

# **DEFLAGRATION FLAME ARRESTER** MODEL 7698

### **MODEL 7698**

The Groth Model 7698 is an In-Line Horizontal Deflagration Flame Arrester designed to inhibit flame propagation in gas piping systems and to protect low pressure tanks containing flammable liquids. Arresters protect low flash point liquids from external sources of ignition. This provides increased fire protection and safety.

#### **Technical Details**

- Sizes:2" (DN50) through 12" (DN300)
- Material: Aluminum, Carbon Steel, Stainless Steel
- Flame Element Material: 316L Stainless Steel
- Thermocouple is required for flame detection per the ATEX Code
- Operational Temperature Range: -4 to 140 F (-20 to 60 C)
- Good for NEC gas group D, IEC gas group IIA (MESG >= 0.90 mm)
- 2" 12" sizes available with ATEX Certification in compliance with EN ISO 16852:2010 with bodies of carbon steel or Stainless Steel construction
- 2" 4" sizes available with ATEX Certification in compliance with EN ISO 16852:2010 with bodies of aluminum construction

#### Features

- Horizontal installation
- Eccentric design minimizes liquid accumulation
- Flame arrester element geometry maximizes flame quenching capability while minimizing pressure drop
- Spiral-wound, crimped ribbon flame element
- Modular design allows easy and cost-effective flame bank maintenance

#### Options

- Exterior painting or coating
- DIN or ASME/ANSI drilling
- Tapped drain and instrumentation ports
- Factory installed thermocouple



ARRANGE AREAS

### **SPECIFICATIONS**

Size* In (mm)	A Length In (mm)	B Height In (mm)	Maximum Operational Pressure* psia (bara)	Maximum Run Up (L/D)*	Burn Time t <sub>BT</sub> * minutes	Approx Ship Weight Aluminum Lbs (kg)	Approx Ship Weight Carbon or SS Lbs (kg)
2 (50)	13.75 (3490)	9.50 (241)	23.2 (1.60)	50	10	32 (14)	70 (32)
3 (80)	15.75 (400)	11 (279)	23.2 (1.60)	50	10	41 (19)	86 (39)
4 (100)	18 (457)	12.50 (318)	17.4 (1.20)	20	10	55 (25)	114 (52)
6 (150)	21 (533)	16.50 (419)	17.4 (1.20)	20	10	116 (53)	222 (101)
8 (200)	25 (635)	20.50 (521)	17.4 (1.20)	20	2	221 (100)	422 (191)
10 (250)	30 (762)	24.50 (622)	17.4 (1.20)	20	2	320 (145)	635 (288)
12 (300)	32.50 (826)	28.50 (724)	17.4 (1.20)	20	2	397 (180)	836 (379)

\*Testing parameters based on EN ISO 16852:2010







- The test equipment, procedures, and reporting methods utilized by Groth Corporation meet the requirements of standards API 2000/ISO 28300 and ISO 16852. The equipment, methods, and results have been reviewed and certified by TÜV SÜD.
   Flow data are for in-line mounting and does not include entrance losses or exit losses.
   Flow values based on air at 60°F venting to atmospheric pressure of 14.6959 psia





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  Flow values based on air at 0°C venting to atmospheric pressure of 1.01325 bara







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## HOW TO ORDER

For easy ordering, select proper model numbers MODEL # SIZE MATERIAL **OPTIONS** ►0 = No Options Flame Element Winding A = ATEX Integrated T/C **5** = Stainless Steel Z = Special Options ► Body Material 02 = 2" 7698 0 = No Options = Aluminum thru 1 12 = 12" 3 = Carbon Steel F = 150# ASME Flange 5 = Stainless Steel Z = Special Options Z = Special

#### Notes

- Include model number and setting when ordering.
- For special options, consult factory.
- For aluminum construction, only 2", 3" and 4" sizes available with ATEX. Aluminum construction sizes 6" and above are not available with ATEX

Example	7 6 9 8	- 0 2 - 3 5	5 – F 0 A
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Indicates a 2" Model 7698 with Carbon Steel Body, 316 SS element winding, F150# ASME Flanged outlet, and ATEX Integrated thermocouple.



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