Handwheel Operated Firewater Monitor

Foam Monitor-Tank Stations

Lever Handle Operated Firewater Monitors

Foam Trailers with Foam Monitors

Portable Firewater Monitors

Remote Electrically Operated Monitors

Portable Oscillating Firewater Monitor

Remote Hydraulically Operated Monitors

Chain-wheeled Operated Firewater Monitor

Elevated Firewater Monitors

AFFF Hose Reel Stations with Prepiped Foam Monitors

Oscillating Monitors

Portable Foam Monitor Carts
**HANDWHEEL OPERATED FIXED / DECK MONITORS**

**FIXED/DECK STATION MONITOR**
Model: 03 DEFENDER 50
- **Construction**: Brass
- **Waterway**: Single 3”
- **Maximum Flow**: 1,250 GPM (4,733 litre/min)
- **Horizontal Movement**: 360°
- **Vertical Travel**: 150°
- **Vertical Travel Operation**: Hand Wheel
- **Base Inlet flange**: 3” or 4” ANSI 150# FF (or RF)
- **Discharge Tip**: 2½” NHT male
- **Finish**: Red Paint
- **Approval**: FM approved

**FIXED/DECK MONITOR STATION**
Model: 03 FM6000-2
- **Construction**: Brass
- **Waterway**: Single 4”
- **Maximum Flow**: 2,000 GPM (7,580 litre/min)
- **Horizontal Movement**: 360°
- **Vertical Travel**: 150°
- **Horizontal Travel**: Handwheel
- **Vertical Travel Operation**: Handwheel
- **Base Inlet flange**: 4” ANSI 150# FF (or RF)
- **Discharge Tip**: 3½” male NHT
- **Finish**: Red Paint
- **Approval**: FM approved

**FIXED/DECK MONITOR STATION**
Model: 03 VAJRA 433
- **Waterway**: Single 4”
- **Maximum Flow**: 2,000 GPM (7,580 litre/min)
- **Horizontal Movement**: 360°
- **Vertical Travel**: 155°
- **Horizontal Travel**: Handwheel
- **Vertical Travel Operation**: Handwheel
- **Base Inlet flange**: 4” or 6” ANSI 150# FF (or RF)
- **Discharge Tip**: 4” male BSPT
- **Finish**: Red Paint
- **Approval**: FM approved
HANDLE OPERATED FIXED / DECK MONITORS

FIXED/DECK STATION MONITOR
Model: 02 DEFENDER 10
Construction: Brass
Waterway: Single 2’ Vane
Maximum Flow: 400 GPM (1,515 litre/min)
Horizontal Movement: 360°
Vertical Travel: 150°
Vertical Travel Operation: Handle rod
Base Inlet: 2” female NPT
Discharge Tip: 1½” NHT male
Finish: Red Paint

FIXED/DECK MONITOR STATION
Model: 02 DEFENDER 20
Construction: Brass
Waterway: Dual 2.5”
Maximum Flow: 750 GPM (2,840 lpm)
Horizontal Movement: 360°
Vertical Elevation: 130°
Vertical Travel Operation: Handle Lever
Base Inlet: 3” or 4” ANSI 150# FF flange
Discharge Tip: 2½” male NHT
Finish: Red Paint
Approval: FM approved

FIXED/DECK MONITOR STATION
Model: 02 DEFENDER 30
Construction: Brass
Waterway: Single 3”
Maximum Flow: 1250 GPM (4,733 lpm)
Horizontal Movement: 360°
Vertical Travel: 150°
Vertical Travel Operation: Handle rod
Base Inlet: 3” or 4” ANSI 150# FF flange
Discharge Tip: 2½” male NHT
Finish: Red Paint
Approval: FM approved

FIXED/DECK MONITOR STATION
Model: 02 DEFENDER 40
Construction: Brass
Waterway: Single 2.5
Maximum Flow: 750 GPM (2,840 lpm)
Horizontal Movement: 360°
Vertical Travel: 135°
Vertical Travel Operation: Handle rod
Base Inlet: 3” or 4” ANSI 150# FF flange
Discharge Tip: 2½” male NHT
Finish: Red Paint
Approval: FM approved

FM-02
## PORTABLE FIREWATER MONITORS

### 1-WAY PORTABLE MONITOR
Model: 03 PM400S

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Light Aluminium Alloy</td>
</tr>
<tr>
<td>Waterway</td>
<td>Single 2½”</td>
</tr>
<tr>
<td>Maximum Flow</td>
<td>500 GPM (1,900 litre/min)</td>
</tr>
<tr>
<td>Horizontal Movement</td>
<td>20° either side of centre</td>
</tr>
<tr>
<td>Vertical Travel</td>
<td>Adjustable 30° to 60° unmanned, down to 20° when manned</td>
</tr>
<tr>
<td>Base Inlet</td>
<td>2½” female NHT</td>
</tr>
<tr>
<td>Discharge Tip</td>
<td>2½” male NHT</td>
</tr>
</tbody>
</table>

### 2-WAY PORTABLE MONITOR
Model: 02 PM450D

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Light Aluminium Alloy</td>
</tr>
<tr>
<td>Waterway</td>
<td>Single 3”</td>
</tr>
<tr>
<td>Maximum Flow</td>
<td>800 GPM (3,030 lpm)</td>
</tr>
<tr>
<td>Horizontal Movement</td>
<td>360°</td>
</tr>
<tr>
<td>Vertical above Horizontal</td>
<td>30°</td>
</tr>
<tr>
<td>Base Inlet</td>
<td>Two 2½” female NHT. Optional: 2½” male instantaneous</td>
</tr>
<tr>
<td>Discharge Tip</td>
<td>2½” male NHT</td>
</tr>
</tbody>
</table>

### 3-WAY PORTABLE MONITOR
Model: 03 PM8800

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Light Aluminium Alloy</td>
</tr>
<tr>
<td>Waterway</td>
<td>Dual 2½”</td>
</tr>
<tr>
<td>Maximum Flow</td>
<td>1,250 GPM (4,733 lpm)</td>
</tr>
<tr>
<td>Horizontal Movement</td>
<td>360°</td>
</tr>
<tr>
<td>Vertical above Horizontal</td>
<td>+85° above to -15° below horizontal</td>
</tr>
<tr>
<td>Base Inlet</td>
<td>three 2½” female NHT. Optional: 2½” male instantaneous</td>
</tr>
<tr>
<td>Discharge Tip</td>
<td>3½” male NHT</td>
</tr>
</tbody>
</table>

### REMOTE CHAIN-WHEELED MONITOR

#### CHAIN WHEEL OPERATED ELEVATED MONITOR
Model 03 RCW1

Monitor is designed with both horizontal and vertical movements to be controlled at ground level by utilizing two chain driven wheels. Monitor is capable of being rotated 360 degrees on horizontal. The vertical position can be adjusted from 90° above to 60° below horizontal. Chain wheels and chain guides are aluminum alloy (furnished by others).

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Material</td>
<td>Rugged cast brass</td>
</tr>
<tr>
<td>Base Flange</td>
<td>4” ANSI 150# FF</td>
</tr>
<tr>
<td>Flow</td>
<td>1,000 GPM (3,780 lpm)</td>
</tr>
<tr>
<td>Nozzle Material</td>
<td>Cast Brass</td>
</tr>
<tr>
<td>Nozzle Type</td>
<td>SS to full fog stream (cable operated)</td>
</tr>
<tr>
<td>Nozzle Discharge Tip</td>
<td>2½” male NHT</td>
</tr>
<tr>
<td>Nozzle Flow</td>
<td></td>
</tr>
<tr>
<td>Model 03 CJBRC350</td>
<td>350 gpm (1325 lpm)</td>
</tr>
<tr>
<td>Model 03 CJBRC500</td>
<td>500 gpm (1900 lpm)</td>
</tr>
<tr>
<td>Model 03 CJBRC750</td>
<td>750 gpm (2840 lpm)</td>
</tr>
<tr>
<td>Model 03 CJBRC1000</td>
<td>1000 gpm (3780 lpm)</td>
</tr>
</tbody>
</table>
REMOTE ELEVATED FREE STANDING MONITORS

FREE STANDING ELEVATED MONITOR
Model: 02 EL1000-10  10’ (3.04 m)
Model: 02 EL1000-15  15’ (4.57 m)
Model: 02 EL1000-20  20’ (6.00 m)
Model: 02 EL1000-25  25’ (7.62 m)
Model: 02 EL1000-30  30’ (9.14 m)
Model: 02 EL1000-40  40’ (12.20 m)

Consists of a prefabricated free-standing steel structure which utilizes the EL1000 monitor. Tubular riser pipe allows flows up to 750 gpm (2840 lpm). The tubular horizontal drive sleeve allows for 360 degrees continuous rotation. Vertical movements from 45 degrees above to 35 degrees below horizontal are controlled by cables. Handwheel driven friction lock for horizontal positioning is provided while a lever handle friction lock is provided for vertical positioning.

The monitor is shipped in two assembled sections (except for 10’ and 15’ versions). Red urethane enamel finish.

Monitor Material  : Rugged cast brass
Riser Pipe Material : Steel
Cables           : Stainless Steel
Drive Sleeves  : Steel
Base Flange     : 4” ANSI 150# FF (for 10’, 15’ & 20’)
                    6” ANSI 150# FF (for 25’, 30’ & 40’)
Nozzle Material : Brass
Nozzle Type     : Fog / SS Stream. Cable operated
Nozzle Discharge Tip : 2½” male NHT

Nozzle Flow
Model 03 CJBRC350  350 gpm (1,325 lpm)
Model 03 CJBRC500  500 gpm (1,900 lpm)
Model 03 CJBRC750  750 gpm (2,840 lpm)
Model 03 CJBRC1000 1000 gpm (3,780 lpm)

AFFFF HOSE REEL STATIONS WITH FOAM MONITORS

FIXED AFFFF HOSE REEL STATION WITH PREPIPED FOAM MONITOR
Model: 03 FHR30-Defender 10  30 Gallon (113 litre) Tank
Model: 03 FHR60-Defender 10  60 Gallon (227 litre) Tank

Self-contained AFFF hose reel station with a continuous flow reel, hose and pistol grip nozzle. The foam station includes a prepiped fire monitor and an self-educting foam nozzle.

Choice of using the hose reel or fire monitor for foam application.

Tank Material  : 304SS or 613SS
Tank Capacity : 30 or 60 gallons (113 or 227 litres)
Riser Pipe Material : 2” Carbon Steel
Eductor Flow  : 60 gpm (227 lpm)
Handline Nozzle Flow : 60 gpm (227 lpm)
Tie-in Connection : 1½” or 2” ANSI 150# RF
Monitor Model : 03 Defender 10
Monitor Nozzle Model : 03 MNSE-15B (150 gpm) or 03-MNSE-22B (225 gpm)
OSCILLATING FIREWATER MONITORS

OSCILLATING MONITOR  
Model: 03 OSCILLATOR-DEFENDER 30

- **Monitor Construction**: Brass
- **Oscillating Mechanism**: Brass/Stainless Steel
- **Oscillating Movement**: Pelton Wheel
- **Horizontal Sweep Rotation**: 360° (with override)
- **Horizontal Oscillating Arc**: 65° either side from centre
- **Oscillating Speed**: 0-10 cycles/minute
- **Vertical Travel**: 135°
- **Operating Pressure (min)**: 40 psi (2.7 bar)
- **Base Inlet**: 4" ANSI 150# FF flange
- **Nozzle Model**: 03 MNSG30-B (350-500-700 gpm)
- **Approval**: FM for Monitor & Nozzle only

OSCILLATING MONITOR  
Model: 03 OSCILLATOR OM500F

- **Monitor Construction**: Brass
- **Oscillating Mechanism**: Brass/Stainless steel
- **Oscillating Movement**: Pelton Wheel
- **Maximum Flow**: 1,250 gpm (4,733 litre/min)
- **Horizontal Sweep Rotation**: 360° (with override)
- **Horizontal Oscillating Arc**: 60° either side from centre
- **Oscillating Speed**: 6 cycles/min
- **Vertical Travel**: 120°
- **Operating Pressure**: 75 psi (5 bar) minimum
- **Base Inlet**: 4" ANSI 150# FF flange
- **Discharge Tip**: 2½" male NHT
- **Nozzle Material**: Brass
- **Nozzle Type**: Fog / SS stream
- **Nozzle Discharge Tip**: 2½" male NHT
- **Nozzle Model Nozzle Flow**:
  - Model 03 MNSG-30B: 300 or 500 gpm (1140 or 1900 lpm)
  - Model 03 MNSE-35B: 350 gpm (1325 lpm)
  - Model 03 MNSE-50B: 500 gpm (1900 lpm)

PORTABLE FOAM MONITOR CART

PORTABLE FOAM MONITOR CART (36 GALLON)  
Model: 03 FMC1000

Portable foam monitor that only requires a pressurised water supply. Equipped with a stainless steel foam concentrate tank on two pneumatic wheels, vent valve, shutoff valve, firewater monitor and self-educating foam nozzle.

- **Tank Capacity**: 36 gallons (136 litres)
- **Tank Material**: 304SS or 613SS
- **Riser Pipe Material**: 2” Carbon Steel (sch 40)
- **Tie-in connection**: 2½" male instantaneous BS336 (or 2½" NST)
- **Monitor Model**: 03 Defender 10
- **Monitor Nozzle Model**: 03 MNSE-15B (150 gpm) or 03 MNSE-22B (225 gpm)
- **Ball Valve (shutoff)**: 2” full bore, brass body
## FOAM MONITOR-TANK STATIONS

<table>
<thead>
<tr>
<th>Model: 03 FMT60-30435-SE</th>
<th>304SS Tank 350 gpm Nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model: 03 FMT60-31635-SE</td>
<td>316SS Tank 350 gpm Nozzle</td>
</tr>
<tr>
<td>Model: 03 FMT60-30450-SE</td>
<td>304SS Tank 500 gpm Nozzle</td>
</tr>
<tr>
<td>Model: 03 FMT60-31650-SE</td>
<td>316SS Tank 500 gpm Nozzle</td>
</tr>
</tbody>
</table>

- **Tank Capacity**: 60 gallon (230 litters)  
  Options: 105 gallon (400 litters)  
- **Riser Pipe material**: 3” or 4” Carbon Steel  
- **Foam Monitor model**: 03 Defender 30  
- **Monitor Body material**: Brass  
- **Monitor Nozzle model**: 03 MNSE35-B (350 gpm) or 03 MNSE50-B (500 gpm)  
- **Nozzle Type**: Self-Educting  
- **Nozzle Body material**: Brass  
- **Tie-in Connection**: 3” or 4” ANSI 150# FF flange

## FOAM MONITOR-TANK STATION

<table>
<thead>
<tr>
<th>Model: 03 FMT150-30435-SE</th>
<th>304SS Tank 350 gpm Nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model: 03 FMT150-31635-SE</td>
<td>316SS Tank 350 gpm Nozzle</td>
</tr>
<tr>
<td>Model: 03 FMT150-30450-SE</td>
<td>304SS Tank 500 gpm Nozzle</td>
</tr>
<tr>
<td>Model: 03 FMT150-31650-SE</td>
<td>316SS Tank 500 gpm Nozzle</td>
</tr>
</tbody>
</table>

- **Tank Capacity**: 158 gallon (600 litres)  
- **Riser Pipe material**: 3” or 4” Carbon Steel  
- **Foam Monitor model**: 03 Defender 30  
- **Monitor Body material**: Brass  
- **Monitor Nozzle model**: 03 MNSE35-B (350 gpm) or 03 MNSE50-B (500 gpm)  
- **Nozzle Type**: Self-Educting  
- **Nozzle Body material**: Brass  
- **Tie-in Connection**: 3” or 4” ANSI 150# FF flange

## FOAM TANK TRAILER WITH FOAM MONITOR

<table>
<thead>
<tr>
<th>Model: 03 PFT350-Defender 30</th>
<th>300 Gallon Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model: 03 PFT500-Defender 30</td>
<td>500 Gallon Tank</td>
</tr>
</tbody>
</table>

- Foam concentrate storage tank on 2-wheel trailer with front jockey wheel. Designed for towing by a vehicle. Includes a prepiped monitor with self-educting foam nozzle and manifold with 2 or 4 clappered inlets.  
- Choice of 350 or 500 gpm foam nozzle.  
- **Tank Capacity**: 300 or 500 gallons (1140 or 1900 litres)  
- **Tank Material**: 304SS or 316SS  
- **Monitor Riser Pipe**: 3” Carbon Steel  
- **Manifold Pipe material**: 4” Carbon Steel  
- **Inlet Connection**: 2 or 4 clappered 2½” British instantaneous (or 2½” male NST)  
- **Monitor Model**: 03 Defender 30  
- **Monitor Body material**: Brass  
- **Base Flange size**: 3” ANSI 150# RF flange  
- **Monitor Nozzle Model**: 03 MN350B-SE (350 gpm) or 03 MN500B-SE (500 gpm)  
- **Valve Size / Type**: 3” Butterfly (wafer)
REMOTE ELECTRICALLY OPERATED FIREWATER MONITORS

REMOTE CONTROLLED
ELECTRICALLY OPERATED MONITOR
Model: 03 RCEM-A3EL (1,000 - 3,000 lpm)

Designed for operation in extremely harsh and aggressive environments. The monitor movements are driven by multi-turn electric actuators (IP67) 400 volts, 3 phase, 50 cycles. Manual override capability. Vertical travel is 75° above to 55° below the horizontal. Choice of horizontal rotation at 90°, 180°, 270° or 320°. Monitor is bronze construction.

Base is standard 4” ANSI 150# FF flange (option 3” size). Finish is red polyurethane paint.

System package consists of monitor with nozzle and remote control box. Common control panel can serve several monitors (option - secondary control panel). Automatic oscillating available on request. Choice of electric nozzles.

Nozzle Type : Fog / Straight Stream
Nozzle model : 03 A3EL/FOG
Flow Range : 1,000 - 3,000 lpm (264 - 792 gpm)
Nozzle Type : Foam / water Branch Pipe
Nozzle Model : 03 A3EL/Axxxx (without deflector)
Nozzle Model : 03 A3EL/Axxxxd (with deflector)
Flow Range : 1,000 - 3,000 lpm (264 - 792 gpm)

Optional Accessories:
- Flame resistant electric power/command/control cables
- Explosion-proof Junction Box
- Master Control Panel

REMOTE CONTROLLED
ELECTRICALLY OPERATED MONITOR
Model: 03 RCEM-A4EL (2,000 - 6,000 lpm)

Same basic specifications as 03 RCEM3EL monitor except for a larger flow range. Base connection is 4” ANSI 150# FF flange (optional 6” size).

Nozzle Type : Fog / Straight Stream
Nozzle model : 03 A4EL/FOG
Flow Range : 1,000 - 4,000 lpm (264 - 1,056 gpm)
Nozzle Type : Foam / water Branch Pipe
Nozzle Model : 03 A4EL/Axxxx (without deflector)
Nozzle Model : 03 A4EL/Axxxxd (with deflector)
Flow Range : 2,000 - 6,000 lpm (528 - 1,584 gpm)

REMOTE CONTROLLED
ELECTRICALLY OPERATED MONITOR
Model: 03 RCEM-A6EL (5,000 - 20,000 lpm)

Same basic specifications as 03 RCEM3EL monitor except for a larger flow range. Base connection is 6” ANSI 150# FF flange (optional 8” size).

Nozzle Type : Fog / Straight Stream
Nozzle model : 03 A6EL/FOG
Flow Range : 6,000 - 15,000 lpm (1,584 - 3,960 gpm)
Nozzle Type : Foam / water Branch Pipe
Nozzle Model : 03 A6EL/Axxxx (without deflector)
Nozzle Model : 03 A6EL/Axxxxd (with deflector)
Flow Range : 5,000 - 20,000 lpm (1,320 - 5,280 gpm)
REMOTE HYDRAULICALLY CONTROLLED MONITORS

REMOTE CONTROLLED HYDRAULICALLY OPERATED MONITOR
Model: 03 RCHM294

Designed for activation from a remote location. The operator can change the vertical travel positioning on the monitor or nozzle stream pattern, all from a safe distance.
Option: automatic oscillating.

The monitor movements are driven by hydraulic actuators. Vertical travel is 90° above to 60° below horizontal. Horizontal rotation is 90°, 180°, 270° or 360°. Furnished with PGN-SM100HBP fog nozzle.

Monitor Material: Cast Brass
Base Connection: 4" ANSI 150# FF flange
Discharge Tip: 2½" male NHT
Finish: Red acrylic/urethane enamel paint
Nozzle Type: Fog and Straight Stream
Flow: 300 - 1,000 GPM (1,136 - 3,780 lpm)
Nozzle Material: Brass
Discharge Tip: 2½" female NHT swivel
Finish: Satin Brass

Valve Box Specification:
Contains three 4-way solenoid hydraulic valves and hydraulic pump/24 vdc motor/tank unit. Fuel tank capacity, 46 cubic inches. Available in stainless steel NEMA 4X for unclassified areas or cast aluminium NEMA 4/7 for Class 1, Groups B, C & D, Division 1 areas.

Master Control Panel Specification:
Contains controls for monitor functions that include standby pilot light, water on/off switch with pilot light, 4-way joystick and nozzle fog/straight stream switch.
Option for automatic oscillating switch. Standard power supply is 220 volts VAC, 50 hertz. Power supply from valve box to control panel is 24 vdc.
Available in stainless steel NEMA 4X for unclassified areas or cast aluminium NEMA 4/7 for Class 1, Groups B, C & D, Division 1 areas.

REMOTE CONTROLLED HYDRAULICALLY OPERATED MONITOR
Model: 03 RCHM299

Monitor Material: 304 SS Stainless Steel
Base Connection: 4" ANSI 150# FF flange
Discharge Tip: 3½" male NHT
Finish: Red acrylic/urethane enamel paint
Nozzle Type: Fog and Straight Stream
Flow: 1,250, 1,500, 1,750 or 2,000 gpm (4,733, 5,680, 6,627 or 7,574 lpm))
Nozzle Material: Brass
Discharge Tip: 3½" female NHT swivel
Finish: Satin Brass

Valve Box Specification:
Same as 03 RCHM294 monitor.

Master Control Panel Specification:
Same as 03 RCHM294 monitor.