

HYDRAULICS & PNEUMATICS

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BOOSTERS AND HYDRAULIC POWER SOURCES

P 915-924

WDS offers a range of hydraulic power sources ranging from low intensification minibosters to high volume boosters. Hydraulic power sources are excellent for high production environments where a controlled and constant pressure or ratio is required.



HYDRAULIC BOOSTERS

WDS Spencer Franklin hydraulic boosters are simple and robust pressure intensifiers. Using a simple factory pressure air supply and correct booster model the user can intensify the pressure output from 10 times to over a 1000 times.

Boosters can be mounted either vertically or horizontally due to the robust design. Each booster has a unique oil piston allowing higher ratios in each design. Spencer Franklin boosters offer instant and sustained pressure over other hydraulic sources.

P 915-919



SEAL KITS & O-RINGS FOR HYDRAULIC BOOSTERS

Spencer Franklin seal kits are replacement seal kits for SF hydraulic boosters. Tell tale signs of rubber seal kit failure would be the loss of pressure in your booster system. These low cost, high quality seals are easily fitted keeping your production line going.

P 920



HYDRAULIC BOOSTER ACCESSORIES

Hydraulic Booster accessories include: quick exhaust valves, PowRlock manifolds, rotating couplings and PowRlock self bleed booster reservoir assemblies.

P 921-922

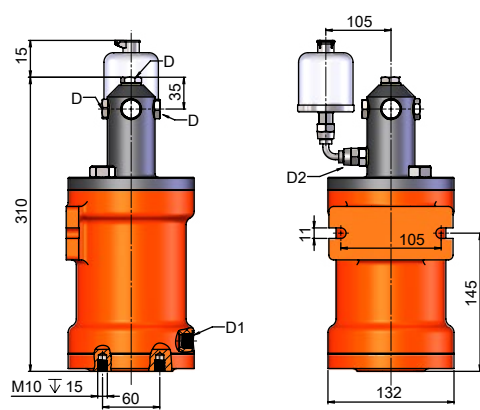


HYDRAULIC PUMPS

The SF range of manual hydraulic pumps includes hand operated pumps, a capstan pump design as well as screw and foot operated pumps.

P 923-924





SF-23 PowRock Mini Air-Oil Booster

Low Volume Air-Oil Intensifier

D = Oil Output 1/4" BSP

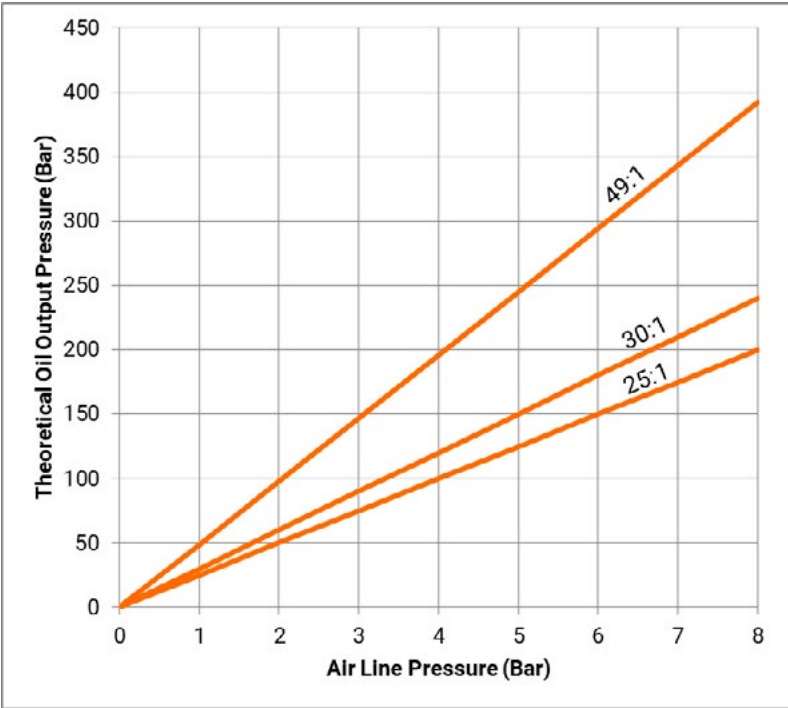
D1 = Air Input 1/4" BSP

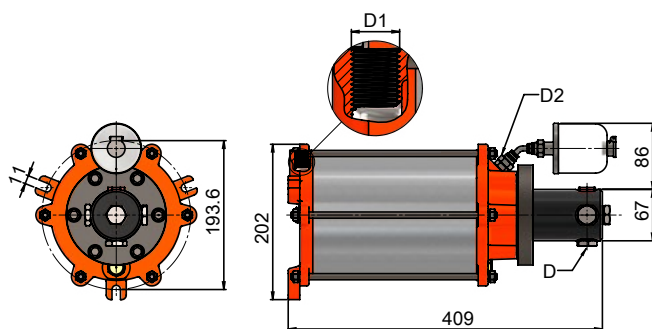
D2 = Oil Input 1/4" BSP

Maximum Stroke = 110mm

Air Consumed at 5.5 bar per 25mm stroke = 1600cm³

WDS No.	Max Air Inlet Pressure (Bar)	Max Oil Output Pressure (Bar)	Max Oil Output Volume (cm ³)	Ratio	Seal Kit
SF-2300	8.2	205	31.4	25:1	SF-23009
SF-2350	8.2	246	25.4	30:1	SF-23509
SF-2380	8.2	401	16	49:1	SF-23809





PowRlock Air-Oil Booster SF-26

Low Volume Air-Oil Intensifier

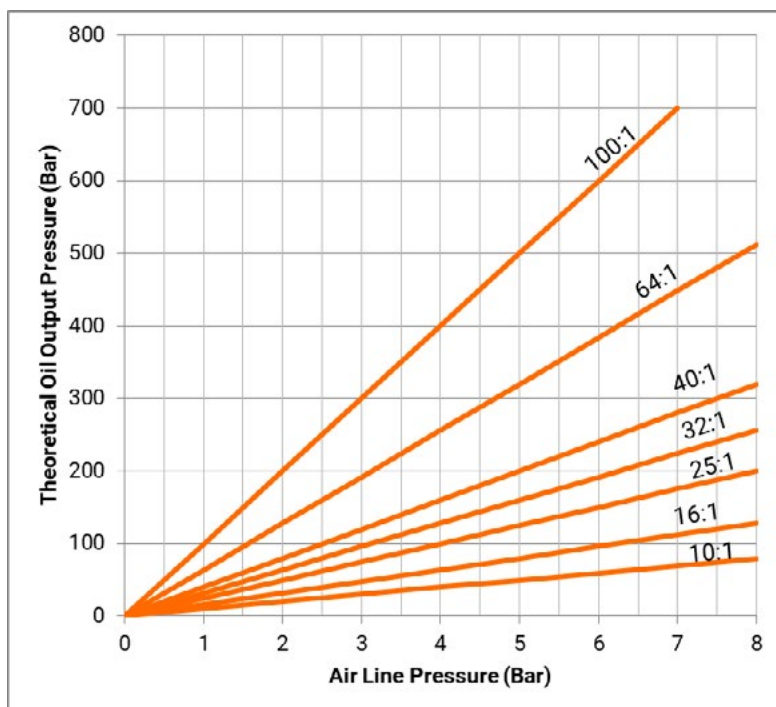
D = Oil Output 3/8" BSP, Top Port 1/2" BSP

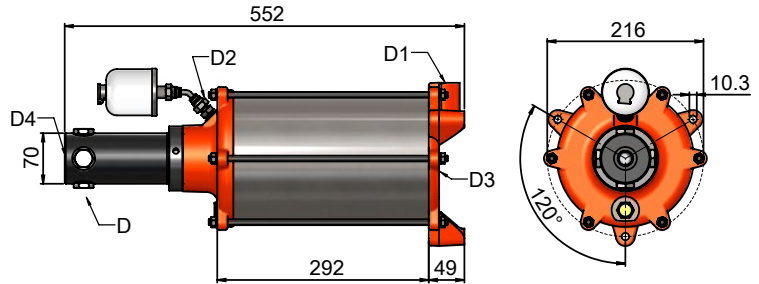
D1 = Air Input 3/8" BSP

D2 = Oil Input 3/8" BSP

Air Consumed at 5.5 bar per 25mm stroke = 3400cm³

WDS No.	Max Air Inlet Pressure (Bar)	Max Oil Output Pressure (Bar)	Max Oil Output Volume (cm ³)	Ratio	Seal Kit
SF-2600	7.8	78	215.98	10:1	SF-26009
SF-2610	7.8	125	138.23	16:1	SF-26109
SF-2620	7.8	196	88.46	25:1	SF-26209
SF-2630	7.8	251	67.73	32:1	SF-26309
SF-2640	7.8	313	53.99	40:1	SF-26409
SF-2650	7.8	502	34.55	64:1	SF-26509
SF-2660	6.9	686	22.11	100:1	SF-26609





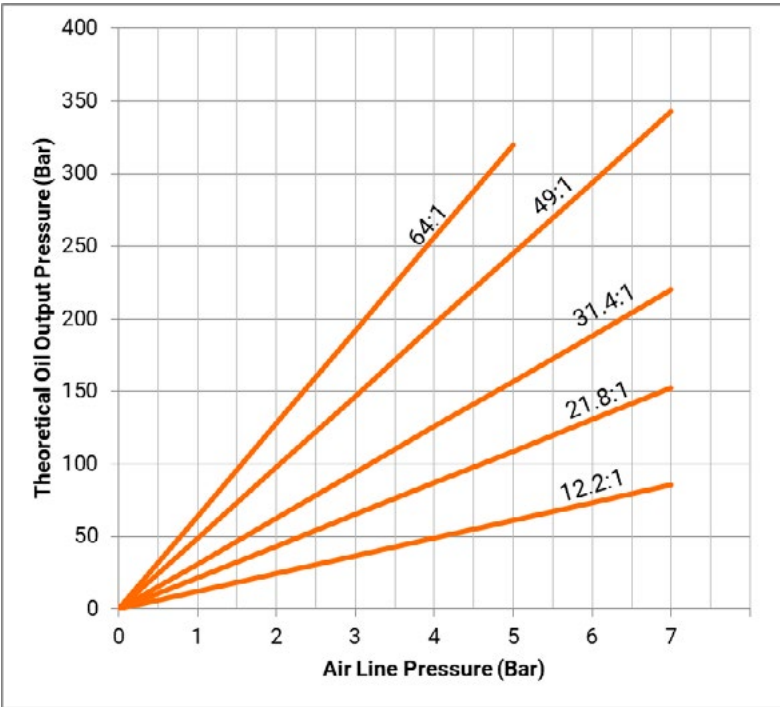
SF-76 PowRlock Zoom-ATC Air-Oil Booster

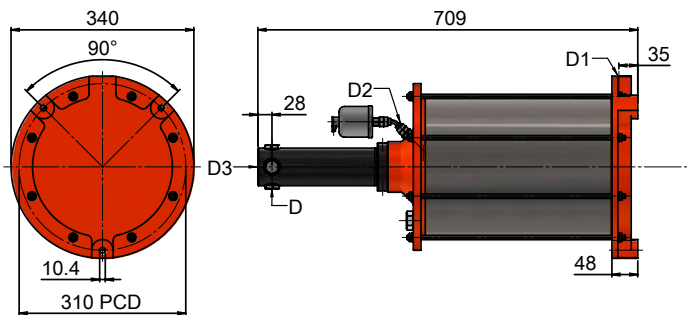
Low Volume Air-Oil Intensifier

- D = Oil Output 3/8" BSP
- D1 = Air Input 1/2" BSP
- D2 = Oil Input 3/8" BSP
- D3 = Alternate Air Input 1/2" BSP
- D4 = Oil Output 1/2" BSP

Maximum Stroke = 152.4mm
Air Consumed at 5.5 bar per 25mm stroke = 4000cm³

WDS No.	Max Air Inlet Pressure (Bar)	Max Oil Output Pressure (Bar)	Max Oil Output Volume (cm³)	Ratio	Seal Kit
SF-7635A	5.5	352	59	64.0:1	SF-76359
SF-7640A	7	343	77	49.0:1	SF-76409
SF-7650A	7	219	120	31.4:1	SF-76509
SF-7660A	7	152	174	21.8:1	SF-76609
SF-7680A	7	85	308	12.2:1	SF-76809





HyForce Air-Oil Booster SF-78

Low Volume Air-Oil Intensifier

D = Oil Output 3/8" BSP

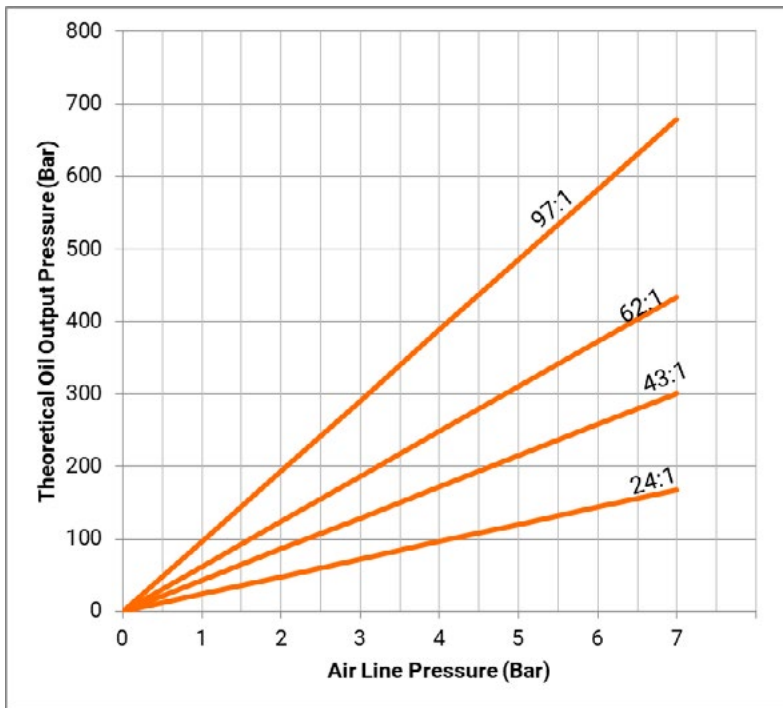
D1 = Air Input 1/2" BSP

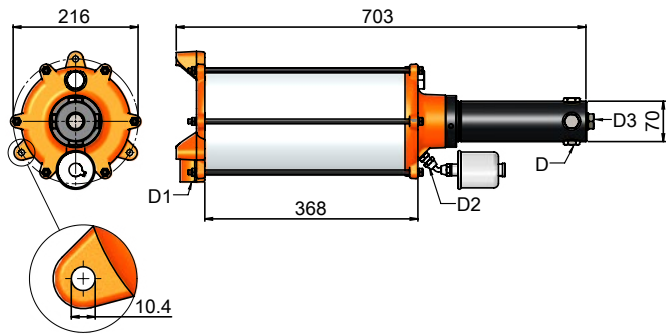
D2 = Oil Input 3/8" BSP

D3 = Oil Output 1/2" BSP

Maximum Stroke = 228.6mm

WDS No.	Max Air Inlet Pressure (Bar)	Max Oil Output Pressure (Bar)	Max Oil Output Volume (cm³)	Ratio	Seal Kit
SF-7820	7	679	116	97:1	SF-78209
SF-7825	7	434	181	62:1	SF-78259
SF-7830	7	301	260	43:1	SF-78309
SF-7835	7	168	463	24:1	SF-78359





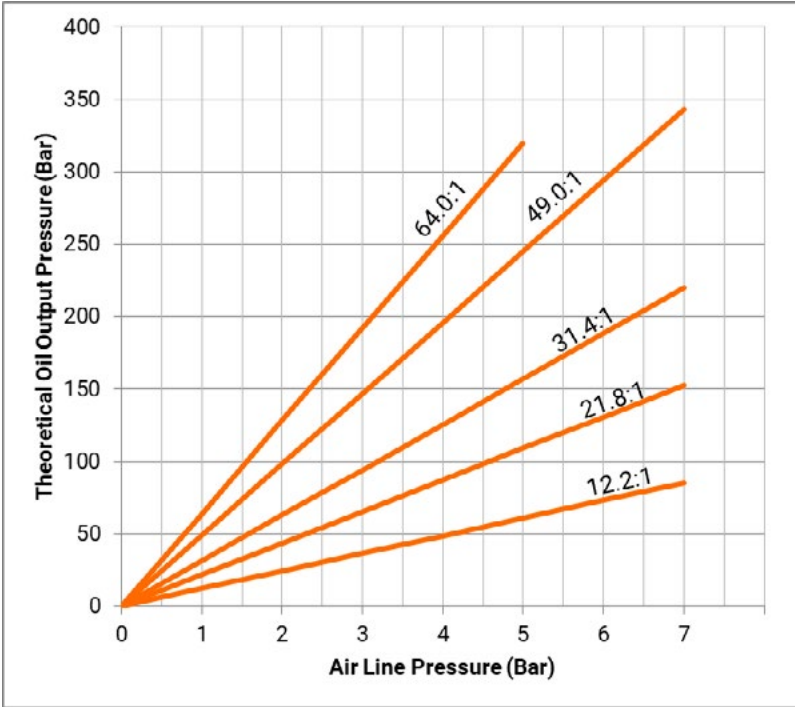
SF-79 PowRlock Zoom-ATC High Volume Air-Oil Booster

High Volume Air-Oil Intensifier

- D = Oil Output 3/8" BSP
- D1 = Air Input 1/2" BSP
- D2 = Oil Input 3/8" BSP
- D3 = Oil Output 1/2" BSP

Maximum Stroke = 228.6mm

WDS No.	Max Air Inlet Pressure (Bar)	Max Oil Output Pressure (Bar)	Max Oil Output Volume (cm³)	Ratio	Seal Kit
SF-7935	5.5	352	88	64.0:1	SF-79359
SF-7940	7	343	116	49.0:1	SF-79409
SF-7950	7	1538	181	31.4:1	SF-79509
SF-7960	7	152	260	21.8:1	SF-79609
SF-7980	7	85	463	12.2:1	SF-79809

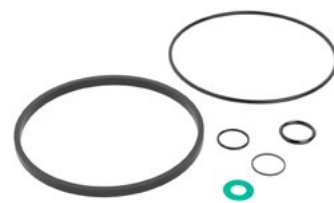




SF-23



SF-26/76



SF-78

Booster Seal Kits

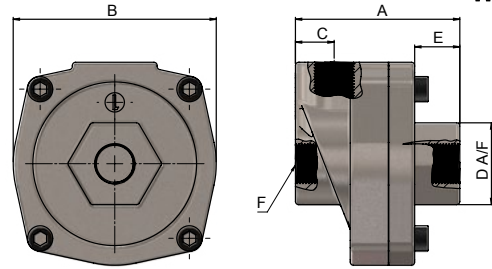
WDS No.	To Suit
SF-23009 - (SF-23)	SF-2300
SF-23509 - (SF-23)	SF-2350
SF-23809 - (SF-23)	SF-2380
SF-26009 - (SF-26)	SF-2600
SF-26109 - (SF-26)	SF-2610
SF-26209 - (SF-26)	SF-2620
SF-26309 - (SF-26)	SF-2630
SF-26409 - (SF-26)	SF-2640
SF-26509 - (SF-26)	SF-2650
SF-26609 - (SF-26)	SF-2660
SF-76359 - (SF-76)	SF-7635A
SF-76409 - (SF-76)	SF-7640A
SF-76509 - (SF-76)	SF-7650A
SF-76609 - (SF-76)	SF-7660A
SF-76809 - (SF-76)	SF-7680A
SF-78209 - (SF-78)	SF-7820
SF-78259 - (SF-78)	SF-7825
SF-78309 - (SF-78)	SF-7830
SF-78359 - (SF-78)	SF-7835



As standard, Spencer Franklin parts are painted orange.

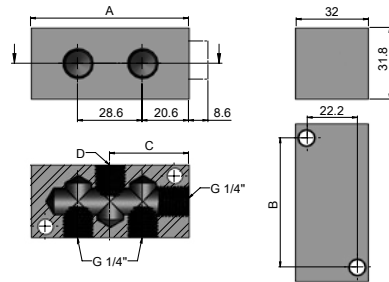
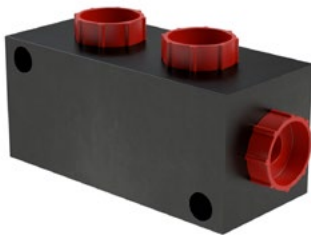
Alternative colours or unpainted parts are available.

Contact us over the phone or email sales@wdscomponents.com



SF-40 Quick Exhaust Valve

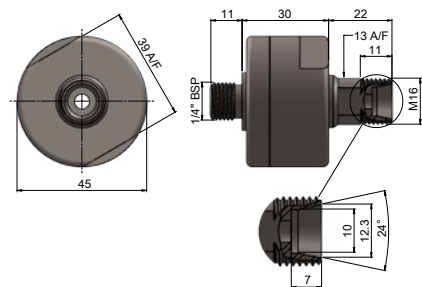
WDS No.	A	B	C	D	E	F	Weight (kg)
SF-4053	53	63	12	25.4	14	1/4" BSP	0.19
SF-4058	53	63	12	25.4	14	3/8" BSP	0.18
SF-4069	73	85	18	38	25	1/2" BSP	0.45



SF-407 PowRlock Manifolds

220M07, Blackodize

WDS No.	A	B	C	D	Ports	Weight (kg)
SF-4071	70	57.2	35	G1/4"	2	0.46
SF-4072	127	114.3	64	G1/2"	4	0.82
SF-4073	184	171.5	92	G1/2"	6	1.21
SF-4074	241	228.6	120	G1/2"	8	1.57



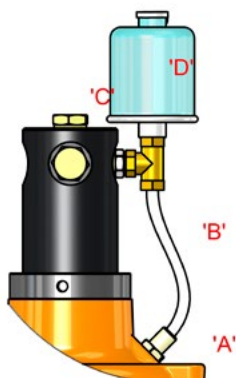
SF-4620 Rotating Coupling

WDS No.	Maximum Speed	Operating Pressure	Test Pressure	Weight (kg)
SF-4620	30 RPM	250 BAR maximum	350 BAR	3.44



PowRlock Self Bleed Booster Reservoir Assembly SF-4957

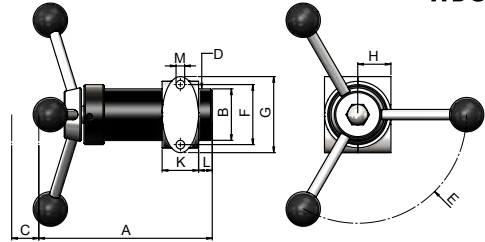
WDS No.	Description	Weight (kg)
SF-4957	Self Bleed Booster Reservoir Assembly	0.35



Fitting Instructions

1. Fitting bleed valve as shown, using the existing bonded washers. Use 1/4" x 3/8" BSP adaptor for intensifiers with 1/4" BSP outlet
2. Remove fitting at 'A' and replace with adaptor supplied (Note! The adaptor has been fitted into top of tee piece for ease of packaging)
3. Fit nylon tube 'B' (cut to suit)
4. Fill intensifier with oil through 'C' and refit plug
5. Fill reservoir 'D' 3/4 full and operate the system
6. The oil level in reservoir 'D' will drop as air in the system escapes
7. When the reservoir level stabilises, fill to 3/4 full
8. The intensifier is now ready to use but the remainder of the system should be bled as well

NOTE! Fit to side port of all SF-2600 and SF-7000 series boosters by fitting the 3/8" BSP Tee directly into booster outlet port. When fitting into the 1/4" BSP port of the SF-2300 and SF2350 boosters a standard SF-4108 male/female adaptor must be fitted to the Tee first

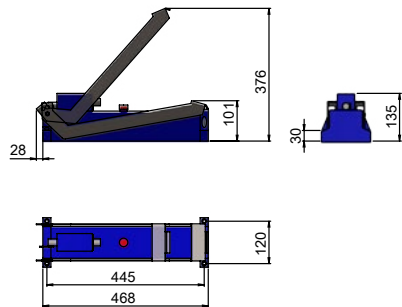


SF-OE00411 & SF-OE00412 Capstan Pumps

Maximum operating Pressure 175 BAR (2500psi)
Supplied with mounting clamp

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	Clamp Only
SF-OE00411	150.8	50.8	25.4	1/8" BSP	85.7	60.3	82.5	31.75	63.5	44.5	12.7	10.3	SF-OE50010
SF-OE00412	200	60	65	1/4" BSP	131	71.5	91	40	75	45	15	10.3	SF-OE50011

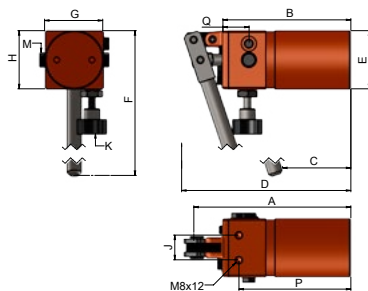
WDS No.	Oil Output for full travel cm³	Output for one turn of Hand Wheel cm³	Weight (kg)
SF-OE00411	25.84	1.84	2.00
SF-OE00412	127.6	2.95	3.74



SF-OE00510 Hydraulic Foot Pump

Oil: Mineral oil type HM ISO VG32
Reservoir must be horizontally mounted
Reservoir capacity 1.5 litres usable
Output per complete cycle 68 cm³

WDS No.	Pressure generated by 300N on pedal (BAR)	Pressure Relief Valve (BAR)	Weight (kg)
SF-OE00510	100	175	2



PowRock Lever Hydraulic Pump SF-OE00690 & SF-OE00691

All ports 1/8" BSP (Seal with copper washer)

K - Release Knob (anti-clockwise to release)

Must be installed with lever mechanism and plunger at the top

Maximum tilt from vertical 30°

Internal relief valve pre-set to 175 kg/cm² - it is adjustable

WDS No.	A	B	C	D	E	F	G	H	J	N	P	Q
SF-OE00690	167.4	135.73	51.15	317.5	64.76	298.45	63.5	63.5	26.98	12.7	117.5	29.4
SF-OE00691	237.49	205.74	127	307.35	64.76	298.45	63.5	63.5	26.98	12.7	187.2	29.4

WDS No.	Displacement per cycle cm ³	Max Pressure kg/cm ²	Normal Operating Pressure kg/cm ²	Oil Capacity cm ³	Seal Kit	Weight kg
SF-OE00690	4.91	175	141	163.87	SF-4405	3.17
SF-OE00691	4.91	175	141	327.74	SF-4405	3.40



HYDRACLAMPS & ACCESSORIES

P 927-936

Hydraclamps are a unique but popular 360 degree work bench clamp. The range includes 10 different styles each with a different clamping action and load capacity.



HYDRACLAMPS

The WDS Hydraclamp is a 360 degree clamping device. Ideal for wood carving, woodworking, tool making, dental training, jewellery making, assembly and repair applications or electrical / circuit board assembly. Each Hydraclamp is unique with models ranging from 6Kg to 750Kg load capacities.

P 927-933



HYDRACLAMP PLATES & ACCESSORIES

WDS offer a selection of accessories for the Hydraclamp range. Steel and aluminium face plates are available for SF-1200M, SF-1310M, SF-1400M & SF-1401M hydraclamps models.

P 934-935

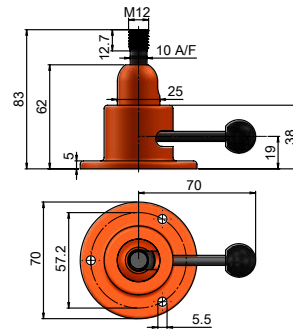


SEAL KITS & O-RINGS FOR HYDRACLAMPS

Maintenance of the hydraclamp is the key ensuring longevity of a unit. Replacement seal kits for SF Hydraclamps are available from stock.

P 936

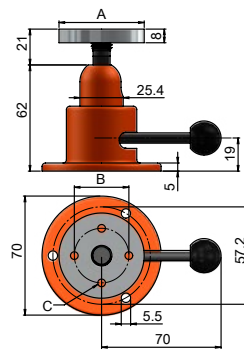




SF-1130 Microclamp

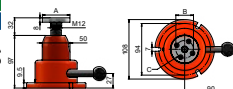
These robust little mechanical clamps have a capacity ample for the light work for which they are intended and are perfect for a variety of duties including -
Small woodworking projects
Electronics
Jewellery

WDS No.	Load Capacity	Weight (kg)
SF-1130	4Nm - 4kg @ 100mm from ball centre	0.34



SF-1130A Microclamp with Face Plate

WDS No.	A	B	C	Load Capacity	Weight (kg)
SF-1130A	50	32	4 off to Suit 4mm Wood Screw	4Nm - 4kg @ 100mm from ball centre	0.38
SF-1130B	75	55	4 off to Suit 4mm Wood Screw	4Nm - 4kg @ 100mm from ball centre	0.43



USE THE HOLES PROVIDED TO
RELEASE OR TIGHTEN THE CLAMP



TURN BOTTOM PLATE TO
ADJUST CLAMPING FORCE



Woodworking Hydraclamp Miniclamp with Face Plate SF-1200

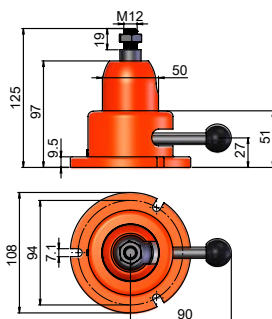
Maximum loading 6kg 300mm from Ball Centre at 45 degrees

The SF-1200 range of Hydraclamp range is by far the best for light wood working and wood carving clamp

One motion of the operating lever locks the work in any desired position.

To reset preload, or adjust handle position, it is only necessary to slacken the adjustment lock screw in the side of the body, reposition the nut plate and lock in required new position.

WDS No.	A	B	C	Weight (kg)
SF-1200A	50	32	4 off to suit 4mm wood screw	1.2
SF-1200B	75	55	4 off to suit 4mm wood screw	1.2
SF-1200C	100	80	4 off to suit 4mm wood screw	1.2
SF-1200D	120	89	6 off to suit #10 wood screw	1.2



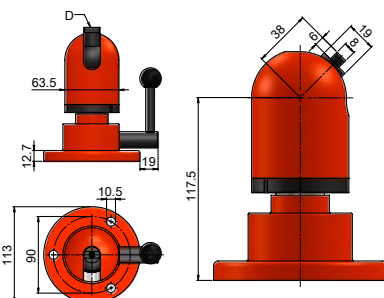
Hydraclamps Miniclamp Woodworking SF-1200M

Maximum loading 6kg 300mm from Ball Centre at 45 degrees

One motion of the operating lever locks the work in any desired position.

To reset preload, or adjust handle position, it is only necessary to slacken the adjustment lock screw in the side of the body, reposition the nut plate and lock in required new position.

WDS No.	Weight (kg)
SF-1200M	1.1

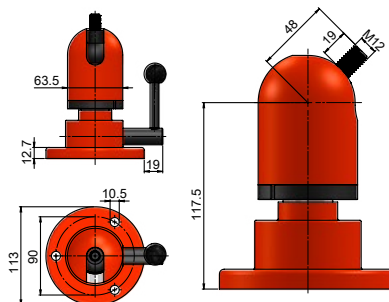


PowRlock Hydraclamps - Short Arm SF-1300M

Maximum loading 13kg 300mm from Ball Centre at 45 degrees

One motion of the operating lever locks the work in any desired position.

WDS No.	D	Weight (kg)
SF-1300M	M6 x 16	3.31



SF-1310M PowRlock Hydraclamps - M12 Short Arm

Maximum loading 13kg 300mm from Ball Centre at 45 degrees

The SF-1310 Hydra Clamp accepts the same faceplate as the SF-1200 range, ideal for the person who is migrating from the SF-1200 range.

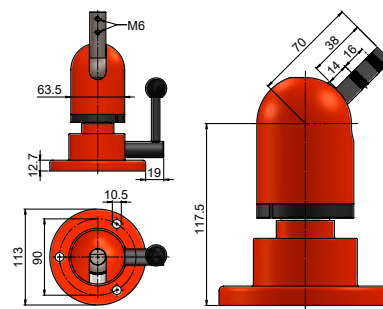
One motion of the operating lever locks the work in any desired position.

WDS No.

SF-1310M

Weight (kg)

3.31



SF-1320M PowRlock Hydraclamps - Long Arm

Maximum loading 13kg 300mm from Ball Centre at 45 degrees

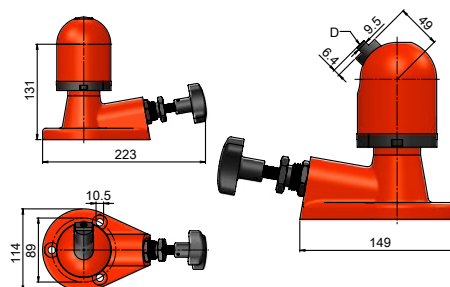
One motion of the operating lever locks the work in any desired position.

WDS No.

SF-1320M

Weight (kg)

3.5



SF-1400M Hydraclamp - Short Arm - Senior Type Hydraulic Operation

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve.

WDS No.

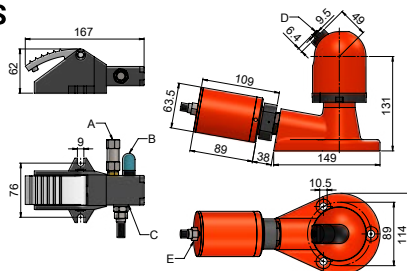
SF-1400M

D

M8 x 1.25

Weight (kg)

5.5



Hydraclamp Senior Type with Foot Pedal - Short Ball Arm SF-1401M

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

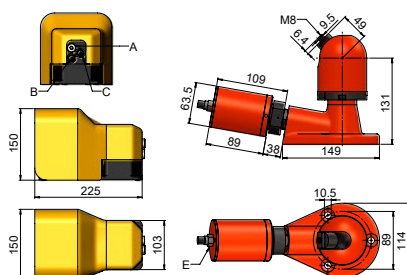
Air-hydraulic booster fitted

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Maximum air input pressure 5.5 BAR

WDS No.	A	B	C	D	E	Weight (kg)
SF-1401M	1/4" BSP Air Output to Hydraclamp	1/4" BSP Silencer	1/4" BSP Air Line Input	M8	1/4" BSP Air Input	5.5



Hydraclamp Senior Type with Safety Pedal - Short Ball Arm SF-1402M

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

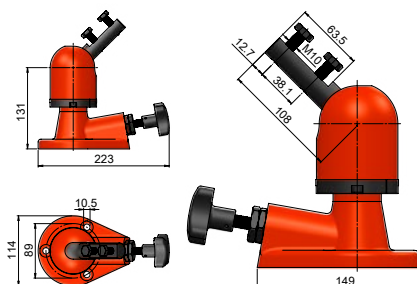
Air-hydraulic booster fitted

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Maximum air input pressure 5.5 BAR

WDS No.	A	B	C	Weight (kg)
SF-1402M	Air Inlet (Use non return valve supplied)	Exhaust	To Hydraclamp	10.5



Hydraclamps - Long Arm - Senior Type Hydraulic Operation SF-1420M

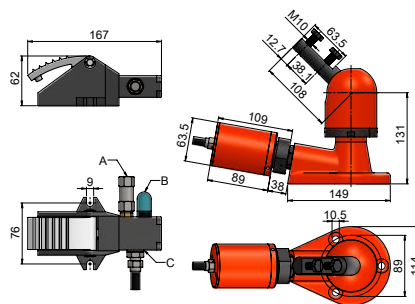
Hydraulic Operation

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

For heavier loading see SF-1440M

WDS No.	Weight (kg)
SF-1420M	5.75



SF-1421M Hydraclamp Senior Type with Foot Pedal - Long Ball Arm

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

Air-hydraulic booster fitted

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

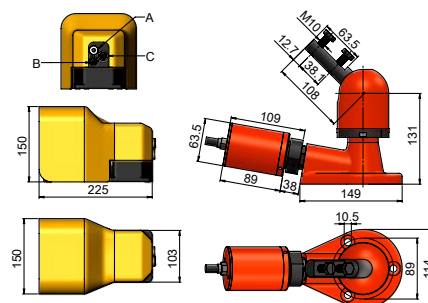
Maximum air input pressure 5.5 BAR

WDS No.

SF-1421M

Weight (kg)

8.6



SF-1422M Hydraclamp Senior Type with Safety Pedal - Long Ball Arm

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

Air-hydraulic booster fitted

Maximum loading 45kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Maximum air input pressure 5.5 BAR

WDS No.

SF-1422M

A

Air Inlet (Use non return valve supplied)

B

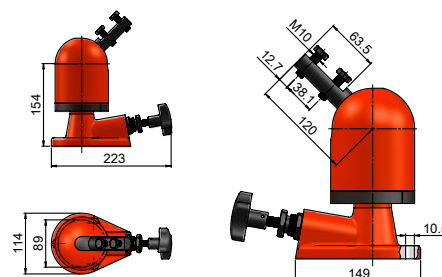
Exhaust

C

To Hydraclamp

Weight (kg)

10.5



SF-1440M PowRlock Hydraclamp - Super Senior Type

Hydraulic Operation

Maximum loading 150kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

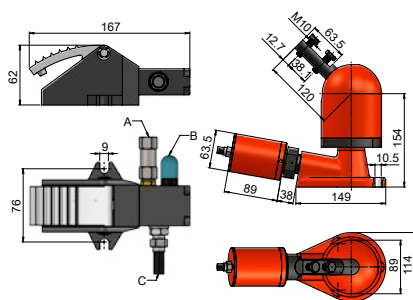
Ideal replacement for the SF-1420M when more strength is required, the base and arm have the same mounting holes

WDS No.

SF-1440M

Weight (kg)

9.7

Hydraclamp Senior Type with Foot Pedal - Long Ball Arm - 150kg Max Loading **SF-1441M**

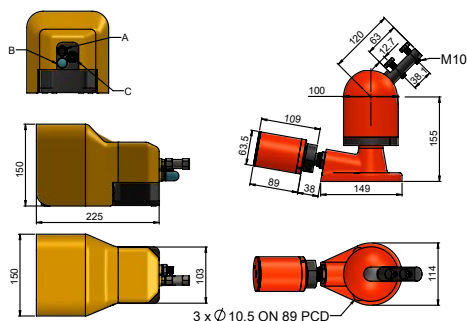
Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

Maximum loading 150kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Maximum air input pressure 5.5 BAR

WDS No.	Weight (kg)
SF-1441M	9.7



Hydraclamp Senior Type with Safety Pedal - Long Ball Arm SF-1442M

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

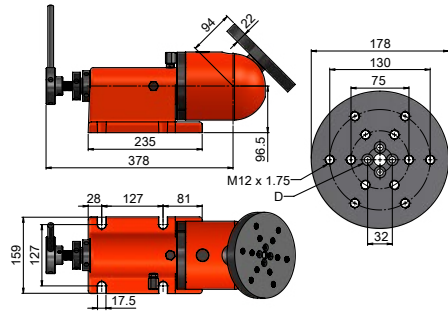
Air-hydraulic booster fitted

Maximum loading 150kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Maximum air input pressure 5.5 BAR

WDS No.	A	B	C	Weight (kg)
SF-1442M	Air Inlet (Use non return valve supplied)	Exhaust	To Hydraclamp	16



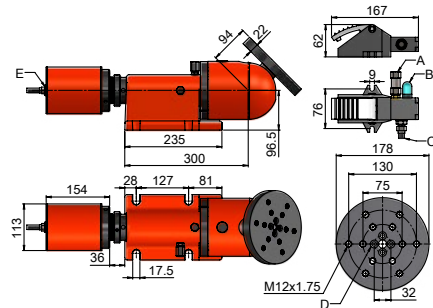
SF-1500M Hydraclamp Major Type

Hydraulic Operation

Maximum loading 325kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

WDS No.	D	Weight (kg)
SF-1500M	8.5 Through, 15 C'Bore, 12 Deep	38



SF-1501M Major Hydraclamp Foot Operation

Hydraulic Operation - Foot operated to allow both hands free to manipulate the workpiece mounted on the Senior Hydraclamp

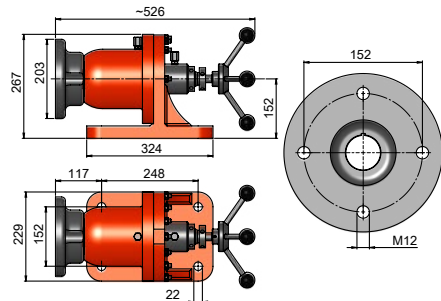
Maximum loading 325kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Air Hydraulic Booster fitted

Maximum air input pressure 5.5 BAR

WDS No.	Weight (kg)
SF-1501M	45



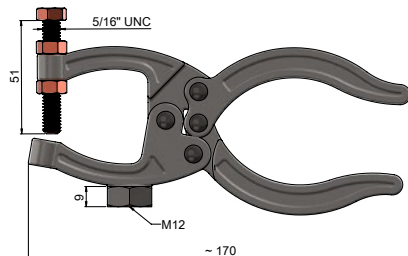
SF-1600M PowRlock Hydraclamp Super Major Type

Maximum loading - 750kg 300mm from Ball Centre at 45 degrees

Pre-load the clamping arm using the locknut and pre-load sleeve

Rotates 360° - No swivel action

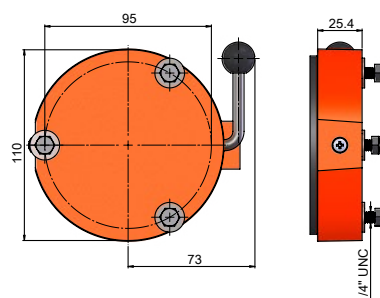
WDS No.	Weight (kg)
SF-1600M	68



Lock Grip Pliers SF-1208M

Instantaneous self-locking pliers making a convenient light vice for small assemblies.
Suitable for SF-1130 & SF-1200

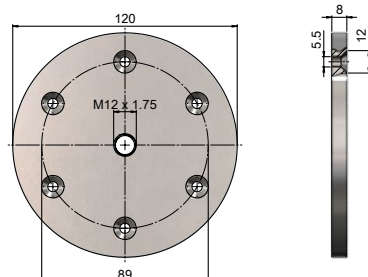
WDS No.	Weight (kg)
SF-1208M	0.32



PowRlock Suction Pad Base SF-1242

Allows the Miniclamp to be fixed rigidly wherever required without drilling and to be moved instantly to any position. Height 29mm
Suitable for SF-1200

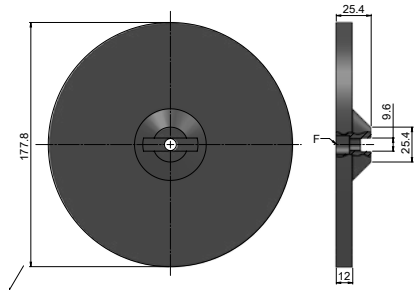
WDS No.	Weight (kg)
SF-1242	0.45



Face Plate for SF-1200M SF-1310M SF-1276

220M07 Chemical Black Finish
Ideal for Woodworking applications

WDS No.	Weight (kg)
SF-1242	0.69

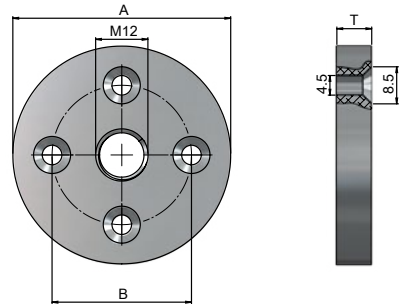


SF-1405M Face Plate for SF-1400M & SF-1401M

178mm DIA FACE PLATE Type SF1405M

This is the most useful general purpose adaptor for the use either as a direct holder for work or as a suitable base on which to mount an existing fixture.

WDS No.	F	To Suit Hydraclamp	Weight (kg)
SF-1405M	To suit M8 capscrew	SF-1400M & SF-1401M	2.55

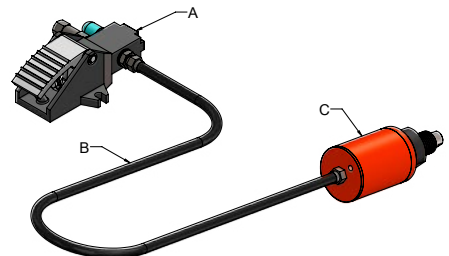


SF-1279 Face Plate for SF-1200M SF-1310M - Aluminium

Aluminium

Ideal for Woodworking applications

WDS No.	A	B	T	Weight (kg)
SF-1279A	50	32	8	0.04
SF-1279B	75	55	8	0.09
SF-1279C	100	80	8	0.17



SF-4801 Foot Operation Conversion Kit for SF-1400M SF-1420M SF-1440M

Conversion kit to convert manual operated hydraclamps to foot operated

SF-1400M to SF-1401M

SF-1420M to SF-1421M

SF-1440M to SF-1441M

WDS No.	A	B	C	Weight (kg)
SF-4801	Foot Pedal	Hydraulic Hose	Booster to fit Hydraclamps	3



SF-4776



SF-4777



SF-4778

Hydraclamp Seal Kits

WDS No.	To Suit
SF-4776	SF-1400M
SF-4776	SF-1420M
SF-4776	SF-1440M
SF-4776	SF-1401M
SF-4776	SF-1421M
SF-4776	SF-1441M
SF-4777	SF-1490
SF-4778	SF-1500M



As standard, Spencer Franklin parts are painted orange.
 Alternative colours or unpainted parts are available.
 Contact us over the phone or email sales@wdscomponents.com



HYDRAULIC CLAMPS AND CYLINDERS

P 939-942

Spencer Franklin hydraulic clamps and clamping cylinders are excellent for actuated clamping systems where repeated yet controlled clamping, punching and piercing actions are required.



SINGLE & DOUBLE ACTING HYDRAULIC CYLINDERS

Hydraulic double acting cylinders use oil pressure to apply a clamping force to a workpiece requiring a booster to actuate the application of pressure. Single acting hydraulic cylinders use a spring return action to release the clamping force.

P 939



HYDRAULIC SWING LINEAR & SLIDE CLAMPS

The WDS Spencer Franklin range includes hydraulic clamps with swing, linear & hydraulic slide clamping variants.

A Spencer Franklin swing clamp can be adjusted to either clockwise or anti-clockwise movement. The arm automatically swings to clamping position when pressure is applied to the inlet port and automatically returns once pressure is released.

P 940-941

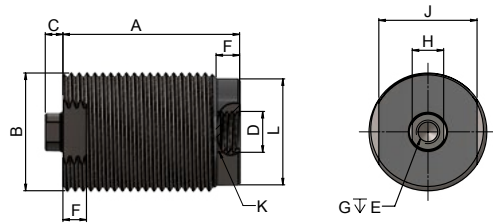


HYDRAULIC HOLLOW CYLINDERS

WDS open ram heads available with bore sizes from 8mm to 31mm, in both single and double acting.

P 942



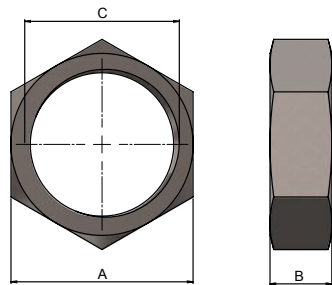


SF-53 Threaded Clamping Cylinders - Single Acting

The ram end is designed to take a removable contact bolt, to give allow customer to customise end fitting
Caution! Do Not Exceed Maximum Stroke

WDS No.	A	B	C	D (BSP)	E	F	G	H a/f	J a/f	K a/f	L	Max Stroke	Ram Dia	Weight (kg)
SF-5300A	47	M20x1.5	10	1/8"	10	5	M6x1.0	10	17	17	-	5	13.8	0.15
SF-5350	95	M24X2.0	12	1/8"	10	5	M6x1.0	13	22	22	-	15	16	0.35
SF-536230	94	M30x2.0	5	3/8"	12	6	M8x1.25	9	25	25	27	30	12	0.41
SF-536340	118	M45x3.0	7	3/8"	20	8	M12x1.75	16	40	40	41	40	20	1.08
SF-536430	125	M64x4.0	10	1/2"	30	10	M20x1.5	25	58	56	58	30	32	1.95
SF-536455	172	M64x4.0	10	1/2"	30	10	M20x1.5	25	58	56	58	55	32	2.85
SF-536545	209	M100x4.0	10	1/2"	40	10	M30x2.0	38	92	92	95	45	50	8.05
SF-536570	282	M100x4.0	10	1/2"	40	10	M30x2.0	38	92	92	95	70	50	11.2

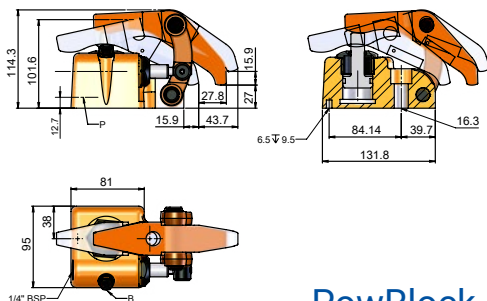
WDS No.	Clamping force @ 275 BAR kN	Effective Area cm²	Swept Volume cm³
SF-5300A	4.2	1.53	0.78
SF-5350	5.5	2.00	3.00
SF-536230	8.5	3.14	9.42
SF-536340	22	8.04	32.16
SF-536430	54	19.63	58.89
SF-536455	54	19.63	107.99
SF-536545	138	50.26	226.17
SF-536570	138	50.26	351.82



SF-L Nut for Single Acting Threaded Clamping Cylinders

Steel

WDS No.	A	B	C	Weight (kg)
SF-LRM45300	63 DIA	18	M45x3.0	0.45



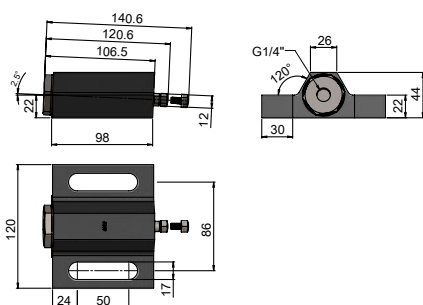
PowRlock Hydraulic PowRslide Clamps **SF-3850A**

B = Bleed Screw

P = Position of second port on SF-3960 only 1/4" BSP

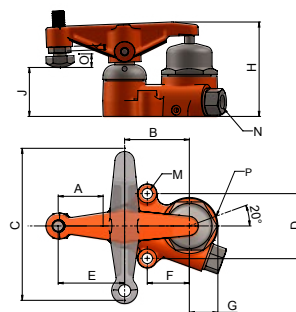
Maximum working oil pressure 210 Bar

WDS No.	Effective Area cm ²	Ports	Swept Volume cm ³	Vertical Stroke	Seal Kit	Weight (kg)
SF-3850A	9.55	Single	23	15.88	SF-3899	5.1
SF-3960A	9.55	Twin	23	15.88	SF-3899	5.2



PowRlock Hydraulic Low Line Clamps **SF-5389**

WDS No.	Effective Area cm ²	Max Operating Pressure BAR	Return Spring Rate kgf/mm	Spring Load as fitted	Swept Volume cm ³	Thrust at 510 BAR	Seal Kit	Weight (kg)
SF-5389	4.9	510	0.52	9.88 kg	9.8	25kN	SF-53899	2.2



SF-58 PowRlock Hydraulic Swing Clamps - 4kN Clamping Force

The swing clamps can be adjusted to swing either clockwise or anti-clockwise. It is supplied to swing clockwise

Arm automatically swings into clamping position when pressure is applied at the input port

A minimum working pressure of 90 BAR is required to operate the lamp after the arm is positioned

P = Position of second port on SF-5850 only -1/4" BSP

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight (kg)
SF-5800	40.5	63.5	149.34	63.5	63.5	41.3	28.5	95	50.8	20.6	1/2"-20-UNF	10.32	1/4" BSP	2.5
SF-5850	40.5	63.5	149.34	63.5	63.5	41.3	28.5	95	50.8	20.6	1/2"-20-UNF	10.32	1/4" BSP	2.4

WDS No.	Vertical Clamp	Swept Volume cm ³	Clamp Force at 138 BAR	Max Oil Input Pressure BAR	Minimum Pressure BAR	Seal Kit
SF-5800	6.35	3.93	4.0kN	170	90	SF-4325
SF-5850	6.35	3.93	4.0kN	170	90	SF-4325

SF-59 PowRlock Hydraulic Swing Clamps - 15kN Clamping Force

The swing clamps can be adjusted to swing either clockwise or anti-clockwise. It is supplied to swing clockwise

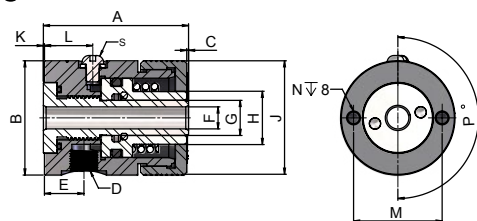
Arm automatically swings into clamping position when pressure is applied at the input port

A minimum working pressure of 90 BAR is required to operate the lamp after the arm is positioned

P = Position of second port on SF-5950 only -1/4" BSP

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Weight (kg)
SF-5900	57.15	88.9	203.2	88.9	88.9	63.5	46	138.11	71.05	38.1	1/2"-20-UNF	16.7	1/4" BSP	11	7.3
SF-5950	57.15	88.9	203.2	88.9	88.9	63.5	46	138.11	71.05	38.1	1/2"-20-UNF	16.7	1/4" BSP	11	7.3

WDS No.	Vertical Clamp	Swept Volume cm ³	Clamp Force at 138 BAR	Max Oil Input Pressure BAR	Minimum Pressure BAR	Seal Kit
SF-5900	11	20	15kN	170	90	SF-4326
SF-5950	11	20	15kN	170	90	SF-4326



Single Acting or Spring Return Hollow Cylinders SF-340

Max Operating Pressure = 275 BAR (4000 P.S.I.)

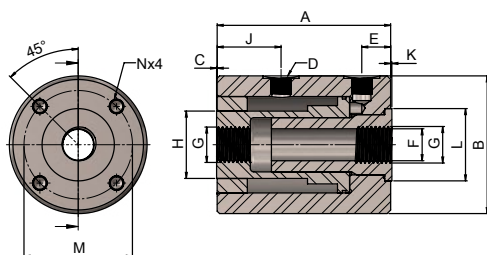
Theoretical Thrust (N) = Oil Pressure (bar) x Effective Area (cm²)

External Stop must be used with spring return version

P = Position of bleed screw

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Weight (kg)
SF-3401	52.4	41.15	0.76	1/8 BSP	14.27	8.33	12.7	19.1	41.66	0.25	15.62	32	M5x0.8	180°	0.43
SF-3402	82.6	63.5	0.76	1/4 BSP	22	17.45	25.4	38.1	66.7	0.25	24.4	50	M6x1.0	180°	1.11
SF-3403	55.6	63.5	0.76	1/4 BSP	12	17.45	25.4	38.1	66.7	0.25	15.0	50	M6x1.0	45°	1.65
SF-3404	127.7	63.5	0.76	1/4 BSP	22	17.45	25.4	38.1	66.7	0.25	22.0	50	M6x1.0	180°	2.61
SF-3405	127.7	63.5	0.76	1/4 BSP	11	17.45	25.4	38.1	66.7	0.25	15.8	44.5	M6x1.0	180°	2.51
SF-3406	97.8	79.38	0.76	1/4 BSP	25	25.78	36.5	50.8	92.1	0.25	30.5	65	M6x1.0	180°	3.18
SF-3407	96.2	88.9	0.76	1/4 BSP	25	25.78	36.5	60.3	101.6	0.25	30.5	65	M6x1.0	180°	3.86
SF-3408	143	100	-	3/8 BSP	24	31.00	45.0	60.3	115.0	-	-	70	M6x1.0	N/A	8.65

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept Volume without Spring cm ³	Weight with Spring (kg)	Weight without Spring (kg)
SF-3401	5.16	6.35	15.49	3.28	8.0	0.43	0.4
SF-3402	12.7	15.75	31.24	20.5	40.0	1.5	1.45
SF-3403	12.7	7.87	18.03	10.5	22.9	0.91	0.86
SF-3404	12.7	38.1	63.5	48.7	81.1	2.6	2.5
SF-3405	12.7	39.4	82.5	50.3	105.0	3.91	3.75
SF-3406	21.1	17.02	31.75	33.4	67.3	3.18	3.13
SF-3407	31.4	13.46	39.97	42.3	94.4	3.86	3.74
SF-3408	34.3	19.00	60.00	54.9	206.0	8.65	8.48



Double Acting Hollow Cylinders SF-342

Max Operating Pressure = 275 BAR

Theoretical Thrust (N) = Oil Pressure (bar) x Effective Area (cm²)

Other strokes are available on request

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	N	Stroke	Weight (kg)
SF-3421	63	47	0.5	1/8 BSP	11	6.8	M8x1.25x15	16	27	1	18 f7	32	M5x0.8x10	8	0.75
SF-3422	85	65	0.5	1/4 BSP	13	10.2	M12x1.75x18	25	34	1	33 f7	50	M10x1.5x15	15	1.88
SF-3523	94	80	0.5	1/4 BSP	14	17.5	M20x12.5x18	35	36	1	40 f7	56	M10x1.5x15	20	3.04
SF-3424	110	95	0.5	3/8 BSP	17	21.0	M24x3.0x25	45	40	1	50 f7	78	M12x1.75x20	25	0
SF-3425	144	114.3	0.5	3/8 BSG	20	26.5	M30x3.5x28	56	53	1	60 f7	90	M12x1.75x20	50	0



HYDRAULIC RAM HEADS

P 945-950

WDS offers an extensive range of hydraulic rams and ram heads as part of its Spencer Franklin PowRlock brand.

Models include standard hydraulic rams, extended rams and open and hollow rams.



HYDRAULIC MINI RAM HEADS

Hydraulic mini ram heads offer the user actuated clamping control on a smaller scale than the larger standard hydraulic rams.

P 945



HYDRAULIC OPEN HOLLOW RAM HEADS

Spencer Franklin hydraulic open ram heads or hollow ram heads as they are also known are available from stock.

P 946-948

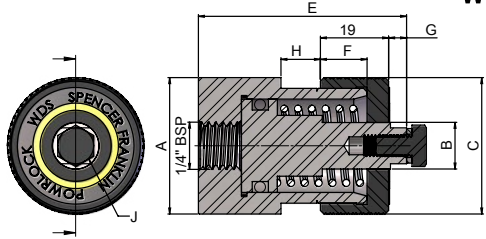


POWRAM HYDRAULIC RAM HEADS

WDS offer an exclusive range of hydraulic rams and ram heads in the form of the PowRlock and PowRam brand. The range includes button head rams and extended ram heads available from stock.

P 949-950

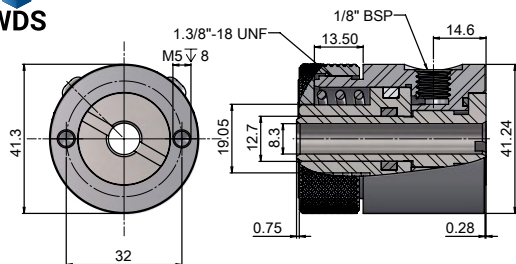




SF-5000A PowRlock Mini Ram Heads

*Caution - Do not exceed Maximum Stroke.

WDS No.	A	B	C	D	E	F	G	H	J	Effective Area cm ²	Stroke	Swept volume cm ³	Seal Kit	Weight (kg)
SF-5000A	38	13	38	32	58	13	5	11	M6x1.0	5.31	12.5	6.64	SF-5099	0.36
SF-5100A	38	13	38	32	83	13	5	36	M6x1.0	5.31	25	13.28	SF-5099	0.45

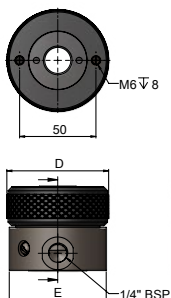


PowRlock OpenRam Midget Head SF-3000MF

*Caution - Do not exceed Maximum Stroke

Mounting - To include these heads in a fixture it is only necessary to mount them over 8mm diam. studs or bolts via the hole through the centre of each head.

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-3000MF	5.16	6.35	15.49	3.28	8.03	SF-3099	0.43	0.4



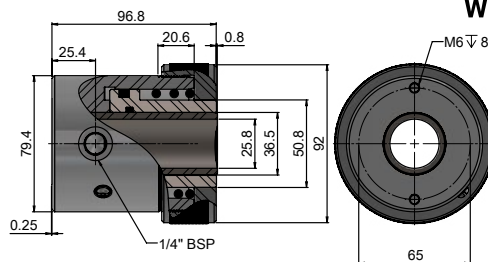
PowRlock OpenRam Head SF-3100MF

*Caution - Do not exceed Maximum Stroke

Mounting - To include these heads in a fixture it is only necessary to mount them over 16mm dia. studs or bolts via the hold through the centre of each head.

WDS No.	A	B	C	D	E	F	G	H	J	K
SF-3100MF	17.46	25.4	38.1	66.68	63.5	11.11	55.56	0.25	1.76	19.84
SF-3200MF	17.46	25.4	38.1	66.68	63.5	22.23	82.55	0.25	1.76	19.84
SF-3300MF	17.46	25.4	38.1	66.68	63.5	19.05	127.8	0.25	1.76	17.46

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-3100MF	12.77	7.87	18.03	10.49	22.94	SF-3199	0.91	0.86
SF-3200MF	12.77	15.75	31.24	20.48	39.98	SF-3199	1.5	1.45
SF-3300MF	12.77	38.1	63.5	48.68	81.12	SF-3199	2.61	2.5

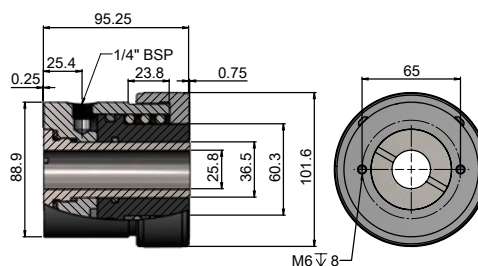


SF-5500 PowRlock OpenRam Five-Ton Head

* Caution - Do not exceed Maximum Stroke.

Mounting - To include these heads in a fixture, it is only necessary to mount them over 25mm dia. studs or bolts via the hole through the centre of each head.

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-5500	21.23	17.02	31.75	33.44	67.35	SF-5599	3.18	3.13

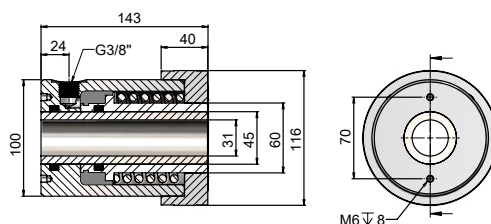


SF-5700 PowRlock OpenRam Seven-Ton Head

* Caution - Do not exceed Maximum Stroke.

Mounting - To include these heads in a fixture, it is only necessary to mount them over 25mm dia. studs or bolts via the hole through the centre of each head.

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-5700	31.42	13.46	29.97	42.29	94.39	SF-5799	3.86	3.74

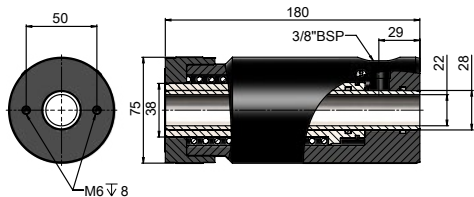


SF-6080A PowRlock OpenRam Heads

* Caution - Do not exceed Maximum Stroke.

Mounting - To include these heads in a fixture, it is only necessary to mount them over 30mm dia. studs or bolts via the hole through the centre of each head.

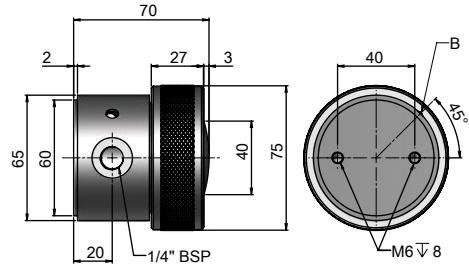
WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-6080A	35.36	16	60	54.97	206.2	SF-4376	8.65	8.48



PowRlock OpenRam Superstroke Head SF-6120A

Mounting - To include these heads in a fixture it is only necessary to mount them over 20mm diam. studs or bolts via the hole through the centre of each head.

WDS No.	Effective Area cm ²	Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight (kg)
SF-6120A	13.47	44	100	59.27	134.7	SF-4377	4.84



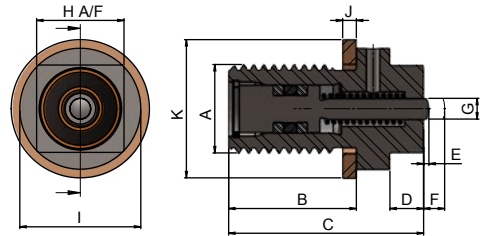
SF-3520 PowRlock PowRam Head

*Caution - Do not exceed Maximum Stroke

Mounting - To include these heads in a fixture it is only necessary to retain them in position by the 2 tapped holes in the rear location, allowing the back face of each head to react against a rigid face.

B = Bleed Screw

WDS No.	Effective Area cm ²	Stroke	Swept Volume cm ³	Seal Kit	Weight (kg)
SF-3520	19.64	15	29.46	SF-4413	1.6



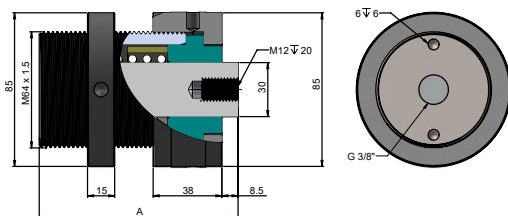
SF-537 PowRlock Button Heads

MAXIMUM OPERATING PRESSURE 350 BAR

*Caution - Do not exceed Maximum Stroke

WDS No.	A	B	C	D	E	F	G	H	I	J	K	Seal Kit	Weight (Kg)
SF-5370	G 1/4"	19	29	4	0.6	3.6	3.1	13	18	2.03	20.57	SF-53709	0.03
SF-5371	M16x1.5	23	33	5	0.7	4.7	4	17	21.5	2.03	23.8	SF-53719	0.03
SF-5372	G 3/8"	23	33	5	0.7	4.7	4	17	21.5	2.03	23.8	SF-53729	0.05
SF-5373	M20x1.5	23	36	6	0.39	6.9	6	19	25.4	2.34	28.58	SF-43739	0.05
SF-5374	G 1/2"	23	36	6	0.9	6.9	6	19	25.4	2.34	28.58	SF-53749	0.06
SF-5375	M24x1.5	27	40	6	1	9	8	22	28.8	2	33	SF-53759	0.125
SF-5376	G 1"	32	50	9	1.3	11.3	10	32	39.4	3.25	42.8	SF-53769	0.13
SF-5377	M36x1.5	41	59	9	1.6	13.6	12	32	42	2.5	48	SF-53779	0.42

WDS No.	Clamping Fore at 300 BAR kN	Effective Area cm ²	Max Stroke	Swept volume cm ³
SF-5370	1.2	0.4	3	0.12
SF-5371	1.9	0.63	4	0.25
SF-5372	1.9	0.63	4	0.25
SF-5373	4.6	1.54	6	0.92
SF-5374	4.6	1.54	6	0.92
SF-5375	6.8	2.27	8	1.81
SF-5376	11.4	3.8	10	3.8
SF-5377	14.7	4.9	12	5.88



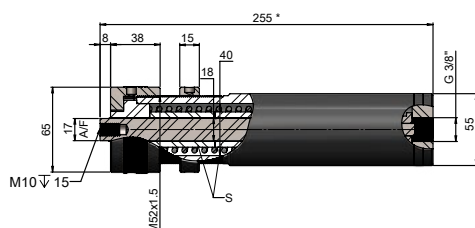
PowRlock PowRam Head SF-66

MAXIMUM OPERATING PRESSURE 350 BAR

*Caution - Do not exceed Maximum Stroke.

Please note for SF-6680A - Overall closed length = 160mm

WDS No.	'A' Closed Length	Effective Area cm ²	Max Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-6600A	110	19.6	10	30	19.6	58.8	SF-4379	3.12	2.89
SF-6680A	160	19.6	30	80	58.8	156.8	SF-4379	3.87	3.46

Extended PowRlock PowerRam Head **SF-6960A**

MAXIMUM OPERATING PRESSURE 350 BAR

*Caution - Do not exceed Maximum Stroke.

Please note - If this unit is to be used without Return Spring, at least one Spacer must remain fitted.

WDS No.	Effective Area cm ²	Max Stroke with Spring	Stroke without Spring	Swept volume with Spring cm ³	Swept volume without Spring cm ³	Seal Kit	Weight with Spring (kg)	Weight without Spring (kg)
SF-6960A	12.57	70	120	89.25	153	SF-4378	3.8	3.52



PNEUMATICS & AIR PREPARATION EQUIPMENT

P 953-964

The high performance yet cost effective range of pneumatic and air preparation equipment includes: Filter Regulators & Lubricator Units, Pneumatic Valves, Pneumatic Fittings, Pneumatic Tube and Mounting Brackets



FILTERS REGULATORS & LUBRICATOR UNITS

The filter regulator lubricator units are flexible, modular compressed air preparation kits also known as FRL Units. These units remove dust & debris, control the pressure & flow and add an oil mist to the supply of air.

P 953-954



PNEUMATIC VALVES & CONTROL VALVES

Pneumatic valves are a simple method of controlling the flow of system pressure. This makes them an essential component of any pneumatic system.

P 955-957



PNEUMATIC CONNECTORS & TUBE FITTINGS

Pneumatic tube fittings and connectors range includes plastic and steel zinc plated push fit connectors and threaded plugs and adapters.

P 958-962



PNEUMATIC TUBE & TUBING

The WDS PU blue pneumatic tubing is available from stock at 10, 20 and 40 metre lengths. Other longer lengths are available upon request

P 963

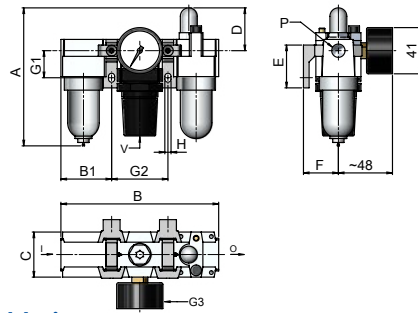


FRL MOUNTING BRACKETS

This range of brackets is ideal for mounting filter, regulator and lubricator units to any application.

P 964

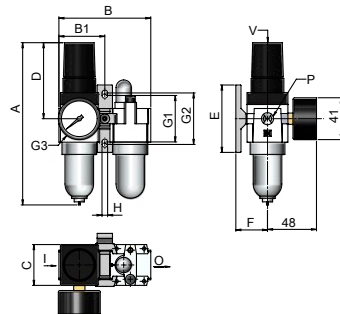




SF-15000 Air Filter Regulator & Lubricator Units

0.05-0.85 Mpa
Operating Temp: 5-60°C
G3 = Pressure Gauge, I = Input, O = Output, V = Adjusting Valve

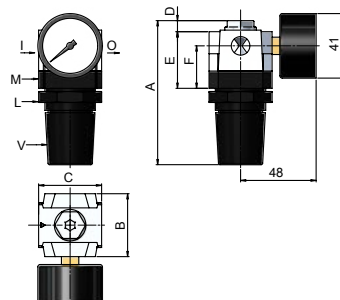
WDS No	A	B	B1	C	D	E	F	G1	G2	H	P	Weight (kg)
SF-15000-0202105	123	140	45	40	38	37.5	30	24	50	6	G 1/4"	0.64



SF-15000 Compact Air Filter Regulator and Lubricator Unit (FRL)

0.05 - 0.85 Mpa
Operating Temp: 5-60°C
G3 = Pressure Gauge, I = Input, O = Output, V = Adjusting Valve

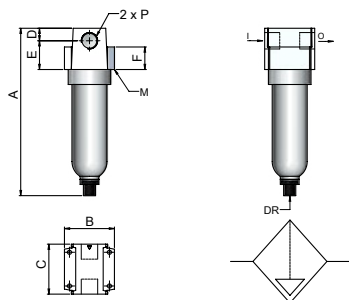
WDS No.	A	B	B1	C	D	E	F	G1	G2	H	P	Weight (kg)
15000-0202110	91.5	90	45	40	74.5	65	30	45.5	50.5	6	G 1/4"	0.54



SF-15000 Pneumatic Air Regulators

0.05 - 0.85 Mpa
Operating Temp: 5-60°C
I = Input, L = Locking Nut, O = Output, M = Mounting Face, V = Adjusting Valve
Bracket = SF-15010-100, Supplied

WDS No.	A	B	C	D	E	F	P	Weight (kg)
SF-15000-0202115	91.5	40	40	7	36	27	G 1/4"	0.7



Pneumatic Air Prep Filter **SF-15000**

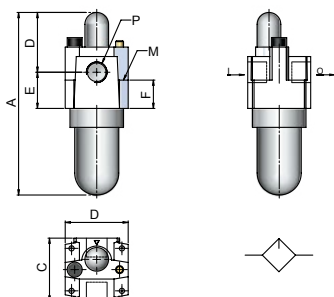
0.05 - 0.85 Mpa

Operating Temp: 5-60°C

DR = Drain, I = Input, M = Bracket Mounting Face, O = Output

Bracket = SF-15010-105 Available separately

WDS No.	A	B	C	D	E	F	P	Weight (kg)
SF-15000-0202120	134	40	40	10	23	18	G 1/4"	0.19



Pneumatic Lubricator **SF-15000**

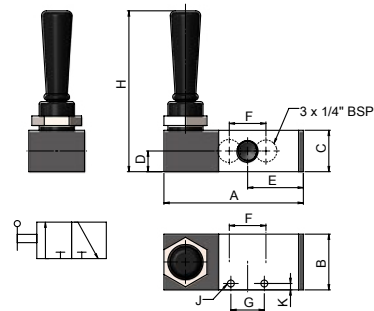
0.05 - 0.85 Mpa

Operating Temp: 5-60°C

I = Input, M = Bracket Mounting Face, O = Output

Bracket = SF-15010-105 Available separately

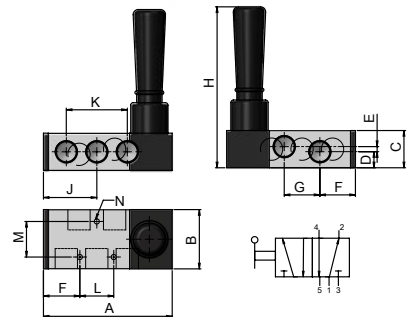
WDS No.	A	B	C	D	E	F	P	Weight (kg)
SF-15000-0202125	116	40	40	38	23	18	G 1/4"	0.16



SF-15030 Hand Valve 3-2 Without Spring

0.0-1.0MPa

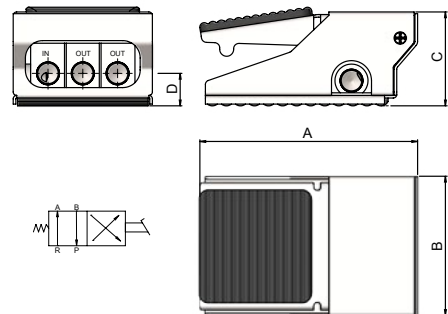
WDS No.	A	B	C	D	E	F	G	H	J	K	Weight (kg)
SF-15030-0202205	87.5	35	26	13	35	23	21	101	4.3	4	0.22



SF-15030 Hand Valve 5-2 With Spring

0.0-1.0MPa

WDS No.	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight (kg)
SF-15030-0202210	76	35	22	9.5	3	21	21	95	31.5	36	20	21	21	0.18

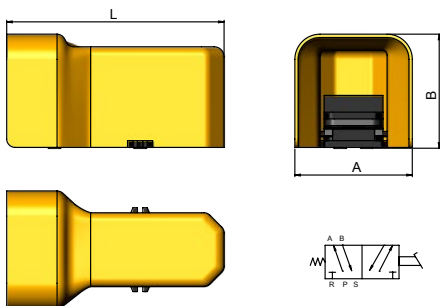


SF-15040 Foot Valve

2 Position/4 Way

1/4\"

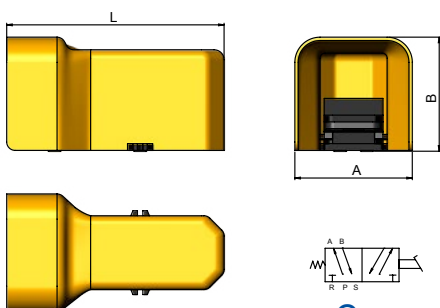
WDS No.	A	B	C	D	Weight (kg)
SF-15040-02100	125	54	80	19	0.7



Covered Foot Valve **SF-15040**

2 Position/5 Way
1/4" BSP
Non locking type

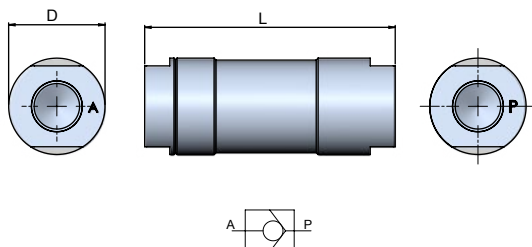
WDS No.	A	B	L	Weight (kg)
SF-15040-02115	140	136	260	0.9



Covered With Safety Catch Foot Valve **SF-15040**

2 Position/5 Way
1/4" BSP
Locking type

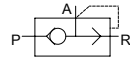
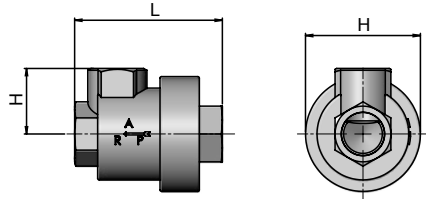
WDS No.	A	B	L	Weight (kg)
SF-15040-02115	140	136	260	0.9



Check Valve - One Way Valve **SF-15050**

Restricts flow to one direction only
1/4 BSP

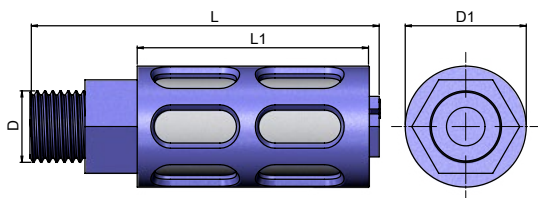
WDS No.	D	L	Weight (kg)
SF-15050-02100	25	65	0.06



SF-15050 Pneumatic Quick Exhaust

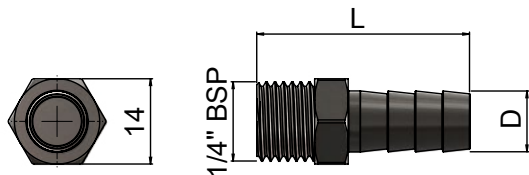
1/4 BSP
Recommend use of silencer SF-15050-02200 with this product

WDS No.	D	H	L	Weight (kg)
SF-15050-02250	35	20	45	0.1



Silencer SF-15050
1/4" BSP

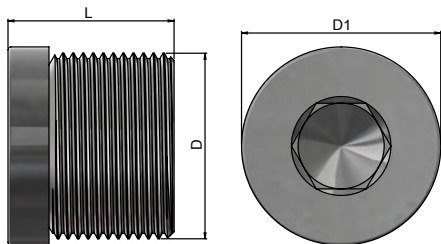
WDS No.	D	D1	L	L1	Weight (kg)
SF-15050-02200	1/4" BSP	22	63	42	0.01



ZP

Barb Fitting SF-15050
Steel - Zinc Plated
To suit 10mm pipe

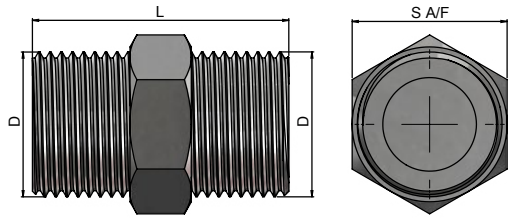
WDS No.	D	L	Weight (kg)
SF-15050-02300	10	35	0.01



ZP

Blanking Plug SF-15060
Steel - Zinc Plated
To suit 10mm pipe

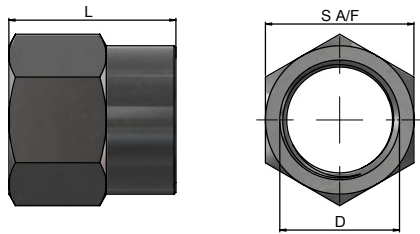
WDS No.	D	D1	L	Weight (kg)
SF-15060-0100155	1/4" BSP	14	12	0.01



SF-15060 Male-Male Pneumatics Connectors

1/4 BSP

WDS No.	D	L	S A/F	Weight (kg)
SF-15060-0202145	1/4" BSP	23	14	0.01

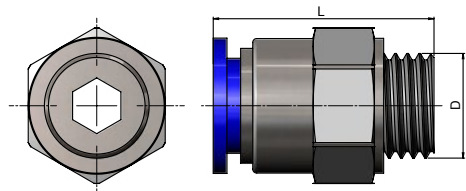


SF-15060 Female-Female Pneumatic Connectors

1/4 BSP

WDS No.	D	L	S A/F	Weight (kg)
SF-15060-0202150	1/4" BSP	18	17	0.02

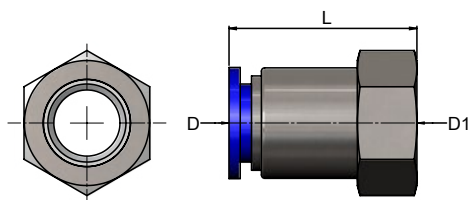
ZP



SF-15060 Straight Connector 1/4 BSP 10MM Tube - Male Threaded

Steel - Zinc Plated
To suit 1/4" BSP and 10mm tube

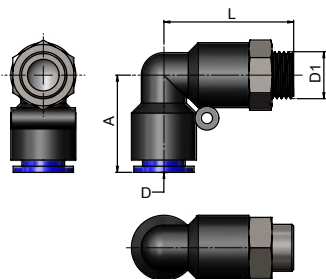
WDS No.	D	L	Weight (kg)
SF-15060-0210130	1/4" BSP	27.5	0.02



Straight Connectors 1/4 BSP 10MM Tube - Female Thread **SF-15060**

Steel - Zinc Plated
To suit 1/4" BSP and 10mm tube

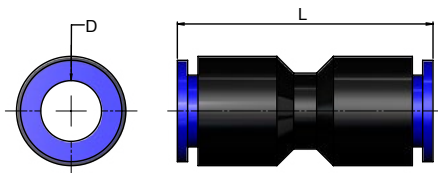
WDS No.	D	D1	L	Weight (kg)
SF-15060-0210135	10	1/4" BSP	28.5	0.03



Elbow Connector 1/4" BSP 10MM Tube **SF-15060**

Plastic
To suit 10mm tube

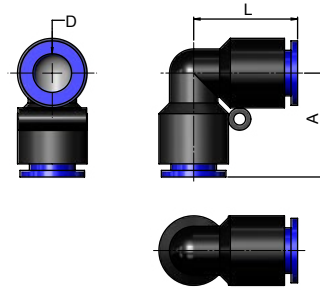
WDS No.	A	D	D1	L	Weight (kg)
SF-15060-0210140	27	10	1/4" BSP	36	0.03



Straight Connector 10MM Tube **SF-15060**

Plastic
To suit 10mm tube

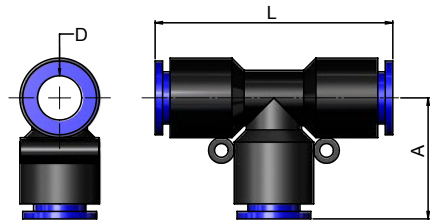
WDS No.	D	L	Weight (kg)
SF-15060-1010100	10	42	0.01



SF-15060 Plastic Elbow Connector 10MM Tube

Plastic
To suit 10mm tube

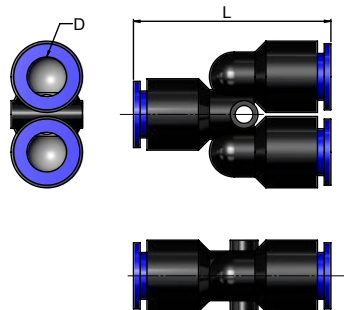
WDS No.	A	D	L	Weight (kg)
SF-15060-1010105	27	10	27	0.01



SF-15060 Tee Plastic Connector 10MM Tube

Plastic
To suit 10mm tube

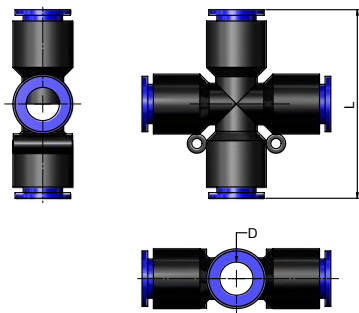
WDS No.	A	D	L	Weight (kg)
SF-15060-1010110	27.5	10	54	0.02



SF-15060 3 Way Connector 10MM Tube

Plastic
To suit 10mm tube

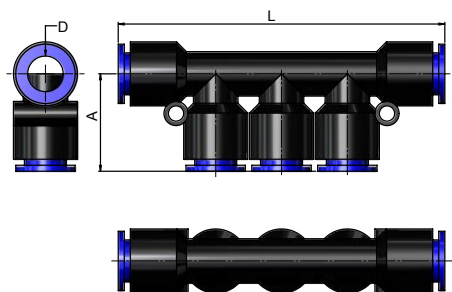
WDS No.	D	L	Weight (kg)
SF-15060-1010115	10	50	0.02



4 Way Connector 10MM Tube **SF-15060**

Plastic
To suit 10mm tube

WDS No.	D	L	Weight (kg)
SF-15060-1010120	10	57	0.03



5 Way Connector 10MM Tube **SF-15060**

Plastic
To suit 10mm tube

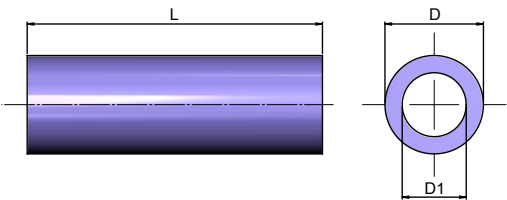
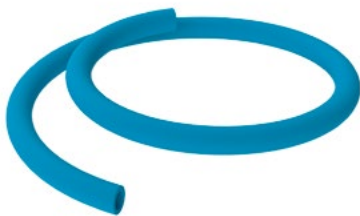
WDS No.	A	D	L	Weight (kg)
SF-15060-1010125	27.5	10	93	0.04



SF-15090 Tube Cutter

Blue pneumatic tube cutter - suitable to cut SF-15100 tubing
Plastic

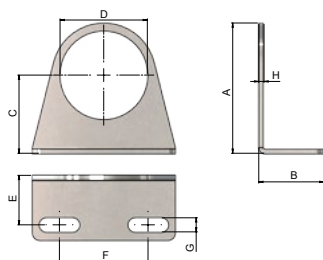
WDS No.	Weight (kg)
SF-15090-100	0.04



SF-15100 Pneumatic & Air Prep Tube

Tube, 10mm OD x 6.5mmID
PU Blue

WDS No.	D (mm)	D1 (mm)	L (m)	Weight (kg)
SF-15100-10010	10	6.5	10	0.1
SF-15100-10020	10	6.5	20	0.1
SF-15100-10040	10	6.5	40	0.2

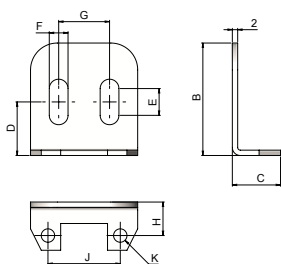


ZP

Bracket SF-15010

Mild Steel-Zinc plated

WDS No.	A	B	C	D	E	F	G	H	Weight (kg)
SF-15010-100	50	25	30	33.5	19	34	5.4	2	0.03

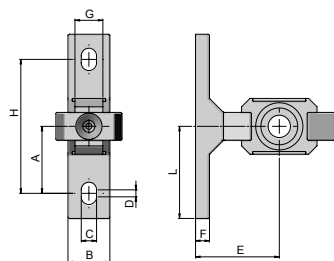


ZP

Bracket For Regulator Unit SF-15010

Mild Steel-Zinc plated

WDS No.	A	B	C	D	E	F	G	H	J	K	Weight (kg)
SF-15010-105	40	42	18	20	10	7	19	12.5	27	5	0.03

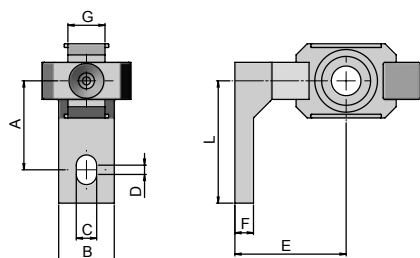


ZP

T Bracket & Spacer SF-15020

Mild Steel-Zinc plated

WDS No.	A	B	C	D	E	F	G	H	L	Weight (kg)
SF-15020-100	24	15	5.5	3	30	5	10	47	33	0.04



ZP

L Bracket & Spacer SF-15020

Mild Steel-Zinc plated

WDS No.	A	B	C	D	E	F	G	L	Weight (kg)
SF-15020-105	24	15	5.5	3	30	5	10	33	0.05