

FSD Connects

Agenda

FAQ of Annual Inspection Checklists
Common Issues in FSI Annual Inspection
Q & A Session



Frequently Asked Questions -Annual Inspection Checklists for Fire Service Installations

CHIN Ka-ho Senior Station Officer Fire Service Installations Task Force

Annual Inspection Checklists



Annual Inspection Checklists

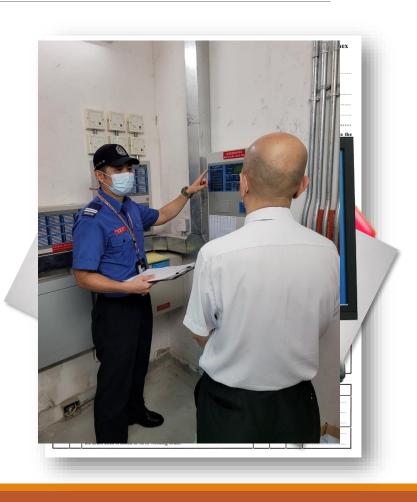
- Assist RFSICs to conduct AI
 - Standardize procedures
 - Specify minimum requirements
 - Strengthen the quality of work by RFSICs
- Assist FSI Owners to keep the FSI in efficient working orders

Annual Inspection Checklists

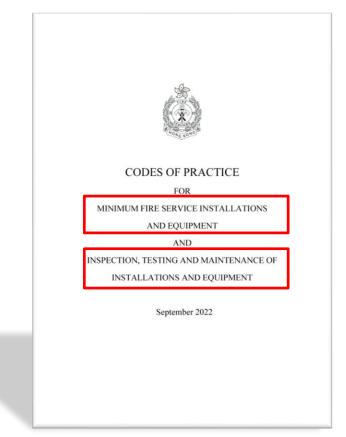
- Assist RFSICs to conduct AI
 - Standardize procedures
 - Specify minimum requirements
 - Strengthen the quality of work by RFSICs
- Assist FSI Owners to keep the FSI in efficient working orders

Duties and Responsibilities of RFSIC

- Conduct inspection, testing and maintenance according to the AI Checklists
 - Complete the AI Checklists accordingly
 - Sign the completed AI Checklists
 - Retain for at least 7 years (Scanned or Hard Copy)
 - Produce the completed checklists upon FSD request



- What standards shall a RFSIC follow when conducting inspection, testing and maintenance?
 - Provision and Specification -Appropriate version of CoP FSI
 - Inspection, Testing and Maintenance -CoP ITM
 - Relevant Circular Letters
 - AI Checklists

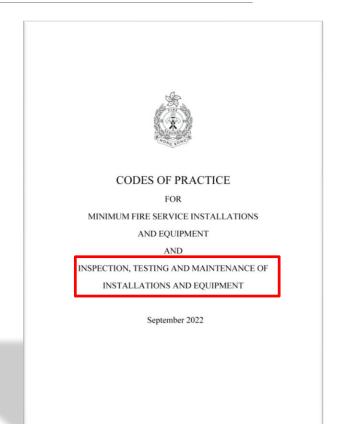


What if there are requirements in the AI Checklists, which are not required according to relevant CoP FSI for the subject building?

RFSIC may tick "N/A" (denoting Not Applicable) for the item

			Yes	No	N/A	Remarks
	e.	The contactor(s), relay(s), timer(s), interface module(s), switch(es), circuit	[]	[]	[]	
		breaker(s), indicator(s), terminal block(s) and other components, where				
		applicable, and the wirings inside the pump control panel(s) are intact,				
		properly wired and free from any sign of damage/overheating and undue				
		deterioration.				
	f.	The control buttons, switches, indicators and meters are properly labelled in	[]	[]	[]	
		terms of usage.				
	g.	The reading(s) on the voltmeter(s), where provided, is/are within the	[]	[]	[]	
		acceptable range.				
	h.	The reading(s) on the ammeter(s), where provided, is/are within the acceptable	[]	[]	[]	
		range.				
	i.	The control buttons and switches are tested to operate properly and are in the	[]	[]	[]	
		correct positions.				
	j.	The switch(es) for suspending pump operation, where provided, is/are in the	[]	[]	[]	
		correct position(s).				
	k.	The indicator(s), where provided, is/are tested to operate properly and are in	[]	[]	[]	
		proper status.				
A2.7	As-built Framed Schematic Diagram (where provided)				[]	If N/A, go to A2.8
	Legi	ble as-built system schematic diagram(s) is/are displayed conspicuously at the	[]	[]	[]	
	pum	p room/enclosure/space.				

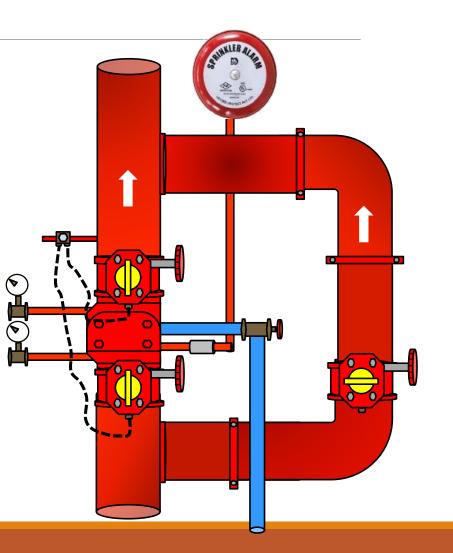
- Are AI Checklist applicable to annual inspection only?
 - CoP ITM
 - For inspection, testing and maintenance other than acceptance inspection and annual inspection, the same standard of annual inspections shall be followed"



- What if an annual inspection is not conducted in full accordance with the AI Checklists?
 - **FSD CL No. 4/2019**
 - Not recognised as properly completed annual inspection



- Are FSI Owners required to provide equipment for flow and pressure testing for annual inspection?
 - The provision and specification of an FSI are required to comply with appropriate CoP FSI.
 - FSD does NOT limit the method of flow test.
 - RFSIC may advise the FSI owners for suitable testing methods.



- What if a RFSIC fails to fulfil its duties and responsibilities as stipulated in FSD CL No. 4/2019?
 - R.10(1), Cap 95A
 - Improper conduct or negligence
 - Rendering the RFSIC concerned unfit to be on the register



Refer to the Disciplinary Board

Thank you



FSD Connects

Common Observations in Annual Inspection of Building FSI 17th Oct 2022

> Fire Service Installations Task Force Acting Assistant Divisional Officer TSO Kwong-chi

Various Inspections

by FSD









Content **FS** Inlet **Pressure Reducing Valve** 03**Pressure Switch Emergency Lighting and Exit Sign FE Maintenance Label** 06**Miscellaneous (Alarm gong, SVMS, Battery)**

01 FS Inlet

T-slot Type



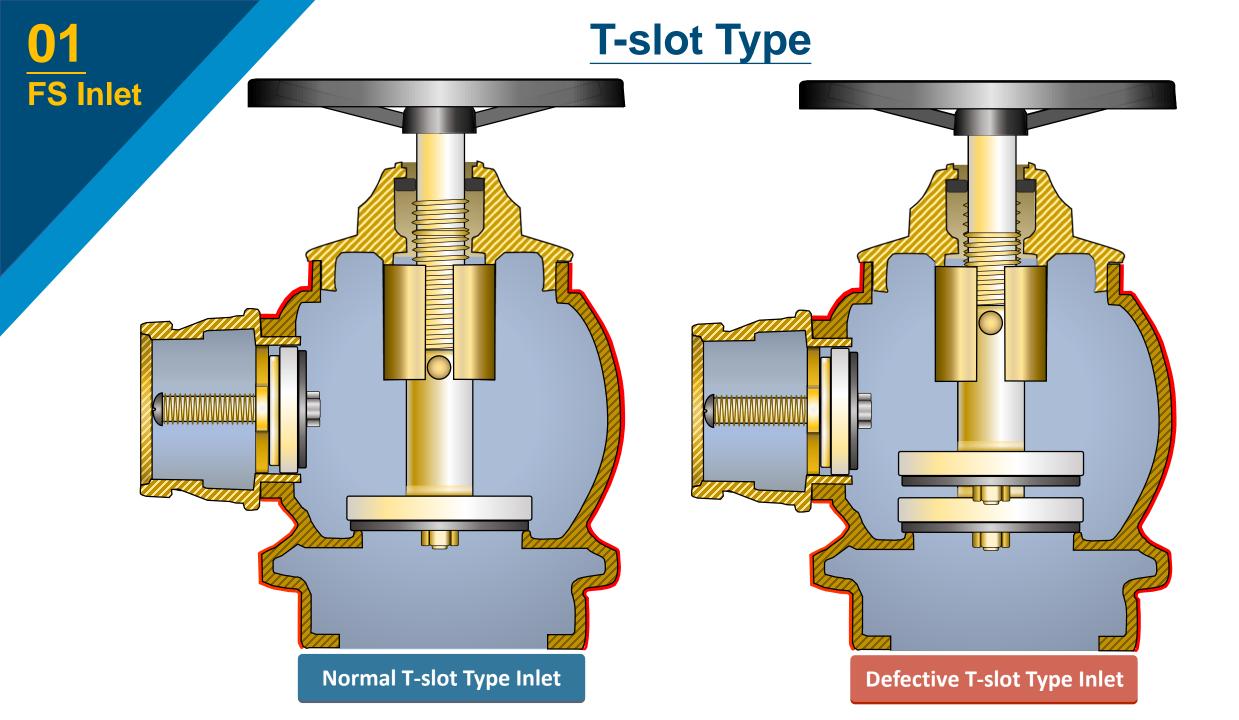








Cannot Fully opened





Nut Type



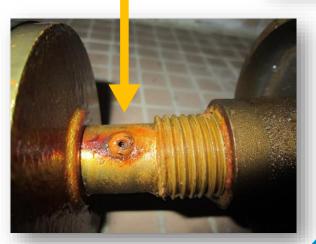


Seat disc detached

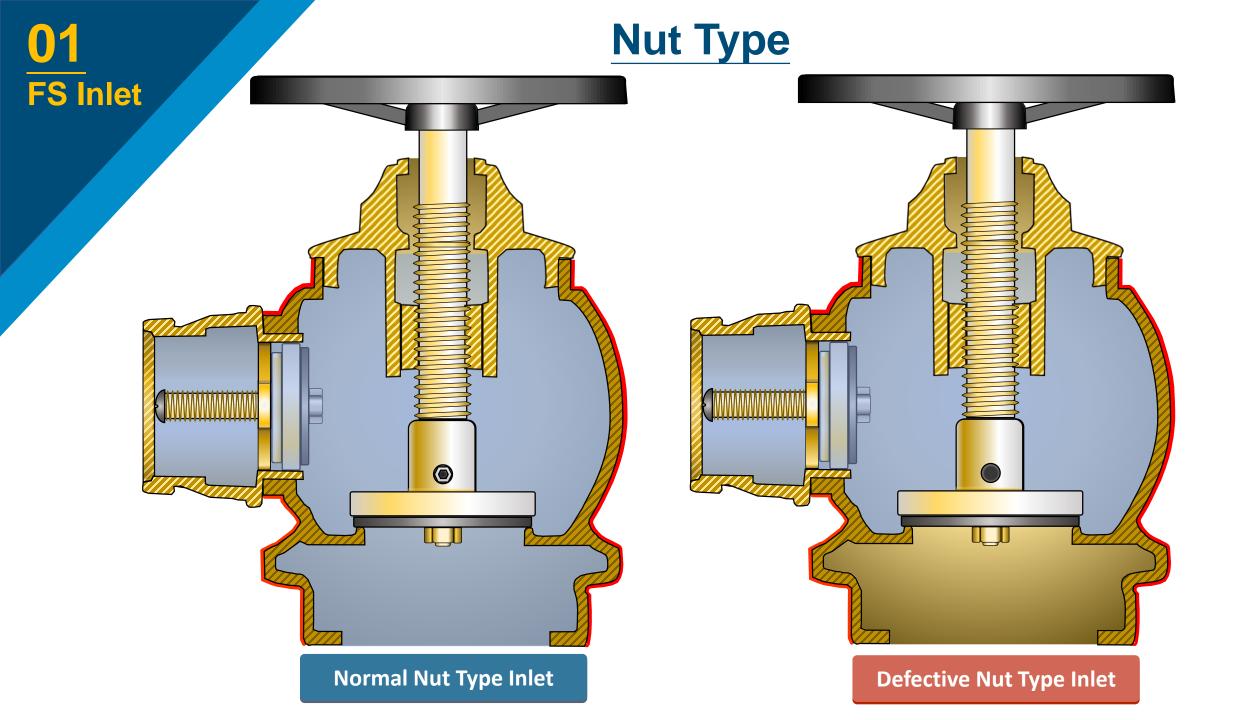
Severely Rusted Set Screw











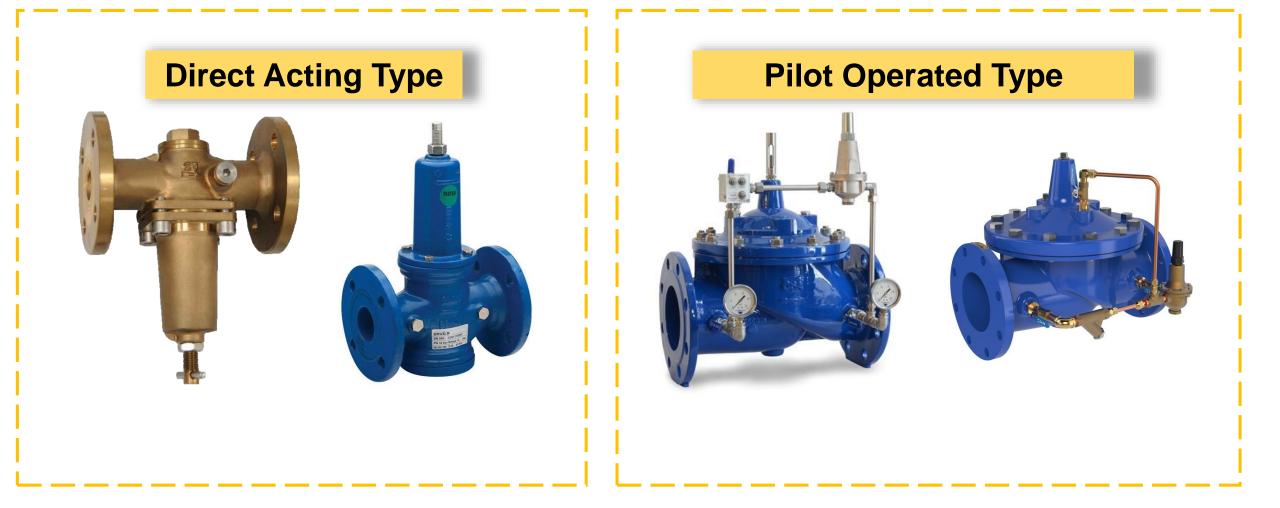
01 FS Inlet

Remove top cover



Remove coupling

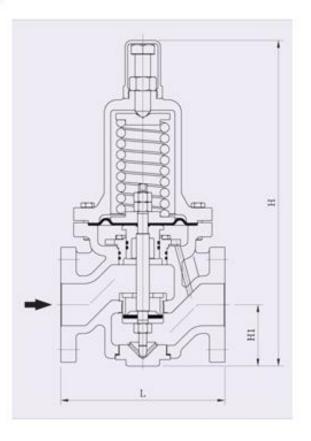




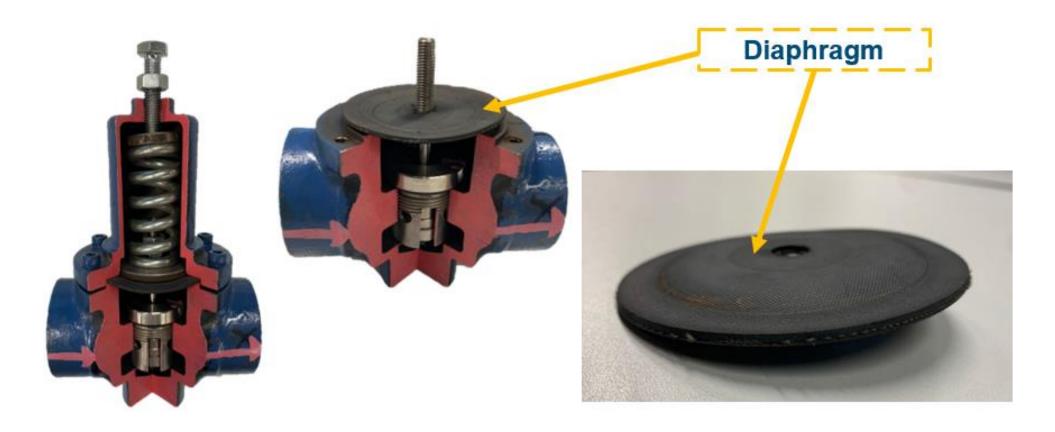
Direct Acting Type

The valve opens or closes depending on the pressure difference between two chambers





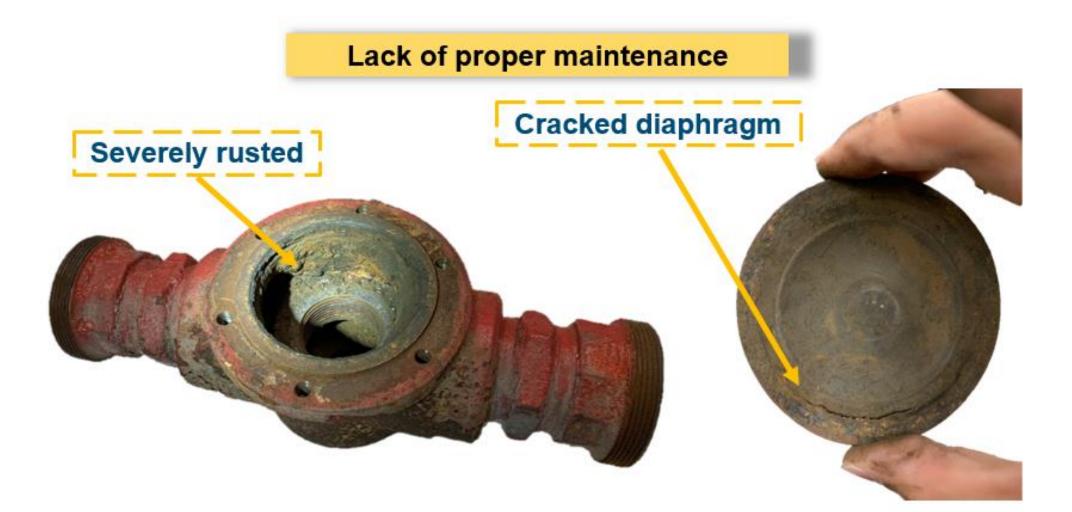
Direct Acting Type



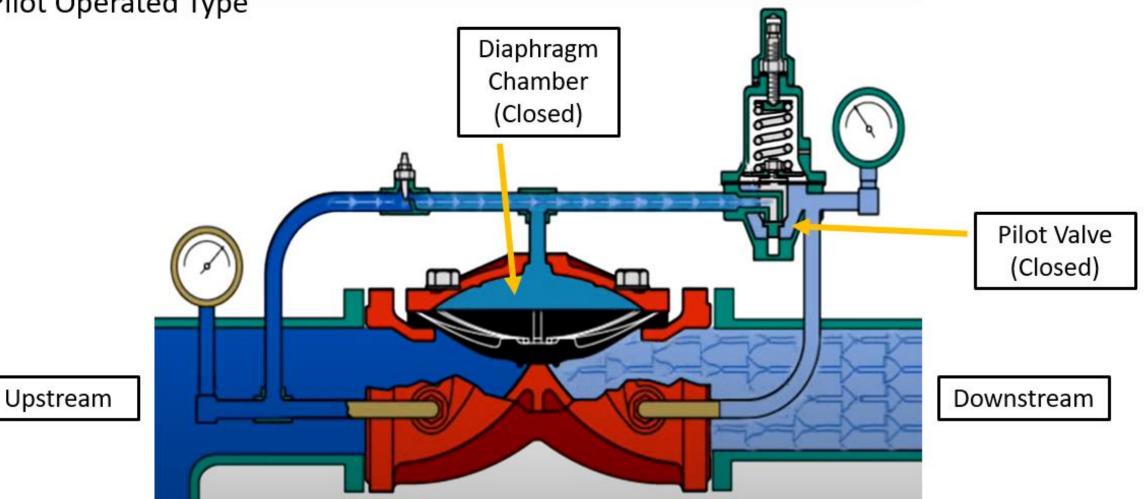
Lack of proper maintenance



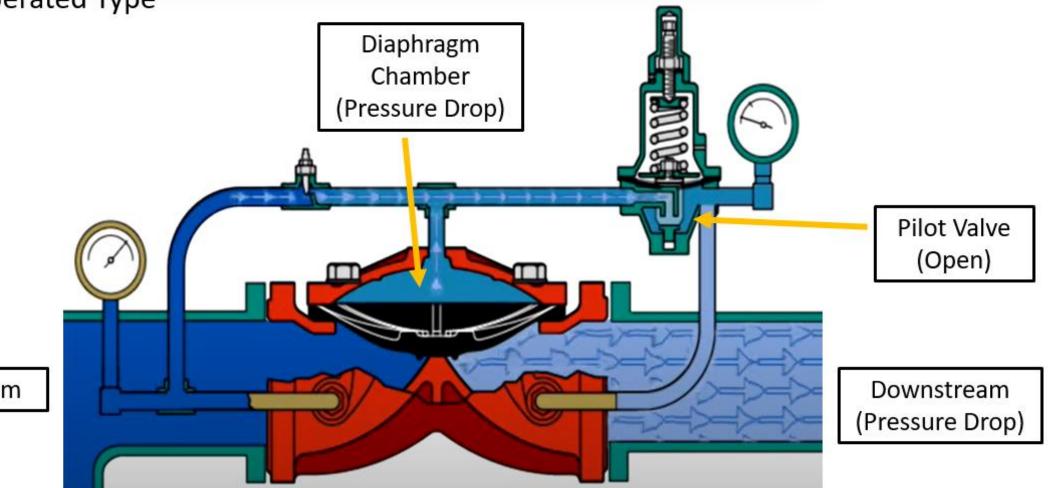




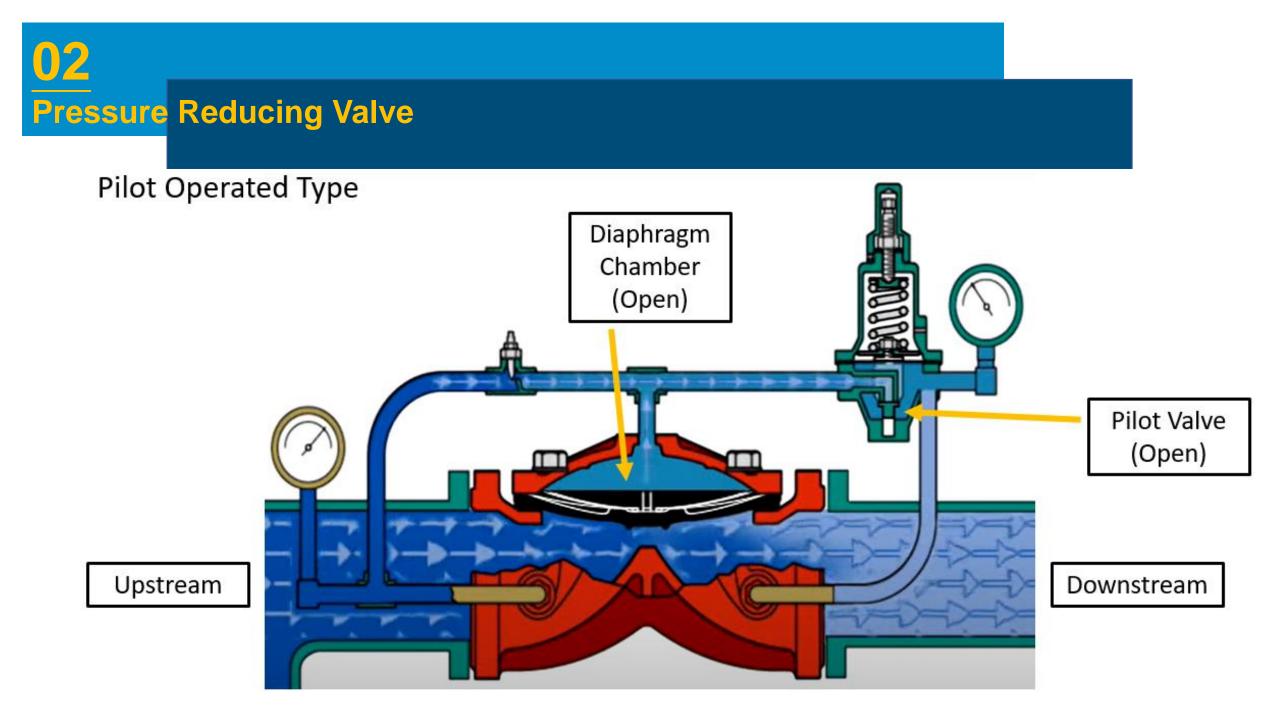
Pilot Operated Type



Pilot Operated Type



Upstream



Pilot Operated Type





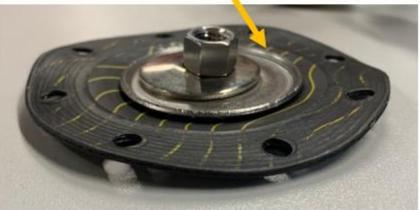
Pilot Operated Type

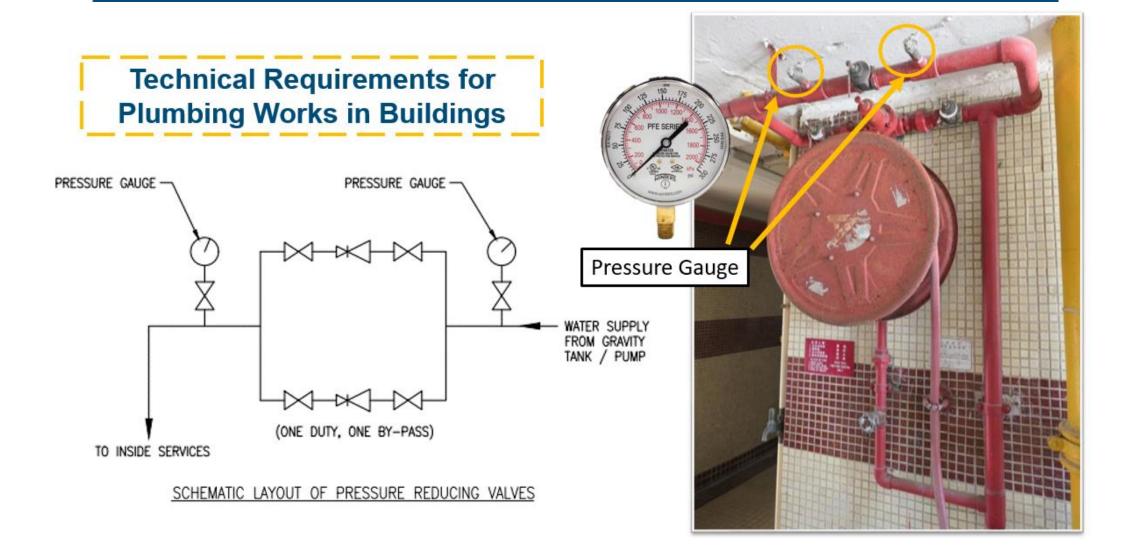








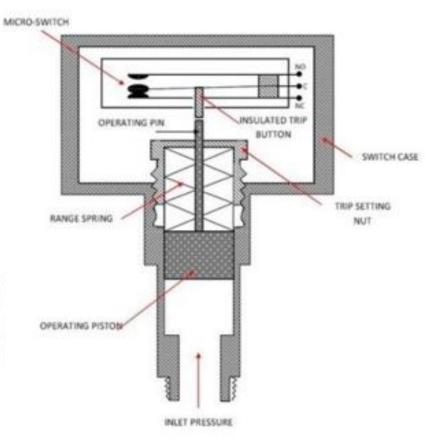




U3 Pressure Switch

- A device giving electric signal under change of pressure
- A common components in Sprinkler System and FH/HR System for changeover of water pumps





03 Pressure Switch

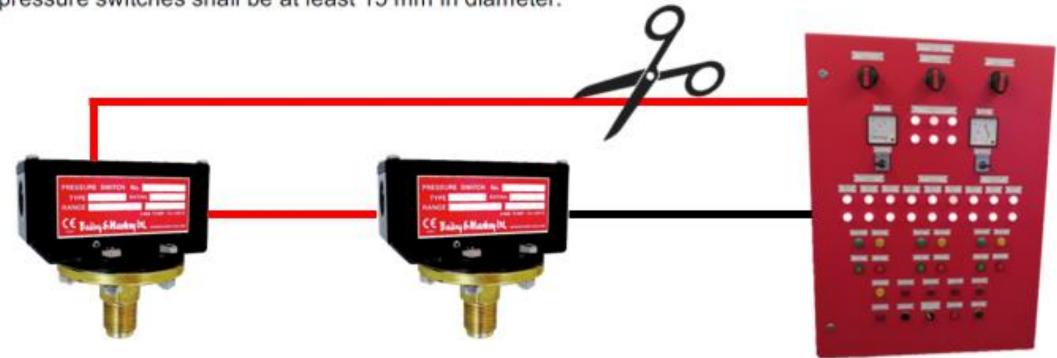


03 Pressure Switch

BS EN12845:2003

10.7.5.1 Number of pressure switches

Two pressure switches shall be provided to start each pumpset. They shall be connected in series such that opening the contacts of either switch will start the pump with normally closed contacts. The pipe to the pressure switches shall be at least 15 mm in diameter.



Pressure Switch

03

Summary of Pump Cut-in Pressure and Standing Pressure Requirements

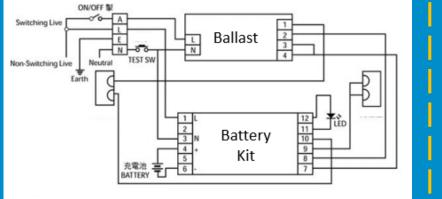
Standard	Main Pumps Pressures	Cut-in	Jockey Pump Operating Pressure	Standing Pressure at Alarm Valve of High-rise System	
29 th edition FOC Rules	Pumps must start at ≥0.8P		N/A	N/A	
LPC Rules - BS 5306-2: 1990	Pumps shall start at ≥0.8P		Required in high-rise system to achieve the 125% standing pressure	≥125% of static head from highest sprinkler to alarm valve	
LPC Rules – EN 12845: 2003	Duty pump shall start at ≥0.8P	Standby pump shall start at ≥0.6P		≥125% of static head from highest sprinkler to alarm valve	
LPC Rules – EN 12845: 2015	Duty pump shall start at >0.8P	Standby pump shall start at ≥0.8P	Jockey pump cut-out pressure ≤(P+0.5) bar	≥125% of static head from highest sprinkler to alarm valve	

Note: P is the churning pressure of the main pump(s) under closed valve conditions.

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04 Emergency Lighting & Exit Sign

Fluorescent Tube

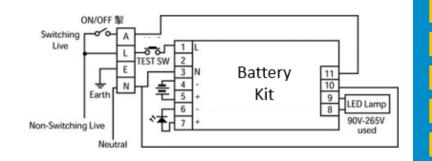




LED Tube

4





04 Emergency Lighting & Exit Sign





Battery Pack

Switch Box

Secondary power supply can be provided by battery pack or emergency generator

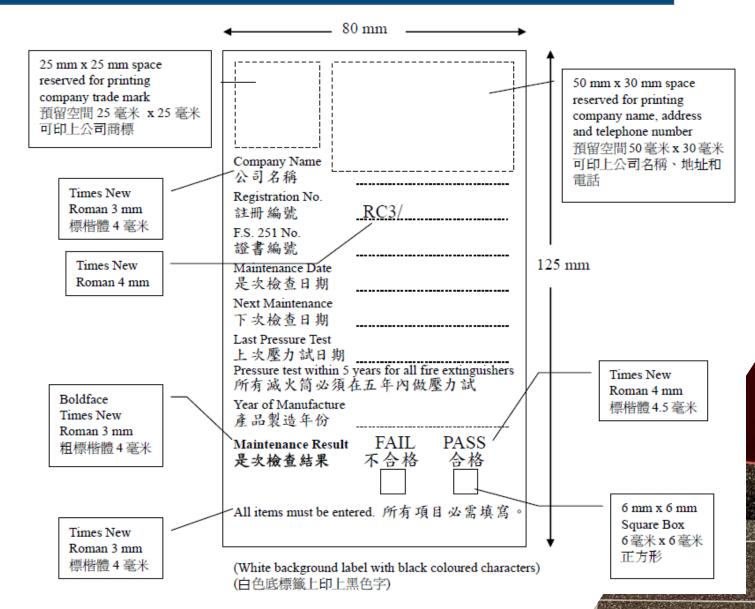




Switchboard

Emergency Generator

FE Maintenance Label

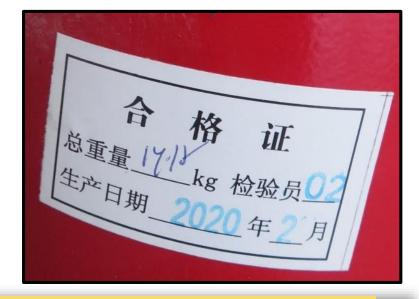












Year of manufacture of a FE can be found from a permanent marking or a label on the FE body





Registration No.	RC3/0999
F.S. 251 No.	A01234567
Maintenance Date	1.1.2022
Next Maintenance	?
Last Pressure Test	7.2018
Year of Manufacture	2013

1.1.2023





Registration No.	RC3/0999
F.S. 251 No.	A01234567
Maintenance Date	1.1.2022
Next Maintenance	?
Last Pressure Test	7.2017
Year of Manufacture	2017

31.7.2022

05 FE Maintenance Label



AND DESCRIPTION OF

5. Next Maintenance

This date means 12 months later and should be counted from the date of the last maintenance. If within 12 months period, the fire extinguisher is required to have pressure test, then the date of pressure test should be filled in.

Example:	Maintenance Date	: 5.9.2003
	Last Pressure Test	: 10.7.1999 (pressure test is required for
		every 5 years intervals)
	Next Maintenance	: 10.7.2004 (not 5.9.2004)



06 Miscellaneous (Alarm gong)

Alarm Gong of Sprinkler System

- Alarm gong is silenced by RFSIC during annual inspection by turning off the alarm gong valve.
- RFSICs remember to turn on the alarm gong valve after annual inspection.



06 Miscellaneous (SVMS)

Stop Valve Management System

 Follow the requirements as stipulated in Circular Letters No. 4/2010 and No. 6/2016.

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Dear Str Staaten, <u>FSD Circular Letter Nn.</u> Sprinkler Subsidiary Stop Valves Mr		A型機能 OLE REF. (GT) in FPAC J 100 F Pr. 1 分配管理 YOLE REF. (BR - F723 J 100 F 単立業 FAX (BR - F723 J 100 F 電 新 FFAN R - H - F723 J 100 F 電 新 FFAN R - H - I - Input d gBahagan M	Heighing	
This Circular Latter serves to announce, w of a specializer subsidiery stop valves management by recommends the use of security devices to prevent ("SSSV") from being tampered or indeventently to constantion with PSD Circular Letter No. 3/2006 and	ystem ("SSSVMS") which strongly the sprinkler subsiliary stop valve turned off, it should be read in	To: Recipients of FSD Circular Letters	17 November 2016	
The sharing-off of SSSV may constitute section 2 of the First Services Onlineare, Chapter SSSVMS is devised to prevent the occurrence of SSS shuts-eff. With the adoption of the SSSVMS, the monitored so that any inegatiarity can be detected and are decisible in the Amere to this item:	a fire hazard within the meaning of r 95, Lanes of Heng Kong. The SV being tampered or unaufficienced ic condition of the SSSV will be	Dear SteMadam, FSD Circular Letter No. 6/2016 Stars Valves Management System for Fire HydrantHose Reel Systems		
Registered Fire Service Installation Cost property management offices / companies of the imp should give advice on the adoption of the SSSVMS as providing securing devices where necessary. Should you have any questions on this me Assistant Divisional Officers of the Fire Service Inst	elementation of the SSSVMS. They and provide relevant services such rw arrangement, please contact our tallation Task Force, Locassing and	This Circular Letter serves to introduce the Stop Valves Management System (SYM3) for first hydroarthose reel systems (FHIR, systems) to help owners of FHIR, systems and property management effices monitor the status of the stop valves of their FMIR systems.		
Certification Command, et 2733 4066, 2733 7886 er ?	Vern faithfly, (LAU Man-ment for Discose of Vier Strikes	Under the SVMS, "map valves" (SVA) re be kept OPEN for proper functioning of FI/HR, interrupt water supply and pump operation, which under section 2 of the Firs Services Ordinance (C) is designed to prevent SVs from being tampered and to monitor the condition of the SVs so that a detected and wretifind. Denues of the SVs of the ta-	systems. Turning off such valves will may constitute a fire hazard as defined ap. 95). In this connection, the SVMS with or shut off without authorisation, ay irregularities occurred can be timely	
Ref. Nation and data densities operation and the second statement of the secon		detected and rectified. Details of the SVMS are	eet out in the Ansex.	
		RC ander or Sec. double a source in A R R R was been used		



06 Miscellaneous (Battery)

Standby Battery

- Check the condition of the standby battery during annual inspection.
- Replace the battery according to its actual condition and relevant standards.
- Mark the date of replacement on the battery for easy reference.

THANK YOU





Should you have any enquiries, please contact us at **2733 1567** or email to **hkfsdenq@hkfsd.gov.hk**