



DATA SHEET
#NDD175

GLADIATOR® TRI-FLOW FOAM/WATER NOZZLE

Description

The Gladiator® Tri-Flow Nozzle is a self-educing, adjustable aspiration nozzle with three separate flow settings, a variable proportioning valve, and a foam pickup tube with quick-connect attachment. The nozzle is designed for pickup capability; however, it can be operated without the pickup tube when discharging premixed foam solution or water only. The Gladiator® Tri-Flow provides excellent nozzle range, ease of operation, and superior foam qualities that make it suitable for use with protein, fluoroprotein, AFFF, and AR-AFFF foam concentrates.

The Gladiator® Tri-Flow Nozzle gives the operator the ability to select either a 500, 750, or 1000 gpm flow setting at 100 psi by simply depressing and turning the baffle head tip at the discharge end of the nozzle. Switching over from non-aspirating to full aspirating mode can be done by simply adjusting the control knob while the nozzle is flowing. Adjusting the stream pattern sleeve on the nozzle body controls nozzle discharge pattern. The desired rate of foam eduction can be set by adjusting the variable proportioning valve.

The Gladiator® Tri-Flow Nozzle represents the latest advancement in foam firefighting nozzle technology and delivers the most effective fire attack flexibility and performance. The Gladiator® Tri-Flow is the first self-educing nozzle designed for foam or water with the ability to deliver good foam quality with any foam concentrate.

Features

- Variable flow settings - 500, 750, and 1000 gpm
- Self-educing
- SelectAir™ Adjustable Aspiration for optimum foam quality
- Adjustable foam proportioning - ½% and 3%, or 1% and 3%
- Ring Jet™ Injection for complete foam mixing
- Maximum nozzle performance with minimum foam stream fallout
- Compatible with all major types of foam concentrates
- Fully adjustable stream pattern
- Excellent water fog pattern suitable for vapor cloud mitigation
- Nozzle can be used without the pickup tube

Foam Proportioning

The Gladiator® Tri-Flow is a self-educing nozzle equipped with a 12-foot (3.66 m) long foam pickup tube fitted with a quick connect attachment. The Ring Jet Injection design incorporates eight equally spaced foam injection points surrounding the discharging water stream. This results in even distribution of the foam concentrate into the water stream to provide complete and homogenous foam mixing to maximize foam quality (expansion and 25% drain time), which is important for firefighting performance. Since foam liquid discharges into the water stream in a parallel fashion, there is minimal disruption of the resulting foam stream during injection. The result is a high quality foam stream with minimal fallout and optimum range.

Foam Expansion

The Gladiator® Tri-Flow Nozzle's exclusive SelectAir adjustable aspiration feature gives the operator the ability to adjust foam expansion to maximize nozzle performance. The unique Air Tunnel delivers air into the center of the foam stream for even distribution and good air entrainment. This enables more uniform foam expansion across the entire stream profile for optimum foam performance. The Air Tunnel delivers foam expansions of 6 to 1 or higher depending on the foam type and operating conditions. Firefighters now have the ability to balance nozzle range and foam expansion to suit the type of foam being used and the specific needs of the incident.

Technical Information

Inlet Pressure:

- Minimum:.....75 psi (5.2 bar)
- Nominal:100 psi (6.9 bar)
- Maximum:.....125 psi (8.6 bar)

Available Nozzle Flow Rates @ 100 psi (6.9 bar):

- 500 gpm (1893 lpm)
- 750 gpm (2839 lpm)
- 1000 gpm (3785 lpm)

VPV Foam Pickup Rates:

- ½% and 3%, or
- 1% and 3%

Inlet Connections:

- Water:.....2½" and 3½" NH Swivel
- Foam:.....1¼" (32 mm) FNPT w/ quick-connector

Foam Pickup Hose:1½" x 12' (38 mm x 3.66 m) long

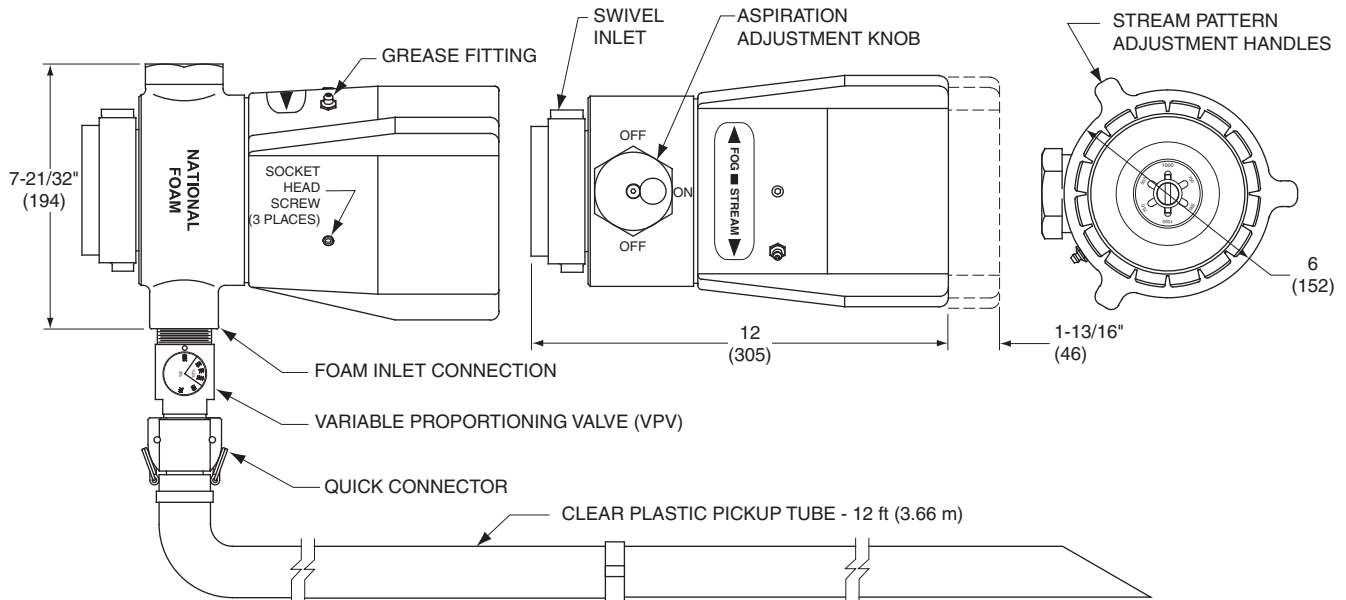
Materials of Construction:

- Body:Hardcoated Aluminum
 - Hardware/
 - Pattern Ring:Stainless Steel
 - Pattern Sleeve:Hardcoated Aluminum
 - Pickup Tube:Reinforced Clear PVC w/ Brass Dip Tube
- Weight:**23 lb (10.4 kg) w/ metering valve minus pickup hose

Performance Data

Tri-flow Setting	Nozzle Pressure psi (bar)	Flow Rate gpm (lpm)	Strait Stream Range ft (m)
500 gpm	75 (5.2)	433 (1639)	138 (42.1)
	100 (6.9)	500 (1893)	150 (45.7)
	125 (8.6)	559 (2116)	180 (54.9)
750 gpm	75 (5.2)	650 (2460)	164 (50)
	100 (6.9)	750 (2839)	180 (54.9)
	125 (8.6)	839 (3176)	207 (63.1)
1000 gpm	75 (5.2)	866 (3278)	180 (54.9)
	100 (6.9)	1000 (3785)	200 (61)
	125 (8.6)	1118 (4232)	225 (68.6)

The Gladiator® Tri-Flow Nozzle stream is fully adjustable from straight stream (for maximum throw) to fog pattern by rotation of the pattern adjustment sleeve.



Ordering Information

Description	Part Number
Gladiator® Tri-Flow, 2½" NH Swivel, ½ and 3% Metering Valve	1251-2532-0
Gladiator® Tri-Flow, 2½" NH Swivel, 1 and 3% Metering Valve	1251-2532-7
Gladiator® Tri-Flow, 3½" NH Swivel, ½ and 3% Metering Valve	1251-2532-1

This information is only a general guideline, and each installation may require modifications to meet the applications or requirements of that situation. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

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