



SHIELD

www.shieldfirefighting.com

"Provision of services and
products by Shield
Oman Factory"

Pioneering Fire Protection Technology – Shield Oman

FactoryShield Oman Factory has been operating since 2019 with the goal of localizing advanced technologies in the fire protection industry. Today, it stands as one of the leading manufacturers in this field. Leveraging the expertise of its engineering team, the company has successfully designed and developed a fire pump performance testing system that complies with international requirements and is certified under ISO/IEC 17025 as an accredited laboratory recognized by the national standards authority — a distinction achieved by only a few countries worldwide. Among the company's other achievements are the reverse engineering of fire pump controllers and the development of technical expertise in the precision casting of specialized fire pump components.

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**FIRE PUMP CONTROLLER
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FIRE PUMP TEST



CONTAINERIZED FIRE PUMP



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ZONE CONTROL VALVE



FIRE BOX

Fire Fighting Diesel Pump

Description:

Diesel fire pumps are designed to deliver reliable water flow during fire emergencies, especially when electrical power is unavailable. Ideal for industrial and high-risk environments, these pumps operate independently and meet international fire protection standards.

Key Features:

- Diesel engine with continuous-duty capability
- NFPA 20 compliant
- Flow rates up to 5000 GPM
- Microprocessor-based controller with auto start/stop
- Dual battery system for reliable starting
- Integrated fuel tank (min. 8 hours autonomy)
- Skid-mounted and factory-tested

Applications:

Industrial sites, high-rise buildings, power plants, warehouses, and oil & gas facilities.



Split Case Fire Pump

A horizontal, double-suction centrifugal pump with a split-case design —ideal for high-capacity, large-scale fire protection systems. It delivers high flow rates (up to [insert value]) and operates at pressures up to 20 bar.

The double - suction design reduces axial thrust , enhancing efficiency and extending bearing life .Suitable for airports, hospitals , commercial complexes, and industrial facilities.Built in compliance with NFPA 20, UL, FM, or EN 12845, as required.



End Suction Fire Pump

An end-suction, horizontal centrifugal pump with a compact design & high efficiency , used for boosting pressure in fire protection systems. Its direct coupling to the electric motor and easy installation make it ideal for space-constrained applications.Manufactured by Shield Oman Factory in accordance with [insert applicable standard] , this pump offers a robust body, stable operation, and low maintenance requirements.

Suitable for medium to high flow rates and working pressures of 7 to 14 bar.

it is commonly used in residential ,commercial, and industrial fire protection systems, fully compliant with [insert applicable standard].



Fire Electric Pump Controller

A vital component of fire pump control and monitoring systems, the controller panel manages the operation, protection, and automation of electric, diesel, and jockey pumps. It is typically designed and manufactured in accordance with [insert applicable standards, e.g., NFPA 20 or UL 218] to ensure safety and reliability.

Main Features of the Fire Alarm Control Panel:

- Detection of smoke, heat, and carbon monoxide automatically and sending signals to the system, announcing the fire alarm, and activating fire extinguishing systems.
- Sending electrical signals and warning the system in case of fire or emergency.
- Reporting the status of the system and the fire alarm devices.
- Announcing different types of alarms (fire alarm / fault / system fault) and announcing the fire alarm signal (switching off the fan and closing the fire damper, turning on the fire alarm sounders, ...)
- Ability to connect to the BMS system.
- Display on the HMI screen: display the number of the zone, the type of sensor, the status of the sensor, the type of alarm, and the possibility to adjust the devices.
- Acoustic and optical alarms.
- Maintenance and repair: testing and maintenance of sensors and fire alarm devices and specifying the specific position of the sensors

Operator Interface for Display and Controller

"Home Page"



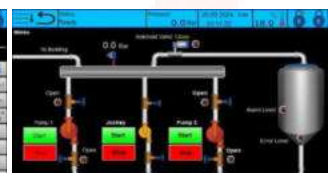
"Settings"



"Language"



"Pump schematic"



"Events"



"History"



"Chart"



"Maintenance"



Advantages

- Reduction of human error
- Increased safety and reliability
- Automatic documentation of errors and performance

Parts

- Siemens or Delta Monitor (HMI)
- Pressure and Temperature Sensors
- Power and Control Terminals
- Motor Protection (and Thermal Overload Relay)
- Drive or Soft Starter or Star-Delta Starter

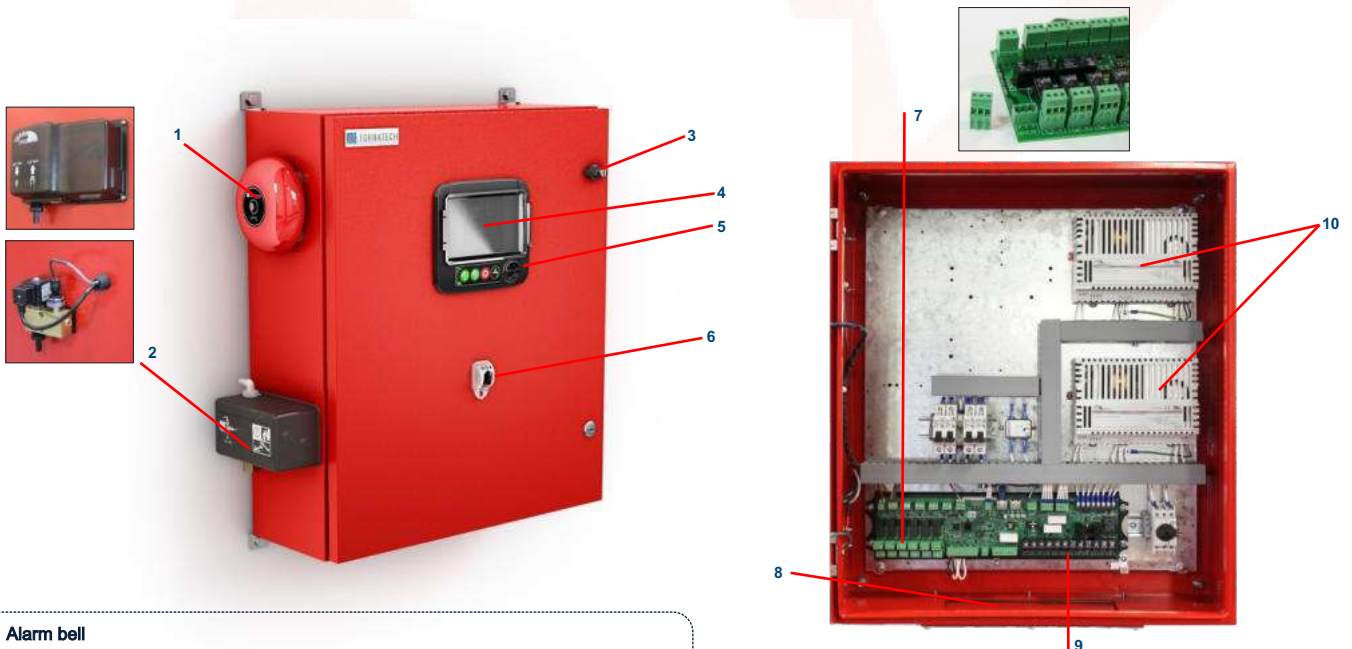


Diesel Fire Pump Control Panel

Standard Features

- ViZiTouch V2 operator interface
- NEMA 2 assembly
- Pressure and event recorder
- Battery voltage and amperage display
- Run Test push button
- HAND - OFF - AUTO selector switch
- Manual crank pushbuttons (2)
- Stop pushbutton
- Remote start / deluge valve start provision
- Pressure transducer and run test solenoid valve externally mounted
- Gland plate
- Audible alarm
- Alarm contacts for remote indication
- Weekly exercise programmable time clock
- Crank cycle
- Programmable automatic shutdown (minimum run timer)
- Programmable sequential start timer (delay start timer)

ON-SCREEN MENU



1. Alarm bell
2. Externally mounted pressure transducer and run test solenoid valve with protective cover
3. Key lock
4. ViZiTouch V2 operator interface
5. Exterior USB Port (Interior USB port also supplied)
6. HAND-OFF-AUTO selector switch
7. Remote alarm contacts with removable terminals
8. Gland Plate
9. Automotive type engine connections
10. Battery chargers

Fire Pump Package



- packaged pump set supplied with single Skid Fully designed based on Load calculations along Lifting points based on Centre of gravity.
- Highly Engineered and constructed in accordance with NFPA-20.
- Our Dedicated Engineering team design packages to your project specifications & requirements following to International standards.
- cost competitive Packaged pump set save your space and time as they Engineered accurately to fit the specified area. Only Power & Pipe connection to be made at site & system is ready for use.
- packaged pump sets are Factory tested as per stringent International standard's.
- All parts are designed based on Ergonomic consideration so that ease of accessing all instrument, valves, fittings etc.
- These sets are supplied with complete Electrical connections & piping's which includes Suction line, Discharge line, Test line, PRV line, Sensing line, Fuel In & outlet, pump Drain, Sensing line drain, Engine drain, CRV drain etc.

Description

supplies Fully Engineered Fire Fighting Packaged systems from simplest Single pump system to the most complex Multi-pump system mounted on single skid. In this, Main fire pumps, Jockey pumps, controllers and all accessories are mounted on Single skid.

All piping's are in accordance with customer requirements & following to NFPA requirement supported within Skid.

These are meticulously manufactured fire pump Packages provide reliable and trustworthy service in Fire Fighting Application.

Operating Range:

Flow : up to 5500 GPM
Pressure: 40Mtr to 200Mtr

UL/FM Listed Range:

Flow : up to 3000 GPM
Pressure: 40Mtr to 200Mtr

Containerized Fire Fighting Pump Set



Description:

In the Containerised packages, Main Fire pumps, Jockey pumps, its controllers and all accessories are mounted inside the Container. These sets are highly Engineering with all piping's are in accordance with customer requirements & following to NFPA norms.

All large equipment are accessible by doors around the container. Material handling arrangements are provided for easy unit movement based on requirement

Operating Range:

Flow : up to 5500 GPM

Pressure: 40Mtr to 200Mtr

UL/FM Listed Range

Flow : up to 3000 GPM

Pressure: 40Mtr to 200Mtr

Container/ Pump House Sizes:

20ft Standard & High Cube

40ft Standard & High Cube

Custom Built Pump House

Features :

- packaged pump house supplied with Fire-Rated or Fire Retardant enclosures. Fully weather-proof based on specific customer requirement.
- Highly Engineered and constructed in accordance with NFPA-20.
- Our Dedicated Engineering team design packages to your project specifications & requirements following to International standards.
- cost competitive Containerised fire systems save your space and time as they Engineered accurately to fit the specified area. Only Power & Pipe connection to be made at site & system is ready for use.
- Containerised fire systems are Factory tested as per stringent International standard's.
- Single responsibility for complete pump house.
- All parts are designed based on Ergonomic consideration so that ease of accessing all instrument, valves, fittings etc.
- Floors are coated with Glass Reinforced Plastic (GRP) lining to make it durable, waterproof so it will be long lasting.
- Inside walls & Roofs are provided with Sandwich panels (PIR/PU/ Rockwool/ Honeycomb) based on customer specification.
- These sets are supplied with complete Electrical connections & piping's which includes Suction line, Discharge line, Test line, PRV line, Sensing line, Fuel In & outlet, pump Drain, Sensing line drain, Engine drain, CRV drain etc.

Containerized Fire Fighting Pump Set

UL/FM Listed Pumps Range

Capacity : Up To 3000GPM

Head : Up To 20 BAR

Scope of Supply:

- FM/UL Horizontal Split case or End suction pump with Electric & Diesel Drive
- Jockey pump
- Automatic Electric pump controller, Diesel Controller & Jockey Controller
- Suction and discharge gauge, Air release valve & Casing relief valve
- Piping's with valves & fittings for Suction, Discharge, Test line & PRV
- Check valves
- Butterfly valves
- OS&Y Gate valves
- Exhaust pipe line with Insulated wrap & Guard
- Complete internal wiring with conduit pipes
- SS 304 piping for pressure sensing line
- Drain piping's, Fuel Inlet & Outlet Piping
- Smoke Detector / Heat Detector
- Interior weather proof lights/Emergency light
- Sandwich panels on wall & roof
- Ventilations fans with louvers
- SMDb & Switches
- Sprinkler system
- Water resistant GRP flooring
- 3 Coat interior & exterior painting system
- Main pressure relief valve
- Flow meter GERAND venture type
- Batteries
- Waste Cone
- Breeching inlet with Cabinet (As an additional scope)
- Fire Hose Cabinet with landing valve (As an additional scope)
- Manual pull station (As an additional scope)
- Sound & Strobe (As an additional scope)
- Addressable FACP (As an additional scope)
- CO2 & DCP Extinguisher (As an additional scope)
- Air conditioner (As an additional scope)



Pump Test System

Pump Test System certified to ISO 17025 standard
NFPA20 , UL 448

The system is capable of measuring 53 vital parameters of fire pumps, covering hydraulic, electrical, and mechanical aspects.

The fire pump performance package is available in two configurations

Static Test : The test is conducted on the skid at the manufacturer's facility

Portable Test : The test is performed inside a containerized, portable system

Designed and fully equipped by the company's engineering team, this advanced system enables precise assessment of the final performance of fire pump packages in compliance with internationally recognized standards and UL/FM requirements."

"As the first of its kind in Iran, this system was locally designed and built, and it operates as the only specialized fire pump performance testing laboratory in the country accredited to the ISO/IEC 17025 international standard."



Fire Pump Performance Test Report

The test unit includes the necessary equipment for performing hydrostatic tests, inspecting the control system, and evaluating the operation of pumps, valves, and safety devices. It is fully designed in the form of a unit or containerized pump house.

Report No.: FPTR-2025-074

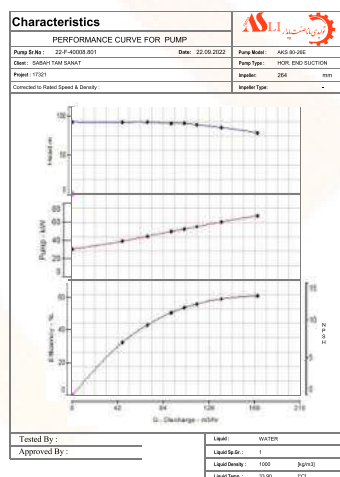
Date: August 2, 2025

Location: Factory Test Facility (Skid-Mounted System)

Laboratory Accreditation: ISO/IEC 17025

Certified Standards: UL 448, NFPA 20, FM 1311

PERFORMANCE TEST REPORT																																																																																																			
Pump No.: 22-F-40008-B01		Date: 22-08-2022		Customer Details																																																																																															
Client: SABAH TARIK SANAT																																																																																																			
Purchase Order: SABAH TARIK SANAT																																																																																																			
Inspector/Engineer: 17227-46																																																																																																			
Project: 17227-46																																																																																																			
Connected to Rated Speed & Density																																																																																																			
Rated Pump Data Pump Model: AIS 100-324H Discharge Pipe Dia: 100.00 [mm] Liquid: Water Pump Size: 100-100 [mm] Suction Pipe Dia: 200.00 [mm] Liquid Temp: 40.00 [°C] Impeller: 280 [mm] Rated Capacity: 110.00 [m³/h] Impeller Type: ENCLOSED - Rated Speed: 135.46 [rpm] Liquid Sp. Gr.: 1.000 - Sealing: GLAND PACKING - Rated Speed: 2900 [rpm] Liquid Density: 1000.00 [kg/m³]																																																																																																			
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Reading on test stand <table border="1"> <thead> <tr> <th>No.</th> <th>Speed</th> <th>Capacity</th> <th>Head</th> <th>Power</th> <th>Efficiency</th> <th>Water Temp</th> <th>Pressure</th> <th>Flow</th> <th>Pressure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>2</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>3</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>4</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>5</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>6</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>7</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> <tr> <td>8</td> <td>2900</td> <td>110.00</td> <td>1.00</td> <td>105.00</td> <td>84.50</td> <td>40.00</td> <td>10.00</td> <td>10.00</td> <td>10.00</td> </tr> </tbody> </table>										No.	Speed	Capacity	Head	Power	Efficiency	Water Temp	Pressure	Flow	Pressure	1	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	2	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	3	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	4	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	5	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	6	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	7	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00	8	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
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PERFORMANCE TEST REPORT

Pump No.: 22-G-10000-1001

Date: 20-07-2022

Customer Details

Client: SABAH TARIK SANAT
Purchase Order: SABAH TARIK SANAT
Inspector/Engineer: 17227-46
Project: 17227-46

Rated Pump Data

Pump Model:	AIS 100-324H	Discharge Pipe Dia:	100.00 [mm]	Liquid:	Water
Pump Size:	100-100 [mm]	Suction Pipe Dia:	200.00 [mm]	Liquid Temp:	40.00 [°C]
Impeller:	280 [mm]	Rated Capacity:	110.00 [m³/h]	Liquid Sp. Gr.:	1.000 -
Impeller Type:	ENCLOSED -	Rated Speed:	135.46 [rpm]	Liquid Density:	1000.00 [kg/m³]
Sealing:	GLAND PACKING -	Rated Speed:	2900 [rpm]		

Motor Data

Motor Model:	WEG TEST MOTOR T204H	Motor No.:	WEG TEST MOTOR T204H	Test Voltage:	400 [V]
Nominal Power:	105 [kW]	Nominal Current:	177.09 [A]	Speed:	2900 [rpm]
Test Frequency:	50 [Hz]	Code:	0.00 -	Water Eff.:	84.50 [%]

Reading on test stand

Correction of test stand									
No.	Speed	Capacity	Head	Power	Efficiency	Water Temp	Pressure	Flow	Pressure
1	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
2	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
3	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
4	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
5	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
6	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
7	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00
8	2900	110.00	1.00	105.00	84.50	40.00	10.00	10.00	10.00

Test ID: 20250720000101

Ok Date:

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Tested By: SV

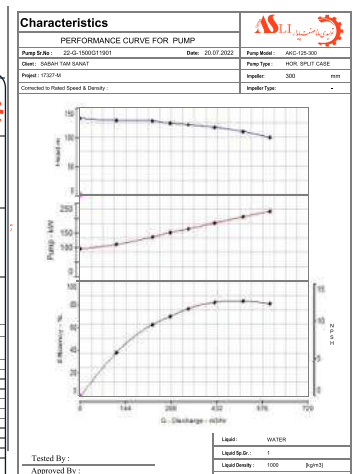
Inspector/Engineer:

Approved By:

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Tested By: SV



Client Information: Company

Name: ABC Fire Safety Co. Contact Person: Mr. John

Doe Project: Fire Pump Package – High-Rise Tower

Anti Vortex Plates

A vortex is a "Turbulent Flow" that must be controlled to prevent damage to rotating parts. A vortex is a region formed in a fluid when the fluid's flow rotates around an axis line and the fluid flows in a swirling motion at a high velocity towards pump intake.

Bristol Anti-vortex Plates aid to diminishing the speed of a fast moving turbulent flow and smoothen it into a laminar flow, thus reducing wear and tear. **Bristol** Anti-vortex Plates also aid to prevent cavitation (small liquid-free zones such as bubbles or voids) in the fluid. Cavitation can create dents, shock waves and imbalance in the moving parts. Once cavitation affects a surface it tends to erode at an accelerating rate. This makes the surface prone to stress corrosion.

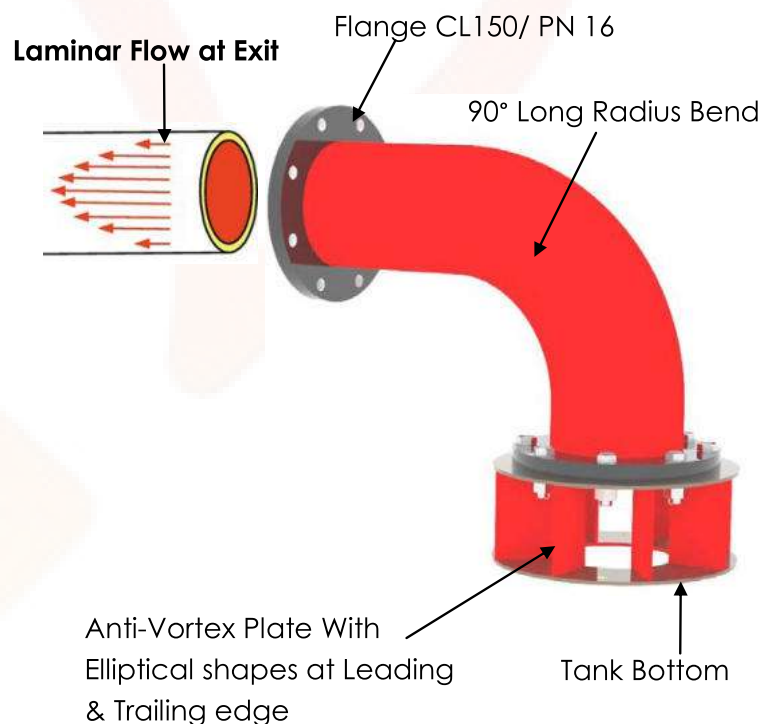
To avoid these issues **Bristol Anti-Vortex Plates** are recommended to be installed in the suction line of fire pumps to control the turbulence in flowing water. They are simple in design and very effectively controlling the velocity of the fluid thus preventing cavitation and damage to the impellers. Also it supports off duty conditions when static pressure reduces at the suction along with elevation of the water side level in the tank.

Features

- ◆ Anti-Vortex Plate design is in accordance with NFPA 20/22
- ◆ Where a tank is used as the suction source for a fire pump, the discharge outlet of the tank shall be equipped with an assembly that controls vortex flow in accordance with NFPA 22. i.e. Recommended to use Anti-Vortex Plate.
- ◆ Anti-Vortex plates are provided with Elliptical shapes at leading & trailing edge for getting streamlined flow.
- ◆ The water velocity at the Anti-Vortex Plate is maintained below 1m/Sec limit for maximum flow condition
- ◆ The minimum distance above the bottom of the tank shall be 152 mm (6 Inch).

Material:

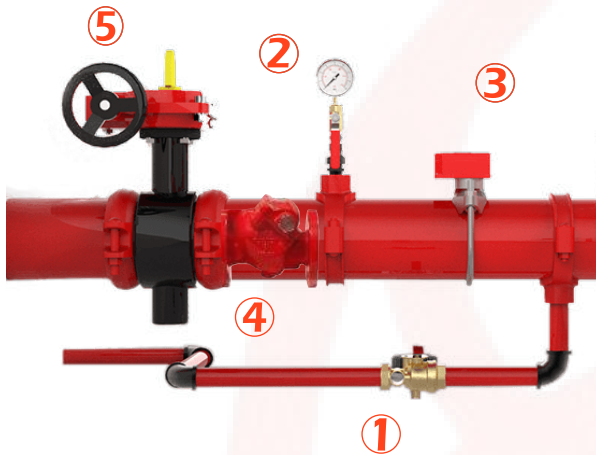
- Mild Steel (Standard)
- SS 304/SS316 (Optional)



Zone Control Valves

The zone control valves are precisely and standard assembled by the factory's experienced technical team, using valves either manufactured in-house or imported from the Weflo brand, both of which comply with international standards.

After the assembly process, all equipment undergoes comprehensive acceptance tests at the factory site and rigorous quality control inspections to ensure their performance, durability, and safety.



- Test&Drain Valve** ①
- Pressure Gauge** ②
- Water Flow Dtector** ③
- Swing Check Valve** ④
- Wafer Butterfly Valve** ⑤



Fire Box

Fire Box

The fire box is designed with a robust and ergonomic design for quick access to hoses, reels, and safety equipment in emergency situations. These boxes can be surface-mounted or recessed and are resistant to corrosion and environmental conditions with electrostatic powder coating.

Features

Durable metal body with oven paint

Ability to install various equipment (hose, reel, capsule, etc.)

Glass or metal door with secure lock

Suitable for public, commercial and industrial spaces....

Decorative fire extinguisher box

The decorative fire box is a combination of safety and beauty, which, with its modern design, harmonizes with

The interior or architecture of the building is being constructed.

Decorative boxes are completely customized and are designed and produced based on the needs and tastes of the employer.

In addition to their security function, these boxes give the environment a stylish and professional look.

The project design and name can be custom engraved on the doors of the fire extinguisher boxes at the employer's request.





Smile
• You're safe.

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Sohar FZ, Oman

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and sale of fire safety equipment,
including fire alarm and suppression
systems and firefighting pumps, compliant
with international standards and approved by
the Fire Department.

