



BVA[®]

HYDRAULICS



BUILT TO LAST

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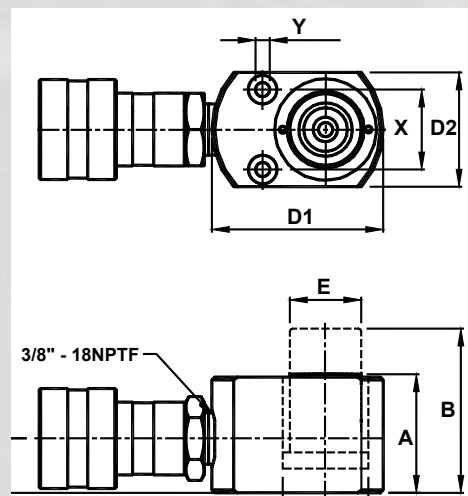
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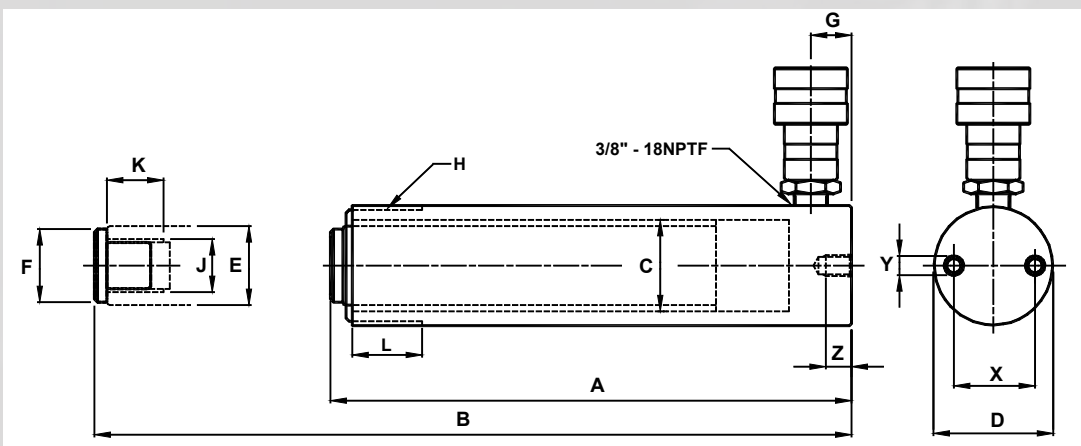
SINGLE ACTING CYLINDERS



- 40 Models
- Rod wiper seals out dirt and contamination
- Collar fixture threads
- Two base mounting holes on most models
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF couplers
- Collar thread protector
- One piece high grade alloy bearing for side load protection and long life
- Polyurethane cup seal provides for optimum performance
- Industrial hard chrome plated ram helps prevent rust and corrosion
- Solid steel cylinder body
- Heavy duty return spring provides quicker retraction
- Ideal for lifting and pressing
- Maximum working pressure: 10,000 psi / 700 bar

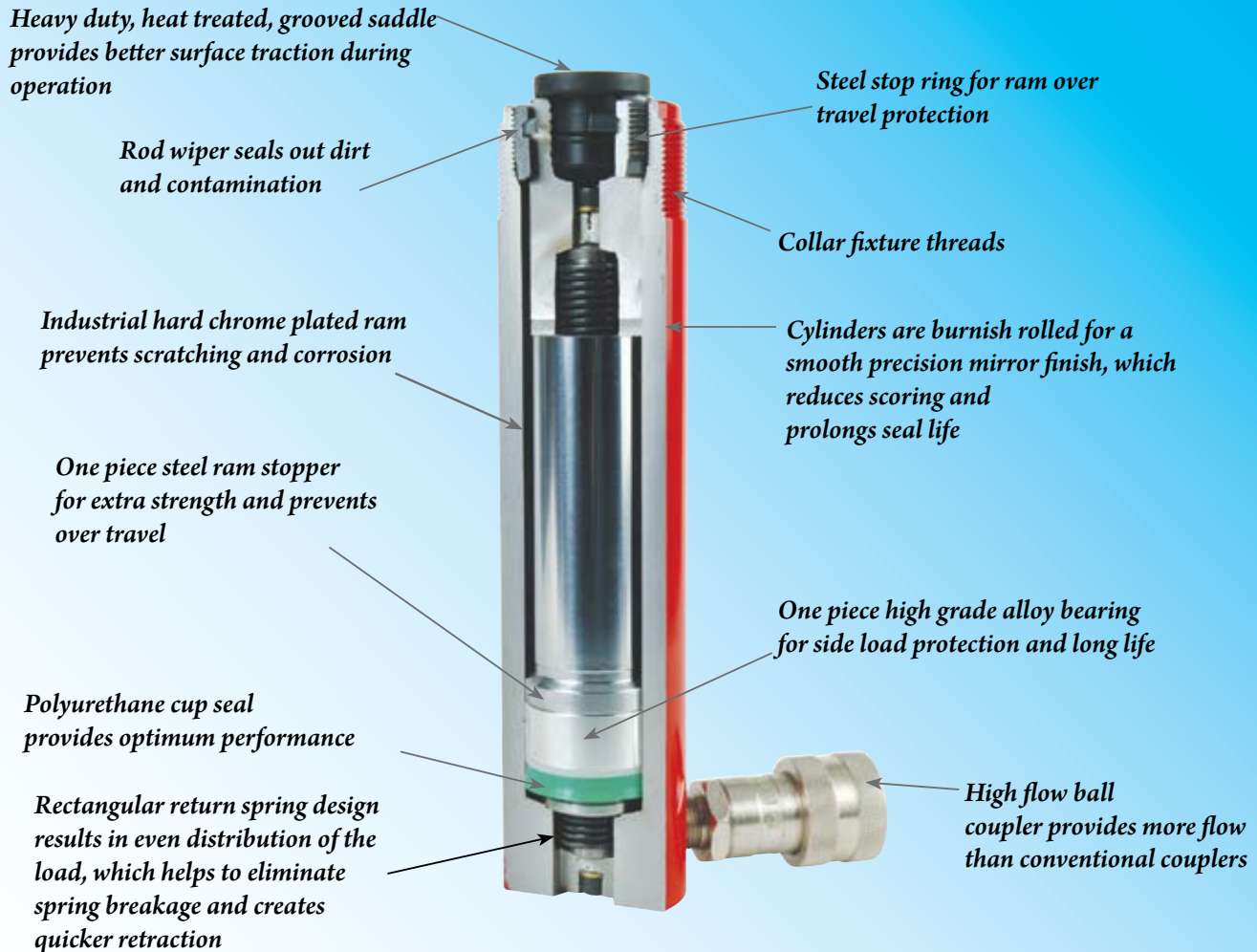


*H0500 only



CYLINDERS

The Difference



CYLINDERS

- **Limited Lifetime Warranty**
- **BVA Products Are Manufactured in Company Owned ISO9001 Factories**
- **All Cylinders Are Tested To Meet Industrial Standards**

SINGLE ACTING CYLINDERS

CYLINDERS

Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in²)	Internal Pressure at Capacity (psi)	Oil Capacity (in³)	Collapsed Height	Extended Height	Cylinder Bore Diameter	Outside Diameter	Plunger Diameter	Saddle Diameter
						A (in)	B (in)	C (in)	D (in)	E (in)	F (in)
5	0.63	H0500	1.10	9,091	0.69	1.61	2.24	1.18	2.36 x 1.58	0.98	N/A
	1.00	H0501	1.00	10,000	1.00	4.58	5.58	1.13	1.50	1.00	0.98
	3.07	H0503			3.07	6.65	9.72				
	5.08	H0505			5.08	8.70	13.78				
	7.09	H0507			7.09	10.71	17.80				
	9.09	H0509			9.09	12.72	21.81				
10	1.00	H1001	2.24	8,928	2.24	3.62	4.62	1.69	2.26	1.49	N/A
	2.01	H1002			4.50	4.84	6.85				1.38
	4.02	H1004			9.00	6.85	10.87				
	5.94	H1006			13.31	9.84	15.78				
	7.95	H1008			17.81	11.85	19.80				
	9.96	H1010			22.31	13.86	23.82				
	11.97	H1012			26.81	15.87	27.84				
	14.02	H1014			31.40	17.72	31.74				
15	0.99	H1501	3.14	9,554	3.11	4.88	5.87	2.00	2.75	1.63	1.50
	2.01	H1502			6.31	5.87	7.88				
	3.98	H1504			12.50	7.87	11.85				
	5.87	H1506			18.43	10.67	16.54				
	7.87	H1508			24.71	12.68	20.55				
	9.88	H1510			31.02	14.69	24.57				
	12.01	H1512			37.71	16.65	28.66				
	14.02	H1514			44.02	18.66	32.68				
25	1.02	H2501	5.14	9,728	5.24	5.84	6.86	2.56	3.35	2.24	1.97
	2.01	H2502			10.33	6.82	8.83				
	3.94	H2504			20.25	8.78	12.72				
	5.94	H2506			30.53	10.79	16.73				
	7.95	H2508			40.86	12.80	20.75				
	9.96	H2510			51.19	14.80	24.76				
	12.24	H2512			62.91	16.73	28.97				
	14.25	H2514			73.25	18.74	32.99				
30	8.27	H3008	6.49	9,245	53.67	15.24	23.51	2.87	4.00	2.24	2.13
55	2.01	H5502	10.99	10,009	22.09	6.93	8.94	3.74	5.00	3.15	2.76
	3.98	H5504			43.74	8.94	12.92				
	6.22	H5506			68.36	11.14	17.36				
	13.27	H5513			145.84	18.15	31.42				
75	6.14	H7506	16.10	9,317	98.85	11.22	17.36	4.53	5.79	3.74	2.76
	13.11	H7513			211.07	19.37	32.48				
100	2.01	H10002A	20.57	9,723	41.34	8.62	10.63	5.12	6.25	4.13	2.76
	6.61	H10006			135.97	14.06	20.67		6.97		
	10.24	H10010			210.64	17.68	27.92				

SINGLE ACTING CYLINDERS



Base to Inlet Port	Collar Thread	Collar Thread Length	Plunger Internal Thread	Plunger Thread Length	Base Mounting Hole			Weight (lbs)	Model Number
					Bolt Circle	Thread	Thread Depth		
G (in)	H (in)	L (in)	J (in)	K (in)	X (in)	Y (in)	Z (in)		
0.75	N/A	N/A	N/A	N/A	1.10	0.2	N/A	2.9	H0500
0.79	1-1/2"-16"	1.10	3/4"-16UNF	0.63	1.00	1/4"-20UNC	0.55	3.1	H0501
								3.5	H0503
								4.4	H0505
								4.9	H0507
								5.7	H0509
0.77	2-1/4"-14"	1.30	10-24UNC	0.24	1.56	5/16"-18UNC	0.55	4.0	H1001
			1"-8UNC	0.79		5/16"-18UNC		5.1	H1002
								6.8	H1004
								9.5	H1006
								11.9	H1008
								14.1	H1010
								15.0	H1012
								16.6	H1014
								0.98	2-3/4"-16"
8.6	H1502								
11.2	H1504								
15.4	H1506								
17.6	H1508								
20.5	H1510								
23.1	H1512								
28.2	H1514								
0.98	3-5/16"-12"	1.93	1-1/2"-16	1.18	2.31	1/2"-13UNC	0.75	13.5	H2501
								14.6	H2502
								19.2	H2504
								23.2	H2506
								27.1	H2508
								30.9	H2510
								33.7	H2512
								37.7	H2514
1.97	3-5/16"-12"	1.93	1-1/2"-16	1.18	N/A			40.8	H3008
1.22	5"-12"	2.17	N/A		3.75	1/2"-13UNC	0.75	34.2	H5502
								42.5	H5504
								57.5	H5506
								86.9	H5513
1.18	5 -3/4" - 12"	1.73	N/A					73.2	H7506
								121.3	H7513
1.57	6-1/4"-12"	2.24	N/A					69.4	H10002A
	6-7/8"-12"	1.73	N/A		5.50	3/4"-10UNC	1	121.3	H10006
								157.3	H10010

CYLINDERS



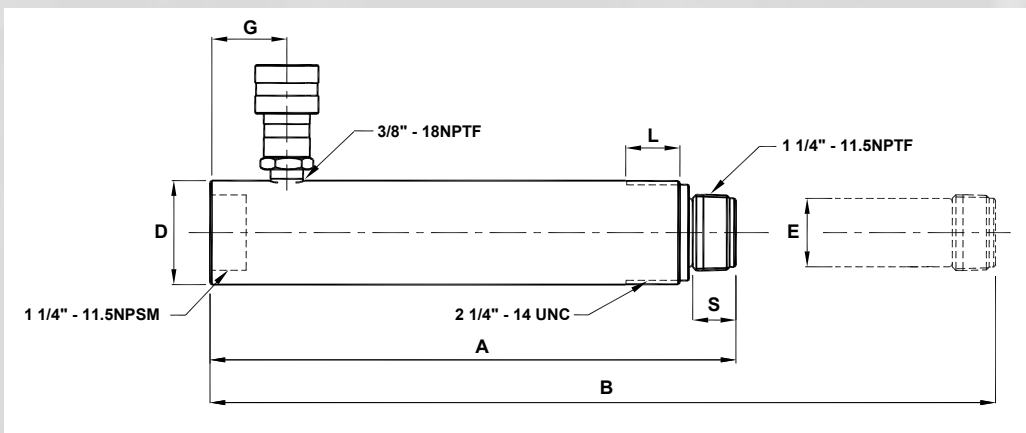
THREADED CYLINDERS



- High quality threaded single acting cylinders
- Removable threaded plunger adapter allows for the use of a variety of threaded attachments
- Used to attach accessories to rod end and base
- Maximum working pressure: 10,000 psi / 700 bar



Threaded base allows for easy installation of attachments and mounting applications



Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Internal Pressure at Capacity (psi)	Oil Capacity (in ³)	Collapsed Height	Extended Height	Outside Dia.	Plunger Dia.	Base to Inlet Port	Collar Thread Length	Saddle Height	Weight (lbs)
						A (in)	B (in)	D (in)	E (in)				
10	5.95	HT1006	2.24	8,928	13.33	11.46	17.41	2.26	1.49	1.67	1.13	0.94	10.6
	9.96	HT1010			22.30	15.47	25.43						14.1

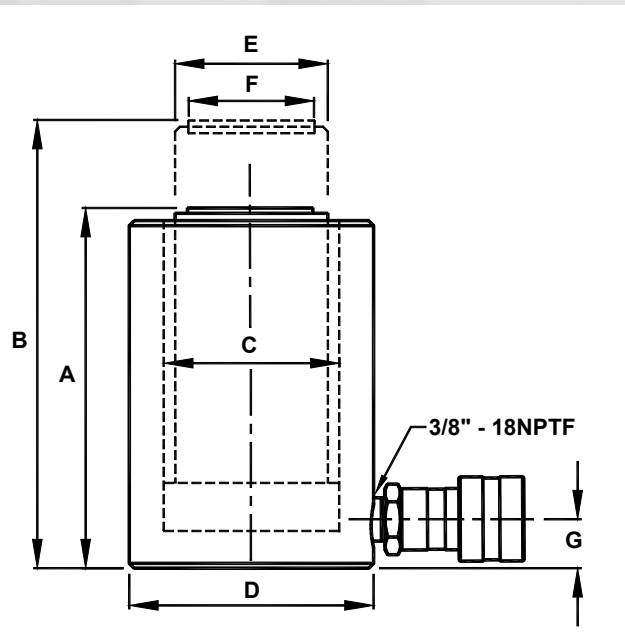
ALUMINUM CYLINDERS



- Lightweight aluminum alloy construction
- Up to 60 percent lighter than comparable tonnage steel rams
- Convenient carry handle
- Hard anodized aluminum piston rod provides extra protection against corrosion and wear
- Maximum working pressure:
10,000 psi / 700 bar



Lightweight, yet powerful



CYLINDERS

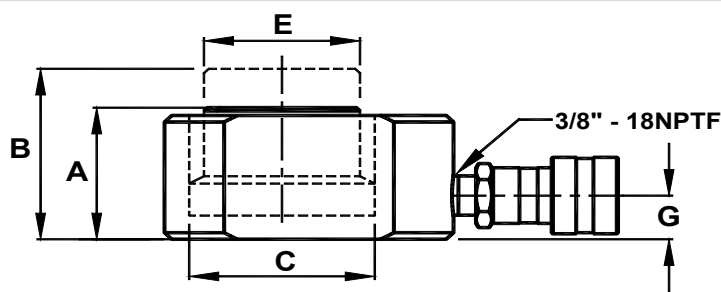
Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in²)	Internal Pressure at Capacity (psi)	Oil Capacity (in³)	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Weight (lbs)
						A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	
30	2.00	HU3002	6.50	9,231	13.00	6.50	8.50	2.90	4.50	2.50	2.00	1.5	11.0
	4.00	HU3004			26.00	8.50	12.50						14.0
	6.00	HU3006			39.00	10.50	16.50						17.0
50	2.00	HU5002	11.00	9,091	22.00	6.50	8.50	3.70	5.50	3.10	2.50		17.0
	4.00	HU5004			44.00	8.50	12.50						21.0
	6.00	HU5006			66.00	10.50	16.50						25.0
	10.00	HU5010			110.00	14.50	24.50						34.0
75	4.00	HU7504	15.00	10,000	60.00	8.50	12.50	4.40	6.50	3.90	3.00		29.0
	6.00	HU7506			90.00	10.50	16.50						35.0
100	2.00	HU10002	20.70	9,662	41.40	6.50	8.50	5.10	8.00	4.30	3.50		36.0
	4.00	HU10004			82.80	8.50	12.50						43.0
	6.00	HU10006			124.40	10.50	16.50						51.0
	10.00	HU10010			207.0	14.50	24.50						68.0



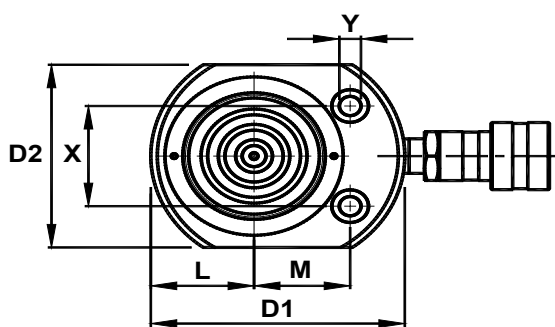
FLAT BODY CYLINDERS



- Made of high quality steel
- Extremely low collapsed height for applications with minimal clearance at the lift point
- Great for areas of low clearance
- Maximum working pressure 10,000 psi / 700 bar



Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Pressure at Capacity	Oil Capacity (in ³)	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dim.	Plunger Dia.	Base to Port	Plunger to Base	Plunger to Mtg. Hole
						A (in)	B (in)						
5	0.24	HF0503	1.10	9,090	0.26	1.26	1.50	1.18	2.4x1.6	0.98	0.69	0.80	0.87
10	0.43	HF1005	2.36	8,470	1.01	1.69	2.12	1.73	3.3x2.2	1.50	0.77	1.12	1.32
20	0.43	HF2005	4.38	9,130	1.88	2.01	2.44	2.36	4.0x3.0	2.00	0.75	1.54	1.56
30	0.51	HF3005	6.49	9,240	3.31	2.31	2.82	2.87	4.6x3.8	2.50	0.79	1.88	1.75
50	0.63	HF5006	9.86	10,140	6.21	2.64	3.27	3.54	4.5x4.5	2.76	0.79	2.25	2.13
75	0.63	HF7506	16.1	9,320	10.14	3.13	3.76	4.53	6.5x5.5	3.54	0.77	2.75	2.63
100	0.63	HF10006	19.64	10,180	12.37	3.37	4.00	5.00	7.0x6.0	3.54	0.79	3.00	2.94
150	0.63	HF15006	30.67	9,780	19.32	3.94	4.57	6.25	8.5x7.5	4.65	0.94	3.75	3.25

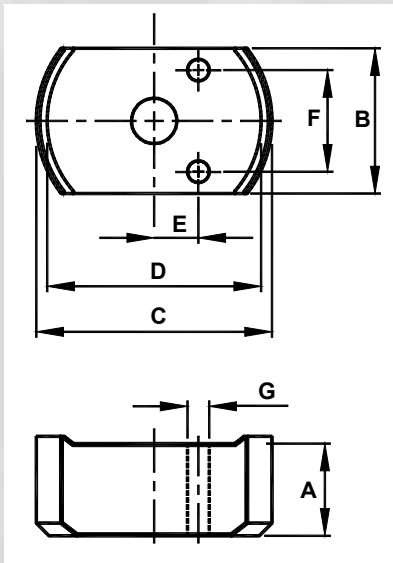


Model Number	Hole Pitch	Hole Dia	Counter Bore Dia. (in)	Counter Bore Depth (in)	Weight (lbs)
	X (in)	Y (in)			
HF0503	1.12	0.2	0.31	0.17	1.3
HF1005	1.44	0.28	0.42	0.31	3.3
HF2005	1.94	0.4	0.59	0.39	5.9
HF3005	2.06	0.4	0.63	0.44	9.7
HF5006	2.62	0.43	0.75	0.50	14.9
HF7506	3.00	0.51	0.83	0.56	25.4
HF10006	3.00	0.51	0.83	0.56	31.5
HF15006	4.62	0.51	0.83	0.56	53.4

FLAT BODY CYLINDER KITS



- Various height magnetic adapters
- Carrying case
- Perfect for low clearance areas needing a little height boost
- Maximum working pressure:
10,000 psi / 700 bar



CYLINDERS

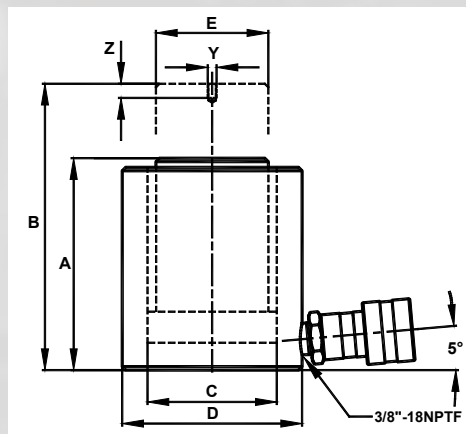
Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Model	Oil Capacity (in³)	Collapsed Height (in)	Adapter	Adapter Dimensions							Weight (lbs)
							A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	
5	0.24	HF0503B	HF0503	0.26	1.26	I	0.25	1.61	2.56	2.32	0.48	1.10	0.24	5.5
						II	0.5							
						III	1							
						IV	1.25							
10	0.43	HF1005B	HF1005	1.02	1.69	I	0.39	2.20	3.54	3.23	0.81	1.46	0.28	9.2
						II	0.79				N/A			
						III	1.57							
20	0.43	HF2005B	HF2005	1.90	2.01	I	0.39	2.99	4.25	3.94	1.08	1.93	0.39	15.0
						II	0.79				N/A			
						III	1.57							
30	0.51	HF3005B	HF3005	3.32	2.31	I	0.39	3.75	4.76	4.45	1.32	2.06	0.39	21.0
						II	0.79				N/A			
						III	1.57							

LOW PROFILE CYLINDERS

CYLINDERS

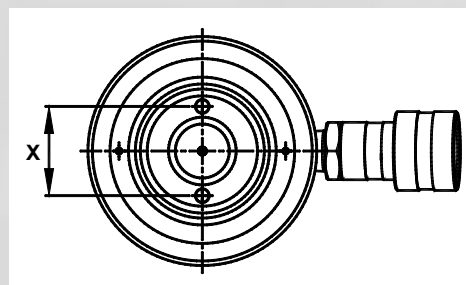


- Compact design for use in confined spaces
- Rod wiper helps seal out dirt and contamination
- Specially designed return spring ensures a quick retraction and extends the life of the spring
- Industrial hard chrome plated ram helps prevent scratching and corrosion
- Plunger end is grooved to reduce load slippage
- Includes high flow ball coupler and dust cap
- HL1001, HL2002, and HL3002 coupler is tilted upward for added clearance
- Maximum working pressure:
10,000 psi / 700 bar



Low profile cylinders are great for confined spaces

Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Internal Pressure at Capacity (psi)	Oil Capacity (in ³)	Collapsed Height	Extended Height	Cylinder Bore Diameter	Outside Diameter	Plunger Diameter
						A (in)	B (in)	C (in)	D (in)	E (in)
10	1.50	HL1001	2.35	8,511	3.53	3.48	4.98	1.73	2.75	1.50
20	1.75	HL2002	4.37	9,153	7.65	3.90	5.65	2.36	3.63	2.00
30	2.44	HL3002	6.49	9,245	15.84	4.61	7.05	2.87	4.00	2.50
50	2.36	HL5002	9.87	10,132	23.29	4.8	7.17	3.54	4.88	2.76
100	2.24	HL10002	19.64	10,183	44.07	5.55	7.8	5.00	6.5	3.54

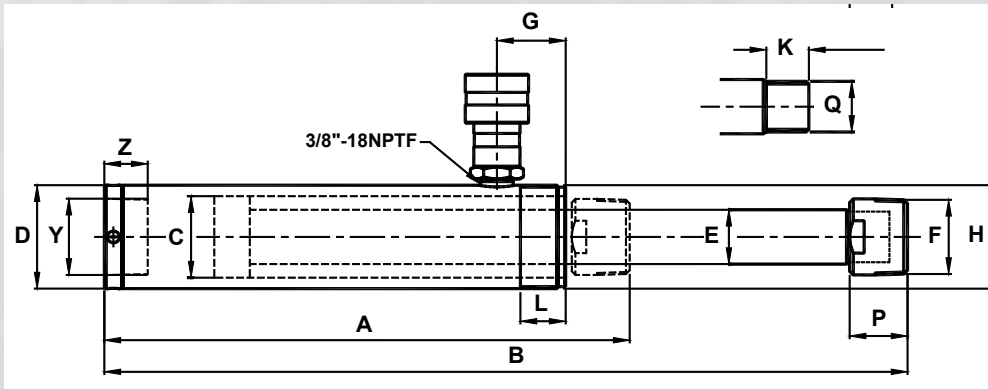


Model Number	Plunger Mounting			Weight (lbs)
	Bolt Circle	Thread	Thread Depth	
	X (in)	Y (mm)	Z (in)	
HL1001	1.03	M4	0.32	5.7
HL2002	1.56	M4		11.0
HL3002	1.56	M5		15.0
HL5002	1.56	M5		21.8
HL10002	2.19	M8	0.1	45.4





- High strength steel construction
- One piece high grade alloy bearing for side load protection and longer life
- Polyurethane cup seal helps provide for optimum performance
- External plunger threads
- Internal base threads
- Used for pulling and tensioning
- Maximum working pressure: 10,000 psi / 700 bar



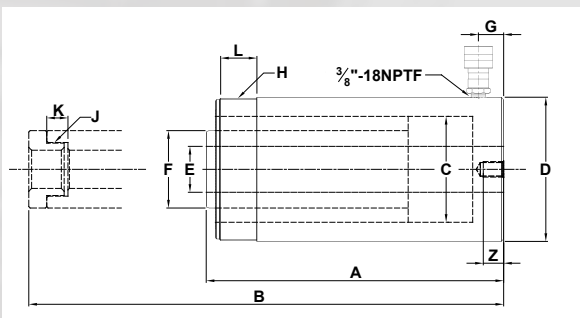
Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Internal Pressure at Capacity (psi)	Oil Capacity (in ³)	Collapsed Height	Extended Height	Outside Diameter	Cylinder Bore Diameter	Top to Inlet Port	Collar	
						A (in)	B (in)				Thread	Thread Length
2.5	5.00	HP0205	0.56	8,929	2.78	10.55	15.55	1.89	1.13	1.65	1-1/2\"-16	0.98
5	5.55	HP0505	1.14	8,772	6.34	11.93	17.48	2.25	1.69	1.50	2-1/4\"-14	1.00
10	5.95	HP1006	2.44	8,197	14.48	11.75	17.70	3.35	2.17	1.50	M85x2	1.00

Model Number	Adapter		Plunger			Base Mounting Hole		Weight (lbs)
	Thread	Length	Dia.	Thread Length	Thread	Thread	Depth	
	F (in)	P (in)	E (in)	K (in)	Q (mm)	Y	Z (in)	
HP0205	3/4\"-14NPTF	1.13	0.75	0.76	M16 x 1.5	3/4\"-14NPTF	0.72	6.4
HP0505	1-1/4\"-11.5NPTF	1.25	1.18	0.93	M28 x 1.5	1 1/4\"-11.5NPTF	0.95	9.3
HP1006	-	-	1.26	1.02	M30 x 2	M30x2	0.98	20.9

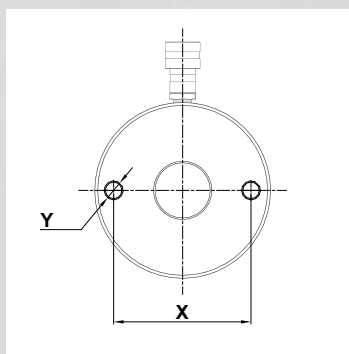
HOLLOW HOLE CYLINDERS



- Minimum leak risk
- Ideal for pulling and pushing applications
- Heavy duty compression spring
- Dual wipers help prevent contamination
- Collar thread protector
- High flow coupler with dust cap
- XT cylinders do not come with plunger internal threads



Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in ²)	Internal Pressure at Capacity (psi)	Oil Cap. (in ³)	Min. Height	Max. Height	O.D.	Plunger			
						A (in)	B (in)		I.D.	O.D.	Internal Thread	Internal Thread Length
12	0.31	HC1201T	2.91	8,236	0.89	2.36	2.67	2.756	0.768	1.38	3/4\"-16UN	0.63
	1.61	HC1202T			4.70	4.74	6.36					
	1.61	HC1202XT			4.70	4.74	6.36				-	-
	2.99	HC1203XT			8.72	7.24	10.24					
20	2.01	HC2002T	4.90	8,167	9.83	6.38	8.39	3.92	1.063	2.15	1-9/16\"-16UN	0.75
	6.06	HC2006T			29.70	12.05	18.11					
30	2.52	HC3002T	6.32	9,488	15.93	7.05	9.57	4.50	1.311	2.48	1-13/16\"-16UN	0.87
	6.11	HC3006T			38.67	13.02	19.13					
60	3.00	HC6003T	13.05	9,195	39.10	9.77	12.77	6.252	2.126	3.66	2-3/4\"-16UN	0.75
	6.00	HC6006T			78.25	12.76	18.76					
100	3.00	HC10003T	22.13	9,036	66.31	10.00	13.00	8.386	3.110	4.92	4\"-16UN	0.98

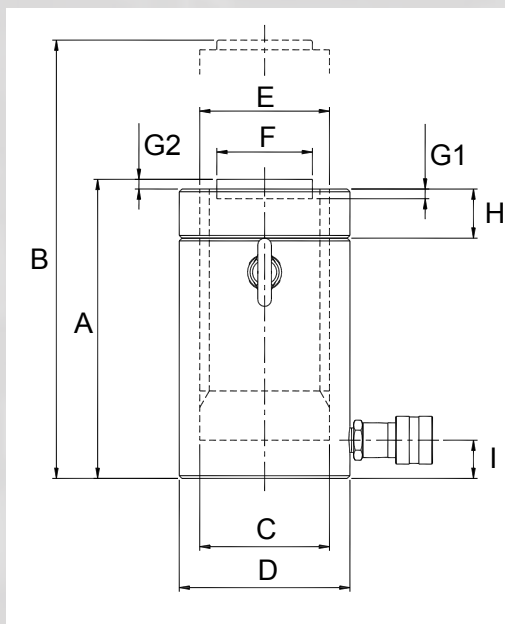


Model Number	Collar Thread		Base to Inlet Port	Base Mounting Hole			Weight (lbs)
	Dia.	Lgth.		Bolt Circle	Thread	Thread Depth	
	H (in)	L (in)		X (in)	Y (in)	Z (in)	
HC1201T	2-3/4\"-16	1.181	0.571	2.00	5/16\"-18UNC	0.35	3.3
HC1202T			0.591				6.2
HC1202XT			0.591				6.2
HC1203XT			0.748				8.6
HC2002T	3-7/8\"-12	1.50	0.75	3.25	3/8\"-16UNC	0.37	15.9
HC2006T							29.5
HC3002T	4-1/2\"-12	1.661	0.906	3.622	3/8\"-16UNC	0.55	22.9
HC3006T							43.0
HC6003T	6-1/4\"-12	1.909	1.06	5.12	1/2\"-13UNC	0.55	65.7
HC6006T							81.1
HC10003T	8-3/8\"-12	2.38	1.06	7.01	5/8\"-11UNC	0.75	113.3



- Single acting cylinder with mechanical safety lock nut
- Designed to support load for extended periods without hydraulic pressure.
- Overflow port prevents cylinders from over travel
- Load return
- Solid steel cylinder body
- Ideal for lifting and holding loads
- Maximum working pressure:
10,000 psi / 700 bar

Cylinder Capacity (tons)	Stroke (in)	Model Number	Cylinder Effective Area (in²)	Oil Capacity (in³)	Collapsed Height	Extended Height	Cylinder Bore Diameter	Outside Diameter	Plunger Outside Thread
					A (in)	B (in)			C (in)
55	1.97	HLN5502	10.99	21.65	6.5	8.4	3.7	4.9	Tw95-6N
	3.94	HLN5504		43.27	8.4	12.4			
	5.91	HLN5506		64.90	10.4	16.3			
	7.87	HLN5508		86.54	12.4	20.2			
	9.84	HLN5510		108.17	14.3	24.2			
	11.81	HLN5512		129.80	16.3	28.1			
100	1.97	HLN10002	20.57	40.49	7.4	9.3	5.1	6.5	Tw130-4N
	3.94	HLN10004		80.98	9.3	13.3			
	5.91	HLN10006		121.48	11.3	17.2			
	7.87	HLN10008		161.97	13.3	21.1			
	9.84	HLN10010		202.46	15.2	25.1			
	11.81	HLN10012		242.95	17.2	29.0			

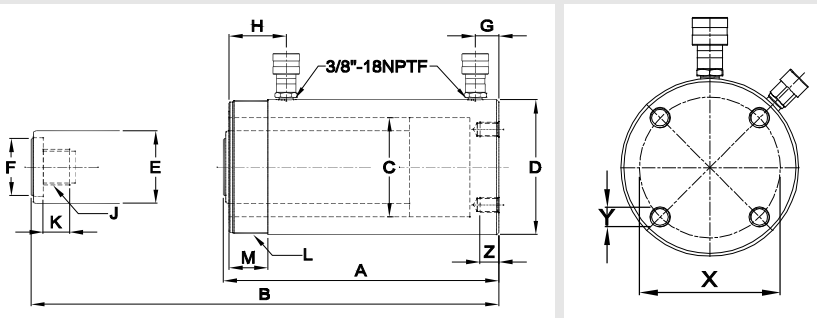


Model Number	Saddle Diameter	Depth of Plunger Hole	Saddle Potrusion From Plunger	Lock Nut Length	Base to Inlet Port	Weight (lbs)	
	F (in)	G1 (in)	G2 (in)	H (in)	I (in)		
HLN5502	2.8	0.08	0.51	1.4	1.1	34.0	
HLN5504						44.5	
HLN5506						55.1	
HLN5508						65.9	
HLN5510						76.5	
HLN5512						87.1	
HLN10002				1.8		67.2	
HLN10004						85.8	
HLN10006						104.3	
HLN10008						122.6	
HLN10010						141.1	
HLN10012						159.6	

DOUBLE ACTING CYLINDERS



- Rod wiper seals out dirt and contamination
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF couplers
- One piece high grade alloy bearing for side load protection and long life
- Ideal for pushing and pulling
- Maximum working pressure:
10,000 psi / 700 bar



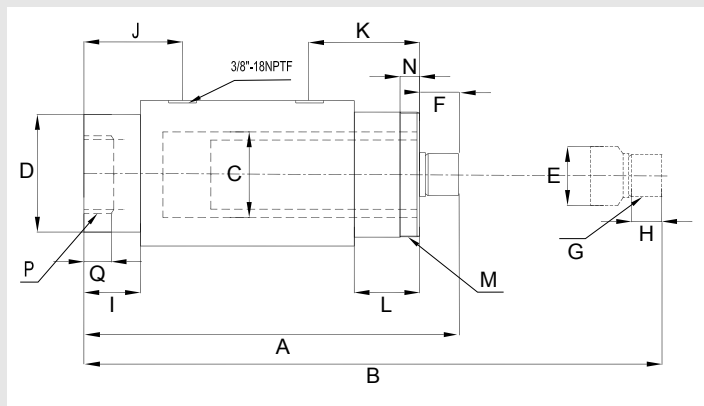
Cylinder Capacity (tons)	Stroke (in)	Model Number	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.
			Push (ton)	Pull (ton)	Push (in²)	Pull (in²)	Push (in³)	Pull (in)	A (in)	B (in)	C (in)	D (in)
10	10.04	HD1010	11.4	3.8	2.23	0.74	22.41	7.47	16.14	26.18	1.69	2.87
	11.97	HD1012					26.71	8.90	18.03	30.00		
30	8.15	HD3008	32.9	16.2	6.49	3.19	52.93	26.02	15.31	23.46	2.87	3.98
	14.49	HD3014					94.09	46.26	21.65	36.14		
55	6.18	HD5506	55.7	16.2	10.99	3.19	67.93	19.74	13.03	19.21	3.74	5.00
	13.19	HD5513					144.94	42.11	20.04	33.23		
	20.12	HD5520					221.09	64.24	28.86	49.98		
75	6.10	HD7506	81.7	25.9	16.09	5.12	98.1	31.21	13.70	19.80	4.53	5.75
	13.11	HD7513					210.93	67.06	20.71	33.82		
100	6.57	HD10006	104.4	48.6	20.57	9.58	135.23	62.98	14.06	20.63	5.12	6.97
	13.11	HD10013					269.66	125.58	20.63	33.74		
	18.15	HD10018					373.31	173.86	27.05	45.20		

Model Number	Plunger Dia.	Saddle Dia.	Base to Adv. Port	Top to Return Port	Plunger Internal Thread	Plunger Thread Length	Collar Thread	Collar Thread Length	Base Mounting Hole			Weight (lbs)
									Bolt Circle	Thread	Thread Depth	
	E (in)	F (in)	G (in)	H (in)	J (in)	K (in)	L (in)	M (in)	X (in)	Y (in)	Z (in)	
HD1010	1.37	1.38	1.42	2.09	1"-8	0.98	2-1/4"-14	1.02	N/A			26.7
HD1012												30.0
HD3008	2.13	1.97	1.65	2.91	1-1/2"-16	0.98	3-5/16"-12	1.93	N/A			43.0
HD3014												60.6
HD5506	3.14	2.76	1.14	2.87	1"-12	0.98	5"-12	1.73	N/A			70.5
HD5513												104.0
HD5520			2.48									146.2
HD7506	3.75	2.76	1.18	2.80	1"-12"	1.50	5-3/4"-12	1.50	N/A			93.7
HD7513												136.8
HD10006	3.75	2.95	1.22	2.95	1-3/4"-12	1.38	6-7/8"-12	1.97	5.47	3/4"-10	0.98	138.6
HD10013												193.6
HD10018			1.50									248.3

PRECISION DOUBLE ACTING CYLINDERS



- Provides hydraulic power on both advance and retract
- Designed for high cycling in production applications
- High strength steel construction from gun drilled solid bar
- Rod wiper seals keep dirt and contamination out
- Clevis eye attachments are available
- Maximum working pressure:
10,000 psi / 700 bar



Cylinder Capacity (tons)	Model Number	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Push Effective Area (in ²)	Pull Effective Area (in ²)	Plunger			
								Dia.	Protrusion	Thread	Thread Length
		A (in)	B (in)	C (in)	D (in)			E (in)	F (in)	G (in)	H (in)
9	HPD0906	13.78	19.88	1.50	2.52	1.77	1.01	0.98	0.98	3/4\"-16	0.75
	HPD0910	17.80	27.91								
16	HPD1606	15.31	21.57	2.00	2.99	3.14	1.56	1.42	1.16	1-1/8\"-12	0.98
	HPD1610	19.29	29.53								

Model Number	Base to Adv. Port	Top to Return Port	Collar					Weight (lbs)
			Length	Thread	Thread Length	Int. Base Thread	Int. Base Thread Length	
	J (in)	K (in)	L (in)	M (in)	N (in)	P (in)	Q (in)	
HPD0906	1.50	2.20	1.50	2\"-12	0.60	1-11/16\"-18	1.37	14.6
HPD0910								18.5
HPD1606	2.12	2.87	2.12	2-5/8\"-16	0.98	2-3/16\"-16	1.61	22.0
HPD1610								28.2



CYLINDERS

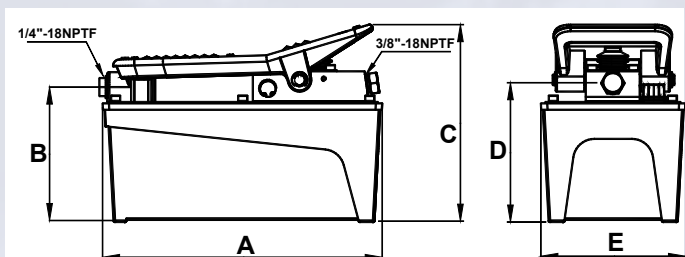
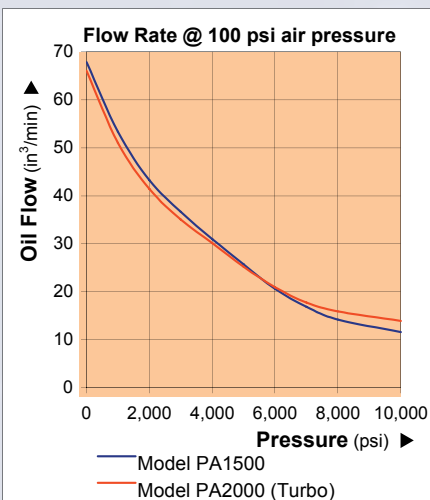
Metal Air Pumps



- High strength reinforced alloy reservoir is lightweight and corrosion resistant
- Pressure relief valve for overload protection
- Suggested air pressure range: 110-175psi. / 7.5-12 bar
- Dust cover protection for the release control valve
- PA2000 offers a turbo function that features high flow at high pressure condition
- Maximum working pressure: 10,000 psi / 700 bar



Air pumps can be used in a variety of industrial settings



Used with Cylinder	Usable Oil Capacity (in³)	Model Number	Pressure Rating (psi)	Oil Output Flow Rate (in³/min)		Input Air Pressure Range (psi)	Dimensions (in)					Weight (lbs)
				No Load	Load		A	B	C	D	E	
Single Acting	91.5	PA1500	10,000	66	11	110-175	10.35	5.00	7.28	5.16	5.35	18.1
	122.1	PA2000		65	12		11.57	6.02	7.91	6.18	5.98	20.1
	231.9	PA3801		65	11		12.64	5.08	7.36	5.24	7.36	27.1
	460.6	PA7550		65	11		12.64	5.39	8.31	6.14	8.43	36.0

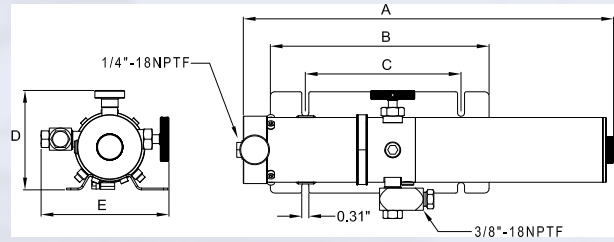
All Position Air Pumps

PA600



- Pump can work in any position
- Mounting plate allows for the pump to be securely fastened
- Hydraulic port swivels for easy connection

Hand Operated

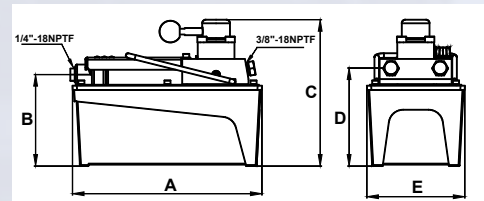


Used with Cylinder	Usable Oil Capacity (in ³)	Model Number	Pressure Rating (psi)	Oil Output Flow Rate (in ³ /min)		Input Air Pressure Range (psi)	Dimensions (in)					Weight (lbs)
				No Load	Load		A	B	C	D	E	
Single Acting	36.6	PA600	10,000	61	9	110-175	16.77	9.84	7.01	6.18	5.59	14.1
		PA600H								4.49	5.75	12.5

Double Acting Air Pump



- PA1500M offers a 4-way control valve for operation of double acting cylinders

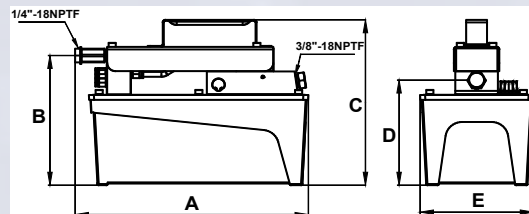


Used with Cylinder	Usable Oil Capacity (in ³)	Model Number	Pressure Rating (psi)	Oil Output Flow Rate (in ³ /min)		Input Air Pressure Range (psi)	Dimensions (in)					Weight (lbs)
				No Load	Load		A	B	C	D	E	
Double Acting	91.5	PA1500M	10,000	66	11	110-175	10.51	5.00	7.99	5.35	5.35	19.1

Remote Control Air Pumps



- 10 foot hand held remote allows user to operate the air pump from a safe distance
- Air pump comes with convenient carry handle

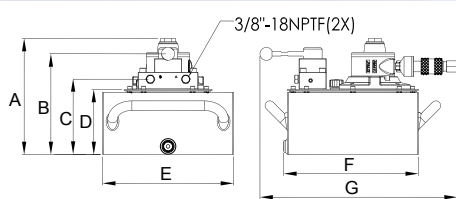


Used with Cylinder	Usable Oil Capacity (in ³)	Model Number	Pressure Rating (psi)	Oil Output Flow Rate (in ³ /min)		Input Air Pressure Range (psi)	Dimensions (in)					Weight (lbs)
				No Load	Load		A	B	C	D	E	
Single Acting	91.5	PA1500L	10,000	61	10	110-175	10.98	6.30	8.03	5.12	5.35	19.4
	231.9	PA3801L		61	10		12.64	6.42	8.15	5.20	7.36	30.4

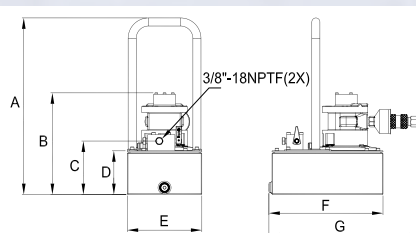
Rotary Air Pumps



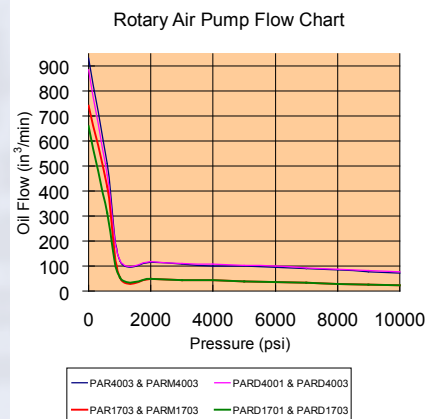
- Two speed operation for fast cylinder advance and improved productivity
- Models available with auto return valve
- Internal relief valves for overload protection



PAR1703, PARD1703



PAR4003, PARD4003



Used with Cylinder	Motor Size (hp)	Usable Oil Capacity (gal)	Model Number	Pressure Rating (psi)	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Dynamic air pressure range (psi)		
					1st Stage (psi)	2nd Stage (psi)	1st Stage (in³/min)	2nd Stage (in³/min)					
Single Acting	1.7	1	PARD1701	10,000	700	10,000	313	22	Dump	*Advance/Return	60 ~ 80		
		3	PARD1703										
		3	PAR1703				417	22	Manual PW3	Advance/ Hold/ Return			
	4	1	PARD4001				465	70	Dump	*Advance/Return	60 ~ 100		
		3	PARD4003										
		3	PAR4003				512	70	Manual PW3	Advance/ Hold/ Return			
Double Acting	1.7	3	PARM1703						417	22	Manual PW4	Advance/ Hold/ Return	60 ~ 80
	4	3	PARM4003						512	70	Manual PW4	Advance/ Hold/ Return	60 ~ 100

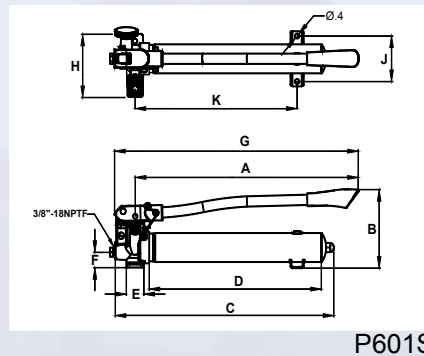
Model Number	Air Consumption (cfm)	Sound Level (dBA)	Dimensions (in)							Weight (lbs)
			A	B	C	D	E	F	G	
PARD1701	44	93	19.10	9.39	5.79	4.72	8.07	12.34	15.90	42
PARD1703	44	93	-	11.95	8.35	7.28	12.01	12.34	17.96	54
PAR1703	44	93	11.94	10.53	8.21	7.28	12.01	12.34	18.08	55
PARD4001	95	100	19.10	11	5.79	4.72	8.07	12.34	16.34	54
PARD4003	95	100	-	13.56	8.35	7.28	12.01	12.34	18.4	66
PAR4003	95	100	13.55	10.53	8.21	7.28	12.01	12.34	18.52	67
PARM1703	44	93	11.94	10.53	8.21	7.28	12.01	12.34	18.08	55
PARM4003	95	100	13.55	10.53	8.21	7.28	12.1	12.34	18.52	67

* holds pressure in advance position when motor is off

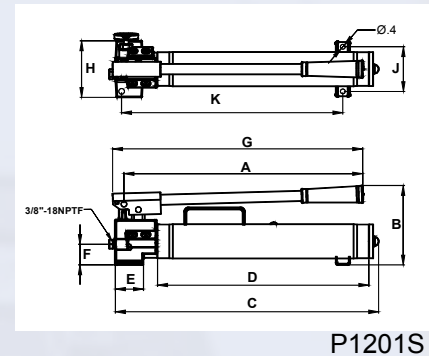
Single Speed Hand Pumps



- All metal reservoirs resist cracks and leaks
- Internal pressure relief valve for overload protection



P601S



P1201S

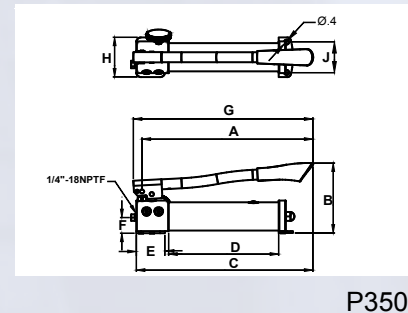
Model Number	Dimensions (in)									
	A	B	C	D	E	F	G	H	J	K
P601S	18.94	6.46	19.53	15.35	1.57	1.26	20.79	5.20	3.74	14.45
P1201S	19.75	6.64	21.95	16.63	2.36	1.73	20.71	4.72	3.74	18.27

Used with Cylinder	Pump Type	Usable Oil Capacity (in³)	Model Number	Pressure Rating (psi)	Oil Displacement per Stroke	Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port	Weight (lbs)
Single Acting	Single Speed	36.5	P601S	10,000	0.15	109	0.79	3/8"-18NPTF	13.0
		67.0	P1201S		0.13	132	0.82		20.0

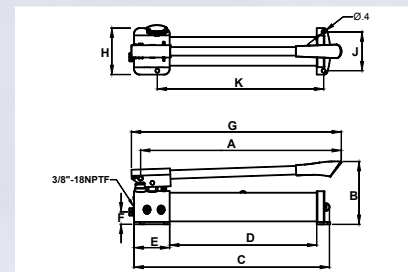
Two Speed Aluminum Hand Pumps



- Lightweight aluminum alloy for easy handling
- Two speed operation increases productivity and reduces user fatigue
- Internal pressure relief valve for overload protection



P350



P1000

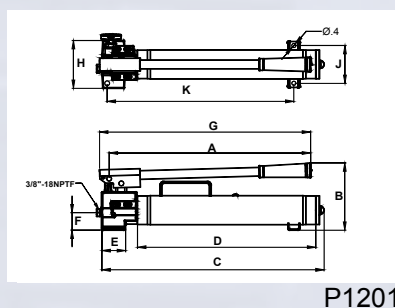
Model Number	Dimensions (in)									
	A	B	C	D	E	F	G	H	J	K
P350	13.43	5.91	13.89	9.09	2.36	1.34	14.13	3.35	2.56	-
P1000	19.69	6.38	19.88	14.96	3.62	1.26	20.63	4.72	3.94	16.93

Used with Cylinder	Pump Type	Usable Oil Capacity (in³)	Model Number	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port	Weight (lbs)
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in³)	2nd Stage (in³)				
Single Acting	Two Speed	21.4	P350	200	10,000	0.18	0.05	88	0.38	1/4"-18NPTF	6.6
		61.0	P1000			0.81	0.14	132	0.82	3/8"-18NPTF	13.2

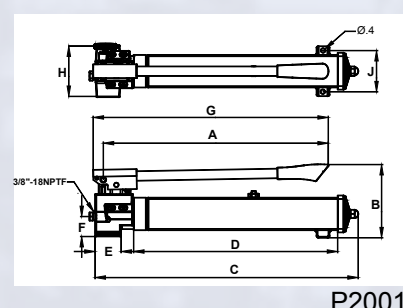
Two Speed Hand Pumps



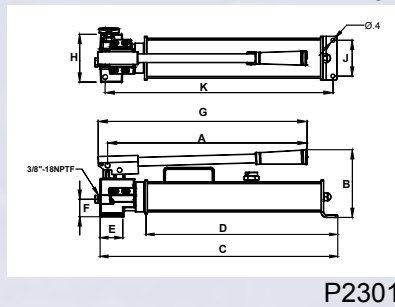
- All metal reservoirs resist cracks and leaks
- Two speed operation increases productivity and reduces user fatigue
- Internal pressure relief valve for over load protection
- Load release valve for single acting cylinder usage
- Large oil capacity to power a wide range of cylinders and tools



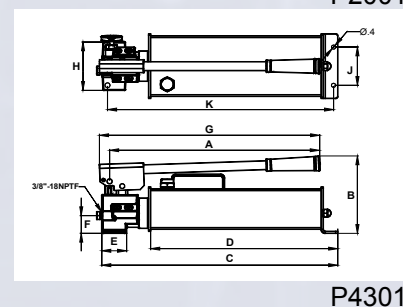
P1201



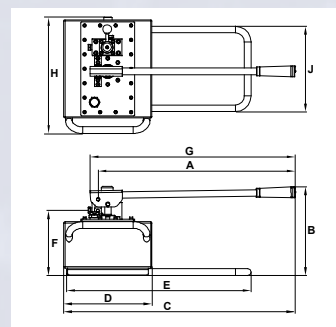
P2001



P2301



P4301



P8701

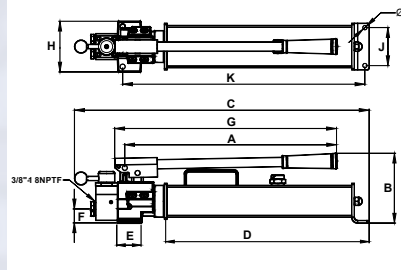
Model Number	Dimensions (in)									
	A	B	C	D	E	F	G	H	J	K
P1201	19.75	6.64	21.95	16.63	2.36	1.73	20.71	4.72	3.74	18.27
P2001	19.75	6.54	23.86	18.54	2.36	2.01	20.71	4.82	2.56	-
P2301	19.75	6.64	23.69	18.37	2.36	1.73	20.71	4.72	3.54	22.56
P4301	19.91	7.56	22.62	17.30	2.36	1.73	20.87	4.72	3.74	21.46
P8701	25.79	11.61	30.35	11.54	24.17	8.25	26.94	15.24	11.18	-

Used with Cylinder	Pump Type	Usable Oil Capacity (in ³)	Model Number	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port	Weight (lbs)
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in ³)	2nd Stage (in ³)				
Single Acting	Two Speed	67.0	P1201	200	10,000	0.81	0.14	132	0.82	3/8"-18NPTF	20.3
		122.0	P2001								20.9
		128.0	P2301								27.5
		250.0	P4301								32.2
		476.0	P8701	290		7.71	0.29	143	1.69		90.8

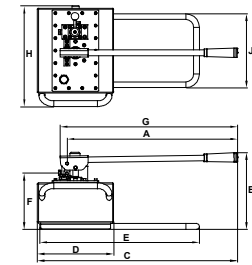
Double Acting Hand Pumps



- A 4-way control valve for operation of double acting cylinders
- Large oil capacities to power a wide range of cylinders and tools
- Two speed operation increases productivity and reduces user fatigue



P2301M



P8701M

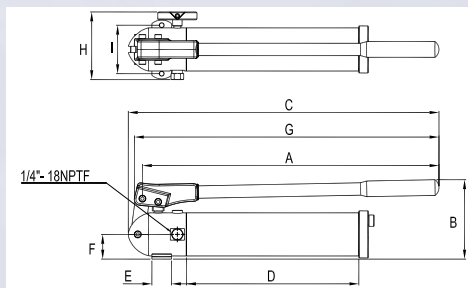
Used with Cylinder	Pump Type	Usable Oil Capacity (in³)	Model Number	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port	Weight (lbs)
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in³)	2nd Stage (in³)				
Double Acting	Two Speed	128.0	P2301M	200	10,000	0.81	0.14	132	0.82	3/8"-18NPTF	32.2
		476.0	P8701M	290		7.31	0.29	143	1.67		77.4

Model Number	Dimensions (in)									
	A	B	C	D	E	F	G	H	J	K
P2301M	19.75	6.64	23.69	18.37	2.36	1.73	20.71	4.72	3.54	22.56
P8701M	25.79	11.61	30.35	11.54	24.17	8.25	26.94	15.24	11.18	-

Low Pressure Hand Pump



- Lightweight and portable for use with punch drivers
- Rugged steel pump with chrome handle
- Single speed
- Mounting bracket for easy, permanent mounting
- Maximum working pressure 7,200 psi

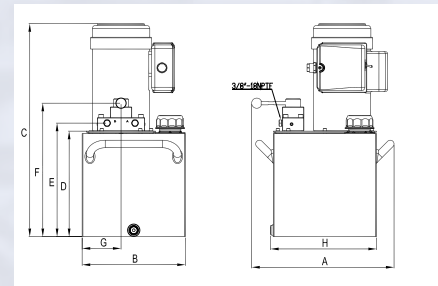
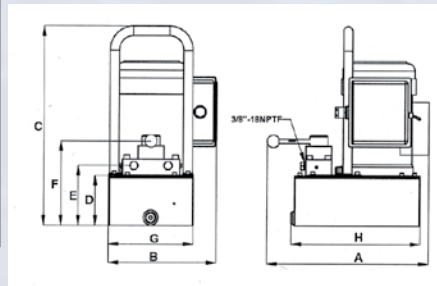


Used with Cylinder	Pump Type	Usable Oil Capacity (in³)	Model Number	Pressure Rating (psi.)	Oil Displacement per Stroke (in³)	Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port	Weight (lbs)
Single Acting	Low Pressure Single Speed	14.7	P240L	7,200	0.09	55.7	0.63	1/4" - 18 NPTF	9.02

Model Number	Dimensions (in)								
	A	B	C	D	E	F	G	H	J
P240L	16.57	12.01	24.78	12.28	13.21	15.53	4.53	12.32	2.43



- Quiet operation meets OSHA regulations (80dBA)
- 2 speed operation allows for faster cylinder advance
- Full load starting capacities
- Internal filter keeps contamination from damaging pump
- Rugged durable design meets the demands of industrial applications
- Precision components to minimize wear and improve overall dependability

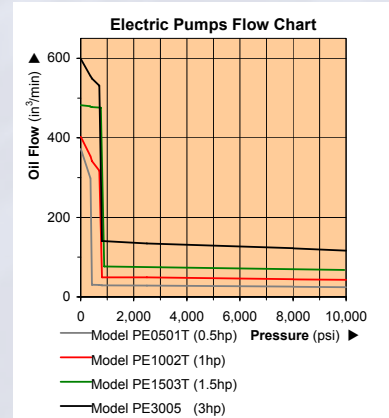


PE0501T & PEM0501T only

PE & PEM Series

Use with Cylinder	Motor Size (hp)	Usable Oil Capacity (gal)	Model Number	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw (amps)	Motor Voltage (volts)	Weight (lbs)		
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in³/min)	2nd Stage (in³/min)							
Single Acting	0.5	1.0	PE0501T	350	10,000	293	18	3-way, 3-position	Advance/ Hold/ Return	9	115	59.5		
	1.0	2.0	PE1002T	700		397	37			12		70.5		
	1.5	3.0	PE1503T			476	61			17		88.5		
		5	PE1505T			476	61					94.0		
	3.0	5.0	PE3005			592	110			17	230	101.0		
Double Acting	0.5	1.0	PEM0501T	350		10,000	293	18		4-way, 3-position	Advance/ Hold/ Return	9	115	59.5
	1.0	2.0	PEM1002T	700			397	37				12		70.5
	1.5	3.0	PEM1503T				476	61				17		88.5
		5	PEM1505T				476	61						94.0
	3.0	5.0	PEM3005				592	110				17	230	101.0

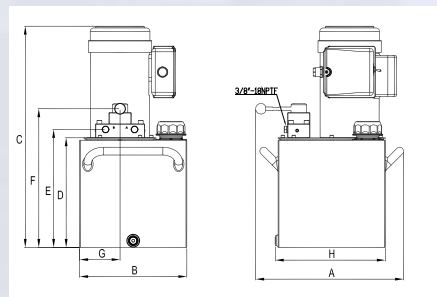
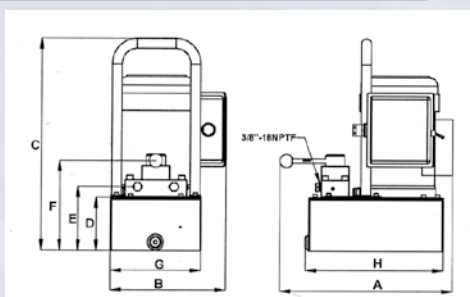
Model Number	Dimensions (in)							
	A	B	C	D	E	F	G	H
PE0501T	14.92	10.28	19.09	4.72	5.67	7.99	8.07	12.36
PE1002T	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
PE1503T	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36
PE1505T	16.57	12.01	24.78	12.28	13.21	15.53	4.53	12.32
PE3005	16.54	12.01	26.54	12.28	13.23	15.51	4.53	12.36
PEM0501T	14.92	10.28	19.09	4.72	5.67	7.99	8.07	12.36
PEM1002T	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
PEM1503T	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36
PEM1505T	16.57	12.01	24.78	12.28	13.21	15.53	4.53	12.32
PEM3005	16.54	12.01	26.54	12.28	13.23	15.51	4.53	12.36



ELECTRIC PUMPS with PENDANT SWITCH



- Quiet operation meets OSHA regulations (80dBA)
- 2 speed operation allows for faster cylinder advance
- Full load starting capacities
- Internal filter keeps contamination from damaging pump
- 10 ft. hand held remote control allows user to control cylinder in up or down position



PEW0501T & PEWM0501T only

PEW & PEWM Series

Use with Cylinder	Motor Size (hp)	Usable Oil Capacity (gal)	Model Number	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw (amps)	Motor Voltage (volts)	Weight (lbs)
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in³/min)	2nd Stage (in³/min)					
Single Acting	0.5	1.0	PEW0501T	350	10,000	293	18	3-way, 3-position	Advance/ Hold/ Return	9	115	59.5
	1.0	2.0	PEW1002T	700		397	37			12		70.5
	1.5	3.0	PEW1503T			476	61			17		88.5
		5	PEW1505T			476	61					94.0
	3.0	5.0	PEW3005			592	110			230	101.0	
Double Acting	0.5	1.0	PEWM0501T	350		293	18	4-way, 3-position		9	115	59.5
	1.0	2.0	PEWM1002T	700		397	37			12		70.5
	1.5	3.0	PEWM1503T			476	61			17		88.5
		5	PEWM1505T			476	61					94.0
	3.0	5.0	PEWM3005			592	110			230	101.0	



Electric pumps can be used in a variety of industrial settings

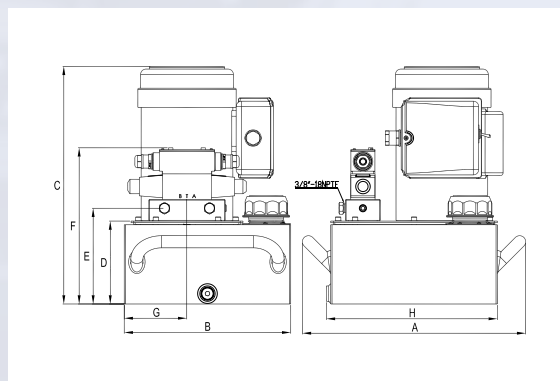
Model Number	Dimensions (in)							
	A	B	C	D	E	F	G	H
PEW0501T	14.92	10.28	19.09	4.72	5.67	7.99	8.07	12.36
PEW1002T	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
PEW1503T	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36
PEW1505T	16.57	12.01	24.78	12.28	13.21	15.53	4.53	12.32
PEW3005	16.54	12.01	26.54	12.28	13.23	15.51	4.53	12.36
PEWM0501T	14.92	10.28	19.09	4.72	5.67	7.99	8.07	12.36
PEWM1002T	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
PEWM1503T	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36
PEWM1505T	16.57	12.01	24.78	12.28	13.21	15.53	4.53	12.32
PEWM3005	16.54	12.01	26.54	12.28	13.23	15.51	4.53	12.36



ELECTRIC PUMPS with SOLENOID VALVE



- Quiet operation meets OSHA regulations (80dBA)
- Ideal for applications where a remote control is required
- 2 speed operations allows for faster cylinder advance
- Full load starting capabilities
- Internal filter keeps contamination from damaging pump
- 10 ft. hand held remote controls the solenoid valve



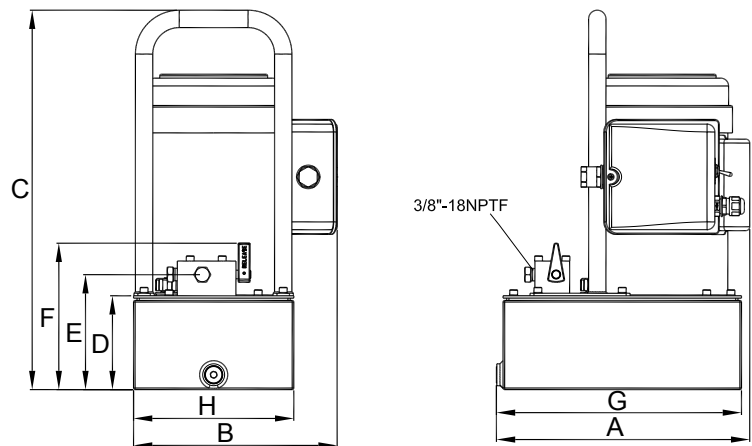
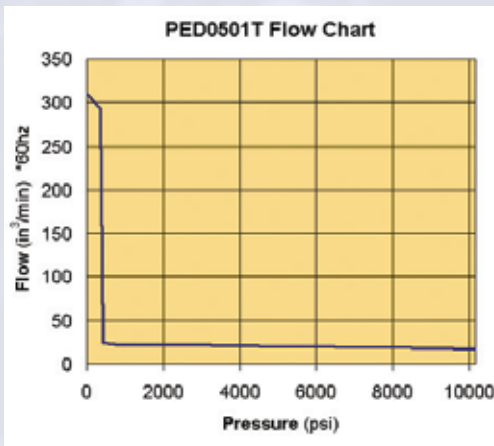
Use with Cylinder	Motor Size (hp)	Usable Oil Capacity (gal)	Model Number	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw (amps)	Motor Voltage (volts)	Weight (lbs)		
				1st Stage (psi)	2nd Stage (psi)	1st Stage (in³/min)	2nd Stage (in³/min)							
Single Acting	0.5	1	PES0501T	350	10,000	293	18	3-way, 3-position	Advance/ Hold/ Return	9	115	61.5		
		2	PES0502T			311	37			12		65.3		
	1	2	PES1002T	700		470	61			17		90.4		
		3	PES1503T										17	98
		5	PES1505T											
Double Acting	0.5	1	PESM0501T	350		293	18	4-way, 3-position		9		65.3		
		2	PESM0502T			311	37			12		72.6		
	1	2	PESM1002T	700		470	61			17		72.6		
		3	PESM1503T										98	
		5	PESM1505T											

Model Number	Dimensions (in)							
	A	B	C	D	E	F	G	H
PES0501T	12.74	10.26	19.10	4.72	5.65	10.00	8.07	12.32
PES0502T	12.74	10.26	19.10	4.72	5.65	10.00	8.07	12.32
PES1002T	17.88	12.01	17.88	5.98	6.90	11.26	4.51	12.32
PES1503T	17.88	12.01	17.88	5.98	6.90	11.26	4.51	12.32
PES1505T	16.10	12.01	17.13	5.98	6.90	11.26	4.51	12.32
PESM0501T	16.10	12.01	17.13	5.98	6.90	11.26	4.51	12.32
PESM0502T	16.10	12.01	19.78	7.28	8.20	12.56	4.51	12.32
PESM1002T	16.10	12.01	19.78	7.28	8.20	12.56	4.51	12.32
PESM1503T	16.10	12.01	24.78	12.28	13.20	17.56	4.51	12.32
PESM1505T	16.10	12.01	24.78	12.28	13.20	17.56	4.51	12.32

ELECTRIC PUMP with AUTO RETURN VALVE



- Quiet operation meets OSHA regulations (80dBA)
- Best suited for punching, crimping, and cutting applications
- 2 speed operation allows for faster cylinder advance
- Full load starting capabilities
- Internal filter keeps contamination from damaging pump
- Rugged durable design meets the demands of industrial applications
- 10 ft. remote pendant switch to control motor on/off



Motor Size (hp)	Usable Oil Capacity (gal)	Model Number	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw (amps)	Motor Voltage (volts)	Sound Level (dBA)	Weight (lbs)
			1st Stage (psi)	2nd Stage (psi)	1st Stage (in³/min)	2nd Stage (in³/min)						
0.5	1.0	PED0501T	350	10,000	233	18	2-way, 2-position	*Advance/Return	9	115	80	66.2

Model Number	Dimensions (in)						
	A	B	C	D	E	F	G
PED0501T	12.76	10.28	19.09	4.72	5.79	7.36	12.36

* holds pressure in advance position when motor is off



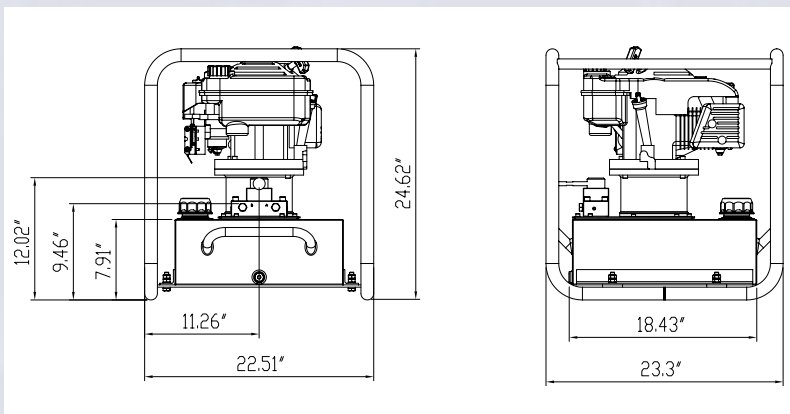
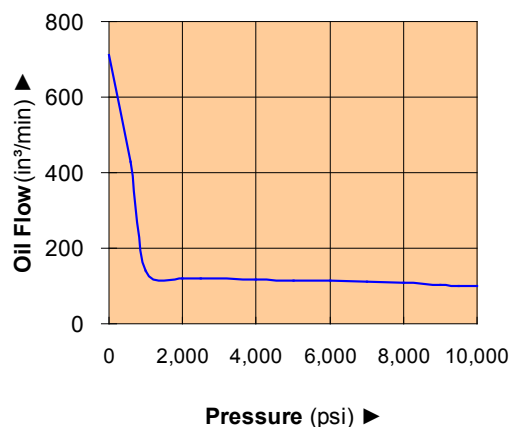
GAS PUMP with HONDA ENGINE



- Gas engine pump will provide 10,000 psi. hydraulic force at remote locations
- Industrial grade 5.5 hp Honda gas engine
- Manual control valve for use with single or double acting cylinders or tools
- Two speed pump designed for rapid cylinder advance
- Gas pump features a sturdy protective roll cage for use in the toughest environments



PG5505 Flow Chart



Model Number	Motor Size (hp)	Usable Oil Capacity (gal)	Max. Pressure Output (psi)	Pressure Rating (psi)		Oil Output Flow Rate (in³/min)		Valve Type	Valve Function	Rotation Speed (rpm)	Sound Level (dBA)	Weight (lbs)
				1st Stage	2nd Stage	1st Stage	2nd Stage					
PG5505	5.5	5	10,000	700	10,000	427	100	Manual	Advance/ Hold/ Return	3,600	93	121.2

PUMP / CYLINDER COMBO

- Matched sets provide a combination of components for single acting cylinder applications
- Ordering is as easy as 1, 2, 3
 1. Select the cylinder you want
 2. Select the pump you want
 3. Choose the set number

Each Set Includes:

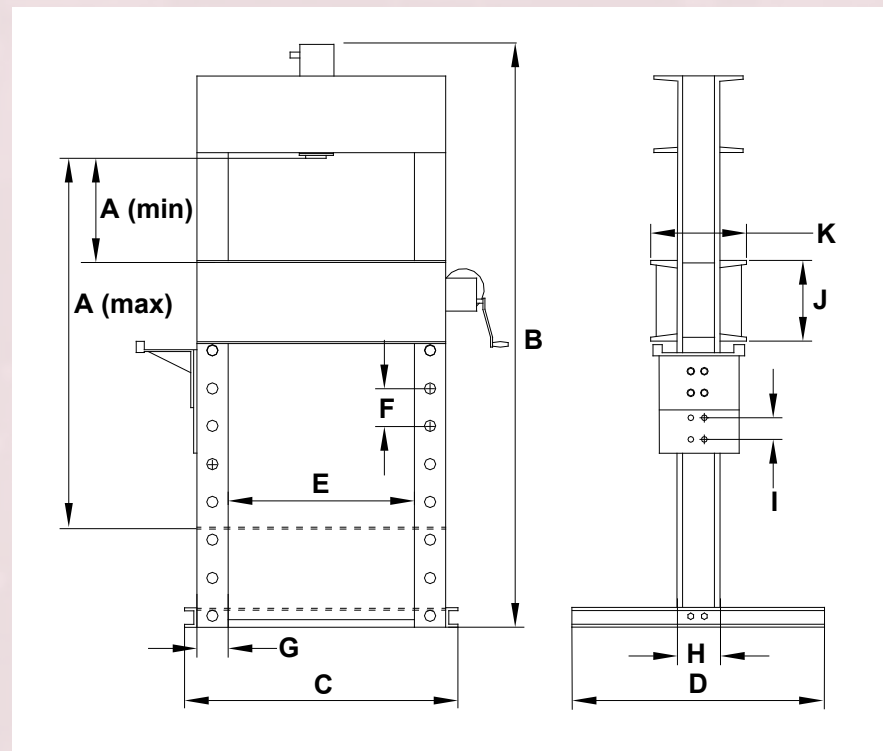
- 3/8", 6 Foot Hydraulic Hose
- Gauge Adapter
- 4" Wet Gauge
- 3/8" High Flow Male Coupler
- Cylinder
- Pump



Type	Combo Capacity (ton)	Cylinder			Combo Model Number					
		Model	Stroke (in)	Collapsed Height (in)	with Hand Pump			with Air Pump		
					Model P350	Model P1000	Model P2001	Model PA1500	Model PA1500L	Model PA3801
Single Acting Cylinders	5	H0505	5.08	8.70	SP3-0505					
	10	H1002	2.01	4.84		SP10-1002		SA15-1002		
		H1006	5.94	2.24		SP10-1006		SA15-1006	SAL15-1006	
		H1010	9.96	13.86		SP10-1010		SA15-1010	SAL15-1010	
		HT1006	5.95	11.46		SP10-1006T		SA15-1006T	SAL15-1006T	
		HT1010	9.96	15.47		SP10-1010T		SA15-1010T	SAL15-1010T	
	15	H1504	3.86	8.66		SP10-1504		SA15-1504		
		H1506	5.87	10.67		SP10-1506		SA15-1506		
	25	H2502	2.01	6.82		SP10-2502		SA15-2502		
		H2504	3.94	8.78		SP10-2504		SA15-2504		
		H2506	5.94	10.79		SP10-2506		SA15-2506		
		H2508	7.95	12.80			SP20-2508	SA15-2508		
	55	H5506	6.25	11.13			SP20-5506	SA15-5506		
Single Acting Aluminum Cylinders	100	H10006	6.63	13.25						SA38-10006
	30	HU3002	2.00	6.50		SP10-3002U		SA15-3002U		
		HU3006	6.00	10.50		SP10-3006U		SA15-3006U		
	50	HU5006	6.00	10.50		SP10-5006U		SA15-5006U		
	100	HU10006	6.00	10.50						SA38-10006U
Single Acting Low Profile Cylinder	10	HL1001	1.50	3.48	SP3-1001L			SA15-1001L		
	20	HL2002	1.75	3.90	SP3-2002L			SA15-2002L		
	30	HL3002	2.44	4.61		SP10-3002L		SA15-3002L		



- Heavy steel welded construction
- Multi-position bed for work height adjustment
- Ideal for the removal or installation of gears, universal joints, pulleys, wrist pins, and other press jobs
- Excellent for bending, bonding or straightening applications



Capacity (tons)	Model Number	Pump Type	Pump Model
25	IMP2506	Manual	P1000
	IAP2506	Air	PA1500
55	IAP5506	Air	PA1500
	IEP5506	Electric	PEW0501T
	IMP5506	Manual	P2301
	IAP5513	Air	PA3801
	IEP5513	Electric	PEW0501T
100	IEP10010	Electric	PEW1002T

Model CS25 25 Ton Shop Press Accessory Kit

300-02-229 • Ram forcing cap
300-02-807 • V push adapter
300-02-953 • Threaded adapter
300-02-510 • 3/4" push adapter
300-02-511 • 1" push adapter
AP25 • Arbor plates (in pairs)



Model CS55 55 Ton Shop Press Accessory Kit

400-002-230 • Ram forcing cap
400-002-368 • Threaded adapter
400-002-757 • 1-1/2" push adapter
400-002-756 • 1-1/4" push adapter
400-002-808 • V push adapter
AP55 • Arbor plates (in pairs)



100 Ton Shop Press Accessory

AP100 • Arbor plates (in pairs)



Cylinder Model	Bed Position	Cylinder Stroke (in)	Product Size (H X L X W)	Working Space (A Min. / A Max.) (in)	Dimensions (in)												Weight (lbs)	Model Number			
					A (Min.)	A (Max.)	B	C	D	E	F	G	H	I	J	K					
H2506	8	6	71"X 48"X 28"	4-1/2" ~ 47-1/4"	4.5	47.25	71	48	28	30	6	3	6.5		6	11.5	560	IMP2506			
H2506																					
H5506	9		79"X 56" X 30"	14" ~ 55-1/2"	14.0	55.5	79	56	30	35.4		4	9	3	10	14.8		760	IAP5506		
H5513	13																				IAP5513
																					IEP5513
H10010	8	10	89"X 63"X 30"	11-1/4" ~ 51"	11.3	51.0	89	63	30	35.5	8	N/A	10	N/A	12	16.0	1550		IEP10010		

Manual Bottle Jacks



- Hydraulic system is protected from internal damage by a patented by-pass mechanism
- Machined and polished cylinders with die-cut threads provide non-abrasive leak-free, durable performance
- Fabricated from hard-cast steel with heat-treated critical stress areas
- Unique cross-type forged release valve assures positive load control
- A wide, rugged base provides stability and strength

Capacity (ton)	Model Number	Minimum Height (in)	Maximum Height (in)	Hydraulic Lifting (in)	Extension Screw (in)	Base Size Length (in)	Base Size Width (in)	Weight (lbs)
12	J10125	9-1/2	18-5/8	6	3-1/8	5-1/4	5-1/8	17.5
	J10129	6	10-5/8	3	1-5/8			14.9
20	J10205	9-1/2	18-5/8	6	3-1/8	6-1/4	5-7/8	27.5
	J10209	6-1/2	11-1/4	3-1/8	1-5/8			21.8
30	J10300	11	18	7	N/A	8-1/8	6-7/8	53.5
50	J10500	12	19	7	N/A	10-7/8	7-3/8	96.4

Air/Manual Bottle Jacks



- Effortless air operation will greatly reduce operator fatigue and speed up the efficiency of industrial work
- A compact yet powerful air turbo motor U.S. Patent No. 5,341,723 is equipped to raise the load to the desired height efficiently, effortlessly, and safely
- Versatile "Quick Connector" design provides for easy removal of air hose from air motor allowing compact storage or remote operation
- All air bottle jacks have chrome plated rams

Capacity (ton)	Model Number	Minimum Height (in)	Maximum Height (in)	Hydraulic Lifting (in)	Extension Screw (in)	Base Size Length (in)	Base Size Width (in)	Input Air Pressure Range (psi)	Weight (lbs)
12	J18122	9-1/2	18-1/2	5-1/2	3-1/2	7-5/8	6-1/2	110-175	28.6
20	J18202	9-3/4	18-3/4	5-1/8	3-7/8	8-1/4	7-1/4		37.4
30	J18302	11	18	7	N/A	10-1/4	8-1/4		60.5
50	J18502	12	19	7		10-7/8	7-3/8		128.5
100	J18992		18-1/8	6-1/8		12-5/8	9-3/8		205.9

Toe Jacks

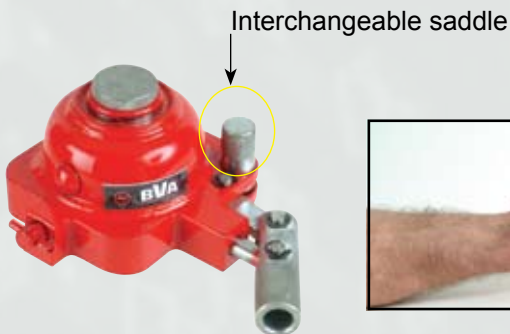
- Heat treated and chrome plated medium-carbon steel cylinder
- Chrome plated ram promotes longer seal life and optimum performance
- U.S. Patented by-pass device protects hydraulic system from over traveling damage



Capacity (tons)	Model Number	Toe Saddle		Head Saddle		Hydraulic Lifting (in)	Base Size (L x W) (in)	Weight (lbs)
		Min. Height (in)	Max. Height (in)	Min. Height (in)	Max. Height (in)			
3	J13060	0.62	5.75	9.0	14.12	5.12	6.00 x 4.37	36.1
6	J13120	0.88	6.00	10.50	15.63	5.13	11.00 x 7.50	55.0
10	J13200	1.13	6.25	11.00	16.13		11.63 x 9.00	84.0

Mini Jacks

- Low profile mini jack
- Pocket size and lightweight
- Convenient for storage



Capacity (tons)	Model Number	Min. Height (in)	Max. Height (in)	Hydraulic Lifting (in)	Base Size (L x W) (in)	Weight (lbs)
5	J11050	2.37	3.13	0.76	4.13 x 4.00	4.6
5	J11055	3.37	4.88	1.51		5.3
10	J11100	4.75	6.25	1.63	4.88 x 4.38	12.5
20	J11200	5.13	6.75	1.63	5.38 x 4.75	16.7

▶ MAINTENANCE KITS



- Sets are portable for easy use in the plant or on the job site
- Custom fitted, rugged blow molded storage case
- 10 ton set has wheel for easy movement
- Designed for applications of pushing, spreading, pressing, and more

Capacity (tons)	Pump Capacity (psi)	Model Number	Ram			Number of attachments	Weight (lbs)
			Collapsed Height (in ²)	Extended Height (in ²)	Effective Area (in ²)		
4	8,000	J50040	11.00	15.75	0.998	14	46.0
10	10,000	J50100	13.63	19.75	2.411	13	81.0
20	10,000	J50200	11.77	16.93	5.14	16	206.0

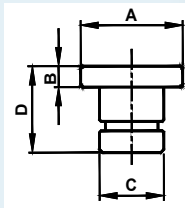
*When extension tubes and/or offset attachments are used, the capacity is reduced.

Contents of Kit	Part Number					
	Model J50040		Model J50100		Model J50200	
Hand Pump	J0401		J1001		J65421	
Ram	J0402		J1002		J65740	
Hose	J0403		J1003		J65593	
Case	J0404		J1004		J65073	
Hydraulic Spreader (1000lbs.capacity)	J0405		J1005		N/A	
Combination Head (90 degrees)	J0406		J1006		N/A	
Rubber Head	J0407		J1007		N/A	
Ram Toe (offset)	J0408		J1008		J65774	
Plunger Toe (offset)	J0409		J1009		N/A	
Flat Base	J0410		J1010		J65778	
Serrated Saddle	J0411		J1011		J65771 (2)	
Wedge Head (offset)	J0412		J1012		J65773	
Male Connector	J0413		J1013		J65770	
Hose Coupler	CRZ14M		CRZ14M		CH38M	
Ram Coupler	CRZ14F		CRZ14F		CH38F	
Chain Pull Plate	N/A		N/A		J65775	
V Head					J65772	
Threaded Coupling					J65776 (3)	
8' Chain w/ hook					J97518	
Ram Base					J65778	
Extension Tube					J65760	
	3"	J0414	4"	J1014	3"	J65760
	6-1/8"	J0415	10"	J1015	5"	J65762
	8-1/2"	J0416	18"	J1016	10"	J65764
	16-1/2"	J0417	27"	J1017	18"	J65766
	19-1/2"	J0418			24"	J65768

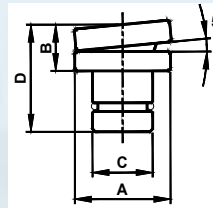
Saddles



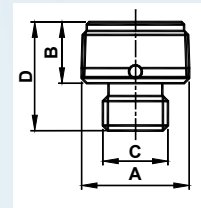
SD Series



SDT10



HTD10

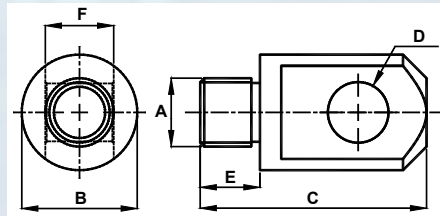


Saddle Type	Model Number	For use with Cylinder Capacity (ton)	Dimensions (in)			
			A	B	C	D
Grooved	SD05	5	0.98	0.24	0.67	0.81
	SD10	10	1.38		0.87	1.06
	SD15	15	1.50	0.28	0.87	1.18
	SD25	25	1.97		1.42	1.14
Tilt	SDT10	10	1.38	0.63	0.87	1.50
Threaded	HTD10	10	1 1/4"-11.5NPTF	0.95	1"-8UNC	1.77

Clevis Eyes



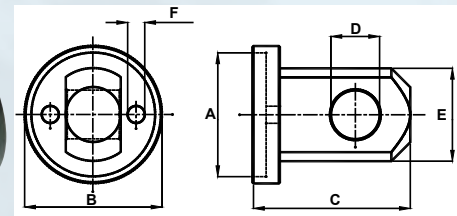
CEP Series



Plunger



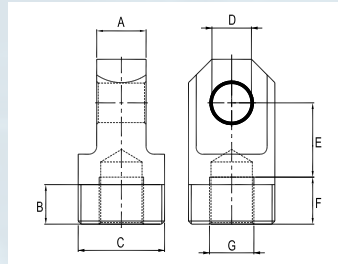
CEB Series



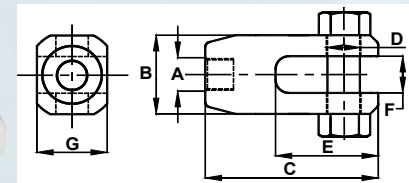
Base



CED Series



CP10



Clevis Type	For use with Cylinder Capacity (tons)	Model Number	Dimensions (in)						
			A	B	C	D	E	F	G
Plunger	5	CEP05	3/4"-16UNF	1.13	2.25	0.63	0.62	0.56	-
	10	CEP10	1"-8UNC	1.69	3.31	0.88	0.75	1.00	-
	15	CEP15							
	25	CEP25	1-1/2"-16	2.25	3.81	1.25	0.87	1.50	-
Base	5	CEB05	1.52	1.75	2.13	0.63	0.26	1.13	-
	10	CEB10	2.28	2.50	2.87	0.88	1.69	0.32	-
	15	CEB15	2.77	3.00	2.87	0.88	1.69	0.38	-
	25	CEB25	3.40	3.75	3.37	1.25	2.25	0.56	-
Plunger & Base	9	CED09	1	1	1-11/16"-18	0.75	1.31	0.94	3/4"-16
	16	CED16	1.25	1	2-3/16"-16	1	1.88	1.19	1-1/8" 12
	HP1006 only	CP10*	M30x2	2.95	6.30	1.18	3.74	1.38	2.56

* 2-pc set with an adapter

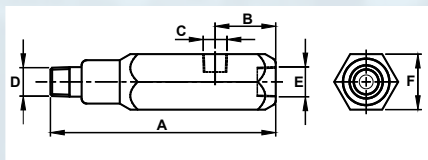
GAUGES, HOSES, OIL, and BASES

Hydraulic Pressure Gauges



Gauge Type	Model Number	Face Diameter (in)	Thread (in)	Pressure Range		Graduation			
						Major Graduation	Minor Graduation	Major Graduation	Minor Graduation
				(psi)	(bar)	(psi)		(bar)	
Dry	GD2514	2.50	1/4"-18NPTF	0-10,000	0-700	1,000	100	100	10
	GD4014	4.00				2,000	200		
Wet	GW2514	2.50				1,000	100		
	GW4014	4.00				2,000	200		

Gauge Adapter



Model Number	Dimensions (in)					
	A	B	C	D	E	F
CF3814	5.12	1.38	1/4"-18NPTF	3/8"-18NPTF	3/8"-18NPTF	1.25

Hydraulic Hoses



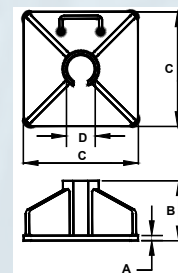
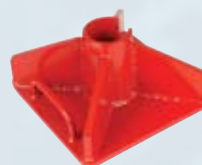
Hose I.D. (in)	Model Number	Hose End Fittings	Operating Pressure (psi)	Hose Length (ft)	Weight (lbs)
1/4"	CS1414	1/4"-18NPTF	10,000	6	2.5
	CS3814	3/8"-18NPTF		6	3.0
	CS3814A			2	2.0
	CS3814B			3	2.2
	CS3814C			10	5.0
	CS3814D			20	10.5
3/8"	CS1438	1/4"-18NPTF		6	3.2
	CS3838	3/8"-18NPTF		6	3.5
	CS3838C			10	6.5
	CS3838D			20	13.5

Hydraulic Oil



Volume (gal)	Model Number	Viscosity Index (min)	Viscosity @ 100°F (S.U.S.)	Viscosity @ 210°F (S.U.S.)	ASTM Grade	Flash Point (°F)	Pour Point (°F)	API Gravity
1	F01	144	234	53	215	403	-33	30.8

Bases



Plates for Aluminum Cylinders



For use with Cylinder Capacity (tons)	Model Number	Dimensions (in)		
		Length	Width	Thickness
30	Z030	6.00	6.00	0.50
50	Z050	7.50	7.50	0.50

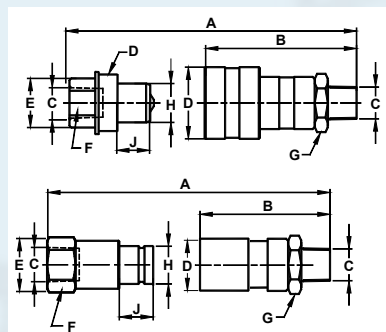
For use with Cylinder Capacity (tons)	Model Number	Dimensions (in)			
		A	B	C	D
5	CB05	0.32	4.65	7.87	1.54
10	CB10	0.39	4.72	9.06	2.28
15	CB15	0.47	4.80	10.00	2.76
25	CB25	0.63	4.96	11.02	3.41

Hydraulic Couplers

CH38



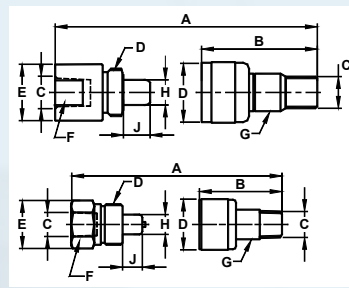
CFS38



CR38



CRZ14

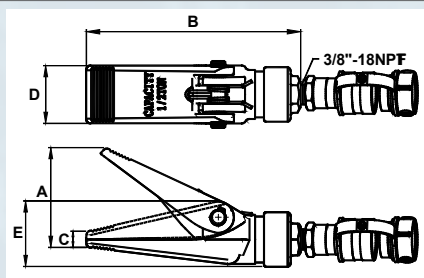


Coupler Type	Model Number			Dimensions (in)								
	Complete Set	Male Half	Female Half	A*	B	C	D	E	F	G	H	J
High-Flow Coupler	CH38	CH38M	CH38F	3.35	2.84	3/8"-18NPTF	1-3/16"-16	1.10	0.94	1.00	0.75	0.63
Flush-Face Coupler	CFS38	CFS38M	CFS38F	4.36	2.85	3/8"-18NPTF	1.19	1.21	1.06	1.12	0.79	0.63
Regular-Flow Coupler	CR38	CR38M	CR38F	3.15	2.20	3/8"-18NPTF	15/16"-20	1.04	0.94	0.73	0.50	0.53
Zinc Coupler	CRZ14	CRZ14M	CRZ14F	2.42	1.67	1/4"-18NPTF	13/16"-20	0.95	0.83	0.58	0.39	0.35

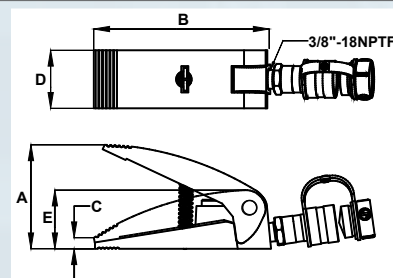
* Value A is total length when male and female couplers are connected.

Spreaders

- Designed to work in confined working space



SR5



SR10

Cylinder Capacity (tons)	Model Number	Cylinder Effective Area (in ²)	Oil Capacity (in ³)	Dimensions (in)					Weight (lbs)
				A	B	C	D	E	
0.5	SR05	1.22	0.58	3.54	7.57	0.51	2.05	2.36	4.8
1	SR10	1.09	0.86	3.90	6.57	0.47	2.17	2.20	4.8

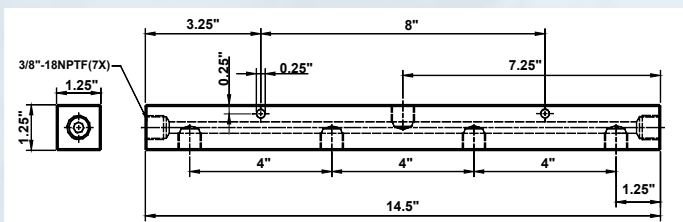
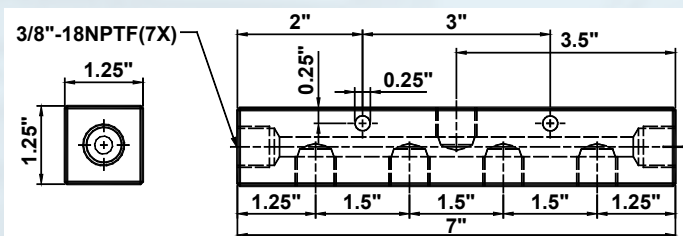
Manifolds



CM7



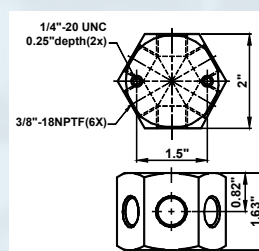
CM14



Manifold Type	Model Number	Number of Ports	Port Size	Mounting Hole
6-Port Hexagon Manifold	CMH6	6	3/8"-18NPTF	1/4"-20UNC
7" Long Manifold	CM7	7		
14" Long Manifold	CM14	7		



CMH6



Pump Mounted Manifold Block



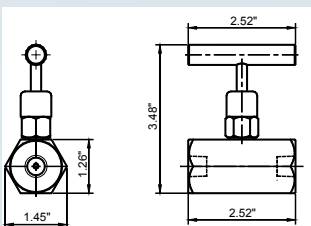
CMR2

- Converts BVA pumps with pump mounted valves for use with remote mounted valves
- Come with 4pcs. mounting screws

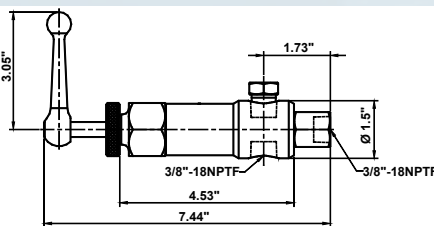
Flow Control Valves



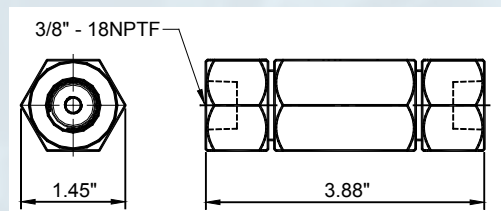
CVN1 & CVN3



CVR3

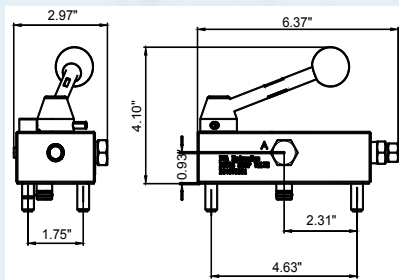


CVC3

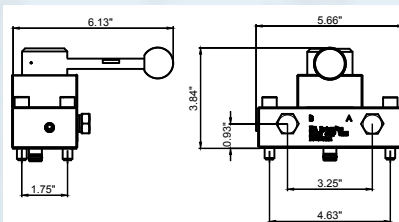


Valve Type	Model Number	Ports	Application	Hydraulic Symbol
Needle Valve	CVN1	1/4"-18NPTF	Controls cylinder speed and acts as temporary shut-off valve for load holding	
	CVN3	3/8"-18NPTF		
Check Valve	CVC3	3/8"-18NPTF	Allows flow in one direction only	
Pressure Relief Valve	CVR3	3/8"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurred when pre-set pressure is reached. Turns clockwise to increase pressure, counter clockwise to decrease	

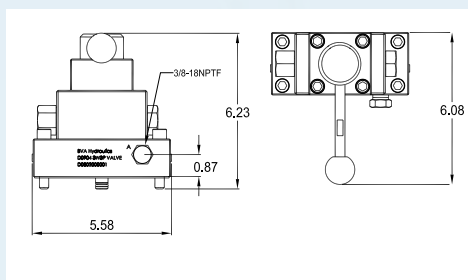
DIRECTIONAL CONTROL VALVES



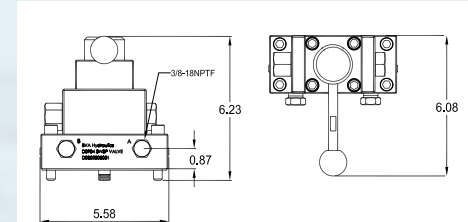
PW2



PW3 & PW4



PW33L



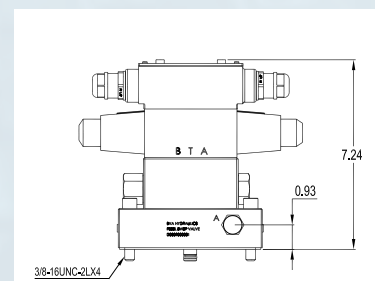
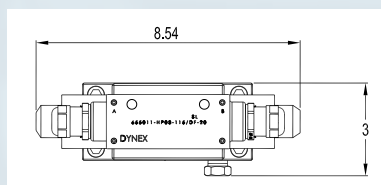
PW43L

Pump Mounted Valves

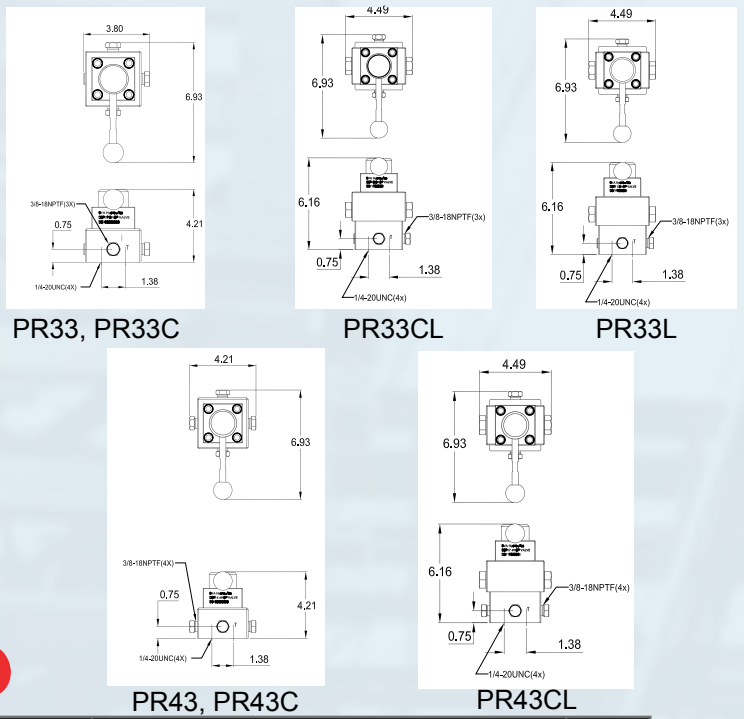
Valve Operation	Valve Type	Use with Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Manual	3-way, Tandem Center	Single Acting	PW2				-	4
	3-way, Tandem Center		PW3					4
	4-way, Tandem Center	Double Acting	PW4					3
	3-way, 3-position, Tandem Center	Single Acting	PW33L					5.95
	4-way, 3-position, Tandem Center, Locking	Double Acting	PW43L					5.95



Solenoid Valves

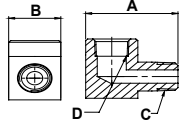
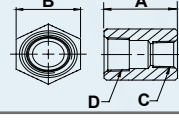
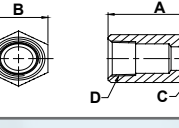
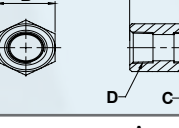
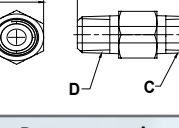
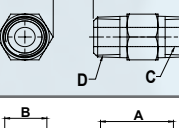
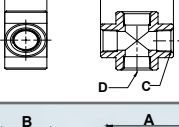
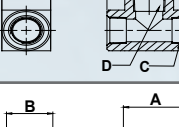
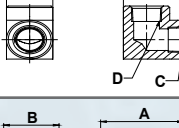
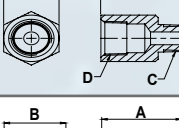
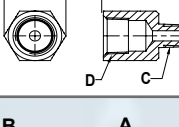
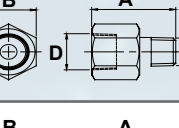
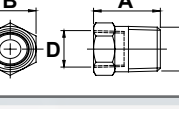


Use With Cylinder	Model Number	Valve Type	Valve Function	Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Single Acting	PS33L	Solenoid 115VAC	Advance/ Hold/ Return					7.0



Remote Mounted Valves

Valve Operation	Valve Type	Use With Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path			Weight (lbs)
Manual	3-way, 3 position, Tandem center	Single Acting	PR33					3.53
	3-way, 3 position, Closed center		PR33C					3.53
	3-way, 3 position, Tandem center, Locking		PR33L					5.73
	3-way, 3 position, Closed center, Locking		PR33CL					5.73
	4-Way, 3 position, Tandem center	Double Acting	PR43					3.53
	4-Way, 3 position, Closed center		PR43C					3.53
	4-way, 3 position, Closed center, Locking		PR43CL					5.73

Fitting Type	Model number	Dimension				
		A (in)	B (in)	C	D	
	2 way 90° Connector Street Elbow, 3/8" to 3/8"-NPTF	FT101	1.81	1.02	Female : 3/8"-18NPTF Male:3/8"-18NPTF	
	Coupling Reducing Connector, 3/8" to 1/4"-NPTF	FT102	1.18	1.02	Female:1/4"-18NPTF Female:3/8"-18NPTF	
	Coupling Reducing Connector, 1/2" to 3/8" - NPTF	FT112	1.89	1.14	Female:1/2"-14NPTF Female:3/8"-18NPTF	
	Coupling 3/8" to 3/8" - NPTF	FT103	1.18	1.02	Female:3/8"-18NPTF Female:3/8"-18NPTF	
	Male Connector Hex Nipple, 1/4" to 1/4" - NPTF	FT104	1.50	0.67	Male:1/4"-18NPTF Male:1/4"-18NPTF	
	Male Connector Hex Nipple, 3/8" to 3/8" - NPTF	FT114	1.50	0.75	Male:3/8"-18NPTF Male:3/8"-18NPTF	
	4 Way Connector Cross, 3/8" to 3/8" - NPTF	FT105	1.77	1.02	Female:3/8"-18NPTF Female:3/8"-18NPTF	
	3 Way Connector 3/8" to 3/8" - NPTF	FT106	1.77	1.02	Female:3/8"-18NPTF Female:3/8"-18NPTF	
	2 way 90° Connector Elbow, 3/8" to 3/8" - NPTF	FT107	1.40	1.02	Female:3/8"-18NPTF Female:3/8"-18NPTF	
	Adaptor 1/2"-14 Female 3/8"-18 Male - NPTF	FT108	1.69	1.14	Female:1/2"-14NPTF Male:3/8"-18NPTF	
	Adaptor 1/2"-14 Female 1/4"-18 Male - NPTF	FT118	1.69	1.14	Male:1/4"-18NPTF Female:1/2"-14NPTF	
	Fitting	CA3814	1.38	0.91	Male 1/4"-18NPTF Female 3/8"-18NPTF	
	Bushing	CB1438	0.87	0.67	Male 3/8"-18NPTF Female 1/4"-18NPTF	

HYDRAULIC BENCH VISE

HYDRAULIC BENCH VISE



- 5 tons of clamping power
- Hands free operation with foot pump control
- Air control valve for variable speed and added safety
- Cast steel construction 52,600 psi tensile strength
- Operates horizontally or vertically
- Jaws open 8 inches
- Replaceable jaw plates
- Hydraulic pressure closes jaws
- Spring return opens jaws



Model BV859A includes:

- 5 ton hydraulic vise
- Air over hydraulic 10,000 psi
- Foot pump with air control valve
- 10,000 psi gauge
- Gauge adapter
- 10 foot hydraulic hose
- Set of POSI LOCK® Hold-Et's (magnetic vise clips)



Model Number	Capacity (tons)	Dimension (in)											Weight (lbs)
		Closed Overall Length	Exterior Side Width	Jaw Width	Extended Overall Length	Body Height	Base Width	Base to Cylinder Length	Base to Top of Jaw Height	Interior Slide Height	Jaw Clearance	Jaw Opening	
BV859A	5	18.78	2.75	8.00	26.78	5.94	9.66	15.58	7.94	2.50	3.50	8.00	70



- **ISO 9001**

BVA products are manufactured through an International Quality Assurance System, ISO 9001 which involves consistent observation of administration, management, manufacturing, and production control. Under this system, the related operations are monitored on all aspects of the production of BVA products from the purchase order, the assembly line, to shipping the order from the distribution center.

BVA Products comply with the following industry standards

- **ASME B30.1**

The cylinders comply with load testing requirements and / or the safety factor for material yield strength, while still functioning properly and without oil leakage. (Except HPD and HLN series)

- **ANSI B40.1**

Under ANSI standards, BVA pressure gauges meet criteria for grade A

- **SAE 100**

BVA hydraulic hoses comply with the Material Handling Institute's specification of minimum life cycles and minimum burst pressure rating.



Kansas City, MO
Sales, Marketing, Engineering, and Distribution

Limited Lifetime Warranty

BVA Hydraulics warrants this product to be free from defects in material and workmanship for the life of the product. This warranty applies to the original purchaser (end user) only and is not transferable. Damaged components, including bent rams, dented or crushed cylinder walls, broken welds, couplers as well as worn out seals, O-rings and springs are the result of misuse, misapplication or a combination of both. As well, normal wear shall not constitute a defect and shall not be considered for warranty credit. We have complete confidence that the BVA Hydraulics product you purchase will meet or exceed your performance requirement. However, in the unlikely event that a BVA Hydraulics product fails due to material or workmanship defect you may contact SFA Companies for disposition. Except where such limitations and exclusions are specifically prohibited by law, the consumer's sole and exclusive remedy shall be the repair or replacement of the defective product. BVA Hydraulics shall not be liable for any consequential or incidental damage or loss whatsoever. Any and all expressed and implied warranties, including without limitation, any warranties of merchantability and fitness for a particular purpose, are limited to the original purchaser. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



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