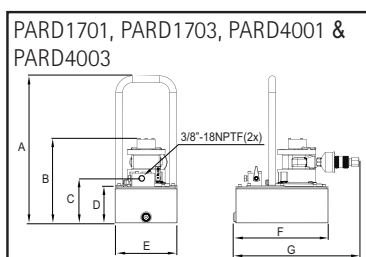
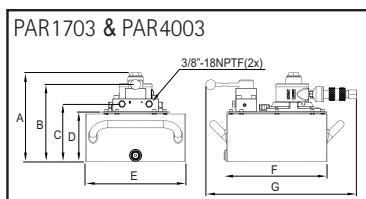
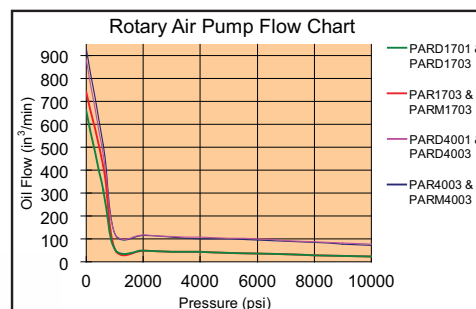


Rotary Air Hydraulic Pumps

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



PAR1703

PAR4001

Model Number	Motor Size		Usable Oil Capacity (Liter)	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Dynamic Air Pressure Range (Bar)
	(kW)	(hp)		First Stage (bar)	Second Stage (bar)	First Stage (L/min)	Second Stage (L/min)			

USED WITH SINGLE ACTING CYLINDER

PAR1701	1.3	1.7	3.8	48	700	4.36	0.37	Dump	*Advance/Return	7
PAR1703			11.4	48						
PAR4001	3	4	3.8	55	700	7.63	1.16			
PAR4003			11.4	55						

USED WITH DOUBLE ACTING CYLINDER

PAR1703	1.3	1.7	11.4	48	700	5.47	0.37	Manual PW4	*Advance/Hold/Return	7
PAR4003	3	4	11.4	55	700	8.39	1.16			

Model Number	Air Consumption (L/min)	Sound Level (dBA)	Dimensions							Weight (kg)
			A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	

USED WITH SINGLE ACTING CYLINDER

PAR1701	1246	93	485	239	147	120	205	313	404	18.8
PAR1703	1246	93	-	304	212	185	305	313	456	21
PAR4001	2690	100	485	279	147	120	205	313	415	20
PAR4003	2690	100	-	344	212	185	305	313	467	23

USED WITH DOUBLE ACTING CYLINDER

PAR1703	1246	93	303	267	209	185	305	313	459	20.5
PAR4003	2690	100	344	267	209	185	305	313	470	26.9



Electric Pumps

- Quiet operation meets OSHA regulations (80dBA).
- 2 Speed operation allows for faster cylinder advance.
- Full load starting capacities.
- Large easy-carry handles.
- Internal filter keeps contamination from damaging pump.
- Rugged durable design meets the demands of industrial application.
- Precision components to minimize wear and improve overall dependability.
- Available in 3-way or 4-way configuration.
- Ideal for on site construction as well as maintenance.

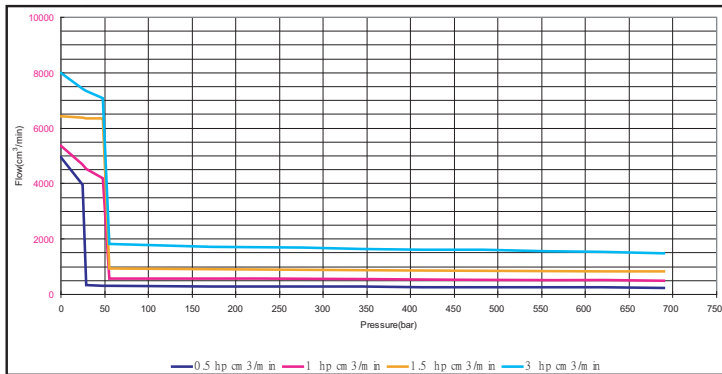


PE0501

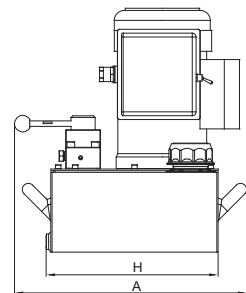
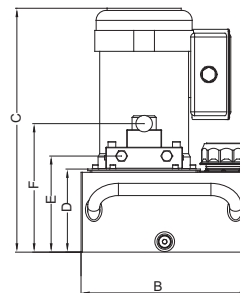
PEW03
Remote Control

Electrical Pumps

*will be delivered
without hydraulic
oil inside.*

PEW3015
Custom Made

	Valve Type	Valve Function	Motor Voltage (volts)	Sound Level (dBA)
	Manual	4-way 3-position	230	80



Model Number	Motor Size (kW)	Usable Oil Capacity (Liter)	Pressure Rating (bar)		Oil Output Flow Rate (Liter)		Current Draw (Amp)	A	B	C	D	E	F	H	W.t. for PE (kg)
			1st Stage	2nd Stage	1st Stage	2nd Stage		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
PE0501	0.37	3.8	30	700	4.2	0.22	5	379	261	485	120	144	203	314	28.5
PE1002	0.75	7.6	40	700	4.2	0.46	6	421	305	454	152	176	234	314	33.0
PE1503	1.12	11.4	40	700	5.1	0.69	9	421	305	502	185	209	267	314	41.5
PE3005	2.24	19.4	40	700	6.3	1.22	17	421	305	674	312	336	394	314	47.0

Electric Pumps with Solenoid Valve

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

Electric Pumps

*Will be delivered without
Hydraulic Oil*

Solenoid Valve

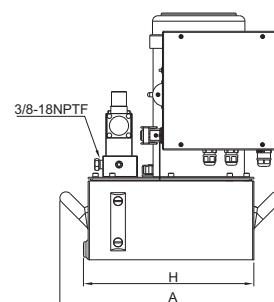
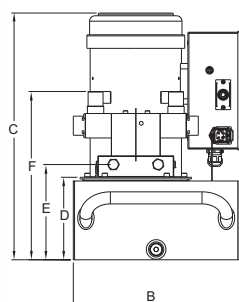
*Also possible with
3-way/3-position valve*



PES0501



PES1002



Model Number	Use with Cylinder	Motor Size	Usable Oil Capacity	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw	Motor Voltage	Weight
				First Stage	Second Stage	First Stage	Second Stage					
		(hp)	(liter)	(bar)	(bar)	(l/min)	(l/min)			(Amp)	(Volts)	(kg)
PES0501	Double Acting	0.5	3.8	25	700	3.936	0.246	4-way 3-position	Advanced Hold/ Return	4.5	230	33.5
PES1002		1	7.6	48	700	4.182	0.492			6		38.5
PES1503		1.5	11.4	48	700	6.314	0.82			8.5		46.6
PES3005		3	18.9	48	700	7.052	1.476			17		52.5

Model Number	Dimensions (mm)						
	A	B	C	D	E	F	H
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
PES0501	366.1	310	485.2	120.0	143.5	277.9	315.9
PES1002	407.2	321	454.1	151.8	175.3	309.7	313.5
PES1503	407.2	321	502.3	184.8	208.3	342.7	313.5
PES3005	407.2	321	654.1	311.8	335.3	469.7	313.5

Accessories

Gauge



Manifold



Hose



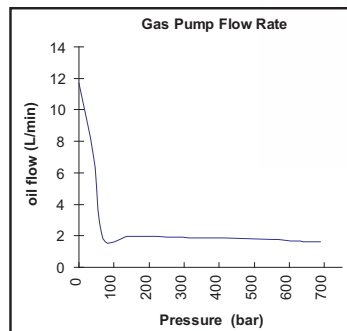
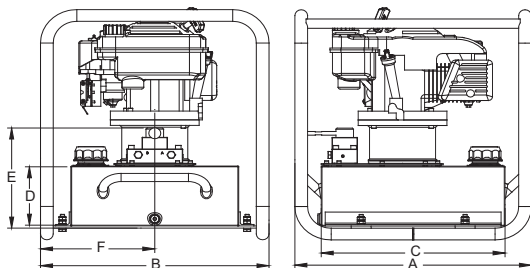
Hydraulic Oil





Gasoline Pump

- Gas pump will provide 10,000 psi / 700 Bar hydraulic force at remote locations.
- Industrial grade 5.5 hp Honda gas engine.
- Manual control valve for use with single or double acting cylinders or tools.
- Two speed pump designed for rapid cylinder advance.
- Gas pump features a sturdy protective roll cage for use in the toughest environments.



PG5505

Gasoline Pump:

Will be delivered without hydraulic oil inside.

No Stock item,
only on special request!

Model Number	Motor Size	Valve Type	Pressure Rating		Oil Output Flow Rate		Valve Function	Rotation Speed	Sound Level	A	B	C	D	E	F	Weight
	(kW)		(bar)		(L/min)			(rpm)	(dBA)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)
			1st Stage	2nd Stage	1st Stage	2nd Stage										
USABLE OIL CAPACITY: 19 LITER																
PG5505	4.1	Manual	48	700	11.68	1.64	4-way 3-position	3600	93	592	572	460	159	273	283	55

Pumps / Cylinders Operation and Speed Charts

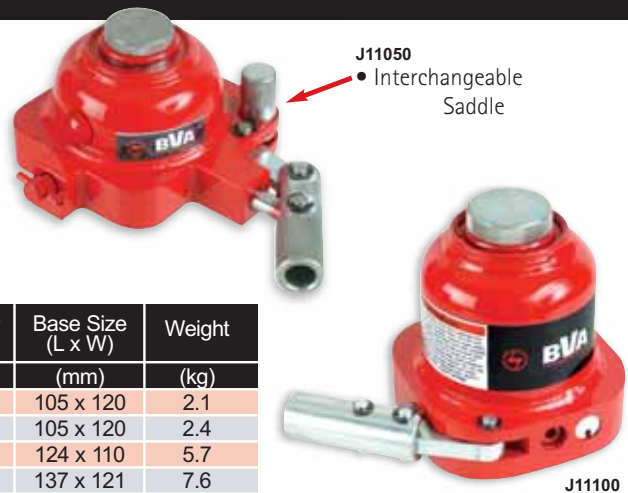
Model Number	Number of stroke per cm of Cylinder Plunger Travel															
	5 ton		10 ton		15 ton		25 ton		30 ton		50 ton		75 ton		95 ton	
	No Load	Load	No Load	Load	No Load	Load	No Load	Load	No Load	Load	No Load	Load	No Load	Load	No Load	Load
POWER SOURCE: MANUAL																
P601S	3	3	6	6	9	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
P2301/P2301M	1	3	2	7	2	9	3	15	4	19	6	31	8	45	10	58
Model Number	Seconds per cm of Cylinder Plunger Travel															
	5 ton		10 ton		15 ton		25 ton		30 ton		50 ton		75 ton		95 ton	
	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	0.4	2.6	0.9	5.8	1.2	8.1	2.0	13.3	2.5	16.8	4.2	28.3	6.2	41.6	8.0	53.1
PA1500	0.4	2.1	0.9	4.8	1.2	6.8	2.0	11.1	2.5	14.0	4.2	23.6	6.2	34.6	8.0	44.2
PA1500M	0.4	2.6	0.9	5.8	1.2	8.1	2.0	13.3	2.5	16.8	4.2	28.3	6.2	41.6	8.0	53.1
PA2000	0.4	2.6	0.8	5.8	1.1	8.1	1.9	13.3	2.3	16.8	4.0	28.3	5.8	41.6	7.4	53.1
PA3801	0.4	2.6	0.8	5.8	1.1	8.1	1.9	13.3	2.3	16.8	4.0	28.3	5.8	41.6	7.4	53.1
PA1500L & PA3801L	0.4	2.3	1.0	5.4	1.4	7.6	2.2	12.5	2.8	15.7	4.7	26.6	6.9	39.0	8.8	49.8
POWER SOURCE: ELECTRIC (SPEED BASED ON 50Hz)																
PED0501	0.1	1.5	0.2	3.5	0.3	4.9	0.5	8.0	0.6	10.1	1.0	17.0	1.5	24.9	1.9	31.8
PES0501	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
PES1002	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
PES1503	0.1	0.5	0.1	1.0	0.2	1.5	0.3	2.4	0.4	3.0	0.7	5.1	1.0	7.5	1.2	9.5
PES1503	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	4.0	1.0	5.1
PE0501	0.10	1.6	0.2	3.5	0.3	5.0	0.5	8.1	0.6	10.2	1.1	17.3	1.6	25.3	2.0	32.4
PE1002	0.09	0.8	0.2	1.8	0.3	2.5	0.5	4.0	0.6	5.1	1.0	8.6	1.5	12.7	1.9	16.2
PE1503	0.06	0.5	0.1	1.1	0.2	1.5	0.3	2.4	0.4	3.1	0.7	5.2	1.0	7.6	1.3	9.7
PE3005	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	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	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	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	5.0

Mini Jacks

- Low Profile mini jack.
- Pocket size and light weight.
- Convenient for storage.

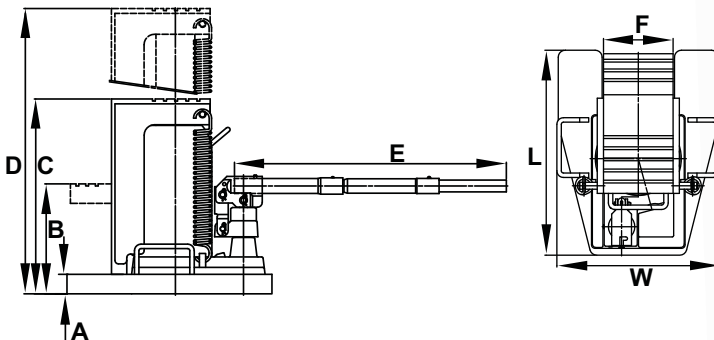
Mini Jacks

Model Number	Capacity	Capacity	Min. Height	Max. Height	Hydraulic Lifting	Base Size (L x W)	Weight
	(Ton)	(kN)	(mm)	(mm)	(mm)	(mm)	(kg)
J11050	5	50	60	80	19	105 x 120	2.1
J11055	5	50	86	124	38	105 x 120	2.4
J11100	10	100	121	159	41	124 x 110	5.7
J11200	20	200	130	171	41	137 x 121	7.6



Toe Jacks

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



Toe Jacks

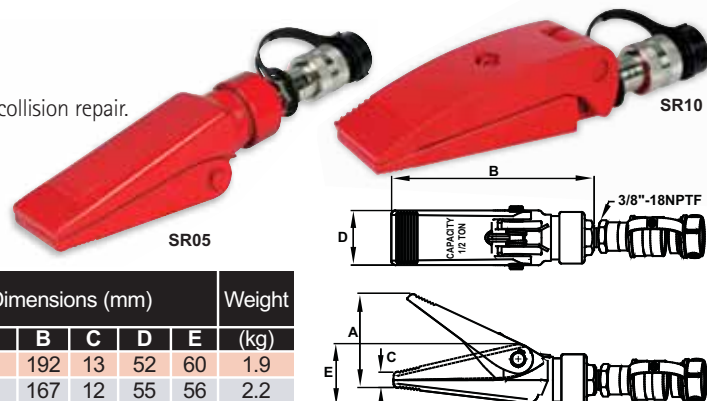
Model Number	Capacity	Capacity	A	B	C	D	E	F	L	W	Weight
	(Ton)	(kN)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)
J13060	3	30	16	146	230	360	600	88	215	190	17.8
J13120	6	60	22	152	267	397	600	80	280	190	27.2
J13200	10	100	28	158	280	410	600	100	295	234	39.5
J13300	15	147	28	168	332	472	972	100	316	272	54.3

Spreaders

- Multi-purpose applications: to spread, lift, level machinery or collision repair.
- Designed to work in confined working areas.
- Jaws close automatically with the return spring after the pressure is released.

Spreaders

Model Number	Capacity	Capacity	Cylinder Effective Area	Oil Capacity	Dimensions (mm)					Weight
	(Ton)	(kN)	(mm ²)	(cc)	A	B	C	D	E	(kg)
SR05	0.5	5	7.9	9.5	90	192	13	52	60	1.9
SR10	1	10	7.0	14.1	99	167	12	55	56	2.2





Press

- New series of presses with double speed hydraulic hand pump and single acting ram with return spring.
- All presses are supplied with 2 "V" Arbor Plates. And a punch plate.
- The 50 ton model comes with a moveable cylinder.
- The presses are designed and manufactured as per the last CE directives
- The presses come with a winch for hoisting the working table.

Puch Plate included



Two "V" Arbor Plates included



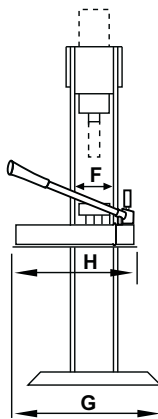
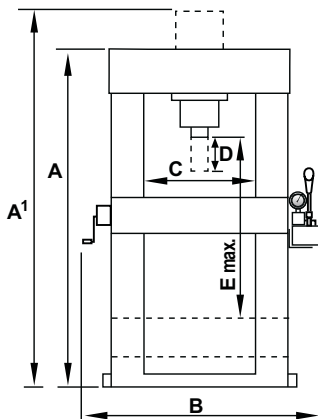
Winch to lift working table



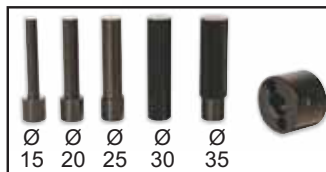
Double speed Handpump with Gauge



50 Ton Moveable Cylinder

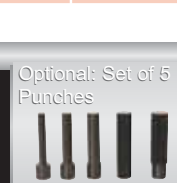
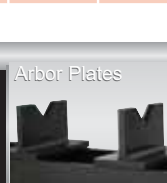


Optional:
SAP 50 Adapters



Model Number	Cylinder	Pump	A (cm)	A1 (cm)	B (cm)	C (cm)	D (mm)	E (cm)	F (cm)	G (cm)	H (cm)	Weight (kg)
MANUAL PRESS 50 TON												
SMS5510	H5510	P2301	200	208	136	78.5	260	126	18	75	67	412
SMS5513	H5513	P4301	200	216	138	78.5	337	126	18	75	67	415
MANUAL PRESS 100 TON												
SMS10010	H10010	P4301	210	221	170	102.5	260	115	27	95	67	1180

Accessories



Electrical Press

- New series of electrical presses with double acting cylinder.
- All presses are supplied with 2 "V" Arbor Plates. And a punch plate.
- The presses come with a moveable Ram and winch to hoist the working table.

Operating by remote control

- Easy and flexible operation by means of the remote control.



SED10013

Model Number	Cylinder	Pump	A	A1	B	C	D	E	F	G	Weight
			(cm)	(cm)	(cm)	(mm)	(cm)	(cm)	(cm)	(cm)	(cm)
ELECTRICAL PRESS WITH REMOTE CONTROL											
SED5513	HD5513	PE0501	200	216	158	78.5	335	126	18	75	440
SED10013	HD10013	PE1002	210	221	190	102.5	333	115	27	85	1220

Operating by: "Two"-hands

- Safe Two-hand operation.
- Flashing warning light - when operating.



SEC10013

Model Number	Cylinder	Pump	A	A1	B	C	D	E	F	G	Weight
			(cm)	(cm)	(cm)	(mm)	(cm)	(cm)	(cm)	(cm)	(cm)
ELECTRICAL PRESS “TWO-HANDS” OPERATION											
SEC5513	HD5513	PE0501	200	216	158	78.5	335	126	18	75	445
SEC10013	HD10013	PE1002	210	221	190	102.5	333	115	27	85	1230

Accessories





Cutters

These tools are used for many varying tasks such as:

- cutting chain and many other varied uses.
- cutting re-bar in the construction industries.
- cutting flat bar.
- cutting in all kind of emergency situations like:
 - a) cutting and sealing off old steel gas pipes.
 - b) cutting aircraft seats and frame work, in an accident.
 - c) cutting the pedals in automobile accidents.



CT10
(Excluding
Cylinder H1002)



Cutter Blades

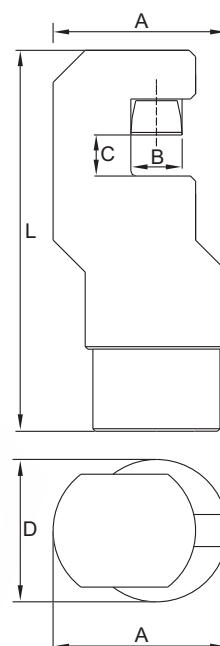
Upper Blade
10 T CTU10 24 mm
50 T CTU50 50 mm



Lower Blade
10 T CTL10 24 mm
50 T CTL50 50 mm



CT50
(Excluding
Cylinder H5502)



Model Number	Capacity kN	A	B	C	D	L	Weight	
		(mm)	(mm)	(mm)	(mm)	(mm)	excl. Cyl. (kg)	incl. Cyl. (kg)
CAPACITY: 10 Ton								
CT10	101	81	24	19,5	68	168	2	5
CAPACITY: 50 Ton								
CT50	496	155	40	70	135	260	16	31,5

Chain (Max.)	Strength	Steel Bar	Standards
ø(mm)	(grades)	ø(mm)	
19	28-43-50	19	ASTM-413
		15	DIN 5684
14	60-80	13	DIN 5685
		11	DIN 764
60	60-80	35-45	DIN 5684
50	60-80-100	50-60	DIN 5684
40	28-43-50-100	60-70	DIN 685

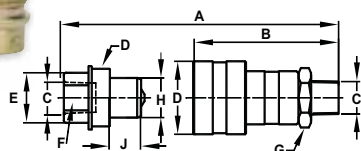
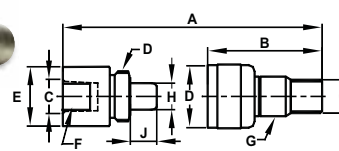
Hydraulic Accesories

Coupler

Model Number			Dimensions (mm)									Dust Cap(s)
Complete Set	Male Half	Female Half	A*	B	C	D	E	F	G	H	J	
HIGH-FLOW COUPLER												
CH38	CH38M	CH38F	81.1	72.1	3/8"-18NPTF	1 3/16"-16	28	24	25	19	16	Female
REGULAR-FLOW COUPLER												
CR38	CR38M	CR38F	80	55.9	3/8"-18NPTF	15/16"-20	26	24	19	13	13	Female
CRZ14	CRZ14M	CRZ14F	61.5	42.4	1/4"-18NPTF	13/16"-20	24	21	15	10	9	Female & Male

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

CH38

CR38
CRZ14

Hoses

Hose Exceeds DIN 20022-1 and SAE 100R9 Specifications

- Rubber Bend Restrictors.
- High Working Pressure
- Optimum Flexability
- Leight Weight
- Temperature Range:

From -40°C up to +100°C.



CS3814-2

Model Number	I.D. Ø	Hose End Fittings	Operating Pressure (bar)	Bursting Pressure (bar)	Bend Radius (mm)	Oil Volume (cc)	Weight (kg)
Hose 2M							
CS3814-2	6.35mm / 1/4"	3/8"-18NPTF	700	2800	100	230	2.4
CS3838-2	9.5mm / 3/8"	3/8"-18NPTF	700	2800	150	515	3.1
HOSE CUSTOM LENGTH (SPECIAL ORDER; NO STOCK ITEM)							
CS38	-	3/8"-18NPTF	700	2800	100	115/M ¹	0.2 - 0.25
CS14/M	6.35mm / 1/4"	-					
CS38	-	3/8"-18NPTF	700	2800	150	257/M ¹	0.2 - 0.3
CS38/M	9.5mm / 3/8"	-					

CS3838-2



POLYURETHANE

STEEL WIRE

ARAMID

POLYAMIDE





Pressure Gauge

Model Number	Face Diameter (mm)	Fitting	Thread	Pressure Range		Graduation			
						Major Graduation	Minor Graduation	Major Graduation	Minor Graduation
				(psi)	(bar)	(psi)		(bar)	
WET									
GBW1460	63	Brass	1/4"-18NPTF	0-15,000	0-1000	1000	500	100	20
GSW1460	63	Stainless Steel	1/4"-18NPTF	0-10,000	0-700	1000	500	100	20

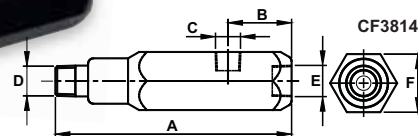


GBW1460

Fitting / Gauge Adaptor

Model Number	Dimensions (mm)					
	A	B	C	D	E	F

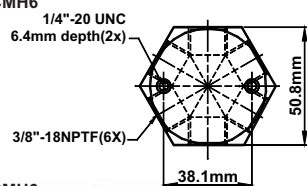
CF3814	130	35	1/4"-18NPTF	3/8"-18NPTF	3/8"-18NPTF	32
--------	-----	----	-------------	-------------	-------------	----



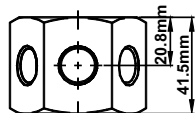
Manifold

Model Number	Number of Ports	Port Size	Mounting Hole
6-PORT HEXAGON MANIFOLD			
CMH6	6	3/8"-18NPTF	1/4"-20UNC
17.8 CM LONG MANIFOLD			
CM7	7	3/8"-18NPTF	1/4"-20UNC
35.6 CM LONG MANIFOLD			
CM14	7	3/8"-18NPTF	1/4"-20UNC

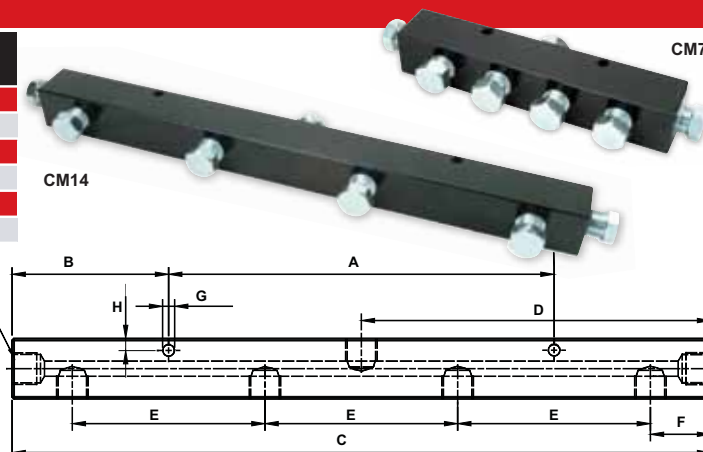
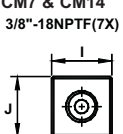
CMH6



CMH6



CM7 & CM14



CM7

CM14

Model Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
CM7	76.2	50.8	177.8	88.9	38.1	31.8	6.4	6.3	31.8	31.8
CM14	203	82.5	368	184	101.5	31.8	6.4	6.4	31.8	31.8

Manifold - Split Flow

Model Number	Number of Ports	Port Size	Mounting Hole
SPLIT FLOW MANIFOLD			
MFC2	2	3/8"-18NPTF	1/4"-20UNC
SPLIT FLOW MANIFOLD			
MFC4	4	3/8"-18NPTF	1/4"-20UNC

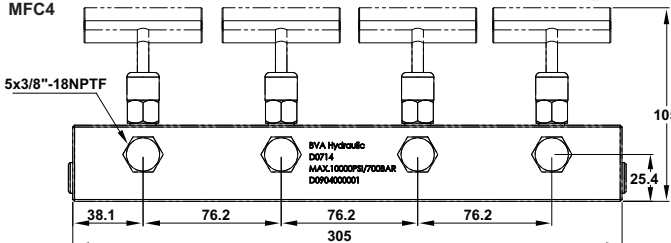
MFC2



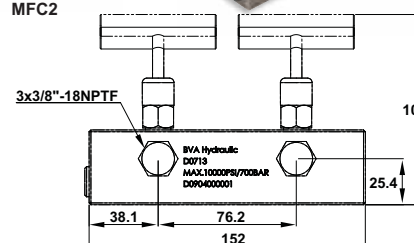
MFC4



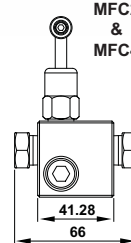
MFC4



MFC2



MFC2 & MFC4



Accessories

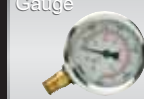
Saddle



Hose



Gauge

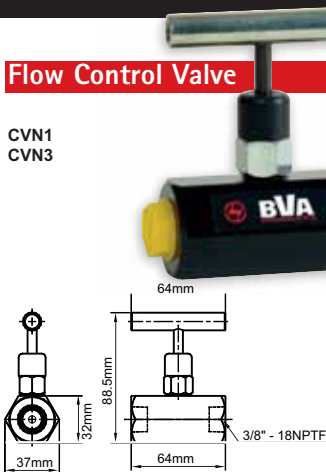


Base

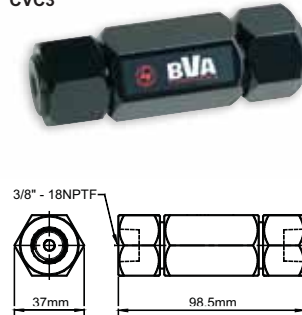


Flow Control Valve

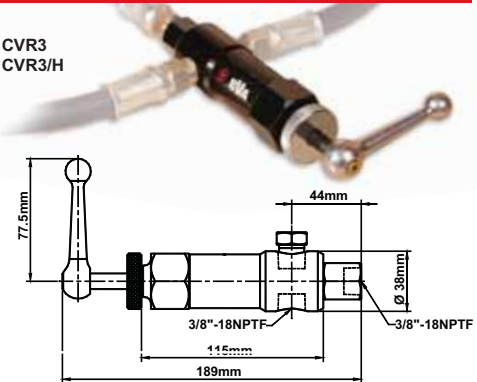
CVN1
CVN3

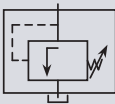


CVC3



CVR3
CVR3/H



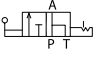
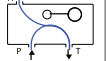
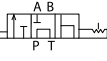
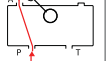
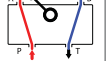
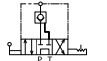
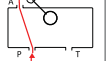
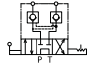
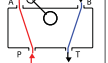
Model Number	Ports	Application	Hydraulic Symbol
NEEDLE VALVE			
CVN1	1/4"-18NPTF	Controls cylinder speed and acts as temporary shutt-off valve for load holding.	
CVN3	3/8"-18NPTF		
CHECK VALVE			
CVC3	3/8"-18NPTF	Allows flow in one direction only.	
PRESSURE RELIEVE VALVE			
CVR3	3/8"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurred when pre-set pressure is reached. Turns clockwise to increase pressure counter clockwise to decrease.	
CVR3/H	3/8"-18NPTF	Same as CVR3, but Return line hose / 1 meter lenght is included.	

Pump Mounted Valves

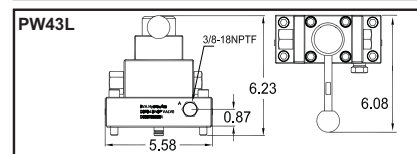
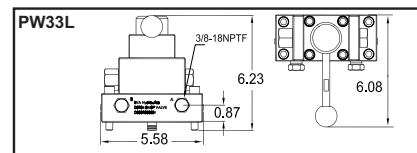
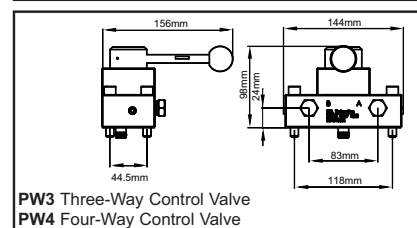
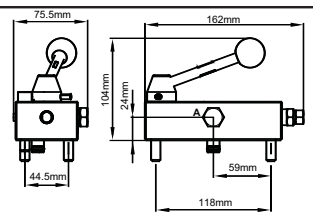


PW3

PW33L & PW43L

Valve Operation	Valve Type	Use with Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path	Weight (kg)
Manual	3-way, Tandem Center	Single Acting	PW2			1.8
	3-way, Tandem Center		PW3			1.8
	4-way, Tandem Center	Double Acting	PW4			1.8
	3-way, 3 position, Tandem Center, Locking	Single Acting	PW33L			2.7
	4-way, 3-position, Tandem Center, Locking	Double Acting	PW43L			2.7

PW2
Two-Way
Control
Valve

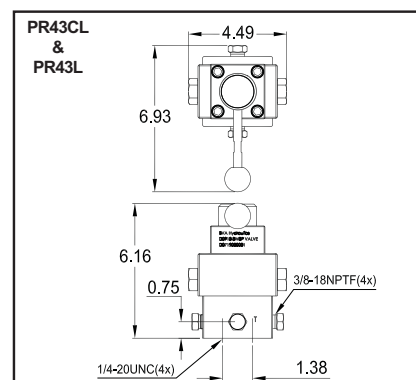
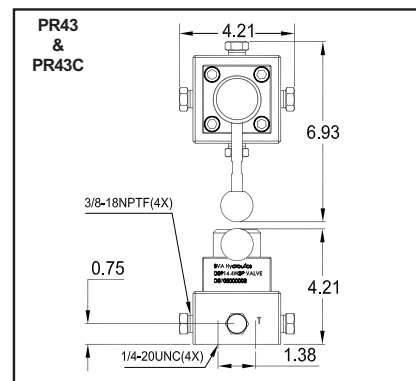
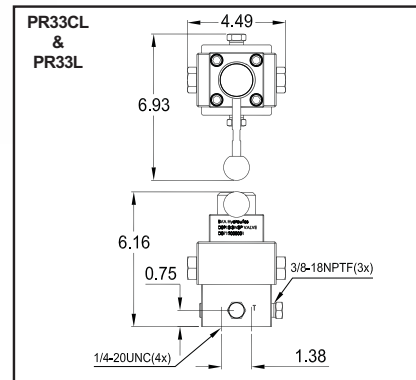
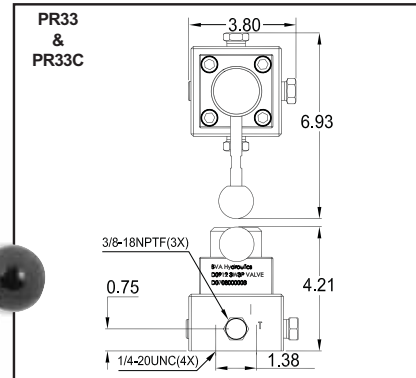




Pump Mounted Manifold Block

CMR2


Remote Mounted Valves

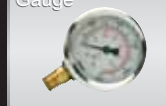
PR33


Valve Operation	Valve Type	Use With Cylinder	Model Number	Hydraulic Symbol	Schematic Flow path	Weight (kg)
Manual	3-way, 3 position, Tandem center	Single Acting	PR33			1,6
	3-way, 3 position, Closed center		PR33C			1,6
	3-way, 3 position, Tandem center, Locking		PR33L			2,6
	3-way, 3 position, Closed center, Locking		PR33CL			2,6
	4-Way, 3 position, Tandem center	Double Acting	PR43			1,6
	4-Way, 3 position, Closed center		PR43C			1,6
	4-Way, 3 position, Tandem center Locking		PR43L			2,6
	4-way, 3 position, Closed center, Locking		PR43CL			2,6

Cylinder Accessories

Saddle

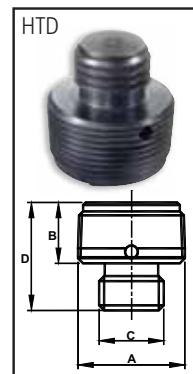
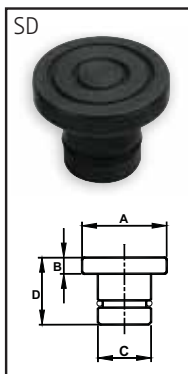
Hose

Gauge

Base


Cylinder Accesories

Saddle

Model Number	Saddle Type	For use with Cylinder Capacity	Dimension (mm)			
		Ton	A	B	C	D
SD05	Grooved	5	25	6	17	20
SD10		10	35	6	22	27
SD15		15	38	7	22	30
SD25		25	50	7	36	29
SDT05	Tilt	5	25	17	17	31
SDT10		10	35	16	22	37
SDT15		15	38	19	22	40
SDT25		25	50	19	36	40
SDT55	Threaded	50	70	33	70	33
HTD10		10	1 1/4"-11 1/2NPTF	26	1"-8UNC	45

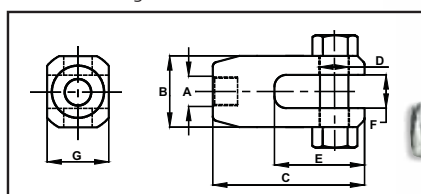


Clevis

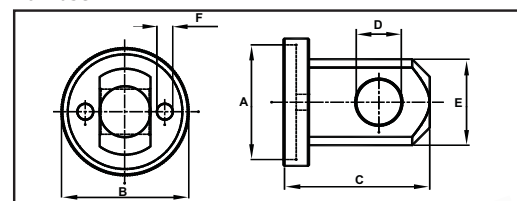
Model Number	Clevis Type	For use with Cylinder Capacity	Dimension (mm)						
		Ton	A	B	C	D	E	F	G
CEP05	Plunger	5	3/4"-16UNF	29	57	16	16	14	-
CEP10		10 + 15	1"-8UNC	43	84	22	19	25	-
CEP15		15	1 1/2"-16	57	97	32	22	38	-
CEP25		25	1 1/2"-16	57	97	32	22	38	-
CEB05	Base	5	38.6	44	54	16	7	29	-
CEB10		10	57.9	64	73	22	43	8	-
CEB15		15	70.4	76	73	22	43	10	-
CEB25		25	86.4	95	86	32	57	14	-
CP10*	Plunger & Base	only HP1006	M30x2	75	160	30	95	35	65

2-pc set with an adaptor

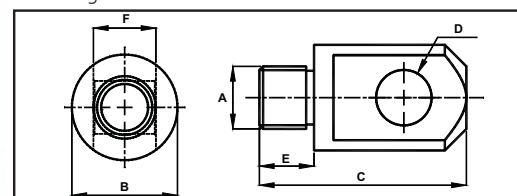
CP10-Clevis Plunger & Base



CEB 15-Base



CEP 15-Plunger



Hydraulic Oil

Model Number	Volume	Oil Type	Viscosity	For Pump
	(liter)			
HV151	1	Hydro HV15	15	Hand / Air
HV155	5			
HV685	5	Hydro HV68	68	Electric

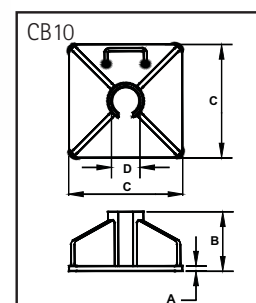


Base

CB10

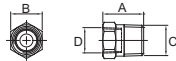
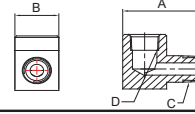
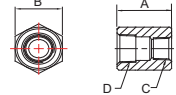
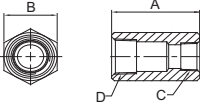
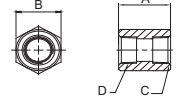
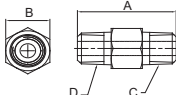
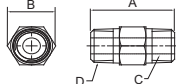
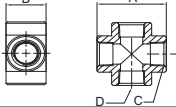
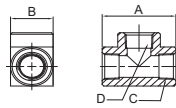
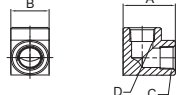
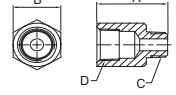
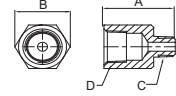


Model Number	For use with Cylinder Capacity	Dimension (mm)			
	Ton	A	B	C	D
CB05	5	8	118	200	39
CB10	10	10	120	230	58
CB15	15	12	122	254	70
CB25	25	16	126	280	87





Fittings

Model Number	Description	Picture	Drawing	Dimensions			
				A (mm)	B (mm)	C	D
CA3814	Fitting			35	23	Male: 1/4"-18NPTF	Female: 3/8"-18 NPTF
CB1438	Bushing			22	17	Male: 3/8"-18NPTF	Female: 1/4"-18 NPTF
FT101	2-way 90° Connector			46	26	Male: 3/8"-18NPTF	Female: 3/8"-18 NPTF
FT102	Coupling			30	26	Female: 1/4"-18NPTF	Female: 3/8"-18 NPTF
FT112	Coupling			48	29	Female: 1/2"-14NPTF	Female: 3/8"-18 NPTF
FT103	Coupling			30	26	Female: 3/8"-18NPTF	Female: 3/8"-18 NPTF
FT104	Male Connector			38	17	Male: 1/4"-18NPTF	Male: 1/4"-18 NPTF
FT114	Male Connector			38	19	Male: 3/8"-18NPTF	Male: 3/8"-18 NPTF
FT105	4-Way Connector			45	26	Female: 3/8"-18NPTF	Female: 3/8"-18 NPTF
FT106	3-Way Connector			45	26	Female: 3/8"-18NPTF	Female: 3/8"-18 NPTF
FT107	2-Way 90° Connector			35.5	26	Female: 3/8"-18NPTF	Female: 3/8"-18 NPTF
FT108	Adaptor			43	29	Male: 1/2"-14NPTF	Female: 3/8"-18 NPTF
FT118	Adaptor			43	29	Male: 1/4"-18NPTF	Female: 1/2"-14 NPTF



Confidence Built on Quality

ISO 9001

BVA products are manufactured through an International Quality Assurance System, ISO 9001/9002, which involves consistent observation of administration, management, manufacturing, and production

BVA

Products comply with the following industry standards

SAE 100

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

control. Under this system, the related operations are monitored on all aspects of the production of BVA products from the purchase order, the assembly line, to shipping the order from the distribution center.

ANSI B30.1

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

ANSI B40.1

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

Cylinder Plunger Speed

- Formula: $V = A \div Q$

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

Force

- Formula: $F = P \times A$

$$\frac{\text{Force (kgs)}}{\text{Hydraulic Working Pressure (kg/cm}^2\text{)}} = \frac{\text{Cylinder Effective Area (cm}^2\text{)}}{1(\text{min})}$$

Cylinder Oil Capacity

$$\frac{\text{Oil Capacity (cm}^3\text{)}}{\text{Cylinder Effective Area (cm}^2\text{)}} = \frac{\text{Cylinder Stroke (cm)}}{1(\text{min})}$$

Cylinder Effective Area

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

Where: $\pi = 3.14159$

1Kgf=9.81N

1N=1KG-m/sec²

iKEY TO MEASUREMENTS	
WEIGHT	
1 pound (lb.)	= 0.4536 kg
1 kg	= 2.205 lbs
1 ton (short, US)	= 2000 lbs
1 ton (metric)	= 2205 lbs
VOLUME	
1 in ³	= 16.387 cm ³
1 cm ³	= 0.061 in ³
1 liter	= 61.02 in ³
1 gal (US, liquid)	= 3.785 liter
	= 231 in ³
	= 3785 cm ³
OTHER MEASUREMENTS	
1 in	= 25.4 mm
1 mm	= 0.039 in
1 in ²	= 6.452 cm ²
1 cm ²	= 0.155 in ²
PRESSURE	
1 psi (lb/in ²)	= 0.069 bar
1 bar	= 14.5 psi
1 kPa	= 0.145 psi
TEMPERATURE	
0°F	= (0°C x 1.8) + 32
0°C	= (0°F - 32) / 1.8

TWO-YEAR LIMITED WARRANTY FOR BVA BRAND HYDRAULIC EQUIPMENT

For a period of two (2) year from the date of purchase, Shinn Fu Europe B.V. will repair or replace, at its option, without charge, any of its products which fails due to defect in material or workmanship, or which fails to confirm to any implied warranty not excluded hereby.

Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, to Shinn Fu Europe B.V., Warranty Service Department, Tussenriemer 20, 4704 SR Roosendaal, The Netherlands.

Except where such limitations and exclusions are specifically prohibited by applicable law.

(1) THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY SHALL BE THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS DESCRIBED ABOVE, AND

(2) SHINN FU EUROPE B.V. SHALL NOT BE LIABLE FOR LOSS WHAT SO EVER, AND

(3) THE DURATION OF ANY AND ALL EXPRESSED AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO A PERIOD OF TWO (2) YEARS FROM THE DATE OF PURCHASE.



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

Steel stop ring for ram over travel protection.

Plunger wiper reduces contamination and extends the cylinder-life.

Collar fixture threads.

Cylinders are burnish rolled for a smooth precision mirror finish, which reduces scoring and prolongs seal life.

Industrial hard chrome plated ram prevents scratching and corrosion.

One piece steel ram stopper for extra strength and enhanced over travel protection.

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

Polyurethane cup seal provides optimum performance.

Rectangular return spring design results in even distribution of the load, which helps to eliminate spring breakage and creates quicker retraction.

High flow ball coupler provides more flow than conventional coupler.



SHINN FU EUROPE B.V.

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