

The 7377 is a throttling relief valve to vent overpressure used downstream of pressure regulators. Relief valves are available in ¼", 1", and 2" sizes with spring ranges from 1 psi to 50 psi. Refer to Table 1.

The 1" and 2" sizes feature a Pitot tube booster (Fig. 1) for achieving the highest possible relief capacity with a minimum build-up of system pressure. When selecting any relief valve for installation downstream of a regulator, the capacity of the relief valve should be compared with the wide open capacity of the regulator. Refer to Fig. 2 curves to obtain flow capacities at respective spring settings.

**Table 1. Spring Ranges and Maximum Allowable Inlet Pressure**

Relief Valve designation	body size	spring relief setting	spring range	max. allowable inlet pressure	capacity at max. inlet pressure (scfh) <sup>†</sup>
<b>7377-03-2</b>	¼"	2.5 psig	0.72-3 psig	10 psig	950
<b>7377-03-5</b>	¼"	5	3-13	45	1 750
<b>7377-03-10</b>	¼"	10	3-13	45	1 750
<b>7377-1-2</b>	1"	2.5	1-4.5	100	87 000
<b>7377-1-5</b>	1"	5	4-15	100	87 000
<b>7377-1-10</b>	1"	10	4-15	100	87 000
<b>7377-1-25</b>	1"	25	15-50	100	87 000
<b>7377-4-10</b>	2"	10	4-10	25	81 000

<sup>†</sup> Values are obtained with no outlet (vent) piping and are for 0.6 specific gravity gas at 60 F vented to atmosphere (14.7 psia).

**WARNING:** Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.

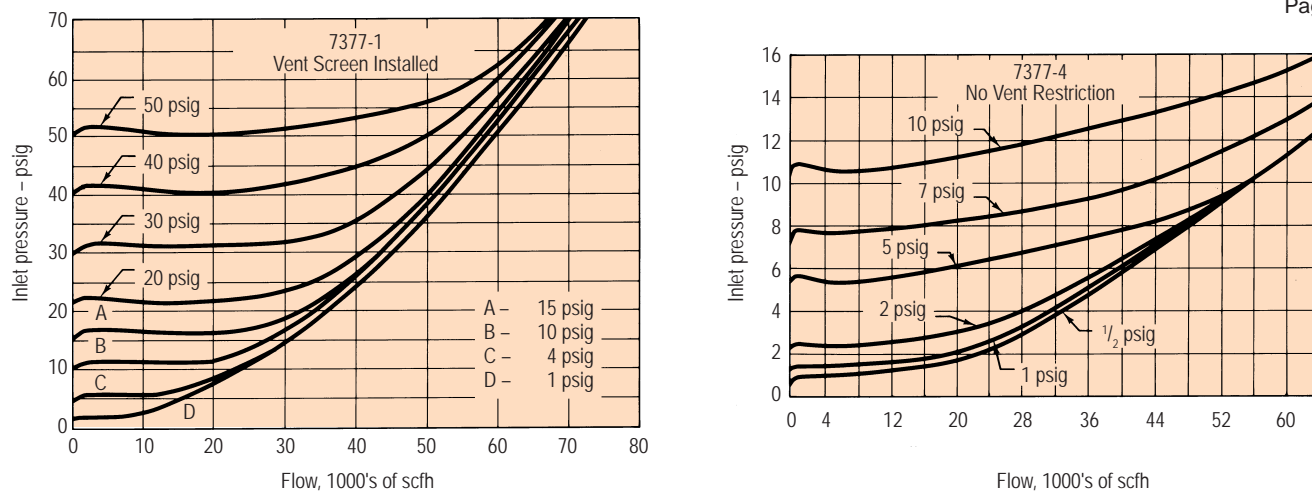


Fig. 2. 7377-1 and 7377-4 Capacities with natural gas at stp (14.7 psia and 60 F)

CONSTRUCTION MATERIALS

Valve Body and Spring Case

7377-03: Zinc  
7377-1: Aluminum  
7377-4: Cast Iron Body with Aluminum Spring Case

O-Ring Seat:

7377-1: Nitrile or Fluoroelastomer  
7377-4: Nitrile or Fluoroelastomer

Gaskets

7377-03: Composition  
7377-1: Composition  
7377-4: Composition

Diaphragm

7377-03: Neoprene  
7377-1: Nitrile or Fluoroelastomer  
7377-4: Nitrile or Fluoroelastomer

O-Ring Seat Holder and Washer:

7377-1: Aluminum

Spring

7377-03: Zinc-Plated Steel  
7377-1: Zinc-Plated Steel  
7377-4: Zinc-Plated Steel

Orifice

7377-03: Aluminum  
7377-4: Brass or Stainless Steel

Seat Washer

7377-4: Stainless Steel

Pitot Tube

7377-1: Aluminum  
7377-4: Brass or Stainless Steel

Diaphragm Plate

7377-03: Zinc  
7377-1: Zinc-Plated Steel  
7377-4: Zinc-Plated Steel

Temperature Capabilities

With Nitrile and Neoprene Elastomers: -20 to +150 F  
With Fluoroelastomers: +20 to +300 F

Installation

The 7377 Relief Valves can be installed in any position. However, the outlet connection must be protected against the entrance of rain, snow, insects, or any other foreign material. Flow through the valve must be as indicated by the flow direction arrow on the body. Refer to Fig. 3 for relief valve dimensions.

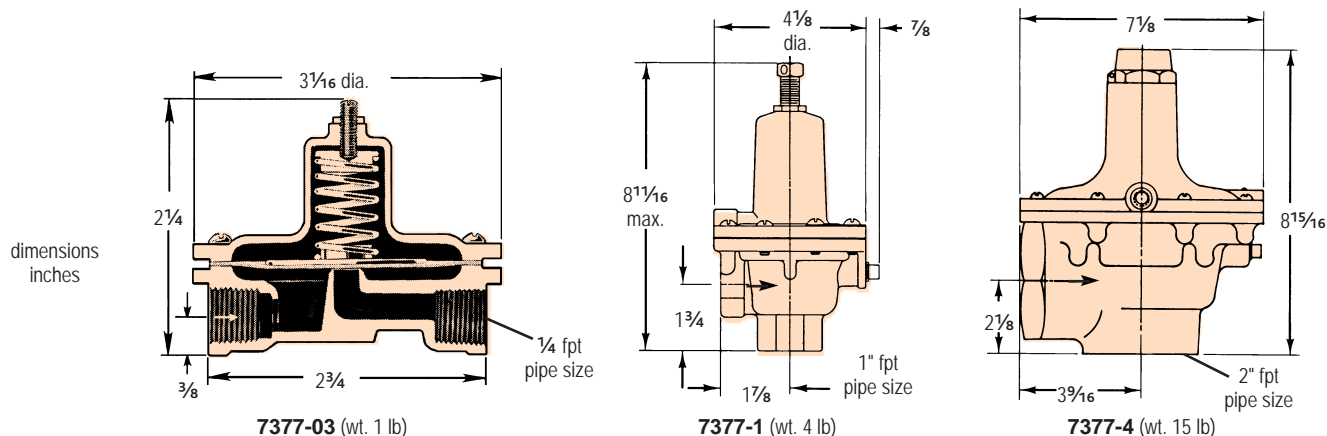


Fig. 3. Relief Valves

DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

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