



BVA[®]
HYDRAULICS

INDUSTRIAL HYDRAULIC EQUIPMENT

BVA-EN 26Q1

The BVA Advantage

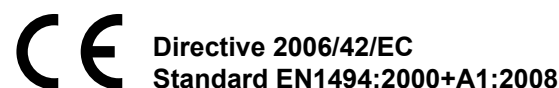
BVA Industrial Hydraulics was launched in 2005 and is centrally located in Europe in Etten-Leur, The Netherlands. BVA is one of the Shinn Fu Europe brands besides Omega Lift, Omega Mechanix and Prolift. Shinn Fu was founded in Taiwan in 1971 and began doing business in Europe in 1994. Shinn Fu has over 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	HFT	19	HG	26	HCLN	38	HUC	45	HPB	49
HD	10	HLUF	20	HDG	30	HU	40	HUDC	46	HPD	50
HL	14	HLN	22	HC	34	HUD	42	HT	47	Accessories	52
HF	16	HLNF	24	HDC	36	HULN	44	HP	48		

P	Single Acting Hand Pumps	56	P57	Foot Pumps	58	PA	Double Acting Air Pumps	60	PE	1-Phase Electric Pumps	64
P	Double Acting Hand Pumps	56	PA	All Position Air Pumps	59	PAR	Rotary Air Pumps	62	PE	3-Phase Electric Pumps	68
P	BVA BAG	56	PA	Single Acting Air Pumps	60	PU	Universal Motor Pumps	63	PG/PD	Gas/Diesel Engine Pumps	70

H	General Purpose Cylinder Combinations	72	HLN	Lock Nut Cylinder Combinations	73
HF	Flat Body Cylinder Combinations	72	HU	Aluminum Cylinder Combinations	73
HC	Hollow Hole Cylinder Combinations	73	GT	1500 BAR	73
HL	Low Profile Cylinder Combinations	73			

Pump Mounted Valves	74	External Pressure Adj	76	Flow controle Valve	78	Hydraulic Couplers	82
Solenoid Valves	75	Pressure Switch	76	Manifolds	80	Coupler Dust Cover	83
Pressure Control Valve	75	Foot Pedals	76	Pressure Gauges	82	Hydraulic Hoses	84
Hydraulic Oil	76	Directional Control Valves	77	Gauge Adapters	82	Fittings	85

Torque Wrench Pump	86	Square Drive Hydraulic Torque Wrench	92	Bolt Tensioner 1500 BAR	102
Torque Wrench AIR Pump	87	Battery Powered Torque Wrench	94	Handpump + Air 1500 BAR	104
Torque Wrench Low-Profile	88	Sockets	96	Couplers + Hoses 1500 BAR	107
Cassette Metric	90	Nut Splitter	101	Manometer 1500 BAR	107

Hydraulic Manual Press	108	Splitter	111	Pad Eye Tester	120	Manual Bottle Jacks	122	Mini Jacks	124
Hydraulic Elec-trical Press	109	Hydraulic Gear Pullers	112	Flange Spreaders	120	Air Operated Bottle Jacks	123	Toe Jacks	124
Manual Pullers	110	Bolt Puller/ King Pin Press	119	Spreaders	121	Maintenance Kits	123	Support Pads	125

Pumps / Cylinders Operation and Speed Chart	126	BVA Cross Reference Chart	130	Hydraulic Formula Reference	134
Selection Worksheet	127	BVA in Action	132	Maintaining Your Equipment	134
Safety Instructions	128	About BVA	133	Index	135

Cylinders



Pumps



Combo Kits



Valves & Accessories



Bolting



Tools & Specials



Cross-Reference & Engineering



Cylinder Matrix Chart

H **C** **30** **06** **T**

1 2 3 4 5
Cylinder Type Cylinder Options Cylinder Capacity Cylinder Stroke 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



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 128

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

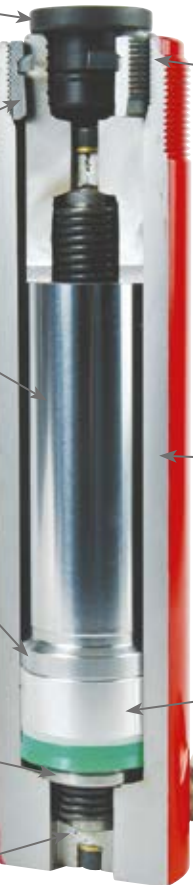
Plunger wiper seals out dirt and contamination

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	16-18
HFT	Flat Body Telescopic Cylinders		4-74	45-140	19
HLUF	Ultra Low Profile Cylinders		10-200	6-15	20-21
HLN	Lock Nut Cylinders		50-300	50-300	22-23
HLNF	Low Profile Lock Nut Cylinders		60-250	45-50	24-25
HG	High Tonnage Single Acting Cylinders		100-1000	182-1114	26-29
HDG	High Tonnage Double Acting Cylinders		100-1000	50-300	30-33
HC	Hollow Plunger Cylinders		12-100	8-155	34-35
HDC	Double Acting Plunger Hole Cylinders		30-150	38-257	36-37
HCLN	Single Acting Hollow Lock Nut Cylinder		22-100	76-155	38-39
HU	Aluminum Single Acting Cylinders		20-100	50-297	40-41
HUD	Aluminum Double Acting Cylinders		20-30	50-150	42-43
HULN	Lock Nut Aluminum Cylinders		30-150	50-254	44
HUC	Single Acting Hollow Hole Aluminum Cylinders		30-60	75-152	45
HUDC	Double Acting Aluminum Hollow Hole Cylinders		30-150	50-254	46
HT	Threaded Cylinders		10-20	131-253	47
HP	Pull Cylinders		2.5-10	127-141	48-49
HPD	Precision Double Acting Cylinders		9-16	1.77-3.14	50-51

Pumps Section

Page 54 ▶

Pumps-Cylinder Combo's

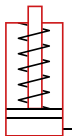
Page 72 ▶

Other

Page 74 ▶

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



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.



Quick Reference Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapse 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
	407	H1516	529	824	12.8
25 Tonne 232 kN	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
	310	H2512	426	1030	15.6
30 Tonne 293 kN	362	H2514	476	1203	17.4
	210	H3008	387	879	18.5
50 Tonne 496 kN	51	H5502	176	360	15.0
	103	H5504	227	730	18.6
	159	H5506*	283	1126	26.1
	260	H5510*	385	1844	30.6
	337	H5513*	461	2388	39.5
75 Tonne 727 kN	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.

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.

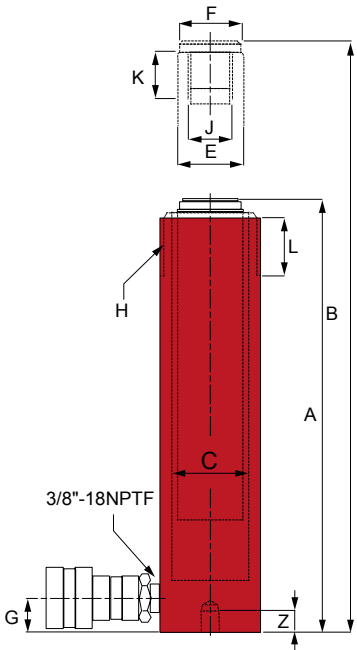
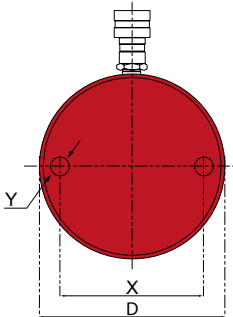
High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified).

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

Single Acting Cylinders

H Series - Spring Return



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	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
	356	H1014	14.4	515	7.6
15 Tonne 142 kN	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
	407	H1516	20.3	824	12.8
25 Tonne 232 kN	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
	310	H2512	33.2	1030	15.6
	362	H2514	33.2	1203	17.4
30 Tonne 293 kN	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 (mm)	Collar Thread Length L (mm)	Plunger Internal Thread J (mm)	Plunger Thread Length K (mm)	Base Mounting H (mm)		
												Bolt Circle X	Thread Y	Thread Depth Z
H0501	116	142	29	38	25	25	20	1½"-16UN	28	¾"-16UNF	16	25	¼"-20UNC	14
H0503	169	247	29	38	25	25	20	1½"-16UN	28	¾"-16UNF	16	25	¼"-20UNC	14
H0505	221	350	29	38	25	25	20	1½"-16UN	28	¾"-16UNF	16	25	¼"-20UNC	14
H0507	272	452	29	38	25	25	20	1½"-16UN	28	¾"-16UNF	16	25	¼"-20UNC	14
H0509	324	552	28	38	25	25	20	1½"-16UN	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	⅜"-16UNC	13
H1502	149	200	51	70	41	38	20	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1504	200	301	51	70	41	38	20	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1506	270	422	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1508	321	524	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1510	372	626	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1512	423	728	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1514	474	830	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H1516	529	936	51	70	41	38	25	2¾"-16UN	30	1"-8UNC	25	48	⅜"-16UNC	13
H2501	143	169	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2502	168	219	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2504	219	321	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2506	272	427	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2508	323	529	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2510	374	631	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2512	426	736	65	85	57	50	25	3⅝"-12UN	49	1½"-16UNC	30	59	½"-13UNC	19
H2514	476	838	65	85	57	50	25	3⅝"-12UN	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



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.



Capacity:
10 - 140 Tonnes

Stroke:
155 - 461 mm

Pressure:
700 BAR

Min. - Max. Height:
331 - 1269 mm



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

HUD Series – Aluminum Cylinders

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

40
pg

Cylinder Accessories

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

52
pg

Combo Kits

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

72
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.

82
pg

Safety Instructions

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

128
pg

High-Flow Couplers

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

83
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.

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

HPB

HPD

Cylinder accessories

Double Acting Cylinders

HD Series - General Purpose



Cylinder Accessories

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

52 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.

82 pg



Combo Kits

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

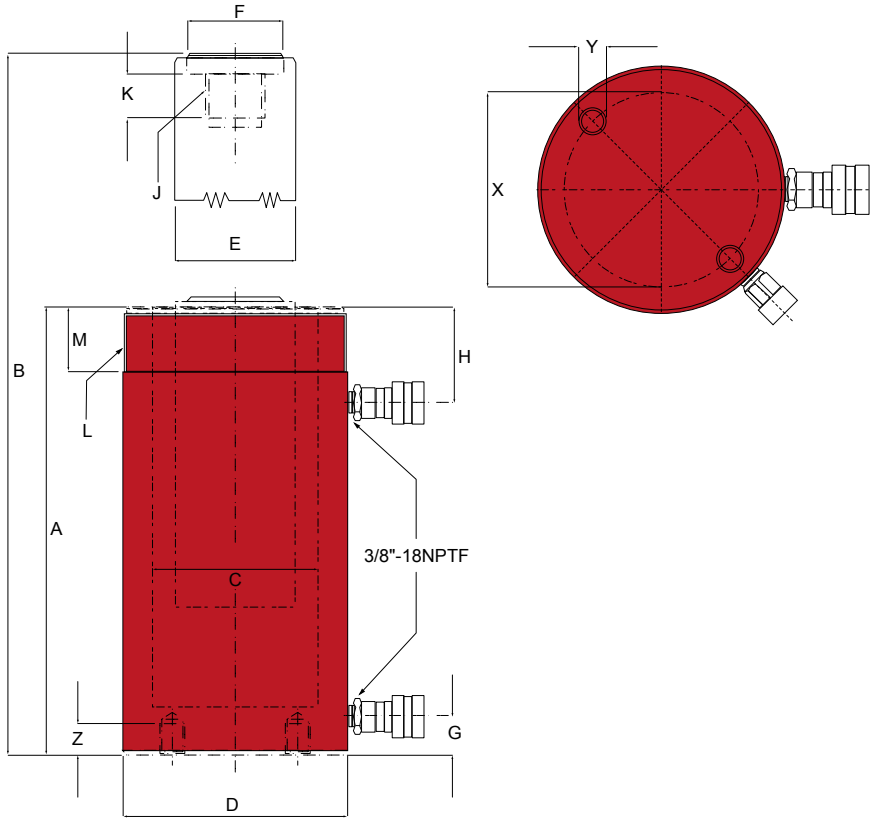
72 pg



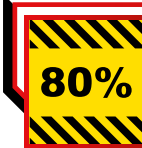
Safety Instructions

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

128 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).

83 pg

Cylinder Capacity	Stroke	Model Number	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Weight	Collapsed Height	Extended Height	Cylinder Bore Dia.
			Push	Pull	Push	Pull	Push	Pull				
			(Tonne)	(Tonne)	(cm²)	(cm²)	(cc)	(cc)		A (mm)	B (mm)	C (mm)
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.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Top to Return Port	Plunger Internal Thread	Plunger Thread Length	Collar Thread	Collar Thread Length	Base Mounting Hole		
										Bolt Circle	Thread	Thread Depth
										X (mm)	Y (mm)	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"-12UN	51	140	¾"-10UNC	25
HD10010*	177	95	75	31	75	1¾"-12UN	38	6⅞"-12UN	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.

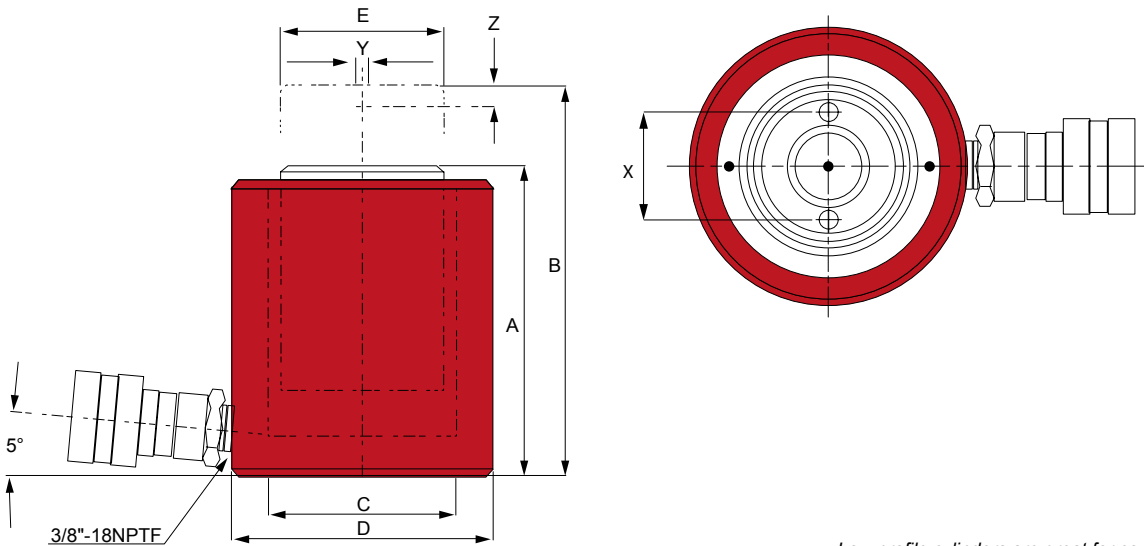
Low Profile Cylinders

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	HL1001	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	Extended Height	Cylinder Bore Diameter	Outside Diameter	Plunger Diameter	Plunger Mounting		
						Bolt Circle	Thread	Thread Depth
	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	X (mm)	Y	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

- 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.



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

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	Stroke (mm)	Model Number	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	38	HL1001D	15.2	88	126	286	70	38	4.5
20 Tonne 198 kN	44	HL2002D	28.3	107	151	312	92	51	9.5
30 Tonne 293 kN	62	HL3002D	41.9	125	187	347	102	64	12

Bolt-On Tilt Saddles

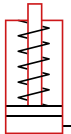


Bolt-On tilt saddles are designed specifically for use with the HL Series Low Profile Cylinders and Low Profile Cylinder Kit. These saddles provide a max. 5° tilt for uneven loads.

Model Number	Height (mm)	Description
SDTL10	21	HL1001 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

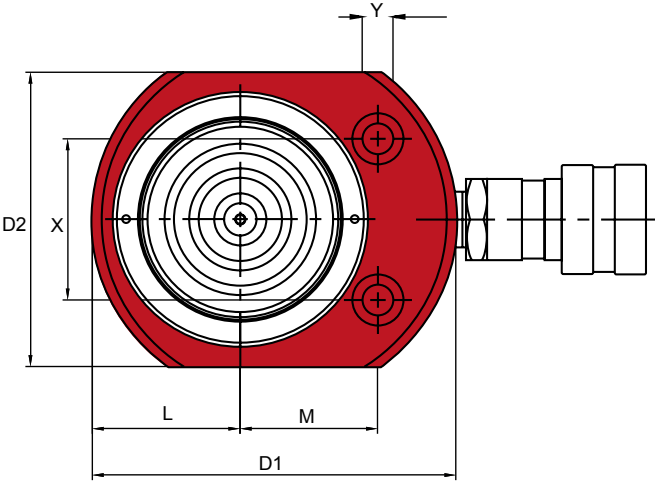
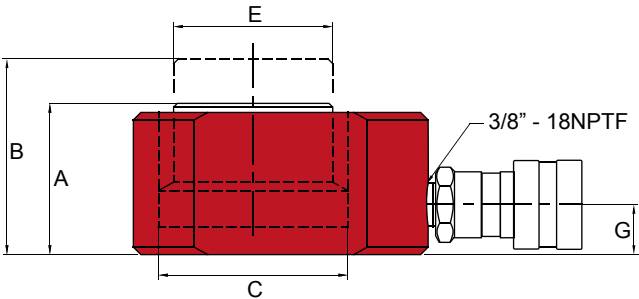
- Extremely low collapsed height for applications with minimal clearance at the lift point.
- Maximum working pressure 10,000 psi / 700 bar.
- HF0503 and HF0503B include a 3/8" regular flow coupler (CR38F).

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

*HF0503 is fitted with the CR38F



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	60x40	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. 72 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. 82 pg

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared. 128 pg

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified). 83 pg

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

HPB

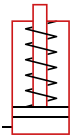
HPD

Cylinder accessories

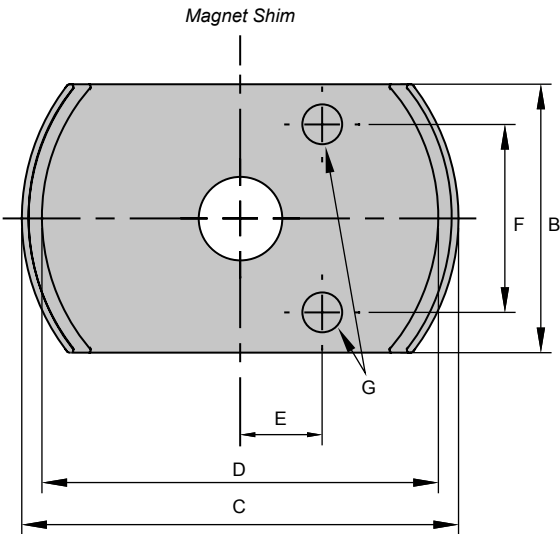
Flat Body Cylinder Kits

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.

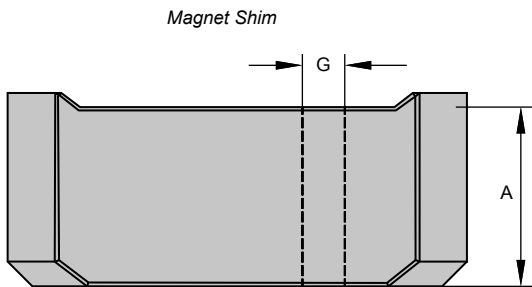


HF Series



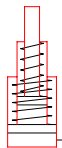
80% **Safety Practices**
Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

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



Cylinder Capacity	Stroke	Model Number	Cylinder Model	Oil Capacity	Coll. Height	Weight	Adapter Dimensions						
							A	B	C	D	E	F	G
(mm)	(mm)			(cc)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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

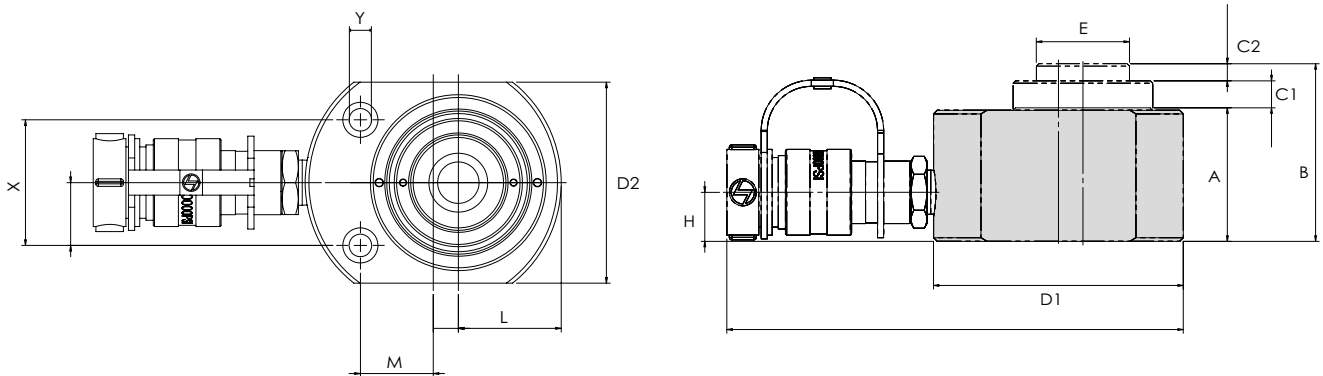
HFT Series - Extremely Low Lifting

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



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.



Cylinder Capacity at Max. Stroke	Stroke Max.	Model Number	Oil Capacity	Capacity 1st Stage	Capacity 2nd Stage	Coll. Height	Ext. Height	Stroke 1st Stage	Stroke 2nd Stage
(mm)	(mm)		(mm)			A (mm)	B (mm)	C ¹ (mm)	C ² (mm)
4,5 Tonne / 43 kN	17	HFT0451	21	12 Tonne / 111 kN	4,5 Tonne / 43 kN	45	62	11	6
12 Tonne / 111 kN	18	HFT1201	48	25 Tonne / 232 kN	12 Tonne / 111 kN	55	73	11	7
25 Tonne / 232 kN	27	HFT2501	145	50 Tonne / 496 kN	25 Tonne / 232 kN	75	102	16	11
30 Tonne / 309 kN	29	HFT3501	224	75 Tonne / 727 kN	30 Tonne / 309 kN	89	118	16	13
50 Tonne / 496 kN	26	HFT5001	283	95 Tonne / 929 kN	50 Tonne / 496 kN	96	122	16	10
75 Tonne / 727 kN	26	HFT7501	426	145 Tonne / 1407 kN	75 Tonne / 727 kN	114	140	16	10

Model Number	Outside Dia.	Plunjer Dia.	Plunjer to Base	Plunjer to Mounting Hole	Hole Dist.	Hole Dia.	Counter Bore Dia.	Counter Bore Depth	Weight
	D ¹ x D ² (mm)	E (mm)	L (mm)	M (mm)	X (mm)	Y (mm)	(mm)	(mm)	(kg)
HFT0451	83x56	25	29	39	37	6,6	11	7	1,6
HFT1201	102x80	38	41	39	50	9	14	9	3
HFT2501	120x114	57	58	56	67	13	20	13	7,5
HFT3501	165x140	60	71	78	76	13	20	13	12,9
HFT5001	178x162	78	89	70	76	6,6	11	7	17,3
HFT7501	216x196	95	108	78	117	9	14	9	30,4

Ultra Low Profile Cylinder

HLUF Series - Ultra Low Profile Cylinder



- Up to 4% side load capacity
- Extreme low collapsed height
- Integrated tilt saddle up to 4°
- Overflow port as stroke limiter

Capacity:
10 - 200 Tonnes

Stroke:
6 - 15 mm

Pressure:
700 BAR

Min. - Max. Height:
36 - 84 mm



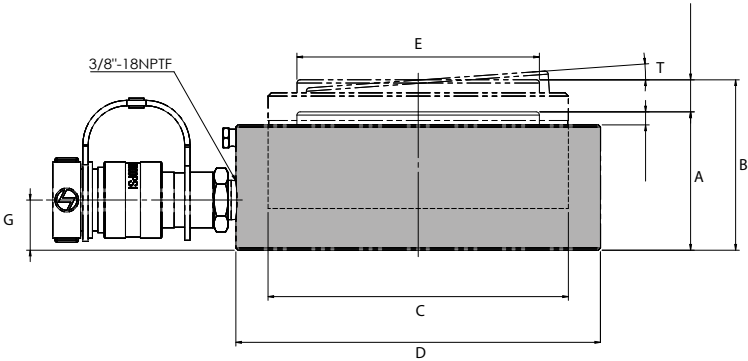
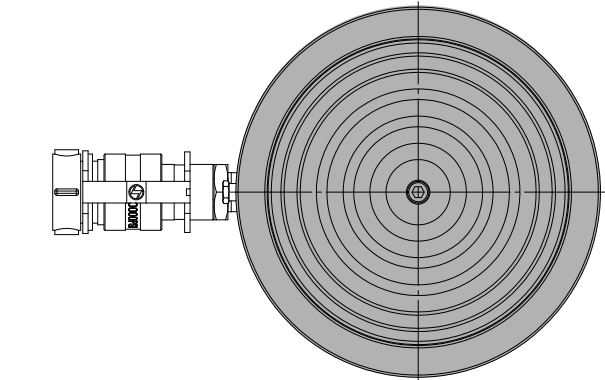
Flow Control Valves
Control the speed of your cylinder by adding a flow control valve.

pg 78



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Aarea (cm²)	Oil Capacity (cc)	Weight (kg)
10 Tonne / 101 kN	6	HLUF10*	14,4	9,7	1,0
20 Tonne / 142 kN	7	HLUF20*	28,3	19,8	1,9
30 Tonne / 309 kN	7	HLUF30*	44,2	32,3	2,6
50 Tonne / 550 kN	13	HLUF50*	78,5	104,5	5,3
75 Tonne / 792 kN	14	HLUF75*	113,1	158,3	7,4
100 Tonne / 1078 kN	14	HLUF100	153,9	226,3	10,1
150 Tonne / 1589 kN	14	HLUF150	227,0	324,6	14,6
200 Tonne / 2091 kN	15	HLUF200	298,7	445,0	20,4

* is fitted with CR38F coupler



Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Saddle Dia. E (mm)	Saddle Tilt T	Base to Inlet Port G (mm)
HLUF10*	36	42	43	72	27	2°	14
HLUF20*	41	48	60	90	41	2°	15
HLUF30*	43	50	75	105	48	2°	17
HLUF50*	57	70	100	130	73	4°	19
HLUF75*	61	75	120	150	93	4°	21
HLUF100	64	78	140	170	113	4°	23
HLUF150	65	79	170	200	143	3°	25
HLUF200	69	84	195	229	90	3°	28

* is fitted with CR38F coupler



HLUF Series



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.

pg 82



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

pg 128

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

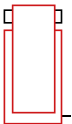
HPB

HPD

Cylinder accessories

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.

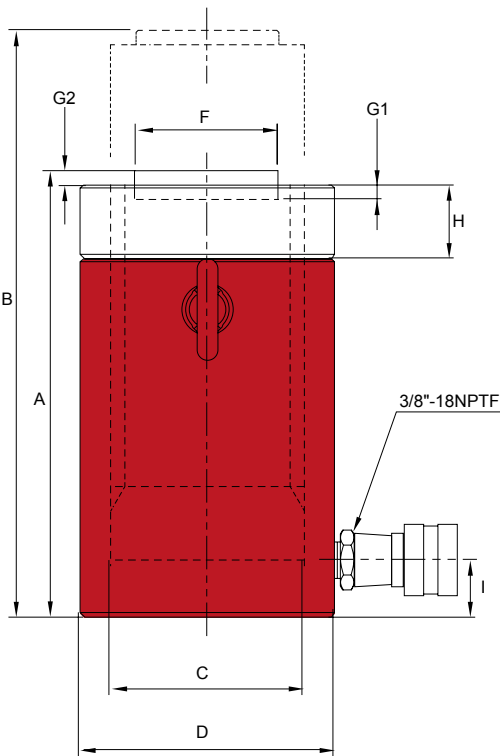
53 pg

(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
	300	HLN10012	132,7	3981	72,6
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
	300	HLN15012	201,1	6031	117,5
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
	300	HLN20012	264,5	7934	166,9
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
320 Tonne 3180 kN	50	HLN30002	454,3	2271	171,9
	150	HLN30006	454,3	6814	231,3
	300	HLN30012	454,3	13628	320,2

* other dimensions on request



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



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.



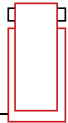
Safety Practices

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

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



Capacity:

60 - 520 Tonnes

Stroke:

45 - 50 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

125 - 237 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.

82 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.

81 pg

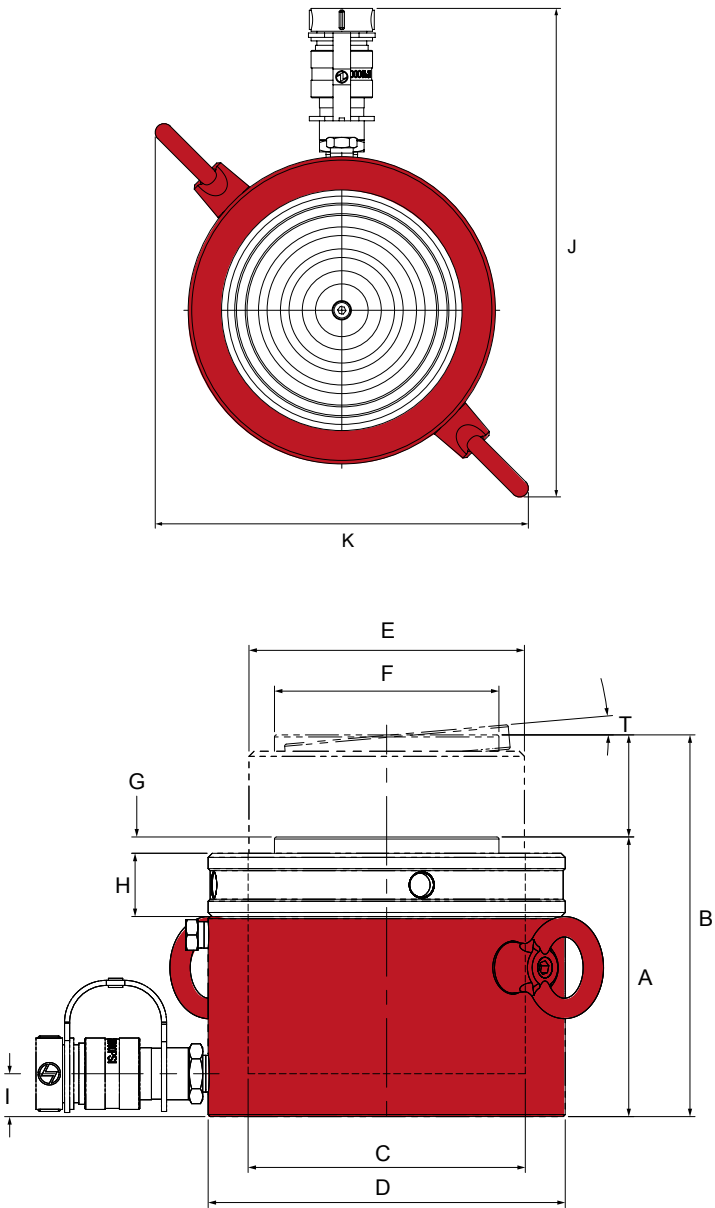
Safety Instructions

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

128 pg

Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Weight
	(mm)		(cm²)	(cc)	(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	2520	128,9
520 Tonne 5114 kN	45	HLNF50002	730.6	3288	182.3

* Other dimensions on request



Model Number	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Outside Thread	Saddle Dia.	Saddle Protrusion from Plunger	Lock Nut Length	Base to Inlet Port	Coupler to Eyelet	Eyelet to Eyelet	Saddle Tilt
	A	B	C	D	E	F	G	H	I	J	K	T
	(mm)	(mm)	(mm)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
HLNF6002	125	175	105	140	TW105-4N	82	6	28	19	248	188	5°
HLNF10002	137	187	136	175	TW135-4N	110	8	31	21	278	213	5°
HLNF16002	148	193	171	220	TW170-4N	148	9	40	27	316	244	5°
HLNF20002	155	200	190	245	TW190-4N	160	10	43	30	338	262	5°
HLNF25002	159	204	215	275	TW215-4N	185	11	44	32	363	283	5°
HLNF40002	178	223	267	350	TR267-6	250	11	55	37	-	454	4°
HLNF50002	192	237	305	400	TR305-6	290	10	62	48	-	504	3°



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.

80%

Split Flow Manifold

For connecting multiple cylinders, protected in a sturdy roll cage.

81 pg

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



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).



Split Flow Manifold

For connecting multiple cylinders, protected in a sturdy roll cage.



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.

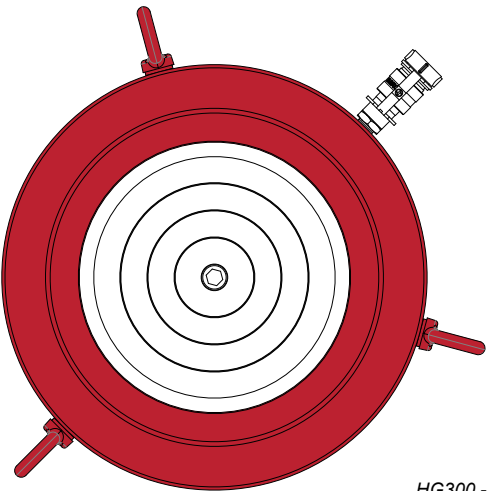
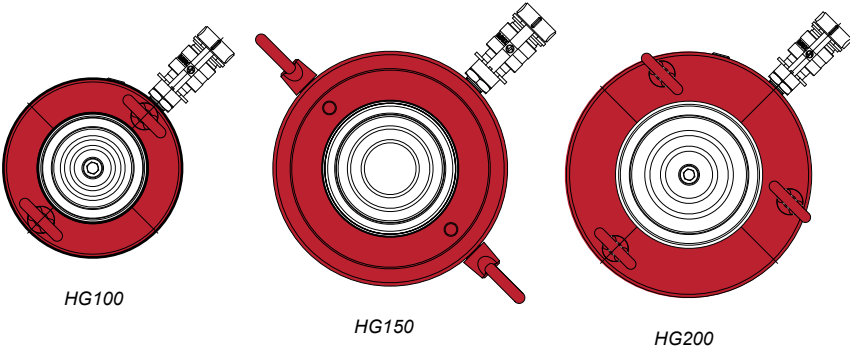
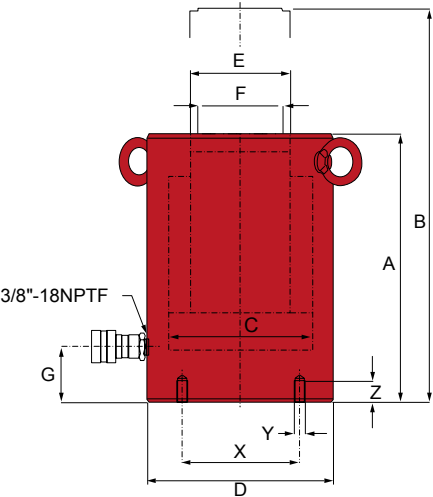
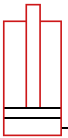


- Meets OSHA regulations for sound (80dBA).
- Two speed pump designed for rapid cylinder advance.
- Internal filter screens contamination to prevent pump damage.
- All units are wired as 230 VAC 50 Hz; Optional wiring 120 VAC 50Hz.
- 100% Duty Cycle TEFC motors.
- All hand pendants are wired at 24VAC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

*Available on request: no stock item

High Tonnage Single Acting Cylinders

HG Series - Heavy Lifting, Load Return



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.

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.

Safety Instructions

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

Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Weight
	(mm)		(cm²)	(cc)	(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	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Base Mounting Holes		
								Bolt Circle	Thread Size	Thread Depth
	A	B	C	D	E	F	G	X	Y	Z
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		(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

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

HPB

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 78

Related Product: Hoses

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

pg 84

Safety Instructions

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

pg 128

- 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
320 Tonne* 3132/1039 kN	200	HDG20008	366	5289	109.8
	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
	50	HDG60002	429	4277	474.0
820 Tonne* 8073/2657 kN	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

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 53

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 82

High-Flow Couplers

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

pg 83

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.

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

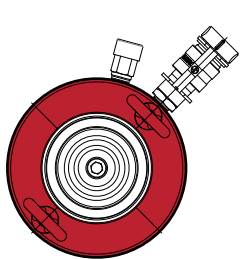
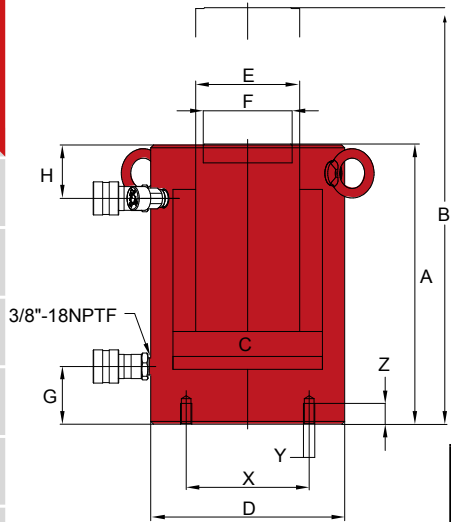
HPB

HPD

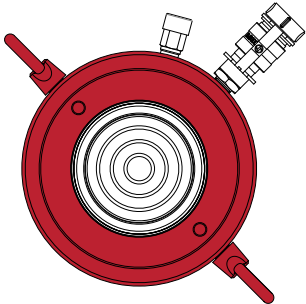
Cylinder accessories

High Tonnage Double Acting Cylinders

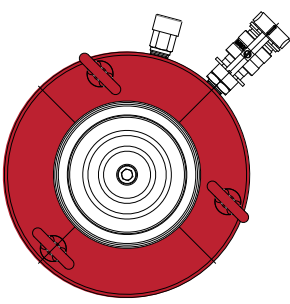
HDG Series - Heavy Lifting



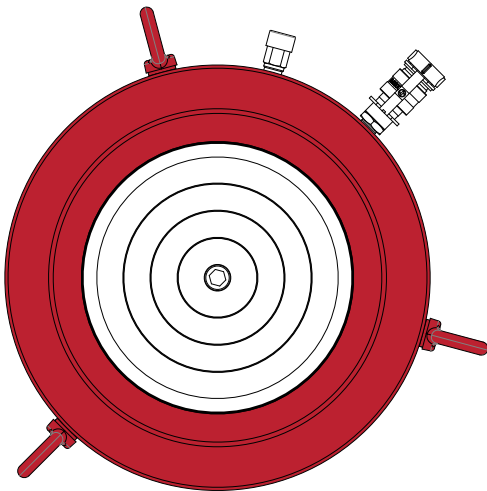
HDG100



HDG150



HDG200



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).

Split Flow Manifold
For connecting multiple cylinders, protected in a sturdy roll cage.

Cylinder Capacity Push/Pull	Stroke	Model Number	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Weight
			Push	Pull	Push	Pull	Push	Pull	
			(Tonne)	(Tonne)	(cm ²)	(cm ²)	(cc)	(cc)	
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
320 Tonne* 3132/1039 kN	300	HDG20012	185.2	84.9	264.5	121.3	7977	3809	146.1
	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
390 Tonne* 3844/1352 kN	300	HDG30012	319.3	106.0	456.2	151.4	13685	4541	303.0
	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
510 Tonne* 5016/1700 kN	305	HDG40012	391.9	137.8	559.9	196.9	17077	6004	420.9
	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
600 Tonne* 5871/2028 kN	300	HDG50012	511.5	173.4	730.7	247.6	21919	7427	599.2
	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
820 Tonne* 8073/2657 kN	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
	50	HDG80002	823.2	271.0	1176	387.1	5881	1935	741.2
1000 Tonne* 10062/3719 kN	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
	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	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Top to Retract Port	Base Mounting Holes		
									Bolt Circle	Thread Size	Thread Depth
									X	Z	
	A	B	C	D	E	F	G	H	X	Z	
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(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

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

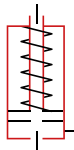
HPB

HPD

Cylinder accessories

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.

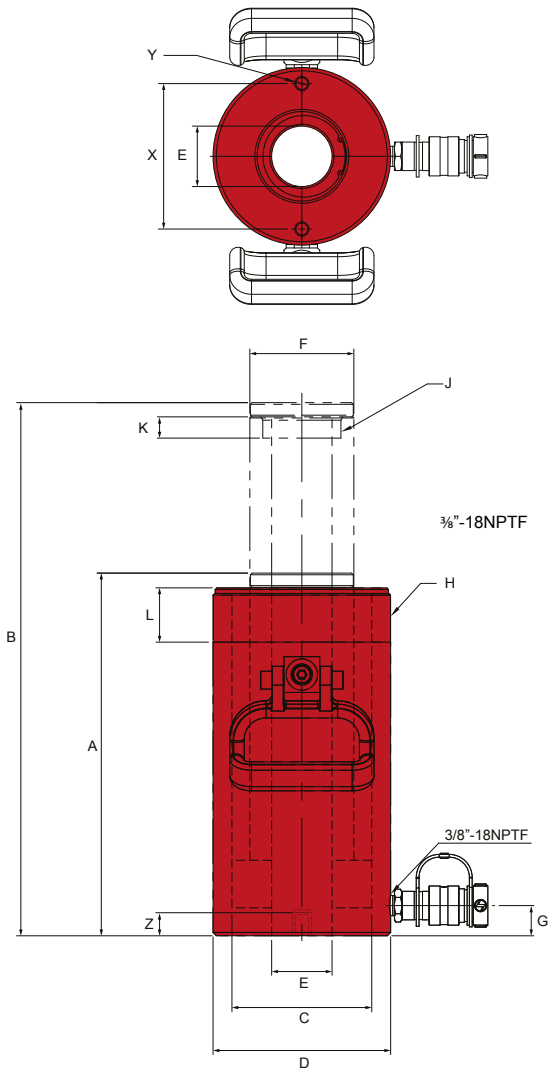


Cylinder Capacity	Stroke	Model Number	Cylinder Effective	Oil Capacity	Collapsed Height	Extended Height	Cyl. Bore Dia.	Out. Dia.
	(mm)		(cm²)	(cc)	A (mm)	B (mm)	C (mm)	D (mm)
13 Tonne 131 kN	8	HC1201T	18,8	15	60	68	55	70
	41	HC1202	18,8	77	121	162	55	70
	41	HC1202XT	18,8	77	121	162	55	70
	76	HC1203XT	18,8	143	184	260	55	70
22 Tonne 221 kN	51	HC2002T	31,6	161	162	213	75	100
	154	HC2006T	31,6	487	306	460	75	100
30 Tonne 285 kN	64	HC3002T	40,8	261	179	243	85	114
	155	HC3006T	40,8	634	331	486	85	114
60 Tonne 589 kN	76	HC6003T*	84,2	641	248	324	125	159
	152	HC6006T*	84,2	1282	324	477	125	159
100 Tonne 1000 kN	76	HC10003T*	142,8	1087	254	330	165	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	
HC10003T	APS100	126	2½" - 8UNC	13	40	

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



Model Number	Centre Hole Dia.	Plgr Dia.	Base to Inlet Port	Internal Thread	Internal Thread Length	Collar Thread		Base Mounting Hole			Weight
						Diameter	Length	Bolt Circle	Thread	Thread Depth	
	E (mm)	F (mm)	G (mm)	J	K (mm)	H	L (mm)	X (mm)	Y	Z (mm)	(kg)
HC1201T	19	35	14	¾"-16UN	16	2 ¾"-16UN	46	51	⅝"-18UNC	9	1,5
HC1202	19	35	15	¾"-16UN	16	2 ¾"-16UN	46	51	⅝"-18UNC	9	2,6
HC1202XT	19	35	15	-	-	2 ¾"-16UN	46	51	⅝"-18UNC	9	2,6
HC1203XT	19	35	19	-	-	2 ¾"-16UN	46	51	⅝"-18UNC	9	3,9
HC2002T	27	55	19	1-⅞"-16UN	19	3 7/8"-12UN	38	83	¾"-16UNC	9	7,2
HC2006T	27	55	19	1-⅞"-16UN	19	3 7/8"-12UN	38	83	¾"-16UNC	9	13,4
HC3002T	33	63	23	1-1⅜"-16UN	22	4½"-12UN	42	92	¾"-16UNC	14	10,4
HC3006T	33	63	23	1-1⅜"-16UN	22	4½"-12UN	42	92	¾"-16UNC	14	19,5
HC6003T*	54	93	27	2¾"-16UN	19	6 1/4"-12UN	49	130	½"-13UNC	14	29,8
HC6006T*	54	93	27	2¾"-16UN	19	6 1/4"-12UN	49	130	½"-13UNC	14	36,8
HC10003T*	79	125	27	4"-16UN	25	8¾"-12UN	60	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.

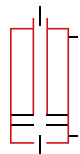
Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

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 82



Combo Kits

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

pg 72



Related Product: Hoses

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

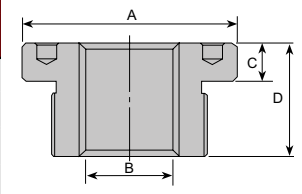
pg 84

- 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.

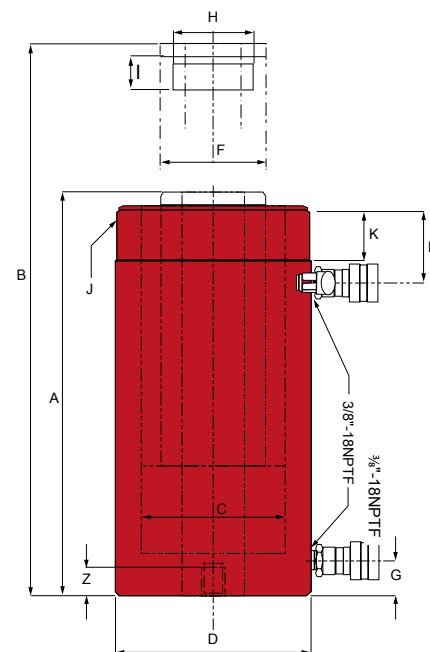
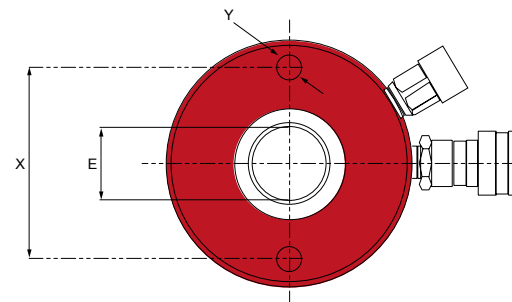
Cylinder Capacity		Stroke	Model Number	Oil Capacity		Cylinder Effective area		Coll. Height	Ext. Height	Cyl. Bore Dia.	Out. Dia.
Push	Pull			Push	Pull	Push	Pull				
		(mm)		(cc)	(cc)	(cm²)	(cm²)	A (mm)	B (mm)	C (mm)	D (mm)
30 Tonne 280 kN	18 Tonne 176 kN	178	HDC3007	492	328	40,84	25,57	331	509	85	114
		257	HDC3010	1051	658	40,84	25,57	432	689	85	114
60 Tonne 578 kN	40 Tonne 385 kN	89	HDC6003*	750	500	84,23	56,14	248	337	125	159
		165	HDC6006*	1390	926	84,23	56,14	324	489	125	159
		257	HDC6010*	2165	1443	84,23	56,14	438	695	125	159
100 Tonne 981 kN	64 Tonne 625 kN	38	HDC10001	545	347	142,94	91,11	165	203	165	213
		76	HDC10003*	1089	694	142,94	91,11	254	330	165	213
		152	HDC10006*	2169	1388	142,94	91,11	343	495	165	213
		257	HDC10010*	3679	2345	142,94	91,11	461	718	165	213
145 Tonne 1407 kN	75 Tonne 733 kN	203	HDC15008*	4247	2170	204,99	106,81	349	552	190	248

* 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
HC10003T	APS100	126	2½" - 8UNC	13	40



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

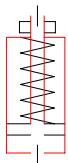
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

Model Number	Centre Hole Dia.	Plgr Dia.	Base to adv. Port	Top to Return Port	Internal Thread	Internal Thread Length	Collar Thread		Base Mounting Hole			Weight
							Dia.	Length	Bolt Circle	Thread	Thread Depth	
	E (mm)	F (mm)	G (mm)	L (mm)	H	I (mm)	J	K (mm)	X (mm)	Y	Z (mm)	(kg)
HDC3007	33	63	23	60	1 13/16"-16UN	24	4 1/2"-12UN	42	92	3/8"-16UNC	14	19,5
HDC3010	33	63	23	60	1 13/16"-16UN	24	4 1/2"-12UN	42	92	3/8"-16UNC	14	25,7
HDC6003*	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12UN	49	130	1/2"-13UNC	14	29,8
HDC6006*	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12UN	49	130	1/2"-13UNC	14	36,8
HDC6010*	54	92	27	67	2 3/4"-16UN	21	6 1/4"-12UN	49	130	1/2"-13UNC	14	51,0
HDC10001	79	125	27	44	4"- 16UN	27	-	-	178	3/8"-11UNC	19	33,4
HDC10003*	79	125	27	86	4"- 16UN	27	8 3/8"-12UN	60	178	3/8"-11UNC	19	51,4
HDC10006*	79	125	27	86	4"- 16UN	27	8 3/8"-12UN	60	178	3/8"-11UNC	19	69,5
HDC10010*	79	125	27	86	4"- 16UN	27	8 3/8"-12UN	60	178	3/8"-11UNC	19	90,2
HDC15008*	79	150	38	60	4 1/4"- 12UN	35	-	-	-	-	-	108,5

* Are equipped with carrying handles.

Single Acting Hollow Lock Nut Cylinder

HCLN Series



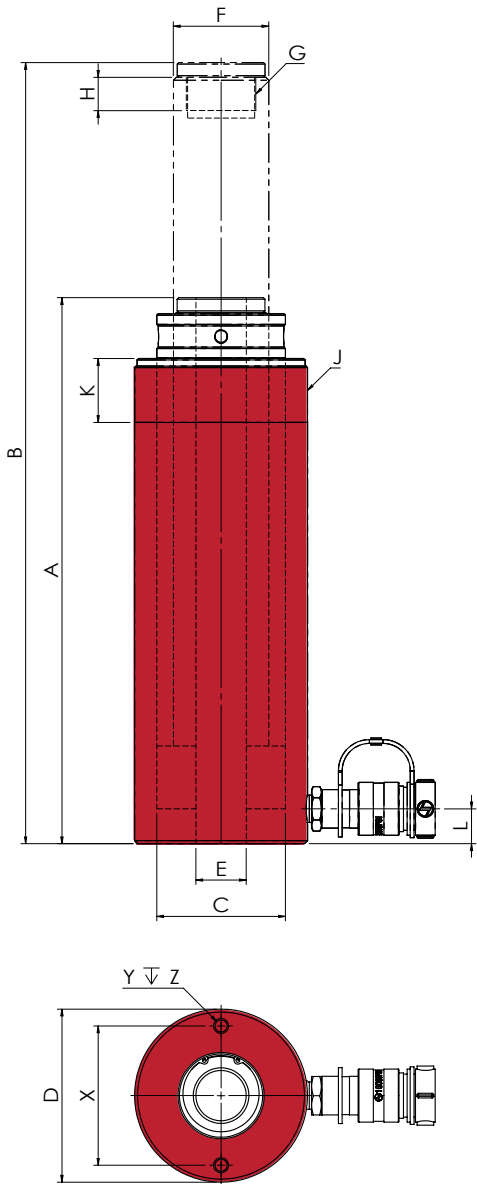
- Able to hold load without hydraulic pressure
- Specialty designed for tensioning for longer period
- Return spring for easy retract

Capacity:
22 - 100 Tonnes

Stroke:
76 - 155 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
165 - 718 mm



HCLN Series

Combo Kits
Most cylinders are available in easy to order kits: cylinder, gauge, couplers, hose and pump. 72 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. 82 pg

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared. 128 pg

High-Flow Couplers
High-Flow Coupler: CH38F is included on all models (except where specified). 83 pg

Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.
	(mm)		(cm²)	(cc)	A (mm)	B (mm)	C (mm)	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

Model Number	Plunger				Collar Thread		Base to Inlet Port	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 9/16"-16UN	19	3 7/8"-12UN	38	20	99,5	3/8-16UNC	9,4	22,6
HCLN3006	33,3	TW63-6N	1 13/16"-16UN	22	4 1/2"-12UN	42	23	114,3	3/8-16UNC	14	20,6
HCLN6003*	54	TW93-6N	2 3/4"-16UN	19	6 1/4"-12UN	49	27	130	1/2"-13UNC	14	35,4
HCLN10003*	79	TW125-6N	4"-16UN	25	8 3/8"-12UN	61	27	178	5/8"-11UNC	19	57,5

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

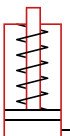
HPB

HPD

Cylinder accessories

Aluminum Single Acting Cylinders

HU Series - General Purpose, Spring Return, Lightweight



Capacity:

30 - 95 Tonnes

Stroke:

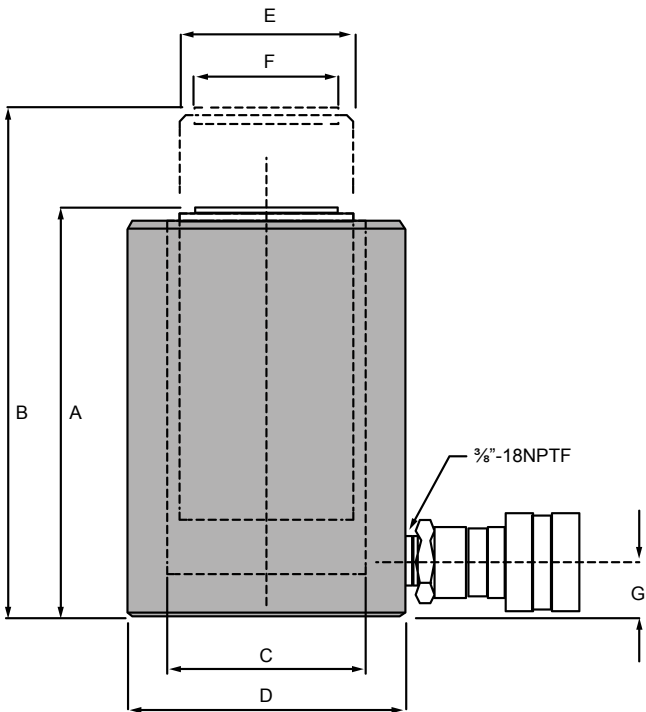
50 - 254 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

174 - 636 mm



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.

pg 82



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

pg 84



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

pg 128

- 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.

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. 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.



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).

pg 83

Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Weight
	(mm)		(cm²)	(cc)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	(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 294 kN	50	HU3002A	41,9	221	171	221	73	114	64	51	38	5,0
	101	HU3004A	41,9	442	222	323	73	114	64	51	38	6,8
	152	HU3006A	41,9	663	273	425	73	114	64	51	38	7,1
	203	HU3008A	41,9	884	323	526	73	114	64	51	38	9,0
	254	HU3010A	41,9	1105	374	628	73	114	64	51	38	11,3
48 Tonne 467 kN	50	HU5002A	66,6	360	171	221	92	139	80	64	38	7,4
	101	HU5004A	66,6	823	222	323	92	139	80	64	38	9,6
	152	HU5006A	66,6	1085	273	425	92	139	80	64	38	11,4
	203	HU5008A	66,6	1445	323	526	92	139	80	64	38	13,6
	254	HU5010A	66,6	1809	374	628	92	139	80	64	38	15,4
70 Tonne 680 kN	50	HU7502A	96,8	492	171	221	111	165	98	76	38	10,0
	101	HU7504A	96,8	985	222	323	111	165	98	76	38	13,0
	152	HU7506A	96,8	1477	273	425	111	165	98	76	38	15,8
	203	HU7508A	96,8	1969	323	526	111	165	98	76	38	19,0
	254	HU7510A	96,8	2463	374	628	111	165	98	76	38	22,7
95 Tonne 933 kN	50	HU10002A	133,0	675	171	221	130	203	108	89	38	16,0
	101	HU10004A	133,0	1351	222	323	130	203	108	89	38	19,4
	152	HU10006A	133,0	2027	273	425	130	203	108	89	38	23,0
	203	HU10008A	133,0	2702	323	526	130	203	108	89	38	27,2
	254	HU10010A*	133,0	3379	374	628	130	203	108	89	38	30,6
140 Tonne 1388 kN	50	HU15002A*	198,0	1005	196	246	159	254	127	114	38	24,8
	101	HU15004A*	198,0	2011	247	348	159	254	127	114	38	30,6
	152	HU15006A*	198,0	3016	298	450	159	254	127	114	38	36,6
	203	HU15008A*	198,0	4020	349	552	159	254	127	114	38	43,1
	254	HU15010A*	198,0	5027	400	654	159	254	127	114	38	50,8

* Are equipped with carrying handles.

Aluminum Double Acting Cylinders

HUD 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.



Capacity:

30 - 150 Tonnes

Stroke:

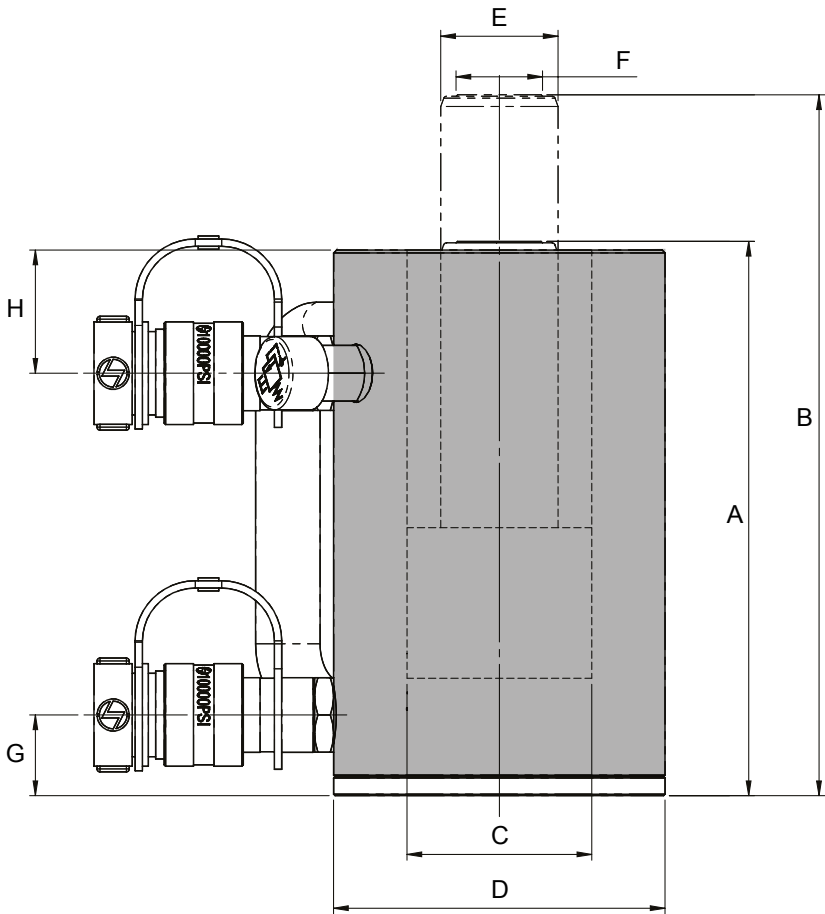
50 - 330 mm

Max. Operating Pressure:

700 BAR

Min. - Max. Height:

189 - 527 mm



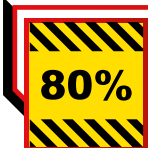
HUD Series



Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.
pg 82



Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.
pg 128



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		Cylinder Effective Area		Oil Capacity		Weight (kg)
			Push (Tonne)	Pull (Tonne)	Push (cm²)	Pull (cm²)	Push (cc)	Pull (cc)	
30 Tonne 294/114 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 467/154 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 680/244 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 933/217 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 1388/313 kN	152	HUD15006A	142	32	198,0	44,7	3016	678	49,0
	204	HUD15008A	142	32	198,0	44,7	4118	930	55,0
	330	HUD15013A	142	32	198,0	44,7	6535	1476	74,0

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)
HUD3002A	201	251	73	125	57	40	38	43
HUD3004A	251	351	73	125	57	40	38	43
HUD3006A	301	451	73	125	57	40	38	43
HUD3008A	349	552	73	125	57	40	38	43
HUD3013A	488	818	73	125	57	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	89	76	38	63
HUD7508A	361	565	111	165	89	76	38	63
HUD7513A	488	818	111	165	89	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

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

HPB

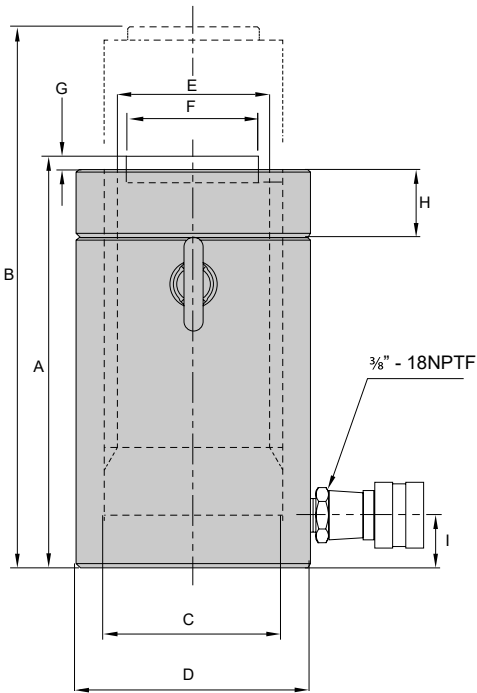
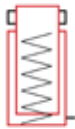
HPD

Cylinder accessories

Lock Nut Aluminum Cylinders

HULN Series - Heavy Lifting with Mechanical Lock Nut

- Single acting cylinder with mechanical safety lock nut
- Designed to support loads without hydraulic pressure
- Stop ring to prevent 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



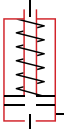


Split Flow Manifold
For connecting multiple cylinders, protected in a sturdy roll cage.
114 pg



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

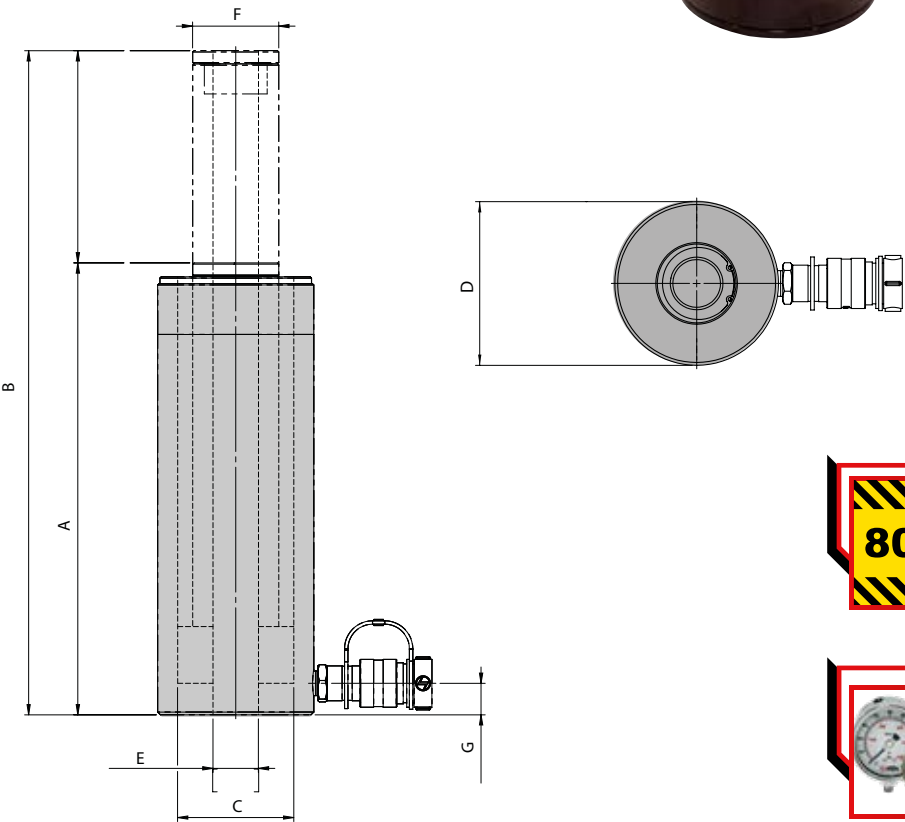
Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area	Oil Capacity	Coll. height	Ext. Height									Weight
	(mm)		(cm²)	(cc)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	(kg)	
30 Tonne 293 kN	50	HULN3002A	41.9	213	196	247	73	114	64	51	3	32	38	6.8	
	101	HULN3004A	41.9	426	247	349	73	114	64	51	3	32	38	8.1	
	152	HULN3006A	41.9	639	298	450	73	114	64	51	3	32	38	9.5	
	203	HULN3008A	41.9	852	349	552	73	114	64	51	3	32	38	11.3	
	254	HULN3010A	41.9	1065	400	654	73	114	64	51	3	32	38	13.6	
50 Tonne 497 kN	50	HULN5002A	66.7	355	206	256	92	140	79	64	3	38	38	9.5	
	101	HULN5004A	66.7	710	257	358	92	140	79	64	3	38	38	11.7	
	152	HULN5006A	66.7	1064	307	460	92	140	79	64	3	38	38	13.6	
	203	HULN5008A	66.7	1418	358	562	92	140	79	64	3	38	38	15.8	
	254	HULN5010A	66.7	1773	409	664	92	140	79	64	3	38	38	18.12	
95 Tonne 916 kN	50	HULN10002A	133.4	664	212	263	130	203	108	89	3	44	38	20.4	
	101	HULN10004A	133.4	1327	263	365	130	203	108	89	3	44	38	23.5	
	152	HULN10006A	133.4	1991	301	453	130	203	108	89	3	44	38	27.2	
	203	HULN10008A	133.4	2655	365	568	130	203	108	89	3	44	38	31.7	
	254	HULN10010A	133.4	3318	415	670	130	203	108	89	3	44	38	36.2	
140 Tonne 1359 kN	50	HULN15002A	197.9	993	238	288	159	254	127	114	3	44	38	29.9	
	101	HULN15004A	197.9	1986	288	390	159	254	127	114	3	44	38	36.2	
	152	HULN15006A	197.9	2979	339	492	159	254	127	114	3	44	38	43.0	
	203	HULN15008A	197.9	3972	390	594	159	254	127	114	3	44	38	48.0	
	254	HULN15010A	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.





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



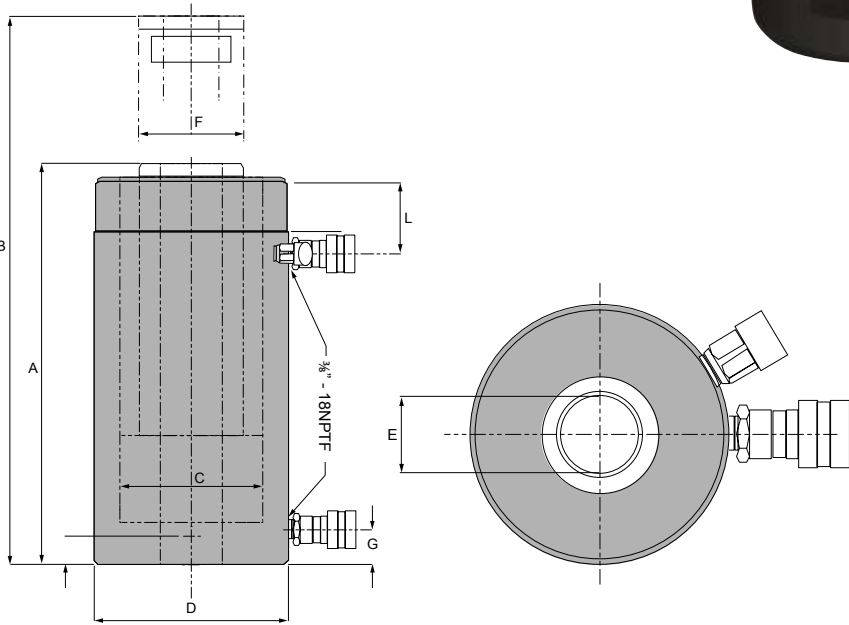
Related Product: Gauges
Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.
82 pg

Cylinder Capacity	Stroke	Model Number	Effective Area	Oil Capacity	Coll. Height	Ext. Height	Bore Diameter	Outer Diameter	Cylinder Hole	Punger Diameter	Base to Inlet Port	Weight
	(mm)		(cm²)	(cm³)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	(kg)
30 Tonne 326 kN	75	HUC3003A	46.5	360.5	220	295	89	139	32.3	64	35	9.9
	152	HUC3006A	46.5	721.0	296	448	89	139	32.3	64	35	13.6
55 Tonne 555 kN	75	HUC6003A	79.3	606.3	260	335	120	190	54	92	35	19.0
	152	HUC6006A	79.3	1212.6	336	488	120	190	54	92	35	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 anodised plunger prevents rust and corrosion.
- Hardened steel saddle.



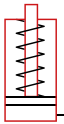
Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

128 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	Stroke	Model Number	Effective Area		Oil Capacity		Collapsed Height	Extended Height	C	D	E	F	G	L	Weight
			Push	Pull	Push	Pull									
	(mm)		(cm²)	(cm²)	(cm³)	(cm³)	A (mm)	B (mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)
30/10 Tonne 288/93 kN	50	HUDC3002A	41.1	13.2	208	67	180	230	92	140	38	83	51	51	9,1
	101	HUDC3004A	41.1	13.2	416	133	231	332	92	140	38	83	51	51	11,3
	152	HUDC3006A	41.1	13.2	624	200	282	434	92	140	38	83	51	51	13,6
	254	HUDC3010A	41.1	13.2	1040	332	384	638	92	140	38	83	51	51	18,1
50/15 Tonne 467/157 kN	50	HUDC5002A	66.7	22.4	337	112	180	230	118	191	54	105	51	51	15
	100	HUDC5004A	66.7	22.4	675	225	231	331	118	191	54	105	51	51	18,6
	152	HUDC5006A	66.7	22.4	1013	337	282	434	118	191	54	105	51	51	22,6
	254	HUDC5010A	66.7	22.4	1689	563	384	638	118	191	54	105	51	51	29,5
70/29 Tonne 690/281 kN	50	HUDC7502A	98.5	40.2	499	203	245	295	143	229	70	124	64	51	23,5
	100	HUDC7504A	98.5	40.2	998	407	295	395	143	229	70	124	64	51	31,8
	152	HUDC7506A	98.5	40.2	1497	611	346	498	143	229	70	124	64	51	38,6
	254	HUDC7510A	98.5	40.2	2495	1019	448	702	143	229	70	124	64	51	45,3
100/35 Tonne 978/342 kN	50	HUDC10002A	139.7	48.8	707	246	257	307	172	279	89	152	64	51	42,1
	100	HUDC10004A	139.7	48.8	1415	492	308	408	172	279	89	152	64	51	49
	152	HUDC10006A	139.7	48.8	2123	738	359	511	172	279	89	152	64	51	56
	254	HUDC10010A	139.7	48.8	3539	1230	461	715	172	279	89	152	64	64	65
140/50 Tonne 1357/499 kN	50	HUDC15002A	193.9	71.3	1004	295	257	307	190	304	89	165	64	51	52,1
	100	HUDC15004A	193.9	71.3	2008	590	308	408	190	304	89	165	64	51	61,2
	152	HUDC15006A	193.9	71.3	3012	885	359	511	190	304	89	165	64	51	71,6
	254	HUDC15010A	193.9	71.3	5021	1475	461	715	190	304	89	165	64	64	81,6

- 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.



Threaded Cylinders

HT Series

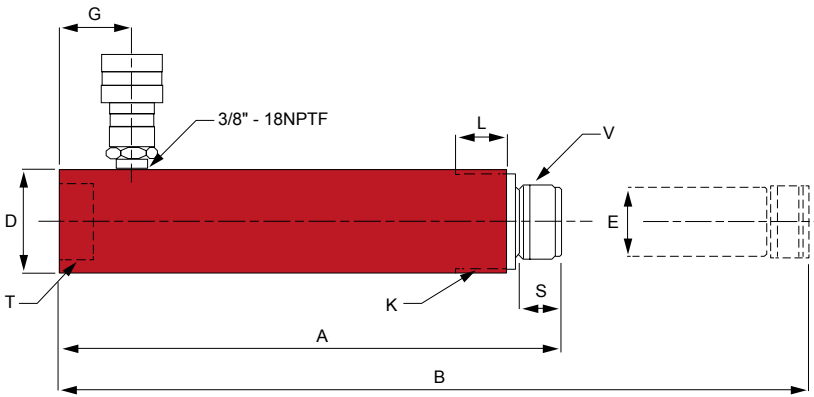


HT Series

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.

72 pg

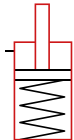


Cylinder Capacity	Stroke	Model Number	Cylinder Effective Area	Oil Capacity	Collapsed Height	Extended Height	Weight
	(mm)		(cm²)	(cc)	A (mm)	B (mm)	(kg)
10 Tonne 100 kN	151	HT1006	14.5	218	291	442	4.8
	253	HT1010	14.5	365	393	646	6.4
20 Tonne 228 kN	131	HT2005	33.2	421	299	430	10.0

Model Number	Outside Dia.	Plunger Dia.	Base to Inlet Port	Collar	Collar Thread Length	Saddle Height	Base Threads	Plunger Threads
	D (mm)	E (mm)	G (mm)	K	L (mm)	S (mm)	T	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 3/8"-12UN	50	36	2" -11.5 NPTF	2" -11.5 NPTF

Pull Cylinders

HP Series - High-Tonnage Pulling



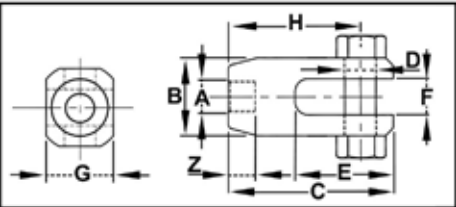
- High strength steel construction
- One piece high grade alloy bearing for side load protection and longer life
- Polyurethane cup seal provides optimum performance
- External plunger threads and Internal base threads
- Used for pulling and tensioning
- Maximum working pressure: 10,000 psi / 700 bar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



Cylinder Capacity	Stroke (mm)	Model Number	Cyl. Eff. Area (cm²)	Oil Cap. (cc)	Coll. Height A (mm)	Ext. Height B (mm)	Cyl. Bore Dia. C (mm)	Out. 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

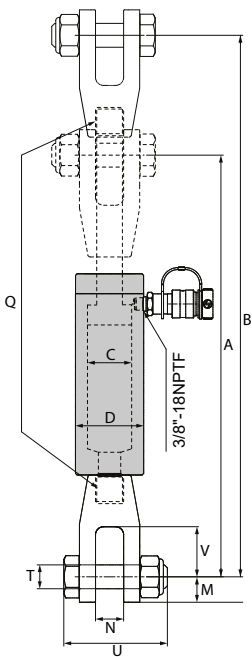
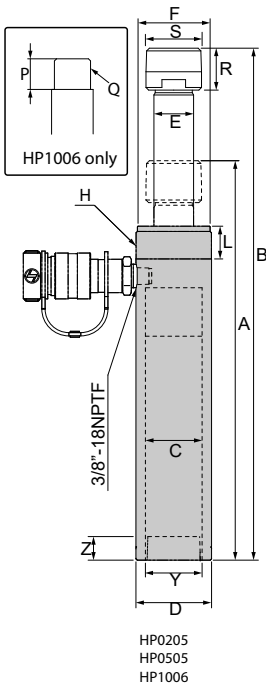
Model Number	Adapter		Plunger		Base Mounting Hole		Weight	Clevis Eye Dimensions				
	Thread	Length	Thread Length	Thread	Thread	Depth		M	N	T	U	V
	S (mm)	R (mm)	P (mm)	Q (mm)	Y (mm)	Z (mm)						
HP0205	¾"-14NPTF	29	19	M16 x 1.5	¾"-14NPTF	18	2.9	20	26	16	70	35
HP0505	1¼"-11.5NPTF	32	24	M28 x 1.5	1¼"-11.5NPTF	24	4.2	25	40	22	83	45
HP1006	-	-	26	M30 x 2	M30x2	25	9.5	32	43	32	129	63

CPXX-Clevis Plunger & Base



CP-10

Model Number	Cylinder Series	Model Number	Dimensions (mm)									
			A	B	C	D	E	F	G	H	Z	
CP02*	"Plunger & Base"	HP0205	Male 3/4"-14NPTF 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	



HP0205+CP02
HP0505+CP05
HP1006+CP10

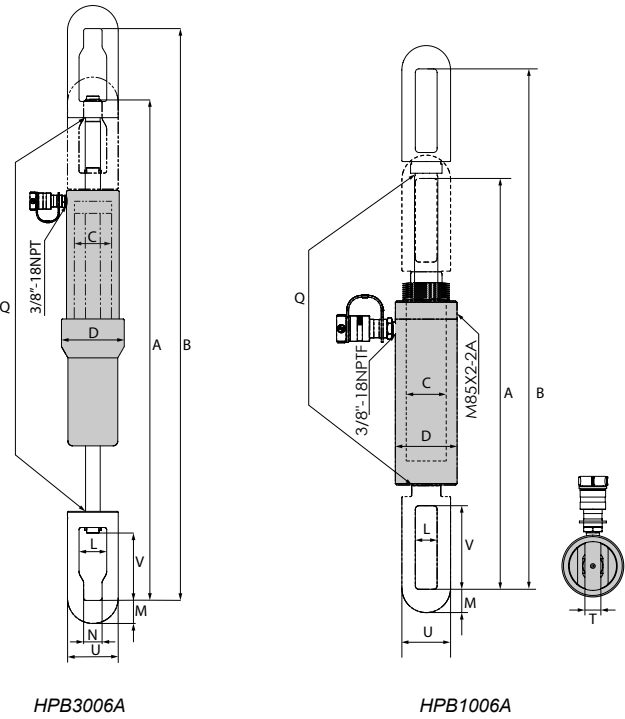
Pull Cylinders

HPB Series



Combo Kits

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



Cylinder Capacity	Stroke (mm)	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Collapsed Height	Extended Height	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Weight (kg)
					A (mm)	B (mm)			
10 Tonne / 108 kN	151	HPB1006A	15.7	237	565	716	55	85	12.0
30 Tonne / 285 kN	155	HPB3006A	40.8	633	1085	1240	85	114	47.4
52 Tonne / 511 kN	152	HPB6006A	72,9	1112	873	1025	110	140	45.2

Model Number	Plunger Thread Q (mm)	Clevis Eye Dimensions					
		L	M	N	T	U	V
HPB1006A	M30 x 2	30	32	30	22	67	115
HPB3006A	1 1/4"-7UNC	60	50	40	34	110	146
HPB6006A	-	50	70	50	40	130	125



Precision Double Acting Cylinders

HPD Series - High-Cycle Fixtured Application

- 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



Capacity:
8 - 14 Tonnes

Stroke:
155 - 260 mm

Max. Operating Pressure:
700 BAR

Min. - Max. Height:
350 - 490 mm
10% side load @ max stroke





Related Product: Hoses

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

84 pg



High-Flow Couplers

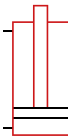
High-Flow Coupler: CH38F is included on all models (except where specified).

83 pg

HPD Series

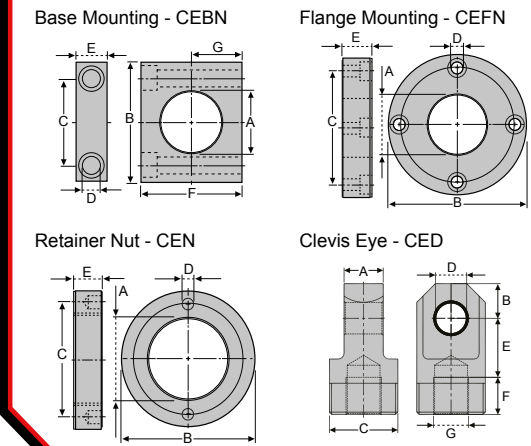
**Note: Precision double acting cylinders do not come with couplers.*

Cylinder Capacity	Stroke	Model Number	Push Effective Area	Pull Effective Area	Collapsed Height	Extended Height	Oil Cap.		Cylinder Bore Dia.	Outside Dia.
							Push	Pull		
	(mm)		(cm²)	(cm²)	A (mm)	B (mm)	(cc)	(cc)	C (mm)	D (mm)
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



Precision Double Acting Cylinders

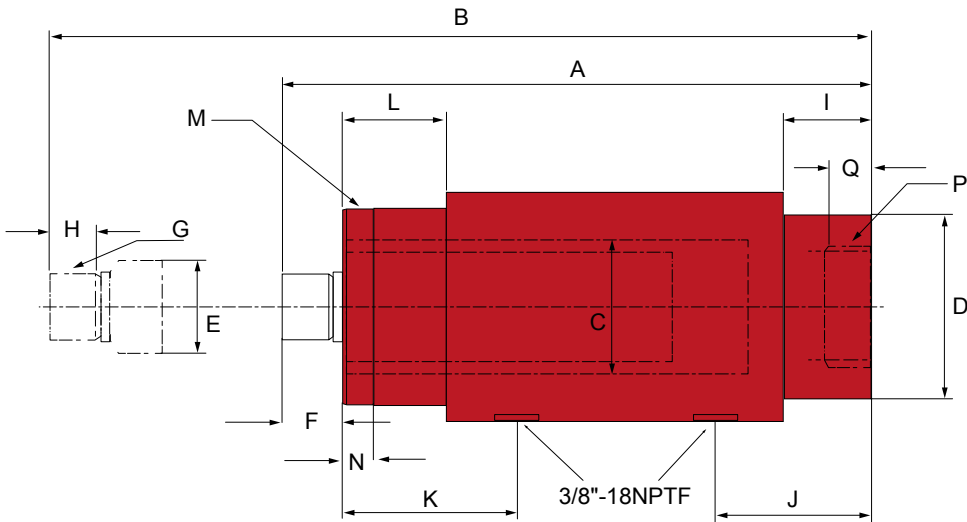
HPD Series - High-Cycle Fixtured Application



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.

Model Number	Dimensions (mm)						
	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"-12UN	76	63.5	7	12.7	-	-
CEN16	2-3/8"-16UN	92	79.2	7	19	-	-
CED09	25	23	1-1/16"-18UN	19	33	24	3/4"-16UN
CED16	32	28	2-3/16"-16UN	25	48	30	1-1/8"-12UN



Model Number	Plunger				Base to Inlet Port	Top to Return Port	Collar					Weight
	Dia.	Protrusion	Thread	Thread Length			Length	Thread	Thread Length	Int. Base Thread	Int. Base Thread Length	
	E (mm)	F (mm)	G (mm)	H (mm)			L (mm)	M (mm)	N (mm)	P (mm)	Q (mm)	
HPD0906	25	25	3/4"-16UN	19	38	56	38	2"-12UN	15	1-1/16"-18UN	35	6.6
HPD0910	25	25	3/4"-16UN	19	38	56	38	2"-12UN	15	1-1/16"-18UN	35	8.4
HPD1606	36	29	1-1/8"-12UN	25	54	73	54	2-3/8"-16UN	25	2-3/16"-16UN	41	10.0
HPD1610	36	29	1-1/8"-12UN	25	54	73	54	2-3/8"-16UN	25	2-3/16"-16UN	41	12.8

Cylinder Lifting Handles

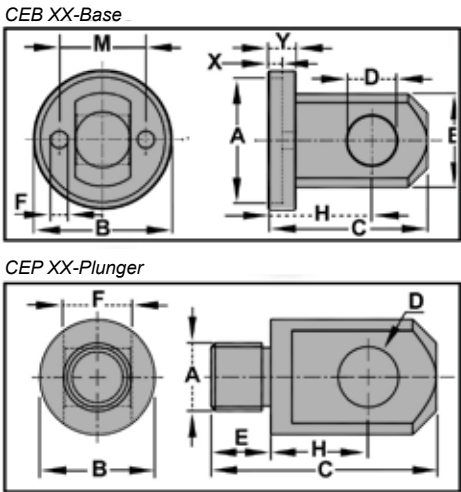
- Designed for easy carrying cylinders.
- Provides better control when positioning cylinder.
- Easy installation.

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-15



CEP-15

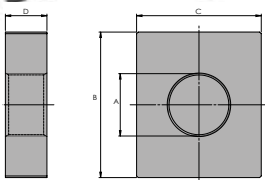
Model Number	Cylinder Series	Model Number	Dimensions (mm)									
			A	B	C	D	E	F	H	M	X	Y
CEB05	Base	H05	38.6	44	54	16	29	6.5	38.0	26	6.4	12.7
CEB10		H10	58.0	63	73	22	43	8.2	47.6	38	6.4	12.7
CEB15		H15	70.4	76	73	22	43	9.7	47.6	48	6.4	12.7
CEB25		H25	86.2	95	86	32	57	14.3	54.0	58	6.4	12.7
CEP05		H05	3/4"-16UNF	29	57	16	16	14	25.5	-	-	-
CEP15	Plunger	H10, H15, HD10	1"-8UNC	43	84	22	19	25	39.7	-	-	-
CEP25		H25, H30, HD30	1 1/2"-16UN	57	97	32	22	38	42.8	-	-	-

Accessories for H and HD cylinders

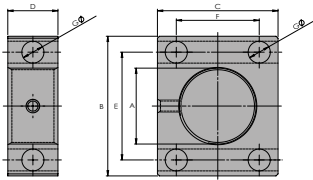
By attaching these accessoires to a H or HD cylinder you are able to bolt or weld the cylinder in place.



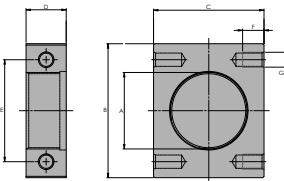
Fits Cylinder	Model Number	Dimensions (mm)							
		A	B	C	D	E	F	G	
H05, HP02	CL05	1 1/2"-16UN	88,9	76,2	25,4	-	-	-	
H10, HD10, HT10, HP05	CL10	2 1/4"-14UNC	114,3	88,9	25,4	-	-	-	
H15, HC12	CL15	2 3/4"-16UN	114,3	101,6	38,1	-	-	-	
H25, H30, HD30, HT20	CL25	3 5/16"-12UN	127,0	127,0	50,8	-	-	-	
H05, HP02	CL05A	1 1/2"-16UN-2B	70,1	59,9	24,9	54,1	41,2	11,0	
H10, HD10, HT10, HP05	CL10A	2 1/4"-14UNC	100,1	82,6	30,0	76,2	16,0	7/16"-20UNF	



CL05,10,15, 25

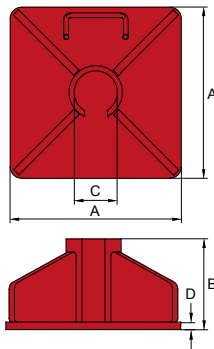


CL05A



CL10A

Cylinder Bases



Model Number	For use with Cylinder Series	Dimensions (mm)			
		A	B	C	D
CB05	H05 (Except H0501)	200	118	39	8
CB10	H10 (except H1001)	230	120	58	10
CB15	H15	254	122	70	12
CB25	H25	280	126	87	16
CB55	H55	304	162	132	12

Cylinder Saddles

Grooved, Tilt, and Threaded



SDT Series



SDTG Series



SDTL Series



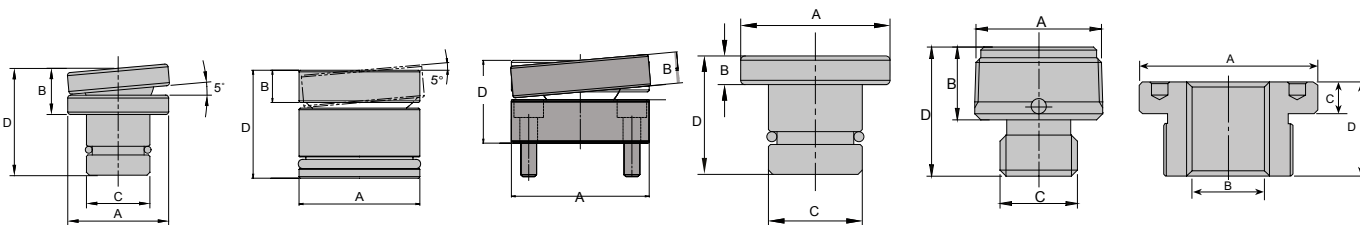
SD Series



HTD10



APS Series



Saddle Type	Model Number	For Cylinder(s)	Dimensions				Increase of Coll. Height (mm)
			A (mm)	B (mm)	C (mm)	D (mm)	
Tilt	SDT05	H05	25	17	17	31	10
	SDT10	H10*	35	16	22	37	10
	SDT15	H15	38	19	22	40	10
	SDT25	H25 / H3008, HD30	50	19	36	41	11
	SDT55	H(D)55, H(D)75, H100, HU55, HU100, HLN55 and HLN100	70	21	71	33	20
	SDT200	HLN150 and HLN200	130	29	130	45	20
	SDT250	HLN250	150	30	150	46	21
	SDT300	HLN300	195	84	139	100	75
	SDTG100	HG100 and HDG100	75	20	-	67	48
	SDTG150	HG150 and HDG150	94	20	-	69	50
	SDTG200	HG200 and HDG200	113	28	-	83	59
	SDTG250	HG250 and HDG250	145	28	-	94	70
	SDTG300	HG300 and HDG300	177	36	-	100	76
	SDTL10	HL1001	35	10	-	21	21
	SDTL50	HL2002, HL3002, HL5002	50	14	-	29	29
Grooved	SDTL100	HL10002	71	18	-	35	35
	SD05	H05	25	6	17	21	-
	SD10	H10*	35	6	22	27	-
	SD15	H15	38	7	22	30	-
Threaded	SD25	H25	50	7	36	29	-
	HTD10	HT10, HP05 H10 and HD10	"11/4"-11.5NPT"	27	1"- 8UNC	45	-
Hollow threaded	APS20	HC2002T, HC2006T	55	10	1"- 8UNC	29	-
	APS30	HC3002T, HC3006T	63	10	11/4" - 7UNC	32	-
	APS60	HC6003T, HC6006T	92	13	15/8" - 5.5UNC	32	-
	APS10	HC10003T	126	13	2 1/2"-UN	40	-

* Except H1001

H

HD

HL

HF

HFT

HLUF

HLN

HLNF

HG

HDG

HC

HDC

HCLN

HU

HUD

HULN

HUC

HUDC

HT

HP

HPB

HPD

Cylinder accessories

Cylinder accessories

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)	 56-57
	Two Speed Metal Hand Pumps (P-Series)	
	Two Speed Aluminum Hand Pumps (P-Series)	
	Double Acting Hand Pumps (P-Series)	
	Foot Pump (P57-Series)	58
Air	All-Direction Air Pump (PA-Series)	59
	Air Pumps (PA-Series)	 60-61
	Double Acting Air Pump (PA-Series)	
	Remote Control Air Pump (PA-Series)	
	Rotary Air Pumps (PAR-Series)	62
Electric	Universal Motor Pumps (PU-Series)	63
	Single Phase Electric Pumps	 64-66
	PE30 0.5 HP Electric Pumps	
	PE40 1 HP Electric Pumps	
	PE50 1.5 HP Electric Pumps	
	PE60 3 HP Electric Pumps	68
Gas	PG70 5.5 HP Gas Engine Pump	 70-71
	PD70 4.6 HP HATZ Diesel Engine Pump	

Pumps-Cylinder Combo's	Page 72 ▶
Control Valves and Accessories	Page 74 ▶

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

72
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.

82
pg

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

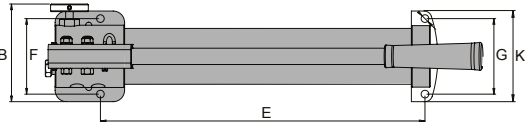
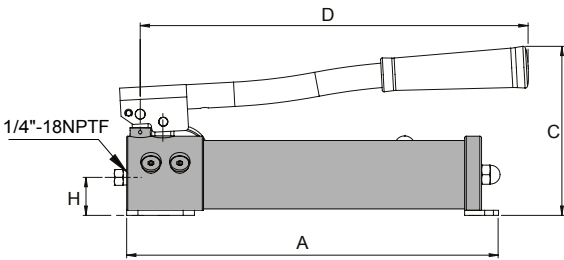
128
pg

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)

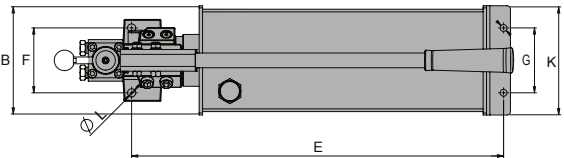
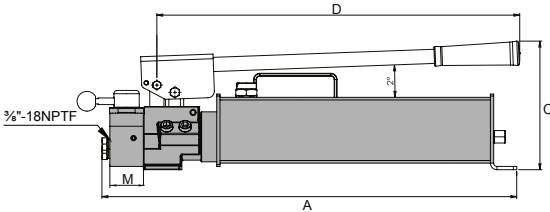
Will be delivered with Hydraulic Oil

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	379	Aluminum
P352	350	⅜"-18 NPTF	20/3	700/0.8	10	379	Aluminum
P1000	1000	⅜"-18 NPTF	20/13.3	700/2.3	21	397	Aluminum
P1000AD	870 -1000	⅜"-18 NPTF	20/13.3	700/2.3	21	397	Aluminum
P1201	1100	⅜"-18 NPTF	20/13.3	700/2.3	27	397	Steel
P2301	2200	⅜"-18 NPTF	20/13.3	700/2.3	21	397	Steel
P2801	2870	⅜"-18 NPTF	30/46	700/3.9	27	399	Steel
P4301	4100	⅜"-18 NPTF	20/13.3	700/2.3	21	397	Steel
P8701	7800	⅜"-18 NPTF	20 /120	700/4.7	43	399	Steel
2-Speed - Double Acting							
P2301M	2200	⅜"-18 NPTF	20/13.3	700/2.3	21	397	Steel
P2801M	2700	⅜"-18 NPTF	30/46	700/3.9	21	398	Steel
P4301M	4100	⅜"-18 NPTF	20/13.3	700/2.3	27	380	Steel
P8701M	7800	⅜"-18 NPTF	20/120	700/4.7	43	334	Steel

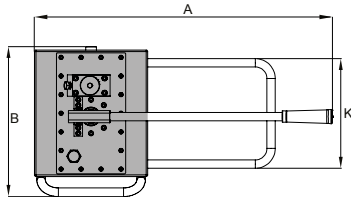
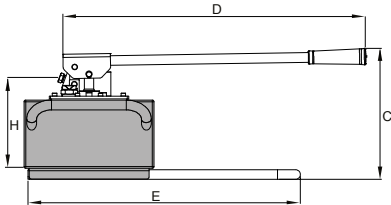
P350, P352, P1000, P601S, P1201



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



P8701, P8701M



Model Number	Dimensions (mm)											Weight w/Oil (kg)
	A	B	C	D	E	F	G	H	K	L	M	
Single Speed - Single Acting												
P601S	506	148	160	482	452	100	95	32	115	12	-	5.9
2-Speed - Single Acting												
P350*	329	98	160	343	303	75	65	32	85	8	-	3
P352	329	98	160	343	306	75	65	32	85	8	-	3
P1000	472	124	175	552	430	100	100	32	430	10	-	6.2
P1000AD	472	124	175	552	430	100	100	32	430	10	-	6.2
P1201	560	135	182	552	540	95	95	44	115	10	-	9.3
P2301	597	135	173	553	573	95	90	44	110	12/10	-	12.6
P2801	675	123	183	652	592	89	90	35	135	7.1/10	-	13.8
P4301	570	135	195	552	545	95	95	44	160	12/10	-	17.1
P8701	771	388	295	684	-	-	-	210	284	-	-	34.5
2-Speed - Double Acting												
P2301M	696	135	173	553	573	95	90	41/27	110	12/10	50	14.7
P2801M	724	135	183	652	592	89	89	39/36	135	7.1/10	50	14.7
P4301M	619	160	196	552	545	95	95	39/36	160	12/10	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

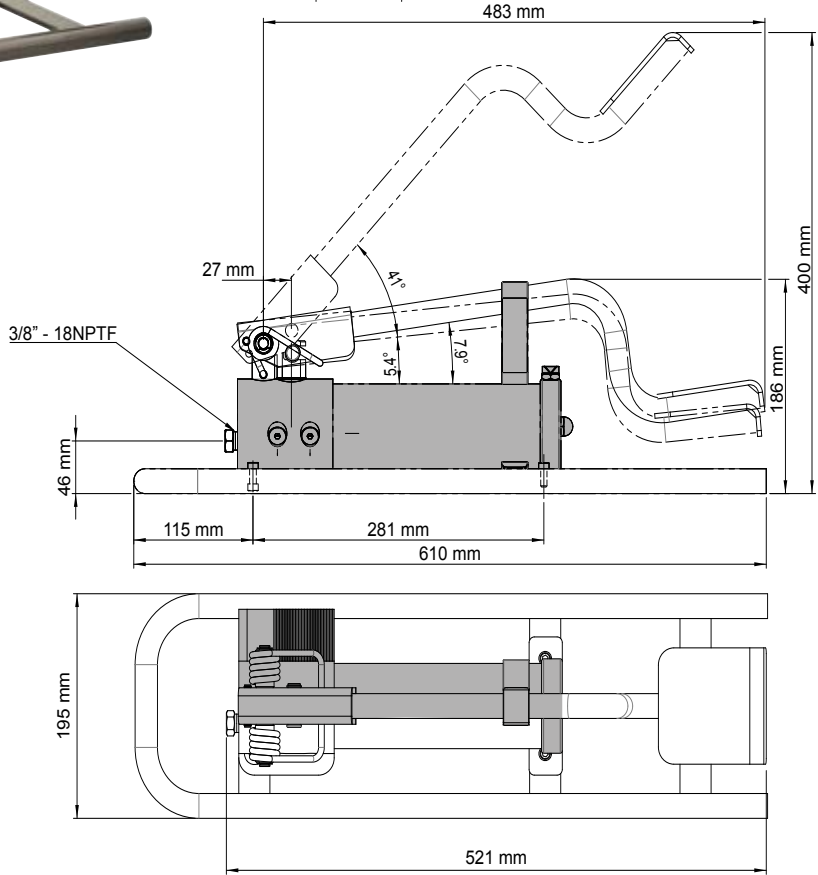
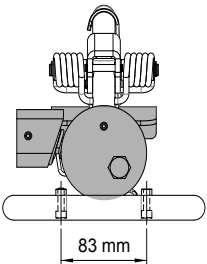
Pump& Cylinder Sets

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
HNS05T	6-12	13-19
HNS10T	12-16	19-24
HNS15T	16-22	24-32
HNS20T	22-27	32-41
HNS35T	27-33	41-50
HNS50T	33-39	50-60
HNS90T	39-48	60-75

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.

Will be delivered with Hydraulic Oil



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

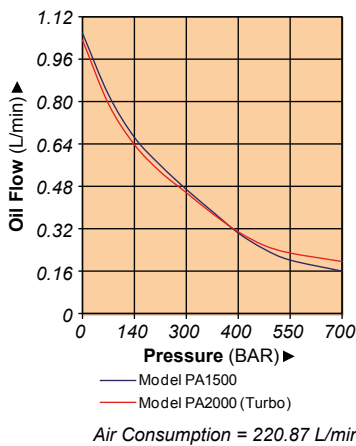


Air Pumps

Air Actuated Power



PA Series



Product Information

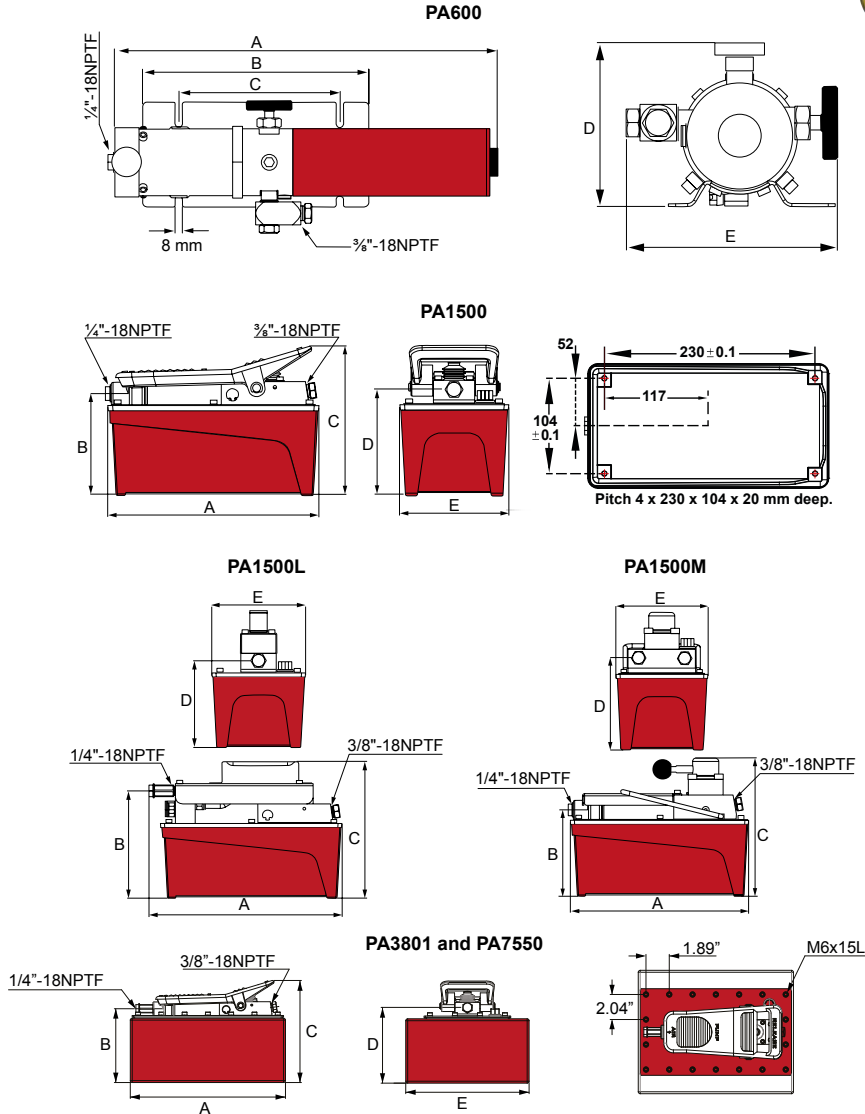
- Metal reservoirs resist cracking
- US Patent No. 5,946,912, a built in bypass device protects the hydraulic system from over pumping damage
- A compact yet powerful Air Turbo Motor US Patent No. 5,341,723
- Suggested air inlet range: 116-203 psi / 8.0 - 14.0 bar
- Maximum working pressure: 10,000 psi / 700 Bar

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 700 bar



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.

82



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

84



Will be delivered without Hydraulic Oil



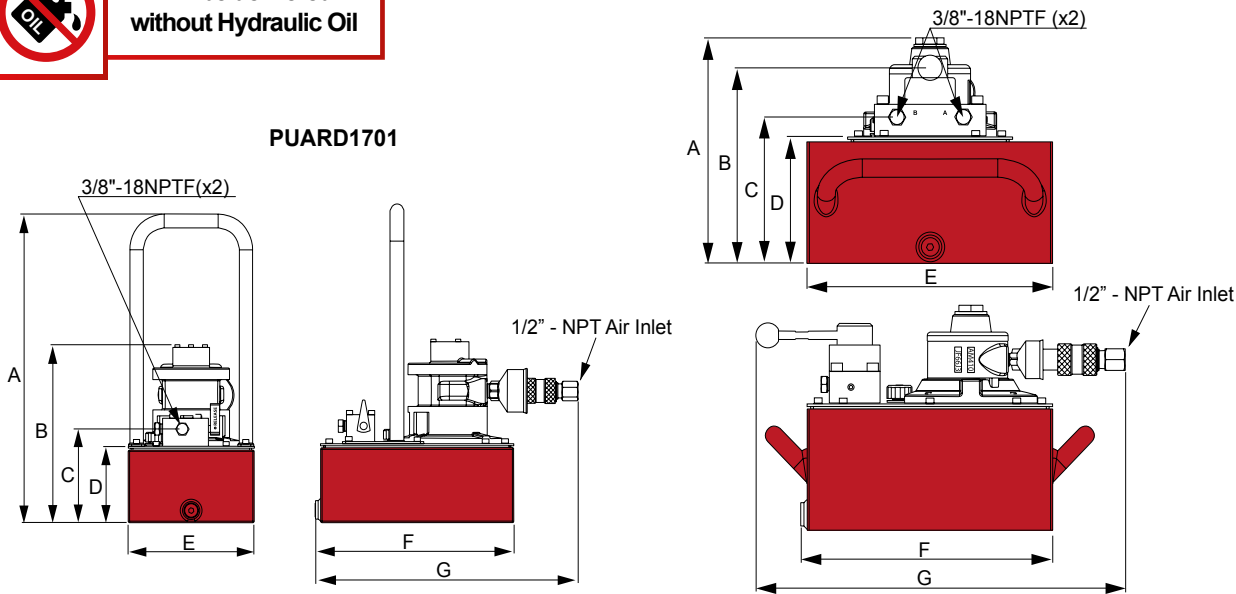
PUARM4003

PUARD1701

PUARD1703

PUAR Series

PUAR1703 and PUAR4003



Used with Cyl.	Motor Size (hp)	Usable Oil Cap. (cc)	Model Number	Press. Rating (BAR)	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Air Pressure Minimal (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	7
	1.7	11400	PUARD1703	700	48.30	700	5.13	0.36	Dump	Advance/Return	7
	4	11400	PUARD4003	700	48.30	700	7.62	1.15	Dump	Advance/Return	7
	1.7	11400	PUAR1703	700	48.30	700	6.83	0.36	Manual PUW3	Advance/Hold/Return	7
	4	11400	PUAR4003	700	48.30	700	8.39	1.15	Manual PUW3	Advance/Hold/Return	7
Double Acting	1.7	11400	PUARM1703	700	48.30	700	6.83	0.36	Manual PUW4	Advance/Hold/Return	7
	4	11400	PUARM4003	700	48.30	700	8.39	1.15	Manual PUW4	Advance/Hold/Return	7

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

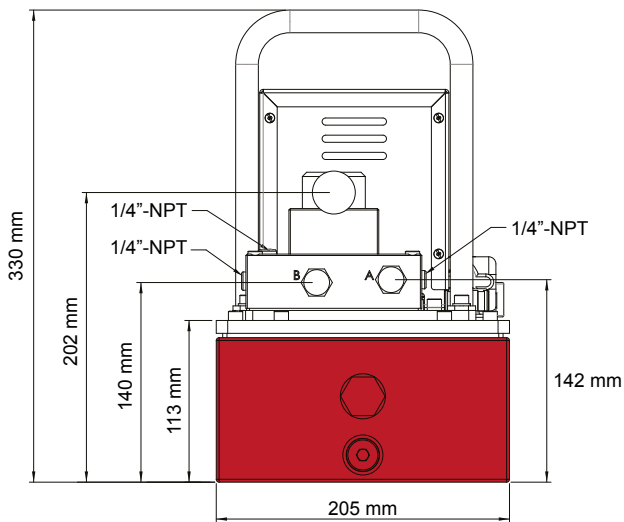
Universal Motor Pumps

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 and 19.4 kg with oil.
- External pressure adjustment is available.
- Designed for intermittent duty operation.
- Gauge port on control valve.
- Reservoir Capacity 3.8L and 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.

114

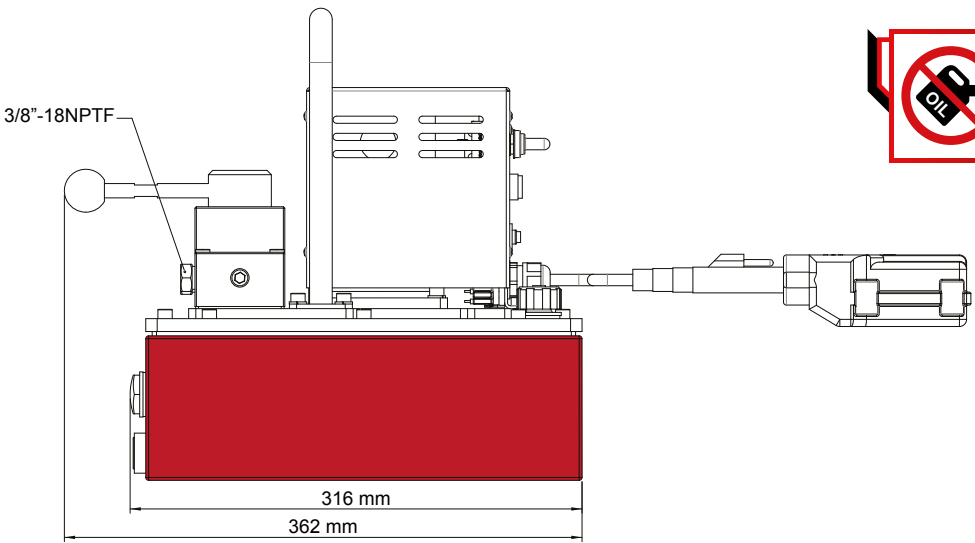
Flange Spreaders

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.

116



Will be delivered without Hydraulic Oil



Valve Function	Flow Rate				Motor Size	Voltage 50/60 Hz		Weight no/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	13.8	362	205	300
4W/3P Advance/Hold/Return	2.18	62~76	0.46	700	1.0 Hp	PU20M4N01B	PU20M4N01C	13.8	362	205	300
3W/3P Advance/Hold Return	2.18	62~76	0.46	700	1.0 Hp	PU20M3N02B	PU20M3N02C	14.9	396	280	300
4W/3P Advance/Hold/Return	2.18	62~76	0.46	700	1.0 Hp	PU20M4N02B	PU20M4N02C	14.9	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

Electric Pumps

PE30, PE40, PE50 and PE60 Series - Single Phase



PE50M4U03D



PE30M4U01D



PE40S4U02D



PE60M4U15D



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	10 Gal / 38 L	16 Gal / 60 L	25 Gal / 100 L
Model Number	Model Number	Model Number	Model Number	Model Number	Model Number	Model Number

Manual Valve

PE30M3U01D	PE30M3U02D	PE30M3U03D	-	-	-	-
-	PE40M3U02D	PE40M3U03D	-	-	-	-
-	-	PE50M3U03D	PE50M3U05D	PE50M3U10D	PE50M3U15D	PE50M3U25D
-	-	-	PE60M3U05D	PE60M3U10D	PE60M3U15D	PE60M3U25D
PE30M4U01D	PE30M4U02D	PE30M4U03D	-	-	-	-
-	PE40M4U02D	PE40M4U03D	-	-	-	-
-	-	PE50M4U03D	PE50M4U05D	PE50M4U10D	PE50M4U15D	PE50M4U25D
-	-	-	PE60M4U05D	PE60M4U10D	PE60M4U15D	PE60M4U25D

Manual Valve + Pendant

PE30W3U01D	PE30W3U02D	PE30W3U03D	-	-	-	-
-	PE40W3U02D	PE40W3U03D	-	-	-	-
-	-	PE50W3U03D	PE50W3U05D	PE50W3U10D	PE50W3U15D	PE50W3U25D
-	-	-	PE60W3U05D	PE60W3U10D	PE60W3U15D	PE60W3U25D
PE30W4U01D	PE30W4U02D	PE30W4U03D	-	-	-	-
-	PE40W4U02D	PE40W4U03D	-	-	-	-
-	-	PE50W4U03D	PE50W4U05D	PE50W4U10D	PE50W4U15D	PE50W4U25D
-	-	-	PE60W4U05D	PE60W4U10D	PE60W4U15D	PE60W4U25D

Solenoid Valve + Pendant

PE30S3N01D	PE30S3N02D	PE30S3N03D	-	-	-	-
-	PE40S3N02D	PE40S3N03D	-	-	-	-
-	-	PE50S3N03D	PE50S3N05D	PE50S3N10D	PE50S3N15D	PE50S3N25D
-	-	-	PE60S3N05D	PE60S3N10D	PE60S3N15D	PE60S3N25D
PE30S4N01D	PE30S4N02D	PE30S4N03D	-	-	-	-
-	PE40S4N02D	PE40S4N03D	-	-	-	-
-	-	PE50S4N03D	PE50S4N05D	PE50S4N10D	PE50S4N15D	PE50S4N25D
-	-	-	PE60S4N05D	PE60S4N10D	PE60S4N15D	PE60S4N25D

Manual
Pumps

Air
Pumps

Rotary Air
Pumps

Electric
Pumps

3 Phase
Pump

Gas/
Diesel
Pumps

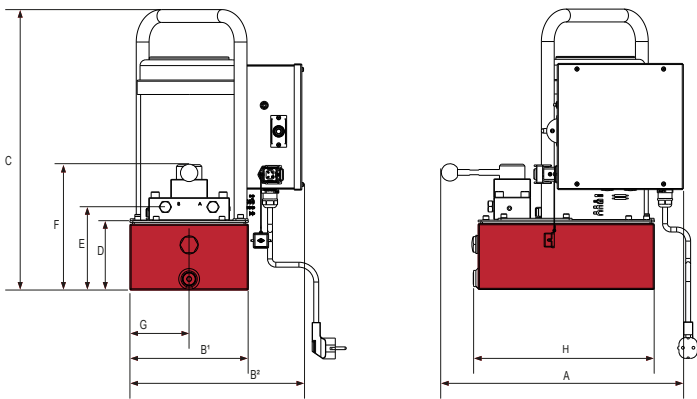
Pump&
Cylinder
Sets

Electric Pumps

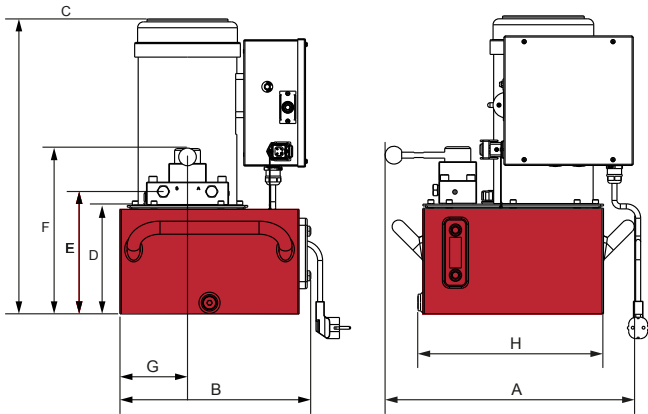
Electric Power Source



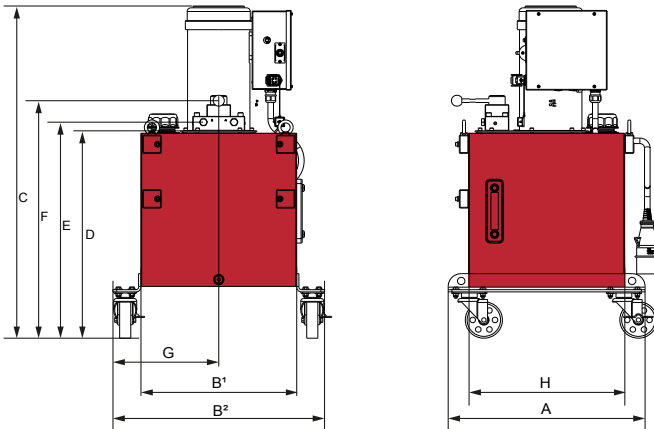
PE30 Series



PE40/PE50/PE60 Series



PE40/PE50/PE60 Series



Pump Accessories
See the assortment of accessories designed to work with these pumps. pg 82

80% 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 128

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

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

Will be delivered without Hydraulic Oil

Reservoir Size (Gal./L)	Dimensional Table (mm)								Pump Weight by Series* (kg)			
	A	B (1/2)	C	D	E	F	G	H	PE30	PE40	PE50	PE60
1 / 3.8	419	206 / 301	485	120	144	217	102	315	31,6	-	-	-
2 / 7.6	421	325	454	152	176	249	115	314	32,0	35,0	-	-
3 / 11.4	421	325	502	185	209	282	115	314	34,0	37,7	41,5	-
5 / 19.4	421	326	654	312	336	409	115	314	-	-	44,5	46,4
10 / 38	530	420 / 570	777	435	459	532	285	420	-	-	58,0	60,5
15 / 60	530	420 / 570	877	535	559	632	285	420	-	-	70,0	76,0
25 / 95	650	540 / 690	877	535	559	632	345	540	-	-	95,0	102,0

* 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 S4N 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

S3N Solenoid Valve 3W/3P (Spool Type)
S4N 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
10 10 Gallons / 38l (incl. castors)
15 15 Gallons / 60l (incl. castors)
25 25 Gallons / 95l (incl. 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 82

Related Product: Footpedals
These can be used with all pumps equipped with solenoid valves pg 76

Related Product: Hoses
We offer a variety of hoses, fittings, lengths and materials. pg 84

Safety Instructions
Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared. pg 128

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.

82 pg



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

84 pg



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 Manual valve											
PE60M3U06W	Manual	Single Acting	380	80	2,24	22,7	48	700	6,3	1,33	4,5
PE60M4U06W	Manual	Double Acting	380	80	2,24	22,7	48	700	6,3	1,33	4,5
PE60M3U15W*	Manual	Single Acting	380	80	2,24	60	48	700	6,3	1,33	4,5
PE60M4U15W*	Manual	Double Acting	380	80	2,24	60	48	700	6,3	1,33	4,5
PE60M3U20W*	Manual	Single Acting	380	80	2,24	75	48	700	6,3	1,33	4,5
PE60M4U20W*	Manual	Double Acting	380	80	2,24	75	48	700	6,3	1,33	4,5
PE60M3U25W*	Manual	Single Acting	380	80	2,24	95	48	700	6,3	1,33	4,5
PE60M4U25W*	Manual	Double Acting	380	80	2,24	95	48	700	6,3	1,33	4,5
380 Volt Solenoid valve											
PE60S3N06W	Solenoid	Single Acting	380	80	2,24	22,7	48	700	6,3	1,33	4,5
PE60S4N06W	Solenoid	Double Acting	380	80	2,24	22,7	48	700	6,3	1,33	4,5
PE60S3N15W*	Solenoid	Single Acting	380	80	2,24	60	48	700	6,3	1,33	4,5
PE60S4N15W*	Solenoid	Double Acting	380	80	2,24	60	48	700	6,3	1,33	4,5
PE60S3N20W*	Solenoid	Single Acting	380	80	2,24	75	48	700	6,3	1,33	4,5
PE60S4N20W*	Solenoid	Double Acting	380	80	2,24	75	48	700	6,3	1,33	4,5
PE60S3N25W*	Solenoid	Single Acting	380	80	2,24	95	48	700	6,3	1,33	4,5
PE60S4N25W*	Solenoid	Double Acting	380	80	2,24	95	48	700	6,3	1,33	4,5

*Pump is equiped with castors

3-Phase Electric Pumps

380V Electric power



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



Safety Practices
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.

82 pg



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

128 pg



Will be delivered without Hydraulic Oil

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

1 - Product Type

P Pump

2 - Motor Type

E Induction Electric Motor, TEFC

3 - Flow Group

60 6,3 L/Min @ 48 BAR
1,33 L/Min @ 700 BAR, 3.0 Hp

4 - Valve Type/Operation

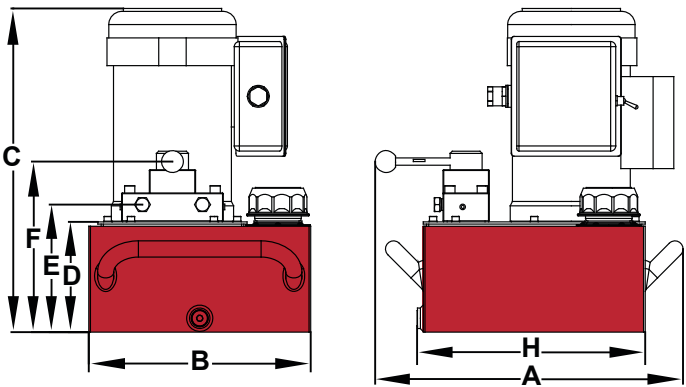
CURM	Pump Mounted Manifold Block - Pressure & Return Ports Only
M2U	Manual Valve 3W/2P
M3U	Manual Valve 3W/3P
M4U	Manual Valve 4W/3P
W3U	Manual Valve 3W/3P w. 3 meter Motor Control Pendant
W4U	Manual Valve 4W/3P w. 3 meter Motor Control Pendant
S3N	Solenoid Valve 3W/3P (Spool Type)
S4N	Solenoid Valve 4W/3P (Spool Type)
S3L	Solenoid Valve 3W/3P (Spool Type and locking plate)
S4L	Solenoid Valve 4W/3P (Spool Type and locking plate)

5 - Reservoir Size

06	6 Gallons / 22.7 L
15	15.8 Gallons / 60L
20	20 Gallons / 80L
25	25 Gallons / 100L

6 - Voltage

W 380-415V 3 ph 50 Hz



Model Number	Dimensions (mm)							Weight (kg)
	A	B	C	D	E	F	H	
380 Volt								
PE60.....06W	542	376	554	224	247	302	429	64
PE60.....15W*	600	640	755	425	445	505	490	87
PE60.....20W*	600	640	865	535	555	615	498	99
PE60.....25W*	650	690	865	535	555	615	540	111

*Pump is equiped with castors

Gas and Diesel Pumps

PG/PD Series - Portable Power



PG70M4U05



PD70M4U10



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



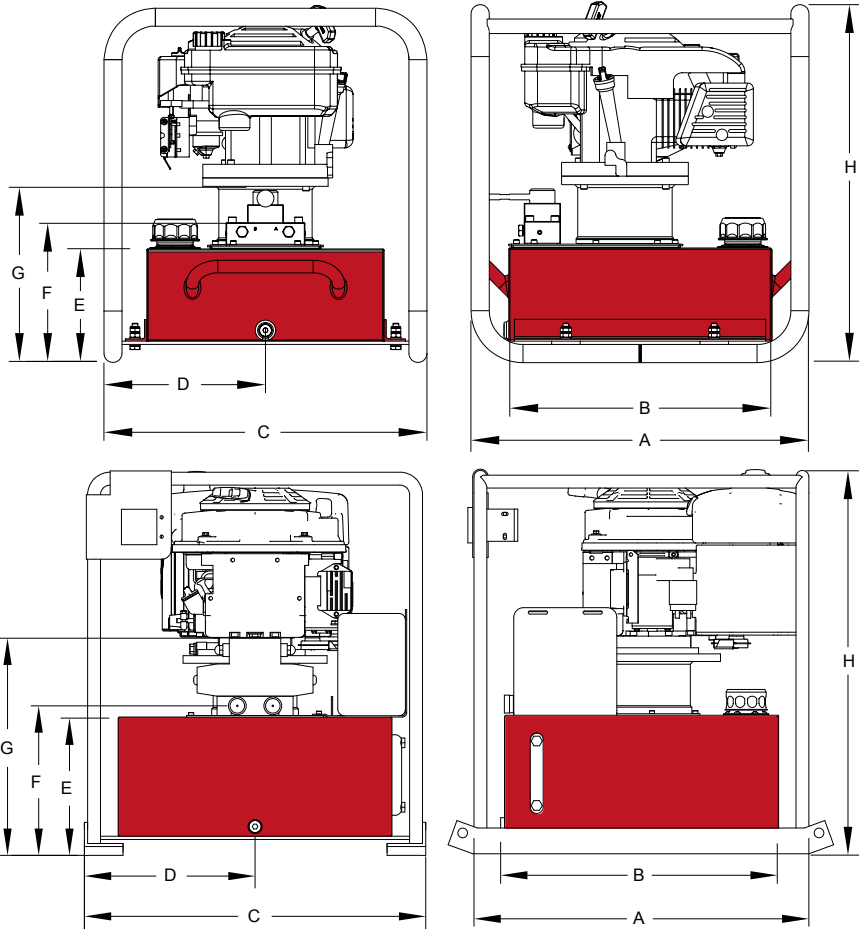
- Diesel engine pumps will provide 10,000 psi at remote locations
- Industrial grade 4.6 hp / 3.5 kN HATZ Diesel engine
- Two speed pump designed for rapid cylinder advance
- Pump features a sturdy protective roll cage for use in the toughest environments
- Ideal for application when diesel fuel in remote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

Valve Function	Valve Type	Motor Type	7.4 Gal / 19.4 L	Flow Rate			
			Model Number	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 (only for Diesel)	12.2 Gal Diesel - 4.6 Hp HATZ	PD70M3U10	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 (only for Diesel)	12.2 Gal Diesel - 4.6 Hp HATZ	PD70M4U10	9.8	48.3	3.3	700



PG70M3U05

PD70M4U10



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

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.



Will be delivered without Hydraulic Oil

Manual Pumps

Air Pumps

Rotary Air Pumps

Electric Pumps

3 Phase Pump

Gas/ Diesel Pumps

Pump& Cylinder Sets

Combinations

Pump and Cylinder Sets

- Each set includes:
- ¼" ID 2 meter Hydraulic Hose.
 - ⅝" High Flow Male Coupler.
 - 63 mm Diameter Wet Gauge.
 - All manual pumps and air powered pumps will be delivered with oil.



Single Acting Cylinder Type	Cylinder				Hand Pump P352	Hand Pump P1000	Hand Pump P2301	Air Pump PA1500
	Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)				
General Purpose Cylinders 	5 Tonne 44 kN	129	H0505	221	SP352-0505	-	-	-
	10 Tonne 99 kN	51	H1002	123	-	SP10-1002	-	SA15-1002
		102	H1004	174	-	SP10-1004	-	SA15-1004
		155	H1006	250	-	SP10-1006	-	SA15-1006
		151	HT1006	291	-	SP10-1006T	-	SA15-1006T
		257	H1010	352	-	SP10-1010	-	SA15-1010
		253	HT1010	393	-	SP10-1010T	-	SA15-1010T
	15 Tonne 139 kN	101	H1504	200	-	SP10-1504	-	SA15-1504
		152	H1506	270	-	SP10-1506	-	SA15-1506
	25 Tonne 228 kN	51	H2502	168	-	SP10-2502	-	SA15-2502
		102	H2504	219	-	SP10-2504	-	SA15-2504
		155	H2506	272	-	SP10-2506	-	SA15-2506
		206	H2508	323	-	-	SP23-2508	SA15-2508
		362	H2514	476	-	-	SP23-2514	SA15-2514
	50 Tonne 487 kN	159	H5506	283	-	-	SP23-5506	SA15-5506
	100 Tonne 911 kN	51	H10002	219	-	-	SP23-10002	-
Flat Body Cylinders 	5 Tonne 49 kN	6	HF0503*	32	SP352-0503F	-	-	-
		6	HF0503B *	32	SP352-0503B	-	-	-
	10 Tonne 104 kN	11	HF1005	43	SP352-1005F	-	-	-
		11	HF1005B	43	SP352-1005B	-	-	-
	20 Tonne 194 kN	11	HF2005	51	SP352-2005F	-	-	-
		11	HF2005B	51	SP352-2005B	-	-	-
	30 Tonne 288 kN	13	HF3005	59	SP352-3005F	-	-	-
		13	HF3005B	59	SP352-3005B	-	-	-
	45 Tonne 437 kN	16	HF5006	67	SP352-5006F	-	-	-
		16	HF5006B	67	SP352-5006B	-	-	-
	75 Tonne 726 kN	16	HF7506	80	SP352-7506F	-	-	-
	90 Tonne 870 kN	16	HF10006	86	SP352-10006F	-	-	-
	150 Tonne 1359 kN	16	HF15006	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							
	Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)				
 Hollow Hole Cylinders	12 Tonne 129 kN	8	HC1201T	60	SP352-1201T	-	-	-
		41	HC1202	121	SP352-1202T	-	-	-
		41	HC1202XT	121	SP352-1202XT	-	-	-
		76	HC1203XT	184	-	SP10-1203XT	-	-
	20 Tonne 217 kN	51	HC2002T	162	-	SP10-2002T	-	SA15-2002T
	30 Tonne 280 kN	64	HC3002T	179	-	SP10-3002T	-	SA15-3002T
		155	HC3006T	331	-	SP10-3006T	-	SA15-3006T
	60 Tonne 578 kN	76	HC6003T	248	-	SP10-6003T	-	SA15-6003T
		152	HC6006T	324	-	-	SP23-6006T	SA15-6006T
	100 Tonne 980 kN	76	HC10003T	254	-	-	SP23-10003T	SA15-10003T
 Low Profile Cylinders	10 Tonne 104 kN	38	HL1001	89	SP352-1001L	SP10-1001L	-	SA15-1001L
	10 Tonne 104 kN	38	HL1001D	89	SP352-1001LD	SP10-1001LD	-	SA15-1001LD
	20 Tonne 194 kN	44	HL2002	99	SP352-2002L	SP10-2002L	-	SA15-2002L
	30Tonne 288 kN	62	HL3002	117	SP352-3002L	SP10-3002L	-	SA15-3002L
	45 Tonne 437 kN	60	HL5002	122	-	SP10-5002L	-	SA15-5002L
	90 Tonne 870 kN	57	HL10002	141	-	SP10-10002L	SP23-10002L	SA15-10002L
 Lock Nut Cylinders	50 Tonne 487 kN	50	HLN5502	165	-	-	SP23-5502LN	SA15-5502LN
		100	HLN5504	213	-	-	SP23-5504LN	SA15-5504LN
		150	HLN5506	264	-	-	SP23-5506LN	SA15-5506LN
 Aluminum Cylinders	30 Tonne 303 kN	50	HU3002T	181	SP352-3002U	-	-	SA15-3002U
		150	HU3006T	281	-	SP10-3006U	-	SA15-3006U
	50 Tonne 487 kN	150	HU5506T	286	-	-	SP23-5006U	SA15-5006U

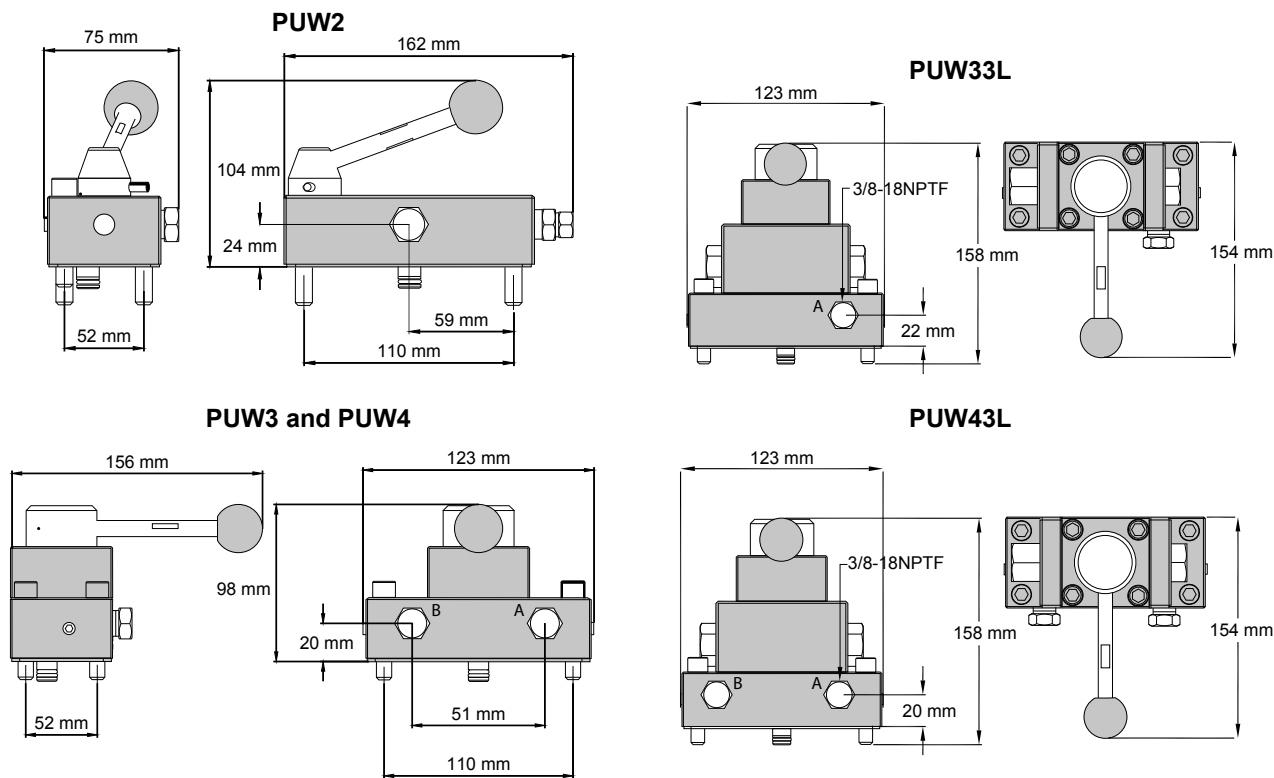
Pump Mounted Valves

For PU, PE, PD and PG pumps



Manometer 3 Ports

By integrating three manometer ports directly into the valve, we've removed the need for external T-junctions and adapters.



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

Solenoid Valves

Pump Mounted

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

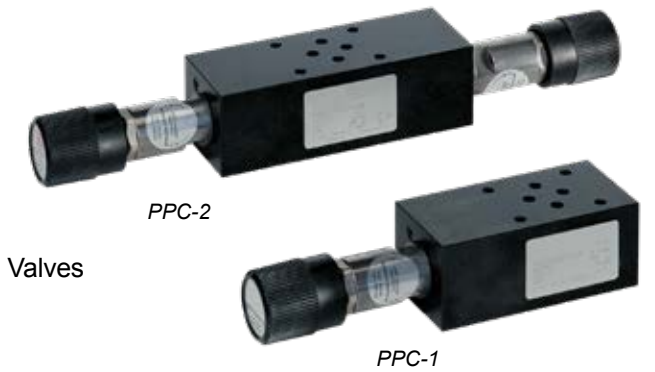


Use With Cylinder	Model Number	Valve Type	Valve Function	Hydraulic Symbol	Schematic Flow path			Weight (kg)
Single Acting	PWS3	Solenoid 196 VDC	Advance/ Hold/ Return					3.4
Double Acting	PWS4	Solenoid 196 VDC	Advance/ Hold/ Return					3.9

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

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	All Electric Pumps



PW-AS3

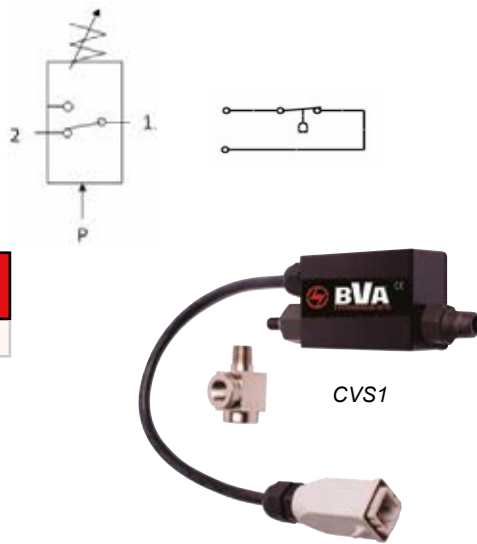
- Pressure can be adjusted externally (70-700 bar)
- Works with single and double acting cylinders

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

Foot Pedals

Single or Double Acting

- 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.)

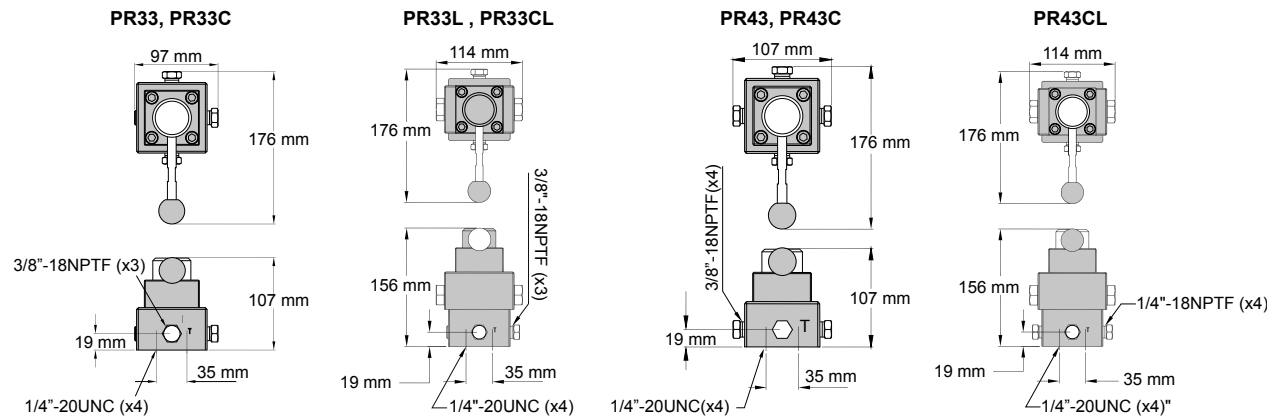


FP1

FP2

Remote Mounted Directional Control Valves

Not to be used with Hand Pumps

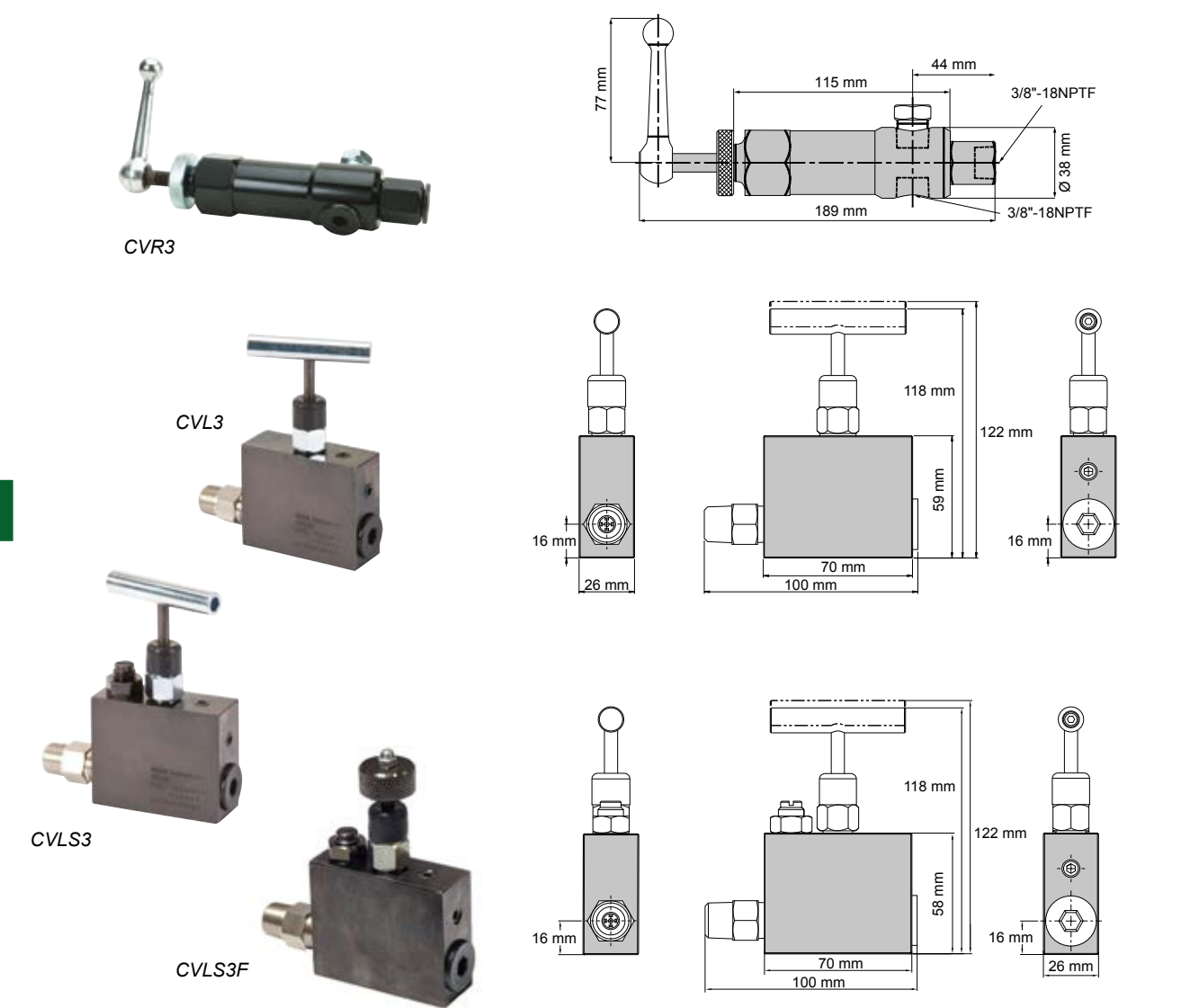


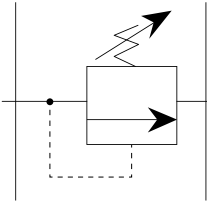
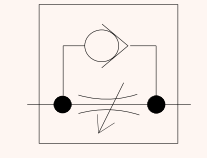
Valve Operation	Valve Type	Use w/ Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path	Weight (kg)
Manual	3-Way, 3 Position, Tandem Center	Single Acting	PR33			1.59
	3-Way, 3 Position, Closed Center		PR33C			1.59
	3-Way, 3 Position, Tandem center, Locking		PR33L			2.59
	3-Way, 3 Position, Closed 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.

Flow Control Valves

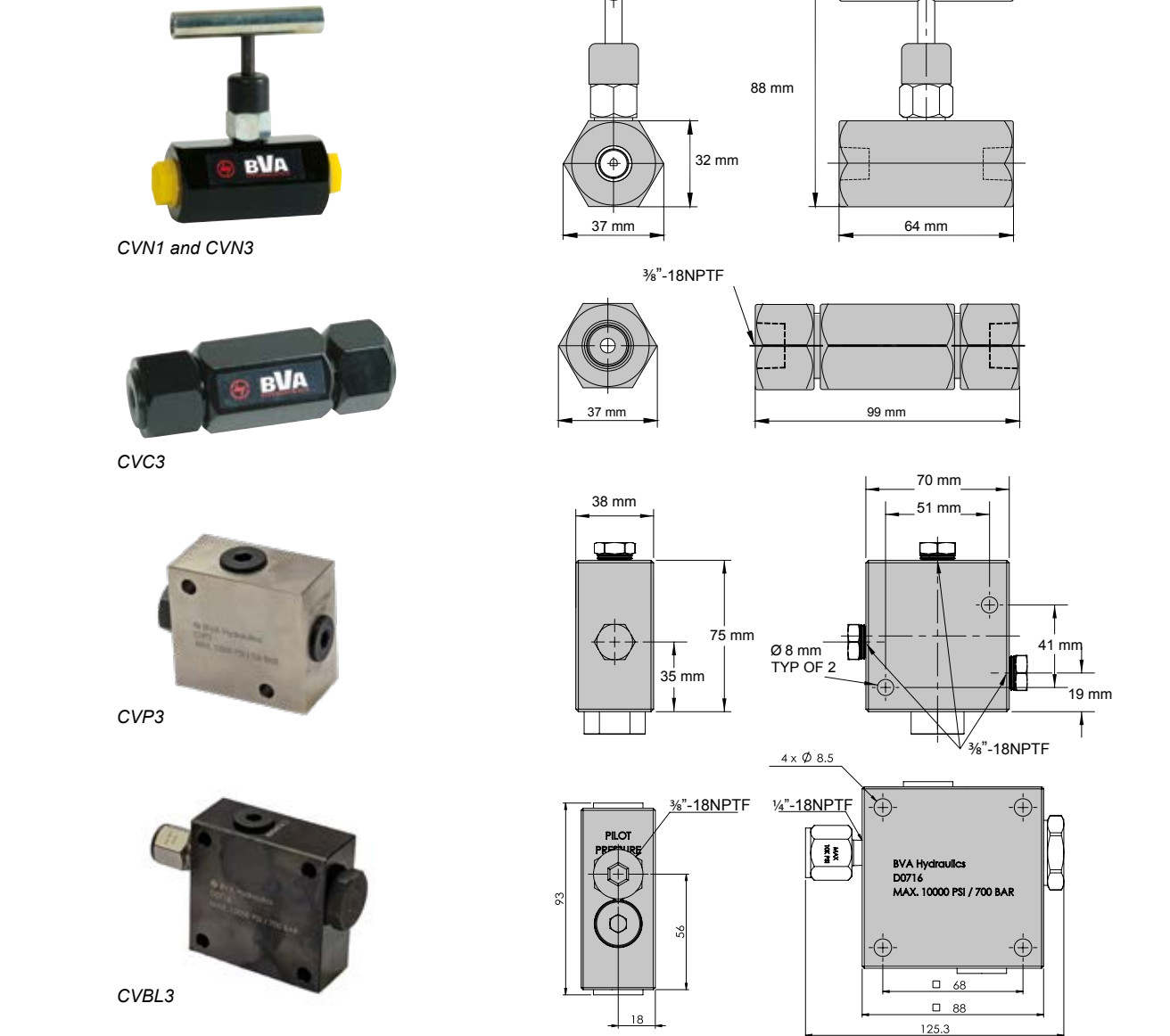
700 BAR Rated

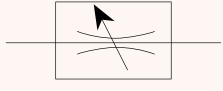
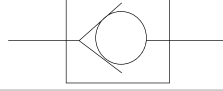
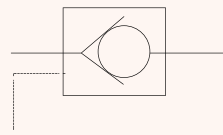
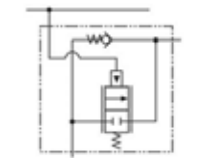


Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Pressure Relief Valve	CVR3	3/8"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurs when preset pressure reaches 0-10,000 PSI. Turn clockwise to increase pressure, counter-clockwise to decrease.	
	CVR3/H	3/8"-18NPTF	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 + CVLS3F	3/8"-18NPTF	This valve regulates the flow of oil back to the tank, allowing the cylinder to retract smoothly and with precision. The built-in relief valve, which is set at 11675 psi (805 Bar), protects the system from overpressure. Note: this valve is not designed for holding a static load.	

Flow Control Valves

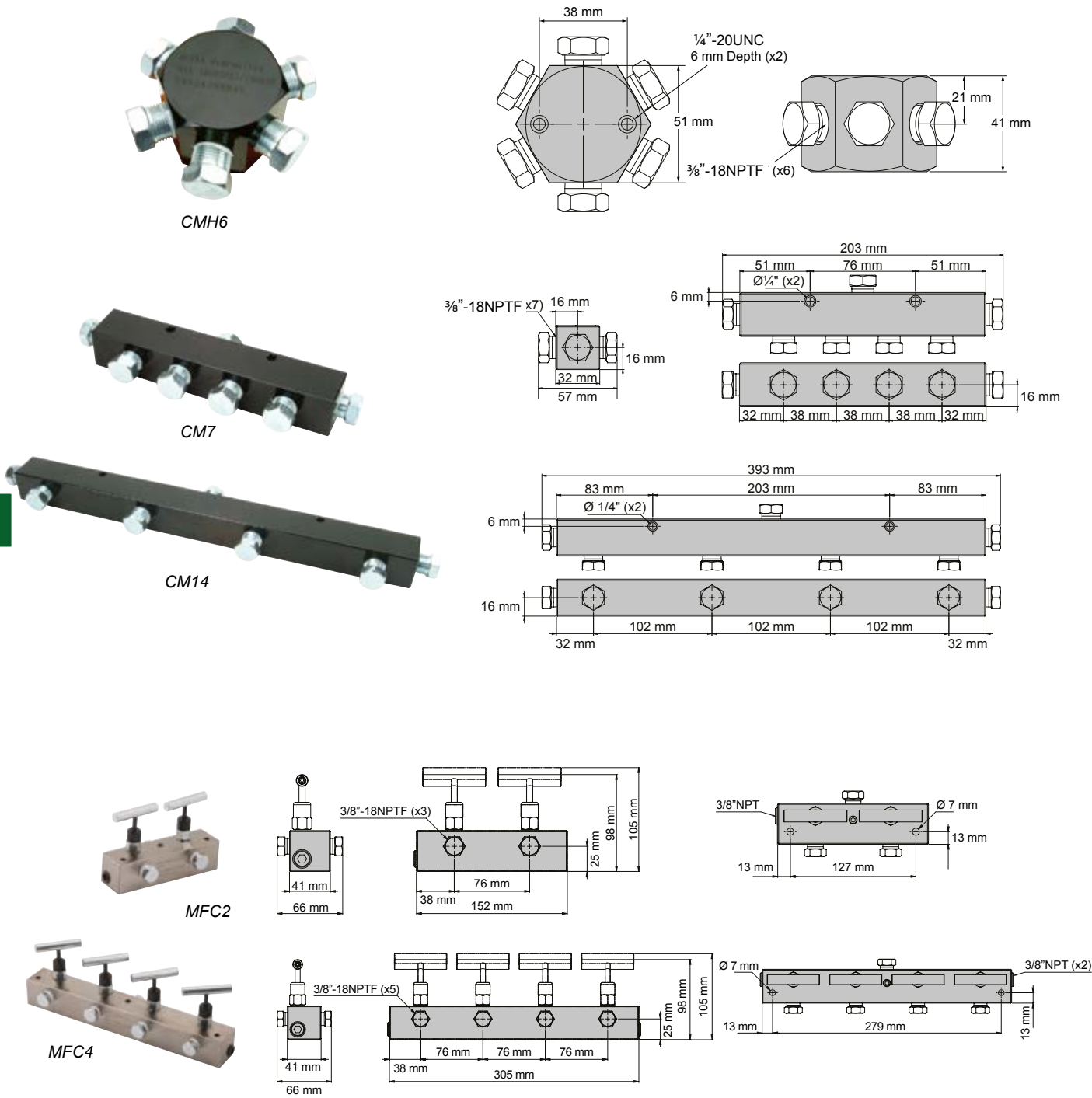
700 BAR Rated



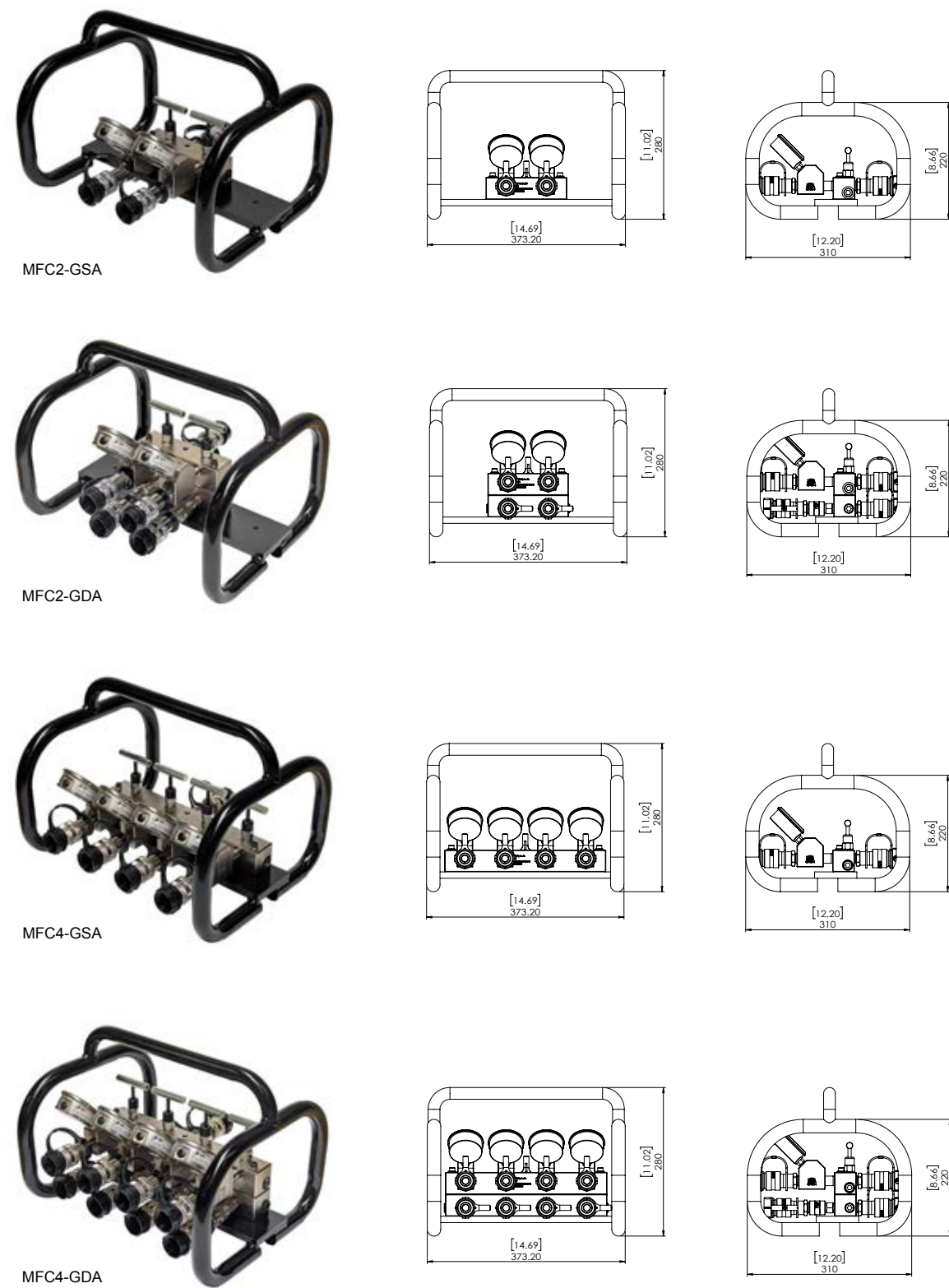
Valve Type	Model Number	Ports	Applications	Hydraulic Symbol
Needle Valve	CVN1	1/4"-18NPTF	Controls cylinder speed and acts as temporary shut-off valve for load holding.	
	CVN3	3/8"-18NPTF		
Check Valve	CVC3	3/8"-18NPTF	Allows flow in one direction only.	
Pilot Operated Check Valve	CVP3	3/8"-18NPTF	Mounted 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	
Counter Balance Valve	CVBL3	3/8"-18NPTF	Designed for fail-safe load holding, this valve mounts directly on the cylinder. It works with double-acting cylinders, using a T-fitting in the cylinder's retract line to provide the necessary pilot pressure. It has 3/8" NPTF female ports and a pilot pressure ratio of 15% or 6.5:1	

Manifolds

700 BAR Rated



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.



Manifold Type	Model Number	Cyl. to connect	Port Size
Split Flow Manifold with Gauges and Frame, for 2 Single Acting Cylinders	MFC2-GSA	2x S/A cylinders	3/8"-18NPTF
Split Flow Manifold with Gauges and Frame, for 2 Double Acting Cylinders	MFC2-GDA	2x D/A cylinders	3/8"-18NPTF
Split Flow Manifold with Gauges and Frame, for 4 Single Acting Cylinders	MFC4-GSA	4x S/A cylinders	3/8"-18NPTF
Split Flow Manifold with Gauges and Frame, for 4 Double Acting Cylinders	MFC4-GDA	4x D/A cylinders	3/8"-18NPTF



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.

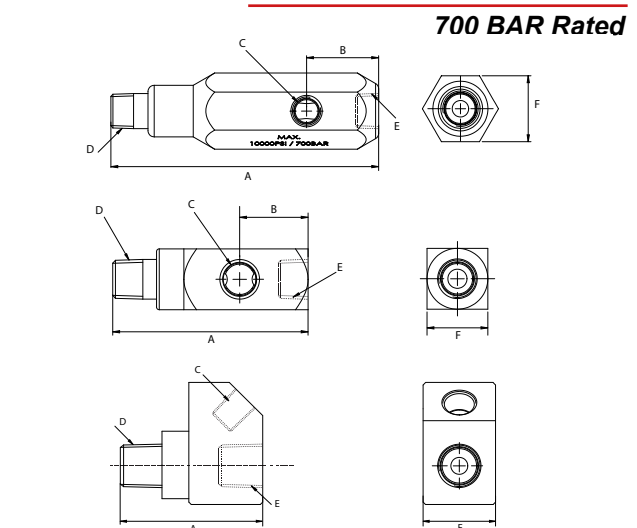
GDL14100T

Model Number	Face Dia. (mm)	Thread (in)	Material	Pressure Range		Graduation				Pressure Unit
				(psi)	(bar)	Major Graduation (psi)	Minor Graduation (psi)	Major Graduation (bar)	Minor Graduation (bar)	
GBW1460T	60	¼"-18 NPTF	Stainless	0-14500	0-1000	1000	500	100	20	BAR/PSI
GBW14100T	100	¼"-18 NPTF	Stainless	0-14500	0-1000	1000	500	100	20	BAR/PSI
GBW12100T	100	½"-18 NPTF	Stainless	0-14500	0-1000	1000	500	100	20	BAR/PSI
GD1480T	80	¼"-18 NPTF	Stainless	0-14500	0-1000	-	1	-	1	BAR/MPa/KGF/cm²
GDL14100T	80	¼"-18 NPTF	Stainless	0-10000	0-700	-	0,1	-	0,1	BAR, PSI, MPa, kN, Tonnage, and many more.



Model Number	Dimensions (mm)					
	A	B	C	D	E	F
CF3814	130	35	¼"-18 NPTF	¾"-18 NPTF	¾"-18 NPTF	32
CF1414E	71	25	¼"-18 NPTF	¼"-18 NPTF	¼"-18 NPTF	23
CF3812	72	31	½"-14 NPTF	¾"-18 NPT	¾"-18 NPT	32
CF3812E	155	35	½"-14 NPTF	¾"-18 NPT	¾"-18 NPT	32
CF4514	78	-	¼"-18 NPTF	¾"-18 NPT	¾"-18 NPT	30
CF3814-45	60	-	¼"-18 NPTF	¾"-18 NPT	¾"-18 NPT	30

Gauge Adapter

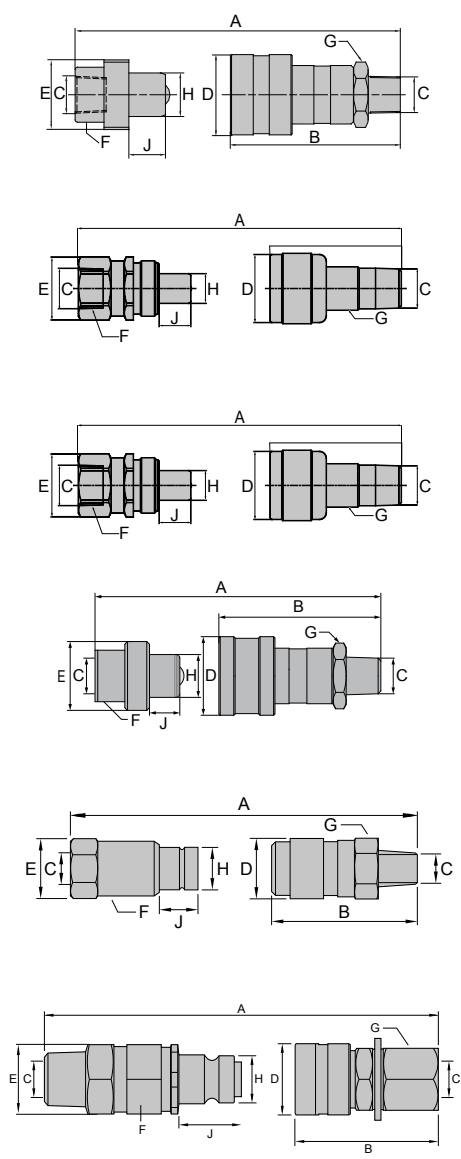


GaugeAdapter Assembly GWK60
Manometer adapter CF3814-45 incl. manometer GBW1460T and female coupler CH38F is also available as set.

GWK60

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	-	¾"-18NPTF	-	25	22	-	15.6	20
5.3	Flat Face Coupler	-	-	CQF38F	116	71	¾"-18NPTF	30	-	-	24	-	-
6	Quick Connection	CQ38	CQ38M	CQ38F	105	61	¾"-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
10	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	¾"-18NPTF	30	27	19	19	12.6	13.5
35	High-Flow Coupler	CH38	CH38M	CH38F	86	72	¾"-18NPTF	35	30	19	25.4	19	16

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



Coupler Dust Cover

- Keeps contaminants out of the system

Model Number	Coupler Compatibility
CDC38	CH38, CH38F, CH38M

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



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"	¾" - 18NPTF	700	2800	50	34	0.5
CS3814-2	200	6.35mm / ¼"	¾" - 18NPTF	700	2800	50	67	0.8
CS3814-3	300	6.35mm / ¼"	¾" - 18NPTF	700	2800	50	100	1.1
CS3814-4	400	6.35mm / ¼"	¾" - 18NPTF	700	2800	50	133	1.3
CS3814-6	600	6.35mm / ¼"	¾" - 18NPTF	700	2800	50	200	1.9
CS3814-10	1000	6.35mm / ¼"	¾" - 18NPTF	700	2800	50	332	3
CS3838-2	200	9.5mm / ¾"	¾" - 18NPTF	700	2800	150	158	0.8

* Available in other lenghts on request

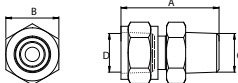
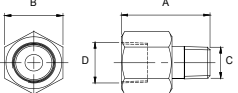
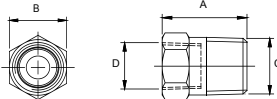
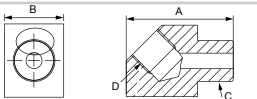
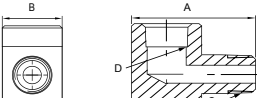
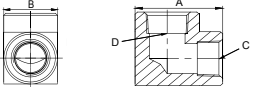
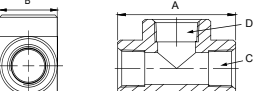
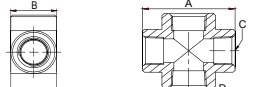
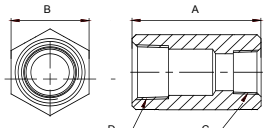
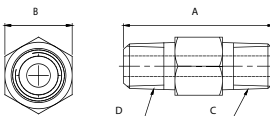
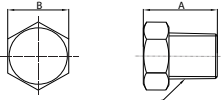
Twin Hoses



Model Number	Length (cm)	I.D. Ø	Hose End Fittings	Operating Pressure (BAR)	Bursting Pressure (BAR)	Bend Radius (mm)	Oil Volume (cc)	Weight (kg)
C2S1414-3MF	3	6.35mm / ¼"	¼"-18NPTF	700	2800	50	200	1,6
C2S1414-4MF	4	6.35mm / ¼"	¼"-18NPTF	700	2800	50	266	1,8
C2S1414-5MF	5	6.35mm / ¼"	¼"-18NPTF	700	2800	50	266	2,0
C2S1414-6MF	6	6.35mm / ¼"	¼"-18NPTF	700	2800	50	400	2,3
C2S1414-10MF	10	6.35mm / ¼"	¼"-18NPTF	700	2800	50	664	3,1

Fittings

700 BAR Rated

Fitting Type		Model Number	Dimensions				Display Image
			A (mm)	B (mm)	C	D	
Adapters							
	Swivel Adapter	FTR38	42	22	Male 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
	Adapter	FT141	50	19	Male 1⁄4"-18NPTF	Female 1⁄4"-14NPTF	
		CA3814	35	23	Male 1⁄4"-18NPTF	Female 3⁄8"-18NPTF	
		FT118	43	29	Male 1⁄4"-18NPTF	Female 1⁄2"-14NPTF	
		FT108	43	29	Male 3⁄8"-18NPTF	Female 1⁄2"-14NPTF	
Bushings/Connectors							
	Bushing	CB1438	22	17	Male 3⁄8"-18NPTF	Female 1⁄4"-18NPTF	
		CB1412	28	22	Male 1⁄2"-14NPTF	Female 1⁄4"-18NPTF	
		CB3812	28	26	Male 1⁄2"-14NPTF	Female 3⁄8"-18NPTF	
	2 way 45° Connector	FT045	48	26	Male 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
	2 way 90° Connector	FT142	36	23	Male 1⁄4"-18NPTF	Female 1⁄4"-18NPTF	
		FT101	46	26	Male 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
	2 way 90° Connector	FT107	48	26	Female 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
	3 Way Connector	FT116	38	22	Female 1⁄4"-18NPTF	Female 1⁄4"-18NPTF	
		FT106	45	26	Female 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
	4 Way Connector	FT105	45	26	Female 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
Couplings							
	Coupling	FT140	29	19	Female 1⁄4"-18NPTF	Female 1⁄4"-18NPTF	
		FT102	30	26	Female 1⁄4"-18NPTF	Female 3⁄8"-18NPTF	
		FT103	30	26	Female 3⁄8"-18NPTF	Female 3⁄8"-18NPTF	
		FT112	48	29	Female 1⁄2"-14NPTF	Female 3⁄8"-18NPTF	
Hex Nipples							
	Hex Nipple	FT104	38	17	Male 1⁄4"-18NPTF	Male 1⁄4"-18NPTF	
		FT124	37	19	Male 1⁄4"-18NPTF	Male 3⁄8"-18NPTF	
		FT114	38	19	Male 3⁄8"-18NPTF	Male 3⁄8"-18NPTF	
Blind Plugs							
	Blind Plug	FTB14	20	14	Male 1⁄4"-18NPTF	-	
		FTB38	23	19	Male 3⁄8"-18NPTF	-	

Valves

Hydraulic Oil

Pressure Adjust-ment

Foot Pedal

Remote Controle Valves

Flow Control Valves

Manifolds

Mano-Meters Adapters

Couplers

Hoses

Fittings

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.

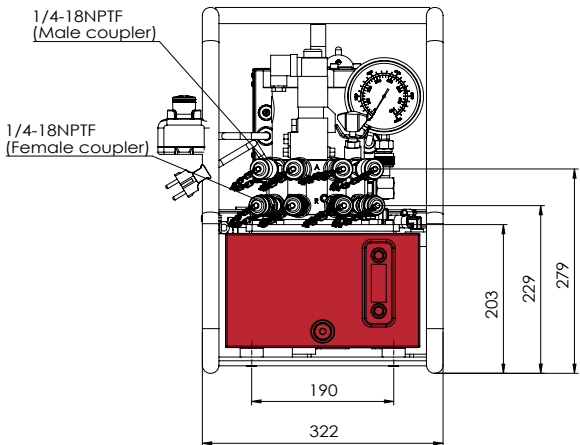
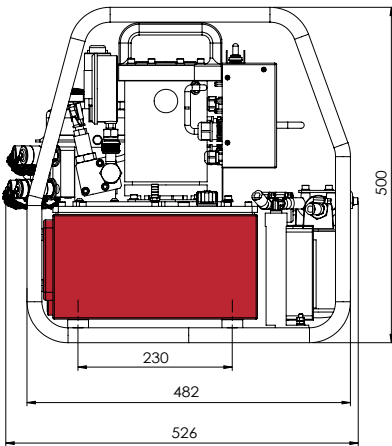


PU55T4W025C



PU55T4W025C-HR

Model Number	Usable Oil Capacity (Liter)	Output Flow Rate (L / Min)			Motor Voltage	Pump Dimension (mm)	Current Draw @10,000 PSI (Amp)	Noise Level (dBA)	Weight (w/Oil, kg.)
		48 BAR	450 BAR	700 BAR					
PU55T1W01B	3,8	7,2	1,3	1,1	120VAC, 50/60HZ	369x238x418	23	90	28
PU55T1W01C	3,8	7,2	1,2	1	240VAC, 50/60HZ		11	90	28
PU55T1W025B-HR	9,4	7,2	1,3	1,1	120VAC, 50/60HZ	526x322x500	23	90	36
PU55T1W025C-HR	9,4	7,2	1,2	1	240VAC, 50/60HZ		11	90	36
PU55T1W025B	9,4	7,2	1,3	1,1	120VAC, 50/60HZ	404x265x455	23	90	29
PU55T1W025C	9,4	7,2	1,2	1	240VAC, 50/60HZ		11	90	29
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



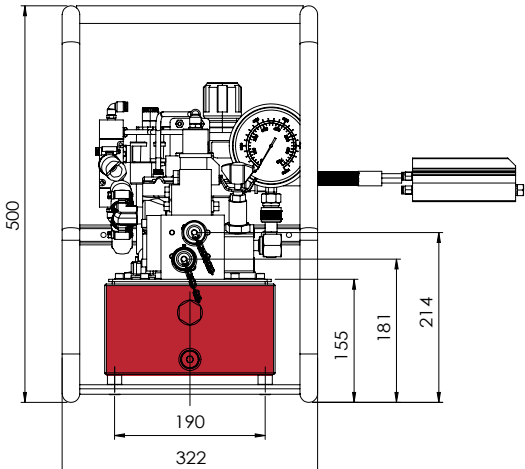
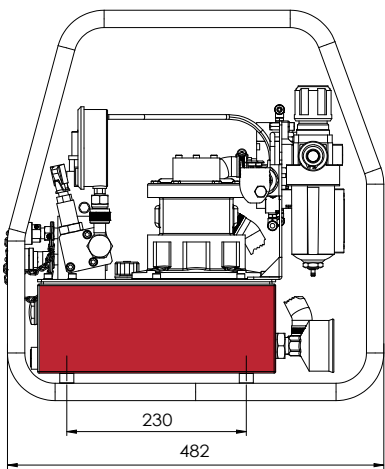
Torque Wrench Air Pump

- 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.
- Heat exchanger and roll cage included.
- Including lubricator on the air inlet.



PAR60T1W01-HR

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



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

Will be delivered without Hydraulic Oil

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.

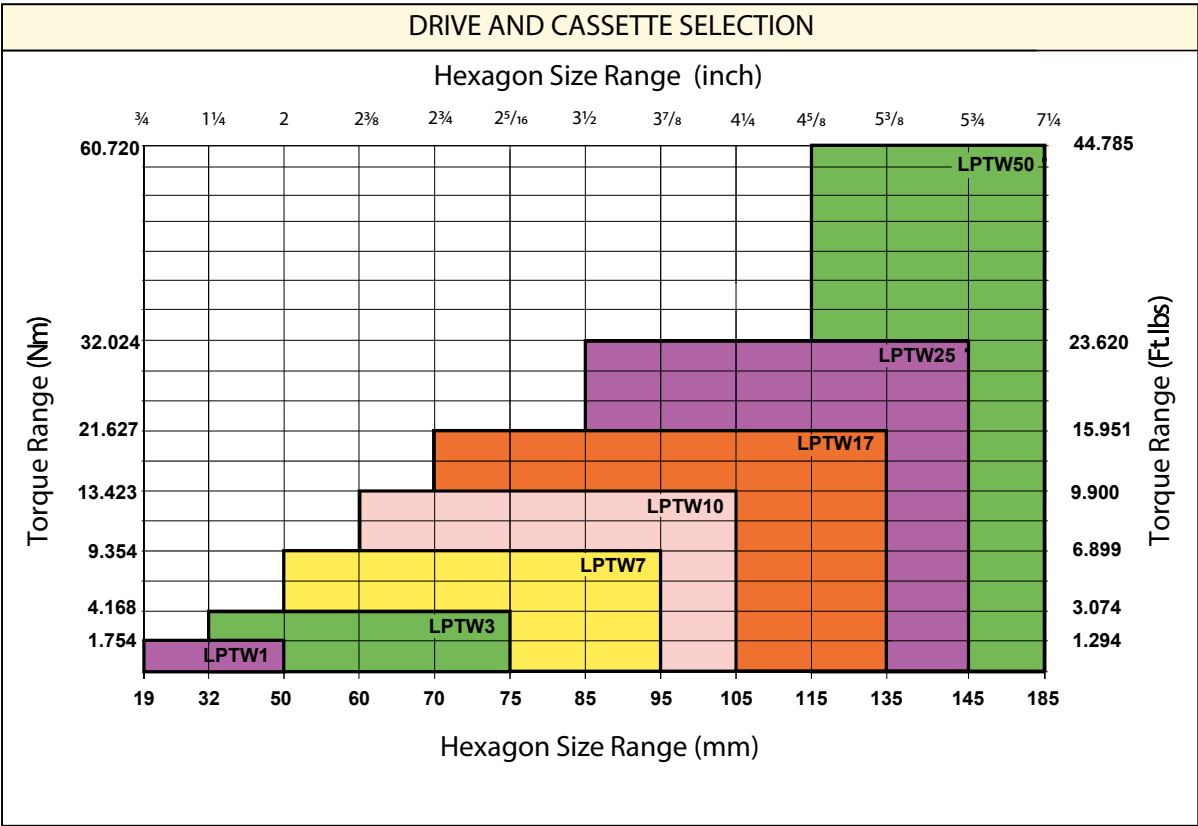
CE II 2G Ex h IIC T4 Gb
II 2D Ex h T110°C Db

Torque Wrench Hoses

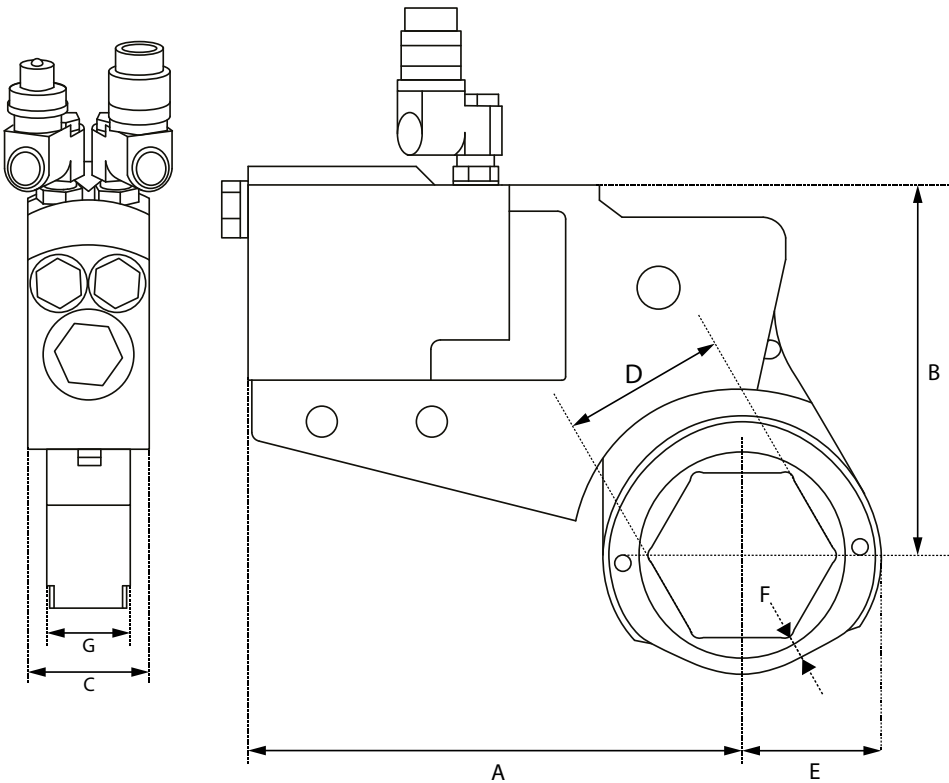
BVA Torque Wrench hoses are equipped with couplers.



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



Low Profile Hydraulic Torque Wrench



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	3/4"-2"	117	1.294	159	1.754	159	102	28	24	19 - 51	3,3
LPTW3	32 - 75	1 1/4"-2 3/8"	294	3.074	399	4.168	178	146	37	30	32 - 75	4,2
LPTW7	50 - 95	2"-3 3/8"	667	6.899	904	9.354	235	159	38	38	51 - 95	6,4
LPTW10	60 - 105	2 3/8"-4 1/4"	990	9.900	1.342	13.423	248	203	50	50	60 - 105	11,1
LPTW17	70 - 135	2 3/4"-5 3/8"	1.513	15.951	2.051	21.627	286	235	50	62	70 - 135	19,1
LPTW25	85 - 145	3 1/2"-5 3/4"	2.260	23.620	3.064	32.024	286	235	74	75	86 - 145	25,9
LPTW50	115 - 185	4 5/8"-7 1/4"	3.475	44.785	4.711	60.720	391	267	74	75	115 - 185	38,6

* More dimensions see next page

Cassettes Metric



Drive unit Part No.	A	B	C	D	E	F	G	Cassette Part No.	Description
LPTW1 1754 Nm	159	102	28	19	27	10	24	LPTWC1-19	Cassette Head 19mm
	159	102	28	27	30	9	24	LPTWC1-27	Cassette Head 27mm
	159	102	28	32	33	9	24	LPTWC1-32	Cassette Head 32mm
	159	102	28	36	36	9	24	LPTWC1-36	Cassette Head 36mm
	159	102	28	38	36	9	24	LPTWC1-38	Cassette Head 38mm
	159	102	28	41	38	9	24	LPTWC1-41	Cassette Head 41mm
	159	102	28	46	41	9	24	LPTWC1-46	Cassette Head 46mm
	159	102	28	50	44	9	24	LPTWC1-50	Cassette Head 50mm
LPTW3 4168 Nm	178	146	37	32	35	9	27	LPTWC3-32	Cassette Head 32mm
	178	146	37	36	37	9	27	LPTWC3-36	Cassette Head 36mm
	178	146	37	41	40	9	27	LPTWC3-41	Cassette Head 41mm
	178	146	37	46	43	10	27	LPTWC3-46	Cassette Head 46mm
	178	146	37	50	45	10	27	LPTWC3-50	Cassette Head 50mm
	178	146	37	55	48	10	30	LPTWC3-55	Cassette Head 55mm
	178	146	37	60	50	10	30	LPTWC3-60	Cassette Head 60mm
	178	146	37	65	54	12	30	LPTWC3-65	Cassette Head 65mm
	178	146	37	70	57	12	30	LPTWC3-70	Cassette Head 70mm
	178	146	37	75	60	12	30	LPTWC3-75	Cassette Head 75mm
LPTW7 9354 Nm	235	159	38	50	46	12	38	LPTWC7-50	Cassette Head 50mm
	235	159	38	55	48	12	38	LPTWC7-55	Cassette Head 55mm
	235	159	38	60	51	12	38	LPTWC7-60	Cassette Head 60mm
	235	159	38	65	55	12	38	LPTWC7-65	Cassette Head 65mm
	235	159	38	70	61	14	38	LPTWC7-70	Cassette Head 70mm
	235	159	38	75	65	13	38	LPTWC7-75	Cassette Head 75mm
	235	159	38	80	67	16	38	LPTWC7-80	Cassette Head 80mm
	235	159	38	85	72	16	38	LPTWC7-85	Cassette Head 85mm
	235	159	38	90	75	16	38	LPTWC7-90	Cassette Head 90mm
	235	159	38	95	77	16	38	LPTWC7-95	Cassette Head 95mm
LPTW10 13423 Nm	248	203	50	60	51	11	50	LPTWC10-60	Cassette Head 60mm
	248	203	50	65	55	12	50	LPTWC10-65	Cassette Head 65mm
	248	203	50	70	61	14	50	LPTWC10-70	Cassette Head 70mm
	248	203	50	75	65	13	50	LPTWC10-75	Cassette Head 75mm
	248	203	50	80	67	16	50	LPTWC10-80	Cassette Head 80mm
	248	203	50	85	72	24	50	LPTWC10-85	Cassette Head 85mm
	248	203	50	90	75	24	50	LPTWC10-90	Cassette Head 90mm
	248	203	50	95	78	24	50	LPTWC10-95	Cassette Head 95mm
	248	203	50	100	80	24	50	LPTWC10-100	Cassette Head 100mm
	248	203	50	105	83	24	50	LPTWC10-105	Cassette Head 105mm
LPTW17 21627 Nm	286	235	50	70	64	23	62	LPTWC17-70	Cassette Head 70mm
	286	235	50	75	67	23	62	LPTWC17-75	Cassette Head 75mm
	286	235	50	80	69	25	62	LPTWC17-80	Cassette Head 80mm
	286	235	50	85	74	25	62	LPTWC17-85	Cassette Head 85mm



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

Cassettes Metric



Drive unit Part No.	A	B	C	D	E	F	G	Cassette Part No.	Description
LPTW17 21627 Nm	286	235	50	90	77	25	62	LPTWC17-90	Cassette Head 90mm
	286	235	50	95	81	26	62	LPTWC17-95	Cassette Head 95mm
	286	235	50	100	83	26	62	LPTWC17-100	Cassette Head 100mm
	286	235	50	105	85	26	62	LPTWC17-105	Cassette Head 105mm
	286	235	50	110	88	26	62	LPTWC17-110	Cassette Head 110mm
	286	235	50	115	91	25	62	LPTWC17-115	Cassette Head 115mm
	286	235	50	120	95	26	62	LPTWC17-120	Cassette Head 120mm
	286	235	50	123	98	26	62	LPTWC17-123	Cassette Head 123mm
	286	235	50	125	99	26	62	LPTWC17-125	Cassette Head 125mm
	286	235	50	130	102	26	62	LPTWC17-130	Cassette Head 130mm
	286	235	50	135	104	26	62	LPTWC17-135	Cassette Head 135mm
LPTW25 32024 Nm	286	235	74	85	74	24	75	LPTWC25-85	Cassette Head 85mm
	286	235	74	90	77	25	75	LPTWC25-90	Cassette Head 90mm
	286	235	74	95	81	26	75	LPTWC25-95	Cassette Head 95mm
	286	235	74	100	83	25	75	LPTWC25-100	Cassette Head 100mm
	286	235	74	105	83	25	75	LPTWC25-105	Cassette Head 105mm
	286	235	74	110	88	25	75	LPTWC25-110	Cassette Head 110mm
	286	235	74	115	91	25	75	LPTWC25-115	Cassette Head 115mm
	286	235	74	120	95	25	75	LPTWC25-120	Cassette Head 120mm
	286	235	74	123	96	25	75	LPTWC25-123	Cassette Head 123mm
	286	235	74	125	98	25	75	LPTWC25-125	Cassette Head 125mm
	286	235	74	130	101	25	75	LPTWC25-130	Cassette Head 130mm
	286	235	74	135	104	26	75	LPTWC25-135	Cassette Head 135mm
LPTW50 60720 Nm	286	235	74	140	107	27	75	LPTWC25-140	Cassette Head 140mm
	286	235	74	145	110	28	75	LPTWC25-145	Cassette Head 145mm
	391	267	74	115	100	33	75	LPTWC50-115	Cassette Head 115mm
	391	267	74	120	102	33	75	LPTWC50-120	Cassette Head 120mm
	391	267	74	123	103	33	75	LPTWC50-123	Cassette Head 123mm
	391	267	74	125	105	33	75	LPTWC50-125	Cassette Head 125mm
	391	267	74	130	108	33	75	LPTWC50-130	Cassette Head 130mm
	391	267	74	135	110	33	75	LPTWC50-135	Cassette Head 135mm
	391	267	74	140	113	33	75	LPTWC50-140	Cassette Head 140mm
	391	267	74	145	116	32	75	LPTWC50-145	Cassette Head 145mm
	391	267	74	150	119	32	75	LPTWC50-150	Cassette Head 150mm
	391	267	74	151	119	32	75	LPTWC50-151	Cassette Head 151mm
	391	267	74	155	121	32	75	LPTWC50-155	Cassette Head 155mm
	391	267	74	160	124	32	75	LPTWC50-160	Cassette Head 160mm
	391	267	74	165	127	32	75	LPTWC50-165	Cassette Head 165mm
	391	267	74	170	130	32	75	LPTWC50-170	Cassette Head 170mm
	391	267	74	175	133	32	75	LPTWC50-175	Cassette Head 175mm
	391	267	74	185	138	32	75	LPTWC50-185	Cassette Head 185mm

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.
- Custom reaction arm available on request.



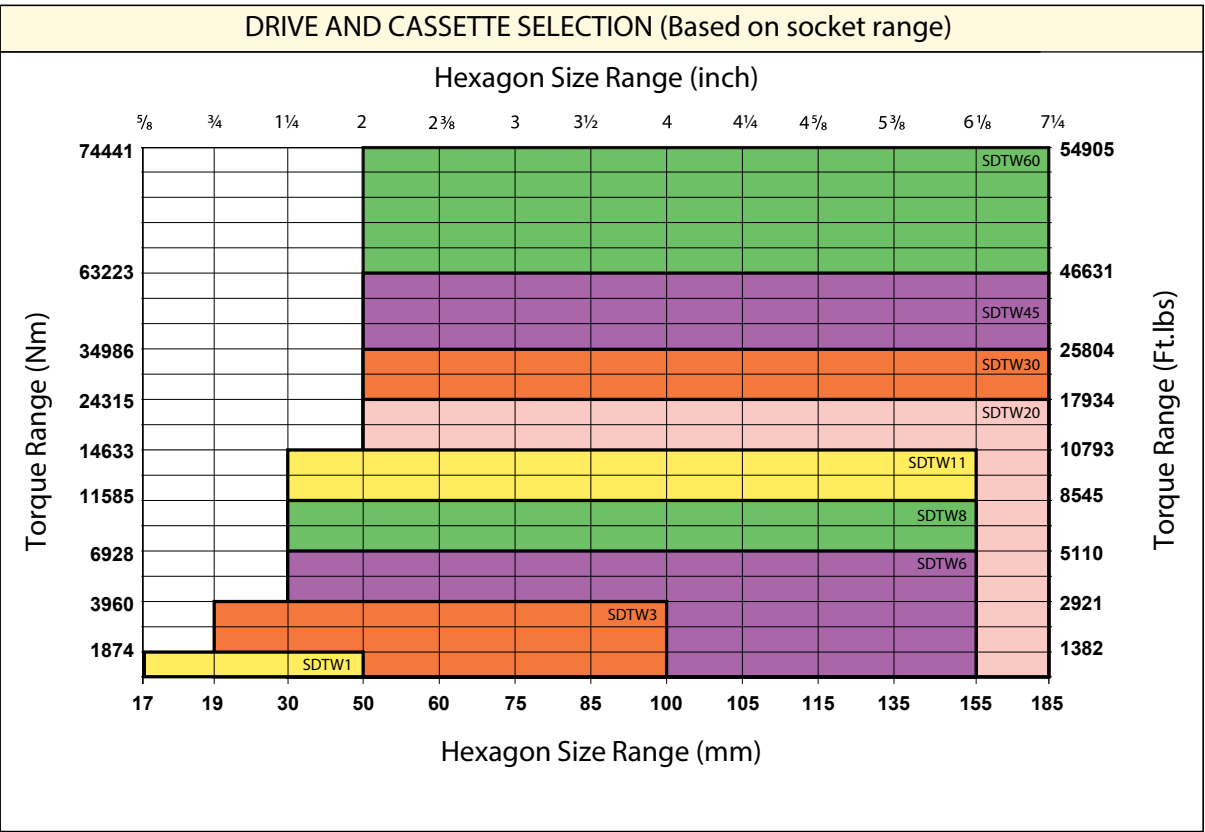
CE II 2G Ex h IIC T4 Gb
II 2D Ex h T110°C Db

Torque Wrench Hoses

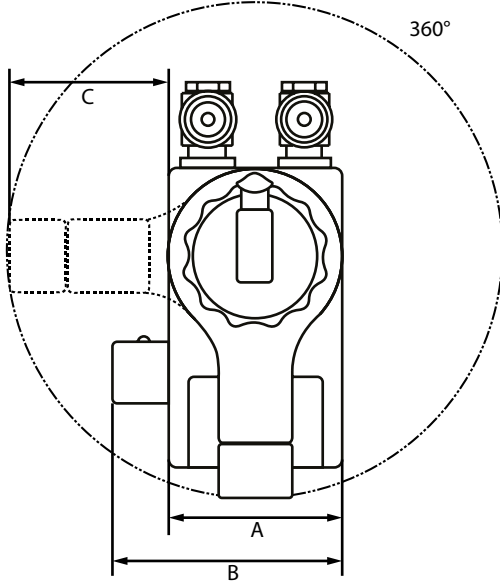
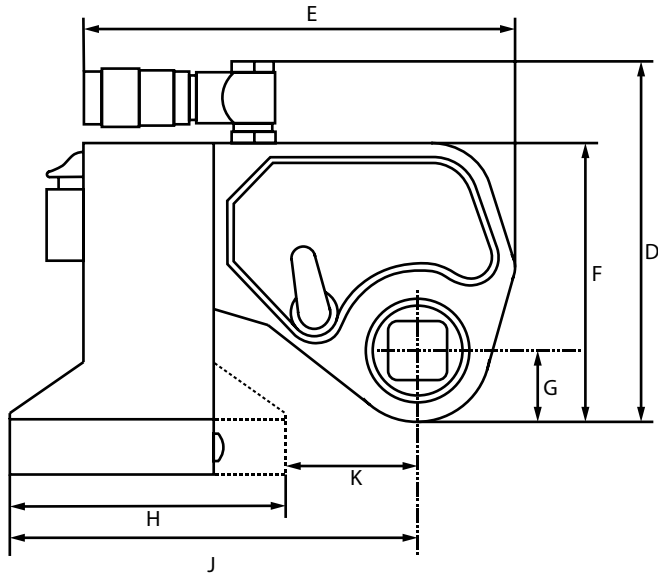
BVA Torque Wrench hoses are equipped with couplers.



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



Square Drive Hydraulic Torque Wrench



Our Recommendation

This combination kitt work well with this pump.



PU55T4W025C-HR

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	2½"	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	3/4"	20	450	300	270	78	77	18	54	4,9
BTW600	3/4"	40	600	300	270	78	77	9	27	4,39
BTW800	3/4"	50	800	300	270	78	77	9	27	5,2
BTW1500	3/4" (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

Battery Powered Torque Wrench

BTWS Series

- High torque performance and precision
- Torque range from 20 to 6000 Nm
- Up to 60 pre-selectable torque settings
- With auto stop function
- Brushless motor
- Safe working due to the free wheel between drive & gearbox which ensures no twisting of the torque wrench.
- High performance battery 18V, 5.2Ah

- Optional**
- Offset Gearbox
 - Special reaction arms



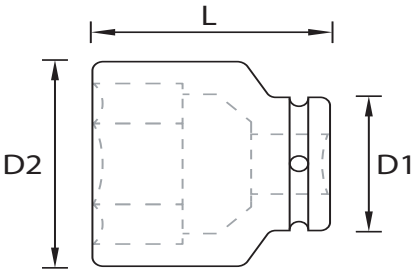
Model	Square Drive	Min. Torque (Nm)	Max. Torque (Nm)	Length A (mm)	Height B (mm)	Diameter C (mm)	Diameter D (mm)	Idle Speed Gear 1 (rpm)	Idle Speed Gear 2 (rpm)	Weight Without Reaction Arm (kg)
BTWS450	3/4"	20	450	305	260	74	77	17	152	5,1
BTWS800	3/4"	50	800	315	260	74	77	8	74	5,4
BTWS1500	3/4" or 1"	100	1500	350	260	74	77	4,6	37	6,3
BTWS3000	1"	200	3000	360	260	74	77	2,5	19,7	6,4
BTWS4000	1" or 1 1/2"	300	4000	395	260	74	90	2,0	17	8,7
BTWS6000	1 1/2"	500	6000	425	260	74	102	1,1	9,3	11,2

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.



Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD34-1116	1 1/16"	BSD34-17	17	3/4"	44	31	51	0,35
BSD34-34	3/4"	BSD34-19	19	3/4"	44	33	51	0,38
BSD34-78	7/8"	BSD34-22	22	3/4"	44	37	51	0,38
BSD34-1516	1 5/16"	BSD34-24	24	3/4"	44	39	51	0,38
BSD34-1	1"			3/4"	44	40	51	0,40
BSD34-118	1 1/8"	BSD34-27	27	3/4"	44	43	55	0,41
		BSD34-30	30	3/4"	44	47	55	0,43
		BSD34-32	32	3/4"	44	49	57	0,48
BSD34-114	1 1/4"			3/4"	44	49	57	0,48
		BSD34-33	33	3/4"	44	51	57	0,51
BSD34-138	1 3/8"	BSD34-36	36	3/4"	44	54	57	0,55
BSD34-1716	1 7/16"			3/4"	44	55	57	0,58
BSD34-112	1 1/2"			3/4"	44	56	58	0,62
BSD34-158	1 5/8"	BSD34-41	41	3/4"	44	61	58	0,68
BSD34-11116	1 11/16"			3/4"	44	63	63	0,68
BSD34-134	1 3/4"			3/4"	44	66	63	0,78
		BSD34-46	46	3/4"	44	67	63	0,85
BSD34-178	1 7/8"			3/4"	54	69	70	0,95
		BSD34-50	50	3/4"	54	71	70	0,96
BSD34-200	2"			3/4"	54	72	70	0,99
		BSD34-55	55	3/4"	54	78	75	1,07
		BSD34-60	60	3/4"	54	84	80	1,36
BSD34-238	2 3/8"			3/4"	54	84	80	1,43



Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD100-34	3/4"	BSD100-19	19	1"	54	35	58	0,63
BSD100-78	7/8"	BSD100-22	22	1"	54	39	58	0,66
BSD100-1	1"	BSD100-24	24	1"	54	42	60	0,62
		BSD100-27	27	1"	54	46	60	0,65
BSD100-118	1 1/8"			1"	54	47	60	0,68
		BSD100-30	30	1"	54	50	62	0,69
BSD100-114	1 1/4"	BSD100-32	32	1"	54	52	63	0,68
		BSD100-33	33	1"	54	54	63	0,69
BSD100-138	1 3/8"			1"	54	56	67	0,79
		BSD100-36	36	1"	54	57	67	0,79
BSD100-112	1 1/2"			1"	54	59	67	0,82
BSD100-158	1 5/8"	BSD100-41	41	1"	54	63	70	0,95
BSD100-134	1 3/4"			1"	54	68	75	1,02
		BSD100-46	46	1"	54	69	75	1,12
BSD100-178	1 7/8"			1"	54	72	75	1,21
		BSD100-50	50	1"	54	75	80	1,36
BSD100-200	2"			1"	54	76	80	1,40
BSD100-218	2 1/8"			1"	54	80	85	1,70
		BSD100-55	55	1"	54	81	85	1,74
BSD100-214	2 1/4"			1"	54	85	85	1,88
BSD100-238	2 3/8"	BSD100-60	60	1"	54	87	91	1,80
BSD100-212	2 1/2"			1"	54	92	95	2,00
		BSD100-65	65	1"	54	93	95	2,10
BSD100-258	2 5/8"			1"	58	95	95	2,28
BSD100-234	2 3/4"	BSD100-70	70	1"	58	100	98	2,27
BSD100-278	2 7/8"			1"	58	104	104	2,90
		BSD100-75	75	1"	58	106	104	2,87
BSD100-300	3"			1"	58	108	104	3,04
BSD100-318	3 1/8"	BSD100-80	80	1"	58	113	108	3,42
BSD100-314	3 1/4"			1"	69	116	108	3,24
		BSD100-85	85	1"	69	118	108	3,46
BSD100-338	3 3/8"			1"	69	119	108	3,27
BSD100-312	3 1/2"			1"	69	123	110	3,85
		BSD100-90	90	1"	69	124	110	4,36
BSD100-334	3 3/4"			1"	84	129	115	4,00
		BSD100-95	95	1"	84	129	115	4,40
		BSD100-100	100	1"	84	136	118	4,50

Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD112-1	1"			1 1/2"	84	51	80	1,98
BSD112-118	1 1/8"			1 1/2"	84	54	80	1,98
		BSD112-30	30	1 1/2"	84	56	80	2,07
BSD112-114	1 1/4"	BSD112-32	32	1 1/2"	84	59	80	2,13
		BSD112-33	33	1 1/2"	84	60	80	2,13
BSD112-138	1 3/8"			1 1/2"	84	62	80	2,10
		BSD112-36	36	1 1/2"	84	64	80	2,30
BSD112-112	1 1/2"			1 1/2"	84	65	84	2,30
BSD112-158	1 5/8"	BSD112-41	41	1 1/2"	84	70	84	2,29
BSD112-134	1 3/4"			1 1/2"	84	75	84	2,40
		BSD112-46	46	1 1/2"	84	76	84	2,40
BSD112-178	1 7/8"			1 1/2"	84	78	84	2,40
		BSD112-50	50	1 1/2"	84	81	87	2,40
BSD112-200	2"			1 1/2"	84	82	87	2,42
BSD112-218	2 1/8"			1 1/2"	84	84	90	2,60
		BSD112-55	55	1 1/2"	86	87	90	2,52
BSD112-214	2 1/4"			1 1/2"	86	90	90	2,90
BSD112-238	2 3/8"	BSD112-60	60	1 1/2"	86	93	95	3,03
BSD112-212	2 1/2"			1 1/2"	86	98	100	3,30
		BSD112-65	65	1 1/2"	86	99	100	3,38
BSD112-258	2 5/8"			1 1/2"	86	102	105	3,80
BSD112-234	2 3/4"	BSD112-70	70	1 1/2"	86	106	105	4,00
BSD112-278	2 7/8"			1 1/2"	86	110	110	4,40
		BSD112-75	75	1 1/2"	86	112	110	4,60
BSD112-300	3"			1 1/2"	86	113	110	4,90
BSD112-318	3 1/8"	BSD112-80	80	1 1/2"	86	119	115	5,30
BSD112-314	3 1/4"			1 1/2"	86	122	120	6,00
BSD112-338	3 3/8"	BSD112-85	85	1 1/2"	86	125	120	5,67
BSD112-312	3 1/2"			1 1/2"	86	130	126	6,70
		BSD112-90	90	1 1/2"	86	131	126	6,04
BSD112-358	3 5/8"			1 1/2"	86	134	126	7,00
BSD112-334	3 3/4"	BSD112-95	95	1 1/2"	96	137	130	8,30
BSD112-378	3 7/8"			1 1/2"	96	142	130	8,48
		BSD112-100	100	1 1/2"	96	143	130	8,63
BSD112-400	4"			1 1/2"	96	147	130	9,10
		BSD112-105	105	1 1/2"	96	149	130	9,40
BSD112-414	4 1/4"			1 1/2"	96	155	140	9,97
		BSD112-110	110	1 1/2"	96	157	140	10,00
BSD112-438	4 3/8"			1 1/2"	96	160	140	10,30
BSD112-412	4 1/2"	BSD112-115	115	1 1/2"	96	163	140	10,60
BSD112-458	4 5/8"			1 1/2"	96	166	140	11,00
BSD112-434	4 3/4"	BSD112-120	120	1 1/2"	96	168	140	11,20
BSD112-478	4 7/8"			1 1/2"	96	174	140	11,50
		BSD112-125	125	1 1/2"	96	175	140	11,80
BSD112-500	5"			1 1/2"	96	177	150	12,30
BSD112-518	5 1/8"	BSD112-130	130	1 1/2"	96	180	150	12,90
BSD112-514	5 1/4"	BSD112-135	135	1 1/2"	108	186	150	13,60
BSD112-538	5 3/8"			1 1/2"	108	189	150	14,00
BSD112-512	5 1/2"	BSD112-140	140	1 1/2"	108	192	150	15,00
		BSD112-145	145	1 1/2"	108	198	150	17,20
BSD112-534	5 3/4"			1 1/2"	108	200	150	17,40
BSD112-578	5 7/8"	BSD112-150	150	1 1/2"	108	203	158	18,00
BSD112-600	6"			1 1/2"	108	206	158	18,45
BSD112-618	6 1/8"	BSD112-155	155	1 1/2"	108	209	158	19,00

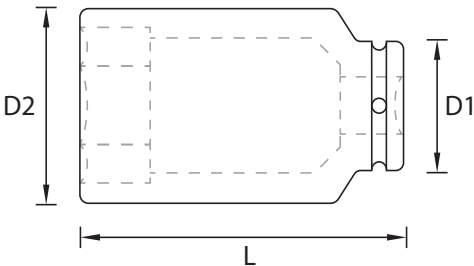
Inch sizes		Metric sizes						
Cod.		Cod.		Drive	D1	D2	L	kg
	inch		mm	inch	mm	mm	mm	
		BSD212-50	50	2"½	127	91	130	9,22
		BSD212-55	55	2"½	127	96	130	9,22
		BSD212-60	60	2"½	127	100	130	9,30
BSD212-2916	2"⅞	BSD212-65	65	2"½	127	105	135	9,30
BSD212-258	2"⅝			2"½	127	108	135	9,30
BSD212-234	2"¾	BSD212-70	70	2"½	127	112	135	9,30
BSD212-21516	2"⅟16	BSD212-75	75	2"½	127	118	140	9,31
BSD212-300	3"			2"½	127	119	140	9,30
BSD212-318	3"⅞	BSD212-80	80	2"½	127	124	145	9,28
BSD212-314	3"¼			2"½	127	128	150	9,30
BSD212-338	3"⅜	BSD212-85	85	2"½	127	130	150	9,30
BSD212-312	3"½			2"½	127	136	155	10,40
		BSD212-90	90	2"½	127	137	155	10,55
BSD212-334	3"¾	BSD212-95	95	2"½	127	143	155	10,80
BSD212-378	3"⅞			2"½	127	148	160	11,00
		BSD212-100	100	2"½	127	149	160	11,10
BSD212-400	4"			2"½	127	151	160	11,30
BSD212-418	4"⅞	BSD212-105	105	2"½	127	155	160	12,10
BSD212-414	4"¼			2"½	127	160	165	12,80
		BSD212-110	110	2"½	127	162	165	13,00
BSD212-438	4"⅜			2"½	127	164	165	13,30
BSD212-412	4"½			2"½	127	168	170	13,60
		BSD212-115	115	2"½	127	168	170	13,90
BSD212-458	4"⅝			2"½	140	171	170	15,20
BSD212-434	4"¾	BSD212-120	120	2"½	140	174	170	16,90
		BSD212-125	125	2"½	140	180	170	17,50
BSD212-500	5"			2"½	140	184	175	21,50
		BSD212-130	130	2"½	140	187	175	21,50
BSD212-518	5"⅞			2"½	140	187	175	22,00
BSD212-514	5"¼			2"½	140	191	175	22,50
		BSD212-135	135	2"½	140	193	175	22,50
BSD212-538	5"⅜			2"½	140	196	180	23,00
BSD212-512	5"½	BSD212-140	140	2"½	140	199	180	23,00
		BSD212-145	145	2"½	140	205	180	24,00
BSD212-534	5"¾			2"½	140	206	180	25,00
		BSD212-150	150	2"½	140	212	185	24,50
BSD212-600	6"			2"½	140	215	195	30,00
BSD212-618	6"⅞	BSD212-155	155	2"½	140	217	195	29,00
BSD212-614	6"¼			2"½	140	223	200	30,50
		BSD212-160	160	2"½	140	224	200	31,00
BSD212-612	6"½	BSD212-165	165	2"½	140	230	200	32,00
		BSD212-170	170	2"½	140	237	205	32,50
BSD212-634	6"¾			2"½	140	239	205	33,00
		BSD212-175	175	2"½	178	243	210	34,50
BSD212-700	7"			2"½	178	248	210	35,50
BSD212-718	7"⅞	BSD212-180	180	2"½	178	249	210	41,40
BSD212-714	7"¼			2"½	178	254	215	47,00
		BSD212-185	185	2"½	178	255	215	42,30
		BSD212-190	190	2"½	178	262	220	43,60
BSD212-712	7"½			2"½	178	263	220	48,00

Impact Sockets Long

- 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.



Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD34-1116L	1 1/16"	BSD34-17L	17	3/4"	44	30,5	100	0,60
BSD34-34L	3/4"	BSD34-19L	19	3/4"	44	33	100	0,61
BSD34-78L	7/8"	BSD34-22L	22	3/4"	44	36,5	100	0,70
BSD34-1516L	1 5/16"	BSD34-24L	24	3/4"	44	39	100	0,72
BSD34-1L	1"			3/4"	44	40	100	0,75
BSD34-118L	1 1/8"	BSD34-27L	27	3/4"	44	43	100	0,75
		BSD34-30L	30	3/4"	44	46,5	100	0,83
		BSD34-32L	32	3/4"	44	49	100	0,89
BSD34-114L	1 1/4"			3/4"	44	49	100	0,89
		BSD34-33L	33	3/4"	44	51	100	0,99
BSD34-138L	1 3/8"	BSD34-36L	36	3/4"	44	54	100	1,04
BSD34-1716L	1 7/16"			3/4"	44	55	100	1,04
BSD34-112L	1 1/2"			3/4"	44	56	100	1,27
BSD34-158L	1 5/8"	BSD34-41L	41	3/4"	44	61	100	1,27
BSD34-11116L	1 11/16"			3/4"	44	63	100	1,34
BSD34-134L	1 3/4"			3/4"	44	66	100	1,53
		BSD34-46L	46	3/4"	44	67	100	1,50
BSD34-178L	1 7/8"			3/4"	54	69	100	2,27
		BSD34-50L	50	3/4"	54	71	100	1,34
BSD34-200L	2"			3/4"	54	72	100	2,50
		BSD34-55L	55	3/4"	54	78	100	1,53
		BSD34-60L	60	3/4"	54	84	110	2,27
BSD34-238L	2 3/8"			3/4"	54	84	100	2,75

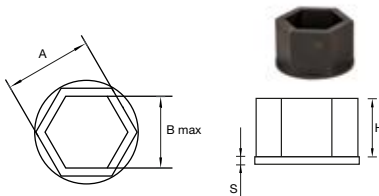


Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD100-34L	3/4"	BSD100-19L	19	1"	54	35	100	0,88
BSD100-78L	7/8"	BSD100-22L	22	1"	54	39	100	0,88
BSD100-1L	1"	BSD100-24L	24	1"	54	42	100	0,89
		BSD100-27L	27	1"	54	46	100	0,89
BSD100-118L	1 1/8"			1"	54	47	110	1,07
		BSD100-30L	30	1"	54	50	100	1,15
BSD100-114L	1 1/4"	BSD100-32L	32	1"	54	52	100	1,17
		BSD100-33L	33	1"	54	54	100	1,19
BSD100-138L	1 3/8"			1"	54	56	110	1,25
		BSD100-36L	36	1"	54	57	100	1,18
BSD100-112L	1 1/2"			1"	54	59	110	1,32
BSD100-158L	1 5/8"	BSD100-41L	41	1"	54	63	100	1,41
BSD100-134L	1 3/4"			1"	54	68	110	1,85
		BSD100-46L	46	1"	54	69	115	1,85
BSD100-178L	1 7/8"			1"	54	71,5	110	2,00
		BSD100-50L	50	1"	54	75	115	2,22
BSD100-200L	2"			1"	54	76	115	2,30
BSD100-218L	2 1/8"			1"	54	80	115	2,60
		BSD100-55L	55	1"	54	81	115	2,67
BSD100-214L	2 1/4"			1"	54	85	115	2,80
BSD100-238L	2 3/8"	BSD100-60L	60	1"	54	87	125	2,90
BSD100-212L	2 1/2"			1"	54	92	125	3,55
		BSD100-65L	65	1"	54	93	125	3,63
BSD100-258L	2 5/8"			1"	58	95	125	3,70
BSD100-234L	2 3/4"	BSD100-70L	70	1"	58	100	135	3,83
BSD100-278L	2 7/8"			1"	58	104	135	4,42
		BSD100-75L	75	1"	58	106	135	4,80
BSD100-300L	3"			1"	58	108	135	4,82
BSD100-318L	3 1/8"	BSD100-80L	80	1"	58	113	135	5,15
BSD100-314L	3 1/4"			1"	69	116	140	5,31
		BSD100-85L	85	1"	69	118	140	5,90
BSD100-338L	3 3/8"			1"	69	119	140	5,50
BSD100-312L	3 1/2"			1"	69	123	140	5,75
		BSD100-90L	90	1"	69	124	140	5,74
BSD100-334L	3 3/4"			1"	84	129	140	5,83
		BSD100-95L	95	1"	84	129	140	5,83
		BSD100-100L	100	1"	84	136	150	6,00

Impact Sockets Long

Inch sizes		Metric sizes		Drive	D1	D2	L	kg
Cod.	 inch	Cod.	 mm					
BSD112-138L	1 3/8"			1 1/2"	84	62	130	3,61
		BSD112-36L	36	1 1/2"	84	64	150	3,61
BSD112-112L	1 1/2"			1 1/2"	84	65	130	3,86
BSD112-158L	1 5/8"	BSD112-41L	41	1 1/2"	84	70	150	3,70
BSD112-134L	1 3/4"			1 1/2"	84	75	130	3,70
		BSD112-46L	46	1 1/2"	84	76	150	3,90
BSD112-178L	1 7/8"			1 1/2"	84	78	130	3,80
		BSD112-50L	50	1 1/2"	84	81	150	3,90
BSD112-200L	2"			1 1/2"	84	82	150	3,90
BSD112-218L	2 1/8"			1 1/2"	84	84	150	4,00
		BSD112-55L	55	1 1/2"	86	87	150	4,10
BSD112-214L	2 1/4"			1 1/2"	86	90	150	4,40
BSD112-238L	2 3/8"	BSD112-60L	60	1 1/2"	86	93	150	4,70
BSD112-212L	2 1/2"			1 1/2"	86	98	150	4,90
		BSD112-65L	65	1 1/2"	86	99	150	4,90
BSD112-258L	2 5/8"			1 1/2"	86	102	170	6,10
BSD112-234L	2 3/4"	BSD112-70L	70	1 1/2"	86	106	170	6,40
BSD112-278L	2 7/8"			1 1/2"	86	110	170	6,80
		BSD112-75L	75	1 1/2"	86	112	170	6,90
BSD112-300L	3"			1 1/2"	86	113	170	7,60
BSD112-318L	3 1/8"	BSD112-80L	80	1 1/2"	86	119	170	7,60
BSD112-314L	3 1/4"			1 1/2"	86	122	180	9,20
BSD112-338L	3 3/8"	BSD112-85L	85	1 1/2"	86	125	180	9,40
BSD112-312L	3 1/2"			1 1/2"	86	130	180	9,90
		BSD112-90L	90	1 1/2"	86	131	180	10,00
BSD112-358L	3 5/8"			1 1/2"	86	134	190	10,30
BSD112-334L	3 3/4"	BSD112-95L	95	1 1/2"	96	137	190	12,10
BSD112-378L	3 7/8"			1 1/2"	96	142	190	12,40
		BSD112-100L	100	1 1/2"	96	143	190	12,60
BSD112-400L	4"			1 1/2"	96	147	190	12,80
		BSD112-105L	105	1 1/2"	96	149	190	13,20
BSD112-414L	4 1/4"			1 1/2"	96	155	200	14,70
		BSD112-110L	110	1 1/2"	96	157	200	14,50
BSD112-438L	4 3/8"			1 1/2"	96	160	200	14,88
BSD112-412L	4 1/2"	BSD112-115L	115	1 1/2"	96	163	200	15,10
BSD112-458L	4 5/8"			1 1/2"	96	166	200	15,50
BSD112-434L	4 3/4"	BSD112-120L	120	1 1/2"	96	168	200	16,00
BSD112-478L	4 7/8"			1 1/2"	96	174	200	16,14
		BSD112-125L	125	1 1/2"	96	175	200	17,10
BSD112-500L	5"			1 1/2"	96	177	210	17,84
BSD112-518L	5 1/8"	BSD112-130L	130	1 1/2"	96	180	210	18,60
BSD112-514L	5 1/4"	BSD112-135L	135	1 1/2"	108	186	210	19,50
BSD112-538L	5 3/8"			1 1/2"	108	189	210	19,60
BSD112-512L	5 1/2"	BSD112-140L	140	1 1/2"	108	192	210	21,50
		BSD112-145L	145	1 1/2"	108	198	210	21,50
BSD112-534L	5 3/4"			1 1/2"	108	200	210	20,60
BSD112-578L	5 7/8"	BSD112-150L	150	1 1/2"	108	203	210	22,30
BSD112-600L	6"			1 1/2"	108	206	210	22,70
BSD112-618L	6 1/8"	BSD112-155L	155	1 1/2"	108	209	210	23,30

Hexagon Reducers

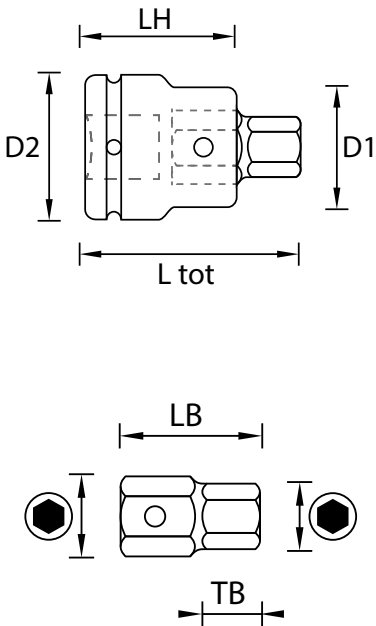


Model Number	A (mm)	B (mm)	H (mm)	S (mm)
BR-HEX36-...	36	32	25	3
BR-HEX41-...	41	36	25	3
BR-HEX46-...	46	41	25	3
BR-HEX50-...	50	46	28	3
BR-HEX55-...	55	50	35	3
BR-HEX60-...	60	55	35	3
BR-HEX65-...	65	60	35	3
BR-HEX70-...	70	65	40	3
BR-HEX75-...	75	70	40	3
BR-HEX80-...	80	75	40	3
BR-HEX85-...	85	80	40	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
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
BR-HEX114-...	1 1/4"	1 3/16"	25	3
BR-HEX138-...	1 3/8"	1 5/16"	25	3
BR-HEX112-...	1 1/2"	1 7/16"	25	3
BR-HEX158-...	1 5/8"	1 9/16"	25	3
BR-HEX134-...	1 3/4"	1 11/16"	25	3
BR-HEX178-...	1 7/8"	1 13/16"	30	3
BR-HEX2116-...	2 1/16"	2"	30	3
BR-HEX21116-...	2 1/16"	2 1/8"	35	3
BR-HEX21316-...	2 13/16"	2 1/4"	35	3
BR-HEX212-...	2 1/2"	2 7/16"	35	3
BR-HEX258-...	2 5/8"	2 9/16"	35	3
BR-HEX21516-...	2 15/16"	2 3/4"	40	3
BR-HEX3-...	3"	2 15/16"	40	3
BR-HEX314-...	3 1/4"	3 3/8"	40	3
BR-HEX312-...	3 1/2"	3 3/8"	50	3
BR-HEX378-...	3 7/8"	3 3/4"	50	3
BR-HEX418-...	4 1/8"	4"	55	3
BR-HEX412-...	4 1/2"	4 1/4"	65	3
BR-HEX434-...	4 3/4"	4 5/8"	75	3
BR-HEX518-...	5 1/8"	5"	80	3
BR-HEX538-...	5 3/8"	5 1/8"	80	3
BR-HEX618-...	6 1/8"	5 3/8"	85	3

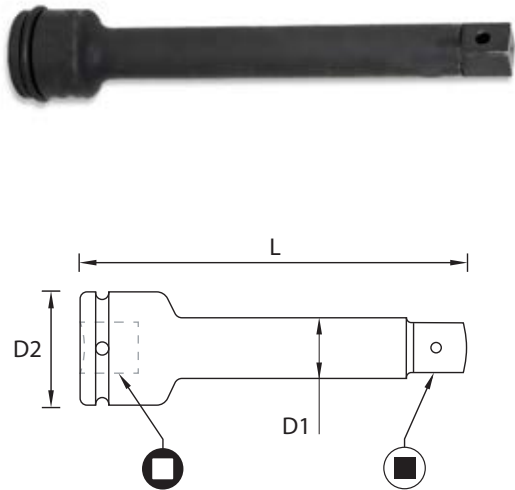
Hexagon Impact Sockets



Model Number		Drive	LH	D1	D2	L		LB	TB		
	mm	inch	mm	mm	mm	mm	inch	mm	mm	Model Number Holder	Model Number Insert
BSD34-12M	12	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-12AM
BSD34-14M	14	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-14AM
BSD34-17M	17	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-17AM
BSD34-19M	19	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-19AM
BSD34-22M	22	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-22AM
BSD34-24M	24	3/4"	54	44	44	82	7/8"	50	26	BSD34-78A	B78A-24AM
BSD100-17M	17	1"	60	46	54	88	7/8"	50	26	BSD100-78A	B78A-17AM
BSD100-19M	19	1"	60	46	54	88	7/8"	50	26	BSD100-78A	B78A-19AM
BSD100-22M	22	1"	60	46	54	88	7/8"	50	26	BSD100-78A	B78A-22AM
BSD100-24M	24	1"	60	46	54	88	7/8"	50	26	BSD100-78A	B78A-24AM
BSD100-27M	27	1"	70	64	58	110	1 1/2"	72	32	BSD100-112A	B112A-27AM
BSD100-30M	30	1"	70	64	58	115	1 1/2"	76	36	BSD100-112A	B112A-30AM
BSD100-32M	32	1"	70	64	58	115	1 1/2"	78	38	BSD100-112A	B112A-32AM
BSD100-36M	36	1"	70	64	58	120	1 1/2"	82	42	BSD100-112A	B112A-36AM
BSD112-27M	27	1 1/2"	90	70	85	125	1 1/2"	72	32	BSD112-112A	B112A-27AM
BSD112-30M	30	1 1/2"	90	70	85	130	1 1/2"	76	36	BSD112-112A	B112A-30AM
BSD112-32M	32	1 1/2"	90	70	85	130	1 1/2"	78	38	BSD112-112A	B112A-32AM
BSD112-36M	36	1 1/2"	90	70	85	135	1 1/2"	82	42	BSD112-112A	B112A-36AM
BSD112-41M	41	1 1/2"	90	70	85	140	1 1/2"	88	46	BSD112-112A	B112A-41AM
BSD112-46M	46	1 1/2"	90	70	85	155	1 1/2"	92	48	BSD112-112A	B112A-46AM



Extensions Bar

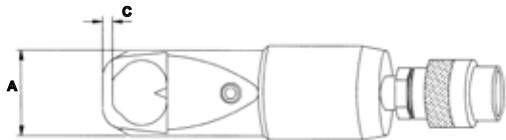
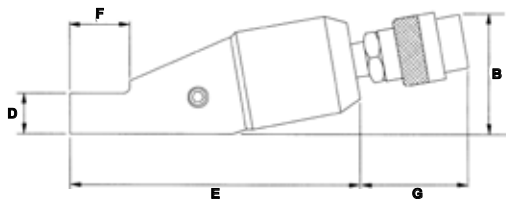


Model Number			D1	D2	L
	Female Drive	Male Drive	mm	mm	mm
BSD34-7	3/4"	3/4"	25	44	175
BSD34-10	3/4"	3/4"	25	44	250
BSD34-13	3/4"	3/4"	25	44	330
BSD100-7	1"	1"	30	54	175
BSD100-10	1"	1"	30	54	250
BSD100-13	1"	1"	30	54	330
BSD112-10	1 1/2"	1 1/2"	45	85	250
BSD112-15	1 1/2"	1 1/2"	45	85	380
BSD112-18	1 1/2"	1 1/2"	45	85	455
BSD212-12	2 1/2"	2 1/2"	75	127	305
BSD212-18	2 1/2"	2 1/2"	75	127	455
BSD212-24	2 1/2"	2 1/2"	75	127	610

Hydraulic Nut Splitter

Compact and Heavy Duty

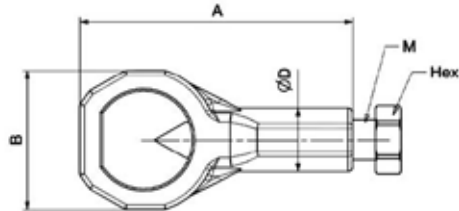
- Spacers include a straight chisel with a 60/40 angle, and works on all type of materials, including stainless steel
- Chisel can be sharpened multiple times
- The aluminum flight case is available either with or without a set of four spare blades.



Capacity (Tonne)	Mod. No. with 4 Spare Blades	Mod. No. with no Spare Blade	Bolt Range	Hexagon Nut Range (mm)	Oil Capacity (cc)	Dimensions (mm)							Replacement Blade Mod. No.	Weight (kg)
						A	B	C	D	E	F	G		
5	HNS05T	HNS05TS	M6-M12	13-19	11	40	48	6	19	119	28	99	HNSB05T	1
10	HNS10T	HNS10TS	M12-M16	19-24	17	55	71	8	25	153	38	60	HNSB10T	2
15	HNS15T	HNS15TS	M16-M22	24-32	40	66	76	10	31	173	49	60	HNSB15T	3,0
20	HNS20T	HNS20TS	M22-M27	32-41	62	75	89	15	35	213	66	60	HNSB20T	4,4
35	HNS35T	HNS35TS	M27-M33	41-50	123	96	109	18	45	244	73	60	HNSB35T	8,2
50	HNS50T	HNS50TS	M33-M39	50-60	191	106	126	18	54	298	88	60	HNSB50T	12
90	HNS90T	HNS90TS	M39-M48	60-75	650	156	181	20	72	350	111	60	HNSB90T	34

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

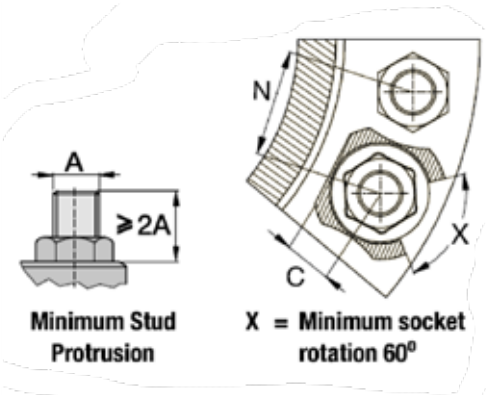
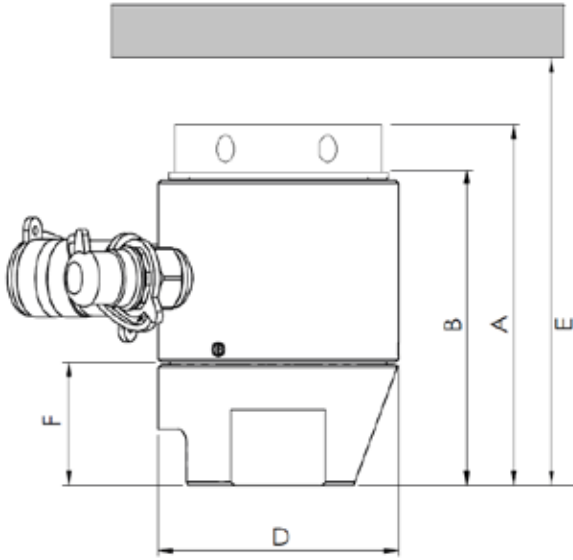
1500 Bar Bolt Tensioner



- Six Load cells from M16 to M95 or from 5/8"-11UN to 3 3/4"-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	Stroke	Thread Size	Bridge Model Number / Cylinder Effective Area (mm) / Max Load Capacity	Dimensions							Bridge Weight	Load Cell Weight
				A	B	C	D	E	F	N		
	(mm)		(kN)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)	(kg)
TB401 Hydraulic Topside Bolt Tensioner M16~M30												
TB401-01620	10	M16 x 2	TB401 1508 mm² 226,2 kN	135	113	27	86	243	44	57	3,4	1,7
TB401-01825	10	M18 x 2.5		135	113	27	86	243	44	58	3,4	1,6
TB401-02025	10	M20 x 2.5		135	113	27	86	243	44	59	3,4	1,5
TB401-02430	10	M24 x 3		135	113	27	86	243	44	61	3,4	1,4
TB401-02730	10	M27 x 3		135	113	27	86	243	44	64	3,4	1,3
TB401-03035	10	M30 x 3.5		135	113	27	86	243	44	66	3,4	1,2
TB401-0625U11	10	5/8" 11UN		135	113	27	86	243	44	57	3,4	1,7
TB401-0750U10	10	5/8" 11UN		135	113	27	86	243	44	59	3,4	1,5
TB401-0875U09	10	7/8" 9UN		135	113	27	86	243	44	62	3,4	1,4
TB401-1000U08	10	1" 8UN		135	113	27	86	243	44	64	3,4	1,3
TB401-1125U08	10	1-1/8" 8UN		135	113	27	86	243	44	66	3,4	1,1
TB402 Hydraulic Topside Bolt Tensioner M30 ~ M39												
TB402-03035	10	M30 x 3.5	TB402 2889 mm² 433,35 kN	136	111	35	107	226	41	75	4,7	2,7
TB402-03335	10	M33 x 3.5		136	111	35	107	226	41	76	4,7	2,5
TB402-03640	10	M36 x 4		136	111	35	107	226	41	79	4,7	2,3
TB402-03940	10	M39 x 4		136	111	35	107	226	41	82	4,7	2,0
TB402-1125U08	10	1-1/8" 8UN		136	111	35	107	226	41	74	4,7	2,7
TB402-1250U08	10	1-1/4" 8UN		136	111	35	107	226	41	76	4,7	2,5
TB402-1375U08	10	1-3/8" 8UN		136	111	35	107	226	41	79	4,7	2,3
TB402-1500U08	10	1-1/2" 8UN		136	111	35	107	226	41	82	4,7	2,1
TB403 Hydraulic Topside Bolt Tensioner M39 ~ M52												
TB403-03940	10	M39 x 4	TB403 5035 mm² 755,25 kN	160	126	46	138	256	56	96	8,1	5,8
TB403-04245	10	M42 x 4.5		160	126	46	138	256	56	98	8,1	5,5
TB403-04545	10	M45 x 4.5		160	126	46	138	256	56	101	8,1	5,1
TB403-04850	10	M48 x 5		160	126	46	138	256	56	104	8,1	4,8
TB403-05250	10	M52 x 5		160	126	46	138	256	56	107	8,1	4,3
TB403-1500U08	10	1-1/2" 8UN		160	126	46	138	256	56	95	8,1	5,8
TB403-1625U08	10	1-5/8" 8UN		160	126	46	138	256	56	98	8,1	5,4
TB403-1750U08	10	1-3/4" 8UN		160	126	46	138	256	56	101	8,1	5,1
TB403-1875U08	10	1-7/8" 8UN		160	126	46	138	256	56	104	8,1	4,7
TB403-2000U08	10	2" 8UN		160	126	46	138	256	56	106	8,1	4,3

Adaptor Kit Model Number	Stroke	Thread Size	Bridge Model Number / Cylinder Effective Area (mm) / Max Load Capacity	Dimensions							Bridge Weight	Load Cell Weight
				A	B	C	D	E	F	N		
	(mm)		(kN)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)	(kg)
TB404 Hydraulic Topside Bolt Tensioner M52 ~ M68												
TB404-05250	10	M52 x 5	TB404 9627 mm² 1444,05 kN	180	141	62	174	281	71	121	14,2	10,8
TB404-05655	10	M56 x 5.5		180	141	62	174	281	71	124	14,2	10,2
TB404-06055	10	M60 x 5.5		180	141	62	174	281	71	127	14,2	9,5
TB404-06460	10	M64 x 6		180	141	62	174	281	71	129	14,2	8,9
TB404-06860	10	M68 x 6		180	141	62	174	281	71	132	14,2	8,2
TB404-2000U08	10	2" 8UN		180	141	62	174	281	71	120	14,2	10,8
TB404-2250U08	10	2-1/4" 8UN		180	141	62	174	281	71	126	14,2	9,8
TB404-2500U08	10	2-1/2" 8UN		180	141	62	174	281	71	132	14,2	8,6
TB405 Hydraulic Topside Bolt Tensioner M68 ~ M80												
TB405-06860	10	M68 x 6	TB405 15186 mm² 2277,9 kN	202	157	78	210	302	86	148	23,4	17,4
TB405-07260	10	M72 x 6		202	157	78	210	302	86	149	23,4	16,5
TB405-07660	10	M76 x 6		202	157	78	210	302	86	152	23,4	15,6
TB405-08060	10	M80 x 6		202	157	78	210	302	86	155	23,4	14,7
TB405-2500U08	10	2-1/2" 8UN		202	157	78	210	302	86	148	23,4	17,9
TB405-2750U08	10	2-3/4" 8UN		202	157	78	210	302	86	153	23,4	16,4
TB405-3000U08	10	3" 8UN		202	157	78	210	302	86	158	23,4	14,9
TB405-3250U08	10	3-1/4" 8UN		202	157	78	210	302	86	161	23,4	13,2
TB406 Hydraulic Topside Bolt Tensioner M80 ~ M95												
TB406-06060	10	M80 x 6	TB406 18536 mm² 2780,4 kN	219	173	82	240	323	95	167	31,9	22,3
TB406-08560	10	M85 x 6		219	173	82	240	323	95	170	31,9	21,0
TB406-09060	10	M90 x 6		219	173	82	240	323	95	175	31,9	19,4
TB406-09560	10	M95 x 6		219	173	82	240	323	95	179	31,9	18,0
TB406-3250U08	10	3-1/4" 8UN		219	173	82	240	323	95	173	31,9	20,7
TB406-3500U08	10	3-1/2" 8UN		219	173	82	240	323	95	181	31,9	18,8
TB406-3750U08	10	3-3/4" 8UN		219	173	82	240	323	95	188	31,9	16,8



Our Recommendation

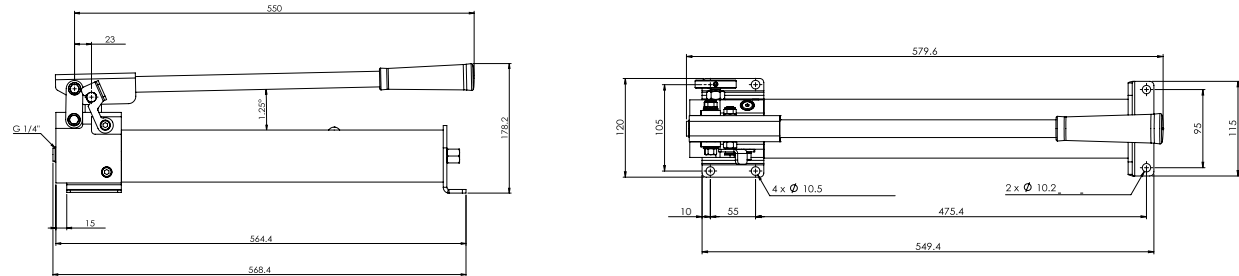
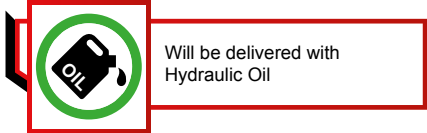
This combination kit will work well with this pump

P2200HP

100 Pg

1500 Bar Handpump

- Double Speed Action: Features a double speed design for rapid operation, covering distance quickly before switching to the high-pressure stage.
- Ultra High Pressure: Achieve a maximum pressure of 1500 bar, ideal for heavy-duty applications.
- Durable & Lightweight: Built with a sturdy Aluminum Base for excellent durability while maintaining a net weight of only 7.3 kg and 10.6 kg.
- Exceptional Flow: Delivers an impressive 15.3 c.c. per stroke in the first stage, getting your job done faster.
- Ergonomic Design: Comes with a long 570 mm handle and low operating force reducing operator fatigue.
- Generous Usable Capacity: Offers a 1.1L and 2.2L. usable oil capacity.
- Universal Connection: Equipped with a standard G 1/4" oil port for easy connection to most hydraulic tools.

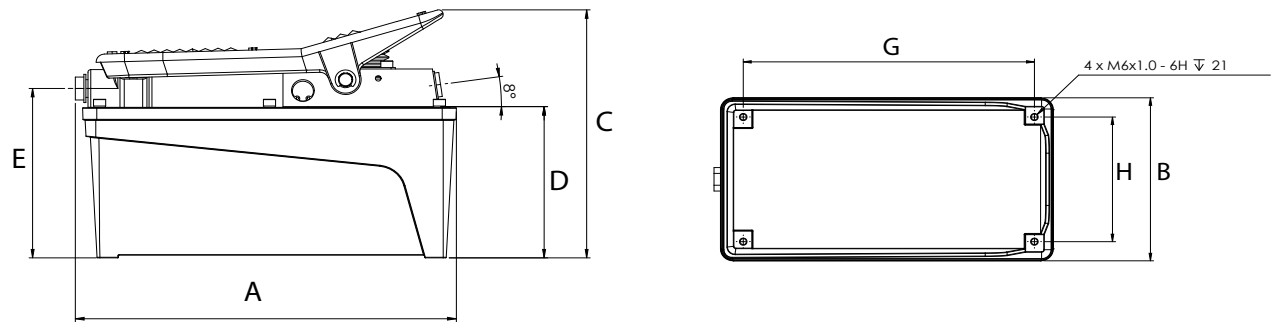
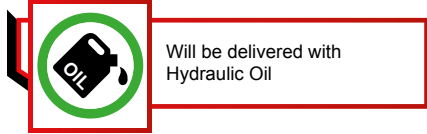


Model Number	Usable Oil Capacity (cc)	Oil Outlet Port	Pressure Rating/Oil Displacement per Stroke		Piston Stroke (mm)	Handle Operating Force (N)	Reservoir Construction	Weight (kg)
			A	B				
P1020HP	1000	G 1/4"	20 / 15,3	1500 / 1,2	24	406	Steel	7,3
P2200HP	2200	G 1/4"	20 / 15,3	1500 / 1,2	24	406	Steel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

Model Number	Dimensions (mm)									Weight w/Oil (kg)
	A	B	C	D	E1	E2	F	G	K	
P1020HP	568	120	178	550	475	55	105	95	115	7.3
P2200HP	602	120	179	550	508	55	105	90.0	110	10.6

1500 Bar Airpump

- Maximum Output Pressure: Delivers an impressive maximum hydraulic pressure of 1500 bar.
- Maximum Air Pressure: Operates efficiently with an active air pressure between 8 and 14 bar.
- Compact Design: Features an internal pump and a compact footprint.
- Safety Assurance: Equipped with a safety pressure setting for reliable operation.
- External Adjustment Capability: Includes External Adjustment Function for easy setup and tuning.
- Lightweight: Weighs only 10.8 kg, making it easily portable.

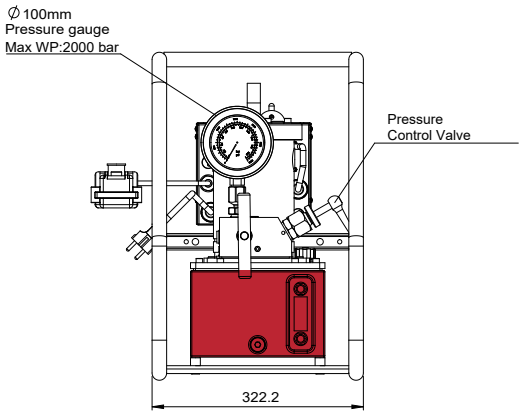
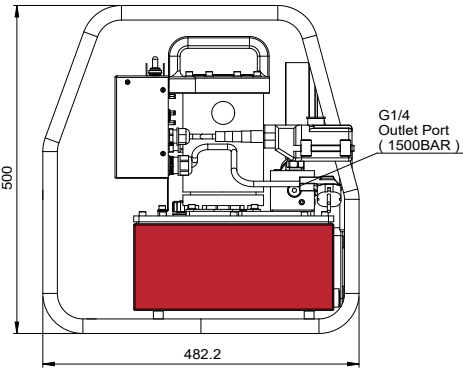


Model Number	Usable Oil Capacity (Liter)	Oil Outlet Port	Flow Rate Pressure (CC / Min)			Reservoir Construction	Minimum Air Pressure (BAR)	Weight (w/Oil, kg.)
			60 BAR	700 BAR	1500 BAR			
2-Speed - Single Acting								
PA15HPA	1500	G 1/4"	550 CC	200 CC	65 CC	Aluminum	8	11
PA38HPA	3800	G 1/4"	550 CC	200 CC	65 CC	Steel	8	15.1

Model Number	Dimensions (mm)						
	A	B	C	D	E	G	H
2-Speed - Single Acting							
PA15HPA	268	136	184	112	126	230	104
PA38HPA	327	187	187	115	128	-	-

1500 Bar Electric Pump

- Ultra High Pressure: Achieves an impressive 1500 BAR (21,750 psi) maximum second stage pressure, perfect for demanding hydraulic applications.
- Powerful & Reliable: Equipped with an 1800W Universal Motor for consistent, high-speed operation at 220V, 50Hz.
- Integrated Control: Features a convenient Manual Release Valve (2W2P) for easy operation and return.
- Pendant Control Included: Comes standard with a pendant control for safe and convenient remote operation.
- Generous Oil Capacity: Usable oil capacity of 3.9 Liters (1.0 gal.) to handle a variety of job sizes.
- Quiet Operation: Maintains a manageable sound level of just 90 dBA.
- Standard Connection: Comes with a G 1/4" connection for easy and secure connection to your hydraulic tools.



Valve Function	Model Number	Flow Rate				Motor Size	Oil Capacity	Length (mm)	Width (mm)	Height (mm)	Net Weight (with Oil)
		1st Stage		2nd Stage							
		L/Min	BAR	L/Min	BAR						
2W/2P Advance / Return	PU55HP-C	5,50	70~80	0,43	1500	2.4 Hp	5.3 (3.9) L	482	322	500	35 (39.8) kg

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" Male	1500	3000	-30°C / +100°C
Coupler Female	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



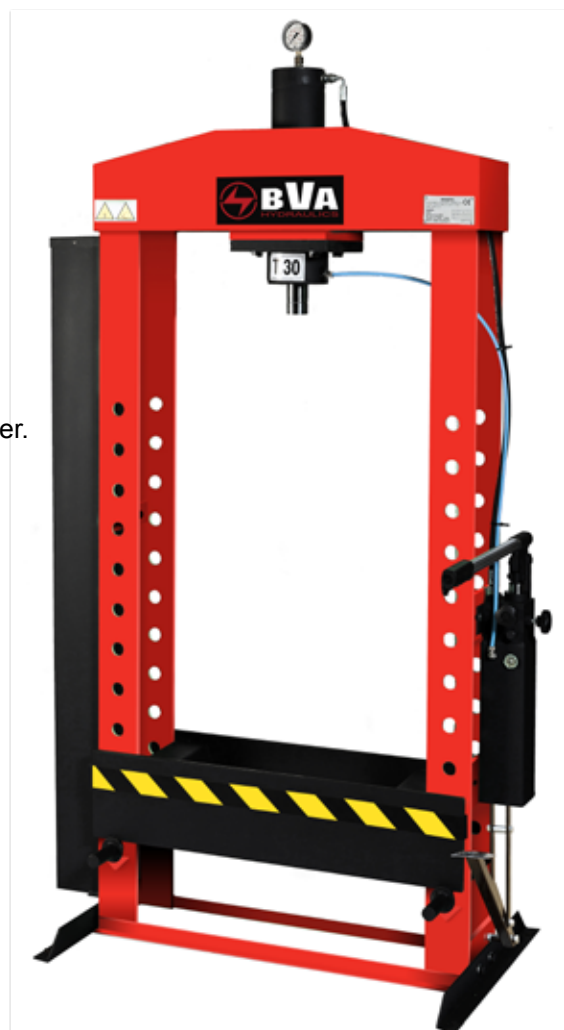
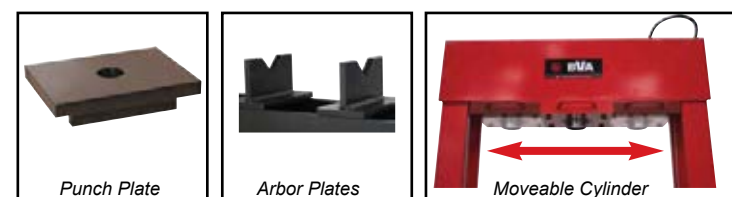
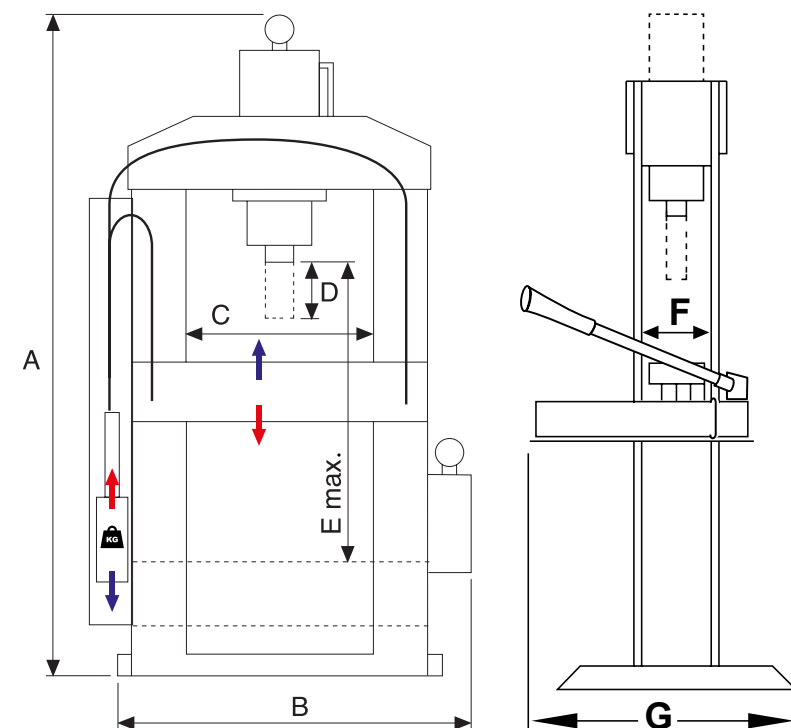
Model Number	Face Dia. (mm)	Thread	Material	Pressure Range		Graduation			
				PSI	Bar	Major Graduation (psi)	Minor Graduation (psi)	Major Graduation (bar)	Minor Graduation (bar)
GBWH12100E-SET	100	1/2 BSP	Stainless	0-23300	0-1600	5000	500	400	50

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)	F (mm)	G (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



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

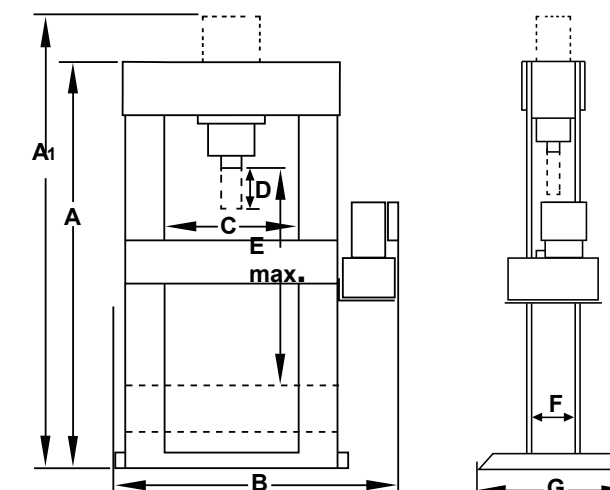
Optional Items



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

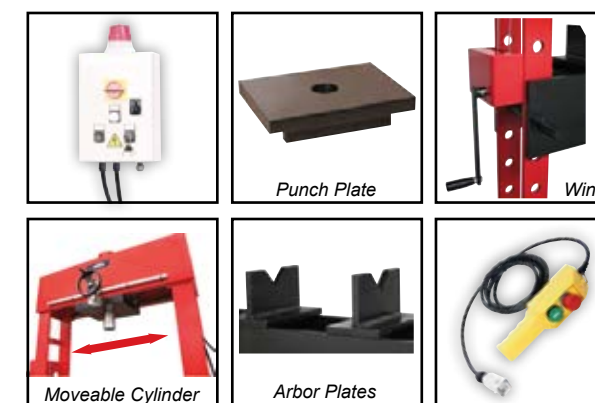


Model Number	Capacity	Cylinder	Pump	A (mm)	A1 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SED5513	50 Tonne	HD5513	PE30M4U01C	2000	2160	1580	785	335	1260	180	750	440
SED10013	100 Tonne	HD10013	PE40M4U02C	2100	2210	1900	1025	333	1150	270	850	1220

Electrical Press

Operating by: "Two" - hands

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



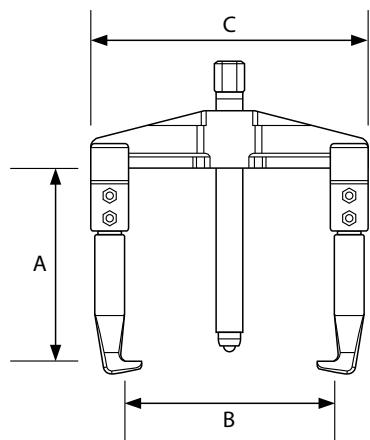
Model Number	Capacity	Cylinder	Pump	A (mm)	A1 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SEC5513	50 Tonne	HD5513	PE30M4U01C	2000	2160	1580	785	335	1260	180	750	440
SEC10013	100 Tonne	HD10013	PE40M4U02C	2100	2210	1900	1025	333	1150	270	850	1220

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

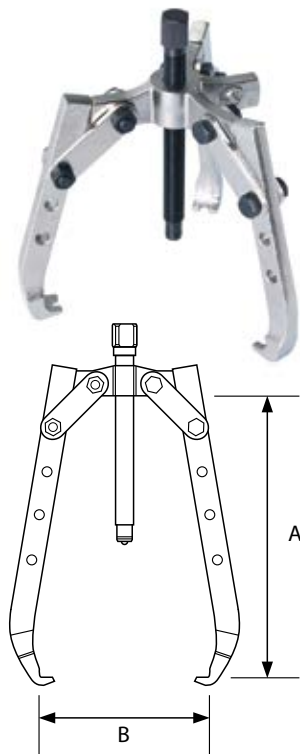


2/3 Leg Puller

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.

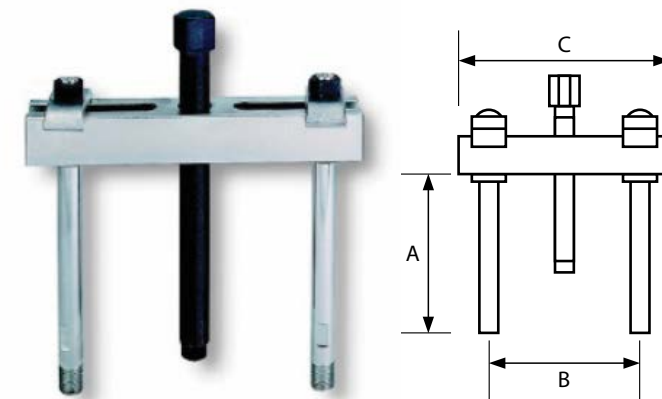
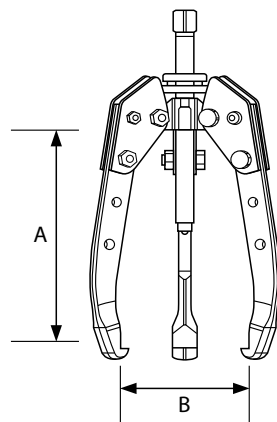
Model Number	Capacity (Tonne)	A (mm)	B (mm)	Weight (kg)
AMP230110	1	120	125	0.7
AMP230410	4	210	220	2.1
AMP230710	7	270	280	3.7
AMP230810	8	270	330	4.0



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

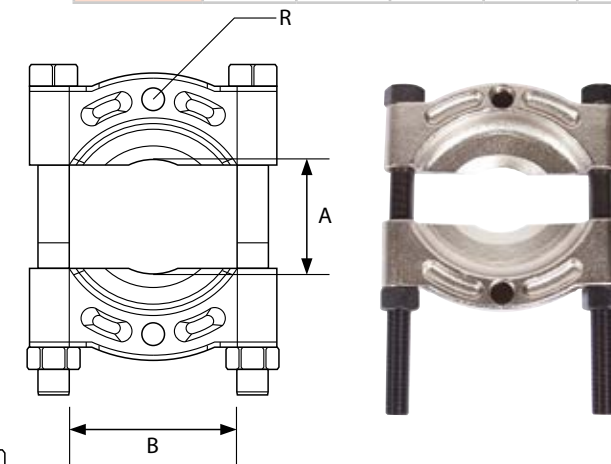
Manual Pullers

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

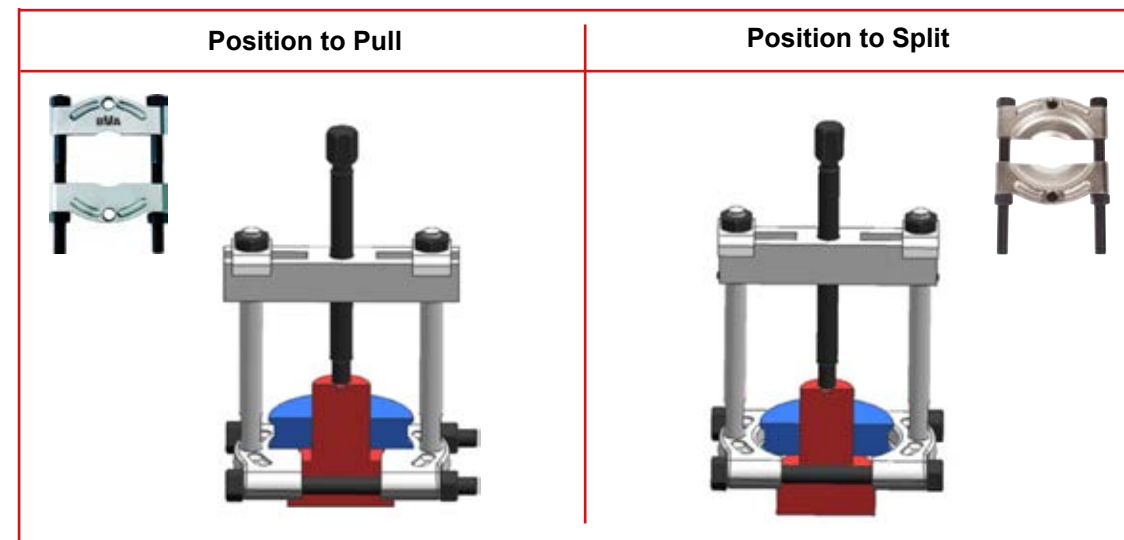
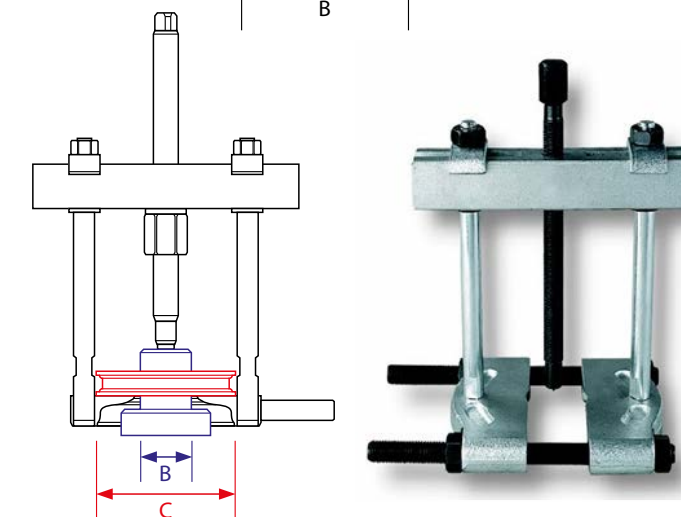
Model Number	A Max. (mm)	A Min. (mm)	B (mm)	R	Weight (kg)
APS1202	60	4	60	3/8"	0.7
APS1203	80	6	80	3/8"	1.3
APS1204	110	10	110	5/8"	2.7



Splitter Set

Manual Pullers

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

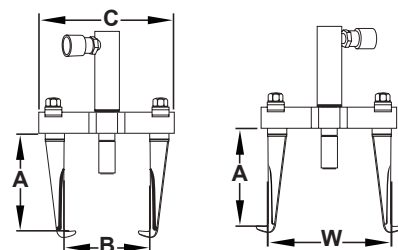


Note: Be sure to use the correct position for the required action in order to avoid damaging the Splitter-Set.

Puller 2 Leg

Hydraulic Pullers (Excluding Cylinder)

- Pullers for Single Acting Cylinders.

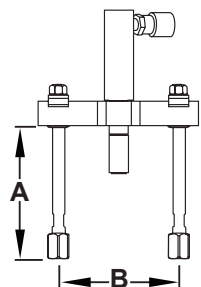


AP(L) 1205

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



AP2205



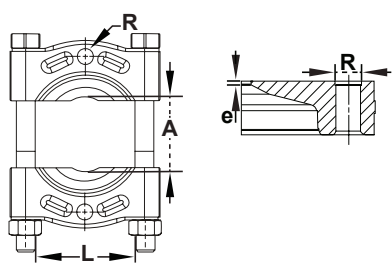
Model Number	Cylinder (Optional)	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
AP2205	H0503	5	190	82	250	7.8

Splitters

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



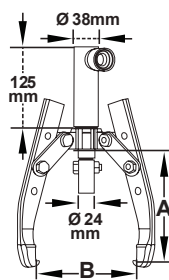
APS1204



AP2205 + APS1204

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



AP1305

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



AP1305



APS1204



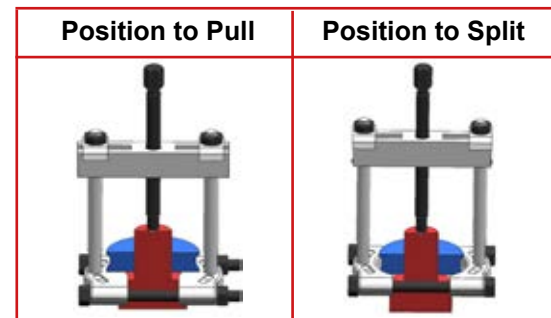
APE1118



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

Puller Kit

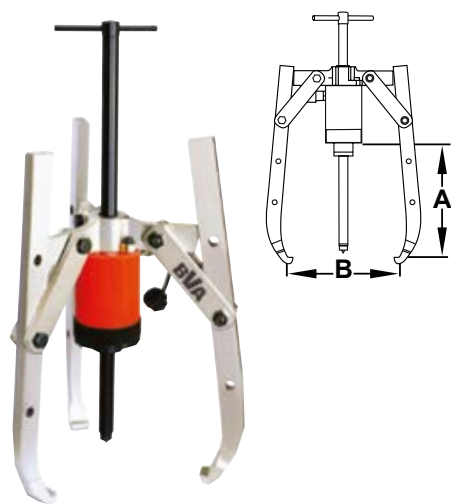
(Excluding Cylinder)

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)

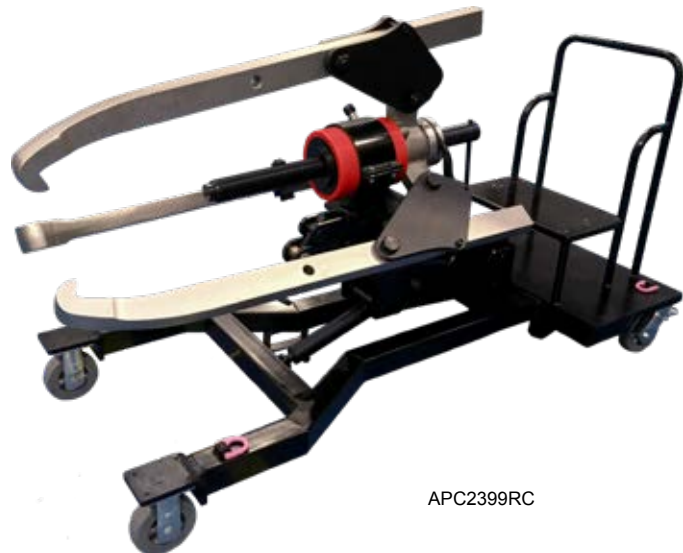
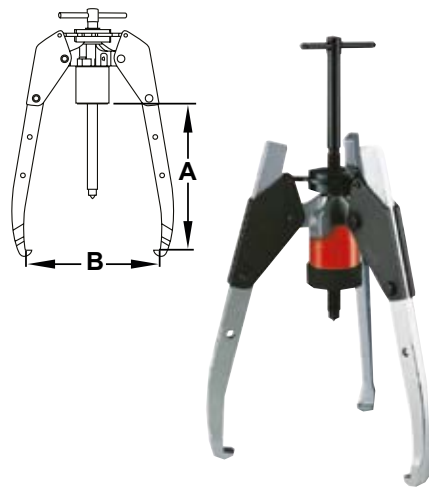


Model Number	Cylinder + APS saddle (Optional)	Capacity (Tonne)	Legs	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
AP2310	HC1202	10	2/3	315	60	350	9
AP2320	HC2002T	20	3	320	80	480	23
AP2330	HC3002T	30	3	410	100	650	40
AP2360	HC6003T	60	3	710	150	980	87
APL2310	HC1202	10	2/3	400	60	410	10
APL2320	HC2002T	20	3	435	80	540	26
APL2330	HC3002T	30	3	535	100	720	46
APL2360	HC6003T	60	3	860	150	1080	96

Self-Centering Puller 2/3 and 3 Leg

Model Number	Cylinder + APS Saddle (Optional)	Capacity (Tonne)	Legs	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
APC2310	HC1202	10	2/3	315	60	350	14
APC2320	HC2002T	20	3	320	80	480	33
APC2330	HC3002T	30	3	410	100	650	56
APC2360	HC6003T	60	3	710	150	980	122
APC2399	HC10003T	100	3	1000	240	1600	322
APLC2310	HC1202	10	2/3	400	60	405	16
APLC2320	HC2002T	20	3	435	80	540	36
APLC2330	HC3002T	30	3	535	100	720	62
APLC2360	HC6003T	60	3	860	150	1080	131

* APC2399 on roller cart has part number APC2399RC
** HC10003T is always included in the APC2399RC



APC2399RC

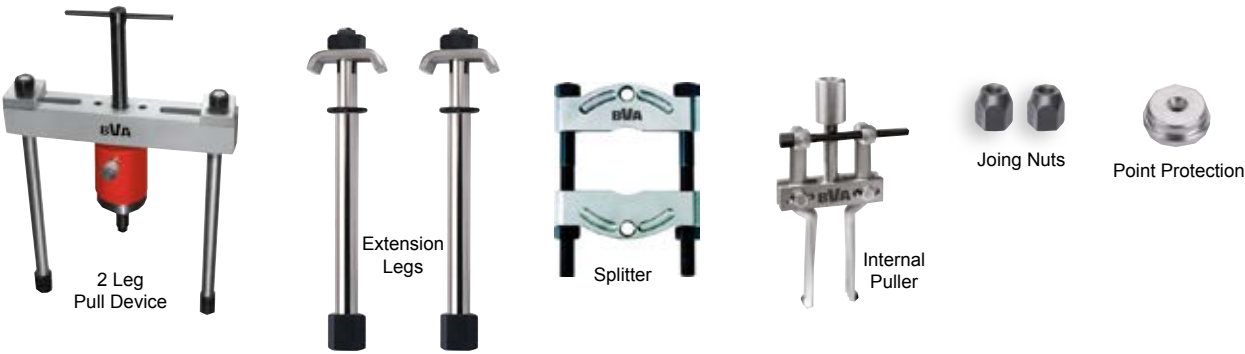
Puller Kit

(Excluding Cylinder)

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

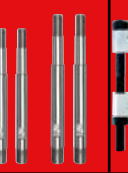
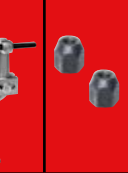
Application	
Splitter	Internal Puller

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

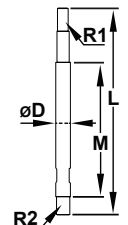
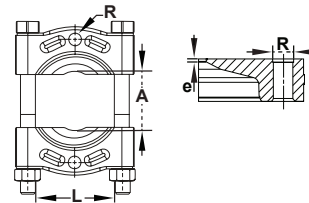
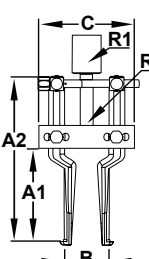
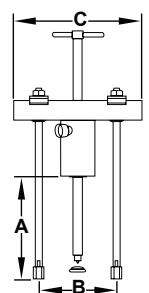
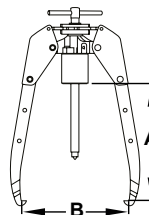
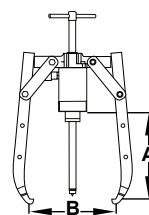
Hydraulic Set Hollow Cylinder

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	APS100	73



Model Number	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
AP2310	10	315	60	350	9
AP2320	20	320	80	480	23
AP2330	30	410	100	650	40
AP2360	60	710	150	980	87

Model Number	Capacity (Tonne)	A (mm)	B Min. (mm)	B Max. (mm)	Weight (kg)
APC2310	10	315	60	350	14
APC2320	20	320	80	480	33
APC2330	30	410	100	650	56
APC2360	60	710	150	980	122
APC2399	100	1000	300	1600	322

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 (mm)	R1	R2	Weight (kg)
API1210	115	237	40	145	133	¾" UNF 16h	⅝" 14h	2.0
API1220	115	237	40	145	133	1" UNF 8h	⅝" 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	⅜"	1	0.75
APS1203	81	6	80	⅜"	2.5	1.3
APS1204	10	110	110	⅝"	2.5	2.8
APS1206	12	134	155	⅝"	2	5.7
APS1210	17	250	260	1"	4	28.5
APS1210D	17	250	260	1¼"	4	28.5
APS1212	35	300	300	1¼"	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

* With interchangeable 5/8" tip

3 Leg Pullers

3 Leg Self-Centering Pullers

2 Leg Pullers

Internal Pullers

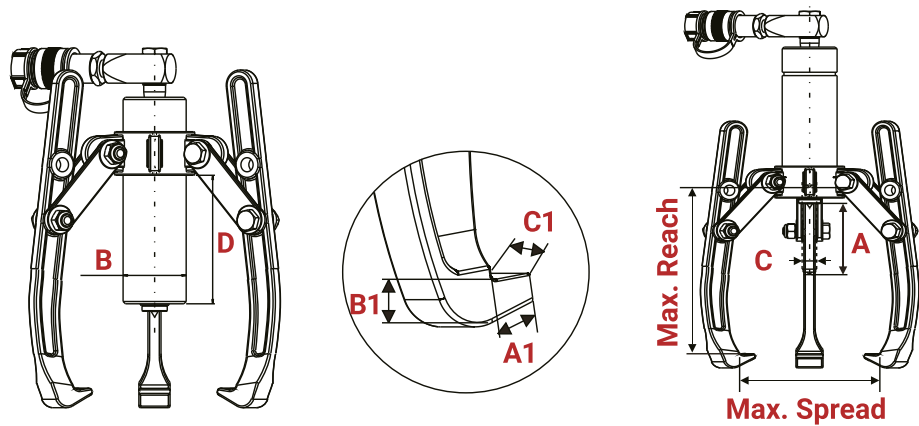
Splitters

Leg Extensions

Hydraulic Gear Pullers

From 5 till 50 Tonne with integrated cylinder

- 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).



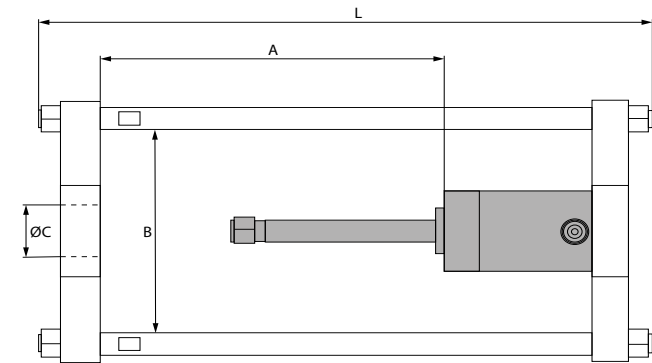
Capacity	Model Number	Stroke A (mm)	Eff Area (cm ²)	Oil Capacity (cc)	Max. Reach (mm)	Max. Spread (mm)	Tip (mm)			Jaw Tip (mm)			Net. Weight (kg)
							B	C	D	A1	B1	C1	
6 Tonne 55kN	HGPT06	70	8.00	56	245	330	45	23	91	13	10	22	5.4
8 Tonne 78kN	HGPT08	85	11.30	96	230	350	55	26	112	11	10	25	7.4
10 Tonne 99kN	HGPT12	85	14.50	123	260	375	60	28	118	14	10	29	9.5
20 Tonne 194kN	HGPT20	111	28.30	314	350	520	80	40	162	20	27	33	23
30 Tonne 288kN	HGPT30	111	42	466	435	550	98	50	155	20	27	38	35.3
50 Tonne 489kN	HGPT50	143	71.20	1018	635	1000	127	79	235	43	32	32	110



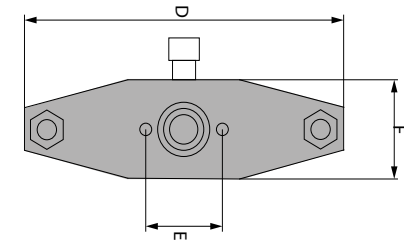
Bolt Puller/King Pin Press

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:

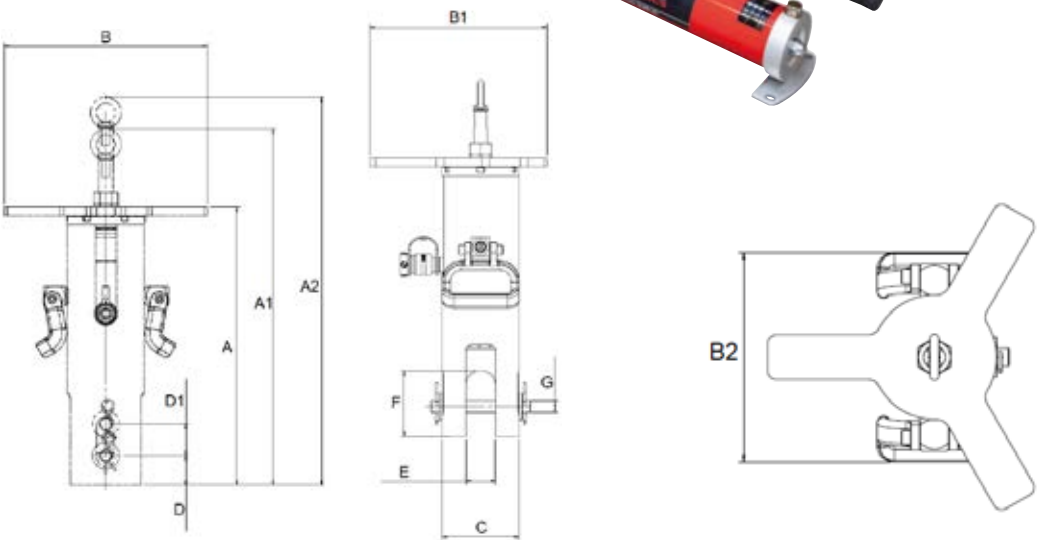
Capacity	Model Number							Weight (kg)
		(Tonne)	Gauge + Adapter	Hose	Coupler	Cylinder	Saddle	
30	APHC3002	P352	GBW1460 + CF3814	C3814-2	CH38-M	HC3002T	APS30	18
60	APHC6003	P1000	GBW1460 + CF3814	C3814-2	CH38-M	HC6003T	APS60	46

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.



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

Flange Spreader

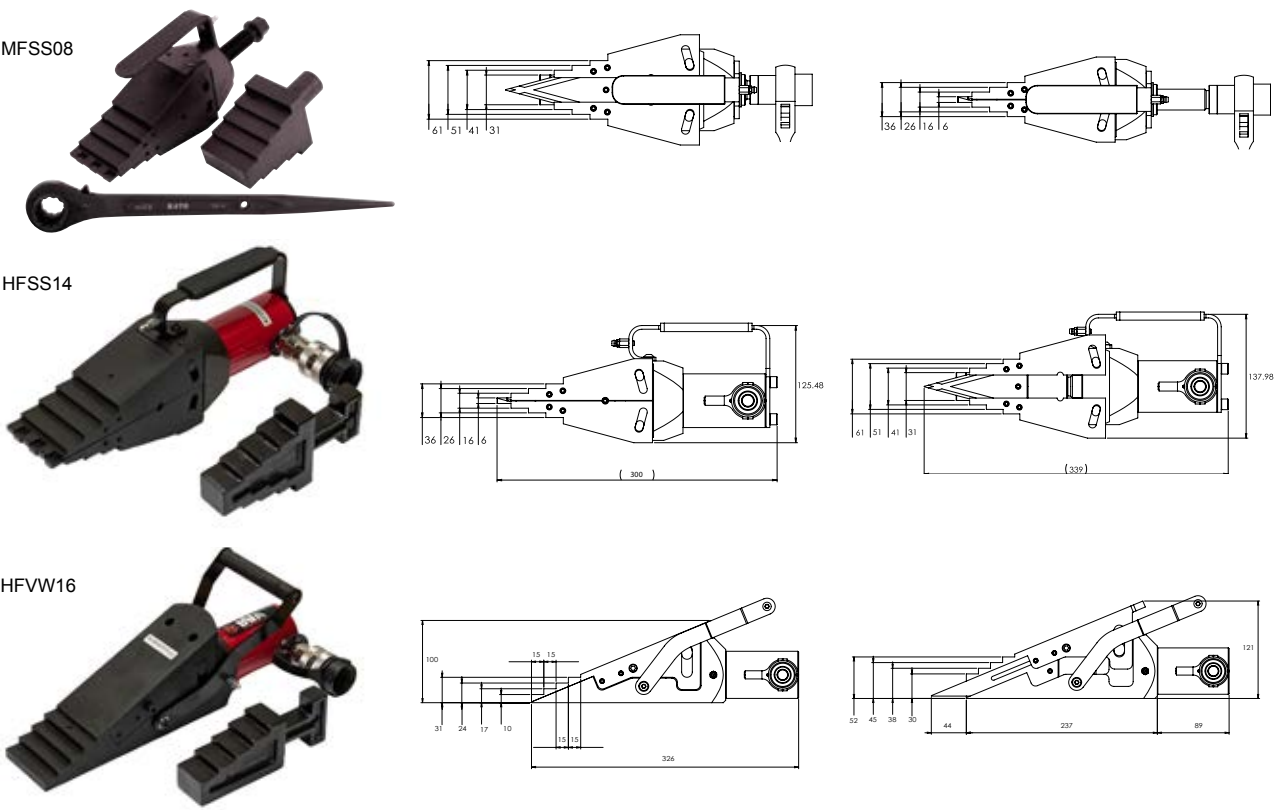
Pin Type (Including Cylinder)

- 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



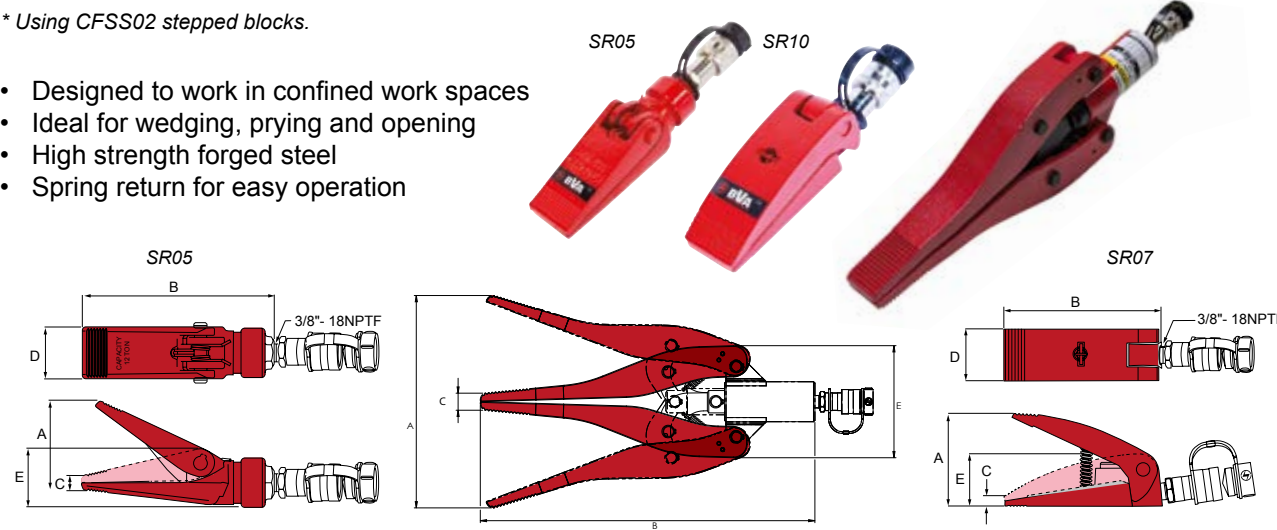
Spreaders



Model Number	Type	Maximum Spread Force (kN)	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	143	80	6	61	60	10.2	74
HFVW16	Hydraulic	143	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

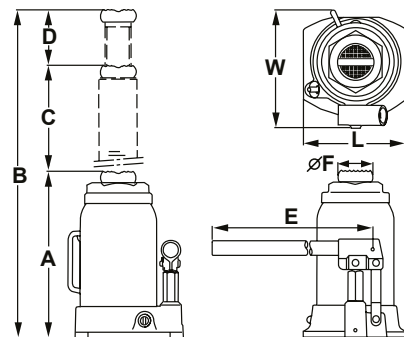


Cylinder Capacity	Model Number	Cylinder Effective Area (cm²)	Oil Capacity (cc)	Dimensions (mm)					Weight (kg)
				A	B	C	D	E	
0.5 Tonne	SR05	7.87	10	90	192	13	52	60	2.2
0.75 Tonne	SR07	14.43	86	306	482	25	55	161	10.3
1 Tonne	SR10	7.03	14	99	167	12	55	56	2.3

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.

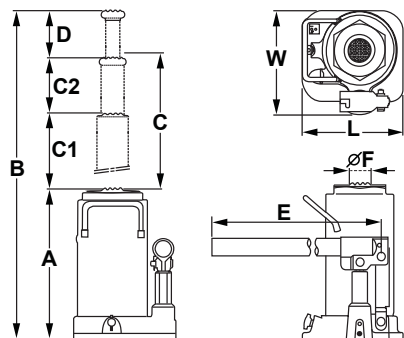


Capacity	Model Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	L (mm)	W (mm)	Weight (kg)
2 Ton	1102500	184	349	110	55	340	25	100	98	3,0
4 Ton	1104500	208	393	125	60	448	27	109	100	4,0
6 Ton	1106500	221	434	133	80	448	31	118	105	5,0
8 Ton	1108500	231	451	150	70	460	34	120	122	6,2
12 Ton	1412000*	241	469	150	78	345	42	138	106	7,4
12 Ton	1112500	240	470	150	80	460	43	140	130	8,0
12 Ton	1112900	157	274	77	40	460	43	164	154	6,3
20 Ton	1420000*	249	475	150	76	452	76	160	150	12,9
20 Ton	1120500	244	474	150	80	460	52	138	130	12,5
20 Ton	1120900	169	286	77	40	460	52	164	150	9,6
30 Ton	11300*	275	440	165	-	500	54	158	174	12
50 Ton	10500	305	483	178	-	593	79	275	198	50,4
100 Ton	10990	305	461	156	-	600	113	305	238	90,6

* bottlejacks with a welded base.

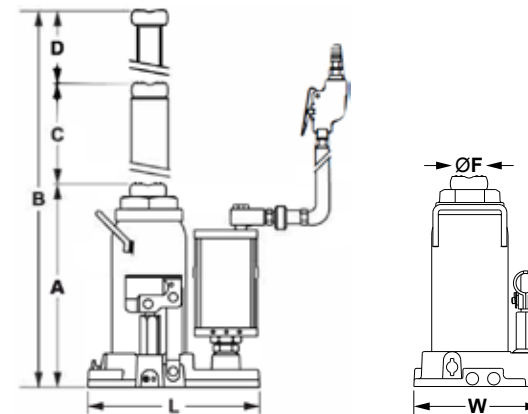
Manual Telescopic Bottle Jacks

Capacity Tonne	Model	A (mm)	B (mm)	C (mm)	C1 (mm)	C2 (mm)	D (mm)	E (mm)	F (mm)	L (mm)	W (mm)	N.W. (kg)
2	1202200	160	380	170	85	85	50	293	26	118	112	4,4
4	1204100	173	418	210	104	106	35	465	32	130	120	5,3
10	1210100	216	526	250	125	125	60	495	36	143	164	9,5



Air Operated Bottle Jacks

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



Capacity	Model Number	A (mm)	B (mm)	C (mm)	D (mm)	F (mm)	L (mm)	W (mm)	Weight (kg)
20 Tons 199 kN	18202C	247	477	130	100	48	216	184	17
20 Tons 199 kN	18206C	245	478	80	153	52	230	173	17.6
30 Tons 298 kN	17302C	280	458	180	-	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	Stroke (mm)	Model Number	Minimum Height (mm)	Maximum Height (mm)	Base Size (L x W) (mm)	Weight (kg)
5 Tonne 49 kN	20	J11050	60	80	124 x 116	2.1
5 Tonne 49 kN	38	J11055	85	123	124 x 116	2.4
10 Tonne 99 kN	41	J11100	122	163	125 x 112	5.7
20 Tonne 199 kN	41	J11200	130	171	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	Stroke (mm)	Model Number	Toe Saddle		Head Saddle		Base Size (L x W) (mm)	Weight (kg)
			Min. Height (mm)	Max. Height (mm)	Min. Height (mm)	Max. Height (mm)		
3 Tonne	130	J13060	16	146	230	360	151 x 113	16.4
5 Tonne	130	J13120	22	152	267	397	190 x 118	25.6
10 Tonne	130	J13200	28	158	280	410	192 x 135	37.5
15 Tonne	130	J13300	28	168	332	472	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

80%

Safety Practices

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



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:			

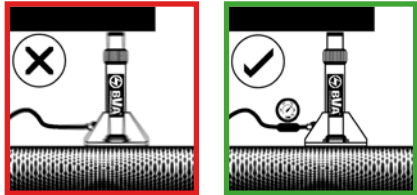
Pump Selection	Available power source: ☐ Manual ☐ Battery ☐ Electric ☐ Compressed Air ☐ Petrol
The three most commonly selected pumps are hand pumps, electric pumps and air-driven pumps. Gas powered pumps, however can be selected in the same way.	Hand Pump Single- or double-acting operation Not for high 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: Electric or Compressed Air Pump 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:

Safety Instructions

Industry Safety Standards

General

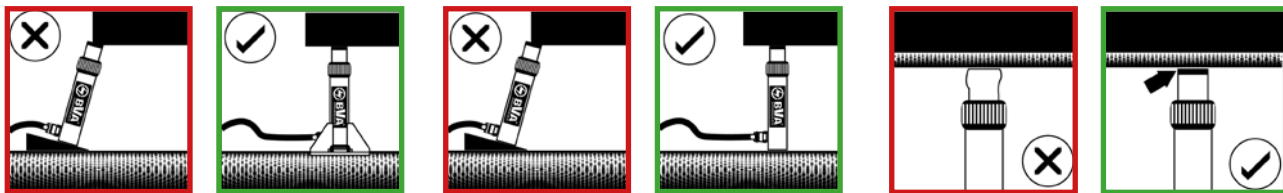


Do not override the factory setting of relief valves. Always use a gauge to check system pressure.

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

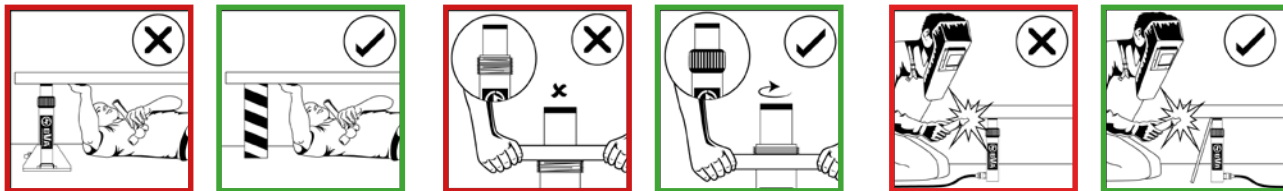
Cylinders



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.

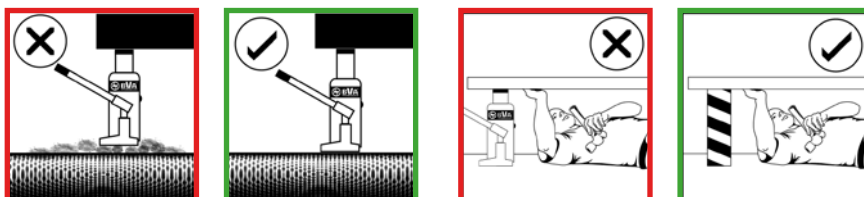


As with jacks, never place any part of your body under the load. Load must be on cribbing before venturing under.

Always protect cylinder threads for use with attachments.

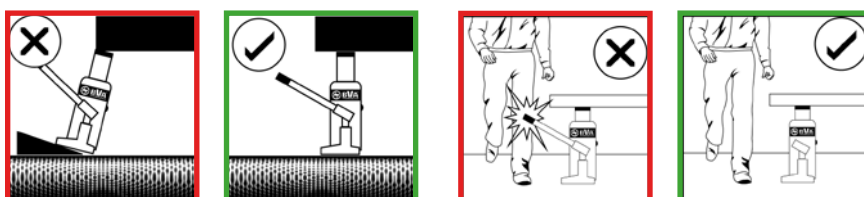
Keep hydraulic equipment away from open fire and temperatures above 150°F (65°C).

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

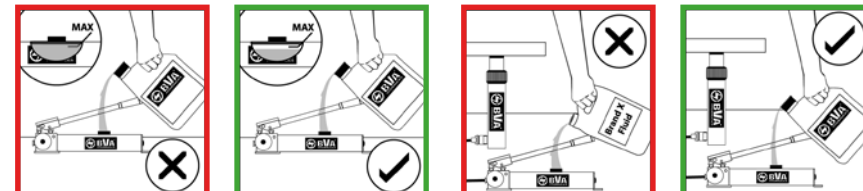
- READ AND UNDERSTAND ALL WARNINGS, INSTRUCTIONS AND OWNER'S MANUAL INFORMATION BEFORE ATTEMPTING TO USE THIS EQUIPMENT
- Burst hazard exists if hose or connection pressure exceeds rated pressure.
- Do not exceed the rated capacity of this device. Monitor pressure and load at all times.
- Verify load 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.

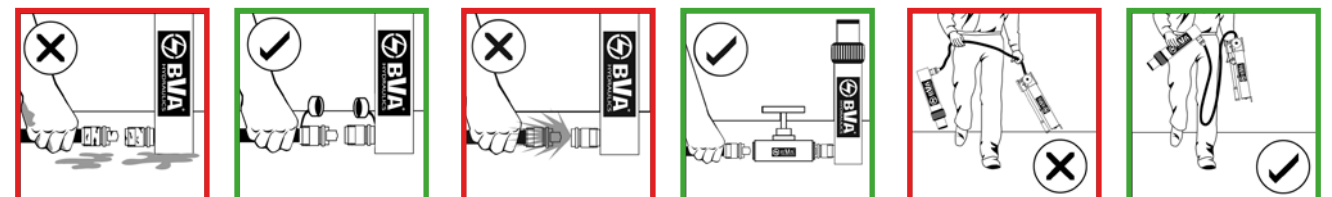
Use only genuine BVA hydraulic oil. The wrong fluid can destroy your seals and pump and will render your warranty null and void.

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.

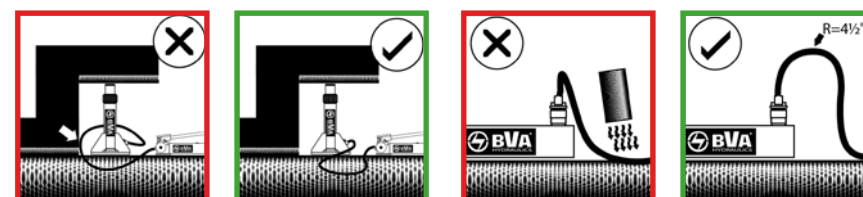
Hoses and Couplers



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 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
15	H1012	RC-1012	C1012C	HSS1012
	H1014	RC-1014	C1014C	-
	H1501	RC-151	C151C	-
	H1502	RC-152	C152C	HSS152
	H1504	RC-154	C154C	HSS154
	H1506	RC-156	C156C	HSS156
25	H1508	RC-158	C158C	-
	H1510	RC-1510	C1510C	HSS1510
	H1512	RC-1512	C1512C	-
	H1514	RC-1514	C1514C	-
	H2501	RC-251	C251C	-
	H2502	RC-252	C252C	HSS252
30	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
P350	P-142	-	HP211
P1000	P-392	P59	HP212
P1201	P-77/P-80	-	HP110
P2301	P-80	P159	HP227
P4301	P-801	P157	HP257
P8701	P-462	P460	HP245
P2301M	P-84	P157D	HP232D
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

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.

© Copyright 2026, Shinn Fu. All rights reserved. Any copying or other use of material in this catalog (text, illustrations, drawings, photos) without express written consent is prohibited.



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	110
AP	112 + 119
APC	114
APE	113
APH	113
APHC	116 + 119
API	117
APK	113 + 115 - 116
APL	112 + 114
APLC	114
APP	116
APS	35 + 37 + 111 - 117
B	
BSD	96 - 100
BVA Bag	56
C	
C2S	84
CA	85
CB	53
CDC	83
CEB	52
CEBN / CED	51
CEFN / CEN	51
CEP	52
CF	82
CH	83
CL	52
CM	80
CMH	80
CUMR	75
CP	48
CQ	83
CQF	83
CQH	107
CQR	83
CR	83
CS	84
CSH	107
CT	20
CVC	79
CVL	78
CVLS	78

CVN	78
CVP	79
CVR	78
CVS	76
F	
FP	76
FT	85
G	
GBW	82
GBWH	107
H	
H	6 - 9
HC	34 - 35
HCLN	38 - 39
HD	10 - 13
HDC	36 - 37
HDG	30 - 33
HUD	42 -43
HF	16 -18
HFS	120
HFSS	121
HFT	19
HFVW	121
HG	26 - 29
HGPT	118
HL	14 - 15
HLN	22 - 23
HLNF	24 - 25
HLUF	20 -21
HNS	101
HP	48
HPB	49
HPD	50 - 51
HT	47
HTD	53
HU	40 - 41
HUC	45
HUDC	46
HULN	44
HV	76

J	
J	124
L	
LH	52
LPTW	88-91
M	
MFC	80 -81
MFSS	121
MNS	101
P	
P	56 -58 + 104
PA	59 - 61 + 105
PAR	87
PD	70 - 71
PE	64 - 69
PFC	75
PG	70 -71
PPC	75
PR	77
PU	63 + 86
PUAR	62
PUW	74
PWS	75
PW	76
S	
SA	72 -73
SD	53
SDT	53
SDTG	53
SDTL	53
SDTW	92
SEC	109
SED	109
SMS	108
SP	72 - 73
SR	121
T	
TB	102 - 103

**BVA**

HYDRAULICS | BUILT TO LAST

**Cylinders****Pumps****Combo Kits****Control Valves & Accessories****Presses/Tools****Maintenance Kits/
Bottle Jacks****Bolting**

Contact Information

Europe

Shinn Fu Europe BV.

Address: Munnikenheiweg 50,
4879 NG Etten-Leur
The Netherlands**Tel:** +31 (0)165-583300**Email:** sales.eu@bvahydraulics.com**www.bvahydraulics.com****UK/ Ireland**

SFE Global UK

Tel: +44 (0)1207549625**Mob:** +44 (0)7751747845**salesuk@bvahydraulic.co.uk****www.bvahydraulic.co.uk**

Online Catalog

Global Locations

Canada

Shinn Fu Canada

Address: 6355 Shawson Dr.
Unit 1 Mississauga,
Ontario L5T 1S7 Canada**Tel:** 1-905-564-1099**Email:** sales@shinnfucanada.ca**United States of America**

Shinn Fu America

Address: 10939 N. Pomona Ave.
Kansas City, MO 64153**Tel:** 888-332-6419
816-891-6390**Email:** sales@bvahydraulics.com**Australia**

Shinn Fu Australia

Address: 15 Viewtech Place
Rowville, Victoria
3178, Australia**Tel:** 61-3-9755-8277**Email:** sales@sfaa.com.au**Taiwan**

Shinn Fu Corporation Headquarters

Address: 7F., No.408, Ruei guang Rd.,
Nei Hu Dist., Taipei City 114,
Taiwan R.O.C.**Tel:** 886-2-8751-7888**Email:** sales@shinnfu.com