

## 97130 Thermal Valve

The S&J 97130 Thermal Valve is a thermally operated shut-off valve typically located in low pressure biogas lines such as downstream of anaerobic digesters, landfills and lagoons or upstream of flares and waste gas burners.

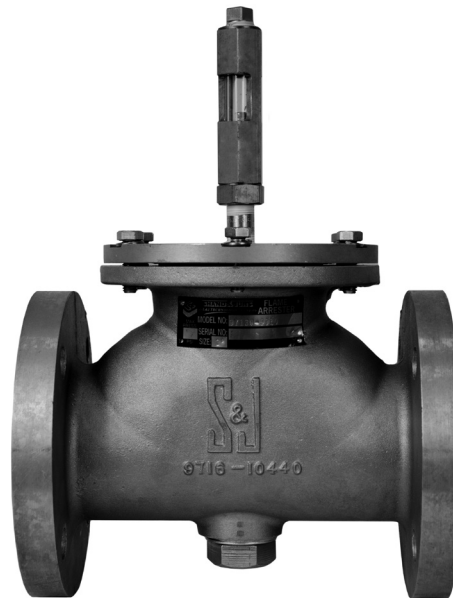
Its normal operating position is open until the melting point of the fusible element is exceeded. When the line temperature reaches 255°F, the fusible element melts causing the spring loaded pallet to positively shut off gas flow. Indicator Rod provides notification of valve actuated to the closed position. Fusible element is easily replaceable without disassembling the valve.

The valve can be installed in either a horizontal or vertical position and is good for working pressures up to 5 psig.

The S&J 97130 is especially designed for hydrogen sulfide and hot, wet methane which are the main components of digester gas streams in municipal waste water treatment facilities. Its aluminum and stainless steel components withstand the severest of process environments.

Standard materials of construction include low copper cast aluminum body, pyrex for the sight glass indicator and aluminum pallet with stainless steel spring and stem.

An optional proximity switch is available that can be mounted to the visual indicator and will send a signal once the pallet has closed.



### Features

- Positive Emergency Shutoff
- Valve Closed Indicator Rod
- 255°F Fusible Element
- Sizes 2" Through 12"
- Optional Proximity Switch and Insulation Jackets Available
- Vertical/Horizontal Configuration

### Specifications:

**Valve Body & Pallet:**

Low Copper Aluminum or Stainless Steel

**Valve Internals:**

Stainless Steel

**Pressure Rating:**

5 PSIG standard

**Isolated Sight Glass:**

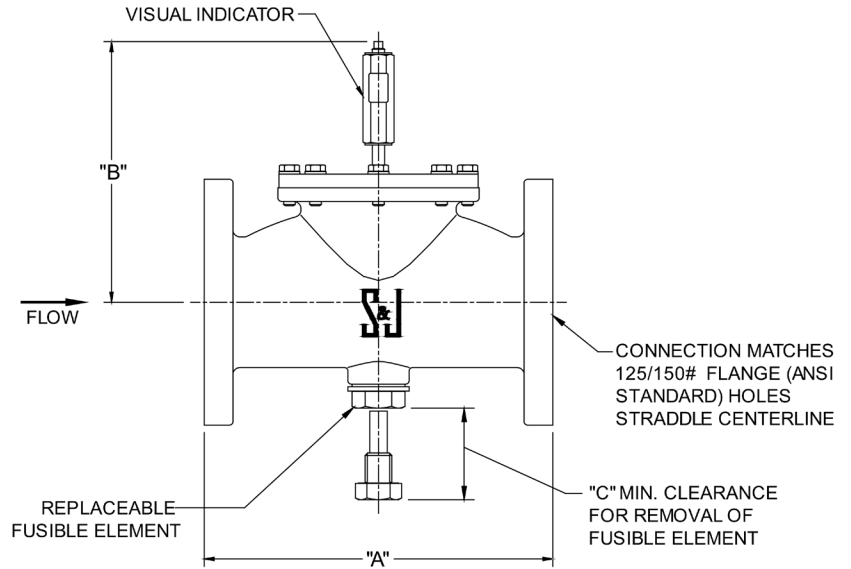
Heat Resistant Pyrex with Buna-N Gaskets

**Fusible Element:**

Lead; 255°F Standard

## Dimensions

| (Inches [mm]) |            |            |           |
|---------------|------------|------------|-----------|
| Line Diameter | "A"        | "B"        | "C"       |
| 2 [50]        | 8 ¾ [222]  | 8 ⅞ [225]  | 2 [50]    |
| 3 [75]        | 10 [254]   | 9 ½ [241]  | 2 [50]    |
| 4 [100]       | 11 ¾ [289] | 9 ½ [241]  | 2 [50]    |
| 6 [150]       | 15 [381]   | 11 ⅞ [302] | 4 [100]   |
| 8 [200]       | 22 ¼ [565] | 13 ⅞ [352] | 5 ½ [140] |
| 10 [250]      | 27 ⅜ [706] | 14 ⅞ [378] | 5 ½ [140] |
| 12 [300]      | 33 [838]   | 20 ½ [521] | 8 [200]   |



## Air Flow Capacity in Standard Cubic Feet per Hour x 1000 @ 60°F

| Pressure Drop<br>Inches W.C. | Line Diameter |      |      |      |      |      |     |
|------------------------------|---------------|------|------|------|------|------|-----|
|                              | 2"            | 3"   | 4"   | 6"   | 8"   | 10"  | 12" |
| 1                            | 1.2           | 3.1  | 6    | 13.1 | 25.4 | 39.1 | 55  |
| 2                            | 1.7           | 4.3  | 8.7  | 19.6 | 36.4 | 60.0 | 92  |
| 3                            | 2.3           | 5.5  | 10.9 | 24.1 | 46   | 74.2 | 114 |
| 4                            | 2.8           | 6.6  | 12.5 | 28.0 | 53   | 88.0 | 134 |
| 5                            | 3.2           | 7.4  | 14.3 | 31.6 | 61   | 98.5 | 156 |
| 6                            | 3.7           | 8.1  | 15.8 | 34.6 | 67   | 108  | 170 |
| 7                            | 4             | 8.8  | 17.3 | 37.8 | 73   | 116  | 182 |
| 8                            | 4.4           | 9.5  | 18.2 | 40.6 | 78   | 125  | 197 |
| 9                            | 4.6           | 10.2 | 19.5 | 43.1 | 85   | 134  | 210 |
| 10                           | 4.9           | 10.8 | 20.6 | 45.7 | 91   | 141  | 220 |
| 11                           | 5.1           | 11.4 | 21.5 | 48.5 | 97   | 148  | 230 |
| 12                           | 5.3           | 11.8 | 22.7 | 50.4 | 101  | 155  | 240 |
| 13                           | 5.5           | 12.3 | 23.7 | 52.7 | 106  | 162  | 248 |
| 14                           | 5.8           | 12.8 | 24.3 | 54.6 | 110  | 168  | 256 |
| 15                           | 6             | 13.2 | 25.2 | 56.5 | 115  | 173  | 264 |
| 16                           | 6.3           | 13.8 | 26   | 58.7 | 119  | 178  | 270 |
| 17                           | 6.5           | 14.3 | 26.6 | 60.3 | 122  | 182  | 275 |
| 18                           | 6.7           | 14.6 | 27.2 | 62.3 | 125  | 186  | 280 |
| 19                           | 6.8           | 15.1 | 27.8 | 64.1 | 128  | 189  | 285 |
| 20                           | 7             | 15.6 | 28.5 | 65.7 | 131  | 193  | 290 |

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

## 97130 Ordering Guide

### Model Number Selection

The model number will have a base number **97130** followed by 5 digit numbers. These digits will represent 4 sets of option tables.

**97130 - A - B - C - DE**

**Table A - Line Size**

| Option A | Description |
|----------|-------------|
| 2        | 2"          |
| 3        | 3"          |
| 4        | 4"          |
| 6        | 6"          |
| 8        | 8"          |
| 0        | 10"         |
| 1        | 12"         |

**Table B - Body Material**

| Option B | Description         |
|----------|---------------------|
| A        | Aluminum            |
| B        | 316 Stainless Steel |

**Table C - Mounting (Hardware)**

| Option C | Description                 |
|----------|-----------------------------|
| 0        | Horizontal/Vertical (316SS) |

\* 316SS Hardware is standard

**Table DE - Accessories**

| Option DE | Description                              |
|-----------|------------------------------------------|
| 10        | None                                     |
| 20        | Proximity Switch                         |
| 2A        | 2" Insulation Jacket                     |
| 3A        | 3" Insulation Jacket                     |
| 4A        | 4" Insulation Jacket                     |
| 6A        | 6" Insulation Jacket                     |
| 8A        | 8" Insulation Jacket                     |
| 0A        | 10" Insulation Jacket                    |
| 1A        | 12" Insulation Jacket                    |
| 2B        | 2" Insulation Jacket & Proximity Switch  |
| 3B        | 3" Insulation Jacket & Proximity Switch  |
| 4B        | 4" Insulation Jacket & Proximity Switch  |
| 6B        | 6" Insulation Jacket & Proximity Switch  |
| 8B        | 8" Insulation Jacket & Proximity Switch  |
| 0B        | 10" Insulation Jacket & Proximity Switch |
| 1B        | 12" Insulation Jacket & Proximity Switch |