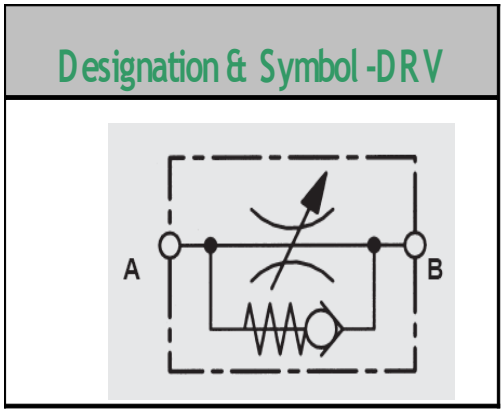
Hydraulic Flow Control Valves – DRV



Flow control valves can be called as Throttle check valves.
Ve-Lock Manufactures valves which control & maintain the desire amount of flow as per application .
Flow Control valves , Throttle valves can achieve the desire amount of flow of Fluid by rotating the spindle as per applications. Hydraulic Flow valves can be used as per required application like as below :-

Ve-Lock Flow Control Valves are designed as per DIN -ISO 1219, which can control the flow rate in oil hydraulic systems by means of an adjustable construction of the cross section. The Flow rate is dependent on pressure differential and Viscosity. Ve-Lock Flow Control Valves with reverse flow check DRV allow the same fine flow adjustment. The flow control & shut off (check valve) function in One direction only. Unrestricted flow in the reverse direction is via the build in check valve.

Flow Control Valves with Reverse flow check consist essentially of a Valve body with build in valve seat , a hardened and Polished closing cone, a spring , the control spindle and the control knob. The closing cone is pressed on to the valve seat by the spring, thereby shutting off the port one to port two. Starting with the control spindle in the fully closed position when the flow is shut off , the flow rate in the flow direction increase according to the control know increased. The control knob with its colored scale and scale rings permits accurate repetition of the settings. The size of the colored triangle on the rings indicates the size of the flow area. An increase in the size of the colored triangle corresponds to an increase in flow area. A set screw locks the setting. The closing cone opens when the pressure across port is higher then the cracking pressure of spring.

Advantage of Flow Control Valves :-

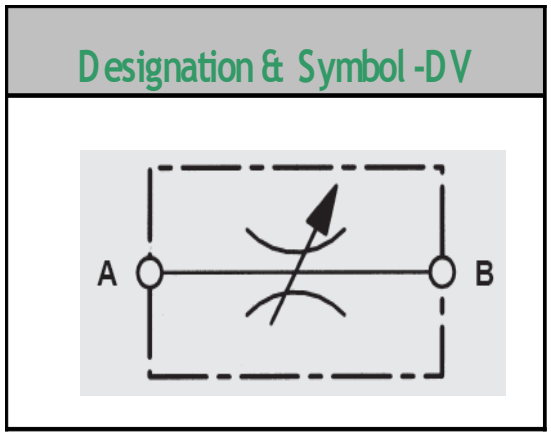
Space saving in line mounting due to compact construction
A high level of safety is achieved through measured spindle safety mechanism.
A set -screw locks the setting.
Choice of Various sizes from 1/4 " up to 1 " ensures best possible adaptability to the system.
Mounting Position is optional.

Applications of Flow Control Valves : -

For controlling the speeds of loads for system-related damping in the Hydraulic Circuits.
For Pressure -Dependent control of flow rate in general.
To release pressure from accumulator systems.
As an Emergency drain for lowering a load.

Flow control valves are widely used in Hydraulic Power Pack Systems , Mobile Hydraulics , Elevating Platforms , Hydraulic Tippers, Construction equipments.

Hydraulic Throttle Valves - DV



Throttle valve consists essentially of a valve body , a special control spindle & the control know. Throttle valve do not have in build check valve so direction of Flow of oil can be taken in both the way in the piping systems the control knob has colored scale and each scale rings permits accurate repetition of the settings. The size of the colored triangle on the rings indicates the size of the flow area. An increase in the size of the colored triangle corresponds to an increase in flow area. A set screw locks the settings. Throttle valves allow the flow is controlled in both the directions.

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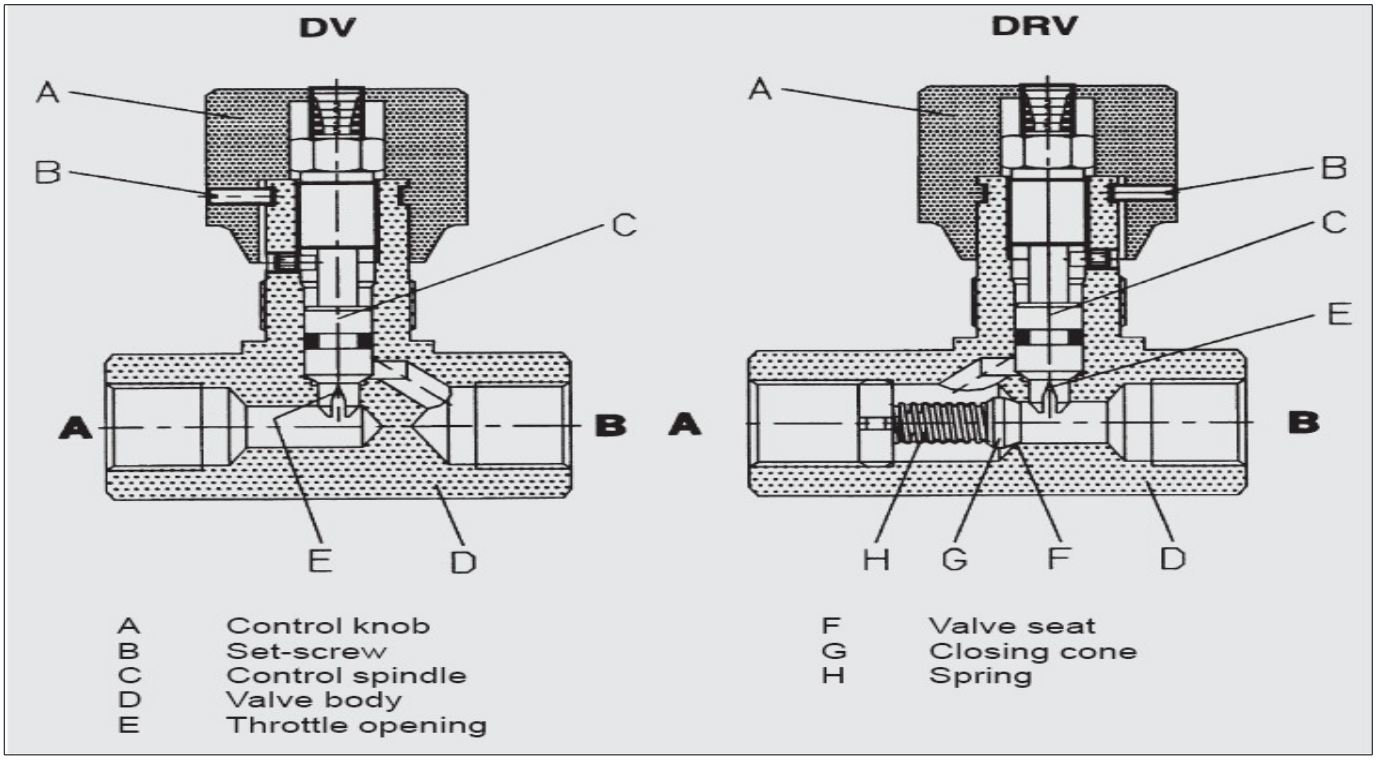
Throttle Valves

Flow Control Valves



Sizes In DN	Sizes In Inch	Sizes of End	Types of Concerned	Flow Control Valves	Throttle Valves
DN 6	1/8"	BSPP/ NPT	Flow Rate Max.	Up To 20 Ltr / Min	Up To 20 Ltr / Min
DN 8	1/4"	BSPP/ NPT	Flow Rate Max.	Up To 50 Ltr / Min	Up To 50 Ltr / Min
DN 10	3/8"	BSPP/ NPT	Flow Rate Max.	Up To 60 Ltr / Min	Up To 60 Ltr / Min
DN 12	1/2"	BSPP/ NPT	Flow Rate Max.	Up To 90 Ltr / Min	Up To 90 Ltr / Min
DN 16	3/4"	BSPP/ NPT	Flow Rate Max.	Up To 180 Ltr / Min	Up To 180 Ltr / Min
DN 20	1"	BSPP/ NPT	Flow Rate Max.	Up To 300 Ltr / Min	Up To 300 Ltr / Min
DN 6 -20	1/4" up To 1"	BSPP/ NPT	Direction of Flow	Only in One Direction	Can be in Both Direction
DN 6 -20	1/4" up To 1"	BSPP/ NPT	Why ?	Due to Inbuild Chock Valve	No Check Valve Inside
DN 6	1/8"	BSPP/ NPT	Working Pressure	400 Bar	400 Bar
DN 8	1/4"	BSPP/ NPT	Working Pressure	400 Bar	400 Bar
DN 10	3/8"	BSPP/ NPT	Working Pressure	400 Bar	400 Bar
DN 12	1/2"	BSPP/ NPT	Working Pressure	400 Bar	400 Bar
DN 16	3/4"	BSPP/ NPT	Working Pressure	400 Bar	400 Bar
DN 20	1"	BSPP/ NPT	Working Pressure	350 Bar	350 Bar

Check Valves , Non Return Valves

Check valves are also known as Non Return.

Valves Check valves are self-activating safety valves that permit gases and liquids to flow in only one direction, preventing process flow from reversing. They are classified as one-way directional valves. Fluid flow in the desired direction opens the valve, while back flow forces the valve closed. The mechanics of check valve operation are relatively simple. Most check valves contain a ball that sits freely above the seat, which has only one through-hole. The ball has a slightly larger diameter than that of the through-hole. When the pressure behind the seat exceeds that above the ball, liquid is allowed to flow through the valve; however, once the pressure above the ball exceeds the pressure below the seat, the ball returns to rest in the seat, forming a seal that prevents back flow.

Check valves use a variety of technologies to allow and stop the flow of liquids and gases. Single-disc swing valves are designed with the closure element attached to the top of the cap. Double-disc or wafer check-valves consist of two half-circle disks hinged together that fold together upon positive flow and retract to a full-circle to close against reverse flow. Lift-check valves feature a guided disc. Spring-loaded devices can be mounted vertically or horizontally. Silent or center guide valves are similar to lift check valves, with a center guide extending from inlet to outlet ports. The valve stopper is spring and bushing actuated to keep the movement "quiet." Ball check valves use a free-floating or spring loaded ball resting in a seat ring as the closure element. Cone check valves use a free-floating or spring loaded cone resting in the seat ring as the closure element.

Selecting check valves requires an analysis of performance specifications, materials of construction, connection types, and media. Performance specifications include valve size, pressure rating, media temperature, and valve flow coefficient. Most check valves are made of acetal polymers, aluminum, brass, bronze, cast iron, chlorinated polyvinyl chloride (CPC), ductile iron, copper, polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE), polyvinyl chloride (PVC), polyvinylidene fluoride (PVDF), rubber, steel, or stainless steel. Connections for check valves can use threads, compression fittings, tube fittings, bolt flanges, clamp flanges, butt welds, socket welds, and union connections. In terms of media, check valves are rated for air, compressed air, water, hot water, cold water, potable water, salt water, wastewater, gasoline, diesel fuel, high-purity gas, liquefied petroleum gas (LPG), natural gas, sour gas, corrosive gas, abrasive material, acids, corrosive chemicals, adhesives, concrete, grout, coolants, hazardous materials, high-viscosity fluids, hydraulic fluids, liquid metal, lubricants, oil, powders, solids, rendering wastes, sludge, slurry, ash slurry, or steam. Check valves are available in Steel , Stainless Steel , Brass Materials & can be applicable for Low pressure Application ,Highpressure Application & for water

Needle Valves	Series		Sizes For Threads	Types of Threads Available	CLICK to Submit
Needle Valves with Female Threads	3000	6000	¼” up to 2”	BSPP/ BSPT/ NPT/ UNF	Enquiry Form
Needle Valves with Male Threads	3000	6000	1/4” up to 2”	BSPP/ BSPT/ NPT/ UNF	Enquiry Form
Needle Valves with Metric Tube Od	3000	6000	6mm up to 42mm od	Metric Threads with Nut + Ferrule	Enquiry Form
Needle Valve with UNF Tube Od	3000	6000	1/4” od up to 2” od	UNF Threads with Nut + Ferrule	Enquiry Form
Needle Valve with Tube to Thread End	3000	6000	6mm up to 42mm od	Metric to BSPP Threads	Enquiry Form

Materials :-

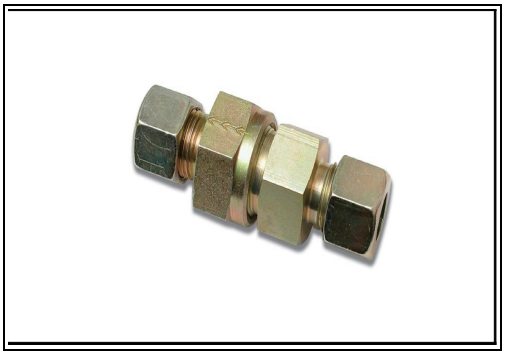
Valve Body - Steel Phosphatised / Yellow chromatize / trivalent Zinc Blue Passivation
Valve Body - STAINLESS STEEL -304 / 316
Valve Spindle - Steel , Stainless Steel 304 / 316
SEALING - WITH O RING -NBR - (Viton - O ring - On Request at Extra Cost only)
W.P. = Low Pressure = 200 bar & High Pressure up to 400 bar
All other Parts are trivalent Zinc with Blue passivation

Non Return Valves - Tube to Tube End - For Hydraulic Applications

Non Return valves tube to tube end are applicable for the systems where we have use Seamless tubes (Metric / Inch Od / Inch NB types) & to connect this tube end to this Non Return valves with Tube end & to Provide Nut & Ferrule Ring to get this tubes Grip with Non Return Valves Body.

Non Return vales with Hydraulic tube end utilise in Paper Industry , Steel Plant manufacturer , Power Pack Manufacturer , Aircraft construction equipments, SPM, Process Machineries , Hydraulic Power Booster Units.Non Return Valves with tube to tube end connection are available in below types & sizes.

Needle Valve Tube to Tube End	W.P. = BAR	Series	Sizes For Threads	Types of Threads Available	CLICK to Submit
6 mm to 15 mm OD	250	Light	6 mm to 15 mm	Metric Threads Both End	Enquiry Form
18 mm to 22 mm OD	160	Light	18 mm to 22 mm	Metric Threads Both End	Enquiry Form
28 mm to 42 mm OD	100	Light	28 mm to 42 mm	Metric Threads Both End	Enquiry Form
6 mm to 12 mm OD	630	Heavy	6 mm to 12 mm	Metric Threads Both End	Enquiry Form
14 mm to 25 mm OD	400	Heavy	14 mm to 25 mm	Metric Threads Both End	Enquiry Form
30 mm to 38 mm OD	250	Heavy	30 mm to 38 mm	Metric Threads Both End	Enquiry Form



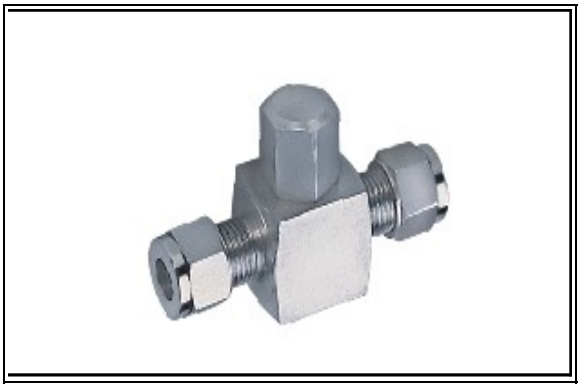
Materials :-

Valve Body - Steel Phosphatised / Yellow chromatize / trivalent Zinc Blue Passivation
Valve Body - STAINLESS STEEL -304 / 316
SEALING - WITH O RING -NBR - (Viton - O ring - On Request at Extra Cost only)
W.P. = Low Pressure = 200 bar & High Pressure up to 400 bar
All other Parts are trivalent Zinc with Blue passivation

Non Return Valves - Tube to Tube End - For Instrumentation Tube systems

Non Return valves tube to tube end are applicable for the systems where we have use Seamless tubes (Metric / Inch Od / Inch NB types) & to connect this tube end to this Non Return valves with Tube end & to Provide Nut & Ferrule Ring to get this tubes Grip with Non Return Valves Body.Ball valves with Instrument Tube end utlise for Oil & gas Industry , Marine Application, Petrolium Equipments ,Oil Refineries , Water Industry.Ball Valves with tube to tube end connection are available in below types & sizes.

Needle Valve Tube to Tube End	W.P. = BAR	Series	Sizes For Threads	Types of Threads Available	CLICK to Submit
1/8" up to 2" Od Tube Size	400	Heavy	1/8" up to 2"	UNF Threads Both End	Enquiry Form
6 mm to 50 mm Od Tube Size	400	Heavy	6 mm to 50 mm	UNF Threads Both End	Enquiry Form



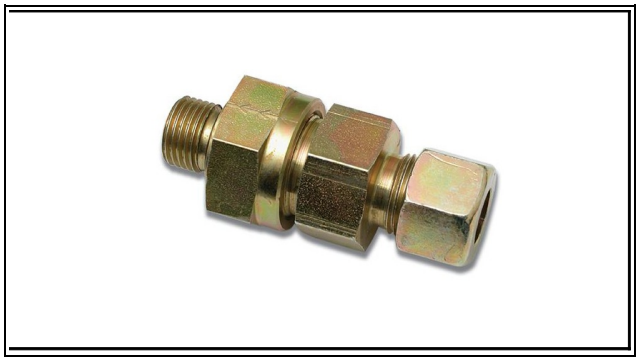
Materials :-

Valve Body - Steel Phosphatised / Yellow chromatize / trivalent Zinc Blue Passivation
Valve Body - STAINLESS STEEL -304 / 316
SEALING - WITH O RING -NBR - (Viton - O ring - On Request at Extra Cost only)
W.P. = Low Pressure = 200 bar & High Pressure up to 400 bar
All other Parts are trivalent Zinc with Blue passivation

Non Return Valves - Tube to Male End - For Hydraulic Applications

Non Return valves tube to tube end are applicable for the systems where we have use Seamless tubes (Metric / Inch Od / Inch NB types) & to connect this tube end to this Non Return valves with Tube end & to Provide Nut & Ferrule Ring to get this tubes Grip with Non Return Valves Body. The other side of the Non Return Valves has Male / Female threads like BSPP / BSPT / NPT as per connection required to the end users. Non Return vales with Hydraulic tube end utilise in Paper Industry , Steel Plant manufacturer , Power Pack Manufacturer , Aircraft construction equipments,SPM,Process Machineries , Hydraulic Power Booster Units. Non Return Valves with tube to Male Thread end connection are available in below types & sizes.

Needle Valve Tube to Tube End	W.P. = BAR	Series	Sizes For Threads	Types of Threads Available	CLICK to Submit
6 mm to 15 mm OD	250	Light	6 mm to 15 mm	Metric Threads Both End	Enquiry Form
18 mm to 22 mm OD	160	Light	18 mm to 22 mm	Metric Threads Both End	Enquiry Form
28 mm to 42 mm OD	100	Light	28 mm to 42 mm	Metric Threads Both End	Enquiry Form
6 mm to 12 mm OD	630	Heavy	6 mm to 12 mm	Metric Threads Both End	Enquiry Form
14 mm to 25 mm OD	400	Heavy	14 mm to 25 mm	Metric Threads Both End	Enquiry Form
30 mm to 38 mm OD	250	Heavy	30 mm to 38 mm	Metric Threads Both End	Enquiry Form



Materials :-

Valve Body - Steel Phosphatised / Yellow chromatize / trivalent Zinc Blue Passivation
Valve Body - STAINLESS STEEL -304 / 316
SEALING - WITH O RING -NBR - (Viton - O ring - On Request at Extra Cost only)
W.P. = Low Pressure = 200 bar & High Pressure up to 400 bar
All other Parts are trivalent Zinc with Blue passivation