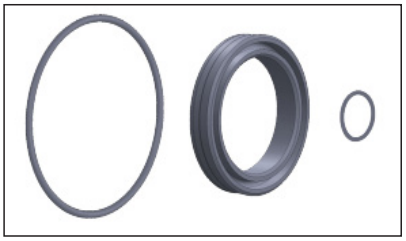
TECHNICAL DATA

SELECTOR VALVE SEAL REPLACEMENT

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058
Viking Special Hazards | Technical Services: 877-384-5464 | Email: techsvcs@vikingcorp.com | www.vikinggroupinc.com
The technical data described herein is for components of the Viking VSH200 and VSH1230 Clean Agent Systems.
Visit the Viking website for the latest edition of the technical data and system manuals.

1. DESCRIPTION



The Selector Valve Seal Replacement Kit is used to replace the O-Ring Seals within the Selector Valve on VSH1230 and VSH200 Multi-Zone Fire Suppression Systems. This seal replacement replacement kit is for use within the following cylinders:

MX-BV D55-H106 (part no. 847199)* MX-BV D55-H206 (part no. 822613)*

*The above cylinders are included in the Viking Multi-Zone Assemblies, base part numbers 19372xxx through 19379xxxxxx and 23811xxx through 23818xxxxxx. For complete assembly part numbers, see Table 1 in the Multi-Zone Technical Data Page, Form F_060821.

⚠ WARNING **SYSTEM OPERATION**

This replacement must be performed every ten (10) years or system may not operate!

Only the included lubricant is to be used in combination with the grooved lip seal ring to ensure a low hydrolysis.

2. APPROVALS

UL Listed - EX5248 (VSH1230)

ULC Listed - EX5248 (VSH1230)

FM Approved – Part of System Approval for VSH200 and VSH1230

3. TECHNICAL DATA

Part Number: 4001356

Replacement kit includes the following:

- Grooved ring Pur T18 55-40-10 L163
- O-ring 12×2
- O-ring 62×2.5
- Serrated lock washer A 13
- Serrated lock washer A 15
- Cotter pin 4×20
- Screw locking varnish
- Lubricant Klübertemp GR M30 N

One seal replacement kit has enough components that can be used to replace the seals of up to five cylinders.

4. DISASSEMBLY

⚠ WARNING **RISK OF SERIOUS INJURY OR SYSTEM DAMAGE**

If the system is accidentally discharged during maintenance, extinguishing agent may discharge in an uncontrolled manner. This can cause serious injury and/or substantial damage to the system.

- Secure the fire extinguishing system against accidental activation before carrying out any maintenance.

A. REMOVING THE CYLINDER FROM THE SELECTOR VALVE

Figure 1

1. Switch the disable device to the “Blocked” position and secure it with a locking device, such as a padlock.
2. Make sure that the pilot line is depressurized.
3. Remove the pilot line from the control connection (2) on the cylinder.
4. While removing the bolts, secure the cylinder to ensure that it cannot topple or fall down.
5. On the selector valve lever, remove the folding spring bolt (1) from the fork joint.
6. Remove the cotter pin and bolt (3) on the swivel flange for the cylinder.

New page.

VIKING®

TECHNICAL DATA

SELECTOR VALVE SEAL REPLACEMENT

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058
Viking Special Hazards | Technical Services: 877-384-5464 | Email: techsvcs@vikingcorp.com | www.vikinggroupinc.com
The technical data described herein is for components of the Viking VSH200 and VSH1230 Clean Agent Systems.
Visit the Viking website for the latest edition of the technical data and system manuals.

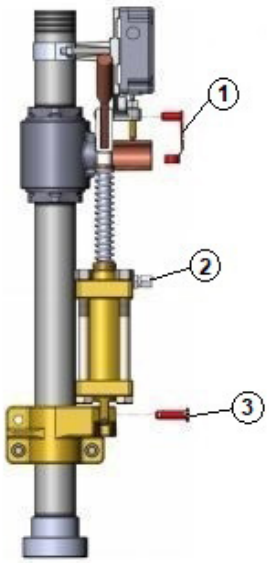


Figure 1

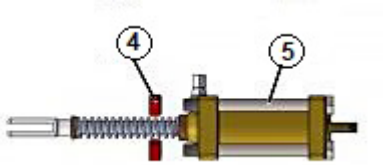


Figure 2

Figure 3

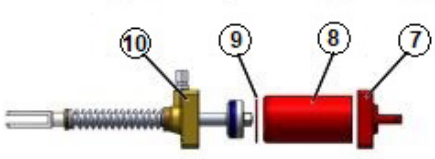


Figure 4

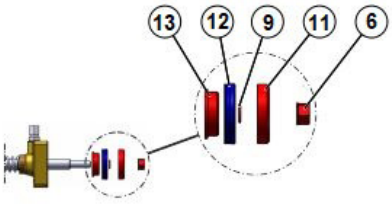


Figure 5

B. DISASSEMBLING INDIVIDUAL PARTS OF THE CYLINDER

Figure 2:

1. Disassemble the cylinder on a suitable work surface.
2. Remove the hexagon nuts (4) and serrated lock washers. Depending on the cylinder type (5), it may be screwed on with hexagon screws or threaded rods.

Figure 3:

3. Remove the hexagon screws (6) or threaded rods.

Figure 4:

4. Remove the swivel flange (7) from the cylinder pipe (8).
5. Remove the cylinder pipe (8) from the flange (10).
6. Remove the O-ring (9).

Figure 5:

7. Remove the hexagon screw (6) and serrated lock washer.
8. Remove the washer (11) and piston (13) from the piston rod.
9. Remove the O-ring (9) and grooved ring (12) from the piston.
10. Dispose of the O-rings, grooved ring and serrated lock washers in accordance with statutory regulations.
11. Clean all surfaces coated with lubricant using a suitable cleaning product and wipe them dry using a cloth.

Cleaning agents that attack plastics, rubber, or metals must not be used under any circumstances.

VIKING®

TECHNICAL DATA

SELECTOR VALVE
SEAL REPLACEMENT

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058
Viking Special Hazards | Technical Services: 877-384-5464 | Email: techsvcs@vikingcorp.com | www.vikinggroupinc.com
The technical data described herein is for components of the Viking VSH200 and VSH1230 Clean Agent Systems.
Visit the Viking website for the latest edition of the technical data and system manuals.

5. ASSEMBLY

A. ASSEMBLING INDIVIDUAL PARTS OF THE CYLINDER

⚠ WARNING **RISK OF INJURY DUE TO USE OF UNSUITABLE MATERIALS**

If unsuitable lubricants are used, the hydrolysis compatibility of the seals cannot be ensured.
This may affect the functionality of the cylinders and may therefore also affect the functionality of the fire extinguishing system. As a result, there is a danger to life and a risk of substantial property damage in the event of fires.

- Use only the lubricant Klübertemp GR M30 N that is included in the spare parts kit.
- Use only the seals (grooved ring and O-rings) included in the spare parts kit.

Figure 6:

1. On the piston (13), cover the mounting surface (16) for the grooved ring with GR M30 N lubricant.

   ℹ Ensure that the lubricant does not make contact with eyes, mouth or skin. See the safety data sheet for the lubricant.

2. Mount the grooved ring (12) onto the piston. Note the alignment of the sealing lip (15).
3. Insert the 12×2 O-ring (9) into the piston and lubricate it with some GR M30 N lubricant.

Figure 7:

4. Press the washer (11) against the piston (13) and slide the washer with the piston onto the piston rod (14).
5. Mount a new serrated lock washer (size 13) onto the end of the piston rod and tighten the hexagon nut (4).
6. Provide the following areas/components with GR M30 N lubricant:
   - the O-ring installation space in the flange (10)
   - piston rod (14)
   - outer area of the grooved ring (12)
   - 62×2.5 O-ring (9)
   - the whole cylinder pipe from the inside (9).

Figure 8:

7. Insert the 62×2.5 O-ring (9) into the flange (10).

Figure 9:

8. Carefully slide the piston (13) into the cylinder pipe (8) so as to not damage the grooved ring.

Figure 10:

9. Set the swivel flange (7) onto the cylinder pipe (8).
10. Insert the hexagon screws (6) or threaded rods into the cylinder.
11. Mount the new serrated lock washers (4x or 8x depending on the cylinder type) onto the hexagon screws/threaded rods.
12. Evenly tighten the hexagon nuts (4) crosswise by hand and check whether the flange is sitting correctly on the cylinder pipe.
13. Tighten the hexagon nuts (4) crosswise with a torque of 75 Nm (55 ft-lb).
14. Secure the hexagon nuts with screw locking varnish.

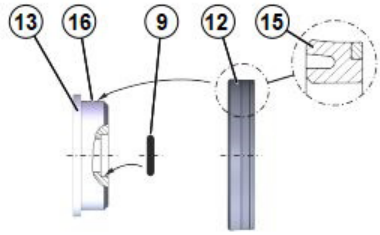


Figure 6

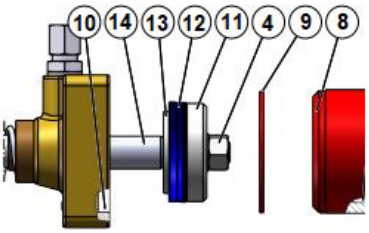


Figure 7

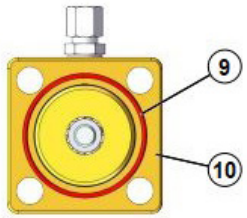


Figure 8

Figure 9

The Viking Corporation | 210 N Industrial Park Drive | Hastings MI 49058
Viking Special Hazards | Technical Services: 877-384-5464 | Email: techsvcs@vikingcorp.com | www.vikinggroupinc.com
The technical data described herein is for components of the Viking VSH200 and VSH1230 Clean Agent Systems.
Visit the Viking website for the latest edition of the technical data and system manuals.

B. CHECK THAT THE CYLINDER IS SEALED

Figure 11:

1. Firmly clamp the cylinder in place on a suitable work surface.
2. Connect the test cylinder (test device) to the control connection (2) on the cylinder.
3. Slowly increase the test pressure. Moving the piston rod suddenly could crush the seal.

   i Increase the test pressure for the tightness test to 20 bar (290 psi).

4. Check the cylinder for leaks using a soapy water spray test.
5. Close the test cylinder (test device) and slowly depressurize the cylinder.

   i If the cylinder has a leak, replace the grooved ring and the O-ring again:
   - See Section 4, B. Disassembling individual parts of the cylinder
   - See Section 5, A. Assembling individual parts of the cylinder

6. Remove the test cylinder (test device).
7. Dry-wipe the cylinder with a cloth.

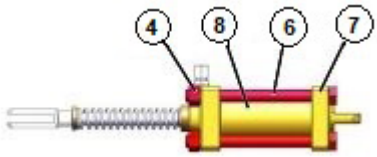


Figure 10

Figure 11

C. MOUNTING THE CYLINDER ONTO THE SELECTOR VALVE

⚠ WARNING **RISK OF INJURY**

Risk of injury due to escaping extinguishing agent and moving parts! Immediately remove the manual release lever from the selector valve after use.

1. Make sure that no faulty release occurs during the assembly of the cylinder.

Figure 12:

2. Set the swivel flange of the cylinder onto the support (19) and fasten it to the support using the bolt (3). Secure the bolt with a cotter pin (bend the end of the cotter pin using pliers).
3. Mount the fork joint (18) of the cylinder onto the lever (17) for the selector valve using the folding spring bolt (1).
4. Check the function of the cylinder. Pull down the lever (17) for the selector valve and push it back up again.
5. Connect the pilot line to the control connection (2) on the cylinder.

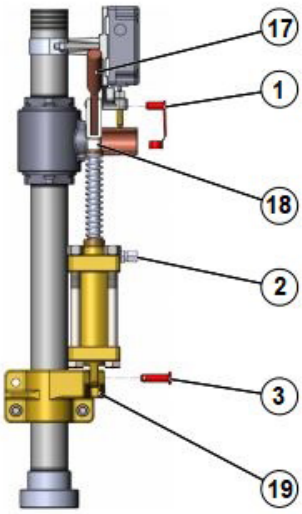


Figure 12

D. RETURNING THE SYSTEM TO SERVICE

1. Check that no alarm is active on the electric control device and, if applicable, on the higher-level fire detection and suppression control panel.
2. Make sure that the pilot line is depressurized.
3. Switch the disable device to the “Operation” position and secure it with a locking device, such as a padlock.

New page.