



HIGH PRESSURE FLOW LIMITERS, FUSE MODEL 443 & RESTRICTOR MODEL 796

GENERAL INFORMATION

Both the model 443 flow fuse and restrictor model 796 serve as a safety device that prevents high flow rates in the event high pressure lines break or become disconnected.

With the flow fuse, normal flow rates pass unrestricted. When flow substantially exceeds the normal rate an active element in the fuse closes. A slight leakage in the shut position permits equalizing of charging lines and automatic reopening of the fuse in the event an excessive surge shuts the valve.

The model 796 flow restrictor uses a small orifice but no active element to limit flow. It's advantages are: simplicity, and the insurance that the flow will not be shut off due to unusual surges. It's disadvantages are: some restriction in normal flow, and some continuing flow in the event of line breakage. In some cases the flow restriction can be an advantage. For example it will slow fill times of small tanks preventing "hot" fills. In the event of line breakage some noise and line whip could still occur, However flow rate and whip will be reduced to about 1/10 (10%) that of an unrestricted line.

TECHNICAL SPECIFICATIONS

MODEL 443 FLOW FUSE

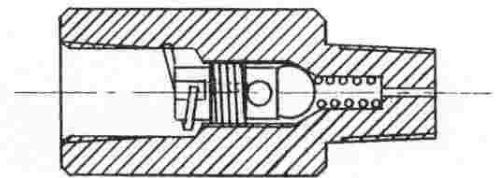
- Maximum rated pressure ----- 6000 PSI (40 MPa)
- Nominal flow rate to shut ----- 80 SCFM at 5000 PSI
55 SCFM at 2500 PSI
(can be adjusted)
- Size ----- 7/8" hex by 2.1" long
- Ports ----- 1/4" female NPT in,
1/4" male NPT out

MODEL 796 RESTRICTOR

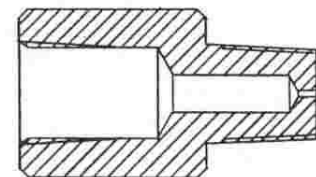
- Maximum rated pressure ----- 6000 PSI (40 MPa)
- Nominal orifice size ----- .040" diameter
(other sizes available)
- Maximum flow (with 5000
PSI across restrictor) ----- 90 SCFM
- Time to fill 50 ft³, 2250 PSI
tank with 2250 PSI up-
stream of restrictor ----- about 3 minutes
- Size ----- 7/8" hex by 1.5" long
- Ports ----- one 1/4" male NPT
one 1/4" female NPT

TYPICAL APPLICATIONS

- High pressure air station filling hoses
- Hydraulic lift lines
- Other hydraulic or gas flexible lines
- Flow limiters for tank filling
- Flow limiters for pneumatic operators



MODEL 443 FUSE



MODEL 796 RESTRICTOR

Aqua Environment Inc.

P.O. Box 935, Stinson Beach, CA. 94970 (415) 453 8157