



Big Flow Systems

Major innovations in fire fighting and water transfer technology

An integrated mobile high capacity foam and water delivery solution. Use as a comprehensive system or as individual components to enhance existing equipment.

Large scale disasters caused by acts of nature or man, may require large volumes of water transferred over long or short distances for emergency response. Whether it be an oil refinery storage tank fire; a critical water main disruption; an area where access to water is challenging; or even an act of terrorism against critical infrastructure targets, the movement of water delivered quickly and efficiently is crucial to successful emergency response.

Big Flow Systems



Big Flow Systems from National Foam, Angus Flexible Pipelines, and Kidde Fire Fighting offer innovative, integrated solutions to these large capacity firefighting and water transfer needs. Incorporating a wide range of equipment designed and built by Kidde, Big Flow Systems provide optimal solutions to the unique requirements of a diverse range of catastrophic events.

Big Flow Systems include an impressive array of equipment developed specifically to address large capacity emergency water needs.

- Mobile Pumping Systems - Dominator trailer-mounted, engine-driven pumps and modular Neptune positive pressure high lift pumps. Flows to 6,000 gpm at pressures to 150 psi.
- Delivery Devices - Iron Man non self-educting and Terminator self-educting mobile foam delivery devices. Flows to 8,000 gpm.
- Extra Large Diameter Hose (XLDH) - Super Aquaduct 8", 10", and 12", NSF 61, potable water layflat hose.
- Hose Deployment, Retrieval, and Storage Equipment - Hose reel trucks and trailers, flaking boxes.
- Hose Manifolds and Hardware
- Foam, Foam Proportioning, and Foam Transport - A wide range of foam concentrates available featuring "Universal Gold" AR-AFFF. Proportioning Systems. Large capacity foam tank trucks.

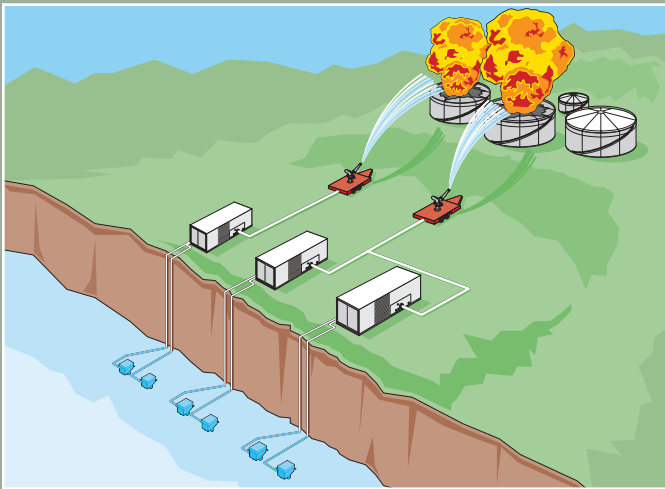
Utilized as a complete system, or as individual components, the flexibility of National Foam's Big Flow Systems assures an optimal solution to a wide range of needs.



Mobile Pumping Systems

National Foam offers a wide range of mobile, diesel engine driven, large capacity pumping systems that provide superior and reliable performance in difficult and demanding service conditions. Whether using our versatile Dominator series of skid mounted pump trailers, available in 4000, 5000, and 6000 GPM sizes, providing 150 PSI discharge pressure from draft, or our revolutionary Neptune Pumping System providing 150 PSI from water sources up to 50 feet below and 150 feet in distance from the pump, you can be assured of a quick, reliable source of large capacity water.

The Dominator and Neptune series of pumps can be employed individually to supply water directly to mobile foam delivery devices such as our Iron Man and Terminator series or to branching manifolds for distribution to other locations, devices, or apparatus. When used in parallel service, Dominator and Neptune can supply water in significantly larger volumes, limited only by the number of pumps deployed. When used in series along with our Super Aquaduct line of extra large diameter hose, Dominator and Neptune can be used as pump relay stations for transferring water over many miles with a minimal number of pumps.



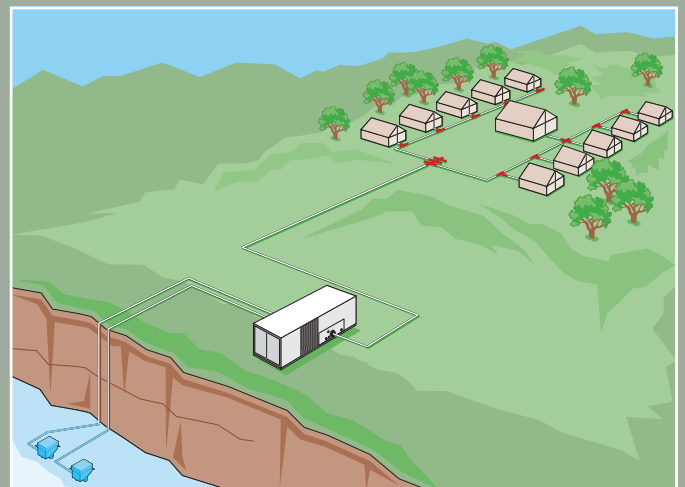
Single and Dual Pump Parallel Operation



Series or Relay Operation



Pumping to Multiple Devices and Apparatus



Emergency Potable Water Distribution

Dominator



Dominator

The National Foam Dominator 5000 GPM skid mounted diesel pump trailer answers the need for a large, practical, and efficient fire water pump. The unit has a nominal performance rating of 5000 GPM at 150 PSI when operating with a 6 ft. suction lift. The pump and engine are mounted on a box frame base, which also serves as a 300 gallon fuel tank. The stainless steel suction manifold is well outfitted with (6) 6" NH connections. The stainless steel discharge manifold is extremely capable for water distribution with (5) 5" Storz connections, (1) 10" Vic connection, and (1) 2 ½" NH valved discharge. The unit is equipped with an operator's panel for engine controls and manifold pressure gauges. The pump's electrical system is 12 VDC with two heavy-duty batteries. The priming system consists of two 12 VDC electric primers. The pump skid is mounted on a custom designed 14,000 GVW trailer from which it can be utilized or easily removed for non-mobile or permanent applications. The standard unit is complimented with an overhead frame for lifting and hard suction hose troughs.



Features

- High capacity 5000 GPM @ 150 PSI from draft
- Capacities much greater than 5000 GPM from adequate pressurized water sources
- Suitable to establish and/or supplement water supply needs
- May be used with both fresh and seawater

Options

- Any paint color
- Custom suction and discharge connections and configurations
- Suction hoses and accessories
- Storage compartments
- Other GPM units available



Neptune



The National Foam Neptune Pumping System is an integrated, modular, mobile, pumping system capable of pumping 5,000 GPM at 150 PSI. Neptune employs two (2) portable, floating, 2,500 GPM, satellite pumps (255 lbs. each) that supply water to a main pump from distances of up to 150 ft. with a vertical lift of 50 ft. Provides tremendously improved access to more water sources when compared to standard suction lift pumps.

While Neptune was designed to function seamlessly as a unit, the main pump and the satellite pumps, driven by separate engines, can be operated independently allowing Neptune to operate in a number of different scenarios. For instance the satellite pumps could supply water to other devices or apparatus other than Neptune, and/or the main pump could operate independently as a booster or relay station.



Features

- Lift water 50 ft. at distances up to 150 ft.
- Two independent main and satellite pump engine drives
- Hydrostatic control system assures positive pressure at inlet to main pump
- Deployment via roll on - roll off truck, crane, or fork lift
- Two 8" inlets (grooved) and one 3" NH additive inlet
- One 12" (grooved) and one 5" Storz outlet
- 8 hour fuel supply
- Interior and exterior lighting
- Robust I-beam frame, ½" plate steel base
- Integral fuel and oil storage tanks built into frame



Options

- 3" flow meter at additive inlet
- 12" flow meter at pump discharge
- Additional 12" outlet connection
- 8" and 12" Storz connections
- Triton I and Triton II - Module with floating satellite pump(s) system only (no main pump). Available trailer mounted or roll on - roll configuration.



Super Aquaduct



Super Aquaduct Deployment, Retrieval and Storage Equipment

This equipment, from Angus Flexible Pipelines, is custom engineered and allows the operator the capability to deploy, retrieve and store Super Aquaduct. A variety of trailers, reels, and flaking boxes can be designed for any configuration and number of “flexible pipeline” assemblies. Skid mounted, truck mounted as well as towed equipment configurations are available.



Super Aquaduct Couplings, Hardware and Manifolding

A complete line of end connectors and manifolds are available. These components allow operators to connect multiple sections of Super Aquaduct as well as connect with fire hydrants, fire water systems, fire fighting and water transfer equipment.



Hose Bridges

Kidde Fire Fighting offers a complete line of hose bridges that allow critical traffic flow over hose and utility lines. Designed to handle vehicle loads up to 80,000 lbs. Can be connected side by side to create a complete roadway. Available for hoses up to 5", 8", and 12" diameters.



Super Aquaduct Lay Flat Large Diameter Hose

Super Aquaduct is a specialized polyurethane hose which is extruded through-the-weave cover and lining and is reinforced with circular woven high tenacity polyester. Available in continuous lengths up to 660 ft. and is NSF 61 certified for potable water service. Designed for a wide variety of above ground high flow potable or fire water contingencies. Available in blue or orange.

Size		Max Working Pressure**		Burst Pressure		Weight* per foot	
inch	mm	psi	kPa	psi	kPa	lbs.	kg
6	152	300	2100	600	4200	1.1	0.5
8	203	220	1540	500	3500	1.9	0.9
10	254	175	1050	400	2800	2.5	1.1
12	305	175	1050	400	2100	3.5	1.6

Iron Man



Iron Man

The National Foam Iron Man 8000 GPM high capacity mobile foam delivery device offers outstanding performance. Ironman proves its versatility and superiority with excellent foam stream quality, ranges in excess of 450 ft., 340° of free rotation and a +15° to 90° range of elevation. Iron Man utilizes a specially engineered non self-educing nozzle that offers a foam expansion ratio of 6.6:1 creating an efficient foam stream better suited for penetrating thermal updrafts encountered during large scale fires. The nozzle delivers 8000 GPM at a nominal pressure of 115 PSI. The stainless steel monitor, fed by a single 12" Victaulic or Storz hose connection, is mounted on a custom built trailer which when filled with water, acts as the unit stabilizer during operation. Iron Man is supplied with a 'pony tail' 25 ft. length of 12" Super Aquaduct hose as standard with a 12" inlet manifold that may be configured to (6) 6" or 5" Storz connections, offering immense flexibility in water supply.



Features

- Outstanding foam stream range.
- Superior quality foam stream with minimal fallout.
- Immense monitor movement flexibility.
- Hydraulically operated stream pattern changer from straight stream to semi-fog. Does not require shutdown to change pattern.
- Compatible with all major types of foam concentrate.
- Variable GPM Tip Kit available.



Foam Proportioning

The simplest method of introducing foam in to the Iron Man water flow is through the use of jet pumps. A configuration of (2) 3000 GPM and (1) 2000 GPM National Foam jet pumps, for 3% or 6% foam, proportioning provides an effective solution at a total flow of 8000 GPM. Key benefits of using jet pumps are improved logistics and greater flexibility offered in positioning your foam station.



The Only Comprehensive and Fully Integrated Big Flow Package



Kidde Fire Fighting

150 Gordon Drive · Exton, PA 19341

Tel: (1) 610-363-1400 · Fax: (1) 610-524-9073

www.Kidde-Fire.com

RED ALERT® Emergency Hotline

(1) 610 363 1400