

IH801-IP-60 Fixed Installation Intermediate Pressure bala-wa-mist

1. GENERAL :

IH801-IP-60 Fixed Installation Intermediate Pressure **bala-wa-mist** system is specially designed for commercial buildings, schools, Hospitals, Residential Complex and other similar applications to cover low risk hazard area, maximum of 300m² with minimum water requirement of 5000 litres.

2. SYSTEM DESCRIPTION :

The system can be generally divided and described as Detection and Extinguishing system.

1.1) **Detection system:** Detection system can be automatic by providing Flame, Heat, Smoke Detectors, Quartzoid bulb, Linear Heat sensor cable and Aspiration type Fire Detectors. Manual Detection by using Manual Call Point Units.

1.2) **Extinguishing system:** Different types of extinguishing agents are being used to extinguish or suppress the Fire, such as Gas based includes CO₂ gas, Chemical gases like HFC, NOVEC, Inert gas and water based like Sprinkler, Medium/High Velocity Spray systems and Mist systems.

3. WATER MIST FIRE SUPPRESSION SYSTEM :

Water in the mist form is one of the effective way of using water to achieve many benefits like Low Maintenance Cost, Effective Solution for all types of Environmental issues , Life saving against smoke, toxic vapors and Heat. Low water requirement and User Friendly to all types of Electronic Equipments.

4. SYSTEM SPECIFICATION:

Mist system consists of

- Mist Skid which includes three stroke positive displacement piston type High Pressure Pump driven by Electrical Motor and Starter cum Logic Control Unit, Integrated Header connecting High Pressure Hose, Flow Switch etc.,

4. SYSTEM SPECIFICATION:

- Mist Nozzle which is drift free, capable of discharging 100 microns to 900 microns mist particles with required spray density to cover minimum of 4 Sq.m/16m³ of area.
- Piping network formed by Minimum of SS 304 Sch. 80 grade pipes and Fittings with necessary supports.
- Water Tank with suitable inner coating with non - Corrosive/ Anti - Fungus materials to carry portable water of minimum capacity of 1000 litres with integrated Inlet/Outlet, Filter, Isolation valve and Accessories.

5. OPERATION:

When the mist skid gets start signal in the form of 24VDC through automatic detection method or manual detection method, mist skid will start delivering pressurized water into the pipe network. The system is so designed that within 120 seconds all the mist nozzles discharge mist with required spray density. Water capacity is designed for minimum 20 minutes continuous operation. Mist Skid can be stopped only by manual.

6. STANDARDS FOLLOWED

1. IS 15519 – Water Mist Fire Protection
2. NFPA 750 – Standard for Water Mist Fire Protection

7. RECOMMENDED RISK AREAS

- ✚ School Assembly/Meeting Area
- ✚ Hospitals
- ✚ Fire Escape Routes
- ✚ Commercial shops
- ✚ Restaurants
- ✚ Residential Assembly Area
- ✚ Community Hall

Note :

For other applications Please refer

1. IH 851-IP- KEA – Intermediate **bala-wa-mist** System

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8. TECHNICAL SPECIFICATION:

MIST SKID

- Part No & Model No : IH801-IP-60 MIST SKID
- Make : **bala-wa**
- Type of Pump : Positive Displacement 3 stroke piston pump
- Pressure : Maximum pressure 30 bar.
Working pressure range is between 20-25 bar
- Pump Discharge : Pump discharge is designed to meet the required spray density with maximum quantity of 60 Nos. of Mist Nozzles – IH801-11-IP.
- Pump Drive : 3 Phase Electrical motor of 2.25KW capacity.
- Controls : Starter and Control Unit are designed for automatic and manual start with overload and dry run protection.

MIST NOZZLE

- Part No & Model No : IH 801-11- IP MIST NOZZLE
- Make : **bala-wa**
- Material : SS304, Inlet Threading $\frac{3}{4}$ NPT.
- Mist Particle Size : Ranges between 100 microns to 900 microns.
- Spray Density : 0.4 – 0.6 l/m²

PIPES & FITTINGS

- Part No : IH 801/SS304
- Make : Any reputed Make.
- Fittings : SS 304 Sch. 80 with thread Fittings – 20 NB Size

TANK

- Part No : IH801 –WT -5000
- Make : **bala-wa**
- Tank capacity : 5000 Litres
- Outlet Connection : 50NB SS ball valve with filter
- Tank Inner Coating : Coated for Anti corrosive and anti-Fungus
- Mounting Arrangement : Provision for permanent mounting

SCHEMATIC REPRESENTATION:

