



# PM104 Priority Manifold Instruction Manual

#### **A WARNING**

Failure to follow these instructions or to properly install and maintain this equipment could result in gas leakage, fire or explosion causing property damage and personal injury or death.

Oasis products must be installed, operated and maintained by trained and competent personnel in accordance with all applicable local codes, rules and regulations in addition to the Oasis Instructions.

Oasis Engineering Ltd. will not be held liable in such circumstances where installation, operation and maintenance procedures were performed by incompetent personnel resulting in improper assembly, unsafe operation, equipment damage or personal injury.

Setting The Standard

# **Warning!**

High pressure gas and gas equipment can cause serious harm to both infrastructure and personnel if safety precautions are not followed.

Oasis recommends considering the use of the following PPE when working with high pressure along with any other site specific health and safety requirements:











Foot Protection Hearing Protection Safety Helmets Hand Protection Safety Glasses



Ensure the system is clean of debris, vented and isolated before any installation or servicing work is carried out.

#### **Tools Required**





**Thread Tape** 



**Anti Seize Grease** 

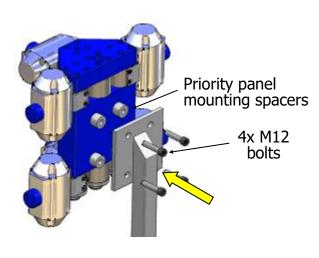
- Swagelok Silver Goop
- Omega 99
- or similar



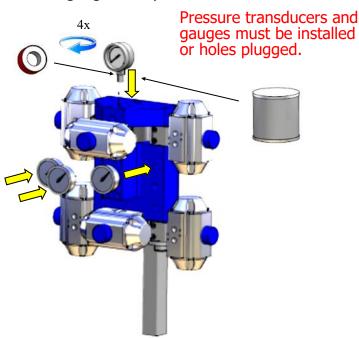
### Installation

#### Setting The Standard

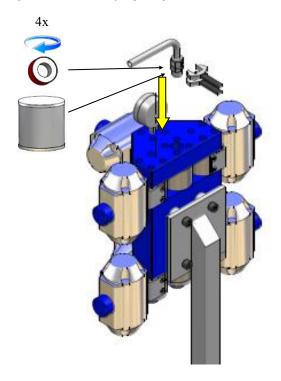
1. Mount the panel (see mounting on page 4 for dimensions).



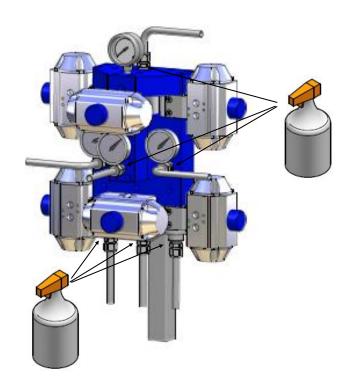
2. Install gauges and pressure transducers.



3. Mount the connections as required. (see P&ID on page 4)

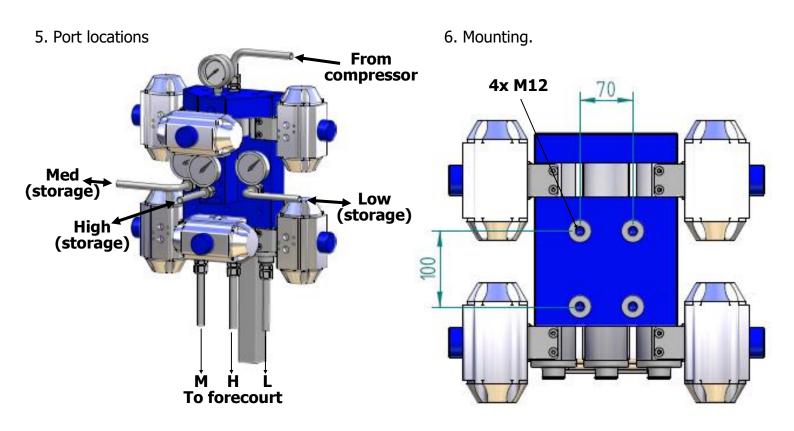


4. Installation complete, check all connections for leaks on first use with snoop or soapy water.

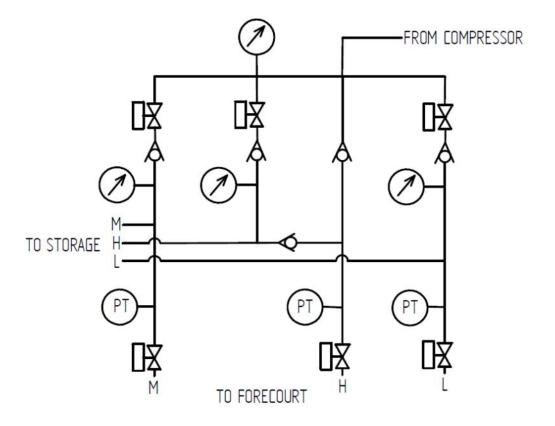


# **Installation**

#### Setting The Standard



#### 7. P & ID.



# Servicing

Setting The Standard

#### **Service Kit Parts**

#### PM104-LTD-SAE-ASM



2 x Sandwich Valve Surface O-rings (025 Nitrile 90)



5 x Check Valve Poppets



1 x Silicone grease



5 x Sandwich Valve Service Kits



5x Check Valve Springs



**O-rings** 

#### PM104-STD-SAE-ASM



5 x Check Valve O-rings.



6 x Sandwich Valve Service Kits



5 x Check Valve Poppets



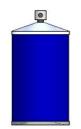
5 x Check Valve Springs



1 x Silicone grease

The Complete Oasis Seal Kit must be used

#### **Tools Required**



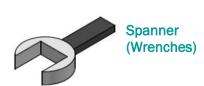
Cleaner (Warm Soapy Water or Similar)



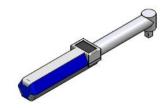
Anti Seize Grease (Loctite 771 or Similar) For All Threads



Sockets







**Torque Wrench** 

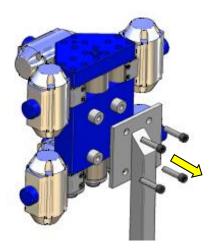
# Servicing Disassembly

Setting The Standard

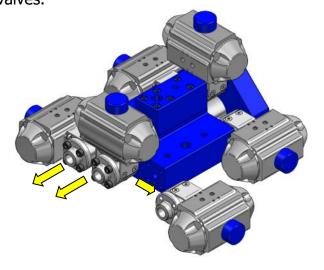
1. Ensure the system is depressurized and the priority panel is isolated from all pressure sources.



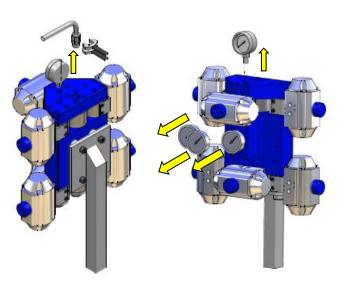
3. Remove the panel from its mounts.



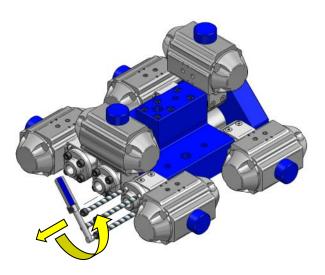
5. Remove sandwich valve, repeat with other two valves.



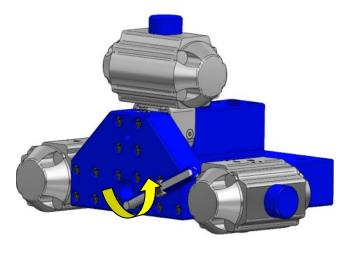
2. Remove all connections and gauges.



4. Remove sandwich valve bolts.



6. Loosen all bolts at compressor end.

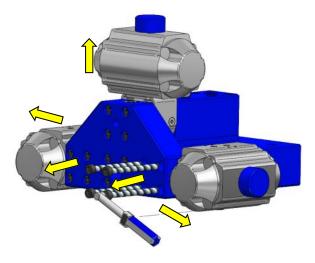




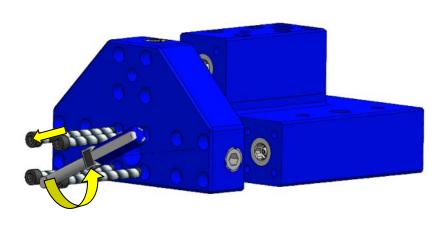
# Servicing Disassembly

#### Setting The Standard

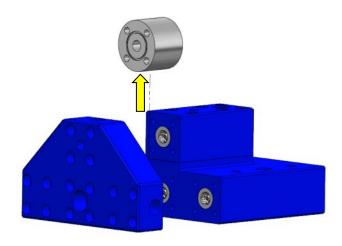
- 7. Remove four bolts and remove sandwich valve. Repeat with the other two valves.
- 8. Remove center bolts last.



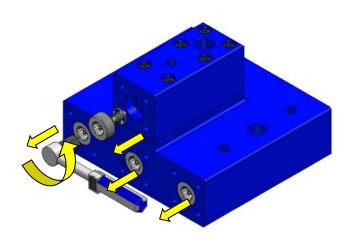
9. Remove spacer.



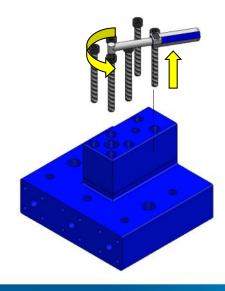
10. Remove check valves.

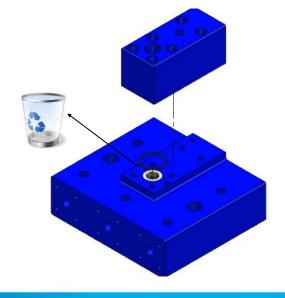


11. Remove high pressure block.



12. Discard O-ring.



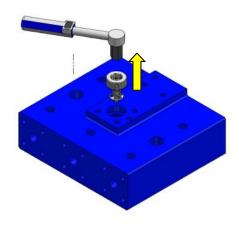


7

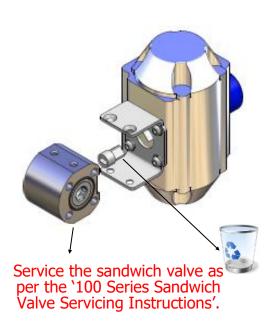
# Servicing Disassembly

Setting The Standard

#### 13. Remove check valve.



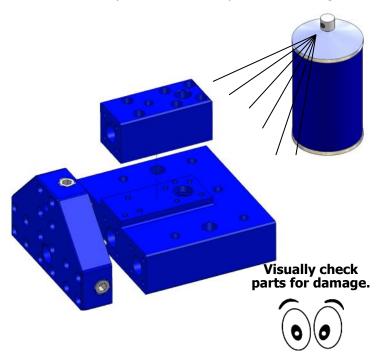
15. Service the sandwich valves. Discard drive dog.



14. Discard check valve, O-ring, poppet and spring.



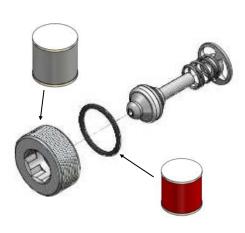
16. Clean components and inspect for damage.



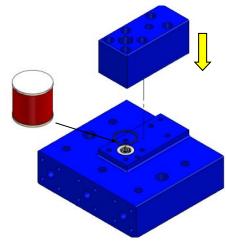
## Servicing Assembly

#### Setting The Standard

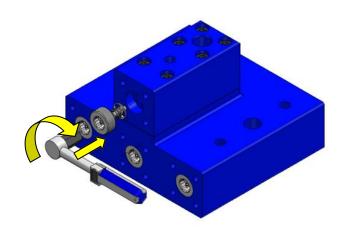
1. Assemble check valves.



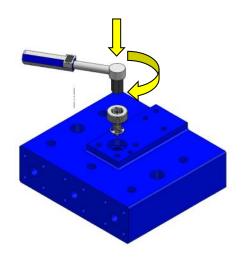
3. Grease O-ring and attach high pressure block.



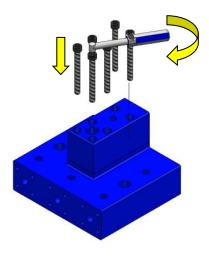
5. Insert check valves and torque to 35Nm



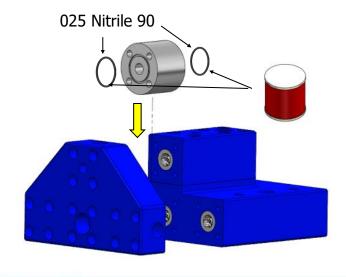
2. Insert check valve and torque to 35Nm.



4. Torque down high pressure block 37Nm.



6. Add O rings to spacer and place between manifolds.

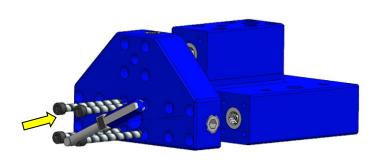


Ç

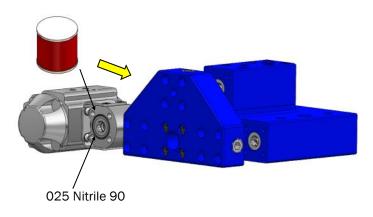
## Servicing Assembly

#### Setting The Standard

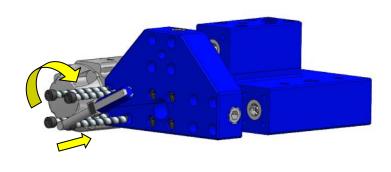
7. Insert the four center bolts and leave loose.



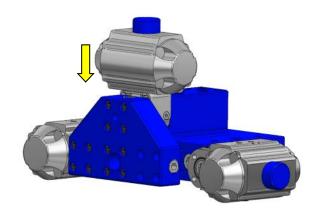
8. Insert serviced valve with new O-rings.



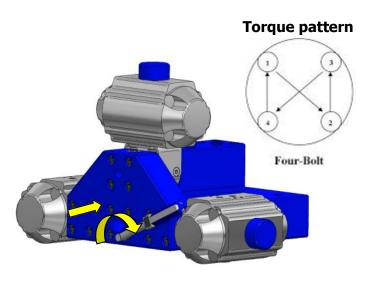
9. Attach first sandwich valve to compressor end.



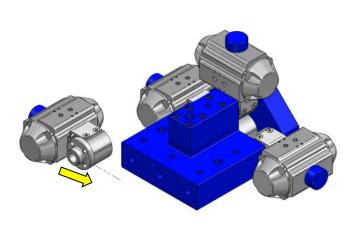
10. Attach remaining sandwich valves to compressor end.



11. Torque all sandwich valve bolts to 37Nm.



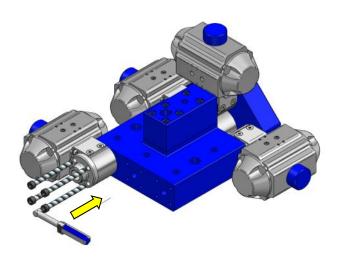
12. Attach sandwich valve on forecourt side.



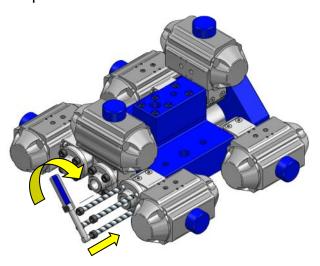
## Servicing Assembly

Setting The Standard

13. Attach forecourt side sandwich valves.



14. Add sandwich valve bolts, torque all to 37 Nm



15. Servicing complete, following installation instructions on page 3 for re-fitment of manifold.

