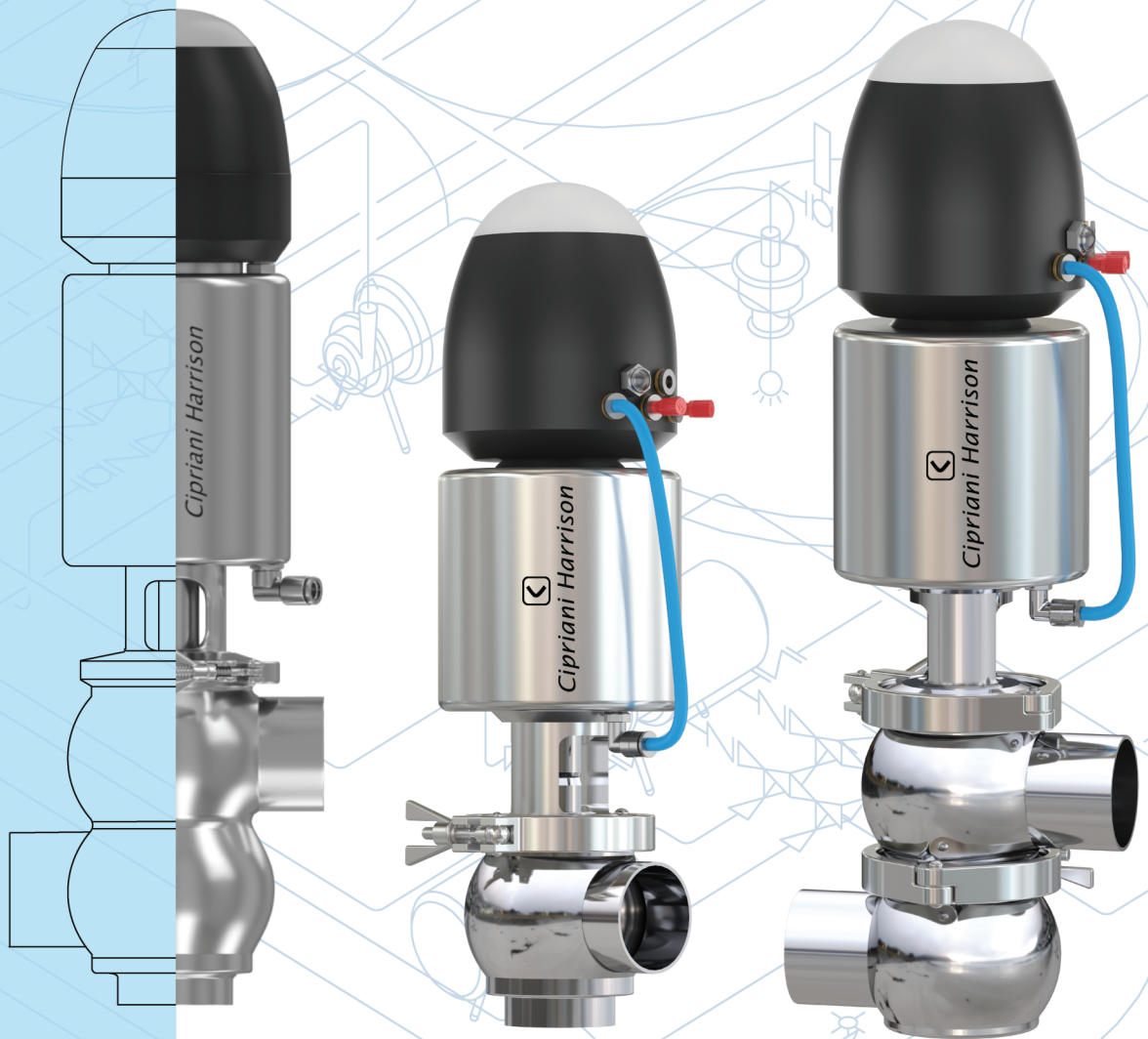




Cipriani Harrison Valves
Hygienic Stainless Steel Valves

Single Seat Valve

An Array Of Hygienic Stainless Steel
Valves & Flow Components.



SINGLE SEAT VALVE

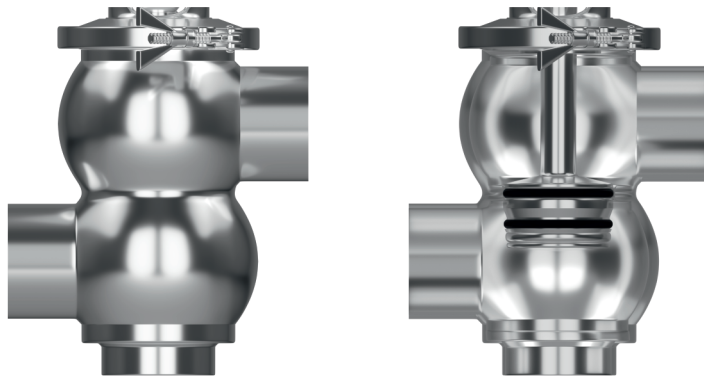
A Single Seat Valve forms the base or of any hygienic process installation. It is primarily used to either Shut-off the Flow or to divert the flow from one process pipeline to other. Being considered as a building block of any process installation, calls for the highest reliability for an uninterrupted production cycle.

Cipriani Harrison's Single Seat Shut-Off & Divert Valve is a well-engineered product having superior reliability, hygienic design & user friendly construction.



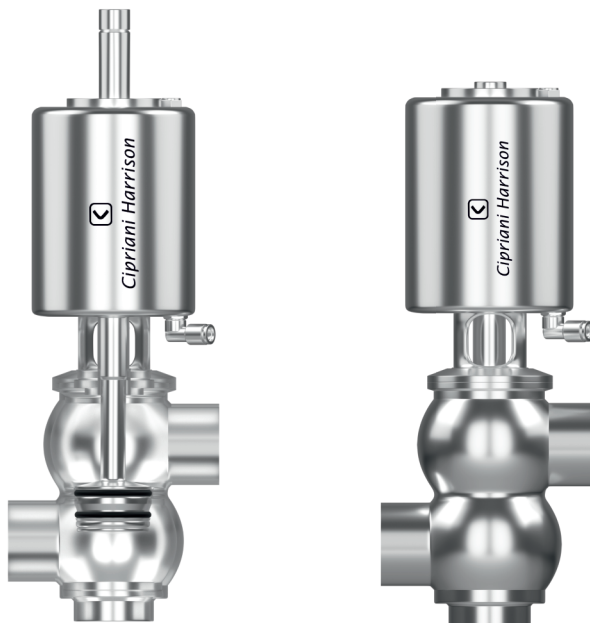
SINGLE PIECE CONTRUCTION

Cipriani Harrison Single Seat Valve are manufactured from a single piece solidbar. This minimize the number of joints complimenting to a superior level of hygiene.



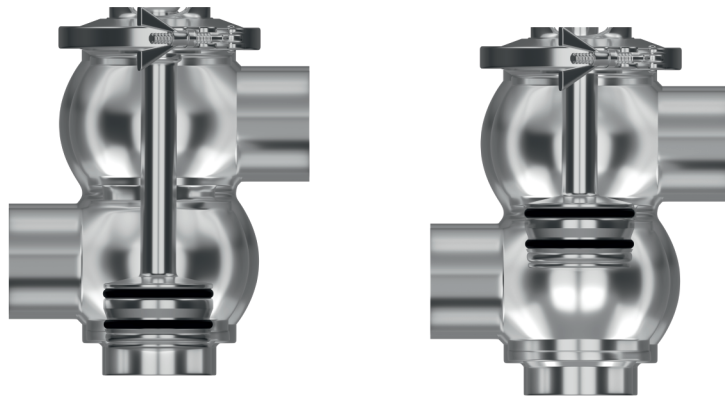
COPMPACT SIZE & LIGHT WEIGHT CONTRUCTION

Cipriani Harrison's Standard Single Seat Valve is compact in size, thanks to its one piece body construction and a maintenance free sealed actuator. An Engineered and optimized design result in light weight construction, without compromising the functionality or strength of the valve



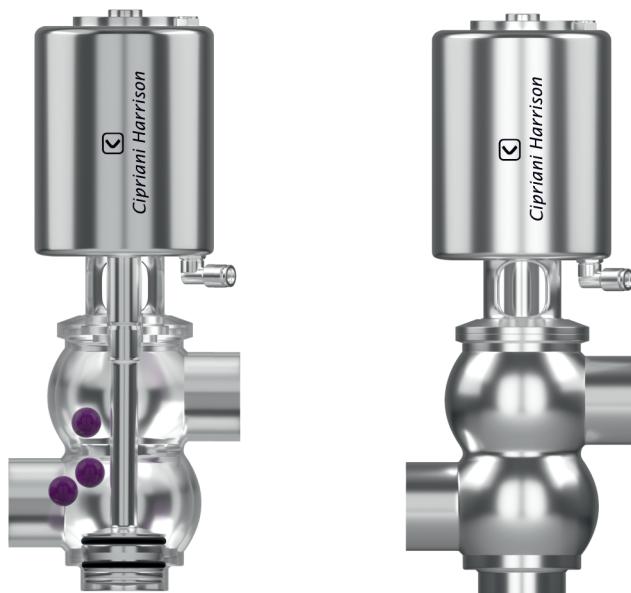
MINIMAL PRODUCT TRAP

Cipriani Harrison's single seat valve have a unique design & features. The construction of the valve is such that there is minimum product trap, intern reduces product wastage & dead leg, in the valve.



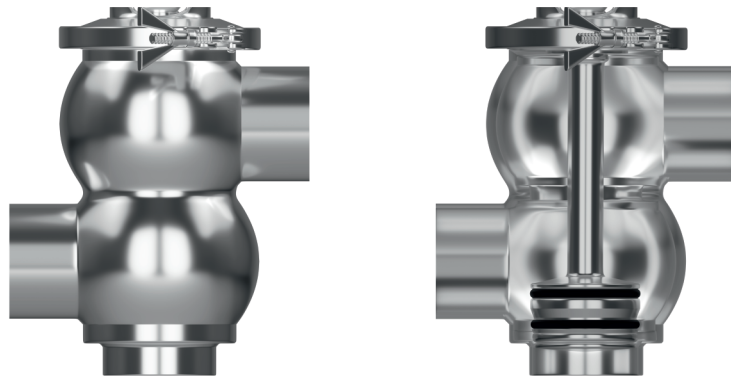
STROKE

Cipriani Harrison's Single Seat Valve has a unique construction, allowing more seat travel and increased stroke. This allows viscous fluids & the fluids With solid particles to flow through the valve more efficiently



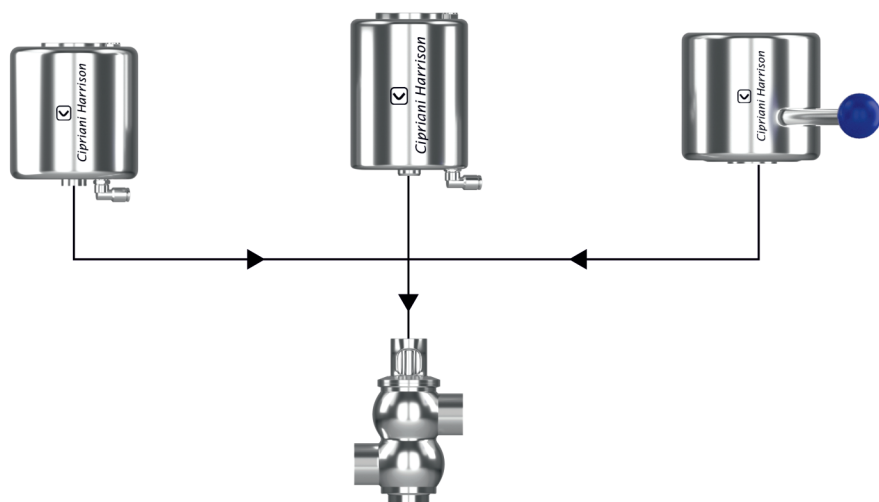
LOWER COST OF OWNERSHIP

Cipriani Harrison' Single Seat Valve is designed keeping in mind the ease of maintenance of the valve. The valve is manufactured from a single piece solid bar with reduced number of joints and minimal number of gaskets in contact with the product. It is further complimented by a maintenance free actuator making the valve easy to clean & minimal maintainable parts.



MODULAR DESIGN

Cipriani Harrison's Single Seat Valve has a modular designed. One can switch from Manual Version, to actuated or high pressure actuator, by just a simple.



STANDARD CONFIGURATION

Cipriani Harrison's Single Seat Valve comes with two basic configuration of either to the Shut-Off Flow or to Divert the flow. The Standard configuration comes with a Single Piece Body design with an option for Either Single Acting (Air to Spring) Actuator or Double Acting (Air to Air) Actuator. There are various different body configurations Available as illustrated in Fig # _____ of Doc _____



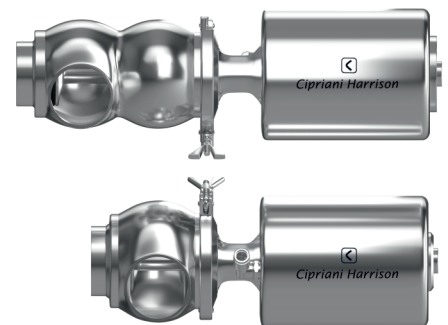
LONG STROKE CONFIGURATION

Cipriani Harrison's Single Seat Valve comes with Option of longer stroke for handling media /product containing suspended solid particle or high viscosity product's like liquid chocolate, honey, etc. For such high viscosity products the valve need to have a larger opening between the seats, for more gentler & effective flow.



TANGENTIAL OUTLET CONFIGURATION

Cipriani Harrison's Single Seat valve comes with an Option of tangential outlet. If the need arises where The vale has to be horizontally installed, in such cases if the standard valve is installed horizontally, then there is a fair chance of product getting trapped in the valve body. For such application, a tangential outlet valve is recommended, which would have an off-center outlet, tangential to spherical valve body. This would ensure that nothing is being trapped when the valve is in operation. Typical example of such cases are tank outlet in horizontal position, drain valve or areas with space constraints.



ANGLE VALVE CONFIGURATION

Cipriani Harrison's single seat valve comes With an option of Angle Valve configuration. This type of configuration is primarily installed where the media contains large particles or the Media is of higher viscosity. This configuration would help in gentle treatment of the media, as well as in such cases the inlet & outlet would be in the same plane.



TANK BOTTOM VALVE CONFIGURATION

Cipriani Harrison single seat valve is available in a Tank Bottom valve configuration. This valve is available in two different version i.e. either the valve seat would open inside the tank or it will open outside the tank. Any of the two version can be chosen based on the application or media.



ASEPTIC SINGLE SINGLE SEAT VALVE

Cipriani Harrison single Seat valves are also available in Aseptic configuration, to be installed in Aseptic environment. This valve comes with a one piece diaphragm which hermetic seals against the intrusion from the atmosphere, ensuring protection against the atmospheric impurities. This version can be used in conjunction with other configuration like Tangential Outlet, Angle Valve or Tank Bottom valve configuration.



OVER FLOW SINGLE SEAT VALVE

Cipriani Harrison's Single Seat over Flow valve is designed to bypass or relieve the over pressure created in the pipeline. An over pressure valve is designed to work for a pressure range which can be set during the installation. The over flow valve is available with seat lifting arrangement, which can be either manual or pneumatically actuated.



CONTROL VALVE

Cipriani Harrison's single seat valve comes With an option of Angle Valve configuration. This type of configuration is primarily installed where the media contains large particles or the Media is of higher viscosity. This configuration would help in gentle treatment of the media, as well as in such cases the inlet & outlet would be in the same plane.



HIGH PRESSURE VALVE

Cipriani Harrison single seat valve are available for high pressure application. The Single Seat valves modular construction enables the user to change the actuator from a normal to high pressure actuator, at any stage of usage. High pressure actuators are available to a pressure rating upto 25 Bars.



SS-DS SINGLE SEAT VALVE

Cipriani Harrison Single Seat Double Seal valves are used in automated piping system where product mixing from pressure hammer or seat failure is concern. SSDS is designed for safe media separation in hygienic process application.



AIR ASSISTED SINGLE SEAT VALVE

Cipriani Harrison's single seat valve is available with an additional arrangement of air assistance. In critical cases where a standard single seat valve is used and an additional pressure is required to open the valve. In such cases Cipriani Harrison has an optional arrangement of air assistance, which will assist the actuator with additional opening force.



MANUAL SINGLE SEAT VALVE

Cipriani Harrison's single seat valve is available in a unique manual version. With just a quarter turn manual actuator arrangement, the valve can be opened or closed.



FRACTIONAL SINGLE SEAT VALVE

Cipriani Harrison's single seat valves are available in fractional size i.e. $\frac{1}{2}$ " and $\frac{3}{4}$ ". These smaller fractional sizes have all the unique features of a standard single seat valve and can be available in different configuration. .



Application

Shut-off and divert valves are used in process flow systems for stopping or diverting the flow of liquid. A variety of body configurations allows flexibility in designing process piping systems.

Working Principle

When compressed air is supplied to the pneumatic actuator, the valve opens or closes depending on whether the actuator has a normally closed (NC) or normally open (NO) function. The built in spring returns the valve plug to its original position once the air supply is stopped.

Standard Design

The self draining machined and polished valve bodies are made from acid resistance stainless steel. Their round shape offers minimum resistance to flow. The valve body, yoke, and pneumatic actuator are connected by clamps enabling easy and quick assembly and disassembly. The Open yoke design ensures easy cleaning of the valve plug. The configuration of valve can be changed from normally closed to normally open or vice-versa by just inverting the actuator. All Seats and Seals are made from FDA approved materials.

Actuators

- Normally closed (NC) - Air to open and spring to close.
- Normally open (NO) - Air to close and spring to open.
- Air to air - Air to open and air to close.
- Manual version - Can be opened or closed manually by rotating the handle.

Available Sizes

1", 1 1/2", 2", 2 1/2", 3", 4"

Dn25, DN40, DN50, DN65, DN80, DN100

Options

Various types of actuators.
Larger actuator for 1 1/2", 2", 2 1/2" and 3" Valves.
Stronger springs for increased holding pressures.
Electrical control unit with micro switches or proximity switches and solenoid valve for remote operation.

End connections: Sanitary Clamp, Butt-Weld, or others on request.

*3A Approved.



Technical Specifications :
Material :

Product wetted steel parts..... AISI 316L
Other steel parts..... AISI 304

FDA Seals :

Seat seal(s)..... EPDM
Optional..... SILICONE
PTFE
VITON
BUNA
Lip seal & Seal ring..... EPDM
Optional..... VITON
SILICONE
BUNA
Others Seals..... EPDM

Nominal Pressure :

Maximum product pressure..... 10 bar maximum (150 PSI)
Supply pressure for air actuator.. 70 - 115 PSI (Dry Air)

*** For seat holding pressure please refer page no 11 - 14**

Temperature & Chemical Compatibility :

Please refer to the temperature and chemical compatibility charts located in the General Information section of the catalog. Temperature and chemical compatibility are limited by the seal material.

Surface Finish :

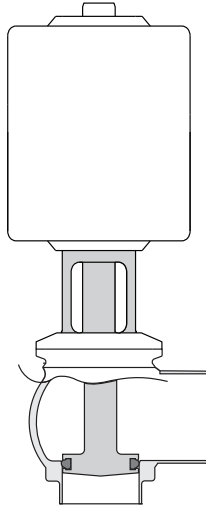
Surface in contact with product..... Ra $\leq$ 25 μ in (Grit 220g)
Optional..... Ra $\leq$ 15 μ in (Grit 320g)
*Electropolishing available upon request

Connections Sanitary Clamp (ISO 2852 / BS 4825-3 / DIN 32676)
Optional Butt Weld (ISO 2037 / BS 4825-01 / DIN 11850)
I-Line, Threaded Union End
Other connections on request

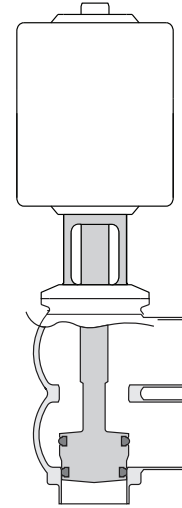
Compressed air quality

Compressed air quality : quality class according to ISO 8573-1
Content of solid particles : quality class 3,
max. number of particles per m³
10000 of 0,5 μ m < d $\leq$ 1,0 μ m
500 of 1,0 μ m < d $\leq$ 5,0 μ m
- Content of water : quality class 3,
max. dew point temperature - 20 °C For installations at lower
temperatures or at higher altitudes, additional measures must
be considered to reduce the pressure dew point accordingly.
- Content of oil : quality class 1, max. 0,01 mg/m³

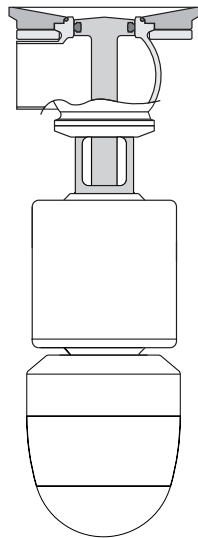
The oil applied must be compatible with Polyurethane elastomer materials.



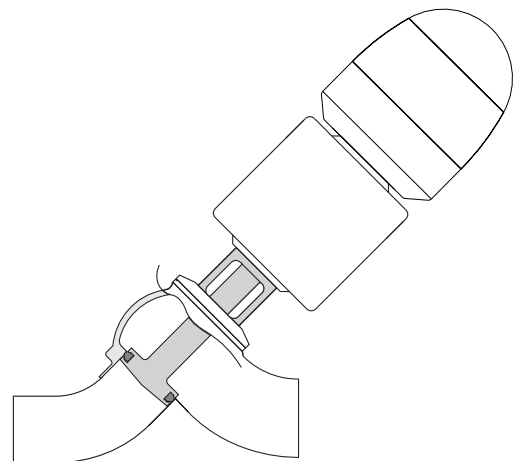
811 Series Shut Off Valve



821 Series Divert Valves



841 Series Tank Bottom Valve

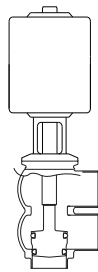


851 Series Angle Valve

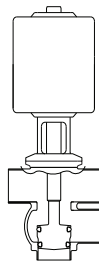


Body Configuration :

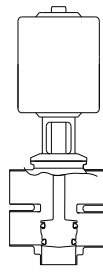
Divert Valves :



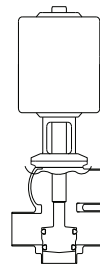
LL



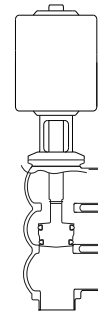
TL



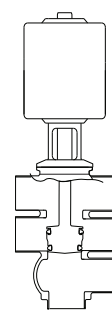
TT



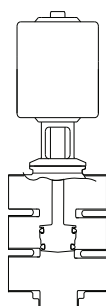
LT



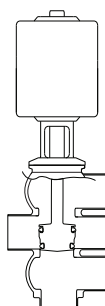
LLL



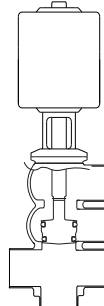
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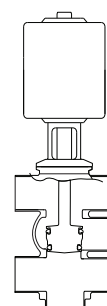
TTT



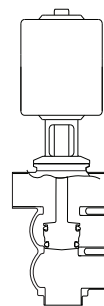
LTL



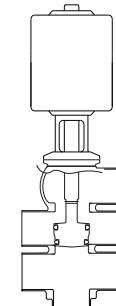
LLT



TLT

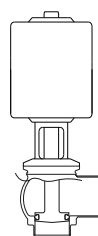


TLL

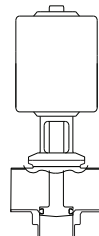


LTT

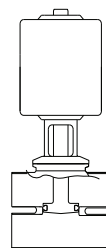
Shut-Off Valves :



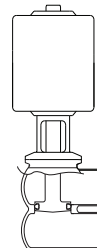
L



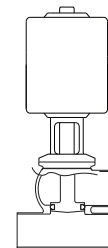
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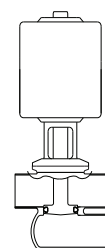
TTB



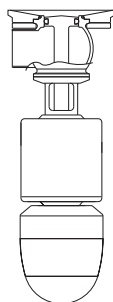
LLB



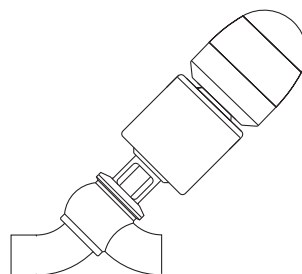
LTB



TLB



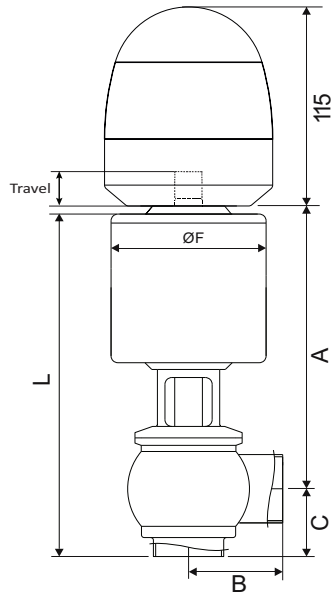
TBV



AV

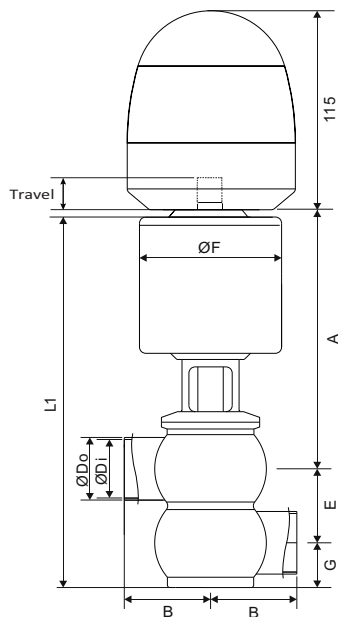


**Dimensions :
Shut-Off Valve**



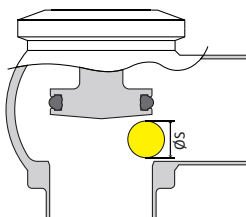
Dimensions ISO (mm)

Dimensions	1"	1.5"	2"	2.5"	3"	4"
A	195	197	216	220	327	340
B	54	58	68	90	100	127
C	35	42	50.4	56	66.7	76.2
Di	22.1	34.8	47.5	60.2	72.9	97.2
Do	25.4	38.1	50.8	63.5	76.2	101.4
E	34.6	47.3	60	72.7	97.5	121.5
F	88	88	112	112	152	152
G	21	27.5	33.7	40	46.5	58.5
L	229	239	266.4	277	394	416
L1	250.6	271.8	309.7	332.7	471	520
Wt	5	5	7	7	14	16



Dimensions DN (mm)

Dimensions	25	40	50	65	80	100
A	197	199	217	222	331	341
B	54	58	68	90	100	127
C	35	42	50.4	56	66.7	76.2
Di	26	38	50	66	81	100
Do	29	41	53	70	85	104
E	37.6	50.3	62	77.7	106.5	123.5
F	88	88	112	112	152	152
G	21	27.5	33.7	42	50.5	58.5
L	231	241	267.4	279	398	417
L1	253.6	274.8	311.7	337.7	480	522
Wt	5	5	7	7	14	16

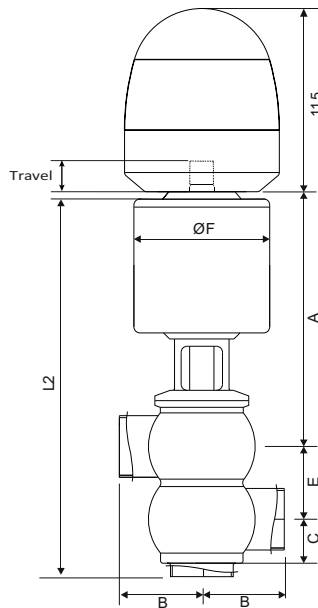


Dimensions	1"/25	1½"/40	2"/50	2½"/65	3"/80	4"/100
ØS	7	16	24	24	29	29
Travel	12	20	30	30	40	40



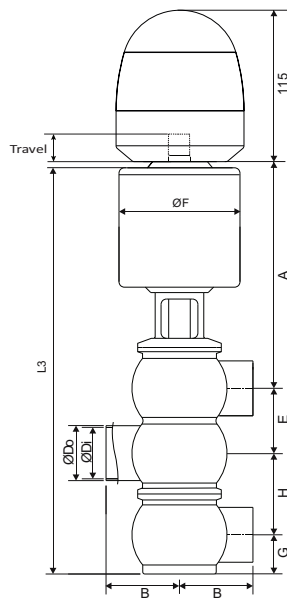


Divert Valve



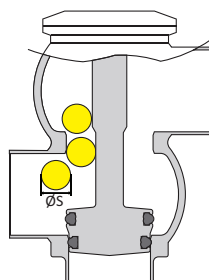
Dimensions ISO (mm)

Dimensions	1"	1.5"	2"	2.5"	3"	4"
A	195	197	216	220	327	340
B	54	58	68	90	100	127
C	35	42	50.4	56	66.7	76.2
Di	22.1	34.8	47.5	60.2	72.9	97.2
Do	25.4	38.1	50.8	63.5	76.2	101.4
E	34.6	47.3	60	72.7	97.5	121.5
F	88	88	112	112	152	152
G	21	27.5	33.7	40	46.5	58.5
H	50	62.8	75.6	88.3	113.2	137.5
L2	254	283	326.4	349	492	537
L3	300.6	334.6	385.3	421	584.2	657.5
Wt	6	6	8	8	16	18



Dimensions DN (mm)

Dimensions	25	40	50	65	80	100
A	197	199	217	222	331	341
B	54	58	68	90	100	127
C	35	42	50.4	56	66.7	76.2
Di	26	38	50	66	81	100
Do	29	41	53	70	85	104
E	37.6	50.3	62	77.7	106.5	123.5
F	88	88	112	112	152	152
G	21	27.5	33.7	42	50.5	58.5
H	53	65.8	77.6	93.3	122.2	139.5
L2	257	286	328.4	354	501	539
L3	306.6	340.6	389.3	431	602.2	661.5
Wt	6	6	8	8	16	18

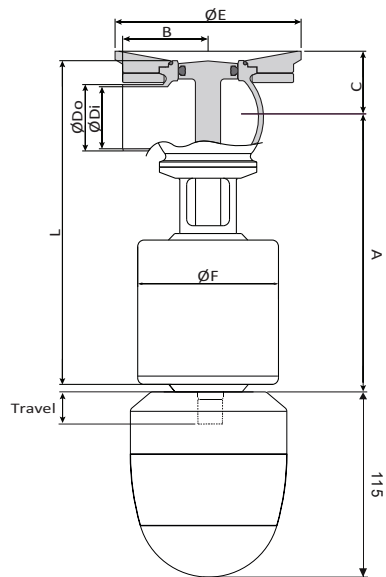


Dimensions	1"/25	1½"/40	2"/50	2½"/65	3"/80	4"/100
ØS	5	10	17	22	29	29
Travel	12	20	30	30	40	40





Tank Bottom Valve



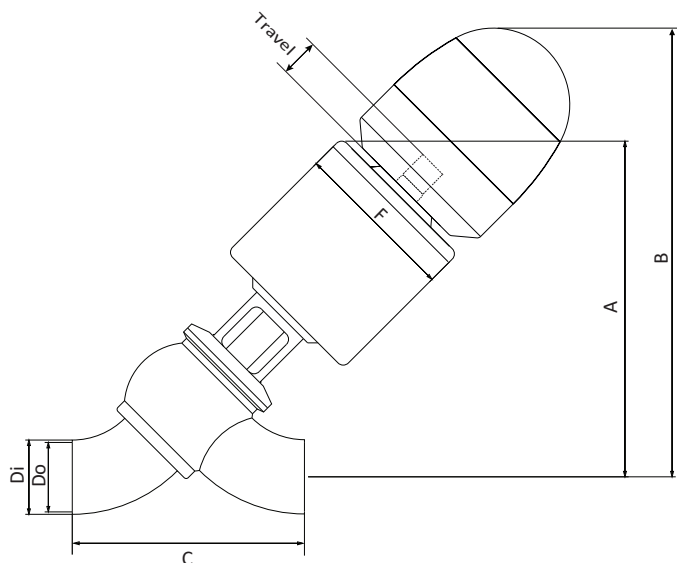
Dimension ISO (mm)

Dimensions	1"	1.5"	2"	2.5"	3"	4"
A	195	197	216	220	327	340
B	54	58	68	90	100	127
C	31	37	44	50	56	69
Di	22.1	34.8	47.5	60.2	72.9	97.2
Do	25.4	38.1	50.8	63.5	76.2	101.4
E	130	130	150	170	190	260
F	88	88	112	112	152	152
Wt	5	5	7	7	14	16
Travel	12	20	30	30	40	40

Dimension DN (mm)

Dimensions	25	40	50	65	80	100
A	197	199	217	222	331	341
B	54	58	68	90	100	127
C	33	39	45	53	60	70
Di	26	38	50	66	81	100
Do	29	41	53	70	85	104
E	130	130	150	170	190	260
F	88	88	112	112	152	152
L	230	238	262	275	391	411
Wt	5	5	7	7	14	16
Travel	12	20	30	30	40	40



Angle Valve

Dimension ISO (mm)

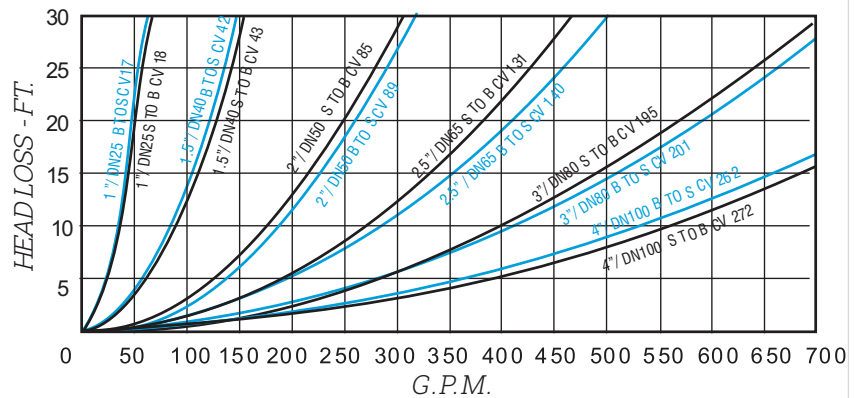
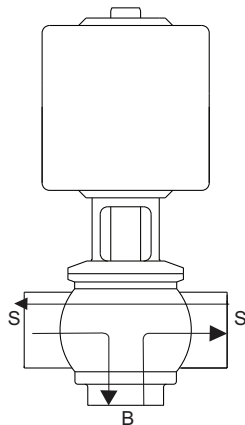
Dimensions	1"	1½"	2"	2½"	3"	4"
A	184	200	230	243	348	377
B	254	270	300	313	418	447
C	119	173	184	220	266	339
Di	22.1	34.8	47.5	60.2	72.9	97.2
Do	25.4	38.1	50.8	63.5	76.2	101.4
F	88	88	112	112	152	152
Travel	12	20	30	30	40	40

Dimension DIN (mm)

Dimensions	25	40	50	65	80	100
A	184	200	230	243	348	377
B	254	270	300	313	418	447
C	117	173	184	220	266	337
Di	26	38	50	66	81	100
Do	29	41	53	70	85	104
F	88	88	112	112	152	152
Travel	12	20	30	30	40	40

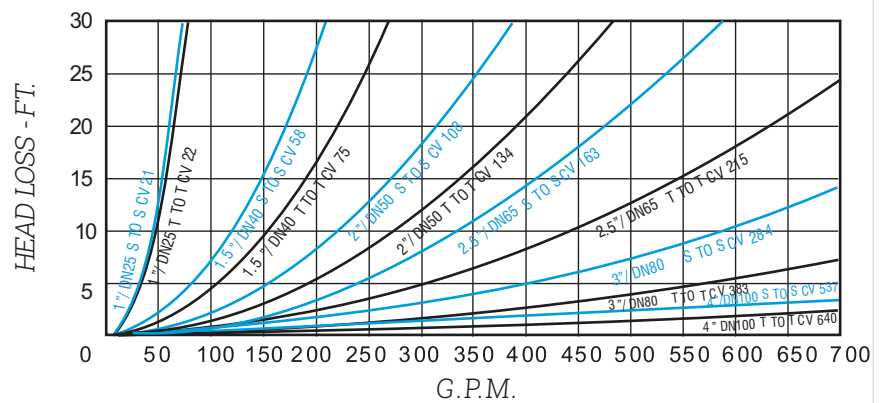
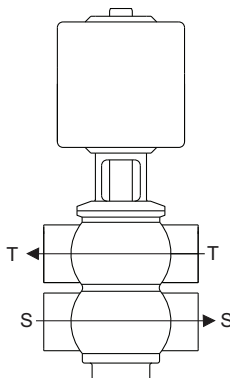
Pressure Loss Curve for Shut off Valve 811

MODEL 811



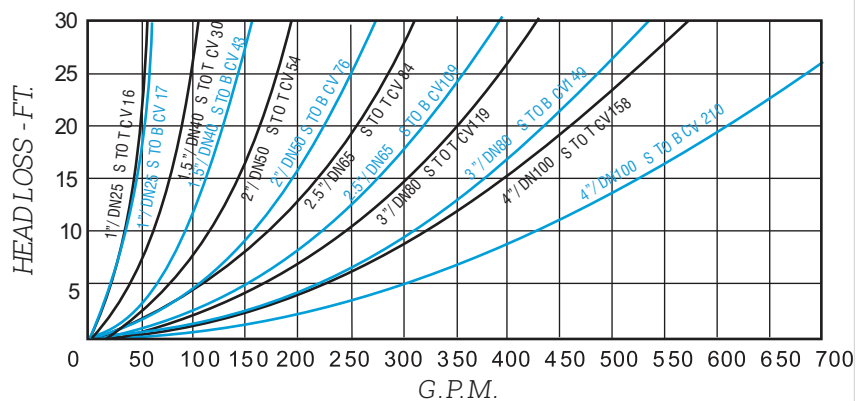
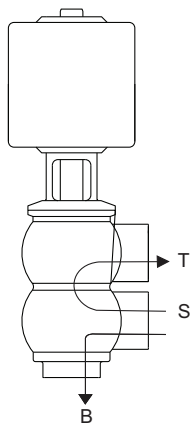
Note : For 810 S to S curves see 820 T to T curves

MODEL 821

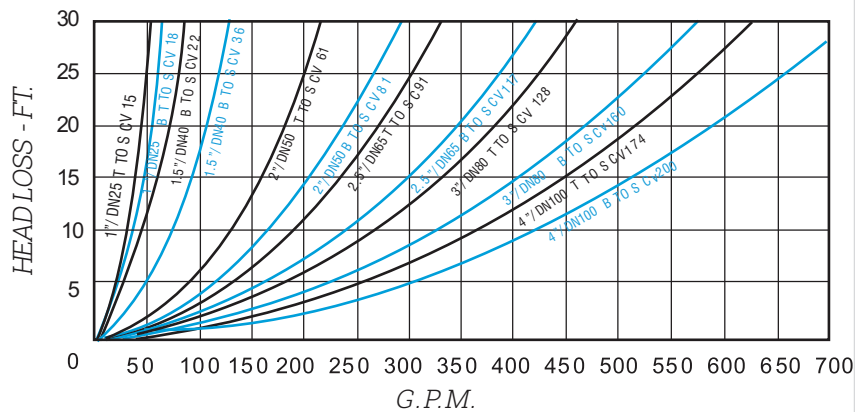
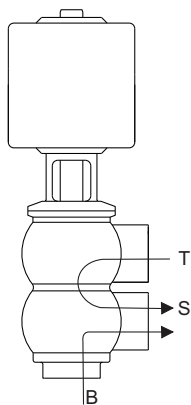


Pressure Loss Curve for Divert Valve 821

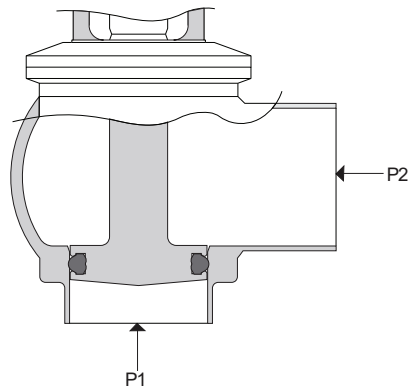
MODEL 821



MODEL 821



Holding Pressure Charts for Shut off Valve 811

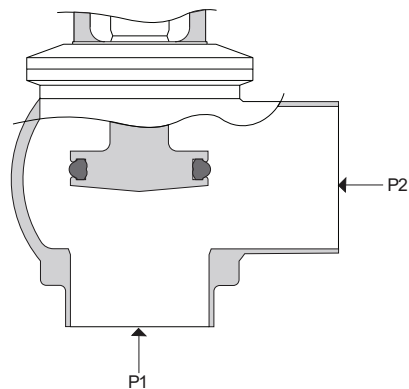


811 AO (air-to-open) - Standard Stroke

		Actuator Size DN/in	Valve Size - Pressure in PSI							
			25 1"	40 1.5"	50 2"	65 2.5"	80 3"	100 4"		
Port P1, actuator spring holds closed against:		35AO	175	120	75	55	-	-		
		45AO	210	180	95	70	70	30		
		65AO	-	-	-	-	84	40		
Port P2, Air to port A, will open against :	60 PSI	35AO	250	225	140	85	-	-		
	60 PSI	45AO	300	270	172	105	79	51		
		65AO	-	-	-	-	104	60		

811 AO (air-to-open) - Long Stroke

		Actuator Size DN/in	Valve Size - Pressure in PSI		
			50 2"	65 2.5"	80 3"
Port P1, actuator spring holds closed against:		35AOLS	70	50 80	-
		45AOLS	88	63 3"	70
Port P2, Air to port A, will open against :	70 PSI	35AOLS	140	85	-
		45AOLS	172	105	79

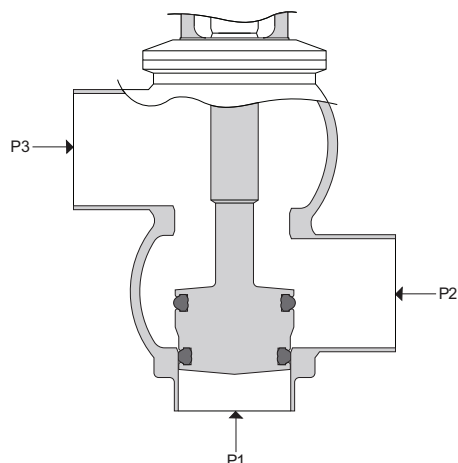


811 AC (air-to-close) - Standard Stroke

		Actuator Size DN/in	Valve Size - Pressure in PSI							
			25 1"	40 1.5"	50 2"	65 2.5"	80 3"	100 4"		
Port P2, actuator spring opens stem against:		35AC	250	220	160	90	-	-		
		45AC	278	250	190	120	88	55		
		65AC	-	-	-	-	106	60		
Port P1, Air to port B, will hold closed against :	70 PSI	35AC	125	90	55	45	-	-		
	70 PSI	45AC	227	159	96	65	50	27		
	70 PSI	65AC	-	-	-	-	64	33		

811 AC (air-to -close) - Long Stroke

		Actuator Size DN/in	Valve Size - Pressure in PSI		
			50 2"	65 2.5"	80 3"
Port P2, actuator spring opens stem against:		35ACLS	90	62	-
		45ACLS	108	74	55
Port P1, Air to port B, will hold closed against :	70 PSI	35ACLS	55	42	-
	70 PSI	45ACLS	96	65	50

Holding Pressure Charts for Divert Valve 821 (Close Condition)
821 AO (air-to-open) - Standard Stroke


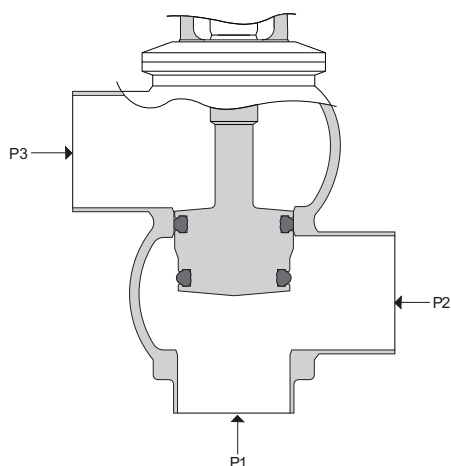
		Actuator Size DN/in	Valve Size - Pressure in PSI					
			25 1"	40 1.5"	50 2"	65 2.5"	80 3"	100 4"
Port P1, actuator spring holds closed against:		35AO	175	120	75	50	-	-
		45AO	210	180	95	70	70	30
		65AO	-	-	-	-	84	40
Port P2, Air to actuator (with stem raised) spring will lower against :		35AO	238	205	130	80	-	-
		45AO	285	246	156	96	80	35
		65AO	-	-	-	-	96	42
Port P2, Air to port A, will raise stem (opens) against :	70 PSI	35AO	250	225	143	88	-	-
	70 PSI	45AO	300	270	172	105	79	51
	70 PSI	65AO	-	-	-	-	104	60
Port P3, Air to port A,(with stem raised) will hold against:	70 PSI	35AO	110	75	55	40	-	-
	70 PSI	45AO	126	89	68	45	40	30
	70 PSI	65AO	-	-	-	-	42	32

821 AO (air-to-close) - Long Stroke

	Actuator Size DN/in	Valve Size Pressure in PSI			
		50 2"	65 2.5"	80 3"	
Port P1, actuator spring holds closed against:	35AOLS	70	50	-	
	45AOLS	88	63	70	
Port P2, Air to actuator (with stem raised), spring will lower against;	35AOLS	130	80	-	
	45AOLS	172	105	79	
Port P2, Air to port A, will raise stem (opens) against;	35AOLS	148	90	-	
	45AOLS	178	108	69	
Port P3, Air to port A, w/stem raised will hold against;	35AOLS	55	40	-	
	45AOLS	68	45	30	

Holding Pressure Charts for Divert Valve 821 (Open Condition)

821 AC (air-to-open) - Standard Stroke

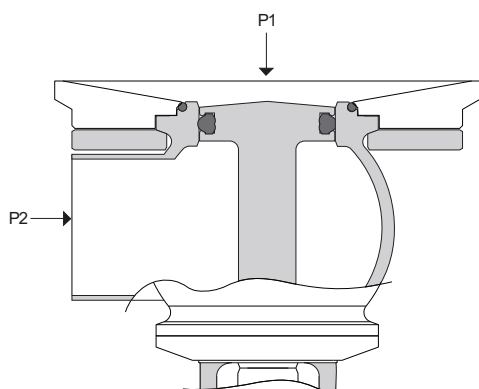


		Actuator Size DN/in	Valve Size - Pressure in PSI					
			25 1"	40 1.5"	50 2"	65 2.5"	80 3"	100 4"
Port P1, Air to port B, will hold against :	70 PSI	35AC	125	100	70	45	-	-
	70 PSI	45AC	227	159	86	65	50	27
	70 PSI	65AC	-	-	-	-	106	60
Port P2, (stem lowered), spring open stem against :		35AC	253	238	162	91	-	-
		45AC	278	250	190	120	80	50
		65AC	-	-	-	-	106	60
Port P2, Air to port B, (with stem raised), will closed stem against :	70 PSI	35AC	189	170	115	73	-	-
	70 PSI	45AC	226	204	138	86	65	30
	70 PSI	65AC	-	-	-	-	70	35
Port P3, (stem raised), actuator spring holds against :		35AC	184	164	75	48	-	-
		45AC	220	195	90	63	58	24
		65AC	-	-	-	-	72	30

821 AC (air-to-close) - Long Stroke

		Actuator Size DN/in	Valve Size - Pressure in PSI		
			50 2"	65 2.5"	80 3"
Port P1, air to port B, will holds against:		35ACLS	80	60	-
		45ACLS	96	73	55
Port P2, (stem lowered), spring opens stem against:		35ACLS	70	55	-
		45ACLS	84	63	48
Port P2, Air to port B, (with stem raised), will close stem against:		35ACLS	85	59	-
		45ACLS	104	74	52
Port P3, (stem raised) actuator spring holds against:		35ACLS	55	45	-
		45ACLS	68	53	49

Holding Pressure Charts for Tank Bottom Valve 841



841 AO (air-to-open) - Standard Stroke

	Actuator Size DN/in	Valve Size - Pressure in PSI					
		25 1"	40 1.5"	50 2"	65 2.5"	80 3"	
Port P1, actuator spring holds closed against:	35AO	225	175	90	55	-	
	45AO	235	190	102	73	70	
Port P2, Air to port A, will open against :	70 PSI	35AO	250	225	140	85	-
	70 PSI	45AO	278	250	190	120	79

841 AC (air-to-close) - Standard Stroke

	Actuator Size DN/in	Valve Size - Pressure in PSI					
		25 1"	40 1.5"	50 2"	65 2.5"	80 3"	
Port P2, actuator spring opens stem against:	35AC	250	220	164	90	-	
	45AC	278	250	190	120	88	
Port P1, Air to port B, will hold closed against :	70 PSI	35AC	125	90	55	45	-
	70 PSI	45AC	227	159	96	53	47

801 Series Shut-Off & Divert Valve Ordering System

