

GLADIATOR®

MID-RANGE 500, 750, 1000 OR 1250 GPM FOAM/WATER NOZZLE

NDD170

- Self-Educting
- Adjustable Air Aspiration
- Adjustable Stream Pattern From Full to Fog



Description

The Gladiator nozzle represents the latest advancement in foam fire fighting nozzle technology and delivers the most effective fire attack flexibility and performance. The Gladiator is the first self educting nozzle designed for foam or water with the ability to deliver quality foam with any foam concentrate.

Prior to introduction of the Gladiator, firefighters had to compromise between poor foam quality of a water nozzle or the reduced stream range delivered by an excellent aspirating foam nozzle. Now you can have it all in a single package; nozzle range combined with excellent foam quality. The revolutionary design and unique foam producing characteristics make the Gladiator suitable for use with most types of foam concentrates; 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.

Features

- Excellent stream range and quality
- SelectAir™ adjustable aspiration for optimum foam quality
- Ring Jet injection for complete foam mixing
- Maximum nozzle performance with minimum foam stream fallout
- Compatible with all major types of foam concentrates

- Stream pattern fully adjustable
- Excellent water fog pattern suitable for vapor cloud mitigation
- Nozzle can be used without the pickup tube
- Also available as Tri-Flow Gladiator nozzle. See National Foam datasheet NDD175.

Foam Proportioning

The Gladiator is a self educting 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'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 Data

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)
- 1250 GPM (4730 lpm)

Available Foam Pickup Rates:

- ½%, 1%, 3% or 6% at 500 GPM (1893 lpm)
- ½%, 1% or 3% at 750 GPM (2839 lpm)
- ½%, 1% or 3% at 1000 GPM (3785 lpm)
- 1% or 3% at 1250 GPM (4730 lpm)

Water Inlet Connections:

- 2-1/2" NH Swivel
- 3-1/2" NH Swivel Optional on 1000 (3785 lpm) GPM and 1250 GPM (4730 lpm)

Foam Inlet Connection: 1-1/4" (32mm)

Cam-Lock

Foam Pickup Tube: 12 Ft. (3.66M) Long

- Weight: 23 lbs. (10.5 kg) - with Pickup Tube
- 18 lbs. (8.0 kg) - without Pickup Tube

Materials of Construction:

- Body Hardcoated Aluminum
- Hardware/Pattern Ring Stainless Steel
- Pattern Sleeve Hardcoated Aluminum
- Pickup Tube Reinforced Clear PVC with PVC DipTube

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GLADIATOR MID-RANGE HEIGHT AND REACH CHARTS

Gladiator 500 Reach													
Nozzle Pressure		Flow Rate		Reach 30°		Reach 45°		Reach 60°		Reach 75°		Reach 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	433	1639	138	42.1	124.2	38	109.0	33.3	69	21.0	26.9	8.2
100	6.9	500	1893	150	45.8	135	41	118.5	36.1	75	22.9	29.3	8.9
125	8.6	559	2116	180	54.9	162	49	142.2	43.4	90	27.5	35.1	10.7

Gladiator 500 Height													
Nozzle Pressure		Flow Rate		Height 30°		Height 45°		Height 60°		Height 75°		Height 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	433	1639	29	8.8	49.3	15.0	74.0	22.6	95.7	29.2	101.5	31.0
100	6.9	500	1893	31	9.5	52.7	16.1	79.1	24.1	102.3	31.2	108.5	33.1
125	8.6	559	2116	36	11.0	61.2	18.7	91.8	28.0	118.8	36.2	126.0	38.4

Gladiator 750 Reach													
Nozzle Pressure		Flow Rate		Reach 30°		Reach 45°		Reach 60°		Reach 75°		Reach 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	650	2460	164	50.0	147.6	45	129.6	39.5	82	25.0	32.0	9.8
100	6.9	750	2839	180	54.9	162	49	142.2	43.4	90	27.5	35.1	10.7
125	8.6	839	3176	207	63.1	186.3	57	163.5	49.9	103.5	31.6	40.4	12.3

Gladiator 750 Height													
Nozzle Pressure		Flow Rate		Height 30°		Height 45°		Height 60°		Height 75°		Height 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	650	2460	33	10.1	56.1	17.1	84.2	25.7	108.9	33.2	115.5	35.2
100	6.9	750	2839	38	11.6	64.6	19.7	96.9	29.6	125.4	38.2	133.0	40.6
125	8.6	839	3176	43	13.1	73.1	22.3	109.7	33.4	141.9	43.3	150.5	45.9

NOTE: Please note that these are calculated values, not tested data, therefore there may be a margin of error. Also keep in mind that weather conditions will affect these values.

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GLADIATOR MID-RANGE HEIGHT AND REACH CHARTS

Gladiator 1000 Reach													
Nozzle Pressure		Flow Rate		Reach 30°		Reach 45°		Reach 60°		Reach 75°		Reach 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	866	3278	180	54.9	162	49	142.2	43.4	90	27.5	35.1	10.7
100	6.9	1000	3785	200	61.0	180	55	158.0	48.2	100	30.5	39.0	11.9
125	8.6	1118	4232	225	68.6	202.5	62	177.8	54.2	112.5	34.3	43.9	13.4

Gladiator 1000 Height													
Nozzle Pressure		Flow Rate		Height 30°		Height 45°		Height 60°		Height 75°		Height 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	866	3278	37	11.3	62.9	19.2	94.4	28.8	122.1	37.2	129.5	39.5
100	6.9	1000	3785	41	12.5	69.7	21.3	104.6	31.9	135.3	41.3	143.5	43.8
125	8.6	1118	4232	45	13.7	76.5	23.3	114.8	35.0	148.5	45.3	157.5	48.0

Gladiator 1250 Reach													
Nozzle Pressure		Flow Rate		Reach 30°		Reach 45°		Reach 60°		Reach 75°		Reach 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	1083	4100	200	61.0	180	55	158	48.2	100	30.5	39.0	11.9
100	6.9	1250	4732	220	67.1	198	60	173.8	53.0	110	33.6	42.9	13.1
125	8.6	1398	5292	250	76.3	225	69	197.5	60.2	125	38.1	48.8	14.9

Gladiator 1250 Height													
Nozzle Pressure		Flow Rate		Height 30°		Height 45°		Height 60°		Height 75°		Height 85°	
psi	bar	gpm	lpm	feet	meters	feet	meters	feet	meters	feet	meters	feet	meters
75	5.2	1083	4100	38	11.6	64.6	19.7	96.9	29.6	125.4	38.2	133.0	40.6
100	6.9	1250	4732	44	13.4	74.8	22.8	112.2	34.2	145.2	44.3	154.0	47.0
125	8.6	1398	5292	46	14.0	78.2	23.9	117.3	35.8	151.8	46.3	161.0	49.1

NOTE: Please note that these are calculated values, not tested data, therefore there may be a margin of error. Also keep in mind that weather conditions will affect these values.

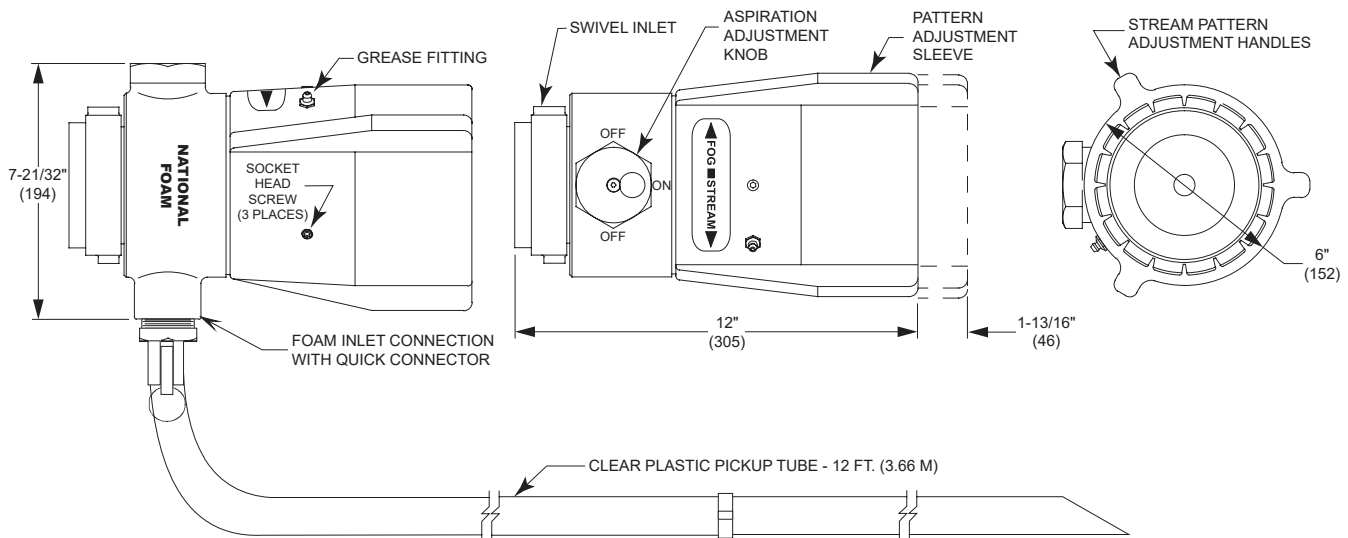
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Performance Data

The Gladiator nozzle stream is fully adjustable from straight stream for maximum throw to fog pattern by rotation of the pattern adjustment sleeve.



ORDERING INFORMATION

Part Number	Description
1251-2517-7	500 GPM, 1/2, 1, 3, 6% Metering Valve, 2 1/2" NH
1251-2517-6	500 GPM, 1/2% Pickup, 2 1/2" NH
1251-2517-5	500 GPM, 1% Pickup, 2 1/2" NH
1251-2517-0	500 GPM, 3% Pickup, 2 1/2" NH
1251-2517-1	500 GPM, 6% Pickup, 2 1/2" NH
1251-2505-1	500 GPM, Without Pickup, 2 1/2" NH
1251-2518-2	750 GPM, 1/2% Pickup, 2 1/2" NH
1251-2518-1	750 GPM, 1% Pickup, 2 1/2" NH
1251-2518-0	750 GPM, 3% Pickup, 2 1/2" NH
1251-2505-3	750 GPM, Without Pickup, 2 1/2" NH
1251-2526-1	1000 GPM, 1/2% Pickup, 2 1/2" NH

Part Number	Description
1251-2526-0	1000 GPM, 1% Pickup, 2 1/2" NH
1251-2519-0	1000 GPM, 3% Pickup, 2 1/2" NH
1251-2526-3	1000 GPM, 1/2% Pickup, 3 1/2" NH
1251-2526-2	1000 GPM, 1% Pickup, 3 1/2" NH
1251-2519-8	1000 GPM, 3% Pickup, 3 1/2" NH
1251-2505-5	1000 GPM, Without Pickup, 2 1/2" NH
1251-2505-6	1000 GPM, Without Pickup, 3 1/2" NH
1251-2534-1	1250 GPM, 3% Pickup, 2 1/2" NH
1251-2534-0	1250 GPM 3% Pickup, 3 1/2" NH
1251-2535-1	1250 GPM, Without Pickup, 2 1/2" NH
1251-2535-5	1250 GPM, Without Pickup, 3 1/2" NH