



NAFFCO
PASSION TO PROTECT

Fire Fighting Equipment



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AN INTRODUCTION TO NAFFCO

NAFFCO was founded in Dubai, UAE to become the world's leading producer and supplier of life safety solutions. By recognizing the importance and convenience of having easy access to multiple safety services, we became specialized by offering complete solutions under one roof for all types of high quality firefighting equipment, fire protection systems, fire alarms, addressable emergency systems, security systems, custom-made vehicles such as fire trucks, ambulances, mobile hospitals and airport rescue firefighting vehicles (ARFF).

With the most talented and dedicated employees from around the world, NAFFCO has over 2,000 passionate engineers and over 8.5 million square feet of manufacturing facilities. We are currently exporting to over 100 countries worldwide.

NAFFCO manufactures UL, FM, BSI & Global Mark approved products in our facility in consistent with International Standards UL-DQS, for the Quality Management System against ISO 9001. Our Environmental (ISO 14001) & Occupational Health & Safety (ISO 45001) Management Systems have been certified by UL-DQS. Our Trucks & Vehicles division has been assessed & certified for Quality Management System requirement for Aviation, Space & Defense organization (AS 9100) by UL-DQS.

Our success is driven by our passion to protect; our vision is to become the world's number one provider of innovative solutions in protecting life, environment and property.





MANUFACTURING

NAFFCO manufacturing department has the latest technology, state-of-the-art machines (CNC machines, hydraulic shearing and bending machines, all types of welding machines - MIG, TIG, ARC etc.), and a complete machine shop that enable us to meet the needs of any production requirement.

NAFFCO has the ability to introduce the latest technological systems & equipment in the field. Our engineers and technicians are well qualified & experienced in producing quality products.

The department is equipped with full-fledged testing facilities to test the equipment as per NFPA, EN, ICAO, KKK and Civil Defense standards & requirements, and to meet the customers specifications.

Considering the above facilities and excellence in engineering capabilities, NAFFCO can meet any challenges to produce bulk quantities of fire safety materials.



CO₂ PORTABLE FIRE EXTINGUISHERS



PRODUCT DESCRIPTION

NAFFCO CO₂ gas extinguishers are characterized by their high performance for fires including items at risk for electrical shorts like computer, office equipment and generators etc. CO₂ is non conductive, clean and safe, ensuring minimal damage to electrical equipment and furnishings. Suitable for Class B fire risks.



FEATURES

- Carbon Dioxide is the trusted non-conductive cleaning agent and is most effective for dealing with electronic equipment fires. CO₂ is suitable for use on Class B and Class C fires.
- TYPICAL USES:** For protecting sensitive electronic equipment in offices, classrooms, parking garages, and hotel/motel assembly halls and guest areas. For protecting sensitive electronic equipment in businesses such as retail stores, light manufacturing facilities, research facilities, auto dealerships, vehicle/ aircraft/marine service centers, and manufacturing processes such as painting, dipping, and coating.
- Not suitable for use on fires involving cooking oil and grease. Recommended for use on sensitive electronic equipment.

SPECIFICATION

Model Number	N 05L C	NC 5L	N 10L C	NC 10L	N 15L C	NC 15L	N 20L C	NC 20L
Agent Capacity	5 lb. (2.27 kg)		10 lb. (4.54 kg)		15 lb. (6.8 kg)		20 lb. (9.07 kg)	
UL Rating	5-B:C		10-B:C		10-B:C		10-B:C	
Discharge Time	9 sec.		9 sec.		15 sec.		20 sec.	
Range (FT/M)	4-8/1.2-2.4		4-8/1.2-2.4		4-8/1.2-2.4		4-8/1.2-2.4	
Bracket	Wall		Wall		Wall		Wall	
Ship Weight	13.75 lb. (6.3 kg)	13.36 lb. (6.7 kg)	27.75 lb. (12.6 kg)	26.72 lb. (12.14 kg)	37.75 lb. (17.1 kg)	35.64 lb. (16.2 kg)	49 lb. (22.2 kg)	47 lb. (22.2 kg)
Unit Height	17.375 in. (44.1 cm)	17.2 in. (43.7 cm)	19.75 in. (50.2 cm)	19.75 in. (50.2 cm)	26.375 in. (67 cm)	26.375 in. (67 cm)	26.875 in. (68.2 cm)	26.875 in. (68.2 cm)
Unit Width	8.25 in. (21 cm)	8.267 in. (21 cm)	12 in. (30.5 cm)	12 in. (30.5 cm)	12 in. (30.5 cm)	11.417 in. (29 cm)	13 in. (33 cm)	12.598 in. (32 cm)
Unit Diameter	5.25 in. (13.3 cm)	5.25 in. (13.3 cm)	6.89 in. (17.5 cm)	6.89 in. (17.5 cm)	6.89 in. (17.5 cm)	6.89 in. (17.5 cm)	8 in. (20.3 cm)	8 in. (20.3 cm)
Cylinder Material	Aluminum							

CO₂ PORTABLE FIRE EXTINGUISHERS



FEATURES

- Carbon dioxide is a gaseous agent, colorless, odorless / non-toxic and provides rapid knock down of industrial fire. It is capable of fighting Class B fire effectively.
- Kitemark/LPCB Certified to BS EN3.
- Cylinders compliance to council directive 2014/68/ EU (PED) and is certified by BSI (2797).
- Certified by BSI under marine equipment directive 2014/90/EU(MED).
- Seamless steel body.
- High quality polyester paint.
- Controlled discharge.
- Brass head valve with simple squeeze operations provided with pressure relieve disc.
- Rechargeable & easy to service.
- Non-conductive agent for electrical use without risk to operator.
- CO₂ gas disappears quickly leaving no residue.
- Swivel horn with no freeze burn, with greater directional control of CO₂ discharge through horn rotation feature.
- 2 kg is available with the 55B Fire rating as efficient as 5 kg unit.

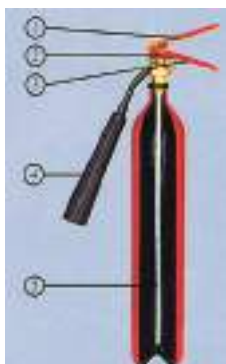
***IDEAL USE:** Chemical manufacturing plant, oil rigs, rail yards, warehouses, construction sites, parking garages, airport, boat and docks, and large laboratories.

SPECIFICATION

Model Number	NC2	NCS2	NCZ2	NC2A**	NC5	NC5X*	NC5A**	NCA5X*
Extinguisher Capacity	2 kg	2 kg	2 kg	2 kg	5 kg	5 kg	5 kg	5 kg
Propellant	Self Propelling							
Fire Rating	34B	34B	55B	55B	55B	70B	55B	70B
Working Pressure	55-60 bar @ 25°C							
Maximum Operating Pressure	174 bar @ 60°C							
Test Pressure	250 bar							
Total Weight	8.2 kg	8.3 kg	8.3 kg	4.9 kg	17.5 kg	17.5 kg	12.1 kg	12.1 kg
Range of Discharge	4-5 m	4-5 m	4-5 m	4-5 m	5-6 m	5-6 m	5-6 m	5-6 m
Duration of Discharge	8-9 sec.	8-9 sec.	10-12 sec.	10-12 sec.	10-12 sec.	12-13 sec.	10-12 sec.	12-13 sec.
Hose Length	N/A	N/A	N/A	N/A	750 mm	750 mm	750 mm	750 mm
Operating Temperature	-20°C to +60°C							
Cylinder Material	Carbon Steel	Carbon Steel	Carbon Steel	Aluminum	Carbon Steel	Carbon Steel	Aluminum	Aluminum
Height x Diameter (mm)	610x101.6	610x101.6	610x101.6	572x111	760x139.7	760x139.7	698x152	698x152

* LPCB Approval only

** Kitemark Approval only



1. Valve/Ext. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Discharge Horn
5. Syphon Tube



CO₂ MOBILE FIRE EXTINGUISHERS



PRODUCT DESCRIPTION

NAFFCO Mobile CO₂ fire extinguishers are characterized by their high performance and simple method of operation. They are suitable for fires involving flammable liquids, gases and electrical equipment. Effective for Class B, C & E. Suitable for Class B fire risks.

FEATURES

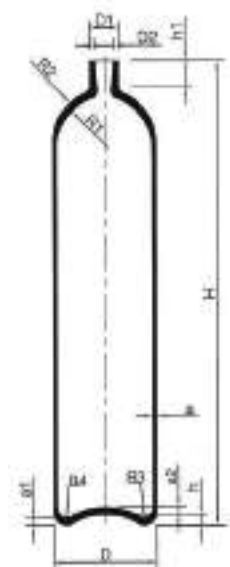
- The Fire Extinguishers are designed to comply with the specifications and requirements of BSEN 1866-1.
- Kitemark approved.
- High-grade brass head valve ensures reliability and Discharge outlet is controlled by High Pressure Ball Valve.
- Cylinder assembly compliance to council directive 2014/68/EU (PED) is certified by BSI(2797).
- Cylinders are compliance to council directive 2010/35/EU (TPED) is certified by TUV
- High gloss polyester powder painted UV stabilized after shot blasting ensures corrosion resistance under extreme conditions.
- Safety valve is fitted in each extinguisher for maximum safety.
- Discharge nozzle designed to produce a jet of extinguishing gas.



SPECIFICATION

Model Number	NTC 10X	NTC 30X
Extinguisher Capacity	10 kg	30 kg
Fire Rating	70B	113B
Working Pressure	55 - 60 bar @ 25°C	55 - 60 bar @ 25°C
Maximum Operating Pressure	174 bar @ 60°C	174 bar @ 60°C
Test Pressure	250 bar	250 bar
Total Height & Width	1,435 x 440 mm	1,095 x 675 mm
Total Weight	52 kg	125 kg
Range of Discharge	6-8 m	6-8 m
Duration of Discharge	19 - 21 sec.	42 - 45 sec.
Operating Temperature	-20°C to +60°C	-20°C to +60°C
Propellant	Self Propellant	Self Propellant
Hose Size & Length	Bore 3/8" x 5 m	Bore 3/8" x 5 m
Cylinder Material	Carbon Steel	Carbon Manganese Steel

CO₂ HIGH PRESSURE CYLINDERS



PRODUCT DESCRIPTION

NAFFCO'S CO₂ cylinders are manufactured for firefighting extinguishers. They are manufactured with carbon steel seamless pipes conforming to DIN 2448/1629 standards of grade ST 52.0. Made by automatic CNC forming machines to required sizes, the cylinders are designed and manufactured to comply with BS EN ISO 9809-1:2019 standards.

FEATURES

- The inlet thread size is made to meet BS EN3-9 standards using W 28.8 x 14 TPI tap
- Each cylinder is subjected to heat treatment to meet the design criteria for mechanical properties
- Each cylinder is shot blasted to SA 2-1/2 grade and painted in RED
- 2 kg and 5 kg capacity cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI.

DIMENSIONS OF CYLINDERS IN mm

Capacity	2 kg	3 kg	5 kg	6 kg	10 kg
D	101.60	139.70	139.70	139.70	139.70
D1	36.00	40.00	40.00	40.00	40.00
D2	TAP (W 28.8x14 TPI)*				
H	520	435	660	740	1155
h	9.5 min ^{+10.0} _{-0.0}	15 min ^{+10.0} _{-0.0}	15 min ^{+10.0} _{-0.0}	15 min ^{+10.0} _{-0.0}	15 min ^{+10.0} _{-0.0}
hi	32.00	34.00	34.00	34.00	34.00
a1	8 min	10.0 min	10.0 min	10.0 min	10.0 min
a2	8 min	10.0 min	10.0 min	10.0 min	10.0 min
a'	4.00	5.00	5.00	5.00	5.00
R1	50.8	79.85	79.85	79.85	79.85
R2	74	69.85	69.85	69.85	69.85
R3	7 min	8.5 min	8.5 min	8.5 min	8.5 min
R4	13.5 min	17 min	17 min	17 min	17 min

*NOTE: Reference Standard 2014/68/EU

MECHANICAL PROPERTIES MATERIAL DATA

Yield Strength	Re min.	450 N/mm ²
Tensile Strength	Rm min.	600 N/mm ²
Tensile Strength	Rm max.	700 N/mm ²
Elongation	A min.	14%
Test Pressure	Ph	250 bar

DRY POWDER FIRE EXTINGUISHERS



PRODUCT DESCRIPTION

NAFFCO stored pressure type dry powder extinguishers are characterized by their high performance, simple method of operation and rapid fire knock down capability. They are suitable for tackling fires involving freely burning materials, petrol, oil, gas and electrical equipment. They are ideal for vehicle & marine risks.

NAFFCO ABC powder extinguishers contain high performance powder and are one of the most powerful powder extinguishers in the world.



FEATURES

- ABC Dry Chemical is a multipurpose extinguishing agent that is suitable for use on Class A, Class B and Class C fires.
- Durable Extruded Brass Valve with Chrome Plated
- Deep-draw Cylinder with High Tensile Strength
- High Performance Dry Chemical Powder
- 100% Helium Leak Detected.
- Production Under ISO9001 Quality System

TYPICAL USES

- For public areas such as offices, classrooms, parking garages, and hotel/motel assembly halls and guest areas. For businesses such as retail stores, light manufacturing facilities, research facilities, auto dealerships, vehicle/ aircraft/marine service centers, and manufacturing processes such as painting, dipping, and coating.
- Not suitable for use on fires involving cooking oil and grease. Not recommended for use on sensitive electronic equipment or aircraft structure.

SPECIFICATION

Model Number	NP 2.5LW	NP 5.5LW	NP 10LW	NP 20LW
Agent Capacity	2.5 lb. (1.13 kg)	5.5 lb. (2.50 kg)	10 lb. (4.54 kg)	20 lb. (9.1 kg)
UL Rating	1-A:10-B:C	3-A:30-B:C	4-A:60-B:C	6-A:80-B:C
Discharge Time	11 sec.	15 sec.	22 sec.	32 sec.
Operating Pressure	195 psi (13.4 bar)			
Operating Temperature	-40°C ~ +49°C			
Cylinder Material	Steel Sheet			
Bracket	Vehicle & Wall Mounting			
Cylinder Diameter	86 mm	120 mm	150 mm	180 mm
Extinguisher Weight	4.90 lbs (2.23 kg)	9.80 lbs (4.45 kg)	17.20 lbs (7.80 kg)	32 lbs (14.52 kg)
Packing Size (W x H) (mm)	105 x 385	235 x 430	235 x 470	260 x 575

*Head valve available with "Brass and Aluminum" Specify at the time of order

ABC DRY POWDER PORTABLE FIRE EXTINGUISHERS



FEATURES

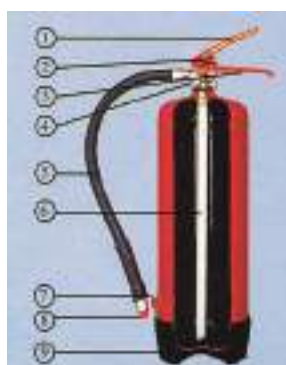
- Mono-ammonium phosphate based dry chemical agent. Capable of fighting Class A, B, C and E fires.
- Kitemark approved ABC 85% & ABC 40% MAP based dry chemical agent for Class A, B & C Fires
- Kitemark/LPCB certified to BS EN3.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797).
- Certified by BSI under marine equipment directive, 2014/90/EU (MED)
- High quality polyester paint.
- Controlled discharge.
- Brass nickel plated head valve with simple squeeze operation.
- Unique gauge testing system.
- Unique color coded handle and base (optional).
- Rechargeable and easy to service.
- Choice of capacity from 1 to 12 kg.

***IDEAL USE:** Houses, office, buildings, warehouses, farms, wood working area etc.

***NOTE:** Not recommended for use on expensive and delicate equipment like computers, etc.

SPECIFICATION

Model Number	NP1	NP2	NP3	NP4	NP6	NP9	NP12
Extinguisher Capacity	1 kg	2 kg	3 kg	4 kg	6 kg	9 kg	12 kg
Propellant	95% Nitrogen + 5% Helium						
Fire Rating	8A 34B	13A 70B	21A 89B	21A 113B	34A 183B	43A 233B	55A 233B
Working Pressure	14 bar	14 bar	14 bar	15 bar	15 bar	15 bar	15 bar
Maximum Operating Pressure	18.5 bar @ 60°C						
Test Pressure	30 bar						
Total Weight	2.0 kg	3.7 kg	5.8 kg	7.5 kg	10 kg	14 kg	17.8 kg
Range of Discharge	4-5 m	5-7 m	6-7 m	7-8 m	6-8 m	6-8 m	6-8 m
Duration of Discharge	7-9 sec.	10-12 sec.	11-12 sec.	13-15 sec.	18-20 sec.	22-24 sec.	28-30 sec.
Hose Length with Nozzle	N/A	N/A	395 mm	457 mm	534 mm	534 mm	617 mm
Operating Temperature	-20°C to +60°C						
Cylinder Material	CRCA Steel						
Height x Diameter (mm)	372 x 78	385 x 110	420 x 132	408 x 150	520 x 150	534 x 185	620 x 185



1. Valve/Extn. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Pressure Gauge
5. Discharge Hose
6. Syphon Tube
7. Hose Holder
8. Discharge Nozzle
9. PVC Base



BC DRY POWDER PORTABLE FIRE EXTINGUISHERS



FEATURES

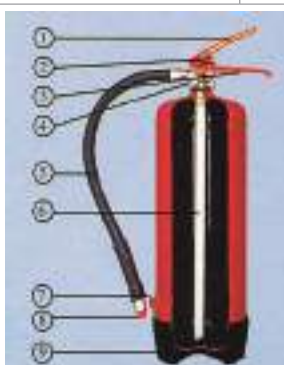
- Potassium Bicarbonate (PBC) based dry chemical agent. Capable of fighting Class B and C
- Kitemark approved Potassium Bicarbonate (PBC) to BSEN3.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797).
- Certified by BSI under marine equipment directive, 2014/90/EU (MED)
- High quality polyester paint.
- Controlled discharge.
- Brass nickel plated head valve with simple squeeze operation.
- Unique gauge testing system.
- Unique color coded handle and base (optional).
- Rechargeable and easy to service.
- Choice of capacity from 4 to 12 kg.

***IDEAL USE:** Houses, office, buildings, warehouses, farms, wood working area etc.

***NOTE:** Not recommended for use on expensive and delicate equipment like computers, etc.

SPECIFICATION

Model Number	NPS4	NPS6	NPS9	NPS12
Extinguisher Capacity	4 kg.	6 kg.	9 kg.	12 kg.
Propellant	95% Nitrogen + 5% Helium			
Fire Rating	113B	183B	233B	233B
Working Pressure	15 bar	15 bar	15 bar	15 bar
Maximum Operating Pressure	18.5 bar @ 60°C			
Test Pressure	30 bar			
Total Weight	7.5 kg.	10 kg.	14 kg.	17.8 kg.
Range of Discharge	7-8 m	6-8 m	6-8 m	6-8 m
Duration of Discharge	13-15 sec.	18-20 sec.	22-24 sec.	28-30 sec.
Hose Length with Nozzle	457 mm	534 mm	534 mm	617 mm
Operating Temperature	-20°C to +60°C			
Cylinder Material	CRCA Sheet			
Height x Diameter (mm)	408 x 150	520 x 150	534 x 185	620 x 185



1. Valve/Extn. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Pressure Gauge
5. Discharge Hose
6. Syphon Tube
7. Hose Holder
8. Discharge Nozzle
9. PVC Base



ABC DRY POWDER MOBILE FIRE EXTINGUISHER

PRODUCT DESCRIPTION

NAFFCO Mobile stored pressure ABC Dry powder extinguishers are characterized by their high performance and simple method of operation. The ABC Dry powder Mobile type extinguisher contains high performance powder and thus has achieved highest fire rating.

They are suitable for multipurpose application of fires involving free burning materials, flammable liquids, flammable gases and electrical equipment. Effective for Class A, B, C & Electrical fires.



FEATURES

- The fire extinguishers are designed to comply all the specification requirements of BS EN 1866-1.
- Kitemark & LPCB approved for different capacity extinguishers.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797)
- Highest fire rating due to high performance ABC powder.
- Ready for instant use and simple to operate.
- Fully controlled and easy operation by rust free brass valve.
- Cart and cylinder are made of rugged steel and welded to meet extreme use conditions.
- Easily transportable & Field rechargeable.
- Highly visible pressure-indicating gauge.
- Externally coated by Electrostatic powder painting after shot blasting ensures maximum corrosion resistance.
- Brass nickel plated head valve with simple lever operation.

SPECIFICATION

Model Number	NTP25	NTP50	NTP100
Extinguisher capacity	25 kg	50 kg	100 kg
Fire Rating	IIB & IIIB	IVB	IVB
Working Pressure	18 bar	18 bar	18 bar
Maximum Working Pressure	22 bar	22 bar	22 bar
Test Pressure	32 bar	32 bar	32 bar
Total Height & Width	1025 x 500 mm	1065 x 550 mm	1105 x 650 mm
Total Weight	Approx. 63 kg	Approx. 100 kg	Approx. 172 kg
Range of Discharge	7-9 m	7-9 m	8-9 m
Duration of Discharge	25-30 sec.	47-55 sec.	85-90 sec.
Operating Temperature	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
Propellant	Nitrogen	Nitrogen	Nitrogen
Hose size & Length	16 mm x 5 m	16 mm x 5 m	16 mm x 7 m
Cylinder Material	Hot rolled steel plate		

BC DRY POWDER MOBILE FIRE EXTINGUISHER

PRODUCT DESCRIPTION

NAFFCO Mobile stored pressure BC (Potassium Bicarbonate) Dry powder extinguishers are characterized by their high performance and simple method of operation. The BC Dry powder Mobile type extinguisher contains high performance powder and thus has achieved highest fire rating.

They are suitable for multipurpose application of fires involving, flammable liquids, flammable gases and electrical equipment. Effective for Class B, C & Electrical fires.



FEATURES

- The fire extinguishers are designed to comply all the specification requirements of BS EN 1866-1.
- Kitemark approved for different capacity extinguishers.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797)
- Highest fire rating due to high performance BC powder.
- Ready for instant use and simple to operate.
- Fully controlled and easy operation by rust free brass valve.
- Cart and cylinder are made of rugged steel and welded to meet extreme use conditions.
- Easily transportable & Field rechargeable.
- Highly visible pressure-indicating gauge.
- Externally coated by Electrostatic powder painting after shot blasting ensures maximum corrosion resistance.
- Brass nickel plated head valve with simple lever operation.

SPECIFICATION

Model Number	NTPS25	NTPS50	NTPS100
Extinguisher capacity	25 kg.	50 kg.	100 kg.
Fire Rating	IIB	IVB	IVB
Working Pressure	18 bar	18 bar	18 bar
Maximum Working Pressure	22 bar	22 bar	22 bar
Test Pressure	32 bar	32 bar	32 bar
Total Height & Width	1025 x 500 mm	1065 x 550 mm	1105 x 650 mm
Total Weight	Approx. 63 kg.	Approx. 100 kg.	Approx. 172 kg.
Range of Discharge	7-9 m	7-9 m	8-9 m
Duration of Discharge	25-30 sec.	47-55 sec.	85-90 sec.
Operating Temperature	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
Propellant	Nitrogen	Nitrogen	Nitrogen
Hose size & Length	16 mm x 5 m	16 mm x 5 m	16 mm x 7 m
Cylinder Material	Hot rolled steel plate		

WATER PORTABLE FIRE EXTINGUISHERS

PRODUCT DESCRIPTION

NAFFCO stored pressure and cartridge operated water extinguishers are characterised by their high performance, and simple method of operation ideal for tackling freely burning materials such as paper, cloth, wood and furniture. These are good general purpose fire extinguishers and widely used for their cost effectiveness.



FEATURES

- Water, a liquid agent only recommended for fighting Class A Fire.
- Kitemark/LPCB certified to BS EN3.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797).
- Certified by BSI under marine equipment directive, 2014/90/EU (MED)
- High quality external polyester paint.
- Thermoplastic internal coating to prevent corrosion.
- Spray nozzle to provide high fire rating.
- Controlled discharge.
- Brass nickel chrome plated head valve with simple squeeze operation.
- Unique gauge testing system.
- Unique color code handle and base (Optional).
- Rechargeable and easy to service.

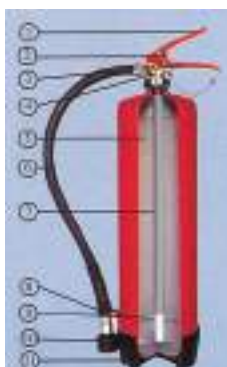
***IDEAL USE:** Schools, Theatres, Apartments, Offices and Dry Goods Store.

***NOTE:** Water based Extinguishers are not suitable for life involving electrical risk.

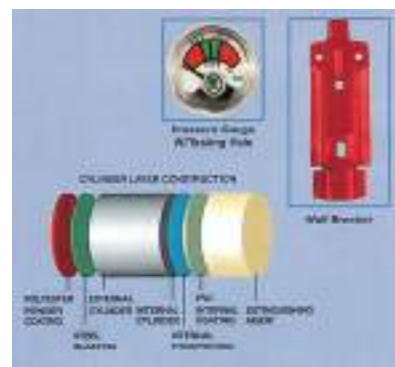
WATER FIRE EXTINGUISHER - STORED PRESSURE/EXTERNAL CARTRIDGE TYPE

Model Number	NW 6	NW 6X*	NWNI6	NW N6	NW 9	NW N9	NWNI 9	NWA 9*	NW 9X	NWC 6X*	NWC 9X*
Extinguisher Capacity	6 L	6 L	6 L	6 L	9 L	9 L	9 L	9 L	9 L	6 L	9 L
Propellant	95% Nitrogen + 5% Helium									CO ₂	
Fire Rating	13A	13A	13A	13A	21A	13A	13A	21A	21A	13A	21A
Working Pressure	14 bar										
Maximum Operating Pressure	18.5 bar @ 60°C										
Test Pressure	30 bar										
Total Weight	11.5 kg	11.5 kg	11.5 kg	11.5 kg	15.5 kg	15.5 kg	15.5 kg	14.5 kg	15.5 kg	12.5 kg	17 kg
Range of Discharge	6 m	6 m	6 m	6-7 m	6-7 m	7-8 m	7-8 m	7-8 m	7-8 m	6 m	7-8 m
Duration of Discharge	22-25 sec.	25-27 sec.	22-25 sec.	22-28 sec.	30-32 sec.	32-35 sec.	32-35 sec.	32-35 sec.	35-38 sec.	18-20 sec.	35-40 sec.
Hose Length with Nozzle	680 mm										
Operating Temperature	+5°C to +60°C										
Cylinder Material	CRCA Steel Sheet										
Height x Diameter (mm)	625 x 150	625 x 150	625 x 150	625 x 150	630 x 185	630 x 185	630 x 185	630 x 185	630 x 185	630 x 185	630 x 185

*LPCB Approval only, External Cartridge Operated.



1. Valve/Extn. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Pressure Gauge
5. PVC Internal Coating
6. Discharge Hose
7. Syphon Tube
8. Hose Holder
9. Filter
10. Discharge Nozzle
11. PVC Base



ECO BARID FOAM FIRE EXTINGUISHER



PRODUCT DESCRIPTION

NAFFCO stored pressure type Eco barid foam extinguisher are multipurpose, ideal for fires involving volatile liquids and freely burning material such as paper, cloth, wood, furniture and cooking oil or fat fires.

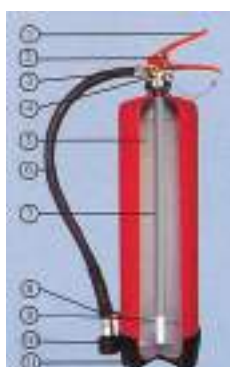


FEATURES

- LPCB certified to BS EN 3
- Eco barid foam agent is capable of fighting class A, B & F fires
- Thermoplastic internal coating to prevent corrosion
- High quality external polyester powder coating
- Brass nickel chrome plated head value with squeeze operation
- Controlled discharged

FOAM FIRE EXTINGUISHER - STORED PRESSURE

Model Number	NF 2EB	NF 3EB	NF 6EB	NF 9EB
Cylinder Capacity	2 Liter	3 Liter	6 Liter	9 Liter
Propellant	95% Nitrogen + 5% Helium			
Fire Rating	8A 89B 5F	8A 113B 25F	21A 183B 40F	27A 183B 40F
Working Pressure	14 bar	14 bar	14 bar	14 bar
Maximum Operating Pressure	18.5 bar @ 60°C			
Test Pressure	30 bar	30 bar	30 bar	30 bar
Total Weight (excluding Hose Assembly)	4.71 kg.	6.36 kg.	11.5 kg.	16.5 kg.
Discharge Range	1 - 2 m	1 - 2 m	6 m	7 - 8 m
Discharge Time	8 - 10 sec.	12 - 15 sec.	22 - 25 sec.	30 - 34 sec.
Total Weight (excluding Hose Assembly)	4.71 kg.	6.36 kg.	11.5 kg.	16.5 kg.
Hose length with nozzle	n/a	n/a	680 mm	680 mm
Working Temperature	+5°C to +60°C	+5°C to +60°C	+5°C to +60°C	+5°C to +60°C
Cylinder Material	Cold Rolled Steel Sheet			
Outside Diameter	110±2 mm	134±2 mm	150±2 mm	185±2 mm
Overall Height of the Extinguisher	±5.0 420 mm	±5.0 425 mm	±5.0 625 mm	±5.0 625 mm



1. Valve/Extn. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Pressure Gauge
5. PVC Internal Coating
6. Discharge Hose
7. Syphon Tube
8. Hose Holder
9. Filter
10. Discharge Nozzle
11. PVC Base



FOAM PORTABLE FIRE EXTINGUISHERS

PRODUCT DESCRIPTION

NAFFCO stored pressure and cartridge operated foam extinguishers are multipurpose, ideal for fires involving volatile liquids and freely burning materials such as paper, cloth, wood and furniture. Suitable for Class A and Class B fire risks.



FEATURES

- AFFF (6%) Synthetic Aqueous Film - Forming Foam Agent capable of fighting Class A, B fires.
- Kitemark/LPCB certified to BS EN3.
- Cylinders compliance to council directive 2014/68 EU (PED) is certified by BSI (2797).
- Certified by BSI under marine equipment directive, 2014/90/EU (MED)
- High quality external polyester paint.
- Thermoplastic internal coating to prevent corrosion.
- Spray nozzle to provide high fire rating.
- Controlled discharge.
- Brass nickel chrome plated head valve with simple squeeze operation.
- Unique gauge testing system.
- Unique color code handle and base (Optional).
- Rechargeable and easy to service.

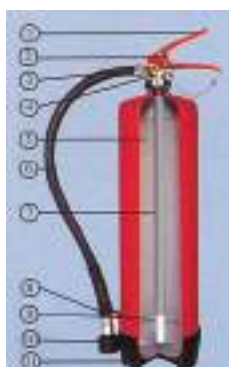
***IDEAL USE:** Schools, Theatres, Apartments, Offices and Dry Goods Store.

***NOTE:** Water based Extinguishers are not suitable for life involving electrical risk.

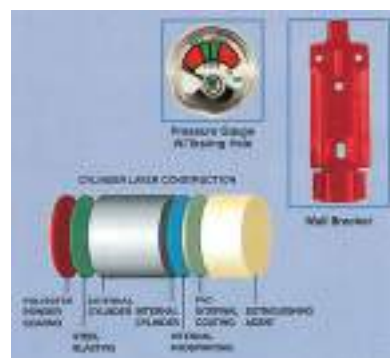
FOAM FIRE EXTINGUISHER - STORED PRESSURE/EXTERNAL CARTRIDGE TYPE

Model Number	NF 3*	NF 3X*	NF 6	NFI 6	NF 6X	NF 9	NFI 9	NFA 9*	NF 9X*	NFC 6X*	NFC 9X*
Extinguisher Capacity	3 L	3 L	6 L	6 L	6 L	9 L	9 L	9 L	9 L	6 L	9 L
Propellant	95% Nitrogen + 5% Helium									CO ₂	
Fire Rating	8A 70B	8A 70B	21A 144B	21A 144B	27A 144B	21A 183B	21A 183B	21A 183B	27A 233B	27A 144B	34A 233B
Working Pressure	14 bar										
Maximum Operating Pressure	18.5 bar @ 60°C										
Test Pressure	30 bar										
Total Weight	11.5 kg	11.5 kg	11.5 kg	11.5 kg	15.5 kg	15.5 kg	15.5 kg	14.5 kg	15.5 kg	12.5 kg	17 kg
Range of Discharge	6 m	6 m	6 m	6-7 m	6-7 m	7-8 m	7-8 m	7-8 m	7-8 m	6 m	7-8 m
Duration of Discharge	22-25 sec.	25-27 sec.	22-25 sec.	22-28 sec.	30-32 sec.	32-35 sec.	32-35 sec.	32-35 sec.	35-38 sec.	18-20 sec.	35-40 sec.
Hose Length with Nozzle	N/A	N/A	680 mm	680 mm	680 mm	680 mm	680 mm	680 mm	610 mm	680 mm	680 mm
Operating Temperature	+5°C to +60°C										
Cylinder Material	CRCA Steel Sheet										
Height x Diameter (mm)	420 x 132	420 x 132	610 x 150	610 x 150	610 x 150	630 x 185	630 x 185	630 x 185	630 x 185	630 x 185	630 x 185

*LPCB Approval only, External Cartridge Operated.



1. Valve/Ext. Lever
2. Safety Pin with Chain
3. Valve Handle
4. Pressure Gauge
5. PVC Internal Coating
6. Discharge Hose
7. Syphon Tube
8. Hose Holder
9. Filter
10. Discharge Nozzle
11. PVC Base



FOAM MOBILE FIRE EXTINGUISHERS

PRODUCT DESCRIPTION

NAFFCO Mobile external cartridge operated foam fire extinguishers are characterized by their high performance and simple method operation. The extinguisher contains high performance extinguishing agent 6% AFFF foam and thus has achieved the highest fire rating. NAFFCO Mobile Foam extinguishers are most suitable for fires involving flammable liquids and freely burning materials such as paper, cloth and wood. Effective for Class A & Class B fires.



CERTIFICATE NO-463
(Ref redbooklive.com)



FEATURES

- The fire extinguishers are designed to comply with all the specification requirements of BS EN 1866-1.
- Kitemark and LPCB approved for different capacity extinguishers.
- Cylinders compliance to council directive 2014/68/EU(PED). Certified by BSI (2797)
- Agent used is AFFF (6%) Synthetic Aqueous film forming foam for effective fire extinguishment.
- Incorporated with high pressure CE approved CO₂ cylinder as propelling agent.
- Ready for instant use and simple to operate.
- Cart and cylinder are made of rugged steel and welded to meet extreme use conditions.
- Easily transportable.
- Externally coated by Electrostatic powder painting after shot blasting ensures maximum corrosion resistance.
- Internally coated by electrostatic block powder using resin for corrosion resistance.
- Large Brass, nickel chrome plated cap for ease during refilling the agent.
- Cylinder assemblies are designed for easy maintenance by mounting it separately on steel frame and thus can be separated by just removing the steel clamps.

SPECIFICATION

Model Number	NTFC 50X	NTFC 100X	NTFC 135X
Extinguisher capacity	50 L	100 L	135 L
Fire Rating	IVB	IVB	IVB
Propellant	CO ₂	CO ₂	CO ₂
Working Pressure	14 bar	14 bar	14 bar
Test Pressure	32 bar	32 bar	32 bar
Maximum Working Pressure	18.5 bar	18.5 bar	18.5 bar
Total Weight	112.5 kg	189 kg	232 kg
Range of Discharge	6-8 m	8-10 m	8-10 m
Duration of Discharge	55-65 sec.	110-120 sec.	160-170 sec.
Hose Length	16 mm x 5 m	16 mm x 7 m	16 mm x 7 m
Operating Temperature	+5°C to +60°C	+5°C to +60°C	+5°C to +60°C
Cylinder Material	Hot Rolled steel plate		
Extinguisher Height & Width (mm)	1065 x 550	1100 x 625	1005 x 700

CLEAN AGENT FIRE EXTINGUISHERS



PRODUCT DESCRIPTION

NAFFCO UL Listed Clean Agent fire extinguishers (HALOTRON) is a clean, non-conductive gaseous agent that is an excellent replacement for Halon 1211 extinguishers. Clean Agent is suitable for use on Class A, Class B, and Class C fires.



FEATURES

- Residue-free Hydro-chlorofluorocarbon gas agent pressurized with argon.
- Typically used for protecting sensitive electronic equipment in offices, classrooms, churches, parking garages and hotel/motel assembly halls and guest areas.
- Also used for protecting sensitive electronic equipment in businesses such as retail stores, light manufacturing facilities, research facilities, auto dealerships, vehicle/ aircraft/marine service centers, and manufacturing processes such as painting, dipping, and coating.
- Not suitable for use on fires involving cooking oil and grease. Recommended for use on sensitive electronic equipment.
- Clean Agent Extinguishers are USCG Approved (Marine Application)

SPECIFICATION

Model Number	N 05L FSA*/ N 05L FSB**	N 05L HSA***	N 11L SA*/ N 11L SB**	N 15L SA*/ N 15L SB**
Agent Capacity	5 lb. (2.27 kg)	5.5 lb. (2.49 kg)	11 lb. (5 kg)	15.5 lb. (7.03 kg)
UL Rating	5-B:C	5-B:C	1-A:10-B:C	2-A:10-B:C
Discharge Time	9 sec.	9 sec.	9 sec.	13 sec.
Range (FT/M)	9-15/2.7-4.5	9-15/2.7-4.5	9-15/2.7-4.5	12-18/3.7-5.5
Operating Pressure	100 psi (689 kPa)	100 psi (689 kPa)	100 psi (689 kPa)	125 psi (862 kPa)
Operating Temperature Range	-40°F to +120° F	-40°F to +120° F	-40°F to +120° F	-40°F to +120° F
Bracket	Wall	Wall	Wall	Wall
USCG Approval (Marine Application)	Type B:C size I	Type B:C size I	Type B:C size I	Type B:C size II
Ship Weight	9.25 lb. (4.2 kg)	10.0 lb. (4.5 kg)	21.25 lb. (9.6 kg)	25.75 lb. (11.75 kg)
Unit Height	16.375 in (41.6 cm)	16.375 in (41.6 cm)	17.5 in (44.5 cm)	17.5 in (44.5 cm)
Unit Width	6.5 in (16.5 cm)	6.5 in (16.5 cm)	8.625 in (21.9 cm)	8.625 in (21.9 cm)
Unit Diameter	4.25 in (10.8 cm)	4.25 in (10.8 cm)	7 in (17.8 cm)	7 in (17.8 cm)

* Aluminum Head valve

** Brass Head valve

*** Aluminum head valve with discharge hose

CLEAN AGENT FIRE EXTINGUISHERS

PRODUCT DESCRIPTION

NAFFCO clean agent extinguishers have an effective extinguishing action, environmentally acceptable and excellent alternative for Halon 1211. Clean Agent (HFC-236fa) is a non- corrosive, electrically non-conductive and free of residue. It is ideally suited for protecting high value equipment.



FEATURES

- LPCB Approved for different capacity of extinguishers.
- Cylinders compliance to council directive 2014/68/EU(PED). Certified by BSI (2797)
- Safe for People: It is indented for use as a streaming agent providing a gas concentration sufficient to extinguish a fire.
It is safe for use in occupied spaces.
- Safe for Assets: It is electrically non conductive, non corrosive, and free of residue. As a gaseous agent, it targets the flame and extinguishes the fire. Operations can resume quickly, particularly if early detection methods are in use.
- Safe for the Environment: It does not contain chlorine or bromine, and has zero ozone depletion potential like many fluoride based gases, HFC-236fa has some global warming potential.
- Clean Agent Hexafluoropropane Gas based Extinguishing Agent capable of fighting class A, B, C and Electrical fires effectively.
- Low in toxicity.
- Standard compliance BSEN3.
- High Performance Extinguishing Agent.
- High Quality external Polyester Paint to avoid corrosion
- Brass Nickel plated head valve with simple squeeze operation.
- Rechargeable & easy to service.

SPECIFICATION

Model Number	NHFC-4	NHFC-6	NHFC-9	NHFC-12
Extinguisher Capacity	4 kg	6 kg	9 kg	12 kg
Propellant	95% Nitrogen + 5% Helium			
Fire Rating	34B	5A 55B	8A 70B	13A 70B
Working Pressure	15 bar	15 bar	15 bar	15 bar
Maximum Operating Pressure	21 bar @ 60°C			
Test Pressure	30 bar			
Total Weight	7.3 kg	10.3 kg	13.8 kg	17.9 kg
Range of Discharge	4 - 5 m	4 - 5 m	4 - 5 m	4 - 5 m
Duration of Discharge	14 - 16 sec.	20 - 22 sec.	23 - 26 sec.	38 - 40 sec.
Operating Temperature	-20°C to 60° C			
Cylinder Material	CRCA Steel Sheet			
Hose Length with Nozzle	535 mm	625 mm	595 mm	690 mm
Height x Diameter (mm)	425 x 150	527 x 150	530 x 184	620 x 184

WET CHEMICAL FIRE EXTINGUISHERS

PRODUCT DESCRIPTION

NAFFCO stored pressure type wet chemical extinguishers are used for cooking oil or fat fires where the spray can create a flame almost immediately. Extinguishment happens while the wet chemical agent reacts with oil to form a soap like film to seal the surface of the oil and cool it down to prevent re-ignition. Suitable for Class A and F fire risks.



FEATURES

- Wet Chemical, a liquid agent only recommended for fighting Class F & A Fire.
- Kitemark/LPCB certified to BS EN3.
- Cylinders compliance to council directive 2014/68/EU (PED) is certified by BSI (2797).
- Certified by BSI under marine equipment directive 2014/90/EU (MED)
- High quality polyester paint.
- Internally coated by thermoplastic coating powders blend of polyolefin to prevent corrosion.
- Fire mist spray to prevent grease splashing.
- Brass nickel chrome plated head valve with simple squeeze operation.
- Unique gage testing system.
- Unique color code handle and base (optional).
- Rechargeable and easy to service.
- Passed 35K electrical conductivity test.



***IDEAL USE:** Commercial kitchens in connection with NAFFCO Pre-engineered Hood Systems.
***CAUTION:** Don't use on electrical fire.

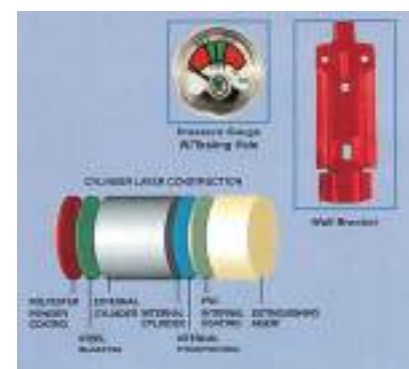
SPECIFICATION

Model Number	NKE 2*	NKE 3X/NKE 3	NKE 6
Extinguisher Capacity	2 L	3 L	6 L
Propellant	95% Nitrogen + 5% Helium		
Fire Rating	5F	8A 25F	13A 75F
Working Pressure	10 bar	10 bar	10 bar
Maximum Operating Pressure	11.5 bar @ 60°C	11.5 bar @ 60°C	11.5 bar @ 60°C
Test Pressure	30 bar	30 bar	30 bar
Total Weight	4.4 kg	7.2 kg	12.5 kg
Range of Discharge	1m	1m	1m
Duration of Discharge	40-45 sec.	30-35 sec.	50-55 sec.
Hose Length with Nozzle	N/A	710 mm	810 mm
Operating Temperature	+5°C to +60°C	+5°C to +60°C	+5°C to +60°C
Height x Diameter (mm)	420 x 110	420 x 132	505 x 185
Cylinder Material	CRCA Sheet		

*LPCB Approval only



1. Valve/Extn. Lever
2. Discharge Hose
3. Safely Pin with Chain
4. Valve Handle
5. Pressure Gauge
6. Hose Holder
7. Syphon Tube
8. PVC Internal Coating
9. Filter
10. Discharge Nozzle
11. PVC Base



SEMI-RIGID REEL HOSE

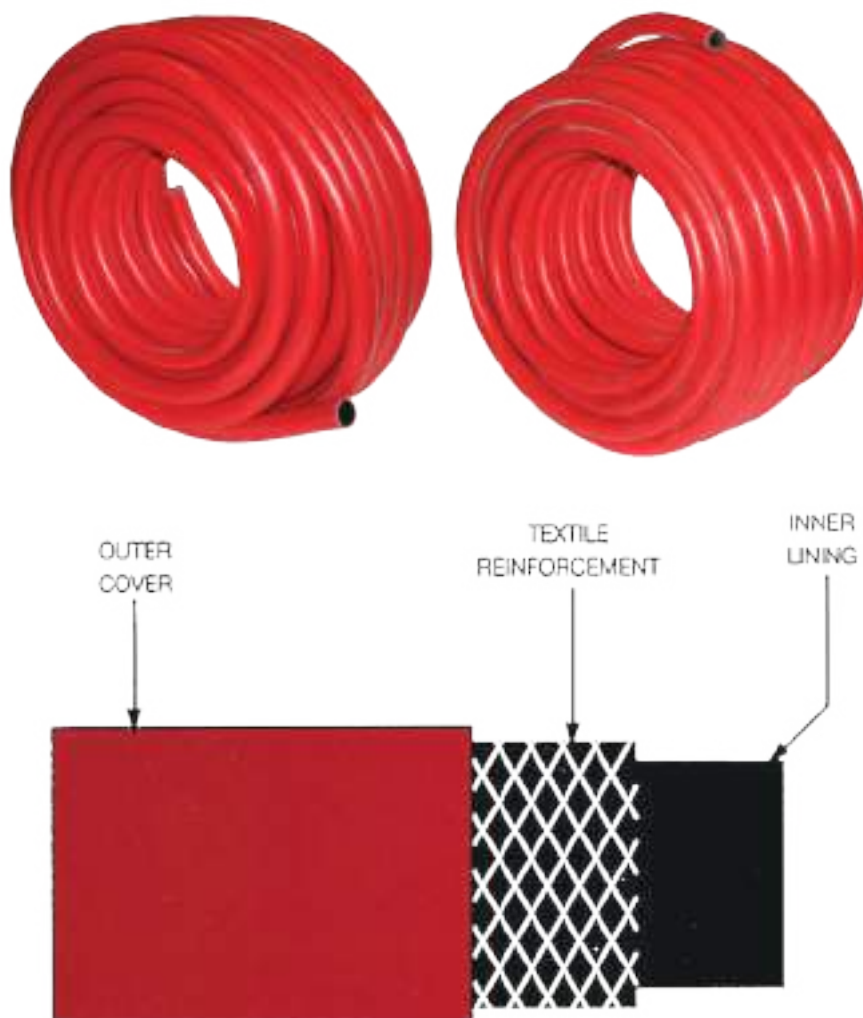


PRODUCT DESCRIPTION

NAFFCO semi-rigid reel hoses are suitable for use in fixed firefighting system. The hoses are available in sizes of 19 mm and 25 mm inside diameter. The hoses are flexible so that it can be rolled and kept on a drum. The hose are intended for use at a maximum working pressure of 12 bar (1.2 MPa) and temperature range of -20°C to +60°C at ambient temperature condition in non-aggressive or non-corrosive atmosphere. The semi-rigid reel hoses are manufactured to comply with BSEN 694:2014 standards.

FEATURES

- Materials for inner lining and cover of hose are plasticized PVC compound
- High tensile textile polyester yarn is used for reinforcement of hose.



SPECIFICATION

Specification		
Hose Classification	Type A, Class 2	
Color of Hose	Red	
Bore	19 mm	25 mm
Length of Hose	30 m	
Hydrostatic Properties		
Maximum Working Pressure	12 bar	
Proof Pressure	24 bar	
Burst Pressure	42 bar	

FIRE HOSE REEL WITH SEMI-RIGID HOSE

PRODUCT DESCRIPTION

NAFFCO fire hose reels provide a very effective firefighting facility with a continuous supply of water available immediately. The construction and performance of a fire hose reel with semi-rigid hose ensures suitable installation in buildings and other construction works for use by the occupants. The fire hose reels are manufactured in both manual and automatic versions to comply to BS EN 671-1:2012 standard with semi-rigid hose complying with BSEN 694:2014 standards.

FEATURES

- BSI Kitemark and LPCB certified.
- Hose Reel Assembly compliance to CPR Directive 305/2011/EU is certified by BSI (0086)
- The fire hose reels are capable of rotating in one plane (fixed type) or rotating in more than one plane with mounting on one of the following: swinging arm, swinging pipe or swinging door in manual and automatic version.
- The automatic fire hose reels will open fully within 3 revolution of the reel.
- The nozzle have SHUT, JET and SPRAY control settings.
- The minimum flow rate of hose reels in JET and SPRAY setting is 41 l/min. at 0.6 MPa (6 bar) pressure and setting in chrome plated rotary nozzle is 53 LPM at 0.6 MPa (6 bar) pressure.
- The effective throw range of discharge at 0.2 MPa (2 bar) pressure is 10 meters in JET setting.
- The reel discs are painted RED with printed user instructions

OPERATING INSTRUCTIONS

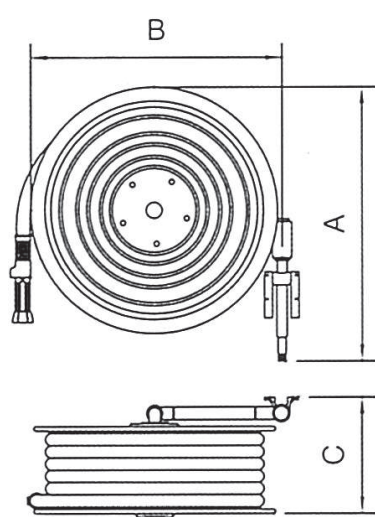
AUTOMATIC HOSE REELS

- Pull out the hose and then water flow will start within 3 rotations.
- Open nozzle, adjust to spray or jet as required.
- Aim nozzle at base of fire.
- After use, close the nozzle and rewind the hose, ensuring that it is properly wound around the hose reel (not overlapping side plates). Open the nozzle to drain water from the hose and then close the nozzle on completion.

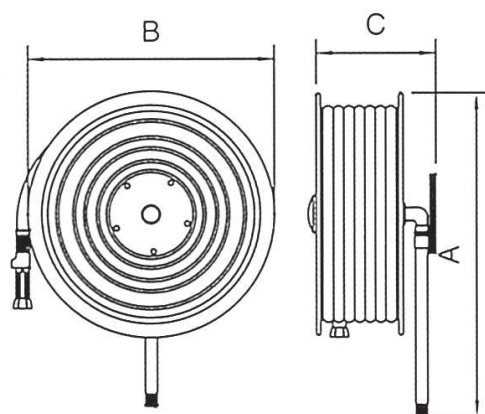
MANUAL HOSE REELS

- Open the main valve fully.
- Pull out the hose.
- Open nozzle, adjust to spray or jet as required.
- Aim nozzle at base of fire.
- After use, close the nozzle, turn off the main valve, rewind the hose, ensuring that it is properly wound around the hose reel (not overlapping the side plates). Open the nozzle to drain water from the hose and then close the nozzle on completion.

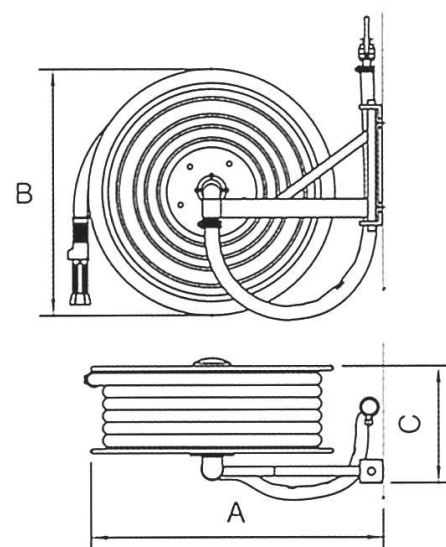




SWINGING PIPE TYPE



FIXED TYPE



SWINGING ARM TYPE

FIRE HOSE REEL ASSEMBLY

Type	Model No.	Hose Diameter & Length	Reel Height (A in mm)	Reel Width (B in mm)	Reel Depth (C in mm)
Swinging Arm (Plastic Nozzle)	19 NFH-020M/SS	19 mm (¾") & 30 m	605	550	220
Cabinet Mounted Manual (Brush/Mirror Finish)	25 NFH-020M/SS	25 mm (1") & 30 m	605	550	245
Swinging Arm (Brass chrome plated rotary Nozzle)	19 NFH-020M/SS-B	19 mm (¾") & 30 m	605	550	220
Cabinet Mounted Manual (Brush/Mirror Finish)	25 NFH-020M/SS-B	25 mm (1") & 30 m	605	550	245
Swinging Arm (Plastic Nozzle)	19 NFH-020M	19 mm (¾") & 30 m	620	580	200
Cabinet Mounted Manual (Red Painted)	25 NFH-020M	25 mm (1") & 30 m	625	580	245
	25 NKFH-020M	25 mm (1") & 30 m	680	620	210
Swinging Arm (Brass Chrome Plated Rotary Nozzle)	19 NFH-020M-B	19 mm (¾") & 30 m	620	580	200
Cabinet Mounted Manual (Red Painted)	25 NFH-020M-B	25 mm (1") & 30 m	625	580	245
	25 NKFH-020M-B	25 mm (1") & 30 m	680	620	210
Swinging Arm (Plastic Nozzle)	19 NFH-020A/SS	19 mm (¾") & 30 m	605	550	220
Cabinet Mounted Automatic (Brush/Mirror Finish)	25 NFH-020A/SS	25 mm (1") & 30 m	605	550	265
Swinging Arm (Brass Chrome Plated Rotary Nozzle)	19 NFH-020A/SS-B	19 mm (¾") & 30 m	605	550	220
Cabinet Mounted Automatic (Brush/Mirror Finish)	25 NFH-020A/SS-B	25 mm (1") & 30 m	605	550	265
Swinging Arm (Plastic Nozzle)	19 NFH-020A	19 mm (¾") & 30 m	620	580	200
Cabinet Mounted Automatic (Red Painted)	25 NFH-020A	25 mm (1") & 30 m	625	580	245
	25 NKFH-020A	25 mm (1") & 30 m	680	620	210

Type	Model No.	Hose Diameter & Length	Reel Height (A in mm)	Reel Width (B in mm)	Reel Depth (C in mm)
Swinging Arm (Brass Chrome Plated Rotary Nozzle) Cabinet Mounted Automatic (Red Painted)	19 NFH-020A-B	19 mm (¾") & 30 m	620	580	190
	25 NFH-020A-B	25 mm (1") & 30 m	625	580	230
	25 NKFH-020A-B	25 mm (1") & 30 m	680	620	210
Swinging Pipe (Plastic Nozzle) Wall Mounted Manual (Brush/Mirror Finish)	19 NFH-030M/SS	19 mm (¾") & 30 m	580	550	220
	25 NFH-030M/SS	25 mm (1") & 30 m	580	550	265
Swinging Pipe (Brass Chrome Plated Rotary Nozzle) Wall Mounted Manual (Brush/Mirror Finish)	19 NFH-030M/SS-B	19 mm (¾") & 30 m	580	550	220
	25 NFH-030M/SS-B	25 mm (1") & 30 m	580	550	265
Swinging Pipe (Plastic Nozzle) Wall Mounted Manual (Red Painted)	19 NFH-030M	19 mm (¾") & 30 m	595	580	200
	25 NFH-030M	25 mm (1") & 30 m	595	580	240
Swinging Pipe (Brass Chrome Plated Rotary Nozzle) Wall Mounted Manual (Red Painted)	19 NFH-030M-B	19 mm (¾") & 30 m	595	580	200
	25 NFH-030M-B	25 mm (1") & 30 m	595	580	240
Swinging Pipe (Plastic Nozzle) Wall Mounted Automatic (Brush/Mirror Finish)	19 NFH-030A/SS	19 mm (¾") & 30 m	580	550	220
	25 NFH-030A/SS	25 mm (1") & 30 m	580	550	265
Swinging Pipe (Brass Chrome Plated Rotary Nozzle) Wall Mounted Automatic (Brush/Mirror Finish)	19 NFH-030A/SS-B	19 mm (¾") & 30 m	580	550	220
	25 NFH-030A/SS-B	25 mm (1") & 30 m	580	550	265
Swinging Pipe (Plastic Nozzle) Wall Mounted Automatic (Red Painted)	19 NFH-030A	19 mm (¾") & 30 m	595	580	200
	25 NFH-030A	25 mm (1") & 30 m	595	580	240
Swinging Pipe (Brass Chrome Plated Rotary Nozzle) Wall Mounted Automatic (Red Painted)	19 NFH-030A-B	19 mm (¾") & 30 m	595	580	200
	25 NFH-030A-B	25 mm (1") & 30 m	595	580	240
Manual (Plastic Nozzle) Fixed (Brush/Mirror Finish)	19 NFH-040M/SS	19 mm (¾") & 30 m	620	550	230
	25 NFH-040M/SS	25 mm (1") & 30 m	620	550	275
Manual (Brass Chrome Plated Rotary Nozzle) Fixed (Brush/Mirror Finish)	19 NFH-040M/SS-B	19 mm (¾") & 30 m	620	550	230
	25 NFH-040M/SS-B	25 mm (1") & 30m	620	550	275
Manual (Plastic Nozzle) Fixed (Red Painted)	19 NFH-040M	19 mm (¾") & 30 m	635	580	210
	25 NFH-040M	25 mm (1") & 30 m	635	580	255
Manual (Brass Chrome Plated Rotary Nozzle) Fixed (Red Painted)	19 NFH-040M-B	19 mm (¾") & 30m	635	580	210
	25 NFH-040M-B	25 mm (1") & 30 m	635	580	255

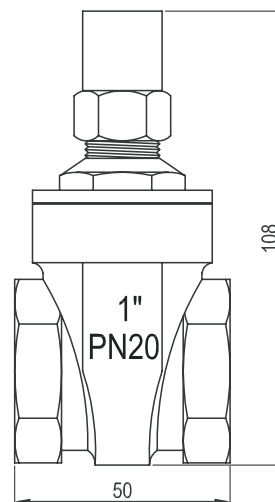
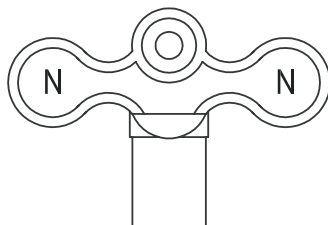
Type	Model No.	Hose Diameter & Length	Reel Height (A in mm)	Reel Width (B in mm)	Reel Depth (C in mm)
Automatic (Plastic Nozzle)	19 NFH-040A/SS	19 mm (¾") & 30 m	620	550	230
Fixed (Brush/Mirror Finish)	25 NFH-040A/SS	25 mm (1") & 30 m	620	550	275
Automatic (Brass Chrome Plated Rotary Nozzle)	19 NFH-040A/SS-B	19 mm (¾") & 30 m	620	550	230
Fixed (Brush/Mirror Finish)	25 NFH-040A/SS-B	25 mm (1") & 30 m	620	550	275
Automatic (Plastic Nozzle)	19 NFH-040A	19 mm (¾") & 30 m	635	580	210
Fixed (Red Painted)	25 NFH-040A	25 mm (1") & 30 m	635	580	255
Automatic (Brass Chrome Plated Rotary Nozzle)	19 NFH-040A-B	19 mm (¾") & 30 m	635	580	210
Fixed (Red Painted)	25 NFH-040A-B	25 mm (1") & 30 m	635	580	255

LOCK SHIELD VALVE

NAFFCO Lock Shield Valve is usually installed where unauthorized operation has to be avoided. A typical application of this valve is installing these at inlet pipe to the hose reel where it can be opened only by key and key kept by maintenance or fire safety department.

FEATURES

- Solid Wedge, non-rising stem, screwed in bonnet.
- Valves are manufactured in accordance to BS 5154 series B.
- Service temperature -10 to +66°C.
- Pressure rating is PN 20.
- End connection is BSPT threaded to BS21.
- Material: Brass



CERTIFICATE NO:463
(Ref redbooklive.com)

SPECIFICATION

Model Number	Size (in.)	Pressure Rating	Connecting
NLSV-25	1	PN 20	1" BSPT Female Threaded

GATE VALVES

MODEL: NFGV-25

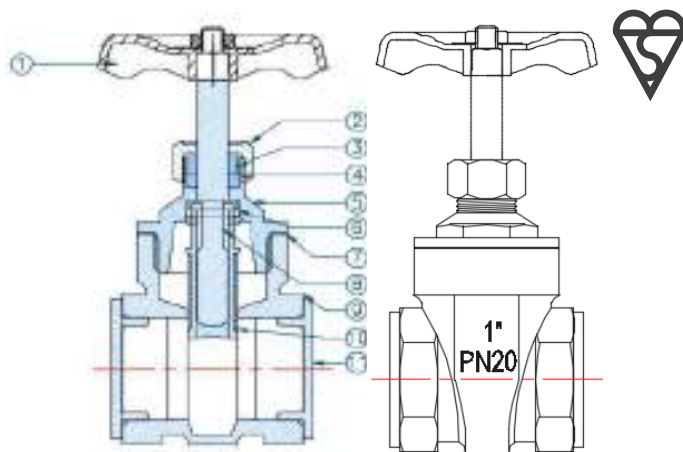
NAFFCO Gate Valve is usually installed in Dry riser inlets and Fire hose reel assembly where unauthorized operation has to be avoided. A typical application of this valve is installing these at inlet pipe to the hose reel where it can be opened for maintenance or fire safety department and Dry riser assembly for draining purpose.

FEATURES

- Solid Wedge, non rising stem, screwed in bonnet.
- Valves are manufactured in accordance to BS 12288 series B.
- Service temperature -10°C to 66°C
- Pressure rating is PN 20.
- End connection is BSPT threaded to ISO 7-1.
- Material: Brass

HYDROSTATIC PRESSURE TEST DETAILS

Seat Test	22 bar for 10 min.
Body Test	30 bar for 10 min.
Strength Test	50 bar for 30 secs.
Size	1"



BILL OF MATERIALS

Sl.No	Description	Material
1	Hand Wheel	Steel, Red painted
2	Gland	CZ121
3	Brass Bush	CZ121
4	Gland Seal	Nylon
5	Bonnet	CZ122
6	Cap	CZ121
7	Bonnet Sealing	Nylon
8	Stem	CZ121
9	Valve Body	CZ122
10	Wedge	CZ122
11	Sheath	PVC

LOCK SHIELD VALVES

MODEL: NLSV-25

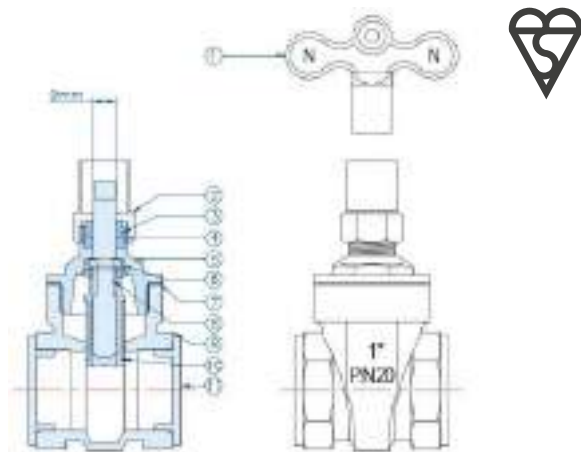
NAFFCOLock Shield Valve is usually installed in Fire hose reel assembly where unauthorized operation has to be avoided. A typical application of this valve is installing these at inlet pipe to the hose reel where it can be opened only by key and key kept by maintenance or fire safety department.

FEATURES

- Solid Wedge, non rising stem, screwed in bonnet.
- Valves are manufactured in accordance to BS 12288 series B.
- Service temperature -10°C to 66°C
- Pressure rating is PN 20.
- End connection is BSPT threaded to ISO 7-1.
- Material: Brass

HYDROSTATIC PRESSURE TEST DETAILS

Seat Test	22 bar for 10 min.
Body Test	30 bar for 10 min.
Strength Test	50 bar for 30 secs.
Size	1"



BILL OF MATERIALS

Sl.no	Description	Material
1	Key	CZ122
2	Cap	CZ121
3	Gland	CZ121
4	Gland Seal	Nylon
5	Bonnet	CZ122
6	Cap	CZ121
7	Seal	Nylon
8	Stem	CZ121
9	Valve Body	CZ122
10	Wedge	CZ122
11	Sheath	PVC

SINGLE JACKET HOSE



A) UL LISTED HOSE

The single jacket fire hose consists of 100% polyester plain-woven synthetic and natural rubber linings. This fire hose has very good resistance to aging and abrasion. The light fire hose is suitable for normal situation.

The single jacket hose made of high tenacity polyester staple and polyester filaments. Lining is natural rubber. Jacket is plain. There is a special adhesion between the jacket and the rubber.



SPECIFICATION

Model Number	Diameter (in.)	Service Test Pressure (bar/psi)	Hydrostatic Strength Test Pressure (bar/psi)	Standard Compliance/ Approvals
NF-FH38	1.5	14/200	50/725	UL19,NFPA 1961/UL listed
NF-FH65	2.5	14/200	50/725	

NH threaded. Storz & instantaneous coupling or other types are available upon request.

B) KITEMARK AND LPCB APPROVED HOSE, TYPE 2

Single jacket fire hose consists of an impermeable elastomeric lining, a synthetic fiber reinforcement and externally applied elastomeric coating to the reinforcement. Delivery hoses are non-percolating lay flat type used in firefighting purposes. Hoses are suitable for use with couplings with the requirements of BS 336: 2010 standards. Hose is intended for use at working pressure not exceeding 15 bar. Delivery hose are manufactured to comply BS 6391: 2009 Standards.



FEATURES

- BSI Kitemark and LPCB Certified.
- Light weight and flexible.
- Hose belongs to Type 2 with Elastomeric lining, Synthetic fiber reinforcement and elastomeric coating on the reinforcement.
- Hose provides good protection against the absorption of liquids and resistance of the reinforcement.
- Anti rot and anti twist.
- Hose with couplings are wound by Galvanized mild steel/SS wire.

APPLICATIONS

- Industrial and rural fire brigades as well as building protection.
- For general industrial, commercial and civil engineering applications.

HOSE DATA

Hose	: Type 2
Available Color	: Red, White
Standard Length	: 25/30 Meters

SPECIFICATION

Model Number	Diameter (in.)	Service Test Pressure (bar/psi)	Hydrostatic Strength Test Pressure (bar/psi)	Standard Compliance/ Approvals
NF-DH2-65R	2.5	15/215	50/725	BS 6391: 2009/ Kitemark& LPCB
NF-DH2-65W				

NH threaded. Storz & instantaneous coupling or other types are available upon request with approval.



C) DURALEX FIRE HOSE, UL LISTED

DESCRIPTION

- **OUTER & INNER LAYERS:** Specially formulated rubber, extruded through the tubular fabric. Smooth liner surface minimize head loss. High Temperature resistance.
- **INTERMEDIATE TEXTILE FABRIC REINFORCEMENT:** Jacket manufactured with tubular weave with high-tenacity polyester thread. Free of defects such as broken threads, knots, etc.

CHARACTERISTICS

- Excellent resistance to abrasion and to intensive professional use.
- High resistance to oil, gasoline and a wide range of chemicals.
- Highly resistant to both contact and radiant heat.
- Lightweight hose, remaining flexible even at low temperatures (-20°C)
- Easy to handle and wind up thanks to its great flexibility.
- Special textile construction provides high breaking resistance.
- No maintenance or drying required.

APPLICATIONS

FIELDS OF APPLICATION

- Ideal for Fire Departments and Professional Industry services.
- Refineries.
- Armed Forces.
- Airports.
- Ships and Oil Rigs.
- Heavy Industry.

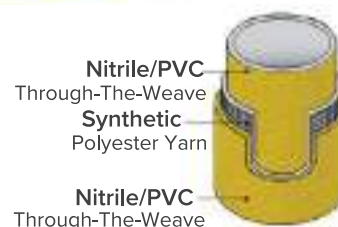
HOSE DATA

- Hose: Single Jacket as per UL 19 Standard
- Color: Red / Yellow
- Coupling: Available with Brass/Aluminum material with options of NH Threaded Storz & Instantaneous Coupling, other types are available upon request.
- Standard Length: 30 Meters, Other lengths available upon request.

***WARNING** - Hose is not rated for air or any other liquids. Test ratings are for water use only with Storz couplings installed. Internal temperature of water not to exceed 103° F.

SPECIFICATION

Model Number	Diameter in.	Weight gr/m	Thickness mm	Working Pressure Psi	Test Pressure Psi	Burst Pressure Psi	Standard Compliance/ Approvals
Duralex 38	1 ½"	360	2.3	290	580	870	UL 19, NFPA 1961 UL LISTED
Duralex 65	2 ½"	575	3.6	245	500	750	
Duralex 100	4"	1050	3	215	430	645	
Duralex 38-EL	1 ½"	310	2.1	300	600	900	
Duralex 45-EL	1 ¾"	360	2.9	300	600	900	
Duralex 50-EL	2"	450	3	300	600	900	
Duralex 65-EL	2 ½"	580	3	300	600	900	
Duralex 75-EL	3"	870	3	300	600	900	
Duralex 100-EL	4"	890	2.6	250	500	750	
Duralex 125-EL	5"	1190	2.8	250	500	750	



DOUBLE JACKET FIRE HOSE



A) UL LISTED HOSE

FEATURES

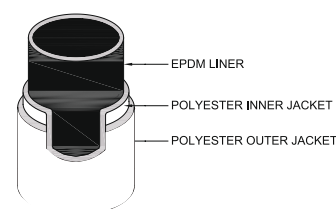
- This durable, double jacket hose is constructed of 100% high tensile strength polyester yarns, both wrap and filler, and lined with a high-tech EPDM tube. Its engineered design guarantees minimum weight with maximum durability and flexibility. The UL Listed Double Jacket Fire Hose and its assemblies under these specifications shall be constructed with superior quality materials, manufactured in accordance with National Fire Protection Association (NFPA) 1961 standard.
- Outstanding abrasion resistance.
- Tough, dependable and lightweight attach hose.
- A stripe of a contrasting color running the full length of the hose can be provided into the jacket to meet NFPA recommendations for pump panel.

HOSE DATA

- Available colors: White & Red

STANDARD LENGTH

- 30 meters, Other lengths available upon request.



SPECIFICATION

Model Number	Diameter (in.)	Service Test Pressure (bar/psi)	Hydrostatic Strength Test Pressure (bar/psi)	Standard Compliance/ Approvals
NF-FH38DJ	1.5	21/300	63/900	UL19, NFPA 1961/UL Listed
NF-FH65DJ	2.5	21/300	63/900	
NF-FH38DJ-HP	1.5	28/400	83/1200	
NF-FH45DJ-HP	1.75	28/400	83/1200	
NF-FH52DJ-HP	2	28/400	83/1200	
NF-FH65DJ-HP	2.5	28/400	83/1200	
NF-FH75DJ-HP	3	28/400	83/1200	

PU LINED HOSE

SYNTHETIC, SINGLE JACKET FIRE HOSE

Hose interior is all synthetic, light weight, and is UL approved.

HOSE DATA

- Available colors: Red, White.
- Standard lengths: 30 meters, Other lengths available upon request.
- Applicable standards: UL219.

CONSTRUCTION AND FEATURES

- The hose is of single jacket construction.
- The jacket is made with high tenacity filament polyester yarn in both the warp and weft directions, to provide maximum strength to weight ratio.
- The hose is resistant to chemicals and petrol products, rot & mildew, hydrolysis, and resist deterioration due to exposure UV-rays and ozone.

APPLICATIONS

- Cabinet/Fire Hose Reel/
Fire Hose Rack.



PERFORMANCE

- The hose, in all sizes, has minimum service, test, and burst pressures as specified in the technical chart.
- The hose has a maximum flow with minimum friction loss.
- The hose has no defects, dirt, knots, lumps or other irregularities affecting the performance of the hose.
- The hose is resistant to kinking and remain flexible to -65°F(-53°C).
- Twisting and warping exceeds NFPA standards.



SPECIFICATION

Hose Model	Diameter (Inside)		Service Pressure		Proof Pressure		Burst Pressure		Standard Compliance/ Approvals
	in.	mm	psi	kPa	psi	kPa	psi	kPa	
NF-FH38PU	1.5**	38**	250	1725	500	3450	750	5175	UL19, NFPA 1961/ UL Listed
NF-FH65PU	2.5**	64**	250	1725	500	3450	750	5175	
NF-FH38DJPU	1.5	38	400	2758	800	5,516	1200	8274	
NF-FH45DJPU	1.75	45	400	2758	800	5,516	1200	8274	
NF-FH75DJPU	3	75	400	2758	800	5,516	1200	8274	UL/ FM
NF-FH38PU1	1.5"	38**	250	1725	500	3450	750	5175	
NF-FH65PU2	2.5"	64**	250	1725	500	3450	750	5175	UL

- Couplings; NH threaded (1 1/2" or 2 1/2") in Brass or Aluminum Anodized.
- Storz & instantaneous coupling or other type available upon request.

FIRE HOSE RACK ASSEMBLY



NAFFCO Fire hose racks are designed for use in controlling incipient fire by building occupant use and conform to NFPA 14 standards for CLASS II service. The Fire Hose Racks are manufactured to comply UL & FM standard.



FEATURES

- Hose rack frame material made of Stainless Steel Gr.304.
- Provides an immediate water source for fire suppression.
- Easy individual operation.
- Max. Service pressure of the Fire Hose Rack Assembly up to 150 psi.
- Hose rack is designed to hold the hose with movable pins for easy & quick operation at the time of Emergency.
- An automatic release mechanism allows water to flow through the hose after removal of the hose and nozzle.
- Standard assemblies include:
 - Angle valve / PRV : Brass, working pressure 300PSI (UL / FM Approved)
 - Hose Rack frame material made of stainless steel.
 - Brush Finish
 - Mirror Finish
 - RED (RAL 3000) Powder Coated Oven Baked
- Hose rack frame.
- Hose rack nipple.
- Hose coupling.
- Fire Hose - 30 M. (UL Listed/FM Approved).
- Available Hose Color: Red/White
- Fog nozzle. (UL approved).



SELECTION OF FIRE HOSE RACK NHR 38V

Model is categorized with different valve options

- HR 38 XA*, HR 38 XB, HR 38 XC, HR 38 XD, HR 38 XE*, HR 38 XF, HR 38 XG, HR 38 XH
- HR 38 YA*, HR 38 YB, HR 38 YC, HR 38 YD, HR 38 YE*, HR 38 YF, HR 38 YG, HR 38 YH
- HR 38 ZA*, HR 38 ZB, HR 38 ZC, HR 38 ZD, HR 38 ZE*, HR 38 ZF, HR 38 ZG, HR 38 ZH

HOSE RACK FRAME FINISH:

- (X): Stainless steel Gr. 304 (RAL 3000) Red powder coated.
- (Y): Stainless steel Brush finish Gr. 304
- (Z): Stainless steel Mirror finish Gr. 304

ANGLE/PR VALVE COMBINATIONS:

- A** 1 ½" Angle Hose Valve
(Model: SD-AV) Double female NPT inlet and outlet
- B** 1 ½" Angle Hose Valve
(Model: SD-AV) Female NPT inlet x Male NH outlet
- C** 1 ½" Pressure reducing angle valve
(Model : SD-PRV105) Double female NPT inlet and outlet
- D** 1 ½" Pressure reducing angle valve
(Model : SD-PRV105) Female NPT inlet x Male NH outlet
- E** 2 ½" Pressure reducing angle valve
(Model : SD-PRV205) Double female NPT inlet and outlet
- F** 2 ½" Pressure reducing angle valve
(Model : SD-PRV205) Female NPT inlet x Male NH outlet
- G** 2 ½" Angle Hose Valve
(Model: SD-AV) Double female NPT inlet and outlet
- H** 2 ½" Angle Hose Valve
(Model: SD-AV) Female NPT inlet x Male NH outlet
- I** 1 ½" Pressure Reducing Angle Valve
(Model: SD-A155) Double female NPT inlet and outlet
- J** 1 ½" Pressure Reducing Angle Valve
(Model: SD-A156) Female NPT inlet x Male NH outlet
- K** 2 ½" Pressure Reducing Angle Valve
(Model: SD-A155) Double female NPT inlet and outlet
- L** 2 ½" Pressure Reducing Angle Valve
(Model: SD-A156) Female NPT inlet x Male NH outlet

SPECIFICATION

Model Number	NHR 38V UL/FM approved	NHR 64V FM approved
FIRE HOSE		
Fire Hose Type	Single jacket, Light weight Thermoplastic lining with high tenacity filament polyester yarn, UL listed	Single jacket, Light weight Thermoplastic lining with high tenacity filament polyester yarn, UL listed
Size & Color	1½" x 30 m., White	2½" x 30 m., White
Service Pressure	250 psi	250 psi
Proof Pressure	500 psi	500 psi
Burst Pressure	750 psi	750 psi
COUPLINGS		
Type	1½" NH Female Threaded Coupling, Brass	2-½" NH Female Threaded Coupling, Brass
ANGLE VALVE		
Working Pressure	300 psi	300 psi
Test Pressure	600 psi	600 psi
NOZZLE		
Inlet Size	1.5" Female NST Threaded	2.5" Female NST Threaded
Discharge rate (in full spray pattern)	130±5 GPM @ 100 psi	280 GPM @ 100 psi

- Pressure reducing valve available upon request.

- Indicated models are available with UL/FM approval and other models are UL listed.

CABINET FOR FIRE HOSE REEL, FIRE EQUIPMENT AND BREECHING INLET



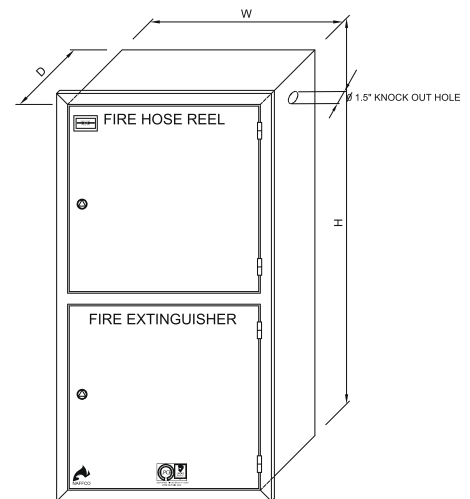
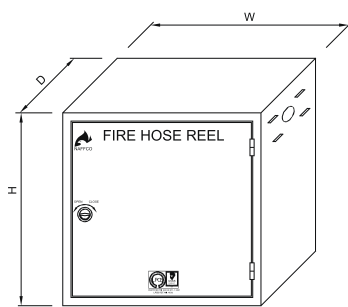
CABINETS

PRODUCT DESCRIPTION

NAFFCO cabinets are designed to accommodate fire hose reel, firefighting equipment and breaching inlet. Fire hose reel cabinets are manufactured to comply with BSEN 671-1 standard and breaching inlet cabinets are manufactured to comply to BS 5041 -5 standard.

FEATURES

- Kitemark & LPCB approved for different sizes of cabinets
- Cabinet material made of Electro Galvanized sheet or Stainless Steel Sheet (Full stainless steel brush or mirror finish).
- Locking of cabinet is either key operated or round handle cam latch.
- Cabinets are available either in surface mounted or recessed mounted type.
- Cabinet door shall be solid door.
- Breaching inlet cabinets are available in horizontal or vertical version.



SPECIFICATIONS

Sl. No.	Model Number	Description	Dimension in mm (H x W x D)
1	NF SM 300	Single cabinet, surface mounted, mild steel, solid door	850 x 750 x 300
2	NF RM 300	Single cabinet, recessed mounted, mild steel, solid door	800 x 750 x 300
3	NF SSB 300	Single cabinet, surface mounted, brush finish stainless steel, solid door	850 x 750 x 310
4	NF SSM 300	Single cabinet, surface mounted, mirror finish stainless steel, solid door	850 x 750 x 310
5	NF RSB 300	Single cabinet, recessed mounted, brush finish stainless steel, solid door	800 x 750 x 300
6	NF RSM 300	Single cabinet, recessed mounted, mirror finish stainless steel, solid door	800 x 750 x 300
7	NF SMK 300	Single cabinet, surface mounted, mild steel, solid door, break glass & key	850 x 750 x 300
8	NF RMK 300	Single cabinet, recessed mounted, mild steel, solid door, break glass & key	800 x 750 x 300
9	NF SSBK 300	Single cabinet, surface mounted, brush finish stainless steel, solid door, break glass & key	850 x 750 x 310

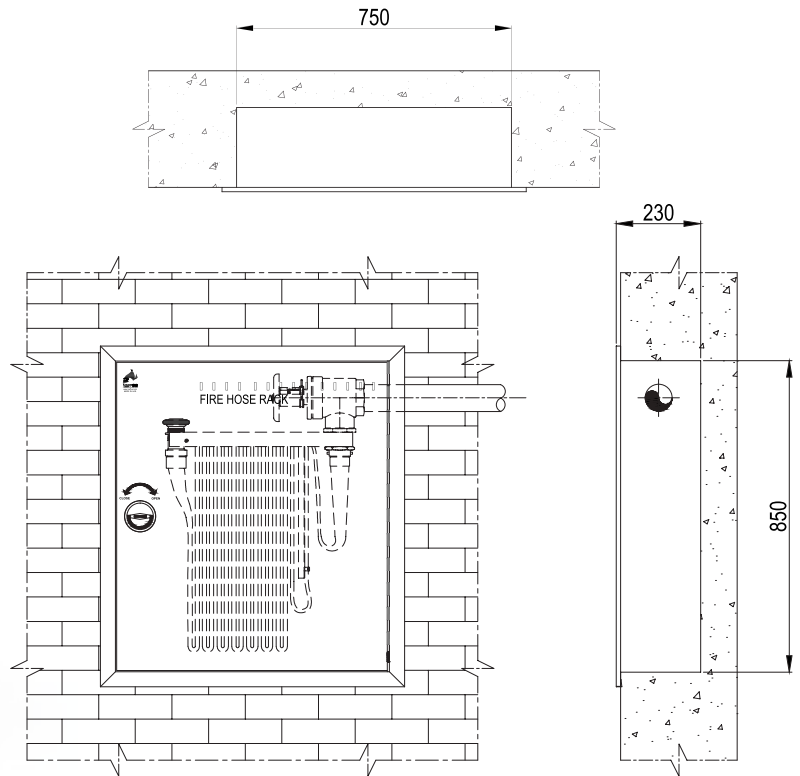
Sl. No.	Model Number	Description	Dimension in mm (H x W x D)
10	NF SSMK 300	Single cabinet, surface mounted, mirror finish stainless steel, solid door, break glass & key	850 x 750 x 310
11	NF RSBK 300	Single cabinet, recessed mounted, brush finish stainless steel, solid door, break glass & key	800 x 750 x 300
12	NF RSMK 300	Single cabinet, recessed mounted, mirror finish stainless steel, solid door, break glass & key	800 x 750 x 300
13	NF SM 900	Double vertical cabinet, surface mounted, mild steel, solid door	1650 x 800 x 300
14	NF RM 900	Double vertical cabinet, recessed type, mild steel, solid door	1600 x 800 x 300
15	NF SSB 900	Double vertical cabinet, surface mounted, brush finish stainless steel, solid door	1650 x 800 x 310
16	NF SSM 900	Double vertical cabinet, surface mounted, mirror finish stainless steel, solid door	1650 x 800 x 310
17	NF RSB 900	Double vertical cabinet, recessed mounted, brush finish stainless steel, solid door	1600 x 800 x 300
18	NF RSM 900	Double vertical cabinet, recessed mounted, mirror finish stainless steel, solid door	1600 x 800 x 300
19	NF SMK 900	Double vertical cabinet, surface mounted, mild steel, solid door, break glass & key	1650 x 800 x 300
20	NF RMK 900	Double vertical cabinet, recessed mounted, mild steel, solid door, break glass & key	1600 x 800 x 300
21	NF SSBK 900	Double vertical cabinet, surface mounted, brush finish stainless steel, solid door, break glass & key	1650 x 800 x 310
22	NF SSMK 900	Double vertical cabinet, surface mounted, mirror finish stainless steel, solid door, break glass & key	1650 x 800 x 310
23	NF RSBK 900	Double vertical cabinet, recessed mounted, brush finish stainless steel, solid door, break glass & key	1600 x 800 x 300
24	NF RSMK 900	Double vertical cabinet, recessed mounted, mirror finish stainless steel, solid door, break glass & key	1600 x 800 x 300
25	NF SMP 300	Single cabinet, surface mounted, mild steel, solid door, piano hinge	850 x 750 x 300
26	NF RMP 300	Single cabinet, recessed mounted, mild steel, solid door, piano hinge	800 x 750 x 300
27	NF SMPK 300	Single cabinet, surface mounted, mild steel, solid door, piano hinge, break glass & key	850 x 750 x 300
28	NF RMPK 300	Single cabinet, recessed mounted, mild steel, solid door, piano hinge, break glass & key	800 x 750 x 300
29	NF SMGK 900	Double vertical cabinet, surface mounted, mild steel, glass door, break glass & key	1650 x 800 x 300
30	NF RMGK 900	Double vertical cabinet, recessed mounted, mild steel, glass door, break glass & key	1600 x 800 x 300
31	NF SSBGK 900	Double vertical cabinet, surface mounted, brush finish stainless steel, glass door, break glass & key	1650 x 800 x 310
32	NF SSMGK 900	Double vertical cabinet, surface mounted, mirror finish stainless steel, glass door, break glass & key	1650 x 800 x 310
33	NF RSBGK 900	Double vertical cabinet, recessed mounted, brush finish stainless steel, glass door, break glass & key	1600 x 800 x 300
34	NF RSMGK 900	Double vertical cabinet, recessed mounted, mirror finish stainless steel, glass door, break glass & key	1600 x 800 x 300
35	NF SMP 900	Double vertical cabinet, surface mounted, mild steel, solid door, piano hinge	1650 x 800 x 300
36	NF RMP 900	Double vertical cabinet, recessed mounted, mild steel, solid door, piano hinge	1600 x 800 x 300
37	NF SMG 900	Double vertical cabinet, surface mounted, mild steel, glass door	1650 x 800 x 300
38	NF RMG 900	Double vertical cabinet, recessed type, mild steel, glass door	1600 x 800 x 300
39	NF SSBG 900	Double vertical cabinet, surface mounted, brush finish stainless steel, glass door	1650 x 800 x 310
40	NF SSMG 900	Double vertical cabinet, surface mounted, mirror finish stainless steel, glass door	1650 x 800 x 310
41	NF RSBG 900	Double vertical cabinet, recessed mounted, brush finish stainless steel, glass door, piano hinge	1600 x 800 x 300
42	NF RSMG 900	Double vertical cabinet, recessed mounted, mirror finish stainless steel, glass door, piano hinge	1600 x 800 x 300
43	NF SMPK 900	Double vertical cabinet, surface mounted, mild steel, solid door, piano hinge, break glass & key	1650 x 800 x 300
44	NF RMPK 900	Double vertical cabinet, recessed mounted, mild steel, solid door, piano hinge, break glass & key	1600 x 800 x 300
45	NF SMGP 900	Double vertical cabinet, surface mounted, mild steel, glass door, piano hinge	1650 x 800 x 300
46	NF RMGP 900	Double vertical cabinet, recessed mounted, mild steel, glass door, piano hinge	1600 x 800 x 300
47	NF SMGPK 900	Double vertical cabinet, surface mounted, mild steel, glass door, piano hinge, break glass & key	1650 x 800 x 300
48	NF RMGPK 900	Double vertical cabinet, recessed mounted, mild steel, glass door, piano hinge, break glass & key	1600 x 800 x 300

BOXES FOR DRY RISER INLETS



Sl. No.	Model Number	Description	Dimension in mm (H x W x D)
1	NF-2WDRIC-SM	4" x 2 Way Box For Dry Riser Inlets, Surface Mounted, Horizontal	595 x 395 x 295
2	NF-4WDRIC-SM	6" x 4 Way Box For Dry Riser Inlets, Surface Mounted, Horizontal	595 x 595 x 295
3	NF-2WDRIC-SMA	4" x 2 Way Box For Dry Riser Inlets, Surface Mounted, Vertical	395 x 595 x 295
4	NF-2WDRIC-RT	4" x 2 Way Box For Dry Riser Inlets, Recessed Type	595 x 395 x 295
5	NF-4WDRIC-RT	6" x 4 Way Box For Dry Riser Inlets, Recessed Type	595 x 595 x 295
6	NF-2WDRIC-RTA	4" x 2 Way Box For Dry Riser Inlets, Recessed Type	395 x 595 x 295

FIRE HOSE RACK CABINET



SPECIFICATIONS

Sl. No.	Cabinet Model	Cabinet Size	Cabinet Type	Cabinet Material	Cabinet Finish	Hose Rack Model	Hose Rack Selection		
							Part No.	Frame Finish	Valve Combination
1	NHRC 38-A/ES	750 x 700 x 200	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XA	SS 304 - RAL 3000	1.5" Angle Hose Valve Double Female NPT (SD-AV)
							HR 38XA	SS 304 - Brush Finish	
							HR 38ZA	SS 304 - Mirror Finish	
2	NHRC 38-B/ES	800 x 700 x 200	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XB	SS 304 - RAL 3000	1.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
							HR 38YB	SS 304 - Brush Finish	
							HR 38ZB	SS 304 - Mirror Finish	
3	NHRC 38-C/ES	900 x 800 x 230	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XC	SS 304 - RAL 3000	2.5" Angle Hose Valve Double Female NPT (SD-AV)
							HR 38YC	SS 304 - Brush Finish	
							HR 38ZC	SS 304 - Mirror Finish	
4	NHRC 38-D/ES	850 x 700 x 230	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XD	SS 304 - RAL 3000	2.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
							HR 38YD	SS 304 - Brush Finish	
							HR 38ZD	SS 304 - Mirror Finish	
5	NHRC 38-E/ES	750 x 700 x 200	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XE	SS 304 - RAL 3000	1.5" PRV Double Female NPT (SD-A155)
							HR 38YE	SS 304 - Brush Finish	
							HR 38ZE	SS 304 - Mirror Finish	
6	NHRC 38-F/ES	800 x 700 x 200	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XF	SS 304 - RAL 3000	1.5" PRV Female NPT Inlet x Male NH (SD-A156)
							HR 38YF	SS 304 - Brush Finish	
							HR 38ZF	SS 304 - Mirror Finish	
7	NHRC 38-G/ES	900 x 800 x 230	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XG	SS 304 - RAL 3000	2.5" PRV Double Female NPT (SD-A155)
							HR 38YG	SS 304 - Brush Finish	
							HR 38ZG	SS 304 - Mirror Finish	
8	NHRC 38-H/ES	850 x 700 x 230	Surface Mounted	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XH	SS 304 - RAL 3000	2.5" PRV Female NPT Inlet x Male NH (SD-A156)
							HR 38YH	SS 304 - Brush Finish	
							HR 38ZH	SS 304 - Mirror Finish	
9	NHRC 38-A/SS	750 x 700 x 200	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XA	SS 304 - RAL 3000	1.5" Angle Hose Valve Double Female NPT (SD-AV)
							HR 38YA	SS 304 - Brush Finish	
							HR 38ZA	SS 304 - Mirror Finish	
10	NHRC 38-B/SS	800 x 700 x 200	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XB	SS 304 - RAL 3000	1.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
							HR 38YB	SS 304 - Brush Finish	
							HR 38ZB	SS 304 - Mirror Finish	

Sl. No.	Cabinet Model	Cabinet Size	Cabinet Type	Cabinet Material	Cabinet Finish	Hose Rack Model	Hose Rack Selection		
							Part No.	Frame Finish	Valve Combination
11	NHRC 38-C/SS	900 x 800 x 230	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XC	SS 304 - RAL 3000	2.5" Angle Hose Valve Double Female NPT (SD-AV)
							HR 38YC	SS 304 - Brush Finish	
							HR 38ZC	SS 304 - Mirror Finish	
12	NHRC 38-D/SS	850 x 700 x 230	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XD	SS 304 - RAL 3000	2.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
							HR 38YD	SS 304 - Brush Finish	
							HR 38ZD	SS 304 - Mirror Finish	
13	NHRC 38-E/SS	750 x 700 x 200	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XE	SS 304 - RAL 3000	1.5" PRV Double Female NPT (SD-A155)
							HR 38YE	SS 304 - Brush Finish	
							HR 38ZE	SS 304 - Mirror Finish	
14	NHRC 38-F/SS	800 x 700 x 200	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XF	SS 304 - RAL 3000	1.5" PRV Female NPT Inlet x Male NH (SD-A156)
							HR 38YF	SS 304 - Brush Finish	
							HR 38ZF	SS 304 - Mirror Finish	
15	NHRC 38-G/SS	900 x 800 x 230	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XG	SS 304 - RAL 3000	2.5" PRV Double Female NPT (SD-A155)
							HR 38YG	SS 304 - Brush Finish	
							HR 38ZG	SS 304 - Mirror Finish	
16	NHRC 38-H/SS	850 x 700 x 230	Surface Mounted	Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish	NHR 38V	HR 38XH	SS 304 - RAL 3000	2.5" PRV Female NPT Inlet x Male NH (SD-A156)
							HR 38YH	SS 304 - Brush Finish	
							HR 38ZH	SS 304 - Mirror Finish	
17	NHRC 38-A/R	750 x 700 x 200	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XA	SS 304 - RAL 3000	1.5" Angle Hose Valve Double Female NPT (SD-AV)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YA	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZA	SS 304 - Mirror Finish	
18	NHRC 38-B/R	800700 x 200	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XB	SS 304 - RAL 3000	1.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YB	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZB	SS 304 - Mirror Finish	
19	NHRC 38-C/R	850 x 750 x 230	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XC	SS 304 - RAL 3000	2.5" Angle Hose Valve Double Female NPT (SD-AV)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YC	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZC	SS 304 - Mirror Finish	
20	NHRC 38-D/R	800 x 700 x 230	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XD	SS 304 - RAL 3000	2.5" Angle Hose Valve Female NPT Inlet x Male NH (SD-AV)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YD	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZD	SS 304 - Mirror Finish	
21	NHRC 38-E/R	750 x 700 x 200	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XE	SS 304 - RAL 3000	1.5" PRV Double Female NPT (SD-A155)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YE	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZE	SS 304 - Mirror Finish	
22	NHRC 38-F/R	800 x 700 x 200	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XF	SS 304 - RAL 3000	1.5" PRV Female NPT Inlet x Male NH (SD-A156)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YF	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZF	SS 304 - Mirror Finish	
23	NHRC 38-G/R	850 x 750 x 230	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XG	SS 304 - RAL 3000	2.5" PRV Double Female NPT (SD-A155)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YG	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZG	SS 304 - Mirror Finish	
24	NHRC 38-H/R	800 x 700 x 230	Recessed Type	Min. 1.2 mm EG Steel Sheet	Epoxy Powder Coated	NHR 38V	HR 38XH	SS 304 - RAL 3000	2.5" PRV Female NPT Inlet x Male NH (SD-A156)
				Min. 1.2 mm Stainless Steel 304/316	Brush Finish/ Mirror Finish		HR 38YH	SS 304 - Brush Finish	
				Min. 1.2 mm Stainless Steel 304/316 Fascia	Brush Finish/ Mirror Finish		HR 38ZH	SS 304 - Mirror Finish	

Note: - General Tolerance $\pm 0.12"$ (3 mm)

THROUGH-PENETRATION FIRESTOP SYSTEMS

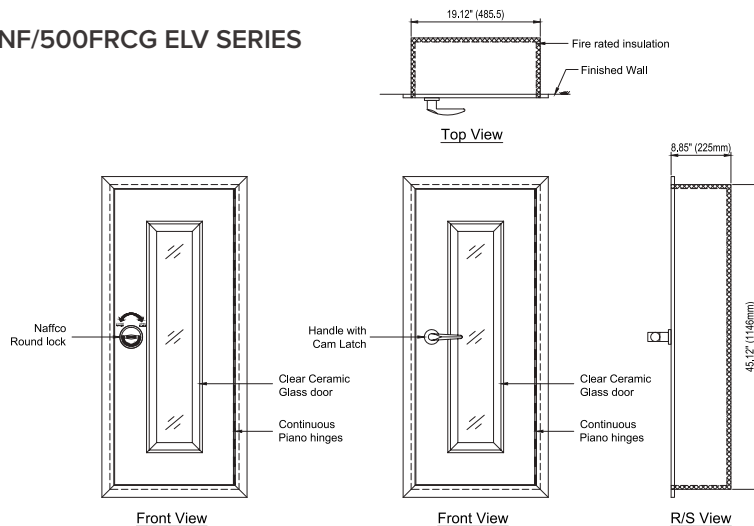


FIRE RATED CABINETS

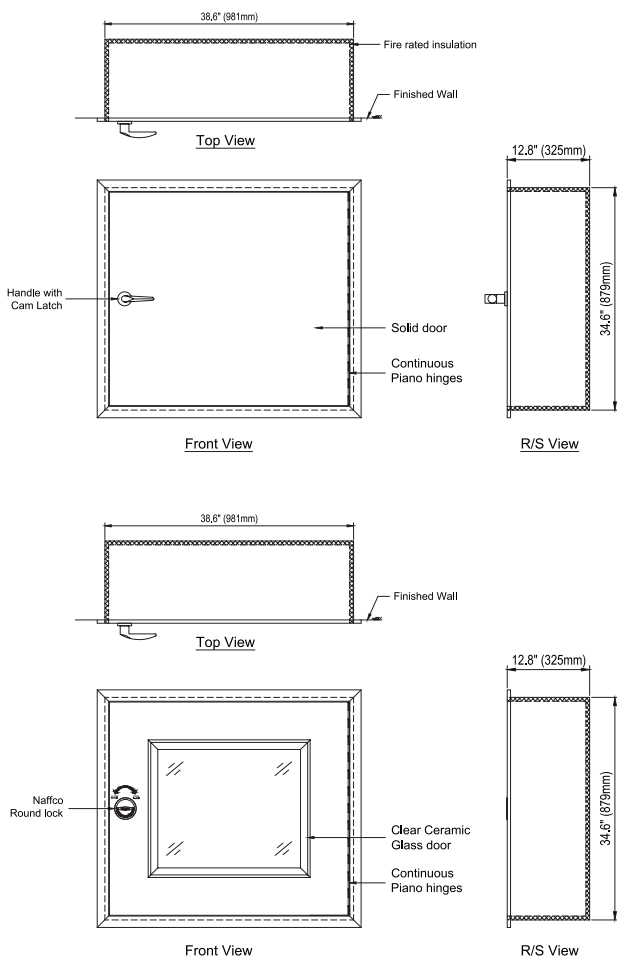
PRODUCT DESCRIPTION

NAFFCO proudly manufactures fire-rated cabinets for use in fire-rated assemblies. Underwriters Laboratories, Inc. has classified and listed NAFFCO fire-rated cabinets for combustible and non-combustible wall systems. The cabinets are tested to ASTM E814 or UL1479 results in hourly rating of 2 hour for both flame ("F") and temperature transfer("T"). The fire-rated option eliminates the costly need to line the wall opening with fire-rated material. It also provides the specified assurance in maintaining the integrity of the wall penetration and in meeting building code specifications.

NF/500FRCG ELV SERIES

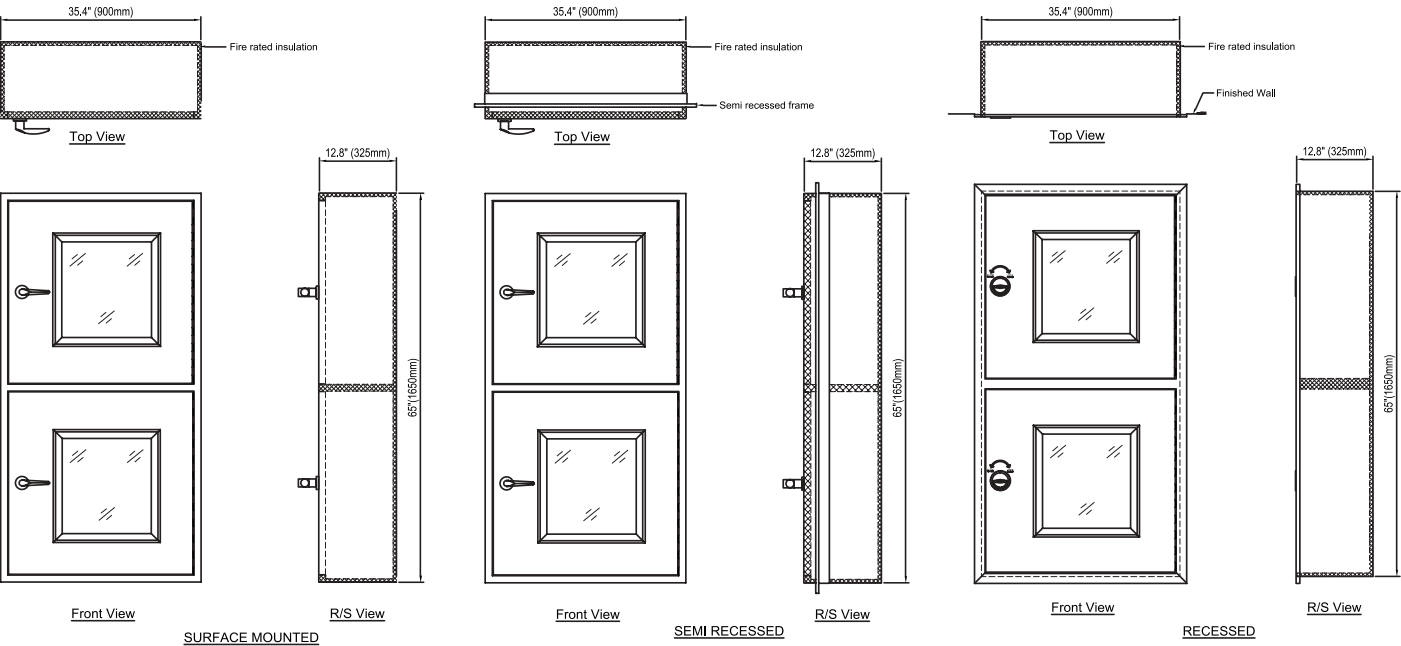


NF/FRC 600HRE SERIES



DOUBLE VERTICAL SERIES

NF/700 FRC & NF/800 FRC)

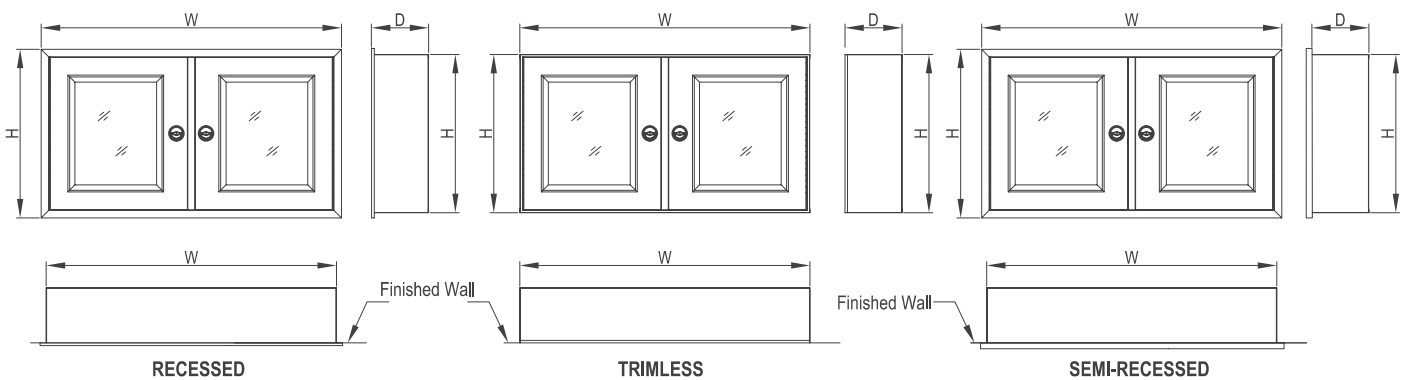


DOUBLE HORIZONTAL SERIES

NF/700 FRC & NF/800 FRC)



DOUBLE HORIZONTAL CABINET



SPECIFICATIONS

Model	NF/800FRC-SERIES, NF700FRC-SERIES, NF/600FRC-SERIES, NF/500FRC-SERIES		
Type		Vertical	Horizontal
Maximum Size	Outside	78.74"(H) x 47.24"(W) x 12.B"(D)	47.24"(H) x 78.74"(W) x 12.B"(D)
		2000 mm(H) x 1200 mm(W) x 325 mm(D)	1200 mm(H) x 2000 mm(W) x 325 mm(D)
	Inside	77.56"(H) x 46.06"(W) x 12.2"(O)	46.06"(H) x 77.56"(W) x 12.2"(O)
		1970 mm(H) x 1170 mm(W) x 310 mm(D)	1170 mm(H) x 1970 mm(W) x 310 mm(D)
Cabinet Material	1.2 mm (Minimum) Complete E.g..Sheet, Red (RAL 3000) Powder Coated or Any Other Colors in RAL.		
	1.2 mm (Minimum) Stainless steel Fascia, Back box E.g..Sheet		
	1.2 mm (Minimum) Complete Stainless Steel 304/316L Brush/Mirror		
Type of Cabinet	Recessed Type, Trimless, Semi-Recessed & Surface Mounted		
Fire Barrier Material	13 mm or Greater Thickness Ceramic Blanket		
Fire Rating	F-Rating: 2 hour		
	T-Rating: 2 Hour		
Cabinet to Accommodate	Fire Hose Reel or Fire Hose Rack, Fire Hose, Landing Valve, Water Branch Pipe & Portable Fire Extinguishers		
Door Type	Fire Rated Glass Door (Optional: Fire Rated Solid Door)		
Lock Type	Handle with Cam Latch (Optional: Round lock)		
Standard Compliance	Cabinets tested to ASTM E 814/UL 1479 result in hourly rating of 2 hour for both flame ("F") and temperature transfer ("T").		
Listing	UL Classified		

*NOTES:

- General Tolerance $\pm 12"$ (3 mm)
- *Size can be reduced to accommodate different equipment's as per requirement
- **No of Compartments and Doors may vary in size provided should be within the maximum size

SPECIFICATIONS

SERIES	Recessed Type Model	Dimensions* in mm			Cabinet Description
	Surface Type Model	Height	Width	Depth	
NF/800FRC SERIES	NF/800FRC/R/CDV#	2000	1200	325	Custom made vertical cabinet as per requirement
	NF/800FRC/S/CDV#				
	NF/800FRC/R/CDH#	1200	2000	325	Custom made Horizontal cabinet as per requirement
	NF/800FRC/S/CDH#				
	NF/800FRC/R/SCM	900	750	300	Single Compartment Fire Hose Reel Cabinet to accommodate Cabinet Mounted Hose Reel
	NF/800FRC/S/SCM				
	NF/800FRC/R/SWM	850	750	300	Single Compartment Fire Hose Reel Cabinet to accommodate Wall Mounted Hose Reel
	NF/800FRC/S/SWM				
	NF/800FRC/R/38HR	750	700	250	Single Compartment Fire Hose Rack Cabinet to accommodate 1.5" x 30 m Fire Hose Rack
	NF/800FRC/S/38HR				
	NF/800FRC/R/64HR	850	800	250	Single Compartment Fire Hose Rack Cabinet to accommodate 2.5" x 30 m Fire Hose Rack
	NF/800FRC/S/64HR				
	NF/800FRC/R/SSE	850	350	220	Single Compartment Fire Extinguisher Cabinets to accommodate Single Fire Extinguishers
	NF/800FRC/S/SSE				
	NF/800FRC/R/SDE	850	550	250	Single Compartment Fire Extinguisher Cabinets to accommodate Double Fire Extinguishers
	NF/800FRC/S/SDE				
	NF/800FRC/R/FLV	900	800	250	Single Compartment Landing valve Cabinet to accommodate Fire Hose and Landing valve
	NF/800FRC/S/FLV				
	NF/800FRC/R/SCE	900	900	300	Single compartment to accommodate cabinet mounted Fire hose reel & Fire Extinguisher cabinet
	NF/800FRC/S/SCE				
	NF/800FRC/R/DV	1650	800	300	Double Compartment Vertical Cabinet to accommodate Fire Hose Reels with Extinguishers and Fire Hose
	NF/800FRC/S/DV				
	NF/800FRC/R/DH	900	1650	300	Double Compartment Horizontal Cabinet to accommodate Fire Hose Reels with Fire Extinguishers and Fire Hose
	NF/800FRC/S/DH				
	NF/800FRC/R/DHE	900	1100	300	Double Compartment Horizontal Cabinet to accommodate Fire Hose Reels & Fire Extinguisher
	NF/800FRC/S/DHE				
	NF/800FRC/S/FE+	1300	850	325	Single Compartment Foam Equipment Cabinet to accommodate Foam Equipment's
NF/700FRC SERIES	NF/700FRC/DV#	1650	900	325	Cabinet to accommodate various firefighting equipments as per customer requirement
	NF/700FRC/DH#	900	1650	325	
NF/FRC600 SERIES	NF/FRC600 HRE	879.5	981	325	Cabinet to accommodate various firefighting equipments as per customer requirement
NF/500FRC SERIES	NF/500FRCG ELV	1146	485.5	225	To accommodate portable Fire extinguisher or Landing valve

*NOTES:

* Max Dimensions

Max Dimension, Cabinets may be constructed of one or more compartments. The number of doors and compartments are independent and may vary in size as to not exceed the maximum dimensions specified above.

+ Only Surface Mounted Type Available

NEMA ENCLOSURES



PRODUCT DESCRIPTION

NAFFCO proudly presents Fire Equipment Weather Proof Enclosures. The Construction of the metallic enclosures shall be based on UL50E Standard with requirements meeting for NEMA 1, 3, 4, 4X & 12 Environmental Considerations. These enclosures acts as solution to protect the Electrical Control panels & Firefighting equipment's against different environmental factors.



SPECIFICATIONS

Enclosure Series		NF-ENC-1000 series	NF-ENC-2000 Series
Material	Enclosure	E.G. Sheet	
	Lock	Stainless steel	Zinc alloy casting
	Hinges	Stainless steel	
Lock Type		Quarter turn lock	Multi point latch
Door or Cover Construction		Single door	
Door Type		Solid door	
Enclosure Type		Surface mounted/Self standing	
Min. Overall Enclosure Dimensions (H x W x D) in mm		270 x 270 x 150	850 x 600 x 200
Max. Overall Enclosure Dimensions (H x W x D) in mm		800 x 600 x 300	1700 x 1200 x 500
UL Environment Enclosure Type Rating		Type 1, Type 3, Type 4, Type 4X, Type 12	
Cabinet to Accommodate		Electrical control panels, Firefighting equipment's	
Construction in Compliance to UL 50E			

DELIVERY HOSE COUPLING



PRODUCT DESCRIPTION

NAFFCO couplings are suitable for use with delivery hose and for firefighting purposes. The delivery hose couplings are of instantaneous pattern, pull release type with ribbed tail and are manufactured to comply to BS 336: 2010 standards. The couplings are suitable for use at working pressure not exceeding 15 bar.



NFAC - 38 RT*
1 1/2" (Aluminum Coupling)

NFAC - 65 RT
2 1/2" (Aluminum Coupling)

NFCC - 65 RT
2 1/2" (Copper Alloy Coupling)

NFCC - 38 RT*
1 1/2" (Copper Alloy Coupling)

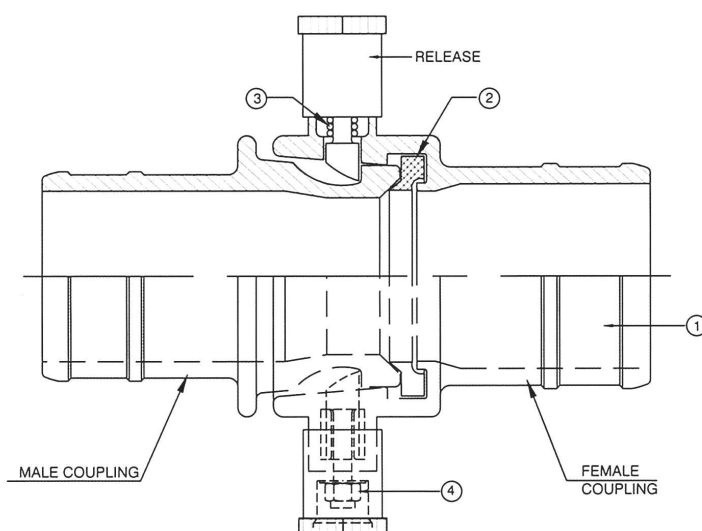
FEATURES

- BSI Kitemark and LPCB certified.
- Castings are clean, sound and free from gross porosity.
- Machined surface is within tolerance and is in accordance with BS 1134-2.
- Coupling washers are made of natural rubber to BS1154.
- Plungers are of self-locking type.

**Kitemark Approval Only*

SPECIFICATIONS

Coupling Type	Instantaneous Male/Female coupling with pull release
Tailed Ends	Ribbed tail type
Test Pressure	22.5 bar for 1 minute



SPECIFICATIONS

Sl. No.	Description	Material
1	Body Male/Female Coupling	a. Aluminum to BS EN 1706: 1998 b. Copper Alloy to BS EN 12163: 2011
2	Washer	Rubber
3	Spring	Spring Steel
4	Self Locking Nut	Aluminum

HANDHELD BRANCHPIPE



PRODUCT DESCRIPTION

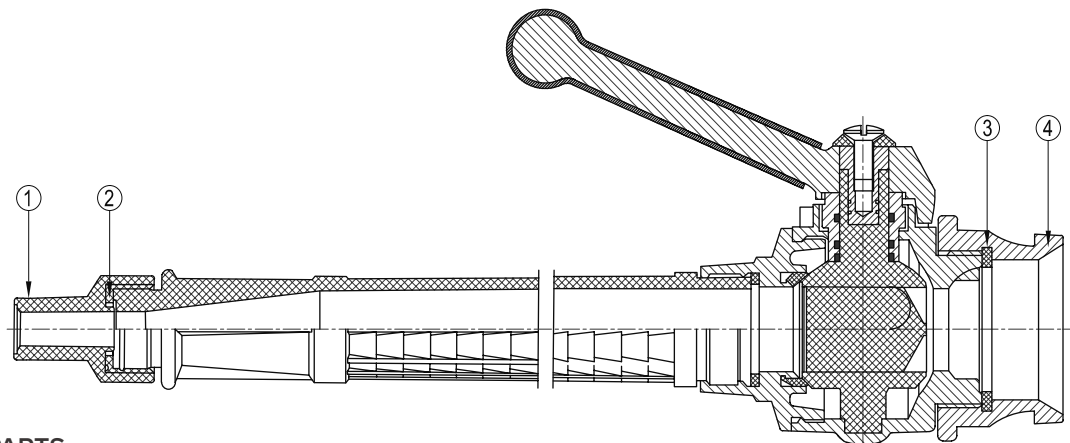
NAFFCO hand-held branch pipe is made by combination of Aluminum and plastics. The water flow control is by means of SHUT, JET and SPRAY. The branch pipe has male instantaneous coupling inlet.

FEATURES

- BSI Kitemark Certified.
- Handheld Branchpipes are manufactured in compliance with BS EN 15182-1:2019 & BS EN 15182-3:2019+ A1:2019
- Body and Tip made of Aluminum.
- Pipe material made of Polyamide.

SPECIFICATIONS

Model	NF-FB320
Type	Handheld Controllable
Flow Control	Shut, Jet & Spray
Type of Spray	Full Cone
Inlet Connection	Male instantaneous coupling to BS 336
Working Pressure	16 bar
Hydrostatic Test Pressure	25.5 bar
Flow Rate	240 LPM @ 6 bar(Jet) 230 LPM @ 6 bar(Spray)
Length	445 mm



PARTS

1. Nozzle 2. Nozzle Washer 3. Inlet Coupling Washer 4. Inlet Coupling

APPLICATIONS

- Industrial and rural fire brigades as well as building protection.
- For general industrial, commercial and civil engineering applications.
- Ideal for Fire Departments and Professional Industry services.
- Refineries, Armed Forces, Airports, Ships, Oil Rigs, Heavy Industry

MAINTENANCE INSTRUCTIONS

- Keep it in cover.
- After use drain the water and disconnect from hose.
- Every 6 months verify the lever operating & Jet/Spray

STANDARD BRANCH PIPE



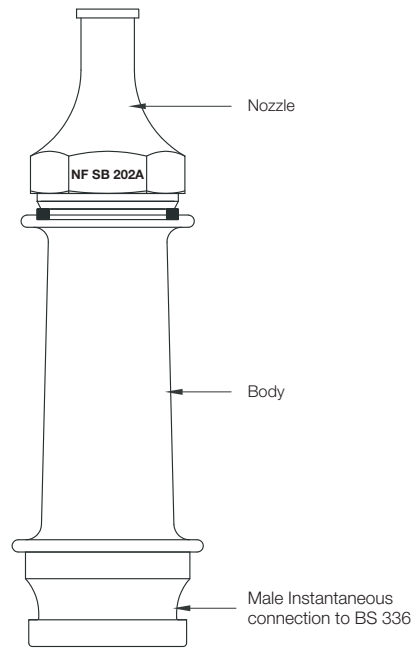
PRODUCT DESCRIPTION

NAFFCO standard branch pipe is made by metal, suitable to use with fire hose assembly for firefighting purpose. The branch pipe has male instantaneous coupling inlet manufactured to comply with BS 336: 2010 standards.

FEATURES

BSI Kitemark.

- Body material made of Aluminum alloy.



SPECIFICATIONS

Model Number	NF SB 202A
Type	Standard branch pipe
Body and Nozzle Material	Aluminum to BS EN 1706: 2010
Inlet Connection	Male Instantaneous Coupling to BS 336: 2010
Nozzle Hole Diameter	12.5 mm
Working Pressure	16 bar
Test Pressure	24 bar

ANGLE HOSE VALVE



The Angle hose valve is manufactured as per NFPA 13 and most suitable for fire protection service outlet or with a hose rack assembly.

SPECIFICATIONS

Model No	NF-AV38 1.5" Ø, Female NPT Inlet & Outlet
Model No	NF-AV65 2.5" Ø, Female NPT Inlet & Outlet
Angle Hose Valve Drain	1.5" & 2.5"
Pressure Rating	300 psi
Material	Cast Brass
Hand Wheel	Cast Iron
Finish Standard	Rough Brass/Polished Brass
Optional	Bright Chrome Plated

Female NPT x male NST connection available upon request.



OBLIQUE VALVE, FLANGED INLET

PRODUCT DESCRIPTION

NAFFCO landing valves are suitable for installation on wet risers in a building for firefighting purposes with permanently charged water from a pressurized supply.

The landing valves are oblique type with flanged inlet and are manufactured to comply to BS 5041 Part 1 standard with delivery hose connection and blank cap complying with BS 336: 2010 standard.

The landing valves are classified under low pressure and are suitable for use at nominal inlet pressure up to 15 bar.

FEATURES

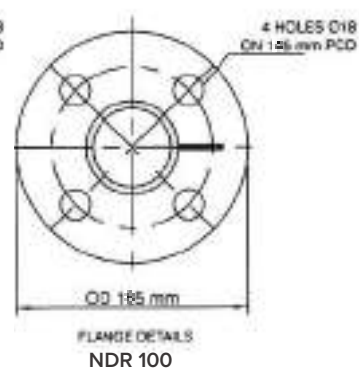
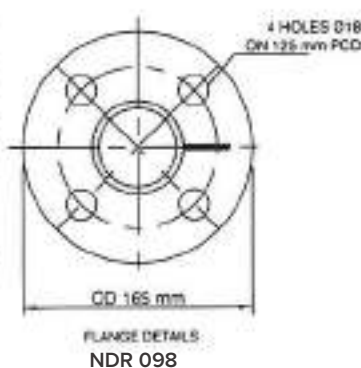
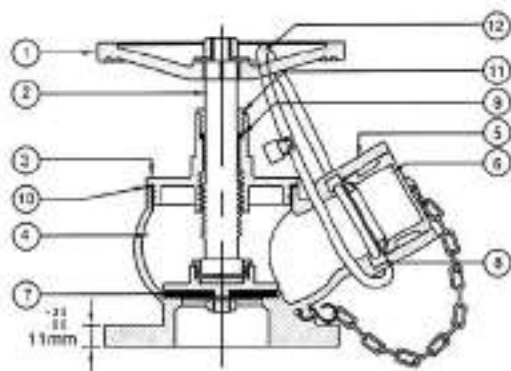
- BSI Kitemark and LPCB certified.
- Body material made of copper alloy to EN 1982
- Hand wheel material made of grey cast iron to BS EN 1561.
- Blank cap material made of copper alloy to EN 1982.
- Possible to replace the gland seal when under pressure with the valve fully closed.
- Disc facing rubber is of replaceable type.
- Valves are provided with a strap and pad lock so that the hand wheel can be secured to counter unauthorized use.
- The hand wheel is BLACK painted and body to RED.



SPECIFICATIONS

Model Number	NDR 098	NDR 100*
Valve Type	Oblique, Flanged Inlet	
Pressure Rating	Low Pressure Valve	
Inlet Flange Size	DN50	DN65
Working Pressure	15 bar Maximum	
Test Pressure	Valve Seat Test at 16.5 bar • Body Test at 22.5 bar	
Flange Drilling	BS 4504 Part 2:1974 Table:16/21	
Water Flow Rate	8.5 L/S @ 4 bar Outlet Pressure	

*Kitemark approved only



BILL OF MATERIAL

Sl.No.	Description	Material
1	Handwheel	Grey Cast Iron to BS EN 1561
2	Stem	Copper Alloy to BS EN 12164
3	Bonnet	Copper Alloy to EN 1982
4	Body	Copper Alloy to EN 1982
5	Female Inst. Outlet	Copper Alloy to EN 1982
6	Blank Cap	Copper Alloy to EN 1982
7	Renewable Disk Facing	Rubber to BS 1154
8	Washer	Rubber to BS 1154
9	Gland Seal	Rubber to BS 1154
10	Bonnet Seal	Teflon
11	Gland	Copper Alloy to EN 1982
12	Strap with Padlock	Strap-Leather (12 mm Wide, 2 mm Thick) LOCK-Non-Ferrous

OBLIQUE VALVE, MALE THREADED INLET



PRODUCT DESCRIPTION

NAFFCO landing valves are suitable for installation on wet risers in a building for firefighting purposes, permanently charged with water from a pressurized supply.

The landing valves are oblique type with threaded inlet and are manufactured to comply to BS 5041 Part 1 standard with delivery hose connection and blank cap complying with BS 336:2010 standard.

The landing valves are classified under low pressure and are suitable for use at nominal inlet pressure up to 15 bar.

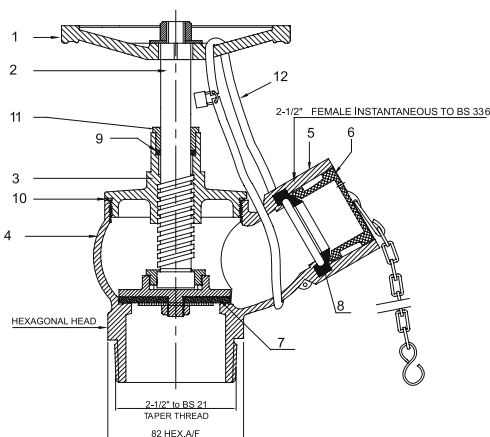


FEATURES

- BSI Kitemark approved.
- Body material made of copper alloy to EN 1982
- Hand wheel material made of grey cast iron to BS EN 1561.
- Blank cap material made of copper alloy to EN 1982.
- Possible to replace the gland seal when under pressure with the valve fully closed.
- Disc facing rubber are of replaceable type.
- Valves are provided with a strap and pad lock so that the hand wheel can be secured to counter unauthorized use.
- The hand wheel is BLACK painted and body to RED.

SPECIFICATIONS

Model Number	NDR 097
Valve Type	Oblique, Threaded Inlet
Pressure Rating	Low Pressure Valve
Nominal Size	DN 2½"
Working Pressure	15 bar Maximum
Test Pressure	Valve Seat Test at 16.5 bar • Body Test at 22.5 bar
Water Flow Rate	8.5 L/S @ 4 bar Outlet Pressure



BILL OF MATERIAL

Sl.No.	Description	Material
1	Handwheel	Grey Cast Iron to BS EN 1561
2	Stem	Copper Alloy to BS EN 12164
3	Bonnet	Copper Alloy to EN 1982
4	Body	Copper Alloy to EN 1982
5	Female Inst. Outlet	Copper Alloy to EN 1982
6	Blank Cap	Copper Alloy to EN 1982
7	Renewable Disk Facing	Rubber to BS 1154
8	Washer	Rubber to BS 1154
9	Gland Seal	Rubber to BS 1154
10	Bonnet Seal	Teflon
11	Gland	Copper Alloy to EN 1982
12	Strap with Padlock	Strap-Leather (12 mm Wide, 2 mm thick) LOCK-Non-Ferrous

PRESSURE REDUCING VALVE, FLANGED INLET



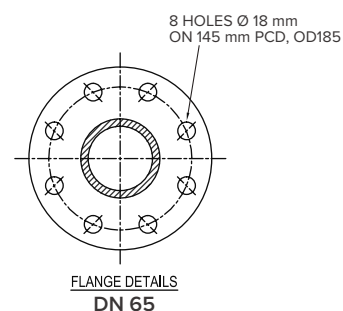
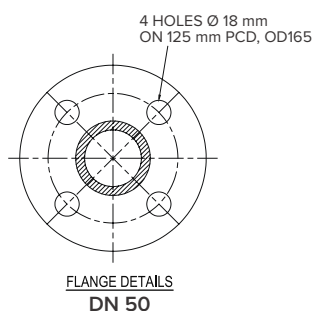
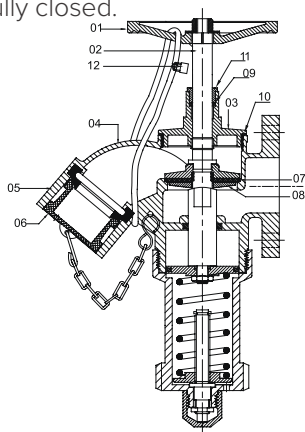
PRODUCT DESCRIPTION

NAFFCO pressure reducing oblique landing valves are suitable for installation on wet risers in buildings for firefighting purposes, permanently charged with water from a pressurized supply.

These landing valves are pressure reducing type designed to provide a range of outlet pressure (4 bar - 7 bar). The Landing valves are classified under high pressure and are suitable for use at nominal inlet pressure up to 20 bar.

FEATURES

- BSI Kitemark approved.
- Body material made of copper alloy to EN 1982.
- Hand wheel material made of grey cast iron to BS EN 1561.
- Blank cap material made of copper alloy to EN 1982.
- Possible to replace the gland seal when under pressure with the valve fully closed.
- Disc facing rubber are of replaceable type.
- Valves are provided with a strap and pad lock so that the hand wheel can be secured to counter unauthorized use.
- The hand is painted black and the body is painted red.



SPECIFICATIONS

Model Number	NWR 120	NWR 122
Valve Type	Oblique, Pressure Reducing, Flanged Inlet	
Pressure Rating	High Pressure Valve	
Inlet Flange Size	DN50	DN65
Working Pressure	20 bar Maximum	
Test Pressure	Valve Seat Test at 22 bar • Body Test at 30 bar	
Flange Drilling	BS4504 part 2: 1974 Table: 16/21	BS4504 part 2: 1974 Table: 25/21
Min. Water Flow Rate	8.5 L/S @ 4.5 bar Outlet Pressure	
Min. Valve Pressure Regulating	4 - 7 bar	

BILL OF MATERIAL

Sl.No.	Description	Material
1	Handwheel	Grey Cast Iron to BS EN1561
2	Stem	Copper Alloy to BS EN 12164
3	Bonnet	Copper Alloy to EN 1982
4	Body	Copper Alloy to EN 1982
5	Female Inst. Outlet	Copper Alloy to EN 1982
6	Blank Cap	Copper Alloy to EN 1982
7	Renewable Disk Facing	Rubber to BS 1154
8	Washer	Rubber to BS 1154
9	Gland Seal	Rubber to BS 1154
10	Bonnet Seal	Teflon
11	Gland	Copper Alloy to EN 1982
12	Strap with Padlock	Strap-Leather (12 mm Wide, 2 mm Thick) LOCK-Non-Ferrous

OBLIQUE/BIB NOSE LANDING VALVES



PRODUCT DESCRIPTION

NAFFCO FM Landing Valve is used to form a complete Wet Riser System to ensure firefighting arrangements for more intense and dangerous fires. It is specifically designed as per FM standard and it also conforms BS 5041 (1987). These valves have a hand wheel for opening or shutting off the water supply. The flange of the valve is attached to the branch of the hydrant post, which carries water under pressure. These valves are highly durable and corrosion resistant as they are made from gunmetal or stainless steel.

FEATURES

- FM Approved
- Body material made of Gunmetal
- Max. working pressure 16 Bar
- Blank cap material: ABS (Plastic) or Gunmetal (Options are available)
- Inlet: 3" ANSI CLASS 150 FF / 2 ½" Male BSP
- Outlet: 2 ¼" Male BSP / 2 ½" Female instantaneous



SPECIFICATIONS

Model Number	NDRF 096T	NDRF 096	NDRT 096	NDRF 113	NDRT 112
Valve Type	Oblique, Flanged inlet		Oblique, Threaded inlet	Bib Nose, Flanged inlet	Bib Nose, Threaded inlet
Inlet Type	3" ANSI class 150 FF		2½" Male BSP	3" ANSI class 150 FF	2½" Male BSP
Outlet Type	2 ¼" Male BSP Threaded	2½" Female instantaneous to BS336			
Pressure Rating	7 kg/cm²				
Nominal Size	DN 2½"				
Working Pressure	232 psi				
Test Pressure	50 kg/cm² (Body test)				
Water Flow Rate	1100 lpm @ 7 kg/cm²				

PRESSURE REDUCING LANDING VALVES



PRODUCT DESCRIPTION

Pressure Reducing Valve has been designed to meet the needs of modern fire protection technology. It enables a uniform firefighting pressure to be maintained at any hydrant in a fire protection system irrespective of its location. Efficient pressure control is not affected by differences in inlet pressure which may occur at varying flow levels.

Expensive relief piping systems are completely eliminated, thus dramatically reducing installation costs. The regulator can be quickly and easily adjusted in-site to meet individual floor level pressure requirements.

FEATURES

- FM Approved
- Body material made of Gunmetal
- Max. working pressure 16 Bar
- Blank cap material: ABS (Plastic) or Gunmetal (Options are available)
- Inlet: 2 1/2" Male BSP / 3" ANSI class 150 FF
- Outlet: 1 1/2" NH Male

***NOTE:** Valve outlet connection can be supplied with BS 336 quick coupling



SPECIFICATIONS

Model Number	NWR 123	NWR 124
Valve Type	Bib Nose, Threaded inlet	Bib Nose, Flanged inlet
Inlet Type	2 1/2" Male BSP	3" ANSI class 150 FF
Outlet Type	1 1/2" NH Male	
Pressure Rating	7 kg/cm ²	
Nominal Size	DN 2 1/2"	
Working Pressure	232 psi	
Test Pressure	64 kg/cm ² (Body test)	
Water Flow Rate	At inlet pressure is 10-12 bar the flow rate will be 250gpm (946lpm) @7bar outlet pressure.	

AIR RELEASE VALVES

PRODUCT DESCRIPTION

The construction of the NAFFCO Air Release Valve has been designed with stainless steel trim to give years of smooth operation. The Air Release Valve should be mounted at the high points in a piping system to automatically remove pockets of air as they accumulate. The valve can also be used to slowly release air in pump casings. This valve continuously eliminates air from a system by releasing small quantities of air before huge air pockets can happen. When continuous accumulations of air in the pipeline occurs (lacking air release valves) this causes the flow capacity to slowly decrease hence power consumption also slowly increases which is unnoticeable at first, until flow drops dramatically, which can even lead to complete stop of the flow due to large quantity of air. Another problem resulting from excessive air accumulation is unexplained pipeline rupture. These ruptures are passed off as the result of ground settling or defective pipe, whereas in reality its large air pockets that greatly increase pressure surges (normally occurring) when flow stops and starts causing the rupture.

VALVE OPERATION

The NAFFCO Air Release Valve, as got, is a typically open valve and will gradually vent air through the orifice. As liquid enters the valve, the float will rise, consequently shutting the opening. As air aggregates in the piping system and enters the valve, the float drops enabling the air to be vented out through the opening. The lever component gives mechanical advantage to the orifice. Amid system operation, the pipeline pressure applies a solid upward drive on the sealing component, the orifice button. The lever instrument amplifies the heaviness of the float with the goal that the hole will open under high pipeline pressures. Extra ports are accommodated for flushing, testing and draining purposes. This cycle automatically repeats as air accumulates inside the air release valve, thereby preventing the formation of air pockets.

AIR RELEASE VALVE - TECHNICAL DATA

Model No.	Valve Size	Orifice Size	Inlet Size NPT	Outlet Size NPT	Max W.P
NF - 15 ARV	½"	⅛"	½"	½"	175 psi
NF - 20 ARV	¾"	⅛"	¾"	½"	175 psi
NF - 25 ARV	1"	⅛"	1"	½"	175 psi

PRODUCT FEATURES:

- Unconditionally guaranteed stainless steel floats
- Stainless steel 316 internal trim
- Resilient seating for positive shut-off

WHEN ORDERING,

Please Specify:

- Inlet Size (NPT)
- Model Number



SPECIFICATIONS

Sizes:	½", ¾", 1"
Pressure Rating:	175 psi
Body and Cover	Ductile Iron ASTM A536 64-45-12
Float	Stainless Steel 316, ASTM A240
Internal Parts	Stainless Steel 316, ASTM A240
Orifice Button	EPDM
Paint Specification	Red Epoxy Painted
Operational Highlights	• Maintains system flow efficiency • Releases unwanted air pockets during system operation • Protects system against air related surges

6"x4 WAY BREECHING INLET



PRODUCT DESCRIPTION

NAFFCO breaching inlets are suitable for installation on dry risers, in a building for firefighting purposes, fitted with inlet connection at fire brigade access level and outlet connection at specified points, which is normally dry but capable of being charged with water by pumping from fire service appliances.

The breaching inlets are manufactured to comply with BS 5041 PART-3: 1975 standard comprising of male instantaneous connections complying with BS 336: 2010, drain valves complying with BS 5154, PN16 rated and non-return valves.

The breaching inlets and its fittings are suitable for a normal working pressure of 10 bar.

FEATURES

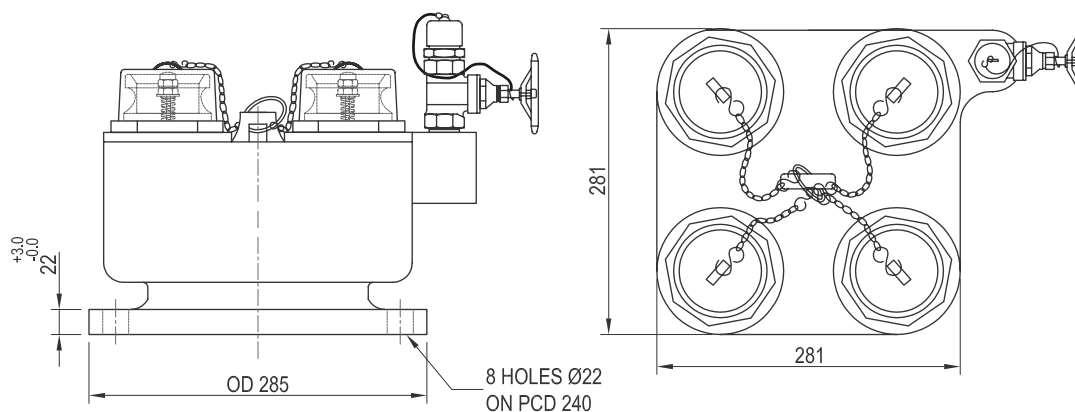
- BSI Kitemark & LPCB certified.
- Body material made of spheroidal graphite cast iron (Ductile Iron) to BS 1563: 2011.
- Inlet connection and non-return valves material made of copper alloy to B2S 12163: 2011.
- Each inlet connection is fitted with non-return valve and of spring loaded mushroom type.
- Each breaching inlet is painted RED internally and externally.

- Breaching inlet Model NWRX115 for Dry Risers with elevated working pressure of 16 bar and the performance verified by BSI.



SPECIFICATIONS

Model Number	NWR 115 & NWRX 115
Inlet Connection	4 Nos. Male Instantaneous Connector Complying to BS 336
Pressure Rating	Normal Working Pressure of 10 bar
Nominal Size	150 mm Flanged Outlet
Test Pressure	20 bar
Flange Drilling	BS 4504 Part: 2: 1974 Table: 16/21
Temperature Range	0° - 38°C



BILL OF MATERIAL

Sl.No.	Description	Material
1	Body	Spheroidal Graphite Cast Iron to BS EN 1563: 2011
2	Inlet Connection & Non-Return Valves	Copper Alloy to BS EN 12163: 2011
3	Drain Valve	Copper Alloy to BS EN 12163: 2011
4	Blank Cap for Drain Valve	Copper Alloy to BS EN 12163: 2011
5	Blank Cap for Inlet Connector	Plastic

4"x2 WAY BREECHING INLET



PRODUCT DESCRIPTION

NAFFCO breeching inlets are suitable for installation on dry risers, in a building for firefighting purposes, fitted with inlet connection at fire brigade access level and outlet connection at specified points, which is normally dry but capable of being charged with water by pumping from fire service appliances.

The breeching inlets are manufactured to comply with BS 5041 PART-3: 1975 standard comprising of male instantaneous connections complying with BS 336: 2010, drain valves complying with BS 5154, PN16 rated and non return valves.

The breeching inlets and its fittings are suitable for a normal working pressure of 10 bar.

FEATURES

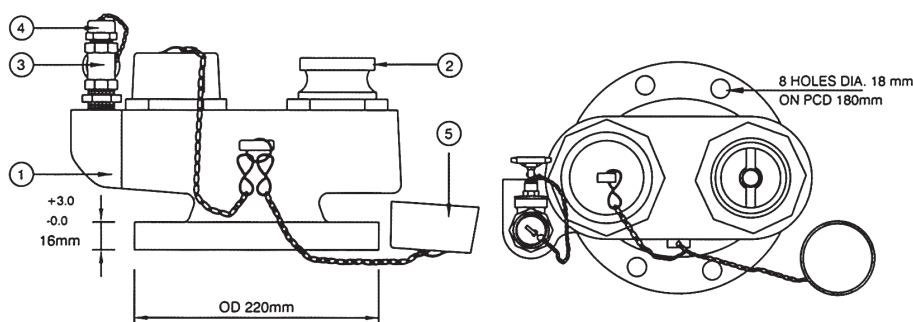
- BSI Kitemark and LPCB certified.
- Body material made of spheroidal graphite cast iron (Ductile Iron) to BS 1563: 2011.
- Inlet connection and non-return valves material made of copper alloy to BS 12163: 2011.
- Each inlet connections are fitted with non-return valve and are of spring loaded mushroom type.



- Each breeching inlet is painted RED internally and externally.
- Breeching inlet Model NDRX095 for Dry Risers with elevated working pressure of 16 bar and the performance verified by BSI.

SPECIFICATIONS

Model Number	NDR 095
Inlet Connection	2 Nos. Male Instantaneous Connector Complying to BS 336
Pressure Rating	Normal Working Pressure of 10 bar
Nominal Size	100 mm Flanged Outlet
Test Pressure	20 bar
Flange Drilling	BS 4504 Part: 2:1974 Table: 16/21



BILL OF MATERIAL

Sl.No.	Description	Material
1	Body	Spheroidal Graphite Cast Iron to BS EN 1563: 2011
2	Inlet Connection & Non-Return Valves	Copper Alloy to BS EN 12163: 2011
3	Drain Valve	Copper Alloy to BS EN 12163: 2011
4	Blank Cap for Drain Valve	Copper Alloy to BS EN 12163: 2011
5	Blank Cap for Inlet Connector	Plastic

DRY PILLAR FIRE HYDRANTS



DESIGN SPECIFICATIONS

SHELL MATERIAL

Spheroidal graphite cast iron. (Ductile Iron)

OBTURATOR

- The design of obturator (base valve) in hydrant is made in such way that it can be replaced at site.
- Material of base valve is high tensile brass.

RESISTANCE TO DYSFUNCTION PRODUCTS

Hydrant is built to withstand misuse that may cause dysfunctional failures.

INLET FLANGED TO BS EN 1092-2

CORROSION PROTECTION

All ferrous components liable to corrode are prepared and coated as detail below:

SURFACE PREPARATION:

Each hydrant is shot blasted (inside & outside)

PAINT SYSTEM

- **INSIDE:** barrel inside and rod coated with 3 coat epoxy paint system, minimum 250 microns DFT.
- **OUTSIDE:** Outside coating top portion primer coating and red polyurethane coating, minimum 250 microns. Bottom portion outside two coat black bituminous coating, minimum 250 microns.

FIELD OF APPLICATION

- Fire fighting purpose.
- Suitable for non-potable water supply purpose only.

FEATURES

- BSI-KITEMARK, LPCB approved
- NAFFCO Fire Hydrants are manufactured to comply BS EN 14384: 2005, BS 1074-1, BS 1074-2 & BS 1074-6 Standards.
- Dry barrel design eliminates damage to the hydrant caused by freezing of the upper part.
- NAFFCO Fire Hydrants are designed for high performance and easy to install, maintain and repair.
- Excellent and proven flow characteristics.
- 2 x 2½" gate valve with female instantaneous outlet to BS 336:2010.
- Body material made of spheroidal graphite cast iron (Ductile Iron) to BS 1563:2011.
- 2 x 2½" Female Instantaneous quick coupling adaptor to BS 336:2010, flanged inlet to BS EN 1092-2
- 1 x 4" Male/Female BSRT pumper to BS 336:2010.
- Aluminum Hood/GRP cover is provided for protection and misusing.
- Operation threads are corrosion protected and for easy operation.
- NAFFCO Fire Hydrants are high Pressure rating to 16 bar.
- Drain starts automatically when hydrant is closed.
- Internal epoxy paint system gives high corrosion protection to hydrants.
- Hydrant protective covers with handle for easy handling.

**for LPCB approved - Hydrant Model NFHV Series with 2 x 2½" straight through landing valve available upon request.*

**Inside Blue FBE coating with WRAS approval & external powder coating available upon request*

GENERAL DIMENSIONAL DETAILS

SL.No.	Model No.	Inlet Flange Size in inch (DN)	Dimensions in mm		Working Pressure
			A	B	

NHC SERIES

1	100 NHC-800	4 (100)	1515	530	16
2	100 NHC-1200	4 (100)	1915	530	16

NFHV SERIES*

1	100 NFHV-800	4 (100)	1450	430	16
2	100 NFHV-1200	4 (100)	1850	430	16
3	150 NFHV-800	6 (150)	1500	480	16
4	150 NFHV-1200	6 (150)	1900	480	16

NFHQ SERIES

1	100 NFHQ-800	4 (100)	1450	430	16
2	100 NFHQ-1200	4 (100)	1850	430	16
3	150 NFHQ-800	6 (150)	1500	480	16
4	150 NFHQ-1200	6 (150)	1900	480	16

NFHQC SERIES

1	100 NFHQC-800	4 (100)	1450	430	16
2	100 NFHQC-1200	4 (100)	1850	430	16
3	150 NFHQC-800	6 (150)	1500	480	16
4	150 NFHQC-1200	6 (150)	1900	480	16

NFHQS-CD SERIES

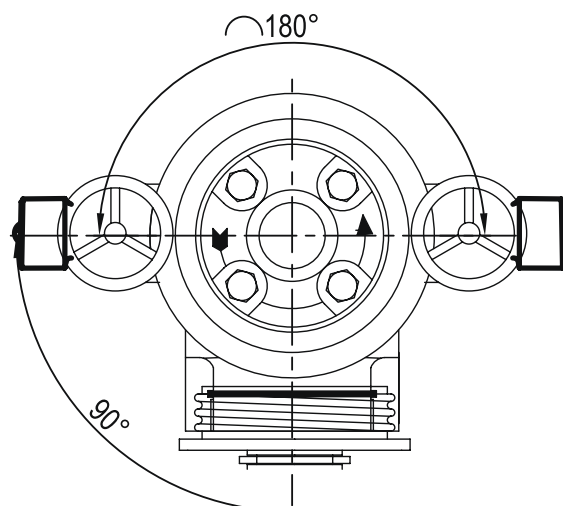
1	100 NFHQS-CD 800	4 (100)	1450	430	16
2	100 NFHQS-CD 1200	4 (100)	1850	430	16
3	150 NFHQS-CD 800	6 (150)	1500	480	16
4	150 NFHQS-CD 1200	6 (150)	1900	480	16

NFHQM SERIES

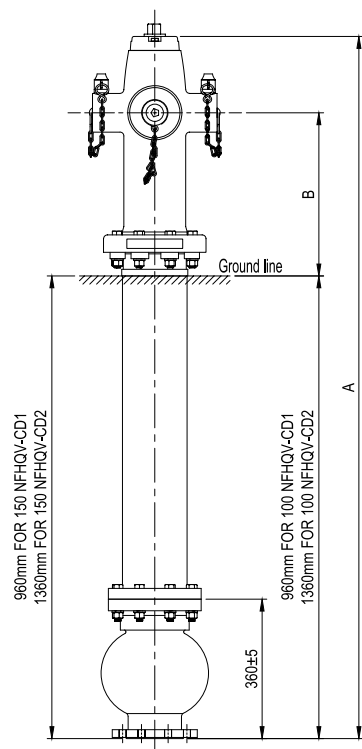
1	150 NFHQM-800	6 (150)	1500	480	16
2	150 NFHQM-1200	6 (150)	1900	480	16

NFHQV-CD SERIES

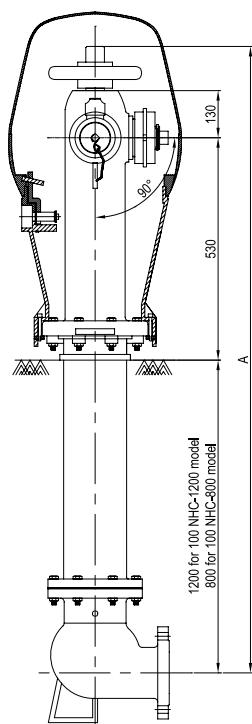
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2	100 NFHQV-CD2	--	1360	430	--
3	150 NFHQV-CD1	--	960	480	--
4	150 NFHQV-CD2	--	1360	480	--



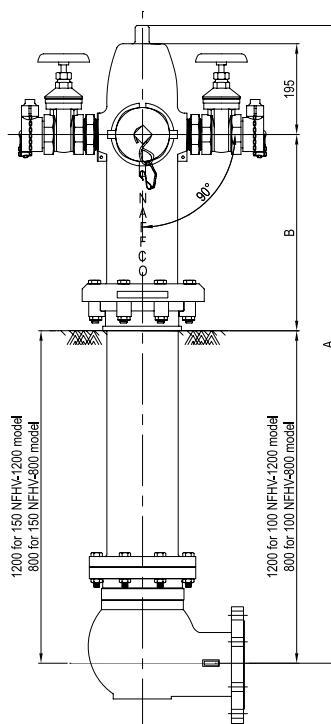
150 NFHQV-CD



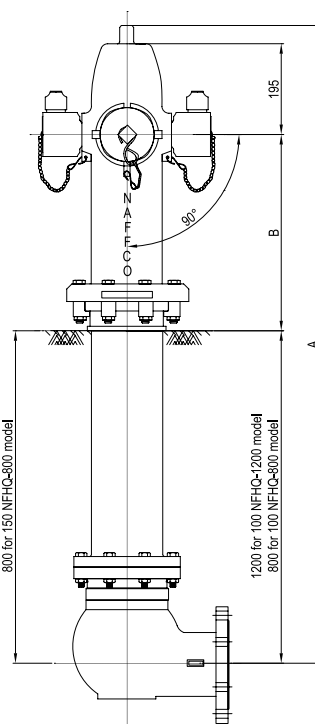
NHC



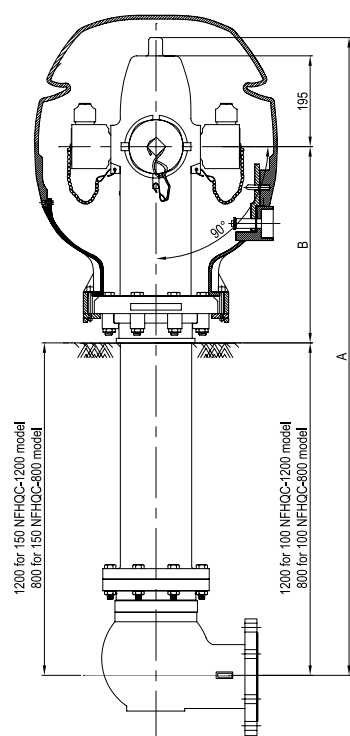
NFHV



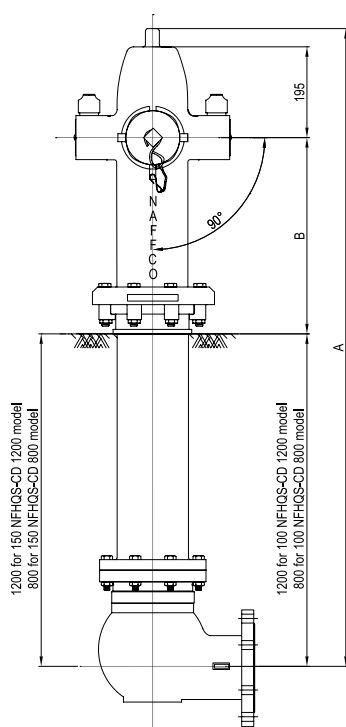
NFHQ



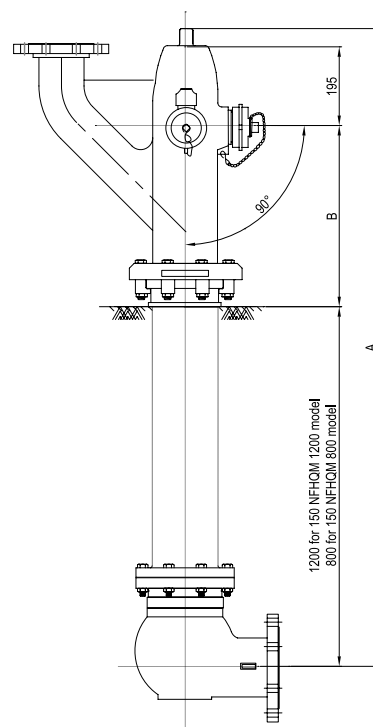
NFHQC



NFHQS-CD



NFHQM



DRY TYPE PILLAR FIRE HYDRANTS

FEATURES

- NAFFCO Fire Hydrants are designed to comply with ANSI/AWWA C502.
- Dry barrel design eliminates damage to the hydrant caused by freezing of the upper part.
- NAFFCO Fire Hydrants are designed for high performance and easy to install, maintain and repair.
- Excellent and proven flow characteristics.
- 2 x 2½" NH thread connectors for soft hose connection.
- 1 x 4½" NH thread pumper connection for fire trucks.
- 6" inlet connection complying to mechanical joint ANSI/AWWA C111/A21.11 or flange connection ASME B16.5 Class 150.
- Operation threads are corrosion protected and for easy operation.
- NAFFCO fire hydrants are high pressure rated to 250 psi compatible with today's trends.
- Internal epoxy paint system gives high corrosion protection to hydrants.
- Advanced safety couplings and flange design reduces traffic damage to hydrant.
- Main valve is easily removed from either the bonnet flange or ground line flange.

DESIGN FEATURES

- Body Material: Ductile Iron.
- Nominal Pressure 250 psi., Test Pressure: 500 psi.
- O-ring sealed flanges at the bonnet ground line and shoe simplify maintenance by eliminating gasket adhesion at these points, making disassembly easier. The O-rings are easier than flat gaskets to position during reassembly, and provide superior pressure handling.
- Hold-down nut - features integral weather seal. Prevents unauthorized removal of hold-down nut or operating nut. Resilient wiper seal prevents water entry and protects from freezing; material resistant to sunlight deterioration. O-ring provides second level seal.
- Safety flange - breaks cleanly to help prevent barrel damage, but strong enough to withstand normal handling. Allows economical repair, adding of extension section, rotation or changing of upper barrel without excavation.
- Full flow openings - large, smooth radius hose and pumper openings reduce friction loss.

SPECIFICATIONS

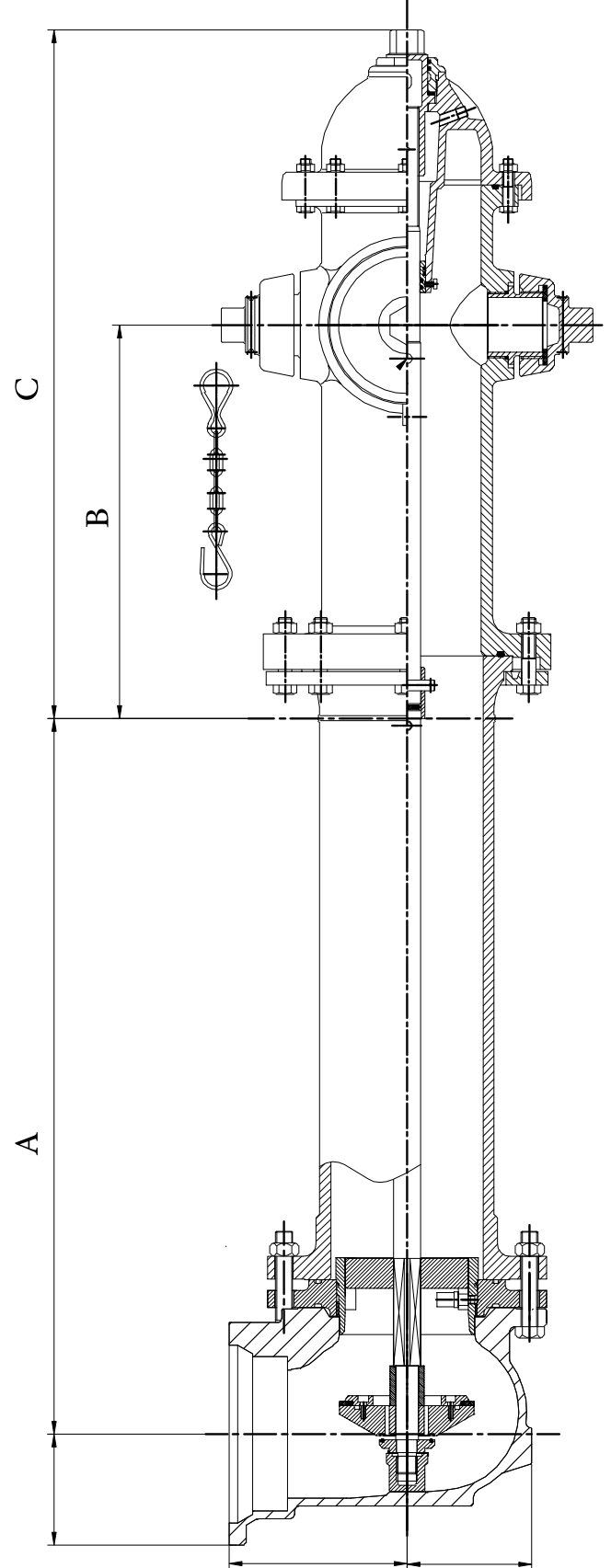
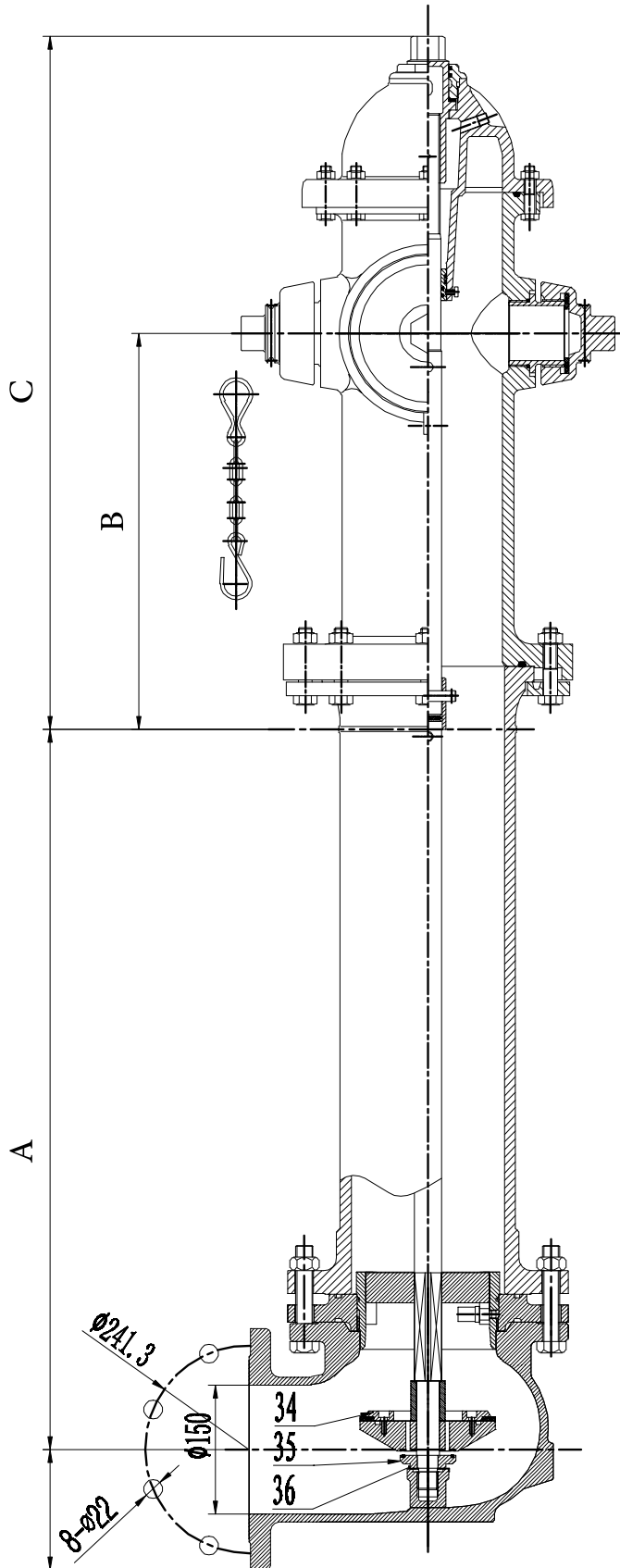
Model	Inlet Flange	Dimensions			Working Pressure
		A	B	C	
I5O-NFH(F)	6"	1063	460	805	250 psi
I5O-NFH(M)	6"	1063	460	805	250 psi



GENERAL DIMENSIONS & MATERIALS

MODEL NO.: 150 - NFH(F)

MODEL NO.: 150 - NFH(M)



WET TYPE FIRE HYDRANT

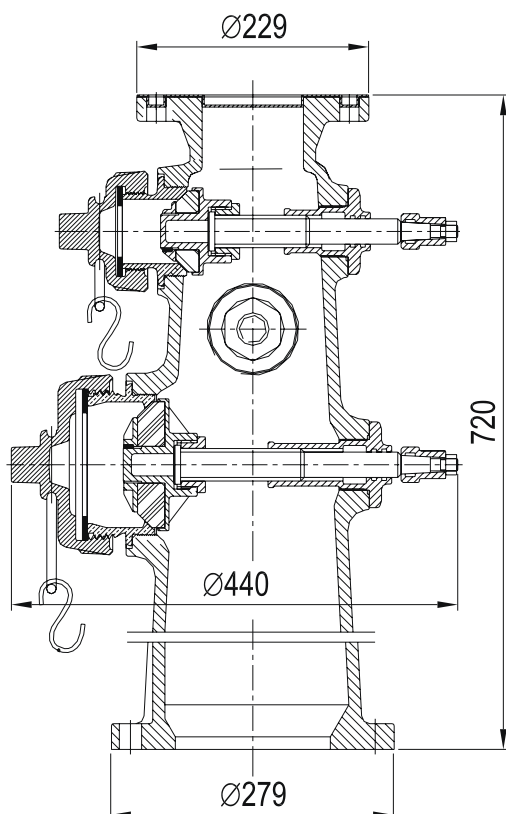


FEATURES

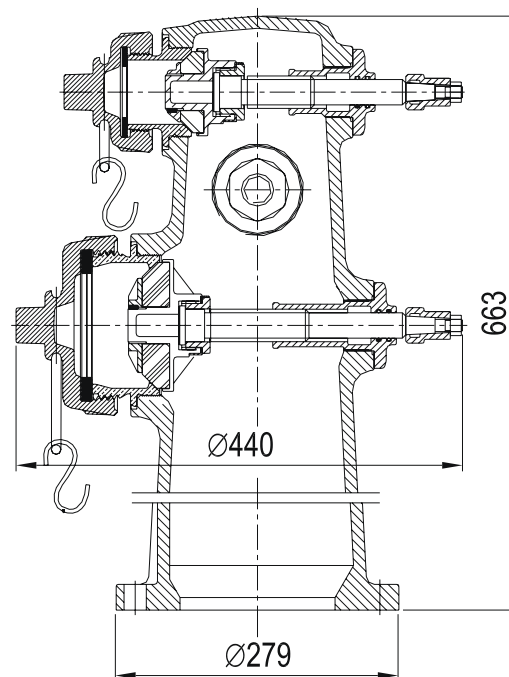
- 6" Flanged inlet to ANSI B16.1 class 125 / ANSI B16.5 Class 150 with 1 no 4 (or) 4 ½" NH threaded Pumper Outlet and 1 or 2 no's of 2 ½" NH threaded outlet with cap and clamp.
- Outlets Threads to NFPA 1963 Standard
- Maximum working pressure of 250 psi
- Working Temperature of -10°C to 82°C
- Hydrant top designed to incorporate to fix 3" (or) 4" flanged inlet monitors
- Corrosion protection: Inlet and exterior is e-coated to a dry film thickness of 1.6 mils minimum then fusion bonded epoxy powder coated (FBE) to 300 micron thickness.

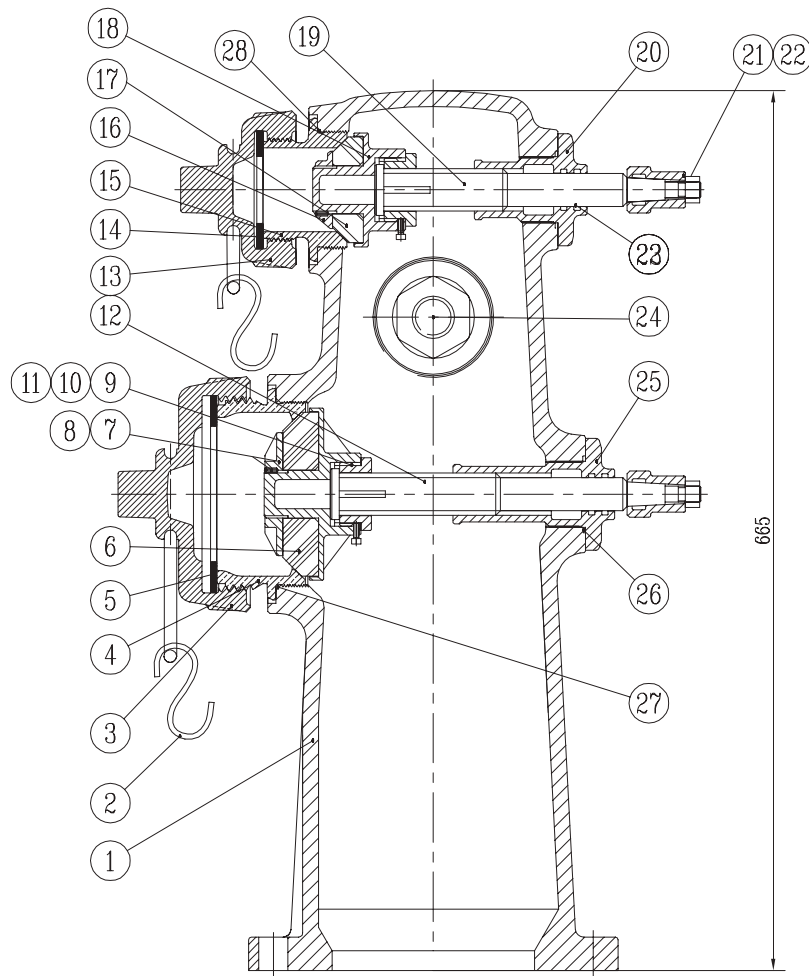


150NF - WHM



150NF - WH





MATERIAL OF SPECIFICATION

Sl. No.	Name	Material
1	Hydrant Body	Ductile Iron, ATM A536 65-45-12
2	Chain Ring	Steel, Zinc Plated, SS
3	Pumper Nozzle Cap	Cast Iron, ASTM A126 Class B
4	Pump Nozzle	Bronze, ASTM B148 C95400
5	Pumper Nozzle Gasket	Rubber, NBR
6	4½" Main Valve	Rubber, NBR
7	4½" Main Valve Retainer	Bronze, ASTM B148 C95400
8	Screw M4 x 10	Stainless Steel, AISI304
9	4½" Main Valve Holder	Stainless Steel, AISI304
10	Holder Nut	Bronze, ASTM B148 C95400
11	Screw M4 x 12	Stainless Steel, AISI304
12	Stem-1	Stainless Steel, AISI304
13	Hose Nozzle Cap	Cast Iron, ASTM A126 Class B
14	Hose Nozzle Gasket	Rubber, NBR

Sl. No.	Name	Material
15	Hose Nozzle	Bronze, ASTM B148 C95400
16	2½" Main Valve Retainer	Bronze, ASTM B148 C95400
17	2½" Main Valve	Rubber, NBR
18	2½" Main Valve Holder	Stainless Steel, AISI304
19	Stem-2	Stainless Steel, AISI304
20	2½" Stem Nut	Bronze, ASTM B148 C95400
21	Operating Nut	Bronze, ASTM B148 C95400
22	Nut M12	Stainless Steel, AISI304
23	O-Ring 25 x 3.55	Rubber, NBR
24	Stem-3	Stainless Steel, AISI304
25	4½" Stem Nut	Bronze, ASTM B148 C95400
26	O-Ring 49 x 2.65	Rubber, NBR
27	O-Ring 136 x 3.55	Rubber, NBR
28	O-Ring 85 x 3.55	Rubber, NBR

UNDERGROUND HYDRANT



PRODUCT DESCRIPTION

NAFFCO underground fire hydrants are valves of screw down type and are suitable for a maximum working pressure of 16 bar.

The underground fire hydrants are manufactured to comply to BS 750: 2012 and EN 14339: 2005 standards with screwed outlet threaded to BS 336: 2010 standard.

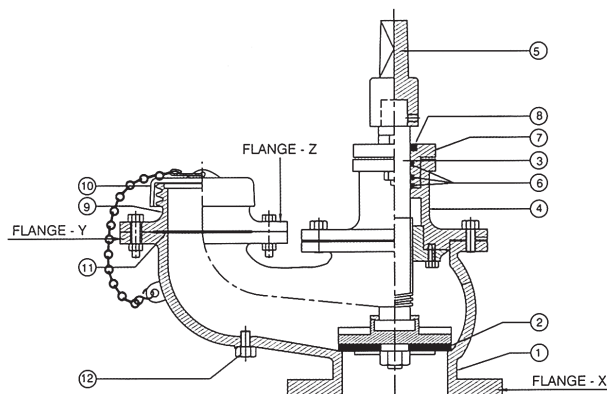
FEATURES

- BSI Kitemark certified.
- Body material made of grey cast iron to BS EN1561.
- Material of spindle and threaded part of valves which engages with it is made of stainless steel to BS 10088-1.
- Material for the screwed outlet is made of high tensile brass to BS 12163: 2011.
- Spindle sealing (two seals) is of the toroidal sealing ring ('O' ring) type and are capable of changing while the valve is under pressure and fully closed.
- A wiper ring is positioned above the spindle sealing to prevent the ingress of foreign matter.
- Each hydrant shot is blasted (inside and outside) to SA 2 ½ std.
- All cast iron parts are thoroughly cleaned and painted.



SPECIFICATIONS

Model Number	NHYD058	
Valve Type	Screw down (type 2C)	
Nominal Size & Flange Drilling	Flange-X Flange-Y Flange-Z	PN16, DN80, BS EN 1092-2 PN16, DN50, BS EN 1092-2 PN16, DN50, BS EN 1092-3
Working Pressure	16 bar maximum	
Test Pressure (Body)	Body	25 bar
Test Pressure (Seat)	Seat	20 bar



BILL OF MATERIAL

Sl.No.	Description	Material
1	Body	Grey Cast Iron(C.I) to BS EN 1561
2	Body Seating Seal	Rubber to BS 1154
3	Spindle	Stainless steel to BS EN 10088-1
4	Bonnet	Grey Cast Iron(C.I) to BS EN 1561
5	Spindle Cap	Grey Cast Iron to BS EN 1561
6	Spindle (Stem) Seal	Rubber to BS 1154
7	Gland	Grey Cast Iron to BS EN 1561
8	Gland Wiper Ring	Teflon
9	Outlet	High Tensile Brass to BS 12163: 2011
10	Outlet Cap	Grey Cast Iron to BS EN 1561
11	Outlet Gasket	Rubber to BS 1154
12	Drain Bolt	Forged Steel

WET TYPE FIRE HYDRANT

MODEL: 150-NFH-W1, 150-NFH-W1A, 150-NFH-W2, 150-NFH-W2A



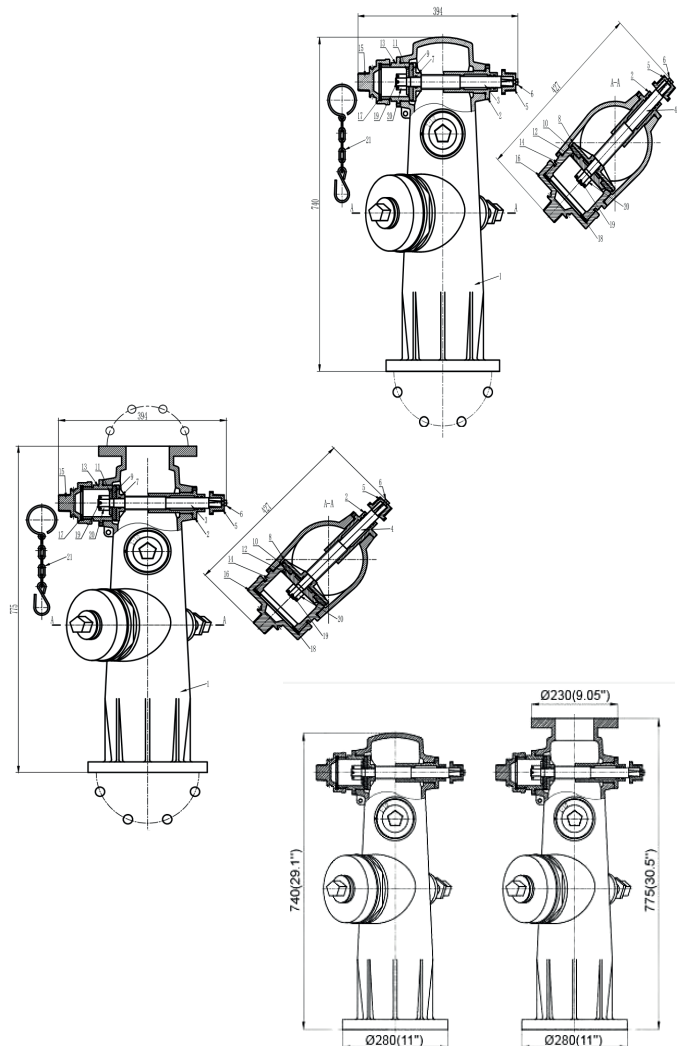
FEATURES

- Manufactured in accordance to AWWA C503 standard.
- 6" inlet with 1 No. 4½" or 4 Pumper Nozzle and 2 Nos. 2½" Hose Nozzles.
- Nozzle Threads to NFPA1963 Standard.
- Flanges to ANSI B16.5 Class 150. Other types available upon request.
- Working Pressure: 250 psi
- Working Temperature: 0°C to 80°C.
- Finish: RAL 3000; Interior and exterior fusion bonded epoxy powder coated

SPECIFICATIONS

Body	Ductile Iron
Nut	Aluminium Bronze
2.5" Bolt	Stainless Steel 304
4.5" Bolt	Stainless Steel 304
Stem Cap	Ductile Iron
Bolt	Stainless Steel 304
2.5" Tray	Ductile Iron
4.5" Tray	Ductile Iron
2.5" Sealing Rubber Seat	EPDM
4.5" Sealing Rubber Seat	EPDM
2.5" Platen	Ductile Iron
4.5" Platen	Ductile Iron
2.5" Outlet	Aluminium Bronze
4.5" Outlet	Aluminium Bronze
2.5" Outlet Cover	Ductile Iron
4.5" Outlet Cover	Ductile Iron
2.5" Cover Gasket	EPDM
4.5" Cover Gasket	EPDM
Cotter Pin	Stainless Steel 304
Slotted Nut	Stainless Steel 304
Cover Chain	Gr.B

Model	Hose Outlet	Pumper Outlet	Monitor
150-NFH-W1	2 x 2.5"	1 x 4.5"	N
150-NFH-W1A	2 x 2.5"	1 x 4.5"	Y
150-NFH-W2	2 x 2.5"	1 x 4"	N
150-NFH-W2A	2 x 2.5"	1 x 4"	Y



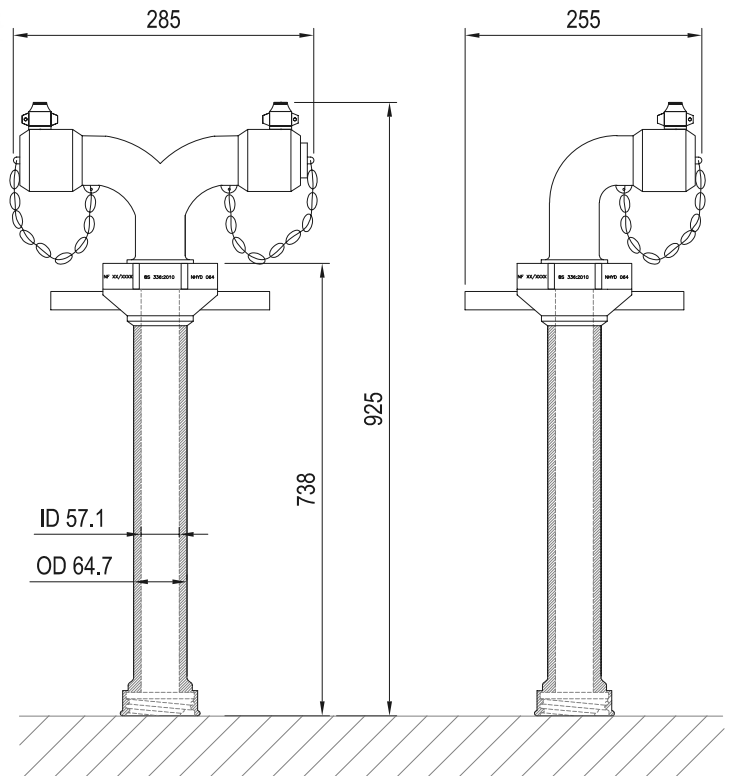
STANDPIPE OUTLET

(SINGLE & DOUBLE)



DOUBLE OUTLET
MODEL: NHYD 064

SINGLE OUTLET
MODEL: NHYD 062



PRODUCT DESCRIPTION

NAFFCO Standpipes are suitable for installation on underground hydrants for firefighting purpose changed with water from a pressurized supply.

These standpipes are designed and manufactured to comply BS336:2010 Standard with screwed inlet threaded and comprising of male instantaneous connections.

FEATURES

- BSI Kitemark approved
- Body and outlet cap material made of Aluminum Alloy
- Standpipes are designed with swivel upper end so that at the outlets can be rotated 360° for operation

BILL OF MATERIAL

Model Number	NHYD 062	NHYD 064
Type	Single Outlet	Double Outlet
Material	Aluminum Alloy	
Inlet Connection	3" female BSRT to BS336	
Outlet Connection	1 x 2 ½" female instantaneous coupling to BS 336	2 x 2 ½" female instantaneous coupling to BS336
Test Pressure	24 bar for 2 minutes	

FIRE BLANKET



CERTIFICATE NO:463
(Ref redbooklive.com)



NFB 1.2



NFB 1.4



NFB 2.1

PRODUCT DESCRIPTION

NAFFCO Fire blankets are made of fire resistant glass fiber fabric with silicone coating. It is primarily intended for extinguishing cooking oil fires in the kitchen. The Blankets are compliance with BS1869 Standard Requirements.

FEATURES

- BSI Kitemark & LPCB Approved
- NAFFCO's blankets are electrical resistant not less than 1MΩ to ensure that in the event of use where live electrical equipment is concerned, the potential for an electrical shock is minimized

- NAFFCO's fire blanket can be released and can be covered on the flame in LESS THAN FIVE SECONDS
- It is an excellent fire extinguisher in a car, boat, caravan or holiday home and we recommend that each family have at least one for fire safety purpose. Fire blankets can be used to extinguish fires in electrical appliances (toaster, coffee maker, etc.) rubbish bins, clothes and tabletop fires caused by candles or fat pan fires. Fire blankets can also be used to wrap around a person whose clothing is on fire.

SPECIFICATIONS

Model	NFB 1.2	NFB 1.4	NFB 2.1
Size	1.1m x 1.1m	1.2m x 1.2m	1.2m x 1.8m
Material	Fiberglass with Silicone coating		
Weight	340g/m ²		
Temperature	550°C		
Packing	Covered in Nylon Bags and Packed in Flat Hard PVC RED Pack		

STANDARD COMPLIANCE

NAFFCO's fire blankets confirm to the requirements of BS EN 1869: 2019

FIREFIGHTING PUMPS

NAFFCO's UL listed and FM approved fire pumps provide you with a reliable solution for your firefighting pump needs by combining the stringent quality measures of UL, FM and NFPA standards with our proven experience in the fire protection field. We can offer you a complete package of services starting from engineering assistance to field start-up and periodic maintenance. Each pump set is tested in our factory, prior to dispatch, as per UL, FM and NFPA standards. These pumps



END SUCTION PUMPS

FEATURES

- Performance characteristics as per NFPA 20
- Complete unit responsibility.
- Complete in-house fabrication capabilities.
- Hydrostatic strength testing facilities.
- Operation run test as per NFPA 20, UL 448 and FM 1319 requirements.
- End suction models for capacities from 50 to 750 US GPM at various speeds.
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers connected to pump as per NFPA standards.
- Capable to supply additional accessories wherever required.
- Capable to supply single skid mounted fire pump set.



PUMP CASING

The casing is designed for back pull-out which permits the removal of complete rotor unit without removing suction and discharge pipe. The cast iron volute casing is of robust design with integrally cast feet, vertical top centerline discharge with axial suction incorporating cast inlet vane to give best flow to impeller eye.

BEARINGS

Driven end/non-driven end bearings are grease lubricated deep groove ball bearings

IMPELLER

Impeller is double shrouded type. It is hydraulically balanced and positively driven by shaft key and axially locked between sleeve and impeller nut.

SHAFT SEAL

Soft-packed stuffing box. Graphite impregnated type gland packing.

APPROVED FIRE PUMP MODELS WITH RATINGS

RATED CAPACITY - 50 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 32-20	50-87	---	2900	2	1.25	1
2	NF-E 32-26	88-139	---	2900	2	1.25	1
3	NF-E 40-20	59-95	---	2900	2.5	1.5	1
4	NF-E 40-26	77-128	---	2900	2.5	1.5	1
5	NF-E 50-20	58-89	---	2900	2.5	2	1
6	NF-E 50-26	93-138	---	2900	2.5	2	1
7	NF-E 65-20	58-89	---	2900	3	2.5	1
8	NF-ES 32-20	72-128	72-126	3550	2	1.25	1

RATED CAPACITY - 100 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 32-26	126	---	2900	2	1.25	1
2	NF-E 40-20	53-92	---	2900	2.5	1.5	1
3	NF-E 40-26	70-124	---	2900	2.5	1.5	1
4	NF-E 50-20	61-91	---	2900	2.5	2	1
5	NF-E 50-26	93-139	---	2900	2.5	2	1
6	NF-E 65-20	58-88	---	2900	3	2.5	1
7	NF-ES 32-20	62-119	---	3550	2	1.25	1
8	NF-ES 40-26	66-136	67-135	3550	2.5	1.5	1

RATED CAPACITY - 150 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 40-26	114	---	2900	2.5	1.5	1
2	NF-E 50-20	62-93	---	2900	2.5	2	1
3	NF-E 50-26	90-139	---	2900	2.5	2	1
4	NF-E 65-20	56-86	---	2900	3	2.5	1
5	NF-ES 40-26	60-131	60-129	3550	2.5	1.5	1

RATED CAPACITY - 200 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	92-141	94-144	2900	3	2.5	1
2	NF-E 65-32	133-211	135-216	2900	3	2.5	1
3	NF-ES 65-26	---	84-161	3550	3	2.5	1

RATED CAPACITY - 250 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	89-140	91-143	2900	3	2.5	1
2	NF-E 65-32	132-210	133-211	2900	3	2.5	1
3	NF-E 80-32	126-208	---	2900	4	3	1

RATED CAPACITY - 300 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	87-139	88-142	2900	3	2.5	1
2	NF-E 65-32	129-209	130-206	2900	3	2.5	1
3	NF-E 80-26	87-135	93-145	2900	4	3	1
4	NF-E 80-32	125-207	132-213	2900	4	3	1
5	NF-E 80-26	90-142	---	2950	4	3	1
6	NF-E 80-32	130-217	---	2950	4	3	1
7	NF-E 80-26	93-147	---	3000	4	3	1
8	NF-E 80-32	134-224	---	3000	4	3	1
9	NF-ES 65-26	75-160	77-158	3550	3	2.5	1
10	NF-ES 80-26	---	80-138	3550	4	3	1
11	NF-ES 80-32	---	151-212	3550	4	3	1

RATED CAPACITY - 350 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	---	91-144	2900	4	3	1
2	NF-E 80-32	---	131-211	2900	4	3	1

RATED CAPACITY - 400 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 125-27	84-139	---	2900	5	4	1
2	NF-E 125-34	133-208	---	2900	5	4	1
3	NF-E 80-26	84-133	88-142	2900	4	3	1
4	NF-E 80-32	122-204	130-209	2900	4	3	1
5	NF-E 125-27	87-144	---	2950	5	4	1
6	NF-E 125-34	138-215	---	2950	5	4	1
7	NF-E 80-26	87-142	---	2950	4	3	1
8	NF-E 80-32	128-215	---	2950	4	3	1
9	NF-E 125-27	91-149	---	3000	5	4	1
10	NF-E 125-34	142-223	---	3000	5	4	1
11	NF-E 80-26	90-147	---	3000	4	3	1
12	NF-E 80-32	132-222	---	3000	4	3	1
13	NF-ES 80-26	76-137	79-138	3550	4	3	1
14	NF-ES 80-32	147-207	148-210	3550	4	3	1

RATED CAPACITY - 450 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	81-132	83-141	2900	4	3	1
2	NF-E 80-32	119-203	129-207	2900	4	3	1
3	NF-E 80-26	85-141	---	2950	4	3	1
4	NF-E 80-32	126-214	---	2950	4	3	1
5	NF-E 80-26	88-146	---	3000	4	3	1
6	NF-E 80-32	131-222	---	3000	4	3	1
7	NF-ES 80-26	75-134	78-137	3550	4	3	1
8	NF-ES 80-32	145-205	145-207	3550	4	3	1

RATED CAPACITY - 500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 125-27	83-137	---	2900	5	4	1
2	NF-E 125-34	132-208	---	2900	5	4	1
3	NF-E 80-26	84-133	79-139	2900	4	3	1
4	NF-E 80-32	128-203	126-203	2900	4	3	1
5	NF-E 125-27	86-142	---	2950	5	4	1
6	NF-E 125-34	136-215	---	2950	5	4	1
7	NF-E 80-26	82-141	---	2950	4	3	1
8	NF-E 80-32	124-214	---	2950	4	3	1
9	NF-E 125-27	89-147	---	3000	5	4	1
10	NF-E 125-34	141-222	---	3000	5	4	1
11	NF-E 80-26	85-146	---	3000	4	3	1
12	NF-E 80-32	129-221	---	3000	4	3	1
13	NF-ES 80-32	142-204	140-204	3550	4	3	1

RATED CAPACITY - 750 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 125-27	72-129	---	2900	5	4	1
2	NF-E 125-34	125-201	---	2900	5	4	1
3	NF-E 125-27	75-134	---	2950	5	4	1
4	NF-E 125-34	129-208	---	2950	5	4	1
5	NF-E 125-27	79-139	---	3000	5	4	1
6	NF-E 125-34	134-216	---	3000	5	4	1

FIREFIGHTING PUMPS

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HORIZONTAL SPLIT CASE PUMPS

FEATURES

- Performance characteristics as per NFPA 20
- Complete unit responsibility.
- Complete in-house fabrication capabilities.
- Hydrostatic testing facilities.
- Operation run test as per NFPA 20, UL 448 and
- FM 1311 requirements.
- Horizontal Split case pumps for capacities from 400 to 3500 US GPM at various speeds
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers connected to pump as per NFPA standards.
- Capable to supply additional accessories wherever required.



PUMP CASING: The casing is axially split, which permits removal of the complete rotor without moving either piping or driver. Pumps generating high heads have double volutes to reduce radial forces, ensuring minimal shaft deflection and low bearing loads. Replaceable wear rings protect the casing at the impeller running clearances.

IMPELLER: The closed impeller have double curved vanes. The double suction design gives practically zero axial forces. Each impeller is dynamically balanced according to ISO 1940-1 standard.

BEARINGS: Grease lubricated deep groove ball bearings are provided on both sides.

SHAFT SEAL: Soft-packed stuffing box. Cooling lines are provided for additional cooling of the graphite impregnated type gland packing.

APPROVED FIRE PUMP MODELS WITH RATINGS

RATED CAPACITY - 300 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	100-149	---	2700	6	5	1
2	NF-S-150-170	102-146	---	2700	6	4	1
3	NF-S-125-230	108-160	---	2800	6	5	1
4	NF-S-150-170	110-157	---	2800	6	4	1
5	NF-S-125-230	116-172	---	2900	6	5	1
6	NF-S-150-170	118-169	---	2900	6	4	1
7	NF-S-125-230	120-178	---	2950	6	5	1
8	NF-S-150-170	122-175	---	2950	6	4	1
9	NF-S-125-230	124-184	---	3000	6	5	1
10	NF-S-150-170	126-181	---	3000	6	4	1
11	NF-S-125-230	132-197	---	3100	6	5	1
12	NF-S-150-170	135-194	---	3100	6	4	1

RATED CAPACITY - 400 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	99-148	---	2700	6	5	1
2	NF-S-150-170	101-143	---	2700	6	4	1
3	NF-S-125-230	107-159	----	2800	6	5	1
4	NF-S-150-170	108-155	---	2800	6	4	1
5	NF-S-125-230	115-171	---	2900	6	5	1
6	NF-S-150-170	116-166	---	2900	6	4	1
7	NF-S-100-80-290	194-327	---	2930	4	3	2
8	NF-S-125-230	119-177	---	2950	6	5	1
9	NF-S-150-170	121-172	---	2950	6	4	1
10	NF-S-125-230	123-183	---	3000	6	5	1
11	NF-S-150-170	125-178	---	3000	6	4	1
12	NF-S-125-230	132-195	---	3100	6	5	1
13	NF-S-150-170	134-191	---	3100	6	4	1

RATED CAPACITY - 450 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	99-147	---	2700	6	5	1
2	NF-S-125-230	107-158	---	2800	6	5	1
3	NF-S-125-230	115-170	---	2900	6	5	1
4	NF-S-125-230	119-176	---	2950	6	5	1
5	NF-S-125-230	123-182	---	3000	6	5	1
6	NF-S-125-230	131-195	---	3100	6	5	1

RATED CAPACITY - 500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	99-146	---	2700	6	5	1
2	NF-S-150-170	99-140	---	2700	6	4	1
3	NF-S-250-570	123-160	---	2700	10	8	1
4	NF-S-125-230	106-157	---	2800	6	5	1
5	NF-S-150-170	107-152	---	2800	6	4	1
6	NF-S-250-570	132-172	---	2800	10	8	1
7	NF-S-125-230	114-169	---	2900	6	5	1
8	NF-S-125-310	115-188	---	2900	5	4	1
9	NF-S-150-170	115-163	---	2900	6	4	1
10	NF-S-250-570	142-185	---	2900	10	8	1
11	NF-S-100-80-290	187-320	---	2930	4	3	2
12	NF-S-125-230	118-175	---	2950	6	5	1
13	NF-S-125-310	119-195	---	2950	5	4	1
14	NF-S-150-170	119-169	---	2950	6	4	1
15	NF-S-250-570	147-191	---	2950	10	8	1
16	NF-S-125-310	122-199	---	2980	5	4	1
17	NF-S-250-570	150-195	---	2980	10	8	1

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
18	NF-S-125-230	122-181	---	3000	6	5	1
19	NF-S-125-310	124-202	---	3000	5	4	1
20	NF-S-150-170	123-175	---	3000	6	4	1
21	NF-S-250-570	152-198	---	3000	10	8	1
22	NF-S-125-230	131-194	---	3100	6	5	1
23	NF-S-150-170	132-188	---	3100	6	4	1
24	NF-S-250-570	163-212	---	3100	10	8	1
25	NF-SS-150-100	118-238	127-239	3550	6	4	1

RATED CAPACITY - 750 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	97-141	---	2700	6	5	1
2	NF-S-150-170	88-129	---	2700	6	4	1
3	NF-S-250-570	121-158	---	2700	10	8	1
4	NF-S-125-230	105-152	---	2800	6	5	1
5	NF-S-150-170	96-140	---	2800	6	4	1
6	NF-S-250-570	130-171	---	2800	10	8	1
7	NF-S-100-375	199-280	---	2900	6	4	1
8	NF-S-125-230	113-164	---	2900	6	5	1
9	NF-S-125-310	103-172	---	2900	5	4	1
10	NF-S-125-80	236	236	2900	5	3	1
11	NF-S-150-100	112-213	108-216	2900	6	4	1
12	NF-S-150-100-375	226-276	227-280	2900	6	4	1
13	NF-S-150-170	105-152	---	2900	6	4	1
14	NF-S-200-330	122-219	---	2900	8	6	1
15	NF-S-250-570	140-183	---	2900	10	8	1
16	NF-S-125-230	117-170	---	2950	6	5	1
17	NF-S-125-310	107-179	---	2950	5	4	1
18	NF-S-150-170	109-158	---	2950	6	4	1
19	NF-S-200-330	127-227	---	2950	8	6	1
20	NF-S-250-570	145-190	---	2950	10	8	1
21	NF-S-125-310	110-183	---	2980	5	4	1
22	NF-S-200-330	130-232	---	2980	8	6	1
23	NF-S-250-570	148-194	---	2980	10	8	1
24	NF-S-125-230	121-176	---	3000	6	5	1
25	NF-S-125-310	111-186	---	3000	5	4	1
26	NF-S-150-170	113-164	---	3000	6	4	1
27	NF-S-200-330	131-235	---	3000	8	6	1
28	NF-S-250-570	150-196	---	3000	10	8	1
29	NF-S-125-230	129-188	---	3100	6	5	1
30	NF-S-150-170	122-176	---	3100	6	4	1
31	NF-S-250-570	160-210	---	3100	10	8	1
32	NF-SS-150-100	114-236	122-235	3550	6	4	1

RATED CAPACITY - 1000 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-125-230	90-133	---	2700	6	5	1
2	NF-S-250-570	119-156	---	2700	10	8	1
3	NF-S-125-230	98-144	---	2800	6	5	1
4	NF-S-250-570	129-168	---	2800	10	8	1
5	NF-S-125-230	107-156	---	2900	6	5	1
6	NF-S-125-365	178-288	---	2900	8	5	1
7	NF-S-150-100	101-208	101-215	2900	6	4	1
8	NF-S-150-100-375	219-273	215-273	2900	6	4	1
9	NF-S-150-290	107-157	---	2900	8	6	1
10	NF-S-200-125	143-267	143-252	2900	8	5	1
11	NF-S-200-330	119-217	---	2900	8	6	1
12	NF-S-200-335	140-182	---	2900	10	8	1
13	NF-S-250-570	138-181	---	2900	10	8	1
14	NF-S-125-230	111-162	---	2950	6	5	1
15	NF-S-200-330	124-225	---	2950	8	6	1
16	NF-S-200-335	145-188	---	2950	10	8	1
17	NF-S-250-570	143-188	---	2950	10	8	1
18	NF-S-200-330	126-230	---	2980	8	6	1
19	NF-S-200-335	148-192	---	2980	10	8	1
20	NF-S-250-570	146-192	---	2980	10	8	1
21	NF-S-125-230	115-168	---	3000	6	5	1
22	NF-S-200-330	128-233	---	3000	8	6	1
23	NF-S-200-335	150-195	---	3000	10	8	1
24	NF-S-250-570	148-194	---	3000	10	8	1
25	NF-S-125-230	124-180	---	3100	6	5	1
26	NF-S-250-570	158-208	---	3100	10	8	1
27	NF-SS-150-100	111-234	112-232	3550	6	4	1

RATED CAPACITY - 1250 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-250-570	118-152	---	2700	10	8	1
2	NF-S-250-570	127-164	---	2800	10	8	1
3	NF-S-125-365	165-278	---	2900	8	5	1
4	NF-S-200-125	137-263	134-250	2900	8	5	1
5	NF-S-250-570	137-177	---	2900	10	8	1
6	NF-S-250-570	141-183	---	2950	10	8	1
7	NF-S-250-570	144-187	---	2980	10	8	1
8	NF-S-200-150-305	113-180	---	3000	8	6	1
9	NF-S-250-570	146-190	---	3000	10	8	1
10	NF-S-250-570	157-204	---	3100	10	8	1
11	NF-SS-200-125	---	127-214	3550	8	5	1

RATED CAPACITY - 1500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-150-570	128-178	---	1470	8	6	1
2	NF-S-200-660	124-148	---	1470	10	8	1
3	NF-S-200-410	123-146	---	2100	10	8	1
4	NF-S-250-570	114-147	---	2700	10	8	1
5	NF-S-250-570	124-160	---	2800	10	8	1
6	NF-S-150-290	106-155	---	2900	8	6	1
7	NF-S-150-360	150-242	---	2900	8	6	1
8	NF-S-200-125	130-256	121-242	2900	8	5	1
9	NF-S-200-330	105-202	---	2900	8	6	1
10	NF-S-200-335	132-173	---	2900	10	8	1
11	NF-S-250-570	134-173	---	2900	10	8	1
12	NF-S-200-330	110-210	---	2950	8	6	1
13	NF-S-200-335	137-181	---	2950	10	8	1
14	NF-S-250-570	140-179	---	2950	10	8	1
15	NF-S-200-330	112-215	---	2980	8	6	1
16	NF-S-200-335	140-185	---	2980	10	8	1
17	NF-S-250-570	143-183	---	2980	10	8	1
18	NF-S-200-150-305	106-172	---	3000	8	6	1
19	NF-S-200-330	114-218	---	3000	8	6	1
20	NF-S-200-335	142-187	---	3000	10	8	1
21	NF-S-250-570	145-186	---	3000	10	8	1
22	NF-S-250-570	155-199	---	3100	10	8	1
23	NF-SS-200-125	---	126-211	3550	8	5	1

RATED CAPACITY - 2000 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-150-570	119-172	---	1470	8	6	1
2	NF-S-200-660	122-148	---	1470	10	8	1
3	NF-S-250-470	107-128	---	1470	12	10	1
4	NF-S-200-410	121-144	---	2100	10	8	1
5	NF-S-250-570	104-136	---	2700	10	8	1
6	NF-S-250-570	114-148	---	2800	10	8	1
7	NF-S-150-290	103-150	---	2900	8	6	1
8	NF-S-150-360	138-234	---	2900	8	6	1
9	NF-S-200-335	119-162	---	2900	10	8	1
10	NF-S-250-570	123-161	---	2900	10	8	1
11	NF-S-200-335	124-168	---	2950	10	8	1
12	NF-S-250-570	128-167	---	2950	10	8	1
13	NF-S-200-335	127-172	---	2980	10	8	1
14	NF-S-250-570	131-171	---	2980	10	8	1
15	NF-S-200-335	129-174	---	3000	10	8	1
16	NF-S-250-570	133-174	---	3000	10	8	1
17	NF-S-250-570	144-187	---	3100	10	8	1

RATED CAPACITY - 2500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-200-660	115-142	---	1470	10	8	1
2	NF-S-250-470	106-126	---	1470	12	10	1
3	NF-S-200-410	118-139	---	2100	10	8	1
4	NF-S-250-570	125-154	---	2950	10	8	1
5	NF-S-250-570	128-157	---	2980	10	8	1
6	NF-S-250-570	130-160	---	3000	10	8	1
7	NF-S-250-570	133-173	---	3100	10	8	1

RATED CAPACITY - 3000 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-250-470	103-125	---	1470	12	10	1

RATED CAPACITY - 3500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-S-250-470	99-121	---	1470	12	10	1

VERTICAL TURBINE PUMPS



NAFFCO's UL/FM Certified Vertical Turbine fire pumps provide you with a reliable solution for your underground water source type firefighting pump needs by combining the stringent quality measures of UL and NFPA standards with our proven experience in the fire protection field. We can offer you a complete package of services starting from engineering assistance to field start-up and periodic maintenance. Each pump set is tested in our factory, prior to dispatch, as per UL and NFPA standards. These pumps are covered by a warranty of one year subject to standard terms and conditions.

FEATURES

- Complete unit responsibility.
- Complete in-house fabrication capabilities.
- Hydrostatic strength testing facilities.
- Operation run test as per NFPA 20, UL 448 requirements.
- Vertical turbine models for capacities from 50 to 2000 US GPM.
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers as per NFPA standards.
- Capable to supply additional accessories wherever required.
- Rugged construction for longer service life.
- Specifically designed for firefighting applications as per NFPA 20.
- Excellent mechanical and hydraulic design characteristics for efficient performance.

SUCTION ASSEMBLY

Suction bell is furnished with an extra long bearing that

strengthens and provides rigid support for the lower end of the pump shaft. Suction bell provides efficient flow into the eye of the first stage impeller.

DISCHARGE HEAD

The rugged pump discharge head assembly is made of close-grained cast iron. It has smooth passageways that ensures efficient overall operation and provides an above ground connection to the discharge piping.

BOWL

The pump bowls have vanes cast integrally in them. These vanes are designed to match accurately with the impeller, and are smoothly contoured to guide the flow to next stage with maximum efficiency.

IMPELLER

Impellers are enclosed type, made of bronze/SS 304 and matched to the pump bowls. Each impeller is statically/dynamically balanced as per ISO 1940-1 to insure highest efficiency and vibration free operation.

COLUMN

Pump column pipe shall be in sections not longer than 10 ft. each. Column pipe is flanged type. Flanged connections are accurately machined to accept bearing retainers and are bolted together securely for proper sealing.

SHAFT SEAL

The shaft sealing is gland packing type. A lantern ring is furnished between the packing and it relieves pump pressure from the upper packing rings by bypassing the high pressure water through its relief ports.



APPROVED FIRE PUMP MODELS WITH RATINGS

RATED CAPACITY - 50 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-4VTP22	42-188	3-10	---	---	2900	4

RATED CAPACITY - 100 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-4VTP22	52-173	4-10	---	---	2900	4

RATED CAPACITY - 150 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-4VTP60	87-254	3-6	---	---	2900	4

RATED CAPACITY - 200 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-4VTP60	84-246	3-6	---	---	2900	4

RATED CAPACITY - 250 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-4VTP60	50-235	2-6	---	---	2900	4

RATED CAPACITY - 300 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-6VTP115	69-86	3	---	---	1450	6
		92-230	4-8				

RATED CAPACITY - 400 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-6VTP115	66-82	3	---	---	1450	6
		88-221	4-8				

RATED CAPACITY - 500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-6VTP115	63-80	3	41-206	2-8	1450	6
2		84-215	4-8			1750	
3	VTP-150-170-290	59-88	1	---	---	2900	6
4		119-264	2-3			2950	
		62-91	1				
		123-273	2-3				

RATED CAPACITY - 750 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-8VTP170	84-108	3	55-278	2-8	1450	8
2		112-288	4-8			1750	
3	VTP-150-170-290	56-86	1	---	---	2900	6
4		111-257	2-3			2950	
		58-89	1				
		116-267	2-3				

RATED CAPACITY - 1000 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-8VTP230	81-99	3	59-255	2-8	1450	8
2		108-132	4			1750	
		135-265	5-8				
3	VTP-150-170-290	48-80	1	---	---	2900	6
4		96-240	2-3			2950	
		50-83	1				
		100-250	2-3				

RATED CAPACITY - 1250 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-10VTP285	105-283	3-6	67-280	2-6	1450	10
2		---	---	72-272	2-4	1750	

RATED CAPACITY - 1500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-10VTP340	108-135	3	76-266	2-6	1450	10
2		144-270	4-6			1450	
3	NF-10VTP450	65-92	2	---	---	1450	10
4	NF-10VTP340	102-224	3-5	88-259	2-4	1750	10

RATED CAPACITY - 2000 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	UL Stage(s)	FM Approved Pressure (psi)	FM Stage(s)	Rated Speed(rpm)	Discharge Outlet Dia. (inch)
1	NF-10VTP450	58-83	2	---	---	1450	10
		92-204	3-5				

NATIONAL MOTORS' NMCM SERIES consists of motors designed for fire pump applications as specified in NFPA 20 (Standard for the Installation of Stationary Pumps for Fire Protection). They are certified by UL as per the requirement of UL 1004-5 'Standard for Fire Pump Motors'. These three phase horizontal low-voltage squirrel-cage medium induction motors are constructed and manufactured as per the requirements of NEMA MG 1 standard Design B.



With Open Drip Proof enclosures, they provide best possible ventilation suitable for environments having minimal airborne contaminants and better cooling that contribute to the most efficient performance available from these motors.



FEATURES

- 15 to 350 horse power rating at 50 Hz
- 15 to 400 horse power rating at 60 Hz
- 400 – 415 voltage rating at 50 hertz
- 460/380-400/208-230 voltage rating at 60 hertz
- NEMA Energy efficient design
- 1.15 Service Factor
- Class F insulation
- 50°C Ambient Temperature rating*
- Ball Bearings
- Cast Iron construction frame
- Frame size from 254T to 449TS
- UL File No. EX26863
- Duty Cycle: S1
- Stainless Steel name plate
- RAL 3000 Standard red painted
- IP23 Degree of Protection
- Locked Rotor Current as per NFPA 20
- Altitude rating of 1000 meters above sea level*
- F1 foot mounting
- 2 Pole, 2920 - 2945 rpm speed at 50 Hz**
- 2 Pole, 3530 - 3580 rpm speed at 60 Hz**
- Temperature Rise below Class B (80 K)***
- Suitable for various standard starters such as across the line, wye-delta, soft starter etc.

*NOTES:

* Derating may be required for higher values.

** Rated speed of the motor varies depending on motor size and it will be mentioned in the motor datasheet.

*** Typical data. Specific value will be mentioned in the motor datasheet.



FIRE PUMP MOTORS - TEFC

NATIONAL MOTORS' NMCM SERIES consists of motors designed for fire pump applications as specified in NFPA 20 (Standard for the Installation of Stationary Pumps for Fire Protection). They are certified by UL as per the requirement of UL 1004-5 'Standard for Fire Pump Motors'. These three phase horizontal low-voltage squirrel-cage medium induction motors are constructed and manufactured as per the requirements of NEMA MG 1 standard Design B.



With Totally Enclosed Fan Cooled Enclosure, they provide better protection from outside environment, including dust, airborne contaminants and many other weather disturbances. The enclosed casing of TEFC motor seals the inner windings, contacts and bearings from external sources such as dust and grit. Motor shaft extends from the motor casing to drive a cooling fan installed within a shroud on the non drive end of the motor.



FEATURES

- 15 to 400 horse power rating
- 380 – 415 voltage rating at 50 Hz
- 460/380-400/208-230 voltage rating at 60 Hz
- 1.15 Service Factor
- Class F insulation
- 50°C Ambient Temperature rating*
- Ball Bearings
- Cast Iron construction frame
- Frame size from 254T to 586TS
- UL File No. EX26863
- Duty Cycle: S1
- Stainless Steel name plate
- RAL 3000 Standard red painted
- IP55 Degree of Protection
- Locked Rotor Current as per NFPA 20
- Altitude rating of 1000 meters above sea level**
- F1 foot mounting
- 2 Pole, 2940 - 2980 rpm speed at 50 Hz**
- 2 Pole, 3530 - 3575 rpm speed at 60 Hz**
- Temperature Rise below Class B (80 K)***
- Suitable for various standard starters such as across the line, wye-delta, soft starter etc.

*NOTES:

* Derating may be required for higher values.

** Rated speed of the motor varies depending on motor size and it will be mentioned in the motor datasheet.

*** Typical data. Specific value will be mentioned in the motor datasheet.





Fire drive diesel engines are specifically designed and manufactured for firefighting applications according to UL1247 and FM 1333 standards. The better torque characteristics of these engines ensure reliable operation in emergency conditions. These engines are UL/FM Certified and comply with the requirements for diesel engine drives as detailed in NFPA 20. Engines are run tested at the factory prior to the dispatch to ensure that they meet the certified performance ratings.

FEATURES

- Reliable performance
- Easily serviceable type construction
- Accurate instrumentation facilities
- Reduce noise level
- Dependable controlling systems
- Better fuel efficiency - Economic fuel Consumption rate
- Efficient lubrication system
- Cooling system designed for optimum heat transfer
- Air intake system constructed for efficient air cold weather
- Longer engine life
- Heavy duty construction



PERFORMANCE DATA

DIESEL ENGINE CERTIFIED RATINGS

Engine Model	Rated Power	Rated Speed	UI Listed	Fm Approved
FD- 30H	18 hp	2800	-	FM
	19 hp	2900	UL	FM
	20 hp	3000	-	FM
FD- 50H	30 hp	2800	-	FM
	36 hp	2900	UL	FM
	40 hp	3000	-	FM
FD- 80H	46 hp	2800	-	FM
	50 hp	2900	UL	FM
	60 hp	3000	-	FM
FD- 80R	50 hp	2900	UL	-
FD- 110R	87 hp	2900	UL	-
FD- 95H	95 hp	2900	UL	-
FD- 140H	124 hp	2800	-	FM
	127 hp	2900	UL	FM
FD- 175H	170 hp	2800	-	FM
	170 hp	2900	UL	FM
	172 hp	3000	-	FM
	175 hp	3000	UL	-
FD- 180H	185 hp	2900	UL	-
FD- 190H	176 hp	2800	-	FM
	190 hp	2900	UL	FM
FD- 225H	225 hp	2900	UL	-
FD- 250H	194 hp	2800	-	FM
	250 hp	2950	UL	FM
	250 hp	3000	-	FM
	255 hp	3000	UL	-
FD- 325H	310 hp	2900	UL	-

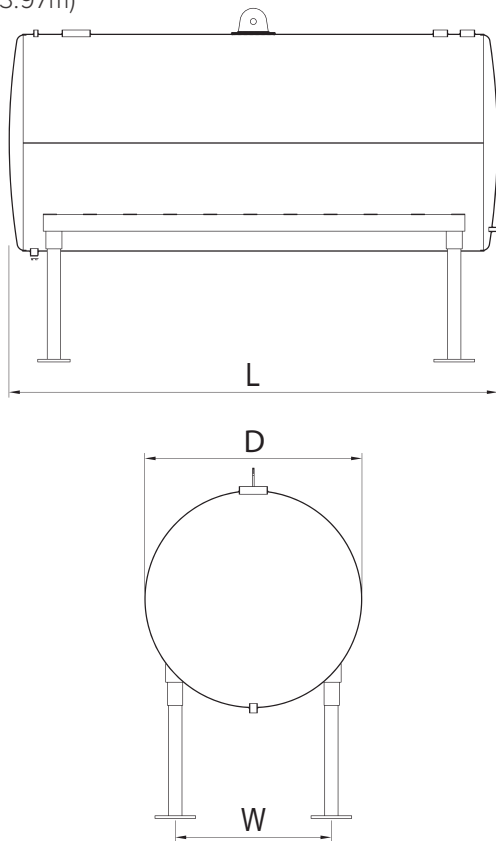


ABOVE GROUND STORAGE TANK

NAFFCO's Above Ground Storage Tank is designed for performance, durability, and reliability. The lightweight NAFFCO tank is performance engineered for safety and long service life. It is UL listed (manufacturing accordance UL 142) and has easily passed all tests for 100% primary containment.

These tanks are intended for installation and use in accordance with the flammable and combustible liquids code NFPA 30. The basic features of primary containment tanks covered under this category include all containment spaces and their respective openings (vents, liquid fill/withdraw, level indicator, drain and other functional openings) with connection threaded fittings.

All tank-containment compartments have been factory leak-tested by the NAFFCO before shipping. The tanks shall be constructed in accordance to UL 142 for the capacity up to maximum 75,000 US gallons and with the maximum diameter of 156" (3.97m)



TANK DIMENSION

Tank Capacity (Gallon)	Diameter (D) in mm	Length (L) in mm	Width (W) in mm
70	600	1050	430
150	800	1250	575
250	1000	1325	720
310	1070	1450	768.5
Up to 75000	up to 3970	as per site requirement	as per site requirement

BILL OF MATERIALS

Description	Material
Shell	ASTM A36
Leg	ASTM A53
Lifting Lug	ASTM A36
Liquid Level Indicator	---

PRE-PIPED VERTICAL & HORIZONTAL BLADDER TANK



DESCRIPTION

The NAFFCO Pre-piped Bladder tank is an integral component of balanced pressure proportioning system. Its operation requires no external power other than a pressurized water system. NAFFCO bladder tank, with an appropriate proportioner, injects foam concentrate into the water supply of a fire protection system and automatically proportions at wide range of flows and pressures.

NAFFCO Pre-piped Foam bladder tank is a steel pressure vessel fitted with an Internal Elastomeric bladder that stores foam concentrate. During operation, the concentrate is discharged by incoming water pressure to the bladder tank until the concentrate is depleted. The bladder tank discharges foam concentrate at approximately the same pressure as the water supplied at the water inlet connection to the tank. Since the bladder tank is pressurized, the bladder should not be refilled during operation.

APPLICATIONS

The NAFFCO Pre-piped Bladder tank is a complete balanced pressure proportioning system frequently used in;

- Fixed Fire Protection system for storage tank
- Bund area surface fire protection
- Truck & Rail Loading area fire protection
- Warehouse fire protection
- Chemical warehouse & Industrial fire protection
- Generator room fire protection
- Waste storage room fire protection
- Diesel storage room fire protection
- Helipad fire protection
- Aircraft hangar fire protection



Aircraft Hangars



Loading Racks



Sprinkler Systems



Offshore Platforms

FEATURES

- **UL LISTED/FM APPROVED/ASME 'U' STAMP/NBBI 'R' STAMP**
- Pre-piped bladder tank offers the foam system designer fixed dimensions and eliminates uncertainty during sizing of foam equipment room and piping layout.
- Pre-fabricated foam bladder proportioning system eliminates loose components and simplifies the installation.
- Bladder is manufactured of a vinyl based polymer as per ASTM D-412 with a Tensile strength of at least 3000 psi and ASTM D-624 with tear strength of at least 420lbs/in.
- Bladder of Reinforced rubber as per ASTM D-412 with tensile strength of at least 1750 psi ASTM D-262 with tear strength of at least 30KGF.
- Tanks are supplied with Brass trim valves and Teflon seats.
- All valves are labeled with working position and function.
- FM approval cover total foam system which includes liquid foam (3% and 6% Foam) Bladder tank with proportioner, hydraulic concentrate control valve and discharge devices.
- Permanently welded lifting lugs for easy tank movement and positioning.
- Designed for Maximum agent discharge
- Tanks are oversized to allow thermal expansion of foam concentrate if any
- Tanks are supplied with label identifying foam concentrate type, percentage ratio, tank size and approvals.
- Tanks are Externally RED enamel coated and Internally Coal tar Epoxy coated.
- 3 coat paint system is available upon request



TECHNICAL SPECIFICATIONS

NAFFCO Foam bladder tank system is a complete self-contained proportioning system consisting of a bladder tank, ratio controller, and assembled piping. The bladder tank shall be constructed in accordance to ASME Section VIII Div. I, for unfired pressure vessels with a working pressure of 175 psi (12 bar) and tested to at least 260 psi (18 bar). The tanks are fabricated to nominal capacity and overall dimensions are indicated in corresponding datasheet. The tank shall be constructed of carbon steel complying with ASME Section II Part A (SA 516 Gr. 70N) having a Tensile strength of 485 MPa. The bladder material is tested by Underwriter's Laboratory for compatibility with the agent to be used. This Bladder separates the foam concentrate from the incoming water. The tank can be supplied in Horizontal and Vertical configuration and shall be mounted on permanently attached saddle supports with holes for mounting bolts. The tank shall has perforated PVC schedule 80 center discharge piping, located within the bladder, to ensure that foam concentrate flows to the bottom discharge. A section of 1-inch I.D. rubber hose installed between the bladder and tank shell, shall extend from the water vent to the water drain connection, preventing bladder obstruction at these openings.

The ratio controller (RC) is a flanged and wafer type for mounting in Schedule 40 pipe between two 150 # flat or raised flanges of the same nominal size as the RC. The RC is cast bronze or Stainless Steel and shall be rated for a Working pressure of 175 psi (12 bar). A ¼" (6.35 mm) female NPT port for sensing water pressure at the inlet to the ratio controller water orifice shall be incorporated into the casting. Each ratio Controller is automatically proportions over the range indicated on flow range chart without any manual adjustment. The foam concentrate inlet shall contains a calculated foam concentrate metering orifice allowing for proper proportioning. The ratio controller is pre-piped to the bladder tank. All external piping shall be Schedule 40, and is St. Steel for foam concentrate and Carbon steel for water. Brass or bronze ball valves is supplied, and is complete with identification labels on the handles. Tank includes all necessary drain and vent valves, pressure relief valve, and tank content/identification labels. External surfaces of tank and piping are coated with RED Enamel finish.

MATERIALS OF CONSTRUCTION

Tank	Carbon steel
Bladder	Vinyl based polymer or Buna-N or Neoprene
Internal Piping	Perforated PVC, Sch. 80
External Piping	
Water Side	Carbon Steel, Sch.40
Foam Concentrate Side	Stainless steel, Sch. 40
Valves (Ball / Non- Return)	Ball: Brass body with nickle chrome finish, NRV: Brass body

HORIZONTAL FOAM BLADDER TANK

TECHNICAL INFORMATION

Pressure Relief Valve (Optional)	Brass Construction with Set Pressure @ 15 bar
Internal Piping	Perforated PVC, sch. 80
Flanges	ASTM A105, Class 150
Vent/Drain/NRV Valves	Brass/Bronze.
Sight Glass Valve	Sight Gauge with Shut Off & Drain Valve
Painting External	Zinc Rich Primer with Red Enamel Finish
Painting Internal	Zinc Rich Primer with Coal Tar Epoxy Paint

*Bladder tank can be supplied with special painting suitable for marine environment.

DESIGN DATA

Tank Mounting	Horizontal
Concentrate Storage Capacity	50-6000 Gallon (see table Dimensional Data)
Ratio Controller (Type, Size & Flow Range)	Refer to the Ratio Controller Detail table below
Foam Concentrate	Refer to the Ratio Controller Detail table below
Design Pressure	175 psi (12.09 bar)
Storage Temperature	+1.7°C to +49°C
Foam Concentrate Proportioning Orifice	1%, 2%, 3%, 6%

RATIO CONTROLLER DETAILS

Ratio controller, Model: WRC-B and WRC-S, FLOW RATE in GPM

Foam Concentrate	Approval	65NB	65NB*	80NB	80NB*	100NB	100NB*	150NB	200NB
AFFF 3%	UL	53-415	20-150	231-614	125-840	460-1585	140-712	775-2399	845-2364
AFFF 6%	UL	61-410	--	119-817	243-618	445-1559	193-491	752-2289	859-2315
AR-AFFF 3/3	UL	99-300	--	221-623	--	465-1020	--	793-2214	1089-2400
AFFF 3%	FM	55-313	--	237-614	--	455-1200	--	780-2400	845-2320
AFFF 6%	FM	66-220	--	241-619	--	445-1150	--	725-2135	890-2305
AR-AFFF 3/3	FM	98-348	--	229-616	--	465-1032	--	758-2375	853-2311
AR-AFFF 3/6-3%	FM	93-324	--	232-632	--	455-1026	--	765-2270	837-2360
AR-AFFF 3/6-6%	FM	101-322	--	251-646	--	460-1035	--	775-2260	1103-2100
AFFF 1% (NFP1)	UL	69-357	--	116-315	--	--	--	--	--
AR-AFFF 1/3-1%	UL	56-376	--	131-374	--	--	--	--	--
AR-AFFF 1/3-3%	UL	71-378	--	146-373	--	--	--	--	--
FP P3-3%	UL	71-357	--	96-371	--	--	--	--	--
NF HEFC 2%	UL	40-176	--	*	--	*	--	--	--
AR-AFFF 3/3 (NFP)	UL	--	38-153	228-806	--	--	--	--	--
AR-AFFF 3/6-3% (NFP)	UL	--	--	200-704	--	--	--	--	--
AR-AFFF 3/6-6% (NFP)	UL	--	--	233-736	--	--	--	--	--

*These models are available with different orifices.

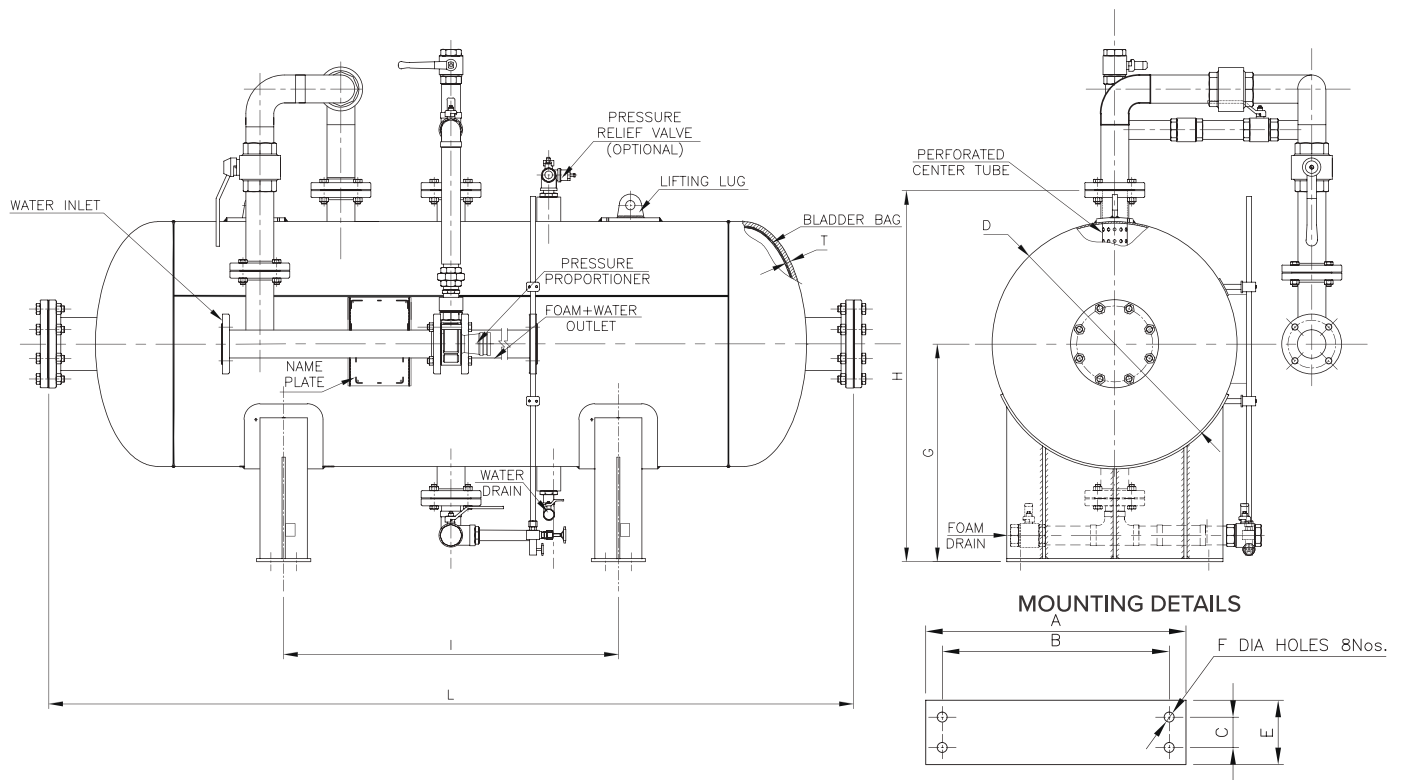
WAFER TYPE WIDE RANGE RATIO CONTROLLER FLOW RATE IN GPM

Foam Concentrate	Approval	NF-WRP100-50	NF-WRP150-50	NF-WRP200-80	NF-WRP250-80
1%, 3%, 6%	--	25 - 645	29 - 1450	34 - 2773	40 - 4225



VALVE TYPE AND POSITION

Valve No.	Description	Normal Position
1	Concentrate vent/fill	Closed
2	Tank water vent	Closed
3	Water drain/fill	Closed
4	Concentrate drain/fill	Closed
5	Sight glass valve	Closed
6	Concentrate outlet	Open
7	Water inlet	Open
8	Water powered ball valve(optional)	---



DIMENSIONAL DATA

SL No.	BLADDER TANK CAPACITY (gal)	Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (Inlet Flange to Tank)	L (mm)
1	50	NFHBT - 50	468	378	80	524	170	26	559	921	661	3"	1751
2	100	NFHBT - 100	556	466	80	626	170	26	616	1029	708	3"	1928
3	150	NFHBT - 150	688	598	80	778	170	26	692	1181	654	3"	1950
4	200	NFHBT - 200	688	598	80	778	170	26	692	1181	1064	3"	2560
5	300	NFHBT - 300	819	729	80	930	170	26	760	1325	1054	3"	2619
6	400	NFHBT - 400	959	785	140	1083	250	26	848	1490	1042	3"	2691
7	500	NFHBT - 500	959	785	140	1083	250	26	851	1493	1246	3"	2894
8	600	NFHBT - 600	959	785	140	1083	250	26	851	1493	1652	3"	3300
9	700	NFHBT - 700	1095	875	140	1239	250	26	1025	1745	1459	3"	3088
10	800	NFHBT - 800	1095	875	140	1239	250	26	1025	1745	1639	3"	3368
11	900	NFHBT - 900	1095	875	140	1239	250	26	1024	1744	2071	3"	3800
12	1000	NFHBT - 1000	1095	875	140	1239	250	26	1018	1738	2503	3"	4232
13	1100	NFHBT - 1100	1095	875	140	1239	250	26	1025	1745	2808	3"	4537
14	1200	NFHBT - 1200	1370	1150	140	1548	250	26	1168	2042	1398	3"	3183
15	1300	NFHBT - 1300	1370	1150	140	1548	250	26	1168	2042	1448	3"	3333
16	1400	NFHBT - 1400	1370	1150	140	1548	250	26	1168	2042	1868	3"	3757
17	1500	NFHBT - 1500	1370	1150	140	1548	250	26	1168	2042	2173	3"	4062
18	1600	NFHBT - 1600	1640	1380	140	1863	250	26	1321	2353	1191	3"	3080
19	1800	NFHBT - 1800	1640	1380	140	1863	250	26	1321	2353	1442	3"	3385
20	2000	NFHBT - 2000	1640	1380	140	1863	250	26	1321	2353	1647	3"	3690
21	2200	NFHBT - 2200	1640	1380	140	1863	250	26	1321	2353	1952	3"	3995
22	2400	NFHBT - 2400	1640	1380	140	1863	250	26	1321	2353	2256	3"	4299
23	2600	NFHBT - 2600	1640	1380	140	1863	250	26	1321	2353	2561	3"	4604
24	2800	NFHBT - 2800	1640	1380	140	1863	250	26	1321	2353	2866	3"	4909
25	3000	NFHBT - 3000	1640	1380	140	1863	250	26	1321	2353	3170	3"	5213
26	3200	NFHBT - 3200	1640	1380	140	1863	250	26	1321	2353	3476	3"	5519
27	3500	NFHBT - 3500	1640	1380	140	1863	250	26	1321	2353	3976	3"	6019
28	4000	NFHBT - 4000	1689	1429	140	1950	250	26	1375	2450	1300	3"	5900
29	4500	NFHBT - 4500	1732	1472	140	2000	250	26	1400	2500	1350	3"	6520
30	5000	NFHBT - 5000	1732	1472	140	2000	250	26	1400	2500	1400	3"	7150
31	5500	NFHBT - 5500	2013	1753	140	2300	250	26	1566	2816	1450	3"	6200
32	6000	NFHBT - 6000	2013	1753	140	2300	250	26	1566	2816	1500	3"	6542

*NOTES:

- All dimensions are approximate and may vary.
- All tank and valve openings will be plugged for Shipping.
- Fill funnel and sight glass tube will be packed and shipped separately.
- Contents label will be supplied to customer by NAFFCO and applied by customer to area provided on caution label.
- When designing a building to house bladder tanks, provisions must be made to allow for the removal of the internal piping and bladder

VERTICAL FOAM BLADDER TANK

TECHNICAL INFORMATION

Pressure Relief Valve (Optional)	Brass Construction with Set Pressure @ 15 bar
Internal Piping	Perforated PVC, sch. 80/3162
Flanges	ASTM A105, Class 150
Vent/Drain/NRV Valves	Brass/Bronze.
Sight Glass Valve	Sight Gauge with Shut Off & Drain Valve
Painting External	Zinc Rich Primer with Red Enamel Finish
Painting Internal	Zinc Rich Primer with Coal Tar Epoxy Paint

*Bladder tank can be supplied with special painting suitable for marine environment.

DESIGN DATA

Tank Mounting	Vertical
Concentrate Storage Capacity	36-3200 Gallon (see table Dimensional Data)
Ratio Controller (Type, Size & Flow Range)	Refer to the Ratio Controller Detail table below
Foam Concentrate	Refer to the Ratio Controller Detail table below
Design Pressure	175 psi (12.09 bar)
Storage Temperature	+2°C to +49°C
Foam Concentrate Proportioning Orifice	1%, 2%, 3%, 6%

RATIO CONTROLLER DETAILS

Ratio Controller, Model: WRC-B and WRC-S, FLOW RATE in GPM

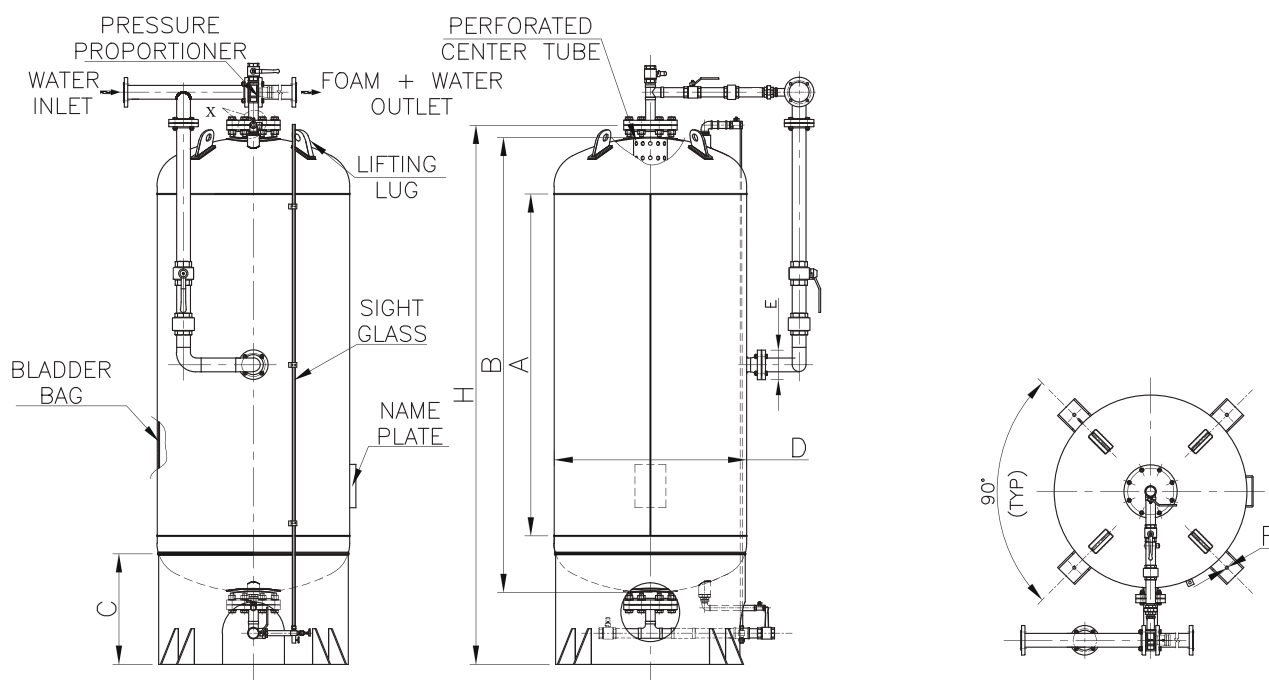
Foam Concentrate	Approval	65NB	65NB*	80NB	80NB*	100NB	100NB*	150NB	200NB
FFFF 3%	UL	53-415	20-150	231-614	125-840	460-1585	140-712	775-2399	845-2364
FFFF 6%	UL	61-410	--	119-817	243-618	445-1559	193-491	752-2289	859-2315
AR-FFFF 3/3	UL	99-300	--	221-623	--	465-1020	--	793-2214	1089-2400
FFFF 3%	FM	55-313	--	237-614	--	455-1200	--	780-2400	845-2320
FFFF 6%	FM	66-220	--	241-619	--	445-1150	--	725-2135	890-2305
AR-FFFF 3/3	FM	98-348	--	229-616	--	465-1032	--	758-2375	853-2311
AR-FFFF 3/6-3%	FM	93-324	--	232-632	--	455-1026	--	765-2270	837-2360
AR-FFFF 3/6-6%	FM	101-322	--	251-646	--	460-1035	--	775-2260	1103-2100
FFFF 1% (NFP1)	UL	69-357	--	116-315	--	--	--	--	--
AR-FFFF 1/3-1%	UL	56-376	--	131-374	--	--	--	--	--
AR-FFFF 1/3-3%	UL	71-378	--	146-373	--	--	--	--	--
FP P3-3%	UL	71-357	--	96-371	--	--	--	--	--
NF HEFC 2%	UL	40-176	--	*	--	*	--	--	--
AR-FFFF 3/3 (NFP)	UL	--	38-153	228-806	--	--	--	--	--
AR-FFFF 3/6-3% (NFP)	UL	--	--	200-704	--	--	--	--	--
AR-FFFF 3/6-6% (NFP)	UL	--	--	233-736	--	--	--	--	--

*These models are available with different orifices.

WAFFER TYPE WIDE RANGE RATIO CONTROLLER FLOW RATE IN GPM

Foam Concentrate	Approval	NF-WRP100-50	NF-WRP150-50	NF-WRP200-80	NF-WRP250-80
1%, 3%, 6%	--	25 - 645	29 - 1450	34 - 2773	40 - 4225





DIMENSIONAL DATA

SL No.	BLADDER TANK CAPACITY (gal)	Model	A (mm)	B (mm)	C (mm)	D (mm)	E (Inlet Flange to Tank)	F	H (mm)
1	36	NFVBT - 36	650	1042	440	536	3"	ø19 HOLE 4 Nos.ON PCD 686	1407
2	50	NFVBT - 50	900	1276	440	536	3"	ø19 HOLE 4 Nos.ON PCD 686	1695
3	100	NFVBT - 100	1044	1472	475	640	3"	ø19 HOLE 4 Nos.ON PCD 790	1900
4	150	NFVBT - 150	1026	1554	510	840	3"	ø19 HOLE 4 Nos.ON PCD 990	1927
5	200	NFVBT - 200	1066	1594	510	840	3"	ø19 HOLE 4 Nos.ON PCD 990	1967
6	300	NFVBT - 300	1160	1788	565	1040	3"	ø19 HOLE 4 Nos.ON PCD 1190	2226
7	400	NFVBT - 400	1400	2050	575	1083	3"	ø19 HOLE 4 Nos.ON PCD 1235	2475
8	500	NFVBT - 500	1865	2515	575	1083	3"	ø19 HOLE 4 Nos.ON PCD 1235	2940
9	600	NFVBT - 600	1650	2380	700	1239	3"	ø19 HOLE 4 Nos.ON PCD 1390	2910
10	700	NFVBT - 700	1900	2680	700	1239	3"	ø19 HOLE 4 Nos.ON PCD 1390	3160
11	800	NFVBT - 800	2200	2930	700	1239	3"	ø19 HOLE 4 Nos.ON PCD 1390	3460
12	900	NFVBT - 900	1338	2258	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	2930
13	1000	NFVBT - 1000	1428	2348	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	3040
14	1100	NFVBT - 1100	1578	2498	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	3187
15	1200	NFVBT - 1200	1910	2830	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	3520
16	1300	NFVBT - 1300	2115	3035	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	3725
17	1400	NFVBT - 1400	1310	3230	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	3920
18	1500	NFVBT - 1500	2500	3420	940	1620	3"	ø19 HOLE 4 Nos.ON PCD 1770	4110
19	1600	NFVBT - 1600	2230	3192	1072	1700	3"	ø19 HOLE 4 Nos.ON PCD 1850	4025
20	1700	NFVBT - 1700	2400	3362	1072	1700	3"	ø19 HOLE 4 Nos.ON PCD 1850	4195
21	1800	NFVBT - 1800	2575	3537	1072	1700	3"	ø19 HOLE 4 Nos.ON PCD 1850	4370
22	1900	NFVBT - 1900	2742	3704	1072	1700	3"	ø19 HOLE 4 Nos.ON PCD 1850	4535
23	2000	NFVBT - 2000	2915	3877	1072	1700	3"	ø19 HOLE 4 Nos.ON PCD 1850	4710
24	2100	NFVBT - 2100	2510	3550	1125	1850	3"	ø19 HOLE 4 Nos.ON PCD 2000	4360
25	2200	NFVBT - 2200	2660	3700	1125	1850	3"	ø19 HOLE 4 Nos.ON PCD 2000	4510
26	2300	NFVBT - 2300	2805	3842	1125	1850	3"	ø19 HOLE 4 Nos.ON PCD 2000	4652
27	2400	NFVBT - 2400	2950	3987	1125	1850	3"	ø19 HOLE 4 Nos.ON PCD 2000	4800
28	2500	NFVBT - 2500	3095	4132	1125	1850	3"	ø19 HOLE 4 Nos.ON PCD 2000	4942
29	2600	NFVBT - 2600	2610	3722	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	4535
30	2700	NFVBT - 2700	2735	3847	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	4660
31	2800	NFVBT - 2800	2865	3977	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	4790
32	2900	NFVBT - 2900	2990	4102	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	4915
33	3000	NFVBT - 3000	3120	4232	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	5045
34	3100	NFVBT - 3100	3245	4357	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	5170
35	3200	NFVBT - 3200	3375	4487	1175	2000	3"	ø19 HOLE 4 Nos.ON PCD 2150	5300

NOTES:

- All dimensions are approximate and may vary.
- All tank and valve openings will be plugged for Shipping.
- Fill funnel and sight glass tube will be packed and shipped separately.
- Contents label will be supplied to customer by NAFFCO and applied by customer to area provided on caution label.
- When designing a building to house bladder tanks, provisions must be made to allow for the removal of the internal piping and bladder.

WAFFER TYPE RATIO CONTROLLER

MODEL: WRC-B, WRC-S



DESCRIPTION

NAFFCO Pressure Proportioner is for use in fixed systems to introduce designed foam concentrate at a predetermined rate into the fire-water supply, over a varying range of foam solution demands. For example, where a number of discharge outlets may be required to operate individually or simultaneously. There are 5 basic models with capacities from 20 GPM to 2400 GPM and each unit is factory-calibrated to suit proportioning rates of 1% or 2% or 3% or 6% of a specified foam concentrate.

Size 2.5" proportioner shall be threaded type and the other sizes are wafer type. The wafer type, designed to be installed between ANSI 150 flanges and are manufactured from high grade corrosion resistant materials. They are simple to install, require no maintenance and their modular construction gives the engineer considerable flexibility in terms of selection of flow rate and positioning within the system.



FEATURES

- Corrosion resistant bronze(WRC-B)/ stainless steel construction (WRC-S).
- Custom flow and pressure options available.
- Optional threaded or flanged end connections
- 2.5" WRC shall be threaded, other size are wafer type.

WAFFER TYPE RATIO CONTROLLER SIZE & FLOW RATE

RATIO CONTROLLER, MODEL: WRC-B & WRC-S, FLOW RATE IN GPM

Foam Concentrate	Approval	65NB	65NB*	80NB	80NB*	100NB	100NB*	150NB	200NB
AFFF 3%	UL	53-415	20-150	231-614	125-840	460-1585	140-712	775-2399	845-2364
AFFF 6%	UL	61-410	--	119-817	243-618	445-1559	193-491	752-2289	859-2315
AR-AFFF 3/3	UL	99-300	--	221-623	--	465-1020	--	793-2214	1089-2400
AFFF 3%	FM	55-313	--	237-614	--	455-1200	--	780-2400	845-2320
AFFF 6%	FM	66-220	--	241-619	--	445-1150	--	725-2135	890-2305
AR-AFFF 3/3	FM	98-348	--	229-616	--	465-1032	--	758-2375	853-2311
AR-AFFF 3/6-3%	FM	93-324	--	232-632	--	455-1026	--	765-2270	837-2360
AR-AFFF 3/6-6%	FM	101-322	--	251-646	--	460-1035	--	775-2260	1103-2100
AFFF 1% (NFP1)	UL	69-357	--	116-315	--	--	--	--	--
AR-AFFF 1/3-1%	UL	56-376	--	131-374	--	--	--	--	--
AR-AFFF 1/3-3%	UL	71-378	--	146-373	--	--	--	--	--
FP P3-3%	UL	71-357	--	96-371	--	--	--	--	--
NF HEFC 2%	UL	40-176	--	*	--	*	--	--	--
AR-AFFF 3/3 (NFP)	UL	--	38-153	228-806	--	--	--	--	--
AR-AFFF 3/6-3% (NFP)	UL	--	--	200-704	--	--	--	--	--
AR-AFFF 3/6-6% (NFP)	UL	--	--	233-736	--	--	--	--	--

*These models are available with different orifices.

*Bladder tank can be supplied with special painting suitable for marine environment.

SKID MOUNTED BALANCED PRESSURE OR IN-LINE BALANCED PRESSURE FOAM PROPORTIONING SYSTEM

DESCRIPTION

NAFFCO Balanced Pressure or In-line Balanced Pressure Foam Proportioning Pump Skids are designed as per NFPA 11 to precisely proportion the foam concentrate into the water stream. The systems function over a range of flow and pressures. The Balanced Pressure or In-line Balanced Pressure Pump Proportioning System functions by maintaining an equal pressure in the foam concentrate inlet and water inlets to the proportioner, which allows the proportioner to be used over a wide range of pressure and flow. The system consists of a foam pump, a diaphragm operated pressure balancing valve, and all the required piping valves and fittings assembled on a common steel base. NAFFCO also offers the deluge valve and the atmospheric storage tank as an option, on the pump skid as per request. The skid units are available in different proportioner sizes ranging from 2 ½" to 10".

SPECIFICATION

The NAFFCO Balanced Pressure or In-line Balanced Pressure Foam Proportioning Pump Skid is a complete self-contained unit engineered to supply foam concentrate from a positive displacement pump to a venturi device like the ratio controller with the remaining excess foam re-circulating through a diaphragm operated balancing valve in the return line to the tank. The diaphragm valve senses and balances the pressure in the foam and water lines to the proportioner. All the components and piping in the skid shall be securely mounted on a welded steel base frame with lifting lugs and in addition to it, provision is provided to lift the skid unit using a fork lift. The skid unit consists of all the required piping, valves and fittings to foam a complete, compact proportioning foam pump unit. The foam pump shall have a positive displacement, vane type foam concentrate pump. The driver shall be sized with sufficient horsepower to allow operation, with relief valve full open, without overloading the motor. The motor driven pump that is provided will be either UL Listed or FM Approved, with NFPA 20 fire pump controller. All foam concentrate piping shall be of stainless steel material suitable for different types of foam concentrates to avoid corrosion. Drain valves are provided for proper flushing. The suction line piping contains of a Y-strainer and a compound gauge is provided in the suction line downstream of the strainer, to check potential blockage during operation. All pressure gauges provided in the skid will be liquid filled type. Liquid filled gauges enhance the reliability and integrity of the measuring system for long periods under extreme operating conditions. All manual ball or gate valves shall be of stainless steel, brass, or bronze type, identification tags are provided for all valves. A check valve is provided in the foam concentrate discharge line.

The pressure balancing diaphragm valve which is the heart of the balanced pressure proportioning pump skids is provided to automatically maintain the foam concentrate discharge at the preset pressure. A relief valve is provided on discharge line to prevent pressure buildup in the discharge line due to temperature fluctuations.



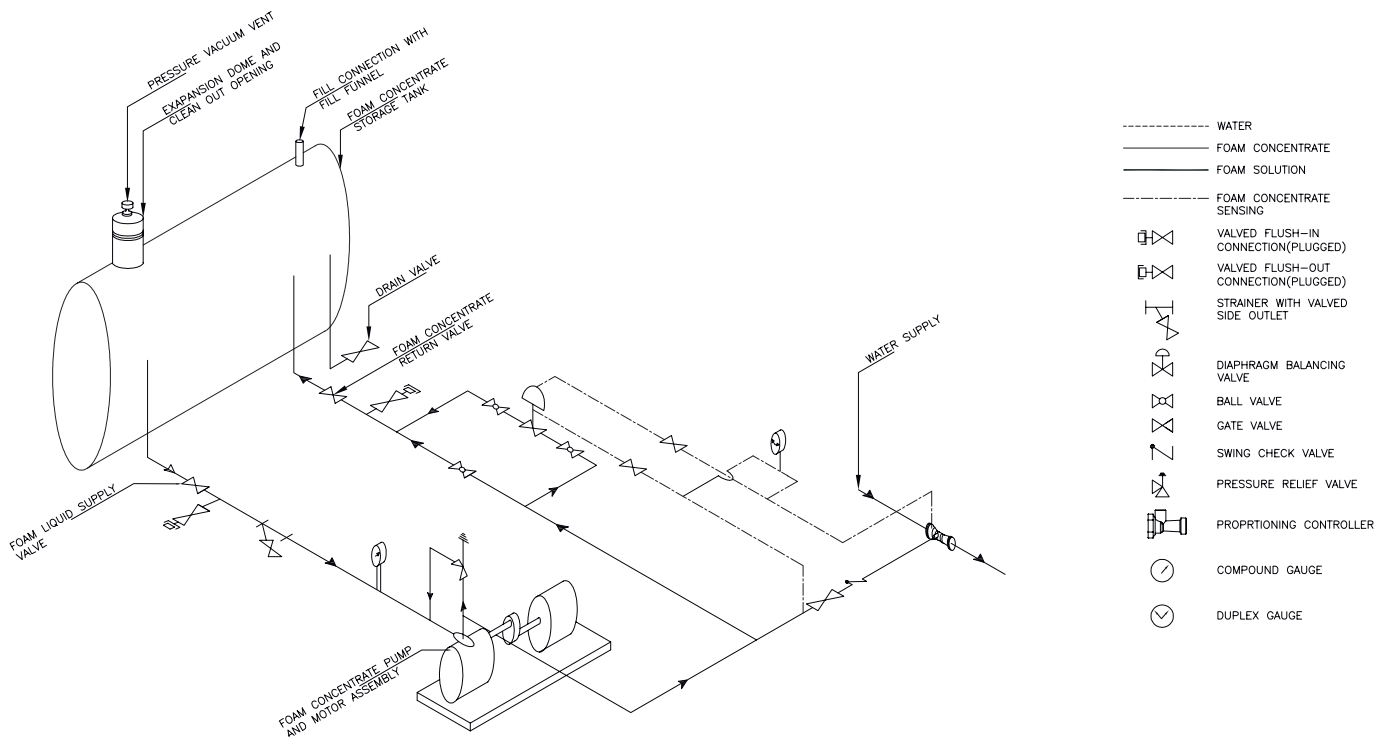
Discharge pressure is maintained by adjusting the pressure sustaining valve opening to control the excess foam concentrate flow back to the concentrate storage tank. The pressure balancing valve shall be provided with a block valve with bypass arrangement which can be manually operated in the event of malfunctioning or maintenance of the pressure balancing diaphragm valve. A gate valve shall be provided with a bypass arrangement which can be manually operated in the event of the malfunctioning of the pressure balancing diaphragm valve. A pressure gauge is provided to verify proper foam concentrate discharge pressure and also to allow the system pressure to be manually adjusted. A flush-in/flush-out ball valve is provided for ease of service.

APPLICATION

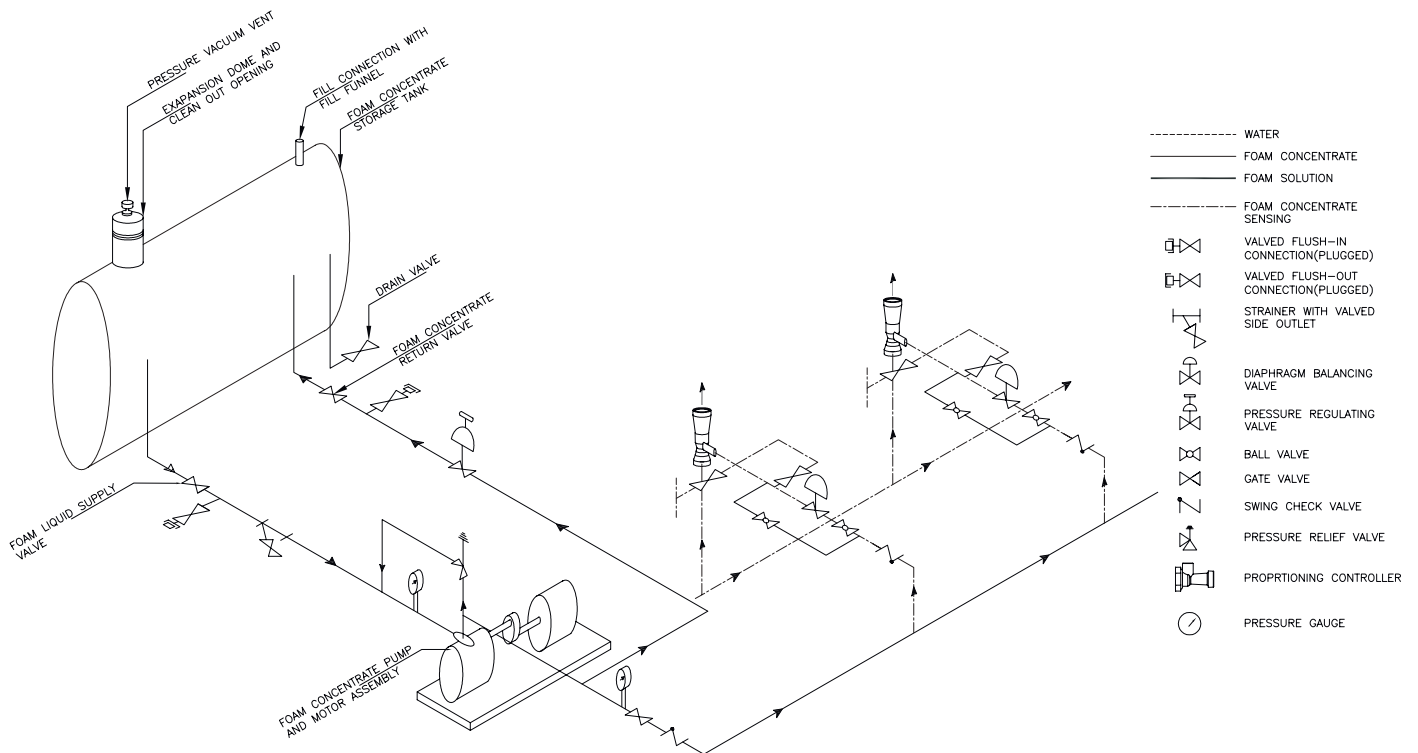
These systems are usually used to protect oil tank farms, aircraft hangars, marine docks, chemical processing plants, offshore oil platforms, loading racks, Flammable Liquid Warehouses etc.

FEATURES

- Compact design.
- Can be used with both fresh and sea water.
- Can add in options like deluge valve and concentrate tank on the skid if required.
- All foam concentrate valves, pipe and fittings are of stainless steel or brass material for compatibility with all types of foam concentrates
- All manual valves are of brass or bronze material with identification tag.
- Four proportioner options to cover a wide range of flow requirements.
- Foam Concentrate tank can be of GRP or Stainless Steel material or Polyethylene
- Pump skid supplied with manual override capabilities.
- Compatible with all NAFFCO foam Concentrates.
- A bypass arrangement is provided for the system to function in the event of malfunctioning of pressure balancing diaphragm valve.
- Major components are UL Listed.



BALANCED PROPORTIONING (PUMP TYPE) WITH SINGLE INJECTION POINT



IN-LINE BALANCED PROPORTIONING (PUMP TYPE) WITH MULTIPLE INJECTION POINT

INLINE BALANCE PRESSURE FOAM PROPORTIONER

MODEL: NF-IBP SERIES



APPLICATION

The Inline Balance Pressure Foam Proportioners are used with positive displacement foam concentrate supply pump. The system controls accurately the flow of foam concentrate into the water stream over a wide range of flow rate and pressure.

The Inline Balance Pressure Foam Proportioning System is used for simultaneous operation of the multiple foam injection even with different pressures between the two injection point with a single concentrate supply line. Various sizes of inline balance pressure proportioners can be combined to suit the flow requirement of each hazard area.

SPECIFICATION

Inline balance pressure proportioning system utilizes a single, positive displacement foam concentrate supply pump, an atmospheric foam concentrate storage tank, inline balance proportioner, and a foam concentrate regulating valve. The pressure regulating valve is mounted on foam concentrate return line to the foam concentrate storage tank. The valve regulates the foam concentrate supply pressure.

The Inline balance pressure proportioner consists of a ratio controller, diaphragm operated pressure balancing valve, water and foam gauges, and pressure sensing hose of Teflon tube with stainless steel braided cover, interconnecting trim fittings with various control and flush valves. The water inlet pressure and foam concentrate pressure at metering orifice is sensed by a diaphragm valve and it automatically balances the concentrate supply to provide accurately proportioned water foam solution over a wide range of flow conditions.

A foam concentrate supply valve is also provided as an optional item. The system requires foam concentrate supply pressure of minimum 25 psi and maximum of 40 psi. higher than the water supply pressure. The Inline balance pressure proportioner is also provided with a manual balancing valve



TECHNICAL INFORMATION

Material	NFIBP-SS - Stainless Steel * NFIBP-B - Bronze NFIBP-MS - Stainless Steel*# NFIBP-MB - Bronze #
Size	65, 100, 150 & 200 NB
Maximum Service Pressure	12 bar (175 psi) - UL Listed
Minimum Working Pressure	2.8 bar (40 psi)
Ratio Controller Mounting Type	Wafer type or Flanged end ANSI B 16.5
Thread Opening	BSPT/NPT optional
Pressure Sensing Hose	TEFLON tube with Stainless Steel braided cover
Trim Connection and Various Control Valves	Stainless Steel
Factory Hydrostatic Test Pressure	25 kg./ Sq.cm. (350 psi)
Finish	Red RAL 3001
Ordering Information	Specify • Model Number • Flow rate • Percentage Induction • Type of Foam Concentrate used

- *Stainless Steel CF8 (304) is standard supply; CF8M (316), CF3 (304L) & CF3M (316L) are optional supply.
- # Only for 65 NB Size.

SIZE & FLOW RATE

Sl. No.	Inline Balance Proportioner Model	Size	Flow in LPM	
			AFFF 3%	AR-AFFF 3 x 3%
1	NFIBP-SS and NFIBP-B	65	401 to 1419	496 to 1476
2	NFIBP-MS, NFIBP-MB	65	--	182 to 659
3	NFIBP-SS and NFIBP-B	80	363 to 3077	727 to 3017
4	NFIBP-SS and NFIBP-B	100	655 to 6037	780 to 5999
5	NFIBP-SS and NFIBP-B	150	1930 to 12267	2173 to 11658
6	NFIBP-SS and NFIBP-B	200	2960 to 16245	3543 to 16847

IN-LINE INDUCTORS (FIXED & PORTABLE TYPE)
MODEL: NF-350B-225 (V), NF-350B-450 (V), NF-350B-600F



DESCRIPTION

NAFFCO Foam Inductors provide a simple and accurate means of inducing foam concentrate into the water supply. Portable and fixed inline inductors are available for reliable and accurate proportioning. Construction of Stainless steel (SS 304/316) material ensures long and trouble free operational life.

PORTABLE INLINE INDUCTORS

Portable Inline Inductors provide the means for accurate induction of Foam compound into the Water stream for operation of Foam branches and equipment. Using a simple venturi, the device ensures accurate induction at the design pressure. Working pressure is 7 bar. Our Inline Inductor capacities are matched to NAFFCO Foam equipment; models NF - 500 LXB225 and NF - 500 LXB450 though other capacities can be manufactured on request. An ergonomic design allows easy handling and mobilization, and a simple, robust construction ensures long and trouble free operation.

FIXED INLINE INDUCTORS

Fixed Inline Inductors are meant for use in fixed foam systems for protection of fixed/floating roof storage tanks, foam spray systems for Tanker loading bays, etc. It's simple design make the operation simple and reliable, and when operated at the design pressure, it will ensure proper induction, and result in good quality foam being discharged from foam delivery devices.



- *NOTES:**
- Fixed Inline Inductor to be located as close as possible to Foam concentrate container. Pipe lengths before and after inductor should be straight for at least 3 feet's to ensure correct performance. Inductor should not be located more than 6 feet above bottom of foam container.
 - Inlet pressure should be within the working pressure 5 to 12 kg/cm² for correct performance. Diameter of inlet & outlet pipes should not be less than that of the inductor, and if shut-off valves are provided at inlet, it should be ensured that the valve is full bore On-Off type.

PERFORMANCE DATA

Model	Type	Performance	End Connection	Weight	Painting
NF-350B-225 (V)	Portable	225 LPM @ 100 psi	63mm Instantaneous Male/Female Outlet	5.5 kg.	Fire Red/Yellow
NF-350B-450 (V)	Portable	450 LPM @ 100 psi	63mm Instantaneous Male/Female Outlet	5.5 kg.	Fire Red/Yellow
NF-350B-600F	Fixed	600 LPM @ 100 psi	Flanged	5.5 kg.	Fire Red/Yellow

Inductors are fixed orifice type for 3% proportioning.

IN-LINE INDUCTORS (VARIABLE & FIXED TYPE)

MODEL: NF-350B (V), NF-350B (F)



DESCRIPTION

Air Foam Proportioners/Inline Inductors are venturi devices that introduce Foam concentrate into a flowing stream of water at a controlled rate. The rate of solution flow from the device is related to the inlet pressure of proportioner. In addition to water pressure, handline proportioner/inline inductors are sensitive to back pressure. Back pressure is the amount of pressure required downstream of the proportioner to discharge the total foam solution flow. The total allowable back pressure on the discharge side of the handline proportioner/inline inductors should not exceed 65% of the water inlet pressure. When using handline proportioners/ inline inductors as portable devices a pick-up tube is provided to draw foam concentrate from the portable foam containers. Two different models are:

- NF-350B (V) – Portable inline Inductor with Variable Proportioning at 3% & 6%
- NF-350B (F) –Inline Inductor with Fixed Proportioning at 6%.

FEATURES

- NF-350B (V) having metering check valve to adjust foam induction/proportion rate at 3% & 6%.
- For fixed installation having fixed orifice of foam induction/proportion rate at 6%.
- Suitable for use with all foam concentrates.
- Designed to minimum pressure loss across the inductor
- Simple to operate
- Minimal maintenance
- Corrosion resistant

DIMENSIONS (approx.)

Model	NF-350B (V)	NF-350B (F)
Length, mm(inch)	280(11)	280(11)
Height, mm(inch)	128(5)	128(5)
Width(Leg)	100x25	100x25

***NOTE:** Standard inlet and outlet hose couplings are supplied for both the models.

MATERIAL OF CONSTRUCTION

Part	Material
Diffuser	Bronze
Injector	Bronze
Body	Bronze
Metering Check Valve	Stainless Steel 304
Valve Connector	Brass (Chrome Plated)
Orifice	Brass (Chrome Plated)
PICK-UP TUBE	
Flexible Tube	Plastic Flexible Tube with Spiral
Extension Tube	Stainless Steel
Strainer	Stainless Steel



APPLICATION

Air Foam Proportioners/Inline Inductors are designed for hose line applications and matched to specific Nozzle/ Nozzles. It is not recommended/suitable to operate over a range of flow or pressures. NF-350B (F) is not recommended for application using sprinklers or other multiple small orifice discharge devices which could increase the allowable back pressure sufficiently to cause proportioning failure.

- Once the Inline Inductors are installed properly, no further attention are required during operation except, for ensuring the required supply of foam concentrate time to time.
- Hose sizes can be varied to increase the distance between inductor and foam maker. Relay operation may be used when it is necessary to move foam to longer distance or to allow application from elevated master stream.
- Designed for application with Mobile Foam Unit in combination with UL Listed Foam Hose Stream Nozzle (Low Expansion Branch Pipe).

TECHNICAL DATA

Model	NF-350B (V)	NF-350B (F)
Inlet pressure, kg./cm ² (psi)	7.0(100) max	7.0(100)
Min. Inlet Pressure, bar	6-7	6-7
Nominal Flow, LPM/GPM	385 (100) ±5%	385 (100) ±5%
Proportioning (%)	3% & 6% with metering check valve	6%(Fixed orifice)
Inlet and Outlet size, mm(inch)	63 (2.5)	63 (2.5)
Hose Size (mm/inch)	63-70 (2.5-2.75)	63-70 (2.5-2.75)

FOAM CONCENTRATE CONTROL VALVE

MODEL: NF-WPV, NF-CV



APPLICATION

Foam concentrate control valve is designed for use in bladder tank foam system or inline balance pressure proportioning system. The valve opens automatically when water supply is established through the inlet pipe of ratio controller of bladder tank or in the inline balance pressure proportioning system. The valve opens at minimum of 2.1 kg./cm² (30 psi) water pressure. No electric power is required to operate the valve.

SPECIFICATION

The foam concentrate control valve utilizes water as the medium to open the valve. A manual override facility is provided to open the valve. In normal condition the valve remains in closed position. When, a minimum water pressure of 2.1 kg./cm² (30 psi) is established the valve opens and closing of the valve is manual.

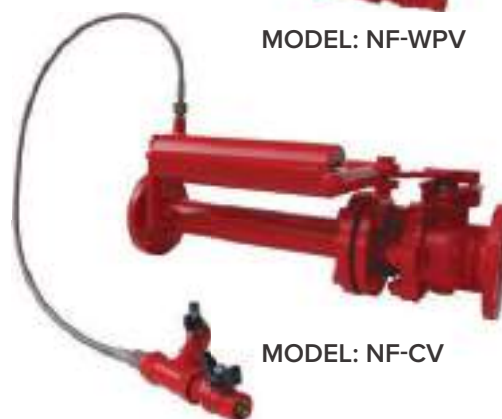
Visual indication as well as electric contact is provided for remote indication for open and closed position only in model NF-WPV is available with FM approval if it is used with NAFFCO Foam System.

TECHNICAL DATA

Size	25, 40 & 50 NB
Factory Hydrotested	25 kg./cm ²
Operating Pressure	MIN: 2.1 kg./cm ² (30 psi) MAX: 12.3 kg./cm ² (175 psi)
Material	Stainless Steel 304 standard supply. Optional 304L 316 or 316L
Inlet & Outlet Connection	Flanged end to ANSI B16.5#150RF
Visual	Provided with Red for Closed & Yellow for Open
Remote Location	Provided with Model NF-WPV only Through limit switch box, Ex. Proof, Class-1, Group-C&D, IIA, IIB, & C
Pressure Sensing Hose	Teflon tube with Stainless Steel braided cover
Trim Connection	Brass/Stainless Steel
Finish	RED RAL 3000



MODEL: NF-WPV



MODEL: NF-CV

INSPECTION AND MAINTENANCE

A qualified and trained person must commission the system. After few initial successful tests, an authorised person must be trained to perform the inspection and testing of the system at least once in a week. The inspection should verify that all the control valves are in their proper position as per the system requirement and no damage has taken place to any component. The foam concentrate control valve/system must be operated at least once in six weeks. The total system should be fully tested at least once in a year as per NFPA/TAC manual or in accordance to the guidelines of the organization having local jurisdiction.

FOAM PUMP



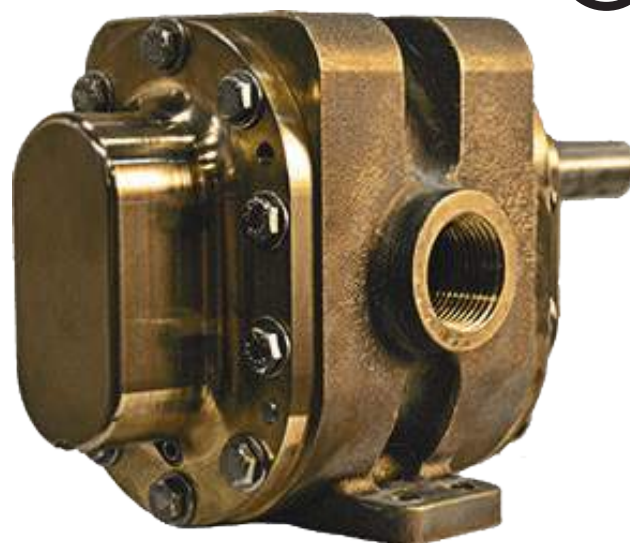
DESCRIPTION

Foam Pump is specialized non-corrosive construction pumps used for Fire Protection, especially for Fire-fighting foam concentrate pumping & water mist pumping applications. These pumps can also be used for Stationary or mobile systems applications.

NAFFCO Foam pump have 255 Duplex Stainless steel shafts to withstand seawater flush and any brand foam concentrate. Only 1 shaft seal is permitted and shaft seal shall be capable of dry operation for 10 minutes. Shaft seal shall be simple to repair and replace in the field. Shaft seal materials are 316 stainless casing with double PTFE lips that allow for hydro test pressure to 350 psig without leakage.

Pump rotor shall be spur gear design using corrosion resistant materials. Made from admiralty bronze alloy and composite materials that provide no tooth to tooth wear and no corrosion.

Foam pump connections shall be Groove, NPT or ANSI flange. Pump connections and end covers shall use O-ring seals for leak free operation and simple field replacement.



FEATURES

- Foam pump design is utilize replaceable casing liners, bearings or timing gears.
- Capable of rotation in either direction without modification.

TECHNICAL INFORMATION

Model	NF-FP-30		NF-FP-50		NF-FP-75		NF-FP-101		NF-FP-151	
RPM	1500	1800	1500	1800	1500	1800	1500	1800	1500	1800
Flow (GPM)	24-36	40-55	40-56	57-72	65-90	90-115	88-119	121-152	107-140	152-185
Pressure (psi)	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100
Port Size (inch)	1x1	1x1	1.5x1.5	1.5x1.5	1.5x1.5	1.5x1.5	2x2	2x2	2x2	2x2
Type of Connection	Threaded & Grooved						Flanged / Grooved			
Material (Body)	Bronze									
Pump Rotor	Spur or Herringbone Gear									
Shaft Type	Key Shaft or Splined Input									
Material(SHAFT)	255 Duplex Stainless Steel									

Model	NF-FP-175		NF-FP-201		NF-FP-225		NF-FP-250		NF-FP-350	
RPM	1500	1800	1500	1800	1500	1800	1500	1800	1500	1800
Flow (GPM)	135-180	185-235	158-205	202-252	180-240	240-300	185-245	250-315	280-335	375-420
Pressure (psi)	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100	261-100
Port Size (inch)	3x3	3x3	3x3	3x3	3x3	3x3	4x4	4x4	4x4	4x4
Type of Connection	Flanged or Grooved									
Material (Body)	Bronze									
Pump Rotor	Spur or Herringbone Gear									
Shaft Type	Key Shaft or Splined Input Shaft									
Material(SHAFT)	255 Duplex Stainless Steel									

FOAM CHAMBER

MODEL: NF-FC SERIES

APPLICATION

Foam Chamber is used in one of the most common application to protect vertical fixed roof (cone) liquid storage tanks, with or without internal floating roof with the low expansion foam system. The application of foam is on the basis that the risk comprises the total surface area of the fuel. The foam system design guidelines generally used are in accordance with NFPA-11, standard. Foam chambers are defined by NFPA-11 as Type II discharge outlets for delivering the foam to the surface of a flammable liquid. The Foam Chambers are widely used with the Inline Foam Inductor, Balance Pressure Foam Proportioning system, Bladder Tank Proportioner or Foam Tender.

FEATURES

- Heavy duty welded construction with choice of Carbon Steel or Stainless Steel material
- Frangible Glass Vapor Seal
- Controlled Air Flow proportional to liquid flow for optimum foam quality and rupture of Vapor seal in narrow pressure tolerances for increased reliability
- Field replaceable orifice plate fitted with Foam Chamber

SPECIFICATION

Foam Chamber is an air aspirating foam discharge device, covering wide range of flow from 40GPM to 1086GPM at 40 to 100 psi inlet pressure. The Foam Chamber contains a Vapor seal to prevent the entry of Vapor into the foam chamber and the foam solution pipe. Each foam chamber is supplied with an orifice plate, designed for the required flow and inlet pressure. The orifice is field replaceable in the event of change in design parameters. The foam is produced by introducing air into the foam solution stream. The inlet of foam chamber is designed to create venturi jet which draws air into the foam solution stream. The air is drawn into the foam solution through the holes located on the foam chamber covered with stainless steel screen to exclude nesting birds and insects. The aerated foam is directed into the deflector for the gentle application of the expanded foam. The deflectors are available in different models.

On removal of cover plate from the top of the chamber allows the system to be tested foam, without removing the Vapor seal or disconnecting the foam chamber from the tank. Frangible glass bursting disc (Vapor seal) can be replaced by easily. The Vapor seal is designed to rupture within 0.7 to 1.75 kg/ sq.cm. (10 to 25 psi) pressure at inlet flange of Foam Chamber, as required by NFPA, UL & FM standard. The Vapor seal will withstand maximum back pressure of 0.07 kg/cm² bar (1.0 psi) or equal to 686mm of water column as specified by API for welded storage tank. If the requirement exceeds 0.07 kg/ sq.cm. bar (1.0 psi) as in case of nitrogen blanketing system, then this equipment may not be suitable. The Vapor seal is frangible glass. The Vapor seal is supplied with holder and for spares it can be with or without holder. The 'O' ring used for seal are Nitrile rubber and optional Viton for polar solvent.

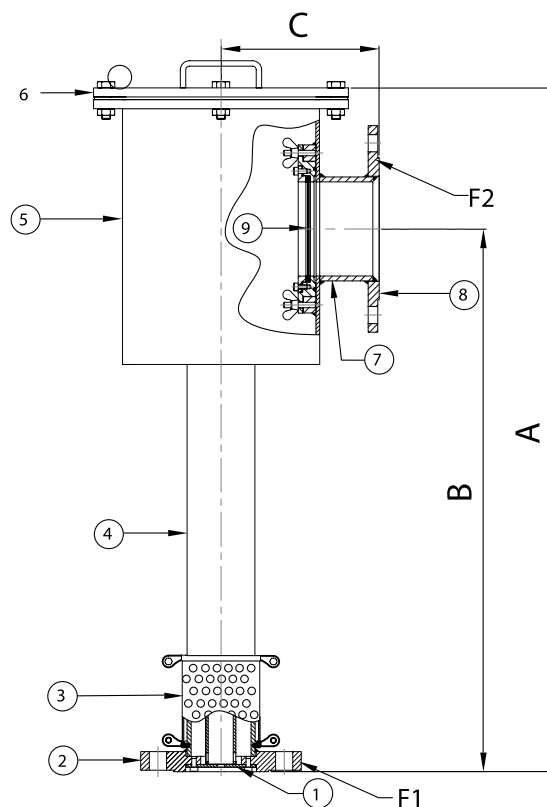


TECHNICAL DATA

Model	NF-FC/FCR - Carbon Steel Construction NF-FCSS/FCRSS - Stainless Steel Construction
Inlet Size	65, 80, 100, 150 NB
Working Pressure	Min. 2.8 kg/cm ² (40 psi) Max. 7 kg/cm ² (100 psi)
Foam Proportioning	AFFF 3%,6%, AR-AFFF3/3, AR-AFFF3/6
Foam Type	AFFF, AR-AFFF, FP, FFFP
Flange Connection	Flange Connection ANSI B16.5 Class 150#
Weight (Approx.)	65 NB - 34.5 kg 80 NB - 49.5 kg 100 NB - 72.0 kg 150 NB - 110 kg
Vapor Seal Rapture Pressure	0.7 to 1.75 kg/cm ² (10 psi to 25 psi) Running water/water foam solution pressure at inlet of Foam Chamber
Maximum Permissible Back Pressure On Vapor Seal	0.07 kg/cm ² (1.0 psi)
Vapor Seal	Glass standard supply (UL & FM Approved). Graphite optional only with FM Approvals.
Deflector	Solid or Split Deflector
Finish	Red RAL 3000
Ordering Information	Model & Size • Flow & Pressure at inlet of each Foam Chamber • Inlet, outlet flange specification • Type of Deflector • Foam concentrate • Tank number/Tag number

DIMENSIONS

Inlet Size (F1)	Outlet Size (F2)	A	B	C
65 NB	100 NB	756	600	175
80 NB	150 NB	1093	908	225
100 NB	200 NB	1221	996	275
150 NB	250 NB	1250	1018	325



FOAM CHAMBER: FLOW RATE IN GPM

Foam Concentrate	Approval	Working Pressure	NF-FC65 / NF-FCSS65	NF-FC80 / NF-FCSS80	NF-FC100 / NF-FCSS100	NF-FCR150 / NF-FCRSS150
AFFF 3%	UL	40-100 psi	39.62-145.30	79.25-269.72	158.50-634.01	--
AR-AFFF 3/3	UL	40-100 psi	39.62-145.30	79.25-269.72	158.50-634.01	--
AFFF 3%	FM	40-100 psi for 65NB 50-100 psi for other sizes	52-156	101-309	198-679	493-1048
AFFF 6%	FM	50-100 psi	59-158	94-303	195-674	489-1042
AR-AFFF 3/3	FM	50-100 psi	57-167	110-311	211-678	516-1086
AR-AFFF 3/6 3%	FM	50-100 psi	59-157	107-305	197-675	512-1073
AR-AFFF 3/6 6%	FM	50-100 psi	59-157	100-304	192-680	514-1072

PART LIST

Item No.	Description	Material Specification	
		NF-FC/NF-FCR	NF-FCSS/NF-FCRSS
1	Orifice Assembly	Stainless Steel	Stainless Steel
2	Inlet Flange	Steel	Stainless Steel
3	Strainer Assembly	Stainless Steel	Stainless Steel
4	Foam Making Chamber	Steel Pipe	SS Pipe
5	Foam Chamber	Steel	Stainless Steel
6	Inspection Cover	Steel	Stainless Steel
7	Discharge Pipe	Steel Pipe	SS Pipe
8	Outlet Flange	Steel	Stainless Steel
9	Vapor Seal Assembly	Glass	Glass

NOTES:

- Pipes used are ERW (Seamless Pipe are optional)
- Foam chambers are open to atmosphere & do not have internal shutoff device, hence no hydrotest is offered during inspection.
- Strainer assembly consists of SS perforated sheet, SS strainer holder & galvanized nut/bolt.

FOAM MAKER with RIM SEAL POURER

MODEL: NF-FM50 WITH NF-RSP80, NF-FMSS50 WITH NF-RSPS80,
NF-FM65 WITH NF-RSP100, NF-FMSS65 WITH NF-RSPS100



APPLICATION

NAFFCO Rim Seal Foam Pourer consists mainly of Foam Maker, a windshield and deflector. The Rim Seal Foam Pourer is designed to deliver fully aspirated foam directly to the annular seal area of open top floating roof tank. The Rim Seal Foam Pourer is used for one of the most common applications of protecting tank seal in vertical liquid storage tank with internal floating roof with low expansion foam system.

The application of aspirated foam is on the basis of the risk comprising the area in the annular ring between the rim of the floating roof and the tank shell. The Foam system design guidelines generally used are in accordance with NFPA 11 standard. Rim Seal Foam Pourers are defined by NFPA 11 as Type II discharge outlets for delivering the low expansion aspirated foam to the seal.

The Rim Seal Foam Pourers are widely used with Inline Foam Inductor, Balance Pressure Foam Proportioning System, Bladder Tank system or Foam tenders.

SPECIFICATION

The Rim Seal Foam Pourer is an air aspirating foam generator connected to the foam maker to deliver the aspirated foam gently into the tank seal area. The rim seal foam pourer covers a wide range of foam solution rates from 42 GPM to 207 GPM at 50 to 100 psi inlet pressure. Each rim seal foam pourer is supplied with an orifice plate, designed for the required flow at inlet pressure. The orifice is field replaceable in the event of change in design parameters. The foam is produced by introducing air into the foam solution stream. The inlet of foam maker is designed to create venturi jet which draws air into the foam solution stream. The air is drawn into the foam solution through holes located on the foam maker covered with stainless steel screen to exclude nesting birds and insects.



TECHNICAL DATA

Foam Maker	- NF-FM50, NF-FM65 - Carbon Steel - NF-FM50SS, NF-FM65SS - Stainless Steel
Inlet Size	50, 650 NB Inlet
Working Pressure	Min. 3.5 kg/cm ² (50 psi) Max. 7 kg/cm ² (100 psi)
Flange Connection	ANSI B16.5 Class 150#
Finish	Red RAL 3000
WEIGHT without Pourer (Approx)	50 NB - 9.9 kg 65 NB - 14.0 kg
Ordering Information	- Model & Inlet Size - Inlet Pressure - Foam Solution Flow requirement - Inlet and Outlet Flange - Foam concentrate used

Material Pourer	- NF-RSP80, NF-RSP100 – Carbon Steel - NF-RSPS80, NF-RSPS100 – Stainless Steel
Inlet Size	80 NB & 100 NB INLET
Flange Connection	ANSI B16.5 Class 150#
Finish	Red RAL 3000

FOAM MAKER WITH RIM SEAL FOAM POURER -FLOW RATE IN GPM

Foam Concentrate	Approval	Working Pressure	NF-RSP80/ NFRSPS80	NF-RSP100/ NFRSPS100
AFFF 3%	FM	73-100 psi	72-105	56-170
AFFF 6%	FM	73-100 psi	73-105	90-167
AR-AFFF 3/3	FM	50- 100 psi	42-112	57-207
AR-AFFF 3/6 3%	FM	50- 100 psi	41-112	58-204
AR-AFFF 3/6 6%	FM	50- 100 psi	42-112	58-205

RIM SEAL POURER with INTEGRAL MAKER

MODEL: NF-RSP65, NF-RSPSS65



APPLICATION

Rim Seal Foam Pourer consists mainly of Foam Maker, a windshield and an integral deflector. The Rim Seal Foam Pourer is designed to deliver fully aspirated foam directly to the annular seal area of open top floating roof tank. The Foam system design guidelines generally used are in accordance with NFPA11 standard.

The Rim Seal Foam Pourer are defined by NFPA 11 as Type II discharge outlets for delivering the low expansion aspirated foam to the seal & used with the Inline Foam Inductor, Balance Pressure Foam Proportioning system, Bladder Tank system and Foam tenders.

SPECIFICATION

Rim Seal Foam Pourer is an air aspirating foam generator connected to deliver the aspirated foam gently into the tank seal area. Foam maker covers wide range of foam solution rates from 13.21 to 148 GPM at 10 to 100 psi inlet pressure.

Each rim seal foam pourer is supplied with an orifice plate, designed for the required flow at inlet pressure.

The orifice is field replaceable in the event of change in design parameters. The foam is produced by introducing air into the foam solution stream. The inlet of foam maker is designed to create venture jet which draws air into the foam solution stream.

The air is drawn into the foam solution through holes located on the foam maker covered with stainless steel screen to exclude nesting birds and insects.



TECHNICAL DATA

Material	NF-RSP65 – Carbon Steel NF-RSPSS65 – Stainless Steel
Inlet Size	65 NB INLET
Working Pressure	Min. 2.8 kg/cm ² (40 psi) Max. 7 kg/cm ² (100 psi)
Flange Connection	ANSI B16.5 Class 150#
Finish	Red RAL 3000
Ordering Information	• Model & Inlet Size • Inlet Pressure • Foam Solution Flow requirement • Foam concentrate used

DETAILS FOR 65NB FOAM MAKER WITH RIM SEAL POURER

Foam Concentrate Type	Approval	Working Pressure	NF-RSP65/NF-RSPSS65
AFFF 3%	UL	40-100 psi	13.21-145.30 GPM
AR-AFFF 3%	-	50-100 psi	14-148 GPM

FOAM MAKER with GOOSENECK POURER

MODEL: NF-FM50 WITH NF-FP55, NF-FMSS50 WITH NF-FP-S-55,
NF-FM65 WITH NF-FP-55, NF-FMSS65 WITH NF-FP-S-55



APPLICATION

Foam Maker is used for one of the most common applications of protecting tank seal in vertical liquid storage tank with internal floating roof with low expansion foam system. The application of aspirated foam is on the basis of the risk comprising the area in the annular ring between the rim of the floating roof and the tank shell. The Foam system design guidelines generally used are in accordance with NFPA11 standard. The Foam Makers are defined by NFPA 11 as Type II discharge outlets for delivering the low expansion aspirated foam to the seal. The Foam Makers are widely used with the Inline Foam Inductor, Balance Pressure Foam Proportioning system, Bladder Tank system and Foam tenders.

SPECIFICATION

Foam Maker is an air aspirating foam generator connected to the foam pourer to deliver the aspirated foam gently into the tank seal area. Foam maker covers wide range of foam solution rates from 19.8 to 205 GPM at 40 to 100 psi inlet pressure. The orifice is field replaceable in the event of change in design parameters. The foam is produced by introducing air into the foam solution stream. The inlet of foam maker is designed to create venture jet which draws air into the foam solution stream. The air is drawn into the foam solution through holes located on the foam maker covered with stainless steel screen to exclude nesting birds and insects. The aerated foam is directed into the pourer for the gentle application of the expanded foam. The pourers are available in different models.



TECHNICAL DATA

Material	- NF-FM50, NF-FP-55, NF-FM65 – Carbon Steel - NF-FMSS50, FP-S-55, NF-FMSS65 – Stainless Steel
Inlet Size	50 NB & 65 NB
Working Pressure	- Min. 2.8 kg/cm² (40 psi) - Max. 7 kg/cm² (100 psi)
Flange Connection	ANSI B16.5 Class 150#

Finish	Red RAL 3000
WEIGHT (without Pourer)	50 NB - 9.9 kg 65 NB - 14.0 kg
Ordering Information	- Model & Inlet Size - Inlet Pressure - Foam Solution Flow requirement - Inlet and Outlet Flange - Foam concentrate used

***NOTES:** Listings, Approvals and/or Certifications for NAFFCO foam concentrate and/or equipment are valid only when used with other NAFFCO foam concentrates or equipment in a manner as outlined in the applicable Listing, Approval and/or Certification.

FOAM MAKER WITH GOOSENECK FLOW RATE IN GPM

Foam Concentrate	Approval	Working Pressure	NF-FM50 with NF-FP-55/ NF-FMSS50 with NF-FP-S-55	NF-FM50 with NF-FP-55/ NF-FMSS50 with NF-FP-S-55
AFFF3%	UL	40-100 psi	19.81-88.5	39.62-145.30
AFFF3%	FM	50-100 psi	35-106	51-167
AFFF6%	FM	50-100 psi	36-106	57-168
AR-AFFF3/3 3%	FM	50-100 psi	41-112	58-205
AR-AFFF3/6 3%	FM	50-100 psi	41-119	56-203
AR-AFFF3/6 6%	FM	50-100 psi	41-118	57-204

FOAM WATER OPEN SPRINKLER

MODEL: NH 500



APPLICATION

The Foam-Water Sprinklers are used in the deluge foam system to protect the risk where foam is required to be applied from overhead sprinklers and is to be followed with plain water in a standard sprinkler pattern.

Foam-Water Sprinklers protect the loading and unloading area in the event of a spill fire with low expansion foam systems. These are useful in other wide applications i.e. Air Craft Hangers, Warehousing

SPECIFICATION

Foam-Water Sprinklers are open and air aspirating type. The pattern of coverage is similar to the conventional sprinkler head. The Foam-Water Sprinkler has standard orifice with K-factor of 42.

Foam-Water Sprinklers are designed to operate at a minimum of 2 bar pressure and maximum of 7 bar. The Foam-Water Sprinkler with K-42 will deliver about 61 LPM at 2 bar pressure. The standard coverage per Foam-Water Sprinkler is 9.3sq.m. (100 sq.ft.)

SYSTEM DESIGN

The following are a few guidelines for minimum requirement of foam system design.

- Foam solution discharge rate: Area of hazard x application rate.
- Minimum foam solution application rate required as per NFPA is 6.5 LPM/sq.m. for the floor area of hazard to be protected.

TECHNICAL DATA

Material	Brass, Stainless Steel
Inlet Size	½" NPT
Working Pressure	Max. 12 bar (175 psi)
Mounting	Pendent
Operating Pressure	2.1 bar (30 psi) minimum 4.2 bar (60 psi) maximum
K-Factor	K-42 standard Other K-factor can be provided as optional without approval
Flow Rate	61 - 111 LPM (as per UL) 136 LPM (as per FM)
Foam Proportioning	3% or 6% AFFF, AR-AFFF 3/3, 3/6
Installation Height	0.9 - 4M
Finish	Natural, Chrome
Weight	0.460 kg Approx

***NOTES:** Listings, Approvals and/or Certifications for NAFFCO foam concentrate and/or equipment are valid only when used with other NAFFCO foam concentrates or equipment in a manner as outlined in the applicable Listing, Approval and/or Certification.



FOAM WATER PENDANT TYPE SPRINKLER

MODEL: NH-520 & NH-550



DESCRIPTION

The Air/ Foam discharge sprinkler head is designed mainly to be used in the deluge water foam system. These sprinkler heads are engineered to discharge foam in a spray pattern.

The deluge water foam system is usually designed using non-aspirating sprinkler heads or air-aspirating foam-water sprinkler heads. The non-aspirating heads are designed to be used for AFFF and Alcohol Resistant AFFF foam concentrates and are not suitable for the use with protein and fluoroprotein type foam concentrates. The NAFFCO NH Series air-aspirating foam water sprinklers are primarily used with protein and fluoroprotein type foam concentrates, they can also be used with any type of foam concentrate.

SYSTEM DESIGN DESCRIPTION

The foam water spray system design shall be based on the NFPA 16, NFPA 13, NFPA 11 & NFPA 409 standards.

The design discharge density shall be in accordance with the applicable occupancy standard for foam water spray systems but in no case less than 6.5 mm/m² (0.16 GPM/ft²) as per NFPA 16. A minimum of two foam water sprinklers are to be installed in an area regardless of its size, in order to obtain the required pattern overlap.

The foam solution shall be designed to discharge for a minimum period of 10 minutes based on the density as specified over the entire system area for deluge foam water spray system.

SYSTEM DESIGN

- Determine the size and type of hazard.
- The application rate has to be determined.
- Estimate the number of sprinklers required.
- Determine total system discharge flow.
- Estimate the water requirement.
- Determine discharge time.
- Estimate the required quantity of foam.
- Determine the size and best type of proportioning system to be used.

APPLICATION

Deluge foam water spray system is designed to protect two dimensional fire caused by flammable liquid. The area of application are Aircraft hangers, Oil pumping station, Chemical storage, Warehouses, Oil loading and unloading area.

FEATURES

- Foam discharge in Spray pattern.
- Pendant installation.
- Specially designed for low expansion foam



MAINTENANCE

Periodic inspection need to be made by authorized technical personnel. The nozzle must be checked for possible damage, obstruction or deposits of foreign objects externally and internally. If found the nozzles should be cleaned or replaced. The system must be operated with optimum water flow at least twice a year or as per the recommendation made by NFPA or as per authority having jurisdiction.

TECHNICAL DATA

Model Number	NH-520	NH-550
Inlet Size	½" NPT	¾" NPT
Working Pressure	30-100 psi	
Material	Brass, Chrome Finish	
Spray Pattern	Pendent	
K-Factor	2.8	5
Orifice Dia.	8.25 mm	9.5 mm
Maximum Flow Rate	31 GPM	50 GPM
Installation Height	0.9- 3.9 meter	
Foam Proportioning	AFFF 3% & 6%, AR-AFFF 3/3, 3/6	
Min. Foam Application Rate	0.2 gal/min/ft ²	
Max. Water Application Rate	0.3 gal/min/ft ²	

*NOTES:

- NH-520 (UL Approved only)
- Foam Concentrate-AFFF 31%, 6%, AR-AFFF 3/3, 3/6
- UL Listing only for 3% Foam Proportioning
- Listings, Approvals and/or Certifications for NAFFCO foam concentrate and/or equipment are valid only when used with other NAFFCO foam concentrates or equipment in a manner as outlined in the applicable Listing, Approval and/or Certification.

AUTOMATIC FOAM WATER SPRINKLER

MODEL: SD1010



DESCRIPTION

The Sprinklers SD1010 (Glass Bulb Type), Standard Orifice, Pendent type, design incorporates state-of-the-art, heat responsive, frangible glass bulb design (standard or quick response) for prompt, precise operation.

The forged frame is more streamlined and attractive than traditional sand cast frames. It is cast with a hex-shaped wrench to allow easy tightening from different angles. This sprinkler is available in various temperature ratings and finishes to meet many design requirements. All Sprinklers are manufactured using the time proven Belleville seal used exclusively by all major manufactures to ensure long life and safe operation.

SPRINKLER OPERATION

The operating mechanism is a frangible glass bulb which contains a heat responsive liquid. During a fire, the ambient temperature rises causing the liquid in the bulb to expand. When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result, the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling the fire.

TECHNICAL DATA

Sprinkler Identification	Standard Response (bulb 5 mm)
Style	Pendent
K Factor	5.6GPM/psi ^{1/2} . (80 LPM/bar ^{1/2})
Nominal Thread Size	1/2"NPT(15 mm)
Orifice Size	13 mm
Max. Working Pressure	175 psi(1200 kPa)
Factory Hydrostatic Test	100% @ 500 psi(3450 kPa)
Min. Operation Pressure	7 psi(48 kPa)
Foam Proportioning	AFFF 3% & 6%, AR-AFFF 3/3, 3/6
Minimum Foam Application Rate	0.2 gal/min/ft ²
Max. Water Application Rate	0.3 gal/min/ft ²
Installation Height	1.9-3.9 m
Finish	Brass with Chrome Finish

TEMPERATURE RATINGS

Sprinkler Temperature Classification	Nominal Sprinkler Temperature Rating	N.F.P.A Maximum Ambient (Ceiling) Temp.(Allowed)	Glass Bulb Color
Ordinary	155°F/57°C	100°F/38°C	Orange
Ordinary	155°F/68°C	100°F/38°C	Red
Intermediate	175°F/79°C	150°F/65°C	Yellow
Intermediate	200°F/93°C	150°F/65°C	Green



WARNINGS

The sprinklers must be installed and maintained in compliance with this document. Depressurize and drain the piping system before attempting to install, remove, or adjust any Sprinklers. Failure to do so may impair the performance of these sprinklers. The owner is responsible for maintaining the fire protection system and devices in operation.

INSTALLATION

All Sprinklers must be installed according to NFPA 13 Standards. Deviations from these requirements and standards or any alteration to the sprinkler itself will void any warranty made by manufacturer. In addition, installation must also meet local government provisions, codes and standards as applicable.

The system piping must be properly sized to insure the minimum required flow rate at the sprinkler. Check for the proper model, style, orifice size and temperature rating prior to installation. Install sprinklers after the piping is in place to avoid mechanical damage, replace any damaged units. Wet pipe systems must be protected from freezing.

Upon completion of the installation, the system must be tested per recognized standards. In the event of a thread task, remove the unit, apply new pipe joint compound or tape, and reinstall.

FOAM BRANCH PIPE

MODEL: NF-500LXB



DESCRIPTION

The NF-500LXB Foam Hose Stream Nozzle/Low Expansion Branch Pipe is air aspirating type handline nozzle designed to maximize mobility and firefighting capability. The aspirating design makes the nozzle superior in performance by maximizing foam expansion and drainage time. When using handline proportioners/inline inductors as portable devices a pick-up tube is provided to draw foam concentrate from the portable foam containers. It is recommended to operate this nozzle with NF-350B(V) inductor model.

FEATURES

- Operates with fresh or sea water.
- Air aspirating for use with all foam concentrates
- Produces most effective long lasting foam blanket
- Spray to straight stream pattern control without shutting off flow
- Polyester powder coat finish (tgic) for use in marine and other hostile environments
- Light weight and nozzle pressure within the control of an operator.
- 5 optimum size port holes of the nozzle ensure uniformity of flow, throw and increase reliability & efficacy during application.
- Aluminum Body

APPLICATIONS

NF-500LXB is most useful in a long range of fire and hazardous situations involving combustible solids, flammable liquids and toxic liquid spills etc. The versatility of use as Jet (Straight Stream Pattern) & Spray type application make it suitable for various hazardous situation e.g., its long throw and rapid coverage with foam, make the unit suitable for outdoor fire situations as well as for areas used for storage of hazardous materials and also for cooling of tank shell with water spray only. The important applications are:

- To control fires involving all types of Hydrocarbon fires, paint, solvent and other hazards of Class 'A' and Class 'B' fires.
- To control fires, involving Liquefied Natural Gas (LNG), Liquefied Petroleum Gas (LPG) and suppression of hazards/toxic liquid Spills.
- The simple construction and reliable performance makes the nozzle ideal for Air Craft rescue and firefighting.
- Designed for application with Mobile Foam Unit.



TECHNICAL DATA

Inlet Water Pressure	4 - 10 bar (57.1 - 142.8 psi)
Flow	340-475 LPM (90.5-123 GPM)
Throw Range	13-25 m (42-82 ft)

FOAM BRANCH PIPE

MODEL: NF-500LXB225, NF-500LXB450



DESCRIPTION

NAFFCO Foam Branchpipes are air aspirated nozzles for application of foam solution. They have been developed to combine superior throw with the ability to produce stable, cohesive foam. The unique design of these branchpipes results in the required expansion of the foam, ensures proper mixing in the tube & at the same time provides higher velocity to the emerging foam stream, giving excellent range.

Available with nominal foam solution capacity of 225 and 450 LPM at 7 bars pressure. It is recommended to operate this branch pipe model with NF-350B-225(V) and NF-350B-450(V). These Foam Branches have been subjected to international material and performance standards (as per UL162), and you can be assured of effective performance and working life from these products.

FEATURES

- Air aspirating for use with all foam concentrates
- Produces most effective long lasting foam blanket
- Light weight and nozzle pressure within the control of an operator.

APPLICATIONS

These are the most useful in a long range of fire and hazardous situations involving combustible solids, flammable liquids and toxic liquid spills etc., Its long throw and rapid coverage with foam, make the unit suitable for outdoor fire situations as well as for areas used for storage of hazardous materials and also for cooling of tank shell with water spray only.



PERFORMANCE DATA

Model	Performance	Inlet Pressure	Inlet
NF-500LXB225	225 LPM	65 psi	2½" Instantaneous
NF-500LXB450	450 LPM	65 psi	2½" Instantaneous

Foam Nozzles tested for 3% proportioning

SELF INDUCTING FOAM BRANCH PIPE

MODEL: NF-VIBP, NF-FIBP SERIES



DESCRIPTION

NAFFCO NF-VIBP, NF-FIBP Series are self-inducting foam type Branch Pipe designed to meet the long range performance. There are eight models with flow of 225 LPM and 450 LPM. This nozzle is an air aspirating handline nozzle designed to maximize mobility and firefighting capability. The self-inducting feature eliminates the need for a separate proportioner, which allows foam operation wherever water supply is available. The fully aspirating design provides superior performance compared to non-aspirating nozzles by maximizing foam expansion and 25% drainage life.

FEATURES

- UL Listed
- Air aspirating for use with all foam concentrates
- Lightweight and portable for mobility
- Operates with fresh or sea water Self-inducting,
- Proportioner not required
- Self-proportion foam concentrate at either 1% or 3%

APPLICATION

NF-VIBP, NF-FIBP Series can be used wherever manual application of foam is required, tank farms, process units, chemical plants, loading racks, fixed foam system hydrants, hose reels, etc.

CONSTRUCTION

Manufactured out of Aluminum alloy and Stainless Steel 304, 316 and 316L these offer super superior corrosion resistance and offer proven robustness for any firefighting application in any demanding environment.

SPECIFICATION

Self-Inducting Low Expansion Foam Branch inlet size 2½" is capable of Inducting foam concentrate from the container and this facility eliminates the requirement of inline Inductor which not only causes heavy pressure drops but also substantially increases the deployment time. Suitable to produce foam with good expansion ratio 1:2 to 1:12, these models offer longer throws and superior cooling.

The foam concentrate pick-up tube shall be provided along with these models. Isolation valve shall be provided upon request end connections are available in British Standard instantaneous coupling, storz coupling, gost coupling, american NST threaded and flanged connections.

- Throw range shall be 20-30 m at 7 bar
- Branch pipe without isolation valve is standard supply
- Isolation valve shall be provided upon request
- Finishing shall be yellow or red.



TECHNICAL DATA

Model No.	Flow Rate 100 psi(LPM)	Material	Type	Percentage
NF-VIBP.2S	225	Stainless Steel	Variable	1% or 3%
NF-VIBP.4S	450	Stainless Steel	Variable	1% or 3%
NF-FIBP.2S	225	Stainless Steel	Fixed	3%
NF-FIBP.4S	450	Stainless Steel	Fixed	3%
NF-VIBP.2A	225	Aluminum Alloy	Variable	1% or 3%
NF-VIBP.4A	450	Aluminum Alloy	Variable	1% or 3%
NF-FIBP.2A	225	Aluminum Alloy	Fixed	3%
NF-FIBP.4A	450	Aluminum Alloy	Fixed	3%

APPROVAL

U L Listed

ORDERING INFORMATION

- Flow requirement
- Induction (Variable /Fixed)
- Material of Construction

FOAM BRANCH PIPE

MODEL: NF-BP(F).2, NF-BP(F).4



NAFFCO Foam Branch pipes are air-aspirated nozzles for application of foam solution. They have been developed to combine superior throw with the ability to produce stable, cohesive foam. The unique design of these branch pipes results in the required expansion of the foam ensures proper mixing in the tube & at the same time provides higher velocity to the emerging foam stream, giving excellent range.

Available with nominal foam solution capacity of 225 and 450 LPM at 7 bars pressure. It is recommended to operate this branch pipe model with NF-PI.225 & NF-PI.450 model Inline Inductor only. These Foam Branches have been subjected to international material and performance standards (as per UL162), and you can be assured of effective performance and working life from these products.

FEATURES

- ULListed
- Air aspirating for use with all foam concentrates
- Produces most effective long lasting foam blanket
- Lightweight and nozzle pressure within the control of an operator.
- Branch pipe without isolation valve should be standard supply.
- Isolation valve shall be provided upon request.
- Finishing shall be red or yellow.

APPLICATIONS

These are the most useful in a long range of fire and hazardous situations involving combustible solids, flammable liquids and toxic liquid spills etc. Its long throw and rapid coverage with foam, make the unit suitable for outdoor fire situations as well as for areas used for storage of hazardous materials and also for cooling of tank shell with water spray only.



PERFORMANCE DATA

Model	Performance	Inlet Pressure	Inlet
NF-BP(F).2	225 LPM	65 psi	2½" Instantaneous
NF-BP(F).4	450 LPM	65 psi	2½" Instantaneous

NAFFCO WATER-POWERED BLOWER TYPE HIGH-EXPANSION FOAM GENERATORS

MODEL: NFG 3000, NFG 10000, NFG 21000



DESCRIPTION

NAFFCO Water-powered high expansion foam Generators is Blower type shall be fixed type, NAFFCO High Expansion Foam Generator requires no other source of power such as electricity or gasoline engines. They are powered by the foam solution driving a hydraulic (water) motor or turbine the expansion of foam solution is achieved by spraying the solution onto a nylon net/stainless steel screen, then an air stream created by the fan attached to the motor blows air through the screen to produce a mass of foam bubbles. The continuous flow of the foam solution plus the movement of air through the screen will produce large volumes of finished foam. When used with NAFFCO 2% High-Expansion Foam Concentrate, these generators are capable of producing finished foam with expansion ratios from 354:1 up to 925:1, depending on the model and operating pressure.



FEATURES

- UL Listed
- Water-powered, no electrical power is required
- Foam capacities of up to 595 m³/min(21,000 cfm)
- Inherently safe operation for hazardous area use
- Variable expansion
- Smoke extractor options

ORDERING INFORMATION

When ordering a High Expansion Foam Generator, please provide the following information:

- Volume of risk to be protected.
- Available residual water flow and pressure
- Method of proportioning required.
- Material of construction.
- Type of Inlet connection.

APPLICATION

- Oil Refineries & Oil Installations
- Control of Vapor release from toxic/flammable
- Flammable Liquid including Paint Stores
- Cable Ducts & Transformer Rooms
- Ship holds & Engine Rooms.
- Basements & Substations.
- Chemical Stores, Mining
- Liquid spills.
- Petrochemical Plants
- Tyre & Rubber Stores.
- Aircraft Hangars
- Fertilizer Plant

PERFORMANCE DATA

UL LISTED PERFORMANCE DATA (NF HEFC 2%)

Model	UL Listed Orientation	Inlet Pressure		Flow Rate		Foam Output		Expansion Ratio
		psi	bar	GPM	LPM	cfm	cmm	
NFG 3000	Horizontal or Vertical	40	2.8	40	150	1800	51	354:1
		72	5	53	200	2500	71	390:01
		100	6.9	62	233	3000	85	395:01
NFG 10000	Horizontal or Vertical	40	2.8	69	261	6000	170	675:01
		72	5	85	321	8000	227	743:01
		100	6.9	98	372	10000	283	799:01
NFG 21000	Horizontal or Vertical	40	2.8	110	417	10000	283	707:01
		72	5	142	535	14000	396	754:01
		100	6.9	175	659	21000	595	925:01

MONITOR

MODEL: NFM-400BZ



TECHNICAL DATA

Monitor	NFM-400BZ
Nozzle	NF-FFN500SI NF-FFN750SI NF-FFN500MI NF-FFN750MI NF-FFN1000MI
Nominal Size	3" (80 mm)
Max. Service Pressure	200 psi (14 bar) UL Listed for 175 psi
Maximum Flow	1000 GPM (3800 LPM) Refer Table I for flow
Swivel Joint	Bronze to IS:318/ASTM B 62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.} \times 0.0228}$
Inlet Connection	3" (80NB4) or 4" (100NB) Flange to ANSI B16.5 #150, F.F.
Outlet Connection	3" BSP (M) or 3" NH
Monitor Elevation	90° above horizontal & 65° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Manual
Approval	UL Listed
Finish	Red RAL 3000
Weight (Approx)	33 kg. (without nozzle)
Ordering	Specify Monitor & Nozzle Model

DESCRIPTION

The Monitor Model NFM-400BZ is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial application. The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to corrosive environments. The monitor has cast bronze 3" (80 mm) water way. The vertical and horizontal rotation is through corrosion resistant bronze swiveling joint with double row of stainless steel ball bearing. Both vertical and horizontal movements are controlled by handle with twist lock.

The monitor has large flow capability and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is from 90° above horizontal to 65° below horizontal. When used on oscillation unit the angle of elevation will be -40° to +80° manual adjustable. The water vanes in discharge tube reduces turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, friction loss through monitor must be considered while selecting



the nozzle and flow through the monitor with reference to available base pressure at inlet of the monitor. For flow and jet reach data, refer monitor nozzle datasheet.

***NOTE:** Any intermediate range (UP+DN)° between UP ≤ 90° and DN ≤ 60° can be provided as per requirement of the customer.

Nozzle Model	Type	Flow at 100 psi in GPM	Straight Stream Range in Meters
NF-FFN500MI	D	500	60
NF-FFN750MI	D	750	61.5
NF-FFN1000MI	D	1000	65
NF-FFN500SI	C	500	46
NF-FFN750SI	C	750	54

TYPE-D is Non self Inducing, non self Aspirating nozzle used for premix solution.
TYPE-C is Self Inducing, non self Aspirating nozzle used with listed foam, AFFF3%

*NOTES:

- Refer UL Listing for foam concentrate.
- Performance data are for foam reach are based at ≈30 nozzle elevation in still air condition.
- For details refer the nozzle catalogue.

WATER POWERED OSCILLATING MONITOR

MODEL: NFM-400SS



TECHNICAL DATA

Monitor	NFM-400SS
Nozzle	WITH SELF INDUCTING NOZZLE NF-FFN500SI, NF-FFN750SI
	WITH PRE-MIX NOZZLE NF-FFN500MI, NF-FFN750MI NF-FFN1000MI
Nominal Size	3" (80 mm)
Maximum Operating Pressure	12 bar
Maximum Flow	1000 GPM (3800 LPM) Refer Table I for flow
Swivel Joint	Bronze to IS:318/ASTM B 62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction in kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.}}$ x 0.0228
Inlet Connection	4" (100NB) Flange to ANSI B16.5 #150, F.F.
Outlet Connection	3" BSP (M) or 3" NH
Monitor Elevation	80° above horizontal & -40° below horizontal
Oscillation Speed	Adjustable from 0° – 30°/sec. at 7 bar pressure (100 psi)
Speed Control	By Brass Valve externally accessible
Arc of Oscillation	Adjustable 0° to 120° with six set points

DESCRIPTION

Monitor mounted on Water Powered Oscillating Unit, transforms the manual monitor into an oscillating monitor. The unit is suitable for use in high risk areas such as tank farm facilities, aircraft hangars, offshore, refineries, chemical plants, and heliports. The monitor possesses



several design features that provides ease of operation, minimum maintenance and resistance to corrosive environments. The monitor is used with Nozzle as premix solution with flow up to 1000 GPM.

The monitor can be used with water-foam self-inducting nozzle having flow up to 750 GPM. The monitor has cast bronze 3" (75 mm) water way. Vertical & horizontal rotation is through corrosion resistant bronze swiveling joint with double row of stainless steel ball bearing. Both vertical & horizontal movement is controlled by handle with twist lock.

WATER-POWERED OSCILLATING MONITOR RANGE DATA – MONITOR MODEL NFM-400SS

Nozzle Model	Monitor Elevation Angle	Monitor Inlet Pressure & Reach Data					
		100 psi			120 psi		
		Flow GPM	Reach in Meters		Flow GPM	Reach in Meters	
			Fixed	Oscillating		Fixed	Oscillating
NF-FFN500MI	5	500	10	8.5	547	11	9.5
	15	500	24	19	547	22	18
	30	500	60	50	547	61	50
NF-FFN750MI	5	750	11	9	821	12	10
	15	750	24.5	20.5	821	25	21
	30	750	61.5	51	821	62	52
NF-FFN1000MI	5	1000	12	10	1095	13.5	11.3
	15	1000	26	22	1095	28	23.5
	30	1000	65	56	1095	66	55
NF-FFN500SI	5	500	7	5.5	547	7.5	6.5
	15	500	18	14	547	19	15
	30	500	46	38	547	47	39
NF-FFN750SI	5	750	9.5	7.8	821	10	8
	15	750	21	17	821	22.5	19
	30	750	54	46	821	55	45

LEVER OPERATED FOAM MONITOR

MONITOR MODELS: NFM 460-65, NFM 460-85, NFM 460-100,
NFM 460-65B, NFM 460-85B, NFM 460-100B

NOZZLE MODELS: NF-500FN, NF-500FNA



Mostly installed on fire trucks or fire hydrants. Lever on the body enables quick control and locking knob surely fixes for desirable position of the monitor. High strength and high corrosion resisting Al-Bronze material special alloy is applied suitable for use at high pressurized, harsh conditioned and salty areas. Optional to use Aluminum (NF-500FNA) or Aluminum-Bronze alloy(NF-500FN) material foam self-inducting nozzles. Built-In Valve type monitor which is combination of monitor and shut-off valve also UL listed.

Size Inlet	ANSI#150 2-½", 3", 4" Flange
Size Outlet	2-½" NH Male
Material	Aluminum-Bronze special alloy (ASTM B148 c95500)
Working Pressure	2.0 MPa
Operating Angle	Up +85°/Down -45°



NFM460B (Built-In Valve)



NF-500 FNA



NFM460

APPLICATION NOZZLE

Size	2-½" NH Female
Flow Rate	500 GPM(0.7 MPa)/350 GPM
Shooting Range	50m (0.7 MPa)
Foam Ratio	3%
Material	NF-500FNA- Aluminium (ASTM B210) black. NF-500FN- Aluminium-bronze alloy (ASTM B140 c95500)
Weight	3.9 kg. Aluminum & 9.9 kg. Bronze
Option	Pick-up Hose

*NOTE: only 500 GPM UL listed

GEAR OPERATED FOAM MONITOR

MONITOR MODELS: NFM 520-65, NFM 520-80, NFM 520-100, NFM 520-65B, NFM 520-80B, NFM 520-100B

NOZZLE MODELS: NF-500FN, NF-500FNA



Usually installed on fire trucks or large capacity oil, gas plant, storage tank where need longer distance fire operation. The gear inside works as a stopper so that extra fixing device is not necessary. High strength and high corrosion resisting Al-Bronze material is applied suitable for use at high pressured, harsh conditioned and salty areas. Optional to use aluminum or Al-Bronze material foam self inducing nozzles. Built-in valve type monitor which is combination of monitor and shut-off valve is also UL listed.

Size Inlet	ANSI#150 2-½", 3", 4" Flange
Size Outlet	2-½" NH Male
Material	Aluminum-Bronze special alloy (ASTM B148 c95500)
Working Pressure	2.0 MPa
Operating Angle	Up +85°/Down -45°



NFM520



NF-500FN



NFM520B (Built-In Valve)

APPLICATION NOZZLE

Size	2-½" NH Female
Flow Rate	500 GPM(0.7 MPa)/350 GPM
Shooting Range	50m (0.7 MPa)
Foam Ratio	3%
Material	NF-500FNA- Aluminium (ASTM B210) black. NF-500FN- Aluminium-bronze alloy (ASTM B140 c95500)
Weight	9.9 kg. (Bronze), 3.9 kg. (Aluminum)
Option	Pick-up Hose

***NOTE:** only 500 GPM UL listed

GEAR OPERATED FOAM MONITOR

MONITOR MODELS: NFM 540-100, NFM 540-150

NOZZLE MODELS: NF-500FN, NF-500FNA



Usually installed on fire trucks or large capacity oil, gas plant, storage tank where need longer distance fire operation. The gear inside works as a stopper so that extra fixing device is not necessary. High strength and high corrosion resisting Al-Bronze material is applied suitable for use at high pressured, harsh conditioned and salty areas. Optional to use aluminum or Al-Bronze material foam self inducing nozzles. Built-in valve type monitor which is combination of monitor and shut-off valve is also UL listed.

Size Inlet	ANSI#150 4", 6" Flange
Size Outlet	2-½" NH Male
Material	Aluminum-Bronze special alloy (ASTM B148 c95500)
Working Pressure	2.0 MPa
Operating Angle	Up +85°/Down -45°



APPLICATION NOZZLE

Size	2-½" NH Female
Flow Rate	500 GPM(0.7 MPa)/350 GPM
Shooting Range	50m (0.7 MPa)
Foam Ratio	3%
Material	NF-500FNA- Aluminium (ASTM B210) black. NF-500FN- Aluminium-bronze alloy (ASTM B140 c95500)
Weight	9.9 kg. (Bronze), 3.9 kg. (Aluminum)
Option	Pick-up Hose

***NOTE:** only 500 GPM UL listed

FOAM MONITOR

MODEL: NFM-500

DESCRIPTION

Corrosion resistant stainless steel monitor Model NFM-500 is durable manual controlled low profile monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial application. The Monitor possess several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with fixed flow or variable flow nozzle. The monitor has welded stainless steel 4" (100 mm) waterway. The vertical and horizontal rotation is through stainless steel swivel joints with double row of stainless steel ball bearing. Both vertical and horizontal movement is controlled with handwheel driven enclosed worm gear.

The monitor has large flow capacity and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is adjustable from 90° above horizontal to 65° below horizontal. The water vanes in discharge tube reduces the turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, all the flow specified is at monitor base inlet pressure.

NOZZLE OPERATION INSTRUCTIONS

FLOW CHANGE

In case of variable flow Nozzle model NF-VFN1000, to change the flow, press the knob and rotate to match the arrow of knob and marking line on Nozzle. After flow setting set the concentrate induction by rotating the knob of induction valve.

CHANGE SPRAY TO JET

To change spray angle, rotate the pattern sleeve clockwise for straight stream or anticlockwise to spray/fog pattern.

NOZZLE DUST PROTECTION CAP

Nozzle Dust Protection Cap is optional supply. This cap protects nozzles operating parts from dust and bird nesting.

TECHNICAL DATA

Nominal Size	4" (100 mm)
Max. Service Pressure	175 psi (12 bar)
Nozzle Model	NF-FFN1000 (Fixed Flow self inducing) NF-VFN1000 (Variable Flow self inducing)
Flow Rate (NF-FFN1000)	500 GPM, 750 GPM, 1000 GPM
Flow Rate (NF-VFN1000)	500-750 GPM 750-1000 GPM 500-1000 GPM 500-750-1000 GPM
Induction Rate	3% (3 to 3.9%)
Factory Hydro Test Pressure	350 psi (25 bar)
Material	Stainless Steel
Optional Supply	Pressure Gauge

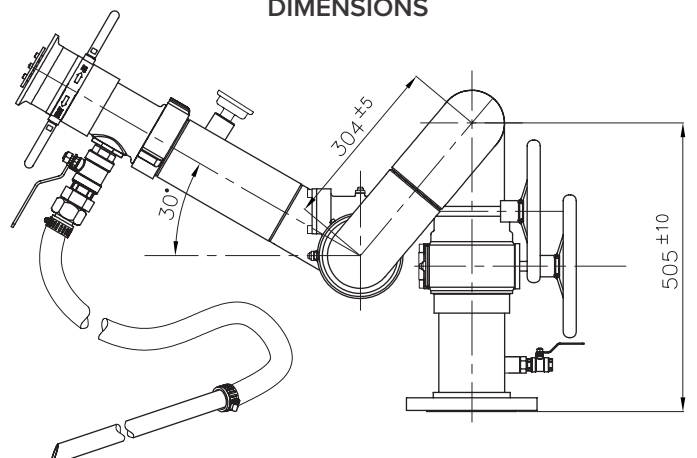


Nozzle Thrust Reaction (kg).	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.} \times 0.0228}$
Inlet Connection	4" or 6" (100 or 150 NB) Flange to ANSI B16.5 #150, R.F.
End Connection	4" BSP Monitor & Nozzle
Pickup Tube	Clear PVC, Spiral wound with SS dip Tube
Monitor Elevation	90° above horizontal & 65° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Double hand wheel driven enclosed worm gear
Finish	Red RAL 3000 Standard supply. Optional -As per customer requirement
Monitor Weight with NF-FFN1000 Nozzle with NF-VFN1000 Nozzle	77.5 kg. 79.5 kg.
Ordering Information	Specify: • Monitor model & inlet size • Nozzle model & flow • Material specification

FOAM REACH DATA

Set Flow Rate, GPM	Concentrate induction Rate in %	Monitor Base Pressure in kg./cm ²	Reach in Still Air (in meters)	
			Water	Foam
500	3	7	50	45
750	3	7	60	55
1000	3	7	65	60

DIMENSIONS



FOAM MONITOR

MODEL: NFM-1000 WITH NOZZLE MODEL NF-VFN-JRCP-500-750-1000
NFM-2000 WITH NOZZLE MODEL NF-VFN-JRCP-1000-1500-2000



DESCRIPTION

Corrosion resistant stainless steel monitor is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other industrial application. The Monitor possess several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with fixed flow or variable flow nozzle.

The monitor has welded stainless steel 4" (100 mm) waterway. The vertical and horizontal rotation is through stainless steel swivel joints with double row of stainless steel ball bearing. Both vertical and horizontal movement is controlled with handwheel driven enclosed worm gear.

The monitor has large flow capacity and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is adjustable from 90° above horizontal to 45° below horizontal. The water vanes in discharge tube reduces the turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, all the flow specified is at monitor base inlet pressure.



FOAM REACH DATA

Set Flow Rate, GPM	Concentrate induction Rate in %	Monitor Base Pressure in kg./cm ²	Reach in Still Air (in meters)	
			Water	Foam
NF-VFN-JRCP-500-750-1000/ NF-VFN-JRCP-1000-1500-2000				
500	3	7	50	45
750	3	7	60	55
1000	3	7	65	60
1500	3	7	72	68
2000	3	7	80	74

*NOTES:

- Monitor inlet flange standard size is 100NB (4") to ANSI B16.5, 150#, Other optional sizes 150NB (6")
- Flow is within ±5%
- Standard Supply-SS304
- Optional Supply-A) SS316
- Foam reach data is in still air at 30/35° Nozzle elevation

TECHNICAL DATA

Nominal Size	4" & 6"
Max. Service Pressure	175 psi (12 bar)
Induction Rate	3% (3 to 3.9%)
Factory Hydro Test Pressure	750 psi (52 bar)
Material	Stainless Steel
Inlet Connection	4" or 6" (100 or 150 NB) Flange to ANSI B16.5 #150, R.F.
Pickup Tube	Clear PVC, Spiral wound with SS dip Tube
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Double hand wheel driven enclosed worm gear
Finish	Red RAL 3000 Standard supply. Optional -As per customer requirement
Ordering Information	Specify: • Monitor model & inlet size • Nozzle model & flow • Material specification

FOAM MONITOR

MODEL: NFM-1000 WITH NOZZLE MODEL NF-VFN-500-750-1000
NFM-2000 WITH NOZZLE MODEL NF-VFN-1000-1500-2000



DESCRIPTION

Corrosion resistant stainless steel monitor is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other industrial application. The Monitor possess several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with fixed flow or variable flow nozzle.

The monitor has welded stainless steel 4" (100 mm) waterway. The vertical and horizontal rotation is through stainless steel swivel joints with double row of stainless steel ball bearing. Both vertical and horizontal movement is controlled with handwheel driven enclosed worm gear.

The monitor has large flow capacity and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is adjustable from 90° above horizontal to 45° below horizontal. The water vanes in discharge tube reduces the turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, all the flow specified is at monitor base inlet pressure.



FOAM REACH DATA

Set Flow Rate, GPM	Concentrate induction Rate in %	Monitor Base Pressure in kg./cm ²	Reach in Still Air (in meters)	
			Water	Foam
500	3	7	50	45
750	3	7	60	55
1000	3	7	65	60
1500	3	7	72	68
2000	3	7	80	74

*NOTES:

- Monitor inlet flange standard size is 100NB (4") to ANSI B16.5, 150#, Other optional sizes 150NB (6")
- Flow is within $\pm 5\%$
- Standard Supply-SS304
- Optional Supply-A) SS316
- Foam reach data is in still air at 30/35° Nozzle elevation

TECHNICAL DATA

Nominal Size	4" & 6"
Max. Service Pressure	175 psi (12 bar)
Induction Rate	3% (3 to 3.9%)
Factory Hydro Test Pressure	750 psi (52 bar)
Material	Stainless Steel
Inlet Connection	4" or 6" (100 or 150 NB) Flange to ANSI B16.5 #150, R.F.
Pickup Tube	Clear PVC, Spiral wound with SS dip Tube
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Double hand wheel driven enclosed worm gear
Finish	Red RAL 3000 Standard supply. Optional -As per customer requirement
Ordering Information	Specify: • Monitor model & inlet size • Nozzle model & flow • Material specification

FOAM MONITOR

MODEL: NFM-4000 WITH NOZZLE MODEL NF-VFN-JRCP-2000-3000-4000
NFM-4000 WITH NOZZLE MODEL NF-VFN-2000-3000-4000



DESCRIPTION

Corrosion resistant stainless steel monitor is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other industrial application. The Monitor possess several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with fixed-flow or variable flow nozzle.

The monitor has welded stainless steel 4" (100 mm) waterway. The vertical and horizontal rotation is through stainless steel swivel joints with double row of stainless steel ball bearing. Both vertical and horizontal movement is controlled with handwheel driven enclosed worm gear.

The monitor has large flow capacity and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is adjustable from 90° above horizontal to 45° below horizontal. The water vanes in discharge tube reduces the turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, all the flow specified is at monitor base inlet pressure.



FOAM REACH DATA

Set Flow Rate, GPM	Concentrate induction Rate in %	Monitor Base Pressure in kg./cm ²	Reach in Still Air (in meters)	
			Water	Foam
2000	3	7	77	70
3000	3	7	84	75
4000	3	7	92	82

*NOTES:

- Monitor inlet flange standard size is 100NB (4") to ANSI B16.5, 150#, Other optional sizes 150NB (6")
- Flow is within ±5%
- Standard Supply-SS304
- Optional Supply-A) SS316
- Foam reach data is in still air at 30/35° Nozzle elevation

TECHNICAL DATA

Nominal Size	8"
Max. Service Pressure	175 psi (12 bar)
Induction Rate	3% (3 to 3.9%)
Factory Hydro Test Pressure	750 psi (52 bar)
Material	Stainless Steel
Inlet Connection	8" Flange to ANSI B16.5 #150, R.F.
Pickup Tube	Clear PVC, Spiral wound with SS dip Tube
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Double hand wheel driven enclosed worm gear
Finish	Red RAL 3000 Standard supply. Optional - As per customer requirement
Ordering Information	Specify: • Monitor model & inlet size • Nozzle model & flow • Material specification

MONITOR

MODEL: CSM300

DESCRIPTION

The NAFFCO monitor Model-CSM300 is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial applications. The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range up to 800 GPM (3030 LPM).

The monitor has welded carbon steel 3" (80 mm) waterway. All steel parts are hot dip galvanized and epoxy painted for excellent corrosion resistant. The vertical and horizontal rotation is through corrosion resistant swivelling joints with double row of stainless steel ball bearing. Both vertical and horizontal movements are controlled by handle and twist lock.

The monitor has large flow capability and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting the horizontal and the vertical position of the monitor. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation +90° above horizontal and -45° below horizontal.

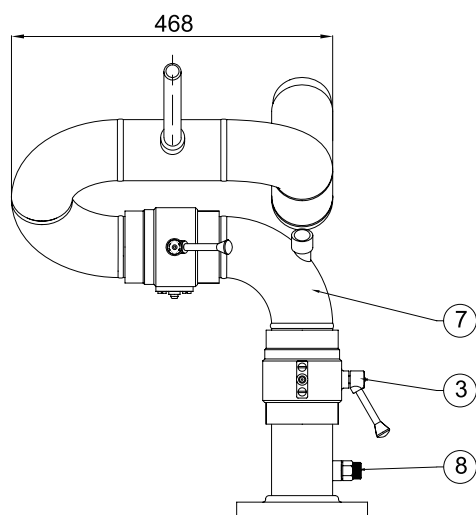
PART LIST

Sl.No.	Description	Material Specification
1	Base Flange	ASTM A105
2	Inlet Pipe	ASTM A106 WPB SCH40
3	Lock V & H	Bronze
4	Swivel Joint	Bronze/ASTM B62
5	Handle	Steel
6	Barrel Pipe	ASTM A106 SCH40
7	Elbow	ASTM A234 WPB SCH40
8	Drain Valve	Brass

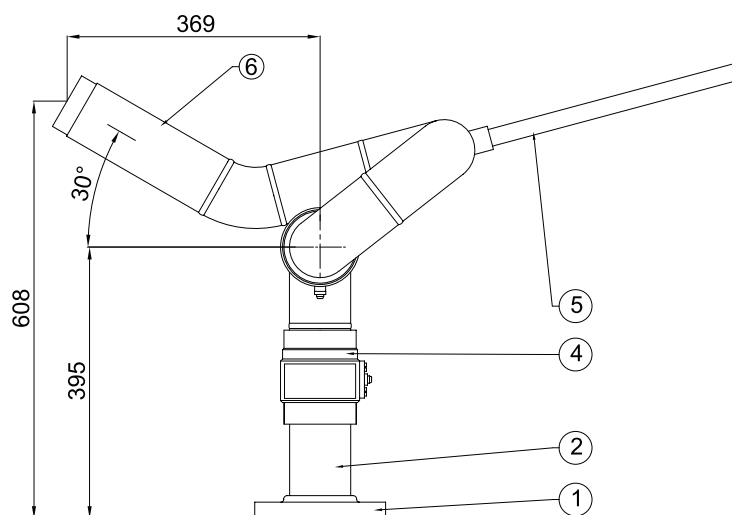


TECHNICAL DATA

Nominal Size	3" (80 mm)
Material	Carbon Steel
Max. Service Pressure	175 psi (12 bar)
Max. Flow	800 GPM (3030 LPM)
Factory Hydrostatic Test Pressure	27.6 bar (400 psi)
Swivel Joint	Bronze to ASTM B62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.}}$ x 0.0228
Inlet Connection	3" or 4" (80NB or 100NB) Flange to ANSI B16.5 #150, R.F.
Outlet Connection	3" BSP (M)
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Handle with twist lock
Finish	Red to RAL 3000
Weight (Approx)	35 kg
Ordering Information	Specify Monitor Model and Inlet Flange Size



SIDE VIEW



ELEVATION

MONITOR

MODEL: CSM400

DESCRIPTION

The NAFFCO Monitor Model- CSM400 is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial applications.

The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range up to 1250 GPM (4730 LPM).

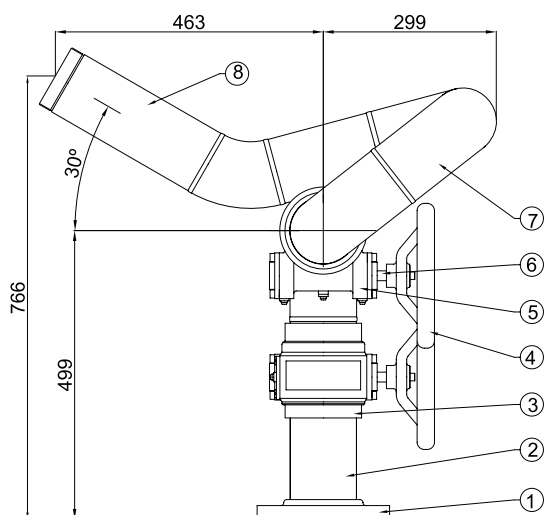
The monitor has welded carbon steel 4" (100 mm) water way. All steel parts are hot dip galvanized and epoxy painted for excellent corrosion resistance. The vertical and horizontal rotation is through corrosion resistant bronze swivelling joints with double row of stainless steel ball bearing. Both vertical and horizontal movements are controlled with hand wheel driven fully enclosed worm gears and protected from the elements.

PART LIST

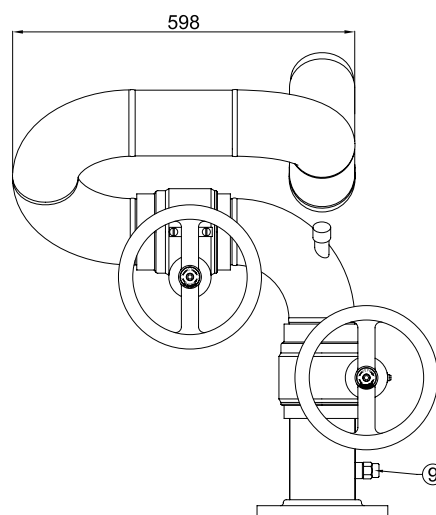
Sl.No.	Description	Material Specification
1	Base Flange	ASTM A105
2	Inlet Pipe	ASTM A106 WPB SCH40
3	Swivel Joint	Bronze/ASTM B62
4	Hand Wheel	Cast Iron
5	Worm Wheel	Bronze/ASTM B62
6	Worm Shaft	Stainless Steel
7	Elbow	ASTM A234 WPB SCH40
8	Barrel Pipe	ASTM A106 WPB SCH40
9	Drain Valve	Brass

TECHNICAL DATA

Nominal Size	4" (100 mm)
Material	Carbon Steel
Max. Service Pressure	175 psi (12 bar)
Max. Flow	1250 GPM (4730 LPM)
Factory Hydrostatic Test Pressure	35 bar (500 psi)
Swivel Joint	Bronze to ASTM B62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.}}$ x 0.0228
Inlet Connection	4" or 6" (100NB or 150NB) Flange to ANSI B16.5 #150, R.F.
Outlet Connection	4" BSP (M)
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Handwheel
Finish	Red to RAL 3000
Weight (Approx)	76 kg
Ordering Information	Specify Monitor Model and Inlet Flange Size



ELEVATION



SIDE VIEW

MONITOR

MODEL: CSM600



DESCRIPTION

The NAFFCO monitor Model CSM600 is durable manual controlled low profile monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial applications.

The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range upto 3300 GPM (12500 LPM).

The monitor has welded carbon steel 6" (150 NB) water way. All steel parts are hot dip galvanized and epoxy painted for excellent corrosion resistance. The vertical and horizontal rotation is through corrosion resistant bronze swiveling joints with double row of stainless steel ball bearing. Both vertical and horizontal movements are controlled with hand wheel driven fully enclosed worm gears and protected from the elements.

The monitor has large flow capability and can be manually operated by a single firefighter. The design ensures to prevent jet reaction forces from affecting horizontal and vertical position of the monitor. The counter balance is not required to offset the weight of the nozzle. The monitor has the ability for 360° continuous horizontal rotation and angle of elevation is adjustable with fix stop from +90° above horizontal to -65° below horizontal.

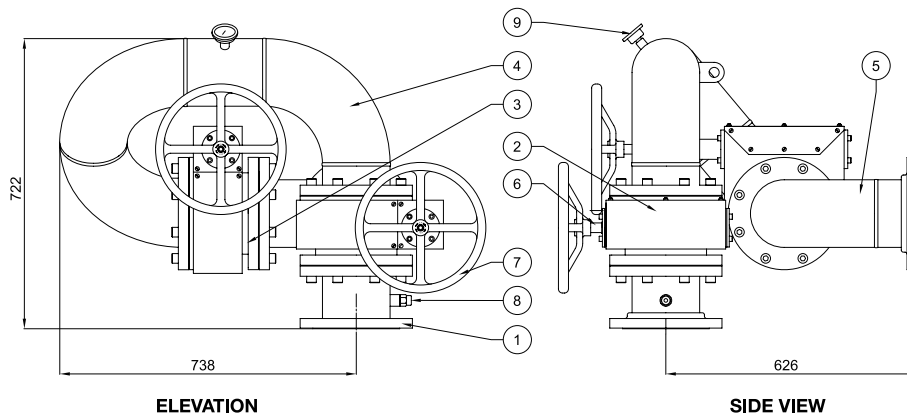
PART LIST

Sl.No.	Description	Material Specification
1	Base Flange	ASTM A105
2	Worm Wheel	Bronze/ASTM B62
3	Swivel Joint	Bronze/ASTM B62
4	Elbow	ASTM A234 WPB SCH40
5	Discharge Elbow	ASTM A234 WPB SCH40
6	Worm Shaft	Stainless Steel
7	Hand Wheel	Cast Iron
8	Drain Valve	Brass
9	Pressure Gauge	Glycerin Filled 0 to 16 kg/cm ²



TECHNICAL DATA

Nominal Size	6" (150 mm)
Material	Carbon Steel
Max. Service Pressure	175 psi (12 bar)
Max. Flow	3300 GPM (12500 LPM)
Factory Hydrostatic Test Pressure	35 bar (500 psi)
Swivel Joint	Bronze to ASTM B62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.} \times 0.0228}$
Inlet Connection	6" (150NB) Flange to ANSI B16.5 #150, R.F.
Outlet Connection	6" (150NB) Flange to ANSI B16.5 #150, R.F.
Monitor Elevation	90° above horizontal & 65° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Handwheel driven fully enclosed worm gear.
Finish	Red to RAL 3000
Weight (Approx)	224 kg
Ordering Information	Specify Monitor Model and Inlet Flange Size



MONITOR

MODEL: SSM350

DESCRIPTION

Corrosion resistant stainless steel monitor NAFFCO Model- SSM350 is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other industrial applications.

The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range up to 800 GPM (3030 LPM).

The monitor has welded stainless steel 3" (80mm) water way. The vertical and horizontal rotation is through stainless steel swivelling joints with double row of stainless steel ball bearing. Both vertical and horizontal movements are controlled by handle with twist lock.

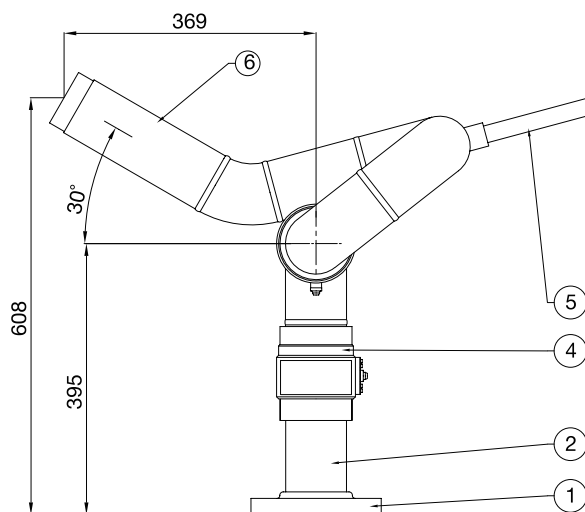
PART LIST

Sl.No.	Description	Material Specification
1	Base Flange	Stainless Steel
2	Reducer	Stainless Steel
3	Lock	Stainless Steel
4	Swivel Joint	Stainless Steel
5	Handle	Stainless Steel
6	Barrel Pipe	Stainless Steel
7	Elbow	Stainless Steel
8	Drain Valve	Brass

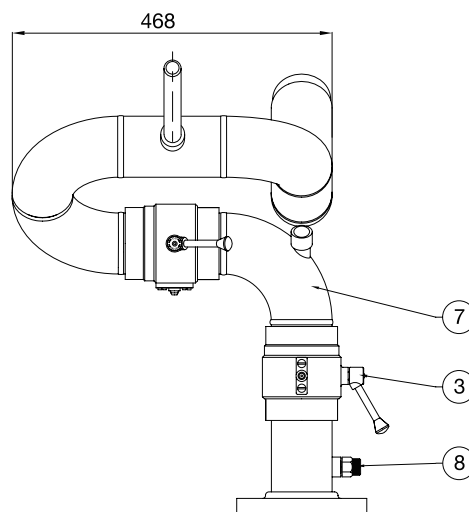


TECHNICAL DATA

Nominal Size	3" (80 mm)
Material	Stainless Steel
Max. Service Pressure	175 psi (12 bar)
Max. Flow	800 GPM (3030 LPM)
Factory Hydrostatic Test Pressure	35 bar (500 psi)
Swivel Joint	Stainless Steel with double row of Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.}}$ x 0.0228
Inlet Connection	3" or 4" (80 or 100NB) Flange to ANSI B16.5 #150, R.F.
Outlet Connection	3" BSP(M)
Monitor Elevation	90° above horizontal & 45° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Handle with twist lock
Finish	Red to RAL 3000
Weight (Approx)	36 kg
Ordering Information	Specify Monitor Model and Inlet Flange Size



ELEVATION



SIDE VIEW

MONITOR

MODEL: BZM450

DESCRIPTION

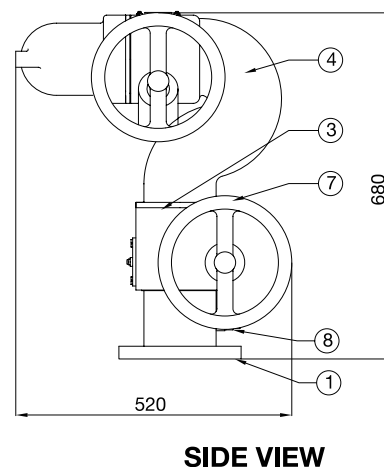
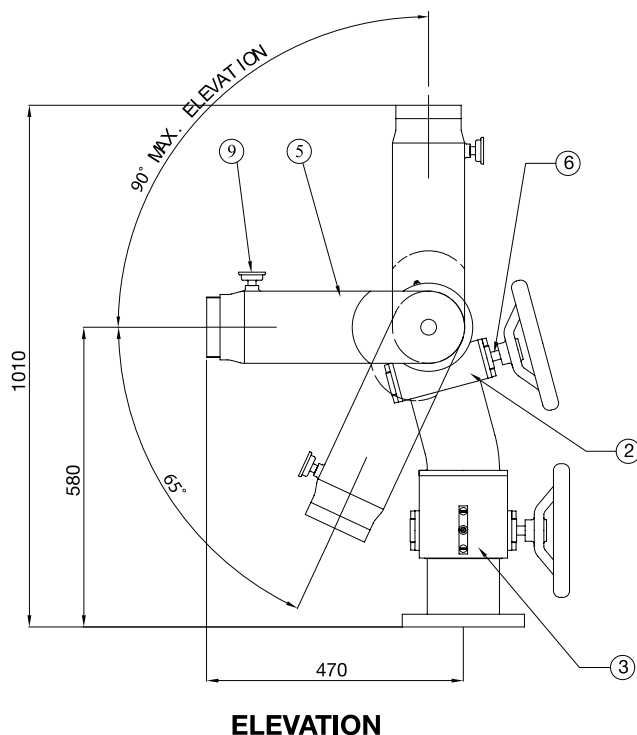
Corrosion resistant bronze monitor Model-BZM450 is durable manual controlled monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial applications.

The Monitor possesses several design features that provides ease of operation, minimum maintenance and resistance to corrosive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range up to 2000 GPM (7570 LPM). The monitor has rugged, corrosion resistant cast bronze construction. The vertical and horizontal rotation is through corrosion resistant bronze swivel joints with double row of stainless steel ball bearing.

Both vertical and horizontal movements are controlled with hand wheel driven fully enclosed worm gears and protected from the elements.

PART LIST

Sl.No.	Description	Material Specification
1	Base Flange	Bronze/ASTM B62
2	Worm Wheel	Bronze/ASTM B62
3	Swivel Joint	Bronze/ASTM B62
4	Elbow	Bronze/ASTM B62
5	Discharge Elbow	Bronze/ASTM B62
6	Worm Shaft	Stainless Steel
7	Hand Wheel	Cast Iron
8	Drain Valve	Brass
9	Pressure Gauge	Glycerin Filled 0 to 16 kg/cm ²



TECHNICAL DATA

Nominal Size	4" (100 mm)
Material	Cast Bronze
Max. Service Pressure	175 psi (12 bar)
Max. Flow	2000 GPM (7570 LPM)
Factory Hydrostatic Test Pressure	35 bar (500 psi)
Swivel Joint	Bronze to ASTM B62 with double row of Stainless Steel Ball Bearing and Grease Fittings
Nozzle Thrust Reaction In kg.	Flow in LPM x $\sqrt{\text{Pressure in kg./sq.cm.}}$ x 0.0228
Inlet Connection	4" or 6" (100 or 150NB) Flange to ANSI B16.24 #150, F.F.
Outlet Connection	4" BSP(M)
Monitor Elevation	90° above horizontal & 65° below horizontal
Monitor Rotation	360° continuous
Monitor Movement	Handwheel
Finish	Red to RAL 3000
Weight (Approx)	92 kg
Ordering Information	Specify Monitor Model and Inlet Flange Size



HYDRO FOAM NOZZLE FOR MONITOR

MODEL: NF-FFN500SI & NF-FFN750SI



TECHNICAL DATA

Water Inlet Connection	Swivel Female 3" BSP Standard Supply. 3" NH Optional
Foam Concentrate Connection	Female 1/4" BSP INLET
Induction	3%
Material of Construction	Bronze
Maximum Working Pressure	12 bar (175 psi)
Jet & Spray Pattern	120° angle
Weight (Approx)	Bronze material-12.7 kg. (without hose)

DESCRIPTION

Hydro Foam Nozzles have been designed for fixed-flow range from 1900, 2850, 3785 LPM for use with Monitors. These are fixed flow nozzles, simple and rugged with superior stream and reach. The straight stream from maximum reach can be easily changed to wide fog pattern under flow condition by rotation of the pattern adjustment sleeve. Self inducing nozzle equipped with a foam concentrate pick up tube of 3.0 meters long with stainless steel dip tube. The nozzle can be used as a water nozzle and when foam supply is established, it acts as a self inducing Foam Nozzle. The performance data shows effective stream trajectory in stand still air condition. The maximum overall reach of last drop is approximately 3-5% more than the effective stream performance data. The jet stream may get effected considerably with tail or head wind.

*NOTE

- Self Inducing Nozzle: NF-FFN500SI & NF-FFN750SI
Non-Self Inducing Nozzle: NF-FFN500MI, NF-FFN750MI & NF-FFN1000MI
- The Nozzles are UL-Listed with NAFFCO Monitor NFM-400BZ and Oscillating Monitor NFM-400SS.



NF-FFN500SI & NF-FFN750SI



NF-FFN500MI, NF-FFN750MI & NF-FFN1000MI

Set Flow Rate LPM (GPM)	Nozzle Pressure kg./cm ² (psi)	Actual Flow Rate LPM (GPM)	Straight Stream Water Range in Meters (Feet)
1900 (500)	5.6 (80) 7.0 (100) 8.4 (120)	1700 (450) 1900 (500) 2080 (550)	57(187) 61(200) 63(207)
2850 (750)	5.6 (80) 7.0 (100) 8.4 (120)	2550 (674) 2850 (750) 3120 (825)	61(200) 63(207) 64(210)
3785 (1000)	5.6 (80) 7.0 (100) 8.4 (120)	3385 (895) 3785 (1000) 4150 (1095)	63(207) 65(213) 66(216)

SELF-INDUCTING FOAM MONITOR NOZZLE

MODEL: NF-FFN500, NF-FFN750 & NF-FFN1000

NF-VFN-500-750, NF-VFN-750-1000, NF-VFN-500-1000, NF-VFN-500-750-1000



TECHNICAL DATA

Water Inlet Connection	4" inlet base, BSP, Swivel Female
Material of Construction	Stainless Steel
Maximum Working Pressure	12 bar (175 psi)
Jet & Fog Pattern	120° angle
Weight (Approx)	9.2 kg.
Fixed Flow Nozzle Model	NF-FFN500-500 GPM NF-FFN750-750 GPM NF-FFN1000-1000 GPM
Variable Flow Nozzle Model	- NF-VFN-500-750-500 GPM, 750 GPM - NF-VFN-750-1000-750 GPM, 1000 GPM - NF-VFN-500-1000-500 GPM, 1000 GPM - NF-VFN-500-750-1000-500 GPM, 750 GPM, 1000 GPM



DESCRIPTION

Master Stream Foam Nozzle is fixed/variable gallonage master stream nozzle, designed for heavy-duty use on fixed monitors. The fixed nozzle is factory set for flow 500, 750 or 1000 GPM. The variable flow nozzle, flow can be changed in the field by replacing plunger or addition of spacer. The flow pattern is easily changeable under flowing condition. Excellent for AFFF application when used with premixed water-foam solution. The performance data shown in this catalogue is effective stream trajectory in stand still air condition. The maximum overall reach of last water drop is approximately 3-5% more than the effective stream performance data given. The jet stream may get effected considerably with tail or head wind.

CAUTION

A trained personnel for firefighting, with appropriate guidance & training must use the product to reduce the risk or injury. The nozzle must be fixed to the monitor carefully. The mismatched or damaged threads may cause leakage or uncouple the nozzle during operation. Application of water or foam on an electric appliance can cause serious injury by electrocution, as water is a conductor of electricity. The water supply to the nozzle must be gradual. Sudden surge of water supply must be avoided. The monitor mounting must be supported properly to support the nozzle reaction force.

*NOTE:

The Nozzles are UL-Listed with NAFFCO Monitor NFM-500

Set Flow Rate (GPM)	Concentrate Induction Rate (%)	Monitor Base Pressure (kg/cm ²)	Reach In Still Air (m)	
			Water	Foam
500	3	7	50	45
750	3	7	60	50
1000	3	7	65	55

MONITOR NOZZLES

MODEL: MSN800

DESCRIPTION

Monitor Nozzle, MSN800, is fixed gallon master stream nozzle, designed for heavy-duty use on fixed monitors. The nozzle is factory set for required flow between 400 to 800 GPM. The flow can be changed in the field by replacing plunger or addition of spacer. The flow pattern is easily changeable under flowing condition. Superior fog pattern with field changeable spinning teeth. Excellent for AFFF application when used with premixed water-foam solution. The nozzle is available with three different material, hard coat anodized Aluminum or Bronze or Stainless Steel, all with SS internals.

The performance data shown in this catalogue is effective stream trajectory in stand still air condition. The maximum overall reach of last water drop is approximately 3-5% more than the effective stream performance data given. The effective stream decreases by about 10% when used as foam nozzle with premixed water foam solution. The jet stream may get effected considerably with tail or head wind.



TECHNICAL DATA

Nozzle Flow Range	400 to 800 GPM (1500 to 3030 LPM)
Water Inlet Connection	Swivel Female 3" BSP
Material of Construction	Hard Anodized Aluminum / Bronze/Stainless Steel with SS Internals
Maximum Service Pressure	12 bar (175 psi)
Jet & Fog Pattern	With Spinning Teeth 120° Angle
Weight (Approx.)	Aluminum Nozzle - 4.8 kg Bronze Nozzle - 9.2 kg Stainless Steel - 8.8 kg
Approval	FM Approved With Bronze & Aluminum Material

PERFORMANCE DATA

Set Flow Rate LPM (GPM)	Nozzle Pressure kg./cm ² (psi)	Actual Flow Rate LPM (GPM)	Straight stream Range Meters (Feet)
1500 (400)	5.6 (80)	1342 (354)	54 (177)
	7.0 (100)	1500 (396)	58 (190)
	8.4 (120)	1643 (434)	60 (196)
1900 (500)	5.6 (80)	1700 (450)	57 (187)
	7.0 (100)	1900 (502)	61 (200)
	8.4 (120)	2080 (550)	63 (207)
2270 (600)	5.6 (80)	2030 (536)	58 (190)
	7.0 (100)	2270 (600)	62 (203)
	8.4 (120)	2485 (656)	64 (210)
2650 (700)	5.6 (80)	2370 (626)	61 (200)
	7.0 (100)	2650 (700)	63 (207)
	8.4 (120)	2903 (767)	64 (210)
3030 (800)	5.6 (80)	2710 (716)	63 (207)
	7.0 (100)	3030 (800)	65 (213)
	8.4 (120)	3319 (876)	66 (216)

*NOTES:

- Performance data for water stream range are based at 30° Nozzle elevation in still air condition and with NAFFCO monitor. When used with premixed water foam solution the foam reach will decrease by approximately 10% to 15%.
- Optional Monitor: CSM300 & CSM400

MONITOR NOZZLES

MODEL: SSN500, SSN700, SSN1000



DESCRIPTION

SSN series nozzles are fixed gallon smooth bore straight stream nozzles, designed for heavy-duty use on fixed monitors. The nozzle is factory calibrated for flow as specified in the technical data.

The nozzle is made out of Bronze material.

The performance data shown in this catalogue is effective stream trajectory in stand still air condition.

The maximum overall reach of last water drop is approximately 3-5% more than the effective stream performance data given. The jet stream may get effected considerably with tail or head wind.



TECHNICAL DATA

Nozzle Flow Range	SSN500 - 500 GPM, SSN700 - 700 GPM, SSN1000 - 1000 GPM
Water Inlet Connection	3" BSP (F) for SSN500, 3" BSP (F) for SSN700, 4" BSP (F) for SSN1000
Material of Construction	Bronze
Maximum Service Pressure	12 bar (175 psi)

PERFORMANCE DATA

Actual Flow Rate LPM (GPM)	Nozzle Pressure kg./cm ² (psi)	Straight stream Range Meters (Feet)
1900 (500)	7.0 (100)	54 (177)
2650 (700)	7.0 (100)	60 (197)
3785 (1000)	7.0 (100)	64 (210)

NOTES:

- Performance data for water stream range are based at 30° Nozzle elevation in still air condition and with NAFFCO monitor.
- Optional Monitors: SSN500 – CSM 300 & SSM350, SSN700 – CSM300 & SSM350, SSN1000 – CSM400 & BZM-450

MONITOR NOZZLES

MODEL: MSN2000



DESCRIPTION

Monitor Nozzle, MSN2000, is fixed gallon master stream nozzle, designed for heavy-duty use on fixed monitors. The nozzle is factory set for required flow between 800 to 2000 GPM. The flow can be changed in the field by replacing plunger or addition of spacer. The flow pattern can be easily changeable under flowing condition. Superior fog pattern with field changeable spinning teeth. Excellent for AFFF application when used with premix water-foam solution.

The nozzle is available with three different materials, hard coat anodized Aluminum or Bronze or Stainless Steel all with SS internals. The performance data shown in this catalogue is effective stream trajectory in stand still air condition. The maximum overall reach of last water drop is approximately 3-5% more than the effective stream performance data given. The effective stream decreases by about 10% when used as foam nozzle with premixed water foam solution. The jet stream may get effected considerably with tail or head wind.



TECHNICAL DATA

Nozzle Flow Range	800 to 2000 GPM (3030 to 7570 LPM)
Water Inlet Connection	Swivel Female 4" BSP
Material of Construction	Hard Anodized Aluminum / Bronze/Stainless Steel with SS Internals
Maximum Service Pressure	12 bar (175 psi)
Jet & Fog Pattern	With Spinning Teeth 120° Angle
Approval	FM Approved With Bronze & Aluminum Material

PERFORMANCE DATA

Set Flow Rate LPM (GPM)	Nozzle Pressure kg./cm ² (psi)	Actual Flow Rate LPM (GPM)	Straight stream Range Meters (Feet)
3030 (800)	5.6 (80)	2710 (716)	64 (210)
	7.0 (100)	3030 (800)	68 (223)
	8.4 (120)	3319 (876)	70 (229)
3785 (1000)	5.6 (80)	3385 (894)	73 (240)
	7.0 (100)	3785 (1000)	75 (246)
	8.4 (120)	4146 (1095)	82 (269)
4165 (1100)	5.6 (80)	3725 (984)	75 (246)
	7.0 (100)	4165 (1100)	78 (256)
	8.4 (120)	4563 (1205)	80 (262)
4730 (1250)	5.6 (80)	4230 (1118)	75 (246)
	7.0 (100)	4730 (1250)	79 (259)
	8.4 (120)	5181 (1370)	80 (262)
* 5680 (1500)	5.6 (80)	5080 (1342)	76 (249)
	7.0 (100)	5680 (1500)	80 (262)
	8.4 (120)	6222 (1643)	81 (266)
* 6625 (1750)	5.6 (80)	5925 (1565)	75 (246)
	7.0 (100)	6625 (1750)	81 (266)
	8.4 (120)	7257 (1917)	82 (269)
* 7570 (2000)	5.6 (80)	6775 (1790)	77 (253)
	7.0 (100)	7570 (2000)	82 (269)
	8.4 (120)	8300 (2192)	83 (272)

*NOTES:

- Performance data for water stream range is based at 30° Nozzle elevation in still air condition and with NAFFCO monitor. When used with premixed water foam solution the foam reach will decrease by approximately 10% to 15%.
- *Flow with BZM450 only, for other monitors, flow is up to 1250 GPM.
- Optional Monitors: CSM400 (flow is up to 1250 GPM)

MONITOR NOZZLE

MODEL: MSN2200

DESCRIPTION

Monitor Nozzle, MSN2200, is fixed gallon master stream nozzle, designed for heavy-duty use on fixed monitors. The nozzle is factory set for required flow between 1500 to 3300 GPM. The flow can be changed in the field by replacing plunger or addition of spacer. The flow pattern is easily changeable under flowing condition. Superior fog pattern with field changeable spinning teething. Excellent for AFFF application when used with premixed water-foam solution. The nozzle is available with three different materials, hard coat anodized Aluminum or Bronze or Stainless Steel all with SS internals.

The performance data shown in this catalogue is effective stream trajectory in stand still air condition. The maximum overall reach of last water drop is approximately 3-5% more than the effective stream performance data given. The effective stream decreases by about 10% when used as foam nozzle with premixed water foam solution. The jet stream may get effected considerably with tail or head wind.



TECHNICAL DATA

Nozzle Flow Range	1500 to 3300 GPM(5680 to 12500 LPM)
Water Inlet Connection	6" Flanged (ANSI B16.5)
Material of Construction	Bronze/Stainless Steel with SS Internals
Maximum Service Pressure	12 bar (175 psi)
Jet & Fog Pattern	With Spinning Teeth 120° Angle
Approval	FM Approved up to 2200GPM with Bronze & Aluminum Material

PERFORMANCE DATA

Set Flow Rate LPM (GPM)	Nozzle Pressure kg./cm ² (psi)	Actual Flow Rate LPM (GPM)	Straight stream Range Meters (Feet)
5680 (1500)	5.6 (80)	5080 (1342)	73 (240)
	7.0 (100)	5680 (1500)	77 (253)
	8.4 (120)	6222 (1643)	79 (259)
6625 (1750)	5.6 (80)	5925 (1567)	76 (249)
	7.0 (100)	6625 (1750)	80 (262)
	8.4 (120)	7257 (1917)	82 (269)
7570 (2000)	5.6 (80)	6775 (1790)	81 (266)
	7.0 (100)	7570 (2000)	85 (279)
	8.4 (120)	8300 (2192)	86 (282)
8000 (2100)	5.6 (80)	7155 (1890)	83 (282)
	7.0 (100)	8000 (2115)	87 (285)
	8.4 (120)	8765 (2315)	88 (284)
8327 (2200)	5.6 (80)	7445 (1967)	87 (285)
	7.0 (100)	8327 (2200)	90 (295)
	8.4 (120)	9120 (2410)	91 (298)

*NOTES:

- Performance data for water stream range are based at 30° Nozzle elevation in still air condition and with NAFFCO monitor. When used with premixed water foam solution the foam reach will decrease by approximately 10% to 15%.
- Optional Monitors: CSM600

FOAM STATION WITH HOSE REEL UNIT

MODEL: NFSB 36G



DESCRIPTION

NAFFCO Foam Station is a self-contained foam proportioning system that requires only water supply to keep the unit in operation. The Unit consists of 36 gallon vertical bladder tank with prepiped 2.5" ratio controller connected to a continuous flow hose reel with 1.5 inch x 100 feet, flexible rubber hose or UL-19 lay flat hose, foam hose stream nozzle, low expansion branch pipe with ball shut off valve.

FEATURES

- 36 Gallon Tank Capacity
- One man operation
- Sturdy construction unit, red painted, completely assembled.
- 2.5" ratio controller provides a wide flow range with minimal pressure lose.
- Ratio controller concentrate inlet orifice is present to ensure correct proportioning.
- Suitable for AFFF C6 3% & AFFF C6 6%.
- Spray to straight pattern control without shutting of flow.
- Air Aspirating nozzle for use with all Foam Concentrate.

OPTIONS

- 1.5" x 30 meters flexible rubber hose reel.
- Single jacket fire hose 1.5" x 30 meters mounted on hose cradle.



PERFORMANCE

Foam (%)	Pressure (bar)	Flow (GPM)		Throw (M)	
		Spray	Jet	Spray	Jet
3%	6-8	90-105	90-105	10	15-18
6%	6-8	91-106	91-106	10	15-18

SPECIFICATION

Model	Description
NFSB 36G HR3	Foam Station with Hose Reel Unit 1.5" x 30 m Flexible Rubber Hose, AFFF C6 3%
NFSB 36G HC3	Foam Station with Layflat Fire Hose 1.5" x 30 m Cradle Mounted, AFFF C6 3%
NFSB 36G HR6	Foam Station with Hose Reel Unit 1.5" x 30 m Flexible Rubber Hose, AFFF C6 6%
NFSB 36G HC6	Foam Station with Layflat Fire Hose 1.5" x 30 m Cradle Mounted, AFFF C6 6%

SPECIFICATION

No.	Description	Material
1	Skid 2000 x 1200	Mild Steel, Fabricated
2	Bladder Tank 36 gal.	Carbon Steel SA 516 Gr.70
3	Hose Reel Unit	Steel Painted
4	Ratio Controller	Brass
5	Foam Hose Stream Nozzle, NF-500LXB	Aluminum
6	Foam Water Hose	Flexible Synthetic Rubber
7	NRV 2"	Brass
8	Concentrate Outlet Valve 2"	Brass, Nickel Plate

FOAM STATION

MODEL: NFSF 60G



DESCRIPTION

NAFFCO Foam Station is a self-contained unit that depends on water flow and pressure to keep the system into operation. The unit is constructed in such a manner for one operation to its full potential. The 60 gallon foam station unit consists of 60 gallon foam concentrate, 400 LPM in-line inductor prepiped to a fixed mounted continuous flow hose containing 1.5 inch x 100 feet UL-19 flat hose, foam hose stream nozzle, low expansion branch pipe with ball shut off valve.

FEATURES

- 60 Gallon Tank Capacity
- Single jacket fire hose 1.5" x 30 meters mounted on hose cradle.
- Foam tank manufactured of type 316L stainless steel.
- Nozzle is air aspirating hand line type.
- Variable type 1%, 3% & 6% inline inductor.
- Foam tank provided with level gauge.
- Refilling of tank can be done during operation of unit.
- Suitable for AFFF C6 3% & AFFF C6 6%.
- Spray to straight pattern control without shutting of flow.
- Air Aspirating nozzle for use with all Foam Concentrate.



PERFORMANCE

Foam (%)	Pressure (bar)	Flow (GPM)		Throw (M)	
		Spray	Jet	Spray	Jet
3%	7-9	82-93	82-93	10	16-19
6%	7-9	80-91	80-91	10	14-18

SPECIFICATION

Model	Description
NFSF 60G HC3	Foam Station with Layflat Fire Hose 1.5" x 30 m Cradle Mounted, AFFF C6 3%
NFSF 60G HC6	Foam Station with Layflat Fire Hose 1.5" x 30 m Cradle Mounted, AFFF C6 6%

MATERIAL SPECIFICATION

No.	Description	Material
1	Base Frame	Mild Steel, Fabricated
2	Foam Tank (400 x 700 x 900)	Stainless Steel Sheet 316L
3	Hose Cradle	E.G. Steel Sheet
4	Level Gauge	---
5	1.5" x 30 m Hose	Single Jacket, FM Approved

FOAM HOSE REEL STATION

MODEL: NF HRS 60G, NF HRS 36G



DESCRIPTION

NAFFCO Foam Stations are designed to deploy foam during the first 10 to 15 minutes before large capacity foam equipment is placed into action at the fire scene. This efficient unit meets the need for "first aid" foam application in quantities adequate to control sizable fires

Foam Station has a foam concentrate storage capacity 36 Gallons & 60 Gallons. This unit is self contained and needs only a source of water to be put in service at a moments notice.

FEATURES

FOAM TANK

The foam tank is made of Stainless Steel Grade 316L complete with 4" fill opening, capped, 3/4" drain plug, lifting eyes and foam concentrate pickup tube inlet.

HOSE REEL

The hose reel is continuous flow type, equipped with 30 meter 1 1/2" synthetic rubber hose

HANDLINE NOZZLE

NAFFCO handline nozzle is used for maximum flexibility and firefighting capability.

APPLICATION

NAFFCO Foam Station can be used as a supplementary device for the protection of Flammable Liquid Storage Tanks. In addition to this it can be used for the rapid deployment of foam at the following fire hazard sites.

- Flammable liquid storage areas
- Liquefied natural gas storage and handling areas
- Hazardous waste storage areas and incineration plants
- Chemical process and storage areas
- Mining and power stations
- Flammable liquid bottling areas



TECHNICAL DATA

Capacity	36 gal & 60 gal
Tank Material	Stainless Steel 316L
Hose	Pressure Hose 1 1/2" x 30 m
Nozzle Material	Bronze
Foam Induction Rate	6% & 3% Film Plus
Finish	Red (RAL 3000)
Flow	57 GPM @ 7 bar
Throw Range	13 m. @ spray 15 m. @ jet

FOAM MASTER

MODEL: NFM-75L, NFM 150L, NFM 225L,



DESCRIPTION

NAFFCO Foam Master is a self contained mobile foam unit which has been specifically developed for the rapid deployment of foam extinguishing agent to fires and chemical spills. This compact ready for action equipment consists of a foam tank, inductor, branchpipe and fire hoses ready to plug-in to a suitable water supply. Foam Master can be operated by one person.

The foam storage tank is made out of steel with internal polyester coating. The foam branchpipe and fire hoses are mounted on the concentrate storage tank. The foam inductor is clamped rigidly on the storage tank. The complete unit is mounted on two wheels with a handle for easy movement.

APPLICATIONS

NAFFCO Foam Master is generally used for controlling spill fires. It can be effectively used for rapid vapor suppression. This unit is an ideal choice for the protection of smaller flammable liquid hazards such as boiler rooms, oil storage and loading terminals, airports, industrial sites, generator rooms and similar high risk areas. It may also be used as a supplementary unit for the protection of small flammable liquid storage tanks.

FEATURES

- Branchpipe is provided with shut off ball valve for better stream control and is designed to give constant flow pattern.
- Hard rubber tires improves reliability for rapid deployment
- Light weight Fire hose 1½" dia. and 15m length
- Foam Tank internally coated with polyester resin
- Provided with three wheels, of which the front one is rotary type for easy handling and mobility

TECHNICAL DATA

Foam Concentrate Storage Capacity	75, 150 and 225 liters.
Foam Inductor (NF-F160G)	3%
Foam Tank Material	Stainless Steel 316L
Foam Branch Pipe (NF-17)	NH1½ Swivel Female
Flow (LPM)	212 @ 7 bar
Throw	16m
Fire Hose	1½" dia. 15m (2 Nos.)
Wheel	Rubber Wheel



OPTIONS

- Fire hoses in special lengths for connecting to water supply
- Special Branchpipes with fog & stream patterns
- Special cover made of synthetic rubber coated fabric
- Foam Tank made of Stainless Steel 316L
- Higher Tank Capacities Available

FIRE RATED DOORS



NAFFCO manufactures ANSI and BS standard fire rated doors. Fire rating does not depend on property of construction, but on the performance of complete elements of structure, which is composed of a number of materials. NAFFCO fire rated doors are designed to get optimal performance from a number of materials combined to perform for high degree of fire protection.

The design of NAFFCO fire rated doors evolved from actual testing as per NFPA and BSEN standards, which deal with methods of determination of resistance to fire of non-load bearing element construction.

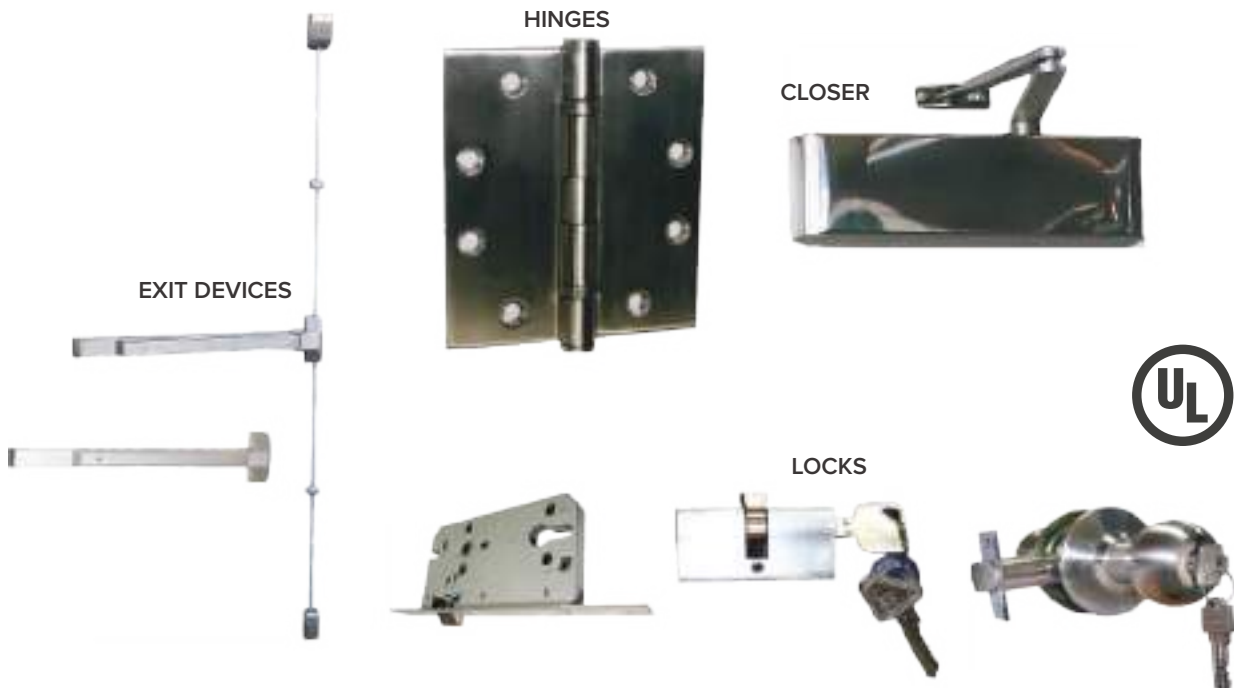
NAFFCO fire rated doors satisfy these criteria for the required period. These doors also satisfy the criteria of insulation where the mean and minimum temperature is required to be below specific figures as per standards.

Design and construction of NAFFCO fire rated door assemblies are in accordance with NFPA 80, UL10B, UL 10C, BS 476 Part 22 and other international standards.

NAFFCO UL classified doors are tested and certified with 2 hours fire rating. BS standard doors maintains certification till 2 hours for Honeycomb door and 3 hours for glazed door.



NAFFCO FIRE CERTIFIED HARDWARE



May it be fire rated, normal, classic, traditional or modern, we have a vast collection of hardware to suit your design needs. From lock case, lever handles, cylinders and deadlocks, we have it all in different finishes like satin finish, gold finish, bronze finish and silver finish. You will never go wrong with the selection of your preferred hardware since NAFFCO offers only the finest quality brands.



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