



FSL – Chemical Installation Guide (Novec 1230 & HFC227ea)

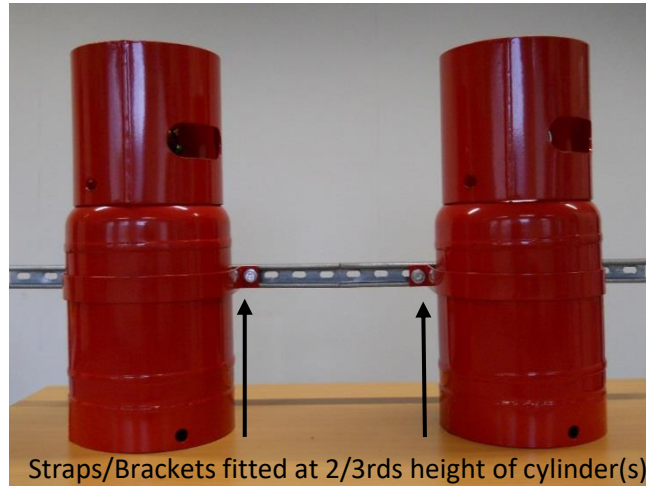
TO BE USED IN CONJUNCTION WITH FSL APPROVED INSTALLATION MANUAL

Please note: Before System install; See page 22 of user manual. Discharge pipework and nozzles to be fitted as per FSL hydraulic calculation. Pipework tested to relevant EN15004, ISO and NFPA standards. Unistrut, not provided by FSL, must in place to retain cylinder

All tapered threads to be fitted using PTFE tape.

ALL PICTURES FOR ILLUSTRATION PURPOSES ONLY

1. Fix cylinder in correct orientation for (outlet pipe/manifold) to wall using Unistrut, remove transport cap. **See Page 19 of FSL User Manual for safety procedure.**



2. If necessary change pressure gauge position. Remove gauge, replace gauge port plug before opening opposite plug and moving gauge to the opposite gauge port. Check 'o' rings for damage and correct placement, screw in **by hand only**. Tighten gauge port plug into unused gauge port using 4mm hex key. **See Page 22 & 24 of FSL user manual for details on correct installation**



Gauge Port Plug

4mm Hex key

Replace gauge port in opposite plug

3. a) Attach outlet adaptor to container valve outlet (**See Pages 8, 9, 21 & 22 of FSL manual**)

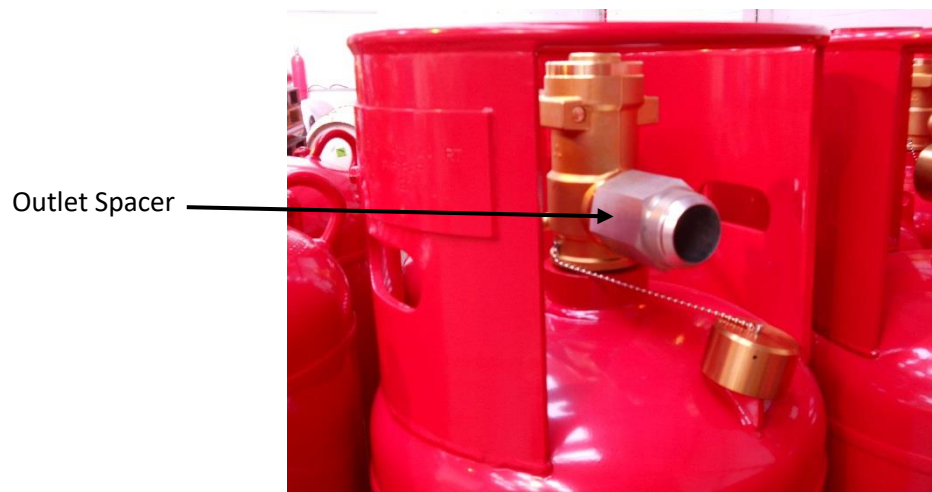
Outlet sizes

33mm (1 1/2" Female) – 15L, 30L & 50L cylinder

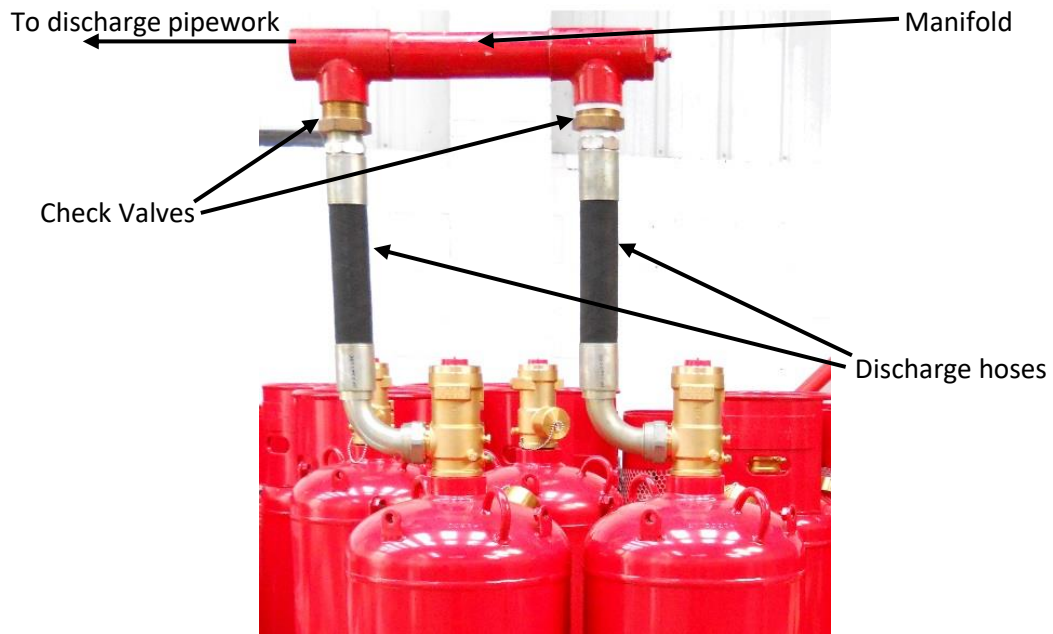
49mm (2" Female) – 80L, 120L, 150L & 180L Cylinder



- b) Attach outlet spacer (**only on 180l Cylinders with discharge hose**)

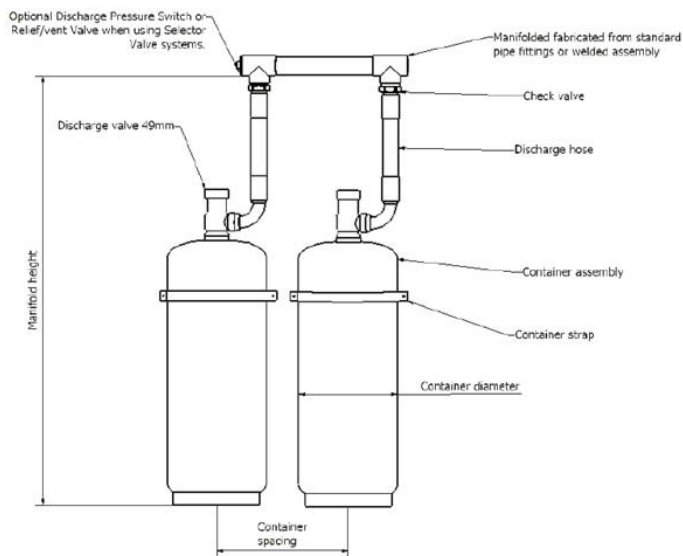


c) Attach discharge hose and check valve (**for manifold systems**) for modular/single cylinder systems check valve is not required.



For manifold systems

- I. Fit check valve to manifold
- II. Test for free movement of check valve
- III. Screw in hose to check valve
- IV. Use swivel nut to connect hose to discharge valve



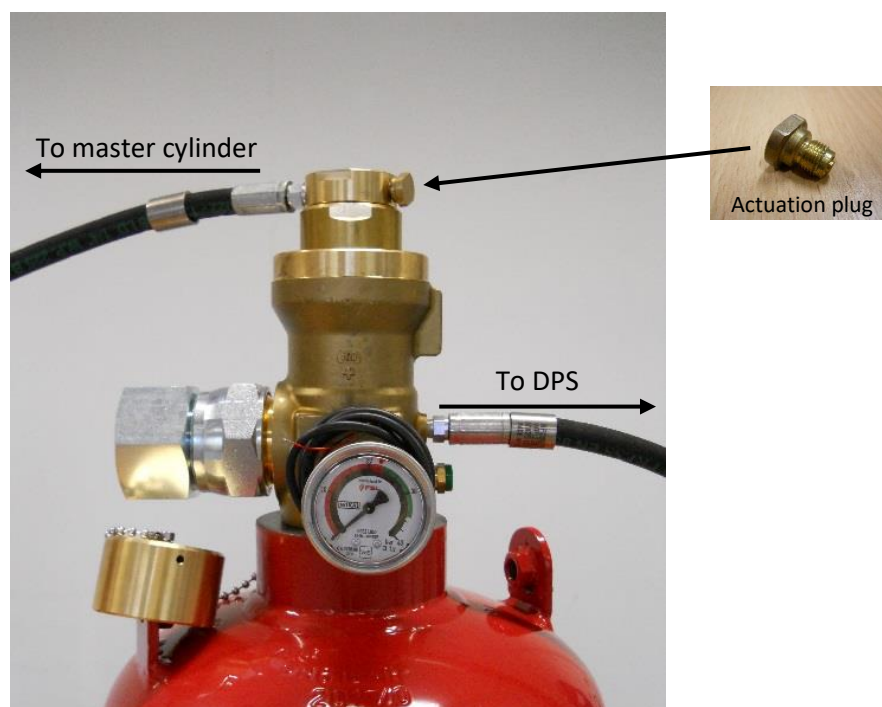
4. Connect discharge pressure switch to last cylinder in actuation line via valve port, retain valve plug. **See page 28 of FSL user manual.**



[Discharge Pressure Switch (DPS) to be mounted on wall]

5. Connect pneumatic actuation hoses to pneumatic actuators. **See page 28 of FSL user manual.**
6. Connect pneumatic actuators to slave cylinders. **See page 28 of FSL user manual.**

Close actuation line on pneumatic actuators using actuation plug

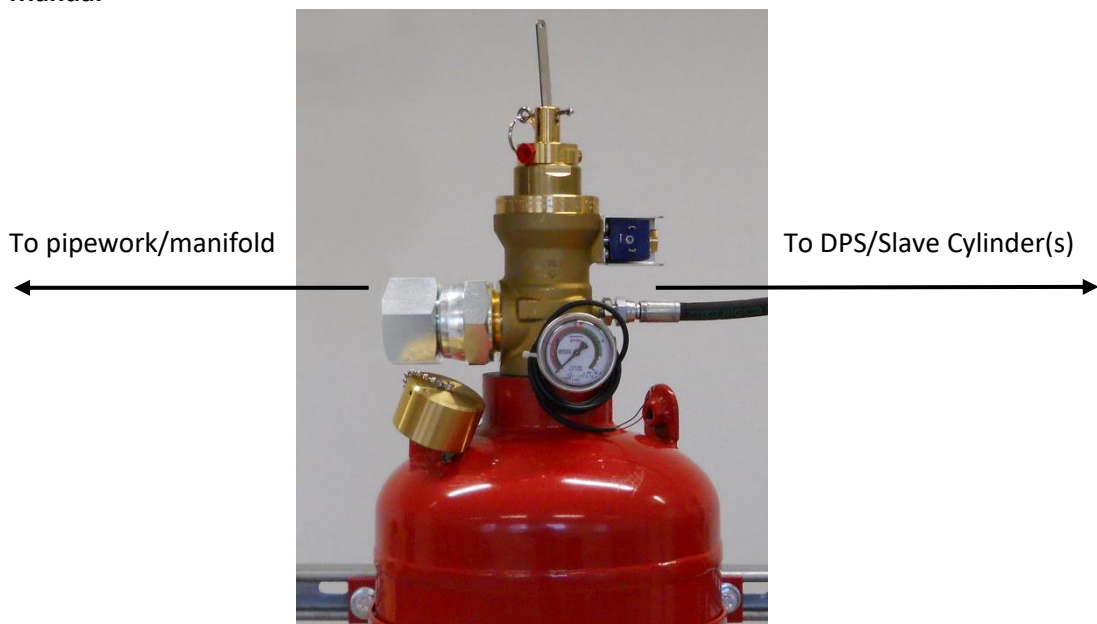


Remove brass/red protection cap on Master/Slave cylinder, screw actuator down fully with **FSL spanner**.

7. Attach actuation hose to master cylinder via valve port; close actuation line with port plug

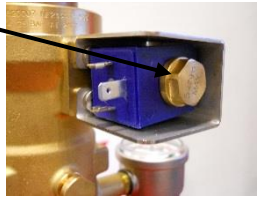


- 8.
9. Attach manual/pneumatic actuator to master cylinder (**tighten with FSL spanner**), attach pneumatic actuation hose to complete actuation line. See Pages 26 & 27 of FSL user Manual

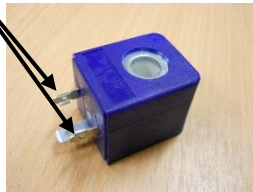


Test solenoid* . See page 31 of FSL user manual.

a) Remove solenoid (17mm)

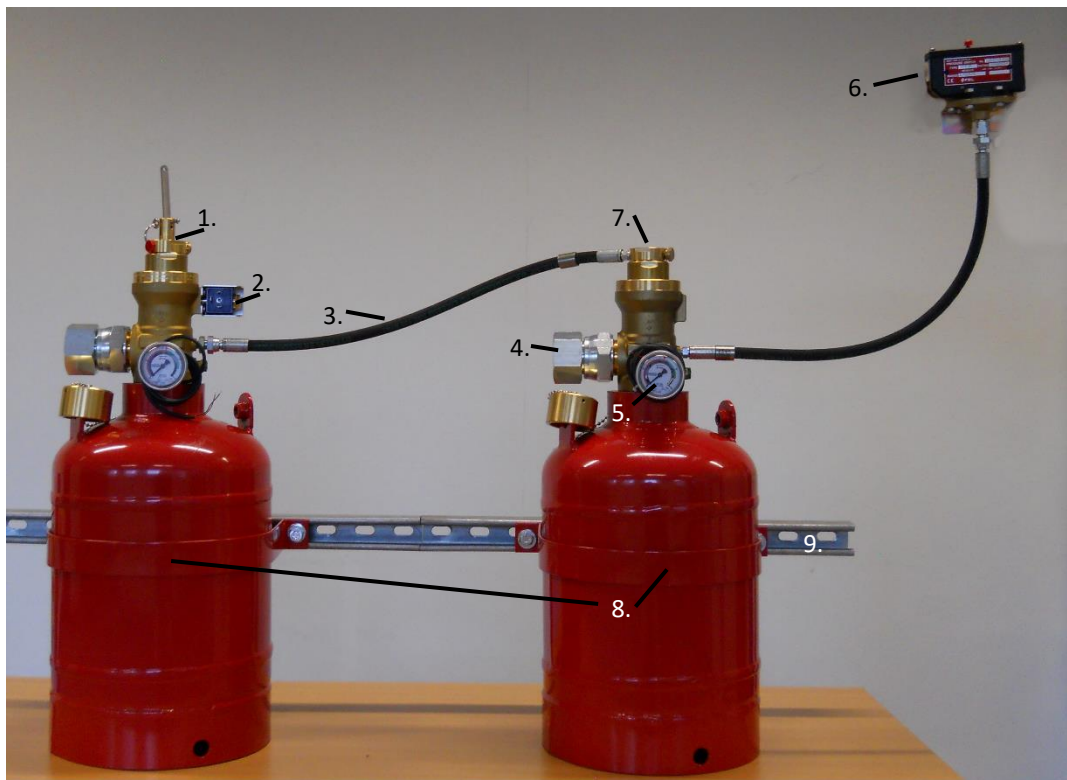


b) Apply 0.25amp (24DVC) to connectors



- c) Test electromagnet by passing steel object through solenoid (should be attracted)
- d) Remove current
- e) Check the solenoid is demagnetised completely by repeatedly passing steel object through electromagnet
- f) Replace solenoid actuator tighten to 15Nm (just over finger tight)

***Testing a Solenoid actuator – Must be tested using control panel (check electrical spec of the control panel, some may require a diode to be fitted)**



Glossary: 1. Pneumatic manual actuator 2. Integrated Solenoid 3. Actuation hose 4. Outlet adaptor 5. Cylinder Pressure gauge 6. Discharge pressure switch 7. Pneumatic actuator 8. Cylinder strap(s) 9. Unistrut (supplied by customer)