



DATA SHEET #NDD260

MMA-4 MANUAL ALUMINUM MONITOR

Description

The MMA-4 manually operated aluminum monitor offers unparalleled performance with simple, yet rugged design features that provide ease of operation, minimum maintenance, and resistance to normally destructive environments. MMA-4 Monitors are in active service from the Arctic Circle to the tropics.

Features

- Lightweight cast aluminum construction
- Integrally cast straightener vanes in each elbow section to reduce waterway turbulence and friction loss
- Full 4-inch waterway
- Vertical and horizontal joints with internal brake band position locks
- Ball bearing type swivel joints equipped with O-ring seals to prevent water leakage
- Monitor designed to eliminate effects of nozzle thrust reaction
- Full 360° continuous rotation
- Angle of elevation infinitely adjustable from 90° above to 45° below horizontal
- Suitable for operating pressures from 50 to 250 psi (3.5 to 17.2 bar)
- Suitable for use with all foam concentrate types

Applications

MMA-4 manually operated aluminum monitors are commonly used for protection of flammable liquid storage tanks, dikes, and loading racks.

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 4 in. (102 mm) diameter and shall be capable of flowing a maximum of 2000 gpm (7571 lpm) with a pressure loss not exceeding 19 psi (1.31 bar). Monitor body shall be manufactured from cast aluminum, ASTM B179/A03560 heat treated T-6 with hard coat anodize to provide a lightweight, rugged design with superior corrosion resistance. Monitor shall have a 4 in. 150 lb ASA flat face inlet flange and the outlet shall be 4 in. NH (NST) male hose thread. The discharge shall also be available with 2½" MNH, 3½" MNH, 4" MNH, and 4" FF flanged connections.

The monitor shall have continuous rotational travel through 360°. Vertical elevation (up and down) travel shall be 90° above to 45° 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 95 ft-lb of torque with 50 in-lb of 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 "T" handle fitted to a socket holder. The handle shall be easily removable by means of a quick release pin through the handle and handle socket.

Technical Data

Materials of Construction:

Basic Monitor:	Cast Aluminum ASTM B179/A03560 heat treated T-6 with hard coat anodize
Ball Bearings	Brass ASTM B134
O-rings	Buna-N
Handle	Brass ASTM B16
Misc. Hardware	Stainless Steel ASTM A276
Finish	Red Polyurethane Enamel Paint

Connections:

Inlet	4"-150# ASA FF Flange
Discharge	2½" MNH, 3½" MNH, 4" MNH, 4" FF Flange as required

Maximum Flow:2000 gpm (7571 lpm)

Maximum

Operating Pressure:250 psi (17.2 bar)

Pressure Loss:

@ 2000 gpm (7571 lpm)	19 psi (1.31 bar)
@ 1500 gpm (5678 lpm)	11 psi (0.76 bar)
@ 1000 gpm (3785 lpm)	5 psi (0.34 bar)

Nozzle

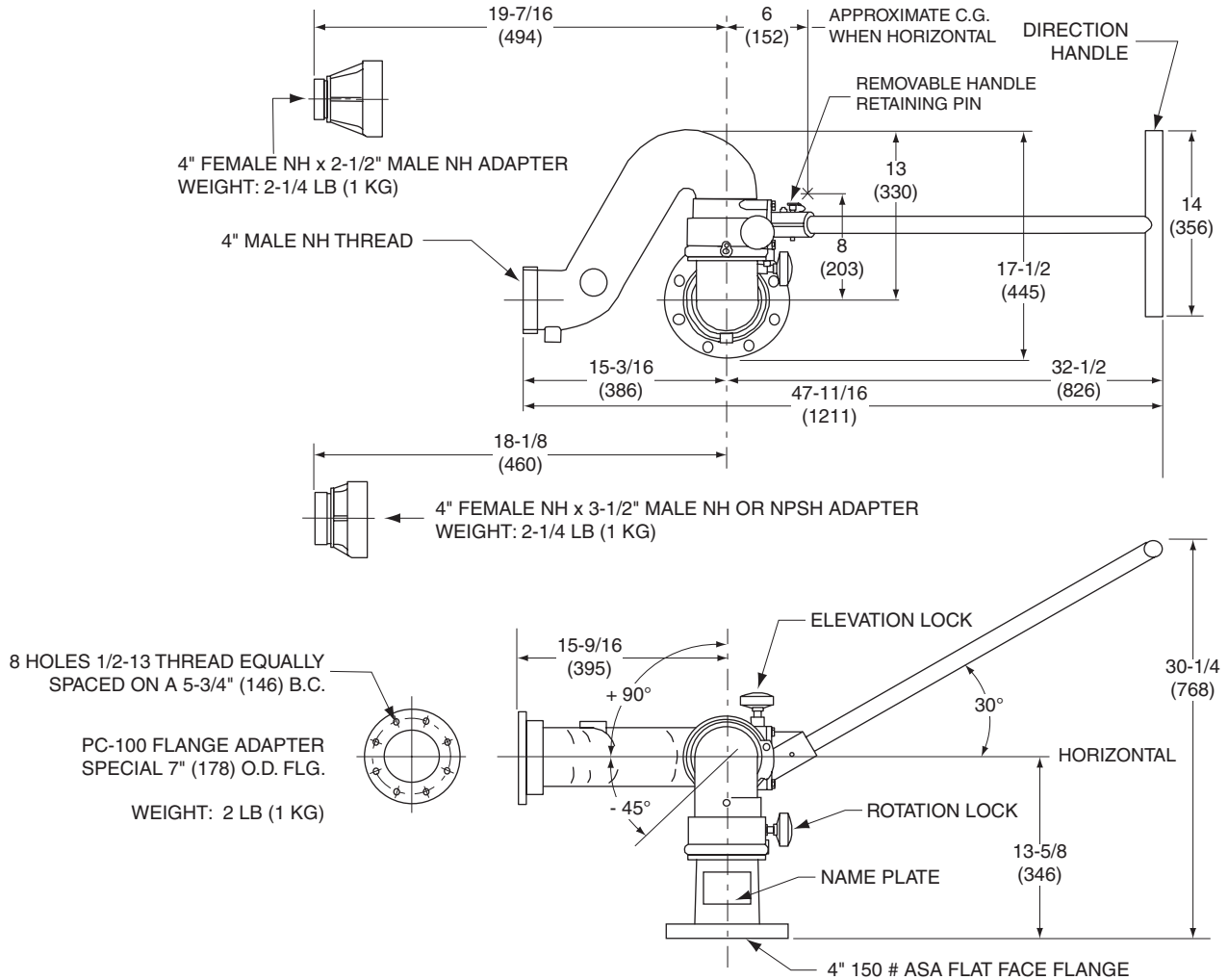
Thrust Reaction:lb thrust = gpm x p x 0.0505

Weight:55 lb (25 kg)

Options

- NPSH hose threads

OUTLINE DRAWING - MMA-4 MANUAL ALUMINUM MONITOR



Ordering Information

Description	Part Number	Weight
MMA-4 Monitor 4" Flg. Discharge (PC-100)	1252-0007-5	57 lb (25.9 kg)
MMA-4 Monitor 2½" MNH Discharge	1252-0007-6	56 lb (25.4 kg)
MMA-4 Monitor 3½" MNH Discharge	1252-0007-7	56 lb (25.4 kg)
MMA-4 Monitor 4" MNH Discharge	1252-0007-8	55 lb (25 kg)

This information is only a general guideline, and each installation may require modifications to meet the applications or requirements of that situation. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

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