Local Fire-fighting Systems

Our fire-fighting and fire prevention systems are essential for ensuring safety and protecting the life of the crew on board and property on your ships. These systems definitely require regular and proper maintenance to ensure their reliable operation in case of emergency. However, increasing troubles on the systems recently reported to us suggest that they are not always properly maintained. This document is to remind you of the typical consequences the lack of maintenance could have and of the importance of maintenance to keep the system sound and operable.

The negligence of the maintenance could lead to the failure of the system operation when needed and pose considerable risks to human life or property. Since these systems serve as the last resort for safety protection, you are kindly requested to review the maintenance arrangement to ensure their reliable operation.

Inspection/Maintenance Conducted by Uncertified Agencies

In most cases, uncertified agencies undertake inspection services of various fire-fighting systems and equipment collectively. This could mean to save the time and labor cost to you, but they do not necessarily fully understand the fundamental structure and functions of the system, and sometimes omit electrical functional tests. Due to the difficulty in allocating enough time for each item, their collective inspection is likely to be limited to visual and superficial checks without replacing consumables. Their failure to detect and identify signs and symptoms for a malfunction could lead to serious consequences, including activation failure of the system.

Simulation Test of the System

Our certified engineers can verify that system is functioning properly through various simulation tests. By implementing measures to prevent water discharge, it is possible to conduct an operational test of the equipment and confirm its electrical integrity.

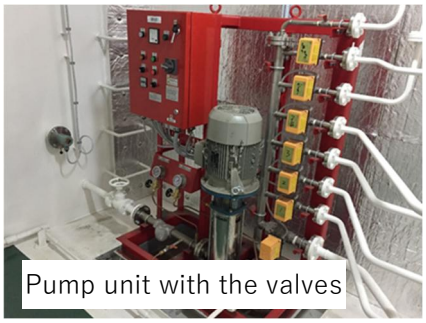
Control panel

Water level alarm:

A level switch is provided to always monitor the amount of water necessary for spraying is maintained. The switch is equipped with a test lever to simulate low water level and check the low-level alarm on the control panel.

Manual Open/Close Operation of Motor-operated Branch Valves

Each motor-operated branch valve needs to be regularly checked for its opening/closing action manually to prevent sticking. The valve should be operated with an attached wrench with the control panel powered off. Please refer to the attached document and follow the instructions in it to avoid a wrong operation that can damage the components.


Pump unit with the valves

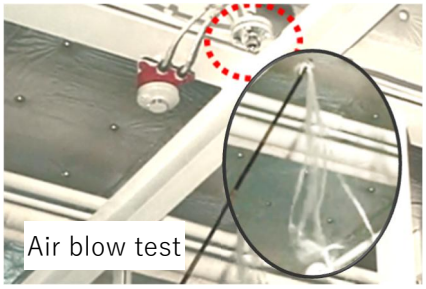

Manual operation


Damaged gear

Air Blow Test and Flow Test

An air blow test and flow test with fresh water can check each branch valve for its action and the piping and mist nozzles for clogging. The clogged nozzles lose its ability to give intended fire-fighting performance and need to be cleaned or replaced. Every time the system is activated and used, the system piping needs to be drained out and blown through with air just like the air blow test. The strainers attached to each nozzle and on the water supply line also need to be regularly overhauled and cleaned.

* For the flow test using fresh water, be mindful of where to discharge the water and use a tarpaulin or the like to cover and protect the outfits and installations.


Air blow test


Clogged strainer


Strainer inspection

Automatic Activation Responding to the Signal from Fire Detectors (for Automated Ships)

On automated ships, the local fire-fighting system is interlocked with the fire detectors for automatic activation. A simulation test should be conducted to see if the system can be activated responding to the signal from any fire detector.


Flame detector


Smoke detector

Discharge Test from the Test Line (Pump's Operation Test)

The pump should be given a test-run discharging water from the test line. After the test, the system piping needs to be drained out and blown through with air just like the air blow test. Failure to do so may result in rusting or clogging of the mist nozzle strainers.


Pump operation test

Inspection and Maintenance

We have certified engineers who are fully qualified to inspect and service our fire-fighting systems to make sure of their reliable operation. Please feel free to contact us for the inspection and maintenance.

For request for quotation or order placement, please contact our service department at sales@kashiwa-tech.co.jp with necessary information included, such as the system name, your ship's name, and IMO No.

CHECK SHEET to consider replacing the equipment or parts

SYSTEM :
Water based local application FFS

This is to recommend timing to consider replacing of the equipment or parts, not mandatory.
The item checked in the box is recommended to replace or keep spare, and the item shown as urgent or important is strongly recommend to replace.
If you have any clarification please feel free to contact us.

No.	Check off if "Yes"	ITEM	LOCATION	CHECK POINT	ACTION	Remarks	Urgency or importance
1		Level switch	Fresh water tank	Function test by test lever	Recommend to replace if the alarm does not work when test lever is operated.		Urgent

Kashiwa Tech Co., Ltd.

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PRECAUTIONS

THE MANUAL OPERATION METHOD OF THE AUTOMATIC VALVES

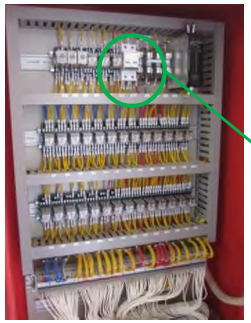
The Pump Unit

This panel is a starter for the pump, NOT for the valves.

The Auto Valves

1) Go to the “Fire Station etc.”.
Turn off the circuit breaker of the “Main Control Panel”.

Be sure to turn off the power to the valves before manual operation.



The Circuit Breaker

The Main Control Panel

*** This is located in the Fire Station etc.**

2) Come back here, in front of the “Pump Starter Panel”.
Take a “Manual Operation Stick” out of the panel.

The Pump Starter Panel

For Auto Valve-15A, 20A, 25A

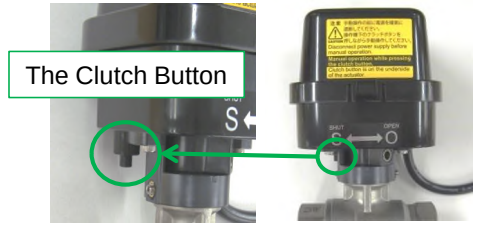
For Auto Valve-40A

The Manual Operation Stick

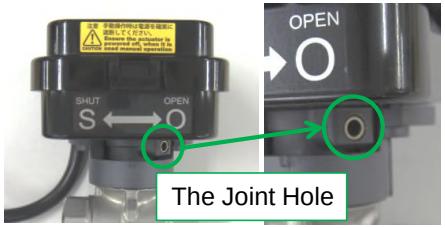
❗ Caution ❗
Be sure to use **only this stick** when you perform the manual operation.

3) Insert the stick into the “Joint Hole” of the valve.
Open/Shut a valve by applying torque to the stick **SLOWLY**, NOT exceedingly/suddenly.
The hole also indicates the valve opening.

【The Auto Valve-40A】



❗ Caution ❗
There is a “Clutch Button” **only on the valve 40A (dia. 1 1/2 inches).**
For manual operation of that valve, **keep pressing the clutch button** while rotating the lever.

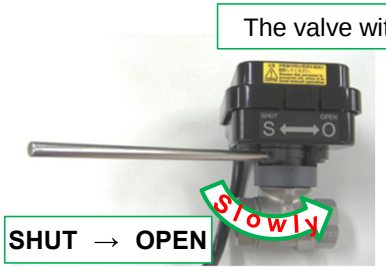


The Joint Hole

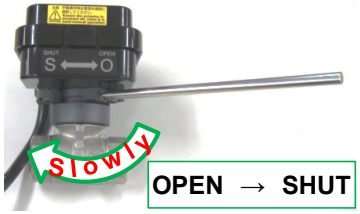
The Valve : **SHUT**

The Valve : **OPEN**

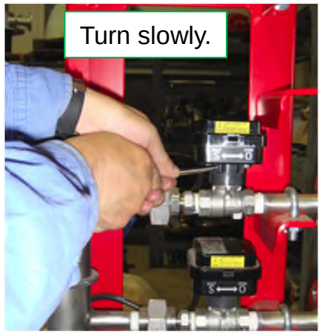
The valve with the stick



SHUT → OPEN



OPEN → SHUT



❗ Caution ❗
Do NOT apply torque exceedingly during manual operation.
*The estimated torque
Auto Valve-15A, 20A, 25A : 3N・m
Auto Valve-40A : 7N・m

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