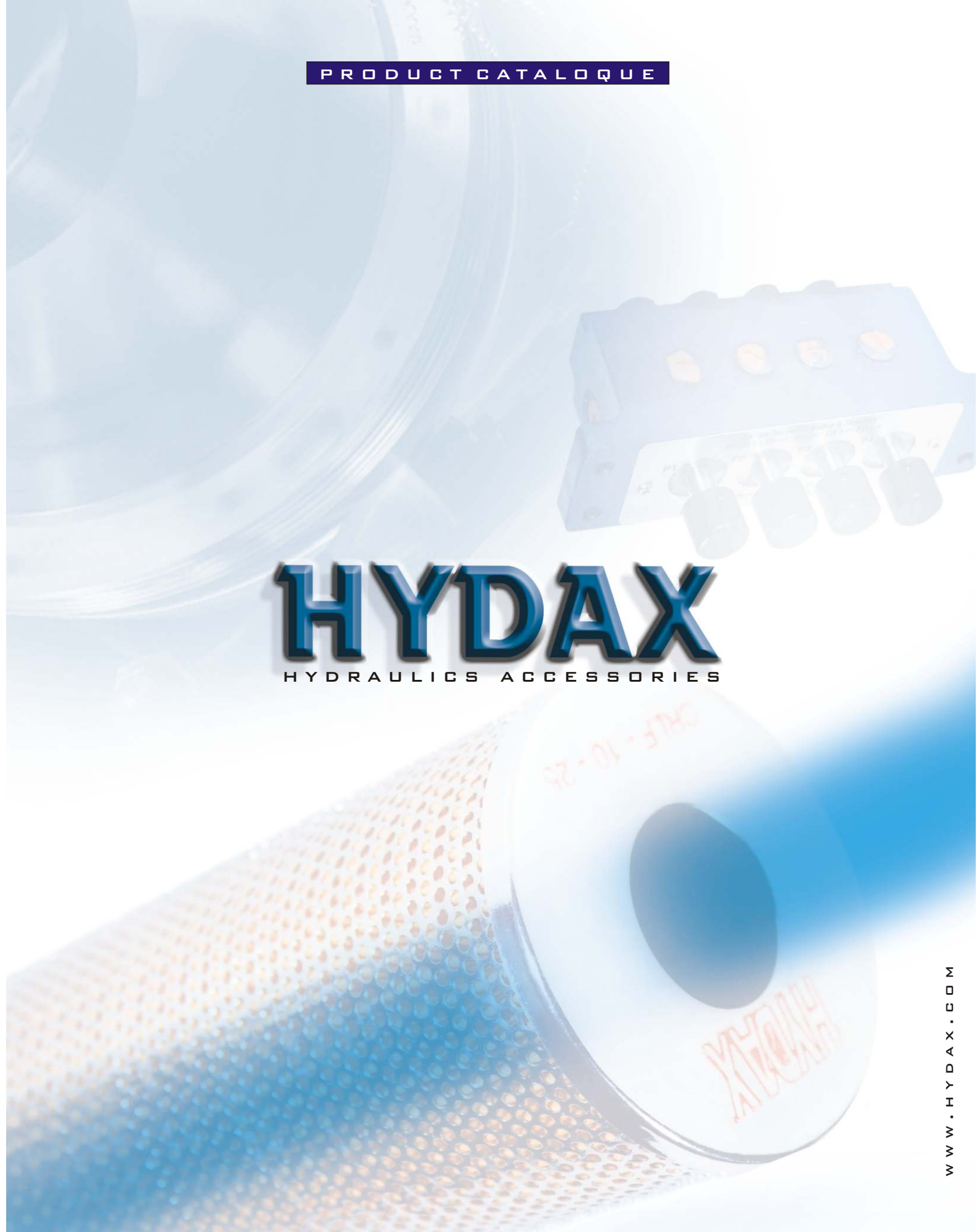
PRODUCT CATALOQUE

HYDAX

HYDRAULICS ACCESSORIES



WWW.HYDAX.COM

HYDAX HYDRAULICS was established in the year 1979, by Mr. D.B Mukherjee, a technocrat with over 25 years of expertise behind him. The concept right from the onset, was to create products that would be indigenously designed, technologically superior and commercially viable. It must be pointed out that we were pioneers in the area of manufacturing hydraulic accessories in India.

Using our available resources and applying sustained efforts, we have designed and manufactured products that are at par and most times, even better than others available in the world market. From the field of agricultural mobile equipment to mining, marine and machine tool equipment, HYDAX caters to a wide spectrum of customers with products that are easy to assemble at very competitive prices. In India, our evenly spread network of stockists, assures the customer of prompt delivery and easy availability of spares. Our list of clients reads like the who's who's of Indian industry. Giant Public and Private sector companies as well as small to medium Machine Manufacturers form the impressive list of satisfied customers.

The hallmark of our establishment is Innovation, Quality and Reliability. We are constantly upgrading our products keeping pace with the rapidly advancing Fluid Power industry. Underlying all of the above, providing gainful employment to people in an atmosphere that is conducive, had been the driving ethos through the last 24 years.

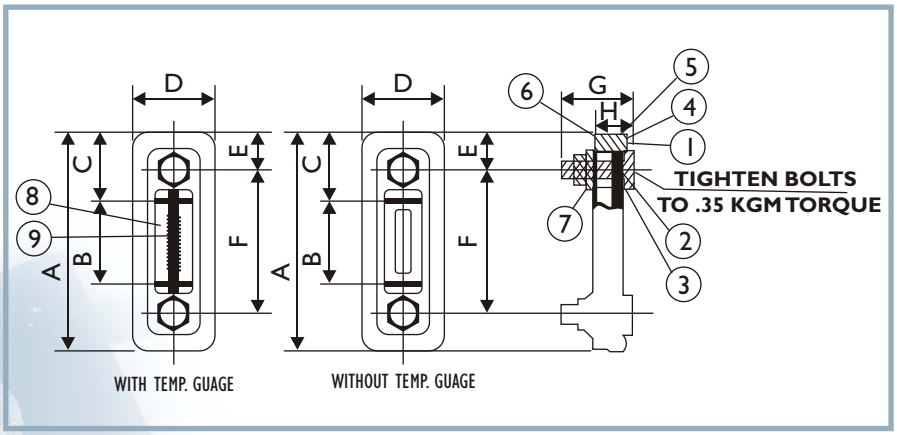
FLUID LEVEL GAUGE [MODEL: SG 3/5]

TECHNICAL DATA

Hydax Fluid Level Gauge can be used on any reservoir containing mineral and petroleum based hydraulic fluids to indicate oil level.

Level gauges are available with or without temperature gauges and are available in two sizes - 3" & 5" between bolt centres. They are easily readable through a magnifying sight glass. These level gauges offer complete protection to any reservoir. There are also option of heat dial / thermometer temperature indicators.

The Level Gauges are available ready to assemble. Only two holes are to be drilled onto the tank to fix the level gauge. The outer case is Nickel chrome or Powder coated and has a low profile. The temperature scale is in between 30°C to 80°C.



1. Cover
2. Bolts
3. Washers
4. Gasket
5. Glass
6. Gasket
7. Nuts
8. Temperature Scale
9. Thermometer

SALIENT FEATURES

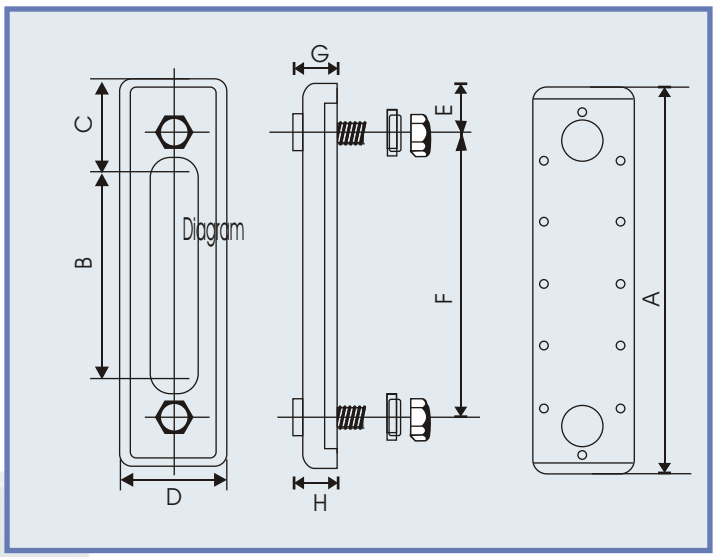
- The fluid-level gauge is available with heat dial or thermometer temperature indicator.
- Complete with gaskets and attaching bolts - ready for immediate installation.
- Can be Installed from outside reservoir unit. Requires only 2 mounting holes.
- Sturdy low profile outer case.
- All external metal parts are plated/powder coated.
- Extra large sight area and unbreakable clear glass providing high visibility.
- These are suitable for use with all mineral and petroleum based hydraulic fluids. Excellent for hydraulic reservoirs, gear boxes, fuel tanks, lubrication reservoirs and crank cases.

Part No.	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Bolt Thread	Fixing Hole O mm	Temperature Range °C	Temperature Range °F	Weight Kgs.
HA-SG-3	114	41	36	41	19	76	38	19	M-10	11	-	-	0.13
HA-SGT-3A	114	41	36	41	19	76	38	19	M-10	11	+30+80	+86+176	0.13
HA-SG-5	178	67	54	51	25	127	45	19	M-12	13	-	-	0.27

FLUID LEVEL GAUGE [MODEL: SGR - 3, 5, 7, 10, 14]

TECHNICAL DATA

Hydax introduces a newly designed Fluid Level Gauge of robust construction, bigger size and 'O' Ring sealing made from aluminium and sheet metal. These level gauges are easy to install. Supplied in ready assembled condition, it needs drilling of 2 holes to instal the gauges. Surface on which it is being installed should be level and of smooth finish. Sizes available are 76mm, 127mm, 178mm, 254mm and 356mm between bolt centres. These Level Gauges also have the options of heat dial / thermometer temperature indicator.



Part No.	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Bolt Thread	Fixing Hole O	Temperature Range °C	Temperature Range °F	Weight Kgs.
HA-SGR-7	240	130	55	63	31	178	50	23	M-12	13	+30+80	+86+176	0.7
HA-SGR-10	350	180	85	76	48	254	53	25	M-16	17			1.7
HA-SGR-14	450	280	85	76	47	356	53	25	M-20	21			1.9

FLEXIBLE DRIVE COUPLING [MODEL: Hydax 19, 28, 38, 48, 65]

TECHNICAL DATA

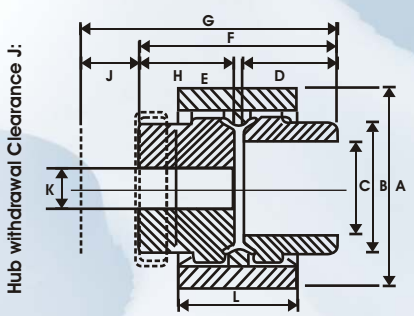
The Hydax Flexible Drive Coupling consists of two steel gear hubs engaging in a sleeve of high grade plastic material. This material has superior strength and a wide operating temperature range. The ears have crowned-tooth form which permits axial and angular misalignment. The couplings have undergone extensive testing under severe load conditions. They are easy to assemble and require no maintenance or lubrication and do not emit transmission noise.

ASSEMBLY PROCEDURE

Maximum permissible angular misalignment is 1.5 degrees. Ensure that the coupling hubs easily fit on the shaft. Do not use undue force. Maintain gap between hubs as shown in sketch. Use grub screws to locate gear hubs on their respective shafts. For shock load applications use the following formula:

$$\text{Rating / 100 RPM of coupling} = \frac{\text{HP of application x 100 x F}}{\text{RPM of application}}$$

	Load Factor	Load Factor (F)
Application	EI Motor	IC Engines
Uniform Load	1	1.2
Medium Shock	1.25	1.5
Heavy Shock	1.75	2.0



SALIENT FEATURES

- Applicable to all range of hydraulic equipment and in the Transmission market.
- Maintenance free - no lubrication.
- Gears in the crowned-tooth form permit axial and angular Misalignment.
- Cost effective and easy to assemble.
- Two drive hubs engaging in a sleeve.
- Compact and streamlined.
- Available in five sizes to suit 1HP to 75HP.

Coupling size	A	B	Max. C	D	E	F	G	H	J	Min. K	L	Pilot Bore
HYDAX - 19	48	30	19	25	4	54	70	25	16	7	37	7
HYDAX - 28	66	44	28	40	4	84	104	40	20	10	46	12
HYDAX - 38	83	56	38	40	4	84	104	40	24	12	48	12
HYDAX - 48	100	68	48	50	6.5	104	126	50	22	15	50	15
HYDAX - 65	140	96	65	70	4	144	176	70	32	15	72	15

Maximum rating

Coupling Size	Elec. Motor Frame Size	3000 RPM		1500 RPM		1000 RPM		750 RPM		Max. Torque at 1500 RPM		Max. RPM
		kW	Hp	kW	Hp	kW	Hp	kW	Hp	Kg.M	Ft. Lbs	
Hydax 19	80 90S, 90L	2.2	2	1.5	1	1.1	1	.75	1	.5	3.6	3000
Hydax 28	100L 112 M	7.5	10	5.5	5	4.25	5	2.2	3	2.3	16.6	3000
Hydax 38	132 S 132 M	10	13	7.5	10	5.5	7.5	3	4.5	7	4.9	3000
Hydax 48	160 M.L. 180 M.L.	22	30	18.5	25	15	20	11	15	14.4	104	3000
Hydax 65	200 L 250 M	55	75	55	75	37	50	30	40	35.5	256	3000

GAUGE ISOLATOR VALVE [MODEL: GI-SS-PR]

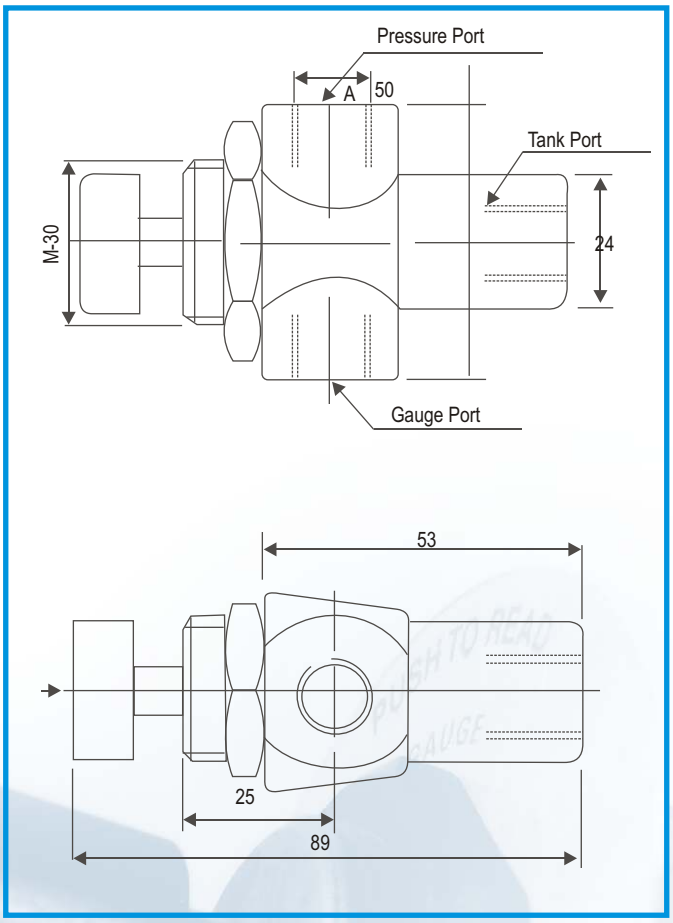
SINGLE STATION

TECHNICAL DATA

The Gauge Isolator Valves protect the pressure gauge from damaging pressure surges, hydraulic shock and mechanical vibrations. The fluid is completely isolated from the gauge until the knob is pressed. By pressing the knob, the fluid is connected directly to the gauge port giving instant and accurate readings on the gauge. As the knob is released, the spring-loaded valve closes automatically connecting the gauge port to the drain and completely blocking the pressure port. In operations, an orifice in the gauge port acts as a partial snubber, protecting the gauge from the initial surge of fluid as the knob is pressed.

SALIENT FEATURES

- **3000 psi working pressure.**
- **High-grade casting body.**
- **Balanced spool.**
- **Can be panel or line mounted.**
- **Working temperature ranges from -30°F to 240°F.**
- **It isolates the gauge from the system pressure.**
- **High degree of safety.**
- **Minimum force required to operate.**
- **Easy plumbing into the system.**
- **Meets most operating conditions.**
- **100% testing under rigid parameters.**
- **A guarantee of below 5 CC/min drain leakage in a new valve.**

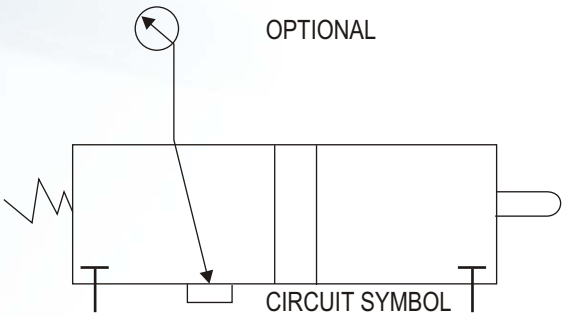


A ALL PORTS ARE 1/4" BSP

MODEL CODE

GI - ** - PR

- PR — PUSH TO READ
- ** — SS- SINGLE STATION
- GI — GAUGE ISOLATOR



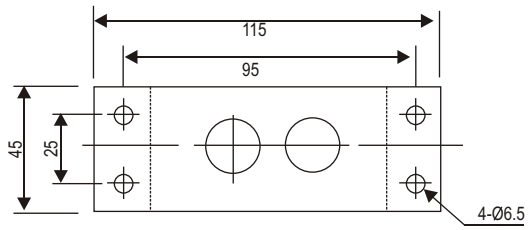
GAUGE ISOLATOR VALVE

[MODEL: GI MS PR]

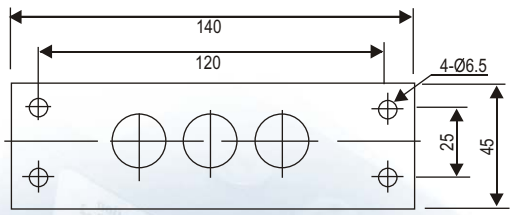
MULTI STATION

TECHNICAL DATA

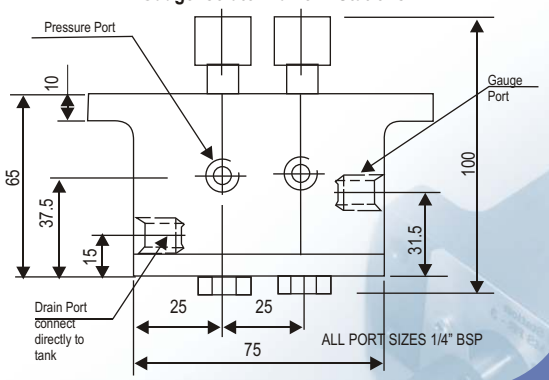
HYDAX introduces for the first time anywhere, a single block 2, 3 or 4 station gauge isolator valve.The valves are designed to prevent surge damage to a gauge in all types of hydraulic circuits.The spring returned facility is same as in a single station valve. The high performance, low drain leakage characteristic is maintained in the multi-station valves. Only one gauge and one drain line for all the ports reduces plumbing and additional instrumentation cost.The maximum pressure is upto 210 bar.The customer can order as per individual requirement. All ports are ¼" BSP and can be easily mounted on panels. All plumbing is from the rear.



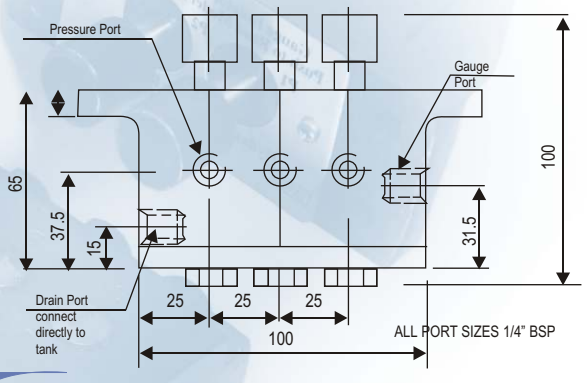
Gauge Isolator Valve. 2 Stations

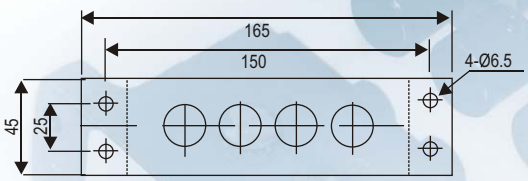


Gauge Isolator Valve. 3 Stations

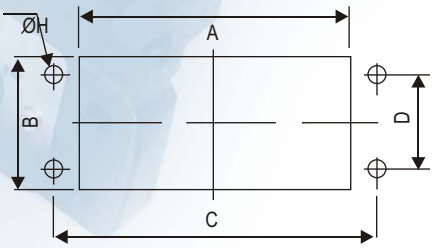


MODEL GI MS PR

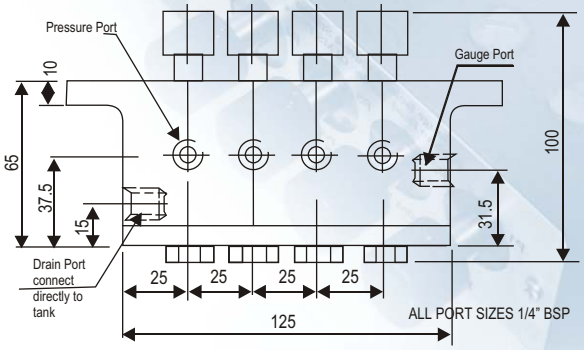




Gauge Isolator Valve. 4 Stations



Mounting & Cut out dimensions for multi station



Sl. No.	Model No.	Dimensions				
		A	B	C	D	ØH
1	GI MS PR-2	84	47	95	25	6.5
2	GI MS PR-3	106	47	120	25	6.5
3	GI MS PR-4	136	47	150	25	6.5

FILLER BREATHER ASSEMBLY

[MODEL: FB-700-TT-40 / FB-250-TT-40]

TECHNICAL DATA

This is a combination unit for filtering air displacement from the reservoir and for straining oil while filling. Mounting options include Tank Top and Side Mounting.

The displacement capacity is 250 LPM and 700 LPM and filtration is upto 40 microns. The air displacement from underneath the cap assembly improves performance. Power coated cap and nylon or nicker chrome plated strainer body ensures corrosion resistance.

The unit comes completely assembled with internal safety chain and fasteners. The mounting surface should be free of burrs, flat and clean to provide a good sealing surface for the flange.

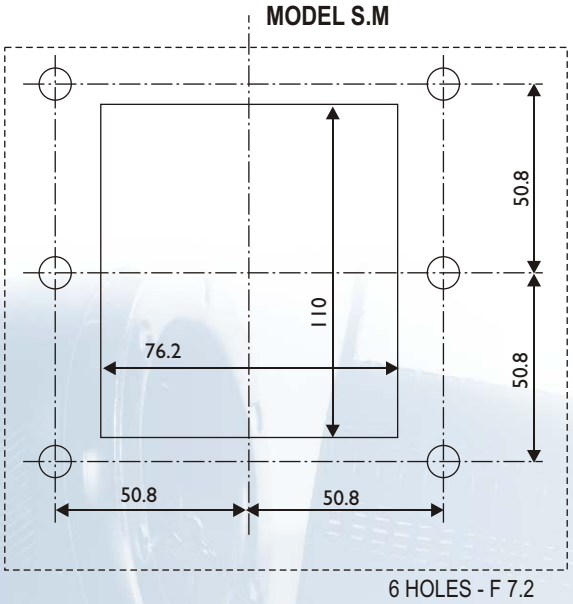
It is for use with Hydraulic/Lubrication oil reservoir applications, including machine tools, mobile equipment, industrial machinery, etc.

FILLER-BREATHER ASSEMBLY

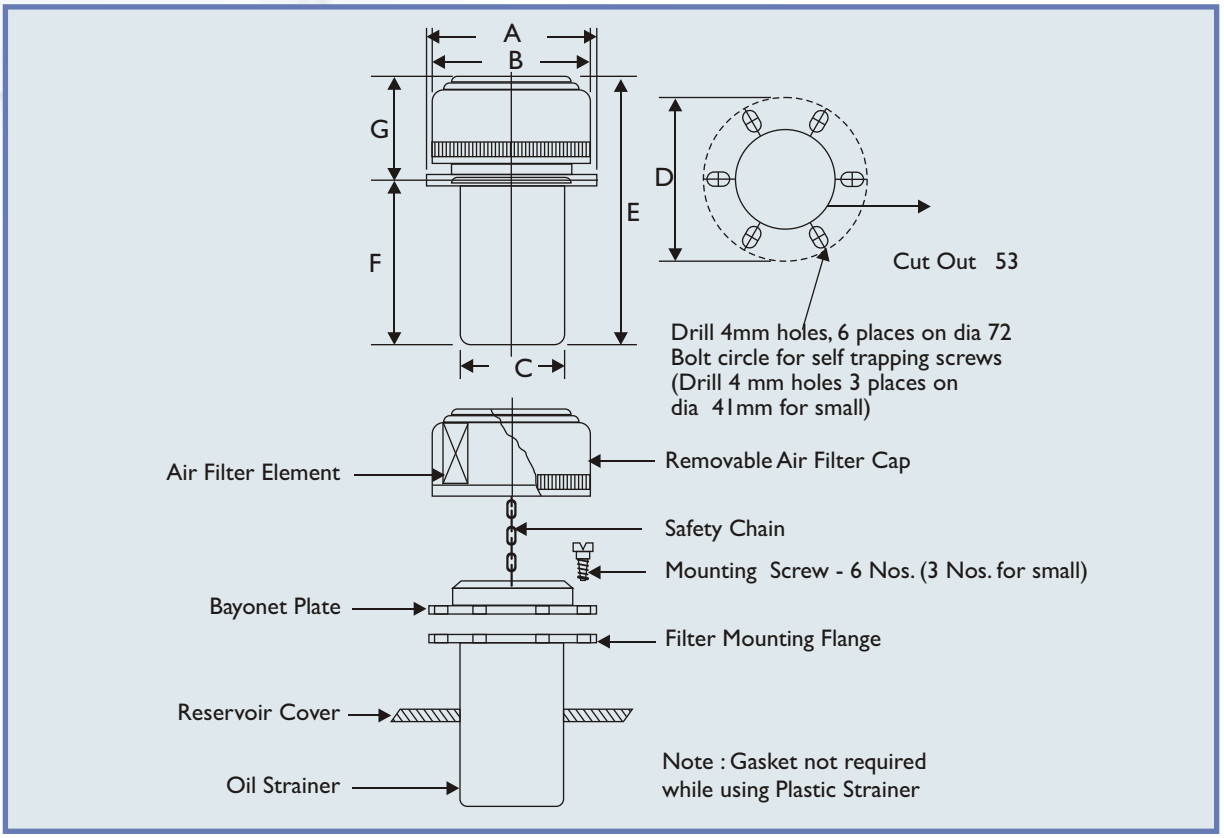
Breather-filters are a must for hydraulic systems ensuring clean air passing into the reservoir, thus prolonging the life of the system components. When used as a crankcase ventilator, it helps to prolong the life of the engine oil and the oil filter. They are designed for use in machine tool construction, mining, marine and agricultural applications.

- **Specially designed slots provide for an extremely large amount of airflow through the cap - ten times the amount of air flow as comparable with units now available (upto 700 litres per minute displacement).**
- **Nylon strainer with a guard stronger than conventional materials will not corrode.**
- **Compatible with all fluids.**
- **Filtration upto 5 microns available (Standard supply : 40 microns).**
- **It may be cleaned many times to provide efficient filtering action.**
- **Powder Coated cap with safety chain. The safety chain retains the cap, so it will not be misplaced or lost. Yet it is designed to allow removal of the cap when desired for cleaning of filter element.**
- **Slotted holes in strainer allow for easier alignment during installation.**
- **All parts included in one package - ready to install.**
- **Single hole reservoir installation range.**

Model	Dimensions						
	A	B	C	D	E	F	G
FB-700-TT-40	82.5	78	50	82.5	152	95	57
FB-250-TT-40	50.5	44	28	50.5	112	64	48



Details for side mounting



THREADED BREATHER [MODEL: BT]

TECHNICAL DATA

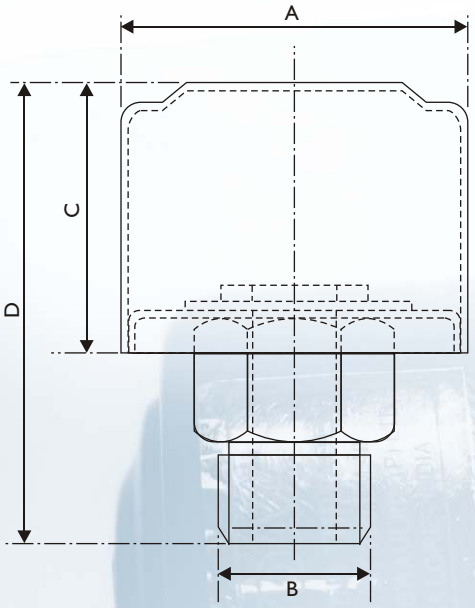
This is a unit for filtering air displacement from the reservoir.

Displacement capacity is from 250 LPM to 700 LPM and filtration is upto 5 microns (Standard supply : 40 microns).

The air displacement from underneath the cap assembly improves performance.

Powder Coated finish ensures corrosion resistance.

For use with Hydraulic/Lubrication oil reservoirs. Gear box applications include machine tools, mobile equipment, industrial machinery, etc.



Model	Dimensions			
	A	B Thread	C	D
BT-250-UM-40	45	½" BSP	38	62
BT-700-UM-40-1	76	M-26	48	82
BT-700-UM-40-2	76	M-30	48	82

TANK TOP FILTERS [MODEL: RLF]

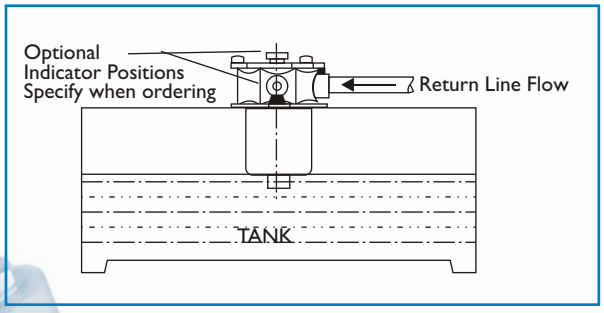
TECHNICAL DATA

The RLF series of low cost return line filters is intended for direct mounting on hydraulic reservoirs. The low profile coupled with high flow ratings, helps in mobile installations besides stationary applications like machine tools, plastic machinery, etc.

It requires one inlet fitting and discharges directly into the reservoir. The outlet is suitable for hose connections. This results in considerable reduction in installation cost.

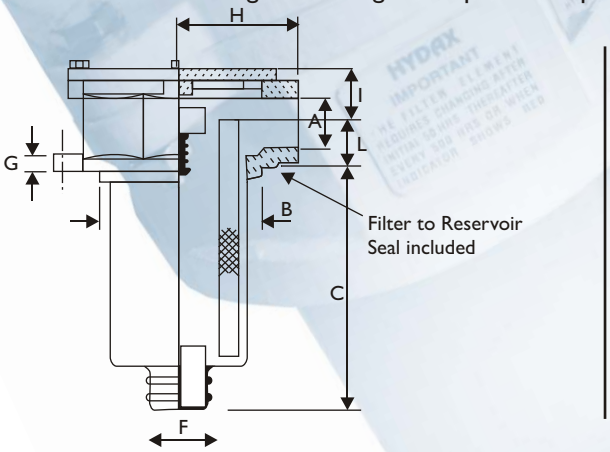
A permanent magnet inside the filter and 25 micron filtration are standard. Optional features include 10 micron filtration and visual clogging indicator as per order.

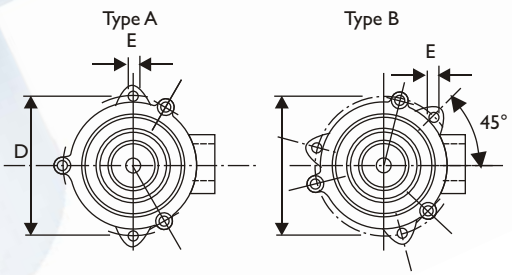
The elements are made from high-grade impregnated paper to ensure nominal desired micron ratings. Built in by-pass check valve preset at factory offers protection under clogged conditions.

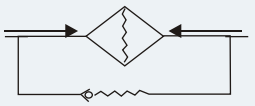


SALIENT FEATURES

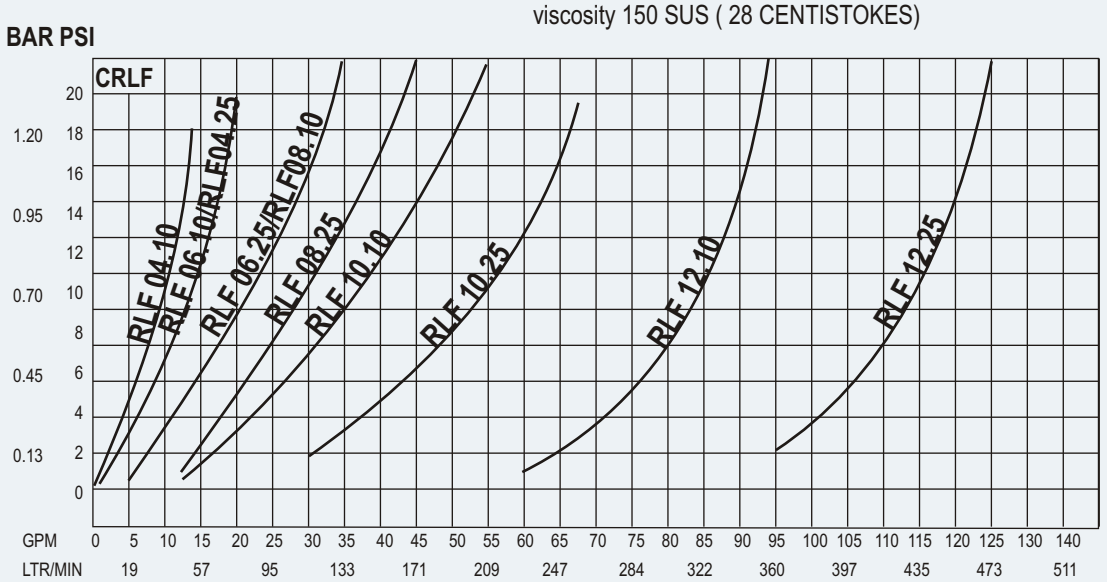
- Direct tank top mounting.
- All aluminium body and cover.
- Filtration from 10 microns to 25 microns.
- For flows upto 450 lpm - 6 sizes.
- Low installation cost.
- 10 BAR maximum pressure.
- Interchangeable elements with competitive models.
- Visual mechanical clogging indicators.
- Easy replacement of cartridge without disturbing plumbing.
- With by-pass check value.
- Easy installation.
- Low profile tank top assembly.
- Generous filtration area for longer intervals between cartridge changes.
- Built-in strong ferrite magnet keeps ferrous particles out of the system.







Port to port pressure drop with clean element oil viscosity 150 SUS (28 CENTISTOKES)



DESIGN TYPE	FILTER (BASIC)	PORT SIZE A	B	C	D	E	F	G	H	I	L	WEIGHT
TYPE A	RLF 04	½"BSP	67	78	96	8.4	27.5	7.5	51.5	28.5	22	0.60 KG
TYPE A	RLF 05	3/4" BSP	67	128	100	6.8	23	7.5	54	28.5	22	6.65 KG
TYPE A	RLF 06	3/4" BSP	89	93	118	8.4	27.5	9.9	69	34.5	28.5	0.80 KG
TYPE A	RLF 08	1" BSP	89	136	118	8.4	27.5	9.9	69	34.5	28.5	0.90 KG
TYPE A	RLF 10	1.1/4" BSP	130	230	175	10.4	40	12	95	45.5	35	2.27 KG
TYPE A	RLF 12	1½" BSP	130	300	175	10.4	40	12	95	45.5	35	2.70 KG

MODEL CODE
COMPLETE FILTER

RLF	**	** TT	**	CRLF **	**
Series	Size 04 - ½" BSP 06 - 3/4" BSP 08 - 1 " BSP 10 - 1.1/4" BSP 12 - 1.1/2" BSP	Filtration Rating 10 Microns 25 Micron	VI-Visual Indicator Omit when not required	REPLACEMEN CARTRIDGE Size 06 08 10 12	Filtration Rating 10 Micron 25 Micron

Note: Use Synthetic Rubber hose (ID=F) with Jubilee Clip to ensure return line is immersed in oil.

IN-LINE FILTERS MODEL: ILF

Spare element models

1) **CRLF-600 - 25P = 25 microns paper cartridge**
2) **CRLF-600 - 10P = 10 microns paper cartridge**

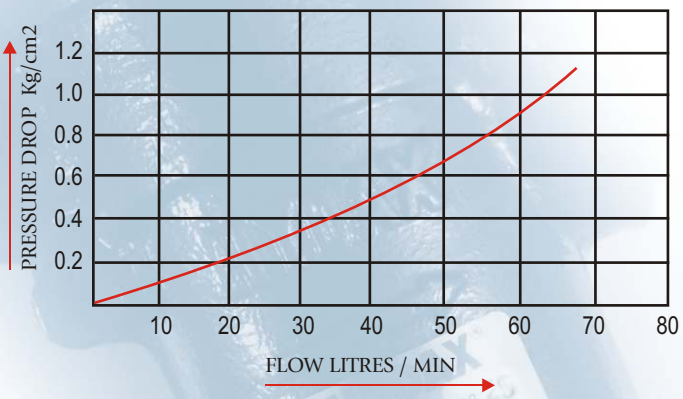
TECHNICAL DATA

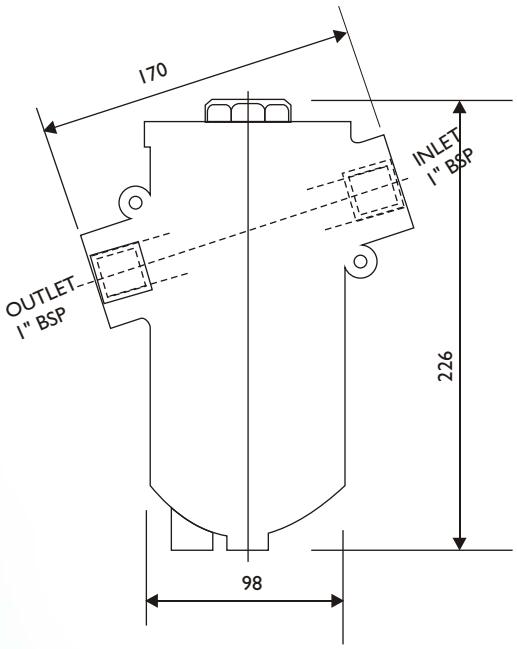
The HYDAX Inline Filter is designed for use with all types of mineral and petroleum based hydraulic fluids and is available for flows of upto 75 LPM. It can be connected anywhere in the return line of hydraulic systems.

The high-grade aluminium body and cast iron cover withstand higher pressure than normal return line filters.The built-in by-pass valve opens when the filter element is clogged. A permanent magnet inside the filter and 25 microns filtration are standard. (optional is 10 microns).

SALIENT FEATURES

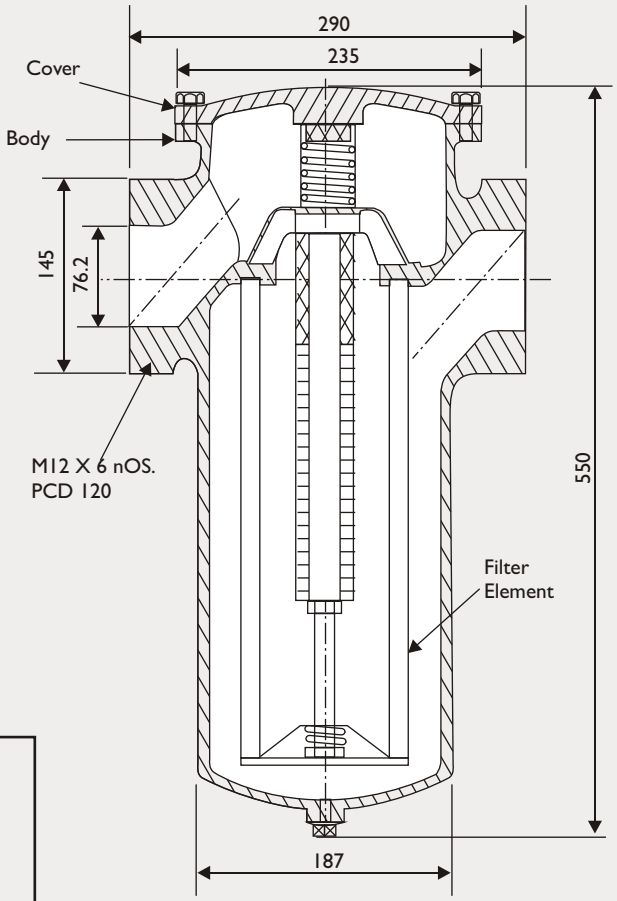
- High-grade casting body and cover.
- Maximum rated flow of 130 LPM.
- Filtration upto 25 microns, 10 microns optional.
- Maximum operating pressure is 15 Kg/cm^2
- In-line mounting.
- Built-in check valve.



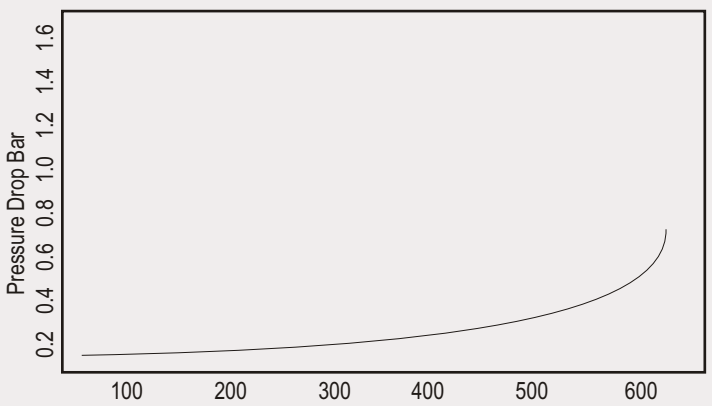


The Hydax In-line Filter model ILF-600 is an all-cast construction and is made from superior grade castings.These filters are rated for working pressures upto 20 kg/cm^2 and the filtration is of 25 or 10 microns.The maximum flow capacity is 600 LPM with fluid viscosity of 80 SSU at 40° C. The Port connection is a 3" round flange. Adequate internal area is provided to minimize pressure drop. Strong ferrite magnets are provided inside the cartridge flow path to arrest ferrous particles

MODEL CODE	FILTERATION CAPACITY (MICRONS)	FLOW CAPACITY LPM	PRESSURE MAX Kg/ cm2
ILF-60-08-10	10	60	15
ILF-75-08-25	25	75	15
ILF-130-08-25	25	130	15



Pressure Drop Curve with Clean Element



Flow - ltrs/min
Filter Model - ILF-600 - 25
Fuel Viscosity 80 SSU at 40^{0}C

SINGLE PILOT CHECK VALVE [MODEL: PCV - 03T]

APPLICATION

The Single Pilot Check Valve is used to lock a cylinder or part of a circuit and to prevent reverse flow until the pilot pressure is applied.

OPERATION

In a free flow direction through the inlet, the ball is unseated and the flow is out of the cylinder port. When the control valve is centered, the load is locked.

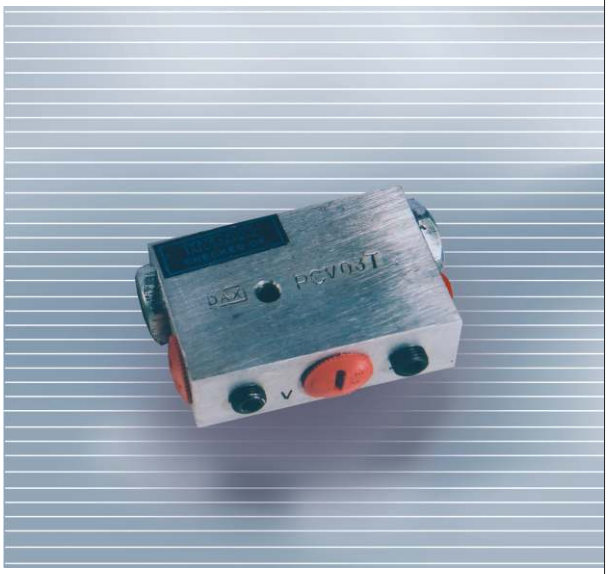
With pressure applied at the pilot piston, the ball is held open, allowing return flow.

This is internally piloted.

FEATURES

The damped pilot piston reduces damaging shocks and has easily replaceable seats in some models.

The directional valve cylinder ports should be connected to the tank in the centre condition.

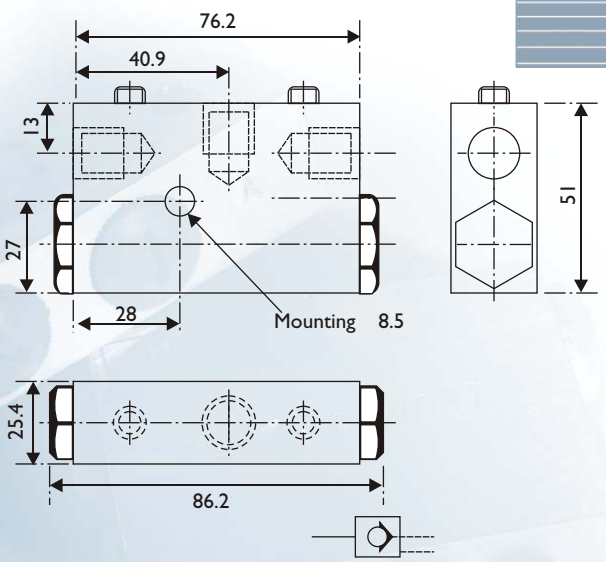


SPECIFICATIONS:

Materials :

Body	:	Extruded aluminium alloy,
Internal parts	:	Hardened steel.
Rated Flow	:	30 LPM
Working Pressure	:	210 Kg/cm^2
Ratio	:	4:1
Weight	:	0.33 Kg

ALL PORTS 3/8" NPT



DOUBLE PILOT CHECK VALVE [MODEL: DPCV-03T]

APPLICATION

The Double Pilot Check Valve is used to lock a cylinder or part of a circuit and to prevent reverse flow until pilot pressure is applied.

OPERATION

In a free flow direction through the inlet, the ball is unseated the flow is out of the cylinder port. When the control valve is centered, the load is locked.

With pressure applied at the pilot piston, the ball is held open, allowing return flow.

This is internally piloted.

FEATURES

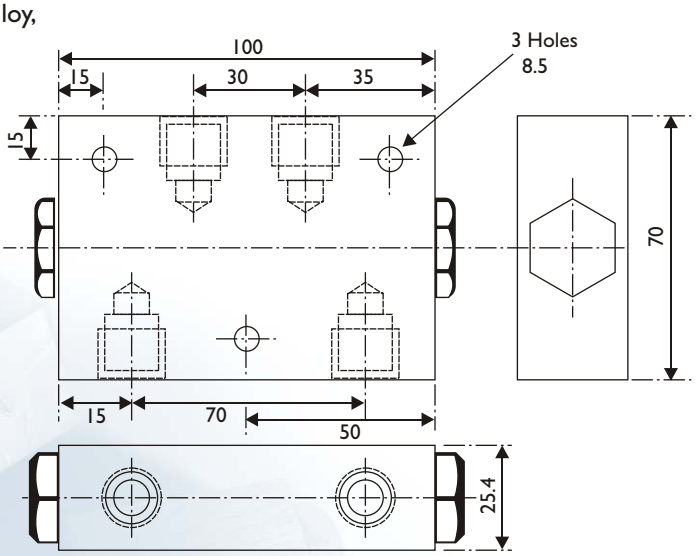
The damped pilot piston reduces damaging shocks and has easily replaceable seats in some models. The directional valve cylinder ports should be connected to tank in the centre condition.

SPECIFICATIONS:

Materials :

Body	:	Extruded aluminium alloy,
Internal parts	:	Hardened steel.
Rated Flow	:	30 LPM
Working Pressure	:	210 Kg/cm^2
Ratio	:	4:1
Weight	:	0.48 Kg

ALL PORTS 3/8" NPT



SUCTION STRAINER [MODEL: SS]

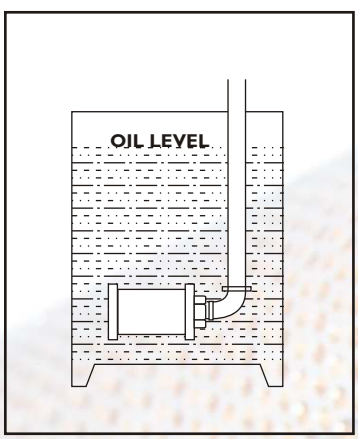
TECHNICAL DATA

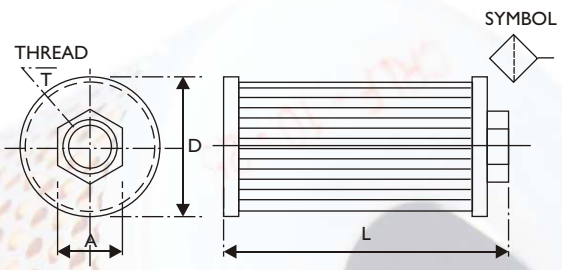
A complete range of Suction Strainers suitable for flows from 15 LPM (3gpm) to 450 LPM (100gpm). The standard filtration is upto 125 microns. The construction incorporates a stainless steel filtering media with a steel back-up perforated sheet held together with free flow epoxy bonding material.

These are reusable elements and can be cleaned with petrol or similar fluids. Suitable for hydraulic fluids, coolants, cutting fluids and mineral oils. Maximum temperature to 90°C.

SALIENT FEATURES

- **HYDAX offers a complete range of suction strainers for use wi lubricants, coolants, cutting oil, etc.**
- **125 micron filtering to give maximum efficiency at full flow.**
- **Plated inner support, high grade plastic/aluminium alloy/sheet metal top with stainless steel filter core (not affected by fluids).**
- **The head adapter is a one-piece construction to eliminate the nut breaking off.**
- **Can withstand extreme low pressure drops.**
- **Continuous epoxy bond joints.**
- **Protects pump and system components.**
- **Extends life and reduces breakdown for continuous equipment operation. Maximum working temperature of 90°C.**
- **For all mineral and petroleum-based fluids.**
- **Available in 9 sizes for flows upto 450 LPM.**





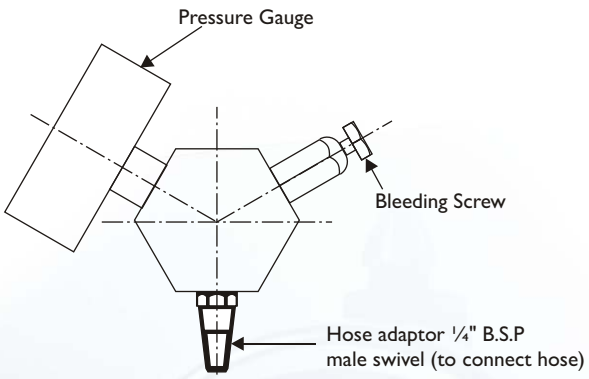
Model	Capacity LPM	A.A/F	D	L	T	Filter Area M²
15 L	15	32	52	87	½" BSP	0.03
15 L spl	15	36	63	62	¾" BSP	0.027
30 L	30	36	63	120	¾" BSP	0.05
60 L	60	45	63	160	1" BSP	0.07
90 L	90	60	90	125	1½" BSP	0.09
125 L	125	60	90	190	1½" BSP	0.13
160 L	160	60	90	230	1½" BSP	0.16
200 L	200	68	90	270	2" BSP	0.19
250 L	250	68	90	311	2" BSP	0.22
250 L spl	250	70	140	170	2" BSP	0.25
300 L	300	70	140	260	2½" BSP	0.29
340 L	340	84	140	290	2½" BSP	0.32
450 L	450	100	140	340	3" BSP	0.45

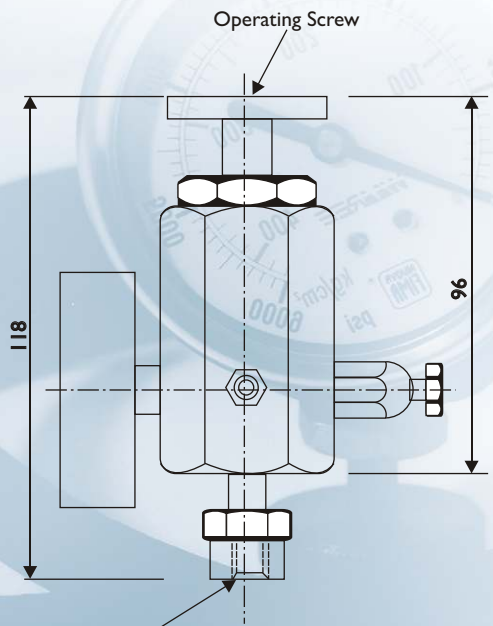
ACCUMULATOR CHARGING AND GAUGING ASSEMBLY [MODEL : ACGA]

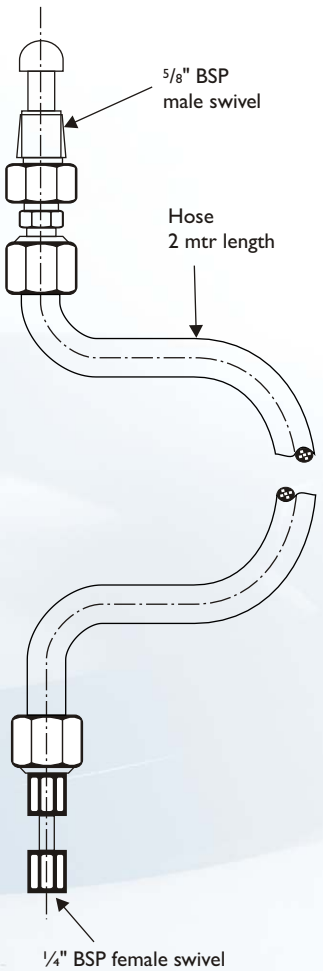
TECHNICAL DATA

This assembly is used for periodic checking and charging of accumulator pressure. A steel body construction is provided with charging valves and a pressure gauge. The assembly is suitable for pressures upto 210 bar. A two metres long high pressure hose pipe is provided with the assembly.

The unit is designed for periodic use and should not be connected permanently to any accumulator. A ¼" BSP female swivel nut is standard supply. An optional 5/8" UNF connection can also be provided.







CARTRIDGE FILTER HOUSING

TECHNICAL DATA

The FWH series fiter housings are suitable for flow rates upto 900 LPM using 10" to 40" cartridge filters.The flow capacity of the housings in standard series are:

3 ELEMENT HOUSING	6 ELEMENT HOUSING
310 FWH upto 110 LPM	610 FWH upto 220 LPM
320 FWH upto 220 LPM	620 FWH upto 440 LPM
330 FWH upto 330 LPM	630 FWH upto 660 LPM
340 FWH upto 440 LPM	640 FWH upto 880 LPM

The housing is made of Fiberglass Reinforced Plastic (FRP) and the housings have an internal lining. The inlet and outlet ports are located at the bottom cover and have BSP threading. The design provides for easy disassembling in order to clean and change the cartridge. The housings are suitable to accommodate double open ended (DOE) and 'O' Ring cartridge configurations.

While the housings are rated for working pressure of 10 kg/cm^2 and tested upto 20 kg/cm^2, higher pressure rated ones too can be made in case of specific requirements. Suitable for temperature ranges upto 50°C. The externals are made of anodised aluminium or stainless steel. A provision for vent and pressure gauge has been provided.

SALIENT FEATURES

1. A glass filter/epoxy bonded outer layers with food grade lining inside.
2. Test pressure upto 20 kg/cm^2.
3. Available in tierod version or flanged version with bolt and nut.
4. All internal components are made of food grade compatible material.
5. The 3-element housings have 1½" BSP connections and the 6-element ones have 2" BSP connections for the inlet and outlet.
6. Both the inlet and outlet are from the bottom of housing.
7. A suitable pressure gauge port and vent port is provided on top of the flange.
8. It can accommodate standard 62 mm OD double open ended (DOE) elements.
9. Optional 40 kg/cm^2 housings can be made available.