



DATA SHEET
#NDD180

GLADIATOR®

HIGH CAPACITY 1500, 2000, & 3000 GPM FOAM/WATER NOZZLE

Description

The Gladiator® nozzle represents the latest advancement in foam firefighting nozzle technology and delivers the most effective fire attack flexibility and performance, utilizing a totally new design. The Gladiator is the first self-educating nozzle designed for foam or water with the ability to deliver optimum performance with any foam concentrate.

Prior to the introduction of the Gladiator, firefighters had to compromise between the poor foam quality of a water nozzle or the inferior stream range delivered by an aspirating foam nozzle. Now you can have maximum nozzle range combined with excellent foam quality all in a single package. The revolutionary design and unique foam producing characteristics make the Gladiator suitable for use with most types of foam concentrates including protein, fluoroprotein, AFFF, and AR-AFFF. The Gladiator's unique Ring Jet™ foam injection system and Air Tunnel™ design, combined with its discharge straightening vanes, provide consistent foam mixing resulting in excellent foam quality and stream performance. The Gladiator nozzle stream is fully adjustable from straight stream (for maximum throw) to fog pattern by rotation of the pattern adjustment ring.

The Gladiator is designed as a self-educating nozzle for direct pick-up or remote foam concentrate pick-up using jet pump(s). See Data Sheet NME020 for Jet Pump details.

Features

- Excellent stream range and quality
- SelectAir™ adjustable aspiration for optimum foam quality
- Self-educating proportioning - with or without remote jet pump
- Ring Jet™ injection for complete foam mixing
- Maximum nozzle performance with minimum stream fallout
- Compatible with all major types of foam concentrate
- Stream pattern fully adjustable
- Excellent water fog pattern suitable for vapor cloud mitigation
- Nozzle can be used without the pickup tube

Foam Proportioning

The Gladiator is a self-educating nozzle that can be used with a remotely located water-driven jet pump proportion-

er. This offers the advantage of proportioning the foam concentrate supply a safe distance away from the fire.

The new 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'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 air entrainment. This enables more uniform foam expansion across the entire stream profile for optimum foam performance. The Air Tunnel has been independently verified to produce 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.

Large fully involved tank fires create significant thermal updraft that can carry away aspirated foam streams before they reach the fuel surface. Used in the non-aspirating mode, the Gladiator can penetrate the thermal updraft allowing the foam to build on the fuel. Once a foam blanket has been established, the thermal updraft is broken and the Gladiator can be easily switched to aspirating mode to produce the best quality foam blanket. Switching over from non-aspirating to full aspirating mode can be done by simply adjusting the control handle while the nozzle is flowing. In aspirating mode, the Gladiator produces a thick more homogenous foam blanket necessary to resist heat and the elevated vapor pressure of superheated fuels, which can punch holes through an inferior foam blanket. The aspirating advantage becomes even more evident for vapor mitigation after the fire has been extinguished, during the long recovery period necessary to neutralize the incident completely.

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):

- 1500 gpm (5678 lpm)
- 2000 gpm (7570 lpm)
- 3000 gpm (11355 lpm)

Inlet Connections:

Water:.....6" 150# FF ANSI Flange
 Foam:.....Dual 2" (51 mm) FNPT

Materials of Construction:

Body:.....Hardcoated Aluminum
 Hardware/
 Pattern Ring:Stainless Steel
 Pattern Sleeve:.....Spiral Wound Fiberglass

Weight:65 lb (29.5 kg)

Performance Data

Model	Nozzle Pressure psi (bar)	Flow Rate gpm (lpm)	Strait Stream Range ft (m)
1500	75 (5.2)	1299 (4917)	176 (53.7)
	100 (6.9)	1500 (5678)	207 (63.1)
	125 (8.6)	1677 (6347)	227 (69.2)
2000	75 (5.2)	1732 (6556)	191 (58.2)
	100 (6.9)	2000 (7570)	230 (70.1)
	125 (8.6)	2236 (8464)	249 (75.8)
3000	75 (5.2)	2598 (9834)	249 (75.8)
	100 (6.9)	3000 (11355)	-
	125 (8.6)	3354 (12695)	-

Foam stream range figures are based on 25° to 30° nozzle elevation angle with still air conditions, mounted on a monitor 48" high.

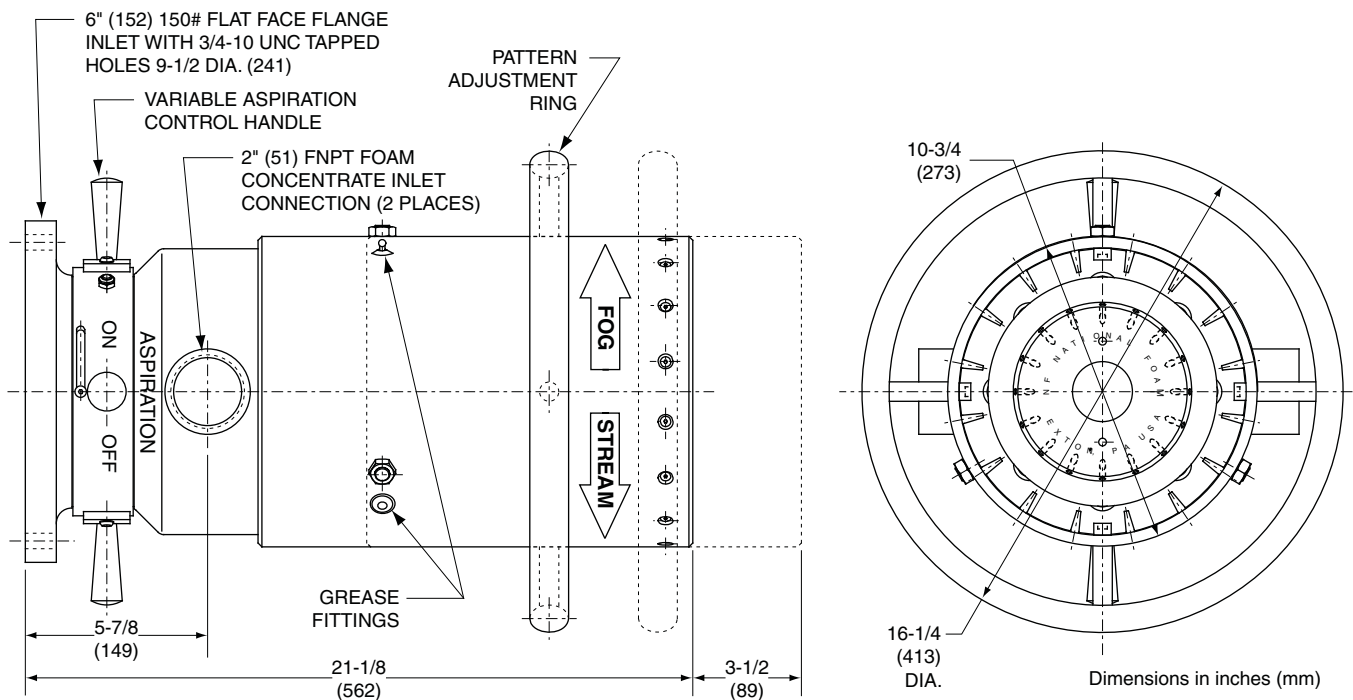
Ordering Information

Description

Part Number

1500 gpm @ 100 psi (5678 lpm @ 6.9 bar) 1251-2510-8
 2000 gpm @ 100 psi (7570 lpm @ 6.9 bar) 1251-2515-5
 3000 gpm @ 100 psi (11355 lpm @ 6.9 bar) 1251-2516-1

Note: Part numbers indicated reflect nozzles designed for use with jet pump kits. Consult factory for information on direct pickup models.



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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