



- Positive Emergency Shutoff
- Inhibits Flame Propagation
- 255° F Fusible Link
- Sizes 2" Through 12"
- Horizontal or Vertical Mounting Options

The Shand & Jurs Model 97141 Flame Trap Assembly (Plate Flame Arrester)

The S&J 97141 Flame Trap Assembly combines the 97130 thermal operated valve with the 94309 plate flame arrester to effectively inhibit flame propagation in low pressure gas lines.

The flame arrester quenches the flame front by cooling the flame below its ignition temperature. The flame front enters the arrester and the flame is intercepted by the arrester element which is specifically designed to provide a precision path for the flame to follow. The flame front temperature is reduced to below the ignition point of the protected vapors. This is achieved by dissipating the heat of the flame through the arrester elements and body.

The spring loaded thermal valve quickly closes when the fusible link is melted in the presence of fire. This shuts off the flow of gas to prevent catastrophic damage.

The fusible element is easily replaced without disassembling the valve. Other valve elements are also easy to replace which simplifies maintenance.

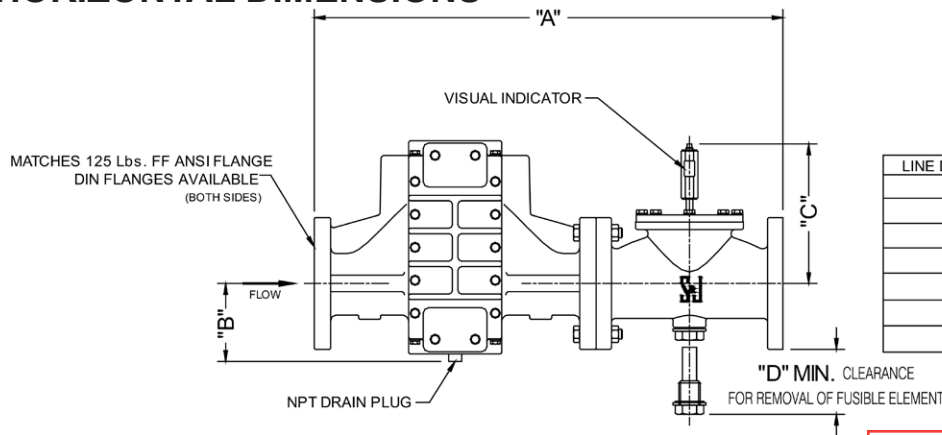
Its aluminum and stainless steel components withstand the severest of process environments. The S&J 97141 is especially designed for hydrogen sulfide and hot, wet methane which are the main components of digester gas streams in municipal waste water treatment facilities.

The 97141 is 100% U.S. made.

Applications

- Anaerobic digester gas train**
- Fermentation off gas piping systems**
- Low pressure vent lines**

HORIZONTAL DIMENSIONS

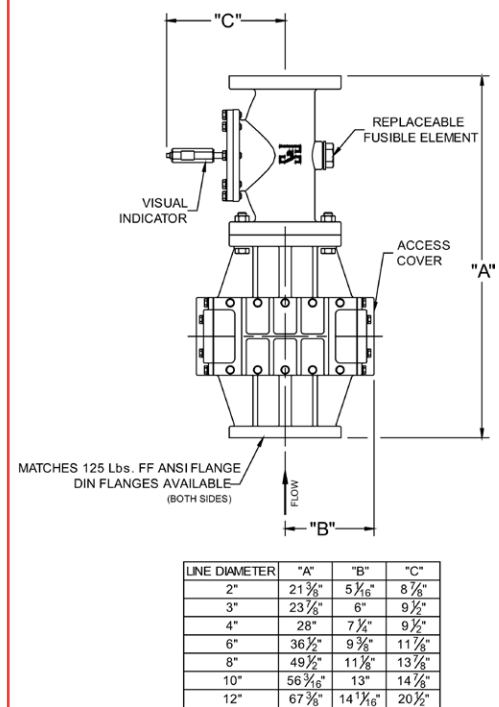


LINE DIAMETER	"A"	"B"	"C"	"D"
2"	23 $\frac{3}{4}$ "	4"	8 $\frac{5}{8}$ "	2"
3"	26"	4 $\frac{3}{8}$ "	9 $\frac{1}{2}$ "	2"
4"	31 $\frac{3}{8}$ "	5 $\frac{7}{16}$ "	9 $\frac{1}{2}$ "	2"
6"	39 $\frac{3}{8}$ "	6 $\frac{7}{8}$ "	11 $\frac{7}{8}$ "	4"
8"	54 $\frac{3}{8}$ "	8"	13 $\frac{7}{8}$ "	5 $\frac{1}{2}$ "
10"	63 $\frac{5}{16}$ "	9 $\frac{1}{8}$ "	14 $\frac{7}{8}$ "	5 $\frac{1}{2}$ "
12"	67 $\frac{3}{8}$ "	14 $\frac{1}{16}$ "	20 $\frac{1}{2}$ "	8"

AIR FLOW CAPACITY IN STANDARD CUBIC FEET PER HOUR x 1000 @ 60° F

Pressure Inches W.C.	Line Diameter						
	2"	3"	4"	6"	8"	10"	12"
1	1.1	2.7	5.0	11.3	20.1	28.0	46.0
2	1.6	4.0	7.6	16.5	29.9	47.0	66.4
3	2.0	4.9	9.3	20.8	37.6	60.0	89.6
4	2.5	5.9	10.9	24.1	44.3	70.0	103
5	2.9	6.8	12.2	27.1	50.2	80.0	120
6	3.2	7.3	13.6	30.0	55.4	89.0	132
7	3.6	8.0	14.8	32.6	60.5	96.0	145
8	3.9	8.5	15.9	35.1	65.0	104	158
9	4.1	9.1	17.0	37.3	68.9	110	167
10	4.3	9.6	17.7	39.6	73.0	117	179
11	4.5	10.1	18.8	41.6	77.4	123	189
12	4.7	10.7	19.7	43.5	81.0	130	198
13	5.0	11.2	20.6	45.4	86.0	135	206
14	5.2	11.6	21.2	47.1	90.0	142	215
15	5.4	12.0	22.0	48.6	94.1	147	222
16	5.6	12.4	22.9	50.5	96.8	153	229
17	5.7	12.8	23.8	52.1	100	157	235
18	5.9	13.1	24.3	53.7	104	163	240
19	6.2	13.6	25.0	55.5	108	167	245
20	6.4	14.0	25.6	56.9	112	174	250

VERTICAL DIMENSIONS



LINE DIAMETER	"A"	"B"	"C"
2"	21 $\frac{3}{8}$ "	5 $\frac{1}{16}$ "	8 $\frac{7}{8}$ "
3"	23 $\frac{1}{8}$ "	6"	9 $\frac{1}{2}$ "
4"	28"	7 $\frac{1}{4}$ "	9 $\frac{1}{2}$ "
6"	36 $\frac{1}{2}$ "	9 $\frac{3}{8}$ "	11 $\frac{1}{8}$ "
8"	49 $\frac{1}{2}$ "	11 $\frac{1}{8}$ "	13 $\frac{1}{8}$ "
10"	56 $\frac{1}{16}$ "	13"	14 $\frac{1}{8}$ "
12"	67 $\frac{3}{8}$ "	14 $\frac{1}{16}$ "	20 $\frac{1}{2}$ "

HOW TO ORDER

97141 - AB - CD - EF - GH

(AB)- Configuration

- 00 = Vertical
- 10 = Horizontal
- 11 = Horizontal with drain

(C)- Connection

- 0 = ANSI FF
- 1 = ANSI RF
- 2 = DIN 2633 FF
- 3 = DIN 2633 RF

(D)- Size

- 2 = 2"
- 3 = 3"
- 4 = 4"
- 6 = 6"
- 8 = 8"
- 0 = 10"
- 1 = 12"

(EF)- Housing, Bank Assembly Frame, and Element

- 01 = AL, AL, AL
- 02 = AL, AL, 316 SS
- 03 = AL, 316 SS, 316 SS

(GH)- Hardware Material

- 00 = Zn plated steel (std)
- 01 = Stainless Steel

Installation Note: Locate this equipment within 10 pipe diameters of a potential atmospheric ignition source.
All designs subject to change. Certified dimensions and specifications available upon request.