

## 36 Gallon Foam Station

### Features

- UL Listed for use with various SKUM proportioners and foam concentrates
- Hose reel foam stations available in 100 ft (30.5 m) and 150 ft (45.7 m) hose lengths
- Large, removable cap for easy filling
- Choice of Standard or Corrosion-Resistant Epoxy exterior paint, available in a variety of colors
- Standard high-build epoxy internal coating suitable for use with fresh or seawater

### Application

SKUM 36 Gallon Bladder Tank Foam Stations are one component of a balanced pressure proportioning system. These small systems could include the protection of backup generator fuel storage in high rise buildings and hospitals or other small flammable liquid storage areas.

The SKUM 36 Gallon Bladder Tank Foam Stations meet the requirements of NFPA 409 for supplementary foam-water hand hose systems. Other applications for these foam stations include helipads, truck loading racks, offshore platforms, or any other location requiring a compact, self-contained foam-water hand hose line system.

SKUM 36 Gallon Bladder Tank Foam Stations require only a pressurized water supply for operation. No other external power is required.

### Description

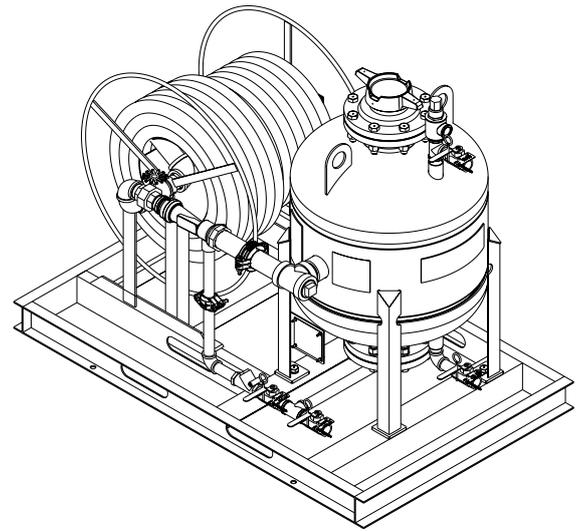
SKUM 36 Gallon Bladder Tank Foam Stations have a steel pressure vessel which stores foam concentrate contained within an elastomeric bladder.

SKUM 36 Gallon Bladder Tank Foam Stations are supplied pre-piped with a proportioner and hose reel in a skid configuration. These foam stations are complete hose reel foam systems and need only be connected to a water supply and filled with an appropriate foam concentrate to be put into service.

#### Trim Piping and Connections

SKUM 36 Gallon Bladder Tank Foam Stations are pre-piped with a 2 in. (50 mm) SKUM threaded proportioner and include the tank shell drain, tank shell vent, bladder drain, and foam concentrate shutoff valves.

The hose reel includes either 100 ft (30.5 m) or 150 ft (45.7 m) of 1 1/2 in. non-collapsible, oil and chemical resistant booster hose with a maximum working pressure of 250 psi (17.2 bar).



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The hose coupling is male 1 1/2 in. NHT. Four adjustable pattern nozzle options are available:

Handline Nozzle Model	Flow Rate	Shutoff Type	Pistol Grip	Body Material
Elkhart L-205-B 60 gpm	60 gpm (227 Lpm)	Twist	No	Chrome Plated Brass
Elkhart L-205-B 95 gpm	95 gpm (360 Lpm)	Twist	No	Chrome Plated Brass
CHEMGUARD Adjustable Flow	30-60-95-125 gpm (114-227-360-473 Lpm)	Ball	Yes	CHEMLITE
CHEMGUARD Adjustable Flow	30-60-95-125 gpm (114-227-360-473 Lpm)	Ball	Yes	Brass

#### Protective Coatings

SKUM 36 Gallon Bladder Tank Foam Stations feature a high-build epoxy internal coating. Exterior paint is available in two grades: Standard and Corrosion-Resistant Epoxy (Epoxy CR). Color options are available for standard configurations.

Paint systems used on SKUM 36 Gallon Bladder Tank Foam Stations have been subjected to and passed salt spray corrosion testing per ASTM B117-90. Standard paint has been tested to a minimum of 240 hours in accordance with UL 162 and UL Subject 139. Epoxy CR paint has been tested to a minimum of 3,000 hours and is suitable for marine and offshore use.

## Description (Continued)

### Support and Mounting

Foam Station configurations are skid mounted. Refer to dimensional drawings for mounting slot spacing.

Model	Nominal Capacity	Mounting Slot Size
Foam Station	36 Gallon	11/16 in. (17.5 mm)

Included piping and valves are supported by the tank. No external support or bracing of piping is required under normal circumstances. Included piping is not designed to support loading from external piping connections. Appropriate piping supports should be used on field piping to avoid damage.

### Internal Components

SKUM 36 Gallon Bladder Tank Foam Stations contain an elastomeric bladder that has been approved for use by Underwriter's Laboratory for use with SKUM foam concentrates. All configurations utilize a center tube to facilitate agent discharge. The center tube is constructed of materials compatible with SKUM foam concentrates.

### Thermal Relief Valve

A thermal relief valve is available as an option for SKUM 36 Gallon Bladder Tank Foam Stations. A thermal relief valve should be used when the bladder tank will be stored in an isolated/hydraulically locked condition in order to relieve pressure due to thermal expansion. This valve is factory set to 175 psi (12.1 bar) and it is recommended that the design pressure of the system be maintained at least 5 psi (0.3 bar) or 10% below the set pressure of the valve to avoid seat leakage and early valve maintenance. This valve is NOT a substitute for a properly sized ASME pressure relief valve to protect the entire system from overpressure.

### ASME Information

All SKUM 36 Gallon Bladder Tank Foam Stations are designed and constructed in accordance with the latest revisions to ASME Code Section VIII, Division 1 for unfired pressure vessels with a maximum allowable working pressure (MAWP) of 175 psi (12.1 bar) and tested to the pressure specified by the applicable codes and standards. Per ASME code, tanks with a 175 psi (12.1 bar) MAWP are tested to at least 230 psi (15.9 bar). SKUM bladder tanks are constructed of steel complying with ASME specifications. Tank heads are 2:1 elliptical unless otherwise specified.

All SKUM 36 Gallon Bladder Tank Foam Stations include a permanently affixed stainless steel ASME data plate. At a minimum, the data plate includes the following information: year of manufacture, maximum allowable working pressure (MAWP), nominal volume, part number, National Board number, minimum material thickness, minimum design metal temperature (MDMT), and type of head used.

## Approvals and Certifications

SKUM 36 Gallon Bladder Tank Foam Stations are UL Listed for use with various SKUM foam concentrates. The UL mark is applied at the factory along with a label identifying the SKUM foam concentrate for use in the tank.

Every tank bears a permanently affixed ASME data plate showing the National Board number which identifies the tank as compliant with ASME code Section VIII, Division 1 for unfired pressure vessels.

SKUM 36 Gallon Bladder Tank Foam Stations are not CE marked. Under European Pressure Equipment Directive 2014/68/EU, tanks smaller than 200 gallons are acceptable based on sound engineering practices of ASME code and cannot be CE marked.

## Operation and Maintenance

Refer to the SKUM 25 and 36 Gallon Bladder Tanks / Hose Reel Station Operation and Maintenance Manual for detailed procedures on installation, operation, inspection, and maintenance. A printed copy of this manual is included with every tank.

## Valve Position Information

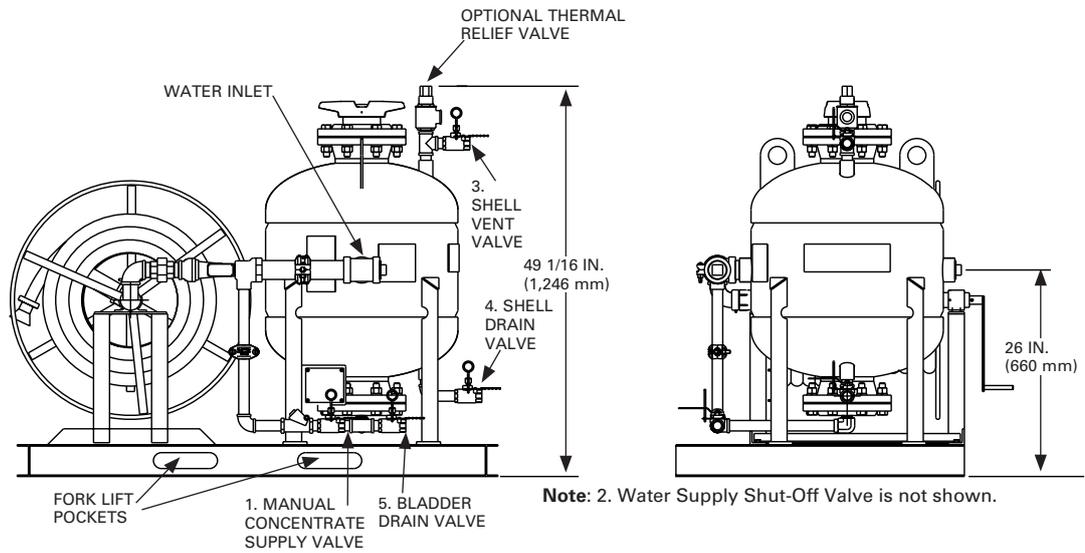
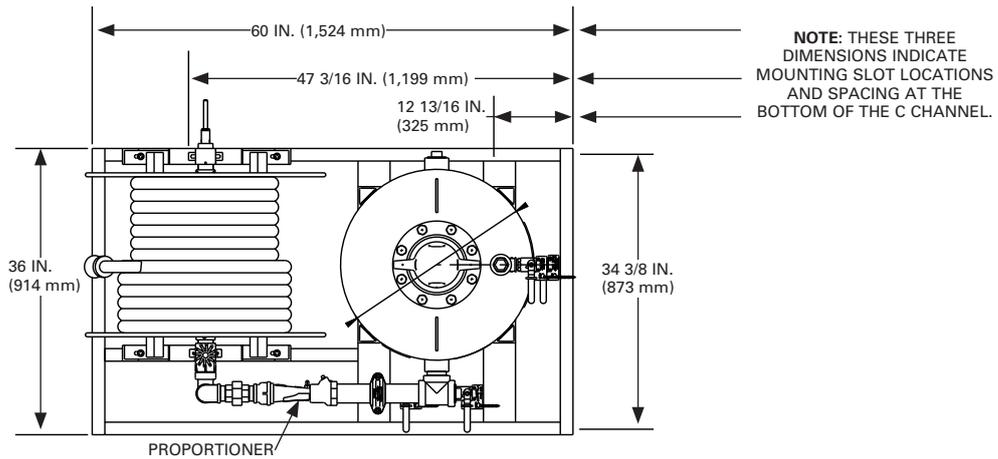
Valve Description*		Normal Valve Position
Valve* No.	Description	Manual System
1.	Manual Foam Concentrate Shutoff	N.C.
2.	Water Supply Shut-Off (Not Shown)	N.C.
3.	Shell Vent Valve	N.C.
4.	Shell Drain Valve	N.C.
5.	Bladder Drain Valve	N.C.

N.C. – Normally Closed      N.O. – Normally Open

In this arrangement, valves listed as "Not Shown" are either supplied as loose items or supplied by others.

\*Not all valves supplied with all configurations

## Dimensional Information (Reference Dimensional Drawings)



### 36 GALLON BLADDER TANK FOAM STATION

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#### Dimension and Installation Notes:

1. Dimensions listed are approximate and subject to change without notice.
2. Rooms or buildings intended to house a bladder tank should have accommodations for the removal of the internal center tube. Center tubes are approximately the full height of the bladder tank.

## Ordering Information

Please specify the following when ordering:

- Part Numbers for required 36 Gallon Foam Stations
- Foam concentrate type to be used <sup>1, 2</sup>

Exterior Paint	Option 1: Standard Option 2: CR Epoxy
Exterior Paint Color <sup>3</sup>	Option 1: Red (RAL 3001) Option 2: Blue (RAL 5019) Option 3: Yellow (RAL 1021) Option 4: Other <sup>4</sup>
Nozzle Type <sup>5</sup>	Option 1: Elkhart L-205-B 60 gpm Option 2: Elkhart L-205-B 95 gpm Option 3: CHEMGUARD Adjustable Flow – CHEMLITE Option 4: CHEMGUARD Adjustable Flow – Brass Option 5: Other <sup>6</sup>
Thermal Relief Valve <sup>7</sup>	Option 1: No Thermal Relief Valve Option 2: Thermal Relief Valve Included
Packaging	Option 1: Domestic Packaging Option 2: Export Crating

### Ordering Notes:

1. Tanks will be marked as UL Listed based on the foam concentrate type specified. If foam concentrate type is not specified, the tank will not be marked as UL Listed.
2. Orders for 36 Gallon Bladder Tank Foam Stations will not be processed unless foam concentrate type is specified, as this information is required to properly manufacture the proportioner.
3. UL Listing of paint systems is color-specific. The Red, Blue, and Yellow color shade options shown above are UL Listed. Contact TFPP Technical Services to determine if other color shades are UL Listed.
4. If "Other" is selected, the specific paint shade required must be supplied. Availability of the paint shade selected may impact lead time.
5. Compliance with NFPA 409 foam hand hose line requirements is dependent upon nozzle selection and pressure available. A qualified fire protection engineer should be consulted to help ensure compliance.
6. If "Other" is selected, the specific model of nozzle, including flow rate and any other pertinent details, must be specified. Lead time may be impacted depending on nozzle availability.
7. Set pressure is 175 psi (12.1 bar). Set pressure cannot exceed the design pressure of the tank per ASME code.

### Expediting Service

The SKUM 36 Gallon Bladder Tank Foam Stations options listed, are available for optional expediting service. These can be shipped in three weeks after order confirmation. Contact Johnson Controls or a SKUM Regional Sales Manager for additional information.

## Bladder Tank Ordering Part Numbers

Part Number	Model Description	Expediting Available
444367	36 Gallon Bladder Tank Foam Station – 100 ft Hose	3 Weeks
444370	36 Gallon Bladder Tank Foam Station – 150 ft Hose	3 Weeks

### Touch Up Paint

Touch up paint for Red (RAL 3001) equipment is available in a convenient 7 ounce spray can. Touch up paint for other colors is not available in spray cans. Contact Johnson Controls for touch up paint in other colors.

Red (RAL 3001) Touch Up Paint – Part Number: 405581.

### Custom Engineering

SKUM 36 Gallon Bladder Tank Foam Stations can be customized to accommodate a variety of special requirements, including but not limited to alternate materials of construction, higher design pressures, space constraints, and seismic rated tanks. Contact Johnson Controls or a SKUM Regional Sales Manager for additional information or to obtain a quote.

### Flange Adapters

Johnson Controls Figure 71 Flange Adapters are available to adapt the grooved fittings supplied with SKUM 36 Gallon Bladder Tank Foam Stations to flanged piping for field installation. The sizes listed below have a maximum pressure rating of 300 psi (20.7 bar). The flange adapter body is ductile iron and utilizes a Grade "E" EPDM gasket. Finished with Red (RAL 3000) non-lead paint.

**Note:** The converted values provided in this document are for nominal reference only and do not reflect an actual measurement.

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Adapter Size		Recommended Flange Mating Bolts				
Grooved in. (mm)	ANSI Flange (DIN)	Size Dia x L in.	Qty.	Bolt Torque Range lb-ft (N-m)	Approx. Weight lb (kg)	Ordering Part Number
2 (50)	2 (DN50)	5/8 x 3	4	110 – 140 (149 – 190)	3.0 (1.4)	7120TS
2 1/2 (65)	2 1/2 (DN65)	5/8 x 3	4	110 – 140 (149 – 190)	5.0 (2.3)	7125TS
3 (80)	3 (DN80)	5/8 x 3	4	110 – 140 (149 – 190)	5.6 (2.5)	7130TS
4 (100)	4 (DN100)	3/4 x 3 1/2	8	220 – 250 (298 – 339)	7.0 (3.2)	7140TS
6 (150)	6 (DN150)	3/4 x 3 1/2	8	220 – 250 (298 – 339)	10.0 (4.5)	7160TS
8 (200)	8 (DN200)	3/4 x 3 1/2	8	220 – 250 (298 – 339)	16.6 (7.5)	7180TS