

## 96311 Internal Safety Valve

The Shand & Jurs 96311 Internal Safety Valve is applicable wherever liquids are stored or transferred. It is an essential safeguard against the hazards of exposure fire and a valuable aid in accident prevention.

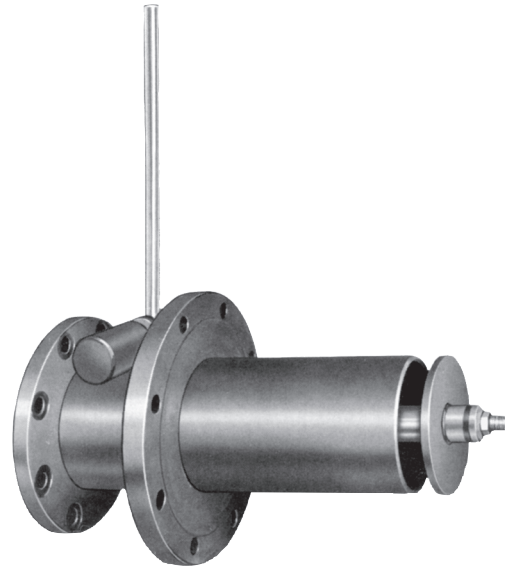
The 96311 is available in standard sizes of 2", 3", 4", 6", 8", 10" 12" and 14". Construction includes a steel body, stainless steel spring and stainless steel overlay on the pallet and valve seat. Also available in all 316 stainless steel construction and other special steels for corrosive and refrigerated services.

The unique stem design has a center pivot and a nylon bearing to resist the effects of corrosion fouling. New linkage design provides maximum clearance for high flow capacity.

The valve is opened manually and is held open by a chain and fusible link. The link releases at 212°F or at other temperatures as required and the spring loaded valve automatically closes. When opening the valve against a blocked line, the pilot pallet, opens first which equalizes the pressure across the main pallet allowing the valve to be opened the rest of the way with minimum effort.

The central mounting flange is one size larger than the nominal pipe size (see table of dimensions). Standard flanges are raised face to match ANSI 150 pound series.

Extra large mounting flanges are available for use where internal piping is required for connection to suction heaters, blending spiders, etc. Any of the flanges can be specified blank for welding.



## Features

- Unique stem guide maximizes flow
- Spring loaded valve automatically closes in event of fire
- Pilot pallet reduces effort to open against tank pressure in blocked line
- Standard 2" - 14" sizes, other sizes available
- Optional link release temperatures
- GPTFE, FKM or NBR soft goods available
- Standard Mounting flange is one size larger than the nominal pipe size.

## Materials of Construction:

### Fusible Link:

Releases at 212° F. (Or lower when specified)

Special steels available for refrigerated service. Also available in all 316 stainless steel construction. Consult factory.

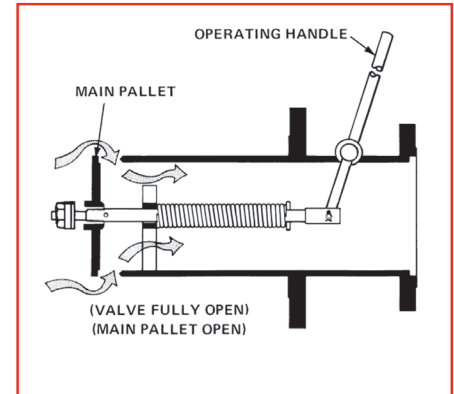
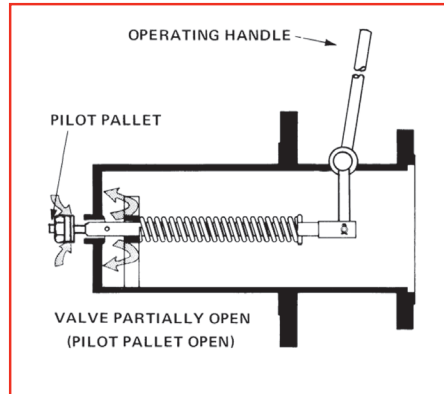
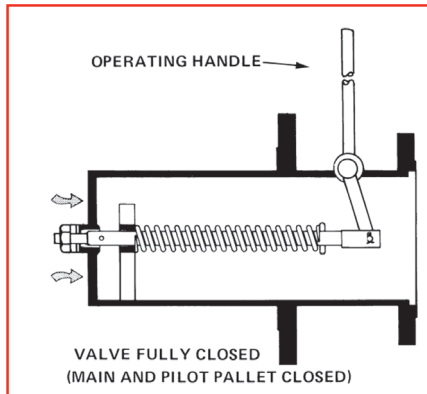
Materials of construction in this equipment have been selected as representing the most suitable commercially available material for use in the service intended. However, they do not constitute a guarantee against corrosion since processes vary

### Valve Leakage Rate:

Approx. 1/2 GPM (water)

from plant to plant and concentration of harmful fluids, gasses or solids vary from time to time in a given process. Empirical experience by users should be the final guide and alternate materials based on this are generally available.

DESCRIPTION	STANDARD MATERIALS OF CONSTRUCTION
Type Flange	Raised Face to Match ANSI 150 lb.
Temperature Flange	Ambient to 500°F (PTFE Option)
Pressure	50 PSIG Maximum
Body, Main Pallet & Handle	Stainless Steel or Painted Steel
Seat and Main Pallet	Stainless Steel or Steel with Stainless Steel Overlay
Pilot Pallet & Hardware	Stainless Steel or Painted Steel
Shaft, Stern Lever & Packing Unit	Stainless Steel or Nickel Plated Steel
Spring	Stainless Steel
Packing	Teflon
Pilot Seat Disc	Teflon, Viton or Buna-N



### Dimensions of Connection & Mounting Flanges (ANSI shown)

Flange Size	Flange Diameter	Number of Holes	Holes Diameter	Bolt Circle Diameter (Staddle Center line)
2	6	4	3/4	4 3/4
3	7 1/2	4	3/4	6
4	9	8	3/4	7 1/2
6	11	8	7/8	9 1/2
8	13 1/2	8	7/8	11 3/4
10	16	12	1	14 1/4
12	19	12	1	17
14	21	12	1 1/8	18 3/4
16	23 1/2	16	1 1/8	21 1/4
18	25	16	1 1/4	22 3/4
20	27 1/2	20	1 1/4	25

# 96311 Internal Safety Valve



Item	Description
1	Hex Nut
2	Retainer
3	Seat Disc
4	Retainer
5	Pallet
6	Sleeve
7	Washer
8	Hex Nut
9	Spring
10	Spring Retainer
11	Body Assembly Standard Mounting Flange
	Oversize Mounting Flange
12	Shaft Assembly

Item	Description
13	Drive Lever
14	Hinge Pin
15	Cotter Pin
16	Handle
17	S-hook
18	Fusible Link (212°F)
19	Sash Chain (30")
20	Hold-Down Plate
21	Stern
22	Packing
23	Bearing
24	Packing Nut
25	Set Screw

## Outline Dimensions:

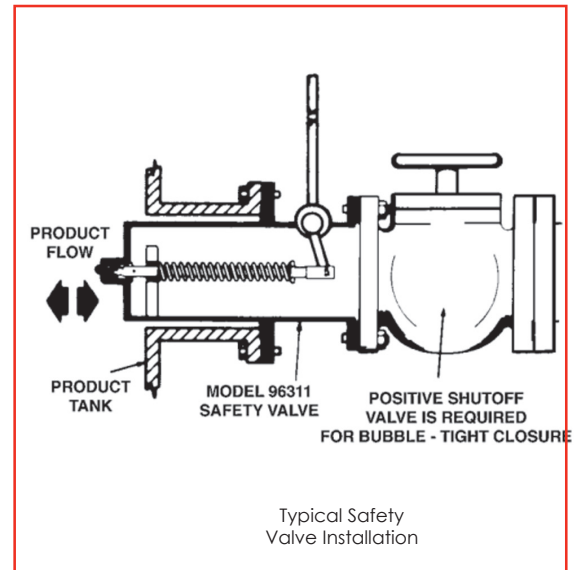
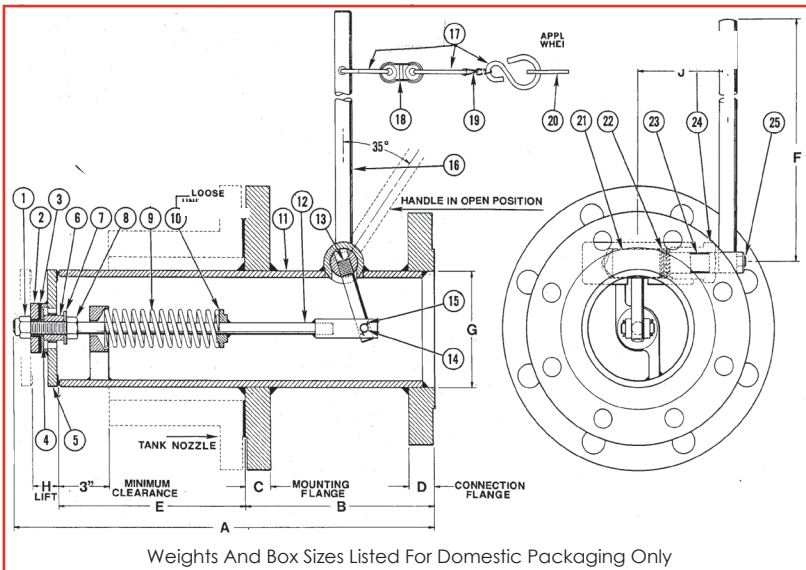


Table of Dimensions												
Valve Size	Connection Flange Size	Mounting Flange Size		Dimensions								Net Wt. Lbs.
		Standard	C	A	B	D	E	F	G	H	J	
2"	2"	3"	1 <sup>5</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	<sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	4	38
3"	3"	4"	1 <sup>5</sup> / <sub>16</sub>	16 <sup>7</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	4	52
4"	4"	6"	1	19 <sup>1</sup> / <sub>2</sub>	7 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	10	9 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	4	78
6"	6"	8"	1 <sup>1</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>4</sub>	8	1	11	16 <sup>3</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	6	130
8"	8"	10"	1 <sup>3</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>4</sub>	9	1 <sup>1</sup> / <sub>8</sub>	12	20 <sup>3</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	6	173
10"	10"	12"	1 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>8</sub>	10	1 <sup>3</sup> / <sub>16</sub>	12	26 <sup>3</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	6	255
12"	12"	14"	1 <sup>3</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	12	26 <sup>3</sup> / <sub>8</sub>	12	3 <sup>7</sup> / <sub>8</sub>	6	350

Flange Connections are ANSI 150 lb Class

All designs subject to change. Certified dimensions and specifications available upon request.



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## 96311 Ordering Guide

### Model Number Selection

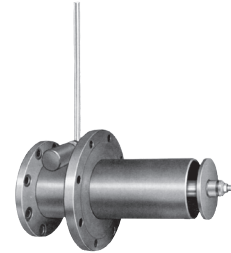
The model number will consist of a base number **96311** followed by 6 digit numbers. These digits will represent 2 option tables.

**96311 - AB - CD - EF**

### Ordering Information

Specify:

1. Model 96311 Internal Safety Valve
2. Valve Size
3. Mounting Flange
4. Special Materials of Construction and Drilling  
(Available upon Request)



**Table A - Valve Size**

Option A	Valve Size
3	2"
4	3"
5	4"
6	6"
7	8"
8	10"
9	12"
2	14"

**Table B - Mounting Flange**

Option B	Valve Size
4	3"
5	4"
6	6"
7	8"
8	10"
9	12"
2	14"
A	16"
B	18"
C	20"

Minimum is one size larger than the valve size.  
Maximum is three sizes larger than the valve size.

**Table C - Seal Material**

Option C	Description
0	GPTFE Standard
1	FKM
2	NBR

FKM = Fluoroelastomer  
NBR = Nitrile-Butadiene

**Table D - Flange Type**

Option D	Description
5	ANSI 125/150lb. FF
6	ANSI 125/150lb. RF
7	ANSI 300 lb. RF
8	EN1092-1 PN16 FF
9	EN1092-1 PN16 RF

**Table E - Body / Trim Material**

Option E	Material
0	Steel / Steel (Standard)
1	Steel / 316SS
2	** 316SS / 316SS

\*Alternate Materials Available  
\*\*Price Includes 316SS Trim with 316 Body

**Table F - Fuse Temperature**

Option F	Temperature
0	212°F
1	165°F
2	135°F