MMA-3 X 2-1/2 MANUAL ALUMINUM MONITOR
NDD220

- Full 3” Waterway With Stream Straighteners
- Low Friction Loss
- Elevation And Rotation Locks For Unattended Operation
- No “Pinwheel” Effect
- Flows up to 1250 GPM (4800 LPM)

Description
The MMA-3 X 2-1/2 manually operated aluminum monitor provides unparalleled performance with simple, yet rugged, design features that provide ease of operation, minimum maintenance and resistance to normally destructive environments. They are suitable for use with all foam concentrate types. MMA-3 X 2-1/2 Type Monitors are in active service from the Arctic Circle to the tropics.

Features
- Light weight cast aluminum construction
- Integrally cast straightener vanes in each elbow section to reduce waterway turbulence and friction loss
- Full 3” waterway
- Vertical & horizontal joints have internal brake band position locks
- Suitable for operating pressures from 50 PSI to 250 PSI (3.5 Bar to 17.2 Bar)
- Swivel joints are ball bearing type equipped with O-ring seals to prevent water leakage
- Monitor is designed to eliminate effects of nozzle thrust reaction
- Full 360° continuous rotation
- Angle of elevation is infinitely adjustable from 60° below horizontal to 90° above horizontal

Applications
The MMA-3 X 2-1/2 manually operated aluminum monitors are commonly used for protection of flammable liquid storage tanks, dikes and loading rack.

Specifications
The monitor shall be of a single waterway, cast design with integrally cast straightener vanes in each elbow section to reduce waterway turbulence and friction loss. All waterways shall be a full 3 inch (76.2mm) diameter and shall be capable of flowing a maximum of 1250 GPM (4800 LPM) with a pressure loss not exceeding 10.0 PSI (.69 Bar) at a flow of 800 GPM (3028 LPM). Monitor body shall be manufactured from cast aluminum [ASTM B179/A03560 heat treated T-6 with hard coat anodize, to provide a light weight, rugged design requiring minimum maintenance and superior corrosion resistance. Monitor shall have a 3 inch 150 lb. ASA flat face inlet flange and the outlet shall be 2-1/2” NH (NST) male hose thread. The monitor shall have continuous rotational travel through 360°. Vertical elevation (up and down) travel shall be 90° above horizontal to 60° below horizontal with tapped holes provided to stop travel past 45° above and at 0° horizontal. Vertical and horizontal swivel joints shall incorporate an internal brake band position lock mechanism capable of holding position against a 95 foot-pound torque with a 50 inch-pound torque applied to the position locking knob. Swivel joints shall be a single race type with brass ball bearings and Buna-N O-ring seals to prevent water leakage through the swivel, or dust, dirt and other foreign matter from entering the ball bearing race.

The nozzle thrust reaction shall travel through the vertical axis of the rotational joint and through the horizontal axis of the elevation joint, thus eliminating any “pinwheel” effects due to torque acting on the swivel joints.

Each monitor shall be supplied with a removable handle.

Technical Information
Materials of Construction:
Basic Monitor: ................... Cast Aluminum
ASTM B179/ A03560 heat treated T-6 with hard coated anodize
Ball Bearings: ................. Brass ASTM B134
O-Rings: ............................................... Buna-N
Handle: .................. Aluminum ASTM B211
Misc. Hardware: ............................. Stainless Steel
ASTM A276

Connections:
Inlet: .................... 3”-150# ASA FF Flange
Discharge: ............................... 2-1/2” MNH
Max. Flow: ............. 1250 GPM (4800 LPM)
Max. Operating Pressure: ....................... 250 PSI (17.2 Bar)
Pressure Loss:
10.0 PSI @ 800 GPM (0.69 Bar @ 3028 LPM)
4.5 PSI @ 500 GPM (0.31 Bar @ 1893 LPM)
2.0 PSI @ 300 GPM (0.14 Bar @ 1136 LPM)
Finish: .............................. Red polyurethane enamel paint
Weight: .............................. 25 lbs. (11.4 Kg.)
Options: .............................. NPSH hose threads
MMA-3 X 2-1/2
MANUAL ALUMINUM MONITOR

NDD220

ORDERING INFORMATION

<table>
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<tr>
<th>Part Number</th>
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MODEL MMA-3 X 2-1/2 MONITOR
PRESSURE LOSS VS FLOW

FLOW IN GPM (LPM)

PRESSURE LOSS IN PSI

PRESSURE LOSS IN BAR

National Foam operates a continuous program of product development. The right is therefore reserved to modify any specification without prior notice and National Foam should be contacted to ensure that the current issues of all technical data sheets are used.

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