



MONITOR - VARUN 643

Stainless Steel, Size - 150mm (6")

TECHNICAL DATA :

Model	VARUN 643
Nominal Size	6 Inch (150 NB)
Max. Service Pressure	175 PSI (12 Bar)
Maximum Flow	3300 GPM (12500 LPM)
Factory Hydrostatic Test Pressure	500 PSI (34.3 Bar)
Swivel Joint	Stainless steel with Double row of Stainless Steel Ball Bearing with Grease Fittings.
Nozzle Thrust Reaction in Kg.	Flow in LPM X $\sqrt{\text{Pressure in Kg./sq.cm.}}$ X 0.0228
Inlet Connection	6" (150 NB) Flange to ANSI B16.5 #150, R.F.
Outlet Connection	6" (150 NB) Flange to ANSI B16.5 #150, R.F.
Monitor Elevation	90 Deg. above horizontal & 65 Deg. below horizontal
Monitor Rotation	360 Deg. continuous
Monitor Movement	Hand wheel driven fully enclosed worm gear
Finish	Red Polyurethane
Weight	241 Kg.
Ordering Information	Specify Monitor Model and Inlet Flange Size.

DESCRIPTION :

Corrosion resistant stainless steel monitor Model-VARUN 643 is durable manual controlled low profile monitor for fixed installation as well as trailer mounted unit. The monitor is generally used for protection of flammable liquid storage tanks, loading racks, dykes marine and many other Industrial application.

The Monitor possess several design features that provides ease of operation, minimum maintenance and resistance to normally destructive environments. The monitor is used with aspirating, non-aspirating and water nozzles with flow range upto 3300 GPM (12500 LPM).

The monitor has welded stainless steel 6 inch (150 MM) water way. The vertical and horizontal rotation is through corrosion resistant stainless steel swiveling joints with double row of stainless steel ball bearing. Both vertical and horizontal movement are controlled with handwheel driven fully enclosed worm gears and protected from the elements.



The monitor has large flow capability and can be manually operated by a single fire fighter. The design ensures to prevent jet reaction forces from effecting the horizontal and the vertical position of the monitor. The counter balance is not required to offset the weight of the nozzle. The monitor has the ability for 360 deg. continuous horizontal rotation and angle of elevation is adjustable with fix stop from 90 deg. above horizontal to 65 deg. below horizontal.

The water vanes in discharge tube reduces the turbulence and friction loss, thus increasing the nozzle performance to achieve greater range. To ensure desired performance, the friction loss through monitor must be considered while selecting the nozzle and the flow through the monitor with reference to available base pressure at inlet of the monitor. For flow and jet reach data refer monitor nozzle data sheet.

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INSTALLATION, TESTING AND MAINTENANCE

The monitor must be installed and operated carefully by a trained person, having good knowledge of equipment. Before assembly of the monitor to the supply piping, thoroughly flush the piping with water to avoid sand, residue, welding slag or other debris hindering the proper functioning of the monitor.

After few initial successful tests, an authorized person must be trained to perform the inspection and testing of the monitor.

The monitor should be ready for use. To achieve this condition, scheduled inspection and maintenance operation should be performed and it must be recorded in the maintenance register book indicating the requirement or recommendation. The recommended maintenance, procedure must be followed as given in the manual and also as per the local authority having jurisdiction.

It is recommended to carry out on weekly basis physical inspection of the monitor. The inspection should verify that no damage has taken place to any component and the monitor is ready for use.

Carry out functional test every month for the flow, regular rotation in horizontal and vertical plane for the entire operating range to observe any leakage.

Periodic proper greasing through grease nipple provided on bearing, worm wheel and worm shaft must be ensured. Use water resistant low friction synthetic grease. Lubrication is required for smooth operation.

Each monitor must be operated with the full flow in accordance to the guidelines of the organisation having local jurisdiction.

The owner is responsible for maintaining the equipment in proper operating condition.

CAUTION

- A trained personnel for fire fighting must use the monitor. Appropriate guidance & training must be given to reduce the risk or injury.
- The nozzle must be fixed to the monitor carefully. The flange bolts must be tightened uniformly.
- The piping must be able to withstand the horizontal reaction force. Serious injury to personnel and equipment can result from improper installation.
- When installing monitor it is critical that flange bolts be tightened uniformly to prevent cocking of the monitor relative to the flange or valve.
- Before flowing water from monitor, check that all personnel are out of stream path and stream direction will not cause avoidable property damage.
- Application of water or foam on an electric appliance

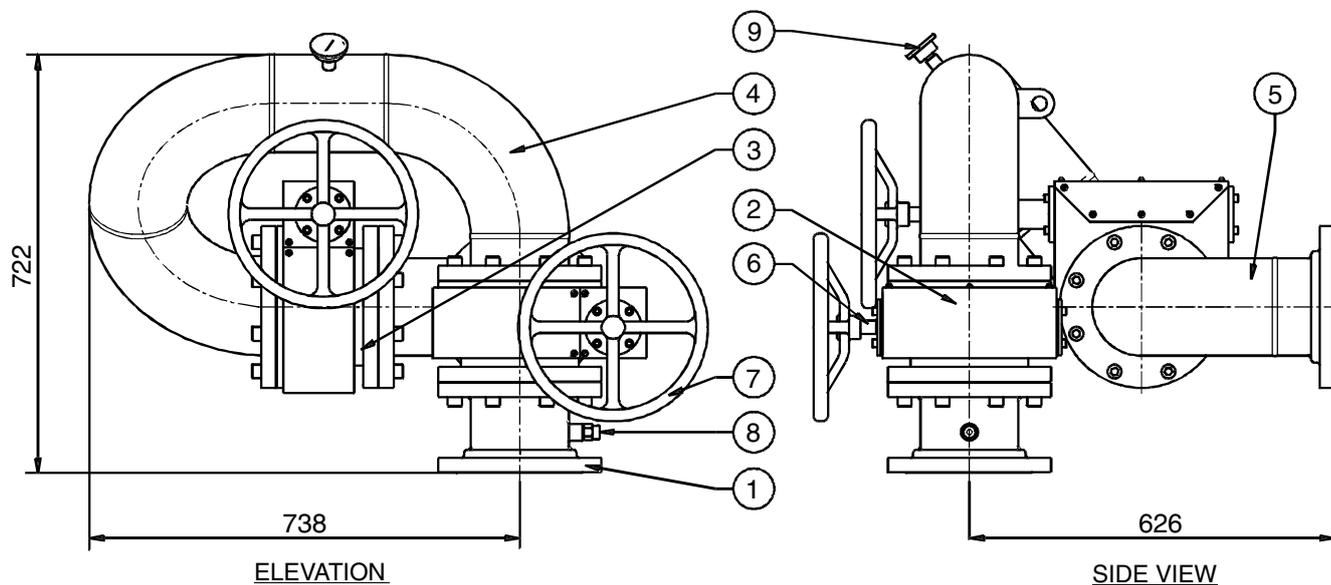
can cause serious injury.

- The water supply to monitor must be increased/decreased gradually to prevent possible waterhammer occurrence.



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PART LIST

ITEM NO	DESCRIPTION	MATERIAL SPECIFICATION
1	BASE FLANGE	STAINLESS STEEL
2	WORM WHEEL	STAINLESS STEEL
3	SWIVEL JOINT V. & H. ROTATION	STAINLESS STEEL
4	ELBOW	STAINLESS STEEL SCH40
5	DISCHARGE ELBOW	STAINLESS STEEL SCH40
6	WORM SHAFT	STAINLESS STEEL
7	HAND WHEEL	CAST IRON
8	DRAIN VALVE	BRASS
9	PRESSURE GAUGE	GLYCERINE FILLED 0 TO 16 KG/SQ.CM.

NOTE:

- Inlet and outlet flange standard size is 150 NB to ANSI B16.5, 150#.
- All dimension in mm and are approximate.