

IRON MAN[®] MODEL IM-8, IM-10 & IM-12 4K TO 12K GPM (15142 TO 45425 LPM) MOBILE FOAM DELIVERY DEVICE WITH BALLAST TANK

NBF195

- Water And Foam Solution Stream Range In Excess Of 450 Ft. (137m)
- Compatible With Major Types Of Foam Concentrates
- Quality Foam Stream With Minimal Fallout
- Multiple Flow Rates Achievable With Simple Change Of Monitor Tip



Description

The Iron Man is a trailer mounted, high capacity-flow device, utilizing a straight bore non-aspirating nozzle, capable of delivering incremental chosen flow rates of foam solution or water up to a nominal 12,000 GPM (45425 LPM) maximum, depending on customer's requirements. Optional nozzle flow tips are available. All nozzles are designed to operate at a nominal nozzle inlet pressure of 115 PSI (8 BAR). Foam solution and water shall be supplied to the unit through a 12" Victaulic inlet connection, a 12" main in-take with a 12" S.R. elbow, and a 12" flange to accept an 12" raised face flange monitor. Integral to the design is a stainless steel nozzle and waterway that incorporates specific technology to optimize range and foam quality for preventing and fighting fire. The trailer body shall have an integral water tank for ballast and five jack stands to insure unit stability during hitching and flow operations. An Anti-Roll stability system protects users while shooting full capacity in all positions of 360 degrees of monitor rotation while other features such as independent suspension, anti-slip decks, electric break-away systems and DOT LED lighting make operation and maintenance safe and user friendly. National Foam completes each design by offering custom configurations to tailor the final product to meet each customer's specific needs by adding any customer specific hose connections and foam inlets needed up to and including completely custom waterways.

Features

- Selectable flow rates
- Optimized for maximum range
- Soft pattern for tank shell cooling
- Can be used with fresh or salt water
- Choice of any inlet hose adapters
- Stable through 360 degrees rotation
- DOT and NFPA 1901 Compliant
- Adjustable Height and Convertible Hitch Styles
- Independent Suspension

Applications

- Storage Tank Fire Fighting
- Storage Tank Cooling
- Wharf Protection
- Land Based Marine Fire Fighting
- Vessel Based Marine Fire Fighting
- Forestry Fire Fighting
- Industrial Process Unit Fire Fighting and Prevention
- Deep Seated Fire Deluge Extinguishment
- Strip Mine Coal Fire Extinguishment

Specification

Monitor/Nozzle:

Both 8" and 10" model Monitor bodies, rotating joints, and nozzle shall be Stainless Steel ANSI-316 with Viton gaskets. The Monitor shall have an 12" waterway with an 12" ANSI 150# raised face flange. Monitor/nozzle shall have a vertical elevation of between +15 to +90° above horizontal and shall be capable of 340° rotation. Hand wheels shall be provided for Monitor rotation

and elevation/depression functions and the Monitor shall be incapable of changing positions on its own. The GS Series Nozzle shall be equipped with a hydraulically operated pattern changer, infinitely adjustable from straight stream to semi-fog pattern. The nozzle shall be capable of delivering, at its rated flow, an extremely tight foam solution stream with minimum fallout. A gauge shall be provided for monitoring nozzle discharge flows and pressures. Annular area at nozzle's discharge tip can be sized to achieve 4,000, 6,000, 8,000, 10,000, or 12,000 GPM (15142, 22713, 30283, 37854 or 45424 LPM) @ 115 PSI (8 BAR) nominal flow.

Waterway:

12" schedule 10, 304-series stainless steel, flow-optimized main trunk with inlet connection(s) that may be adapted to the customers preferred hose coupling style. Hose connections are angled towards the ground to create an efficient, kinkless hose transitions from the trailer to the ground. All welding is in accordance with AWS B1.1 and completed by certified welding professionals.

Trailer Body:

The side closures of the trailer body/ballast tank shall be constructed using structural channels. The ballast tank top and bottom closure plates, and the tongue top plate are to be HRS. Reinforcing cross members are to be structural angles. The tongue frame is to be constructed using HRS structural channels. The ballast tank shall be equipped with four (4) 1" bottom drains located on the bottom plate near each

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corner. Two (2) 1-1/2" fill/drain valves shall be provided at the rear corners of the ballast tank for use in filling and draining the tank. Two (2) large open grate inspection and ventilation deck plates are provided for cleaning, flushing and drying of the tank interior. The ballast tank interior shall be coal tar epoxy coated for maximum corrosion resistance. Bubble levels are to be mounted on each side and at the inlet end of the trailer to aid in trailer leveling prior to flow operations. All welding to be completed in accordance with AWS B1.1 by certified welding professionals.

Running Gear:

The trailer shall be equipped with two (2) independent suspension axles, mounted in tandem, with electric brakes. Four (4) wide spoke painted wheels with radial load rated tires. Braking system shall be electric, complete with safety break-away engagement system.

Jack Stands:

Four (4) heavy capacity drop-leg type jack stands, each with 12,000 lbs. (5443 kg) lift capacity, shall be welded to the front and rear corners of the trailer for use during monitor/nozzle operation. A fifth jack, also with 12,000 lbs. (5443 kg) lift capacity, shall be mounted in the front area of the tongue to serve as a landing gear during hitching and unhitching operations. All jacks to be top-wind style. A barbed ground pad will be attached to the foot of each of the jacks used during monitor/nozzle operation to increase surface area contact.

Hitch:

The unit shall be equipped with an adjustable height DOT Approved ball hitch or optional 3" lunette ring. Two (2) safety chains and grab type hooks shall be provided. The chains and hooks are to be electro-galvanized zinc plated for corrosion resistance.

Paint:

Trailer's non-walking surfaces shall be painted red and walking surfaces are to be coated with black rubberized fuel proof anti-slip coating. For safety, white reflective striping is to be provided on the sides of the trailer and reflective yellow chevron on the rear. Ballast tank interior shall be coal tar epoxy coated.

Electrical:

Trailer shall be equipped with LED DOT lighting, and both vehicle end and trailer end 7-Pole towing connectors. All wiring shall be DOT compliant and encased in protective conduits and terminated in DOT compliant weatherproof connectors. All Lights and other electrical components shall be able to be removed by disconnecting a DOT electrical connector.

Technical Data

Trailer:

Framing: Structural Steel
 Decking: Steel Plate
 Tongue Storage Box: Steel Lockable Lid,
 Steel Bottom with Drain Holes,
 Tip Storage Rack
 Running Gear: Independent Torflex Suspension
 Tires: Radial Load Rated
 Wheels: Steel Painted
 Brakes: Electric with Safety Breakaway Feature
 Hitch: Choice of 2-1/2" Ball or 3" Lunette Ring both Adjustable Height
 Jacks: ... Drop Leg Top Wind, Anti Slip, Lateral Strength Style, Lateral (Qty 5)

Finish:

- Body: Red Gloss Polyurethane Epoxy RAL3000
- Deck & Walking Surfaces: Black Rubberized Non Slip Coating
- Ballast Tank Interior: Coal Tar Epoxy

Markings:

- 4" White Reflective Side Wall Striping ASTM D4956,
- 6" Yellow Reflective Rear Chevron Striping ASTM D4956 SEC 6.1.1,
- OSHA Safety Labelling & NFPA Data Plate, Lubrication and Safety Chain Labels

Conforms To: DOT Regulations & NFPA 1901 Trailers, Welding to AWS D1.1 and Completed by Certified Welders

Main Waterway:

Piping: Sch 10 304 Stainless Steel Butt Weld, Passivated
 Inlet Connections: Heavy Wall, 12" Male BSPP Thread Adapter c/w Gasket Landing
 Monitor Connection: 8" or 10" RF CL150 ANSI B16.5 Flange
 Inlet Adapters: Customer Specified
 Low Point Drain: 1" SS Ball Valve
 Inlet Pressure Tap: 1/4" NPT with Gauge Protector Ring
 Conforms To: Welding to AWS D1.1, Completed by Certified Welders

Monitor:

Size: 8" or 10" (see Ordering Information)
 Waterway: 316 Stainless Steel
 Swivel Joints: 316 Stainless Steel
 Inlet: RF CL150 ANSI B16.5 Flange
 Discharge: RF CL150 ANSI B16.5 Flange
 Finish: Red Polyurethane Epoxy RAL3000
 Pattern Controls: Hydraulic Rotary Pump
 Rotation Control: Manual Handwheel Worm Drive
 Elevation Control: Manual Handwheel Worm Drive
 Design Pressure: 232 PSI (16 BAR)
 Test Pressure: 350 PSI (24 BAR)
 Rotation: 360 deg
 Elevation: +90 deg
 Depression: -90 deg (Monitor Only without Nozzle)

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Depression:.....+15 deg (Assembled
to Ironman with Nozzle
and Operating)
Depression:.....-55 deg (Assembled
to Ironman with Nozzle)

Nozzle (GS Series):

Body:.....316 Stainless Steel
Smooth Bore
Pattern Actuation:316 Stainless Stl
Hydraulic Cylinder Double Acting
Inlet:..8" or 10" RF CL150 ANSI Flange
(see Ordering Information)
Finish:.....Body - White Gloss
Polyurethane Epoxy RAL3000
Markings:Logo - Red Reflective
Flow Control:.. Interchangeable Flow
Control Nozzle Tips
Brass Threaded
Operating Pressure: ... 115 PSI (8 BAR)

Electrical:

Lighting:..... LED, DOT Compliant
Towing Connector:..... 7-Way RV Style
Flat Blade SAE J2863 Supplied
with Tow Vehicle Receptacle
Break-Away Kit:.....Battery Powered
with Charge Level Indicator
Wiring:Conduit Protection and
Terminated with Weatherproof
DOT Connectors
Conforms To:..... DOT Regulations &
NFPA 1901 Trailers as Applicable

Instrumentation:

Nozzle Pressure Gauge:.....0-400 psi
(0-2758 kPa) Liquid filled
Inlet Pressure Gauge:0-200 psi
(0-1379 kPa) Liquid filled
Level Indicators:Horizontal Ball
Style, Dampened,
-45 / +45 deg (Qty 3)

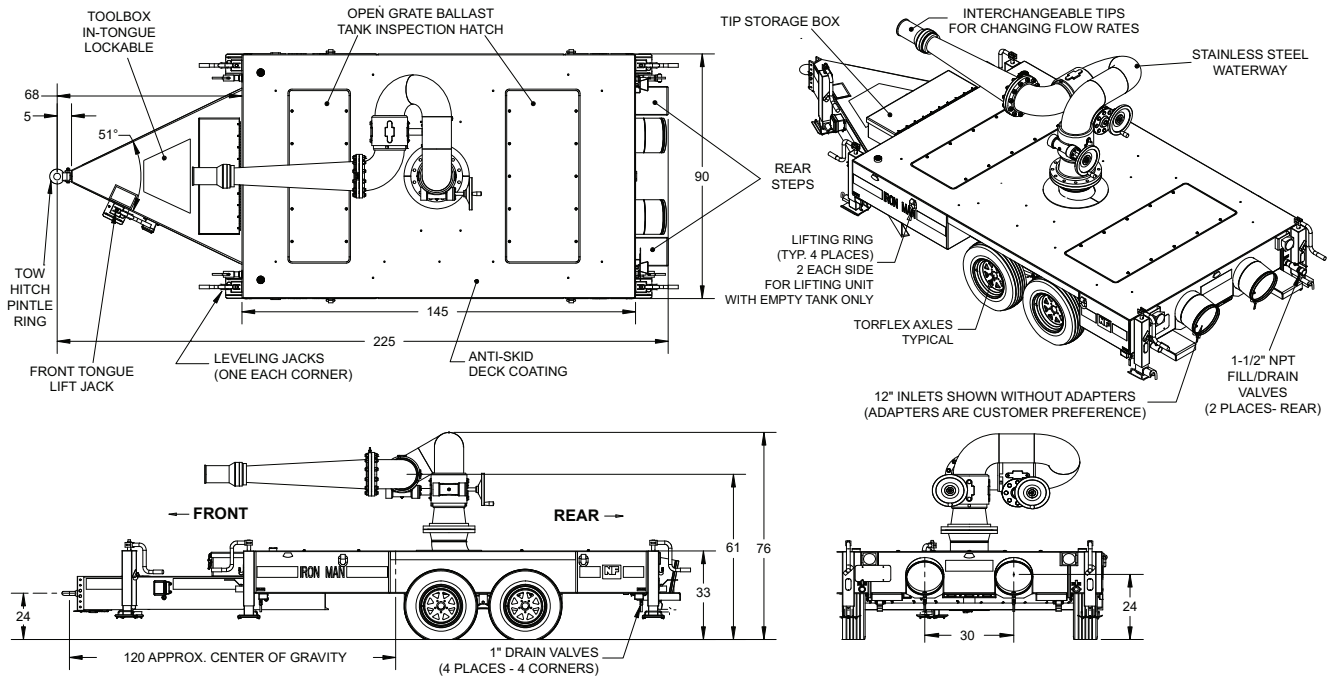
Accessories:

Wheel Chocks: Recycled Rubber
Style (Qty 4)
Tool Kit:..... Lug Wrench and Simple
Mechanics Tools with Bag
Flow Tips: For Available Tips
Refer to Ordering Information
for Standard Tip Supplied
& Compatible Flow Tips

Options

- Direct injection port for foam additives
- Hose Adapters: Customer Specified
- Alternate inlet manifold connections and configurations
- Alternate towing packages such as Gooseneck fifth wheel designs
- 316 Stainless Steel Waterway
- Alternate paint color schemes
- Corporate logos
- Towing connector plugs to suit customer tow vehicles
- Optical warning device system
- Alternate Nozzle Tip flows and pressure

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Gross Weight: 8000 Lbs. (3629 Kg) Empty
Tongue Weight: 960 Lbs. (435 Kg) Empty

IRONMAN IM-12

IM-12 - Range 12K				
Nozzle Inlet Pressure (psi)	Flow Rate (gpm)	"Nozzle Angle (Degrees above Horizontal)"	Range (ft)	Height, approx. (ft)
125	12615	30	521	79
125	12615	45	497	142
115	12100	30	484	63
115	12100	45	454	121
105	11562	30	447	58
105	11562	45	425	116

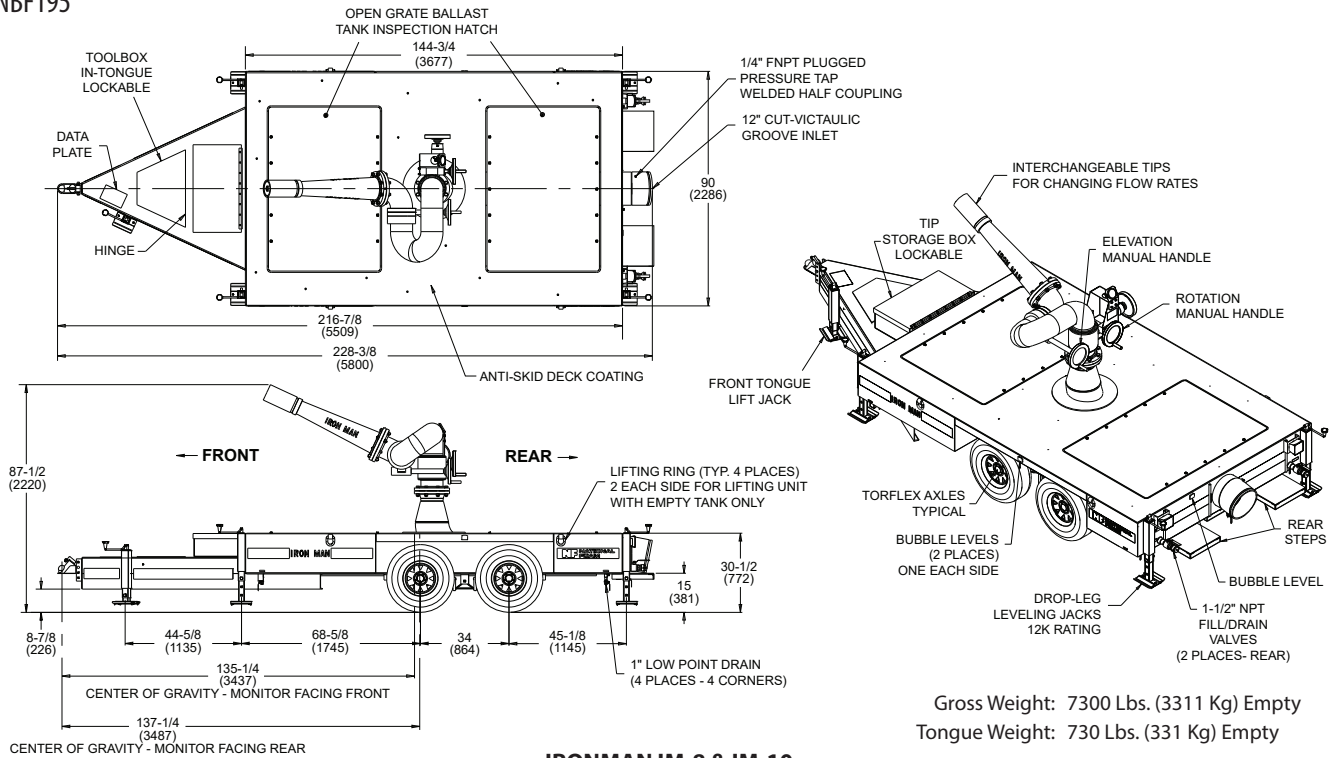
MONITOR/NOZZLE RANGE DATA - IRONMAN 12K

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Gross Weight: 7300 Lbs. (3311 Kg) Empty
Tongue Weight: 730 Lbs. (331 Kg) Empty

IRONMAN IM-8 & IM-10

IM-8 - Range 8K				
Nozzle Inlet Pressure (psi)	Flow Rate (gpm)	"Nozzle Angle (Degrees above Horizontal)"	Range (ft)	Height, approx. (ft)
125	8800	30	485	75
125	8800	45	460	135
115	8400	30	445	60
115	8400	45	410	115
105	8000	30	415	55
105	8000	45	405	105

IM-10 - Range 10K				
Nozzle Inlet Pressure (psi)	Flow Rate (gpm)	"Nozzle Angle (Degrees above Horizontal)"	Range (ft)	Height, approx. (ft)
125	10500	30	496	75
125	10500	45	473	135
115	10050	30	461	60
115	10050	45	432	115
105	9400	30	426	55
105	9400	45	405	110

Note: Monitor/Nozzle Range Data Chart for 4K & 6K Optional Flow Tips on next page

MONITOR/NOZZLE RANGE DATA - IRONMAN 10K & 8K

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Range 4K Tip				
Nozzle Inlet Pressure (psi)	Flow Rate (gpm)	"Nozzle Angle (Degrees above Horizontal)"	Range (ft)	Height, approx. (ft)
125	4300	30	390	70
125	4300	45	350	120
115	4150	30	375	55
115	4150	45	340	115
105	4000	30	320	50
105	4000	45	330	100

Range 6K Tip				
Nozzle Inlet Pressure (psi)	Flow Rate (gpm)	"Nozzle Angle (Degrees above Horizontal)"	Range (ft)	Height, approx. (ft)
125	6500	30	455	75
125	6500	45	425	135
115	6250	30	425	60
115	6250	45	395	115
105	5500	30	390	55
105	5500	45	380	100

MONITOR/NOZZLE RANGE DATA - IRONMAN OPTIONAL 4K & 6K FLOW TIPS

ORDERING INFORMATION

Part Number	Iron Man Model	Monitor Size in. (mm)	Standard Tip Supplied @ 115 PSI (8 Bar) Nozzle Pressure GPM (LPM)	Flow Tips Compatible with Iron Man Model (Ordered Separately) GPM (LPM)
1252-0304-3	IM-8	8 (203)	8K (30283)	4K (15142), 6K (22713)
1252-0304-4	IM-10	10 (254)	10K (37854)	4K (15142), 6K (22713), 8K (30283)
1252-0304-5	IM-12	10 (254)	12K (45425)	4K (15142), 6K (22713), 8k (30283), 10K (37854)

TIP PART NUMBERS (ORDERED SEPERATELY)

Part Number	Description
1252-0372-3	Nozzle Tip, 4K GPM (15142 LPM) @ 115 PSI (8 BAR), Iron-Man
1252-0372-4	Nozzle Tip, 6K GPM (22713 LPM) @ 115 PSI (8 BAR), Iron-Man
1252-0372-5	Nozzle Tip, 8K GPM (30283 LPM) @ 115 PSI (8 BAR), Iron-Man
1252-0372-6	Nozzle Tip, 10K GPM (37854 LPM) @ 115 PSI (8 BAR), Iron-Man
1252-0372-7	Nozzle Tip, 12K GPM (45425 LPM) @ 115 PSI (8 BAR), Iron-Man