

The logo for TOTAL Valve Systems. The word "TOTAL" is in a large, white, sans-serif font. The letter "O" is replaced by a red circle with a white triangle inside. To the right of "TOTAL", the words "Valve" and "Systems" are stacked vertically in a smaller, white, sans-serif font. The logo is set against a blue background with a white glow effect.

# TOTAL Valve Systems

*Your Source for Quality*

- *Excess Flow Valves*
- *Check Valves*
- *Isolation Valves*
- *Safety Shut-Off Valves*

[www.totalvalve.com](http://www.totalvalve.com)

**TOTAL** offers the only comprehensive solution for **ALL** types of Excess Flow Valves and **ALL** applications.



Gas Refining

Petrochemical Processing

Pulp and Paper

Truck Terminals

Oil Tanker Terminals

Oil Production

**Benefits of Valves:**

- Stop Flow Surges
- Prevent Backflow
- Flow Shut-Off on Line Ruptures
- Flow Shut Down for Excess Temperatures
- Shut-Off flow for Under/Over Pressures
- Resettable Features

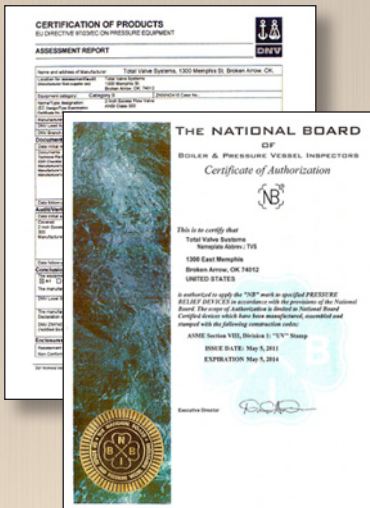
**Product Support:**

- US & International Locations
- Valves Tested & Certified in our Flow Lab
- 24/7 Service & Support @ 1-800-324-7035
- Engineering Expertise for all Applications
- "Live" website for Customers to Monitor Production & Testing Status of Valves

**TOTAL designs and manufactures their valves in the U.S.A. with the Expertise, Knowledge and Capabilities shown below.**



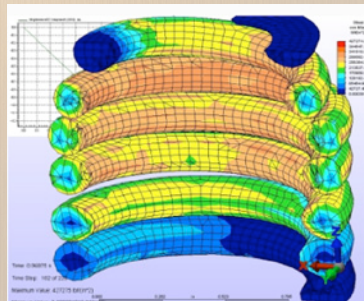
- PMI Technology is utilized for Raw & WIP Materials
- QC Dimensional Inspections
- Critical Dimensions Measured with Key Equipment & Gauges Under Cert Pics
- ASME Certifications for Valve Manufacturing & Assembly
- CE & CRN Registrations, UL as Required
- Established ISO QC Systems & Processes



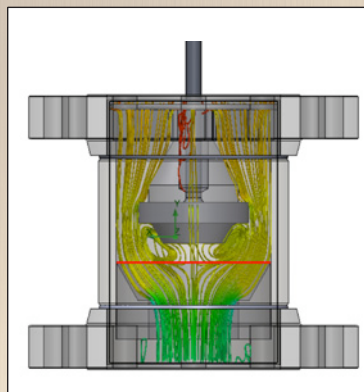
- Total Valve has CE & ASME QC Certifications.
- Total Valve is certified in ISO systems Quality.



- Latest Modeling with Flow (CFD) & Stress (FEA) Analysis
- Solid Modeling & System Modeling for Projects



- Vibration & Acoustic Modeling
- Years of Technical & Engineering Valve Experience using a Wide Range of Materials



- All types of Custom Valves Engineered to meet Unique Customer Requirements



- ASME Certified Flow Lab Testing with Steam, Air & Water
- LabView Equipment Capturing Flow, Pressure, Temperature & Video
- Real Time Test Results on "Live" Website
- PTC 19.5, ASME & UL Testing is Standard Operating Procedures



- Vertically Integrated 65,000 Sq. Ft. Manufacturing Facility
- CNC, Lathes & Mills with 4-Axis Capability
- Spring Manufacturing & Testing
- 72" Turning Capability for Larger Valves
- ASME Welding & Hard Facing



- Worldwide Expedited Shipments
- Container Shipments for Projects
- 24/7 Shipment Status Reporting
- Our International Offices Provide Support from Order to Onsite Delivery

**New Products**

Model 6100 Safety Shut-Off Valve .. 6  
 Model 6810  
     Total Shut Down Valve ..... 7  
 Model 6820  
     Total Relief Valve..... 7

**2000 Series Excess Flow Valves**

Model 2100..... 8  
 Model 2105 /2106 ..... 8  
 Model 2120 ..... 9  
 Model 2125 ..... 9  
 Model 2130 ..... 10  
 Model 2140 ..... 11  
 Model 2160 ..... 11  
 Model 2150/2180 ..... 12

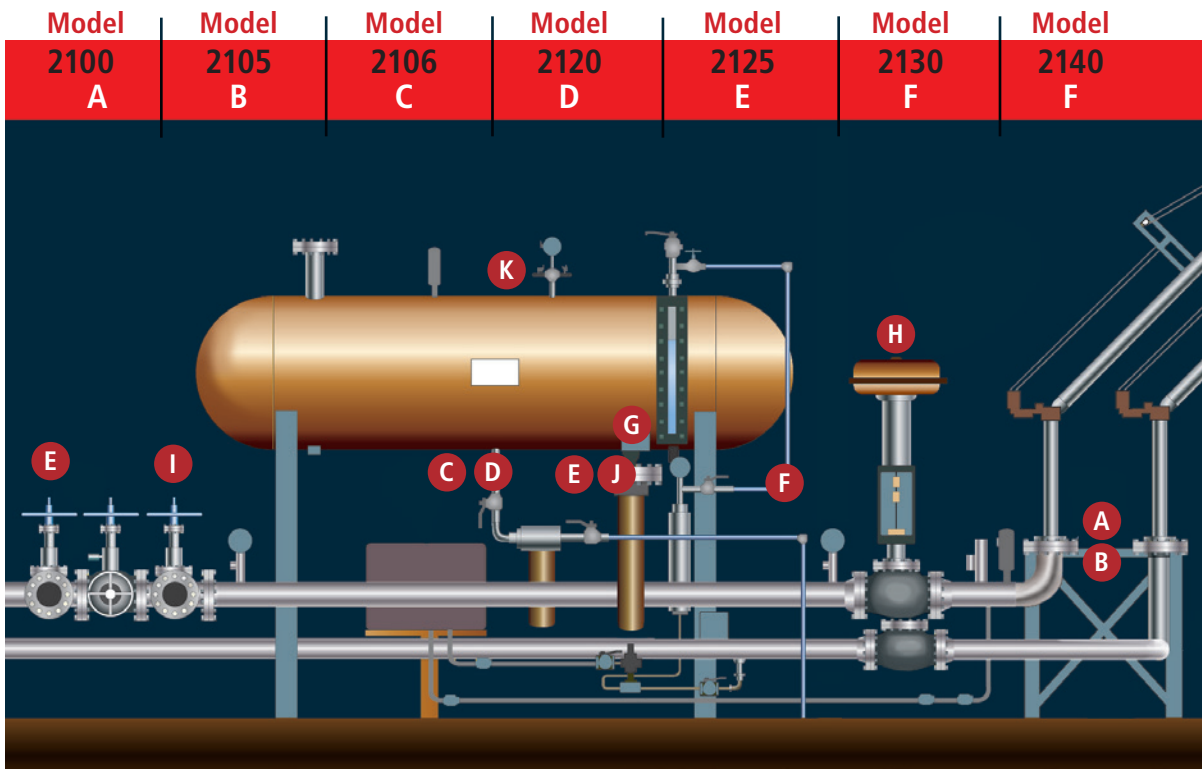
**Excess Flow Valves**

**Use:** Excess flow valves are used to prevent excessive flow or surges in flow caused by line breaks, power disruptions, pressure spikes, etc. These valves internally sense flow and close automatically and can be configured for bubble-tight shut-off. Models can include external features such as actuators, gauges and solenoids.

**Application:** Our valves are available in many styles, sizes and materials for all your industry needs. Our valves make it easy for you to comply with regulatory requirements such as NFPA 58 and other codes that drive valve and system designs.

**Visit our Website for Quote Forms.**

**Typical Uses of Our Flow Valves**



**Certifications – meet specified industry standards.**

- American Petroleum Institute
- American Society of Mechanical Engineers
- European Conformity (CE)
- Canadian Registration Number
- National Fire Protection Association



Model 2400 .....	13
Model 2600 .....	13
<b>3000 Series Check Valves</b>	
Model 3200 .....	14
Model 3220 .....	14
Model 3230 .....	15
Model 3240 .....	15
Model 3250 .....	16
Model 3260 .....	16
Model 3600 .....	17
<b>8000 Series Isolation Valve</b>	
Model 8000 .....	18
Flow Charts .....	19

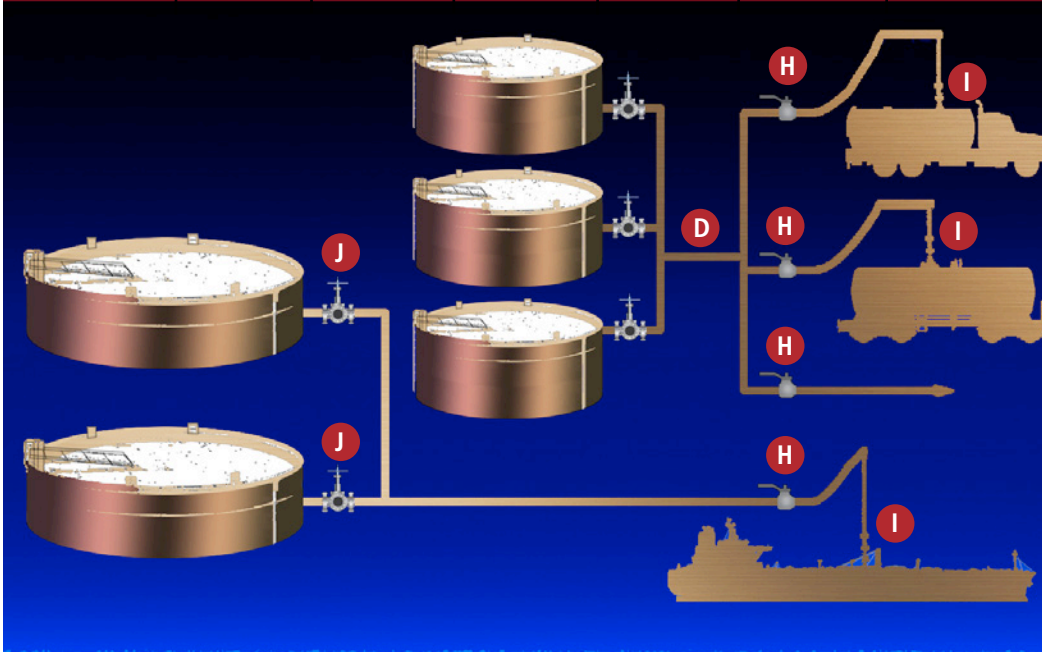
*"Trusted Solutions for Over 25 Years"*



Total Valve products are propriety and are protected by US and International patents. Visit our website for the details.



Model	Model	Model	Model	Model	Model	Model
2150/80	2160	2400	2600	6100	6810	8000
F	F	G	H	I	J	K



- International Organization for Standardization
- Underwriters Laboratories
- Det Norske Veritas (DNV)
- United States Coast Guard

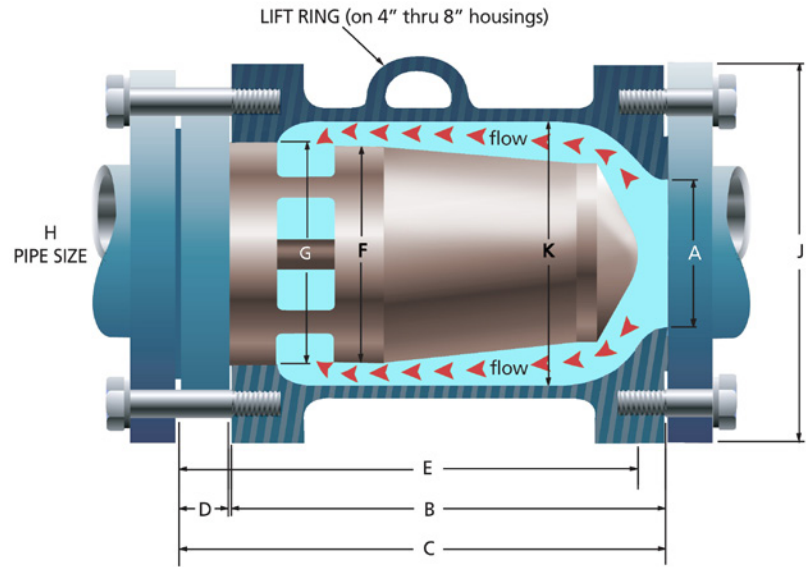
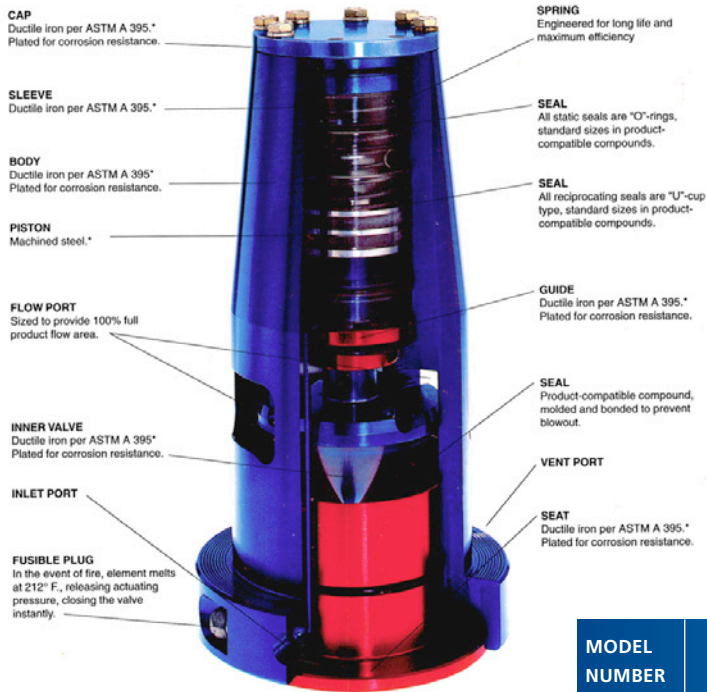


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## Model 6100 Safety Shut-Off Valve

Model 6100 is Total Valve Systems' Emergency Shut-Off Valve which can be used both "in-line" and "in tank" applications. The valve is installed on the mounting flange of the barge or the pipeline preventing unauthorized tampering with valve actuators. This valve provides 100% full product flow. It is spring loaded in a power fail-safe closed position and is opened through the introduction of hydraulic or pneumatic pressure. When the pressure is removed the valve closes, resulting in complete flow shut-off. Model 6100 is ideally suited for applications where fire safety is a consideration. With a fusible plug installed on each valve, this plug will melt at 212 degrees F or specified temperature; thus releasing the actuating pressure causing the valve to close automatically.

Model 6100 is available from 2" to 8" at 300# pressure rating. Standard materials are ASTM A395 ductile iron and plated for corrosion resistance. Inquire about the availability of other sizes, pressure ratings, material and seal compounds.



MODEL NUMBER	VALVE SIZE	A	B	C	D	E	F	G	H	J	K
6100-I	2	2.07	9.00	10.09	1.06	9.83	3.44	3.50	2.0	6.50	4.03
6100-K	3	3.07	10.78	12.00	1.19	11.57	4.34	4.41	3.0	8.25	5.76
6100-LK	4X3	3.07	10.78	12.12	1.31	11.57	4.34	4.41	3.0	10.00	5.76
6100-L	4	4.03	11.74	13.08	1.31	12.65	5.72	5.78	4.0	10.00	7.50
6100-ML	6X4	4.03	11.74	13.27	1.50	12.84	5.72	5.78	4.0	12.50	7.50
6100-M	6	6.07	14.22	15.75	1.50	15.21	7.84	7.91	6.0	12.50	10.44
6100-NM	8X6	6.07	14.22	15.94	1.69	15.40	7.84	7.91	6.0	15.00	10.44
6100-N	8	7.98	16.41	18.01	1.69	17.97	9.50	9.56	8.0	15.00	12.63

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

## Model 6810 TSV

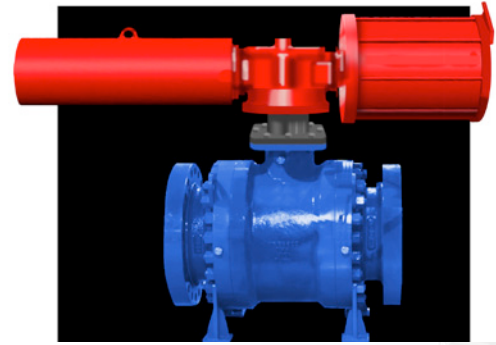
### Total Shut Down Valve Actuation System

6810 Total Shut down module controls pneumatic/hydraulic operated valves to meet the various requirements of NFPA 58 and the other facility/regulatory requirements. The 6810 model can be configured to the exact customer shut down specifications due to the modular design. The 6810 system can be integrated into current system or sold separately as a new valve/actuation system.

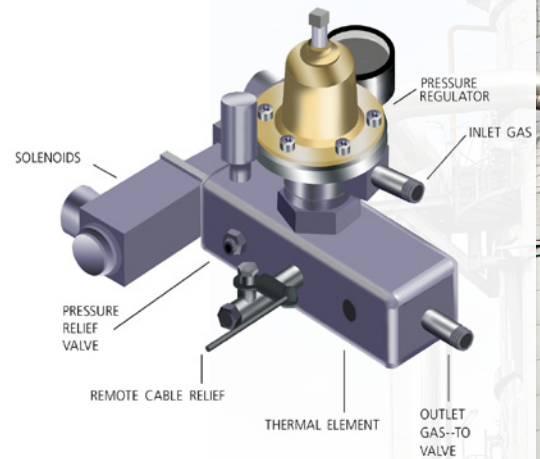
6810 TSV System is coupled with an API 607 approved ball valve and actuator. Systems are available in all standard pressure classes and sizes.

#### Sizes from 2" to 48" are available with the TSV system

Exclusive features include a thermal element, remote closure cable, relief protection, system regulator, system solenoids. Optional accessories include gauges, valve position sensors, 2 year lithium battery, solar panel, manual override, NEMUR and ISO interfaces.



API 607 Ball Valve with Actuator



6810 Total Shut Down Module

## Model 6820 TRV

### Total Relief Valve

6820 TRV is our proprietary system to open or close a valve at desired set pressure. This patented system includes the TRV module, an actuator and an isolation valve. The typical isolation valves are triple off-set butterfly valves due to the performance and durability to these types of valves.

This system allows the user to operate to within 1 % to 3% of the desired set pressure of the valve. The relief capacity is much greater than typical relief systems on the market today which allows for lower overall system costs. No external power is required for the device. It is independent of system back pressure. When coupled with a ball valve it offers the capability of being pigged and provides the overpressure or shutdown protection.

#### Sizes from 2" to 60" are available with the 6820 TRV system.

API and ASME certifications on respective components.

\*ASME certification is in process for over protection pressures greater than 1 bar.



6820 Total Relief valve

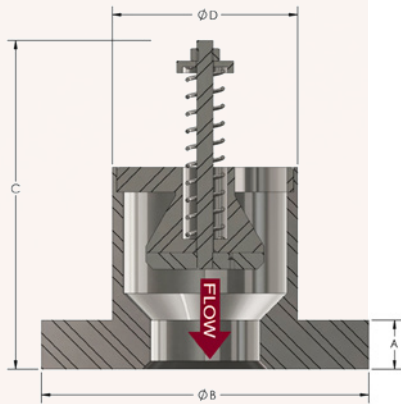


6820 Total Relief valve

# 2000 Series Excess Flow Valves

## Model 2100

2100 Series Excess Flow Valves are designed to easily insert between ANSI class flanges for use in liquid, gas or vapor service. These valves are lightweight, offer generous flow rates and are extremely durable. Available in carbon or stainless steel with other materials available upon request. The 2100 Series valve includes an auto reset feature which has a weep hole to allow the pressure to equalize across the valve and auto open. Closing flow rates are factory preset per customer requirements.

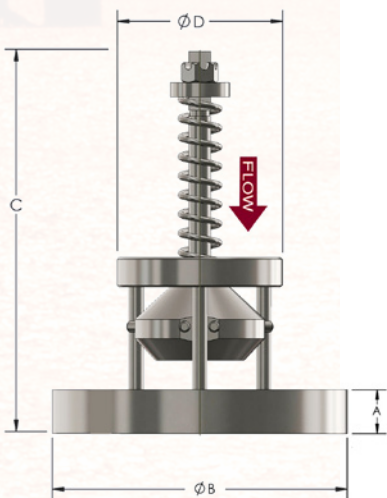
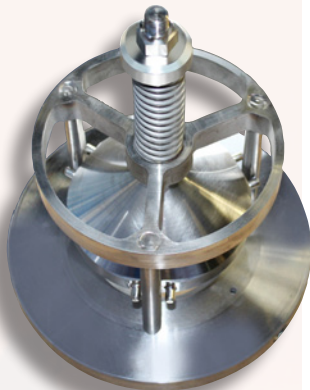


Model	Size	A Width	B Dia.	C Length	D Insert Dia.
2100-G	1.5	0.50	2.88	3.25	1.50
2100-I	2	0.50	3.63	3.75	1.91
2100-K	3	0.75	5.00	5.00	2.88
2100-L	4	0.75	6.19	6.25	3.75
2100-M	6	1.00	8.50	8.50	5.69
2100-N	8	1.00	10.63	10.50	7.50
2100-P	10	1.25	12.75	13.00	9.63
2100-Q	12	1.25	15.00	15.00	11.50
2100-R	14	1.50	16.25	16.50	12.88

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

## Model 2105/2106 (Bi-directional Flow)

2105 Series Excess Flow Valves are designed to easily insert between ANSI class flanges for use in liquid, gas or vapor service. These valves are lightweight, durable and offer a more generous flow rate than the 2100 model. Standard design on the 2105 Series valve has a weep hole to allow for pressure equalization once the valve closes. An optional external manual bypass system is also offered. This reduces the time it takes for pressure to equalize and the valve to reopen. 2106 series offers a design of a check valve and excess flow valve in one valve. The check valve will open at the desired cracking pressure and the excess flow side will shut off the flow above certain rate in the opposite direction.



Model	Size	A Width	B Dia.	C Length	D Insert Dia.
2105-G / 2106-G	1.5	0.50	2.88	3.25	1.50
2105-I / 2106-I	2	0.50	3.88	3.75	1.90
2105-K / 2106-K	3	0.75	5.00	5.00	2.88
2105-L / 2106-L	4	0.75	6.19	6.25	3.75
2105-M / 2106-M	6	1.00	8.50	8.50	5.68
2105-N / 2106-N	8	1.00	10.63	10.50	7.50
2105-P / 2106-P	10	1.25	12.75	13.00	9.63
2105-Q / 2106-Q	12	1.25	15.00	15.00	11.50
2105-R / 2106-R	14	1.50	16.50	16.50	12.88

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.





## Model 2120

2120 Series Excess Flow Valves are designed for use in liquid, gas or vapor service. The 2120 Series comes standard with 150#, 300#, or 600# ANSI class flanges. Available standard in carbon or stainless steel; other materials are available upon request. Internal components are also offered in ceramic. An internal weep hole for automatic pressure equalization is standard. An external manual bypass system is optional. The system consists of SS piping with a CS or SS mini valve with/without a weep hole. Delta P or static pressure gauges can be added to the bypass. Closing flow rates for the 2120 Series Excess Flow Valves are factory preset per customer requirements.

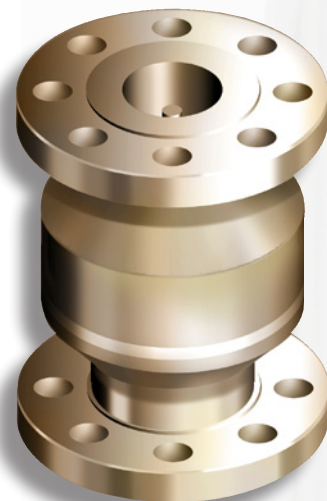
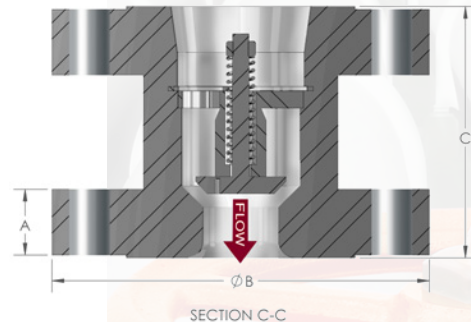
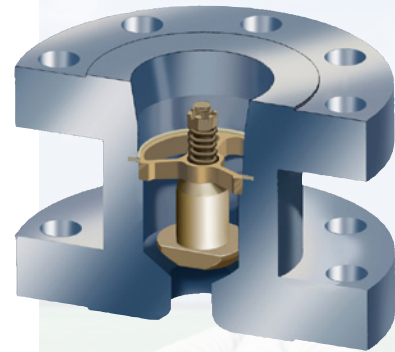
Model	Size	150# ANSI Flanges		300# ANSI Flanges		600# ANSI Flanges		C Length Range
		A Width	B Dia.	A Width	B Dia.	A Width	B Dia.	
2120D-G	.75to1.5	0.68	5.00	0.81	6.12	0.88	6.12	4.0-6.0
2120-I	2	0.75	6.00	0.88	6.50	1.00	6.50	4.5-6.5
2120-K	3	0.94	7.50	1.12	8.25	1.25	8.25	5.3-7.3
2120-L	4	0.94	9.00	1.25	10.00	1.50	10.75	5.5-7.5
2120-M	6	1.00	11.00	1.44	12.50	1.88	14.00	6.5-8.5
2120-N	8	1.12	13.50	1.62	15.00	2.19	16.50	8.0-10.0
2120-P	10	1.19	16.00	1.88	17.50	2.50	20.00	9.5-11.5
2120-Q	12	1.25	19.00	2.00	20.50	2.62	22.00	11.0-13.0
2120-R	14	1.38	21.00	2.12	23.00	2.75	23.75	13.0-15.0

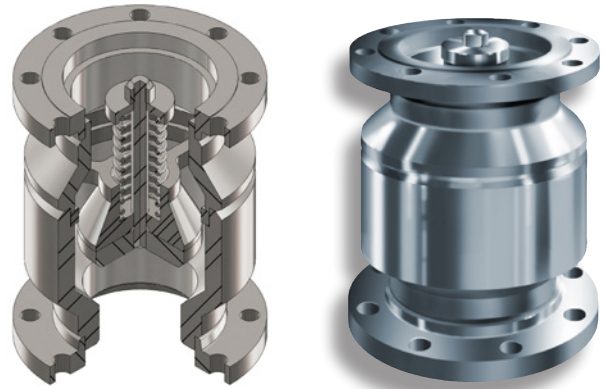
Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

## Model 2125

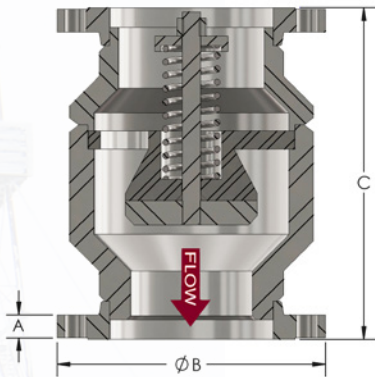
2125 Series Excess Flow Valves are designed for use in liquid, gas or vapor service. The 2125 Series is a high flow version of the 2120 Series. These valves are heavily constructed and can withstand years of service. The 2125 Series comes standard with 150# or 300# ANSI class flanges. Available standard in carbon or stainless steel; other materials are available upon request. Internal components are also offered in ceramic. A weep hole for automatic pressure equalization is standard. An external manual bypass system is optional. The system consists of SS piping with a CS or SS mini valve with/without a weep hole. Delta P or static pressure gauges can be added to the bypass. Closing flow rates for the 2125 Series Excess Flow Valves are factory preset per customer requirements.

*Model 2125 dimension table is shown on next page.*





Model 2125 continued from previous page.



The 2125 Series Excess Flow Valve is a high flow version of the 2120 flanged and can be customized to customer specifications.

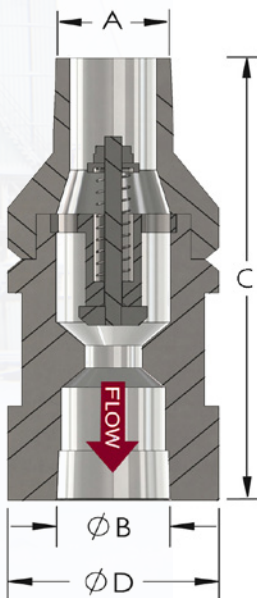
Model	Size	150# ANSI Flanges			300# ANSI Flanges		
		A Width	B Dia	C Length	A Width	B Dia	C Length
2125-D	0.75	0.44	3.88	6.25	0.56	4.62	7.75
2125-E	1	0.50	4.25	7.00	0.62	4.88	8.50
2125-G	1.5	0.62	5.00	7.50	0.75	6.12	9.50
2125-I	2	0.69	6.00	8.00	0.81	6.50	10.50
2125-J	2.5	0.81	7.00	8.50	0.94	7.50	11.50
2125-K	3	0.88	7.50	9.50	1.06	8.25	12.50
2125-L	4	0.88	9.00	11.50	1.19	10.00	14.00
2125-M	6	0.94	11.00	16.00	1.38	12.50	17.50
2125-N	8	1.06	13.50	19.50	1.56	15.00	22.00

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



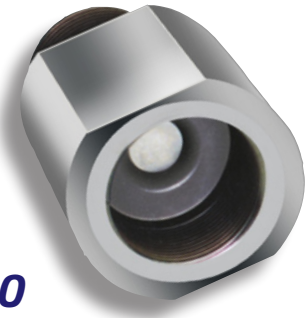
## Model 2130

2130 Series Excess Flow Valves are designed for use in liquid, gas or vapor service to stop the flow in the event of a sudden flow change. The 2130 Series have male NPT connections on the inlet side and female NPT connections on the outlet side. These valves offer excellent flow rates and can be used in many different applications. Available in carbon or stainless steel construction. Other materials are available upon request. Internal components are also available in ceramic. Wrench flats are included.



Model	A Inlet Connection	B Outlet Connection	C Length	D OD
2130-G	1.5 MNPT	1.5 FNPT	3.60	2.38
2130-I	2 MNPT	2 FNPT	4.00	2.88
2130-K	3 MNPT	3 FNPT	6.88	4.00
Smaller Sizes are Available.				

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

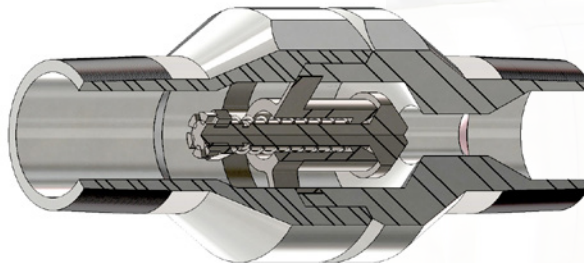
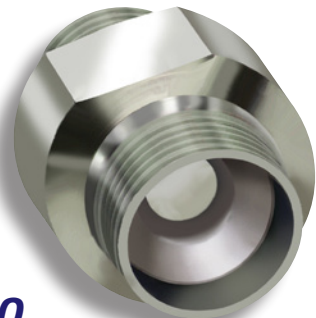
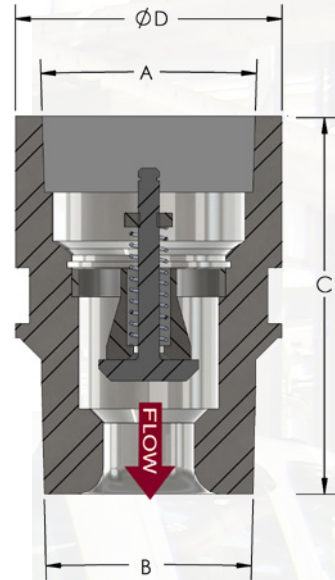


## Model 2140

2140 Series Excess Flow Valves have female NPT connections on the inlet side and male NPT connections on the outlet side. The 2140 Series is designed for use in liquid, gas or vapor service to stop flow in the event of a sudden flow rate change. Available in carbon or stainless steel construction. Other materials are available upon request. Internal components are also available in ceramic. Different size end connections are available. Closing flow rates are factory preset per customer specifications.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
2140-G	1.5 FNPT	1.5 MNPT	3.60	2.38
2140-I	2 FNPT	2 MNPT	4.00	2.88
2140-K	3 FNPT	3 MNPT	6.88	4.00
Smaller Sizes are Available.				

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

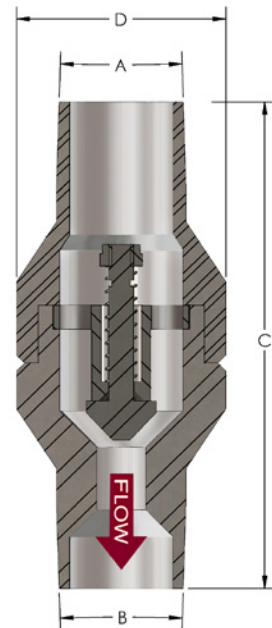


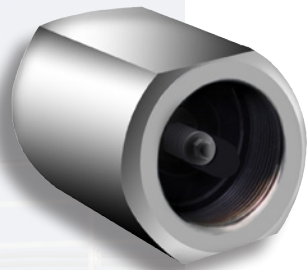
## Model 2160

2160 Series Excess Flow Valves have male NPT connections on the inlet side and male NPT connections on the outlet side. The 2160 Series is designed for use in liquid, gas or vapor service to stop flow in the event of a sudden flow rate change. Available in carbon or stainless steel construction. Other materials are available upon request. Internal components are also available in ceramic. Closing flow rates are factory preset per customer specifications.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
2160-C	.5 MNPT	.5 MNPT	3.00	1.62
2160-E	1 MNPT	1 MNPT	3.00	1.63
2160-G	1.5 MNPT	1.5 MNPT	3.60	2.38
2160-I	2 MNPT	2 MNPT	4.25	2.88
2160-K	3 MNPT	3 MNPT	6.88	4.00
2160-L	4 MNPT	4 MNPT	8.50	5.50

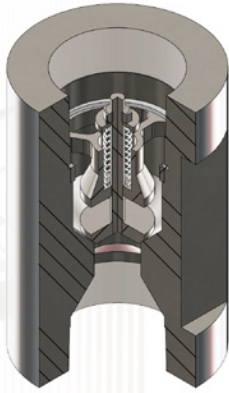
Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.





## Model 2150/2180

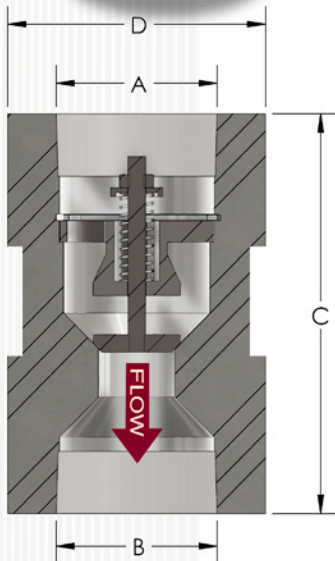
2150 Series Excess Flow Valves have female NPT connections on the inlet side and female NPT connections on the outlet side. The 2150 Series is designed for use in liquid or vapor service to stop the flow in the event of a sudden flow rate change. These valves offer excellent flow rates and can be used in many different applications. Available in carbon or stainless steel construction. Other materials are available upon request. Internal components are also available in ceramic. Options include an External Manual Bypass that allows for faster equalization across the poppet. Can be used with standard poppet or soft seat with no weep hole. Closing flow rates are factory preset per customer specifications.



2180 Series Excess Flow Valves are designed for use in liquid, gas, vapor or mixed service. It can be either a single or multiple rate, rates can be adjusted while performing field service. The 2180 Series has female NPT connections on both the inlet and outlet sides. It is designed with a manual reset rather than a weep hole in the disc for pressure equalization and automatic resetting. Available in standard carbon steel, the body can also be offered in stainless steel. Internal components are available in stainless steel. Closing flow rates are factory preset per customer's specifications.



### External Bypass



Model	A Inlet Connection	B Outlet Connection	C Length	D OD
2150/2180 C-G	.5 to 1.5 FNPT	1.5 FNPT	4.50	2.90
2150-I / 2180-I	2 FNPT	2 FNPT	5.63	3.70
2150-K / 2180-K	3 FNPT	3 FNPT	7.25	4.75
2150-L / 2180-L	4 FNPT	4 FNPT	9.00	5.90

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

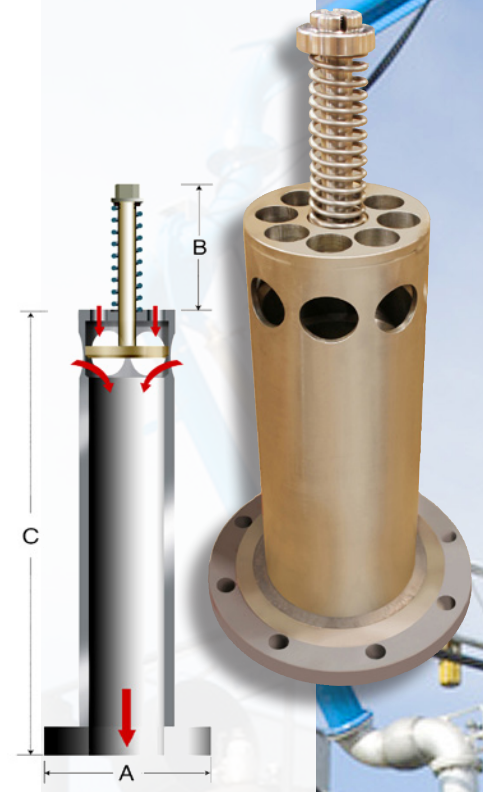
## Model 2400

2400 Excess Flow valves are designed to provide internal shut-off for tanks of all sizes. Applications include LPG, Butane to other chemicals. The Valve seat and shut-off is internal to the tank to meet various industry compliance requirements. (NFPA 58, etc.) **Optional features include external handle with locking device to shut or open the valve for start-up and plant maintenance.**

The valves are sized to meet your specific flow and dimensions requirements.

Model	Size	Class 150# ANSI Flanges		Class 300# ANSI Flanges		Wafer		C Length
		A	B	A	B	A	B	
2400-I	2	6.00		6.50		3.62		6.00
2400-K	3	7.50		8.25		5.00		9.00
2400-L	4	9.00		10.00		6.19		12.00
2400-M	6	11.00	See Manufacturer for details.	12.50	See Manufacturer for details.	8.50	See Manufacturer for details.	18.00
2400-N	8	13.50		15.00		10.62		24.00
2400-P	10	16.00		17.50		12.75		26.00
2400-Q	12	19.00		20.50		15.00		30.00
2400-R	14	21.00		23.00		16.25		32.00
2400-S	16	23.50		25.50		18.50		34.00
2400-T	18	25.00		28.00		21.00		36.00
2400-U	20	27.50		30.50		23.00		40.00
2400-V	22	29.50		33.00		25.25		44.00
2400-W	24	32.00		36.00		27.25		48.00

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



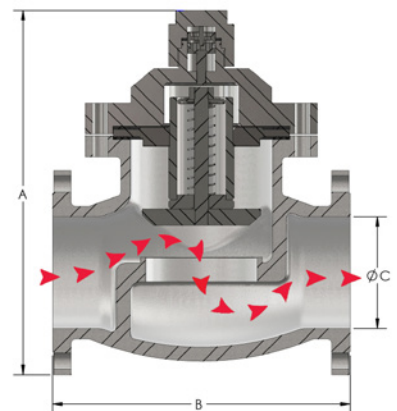
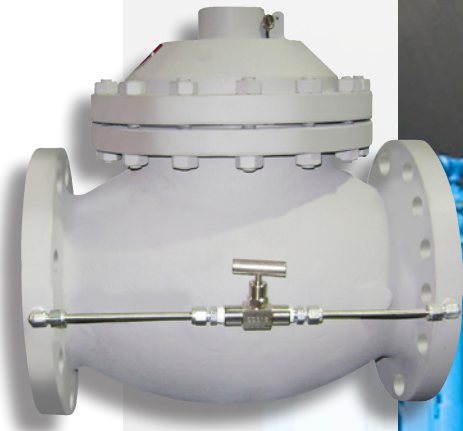
## Model 2600

The 2600 Series are Externally Adjustable Excess Flow Valves. The top entry design enables ease of adjustment and maintenance. Various sizes are used in laboratories to refineries, chemical processing plants, semiconductor industry, pharmaceutical, biotech and food plants.

Unique features include an external adjustment for changing the shut-off flow. Adjustments can be made externally by turning a threaded member extending through the valve, which causes a retainer to move laterally within the chamber. The threshold flow rate of the valve can be set. Available in carbon steel and stainless steel. Other materials are available upon request. Internal components are stainless steel. Optional accessories are softseats, actuators and external bypass. Valves are Fire Safe: Certified to API 6FA and meet NACE standards.

Model	Size	Class 150# ANSI Flanges			Class 300# ANSI Flanges		
		A Height	B End to End	C Flange ID	A Height	B End to End	C Flange ID
2600-E	1	8.75	5.00	1.00	9.38	7.75	1.00
2600-G	1.5	10.50	6.50	1.50	11.62	9.00	1.50
2600-I	2	12.50	8.00	2.00	13.00	10.50	2.00
2600-K	3	14.50	9.50	3.00	15.25	12.50	3.00
2600-L	4	16.50	11.50	4.00	17.50	14.50	4.00
2600-M	6	18.50	16.00	6.00	20.00	17.50	6.00
2600-N	8	20.50	19.50	78.00	22.00	22.00	8.00
2600-P	10	22.50	24.50	10.00	23.00	24.50	10.00
2600-Q	12	24.50	27.50	12.00	26.00	28.00	12.00

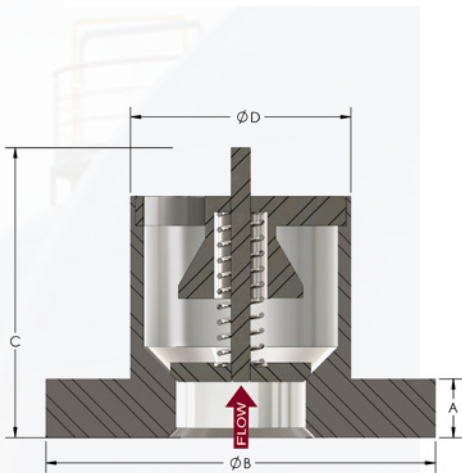
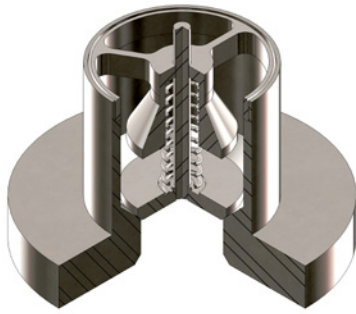
Basic options Carbon Steel Bodies, Stainless Internal. All other Materials are available. Available in All Pressure and Seat Leakage Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



# 3000 Series Check Valves, Vacuum Valves, Low Pressure Relief Valves

## Model 3200

3200 Series Back Pressure Check Valves are designed to provide protection in liquid, gas or vapor service where flow is required in one direction. Generous flow capacities and lightweight construction makes it ideal for use in tank filling operations. The 3200 Series is designed to easily insert between ANSI flanges. This valve can also be used as a vacuum breaker or low-pressure relief device with the addition of a soft seat. Available in carbon or stainless steel. Other materials available upon request. Cracking pressure rates are factory preset per customer specifications.



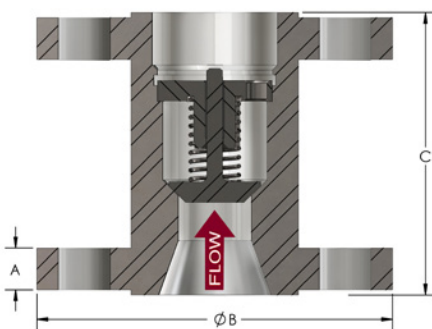
Model	Size	A Width	B Dia.	C Length	D OD
3200-G	1.5	.50	2.88	2.00	1.50
3200-I	2	.50	3.62	2.50	1.90
3200-K	3	.50	5.00	3.25	2.85
3200-L	4	.62	6.19	4.75	3.75
3200-M	6	.75	8.50	6.75	5.70
3200-N	8	.88	10.62	8.00	7.50
3200-P	10	1.00	12.75	10.00	9.65
3200-Q	12	1.25	15.00	12.00	11.55
3200-R	14	1.50	16.25	14.00	12.80

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



## Model 3220

3220 Series Back Pressure Check Valves are designed to provide protection in liquid, gas or vapor service where flow is required in one direction only into the vessel. The 3220 Series is designed where end-to-end flange connections are required. This valve can also be used as a vacuum breaker or low-pressure relief device with the addition of a soft seat. Available in carbon steel or stainless steel. Other materials available upon request. Cracking pressure rates are factory preset per customer specifications.



Model	Size	150# ANSI Flanges		300# ANSI Flanges		600# ANSI Flanges		C Length
		A Width	B Dia.	A Width	B Dia.	A Width	B Dia.	
3220-G	1.5	0.68	5.00	0.81	6.12	0.88	6.12	4.00
3220-I	2	0.75	6.00	0.88	6.50	1.00	6.50	4.50
3220-K	3	0.94	7.50	1.12	8.25	1.25	8.25	5.25
3220-L	4	0.94	9.00	1.25	10.00	1.50	10.75	5.50
3220-M	6	1.00	11.00	1.44	12.50	1.88	14.00	6.50
3220-N	8	1.12	13.50	1.62	15.00	2.19	16.50	8.00
3220-P	10	1.19	16.00	1.88	17.50	2.50	20.00	9.50
3220-Q	12	1.25	19.00	2.00	20.50	2.62	22.00	11.00
3220-R	14	1.38	21.00	2.12	23.00	2.75	23.75	13.00

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



## Model 3230

3230 Series Back Pressure Check Valves are designed for use in liquid, gas or vapor service for such items as bulk storage tanks where flow is desired in only one direction. 3230 Series has male NPT connections on the inlet side and female NPT connections on the outlet side. These valves can also be used as a vacuum breaker or low-pressure relief device. Cracking pressure rates are factory preset per customer specifications.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
3230-G	1.5 MNPT	1.5 FNPT	0.60	2.38
3230-I	2 MNPT	2 FNPT	4.75	2.88
3230-K	3 MNPT	3 FNPT	6.88	4.00
3230-L	4 MNPT	4 FNPT	8.50	5.50

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

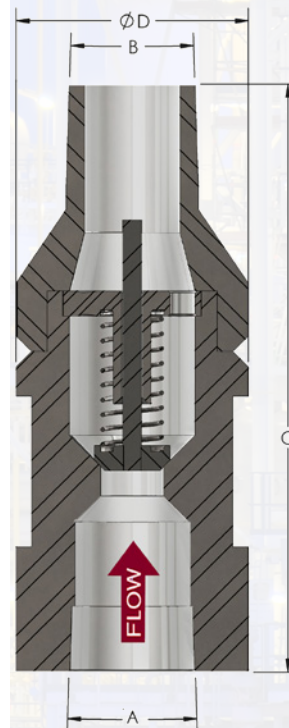
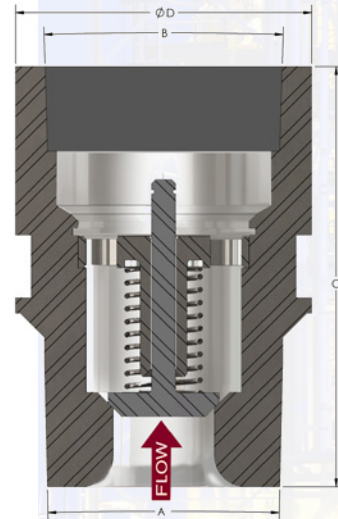


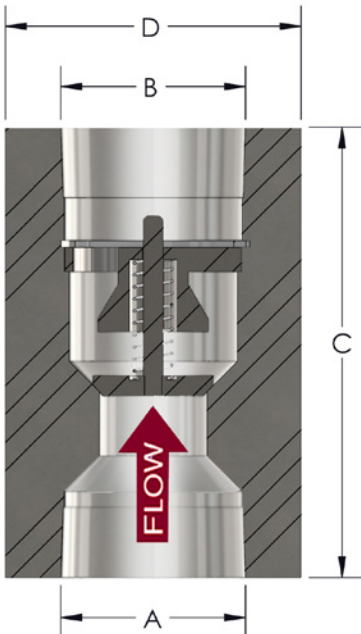
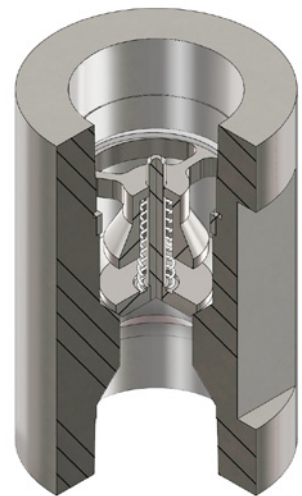
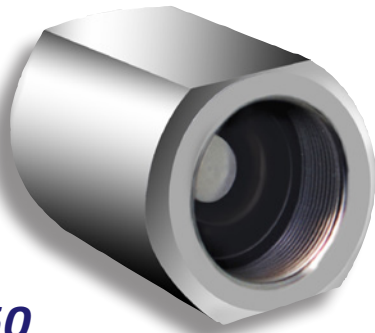
## Model 3240

3240 Series Back Pressure Check Valves are designed for use in liquid, gas or vapor service for such items as bulk storage tanks where flow is desired in only one direction. The 3240 Series has female NPT connections on the inlet side and male NPT connections on the outlet side. These valves can also be used as a vacuum breaker or low-pressure relief device. Cracking pressure rates are factory preset per customer specifications.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
3240-G	1.5 FNPT	1.5 MNPT	3.60	2.38
3240-I	2 FNPT	2 MNPT	4.75	2.88
3240-K	3 FNPT	3 MNPT	6.88	4.00
3240-L	4 FNPT	4 MNPT	8.50	5.50

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



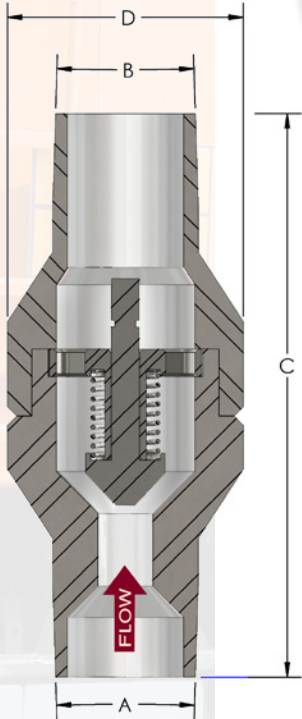
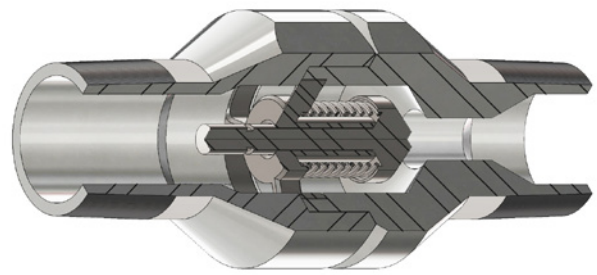
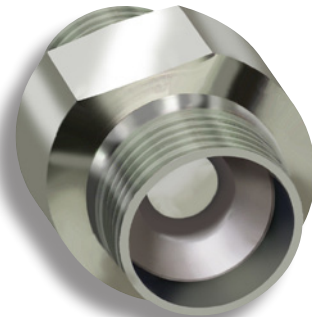


### Model 3250

3250 Series Back Pressure Check Valves are designed for use in liquid, gas or vapor service for such items as bulk storage tanks where flow is desired in only one direction. The 3250 Series has female NPT connections on the inlet side and female NPT connections on the outlet side. These valves can also be used as a vacuum breaker or low-pressure relief device.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
3250-G	1.5 FNPT	1.5 FNPT	3.60	2.38
3250-I	2 FNPT	2 FNPT	4.75	2.88
3250-K	3 FNPT	3 FNPT	6.88	4.00
3250-L	4 FNPT	4 FNPT	8.50	5.50

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



### Model 3260

3260 Series Back Pressure Check Valves are designed for use in liquid, gas or vapor service for such items as bulk storage tanks where flow is desired in only one direction. 3260 Series has male NPT connections on the inlet side and male NPT connections on the outlet side. These valves can also be used as a vacuum breaker or low-pressure relief device.

Model	A Inlet Connection	B Outlet Connection	C Length	D OD
3260-G	1.5 MNPT	1.5 MNPT	3.60	2.38
3260-I	2 MNPT	2 MNPT	4.75	2.88
3260-K	3 MNPT	3 MNPT	6.88	4.00
3260-L	4 MNPT	4 MNPT	8.50	5.50

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



## Model 3600

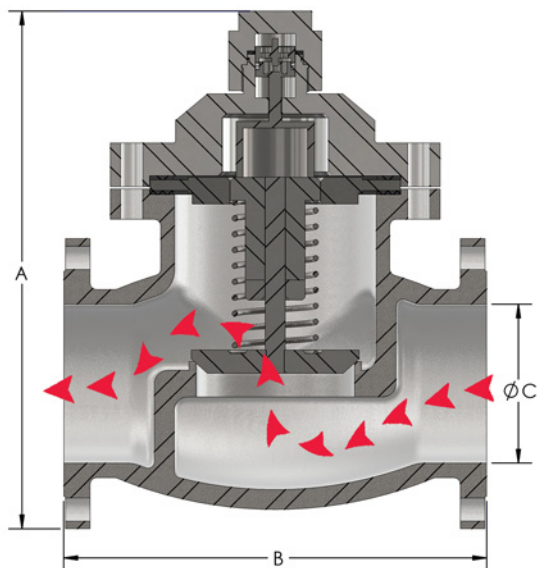
The 3600 Series Check Valves allows flow through when the desired cracking pressure is reached. Various sizes are used in laboratories to refineries, chemical processing plants, semiconductor industry, pharmaceutical, biotech and food plants.

Unique features include an external adjustment for changing the cracking pressure. Adjustments can be made externally by turning a threaded member extending through the valve, which causes a retainer to move laterally within the chamber. The threshold cracking pressure of the valve can be set.

Available in carbon steel and stainless steel. Other materials are available upon request. Internal components are stainless steel. Optional accessories are softseats and actuators.

Model	Size	Class 150# ANSI Flanges			Class 300# ANSI Flanges		
		A (Height)	B (end to end)	C (Flange ID)	A (Height)	B (end to end)	C (Flange ID)
3600-E	1	8.75	5.00	1.00	9.38	7.75	1.00
3600-G	1.5	10.50	6.50	1.50	11.62	9.00	1.50
3600-I	2	12.50	8.00	2.00	13.00	10.50	2.00
3600-K	3	14.50	9.50	3.00	15.25	12.50	3.00
3600-L	4	16.50	11.50	4.00	17.50	14.50	4.00
3600-M	6	18.50	16.50	6.00	20.00	17.50	6.00
3600-N	8	20.50	19.50	8.00	22.00	22.00	8.00
3600-P	10	22.50	24.50	10.00	23.00	24.50	10.00
3600-Q	12	24.50	27.50	12.00	26.00	28.00	12.00

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.



# 8000 Series Isolation Valve

## Model 8000

Isolation Valve Models 8000F and 8000T are designed to incorporate two safety relief valves to protect in an overpressure emergency. Only one safety relief valve is in operation at a time, while the other is a back up. If a problem occurs, such as a leak, simply switch to the other alternate safety valve. Remove the faulty valve and make repairs. This insures that one safety relief valve is in operation at all times.

### Features

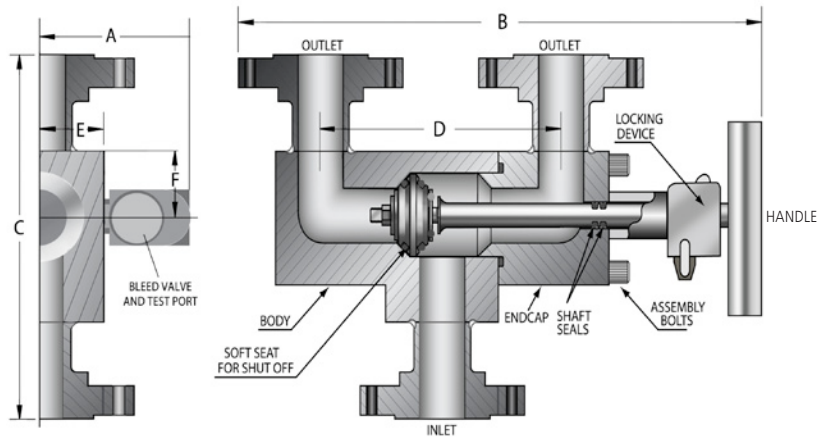
- Automatic pressure balance at start of position change.
- Pressure bleed valve at each position also serves for in-line testing.
- Handle locks in either position with external indicator.
- Low profile design for easy installation in tight areas.
- Double sealed selector assures over pressure relief protection at all times.
- Modular body allows for replacement of isolation valve seals without removal of safety relief valves from body.
- Low-pressure drop permits maximum SRV performance. CV factor (stem end) provided to assist in selection of proper isolation valve to conform to API RP 520 Part 2 and ASME Section VIII, Division 1, Appendix M recommended practices.
- Sizes ½", ¾", 1", 1½", 2", 3" and 4" design.
- Offered with flanged (8000F) or threaded connections (8000T).
- Temperature: -50F to 450F.
- MAWP: Up to 6000 psig.
- Seal: Buna-N, EPDM, Neoprene, FKM, Silicon, PTFE
- Material Options: CS/SS, SS/SS, others as requested



**Model 8000F**



**Model 8000T**  
with pressure bleed valves

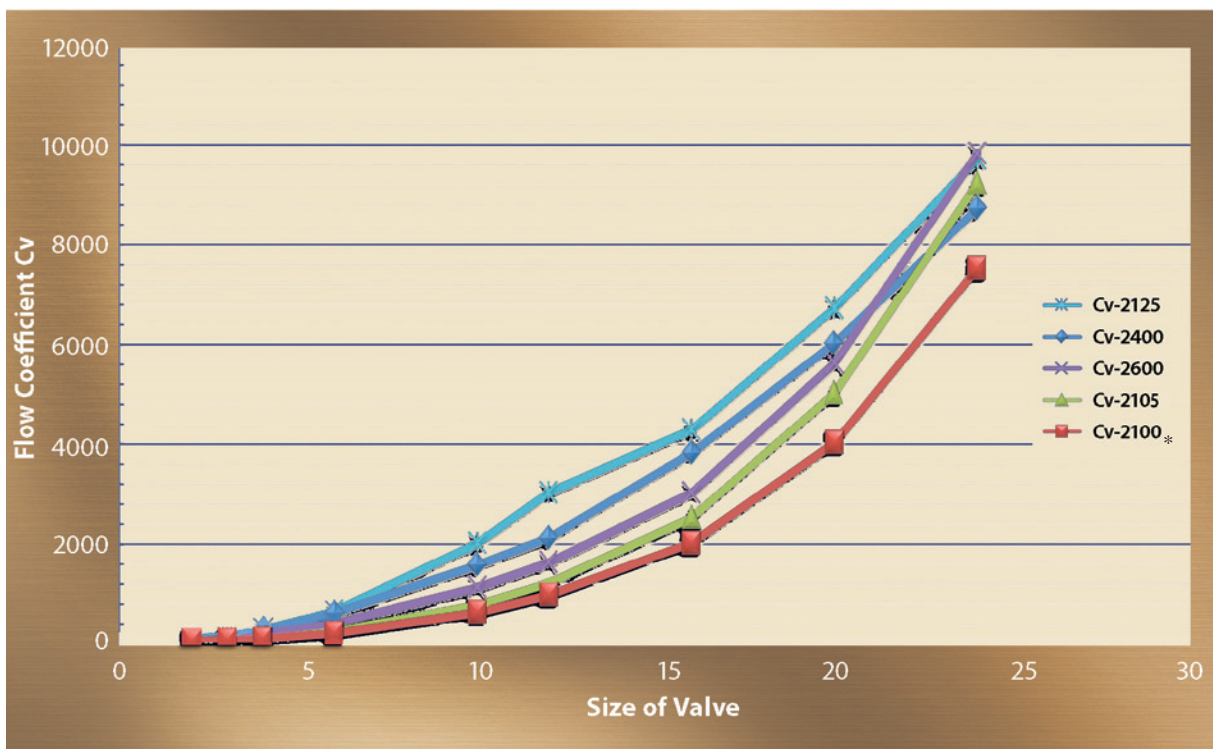
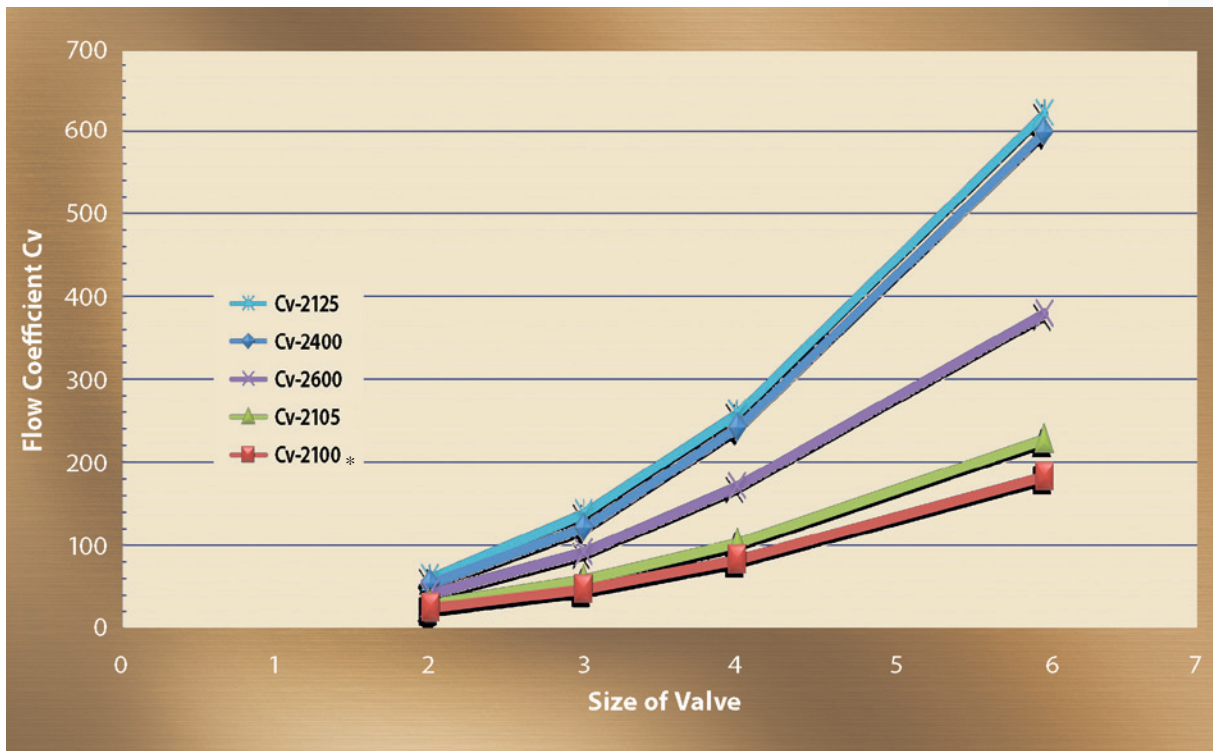


Model	Size	A	B		C			D	E,F
			In	Out	150#	300#	600#		
8000-C	0.5	2.38	11.19	12.00	5.88	6.13	6.50	3.75	3.75
8000-D	0.75	2.50	13.94	15.00	6.38	6.63	7.00	5.88	5.88
8000-E	1	2.75	14.44	15.69	6.88	7.13	7.50	5.88	5.88
8000-G	1.5	3.00	17.94	19.19	7.38	7.50	8.25	7.75	7.75
8000-I	2	3.25	21.88	23.38	8.38	8.63	9.25	9.75	9.75
8000-L	4	8.00	36.25	42.38	17.00	17.25	17.50	16.00	5.50

Basic options Carbon Steel Bodies, Stainless Internal. Other Materials are available. Available by different Pressure Classes. All dimensions are listed in inches. Dimensions shown are for standard design. Valves are custom-engineered and dimensions proved above are for reference only. Dimensions are subject to change without notice.

## ***Cv's for Total Valve Systems' Excess Flow Valves***

All valves are custom. These Cv's can be optimized to your specifications.



\* Model 2100 flow rate covers 2120, 2130, 2150, and 2160.

These are conservative values and will change with pressure and class size. Please contact Total Valve for exact Cv's for each style of valve.

## VALVE WARRANTIES

### STANDARD PRODUCTS AND SERVICES:

L6, Inc. d/b/a Total Valve Systems, hereinafter called "Total Valve" warrants as follows:

(a) That each new Total Valve product and service is free from defects in material and workmanship if installed and used in accordance with ASME and other accredited agency certifications. Any valve repair/service not performed under ASME or accredited symbol has no implied or express warranty.

(b) That each new Total Valve product and service is fit for the purpose for which similar type product and services are ordinarily intended.

Purchaser shall be solely responsible for determining suitability for use and in no event shall Total Valve be liable in this respect.

**EXCLUSIVE REMEDY** – Total Valve will repair or replace at its sole discretion, any product and service it finds to be defective under this warranty, upon return of the product and service, prepaid, to Total Valve at 1300 East Memphis, Broken Arrow, Oklahoma 74012 or any warehouse designated by Total Valve. Such repairs or replacements are clients exclusive remedy and Total Valve SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY OR ANY OTHER THEORY OR RECOVERY.

**DISCLAIMER** – Total Valve excludes from this warranty compressor discharge applications; product and non-code products, services mounted on the discharge of an elbow; and failures due to corrosion, erosion, abrasion, cavitations, or other application related failures. Further, it is the end user's responsibility to account for environmental influences such as traffic, wind, earthquake or other external loadings, decomposition of unstable fluids, simultaneous loadings or loadings due to fluid weight. There are no warranties that extend beyond the terms hereof and no one is authorized to assume for TOTAL VALVE any other liability in connection with the sale of TOTAL product and services. This warranty supersedes all previous warranties.

### **CUSTOM VALVE WARRANTY (manufactured valves to customer specifications):**

Total Valve personnel shall perform the services in accordance with the care, skill and diligence of applicable industry standards currently recognized as of the date of the execution of this agreement. Total Valve disclaims all other warranties, presentations and statements, express or implied, statutory or otherwise. No oral or written information or advice given by Total Valve or its agents, Representatives or employees, shall create a warranty or in any way increase the scope of these warranties and the client may not rely on any such information or advice unless it is set forth in writing signed by an authorized officer of Total Valve.

## **TERMS AND CONDITIONS OF SALE EXCEPT AS EXPRESSLY PROVIDED HEREIN, ALL IMPLIED WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE, MERCHANTABILITY AND FREEDOM FROM PATENT INFRINGEMENT ARE EXCLUDED.**

**Terms:** Net 30 days with approved credit.

**Prices:** FOB FACTORY, BROKEN ARROW, OKLAHOMA. All prices subject to change without notice.

Any manufacturers' or sales tax or use tax payable on any transaction under any effective statutes will be added to the price of the goods.

**Shipment Data:** All statements of prospective shipping dates are estimates made in good faith. Maximum effort will be made to ship within the time estimated.

**Design:** We reserve the right to make design changes without notice.

**Returns:** All returns must be factory authorized within one year of purchase and are subject to restocking charges. Special product and services and product and services with permanent tags attached, are not returnable. Contact the factory for a Return Material Authorization form.

**Cancellations:** Firm orders which have been accepted are subject to cancellation charges.

### **Corporate Office**

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