



BVA[®]
HYDRAULICS

INDUSTRIAL HYDRAULIC EQUIPMENT

BVA-EN 25Q1

The BVA Advantage

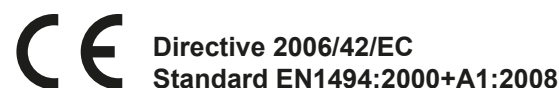
BVA Industrial Hydraulics was launched in 2005 and is centrally located in Europe in Etten-Leur, The Netherlands. BVA is one of the Shinn Fu Europe brands besides Omega Lift, Omega Mechanix and Prolift. Shinn Fu was founded in Taiwan in 1971 and began doing business in Europe in 1994. Shinn Fu has over 2,000 Employees worldwide with its headquarters in Taipei, Taiwan.

Confidence Built on Quality

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 from purchase order to assembly line and to shipping the order.

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 without oil leakage.

ANSI B40.1

BVA pressure gauges meet the 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.

BVA Limited Lifetime Warranty

BVA products are warranted to be free of defects in materials and workmanship. Any BVA product that does not conform to specification will be repaired or credited (at BVA's option) at BVA's expense for the life of the product. Contact BVA for disposition of this warranty.

This warranty does not cover normal wear and tear, abuse, misuse, alteration or use of improper fluids or improper maintenance as determined by BVA and its authorized service centers. All electric motors, gas engines, batteries and other parts or materials sold with or part of BVA products but are separately warranted by another manufacturer, are covered by that manufacturer's warranty and not the BVA Lifetime Warranty. BVA shall not be liable for consequential or incidental damage or loss.



Repair Parts
We offer a large range of product replacement parts, please contact your local BVA dealer for more details.



Contact
For technical support, or for questions about your product, contact your local BVA dealer.



BVA Website
To view our most up-to-date catalog or view our new product, visit our website: www.BVAhydraulics.com

Model Number Index

H	6	HLN	20	HC	32	HULN	42	HP	46
HD	10	HLNF	22	HDC	34	HUC	43	HPD	47
HL	14	HG	24	HU	38	HUDC	44	Accessories	48
HF	16	HDG	28	HDU	40	HT	45		

P	Single Acting Hand Pumps	52	P57	Foot Pumps	54	PA	Double Acting Air Pumps	56	PE	1-Phase Electric Pumps	60
P	Double Acting Hand Pumps	52	PA	All Position Air Pumps	55	PAR	Rotary Air Pumps	58	PE	3-Phase Electric Pumps	64
P	BVA BAG	52	PA	Single Acting Air Pumps	56	PU	Universal Motor Pumps	59	PG/PD	Gas/Diesel Engine Pumps	66

H	General Purpose Cylinder Combinations	68	HLN	Lock Nut Cylinder Combinations	69
HF	Flat Body Cylinder Combinations	68	HU	Aluminum Cylinder Combinations	69
HC	Hollow Hole Cylinder Combinations	69	GT	1500 BAR	69
HL	Low Profile Cylinder Combinations	69			

Torque Wrench pump	70	Square drive Hydraulic Torque Wrench	74	Bolt tensioner	78
Torque Wrench AIR pump	71	Battery powered Torque Wrench	75	Handpump + Air	80
Torque Wrench Low-Profile	72	Sockets	76	Couplers + Hoses	81
Cassette metric	73	Splitters	77	Manometer	81

Flow Control Valves	82	Gauge Adapters	85	Pressure Switch	86	Hydraulic Couplers	87	Pressure control valve	88	Pump Mounted Valves	90
Manifolds	84	Hydraulic Oil	86	Foot Pedals	86	Hydraulic Hoses	87	Flow controle Valve	88	Fittings	91
Pressure Gauges	85	External Pressure Adj	86	Coupler Dust Cover	86	Solenoid Valves	88	Directional Control Valves	89		

Hydraulic Manual Press	92	Splitter	95	Pad Eye Tester	104	Mini Jacks	108	Air operated bottle jacks	107
Hydraulic Elec-trical Press	93	Hydraulic Gear Pullers	96	Flange Spreaders	104	Toe Jacks	108	Maintenance kits	107
Manual Pullers	94	Bolt Puller/ King Pin Press	103	Spreaders	105	Manual bottle jacks	106	Support Pads	109

Pumps / Cylinders Operation and Speed Chart	112	Safety Instructions	114	Hydraulic Formula Reference	120
Selection worksheet	113	BVA in action	106	Maintaining Your Equipment	120
BVA Cross Reference Chart	114	About BVA	119	Index	121

Cylinders



Pages 5-49

Pumps



Pages 52-66

Combo Kits



Pages 68-69

Bolting



Pages 70-81

Valves & Accessories



Pages 82-91

Tools & Specials



Pages 92-109

Cross-Reference & Engineering



Cylinder Matrix Chart



H

1

Cylinder Type

C

2

Cylinder Options

30

3

Cylinder Capacity

06

4

Cylinder Stroke

T

5

Suffix Code

1 - Cylinder Type

H Hydraulic Cylinder

2 - Cylinder Options

C S/A - Hollow Hole

D D/A - General Purpose

DC D/A - Hollow Hole

DG D/A - High Tonnage

F S/A - Flat Body

G S/A - Load Return High Tonnage

L S/A - Low Profile

LN S/A - Lock Nut

LNF S/A - Lock Nut Low Profile

P S/A - Pull

PD Precision Double Acting

T S/A - Threaded

U S/A - Aluminum

UC S/A - Aluminum Hollow Hole

UDC D/A - Aluminum Hollow Hole

ULN S/A - Aluminum Lock Nut

3 - Cylinder Capacity

US Short Tons	US Short Tons
02 2, 2.5	75 75
04 4	100 100
05 5	150 150
09 9	160 160
10 10	200 200
12 12	250 250
15 15	300 300
16 16	400 400
20 20	500 500
25 25	600 600
30 30	700 700
50 50	800 800
55 55	1,000 1,000
60 60	1,500 1,500

4 - Cylinder Stroke

00	0.63"/16mm
01	1"/ 25 mm
02	2"/ 51 mm
04	4"/ 102 mm
05	5"/ 127 mm
06	6"/ 152 mm
08	8"/ 203 mm
10	10"/ 254mm
12	12"/ 305mm
13	13"/ 330mm
14	14"/ 356mm
18	18"/ 457mm
20	20"/ 508mm
24	24"/ 610mm
32	32"/ 813mm

5 - Suffix Code

T With internal Threads, HC Series only

XT No internal Threads, HC Series only

B Flat Body Cylinder Kit



Cylinder Accessories

See the assortment of accessories designed to work with our products.

pg 48



80%

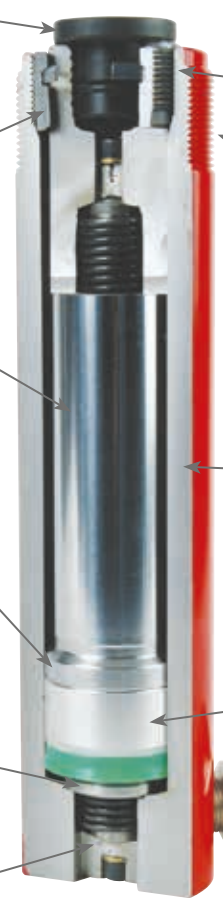
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

pg 114



Heavy duty, heat treated, grooved saddle provides better surface traction during operation

Plunger wiper seals out dirt and contamination

Industrial hard chrome plated plunger prevents scratching and corrosion

One piece steel plunger stopper for extra strength and preventing over travel

Polyurethane cup seal provides optimum performance

Rectangular return spring design eliminates spring breakage and provides quicker retraction

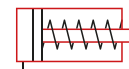
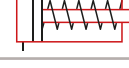
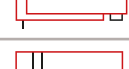
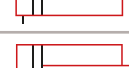
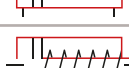
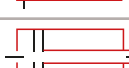
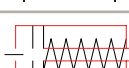
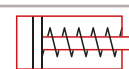
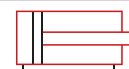
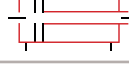
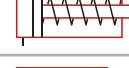
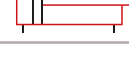
Steel stop ring for plunger over travel protection

Collar fixture threads

Cylinders are burnish rolled giving a smoother finish than honing, which reduces scoring and prolongs seal life

One piece high grade alloy bearing for side load protection and long life

High flow ball coupler provides more flow than conventional couplers

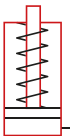
Cylinder Series	Cylinder Type		Max Capacity Range (Tonne)	Max Stroke Range (mm)	Page Number / Reference Image
H	Single Acting Cylinders		5-100	25-362	 6-9
HD	Double Acting Cylinders		10-100	155-461	 10-13
HL	Low Profile Cylinders		10-100	38-57	 14-15
HF	Flat Body Cylinders		5-150	16	 16-17
HFT	Flat Body telescopic Cylinders		4-74	45-140	 18-19
HLN	Lock Nut Cylinders		50-300	50-300	 20-21
HLNF	Low Profile Lock Nut Cylinders		60-250	45-50	 22-23
HG	High Tonnage Single Acting Cylinders		100-1000	182-1114	 24-27
HDG	High Tonnage Double Acting Cylinders		100-1000	50-300	 28-31
HC	Hollow Plunger Cylinders		12-100	8-155	 32-33
HDC	Double Acting Plunger Hole Cylinders		30-150	38-257	 34-35
HCLN	Single acting hollow lock nut cylinder		22-100	76-155	 36-37
HU	Aluminum Single Acting Cylinders		20-100	50-297	 38-39
HDU	Aluminum Double Acting Cylinders		20-30	50-150	 40-41
HULN	Lock Nut Aluminum Cylinders		30-150	50-254	 42
HUC	Single Acting Hollow Hole Aluminum Cylinders		30-60	75-152	 43
HUDC	Double Acting Aluminum Hollow Hole Cylinders		30-150	50-254	 44
HT	Threaded Cylinders		10-20	131-253	 45
HP	Pull Cylinders		2.5-10	127-141	 46
HPD	Precision Double Acting Cylinders		9-16	1.77-3.14	 47

Pumps Section	Page 50 ▶
Pumps-Cylinder Combo's	Page 68 ▶
Other	Page 70 ▶

 **BVA** HYDRAULICS

Single Acting Cylinders

H Series - General Purpose, Spring Return



Capacity:

5 - 95 Tons

Stroke:

25 - 362 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

92 - 838 mm



*** Larger Tonnages**
For tonnages that exceed 100, please refer to our HG Section

24 pg



Single Acting Cylinder H1506 in the collapsed position with CB15 cylinder base for safety.

Single Acting Cylinder H5513 in the collapsed position ready to lift a load.

- Collar threads and base mounting holes for fixturing
- Hard chrome plated piston plunger protects against corrosion and damage
- Polyurethane U-Cup seals provide a sure seal and long life
- Solid one piece alloy steel body
- One piece aluminum alloy bearing protects against cylinder wall damage
- CH38F high flow coupler with dust cap is standard on all cylinders



Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

HU Series – Aluminum Cylinders



Aluminum cylinders make a great lightweight alternative being up to 60% lighter than comparable steel models.

38 pg



Quick Reference Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)	Oil Capacity (cc)	Weight (kg)
5 Tonne 45 kN	27	H0501	116	16	1.4
	78	H0503	169	50	1.5
	129	H0505	221	83	1.8
	181	H0507	272	116	2.1
	232	H0509	324	148	2.5
10 Tonne 101 kN	25	H1001	92	36	1.8
	51	H1002	123	74	2.3
	102	H1004	174	147	3.5
	155	H1006	250	218	4.3
	206	H1008	301	292	5.1
	257	H1010	352	366	5.9
	305	H1012	403	439	6.8
15 Tonne 142 kN	356	H1014	450	515	7.6
	25	H1501	124	50	3.1
	51	H1502	149	103	3.9
	101	H1504	200	205	5.0
	152	H1506	270	308	6.7
	203	H1508	321	411	7.8
	254	H1510	372	515	9.1
	305	H1512	423	618	10.2
	356	H1514	474	721	11.4
25 Tonne 232 kN	407	H1516	529	824	12.8
	26	H2501	143	86	5.5
	51	H2502	168	170	6.4
	102	H2504	219	339	8.2
	155	H2506	272	515	10.1
	206	H2508	323	684	11.9
	257	H2510	374	854	13.7
30 Tonne 293 kN	310	H2512	426	1030	15.6
	362	H2514	476	1203	17.4
50 Tonne 496 kN	210	H3008	387	879	18.5
	51	H5502	176	360	15.0
	103	H5504	227	730	18.6
	159	H5506*	283	1126	26.1
	260	H5510*	385	1844	30.6
75 Tonne 727 kN	337	H5513*	461	2388	39.5
	156	H7506*	285	1620	33.6
	333	H7513*	492	3459	55.3
95 Tonne 929 kN	51	H10002*	219	677	29.9
	168	H10006*	357	2229	57.6
	260	H10010*	449	3453	69.4
	356	H10014*	545	4721	81.6

See pages 8-9 for detailed specifications.
* Cylinder is equipped with carrying handle.



H Series



Cylinder Accessories
See the assortment of accessories designed to work with our products.

48 pg



Combo Kits
Most cylinders are available in easy to order kits: Cylinder, Gauge, Couplers, Hose and Pump.

68 pg



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

85 pg



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

114 pg



High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Optional Tilt-Saddles
Saddles tilt to a 5% maximum to adjust to the load. Match up these saddles with the following cylinders:

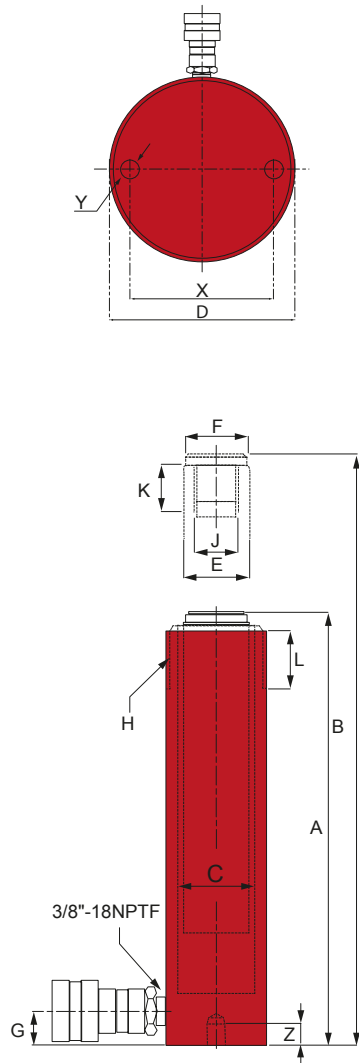
SDT05	→	H05 Cylinders
SDT10	→	H10 Cylinders
SDT15	→	H15 Cylinders
SDT25	→	H25 Cylinders
SDT55	→	H55, H75, H100 Cylinders



49 pg

Single Acting Cylinders

H Series - Spring Return



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm ²)	Oil Capacity (cc)	Weight (kg)
5 Tonne 45 kN	27	H0501	6.4	16	1.4
	78	H0503	6.5	50	1.5
	129	H0505	6.5	83	1.8
	181	H0507	6.5	116	2.1
	232	H0509	6.5	148	2.5
10 Tonne 101 kN	25	H1001	14.4	36	1.8
	51	H1002	14.4	74	2.3
	102	H1004	14.4	147	3.5
	155	H1006	14.4	218	4.3
	206	H1008	14.4	292	5.1
	257	H1010	14.4	366	5.9
	305	H1012	14.4	439	6.8
15 Tonne 142 kN	356	H1014	14.4	515	7.6
	25	H1501	20.3	50	3.1
	51	H1502	20.3	103	3.9
	101	H1504	20.3	205	5.0
	152	H1506	20.3	308	6.7
	203	H1508	20.3	411	7.8
	254	H1510	20.3	515	9.1
	305	H1512	20.3	618	10.2
	356	H1514	20.3	721	11.4
25 Tonne 232 kN	407	H1516	20.3	824	12.8
	26	H2501	33.2	86	5.5
	51	H2502	33.2	170	6.4
	102	H2504	33.2	339	8.2
	155	H2506	33.2	515	10.1
	206	H2508	33.2	684	11.9
	257	H2510	33.2	854	13.7
30 Tonne 293 kN	310	H2512	33.2	1030	15.6
	362	H2514	33.2	1203	17.4
	210	H3008	41.9	879	18.5
50 Tonne 496 kN	51	H5502	70.9	360	15.0
	103	H5504	70.9	730	18.6
	159	H5506*	70.9	1126	26.1
	260	H5510*	70.9	1844	30.6
	337	H5513*	70.9	2388	39.5
75 Tonne 727 kN	156	H7506*	103.8	1620	33.6
	333	H7513*	103.8	3459	55.3
95 Tonne 929 kN	51	H10002*	132.7	677	29.9
	168	H10006*	132.7	2229	57.6
	260	H10010*	132.7	3453	69.4
	356	H10014*	132.7	4721	81.6

* Cylinder is equipped with carrying handle.

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base to Inlet Port G (mm)	Collar Thread H	Collar Thread Length L (mm)	Plunger Internal Thread J	Plunger Thread Length K (mm)	Base Mounting Hole (mm)		
												Bolt Circle X	Thread Y	Thread Depth Z
H0501	116	142	29	38	25	25	20	1½"-16N	28	¾"-16UNF	16	25	¼"-20UNC	14
H0503	169	247	29	38	25	25	20	1½"-16N	28	¾"-16UNF	16	25	¼"-20UNC	14
H0505	221	350	29	38	25	25	20	1½"-16N	28	¾"-16UNF	16	25	¼"-20UNC	14
H0507	272	452	29	38	25	25	20	1½"-16N	28	¾"-16UNF	16	25	¼"-20UNC	14
H0509	324	552	28	38	25	25	20	1½"-16N	28	¾"-16UNF	16	25	¼"-20UNC	14
H1001	92	117	43	58	38	-	20	2¼"-14UN	30	-	6	40	⅝"-18UNC	14
H1002	123	174	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1004	174	276	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1006	250	401	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1008	301	503	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1010	352	605	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1012	403	707	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1014	450	806	43	58	38	35	20	2¼"-14UN	30	1"-8UNC	20	40	⅝"-18UNC	14
H1501	124	149	51	70	41	38	20	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1502	149	200	51	70	41	38	20	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1504	200	301	51	70	41	38	20	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1506	270	422	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1508	321	524	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1510	372	626	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1512	423	728	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1514	474	830	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H1516	529	936	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅝"-16UNC	13
H2501	143	169	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2502	168	219	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2504	219	321	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2506	272	427	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2508	323	529	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2510	374	631	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2512	426	736	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H2514	476	838	65	85	57	50	25	3⅝"-12N	49	1½"-16UNC	30	59	½"-13UNC	19
H3008	387	597	73	102	57	50	50	3⅝"-12UN	49	1½"-16UNC	30	56	½"-13UNC	19
H5502	176	227	95	127	80	70	31	5"-12UN	55	-	-	95	½"-13UNC	19
H5504	227	330	95	127	80	70	31	5"-12UN	55	-	-	95	½"-13UNC	19
H5506*	283	442	95	127	80	70	31	5"-12UN	55	-	-	95	½"-13UNC	19
H5510*	385	645	95	127	80	70	31	5"-12UN	55	-	-	95	½"-13UNC	19
H5513*	461	798	95	127	80	70	31	5"-12UN	55	-	-	95	½"-13UNC	19
H7506*	285	466	115	147	95	70	30	5¾"-12UN	45	-	-	100	¾"-10UNC	22
H7513*	492	825	115	147	95	70	30	5¾"-12UN	45	-	-	100	¾"-10UNC	22
H10002*	219	270	130	159	105	70	38	6¼"-12UN	55	-	-	-	-	-
H10006*	357	525	130	177	105	70	40	6⅝"-12UN	45	-	-	140	¾"-10UNC	25
H10010*	449	709	130	177	105	70	40	6⅝"-12UN	45	-	-	140	¾"-10UNC	25
H10014*	545	901	130	177	105	70	40	6⅝"-12UN	45	-	-	140	¾"-10UNC	25

* Cylinder is equipped with carrying handle.

Double Acting Cylinders

HD Series - General Purpose



Capacity:
10 - 140 Tonnes

Stroke:
155 - 461 mm

Pressure:
700 BAR

Min. - Max. Height:
331 - 1269 mm



HD10006

HD3008

- Plunger wiper seals out dirt and contamination
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF female 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
- Threaded cylinders, removable saddle, thicker cylinder walls
- Retract under hydraulic power for faster operation

80%

Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

HD cylinders can be used in pushing and pulling applications. In this photo, we see a HD cylinder set up for a push application using a special designed mobile cylinder base plate.



HD5513

HD7513

Quick Selection Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)	Oil Capacity		Weight (kg)
				Push (cc)	Pull (cc)	
10 Tonne 101/33 kN	255	HD1010	409	367	122	12.1
	304	HD1012	458	438	146	13.6
30 Tonne 293/144 kN	207	HD3008	389	867	426	19.5
	368	HD3014	550	1542	758	27.5
50 Tonne 469/144 kN	157	HD5506*	331	1113	323	32.0
	335	HD5513*	509	2375	690	47.2
	511	HD5520*	733	3623	1053	66.3
75 Tonne 724/231 kN	155	HD7506*	348	1608	511	42.5
	333	HD7513*	526	3457	1099	62.1
95 Tonne 929/432 kN	167	HD10006*	357	2216	1032	62.9
	257	HD10010*	449	3413	1591	76.7
	333	HD10013*	524	4419	2058	87.8
	461	HD10018*	687	6117	2849	112.6
140 Tonne 1374/646	156	HD15006*	386	3056	1439	78.4
	334	HD15013*	584	6546	3082	111.3
	460	HD15018*	761	9039	4256	147

* Are equipped with carrying handles.



HD Series

HDU Series – Aluminum Cylinders

Aluminum cylinders make a great lightweight alternative being up to 60% lighter than comparable steel models.

Cylinder Accessories

See the assortment of accessories designed to work with our products.

Combo Kits

Most cylinders are available in easy to order kits: Cylinder, Gauge, Couplers, Hose and Pump.

Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).

Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.

Double Acting Cylinders

HD Series - General Purpose



Cylinder Accessories

See the assortment of accessories designed to work with our products.

48 pg



Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

85 pg



Combo Kits

Most cylinders are available in easy to order kits: Cylinder, Gauge, Couplers, Hose and Pump.

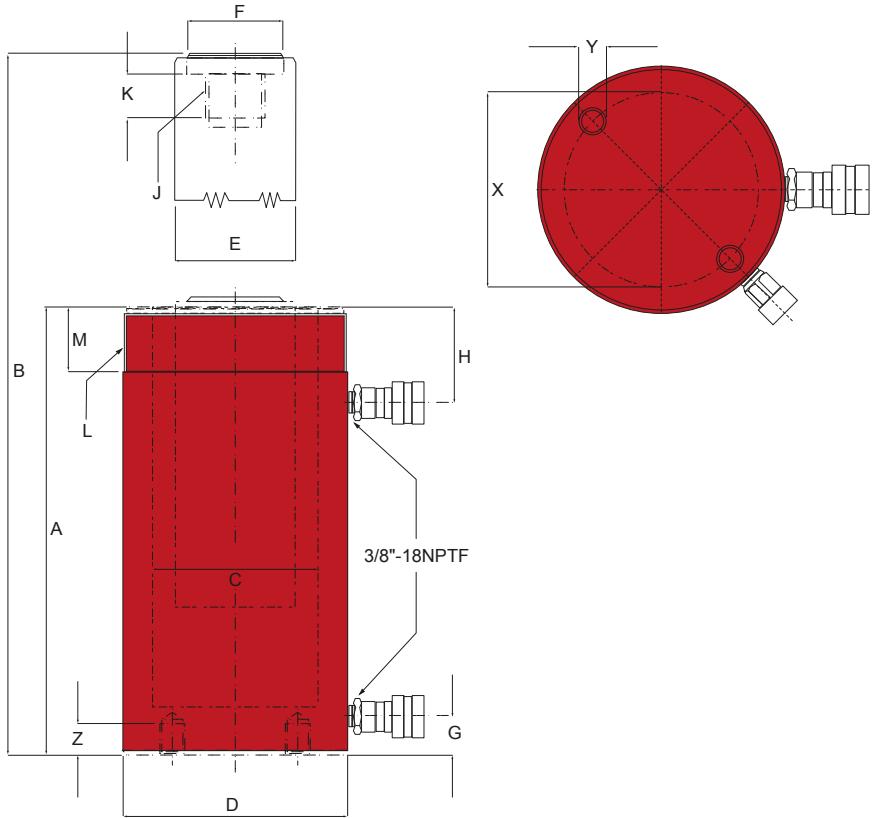
68 pg



Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

114 pg



HD Series



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.



High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).

Cylinder Capacity	Stroke (mm)	Model Number	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Weight (kg)	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)
			Push (Tonne)	Pull (Tonne)	Push (cm²)	Pull (cm²)	Push (cc)	Pull (cc)				
10 Tonne 101/34 kN	255	HD1010	10.4	3.4	14.5	4.8	367	122	12.1	409	665	43
	304	HD1012	10.4	3.4	14.5	4.8	438	146	13.6	458	762	43
30 Tonne 293/144 kN	207	HD3008	29.9	14.7	41.9	20.6	867	426	19.5	389	596	73
	368	HD3014	29.9	14.7	41.9	20.6	1542	758	27.5	550	918	73
50 Tonne 496/144 kN	157	HD5506*	50.6	14.7	70.9	20.6	1113	323	32.0	331	488	95
	335	HD5513*	50.6	14.7	70.9	20.6	2375	690	47.2	509	844	95
	511	HD5520*	50.6	14.7	70.9	20.6	3623	1053	66.3	733	1269	95
75 Tonne 727/231 kN	155	HD7506*	74.0	23.6	103.8	33	1608	511	42.5	348	503	115
	333	HD7513*	74.0	23.6	103.8	33	3457	1099	62.1	526	859	115
95 Tonne 929/433 kN	167	HD10006*	94.7	44.1	132.7	61.8	2216	1032	62.9	357	524	130
	257	HD10010*	94.7	44.1	132.7	61.8	3413	1591	76.7	449	706	130
	333	HD10013*	94.7	44.1	132.7	61.8	4419	2058	87.8	524	857	130
	461	HD10018*	94.7	44.1	132.7	61.8	6117	2849	112.6	687	1148	130
140 Tonne 1374/647	156	HD15006*	140.1	66	196.3	92.4	3065	1439	78.4	386	542	158
	334	HD15013*	140.1	66	196.3	92.4	6546	3082	108.8	564	898	158
	461	HD15018*	140.1	66	196.3	92.4	9039	4256	147.0	761	1221	158

* Are equipped with carrying handles.

Model Number	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base to Inlet Port G (mm)	Top to Return Port H (mm)	Plunger Internal Thread J	Plunger Thread Length K (mm)	Collar Thread L	Collar Thread Length M (mm)	Base Mounting Hole		
										Bolt Circle X (mm)	Thread Y	Thread Depth Z (mm)
HD1010	73	35	35	36	53	1"-8UNC	25	2¼"-14UN	26	32	⅝"-18UNC	14
HD1012	73	35	35	36	53	1"-8UNC	25	2¼"-14UN	26	32	⅝"-18UNC	14
HD3008	101	54	50	42	74	1½"-16UN	25	3⅝"-12UN	49	55	½"-13UNC	19
HD3014	101	54	50	42	74	1½"-16UN	25	3⅝"-12UN	49	55	½"-13UNC	19
HD5506*	127	80	70	63	73	1"-12UNF	25	5"-12UN	44	55	½"-13UNC	19
HD5513*	127	80	70	63	73	1"-12UNF	25	5"-12UN	44	55	½"-13UNC	19
HD5520*	127	80	70	63	73	1"-12UNF	25	5"-12UN	44	55	½"-13UNC	19
HD7506*	147	95	70	30	71	1"-12UNF	38	5¾"-12UN	38	102	¾"-10UNC	23
HD7513*	147	95	70	30	71	1"-12UNF	38	5¾"-12UN	38	102	¾"-10UNC	23
HD10006*	177	95	75	31	75	1¾"-12UN	35	6⅞"-12N	51	140	¾"-10UNC	25
HD10010*	177	95	75	31	75	1¾"-12UN	38	6⅞"-12N	51	140	¾"-10UNC	25
HD10013*	177	95	75	31	75	1¾"-12UN	35	6⅞"-12UN	51	140	¾"-10UNC	25
HD10018*	177	95	75	38	75	1¾"-12UN	35	6⅞"-12UN	51	140	¾"-10UNC	25
HD15006*	203	115	115	50	84	3⅝"-16UN	36	8"-12UN	60	159	¾"-16UNF	25
HD15013*	203	115	115	50	84	3⅝"-16UN	36	8"-12UN	60	159	¾"-16UNF	25
HD15018*	203	115	115	50	84	3⅝"-16UN	36	8"-12UN	60	159	¾"-16UNF	25

* Are equipped with carrying handles.

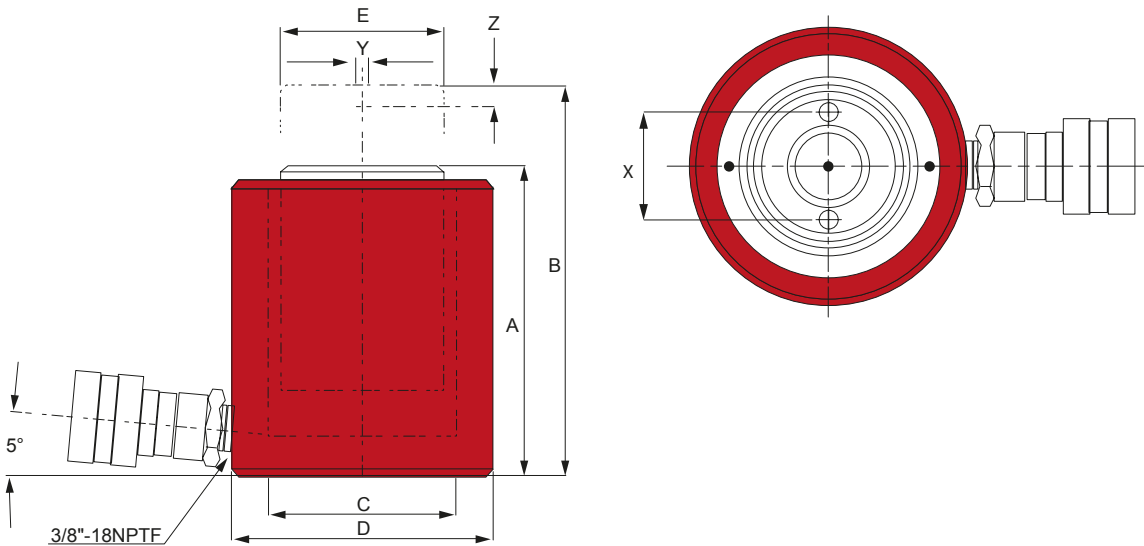
Low Profile Cylinders

HL Series - Low Clearance Lifting

- Compact design for use in confined spaces.
- Plunger wiper helps seal out dirt and contamination.
- Specially designed return spring provides quick retraction and extends the life of the spring.
- Hard chrome plated plunger helps prevent scratching and corrosion.
- Plunger end is grooved to reduce load slippage.
- Includes high flow coupler and dust cap.
- HL1001, HL2002, and HL3002 coupler is tilted 5° for added clearance.



HL Series



Low profile cylinders are great for confined spaces.

Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Weight (kg)
10 Tonne 106 kN	38	HL 1001	15.2	58	2.6
20 Tonne 198 kN	44	HL2002	28.3	125	5.0
30 Tonne 293 kN	62	HL3002	41.9	260	6.8
45 Tonne 445 kN	60	HL5002	63.6	382	9.9
90 Tonne 887 kN	57	HL10002	126.7	722	20.6



Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Diameter C (mm)	Outside Diameter D (mm)	Plunger Diameter E (mm)	Plunger Mounting		
						Bolt Circle X (mm)	Thread Y	Thread Depth Z (mm)
HL1001	89	126	44	70	38	26	M4	8
HL2002	99	144	60	92	51	40	M5	8
HL3002	117	179	73	102	64	40	M5	8
HL5002	122	182	90	124	70	40	M5	8
HL10002	141	198	127	165	90	56	M8	3

Low Profile Cylinders Combo Kit

Low Clearance Lifting



▲ Press truck wheel from nave with the mini-press. Fits between the chassis and wheel.

- Compact design for use in confined spaces.
- Ideal for pushing applications.
- Plunger wiper helps seal out dirt and contamination.
- Return spring ensures a quick retraction and extends the life of the spring.
- Industrial hard chrome plated plunger helps prevent scratching and corrosion.
- Includes stackable 1", 2", and 3" aluminum adapters that conveniently snap into the base of the plunger.
- Includes high flow CH38F coupler and dust cap.
- Convenient storage case.

HL Series



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

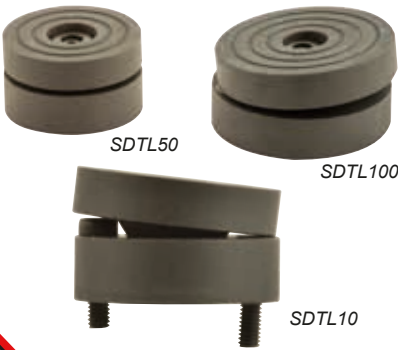
Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).

Cylinder Capacity	Model Number	Stroke (mm)	Cylinder Effective Area (cm²)	Collapsed Height (mm)	Extended Height w/o adapter (mm)	Extended Height w/ all adapter (mm)	Cylinder Housing Diameter (mm)	Plunger Diameter (mm)	Weight (kg)
10 Tonne 106 kN	HL1001D	38	15.2	88	126	286	70	38	4.5
20 Tonne 198 kN	HL2002D	44	28.3	107	152	312	92	51	9.5
30 Tonne 293 kN	HL3002D	62	41.9	125	187	347	102	64	12



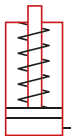
Bolt-On Tilt Saddles

Bolt-On tilt saddles are designed specifically for use with the HL Series Low Profile Cylinders and Low Profile Cylinder Kit. These saddles provide a max. 5° tilt for uneven loads.

Model Number	Height (mm)	Description
SDTL10	21	HL 1001 Cylinder Kit
SDTL50	29	HL2002 / HL3002 / HL5002 Cylinder
SDTL100	35	HL10002 Cylinder

Flat Body Cylinders

HF series - Extremely Low Lifting



Capacity:
5 - 140 Tonnes

Stroke:
6 - 16 mm

Pressure:
700 BAR

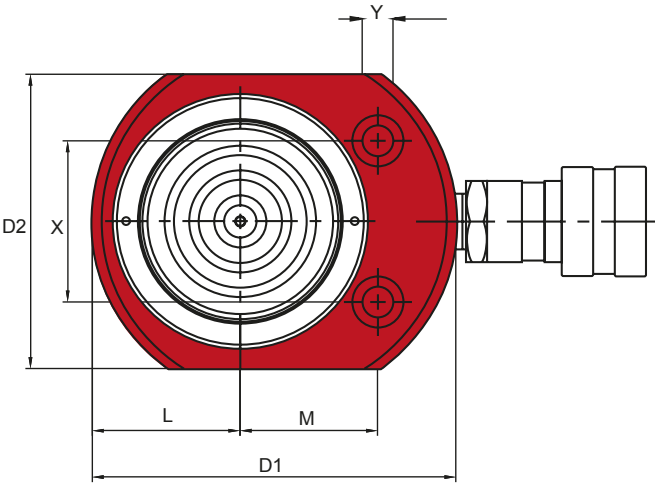
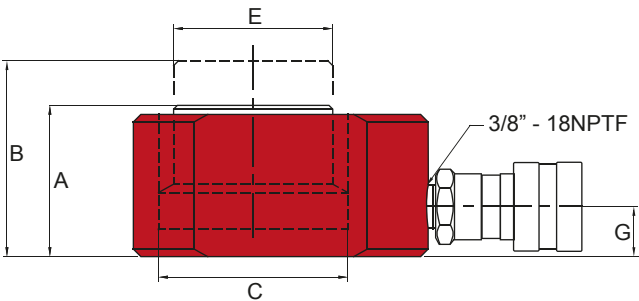
Min. - Max. Height:
32 - 100 mm

- Extremely low collapsed height for applications with minimal clearance at the lift point.
- Maximum working pressure 10,000 psi / 700 bar.
- HF0503 and HF0503B include a 3/8" regular flow coupler (CR38F).

HF5006 in the collapsed position ready to lift a load with a PA1500 foot pump.



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Weight (kg)
5 Tonne / 49 kN	16	HF0500	7.1	11	0.9
	6	HF0503*	7.1	4	0.6
10 Tonne / 116 kN	11	HF1005	15.2	17	1.5
20 Tonne / 198 kN	11	HF2005	28.3	31	2.7
30 Tonne / 293 kN	13	HF3005	41.9	54	4.4
45 Tonne / 445 kN	16	HF5006	63.6	102	6.8
75 Tonne / 727 kN	16	HF7506	103.9	166	11.5
90 Tonne / 887 kN	16	HF10006	126.7	203	14.3
140 Tonne / 1385 kN	16	HF15006	197.9	316	24.2



Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D1 x D2 D (mm)	Plunger Dia. E (mm)	Base to Inlet Port G (mm)	Plunger to Base L (mm)	Plunger to Mtg. Hole M (mm)	Hole Pitch X (mm)	Hole Dia. Y (mm)	Counter Bore Dia. (mm)	Counter Bore Depth (mm)
HF0500	41	57	30	60x40	25	19	20	22	28	5	10	6
HF0503*	32	38	30	61x41	25	18	20	22	28	5	8	4
HF1005	43	54	44	84x56	38	20	28	34	37	7	11	8
HF2005	51	62	60	102x76	51	19	39	40	49	10	15	10
HF3005	59	72	73	117x97	64	20	48	44	52	10	16	11
HF5006	67	83	90	140x114	70	20	57	54	67	11	19	13
HF7506	80	96	115	165x140	90	20	70	67	76	13	21	14
HF10006	86	102	127	177x152	90	20	76	75	76	13	21	14
HF15006	100	116	159	215x190	118	24	3.75	95	117	13	21	14

*HF0503 is fitted with the CR38F



HF Series

Combo Kits
Most cylinders are available in easy to order kits: Cylinder, Gauge, Couplers, Hose and Pump. 68 pg

Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need. 85 pg

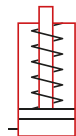
Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared. 114 pg

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Flat Body Cylinder Kits

HF Series - Kits

- Various height stackable magnetic adapters eliminate dangerous cribbing.
- Convenient carrying case.
- Magnetic adapters are stackable.
- U.S. Patent No.7,237,762 B2.



HF Series



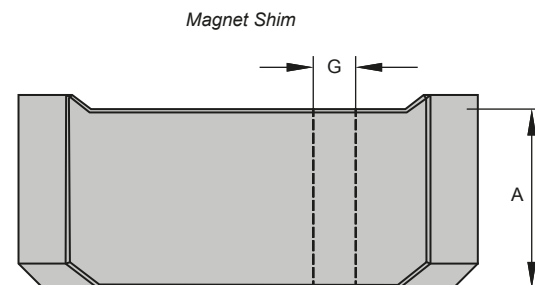
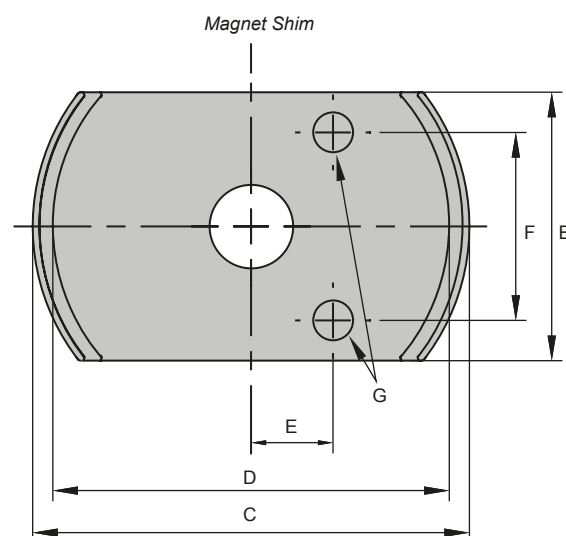
Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified)



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Model	Oil Capacity (cc)	Collapsed Height (mm)	Weight (kg)	Adapter Dimensions						
							A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
5 Tonne 49 kN	6	HF0503B*	HF0503	4	32	2.5	4	41	65	59	12	28	6
							11	41	65	59	12	28	6
							23	41	65	59	12	28	6
							30	41	65	59	12	28	6
10 Tonne 106 kN	11	HF1005B	HF1005	17	43	4.2	10	56	90	82	21	37	7
							20	56	90	82	-	-	-
							40	56	90	82	-	-	-
20 Tonne 198 kN	11	HF2005B	HF2005	31	51	6.8	10	76	108	100	27	49	10
							20	76	108	100	-	-	-
							40	76	108	100	-	-	-
30 Tonne 293 kN	13	HF3005B	HF3005	54	59	9.5	10	95	121	113	34	52	10
							20	95	121	113	-	-	-
							40	95	121	113	-	-	-
45 Tonne 445 kN	16	HF5006B	HF5006	102	67	14.7	10	114	150	141	41	67	11
							20	114	150	141	-	-	-
							40	114	150	141	-	-	-

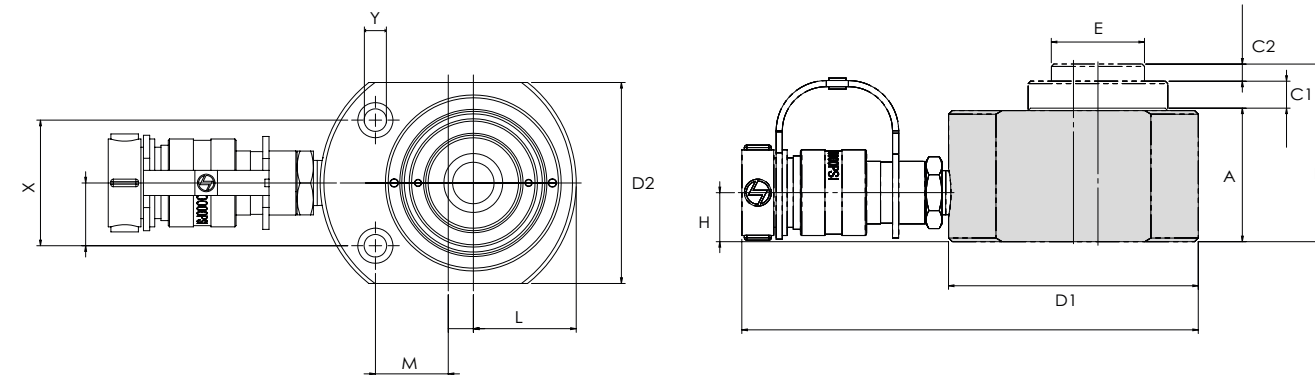
*HF0503B is fitted with the coupler CR38F



Flat Body telescopic Cylinders

HFT Series - Extremely low lifting

- Single acting, Spring return.
- For use in areas with limited space.
- Mounting holes for fixation.
- Equiped with standard CH38F coupler.

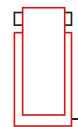


Cylinder Capacity at max Stroke	Stroke (mm)	Model Number	1st stage		2nd stage		Oil capacity (cc)	Weight (kg)
			Capacity ton (kN)	Stroke (mm)	Capacity ton (kN)	Stroke (mm)		
4,5 Tonne / 43 kN	17	HFT0451	12 Tonne / 111 kN	11	4,5 Tonne / 43 kN	6	21	1,6
12 Tonne / 111 kN	18	HFT1201	25 Tonne / 232 kN	11	12 Tonne / 111 kN	7	48	3
25 Tonne / 232 kN	27	HFT2501	50 Tonne / 496 kN	16	25 Tonne / 232 kN	11	145	7,5
30 Tonne / 309 kN	29	HFT3501	75 Tonne / 727 kN	16	30 Tonne / 309 kN	13	224	12,9
50 Tonne / 496 kN	26	HFT5001	95 Tonne / 929 kN	16	50 Tonne / 496 kN	10	283	17,3
75 Tonne / 727 kN	26	HFT7501	145 Tonne / 1407 kN	16	75 Tonne / 727 kN	10	246	30,4

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Outside Dia. D1 x D2 (mm)	Plunger Dia. E (mm)	Plunger to Base L (mm)	Plunger to mounting hole M (mm)	Hole Distance X (mm)	Hole Dia. Y (mm)	Counter Bore Dia. (mm)	Counter Bore Depth (mm)	Counter Bore Dia. (mm)	Counter Bore Depth (mm)
HFT0451	45	62	83x56	25	29	39	37	6,6	11	7	10	6
HFT1201	54,5	72,5	102x80	38	41	39	50	9	14	9	8	4
HFT2501	75	102	120x114	57	58	56	67	13	20	13	11	8
HFT3501	89	118	165x140	60	71	78	76	13	20	13	15	10
HFT5001	96	122	178x162	78	89	70	76	6,6	11	7	16	11
HFT7501	114	140	216x196	95	108	78	117	9	14	9	19	13

Lock Nut Cylinders

HLN Series - Heavy Lifting with Mechanical Lock Nut



Capacity:
50 - 320 Tonnes

Stroke:
50 - 300 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
165 - 845 mm
10% sideload @ 80% capacity

- Single acting cylinder with mechanical safety lock nut.
- Designed to support loads without hydraulic pressure.
- Overflow port prevents cylinders from over travel.
- Load return.
- Solid steel cylinder body.
- Electroless nickel plated plunger to resist corrosion and rust.
- Maximum working pressure: 10. 000 psi / 700 bar.

Optional Tilt Saddles

SDT55	→	HLN55, HLN100 Cylinders
SDT200	→	HLN150, HLN200 Cylinders
SDT250	→	HLN250
SDT300	→	HLN300



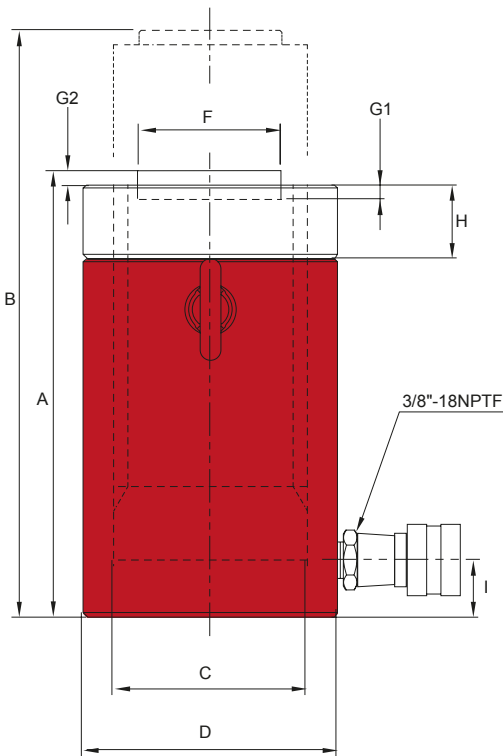
Saddles tilt to a 5° max to adjust to the load.

49 pg

(42) HLN5508 lock nut cylinders lifting the Jordan Bridge in Chesapeake, VA.



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Weight (kg)
50 Tonne 496 kN	50	HLN5502	70.9	355	15.4
	100	HLN5504	70.9	709	20.4
	150	HLN5506	70.9	1064	24.9
	200	HLN5508	70.9	1418	29.9
	250	HLN5510	70.9	1773	34.9
	300	HLN5512	70.9	2127	39.5
95 Tonne 929 kN	50	HLN10002	132.7	664	30.4
	100	HLN10004	132.7	1327	39.0
	150	HLN10006	132.7	1991	47.2
	200	HLN10008	132.7	2654	55.8
	250	HLN10010	132.7	3318	64.0
140 Tonne 1408 kN	50	HLN15002	201.1	1006	52.6
	100	HLN15004	201.1	2012	65.8
	150	HLN15006	201.1	3018	78.9
	200	HLN15008	201.1	4019	91.6
	250	HLN15010	201.1	5025	104.8
190 Tonne 1852 kN	50	HLN20002	264.5	1322	82.1
	100	HLN20004	264.5	2645	98.9
	150	HLN20006	264.5	3966	116.1
	200	HLN20008	264.5	5293	132.9
	250	HLN20010	264.5	6612	150.1
250 Tonne 2542 kN	50	HLN25002	363.1	1815	114.8
	150	HLN25006	363.1	5446	161.5
	300	HLN25012	363.1	10891	231.3
300 Tonne 3180 kN	50	HLN30002	454.3	2271	171.9
	150	HLN30006	454.3	6814	231.3
	300	HLN30012	454.3	13628	320.2



HLN Series

Safety Colour Band



BVA Lock nut cylinders are equipped with a yellow safety band. Do not extend the ram beyond this point as it may result in a loss of hydraulic oil and damage to the cylinder and/or load.



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Diameter C (mm)	Outside Diameter D (mm)	Saddle Diameter F (mm)	Depth of Plunger Hole G1 (mm)	Saddle Protrusion From Plunger G2 (mm)	Lock Nut Length H (mm)	Base to Inlet Port I (mm)
HLN5502	165	213	94	124	71	13	2	36	28
HLN5504	213	315	94	124	71	13	2	36	28
HLN5506	264	414	94	124	71	13	2	36	28
HLN5508	315	513	94	124	71	13	2	36	28
HLN5510	363	615	94	124	71	13	2	36	28
HLN5512	414	714	94	124	71	13	2	36	28
HLN10002	188	236	130	165	71	13	2	46	28
HLN10004	236	338	130	165	71	13	2	46	28
HLN10006	287	437	130	165	71	13	2	46	28
HLN10008	338	536	130	165	71	13	2	46	28
HLN10010	386	638	130	165	71	13	2	46	28
HLN10012	437	737	130	165	71	13	2	46	28
HLN15002	209	259	160	205	130	25	2	44	39
HLN15004	259	359	160	205	130	25	2	44	39
HLN15006	309	459	160	205	130	25	2	44	39
HLN15008	359	559	160	205	130	25	2	44	39
HLN15010	409	659	160	205	130	25	2	44	39
HLN15012	459	759	160	205	130	25	2	44	39
HLN20002	243	292	183	235	130	25	2	50	50
HLN20004	293	393	183	235	130	25	2	50	50
HLN20006	343	495	183	235	130	25	2	50	50
HLN20008	394	594	183	235	130	25	2	50	50
HLN20010	442	693	183	235	130	25	2	50	50
HLN20012	493	793	183	235	130	25	2	50	50
HLN25002	249	299	215	275	150	25	2	56	50
HLN25006	349	499	215	275	150	25	2	56	50
HLN25012	499	799	215	275	150	25	2	56	50
HLN30002	295	345	241	310	139	25	5	60	59
HLN30006	395	545	241	310	139	25	5	60	59
HLN30012	545	845	241	310	139	25	5	60	59

Low Profile Lock Nut Cylinders

HLNF Series - Low Clearance Lifting with Mechanical Lock Nut

- Single acting cylinder with mechanical safety lock nut.
- Designed to support loads without hydraulic pressure.
- Low profile for confined spaces.
- 5° tilting saddle is standard.
- Maximum working pressure: 10,000 psi/700 bar.
- Equipped with CH38F high flow coupler.
- Load Return.
- Able to withstand 10% Side load @ 80% stroke



Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

85 pg

Safety Colour Band

BVA Lock nut cylinders are equipped with a yellow safety band. Do not extend the ram beyond this point as it may result in a loss of hydraulic oil and damage to the cylinder and/or load.

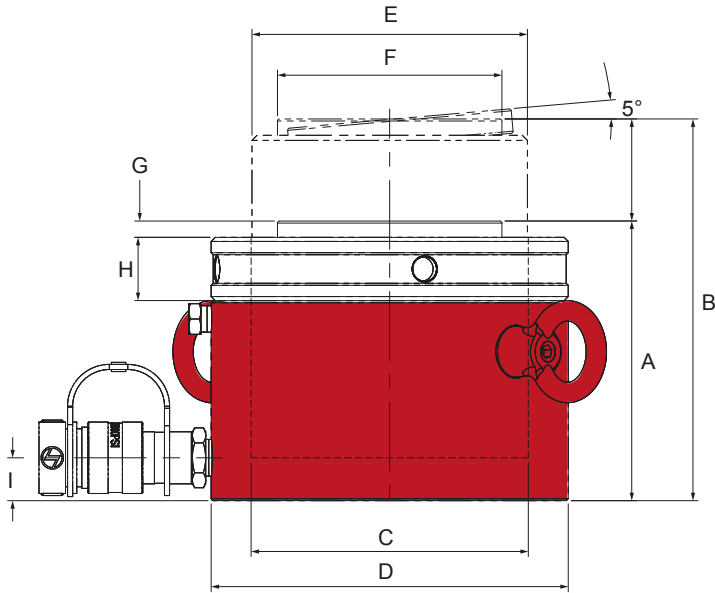
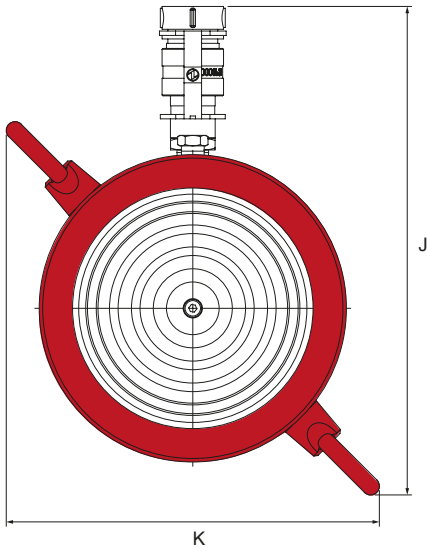
Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

114 pg



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Weight (kg)
60 Tonne 606 kN	50	HLNF6002	86.6	433	14.2
100 Tonne 1014 kN	50	HLNF10002	145	725	24.5
160 Tonne 1562 kN	45	HLNF16002	229.1	1031	41.3
200 Tonne 1985 kN	45	HLNF20002	283.5	1276	53.8
250 Tonne 2542 kN	45	HLNF25002	363.1	1634	70.1
400 Tonne 3919 kN	45	HLNF40002	559.9	2519.6	128.9



Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Outside Thread E	Saddle Dia. F (mm)	Saddle Protrusion From Plunger G (mm)	Lock Nut Length H (mm)	Base to Inlet Port I (mm)	Coupler to Eyelet J (mm)	Eyelet to Eyelet K (mm)
HLNF6002	125	175	105	140	TW105-4N	82	6	28	19	248	188
HLNF10002	137	187	136	175	TW135-4N	110	8	31	21	278	213
HLNF16002	148	193	171	220	TW170-4N	148	9	40	27	316	244
HLNF20002	155	200	190	245	TW190-4N	160	10	43	30	338	262
HLNF25002	159	204	215	275	TW215-4N	185	11	44	32	363	283
HLNF40002	178	223	267	350	TR267-6	250	11	55	37	-	454



HLNF Series

Safety Colour Band

BVA Lock nut cylinders are equipped with a yellow safety band. Do not extend the ram beyond this point as it may result in a loss of hydraulic oil and damage to the cylinder and/or load.

Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

High Tonnage Single Acting Cylinders

HG series - Heavy Lifting, Load Return



Capacity:

95 - 1000 Tonnes

Stroke:

50 - 300 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

182 - 1114 mm
10% side load @ max stroke

Quick Reference Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)	Oil Capacity (cc)	Weight (kg)
95 Tonne 911 kN	50	HG10002	182	664	27.7
	100	HG10004	232	1327	33.6
	150	HG10006	282	1991	39.5
	200	HG10008	332	2655	45.4
	250	HG10010	382	3318	51.7
140 Tonne 1348 kN	300	HG10012	432	3982	57.6
	50	HG15002	196	981	46.3
	100	HG15004	246	1963	55.3
	150	HG15006	296	2978	64.4
	200	HG15008	346	3926	73.5
190 Tonne 1815 kN	250	HG15010	396	4907	82.1
	300	HG15012	446	5889	91.6
	50	HG20002	216	1322	54.9
	150	HG20006	316	3989	91.2
	200	HG20008	366	5289	109.8
320 Tonne* 3132 kN	300	HG20012	466	7977	146.1
	50	HG30002	312	2281	184.2
	150	HG30006	412	6843	231.8
390 Tonne* 3844 kN	300	HG30012	562	13685	303.0
	50	HG40002	374	2800	269.9
	150	HG40006	474	8399	330.2
510 Tonne* 5015 kN	300	HG40012	625	17077	420.9
	50	HG50002	419	3653	401.0
	150	HG50006	519	10959	479.9
600 Tonne* 5871 kN	300	HG50012	669	21919	599.2
	50	HG60002	429	4277	474.0
	150	HG60006	529	12829	565.2
820 Tonne* 8075 kN	250	HG60010	629	21383	655.6
	300	HG60012	679	25662	700.8
1000 Tonne* 10062 kN	50	HG80002	474	5881	741.2
	150	HG80006	574	17649	868.2
	300	HG80012	724	35281	1057.8
	50	HG100002	564	7329	1061.9
	150	HG100006	664	21991	1212.9
	300	HG100012	814	43966	1438.8

*Available on request: no stock item



HG Series

Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Optional Tilt-Saddles
Saddles tilt to a 5% maximum to adjust to the load. View our cylinder accessories page to figure out what saddle best fits these cylinders.

Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Flow Control Valves
Control the speed of your cylinder by adding a flow control valve.

Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.

Gas/Diesel Engine Pumps

These HDG cylinders pair up well with a Gas or Diesel Engine pump. We offer a variety of different flow rates, motor sizes and reservoir sizes on our gas/diesel engine pumps. Contact your local BVA dealer for more details.

- Gas engine pump will provide 700 BAR hydraulic force at remote locations.
- Industrial grade 5.5 hp. (4.1 kN) Honda gas engine or 4.6 hp. (3.5 kN) HATZ diesel engine.
- Ideal for applications where electricity isn't easily accessible.
- Two speed pump designed for rapid cylinder advance.
- Gas pump features a sturdy protective roll cage for use in the toughest environments.
- Optional electric start with Diesel Engine.

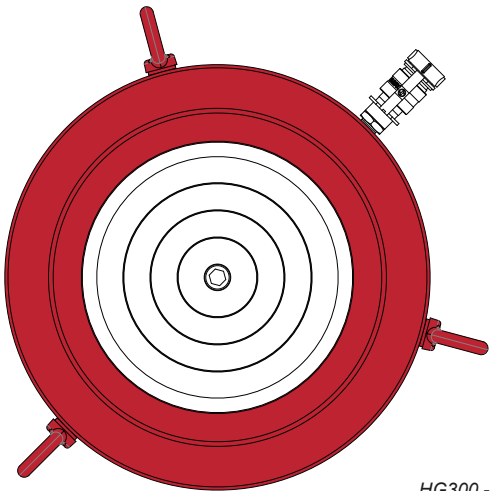
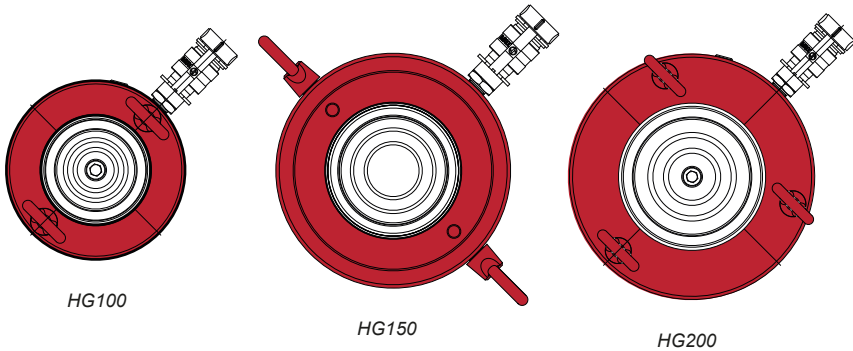
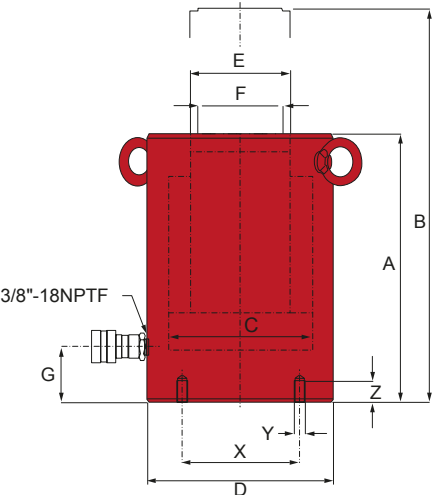
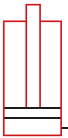
Electric Motor Pumps

These HG cylinders pair up well with Electric Motor pumps. We offer a variety of different flow rates and motor sizes. Contact your local BVA dealer for more details.

- Meets OSHA regulations for sound (80dBA).
- Two speed pump designed for rapid cylinder advance.
- Internal filter screens contamination to prevent pump damage.
- All units are wired as 230 VAC 50 Hz; Optional wiring 120 VAC 50Hz.
- 100% Duty Cycle TEFC motors.
- All hand pendants are wired at 24VAC for safety.
- Full load starting capability.

High Tonnage Single Acting Cylinders

HG Series - Heavy Lifting, Load Return



HG300 - HG1000



HG Series

**80%**

Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Optional Tilt-Saddles



Saddles tilt to a 5% maximum to adjust to the load. View our cylinder accessories page to figure out what saddle best fits these cylinders.

pg 49

High-Flow Couplers



High-Flow Coupler: CH38F is included on all models (except where specified).

Related Product: Gauges



Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

pg 85

Safety Instructions



Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

pg 114

Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Weight (kg)
95 Tonne 911 kN	50	HG10002	132.7	664	27.7
	100	HG10004	132.7	1327	33.6
	150	HG10006	132.7	1991	39.5
	200	HG10008	132.7	2655	45.4
	250	HG10010	132.7	3318	51.7
	300	HG10012	132.7	3982	57.6
140 Tonne 1348 kN	50	HG15002	196.3	981	46.3
	100	HG15004	196.3	1963	55.3
	150	HG15006	196.3	2978	64.4
	200	HG15008	196.3	3926	73.5
	250	HG15010	196.3	4907	82.1
	300	HG15012	196.3	5889	91.6
190 Tonne 1815 kN	50	HG20002	264.4	1322	54.9
	150	HG20006	264.4	3989	91.2
	200	HG20008	264.4	5289	109.8
	300	HG20012	264.4	7977	146.1
320 Tonne* 3132 kN	50	HG30002	456.2	2281	184.2
	150	HG30006	456.2	6843	231.8
	300	HG30012	456.2	13685	303.0
390 Tonne* 3844 kN	50	HG40002	559.9	2800	269.9
	150	HG40006	559.9	8399	330.2
	300	HG40012	559.9	17077	420.9
510 Tonne* 5015 kN	50	HG50002	730.6	3653	401.0
	150	HG50006	730.6	10959	479.9
	300	HG50012	730.6	21919	599.2
600 Tonne* 5871 kN	50	HG60002	855.3	4277	474.0
	150	HG60006	855.3	12829	565.2
	250	HG60010	855.3	21383	655.6
	300	HG60012	855.3	25662	700.8
820 Tonne* 8075 kN	50	HG80002	1176.3	5881	741.2
	150	HG80006	1176.3	17649	868.2
	300	HG80012	1176.3	35281	1057.8
1000 Tonne* 10062 kN	50	HG100002	1465.7	7329	1061.9
	150	HG100006	1465.7	21991	1212.9
	300	HG100012	1465.7	43966	1438.8

* Available on request: no stock item

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base To Inlet Port G (mm)	Base Mounting Holes		
								Bolt Circle X (mm)	Thread Size Y	Thread Depth Z (mm)
HG10002	182	232	130	165	95	75	54	95	M12	22
HG10004	232	332	130	165	95	75	54	95	M12	22
HG10006	282	432	130	165	95	75	54	95	M12	22
HG10008	332	532	130	165	95	75	54	95	M12	22
HG10010	382	632	130	165	95	75	54	95	M12	22
HG10012	432	732	130	165	95	75	54	95	M12	22
HG15002	196	246	158	205	110	94	61	130	M12	22
HG15004	246	346	158	205	110	94	61	130	M12	22
HG15006	296	446	158	205	110	94	61	130	M12	22
HG15008	346	546	158	205	110	94	61	130	M12	22
HG15010	396	646	158	205	110	94	61	130	M12	22
HG15012	446	746	158	205	110	94	61	130	M12	22
HG20002	216	266	183	235	135	113	67	165	M12	20
HG20006	316	466	183	235	135	113	67	165	M12	20
HG20008	366	566	183	235	135	113	67	165	M12	20
HG20012	466	766	183	235	135	113	67	165	M12	20
HG30002	312	362	241	310	197	177	101	180	M16	36
HG30006	412	562	241	310	197	177	101	180	M16	36
HG30012	562	862	241	310	197	177	101	180	M16	36
HG40002	374	424	267	350	216	196	114	205	M16	36
HG40006	474	625	267	350	216	196	114	205	M16	36
HG40012	625	930	267	350	216	196	114	205	M16	36
HG50002	419	469	305	400	248	228	114	250	M24	38
HG50006	519	669	305	400	248	228	114	250	M24	38
HG50012	669	969	305	400	248	228	114	250	M24	38
HG60002	429	479	330	430	267	247	114	275	M24	38
HG60006	529	679	330	430	267	247	114	275	M24	38
HG60010	629	879	330	430	267	247	114	275	M24	38
HG60012	679	979	330	430	267	247	114	275	M24	38
HG80002	474	524	387	505	317	297	149	330	M24	38
HG80006	574	724	387	505	317	297	149	330	M24	38
HG80012	724	1024	387	505	317	297	149	330	M24	38
HG100002	564	614	432	560	343	323	174	375	M24	38
HG100006	664	814	432	560	343	323	174	375	M24	38
HG100012	814	1114	432	560	343	323	174	375	M24	38

H

HD

HL

HF

HFT

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HDU

HULN

HUC

HUDC

HT

HP

HPD

Cylinder accessories

High Tonnage Double Acting Cylinders

HDG Series - Heavy Lifting



Capacity:

95 - 1000 Tonnes

Stroke:

50 - 300 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

182 - 1114 mm
Side load 10% @ max stroke



Flow Control Valves
Control the speed of your cylinder by adding a flow control valve.
pg 82



Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.
pg 87



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.
pg 114

- Cylinders are burnish rolled creating a smoother finish than honing
- Industrial hard chrome plated plunger prevents scratching and corrosion
- Base mounting holes standard on all models
- Plunger wiper seals out dirt and contamination
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF couplers
- Maximum working pressure: 10,000 psi / 700 bar
- Custom sizes are available upon request

Gas/Diesel Engine Pumps

These HDG cylinders pair up well with a Gas or Diesel Engine pump. We offer a variety of different flow rates, motor sizes and reservoir sizes on our gas/diesel engine pumps. Contact your local BVA dealer for more details.



- Gas engine pump will provide 700 BAR hydraulic force at remote locations.
- Industrial grade 5.5 hp. (4.1 kN) Honda gas engine or 4.6 hp. (3.5 kN) HATZ diesel engine.
- Ideal for applications where electricity isn't easily accessible.
- Two speed pump designed for rapid cylinder advance.
- Gas pump features a sturdy protective roll cage for use in the toughest environments.
- Optional electric start with Diesel Engine.

Electric Motor Pumps

These HDG cylinders pair up well with Electric Motor pumps. We offer a variety of different flow rates and motor sizes on our electric motor pumps. Contact your local BVA dealer for more details.



- Meets OSHA regulations for sound (80dBA).
- Two speed pump designed for rapid cylinder advance.
- Internal filter screens contamination to prevent pump damage.
- All units are wired as 240 VAC 50 Hz; Optional wiring: 115VAC 50Hz.
- 100% Duty Cycle TEFC motors.
- All hand pendants are wired at 24VAC for safety.
- Full load starting capability.

Quick Reference Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)	Oil Capacity (cc)	Weight (kg)
95 Tonne 911/419 kN	50	HDG10002	182	664	27.7
	100	HDG10004	232	1327	33.6
	150	HDG10006	282	1991	39.5
	200	HDG10008	332	2655	45.4
	250	HDG10010	382	3318	51.7
140 Tonne 1348/695 kN	300	HDG10012	432	3982	57.6
	50	HDG15002	196	981	46.3
	100	HDG15004	246	1963	55.3
	150	HDG15006	296	2978	64.4
	200	HDG15008	346	3926	73.5
190 Tonne 1816/833 kN	250	HDG15010	396	4907	82.1
	300	HDG15012	446	5889	91.6
	50	HDG20002	216	1322	54.9
	150	HDG20006	316	3989	91.2
	200	HDG20008	366	5289	109.8
320 Tonne* 3132/1039 kN	300	HDG20012	466	7977	146.1
	50	HDG30002	312	2281	184.2
390 Tonne* 3844/1352 kN	150	HDG30006	412	6843	231.8
	300	HDG30012	562	13685	303.0
510 Tonne* 5016/1700 kN	50	HDG40002	374	2800	269.9
	150	HDG40006	474	8399	330.2
	305	HDG40012	625	17077	420.9
600 Tonne* 5871/2028 kN	50	HDG50002	419	3653	401.0
	150	HDG50006	519	10959	479.9
	300	HDG50012	669	21919	599.2
820 Tonne* 8073/2657 kN	50	HDG60002	429	4277	474.0
	150	HDG60006	529	12829	565.2
	250	HDG60010	629	21383	630.0
	300	HDG60012	679	25662	700.8
1000 Tonne* 10057/3719 kN	50	HDG80002	474	5881	741.2
	150	HDG80006	574	17649	868.2
	300	HDG80012	724	35281	1057.8
1000 Tonne* 10057/3719 kN	50	HDG100002	564	7329	1061.9
	150	HDG100006	664	21991	1212.9
	300	HDG100012	814	43966	1438.8

* Available on request
See next pages (pg.30-31) to view more detailed stats on High Tonnage Double Acting Cylinders.



HDG Series



Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Optional Tilt-Saddles
Saddles tilt to a 5% maximum to adjust to the load. View our cylinder accessories page to figure out what saddle best fits these cylinders.
pg 49



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.
pg 85



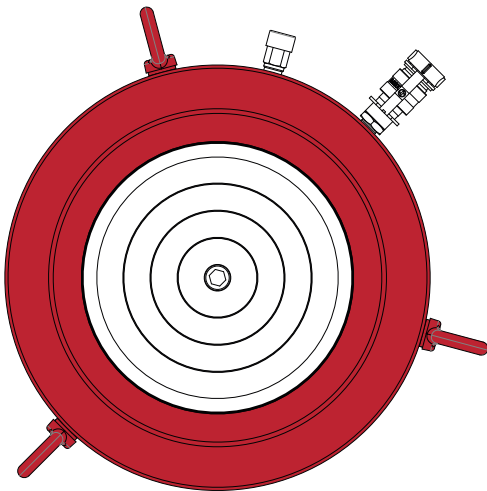
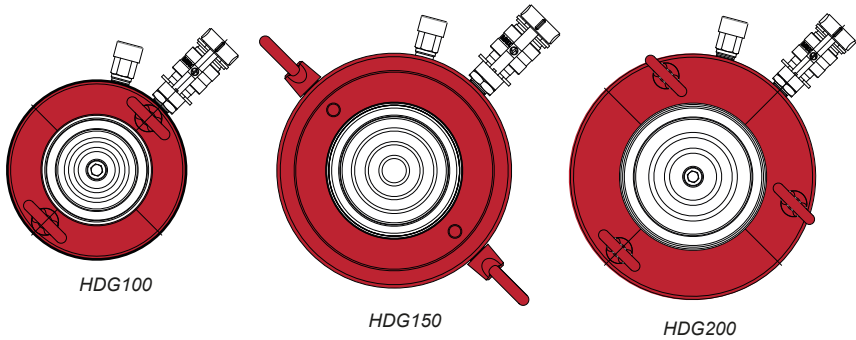
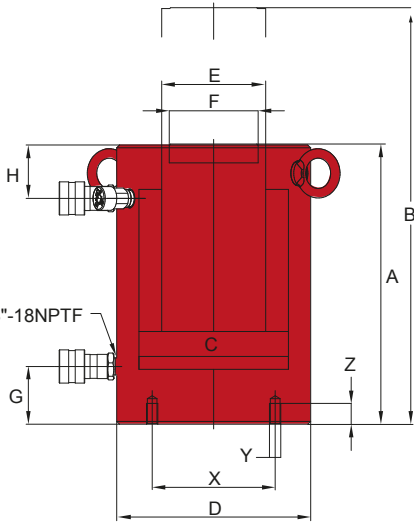
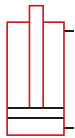
High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).



Relief Valve
All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.

High Tonnage Double Acting Cylinders

HDG Series - Heavy Lifting



HDG300 - HDG1000



HDG Series

80%

Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.

Optional Tilt-Saddles

Saddles tilt to a 5% maximum to adjust to the load. View our cylinder accessories page to figure out what saddle best fits these cylinders.

Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).

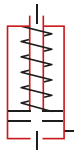
Cylinder Capacity Push/Pull	Stroke (mm)	Model Number	Maximum Cylinder Capacity (Tonne)		Cylinder Effective Area (cm²)		Oil Capacity (cc)		Weight (kg)
			Push	Pull	Push	Pull	Push	Pull	
95 Tonne 911/419 kN	50	HDG10002	92.9	43.3	132.7	61.9	664	309	27.7
	100	HDG10004	92.9	43.3	132.7	61.9	1327	618	33.6
	150	HDG10006	92.9	43.3	132.7	61.9	1991	928	39.5
	200	HDG10008	92.9	43.3	132.7	61.9	2655	1237	45.4
	250	HDG10010	92.9	43.3	132.7	61.9	3318	1546	51.7
	300	HDG10012	92.9	43.3	132.7	61.9	3982	1856	57.6
140 Tonne 1348/695 kN	50	HDG15002	137.4	70.9	196.3	101.3	981	506	46.3
	100	HDG15004	137.4	70.9	196.3	101.3	1963	1013	55.3
	150	HDG15006	137.4	70.9	196.3	101.3	2978	1447	64.4
	200	HDG15008	137.4	70.9	196.3	101.3	3926	2025	73.5
	250	HDG15010	137.4	70.9	196.3	101.3	4907	2531	82.1
	300	HDG15012	137.4	70.9	196.3	101.3	5889	3038	91.6
190 Tonne 1816/833 kN	50	HDG20002	185.2	84.9	264.5	121.3	1322	606	54.9
	150	HDG20006	185.2	84.9	264.5	121.3	3989	1905	91.2
	200	HDG20008	185.2	84.9	264.5	121.3	5289	2426	109.8
	300	HDG20012	185.2	84.9	264.5	121.3	7977	3809	146.1
320 Tonne* 3132/1039 kN	50	HDG30002	319.3	106.0	456.2	151.4	2281	757	184.2
	150	HDG30006	319.3	106.0	456.2	151.4	6843	2270	231.8
	300	HDG30012	319.3	106.0	456.2	151.4	13685	4541	303.0
390 Tonne* 3844/1352 kN	50	HDG40002	391.9	137.8	559.9	196.9	2800	967	269.9
	150	HDG40006	391.9	137.8	559.9	196.9	8399	2902	330.2
	305	HDG40012	391.9	137.8	559.9	196.9	17077	6004	420.9
510 Tonne* 5016/1700 kN	50	HDG50002	511.5	173.4	730.7	247.7	3653	1238	401.0
	150	HDG50006	511.5	173.4	730.7	247.7	10959	3713	479.9
	300	HDG50012	511.5	173.4	730.7	247.6	21919	7427	599.2
600 Tonne* 5871/2028 kN	50	HDG60002	598.7	206.8	855.3	295.4	4277	1477	474.0
	150	HDG60006	598.7	206.8	855.3	295.4	12829	4431	565.2
	250	HDG60010	598.7	206.8	855.3	295.4	19422	6643	630.0
	300	HDG60012	598.7	206.8	855.3	295.4	25662	8862	700.8
820 Tonne* 8073/2657 kN	50	HDG80002	823.2	271.0	1176	387.1	5881	1935	741.2
	150	HDG80006	823.2	271.0	1176	387.1	17649	5806	868.2
	300	HDG80012	823.2	271.0	1176	387.1	35281	11611	1057.8
1000 Tonne* 10062/3719 kN	50	HDG100002	1025.0	379.3	1465	541.8	7329	2709	1061.9
	150	HDG100006	1025.0	379.3	1465	541.8	21991	8126	1212.9
	300	HDG100012	1025.0	379.3	1465	541.8	43966	16252	1438.8

* Available on request: no stock item

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base To Inlet Port G (mm)	Top To Retract Port H (mm)	Base Mounting Holes		
									Bolt Circle X (mm)	Thread Size	Thread Depth Z (mm)
HDG10002	182	232	130	165	95	75	54	48	95	M12	22
HDG10004	232	332	130	165	95	75	54	48	95	M12	22
HDG10006	282	432	130	165	95	75	54	48	95	M12	22
HDG10008	332	532	130	165	95	75	54	48	95	M12	22
HDG10010	382	632	130	165	95	75	54	48	95	M12	22
HDG10012	432	732	130	165	95	75	54	48	95	M12	22
HDG15002	196	246	158	205	110	94	61	56	130	M12	22
HDG15004	246	346	158	205	110	94	61	56	130	M12	22
HDG15006	296	446	158	205	110	94	61	56	130	M12	22
HDG15008	346	546	158	205	110	94	61	56	130	M12	22
HDG15010	396	646	158	205	110	94	61	56	130	M12	22
HDG15012	446	746	158	205	110	94	61	56	130	M12	22
HDG20002	216	266	183	235	135	113	67	56	165	M12	20
HDG20006	316	466	183	235	135	113	67	56	165	M12	20
HDG20008	366	566	183	235	135	113	67	56	165	M12	20
HDG20012	466	766	183	235	135	113	67	56	165	M12	20
HDG30002	312	362	241	310	197	177	101	75	180	M16	36
HDG30006	412	562	241	310	197	177	101	75	180	M16	36
HDG30012	562	862	241	310	197	177	101	75	180	M16	36
HDG40002	374	424	267	350	216	196	114	105	205	M16	36
HDG40006	474	625	267	350	216	196	114	105	205	M16	36
HDG40012	625	925	267	350	216	196	114	105	205	M16	36
HDG50002	419	469	305	400	248	228	114	135	250	M24	38
HDG50006	519	669	305	400	248	228	114	135	250	M24	38
HDG50012	669	969	305	400	248	228	114	135	250	M24	38
HDG60002	429	479	330	430	267	247	114	135	275	M24	38
HDG60006	529	679	330	430	267	247	114	135	275	M24	38
HDG60010	629	879	330	430	267	247	114	135	275	M24	38
HDG60012	679	979	330	430	267	247	114	135	275	M24	38
HDG80002	474	524	387	505	317	297	149	135	330	M24	38
HDG80006	574	724	387	505	317	297	149	135	330	M24	38
HDG80012	724	1024	387	505	317	297	149	135	330	M24	38
HDG100002	564	614	432	560	343	323	174	170	375	M24	38
HDG100006	664	814	432	560	343	323	174	170	375	M24	38
HDG100012	814	1114	432	560	343	323	174	170	375	M24	38

Hollow Plunger Cylinders

HC Series



Capacity:
13-100 Tonnes

Stroke:
8 - 155 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
60 - 486 mm



Here is a HC6006T in a pulling application.

HC3002T



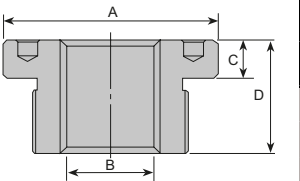
- Ideal for pulling and pushing applications.
- Heavy duty compression spring.
- Dual wipers help prevent contamination.
- Collar thread protector.
- High flow coupler with dust cap.
- XT cylinders do not have internal plunger threads.
- 60 and 100 Tonne models are equipped with carrying handles.



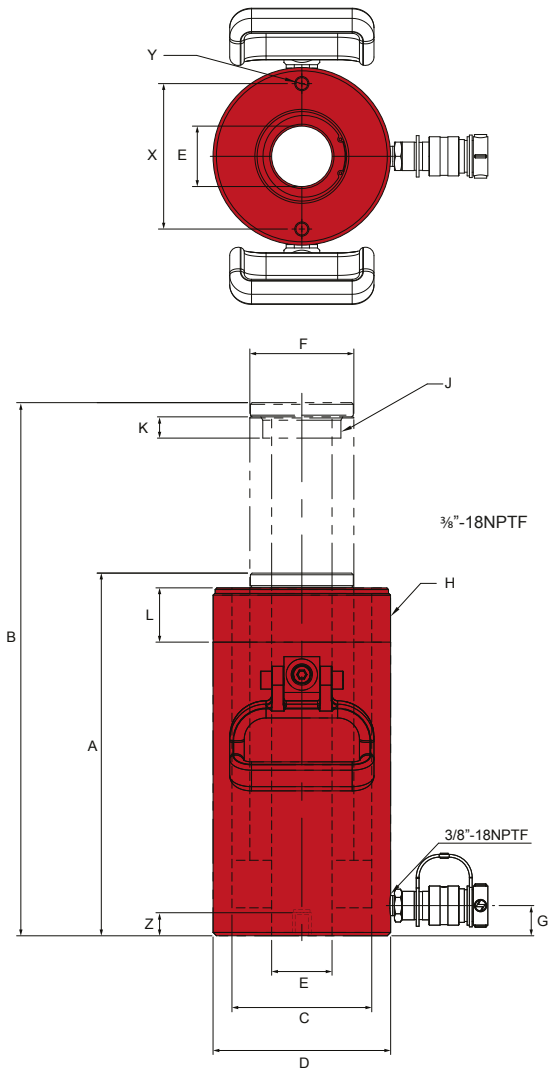
Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed Height A (mm)	Extended Height B (mm)	Bore Dia. C (mm)	O.D. D (mm)
13 Tonne 131 kN	8	HC1201T	18.8	15	60	68	49	70
	41	HC1202	18.8	77	121	162	49	70
	41	HC1202XT	18.8	77	121	162	49	70
	76	HC1203XT	18.8	143	184	260	49	70
22 Tonne 221 kN	51	HC2002T	31.6	161	162	213	64	100
	154	HC2006T	31.6	487	306	460	64	100
30 Tonne 285 kN	64	HC3002T	40.8	261	179	243	72	114
	155	HC3006T	40.8	634	331	486	72	114
60 Tonne 589 kN	76	HC6003T*	84.2	641	248	324	104	159
	152	HC6006T*	84.2	1282	324	477	104	159
100 Tonne 1000 kN	76	HC10003T*	142.8	1087	254	330	135	213

* Cylinder is fitted with carrying handles.

Optional threaded hollow saddles					
Cylinder Model Number	Saddle Model Nr.	Saddle Dimensions (mm)			
		A	B	C	D
HC20XXT	APS20	55	1" - 8UNC	10	29
HC30XXT	APS30	63	1¼" - 7UNC	10	32
HC60XXT	APS60	92	1½" - 5,5UNC	13	32



All HC-cylinders are standard equipped with smooth hollow saddles (except the HC1201T and HC1202)



Model Number	Plunger				Collar Thread		Base to Inlet Port G (mm)	Base Mounting Hole			Weight (kg)
	I.D. E (mm)	O.D. F (mm)	Internal Thread J	Internal Thread Length K (mm)	Diameter H	Length L (mm)		Bolt Circle X (mm)	Thread Y	Thread Depth Z (mm)	
HC1201T	19	35	¼"-16UN	16	2¼"-16N	46	14	51	⅝"-18UNC	9	1.5
HC1202	19	35	¼"-16UN	16	2¼"-16N	46	15	51	⅝"-18UNC	9	2.6
HC1202XT	19	35	-	-	2¼"-16N	46	15	51	⅝"-18UNC	9	2.6
HC1203XT	19	35	-	-	2¼"-16N	46	19	51	⅝"-18UNC	9	3.9
HC2002T	27	55	1-⅞"-16UN	19	3⅞"-12N	38	19	83	⅜"-16UNC	9	7.2
HC2006T	27	55	1-⅞"-16UN	19	3⅞"-12N	38	19	83	⅜"-16UNC	9	13.4
HC3002T	33	63	1-⅞"-16UN	22	4½"-12N	42	23	92	⅜"-16UNC	14	10.4
HC3006T	33	63	1-⅞"-16UN	22	4½"-12N	42	23	92	⅜"-16UNC	14	19.5
HC6003T*	54	93	2¾"-16UN	19	6¼"-12N	49	27	130	½"-13UNC	14	29.8
HC6006T*	54	93	2¾"-16UN	19	6¼"-12N	49	27	130	½"-13UNC	14	36.8
HC10003T*	79	125	4"-16UN	25	8⅞"-12N	60	27	178	⅝"-11UNC	19	51.4

* Cylinder is fitted with carring handles



HC Series

Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Combo Kits
Most cylinders are available in easy to order kits: cylinder, gauge, couplers, hose and pump.

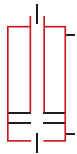
Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Double Acting Hollow Plunger Cylinders

HDC Series



Capacity:

30 - 150 Tonnes

Stroke:

38 - 257 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

165 - 718 mm



Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

pg 85



Combo Kits

Most cylinders are available in easy to order kits: Cylinder, Gauge, Couplers, Hose and Pump.

pg 68



Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

pg 87

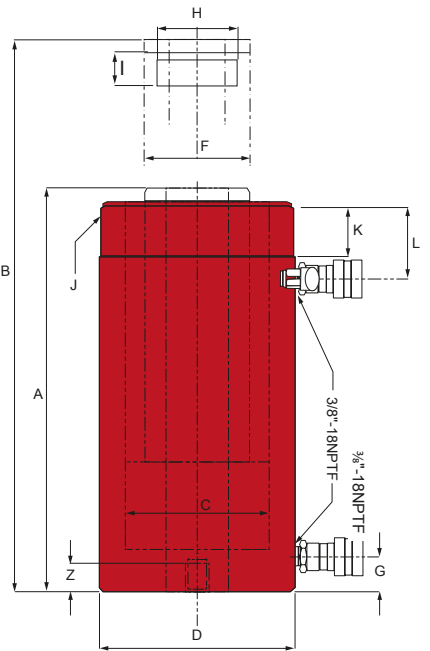
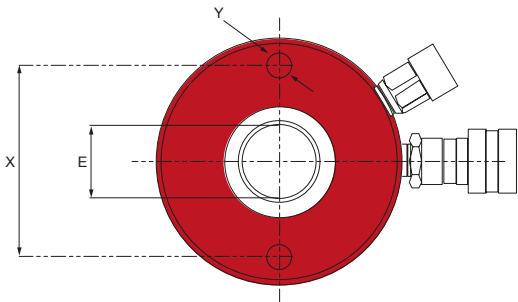
- Ideal for pushing and pulling applications.
- Dual wipers help prevent contamination.
- CH38F - 3/8" high flow female coupler.
- Hard chrome coated plunger prevents rust and corrosion.
- Hardened steel seat.

Cylinder Capacity		Stroke (mm)	Model Number	Oil Capacity		Cylinder Effective area		Col-lapsed Height (mm)	Extended Height (mm)	Center Hole I.D. (mm)	Plunger O.D. (mm)	Weight (kg)
Push	Pull			Push (cc)	Pull (cc)	Push (cm²)	Pull (cm²)					
30 Tonne 280 kN	18 Tonne 176 kN	178	HDC3007	492	328	40,84	25,57	331	509	33	63	19.5
		257	HDC3010	1051	658	40,84	25,57	432	689	33	63	25.7
60 Tonne 578 kN	40 Tonne 385 kN	89	HDC6003*	750	500	84,23	56,14	248	337	54	92	29.8
		165	HDC6006*	1390	926	84,23	56,14	324	489	54	92	36.8
		257	HDC6010*	2165	1443	84,23	56,14	438	695	54	92	51.0
100 Tonne 981 kN	64 Tonne 625 kN	38	HDC10001	545	347	142,94	91,11	165	203	79	125	33.4
		76	HDC10003*	1089	694	142,94	91,11	254	330	79	125	51.4
		152	HDC10006*	2169	1388	142,94	91,11	343	495	79	125	69.5
		257	HDC10010*	3679	2345	142,94	91,11	461	718	79	125	90.2
145 Tonne 1407 kN	75 Tonne 733 kN	203	HDC15008*	4247	2170	204,99	106,81	349	552	79	150	108.5

* Are equipped with carrying handles.

Optional threaded hollow saddles						
Cylinder Model Number	Saddle Model Nr.	Saddle Dimensions (mm)				
		A	B	C	D	
HC20XXT	APS20	55	1" - 8UNC	10	29	
HC30XXT	APS30	63	1¼" - 7UNC	10	32	
HC60XXT	APS60	92	1½" - 5,5UNC	13	32	

All HC-cylinders are standard equipped with smooth hollow saddles (except the HC1201T and HC1202)



HDC Series



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.



High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).



Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

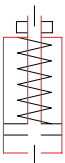
pg 114

Model Number	Min. Height A (mm)	Max. Height B (mm)	Dia. of Center Tube C (mm)	O.D. D (mm)	I.D. E (mm)	O.D. F (mm)	Base to Inlet Port G (mm)	Top to Return Port L (mm)	Internal Thread H	Internal Thread Length I (mm)	Collar Thread		Base Mounting Hole		
											Dia. J	Length K (mm)	Bolt Circle X (mm)	Thread Y	Thread Depth Z (mm)
HDC3007	331	509	85	114	33	63	23	60	1 13/16"-16UN	24	4 1/2"-12N	42	92	3/8"-16UNC	14
HDC3010	432	689	85	114	33	63	23	60	1 13/16"-16UN	24	4 1/2"-12N	42	92	3/8"-16UNC	14
HDC6003*	248	337	125	159	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12N	49	130	1/2" 13UNC	14
HDC6006*	324	489	125	159	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12N	49	130	1/2" 13UNC	14
HDC6010*	438	695	125	159	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12N	49	130	1/2" 13UNC	14
HDC10001	165	203	165	213	79	125	27	44	4"- 16UN	27	-	-	178	5/8" 11UNC	19
HDC10003*	254	330	165	213	79	125	27	86	4"- 16UN	27	8 3/8"-12N	60	178	5/8" 11UNC	19
HDC10006*	343	495	165	213	79	125	27	86	4"- 16UN	27	8 3/8"-12N	60	178	5/8" 11UNC	19
HDC10010*	461	718	165	213	79	125	27	86	4"- 16UN	27	8 3/8"-12N	60	178	5/8" 11UNC	19
HDC15008*	349	552	190	248	79	150	38	60	4 1/4"- 12N	35	-	-	-	-	-

* Are equipped with carrying handles.

Single acting hollow lock nut cylinder

HCLN Series



- Able to hold load without hydraulic pressure
- Specialty designed for tensioning for longer period
- Return spring for easy retract

Capacity:
22 - 100 Tonnes

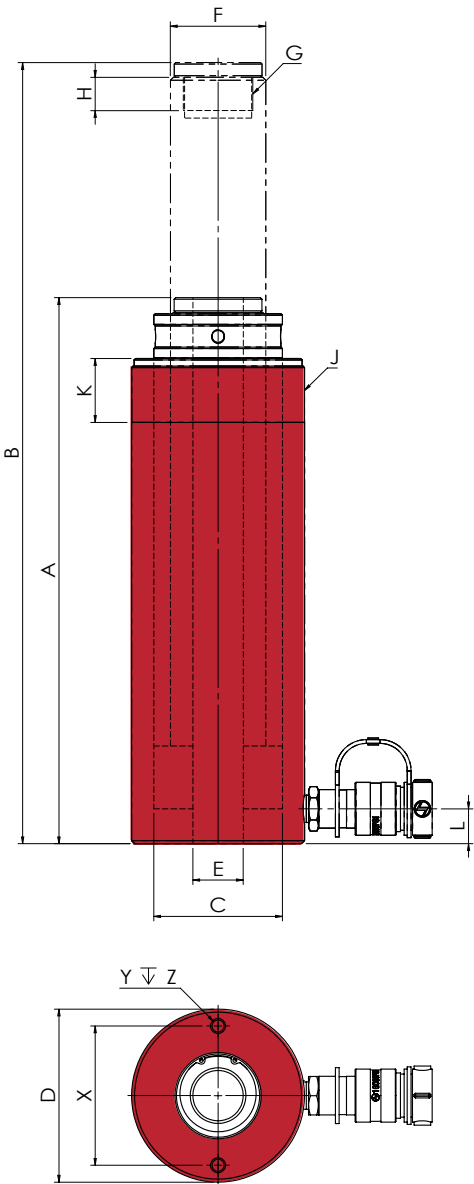
Stroke:
76 - 155 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
165 - 718 mm



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)
22 (221 kN)	154	HCLN2006	31,6	486	336	490	75	100
29 (286 kN)	155	HCLN3006	40,8	634	361	516	85	114
60 (590 kN)	76	HCLN6003*	84,2	644	284	360	125	159
100 (1001 kN)	76	HCLN10003*	143	1084	300	376	165	213



HCLN Series

Combo Kits
Most cylinders are available in easy to order kits: cylinder, gauge, couplers, hose and pump. 68 pg

Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need. 85 pg

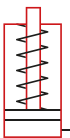
Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared. 114 pg

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Model Number	Plunger				Collar Thread		Base to Inlet Port L (mm)	Base Mounting Hole			Weight (kg)
	Center hole E (mm)	Plunjer External Diameter F (mm)	Internal Thread G	Internal Thread Length H (mm)	Diameter J	Length K (mm)		Bolt Circle X (mm)	Thread Y	Thread Depth Z (mm)	
HCLN2006	27	TW54.7-6N	1 1/8"-16UN	19	3 7/8"-12N	38	20	99,5	3/8-16UNC	9,4	22,6
HCLN3006	33,3	TW63-6N	1 1/8"-16UN	22	4 1/2"-12N	42	23	114,3	3/8-16UNC	14	20,6
HCLN6003*	54	TW93-6N	2 3/4"-16UN	19	6 1/4"-12N	49	27	130	1/2"-13UNC	14	35,4
HCLN10003*	79	TW125-6N	4"-16UN	25	8 3/8"-12N	61	27	178	3/4"-11UNC	19	57,5

Aluminum Single Acting Cylinders

HU Series - General Purpose, Spring Return, Lightweight



Capacity:
20 - 95 Tonnes

Stroke:
50 - 254 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
174 - 636 mm

- Lightweight aluminum alloy construction.
- Up to 60% lighter than comparable tonnage steel cylinders.
- Convenient carry handle on 50 and 95 Tonne models.
- Hard anodized aluminum plunger provides extra protection against corrosion and wear.
- Integral steel protective plate.
- Maximum working pressure: 10,000 psi / 700 bar.

80%

Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).

Aluminum vs. Steel Cylinders

Aluminum cylinders provide a great alternative to the traditional steel cylinder in many applications. Being up to 60% lighter in weight, Aluminum cylinders are easier portable and reduce user fatigue and strain. However, due to the finite properties of Aluminum vs. Steel, these cylinders should NOT be used in high cycle applications. The BVA Aluminum cylinders are designed for a maximum safety rating of 5,000 cycles. Under normal lifting applications this should provide a long service life.

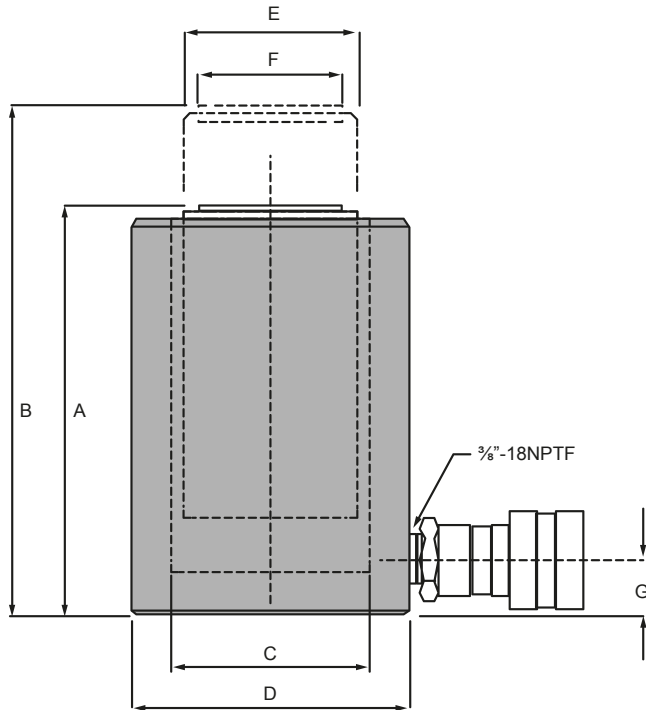


Aluminum Cylinders

Steel Cylinders

- 60% lighter in weight than steel.
 - Easier portable and reduces user fatigue.
 - Not to be used for high cycle applications.
 - Base of the cylinder contains a steel plate*.
- Much heavier than aluminum cylinders.
 - Low portability on heavier cylinders which creates user fatigue and strain.
 - Will out-perform aluminum cylinders in higher cycle applications.

*The base of the cylinders contain a steel plate with mounting holes that are designed to protect the cylinder from damage and should NOT be used in fixturing applications and ONLY be used to attach larger base mounting plates for lifting stability. They are NOT designed to withstand the full ratings of the cylinders.



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base to Inlet Port G (mm)	Weight (kg)
20 Tonne 214 kN	50	HU2002T	31,2	156	174	224	63	85	51	40	27	3,0
	100	HU2004T	31,2	312	224	324	63	85	51	40	27	3,7
	150	HU2006T	31,2	468	274	424	63	85	51	40	27	4,4
30 Tonne 293 kN	50	HU3002A	41,9	221	171	221	73	114	73	51	38	5,0
	101	HU3004A	41,9	442	222	323	73	114	73	51	38	6,8
	152	HU3006A	41,9	663	273	425	73	114	73	51	38	7,1
	203	HU3008A	41,9	884	323	526	73	114	73	51	38	9,0
	254	HU3010A	41,9	1105	374	628	73	114	73	51	38	11,3
48 Tonne 466 kN	50	HU5002A	66,6	360	171	221	92	139	92	64	38	7,4
	101	HU5004A	66,6	823	222	323	92	139	92	64	38	9,6
	152	HU5006A	66,6	1085	273	425	92	139	92	64	38	11,4
	203	HU5008A	66,6	1445	323	526	92	139	92	64	38	13,6
	254	HU5010A	66,6	1809	374	628	92	139	92	64	38	15,4
70 Tonne 677 kN	50	HU7502A	96,8	492	171	221	111	165	111	76	38	10,0
	101	HU7504A	96,8	985	222	323	111	165	111	76	38	13,0
	152	HU7506A	96,8	1477	273	425	111	165	111	76	38	15,8
	203	HU7508A	96,8	1969	323	526	111	165	111	76	38	19,0
	254	HU7510A	96,8	2463	374	628	111	165	111	76	38	22,7
95 Tonne 931 kN	50	HU10002A	133,0	675	171	221	130	203	130	89	38	16,0
	101	HU10004A	133,0	1351	222	323	130	203	130	89	38	19,4
	152	HU10006A	133,0	2027	273	425	130	203	130	89	38	23,0
	203	HU10008A	133,0	2702	323	526	130	203	130	89	38	27,2
	254	HU10010A*	133,0	3379	374	628	130	203	130	89	38	30,6
140 Tonne 1386 kN	50	HU15002A*	198,0	1005	196	246	159	254	159	114	38	24,8
	101	HU15004A*	198,0	2011	247	348	159	254	159	114	38	30,6
	152	HU15006A*	198,0	3016	298	450	159	254	159	114	38	36,6
	203	HU15008A*	198,0	4020	349	552	159	254	159	114	38	43,1
	254	HU15010A*	198,0	5027	400	654	159	254	159	114	38	50,8

* Are equipped with carrying handles.



HU Series

Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

Aluminum Double Acting Cylinders

HDU Series - General Purpose, Lightweight



- Lightweight aluminum alloy construction.
- Up to 60% lighter than comparable tonnage steel cylinders.
- Convenient carry handle.
- Hard anodized aluminum plunger provides extra protection against corrosion and wear.
- Steel protective plate on cylinder base.
- Maximum working pressure: 700 bar.



HUD2006



HUD3006

Capacity:

20 - 150 Tonnes

Stroke:

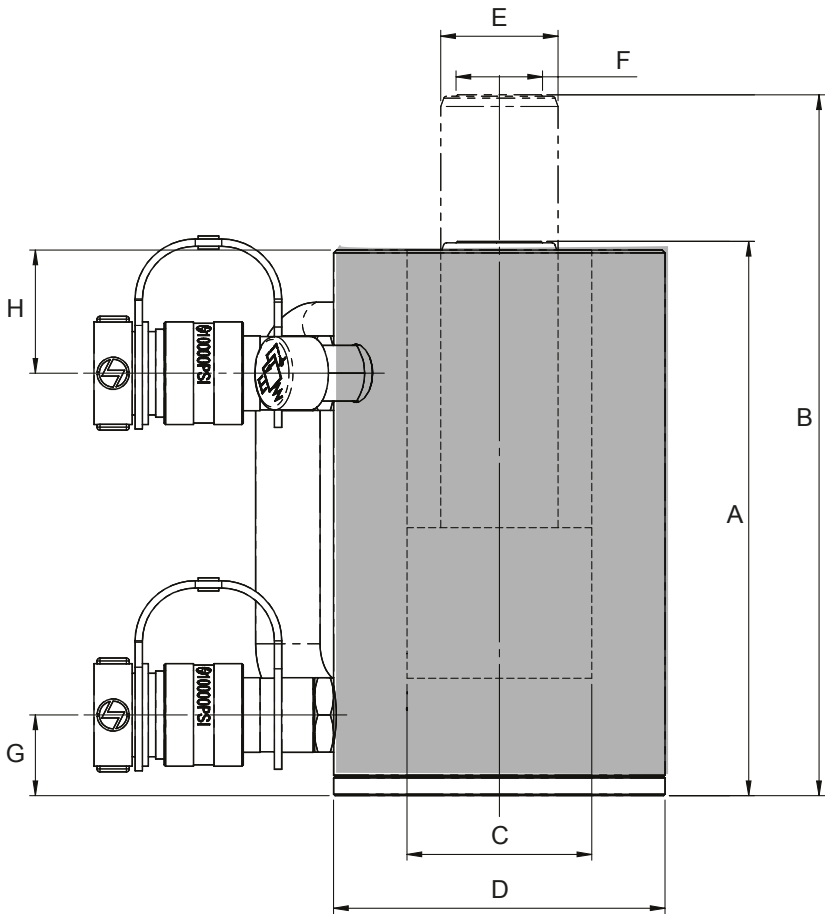
50 - 330 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

189 - 527 mm



HDU Series



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.



Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Cylinder Capacity	Stroke (mm)	Model Number	Maximum Cylinder Capacity (Tonne)		Cylinder Effective Area (cm²)		Oil Capacity (cc)		Weight (kg)
			Push	Pull	Push	Pull	Push	Pull	
20 Tonne 214/128 kN	50	HUD2002	20	13	31,17	18,61	156	93	5,7
	100	HUD2004	20	13	31,17	18,61	312	186	6,9
	150	HUD2006	20	13	31,17	18,61	468	279	8,0
30 Tonne 293/114 kN	50	HUD3002A	30	12	41,9	16,3	221	123	7,6
	100	HUD3004A	30	12	41,9	16,3	442	240	9,0
	150	HUD3006A	30	12	41,9	16,3	663	368	10,4
	203	HUD3008A	30	12	41,9	16,3	850	328	11,8
	330	HUD3013A	30	12	41,9	16,3	1384	536	15,9
48 Tonne 466/154 kN	152	HUD5006A	48	16	66,6	22,0	1012	334	12,0
	208	HUD5008A	48	16	66,6	22,0	1353	443	16,0
	330	HUD5013A	48	16	66,6	22,0	2199	717	21,5
69 Tonne 679/244 kN	152	HUD7506A	69	25	97,0	34,8	1969	710	19,0
	204	HUD7508A	69	25	97,0	34,8	2018	724	22,0
	330	HUD7513A	69	25	97,0	34,8	3201	1152	28,0
95 Tonne 931/217 kN	50	HUD10002A	95	22	133,0	31,0	675	154	19,0
	101	HUD10004A	95	22	133,0	31,0	1343	313	23,0
	152	HUD10006A	95	22	133,0	31,0	2027	464	27,0
	204	HUD10008A	95	22	133,0	31,0	2766	645	32,0
	330	HUD10013A	95	22	133,0	31,0	4392	1005	40,8
140 Tonne 1386/313 kN	152	HUD15006A	141	32	198,0	44,7	3016	678	49,0
	204	HUD15008A	141	32	198,0	44,7	4118	930	55,0
	330	HUD15013A	141	32	198,0	44,7	6535	1476	74,0

NOTE: The base of the cylinders contain a Steel plate with mounting holes and is designed to protect the cylinder from damage and should NOT be used in fixturing applications and ONLY be used to attach a larger base mounting plate for lifting stability. They are NOT designed to withstand the full rating of the cylinder.

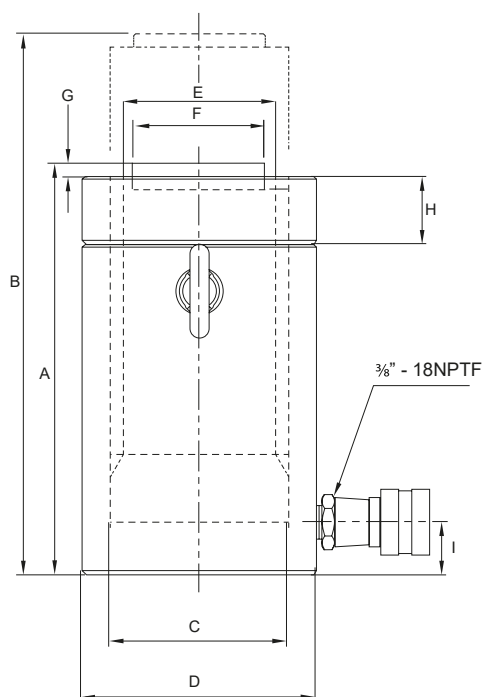
Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base To Inlet Port G (mm)	Top To Retract Port H (mm)
HUD2002	189	239	63	113	40	30	28	42
HUD2004	239	339	63	113	40	30	28	42
HUD2006	289	439	63	113	40	30	28	42
HUD3002A	201	251	75	125	50	40	38	43
HUD3004A	251	351	75	125	50	40	38	43
HUD3006A	301	451	75	125	50	40	38	43
HUD3008A	349	552	75	125	50	40	38	43
HUD3013A	488	818	75	125	50	40	38	43
HUD5006A	298	450	92	139	79	64	38	51
HUD5008A	349	553	92	139	79	64	38	51
HUD5013A	488	818	92	139	79	64	38	51
HUD7506A	311	463	111	165	90	76	38	63
HUD7508A	361	565	111	165	90	76	38	63
HUD7513A	488	818	111	165	90	76	38	63
HUD10002A	209	259	130	203	114	90	38	63
HUD10004A	260	361	130	203	114	90	38	63
HUD10006A	311	463	130	203	114	90	38	63
HUD10008A	361	565	130	203	114	90	38	63
HUD10013A	488	818	130	203	114	90	38	63
HUD15006A	361	513	159	254	140	114	51	76
HUD15008A	412	616	159	254	140	114	51	76
HUD15013A	527	857	159	254	140	114	51	76

NOTE: The base of the aluminum cylinders contain a Steel plate with mounting holes and is designed to protect the cylinder from damage and should NOT be used in fixturing applications and ONLY be used to attach larger base mounting plates for lifting stability. The threads are NOT designed to withstand the full rating of the cylinder.

Lock Nut Aluminum Cylinders

HULN Series - Heavy Lifting w/ Mechanical Lock Nut

- Single acting cylinder with mechanical safety lock nut
- Designed to support loads without hydraulic pressure
- Overflow port prevents cylinders from over travel
- Spring return
- Lightweight aluminum cylinder body
- Steel saddle
- Hard anodized rod to resist corrosion and rust
- Maximum working pressure: 10,000 psi / 700 bar

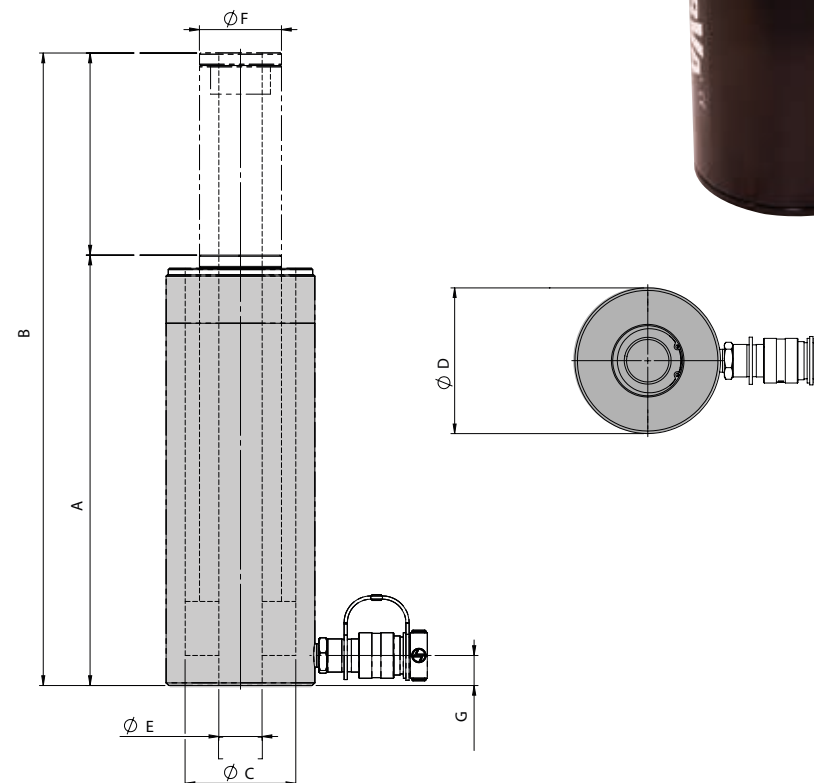


Cylinder Capacity	Model Number	Stroke (mm)	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed height A (mm)	Extended Height B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	Weight (kg)
30 Tonne 228 kN	HULN3002A	50	41.9	213	196	247	73	114	64	51	3	32	38	6.8
	HULN3004A	101	41.9	426	247	349	73	114	64	51	3	32	38	8.1
	HULN3006A	152	41.9	639	298	450	73	114	64	51	3	32	38	9.5
	HULN3008A	203	41.9	852	349	552	73	114	64	51	3	32	38	11.3
	HULN3010A	254	41.9	1065	400	654	73	114	64	51	3	32	38	13.6
50 Tonne 489 kN	HULN5002A	50	71.2	355	206	256	95	140	79	64	3	38	38	9.5
	HULN5004A	101	71.2	710	257	358	95	140	79	64	3	38	38	11.7
	HULN5006A	152	71.2	1064	307	460	95	140	79	64	3	38	38	13.6
	HULN5008A	203	71.2	1418	358	562	95	140	79	64	3	38	38	15.8
	HULN5010A	254	71.2	1773	409	664	95	140	79	64	3	38	38	18.12
95 Tonne 916 kN	HULN10002A	50	133.4	664	212	263	130	203	108	89	3	44	38	20.4
	HULN10004A	101	133.4	1327	263	365	130	203	108	89	3	44	38	23.5
	HULN10006A	152	133.4	1991	301	453	130	203	108	89	3	44	38	27.2
	HULN10008A	203	133.4	2655	365	568	130	203	108	89	3	44	38	31.7
	HULN10010A	254	133.4	3318	415	670	130	203	108	89	3	44	38	36.2
140 Tonne 1359 kN	HULN15002A	50	197.9	993	238	288	159	254	127	114	3	44	38	29.9
	HULN15004A	101	197.9	1986	288	390	159	254	127	114	3	44	38	36.2
	HULN15006A	152	197.9	2979	339	492	159	254	127	114	3	44	38	43.0
	HULN15008A	203	197.9	3972	390	594	159	254	127	114	3	44	38	48.0
	HULN15010A	254	197.9	4965	441	695	159	254	127	114	3	44	38	56.6

Single Acting Hollow Hole Aluminum Cylinders

HUC Series - Lightweight, Spring Return

- Light weight for easy handling.
- Ideal for pulling and pushing applications.
- Heavy duty compression spring.
- Dual wipers help prevent contamination.
- Collar thread protector.
- High flow coupler with dust cap.
- Equipped with carrying handles.

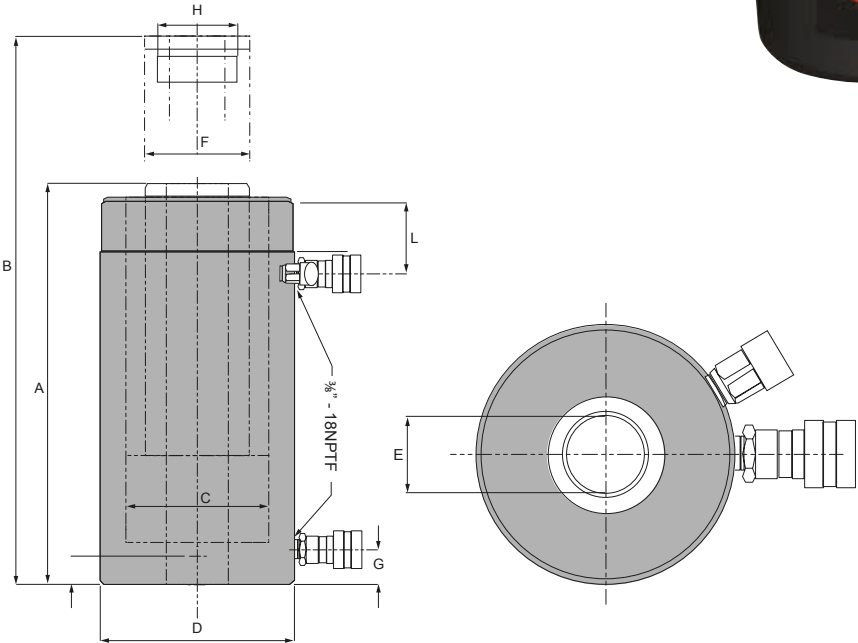


Cylinder Capacity	Model Number	Stroke (mm)	Effective Area (cm²)	Oil Capacity (cm³)	Collapsed Height A (mm)	Extended Height B (mm)	Bore Diameter C (mm)	Outer Diameter D (mm)	Cylinder hole E (mm)	Punger diameter F (mm)	Base to inlet port G (mm)	Weight (kg)
30 Tonne 326 kN	HUC3003A	75	46.5	360.5	220	295	98	139	32.3	55	254	9.9
	HUC3006A	152	46.5	721.0	296	448	98	139	32.3	55	254	13.6
55 Tonne 555 kN	HUC6003A	75	79.3	606.3	260	335	133	190	54	76	254	19.0
	HUC6006A	152	79.3	1212.6	336	488	133	190	54	76	254	24.9

Double Acting Aluminum Hollow Hole Cylinders

HUDC Series - Lightweight

- Lightweight for easy handling.
- Ideal for pushing and pulling applications.
- Dual wipers help prevent contamination.
- CH38F - 3/8" high flow female coupler.
- Hard chrome coated plunger prevents rust and corrosion.
- Hardened steel seat.



Safety Instructions

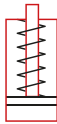
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

114 pg

Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.

Cylinder Capacity	Model Number	Stroke (mm)	Effective Area (cm²)		Oil Capacity (cm³)		Collapsed Height A (mm)	Extended Height B (mm)	C	D	E	F	G	L	Weight (kg)
			Push	Pull	Push	Pull			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
30/10 Tonne 287/91 kN	HUDC3002A	50	40.97	13.03	208	67	180	230	72,2	139,7	38	59,7	51	51	9,1
	HUDC3004A	101	40.97	13.03	416	133	231	332	72,2	139,7	38	59,7	51	51	11,3
	HUDC3006A	152	40.97	13.03	624	200	282	434	72,2	139,7	38	59,7	51	51	13,6
	HUDC3010A	254	40.97	13.03	1040	332	384	638	72,2	139,7	38	59,7	51	51	18,1
50/15 Tonne 465/155 kN	HUDC5002A	50	66.45	22.12	337	112	180	230	92,0	190,5	54	75,1	51	51	15
	HUDC5004A	100	66.45	22.12	675	225	231	331	92,0	190,5	54	75,1	51	51	18,6
	HUDC5006A	152	66.45	22.12	1013	337	282	434	92,0	190,5	54	75,1	51	51	22,6
	HUDC5010A	254	66.45	22.12	1689	563	384	638	92,0	190,5	54	75,1	51	51	29,5
70/22 Tonne 688/281 kN	HUDC7502A	50	98.25	40.13	499	203	245	295	111,9	228,6	70	86,0	64	51	23,5
	HUDC7504A	100	98.25	40.13	998	407	295	395	111,9	228,6	70	86,0	64	51	31,8
	HUDC7506A	152	98.25	40.13	1497	611	346	498	111,9	228,6	70	86,0	64	51	38,6
	HUDC7510A	254	98.25	40.13	2495	1019	448	702	111,9	228,6	70	86,0	64	51	45,3
100/35 Tonne 975/339 kN	HUDC10002A	50	139.29	48.45	707	246	257	307	133,2	279,4	89	107,6	64	51	42,1
	HUDC10004A	100	139.29	48.45	1415	492	308	408	133,2	279,4	89	107,6	64	51	49
	HUDC10006A	152	139.29	48.45	2123	738	359	511	133,2	279,4	89	107,6	64	51	56
	HUDC10010A	254	139.29	48.45	3539	1230	461	715	133,2	279,4	89	107,6	64	64	65
140/50 Tonne 1355/497 kN	HUDC15002A	50	193.55	70.96	1004	295	257	307	157,0	304	89	125,0	64	51	52,1
	HUDC15004A	100	193.55	70.96	2008	590	308	408	157,0	304	89	125,0	64	51	61,2
	HUDC15006A	152	193.55	70.96	3012	885	359	511	157,0	304	89	125,0	64	51	71,6
	HUDC15010A	254	193.55	70.96	5021	1475	461	715	157,0	304	89	125,0	64	64	81,6



Threaded Cylinders

HT Series

- Ideal for frame pulling machines.
- Threaded plunger and base.
- Single acting cylinders with spring return.
- Removable threaded Plunger adapter for attaching accessories to plunger end and base.
- Maximum working pressure: 10,000 psi / 700 bar.



HT Series

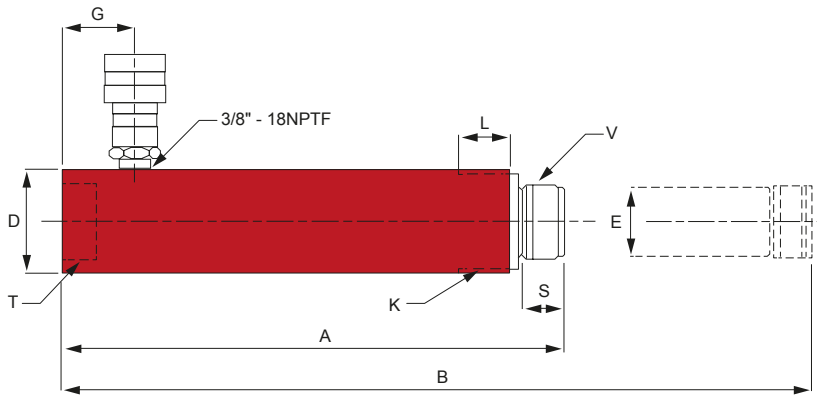
80% Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Combo Kits

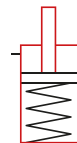
Most cylinders are available in easy to order kits: cylinder, gauge, couplers, hose and pump.

68 pg



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed Height A (mm)	Extended Height B (mm)	Weight (kg)
10 Tonne 100 kN	151	HT1006	14.5	218	291	442	4.8
	253	HT1010	14.5	365	393	646	6.4
20 Tonne 228 kN	131	HT2005	33.2	421	299	430	10.0

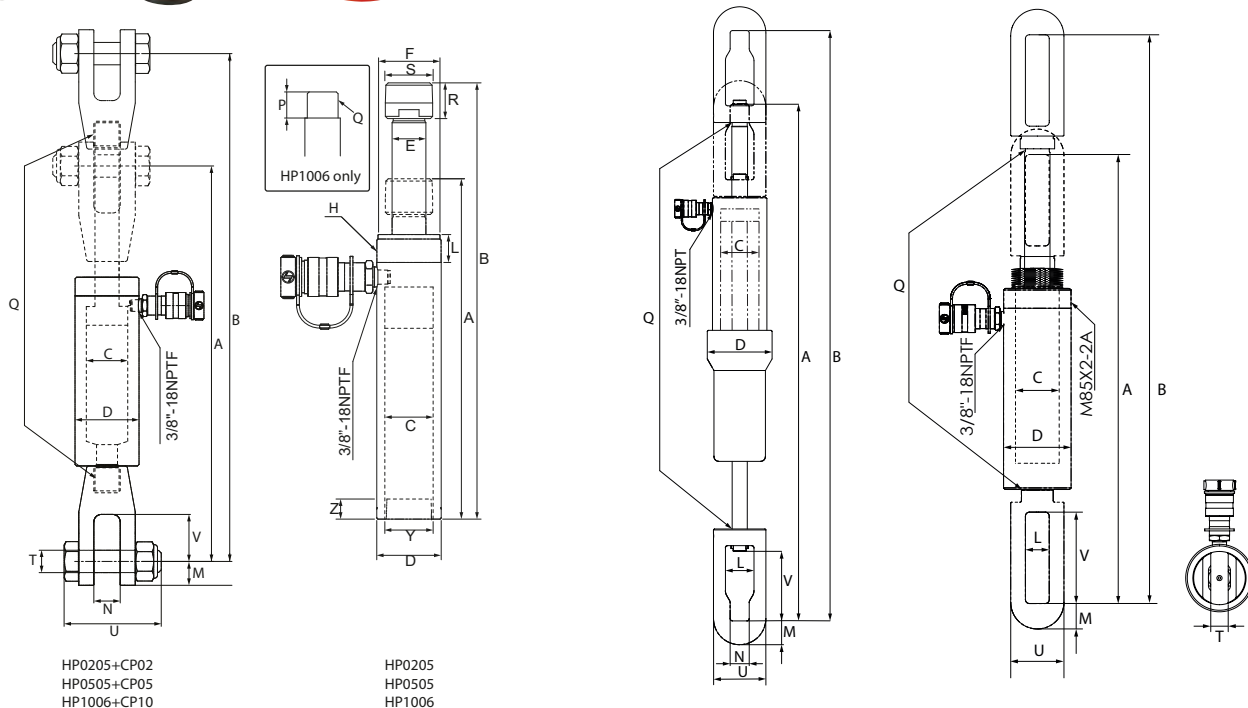
Model Number	Outside Dia. D (mm)	Plunger Dia. E (mm)	Base to Inlet Port G (mm)	Collar K	Collar Thread Length L (mm)	Saddle Height S (mm)	Base Threads T	Plunger Threads V
HT1006	57	38	42	2 1/4"-14UN	29	24	1 1/4" -11.5 NPSM	1 1/4" -11.5 NPSM
HT1010	57	38	42	2 1/4"-14UN	29	24	1 1/4" -11.5 NPSM	1 1/4" -11.5 NPSM
HT2005	85	57	47	3 1/2"-12UN	50	36	2" -11.5 NPTF	2" -11.5 NPTF



Pull Cylinders

HP Series - High-Tonnage Pulling

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

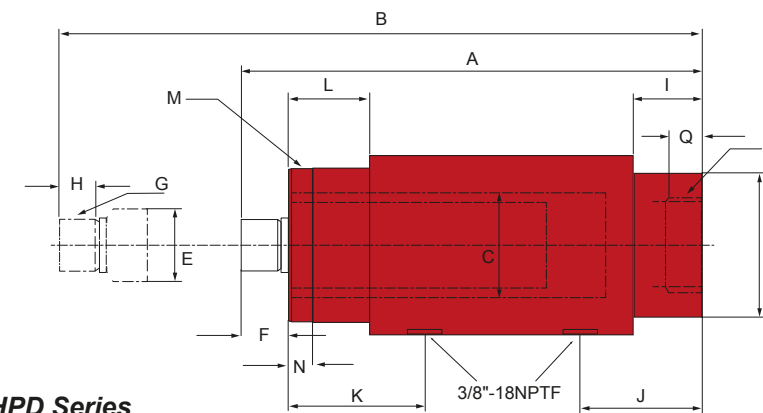
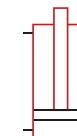


Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm ²)	Oil Capacity (cc)	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Dia. E (mm)	Collar	
										Thread H	Thread Length L (mm)
2.5 Tonne / 25 kN	127	HP0205	3.6	46	268	395	29	48	19	1½"-16UN	25
5 Tonne / 51 kN	141	HP0505	7.4	104	303	444	43	57	30	2¼"-14UN	25
10 Tonne / 108 kN	151	HP1006	15.7	237	299	450	55	85	32	M85x2	25
	150.6	HPB1006A	15.7	236.74	565	715.6	55	85	-	-	-
30 Tonne / 285 kN	154.5	HPB3006A	40.8	633.02	1085	1239.5	85	114.3	-	-	-

Model Number	Adapter		Plunger		Base Mounting Hole		Weight (kg)	Clevis eye dimensions					
	Thread S (mm)	Length R (mm)	Thread Length P (mm)	Thread Q (mm)	Thread Y	Depth Z (mm)		L	M	N	T	U	V
HP0205	¾"-14NPTF	29	19	M16 x 1.5	¾"-14NPTF	18	2.9	-	20	26	16	70	35
HP0505	1¼"-11.5NPTF	32	24	M28 x 1.5	1¼"-11.5NPTF	24	4.2	-	25	40	22	83	45
HP1006	-	-	26	M30 x 2	M30x2	25	9.5	-	32	43	32	129	63
HPB1006A	-	-	-	M30 x 2	-	-	12.0	30	32	-	22	67	115
HPB3006A	-	-	-	1 1/4"-7UNC	-	-	47.4	60	50	40	34	110	146

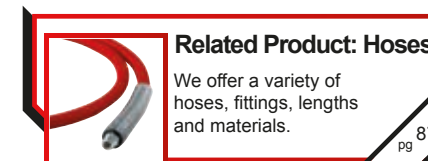
Precision Double Acting Cylinders

HPD Series - High-Cycle Fixtured Application



*Note: Precision double acting cylinders do not come with couplers.

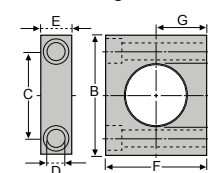
- Provides hydraulic power for both extend and retract
- Designed for high cycle production applications
- High strength steel construction from gun drilled solid bar
- Plunger wiper seals keep dirt and contamination out
- Clevis eye attachments are available
- Maximum working pressure: 10,000 psi /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



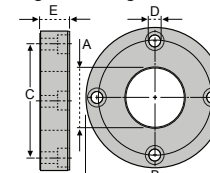
Cylinder Capacity	Stroke (mm)	Model Number	Push Effective Area (cm ²)	Pull Effective Area (cm ²)	Collapsed Height A (mm)	Extended Height B (mm)	Oil Cap.		Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)
							Push cc	Pull cc		
8 Tonne 78 kN	155	HPD0906	11.4	6.5	350	505	175	99	38	64
	257	HPD0910	11.4	6.5	452	709	291	165	38	64
14 Tonne 139 kN	159	HPD1606	20.3	10.1	389	548	322	160	51	76
	260	HPD1610	20.3	10.1	490	750	527	262	51	76

Model Number	Plunger				Base to Inlet Port J (mm)	Top to Return Port K (mm)	Collar					Weight (kg)
	Dia. E (mm)	Protrusion F (mm)	Thread G	Thread Length H (mm)			Length L (mm)	Thread M	Thread Length N (mm)	Int. Base Thread P	Int. Base Thread Length Q (mm)	
HPD0906	25	25	¾"-16N	19	38	56	38	2"-12N	15	1-11⁄16"-18N	35	6.6
HPD0910	25	25	¾"-16N	19	38	56	38	2"-12N	15	1-11⁄16"-18N	35	8.4
HPD1606	36	29	1½"-12N	25	54	73	54	2½"-16N	25	2-3⁄16"-16N	41	10.0
HPD1610	36	29	1½"-12N	25	54	73	54	2½"-16N	25	2-3⁄16"-16N	41	12.8

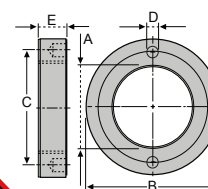
Base Mounting - CEBN



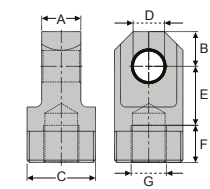
Flange Mounting - CEFN



Retainer Nut - CEN



Clevis Eye - CED



Accessories for HPD Cylinder

By attaching these accessories to a HPD cylinder, you gain the ability for pull applications. For use with the 8 or 15 Tonne HPD cylinders only.

Dimensions (mm)							
Model Number	A	B	C	D	E	F	G
CEBN09	50.8	101.6	73.2	13.5	25.4	82.5	44.5
CEBN16	66.8	130	95.5	19.5	35	101.6	52.3
CEFN09	50.8	121	98.6	10	25.4	-	-
CEFN16	66.8	143	115.8	13.5	35	-	-
CEN09	2"-12N	76	63.5	7	12.7	-	-
CEN16	2-5/8"-16N	92	79.2	7	19	-	-
CED09	25	23	1-11/16"-18N	19	33	24	¾"-16N
CED16	32	28	2-3/16"-16N	25	48	30	1½"-12N

Cylinder Lifting Handles

- Designed for easy carrying cylinders.
- Provides better control when positioning cylinder.
- Easy installation.

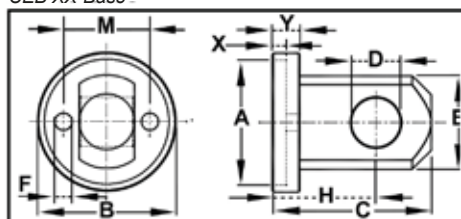
Model Number	For Cylinders
LH25T34	H2504 through H2514
LH30T40	H3008, HD3008, HD3014, HC2002T, HC2006T, HU30XX
LH30T45	HC3002T, HC3006T, HDC3007, HDC3010
LH55T49	HLN5504 through HLN5512



LH25T34

Clevis and Tangs

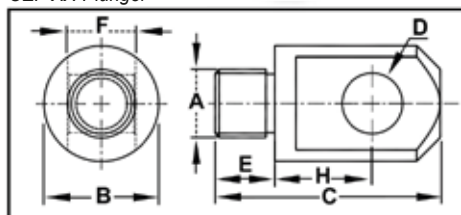
CEB XX-Base



CEB-15



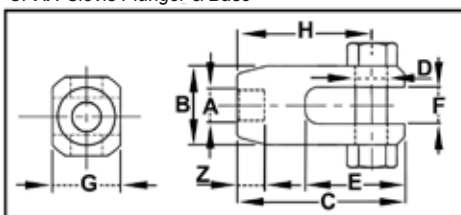
CEP XX-Plunger



CEP-15



CPXX-Clevis Plunger & Base



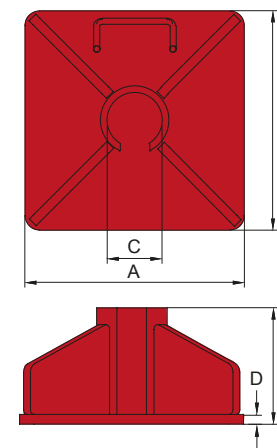
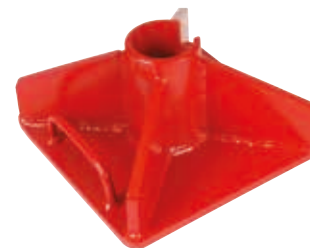
CP-10



Model Number	Cylinder Series	Model Number	Dimensions (mm)												
			A	B	C	D	E	F	G	H	M	X	Y	Z	
CEP05	Plunger	H05	3/4"-16UNF	29	57	16	16	14	-	25.5	-	-	-	-	
CEP15		H10, H15, HD10	1"-8UNC	43	84	22	19	25	-	39.7	-	-	-	-	
CEP25		H25, H30, HD30	1 1/2"-16	57	97	32	22	38	-	42.8	-	-	-	-	
CEB05	Base	H05	38.6	44	54	16	29	6.5	-	38.0	26	6.4	12.7	-	
CEB10		H10	58.0	63	73	22	43	8.2	-	47.6	38	6.4	12.7	-	
CEB15		H15	70.4	76	73	22	43	9.7	-	47.6	48	6.4	12.7	-	
CEB25		H25	86.2	95	86	32	57	14.3	-	54.0	58	6.4	12.7	-	
CP02*	"Plunger & Base"	HP0205	Male 3/4"-14NPT Female M16X1,5	40	85	16	55	20	40	65	-	-	-	22	
CP05*		HP0505	Male 1 1/4"-NPT Female M28X1,5	48	100	20	70	20	48	75	-	-	-	25	
CP10 *		HP1006	M30x2	75	160	30	95	35	65	128	-	-	-	27	

* 2-pc set with an adaptor

Cylinder Bases



Cylinder Saddles

Grooved, Tilt, and Threaded



SDT Series



SDTG Series



SDTL Series



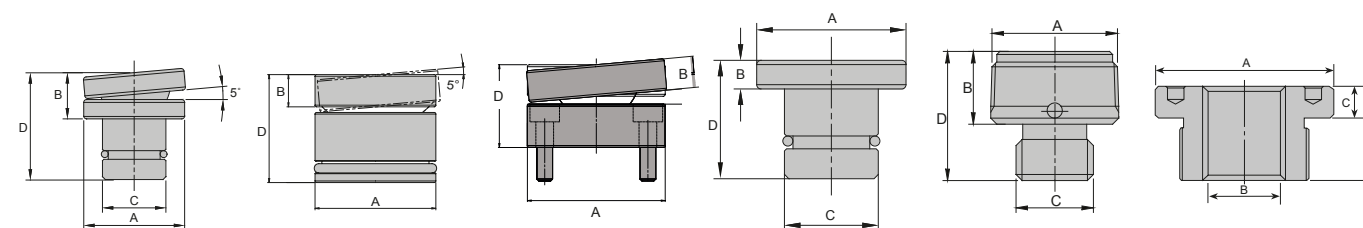
SD Series



HTD10

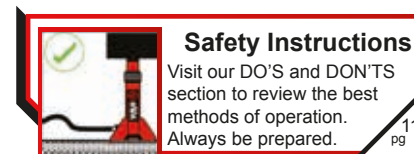


APS Series



Saddle Type	Model Number	For Cylinder(s)	Dimensions (mm)			
			A	B	C	D
Tilt	SDT05	H05	25	17	17	31
	SDT10	H10*	35	16.2	22	37.2
	SDT15	H15	38	18.9	22	39.9
	SDT25	H25 / H3008	50	18.6	35.5	40.6
	SDT55	H55, HD55, H75, HD75, H100, HU55, HU100, HLN55 and HLN100	70	21.4	71	32.8
	SDT200	HLN150 and HLN200	130	28.8	130	45
	SDT250	HLN250	150	29.5	150	46
	SDT300	HLN300	195	83.8	139	100
	SDTG100	HG100 and HDG100	75	20	-	67
	SDTG150	HG150 and HDG150	94	19.5	-	68.8
	SDTG200	HG200 and HDG200	113	28	-	82.5
	SDTL10	HL1001	35	10	-	21
	SDTL50	HL2002, HL3002, HL5002	50	14	-	29
	SDTL100	HL10002	71	18	-	35
Grooved	SD05	H05	25	6	17	20.5
	SD10	H10*	35	6	22	27
	SD15	H15	38	7	22	30
	SD25	H25	50	6.5	35.5	29
Threaded	HTD10	HT1006, HT1010 and HP0505 H1002-H1014, HD1010-HD1012	1 1/4"-11.5NPT	26.5	1"- 8UNC	45
Hollow threaded	APS20	HC20	55	10	1"- 8UNC	20.5
	APS30	HC30	63	10	1 1/4" - 7UNC	27
	APS60	HC60	92	13	1 1/8" - 5.5UNC	30

* Except H1001



Hand Pump Matching Chart

Hand Pumps

- Match up the stroke length to the capacity of your cylinder to find the suggested hand pump to go with your cylinder.

Stroke (mm)	Capacity							
	5 Tonne 45 kN	10 Tonne 101 kN	15 Tonne 141 kN	25 Tonne 232 kN	30 Tonne 287 kN	50 Tonne 495 kN	75 Tonne 726 kN	95 Tonne 929 kN
25.4	1.00	2.24	3.14	5.14	6.49	10.99	16.10	20.57
50.8	2.00	4.48	6.28	10.28	12.98	21.98	32.20	41.14
76.2	3.00	6.72	9.42	15.42	19.47	32.97	48.30	61.71
101.6	4.00	8.96	12.56	20.56	25.96	43.96	64.40	82.28
127.0	5.00	11.20	15.70	25.70	32.45	54.95	80.50	102.85
152.4	6.00	13.44	18.84	30.84	38.94	65.94	96.60	123.42
177.8	7.00	15.68	21.98	35.98	45.43	76.93	112.70	143.99
203.2	8.00	17.92	25.12	41.12	51.92	87.92	128.80	164.56
228.6	9.00	20.16	28.26	46.26	58.41	98.91	144.90	185.13
254.0	10.00	22.40	31.40	51.40	64.90	109.90	161.00	205.70
304.8	12.00	26.88	37.68	61.68	77.80	131.88	193.20	246.84
330.2	13.00	29.12	40.82	66.82	84.37	142.87	209.30	267.41
355.6	14.00	31.36	43.96	71.96	90.86	153.86	225.40	287.98
Suggested* Hand Pump Models	P350 P601S	P1000 P1201		P2301 P2301M		P4301		P8701 P8701M

*The suggested pump model is based on oil capacity requirements of the cylinder.

Matching Chart

Air, Electric and Gas Engine Pumps

- Match up the stroke length and capacity of the cylinder to find the suggested pump to work with your application.

Stroke (mm)	Capacity							
	5 Tonne 45 kN	10 Tonne 101 kN	15 Tonne 141 kN	25 Tonne 232 kN	30 Tonne 287 kN	50 Tonne 495 kN	75 Tonne 726 kN	95 Tonne 929 kN
25.4	1.00	2.24	3.14	5.14	6.49	10.99	16.10	20.57
50.8	2.00	4.48	6.28	10.28	12.98	21.98	32.20	41.14
76.2	3.00	6.72	9.42	15.42	19.47	32.97	48.30	61.71
101.6	4.00	8.96	12.56	20.56	25.96	43.96	64.40	82.28
127	5.00	11.20	15.70	25.70	32.45	54.95	80.50	102.85
152.4	6.00	13.44	18.84	30.84	38.94	65.94	96.60	123.42
177.8	7.00	15.68	21.98	35.98	45.43	76.93	112.70	143.99
203.2	8.00	17.92	25.12	41.12	51.92	87.92	128.80	164.56
228.6	9.00	20.16	28.26	46.26	58.41	98.91	144.90	185.13
254	10.00	22.40	31.40	51.40	64.90	109.90	161.00	205.70
304.8	12.00	26.88	37.68	61.68	77.80	131.88	193.20	246.84
330.2	13.00	29.12	40.82	66.82	84.37	142.87	209.30	267.41
355.6	14.00	31.36	43.96	71.96	90.86	153.86	225.40	287.98
Suggested Air/Electric/ Gas Pump Models	PA600	PA1500 PA2000		PA3801 PA7550 PE30		PE40 PE50 PD70/PG70 PE60		

Power Source	Pump Type	Page Number / Reference Image
Manual	Single Speed Metal Hand Pump (P-Series)	 52-53
	Two Speed Metal Hand Pumps (P-Series)	
	Two Speed Aluminum Hand Pumps (P-Series)	
	Double Acting Hand Pumps (P-Series)	
	Foot Pump (P57-Series)	54
Air	All-Direction Air Pump (PA-Series)	55
	Air Pumps (PA-Series)	 56-57
	Double Acting Air Pump (PA-Series)	
	Remote Control Air Pump (PA-Series)	
	Rotary Air Pumps (PAR-Series)	58
Electric	Universal Motor Pumps (PU-Series)	59
	Single Phase Electric Pumps	 60-63
	PE30 0.5 HP Electric Pumps	
	PE40 1 HP Electric Pumps	
	PE50 1.5 HP Electric Pumps	
	PE60 3 HP Electric Pumps	64
Gas	PG70 5.5 HP Gas Engine Pump	 66-67
	PD70 4.6 HP HATZ Diesel Engine Pump	

Control Valves and Accessories

Page 64 ▶

Pumps-Cylinder Combo's

Page 65 ▶

Hand Pumps

Aluminum and Steel



P Series



Combo Kits
Most hand pumps are available in easy to order kits; Pump, Gauge, Couplers, Hose and Cylinder



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

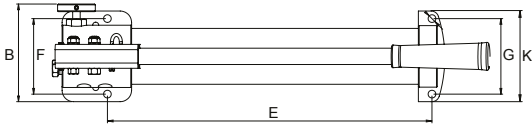
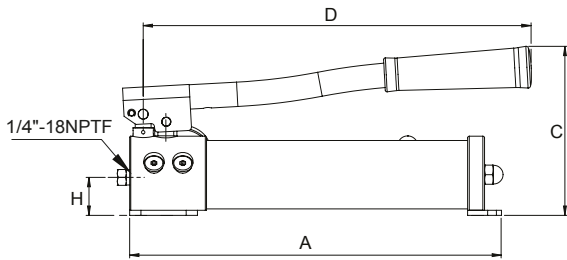
BVA Bag

“Very practical for service people. For easy and comfortable carry/transport of the equipment to the place of work while keeping your hands free”. Ideal for the P601S, P350, P352, P1000 or P1201, and still have room for a cylinder too. Add “BVABAG” to your order or ask your supplier for more info.

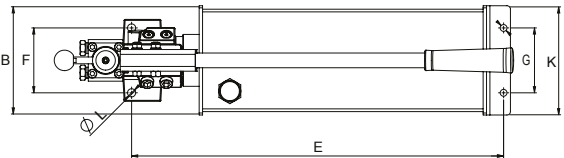
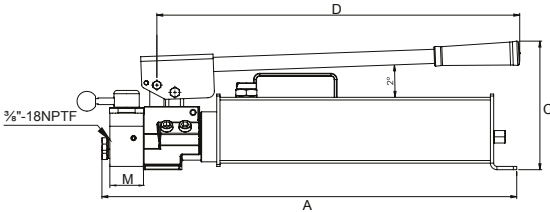


25x15x71 cm (LxWxH)

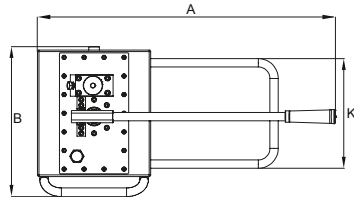
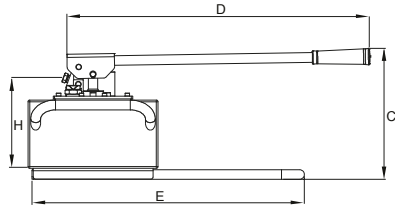
P350, P352, P1000, P601S, P1201



P2301(M), P2801(M), P4301(M)



P8701, P8701M



Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Pressure Rating/Oil Displacement per Stroke		Piston Stroke (mm)	Handle Operating Force (N)	Reservoir Construction
			1 st Stage (BAR/cc)	2 nd Stage (BAR/cc)			
Single Speed - Single Acting							
P601S	700	¾"-18 NPTF	-	700/2.5	20	485	Steel
2-Speed - Single Acting							
P350*	350	¼"-18 NPTF	20/3	700/0.8	10	391	Aluminum
P352	350	¾"-18 NPTF	20/3	700/0.8	10	391	Aluminum
P1000	1000	¾"-18 NPTF	20/13.3	700/2.3	21	440	Aluminum
P1000AD	870 -1000	¾"-18 NPTF	20/13.3	700/2.3	21	440	Aluminum
P1201	1100	¾"-18 NPTF	20/13.3	700/2.3	27	440	Steel
P2301	2200	¾"-18 NPTF	20/13.3	700/2.3	21	440	Steel
P2801	2870	¾"-18 NPTF	30/46	700/3.9	27	468	Steel
P4301	4100	¾"-18 NPTF	20/13.3	700/2.3	21	440	Steel
P8701	7800	¾"-18 NPTF	20 /120	700/4.7	43	400	Steel
2-Speed - Double Acting							
P2301M	2200	¾"-18 NPTF	20/13.3	700/2.3	21	440	Steel
P2801M	2700	¾"-18 NPTF	30/46	700/3.9	21	440	Steel
P4301M	4100	¾"-18 NPTF	20/13.3	700/2.3	27	468	Steel
P8701M	7800	¾"-18 NPTF	20/120	700/4.7	43	400	Steel

Model Number	Dimensions (mm)												Weight w/Oil (kg)
	A	B	C	D	E	F	G	H	J	K	L	M	
Single Speed - Single Acting													
P601S	506	148	160	530	542	100	95	32	115	115	12	-	5.9
2-Speed - Single Acting													
P350*	360	98	160	360	303	75	65	32	85	85	8	-	3
P352	360	98	160	360	306	75	65	32	85	85	8	-	3
P1000	552	177	507	129	92	46	576	100	100	430	10	-	6.2
P1000AD	552	177	507	129	92	46	576	100	100	430	10	-	6.2
P1201	586	135	182	580	540	95	95	44	115	115	10	-	9.3
P2301	609	135	173	563	573	95	90	44	120	110	10	-	12.6
P2801	674	135	183	661	592	89	89	35	120	135	7	-	13.8
P4301	586	160	195	565	545	95	95	44	120	160	10	-	17.1
P8701	771	388	295	684	-	-	-	210	-	284	-	-	34.5
2-Speed - Double Acting													
P2301M	696	120	173	552	573	95	90	41/27	120	110	10	50	14.7
P2801M	724	135	183	652	592	89	89	39/36	120	135	7	50	14.7
P4301M	619	160	196	552	545	95	95	39/36	120	160	10	50	19
P8701M	771	388	295	684	-	-	-	210	-	284	-	-	35.1

* CA3814 adapter excluded

Manual Pumps

Air Pumps

Rotary Air pumps

Electric Pumps

3 Phase Pump

Gas/ Diesel Pumps

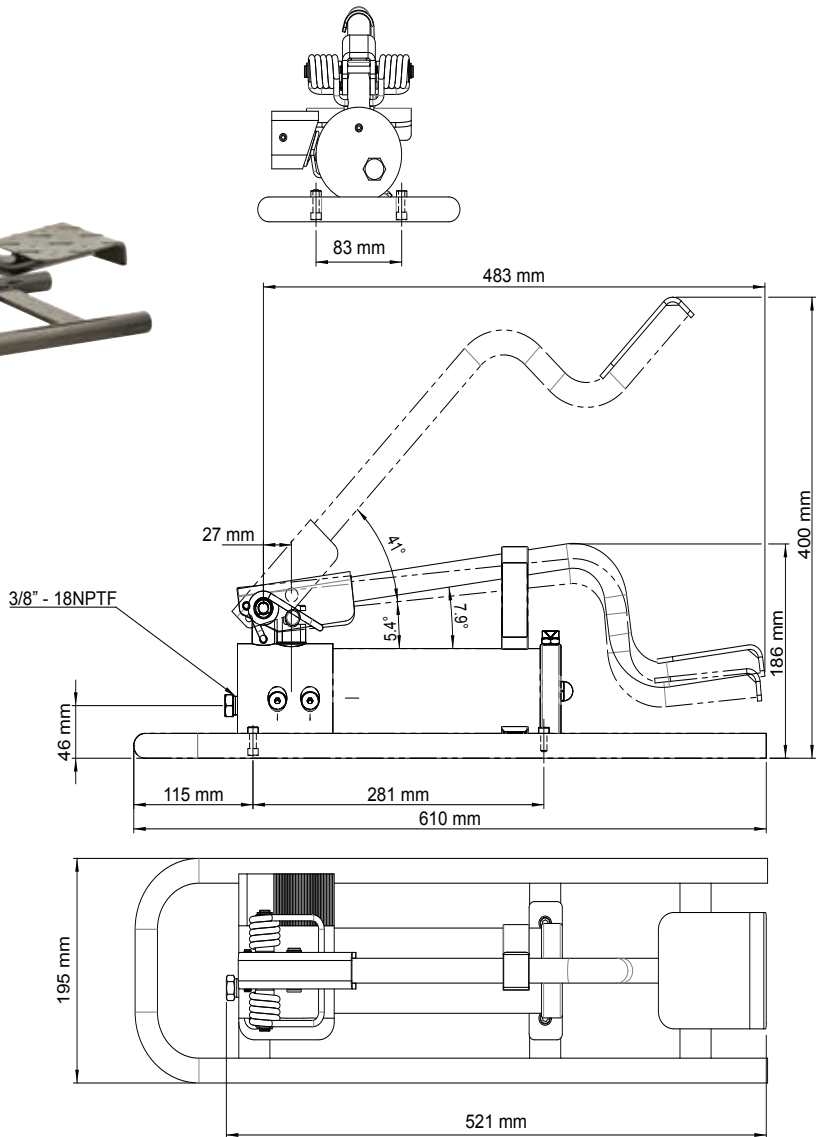
Pump& Cylinder sets

Foot Pump

P57 Series - 10,000 PSI



P570FP



Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

HF Kits
Consider using our portable HF kits in conjunction with this pump.

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

Related Product: Nut Splitters

The nut splitters pair up with this portable foot pump. Our hydraulic nut splitters come in a spacious tool box so its easy to carry around from site-to-site. This tool box is large enough to hold small cylinders, saddles, spacers or whatever tool you need to bring with you to your next job site.



Model Number	Bolt Range	Hexagon Nut Range
NS1319	6-12	13-19
NS1924	12-16	19-24
NS2432	16-22	24-32
NS3241	22-27	32-41
NS4150	27-33	41-50
NS5060	33-39	50-60
NS6075	39-48	60-75
NS7590	48-60	75-90
NS90105	60-72	90-105
NS105145	72-100	105-145

Model Number	Usable Oil (cc)	Oil Outlet Port	Pressure Rating (BAR)		Oil Displacement per Stroke (cc)		Max. Handle Effort (kg)	Piston Stroke (mm)	Weight (kg)
			1st Stage	2nd Stage	"1st Stage"	2nd Stage			
P570FP	500	3/8"-18 NPTF	13.8	690	13	2	57.7	21	8.2

All Position Aluminium Pumps

- Pump can work in any position.
- Mounting plate allows the pump to be securely fastened.



P1000AD



PA600



Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Output Flow Rate		Input Air Pressure Required (BAR)	Air Consumption (L/min)	Reservoir Construction
			No Load (L/min)	Load (L/min)			
Single Acting							
PA600	600	3/8"-18 NPTF	1.00	0.15	8.0 - 14.0	220	Aluminum
PA600H	600	3/8"-18 NPTF	1.00	0.15	8.0 - 14.0	220	Aluminum

Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Pressure Rating/Oil Displacement per Stroke		Piston Stroke (mm)	Handle Operating Force (N)	Reservoir Construction
			1 st Stage (BAR/cc)	2 nd Stage (BAR/cc)			
2-Speed - Single Acting							
P1000AD*	870 - 1000*	¾"-18 NPTF	20/13.3	700/3	21	440	Aluminum

* Oil capacity varies by position. Pump can be mounted outlet up or down

For sizes: P1000AD - Page 52
PA600 & PA600H - Page 56

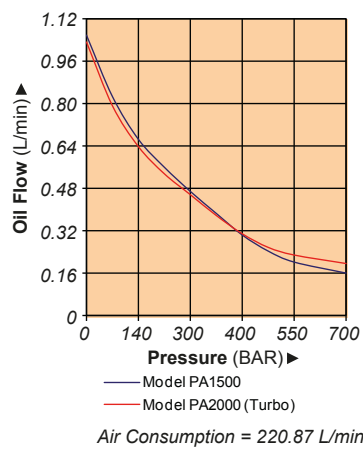


Air Pumps

Air Actuated Power



PA Series



Product Information

- Metal reservoirs resist cracking
- US Patent No. 5,946,912, a built in bypass device protects the hydraulic system from over pumping damage
- A compact yet powerful Air Turbo Motor US Patent No. 5,341,723
- Suggested air inlet range: 110-175 psi / 7.6-12.1 bar
- Maximum working pressure: 10,000 psi / 700 Bar

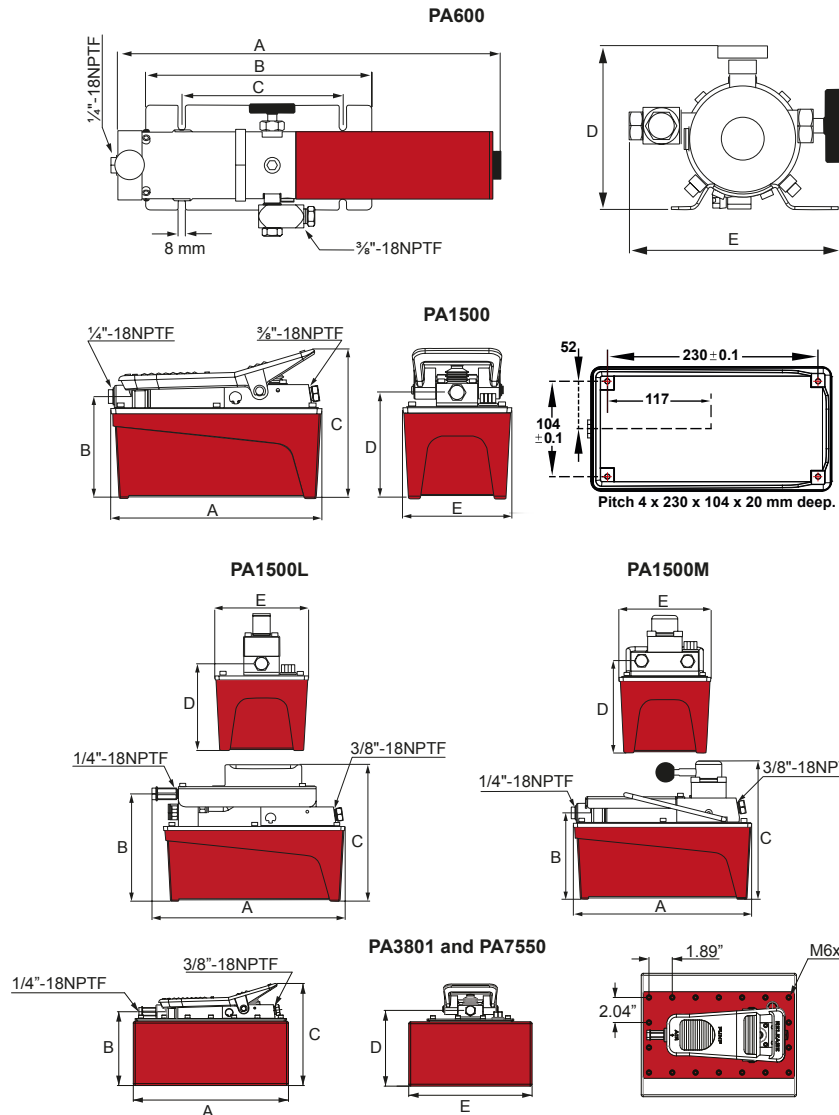
CE

PA1500A Pressure Adjustment

PA1500A Pressure can be adjusted externally from 1,000 psi / 70 Bar to 10,000 psi / 700 Bar.

Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Output Flow Rate		Input Air Pressure Required (BAR)***	Air Consumption (L/min)	Reservoir Construction
			No Load (L/min)	Load (L/min)			
Single Acting							
PA600	600	3/8"-18 NPTF	1.00	0.15	8.0 - 14.0	220	Aluminum
PA600H	600	3/8"-18 NPTF	1.00	0.15	8.0 - 14.0	220	Aluminum
PA1500	1500	3/8"-18 NPTF	1.08	0.18	8.0 - 14.0	220	Aluminum
PA1500A (*)	1500	3/8"-18 NPTF	1.08	0.18	8.0 - 14.0	220	Aluminum
PA1500L (**)	1500	3/8"-18 NPTF	1.00	0.16	8.0 - 14.0	220	Aluminum
PA1500LA (*)(**)	1500	3/8"-18 NPTF	1.08	0.18	8.0 - 14.0	220	Aluminum
PA2000	2000	3/8"-18 NPTF	1.07	0.20	8.0 - 14.0	220	Aluminum
PA3801	3800	3/8"-18 NPTF	1.07	0.18	8.0 - 14.0	220	Steel
PA3801L (**)	3800	3/8"-18 NPTF	1.00	0.16	8.0 - 14.0	220	Steel
PA7550	7550	3/8"-18 NPTF	1.07	0.18	8.0 - 14.0	220	Steel
PA7550L (**)	7550	3/8"-18 NPTF	1.07	0.18	8.0 - 14.0	220	Steel
Double Acting							
PA1500M	1500	3/8"-18 NPTF	1.08	0.18	8.0 - 14.0	220	Aluminum
PA3801M	3800	3/8"-18 NPTF	1.07	0.18	8.0 - 14.0	220	Steel
PA7550M	7550	3/8"-18 NPTF	1.07	0.18	8.0 - 14.0	220	Steel

* This unit is equipped with an external pressure adjustment (70-700 bar)
**These pumps are equipped with a hand held air powered pendant
***Air active pressure for oil operating 0-700 bar



PA Series



PA1500L

Air Pump Combo

PA1500 air pumps are available in easy to order kits: pump, gauge, coupler, hose and cylinder

pg 69

Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

pg 87

Model Number	Base Mounting Holes	Dimensions (mm)					Weight w/Oil (kg)
		A	B	C	D	E	
Single Acting							
PA600	yes	426	250	178	157	142	6.4
PA600H	yes	426	250	178	114	146	5.7
PA1500	yes	263	127	185	131	136	8.2
PA1500A (*)	yes	263	127	185	131	136	8.2
PA1500L (**)	yes	278	160	204	130	136	8.8
PA1500LA (*)(**)	yes	263	127	185	131	136	8.2
PA2000	yes	292	152	203	132	151	9.1
PA3801	no	329	129	187	133	187	12.3
PA3801L (**)	no	329	205	207	132	187	13.8
PA7550	no	329	153	211	156	255	16.3
PA7550L (**)	no	329	153	211	156	255	16.3
Double Acting							
PA1500M	yes	267	127	203	136	136	8.7
PA3801M	no	329	129	204	135	187	10.9
PA7550M	no	329	153	229	161	255	18.1

* Unit is equipped with an external pressure adjustment (70-700 bar)
**These pumps are equipped with a hand held air powered pendant

Manual Pumps

Air Pumps

Rotary Air pumps

Electric Pumps

3 Phase Pump

Gas/ Diesel Pumps

Pump& Cylinder sets

Rotary Air Pumps

PUAR Series - 10,000 PSI Rated



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

pg 85



Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.

pg 87



Will be delivered without Hydraulic Oil



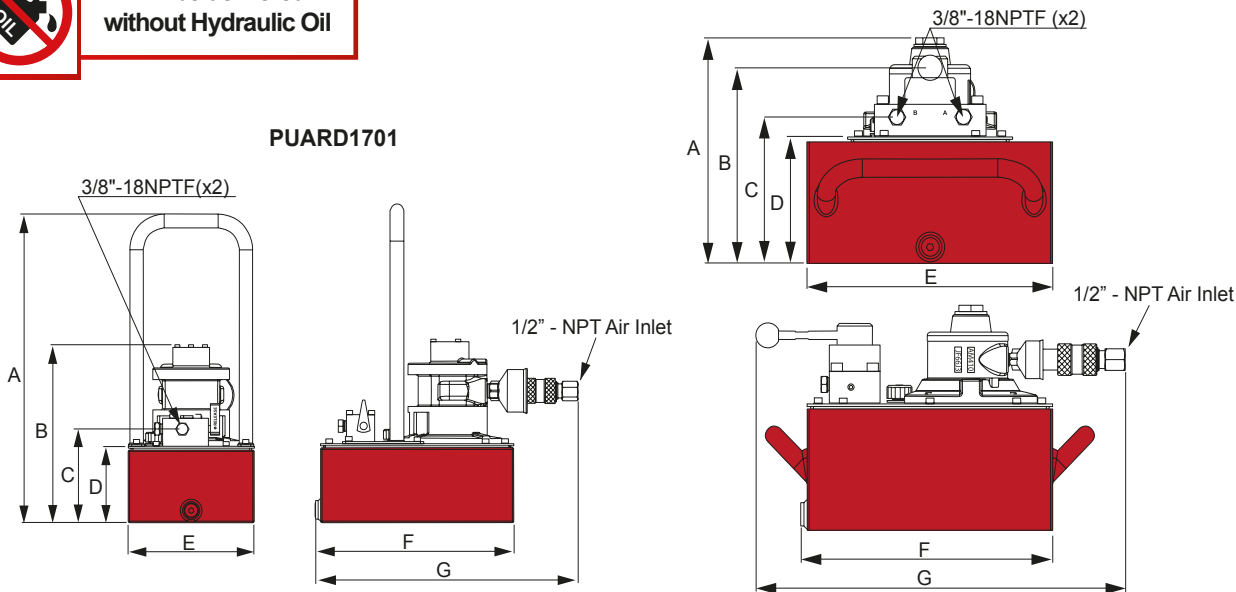
PUARM4003

PUARD1701

PUARD1703

PUAR Series

PUAR1703 and PUAR4003



Used with Cylinder	Motor Size (hp)	Usable Oil Capacity (cc)	Model Number	Pressure Rating (BAR)	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Air Pressure Range (BAR)
					1 st Stage (BAR)	2 nd Stage (BAR)	1 st Stage (L/min)	2 nd Stage (L/min)			
Single Acting	1.7	3800	PUARD1701	700	48.30	700	5.13	0.36	Dump	Advance/Return	4.14~5.52
	1.7	11400	PUARD1703	700	48.30	700	5.13	0.36	Dump	Advance/Return	4.14~5.52
	4	11400	PUARD4003	700	48.30	700	7.62	1.15	Dump	Advance/Return	4.14~0.69
	1.7	11400	PUAR1703	700	48.30	700	6.83	0.36	Manual PUW3	Advance/Hold/Return	4.14~5.52
	4	11400	PUAR4003	700	48.30	700	8.39	1.15	Manual PUW3	Advance/Hold/Return	4.14~0.69
Double Acting	1.7	11400	PUARM1703	700	48.30	700	6.83	0.36	Manual PUW4	Advance/Hold/Return	4.14~5.52
	4	11400	PUARM4003	700	48.30	700	8.39	1.15	Manual PUW4	Advance/Hold/Return	4.14~0.69

Model Number	Air Consumption (L/min)	Max Sound Level (dBA)	Dimensions (mm)							Weight (kg)
			A	B	C	D	E	F	G	
PUARD1701	1246	93	485	239	147	120	205	313	404	19.1
PUARD1703	1246	93	-	304	212	185	305	313	456	24.5
PUARD4003	2690	100	-	344	212	185	305	313	467	29.9
PUAR1703	1246	93	303	267	209	185	305	313	459	24.9
PUAR4003	2690	100	344	267	209	185	305	313	470	30.4
PUARM1703	1246	93	303	267	209	185	305	313	459	24.9
PUARM4003	269	100	-	344	209	185	305	313	470	26.9

Universal Motor Pumps

PU Series - Light-Weight Pumps



PU20M4N01C

- Portable, light weight and compact design.
- Universal Motor, starts under full load and is available in either 120VAC 50/60 HZ or 240VAC 50/60HZ.
- 3mt 24 VAC pendant control for safety.
- Weighs only 18,3 kg. with oil.
- External pressure adjustment is available.
- Designed for intermittent duty operation.
- Gauge port on control valve.
- Reservoir Capacity 7.6L

Hydraulic Gear Pullers

5, 10, 15, 25 & 50 Tonne Hydraulic Gear Pullers have a safety cage design to help keep the jaws tight to the gear and prevent slippage that can cause injury. Pair these with BVA's PU20M3N01B Lightweight e-pump for portability.

pg 96

Flange Spreaders

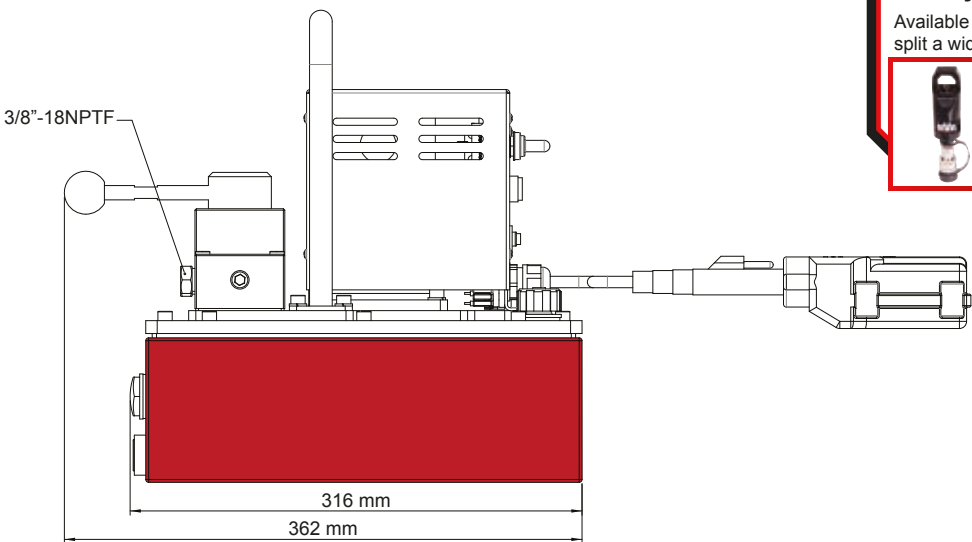
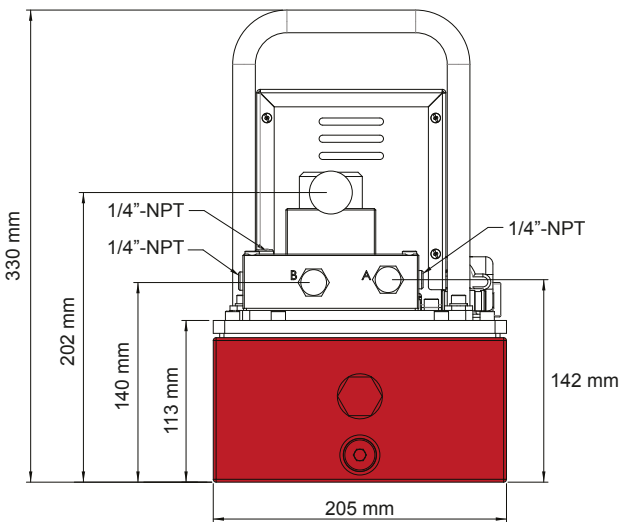
BVA's Pin Type Flange Spreaders are available in both 5 & 10 Tonne models and well suited for most environments. For portability and speed the PU20M4N01B would be an ideal choice.

pg 104

Hydraulic Nut Splitters

Available in 3 models, each nut splitter can split a wide range of nut sizes thereby reducing the number of splitters needed. The BVA PU20DMP01B dump style pump functions well with these splitters

pg 95



Valve Function	Flow Rate				Motor Size	Voltage 50/60 Hz		Weight w/oil (kg)	Length (mm)	Width (mm)	Height (mm)
	1st Stage		2nd Stage			120 VAC	240 VAC				
	L/min	BAR	L/min	BAR		Model #	Model #				
3W/3P Advance/Hold Return	2.18	62~76	0.46	700	1.0 Hp	PU20M3N01B	PU20M3N01C	18.3	362	205	300
4W/3P Advance/Hold/Return	2.18	62~76	0.46	700	1.0 Hp	PU20M4N01B	PU20M4N01C	18.3	362	205	300
3W/3P Advance/Hold Return	2.18	62~76	0.46	700	1.0 Hp	PU20M3N02B	PU20M3N02C	19.4	396	280	300
4W/3P Advance/Hold/Return	2.18	62~76	0.46	700	1.0 Hp	PU20M4N02B	PU20M4N02C	19.4	396	280	300

Electric Pumps

PE30, PE40, PE50 and PE60 Series - Single Phase

- Meets OSHA regulations for sound (80dBA).
- 2 Stage pumps provide fast run up before the high pressure stage.
- Suction strainers screen out contamination to prevent pump damage.
- All units are wired as 240 VAC 50 Hz , and are IP54 rated.
- All hand pendants are wired 24 VAC for safety , and are IP65 rated.
- Starts under full load.



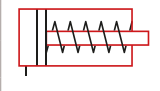
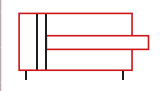
PE40M4U02D



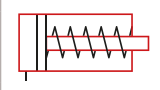
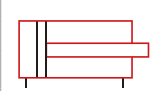
PEW03 Optional

Use with Cylinder Type	Flow Rate				Motor Size
	1 st Stage		2 nd Stage		
	L/min	BAR	L/min	BAR	

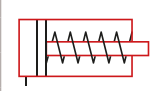
Manual Valve

	3W/3P Advance /Hold Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp
	4W/3P Advance /Hold/Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp

Manual Valve w/3 meter Motor Pendant

	3W/3P Advance /Hold Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp
	4W/3P Advance /Hold/Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp

Solenoid Valve w/3 meter Pendant

	3W/3P Advance /Hold Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp
	4W/3P Advance /Hold/Return		4.20	24	0.24	700	0.5 Hp
			4.20	48	0.49	700	1.0 Hp
			6.40	48	0.83	700	1.5 Hp
			7.10	48	1.50	700	3 Hp



PE50M4U03D

PE30M4U01D

PE40S4U02D



PE60M4U15D

PE Series



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

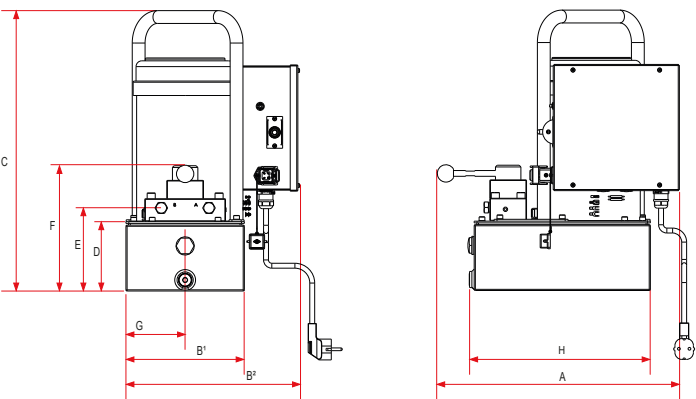
Usable Oil Capacity				
1 Gal / 3.8 L	2 Gal / 7.6 L	3 Gal / 11.4 L	5 Gal / 19.4 L	16 Gal / 60 L
Model Number	Model Number	Model Number	Model Number	Model Number
Manual Valve				
PE30M3U01D	PE30M3U02D	PE30M3U03D	-	-
-	PE40M3U02D	PE40M3U03D	PE40M3U05D	PE40M3U15D
-	-	PE50M3U03D	PE50M3U05D	PE50M3U15D
-	-	-	PE60M3U05D	PE60M3U15D
PE30M4U01D	PE30M4U02D	PE30M4U03D	-	-
-	PE40M4U02D	PE40M4U03D	PE40M4U05D	PE40M4U15D
-	-	PE50M4U03D	PE50M4U05D	PE50M4U15D
-	-	-	PE60M4U05D	PE60M4U15D
Manual Valve w/3 meter Motor Pendant				
PE30W3U01D	PE30W3U02D	PE30W3U03D	-	-
-	PE40W3U02D	PE40W3U03D	PE40W3U05D	PE40W3U15D
-	-	PE50W3U03D	PE50W3U05D	PE50W3U15D
-	-	-	PE60W3U05D	PE60W3U15D
PE30W4U01D	PE30W4U02D	PE30W4U03D	-	-
-	PE40W4U02D	PE40W4U03D	PE40W4U05D	PE40W4U15D
-	-	PE50W4U03D	PE50W4U05D	PE50W4U15D
-	-	-	PE60W4U05D	PE60W4U15D
Solenoid Valve w/3 meter Pendant				
PE30S3U01D	PE30S3U02D	PE30S3U03D	-	-
-	PE40S3U02D	PE40S3U03D	PE40S3U05D	PE40S3U15D
-	-	PE50S3U03D	PE50S3U05D	PE50S3U15D
-	-	-	PE60S3U05D	PE60S3U15D
PE30S4U01D	PE30S4U02D	PE30S4U03D	-	-
-	PE40S4U02D	PE40S4U03D	PE40S4U05D	PE40S4U15D
-	-	PE50S4U03D	PE50S4U05D	PE50S4U15D
-	-	-	PE60S4U05D	PE60S4U15D

Electric Pumps

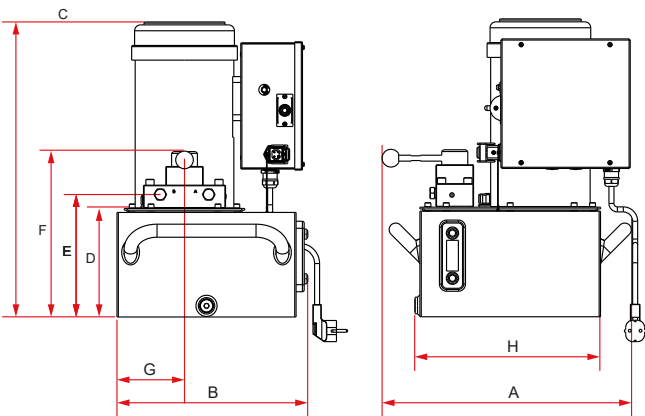
Electric Power Source



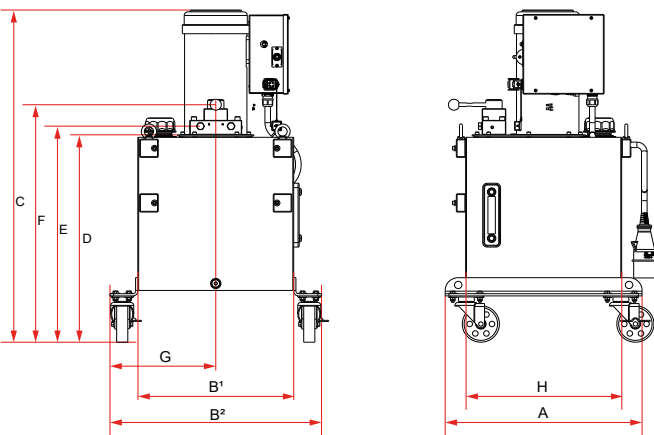
PE30 Series



PE40/PE50/PE60 Series



PE40/PE50/PE60 Series



Pump Accessories

See the assortment of accessories designed to work with these pumps.

pg 82



Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

pg 114



Pressure Settings

Custom pressure settings available upon request. Contact your local BVA dealer.



Reservoir Sizing

Recommended reservoir sizing is Extended Cylinder + Hose Volume Oil Capacity x 1.3



Will be delivered without Hydraulic Oil

Reservoir Size (L)	Dimensional Table (mm)								Pump Weight by Series* (kg)			
	A	B	C	D	E	F	G	H	PE30	PE40	PE50	PE60
3.8	419	301	485	119	145	305	102	315	31.6	-	-	-
7.6	421	321	455	152	175	335	114	315	32	35	-	-
11.4	421	325	502	183	208	267	114	315	34	36.7	41	-
19.4	421	325	654	312	335	394	114	315	-	39	41	46.4
60	531	419	879	561	587	645	211	419	-	64	70	76

* Pump weights without oil.

Single Phase Pump Matrix Chart

If you don't see a pump that would fit your application needs, you can custom build a pump to your desired specifications. Use this Pump Matrix Chart as a guide for creating your very own custom built Electric Pump. For assistance in building your pump, call your local BVA Representative.

P E 30 S4U 02 A

1 Product Type
2 Motor Type
3 Flow Group
4 Valve Type /Operation
5 Reservoir Size
6 Voltage

1 - Product Type

P Pump

2 - Motor Type

E Induction Electric Motor, TEFC

3 - Flow Group

30 4.2/0.24 L/min @ 25/700 BAR, ½ Hp (0.37 kW)
40 4.2/0.49 L/min @ 48/700 BAR, 1 Hp (0.75 kW)
50 6.4/0.83 L/min @ 48/700 BAR, 1.5 Hp (1.12 kW)
60 7.1/1.5 L/min @ 48/700 BAR, 3 Hp (2.24 kW)

4 - Valve Type/Operation

CURM Pump Mounted Manifold Block - Pressure & Return Ports Only

M2U Manual Valve 3W/2P
M3U Manual Valve 3W/3P
M4U Manual Valve 4W/3P
M3LU Manual Valve 3W/3P w/Locking Plate
M4LU Manual Valve 4W/3P w/Locking Plate

W2U Manual Valve 3W/2P w/3 meter Motor Control Pendant
W3U Manual Valve 3W/3P w/3 meter Motor Control Pendant
W4U Manual Valve 4W/3P w/3 meter Motor Control Pendant
W3LU Manual Valve 3W/3P w/Locking Plate and 3 meter Motor Control Pendant
W4LU Manual Valve 4W/3P w/Locking Plate and 3 meter Motor Control Pendant

S3U Solenoid Valve 3W/3P (Spool Type)
S4U Solenoid Valve 4W/3P (Spool Type)

5 - Reservoir Size

01 1 Gallon / 3.8 L
02 2 Gallons / 7.6 L
03 3 Gallons / 11.4 L
05 5 Gallons / 19.4 L
15 15 Gallons / 60 L (Including castors)

6 - Voltage

A 120V 1 ph 50 Hz
D 230V 1 ph 50 Hz - European Plug

Not all options are available in all configurations. Table is for reference only. Please consult your local BVA dealer if you want to order a custom pump or if you have questions.



PE Series

Ordering Example

PE30M4N01D

After reviewing this model number, we know that the pump has the following specifications:

- Electric power source
- ½ Hp (0.37 kW) flow group
- Manual Valve 4W/3P
- 1 gallon/3.8 L reservoir tank



PE30M4U01D



Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

pg 85



Related Product: Footpedals

These can be used with all pumps equipped with solenoid valves

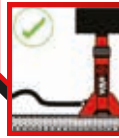
pg 86



Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

pg 87



Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

pg 114



Will be delivered without Hydraulic Oil

Manual Pumps

Air Pumps

Rotary Air pumps

Electric Pumps

3 Phase Pump

Gas/ Diesel Pumps

Pump& Cylinder sets

3-Phase Electric Pumps

380V Electric power

- For both single acting cylinders and double acting cylinders.
- All hand pendants are wired with 24 VAC.
- Quiet operation meets OSHA regulations (80dBA).
- 2 speed operation allows for faster cylinder advance.
- Full load starting capacities.
- Internal suction strainer keeps contamination from damaging pump.
- Rugged durable design meets the demands of industrial applications.
- Precision components to minimize wear and improve overall dependability.
- Reservoirs equipped with sight level gauges.
- PE60 Models are standard as 380 VAC 50 Hz.
- Reservoirs size available in 22.7L and 60L, 60L reservoir is equipped with castors.



PE60M4U06W



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

pg 85



Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.

pg 87



Will be delivered without Hydraulic Oil

Model Number	Valve Type	Valve Function	Motor Voltage (volts)	Sound Level (dBA)	Motor Size (kW)	Usable Oil Capacity (L)	Pressure Rating (BAR)		Oil Output Flow Rate (L)		Current Draw (Amp)
							1 st Stage	2 nd Stage	1 st Stage	2 nd Stage	
380 Volt											
PE60M3U06W	Manual	Single	380	80	2.24	22.7	48	700	6.3	1.33	4.5
PE60S3N06W	Solenoid	Acting	380	80	2.24	22.7	48	700	6.3	1.33	4.5
PE60M4U06W	Manual	Single	380	80	2.24	22.7	48	700	6.3	1.33	4.5
PE60S4N06W	Solenoid	Acting	380	80	2.24	22.7	48	700	6.3	1.33	4.5
PE60M3U15W	Manual	Single	380	80	2.24	60	48	700	6.3	1.33	4.5
PE60S3N15W	Solenoid	Acting	380	80	2.24	60	48	700	6.3	1.33	4.5
PE60M4U15W	Manual	Single	380	80	2.24	60	48	700	6.3	1.33	4.5
PE60S4N15W	Solenoid	Acting	380	80	2.24	60	48	700	6.3	1.33	4.5

3-Phase Electric Pumps

380V Electric power



Pressure Settings
Custom pressure settings available upon request. Contact your local BVA dealer.



80%
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Pump Accessories
See the assortment of accessories designed to work with these pumps.

pg 82



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

pg 114

3-Phase Pump Matrix Chart

If you don't see a pump that would fit your application needs, you can custom build a pump to your desired specifications. Use this Pump Matrix Chart as a guide for creating your very own custom built Electric Pump. For assistance in building your pump, call your local BVA Representative.

P	E	60	M4U	06	W
1 Product Type	2 Motor Type	3 Flow Group	4 Valve Type /Operation	5 Reservoir Size	6 Voltage

1 - Product Type

P Pump

2 - Motor Type

E Induction Electric Motor, TEFC

3 - Flow Group

60 6300 cc/min @ 48 BAR
1330 cc/min @ 700 BAR, 3.0 Hp

4 - Valve Type/Operation

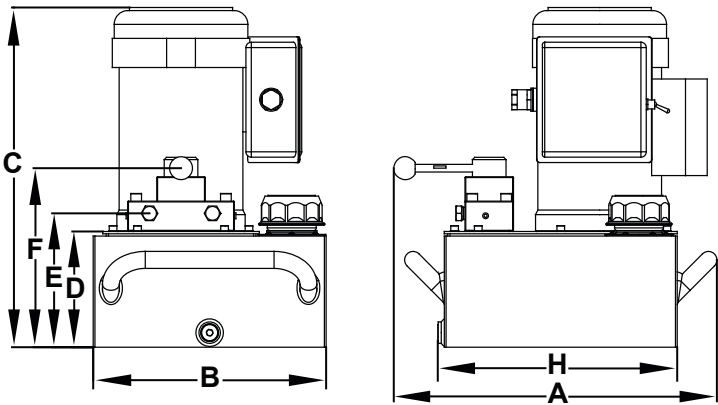
CURM Pump Mounted Manifold Block - Pressure & Return Ports Only
M2U Manual Valve 3W/2P
M3U Manual Valve 3W/3P
M4U Manual Valve 4W/3P
W3U Manual Valve 3W/3P w. 3 meter Motor Control Pendant
W4U Manual Valve 4W/3P w. 3 meter Motor Control Pendant
S4U Solenoid Valve 4W/3P (Spool Type)

5 - Reservoir Size

06 6 Gallons / 22.7 L
15 15.8 Gallons / 60L

6 - Voltage

W 380-415V 3 ph 50 Hz



Model Number	Dimensions (mm)							Weight (kg)
	A	B	C	D	E	F	H	
380 Volt								
PE60M..U06W	524	376	583	224	247	307	436	64
PE60S..N06W	524	376	583	224	247	307	436	64
PE60M..U15W	598	651	809	450	473	533	498	87
PE60S..N15W	598	651	809	450	473	533	498	87

Gas and Diesel Pumps

PG/PD Series - Portable Power



PG70M4U05



PD70M4U05

Will be delivered without Hydraulic Oil

Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

Gas Pumps

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

Diesel Pumps

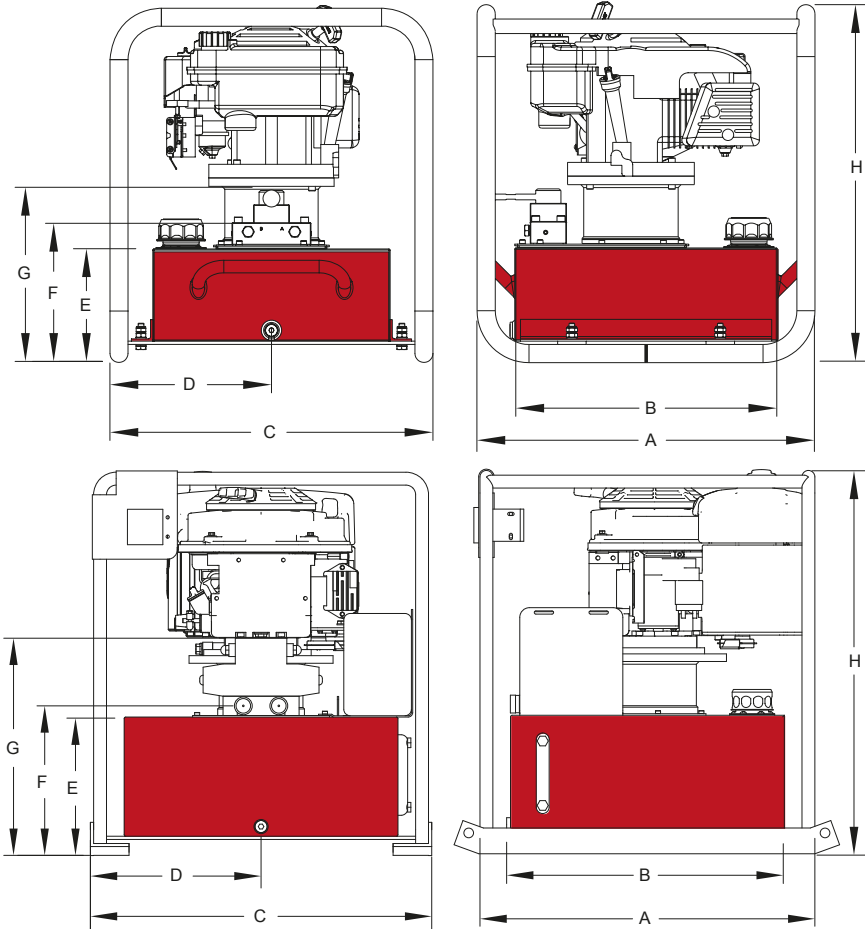
- Diesel engine pumps will provide 10,000 psi at remote locations
- Industrial grade 4.6 hp / 3.5 kN HATZ Diesel engine
- Control valve for use with single or double acting cylinders or tools
- Two speed pump designed for rapid cylinder advance
- Pump features a sturdy protective roll cage for use in the toughest environments
- Ideal for application when diesel fuel in remote environments is required
- Optional: electric start

Valve Function	Valve Type		7.4 Gal / 19.4 L Model Number	Flow Rate			
				1 st Stage		2 nd Stage	
				L/min	BAR	L/min	BAR
3W/3P Advance/Hold Return	Manual	7.4 Gal Gas - 5.5 Hp Honda	PG70M3U05	7.0	48.3	1.6	700
	Manual	12.2 Gal Diesel - 4.6 Hp HATZ	PD70M3U05	9.8	48.3	3.3	700
4W/3P Advance/Hold Return	Manual	7.4 Gal Gas - 5.5 Hp Honda	PG70M4U05	7.0	48.3	1.6	700
	Manual	12.2 Gal Diesel - 4.6 Hp HATZ	PD70M4U05	9.8	48.3	3.3	700



PG70M3U05

PD70M4U05



Model Number*	Dimensions (mm)						Weight** (Kg)
	A	B	C	D	E	H	
Gas Pumps							
PG70xxx05	952	469	572	286	208	627	73.5
Diesel Pumps							
PD70xxx10	830	593	686	343	304	828	149.2

* "xxx" in the model number refers to the type of valve you may use on the gas/diesel engine pump. Refer to your local BVA dealer or the Matrix Chart (on page 58) to build your own pump.
** Pump weights include oil.

Gas and Diesel Pumps

PG/PD Series

Safety Practices
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Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials.

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

Combinations

Pump and Cylinder Sets

- Each set includes:
- ¼" ID 2 meter Hydraulic Hose.
 - ⅜" High Flow Male Coupler.
 - 63 mm Diameter Wet Gauge.



Single Acting Cylinder Type	Cylinder				Hand Pump P352	Hand Pump P1000	Hand Pump P2301	Air Pump PA1500
	Capacity	Model Number	Stroke (mm)	Collapsed Height (mm)				
General Purpose Cylinders 	5 Tonne 44 kN	H0505	129	221	SP352-0505	-	-	-
	10 Tonne 99 kN	H1002	51	123	-	SP10-1002	-	SA15-1002
		H1004	102	174	-	SP10-1004	-	SA15-1004
		H1006	155	250	-	SP10-1006	-	SA15-1006
		HT1006	151	291	-	SP10-1006T	-	SA15-1006T
		H1010	257	352	-	SP10-1010	-	SA15-1010
		HT1010	253	393	-	SP10-1010T	-	SA15-1010T
	15 Tonne 139 kN	H1504	101	200	-	SP10-1504	-	SA15-1504
		H1506	152	270	-	SP10-1506	-	SA15-1506
		H2502	51	168	-	SP10-2502	-	SA15-2502
		H2504	102	219	-	SP10-2504	-	SA15-2504
		H2506	155	272	-	SP10-2506	-	SA15-2506
		H2508	206	323	-	-	SP23-2508	SA15-2508
		H2514	362	476	-	-	SP23-2514	SA15-2514
	50 Tonne 487 kN	H5506	159	283	-	-	SP23-5506	SA15-5506
	100 Tonne 911 kN	H10002	51	219	-	-	SP23-10002	-
Flat Body Cylinders 	5 Tonne 49 kN	HF0503*	6	32	SP352-0503F	-	-	-
		HF0503B *	6	32	SP352-0503B	-	-	-
	10 Tonne 104 kN	HF1005	11	43	SP352-1005F	-	-	-
		HF1005B	11	43	SP352-1005B	-	-	-
	20 Tonne 194 kN	HF2005	11	51	SP352-2005F	-	-	-
		HF2005B	11	51	SP352-2005B	-	-	-
	30 Tonne 288 kN	HF3005	13	59	SP352-3005F	-	-	-
		HF3005B	13	59	SP352-3005B	-	-	-
	45 Tonne 437 kN	HF5006	16	67	SP352-5006F	-	-	-
		HF5006B	16	67	SP352-5006B	-	-	-
	75 Tonne 726 kN	HF7506	16	80	SP352-7506F	-	-	-
	90 Tonne 870 kN	HF10006	16	86	SP352-10006F	-	-	-
	150 Tonne 1359 kN	HF15006	16	100	-	SP10-15006F	-	-

* Fitted with CR38F coupler

Combinations

Pump and Cylinder Sets

◀ We see here our combo kit SA15-3002L getting set up to lift a load. This combo kit includes a HL3002 cylinder, PA1500 air pump, CS3814 hose, CH38M coupler set, CF3814 gauge adapter and a GBW1460 pressure gauge.



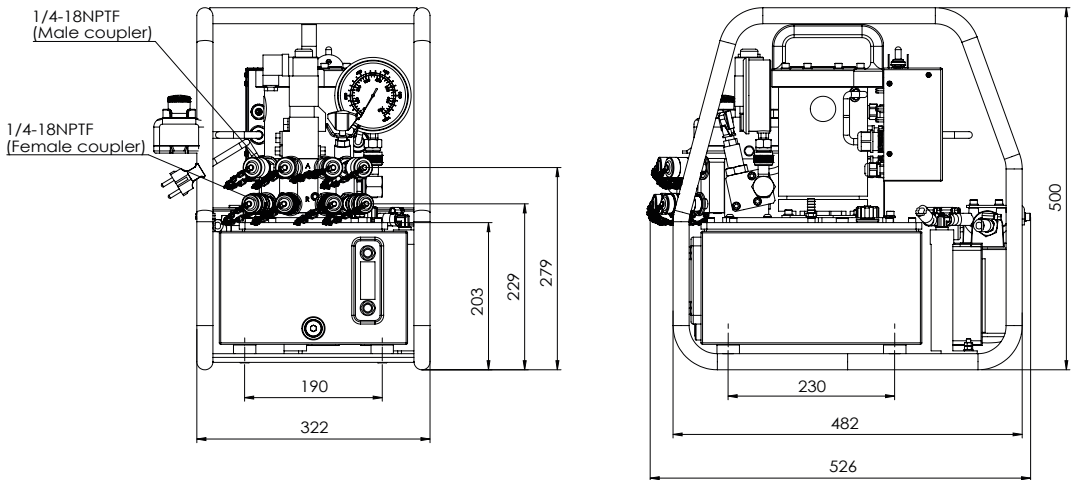
Single Acting Cylinder Type	Cylinder				Hand Pump P352	Hand Pump P1000	Hand Pump P2301	Air Pump PA1500
	Capacity	Model	Stroke (mm)	Collapsed Height (mm)				
Hollow Hole Cylinders 	12 Tonne 129 kN	HC1201T	8	60	SP352-1201T	-	-	-
		HC1202	41	121	SP352-1202T	-	-	-
		HC1202XT	41	121	SP352-1202XT	-	-	-
		HC1203XT	76	184	-	SP10-1203XT	-	-
	20 Tonne 217 kN	HC2002T	51	162	-	SP10-2002T	-	SA15-2002T
	30 Tonne 280 kN	HC3002T	64	179	-	SP10-3002T	-	SA15-3002T
		HC3006T	155	331	-	SP10-3006T	-	SA15-3006T
	60 Tonne 578 kN	HC6003T	76	248	-	SP10-6003T	-	SA15-6003T
		HC6006T	152	324	-	-	SP23-6006T	SA15-6006T
	100 Tonne 980 kN	HC10003T	76	254	-	-	SP23-10003T	SA15-10003T
Low Profile Cylinders 	10 Tonne 104 kN	HL1001	38	89	SP352-1001L	SP10-1001L	-	SA15-1001L
	10 Tonne 104 kN	HL1001D	38	89	SP352-1001LD	SP10-1001LD	-	SA15-1001LD
	20 Tonne 194 kN	HL2002	44	99	SP352-2002L	SP10-2002L	-	SA15-2002L
	30 Tonne 288 kN	HL3002	62	117	SP352-3002L	SP10-3002L	-	SA15-3002L
	45 Tonne 437 kN	HL5002	60	122	-	SP10-5002L	-	SA15-5002L
	90 Tonne 870 kN	HL10002	57	141	-	SP10-10002L	SP23-10002L	SA15-10002L
Lock Nut Cylinders 	50 Tonne 487 kN	HLN5502	50	165	-	-	SP23-5502LN	SA15-5502LN
		HLN5504	100	213	-	-	SP23-5504LN	SA15-5504LN
		HLN5506	150	264	-	-	SP23-5506LN	SA15-5506LN
Aluminum Cylinders 	30 Tonne 303 kN	HU3002T	50	181	SP352-3002U	-	-	SA15-3002U
		HU3006T	150	281	-	SP10-3006U	-	SA15-3006U
	50 Tonne 487 kN	HU5506T	150	286	-	-	SP23-5006U	SA15-5006U

Torque Wrench Pump

- Each set includes:**
- Torque 1 or up to 4 separate wrenches simultaneously.
 - With integrated manometer.
 - Pendant operated.
 - Without rollcage is possible.
 - Optional heat exchanger / system filter.



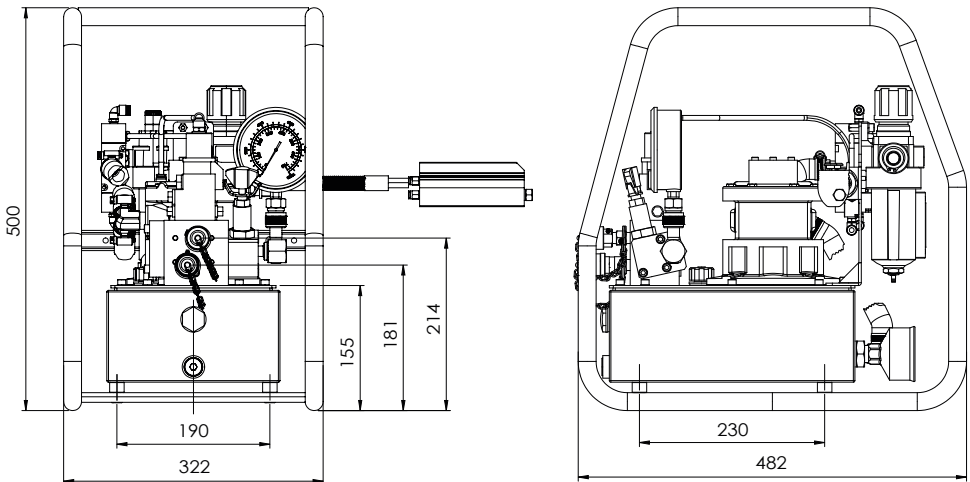
PU55T4W025C



Model Number	Usable Oil Capacity (Liter)	Output Flow Rate (L / Min)			Motor Voltage	Pump Dimension	Current Draw @10,000 PSI (Amp)	Noise Level (dBA)	Weight (w/Oil, kg.)
		48 BAR	450 BAR	700 BAR					
PU55T1W01B	3,7	7,2	1,3	1,1	120VAC, 50/60HZ	369x238x418	23	90	28
PU55T1W01C	3,7	7,2	1,2	1	240VAC, 50/60HZ		11	90	28
PU55T1W025B-HR	3,7	7,2	1,3	1,1	120VAC, 50/60HZ	562x322x500	23	90	36
PU55T1W025C-HR	3,7	7,2	1,2	1	240VAC, 50/60HZ		11	90	36
PU55T4W025B	9,4	7,2	1,3	1,1	120VAC, 50/60HZ	404x265x455	23	90	29
PU55T4W025C	9,4	7,2	1,2	1	240VAC, 50/60HZ		11	90	29
PU55T4W025B-HR	9,4	7,2	1,3	1,1	120VAC, 50/60HZ	526x322x500	23	90	37
PU55T4W025C-HR	9,4	7,2	1,2	1	240VAC, 50/60HZ		11	90	37

Torque Wrench Air Pump

- Lightweight portable design, provides more users friendly.
- Constructed of high strength steel material for long life working.
- Air Driven, rotary motor, provides higher working efficiency on specific jobsite.
- Two speed operation which reduces user fatigue.
- Internal pressure relief valve for overload protection.
- Heavy duty vent screw mechanism, provides longer working life.
- 1/4"-18NPTF Oil Port, for 1 tool, or option 4 tools.
- Maximum working pressure: 10,000 psi/ 700 bar.



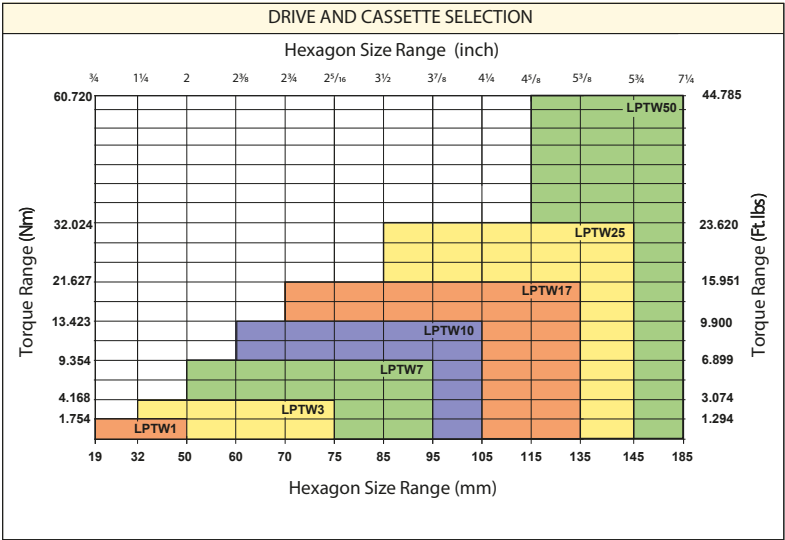
Model Number	Usable Oil Capacity (Liter)	Output Flow Rate (L / Min)			Max air pressure BAR	Noise Level (dBA)	Weight (w/Oil, kg.)
		35 BAR	350 BAR	700 BAR			
PAR60T1W01-HR	3,8	6	1,5	1,2	7	100	25
PAR60T4W01-HR	3,8	6	1,5	1,2	7	100	25

Low Profile Hydraulic Torque Wrench

- Standard head sizes from 3/4 to 7 1/4 and from 19mm to 185mm.
- The cylinder is made of TL-T6 lightweight aircraft alloy. Durable, but not heavy.
- Reduces overall dimensions of hex head including a thinner nose radius.
- Standard with 360° swivel couplers, even under pressure.
- Every tool is tested and calibrated to +/- 0.03 accuracy and +/- 0.01 repeatability traceable to N.I.S.T. standards.
- The LPTW tools allows the swivels to be manually relocated from the top of the tool to the back of the tool using only hand tools.



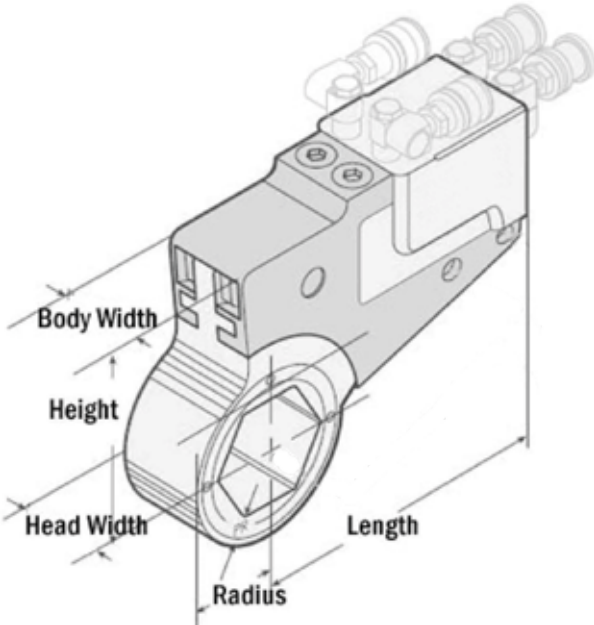
II 2G Ex h IIC T4 Gb
II 2D Ex h T110°C Db



Part no	Hex Range Min/Max (mm)	Hex Range Min/Max (inch)	MIN FT./ LBS. @10,000 PSI	MAX FT./ LBS. @10,000 PSI	MIN NM @700 bar	MAX NM @700 bar	Length (mm)	Height (mm)	Body width (mm)	Head width (mm)	Range (mm)	Weight with Head (kg)
LPTW1	19 - 50	¾"-2"	117	1.294	159	1.754	159	102	28	24	19 - 51	3,3
LPTW3	32 - 75	1¼"-2½"	294	3.074	399	4.168	178	146	37	30	32 - 75	4,2
LPTW7	50 - 95	2"-3¾"	667	6.899	904	9.354	235	159	38	38	51 - 95	6,4
LPTW10	60 - 105	2¾"-4¼"	990	9.900	1.342	13.423	248	203	50	50	60 - 105	11,1
LPTW17	70 - 135	2¾"-5¾"	1.513	15.951	2.051	21.627	286	235	50	62	70 - 135	19,1
LPTW25	85 - 145	3½"-5¾"	2.260	23.620	3.064	32.024	286	235	74	75	86 - 145	25,9
LPTW50	115 - 185	4½"-7¼"	3.475	44.785	4.711	60.720	391	267	74	75	115 - 185	38,6

Cassettes Metric

Drive unit Part No.	Hex Size	nose radius	Dim.	Cassette Part No.	Description
LPTW1	19	27	10	LPTWC1-19	Cassette Head 19mm
	27	30	9	LPTWC1-27	Cassette Head 27mm
	32	33	9	LPTWC1-32	Cassette Head 32mm
	36	36	9	LPTWC1-36	Cassette Head 36mm
	41	38	9	LPTWC1-41	Cassette Head 41mm
	46	41	9	LPTWC1-46	Cassette Head 46mm
	50	44	9	LPTWC1-50	Cassette Head 50mm
LPTW3	32	35	9	LPTWC3-32	Cassette Head 32mm
	36	37	9	LPTWC3-36	Cassette Head 36mm
	41	40	9	LPTWC3-41	Cassette Head 41mm
	46	43	10	LPTWC3-46	Cassette Head 46mm
	50	45	10	LPTWC3-50	Cassette Head 50mm
	55	48	10	LPTWC3-55	Cassette Head 55mm
	60	50	10	LPTWC3-60	Cassette Head 60mm
	65	54	12	LPTWC3-65	Cassette Head 65mm
LPTW7	70	57	12	LPTWC3-70	Cassette Head 70mm
	75	60	12	LPTWC3-75	Cassette Head 75mm
	50	46	12	LPTWC7-50	Cassette Head 50mm
	55	48	12	LPTWC7-55	Cassette Head 55mm
	60	51	12	LPTWC7-60	Cassette Head 60mm
	65	55	12	LPTWC7-65	Cassette Head 65mm
	70	61	14	LPTWC7-70	Cassette Head 70mm
	75	65	13	LPTWC7-75	Cassette Head 75mm
LPTW25	80	67	16	LPTWC7-80	Cassette Head 80mm
	85	72	16	LPTWC7-85	Cassette Head 85mm
	95	77	16	LPTWC7-95	Cassette Head 95mm
	85	74	24	LPTWC25-85	Cassette Head 85mm
	95	81	26	LPTWC25-95	Cassette Head 95mm
	105	85	25	LPTWC25-105	Cassette Head 105mm
	115	91	25	LPTWC25-115	Cassette Head 115mm
	125	98	25	LPTWC25-125	Cassette Head 125mm
LPTW50	135	104	26	LPTWC25-135	Cassette Head 135mm
	145	110	28	LPTWC25-145	Cassette Head 145mm
	115	100	33	LPTWC50-115	Cassette Head 115mm
	125	105	33	LPTWC50-125	Cassette Head 125mm
	135	110	33	LPTWC50-135	Cassette Head 135mm
	145	116	32	LPTWC50-145	Cassette Head 145mm
	155	121	32	LPTWC50-155	Cassette Head 155mm
	165	127	32	LPTWC50-165	Cassette Head 165mm
	175	133	32	LPTWC50-175	Cassette Head 175mm
	185	138	32	LPTWC50-185	Cassette Head 185mm



Torque Wrench Hoses

BVA Torque Wrench hoses are equipped with couplers.



- C2S1414-4MF Twin Hose 4 meter
- C2S1414-6MF Twin Hose 6 meter
- C2S1414-10MF Twin Hose 10 meter

Square Drive Hydraulic Torque Wrench

- All SDTW series models of 15.000Nm or lower are armed with a 360° reversible reaction arm
- Sizes from ¾" to 2½" work with all standard-size impact sockets.
- Every tool is tested and calibrated
- Connection swivels 360°, even under pressure.

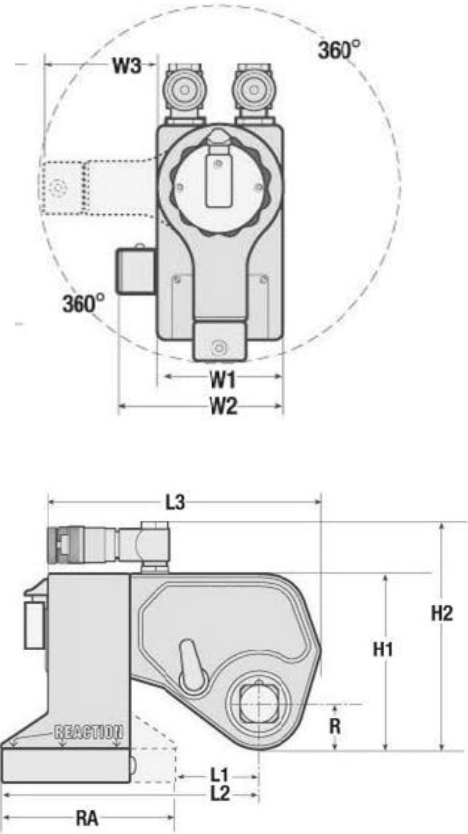
Torque Wrench Hoses

BVA Torque Wrench hoses are equipped with couplers.



C2S1414-4MF Twin Hose 4 meter
C2S1414-6MF Twin Hose 6 meter
C2S1414-10MF Twin Hose 10 meter

CE II 2G Ex h IIC T4 Gb
 II 2D Ex h T110°C Db



Part number	SQUARE DRIVE	MIN/MAX FT./LBS. @10000 PSI	MIN/MAX NM @700 BAR	Weight Kg	RA (mm)	L1 (mm)	L2 (mm)	R (mm)	H1 (mm)	H2 (mm)	W1 (mm)	W2 (mm)	W3 (mm)
SDTW1	¾"	143/1382	194/1874	3	94	40	133	30	104	145	50	69	56
SDTW3	1"	262/2921	355/3960	6	136	47	183	32	127	168	70	91	81
SDTW6	1½"	564/5110	765/6928	9	139	55	193	44	157	198	80	114	89
SDTW8	1½"	848/8545	1150/11585	14	165	52	175	46	172	214	99	136	122
SDTW11	1½"	1038/10793	1407/14633	16	165	57	222	52	195	236	99	136	127
SDTW20	2"	1753/17934	2377/24315	34	191	88	264	76	241	282	126	189	141
SDTW30	2½"	2638/25804	3577/34986	41	191	88	276	79	264	305	149	213	141
SDTW45	2½"	4400/46631	5966/63223	68	189	186	318	83	285	320	146	210	140
SDTW60	2½"	5113/54905	6932/74441	133	223	150	373	95	356	396	184	248	146

Battery Powered Torque Wrench

- Wireless connection with mobile or computer
- Predefinition and documentation of tightening process via wireless possible
- Torque and angle controlled tightening process possible
- Torque range from 20 to 8,000 Nm
- Slim design and low weight
- Large LCD color display, multilingual with control and warning messages
- Brushless motor with electronic torque shut-off
- Automatic release angle adjustable
- Safe working due to the free wheel between drive & gearbox which ensures no twisting of the torque wrench.
- With two high performance batteries 18V, 5.2Ah

- Optional**
- Offset Gearbox
 - Special reaction arms
 - Impact sockets in metric or imperial size

Matching impact socket can be found on the next page



Model	Square drive	Min. Torque (Nm)	Max. torque (Nm)	Length A (mm)	Height B (mm)	Diameter C (mm)	Diameter D (mm)	Idle Speed gear 1 (rpm)	Idle Speed gear 2 (rpm)	Weight without reaction arm (kg)
BTW450	¾"	20	450	300	270	78	77	18	54	4,9
BTW600	¾"	40	600	300	270	78	77	9	27	4,39
BTW800	¾"	50	800	300	270	78	77	9	27	5,2
BTW1500	¾" (1")	100	1500	345	270	78	77	5	15	6,2
BTW2000	1"	150	2000	345	270	78	77	3,5	11,4	6,2
BTW3000	1"	200	3000	345	270	78	77	2,5	7,5	6,2
BTW4200	1"	300	4200	380	270	78	90	1,5	4,5	8,2
BTW4500	1 1/2"	300	4500	405	270	78	90	1,5	4,5	8,9
BTW5400	1 1/2"	350	5400	405	270	78	90	1,2	3,6	8,9
BTW6000	1 1/2"	400	6000	420	270	78	102	1	3	11
BTW8000	1 1/2"	600	8000	420	270	78	102	0,8	2,4	11

Impact sockets

- All our Impact Sockets are manufactured with UNI-ISO 1174 & DIN 3121 standards.
- Manufactured with only high alloy steel.
- Special sockets on request available.
- Delivered with pin and o-ring.



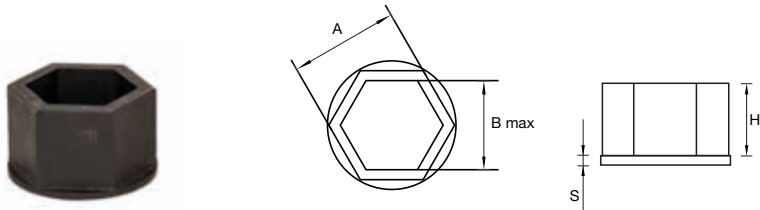
Model	Model Number	Drive	mm																			
			17	19	22	24	27	30	32	33	36	41	46	50	55	60	65	70	75	80	85	90
Standard Socket Metric	BSD34-(mm)	¾"	x	x	x	x	x	x	x	x	x	x	x	x	x							
	BSD100-(mm)	1"		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	BSD112-(mm)	1" ½						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	BSD212-(mm)	2" ½											x	x	x	x	x	x	x	x	x	x
Long Socket Metric	BSD34-(mm)L	¾"	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ²							
	BSD100-(mm)L	1"		x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ¹	x ³	x ³	x ⁴	x ⁴	x ⁴	x ⁵	x ⁵	x ⁵	x ⁶	x ⁶	
	BSD112-(mm)L	1" ½									x ⁷	x ⁷	x ⁷	x ⁷	x ⁷	x ⁷	x ⁸	x ⁸	x ⁸	x ⁹	x ⁹	

Model	Model Number	Drive	mm																			
			95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190
Standard Socket Metric	BSD34-(mm)	¾"																				
	BSD100-(mm)	1"	x	x																		
	BSD112-(mm)	1" ½	x	x	x	x	x	x	x	x	x	x	x	x	x							
	BSD212-(mm)	2" ½	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Long Socket Metric	BSD34-(mm)L	¾"																				
	BSD100-(mm)L	1"	x ⁶	x ⁷																		
	BSD112-(mm)L	1" ½	x ¹⁰	x ¹⁰	x ¹⁰	x ¹¹	x ¹¹	x ¹¹	x ¹¹	x ¹²	x ¹²	x ¹²	x ¹²	x ¹²	x ¹²							

Length of Socket (mm) x¹ 100 x² 110 x³ 115 x⁴ 125 x⁵ 135 x⁶ 140 x⁷ 150 x⁸ 170 x⁹ 180 x¹⁰ 190 x¹¹ 200 x¹² 210

Imperial sizes, Allen Sockets or Reducer Sockets are available on request
size and dimensions are available on request

Reducer



Cod.	A (mm)	B max (mm)	H (mm)	S (mm)
BR-HEX36-..	36	32	25	3
BR-HEX41-..	41	36	25	3
BR-HEX46-..	46	41	25	3
BR-HEX50-..	50	46	28	3
BR-HEX55-..	55	50	35	3
BR-HEX60-..	60	55	35	3
BR-HEX65-..	65	60	35	3
BR-HEX70-..	70	65	40	3
BR-HEX75-..	75	70	40	3

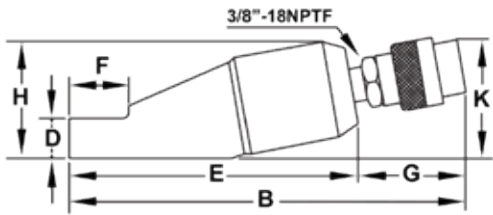
Cod.	A (mm)	B max (mm)	H (mm)	S (mm)
BR-HEX80-..	80	75	40	3
BR-HEX85-..	85	80	40	3
BR-HEX90-..	90	85	50	3
BR-HEX95-..	95	90	50	3
BR-HEX100-..	100	95	55	3
BR-HEX105-..	105	100	55	3
BR-HEX110-..	110	105	65	3
BR-HEX115-..	115	110	65	3

Cod.	A (mm)	B max (mm)	H (mm)	S (mm)
BR-HEX120-..	120	115	75	3
BR-HEX125-..	125	120	75	3
BR-HEX130-..	130	125	80	3
BR-HEX135-..	135	130	80	3
BR-HEX140-..	140	135	80	3
BR-HEX145-..	145	140	80	3
BR-HEX150-..	150	145	80	3
BR-HEX155-..	155	150	80	3

Hydraulic Nut Splitter Case

Compact and Heavy Duty

- Spacers include a straight chisel with a 60/40 angle, and works on all type of materials, including stainless steel
- Chisel can be sharpened multiple times
- The aluminum flight case also includes one spare blade

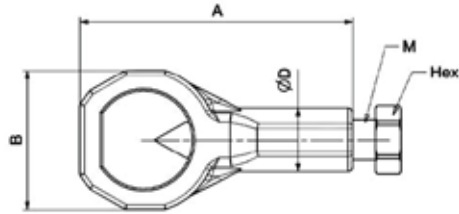


Model Number	Capacity (Tonne)	Bolt Range	Hexagon Nut Range (mm)	Oil Capacity (cc)	Dimensions (mm)									Replacement Blade Model Number	Weight (kg)
					A	B	C	D	E	F	G	H	K		
NS1319	6	M6-M12	13-19	11	40	190	7	19	121	28	55	48	57	NSB1319	1
NS1924	10	M12-M16	19-24	17	54	217	10	26	146	40	55	62	60	NSB1924	2
NS2432	15	M16-M22	24-32	40	64	245	13	29	178	51	55	72	71	NSB2432	3.2
NS3241	21	M22-M27	32-41	62	75	260	17	36	205	66	55	88	77	NSB3241	4.7
NS4150	34	M27-M33	41-50	123	94	310	21	45	244	74	55	105	90	NSB4150	8.5
NS5060	49	M33-M39	50-60	191	106	335	23	54	289	90	55	128	100	NSB5060	13
NS6075	93	M39-M48	60-75	650	156	410	26	72	365	110	55	181	124	NSB6075	34
NS7590*	93	M48-M60	75-90	650	186	523	30	95	468	127	55	212	168	NSB7590	64
NS90105*	125	M60-M72	90-105	1164	210	607	35	110	552	150	55	245	200	NSB90105	96
NS105145*	266	M72-M100	105-145	3040	300	805	50	145	750	200	55	325	260	NSB105145	180

* Available on request. (no stock item)

Mechanical nut splitter

Compact and Heavy Duty



Model Number	Type	Min/ Max nut size (mm)	Max Torque	A	B	ØD	M	Hex	Blade width (mm)	Weight (kg)
MNS11	Mechanical	4 / 17	50Nm	84	32	21	M14x1.5	22	8	0.2
MNS12	Mechanical	8 / 24	75NM	102	46	27	M16x1.5	24	13	0.3
MNS13	Mechanical	19 / 36	210NM	120	61	28	M18x1.5	27	18	0.5
MNS-SET	Mechanical	4 / 32	50 / 210 NM	84/120	32/61	21 / 28	M14/M18	22 / 27	8 / 18	1.5

Torque wrench pump

TW Low profile

TW Square drive

TW Battery Powered

Sockets

Splitter

Bolt tensioner

Hand-pump +air

Couplers/ hoses

Mano-meter

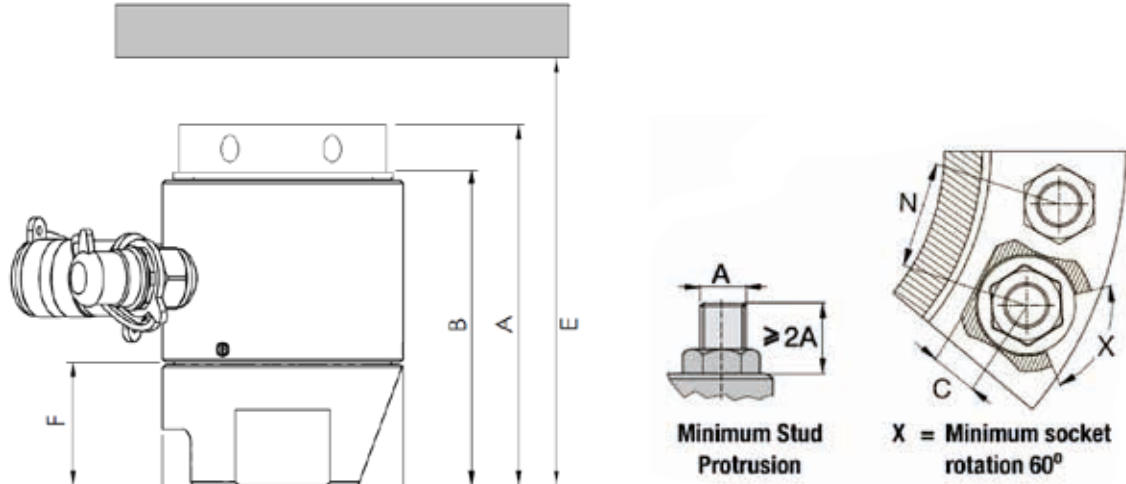
1500 Bar Bolt Tensioner



- Fiveload cells from M16 to M105 or from 5/8"-11UN to 3 1/4"-8UN
- Twin ports for quick connection of multiple tools
- Only one size of bridge per size of load cell
- Detachable and rotational bridge simplifies tool positioning
- Full bridge window - increased access to socket
- Piston stroke indicator
- Black surface treatment protects against corrosion
- Universal and multi-use tool
- TB-Series Tensioners comply to Machine Directive 2006/42/CE

Adaptor Kit Model Number	Thread Size	Bridge Model Number / Cylinder Effective area (mm) / Max load capacity (kN)	Dimensions (mm)								Load Cell and Bridge Weight	Weight** (Kg)
			A	B	C	D	E	F	N			
TB401 Hydraulic Topside Bolt Tensioner M16~M30												
TB401-01620	M16 x 2	TB401 1508 mm² 226,2 kN	135	113	27	86	243	44	57	3,4	1,7	
TB401-01825	M18 x 2.5		135	113	27	86	243	44	58	3,4	1,6	
TB401-02025	M20 x 2.5		135	113	27	86	243	44	59	3,4	1,5	
TB401-02430	M24 x 3		135	113	27	86	243	44	61	3,4	1,4	
TB401-02730	M27 x 3		135	113	27	86	243	44	64	3,4	1,3	
TB401-03035	M30 x 3.5		135	113	27	86	243	44	66	3,4	1,2	
TB401-0625U11	5/8" 11UN		135	113	27	86	243	44	57	3,4	1,7	
TB401-0750U10	5/8" 11UN		135	113	27	86	243	44	59	3,4	1,5	
TB401-0875U09	7/8" 9UN		135	113	27	86	243	44	62	3,4	1,4	
TB401-1000U08	1" 8UN		135	113	27	86	243	44	64	3,4	1,3	
TB401-1125U08	1-1/8" 8UN		135	113	27	86	243	44	66	3,4	1,1	
TB402 Hydraulic Topside Bolt Tensioner M30 ~ M39												
TB402-03035	M30 x 3.5	TB402 2889 mm² 433,35 kN	136	111	35	107	226	41	75	4,7	2,7	
TB402-03335	M33 x 3.5		136	111	35	107	226	41	76	4,7	2,5	
TB402-03640	M36 x 4		136	111	35	107	226	41	79	4,7	2,3	
TB402-03940	M39 x 4		136	111	35	107	226	41	82	4,7	2,0	
TB402-1125U08	1-1/8" 8UN		136	111	35	107	226	41	74	4,7	2,7	
TB402-1250U08	1-1/4" 8UN		136	111	35	107	226	41	76	4,7	2,5	
TB402-1375U08	1-3/8" 8UN		136	111	35	107	226	41	79	4,7	2,3	
TB402-1500U08	1-1/2" 8UN		136	111	35	107	226	41	82	4,7	2,1	
TB403 Hydraulic Topside Bolt Tensioner M39 ~ M52												
TB403-03940	M39 x 4	TB403 5035 mm² 755,25 kN	160	126	46	138	256	56	96	8,1	5,8	
TB403-04245	M42 x 4.5		160	126	46	138	256	56	98	8,1	5,5	
TB403-04545	M45 x 4.5		160	126	46	138	256	56	101	8,1	5,1	
TB403-04850	M48 x 5		160	126	46	138	256	56	104	8,1	4,8	
TB403-05250	M52 x 5		160	126	46	138	256	56	107	8,1	4,3	
TB403-1500U08	1-1/2" 8UN		160	126	46	138	256	56	95	8,1	5,8	
TB403-1625U08	1-5/8" 8UN		160	126	46	138	256	56	98	8,1	5,4	
TB403-1750U08	1-3/4" 8UN		160	126	46	138	256	56	101	8,1	5,1	
TB403-1875U08	1-7/8" 8UN		160	126	46	138	256	56	104	8,1	4,7	
TB403-2000U08	2" 8UN		160	126	46	138	256	56	106	8,1	4,3	

Adaptor Kit Model Number	Thread Size	Bridge Model Number / Cylinder Effective area (mm) / Max load capacity (kN)	Dimensions (mm)								Load Cell and Bridge Weight	Weight** (Kg)
			A	B	C	D	E	F	N			
TB404 Hydraulic Topside Bolt Tensioner M52 ~ M68												
TB404-05250	M52 x 5	TB404 9627 mm² 1444,05 kN	180	141	62	174	281	71	121	14,2	10,8	
TB404-05655	M56 x 5.5		180	141	62	174	281	71	124	14,2	10,2	
TB404-06055	M60 x 5.5		180	141	62	174	281	71	127	14,2	9,5	
TB404-06460	M64 x 6		180	141	62	174	281	71	129	14,2	8,9	
TB404-06860	M68 x 6		180	141	62	174	281	71	132	14,2	8,2	
TB404-2000U08	2" 8UN		180	141	62	174	281	71	120	14,2	10,8	
TB404-2250U08	2-1/4" 8UN		180	141	62	174	281	71	126	14,2	9,8	
TB404-2500U08	2-1/2" 8UN		180	141	62	174	281	71	132	14,2	8,6	
TB405 Hydraulic Topside Bolt Tensioner M68 ~ M80												
TB405-06860	M68 x 6	TB405 15186 mm² 2277,9 kN	202	157	78	210	302	86	148	23,4	17,4	
TB405-07260	M72 x 6		202	157	78	210	302	86	149	23,4	16,5	
TB405-07660	M76 x 6		202	157	78	210	302	86	152	23,4	15,6	
TB405-08060	M80 x 6		202	157	78	210	302	86	155	23,4	14,7	
TB405-2500U08	2-1/2" 8UN		202	157	78	210	302	86	148	23,4	17,9	
TB405-2750U08	2-3/4" 8UN		202	157	78	210	302	86	153	23,4	16,4	
TB405-3000U08	3" 8UN		202	157	78	210	302	86	158	23,4	14,9	
TB405-3250U08	3-1/4" 8UN		202	157	78	210	302	86	161	23,4	13,2	



Our Recommendation

This combination kit will work well with this pump

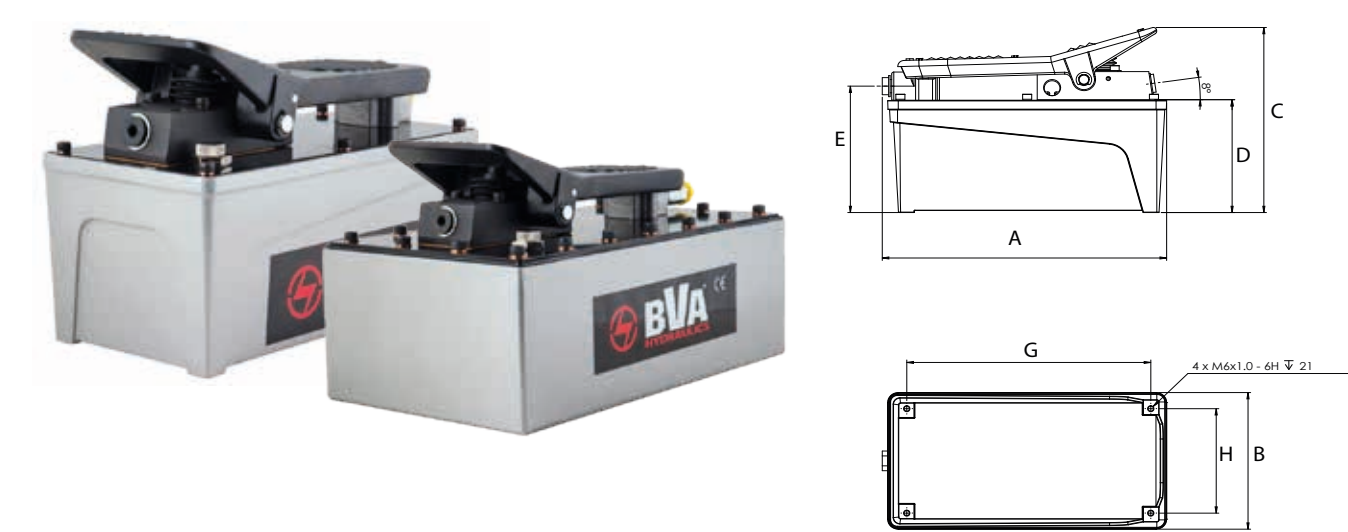
P2200HP

80 pg

1500 Bar Handpump and Airpump



Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Pressure Rating/Oil Displacement per Stroke		Piston Stroke (mm)	Handle Operating Force (N)	Reservoir Construction	Weight (kg)
			A	B				
2-Speed - Single Acting								
P1020HP	1000	G 1/4"	20 / 15,3	1500 / 1,2	24	406	Aluminum	7,3
P2200HP	2200	G 1/4"	20 / 15,3	1500 / 1,2	24	406	Aluminum	10.6



Model Number	Usable Oil Capacity (Liter)	Oil Outlet Port	Flow Rate Pressure (CC / Min)			Reservoir Construction	Minimum air pressure (BAR)	Weight (w/Oil, kg.)
			60 BAR	700 BAR	1500 BAR			
2-Speed - Single Acting								
PA15HP	1500	G 1/4"	550 CC	200 CC	65 CC	Aluminum	8	11
PA38HP	3800	G 1/4"	550 CC	200 CC	65 CC	Steel	8	15.1

Model Number	Dimensions (mm)						
	A	B	C	D	E	G	H
2-Speed - Single Acting							
PA15HP	268	136	184	112	126	230	104
PA38HP	327	187	187	115	128	-	-

1500 Bar Couplers and Hoses



Type	Model Number	Length (mm)	Connection	Max working pressure (Bar)	Min burst pressure (Bar)	Temperature range
Coupler Male	CQH14M	38,0	G 1/4" Female	1500	3000	-30°C / +100°C
Coupler Male	CQH14F	61,3	G 1/4" Female	1500	3000	-30°C / +100°C
Connector	CQH14-ADP	26,0	G 1/4" Male	1500	3000	-30°C / +100°C
Pressure washer	CQH14-WASHER	20,6	-	1500	3000	-30°C / +100°C
1500Bar Hose	CSH1414-XX	1~10 meter (on request)	CQH14M/F (on request)	1500	3750	-10°C / +70°C

1500 Bar Manometer Set

- Complete set with manometer adapter and couplers
- Face diameter Ø100mm



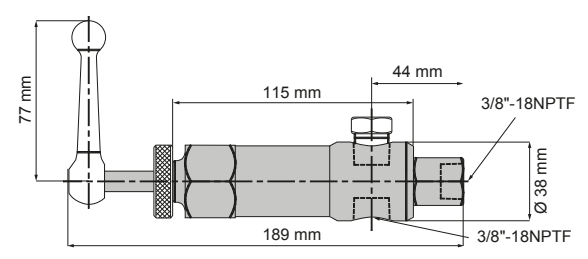
Model Number	Face Dia. (mm)	Thread	Material	Pressure Range		Graduation			
				PSI	Bar	Major Graduation (psi)	Minor Graduation (psi)	Major Graduation (bar)	Minor Graduation (bar)
GBWH12100E-SET	100	1/2 BSP	Stainless	0-23300	0-1600	5000	500	400	50

Flow Control Valves

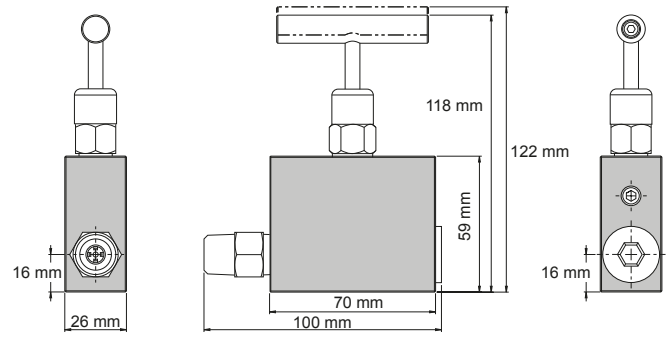
700 BAR Rated



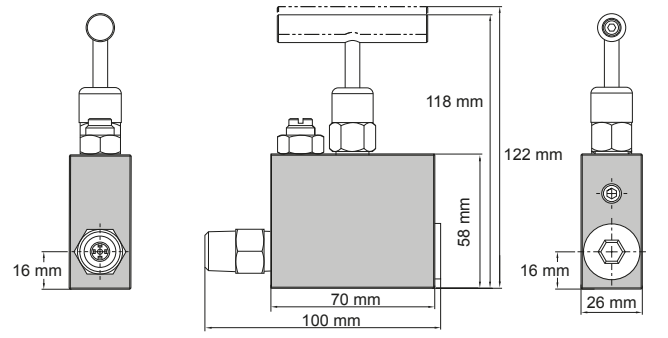
CVR3



CVL3



CVLS3



Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Pressure Relief Valve	CVR3	3/8"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurs when preset pressure reaches 0-10,000 PSI. Turn clockwise to increase pressure, counter-clockwise to decrease.	
	CVR3/H	3/8"-18NPTF	Same as CVR3, but return line hose / 1 meter length is included.	
Manual Operated Check Valve	CVL3	3/8"-18NPTF	Mounted in line with a cylinder and will hold pressure in the cylinder in the event of pressure loss in the system. Pressure is manually released.	
	CVLS3	3/8"-18NPTF	This model is equipped with high-pressure bypass. Pressure is manually released.	

Flow Control Valves

700 BAR Rated



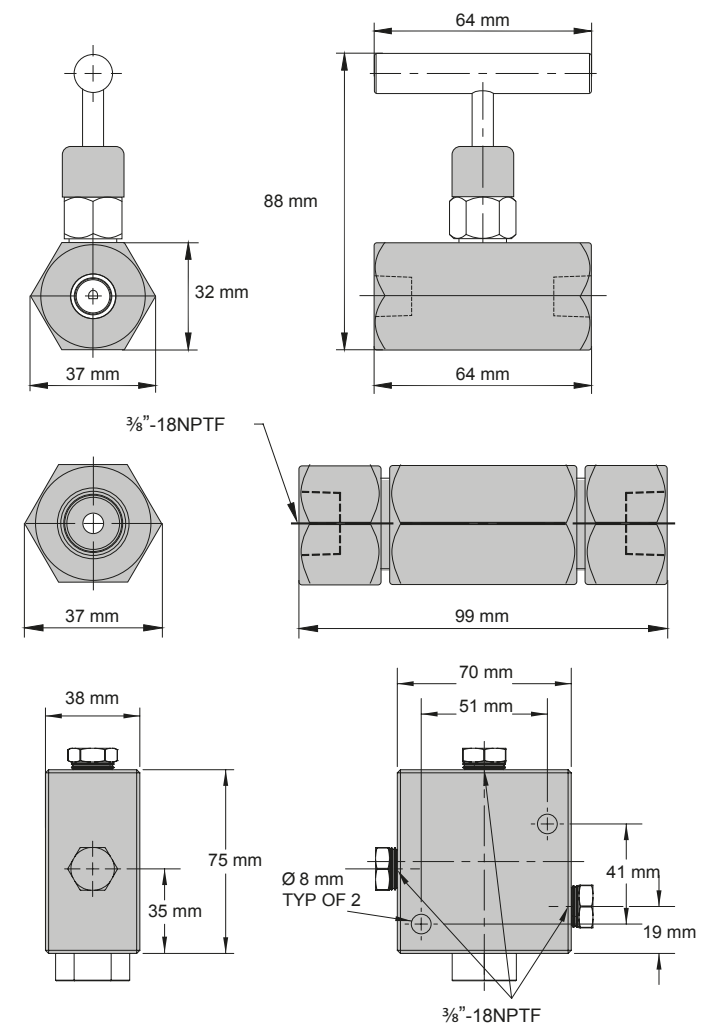
CVN1 and CVN3



CVC3



CVP3



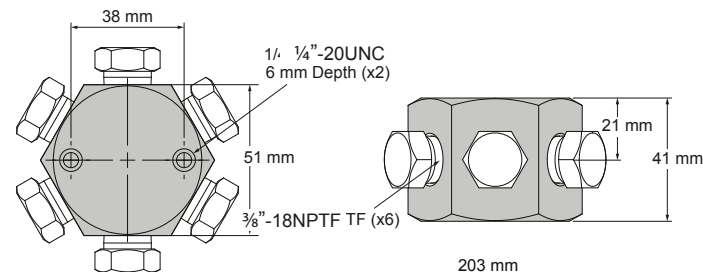
Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Needle Valve	CVN1	1/4"-18NPTF	Controls cylinder speed and acts as temporary shut-off valve for load holding.	
	CVN3	3/8"-18NPTF		
Check Valve	CVC3	3/8"-18NPTF	Allows flow in one direction only.	
Pilot Operated Check Valve	CVP3 + CVBL3	3/8"-18NPTF	Mounted in line with a cylinder which will hold pressure in the event of pressure loss in the system. Most often used on double-acting cylinders with pilot port, receiving pressure from a tee off of the cylinder retracting line. Pilot pressure ratio 15% or 6.5:1	

Manifolds

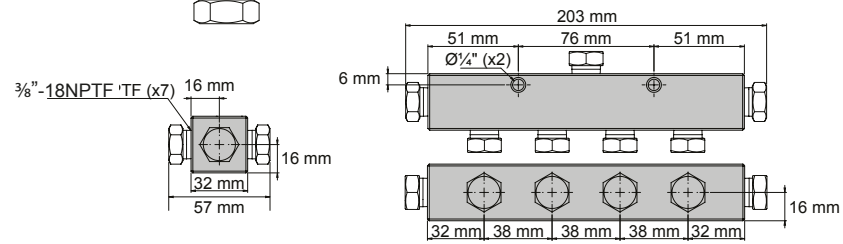
700 BAR Rated



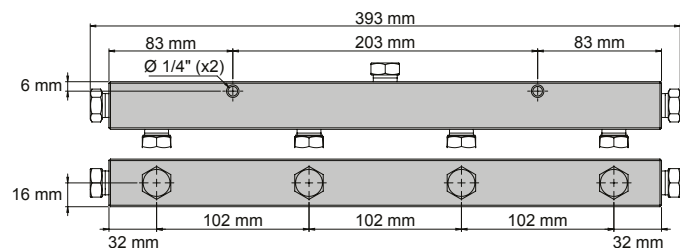
CMH6



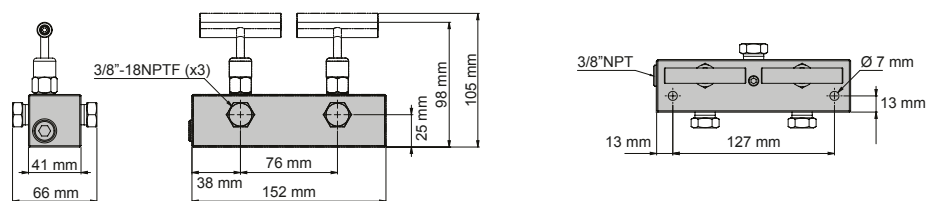
CM7



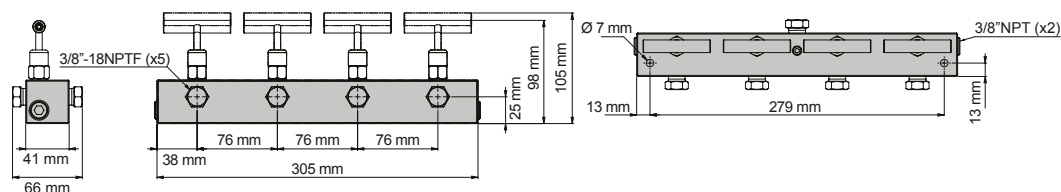
CM14



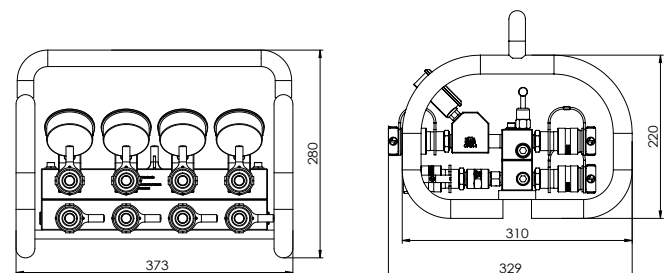
MFC2



MFC4



MFC4-GDA



Manifold Type	Model Number	Number of Ports	Port Size	Mounting Holes
6-Port Hexagon Manifold	CMH6	6	3/8"-18NPTF	1/4"-20UNC
7" Long Manifold	CM7	7	3/8"-18NPTF	1/4"-20UNC
14" Long Manifold	CM14	7	3/8"-18NPTF	1/4"-20UNC
Manifold with Two Needle Valves	MFC2	3(+2)	3/8"-18NPTF	7mm Dia.
Manifold with Four Needle Valves	MFC4	5(+2)	3/8"-18NPTF	7mm Dia.
Split Flow Manifold with Gauges and Frame, for Single Acting Cylinders	MFC4-GSA	5(+2)	3/8"-18NPTF	pre-mounted
Split Flow Manifold with Gauges and Frame, for Double Acting Cylinders	MFC4-GSA	10(+4)	3/8"-18NPTF	pre-mounted

GBW1460T



GD1480T

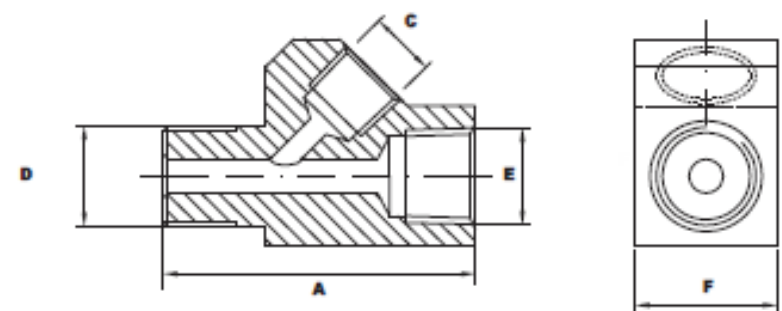
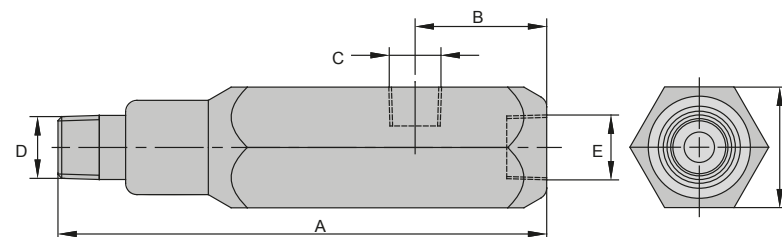


GBW14100T



Transparent tonnage sticker
available only for GBW14100T

Model Number	Face Dia. (mm)	Thread (in)	Material	Pressure Range		Graduation				
				(psi)	(bar)	Major Graduation (psi)	Minor Graduation (psi)	Major Graduation (bar)	Minor Graduation (bar)	Pressure unit
GBW1460T	60	1/4"-18 NPTF	Stainless	0-14500	0-1000	1000	500	100	20	BAR/PSI
GBW14100T	100	1/4"-18 NPTF	Brass	0-14500	0-1000	1000	500	100	20	BAR/PSI
GD1480T	80	1/4"-18 NPTF	Stainless	0-14500	0-1000	-	0.1	-	0.1	BAR/MPA/KGF/cm2
GDL14100T	80	1/4"-18 NPTF	Stainless	0-10000	0-700	-	0.1	-	0.1	BAR, PSI, MPa, kN, Tonnage, and many more.



Gauge Adapter

700 BAR Rated

CF3814



CF3814-45



CF3814-45L



Model Number	Dimensions (mm)					
	A	B	C	D	E	F
CF3814	130	35	1/4"-18 NPTF	3/8"-18 NPTF	3/8"-18 NPTF	32
CF3814-45	55	-	1/4"-18 NPT	3/8"-18 NPT	3/8"-18 NPT	25
CF3814-45L	82	-	1/4"-18 NPTF	3/8"-18 NPT	3/8"-18 NPT	25
CF3812 (E)	155	35	1/2"-14 NPTF	3/8"-18 NPT	3/8"-18 NPT	32
CF1414 (E)	71	25	1/4"-18 NPTF	1/4"-18 NPTF	1/4"-18 NPTF	23

Hydraulic Pressure Gauge

GDL14100 Manometer with Data Logging Function

The GDL14100T Manometer is a versatile instrument equipped with a data logging feature. It accurately records pressure and temperature measurements over extended periods, making it ideal for various applications. The device includes a USB drive and a separate connection cable, allowing for easy data transfer and analysis on your computer. Additionally, the GDL14100T offers customizable settings, enabling you to tailor its operation to your specific requirements, including the ability to select from a wide range of pressure units such as BAR, PSI, MPa, kN, Tonnage, and many more.



GDL14100T

Flow control valves

Manifolds

manometers adapters

Hydraulic oil

Pressure adjustment

Foot pedal

Couplers

Hoses

Valves

Fittings

Hydraulic Oil

- Recommended for all BVA cylinders and pumps

Volume (L)	Model Number	Viscosity Index	Viscosity @ 40°C (mm² / S)	Viscosity @ 100°C (mm² / S)	Viscosity Grade, ISO	Flash Point (°C)	Pour Point (°C)
5	HV465	107	46	7	46	220C°	-33C°

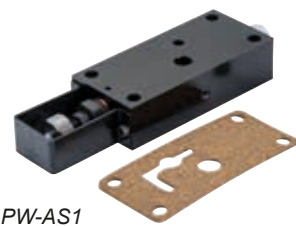


HV465

Valve Mount Pressure Adjustment

Sandwich Mounted

Model Number	Pressure Adj. Range (BAR)	Interval (BAR)	Suitable Model
PW-AS3	70 ~ 700	3,5	PU20 Series Pump



PW-AS1

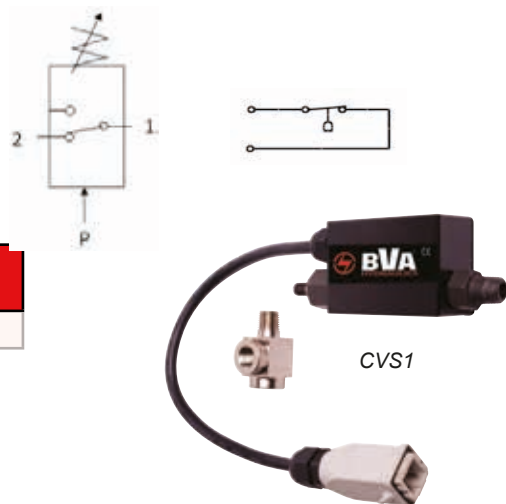
- Pressure can be adjusted externally (70-700 bar)
- Works with single and double acting cylinders

Pressure Switch

CVS1

- Automatically shuts off electric pump when predetermined system pressure is reached

Model Number	Adjustable Pressure Range	Electrical Rating	Port Size	Weight (kg)
CVS1	69~700.35 BAR	15 amp @ 250V max	¼"-18NPTF	0.6



CVS1



FP1

FP2

Foot Pedals

Single or Double

- Hands free pump operation
- Can be used with all pumps equipped with solenoid valves

FP1 for standard electric pumps on/off
FP2 for solenoid pumps push/pull

Foot controls with 3 meter cord.
(This option replaces the hand controls on solenoid equipped models.)



CDC38

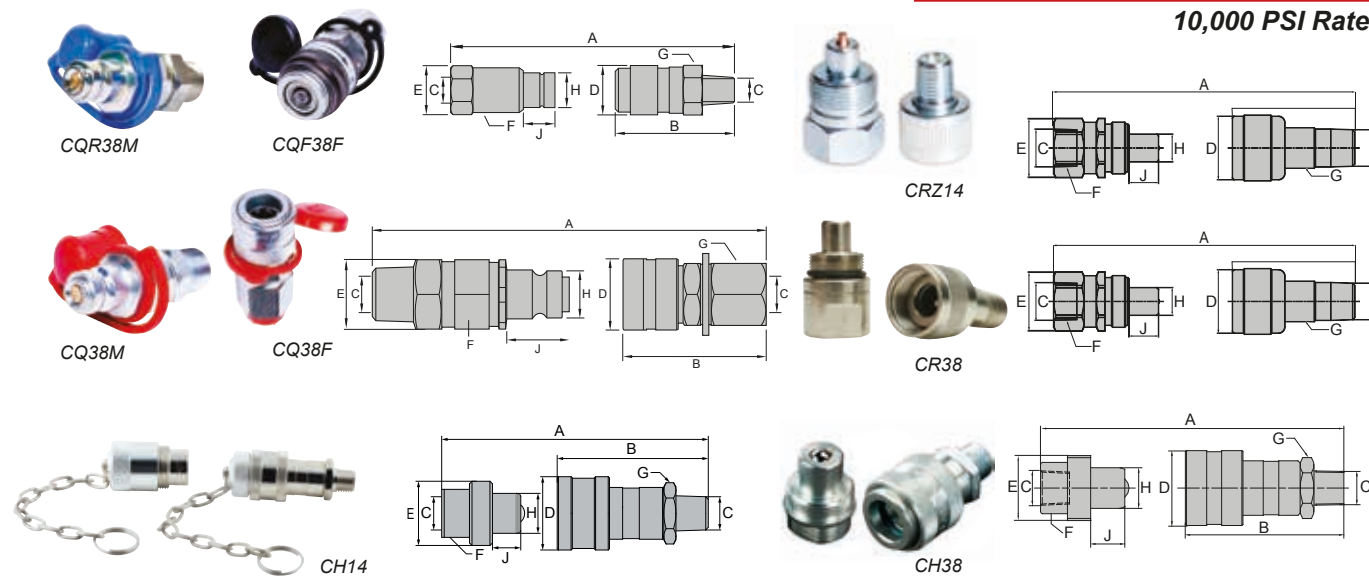
Coupler Dust Cover

- Keeps contaminants out of the system

Model Number	Coupler Compatibility
CDC38	CH38, CH38F, CH38M

Hydraulic Couplers

10,000 PSI Rated



Max Flow Capacity (l/min)	Coupler Type	Model Numbers			Dimensions (mm)								
		Complete Set	Male Half	Female Half	A*	B	C	D	E	F	G	H	J
6	Hose Rupture Nipple	-	CQR38M	-	116	-	⅜"-18NPTF	-	25	22	-	15.6	20
5.3	Flat Face Coupler	-	-	CQF38F	116	71	⅜"-18NPTF	30	-	-	24	-	-
6	Quick Connection	CQ38	CQ38M	CQ38F	105	61	⅜"-18NPTF	28	25	22	24	15.6	20
8	High-Flow Coupler	CH14	CH14M	CH14F	72	60	¼"-18NPTF	29	25	19	21	15.8	11.4
	Regular-Flow Coupler	CRZ14	CRZ14M	CRZ14F	61	43.5	¼"-18NPTF	20.5	21	38.1	15	10	9
10	Regular-Flow Coupler	CR38	CR38M	CR38F	80	56	⅜"-18NPTF	30	27	19	19	12.6	13.5
35	High-Flow Coupler	CH38	CH38M	CH38F	86	72	⅜"-18NPTF	35	30	19	25.4	19	16

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

Hydraulic Hoses

Hose Exceeds DIN 20022-1 & SAE 100R9 Specifications

- Rubber Bend Restrictors
- High Working Pressure
- Optimum Flexibility
- All length also in Twin Hose available
- Temperature Range: from -40°C up to +100 °C



CS3838

CS3814

Model Number	Length (cm)	I.D. Ø	Hose End Fittings	Operating Pressure (BAR)	Bursting Pressure (BAR)	Bend Radius (mm)	Oil Volume (cc)	Weight (kg)
CS3814-1	100	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	34	0.5
CS3814-2	200	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	67	0.8
CS3814-3	300	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	100	1.1
CS3814-4	400	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	133	1.3
CS3814-6	600	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	200	1.9
CS3814-10	1000	6.35mm / ¼"	⅜" - 18NPTF	700	2800	50	332	3
CS3838-2	200	9.5mm / ⅜"	⅜" - 18NPTF	700	2800	150	158	0.8

* Available in other lenghts on request

Solenoid Valves

Pump Mounted

- Pump mounted solenoid kits convert your manual pump to an electrically controlled pump.

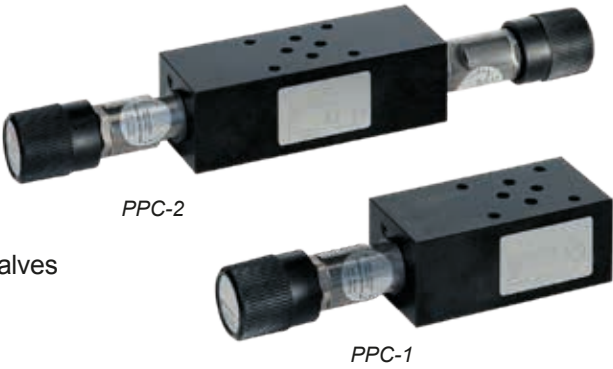


Use With Cylinder	Model Number	Valve Type	Valve Function	Hydraulic Symbol	Schematic Flow path			Weight (kg)
Single Acting	PWS3	Solenoid 196 VDC	Advance/ Hold/ Return					3.4
Double Acting	PWS4	Solenoid 196 VDC	Advance/ Hold/ Return					3.9

Pressure Control Valve

PPC-1/PPC-2

- Modular valve with one or two cartridges.
- Excellent pressure adjustment over the entire operating range.
- PPC-1 and PPC-2 are only compatible with Solenoid Valves
- The extended mounting screws are not included



Valve	Model Number	Hydraulic Symbol
Pressure Control Valve	PPC-1 PPC-2	
Flow Control Valve	PFC1 PFC2	

Flow Control Valve

PFC

- Throttle check valves
- Adjustable to specific flow rate



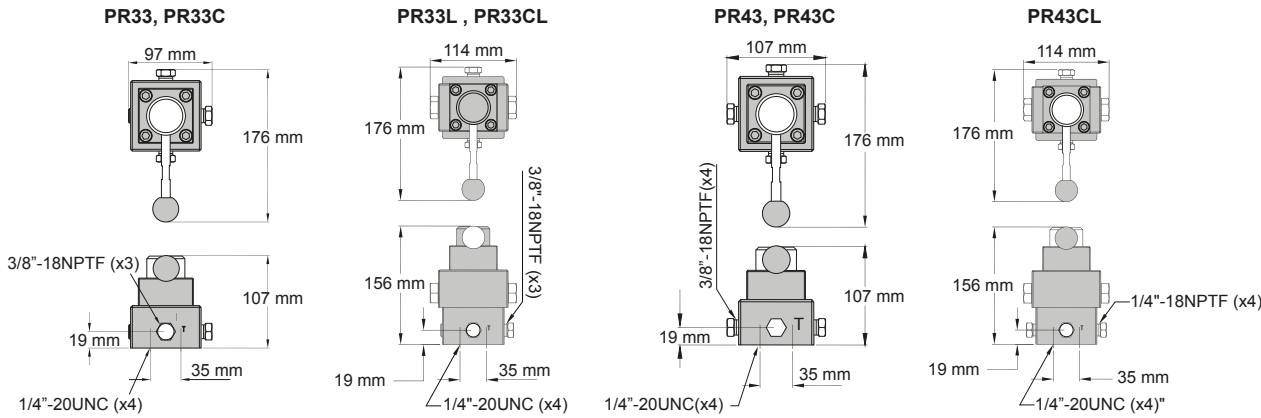
Pump Mounted Manifold Block

CUMR2

- Converts BVA pumps with mounted valves for use with remote mounted valves
- 4 mounting bolts

Remote Mounted Directional Control Valves

Not to be used with Hand Pumps



Valve Operation	Valve Type	Use w/ Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path			Weight (kg)
Manual	3-Way, 3 Position, Tandem center	Single Acting	PR33					1.59
	3-Way, 3 Position, Closed center		PR33C					1.59
	3-Way, 3 Position, Tandem center, Locking		PR33L					2.59
	3-Way, 3 Position, Closed center, Locking		PR33CL					2.59
	4-Way, 3 Position, Tandem center	Double Acting	PR43					1.59
	4-Way, 3 Position, Closed center		PR43C					1.59
	4-Way, 3 Position, Tandem center, Locking		PR43L					2.59
	4-Way, 3 Position, Closed center, Locking		PR43CL					2.59

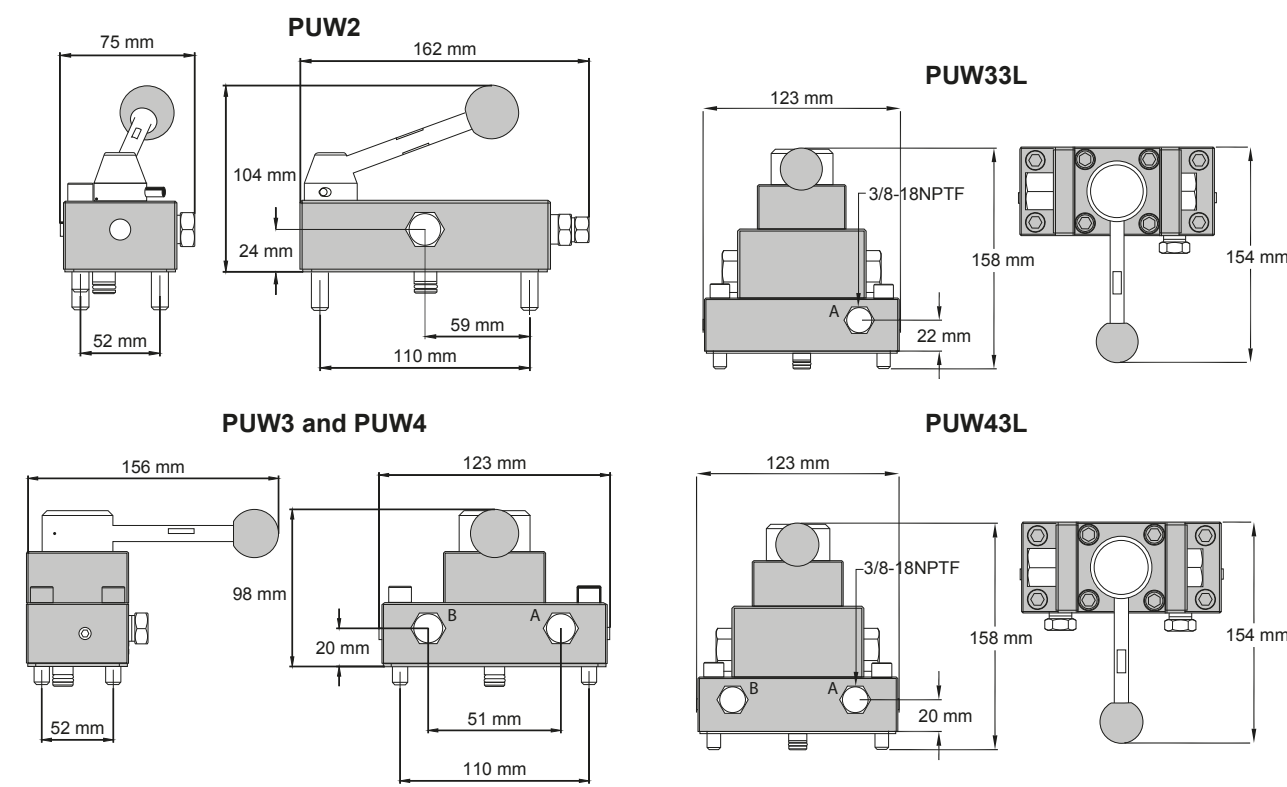
All valves have a detent in the center position.

Pump Mounted Valves

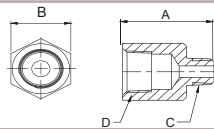
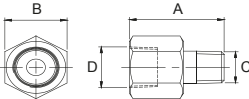
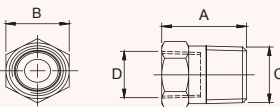
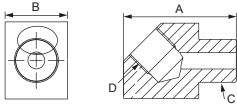
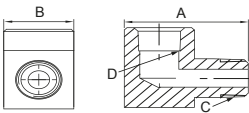
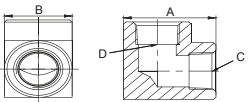
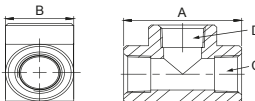
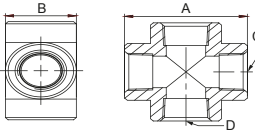
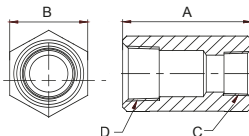
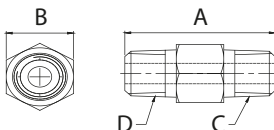
For PU, PE, PD and PG pumps

Fittings

700 BAR Rated



Valve Operation	Valve Type	Use w/ Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path			Weight (kg)
Manual	3-Way, 2-Position	Single Acting	PUW2				-	1.81
	3-way, 3-Position, Tandem center	Single Acting	PUW3					1.81
	4-Way, 3-Position, Tandem center	Double Acting	PUW4					1.36
	3-Way, 3-Position, Tandem center, Locking	Single Acting	PUW33L					2.72
	4-Way, 3-Position, Tandem center, Locking	Double Acting	PUW43L					2.72

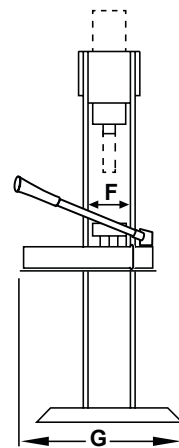
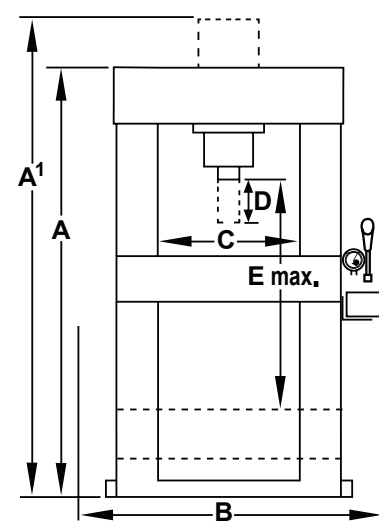
Fitting Type		Model Number	Dimensions				Display Image
			A (mm)	B (mm)	C	D	
Adapters							
	Adapter	FT108	43	29	Male 3/8"-18NPTF	Female 1/2"-14NPTF	
	Adapter	FT118	43	29	Male 1/4"-18NPTF	Female 1/2"-14NPTF	
	Adapter	FT141	50	19	Male 1/4"-18NPTF	Female 1/2"-18NPTF	
	Adapter	CA3814	35	23	Male 1/4"-18NPTF	Female 3/8"-18NPTF	
Bushings/Connectors							
	Bushing	CB1438	22	17	Male 3/8"-18NPTF	Female 1/4"-18NPTF	
	2 way 45° Connector Street Elbow 45°	FT045	28	22	Male 3/8"-18NPTF	Female 3/8"-18NPTF	
	Elbow 90°	FT142	36	23	Male 1/4"-18NPTF	Female 1/4"-18NPTF	
	2 way 90° Connector Street Elbow 90°	FT101	28	22	Male 3/8"-18NPTF	Female 3/8"-18NPTF	
	2 way 90° Connector Elbow 90°	FT107	48	26	Female 3/8"-18NPTF	Female 3/8"-18NPTF	
	3 Way Connector	FT106	46	26	Female 3/8"-18NPTF	Female 3/8"-18NPTF	
	4 Way Connector Cross	FT105	36	26	Female 3/8"-18NPTF	Female 3/8"-18NPTF	
Couplings							
	Coupling	FT140	29	19	Female 1/4"-18NPTF	Female 1/4"-18NPTF	
	Coupling Reducing	FT102	30	26	Female 1/4"-18NPTF	Female 3/8"-18NPTF	
	Coupling Reducing	FT112	48	29	Female 1/2"-14NPTF	Female 3/8"-18NPTF	
	Coupling	FT103	30	26	Female 3/8"-18NPTF	Female 3/8"-18NPTF	
Hex Nipples							
	Hex Nipple	FT104	38	17	Male 1/4"-18NPTF	Male 1/4"-18NPTF	
	Hex Nipple	FT114	38	19	Male 3/8"-18NPTF	Male 3/8"-18NPTF	
	Hex Nipple	FT124	37	19	Male 1/4"-18NPTF	Male 3/8"-18NPTF	

Hydraulic Manual Press

With easy system for the lifting of the work table

- The contra weight allows an effortless and fast positioning of the work table (↑↓).
- Designed and developed to relieve the operator from physical stress during lifting of the work table.
- Supplied with double speed pump, with 200mm long stroke hydraulic cylinder.
- Pump can be operated by hand, or by use of the foot pump lever.
- The pistons are made of chromium plated steel.
- Moveable ram
- Other tonnage available on request

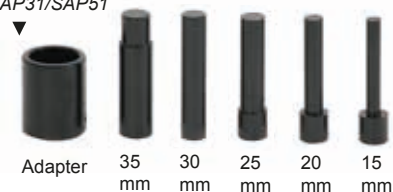
Model Number	Capacity	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	W (mm)	L (mm)	Weight (kg)
SMS3108	30 Tonne	2050	1100	710	200	1150	150	650	300
SMS5108	50 Tonne	2130	1200	810	200	1150	180	750	400
SMS10108	100 Tonne	2300	1530	1020	200	1000	265	850	950



Optional Items



Punch Set SAP31/SAP51



80%

Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

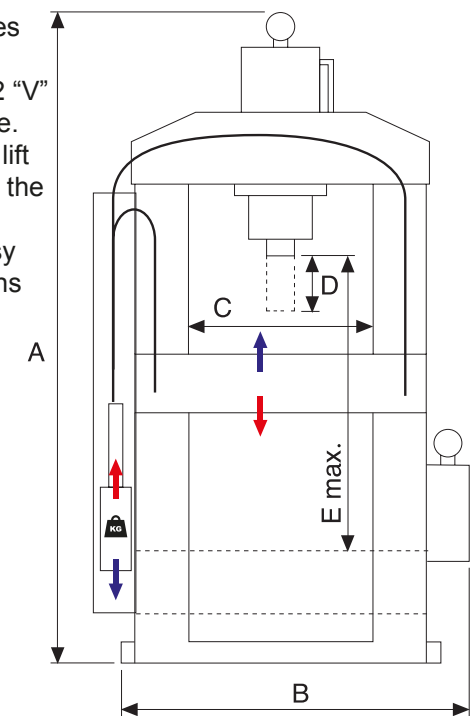
Hydraulic Electrical Press

Electrical Press with Remote Control

- New series of electrical presses with double acting cylinder.
- All presses are supplied with 2 "V" Arbor Plates and a punch plate.
- A moveable ram and winch to lift the work table is included with the presses.
- Remote control operation: easy and flexible operation by means of the remote control.
- Other tonnage available on request



Model Number	Capacity	Cylinder	Pump	A (mm)	A1 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SED5513	50 Tonne	HD5513	PE0501	2000	2160	1580	785	335	1260	180	750	440
SED10013	100 Tonne	HD10013	PE1002	2100	2210	1900	1025	333	1150	270	850	1220

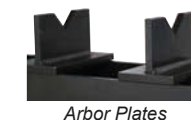
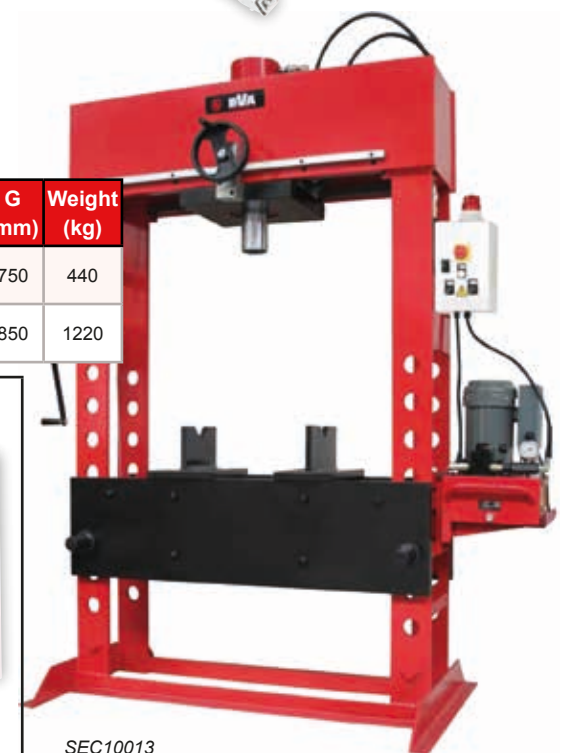
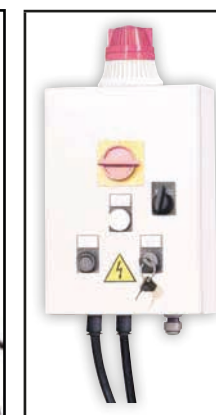


Electrical Press

Operating by: "Two" - hands

- Safe two hands operation.
- Flashing warning light - when operating.

Model Number	Capacity	Cylinder	Pump	A (mm)	A1 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SEC5513	50 Tonne	HD5513	PE0501	2000	2160	1580	785	335	1260	180	750	440
SEC10013	100 Tonne	HD10013	PE1002	2100	2210	1900	1025	333	1150	270	850	1220

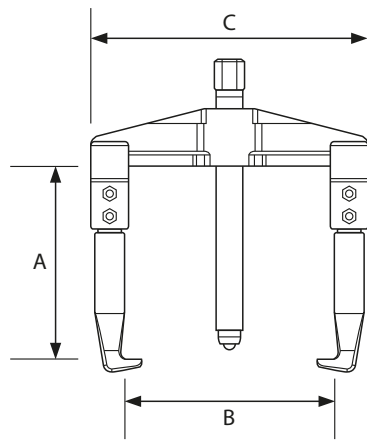


2 Leg Adjustable Puller

Manual Pullers

- Adjustable in width.

Model Number	Capacity	A (mm)	B (mm)	C (mm)	Weight (kg)
AMP120310	3 Tonne	100	95	134	1.1
AMP120315	3 Tonne	100	135	176	1.3
AMP120720	7 Tonne	150	160	223	3.5
AMP120725	7 Tonne	155	190	250	3.6
AMP121230	12 Tonne	205	240	325	7.5
AMP121235	12 Tonne	200	350	425	9
AMP121240	12 Tonne	200	510	585	15
AMP121550	15 Tonne	225	640	717	23

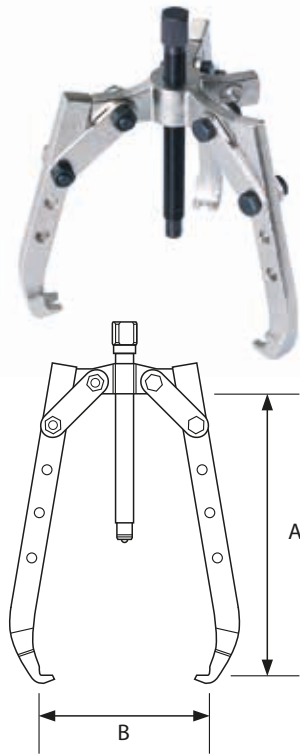


2/3 Leg Puller

Manual Pullers

- Can be used with either 2 or 3 jaws.
- The extra long jaws are adjustable in 4 positions.
- The jaws have a special cut-out to pull.

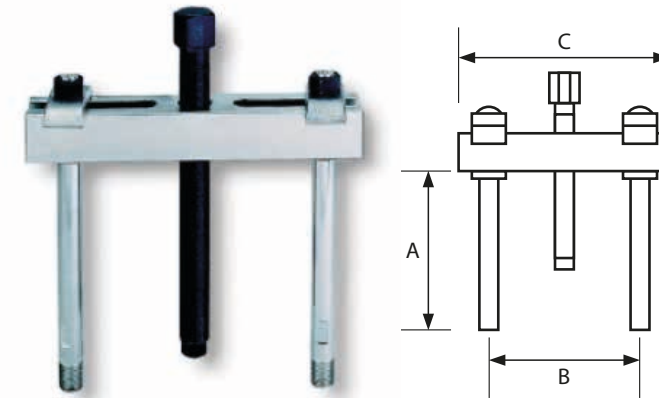
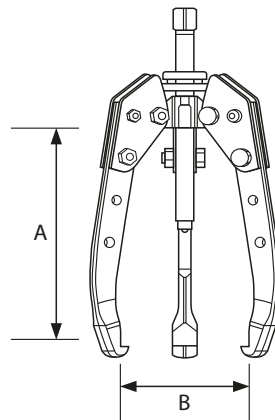
Model Number	Capacity (Tonne)	A (mm)	B (mm)	Weight (kg)
AMP230110	1	120	125	0.7
AMP230410	4	210	220	2.1
AMP230710	7	270	280	3.7
AMP230810	8	270	330	4.0



2/3 Leg Puller Self-Centering

Manual Pullers

Model Number	Capacity (Tonne)	A (mm)	B (mm)	Weight (kg)
AMPC230110	1	120	125	0.8
AMPC230410	4	210	220	2.1
AMPC230710	7	270	280	6.7



Push Puller

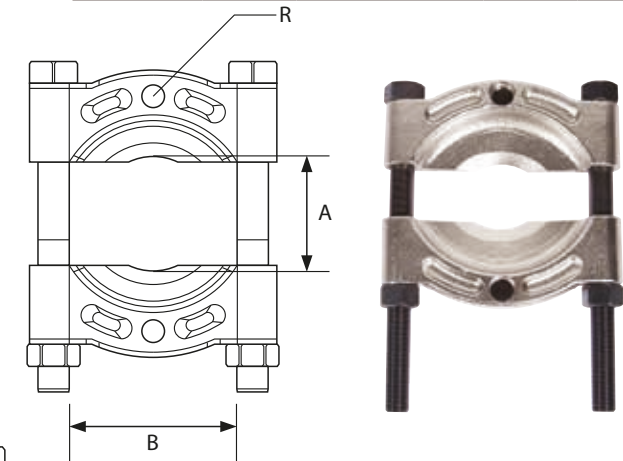
Manual Pullers

Model Number	A (mm)	B Max. (mm)	B Min. (mm)	C (mm)	Weight (kg)
AMP221102	120	110	46	122	1
AMP221103	120	140	46	156	1.1
AMP221110	190	195	62	210	3.4
AMP221130	225	445	173	475	12

Splitters

Manual Pullers

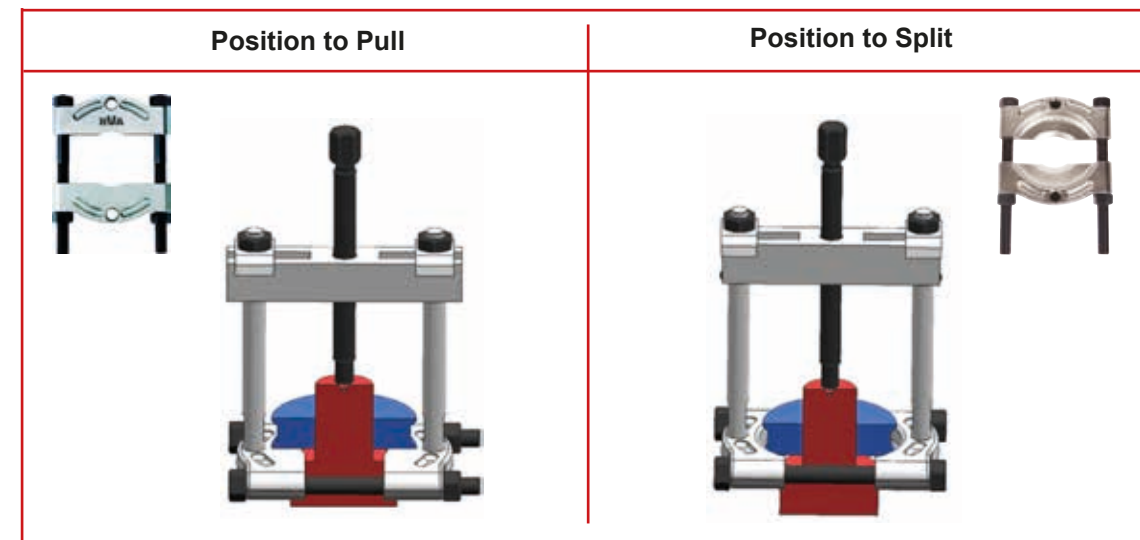
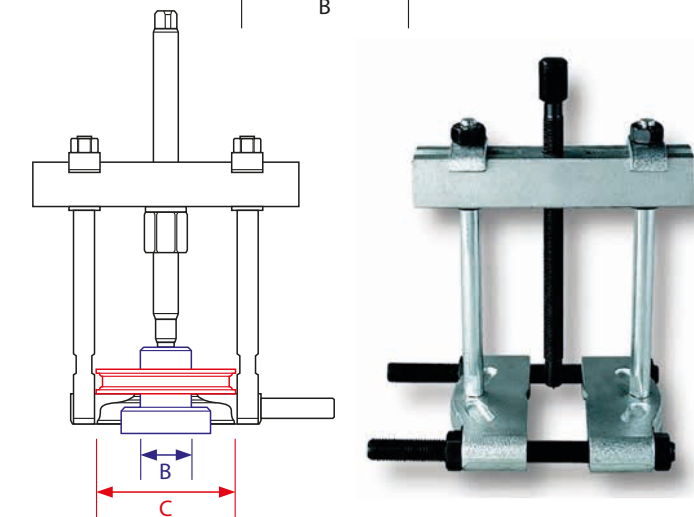
Model Number	A Max. (mm)	A Min. (mm)	B (mm)	R	Weight (kg)
APS1202	60	4	60	3/8"	0.7
APS1203	80	6	80	3/8"	1.3
APS1204	110	10	110	5/8"	2.7



Splitters Set

Manual Pullers

Model Number	A (mm)	B (mm)	C (mm)
AMP320202	100	55	90
AMP320303	100	80	130
AMP321004	152	108	175

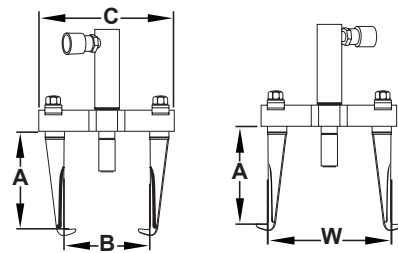


Note: Be sure to use the correct position for the required action in order to avoid damaging the Splitter-Set.

Puller 2 Leg

Hydraulic Pullers (Excluding Cylinder)

- Pullers for Single Acting Cylinders.



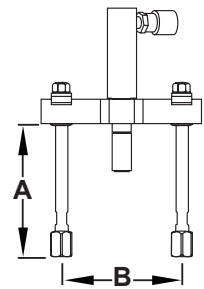
Model Number	Cylinder (Optional)	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	W (mm)	W (mm)	C (mm)	Weight (kg)
AP1205	H0503	5	160	60	200	175	270	260	8.5
APL1205	H0503	5	220	60	200	175	270	260	9.0



AP(L) 1205



AP2205

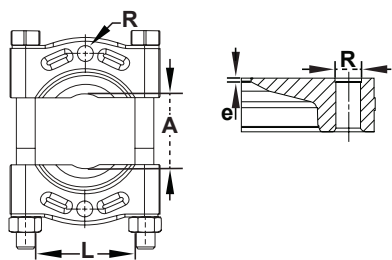


Model Number	Cylinder (Optional)	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
AP2205	H0503	5	190	82	250	7.8

Model Number	A Min. (mm)	A Max. (mm)	L (mm)	R (mm)	e (mm)	Weight (kg)
APS1204	10	110	110	15.9	2.5	2.8
APS1206	12	134	155	15.9	2.0	5.7



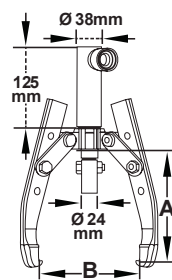
APS1204



AP2205 + APS1204



AP1305



Puller 2/3 Leg

Model Number	Cylinder (Optional)	Capacity (Tonne)	A (mm)	B Max. (mm)	Weight (kg)
AP1305	H0503	5	225	240	3.5
AP1310	H1004	10	400	350	9.5

Puller Kit	Capacity (Tonne)					Weight (kg)
		2/3 Leg Puller	2 Leg Puller	Extension Set	Splitter	
APK1005	5	AP1305	APL1205	APE1108+APE1118	APS1204	18



AP1305



APS1204



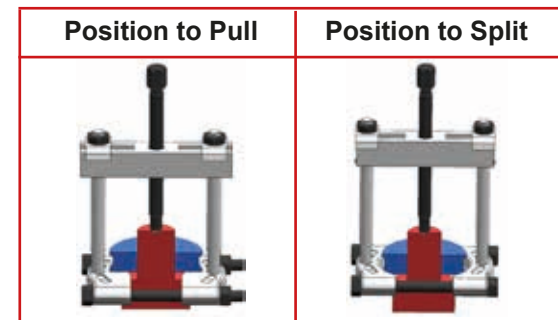
APE1118



APE1108



APL1205



◀ Note: Be sure to use the correct position for the required action in order to avoid damaging the Splitter-Set.

Hydraulic Set - Single Acting Cylinder

Content:

- Handpump P350
- Cylinder H0503
- Gauge and Gauge adapter
- Adapter
- Hose
- Fitting and Coupler



APH0503

Hydraulic Set	Capacity (Tonne)						Weight (kg)
		Handpump	Gauge + Adapter	Hose	Coupler	Cylinder	
APH0503	5	P352	GBW1460 + CF3814	CS3814-2	CH38-M	H0503	8

Puller Kit

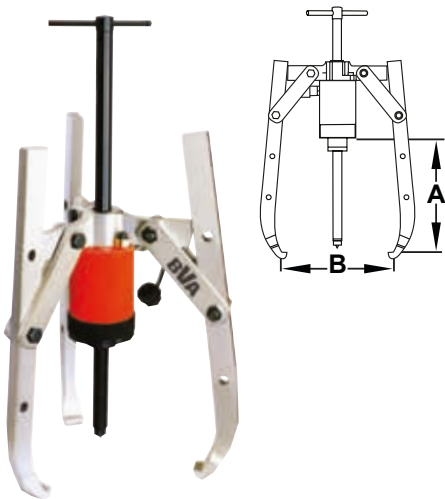
(Excluding Cylinder)

Content:

- 2/3 Leg Puller
- 2 Leg Puller
- Extensions for 2 Leg Puller
- Splitter

Puller 2/3 and 3 Leg

(Excluding cylinder and APS threaded saddle)

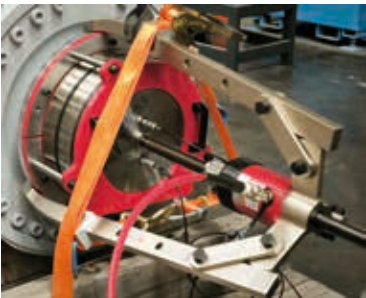
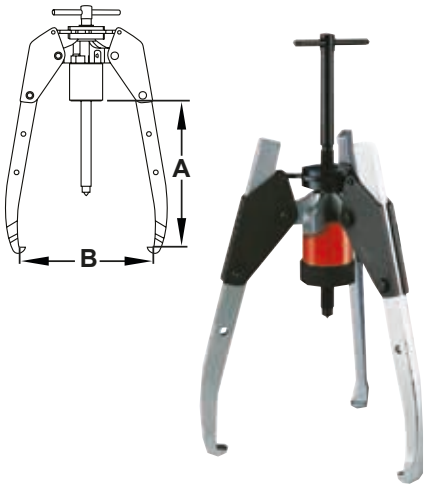


Model Number	Cylinder + APS saddle (Optional)	Capacity (Tonne)	Legs	A (mm)	B Max. (mm)	Weight (kg)
AP2310	HC1202	10	2/3	315	350	9
AP2320	HC2002T	20	3	320	480	23
AP2330	HC3002T	30	3	410	650	40
AP2360	HC6003T	60	3	710	980	87
APL2310	HC1202	10	2/3	400	410	10
APL2320	HC2002T	20	3	435	540	26
APL2330	HC3002T	30	3	535	720	46
APL2360	HC6003T	60	3	860	1080	96

Self-Centering Puller 2/3 and 3 Leg

Model Number	Cylinder + APS saddle (Optional)	Capacity (Tonne)	Legs	A (mm)	B Max. (mm)	Weight (kg)
APC2310	HC1202	10	2/3	315	350	14
APC2320	HC2002T	20	3	320	480	33
APC2330	HC3002T	30	3	410	650	56
APC2360	HC6003T	60	3	710	980	122
APC2399	HC10003T	100	3	1000	1600	322
APLC2310	HC1202	10	2/3	400	405	16
APLC2320	HC2002T	20	3	435	540	36
APLC2330	HC3002T	30	3	535	720	62
APLC2360	HC6003T	60	3	860	1080	131
APCL2399*	HC10003T	100	3	1000	1600	322

*APCL2399 on roller cart has part number APCL2299RC



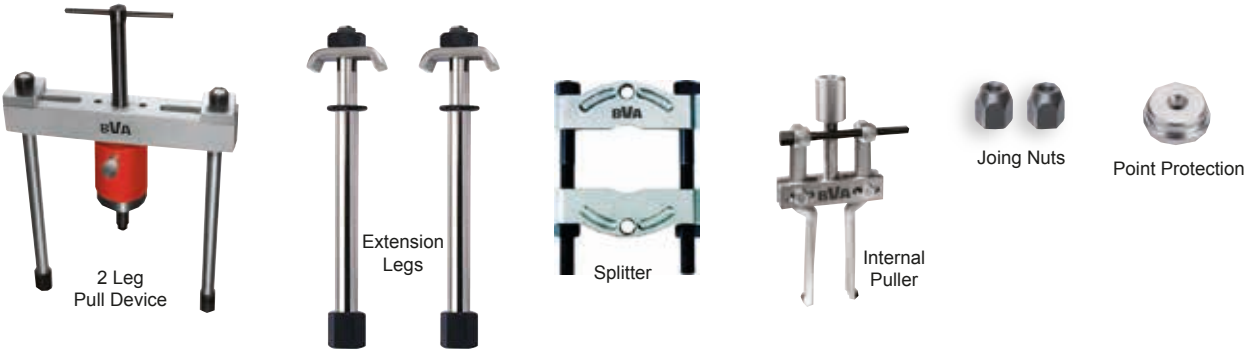
Puller Kit

(Excluding Cylinder)

- Content:**
- 2 Leg Puller
 - Extension Legs
 - Splitter
 - Internal Puller
 - Joining Nuts
 - Point Protection
 - 2/3 Leg Puller (optional)

Application	
Splitter	Internal Puller

Puller Kit	Incl. 3-Leg Puller	Incl. Self-Centering 3-Leg Puller	Capacity (Tonne)
APK1010	APK1110	APK1210	10
APK1020	APK1120	APK1220	20
APK1030	APK1130	APK1230	30
APK1060	APK1160	APK1260	60
APK1099	-	APK1299	100



Composition Hydraulic Puller Kits

(Excluding Hydraulics) See also page 79

Model Number	Capacity (Tonne)									Weight (kg)
		3 or 2/3 Leg Puller Self-Centering	3 or 2/3 Leg Puller	2 Leg Puller	2x Extender Set	Splitter	Internal Puller	Joining Nuts	Point Protection	
APK1010	10			AP2210	APE1120 + APE1146	APS1204	API1210	AJN05	APP10	35
APK1020	20			AP2220	APE1220 + APE1252	APS1206	API1220	AJN10	APP20	60
APK1030	30			AP2230	APE1333 + APE1358	APS1210	API1230	AJN30	APP30	120
APK1060*	60			AP2250	APE1550 + APE1582	APS1210D	API1250	AJN50	APP30	215
APK1061*	60			AP2250	APE1550 + APE1582	APS1212	API1250	AJN50	APP30	230
APK1110	10		AP2310 (2/3 Leg)	AP2210	APE1120 + APE1146	APS1204	API1210	AJN05	APP10	44
APK1120	20		AP2320 (3 Leg)	AP2220	APE1220 + APE1252	APS1206	API1220	AJN10	APP20	83
APK1130	30		AP2330 (3 Leg)	AP2230	APE1333 + APE1358	APS1210	API1230	AJN30	APP30	160
APK1160*	60		AP2360 (3 Leg)	AP2250	APE1550 + APE1582	APS1210D	API1250	AJN50	APP30	302
APK1161*	60		AP2360 (3 Leg)	AP2250	APE1550 + APE1582	APS1212	API1250	AJN50	APP30	317
APK1210	10	APC2310 (2/3 Leg)		AP2210	APE1120 + APE1146	APS1204	API1210	AJN05	APP10	50
APK1220	20	APC2320 (3 Leg)		AP2220	APE1220 + APE1252	APS1206	API1220	AJN10	APP20	93
APK1230	30	APC2330 (3 Leg)		AP2230	APE1333 + APE1358	APS1210	API1230	AJN30	APP30	177
APK1260*	60	APC2360 (3 Leg)		AP2250	APE1550 + APE1582	APS1210D	API1250	AJN50	APP30	349
APK1261*	60	APC2360 (3 Leg)		AP2250	APE1550 + APE1582	APS1212	API1250	AJN50	APP30	364

* Available on request: no stock item

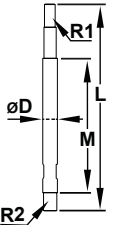
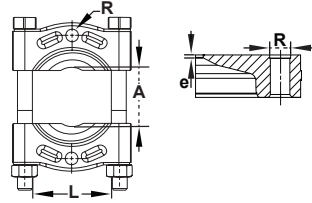
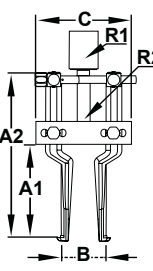
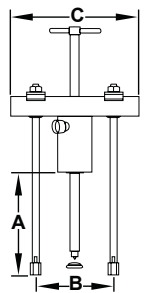
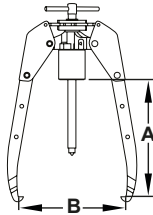
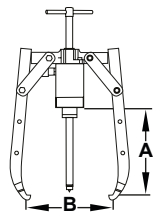
Hydraulic Set- Hollow Cylinder

Content:

- Handpump
- Hollow Cylinder
- Gauge and Gauge adapter
- Adapter
- Hose
- Fitting and Coupler



Model Number	Capacity (Tonne)							Weight (kg)
		Handpump	Gauge + Adapter	Hose	Coupler	Cylinder	Saddle	
APHC1202	10	P352	GBW1460 + CF3814	CS3814-2	CH38-M	HC1202	-	10
APHC2002	20	P352	GBW1460 + CF3814	CS3814-2	CH38-M	HC2002T	APS20	15
APHC3002	30	P352	GBW1460 + CF3814	CS3814-2	CH38-M	HC3002T	APS30	18
APHC6003	60	P1000	GBW1460 + CF3814	CS3814-2	CH38-M	HC6003T	APS60	46
APHC10003	100	P2301	GBW1460 + CF3814	CS3814-2	CH38-M	HC10003T	-	73



Model Number	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
AP2310	10	315	50	350	9
AP2320	20	320	70	480	23
AP2330	30	410	90	650	40
AP2360	60	710	120	980	87

Model Number	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
APC2310	10	315	50	350	14
APC2320	20	320	70	480	33
APC2330	30	410	90	650	56
APC2360	60	710	120	980	122

Model Number	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	C (mm)	Weight (kg)
AP2210	10	300	115	260	280	7.5
AP2220	20	265	140	345	370	18.5
AP2230	30	284	180	440	480	37
AP2250	50	447	220	580	615	70.5

Model Number	A1 (mm)	A2 (mm)	B Min. (mm)	B Max. (mm)	C	R1	R2	Weight (kg)
API1210	115	237	40	145	133	¾"UNF 16h	5/8" 14h	2.0
API1220	115	237	40	145	133	1"UNF 8h	5/8" 14h	2.4
API1230	150	310	60	240	202	1¼"UNF 7 h	1" 14h	6.0
API1250	150	310	60	240	202	1⅝"UNS 5.5h	1" 14h	6.4

Model Number	A Min. (mm)	A Max. (mm)	L (mm)	R (mm)	e (mm)	Weight (kg)
APS1202	60	4	60	3/8"	1	0.75
APS1203	81	6	80	3/8"	2.5	1.3
APS1204	10	110	110	5/8"	2.5	2.8
APS1206	12	134	155	5/8"	2	5.7
APS1210C	17	250	260	1"	4	28.5
APS1210D	17	250	260	1 1/4"	4	28.5
APS1212	35	300	300	1 1/4"	4.5	43.5

Model Number	L (mm)	M (mm)	Ø D (mm)	R1	R2
APE1120	209	106	25	¾" - 16h	⅝" - 18h
APE1220	209	89	25	¾" - 16h	⅝" - 18h
APE1333	328	158	32	1" - 14h	1" - 14h
APE1550	504	292	42	1¼" - 12h	1¼"-12h
APE1146	460	357	25	¾" - 16h	⅝" - 18h
APE1252	515	395	25	¾" - 16h	⅝" - 18h
APE1358	582	412	32	1" - 14h	1" - 14h
APE1582	820	608	42	1¼" - 12h	1¼" - 12h

3 Leg Pullers

3 Leg Self-Centering Pullers

2 Leg Pullers

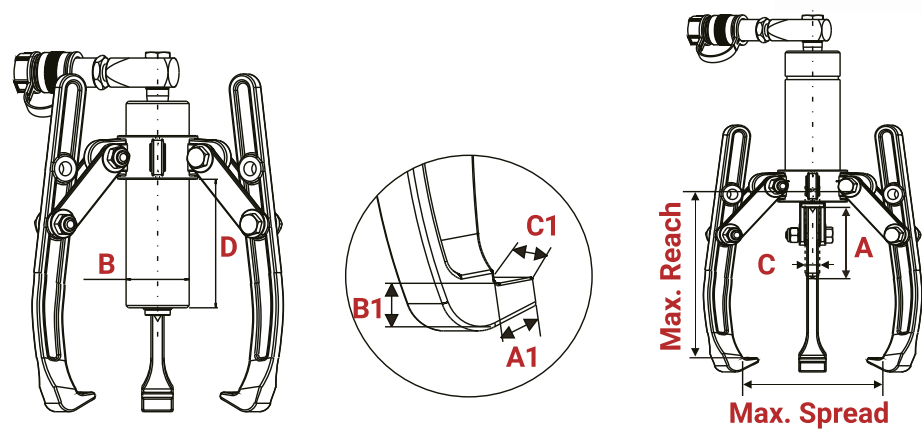
Internal Pullers

Splitters

Leg Extensions

Hydraulic Gear Pullers

- Forged high strength puller body, with integral safety valve & red warning line.
- Heat treated forged alloy steel components with manganese phosphate coating for increased corrosion & wear resistance and extend working life. 120% rated capacity for jaws.
- Can be ordered with or without complete hydraulic set.
- On material lifetime warranty.
- Supplied with protective carrying case.
- 2 or 3 Jaw puller can be used for multiple pulling applications. (2 Jaw where space is constricted).



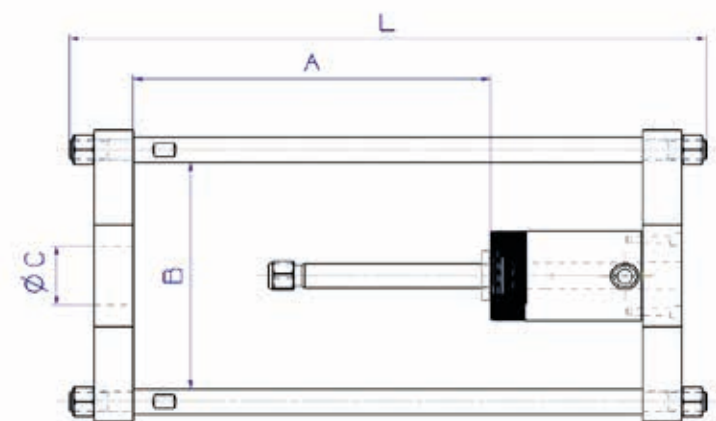
Model Number	Capacity (Tonne)	Stroke (mm) A	Eff. Area (cm²)	Oil Cap (cm³)	Max. Reach (mm)	Max. Spread (mm)	Tip (mm)			Jaw Tip (mm)			Net. Weight (kg)
							B	C	D	A1	B1	C1	
HGPT06 55kN	6	70	8	56	245	330	45	23	91	13	10	22	5.4
HGPT08 78kN	8	85	11.3	96	230	350	55	26	112	11	10	25	7.4
HGPT12 99kN	10	85	14.5	123	260	375	60	28	118	14	10	29	9.5
HGPT20 194kN	20	111	28.3	314	350	520	80	40	162	20	27	33	23
HGPT30 288kN	30	111	42	466	435	550	98	50	155	20	27	38	35.3
HGPT50 489kN	50	143	71.2	1018	635	1000	127	79	235	43	32	32	110



Bolt Puller/King Pin Press

30 Tonne & 60 Tonne (Excluding Cylinder)

Bolt Puller/King Pin Press (excluding hydraulics). Ideal for pushing King Pin and Stub Axle Pin replacement. Mobile and easy to use in the field or workshop.



Model Number	A (mm)	B (mm)	Ø C (mm)	D (mm)	E (mm)	F (mm)	L (mm)	Weight (kg)
AP2239	420	288	75	370	92.1	118	750	36
AP2269	475	398	98	520	130.2	170	900	97



Hydraulic Set is not included
We recommend the following set:

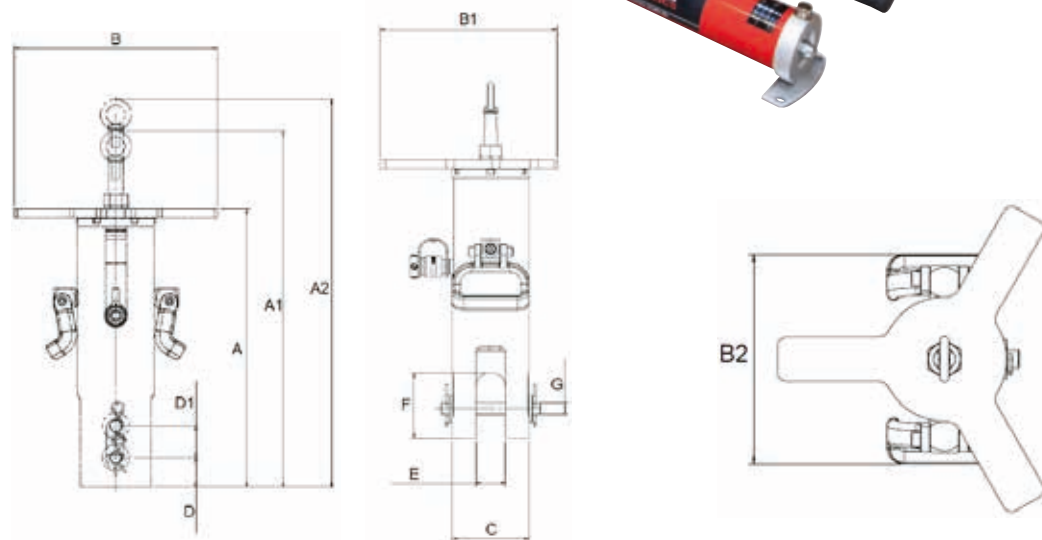
Model Number	Capacity (Tonne)							Weight (kg)
		Handpump	Gauge + Adapter	Hose	Coupler	Cylinder	Saddle	
APHC3002	30	P352	GBW1460 + CF3814	C3814-2	CH38-M	HC3002T	APS30	18
APHC6003	60	P1000	GBW1460 + CF3814	C3814-2	CH38-M	HC6003T	APS60	46

Pad Eye Tester

20,30 & 60 Tonne (Including hydraulic set)



- Test lifting/anchor points in upright, horizontal or inverted applications.
- Available in 20, 30 and 60 ton.
- Including pump, hose, connectors and load specific manometer.
- Packed in wooden crate for easy storage.
- Equipped with lifting handles for easy handling.
- Versatile applications and easy to use.



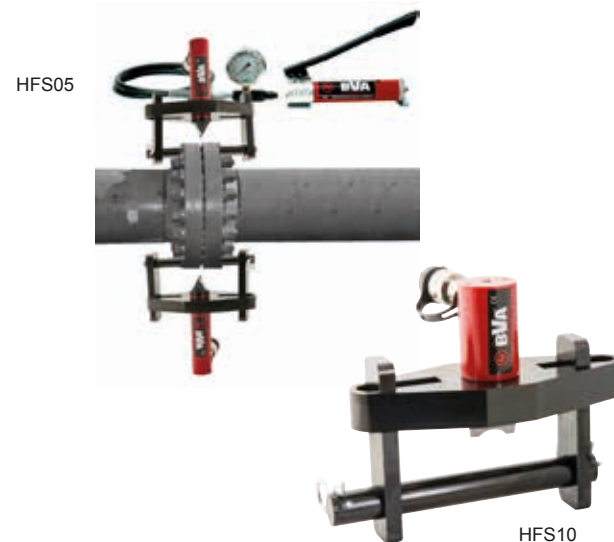
Model Number	Capacity Tonne	A	A1	A2	B	B1	B2	C	D	D1	E	F	G
CT3220T	20	470	602	656	343	300	235	130	50	54	50	110	20
CT3230T	30	531	682	746	343	300	256	150	50	64	60	120	25
CT3260T	60	630	802	869	343	300	308	202	50	67	65	150	40

Flange Spreader

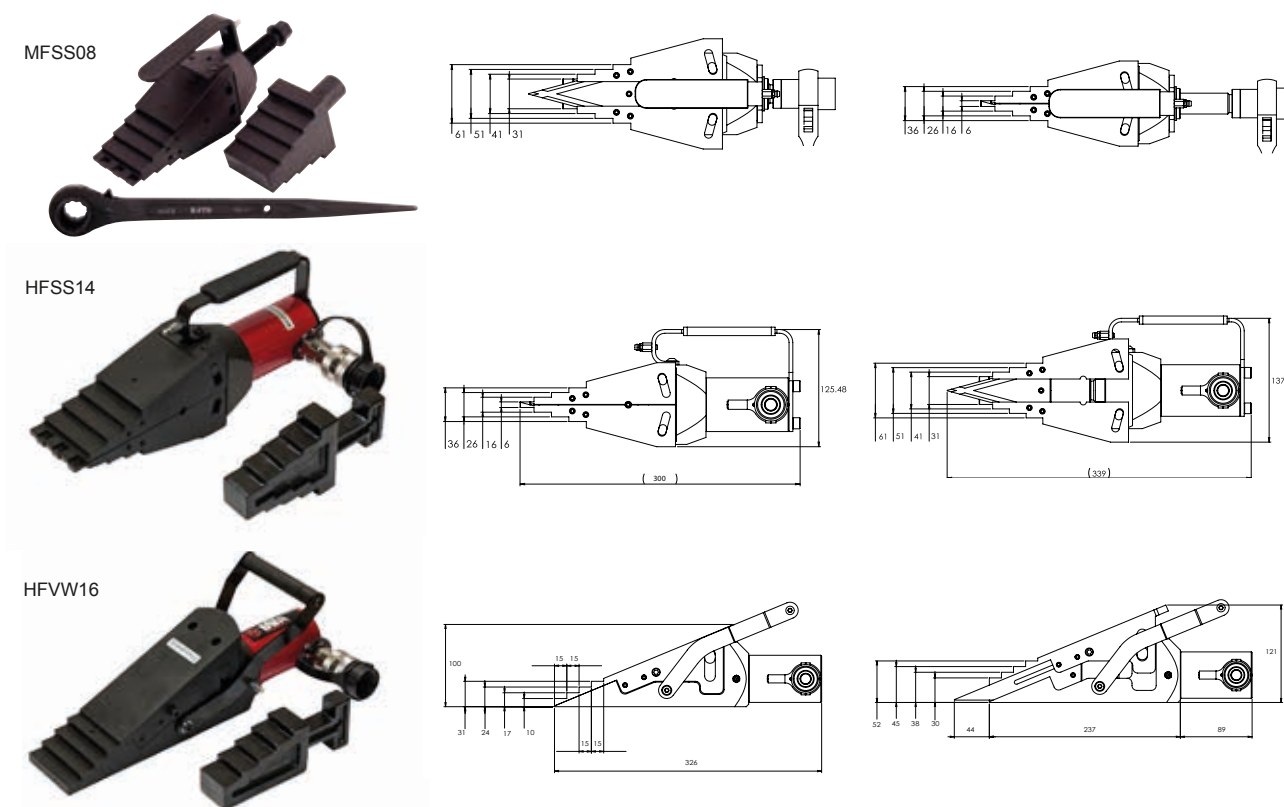
Pin Type (Including Cylinder)

- Designed for heavy duty industrial environment
- Adjustable jaw width for a wide range of applications and easy use
- Spare wedge attachment is included

Capacity	Model Number	Stroke (mm)	Oil Capacity (cc)	Maximum Flange Thickness (mm)
5 Tonne 45 kN	HFS05	25	16	51 X 58
10 Tonne 101 kN	HFS10	51	74	51 X 91



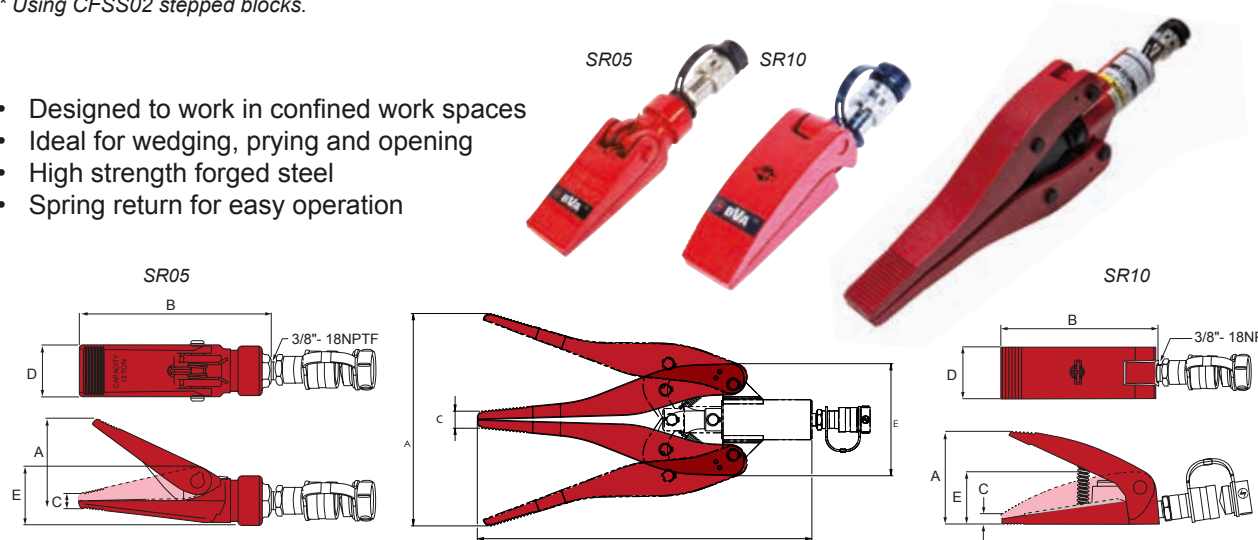
Spreaders



Model Number	Type	Maximum Spread Force	Maximum Spread with CFSS02 (mm)	Minimum Access Gap (mm)	Maximum Spread (mm)	Jaw Width (mm)	Tool Weight (kg)	Oil Capacity (CC)
MFSS08	Mechanical	78	80	6	61	60	6.2	N/A
HFSS14	Hydraulic	137	80	6	61	60	10.2	74
HFVW16	Hydraulic	137	N/A	10	52	60	8.9	74

* Using CFSS02 stepped blocks.

- Designed to work in confined work spaces
- Ideal for wedging, prying and opening
- High strength forged steel
- Spring return for easy operation

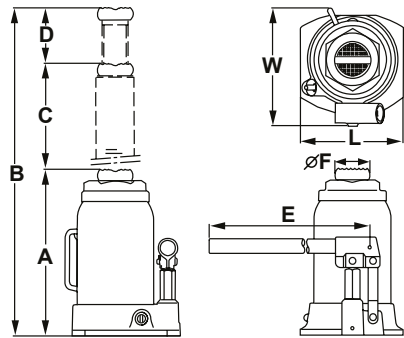


Cylinder Capacity	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Dimensions (mm)					Weight (kg)
				A	B	C	D	E	
0.5 Tonne	SR05	7.87	10	90	192	13	52	60	2.2
0.75 Tonne	SR07	14.43	86	306	482	25	55	161	10.3
1 Tonne	SR10	7.03	14	99	167	12	55	56	2.3

Manual Bottle Jacks



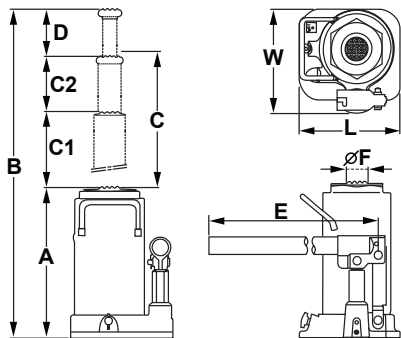
- With easy adjustable extension screw [12-20 Tons].
- With rubber removable carry ring for easy storage of pump handle [2-20 Tons].
- Safety valve against over-loading.
- Bottle Jacks 8 Ton and more are supplied with a carry grip.



Model Number	Capacity	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	L (mm)	W (mm)	Weight (kg)
1102500	2 Ton	184	349	110	55	340	25	100	98	3,0
1104500	4 Ton	208	393	125	60	448	27	109	100	4,0
1106500	6 Ton	221	434	133	80	448	31	118	105	5,0
1108500	8 Ton	231	451	150	70	460	34	120	122	6,2
1412000	12 Ton	241	469	150	78	345	42	138	106	7,4
1112500	12 Ton	240	470	150	80	460	43	140	130	8,0
1112900	12 Ton	157	274	77	40	460	43	164	154	6,3
1420000	20 Ton	249	475	150	76	452	76	160	150	12,9
1120500	20 Ton	244	474	150	80	460	52	138	130	12,5
1120900	20 Ton	169	286	77	40	460	52	164	150	9,6
10500	50 Ton	305	483	178	-	593	79	275	198	50,4
10990	100 Ton	305	461	156	-	600	113	305	238	90,6

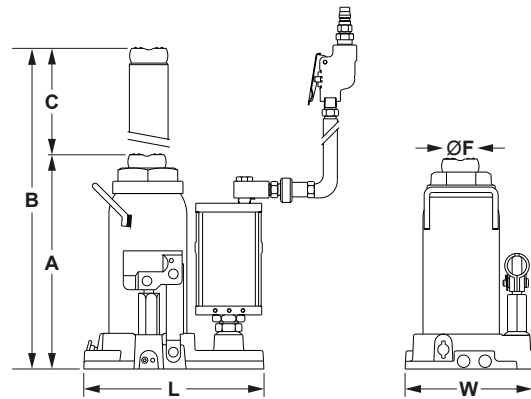
Manual Telescopic Bottle Jacks

Model	Capacity Tonne	A (mm)	B (mm)	C (mm)	C1 (mm)	C2 (mm)	D (mm)	E (mm)	F (mm)	L (mm)	W (mm)	N.W. (kg)
1202200	2	160	380	170	85	85	50	293	26	118	112	4,4
1204100	4	173	418	210	104	106	35	465	32	130	120	5,3



Air operated bottle jacks

- 20 - 30 Ton
- 8 - 12 bar suggested air pressure for optimal performance.



Model Number	Capacity	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	L (mm)	W (mm)	Weight (kg)
18202C	20 Tons 199 kN	247	477	130	100	600	48	216	184	17
18206C	20 Tons 199 kN	245	478	80	153	600	52	230	173	17.6
17302C	30 Tons 298 kN	280	458	180	-	965	62	210	210	27.5

Maintenance Kits

4, 10 Ton

- Sets are portable for ease of use on the job site
- Custom fitted, rugged blow molded storage case
- 10 ton set has wheels for easy transport
- Designed for pushing, spreading, pressing and more



Capacity	Pump Capacity (BAR)	Model Number	Plunger			Number of Attachments	Weight (kg)
			Collapsed Height (cm)	Extended Height (mm)	Effective Area (cm²)		
4 Tons 39 kN	552	50040	70.97	258	6.44	14	21
10 Tons 98 kN	700	50100	87.94	324	15.56	13	36.7

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

Mini Jacks

Compact



J11050

- Low profile mini jack
- Compact and lightweight
- Convenient for storage



J11050

Capacity	Model Number	Minimum Height (mm)	Maximum Height (mm)	Hydraulic Lifting (mm)	Base Size (L x W) (mm)	Weight (kg)
5 Tonne 49 kN	J11050	60	80	20	124 x 116	2.1
5 Tonne 49 kN	J11055	85	123	38	124 x 116	2.4
10 Tonne 99 kN	J11100	122	163	41	125 x 112	5.7
20 Tonne 199 kN	J11200	130	171	41	137 x 122	7.6

Toe Jacks

Low height

- Heat treated and chrome plated medium-carbon steel cylinder.
- Chrome plated plunger improves longer seal life and optimum performance.
- U.S. Patented by-pass device protects hydraulic system from over travel damage.
- Hydraulic system is protected from internal damage by a patented by-pass mechanism (U.S. Patent No.5946912).



Capacity	Model Number	Toe Saddle		Head Saddle		Hydraulic Lifting (mm)	Base Size (L x W) (mm)	Weight (kg)
		Min. Height (mm)	Max. Height (mm)	Min. Height (mm)	Max. Height (mm)			
3 Tonne	J13060	16	146	230	360	130	151 x 113	16.4
5 Tonne	J13120	22	152	267	397	130	190 x 118	25.6
10 Tonne	J13200	28	158	280	410	130	192 x 135	37.5
15 Tonne	J13300	28	168	332	472	130	316 x 274	53

Support Pads

Stability solutions



The support pads are outrigger pads used for mobile cranes, truck mounted cranes, aerial working platforms, concrete pumps, containers, hydraulic jacks etc.

Its purpose is to spread the weight over a larger surface offering better support while also protecting the surface.

Support Pads	Model Number	Grip	Dimension (mm)	Weight (kg)	Capacity (Tonne)
	SP 44410	1	400 x 400 x 40	6	10
	SP 55415	1	500 x 500 x 40	9	15
	SP 66420	1	600 x 600 x 40	14	20
	SP 66625	1	600 x 600 x 60	20	25
	SP 1010650*	2	1000 x 1000 x 60	58	50

Other sizes/capacities available on request.

* Not standard stock item.

Support Pads

Stability solutions

- Ecological
- Light weight
- Easy to handle
- High durability
- High flexibility
- Water-repellent
- Nearly unbreakable
- No rusting
- No rotting

Safety Practices
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



Hydraulic Press

Manual Puller

Hydraulic Puller

Bolt Puller Kingpin Press

Pad Eye Tester

Spreader

Nut Splitter

Bottle Jacks

Mini Jacks Toe Jacks

Support Pads

Pumps / Cylinders Operation and Speed Chart

NUMBER OF STROKE PER CM OF CYLINDER PLUNGER TRAVEL																
Model Number	5 Tonne		10 Tonne		15 Tonne		25 Tonne		30 Tonne		50 Tonne		75 Tonne		95 Tonne	
	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load
POWER SOURCE: MANUAL																
P601S	3	3	6	6	9	9	14	14	17	17	29	29	42	42	54	54
P350	2	8	5	18	7	25	11	41	13	52	22	87	32	127	41	162
P1000	1	3	2	7	2	9	3	15	4	19	6	31	8	46	11	58
P1201	1	3	2	7	2	9	3	15	4	19	6	31	8	46	11	58
P2301/P2301M	1	3	2	7	2	9	3	15	4	19	6	31	8	45	10	58
P4301/P4301M	1	3	2	7	2	9	3	15	4	19	6	31	8	46	11	58
P8701/P8701M	0.1	1.4	0.2	3.4	0.2	4.3	0.3	7	0.4	9	0.6	15	0.8	22	1.1	28

SECONDS PER CM OF CYLINDER PLUNGER TRAVEL																
Model Number	5 Tonne		10 Tonne		15 Tonne		25 Tonne		30 Tonne		50 Tonne		75 Tonne		95 Tonne	
	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load	No load	Load
POWER SOURCE: AIR (BASED ON 7 BAR AIR PRESSURE)																
PA600/PA600H	0.4	2.6	0.9	5.8	1.2	8.1	2	13.3	2.5	16.8	4.2	28.3	6.2	41.6	8	53.1
PA1500	0.4	2.1	0.9	4.8	1.2	6.8	2	11.1	2.5	14	4.2	23.6	6.2	34.6	8	44.2
PA1500M	0.4	2.6	0.9	5.8	1.2	8.1	2	13.3	2.5	16.8	4.2	28.3	6.2	41.6	8	53.1
PA2000	0.4	2.6	0.8	5.8	1.1	8.1	1.9	13.3	2.3	16.8	4	28.3	5.8	41.6	7.4	53.1
PA3801/PA3801M	0.4	2.6	0.8	5.8	1.1	8.1	1.9	13.3	2.3	16.8	4	28.3	5.8	41.6	7.4	53.1
PA1500L/PA3801L	0.4	2.3	1	5.4	1.4	7.6	2.2	12.5	2.8	15.7	4.7	26.6	6.9	39	8.8	49.8
PA7550/PA7550M	0.4	2.6	0.8	5.8	1.1	8.1	1.9	13.3	2.3	16.8	4	28.3	5.8	41.6	7.4	53.1
POWER SOURCE: ELECTRIC (SPEED BASED ON 50HZ)																
PE30S...	0.1	1.5	0.2	3.3	0.2	4.6	0.4	7.6	0.5	9.6	0.9	16.2	1.3	23.8	1.6	30.4
PE40S...	0.1	0.7	0.2	1.7	0.2	2.4	0.4	3.9	0.5	4.9	0.9	8.2	1.3	12.1	1.6	15.4
PE50S...	0.1	0.5	0.1	1	0.2	1.5	0.3	2.4	0.4	3	0.7	5.1	1	7.5	1.2	9.5
PE60S...	0.05	0.2	0.1	0.6	0.2	0.8	0.3	1.3	0.3	1.6	0.5	2.7	0.8	4	1	5.1
PE30M...	0.1	1.6	0.2	3.5	0.3	5	0.5	8.1	0.6	10.2	1.1	17.3	1.6	25.3	2	32.4
PE40M...	0.09	0.8	0.2	1.8	0.3	2.5	0.5	4	0.6	5.1	1	8.6	1.5	12.7	1.9	16.2
PE50M...	0.06	0.5	0.1	1.1	0.2	1.5	0.3	2.4	0.4	3.1	0.7	5.2	1	7.6	1.3	9.7
PE60M...	0.05	0.3	0.1	0.6	0.2	0.8	0.3	1.3	0.4	1.7	0.6	2.9	0.9	4.2	1.1	5.4
POWER SOURCE: ROTARY AIR (BASED ON 7 BAR AIR PRESSURE)																
PARD17--	0.04	1	0.1	2.4	0.1	3.3	0.2	5.4	0.3	6.8	0.5	11.5	0.7	16.8	0.9	21.5
PARD40--	0.03	0.3	0.1	0.8	0.1	1.1	0.1	1.7	0.2	2.2	0.3	3.7	0.4	5.4	0.5	6.9
PAR17--	0.04	1	0.1	2.4	0.1	3.3	0.2	5.4	0.3	6.8	0.4	11.5	0.6	16.8	0.8	21.5
PAR40--	0.03	0.3	0.1	0.8	0.1	1.1	0.1	1.7	0.2	2.2	0.3	3.7	0.4	5.4	0.5	6.9
POWER SOURCE: GASOLINE																
PG5505/PD3505	0.03	0.2	0.1	0.5	0.1	0.8	0.2	1.2	0.2	1.6	0.4	2.7	0.5	3.9	0.7	5

Selection Worksheet

▼ Complete the following information to select the right products:

Cylinder Selection	Question:	Tips/help	Data	Model Number
	Total force required (tonne):	Total load		
	Number of cylinders required:	Number of lifting points		
	Force per cylinder (tonne):	Should be 80% of total cylinder capacity		
	Stroke required:	Plunger travel		
	Single or double-acting (D/A):	D/A used when pull force is required, or retract speed is critical!		
	Type of plunger required:	Hollow or solid		
	Collapsed height required:			
	Optional saddle required:	Tilt, Grooved, Flat		
	Cylinder base:	Improves stability		
	Selected cylinder model:			

Pump Selection	Available power source: ☐ Manual ☐ Battery ☐ Electric ☐ Compressed Air ☐ Petrol
The three most commonly selected pumps are hand pumps, electric pumps and air-driven pumps. Gas powered pumps, however can be selected in the same way.	<u>Hand Pump</u> Single- or double-acting operation Not for high cycle applications Use 4-way valve for D/A applications Check speed chart on page 92 for number of stroke per cm Selected Hand Pump: <u>Electric or Compressed Air Pump</u> Need for portability: Required useable oil capacity: 1,2 x oil capacity high cycle = 2 x oil capacity Available Voltage: Lifting speed (Important/not important): Use speed chart on page 92 Type of control: Manual / remote pendant Type of actuation/function: Advance / Hold/ Retract Selected Pump:

System Components	Number of hoses and length required: Selected Hoses: Manifold or Tee-fitting: Extra hose per manifold (2): Gauge (kN or bar scale): Gauge Adapter: Fittings: Pressure Relief Safety Valve: Load-holding Valve(s): Hydraulic Oil:
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BVA Cross Reference Chart*

Compatibility Check

Tonne	BVA	Enerpac	Power Team	Hi-Force
Single Acting Cylinders				
5	H0500	RC-50	-	HFS51
	H0501	RC-51	C51C	HSS51
	H0503	RC-53	C53C	HSS53
	H0505	RC-55	C55C	HSS55
	H0507	RC-57	C57C	HSS57
	H0509	RC-59	C59C	HSS59
10	H1001	RC-101	C101C	HSS101
	H1002	RC-102	C102C	HSS102
	H1004	RC-104	C104C	HSS104
	H1006	RC-106	C106C	HSS106
	H1008	RC-108	C108C	HSS108
	H1010	RC-1010	C1010C	HSS1010
	H1012	RC-1012	C1012C	HSS1012
15	H1014	RC-1014	C1014C	-
	H1501	RC-151	C151C	-
	H1502	RC-152	C152C	HSS152
	H1504	RC-154	C154C	HSS154
	H1506	RC-156	C156C	HSS156
	H1508	RC-158	C158C	-
	H1510	RC-1510	C1510C	HSS1510
	H1512	RC-1512	C1512C	-
	H1514	RC-1514	C1514C	-
25	H2501	RC-251	C251C	-
	H2502	RC-252	C252C	HSS252
	H2504	RC-254	C254C	HSS254
	H2506	RC-256	C256C	HSS256
	H2508	RC-258	C258C	HSS258
	H2510	RC-2510	C2510C	HSS2510
	H2512	RC-2512	C2512C	-
	H2514	RC-2514	C2514C	HSS2514
30	H3008	RC-308	-	HSS308

BVA® is a registered trademark of SF Companies.
Enerpac® is a registered trademark of the Actuant Corporation.
Power Team® is a registered trademark of SPX Corporation.
Simplex® is registered of the Actuant Corporation.

Tonne	BVA	Enerpac	Power Team	Hi-Force
50	H5502	RC-502	C552C	HSS502
	H5504	RC-504	C554C	HSS504
	H5506	RC-506	C556C	HSS506
	H5513	RC-5013	C5513C	HSS5013
75	H7506	RC-756	C756C	HSS756
	H7513	RC-7513	C7513C	-
100	H10006	RC-1006	C1006C	HSS1006
	H10010	RC-10010	C10010C	HSS10010
Threaded Cylinders				
10	HT1006	-	C106CBT	-
	HT1010	-	C1010CBT	-
Aluminum Cylinders				
20	HU2002T	RAC-202	RA202	-
	HU2004T	RAC-204	RA204	-
	HU2006T	RAC-206	RA206	-
30	HU3002T	RAC-302	RA302	-
	HU3004T	RAC-304	RA304	-
	HU3006T	RAC-306	RA306	HAS306
50	HU5002T	RAC-502	RA552	-
	HU5004T	RAC-504	RA554	-
	HU5006T	RAC-506	RA556	HAS506
	HU5010T	RAC-5010	RA5510	-
700	HU10002T	RAC-1002	RA1002	-
	HU10006T	RAC-1006	RA1006	HAS1006
	HU10010T	RAC-10010	-	-
Low Profile Cylinders				
10	HL1001	RCS-101	RSS101	HLS101
20	HL2002	RCS-201	RSS202	HLS201
30	HL3002	RCS-302	RSS302	HLS302
50	HL5002	RCS-502	RSS502	HLS502
100	HL10002	RCS-1002	RSS1002	HLS1002
Flat Body Cylinders				
5	HF0500	-	RLS50	-
	HF0503	RSM-50	-	HPS50
	HF0503B kit	-	-	-
10	HF1005	RSM-100	RLS100	HPS100
	HF1005B kit	-	-	-

BVA Cross Reference Chart*

Compatibility Check

Tonne	BVA	Enerpac	Power Team	Hi-Force
20	HF2005	RSM-200	RLS200	HPS200
	HF2005B kit	-	-	-
30	HF3005	RSM-300	RLS300	HPS300
	HF3005B kit	-	-	-
50	HF5006	RSM-500	RLS500S	HPS500
75	HF7506	RSM-750	RLS750S	HPS700
100	HF10006	RSM-1000	RLS1000S	HPS1000
150	HF15006	RSM-1500	RLS1500S	HPS1500
Pull Cylinders				
2	HP0205	BRC-25	RP25	-
5	HP0505	BRC-46	RP55	-
10	HP1006	BRC-106	-	-
Hollow Hole Cylinders				
12	HC1201T	RCH-120	RH120	HHS101
	HC1202	RCH-121	RH121	HHS102
	HC1202XT	RCH-1211	RH121T	-
20	HC1203XT	RCH-123	RH123	-
	HC2002T	RCH-202	RH202	HHS202
	HC2006T	RCH-206	RH206	HHS206
30	HC3002T	RCH-302	RH302	HHS302
	HC3006T	RCH-306	RH306	HHS306
60	HC6003T	RCH-603	RH603	HHS603
	HC6006T	RCH-606	RH606	HHS606
100	HC10003T	RCH-1003	RH1003	HHS1003
Lock Nut Cylinders				
50	HLN5502	HCL-502	R552L	HFG502
	HLN5504	HCL-504	-	-
	HLN5506	HCL-506	R556L	HFG504
	HLN5508	HCL-508	-	-
	HLN5510	HCL-5010	R5510L	HFG506
	HLN5512	HCL-5012	-	-
	HLN10002	HCL-1002	R1002L	-
100	HLN10004	HCL-1004	-	HFG1004
	HLN10006	HCL-1006	R1006L	HFG1006
	HLN10008	HCL-1008	-	-
	HLN10010	HCL-10010	R10010L	-
	HLN10012	HCL-10012	-	-

Tonne	BVA	Enerpac	Power Team	Hi-Force
10	HD1010	RR-1010	RD1010	-
	HD1012	RR-1012	-	-
30	HD3008	RR-308	-	-
	HD3014	RR-3014	RD2514	-
55	HD5506	RR-506	RD556	HDA5506
	HD5513	RR-5013	RD5513	HDA5513
	HD5520	RR-5020	RD5518	-
75	HD7506	RR-756	-	-
	HD7513	RR-7513	-	-
100	HD10006	RR-1006	RD1006	HDA1006
	HD10013	RR-10013	RD10013	HDA10013

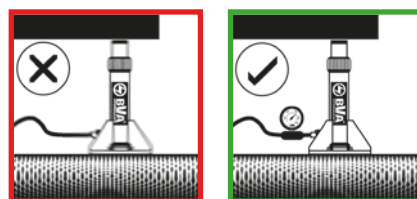
BVA	Enerpac	Power Team	Hi-Force
Hand Pumps			
P601S	P-39	P12	HP110
P1201S	P-391	P55	-
P350	P-142	-	HP211
P1000	P-392	P59	HP212
P1201	P-77/P-80	-	-
P2301	P-80	P159	HP227
P4301	P-801	P157	HP257
P8701	P-462	P460	HP245
P2301M	P-84	P157D	-
P8701M	P-464	P460D	HP245D
Air Pumps			
PA600	PA-133	PA9	-
PA600H	-	PA9H	-
PA1500	-	PA6	-
PA1500L	PARG-1102N	PA6R	-
PA1500M	-	PA6DM	-
PA2000	PATG-1102N	-	AHP1120
PA3801	PATG-1105N	PA6-1	AHP1121
PA3801L	-	-	AHP1141
PUR1703	-	PA174	-
PUR4003	ZA4310MX	PA462	-
PURD1701	-	PA172	-
PURD1703	-	PA174	-

*For comparison purposes only. Products are not identical. To view complete cross over list go to www.BVAhydraulics.com

Safety Instructions

Industry Safety Standards

General

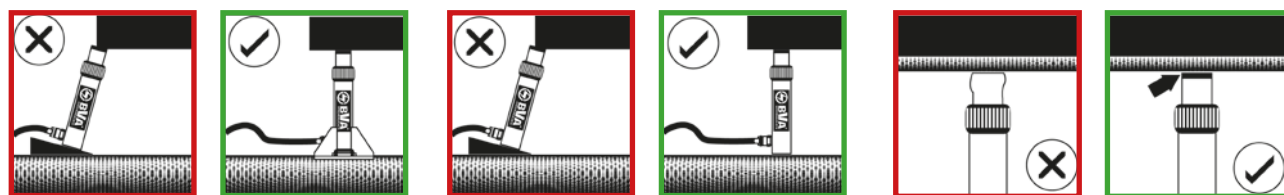


Do not override the factory setting of relief valves. Always use a gauge to check system pressure.

Safety Instructions

- Read and understand all printed materials provided with and on this cylinder
- Do not exceed rated capacities
- Use only on hard level surface capable of sustaining the load
- Do not connect actuators to pumps with higher pressure ratings
- Always inspect hoses and connections for damage prior to use
- Keep hands and feet clear of work area
- LIFTING DEVICE ONLY! Immediately after lifting, support the load with appropriate means
- Use only manufacturer approved hydraulic fluid
- A flow-restricting component shall not be present between the relief valve and the tank
- No alterations shall be made to this cylinder
- Failure to meet these markings may result in injury and/or property damage
- Each double-acting cylinder shall be fitted with a relief valve on the retract circuit, which bleeds off the smaller effective area of the cylinder

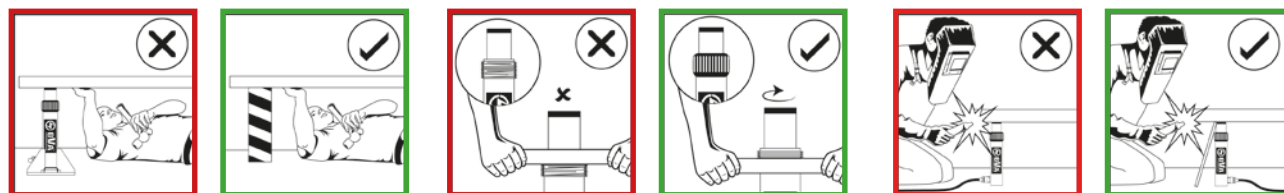
Cylinders



Provide a solid support for the entire cylinder base area. Use cylinder base attachment for more stability.

The entire cylinder saddle must be in contact with the load. Movement of the cylinder must be parallel with the movement of the load.

Do not use cylinder without saddle. This will cause plunger to "mushroom" Saddles distribute load evenly on the plunger.

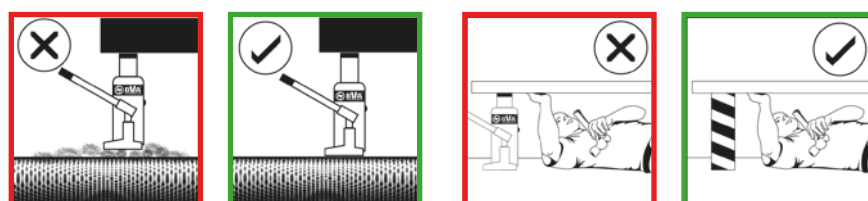


As with jacks, never place any part of your body under the load. Load must be on cribbing before venturing under.

Always protect cylinder threads for use with attachments.

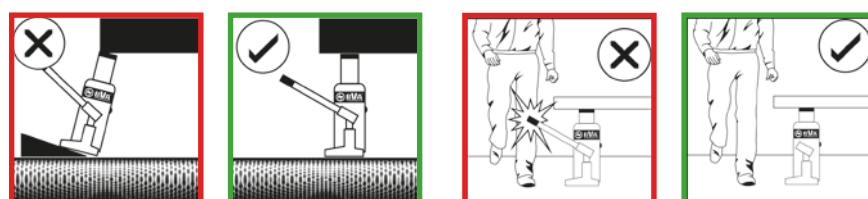
Keep hydraulic equipment away from open fire and temperatures above 150°F (65°C).

Jacks



Provide a level and solid support for the entire jack base area.

Never place any part of your body under the load. Ensure the load is solidly supported before venturing under.



The entire jack saddle must be in contact with load. Movement of the load must be in the same direction as jack plunger.

Remove the jack handle when not in use.

80% Rule

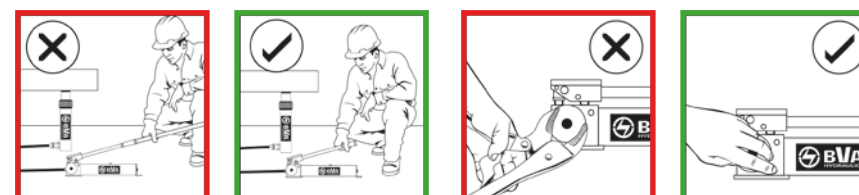
Good industry practice recommends not exceeding 80% of maximum rated capacities.

- Use only on hard, level surfaces capable of sustaining the load.
- Immediately after lifting, support the load with appropriate means
- Failure to meet these warnings may result in personal injury as well as property damage.

Hydraulic Pump Safety Instructions

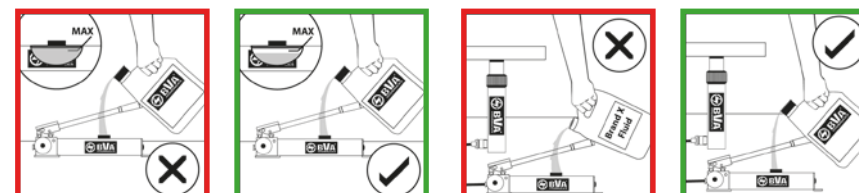
- READ AND UNDERSTAND ALL WARNINGS, INSTRUCTIONS AND OWNER'S MANUAL INFORMATION BEFORE ATTEMPTING TO USE THIS EQUIPMENT
- Burst hazard exists if hose or connection pressure exceeds rated pressure.
- Do not exceed the rated capacity of this device. Monitor pressure and load at all times.
- Verify load with calibrated load cell and indicator, accurate pressure gauge or equivalent devices.
- Inspect hoses and connections for damage prior to use. Never attempt to grasp a leaking pressurized hose.
- Release the hydraulic pressure before disconnecting hoses or couplers, and before servicing the pump or accessory.
- Immediately after lifting, support the load with appropriate means. Never rely on hydraulic pressure to support a load.
- Wear protective clothing and eye protection that meets ANSI Z87.1 and OSHA standards when operating this equipment.
- Ensure that the chosen application is stable to work on and around.
- Do not subject the pump and its components to shock loads.
- Do not connect to applications which can return more oil to the reservoir than the pump reservoir can hold.
- Ensure that the rated pressure of all applications and fittings is equal to or greater than the rated pressure of this pump.
- Keep hydraulic equipment away from flames and heat.
- No alterations shall be made to this device.
- Failure to meet these warnings may result in personal injury as well as property damage.

Pumps



Do not use handle extender. Hand pumps should be easy to operate when used correctly.

Close release valve finger tight. Using force will damage the valve.



Fill pump only to recommended level. Fill only when connected cylinder is fully retracted.

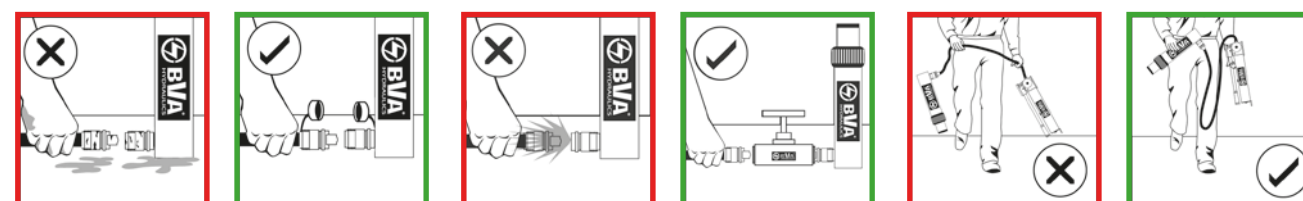
Use only genuine BVA hydraulic oil. The wrong fluid can destroy your seals and pump and will render your warranty null and void.

Electric Pump Safety Instructions

TO AVOID ELECTROCUTION HAZARD:

- Owner/Operator must read, understand and follow all printed material provided with this device before use.
- Connect ONLY to properly grounded electrical source. Connect to GFI outlet ONLY! For use in dry locations.
- Avoid the use of extension cords. If used, extension cord lengths up to 7 meter shall be SJT-14X3 or heavier. For cords up to 15 meter, use SJT-12X3 or heavier.
- For extension cord lengths up to 30 meter, use SJT-10X3 or heavier. NEVER use a 3 prong adapter.
- Do not operate this device in an explosive atmosphere or in the presence of conductive liquids.

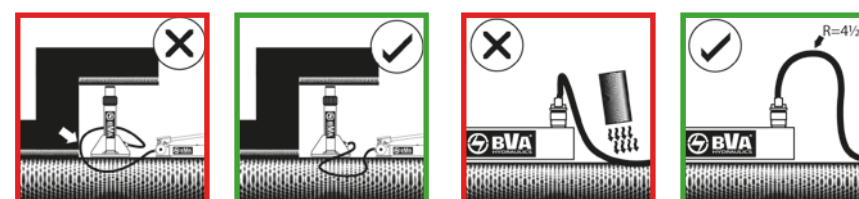
Hoses and Couplers



Clean both coupler parts before connecting. Use dust caps when coupler parts are not connected.

Detach cylinder only when fully retracted or use shut-off valves or safety valves to lock-in cylinder pressure.

Don't lift hydraulic equipment by the hoses.



Keep hoses away from the area beneath loads.

Do not kink hoses. Bending radius should be at least 4 1/2". Do not drive over or drop heavy objects on the hoses.



BVA in action



About BVA

Shinn Fu Corporation was originally founded as Shinn Fu Auto Supply Company Ltd. by Mr. Michael Hung in 1971 based in Taipei, Taiwan. Shinn Fu has grown into the global leader of hydraulic lifting equipment in the automotive aftermarket. The insistence of producing and offering only the highest quality products has earned Shinn Fu a reputation for exceptional quality in the market.

Started in 1972, Shinn Fu Corporation started manufacturing hydraulic products for the professional and consumer markets. In 2004 the company began manufacturing for the industrial market with BVA Hydraulics. In 2009, due to substantial growth in the industrial market, the company expanded its facilities in Kansas City, MO to better service the North American market.

Shinn Fu Europe B.V. (SFE) was established in 1994 in The Netherlands. With the objective of promoting and distributing Shinn Fu's products in the markets of Europe, Middle East and Northern Africa, SFE launched the Omega Lifting Equipment program in 1994. Since then, Omega has won the market's recognition.

Shinn-Chia Machinery & Foundry (Kunshan) Co., Ltd., a state-of-the-art Foundry, was established in June 1996, began with the casting production in July 1997, and added with the CNC machining processing operations in December 2000. Shinn-Chia is privately owned by the Shinn Fu Group (Taiwan) at www.shinnfu.com.

In order to provide the customers with excellent after-sales service, Shinn Fu has established worldwide branch offices in the USA, Canada, Australia, Hong Kong, Japan and Europe. SFE maintains the following brands: BVA Hydraulics™, Omega Lift Equipment®, Omega Mechanix and Pro-Lift® (<http://www.sftglobal.com/>).

www.BVAhydraulics.com for latest BVA information

Visit the BVA website:

- Learn more about BVA
- New products
- Electronic Catalogs
- Custom Solutions
- Trade shows
- Owner's Manual & Repair Parts
- Nearest Distributors & Service Centers

While every care has been taken in the preparation of this catalog and all data contained within is deemed accurate at the time of printing, Shinn Fu does reserve the right to make changes to the specifications of any product, or discontinue any product, contained within this catalog without prior notice.

All illustrations, performance specifications, weights and dimensions reflect the nominal values and slight variations may occur due to manufacturing tolerances. Please consult Shinn Fu if final dimensions are critical. All information in this catalog can be changed due to product improvements without prior notice.

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Maintaining Your Equipment

Ensure a longer life span of your equipment

Hydraulic Fluids

- Use only BVA Hydraulic Oil P/N's; HV465 for pumps and cylinders.

Air Line Lubricants

- Use Class 1 Turbine Oil (ISO VG32) for Air Line Lubricant

Hydraulic and Pneumatic Filtration

- Hydraulic fluid must be kept clean, cool and free of water.
- Use Hydraulic Filtration to provide fluid which meets ISO 17/15/12 cleanliness levels.
- Air Line Filtration for solid particulate contamination removal: Use BVA P/N; FRL-145, 5uM Pneumatic Filter.
- Air Line Water Removal; Use BVA P/N; AD-145, Ambient Dryer.

Proper Operation of Equipment

- Refer to individual Product Owner's Manuals and BVA Catalogs for general information, specifications, safety, set up, operation, maintenance, trouble shooting, storage and warnings for all BVA products.

Formulas

Key to Measurements			
Weight:		Length	
1 pound (lb.)	=0.4536 kg	1 in	=25.4 mm
1 kg	=2.205 lbs	1 mm	=0.039 in
1 Tonne (short ton, US)	=2,000 lbs	1 in²	=6.452 cm²
1 Tonne (metric)	=2,205 lbs	1 cm²	=0.155 in²
Volume:		Pressure:	
1 in³	=16.387 cm³	1 psi (lb/in²)	=0.69 bar
1 cm³	=0.061 in³	1 bar	=14.5 psi
1 liter	=61.02 in³	1 kPa	=0.145 psi
	=0.264 gal(US)		
1 gal (US, liquid)	=3.785 liter	Temperature:	
	=231 in³	0°F	=(0°C x 1.8) + 32
	=3,785 cm³	0°C	=(0°F - 32) ÷ 1.8

Cylinder Plunger Speed

Formula → $V = \frac{A}{Q} \times 60$

$Cylinder\ Plunger\ Speed\ (sec/cm^2) = \frac{Cylinder\ Effective\ Area\ (cm^2)}{Pump\ Flow\ Rate\ (cm^3/min)} \times \frac{60\ (sec)}{1\ (min)}$

Force

Formula → $F = P \times A$

$Force\ (kg) = Hydraulic\ Working\ Pressure\ (kg/cm^2) \times Cylinder\ Effective\ Area\ (cm^2)$

Cylinder Oil Capacity

Formula → $C = A \times L$

$Oil\ Capacity\ (cm^3) = Cylinder\ Effective\ Area\ (cm^2) \times Cylinder\ Stroke\ (cm)$

1/4" Hose Oil Capacity

Formula → $C = \frac{Internal\ Diameter\ (mm^2)}{4} \times \pi \times Length\ of\ Hose\ (m)$

$Oil\ Capacity\ (cm^3) = 33 \times Length\ of\ Hose\ (m)$

3/8" Hose Oil Capacity

Formula → $C = \frac{Internal\ Diameter\ (mm^2)}{4} \times \pi \times Length\ of\ Hose\ (m)$

$Oil\ Capacity\ (cm^3) = 72 \times Length\ of\ Hose\ (m)$

Cylinder Effective Area

Formula → $A = \pi \times \frac{D^2}{4}$

$Cylinder\ Effective\ Area = \pi \times \frac{(Cylinder\ Bore\ Diameter)^2}{4}$

$\pi = 3.14159265359$

Alphabetical Index

A	
AMP	94
AP	96 + 101 + 103
APC	98
APE	101
APH	97
APHC	103
API	101
APK	99 - 100
APL	96 - 98
APLC	98
APP	100
APS	33 + 35 + 95 - 101

B	
BSD	76
BVA Bag	52
BTW	75

C	
CA	91
CB	49
CDC	86
CEB	48
CEBN / CED	47
CEFN / CEN	47
CEP	48
CF	85
CH	87
CM	84
CMH	84
CUMR	88
CP	46
CQ	87
CQF	87
CQH	81
CQR	87
CR	87
CS	87
CSH	81
CT	104
CVC	83
CVL	82
CVLS	82

CVN	83
CVP	83
CVR	82
CVS	86

F	
FP	86
FT	91

G	
GBW	85

H	
H	6 - 9
HC	32 - 33
HCLN	36 - 37
HD	10 - 13
HDC	34 - 35
HDG	28 - 31
HDU	40 - 41
HF	16 - 17
HFS	105
HFSS	105
HFT	19
HFVW	105
HG	24 - 27
HGPT	102
HL	14 - 15
HLN	20 - 21
HLNF	22 - 23
HP	46
HPB	46
HPD	47
HT	45
HTD	49
HU	38 - 39
HUC	43
HUDC	44
HULN	42
HV	86

J	
J	108

J	
J	108

L	
LH	48
LPTW	72 - 73

M	
MFC	84
MFSS	84
MNS	77

N	
NS	77
NSB	77

P	
P	52 - 54 + 80
PA	55 - 57 + 80
PUAR	58
PUARD	58
PD	66 - 67
PE	60 - 65
PFC	88
PG	66 - 67
PPC	88
PR	89
PU	59 + 70
PUW	90
PWS	88
PW	86
PAR	71

S	
SA	68 - 69
SD	49
SDT	49
SDTG	49
SDTL	49
SDTW	74
SEC	93
SED	93
SMS	92
SP	68 - 69 + 109
SR	105

T	
TB	78 - 79