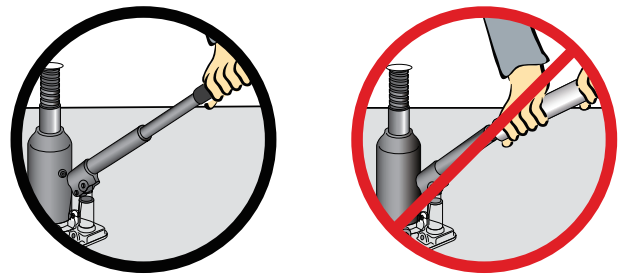
Every jack or ram, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.

5. Fill oil reservoirs with cylinder retracted.



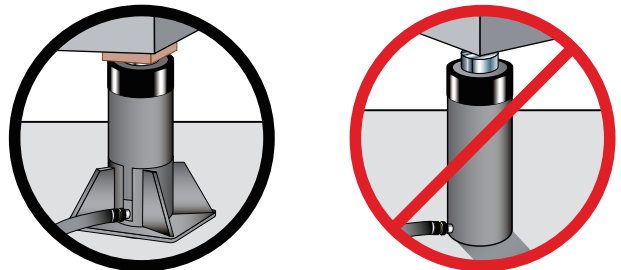
Only fill pump to recommended level, and fill only when the connected cylinder is fully retracted.

6. Know how your hydraulics work.



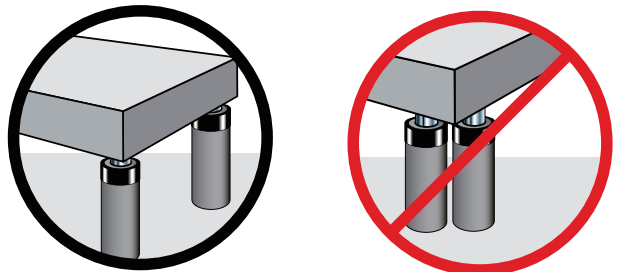
Do not use extensions or cheater bars on hydraulic jacks or hand pumps to raise a load.

7. Center the load on the lifting point.



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

8. When using multiple rams, distribute the load evenly.

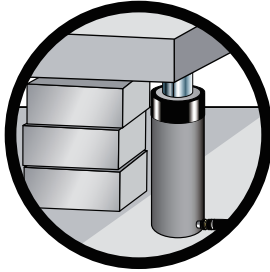


For multiple rams lift, you must be able to determine the location and number of lifting points that will allow the load to be evenly distributed to all the rams. This is called load balance. Size, center of gravity, and load geometry must be considered in order to correctly determine load balance.

SAFETY TIPS

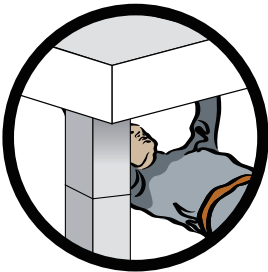
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9. Block or crib your load as it raises.



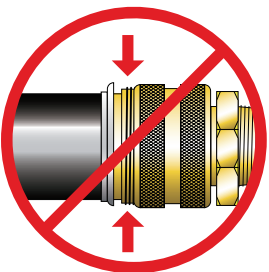
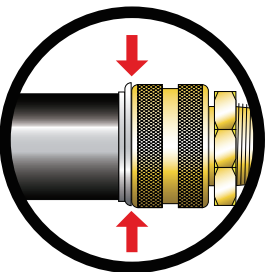
Place blocking or cribbing under the loads as you raise it. Each time you raise it higher, insert more blocking. Position yourself in a manner that will keep you clear of the load, and will not allow your hands or other body parts between the load and the cribbing.

10. Do not use rams as permanent supports.



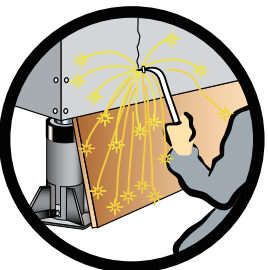
Hydraulic rams are not meant to be used as permanent supports, but are designed to lift and lower. If you need to hold the load for any length of time, cribbing or Powerram locknut cylinders should be used.

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.



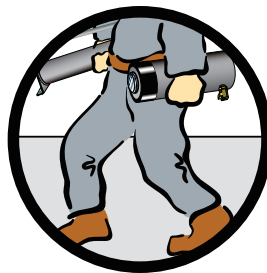
Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.

13. Disconnecting the hydraulics.



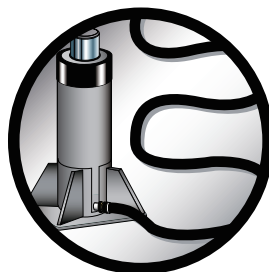
Never attempt to disconnect hydraulic hoses, fittings or couplers under pressure. Unload the ram, open the release screw on the hand pump and shift or open all hydraulic controls several times. If system includes a gauge, double check the gauge to insure pressure has been completely released.

14. Do not carry or drag pumps and rams by their hoses.



Dragging or carrying rams 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.

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HYDRAULIC TOOLS

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