

# COMMERCIAL MULTI-PORT VALVES

## Owners Manual

65 mm Top mount  
65 mm Side Mount  
80 mm Top Mount  
80 mm Side Mount  
100 mm Side Mount



### WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.



### Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed **this manual must be given to the owner/ operator of this equipment.**

|  |  |
|--|--|
|                 | <b>This is a safety symbol on your system or in this manual, look for one of the following signal words and be alert to the potential for personal injury.</b> |
|  <b>DANGER</b>  | Warns about hazards that <b>will</b> cause death, serious personal injury, or major property damage if ignored.  |
|  <b>WARNING</b> | Warns about hazards that <b>will</b> cause death, serious personal injury, or major property damage if ignored.  |
|  <b>CAUTION</b> | Warns about hazards that <b>will</b> or <b>can</b> cause minor personal injury or property damage if ignored.  |
| <b>NOTICE :</b>  | Indicates special instructions not related to hazards.   |

**Carefully read and follow all safety instructions in this manual and on equipment.**

Keep safety labels in good condition; replace if missing or damaged.

|   |  |
|---|--|
|  <b>WARNING</b><br><b>Hazardous pressure</b> | <p><b>Incorrectly installed or tested equipment may fail, causing severe injury or property damage.</b></p> <p>Read and follow instructions in owner's manual when installing and operating equipment. Have a trained professional perform all pressure tests.</p> |
|---|--|

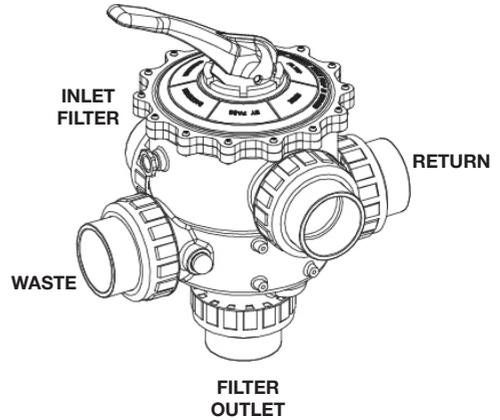
1. Do not connect system to a high pressure or city water system.
2. Trapped air in system can cause explosion. BE SURE all air is out of system before operating or testing equipment.

**Before pressure testing, make the following safety checks:**

- Check all clamps, bolts, lids, and system accessories before testing.
- Release all air in system before testing.
- Water pressure for test must be less than 25 PSI (172 kPa).
- Water Temperature for test must be less than 100° F. (38° C).
- Limit test to 24 hours. After test, visually check system to be sure it is ready for operation. Remove trap lid and retighten hand tight only.

## Features

- One-piece body made from moulded glass-reinforced engineering plastic provides incredible strength and durability.
- 304 – Grade Stainless Steel used throughout to withstand harsh water conditions.
- Multiple valve positions available with the turn of a handle, including: Filter, rinse, bypass, backwash, winterise, waste
- Supplied with pressure gauge and fitted with ¼ inch BSP air release valve.
- Sight glass fitted to waste line for easy inspection of the backwash water.
- Designed for a 400 kPa (58 psi) operating pressure.



## Connecting Multi-Port Valve to Filter System

Use care before assembly not to damage union sealing surfaces or O-Ring. Install union O-Rings in groove; tighten union collar hand tight.

FOR SLIP FITTINGS: Use correct solvent/cement when fitting piping or adapters to slide valve. The valve body is ABS plastic, thus any good quality ABS to PVC solvent can be used. Use primer on PVC components only. Allow a minimum of four hours drying time prior to pressure testing or operation.

To avoid serious personal injury or property damage, follow cement manufacturer's instructions exactly.

## Multiport Valves and Waterco Filter Models

| Part Number | Valve Model   | Filter Models  | Connections |
|-------------|---------------|--|-------------|
| 2280600     | TM 65 mm MPV  | S1050<br>S1200   | 65 mm       |
| 22905010    | SM 65 mm MPV  | SM1200<br>SMD1050<br>SMDD 900 -1050                                  | 65 mm       |
| 228800      | TM 80 mm MPV  | S1200  | 80 mm       |
| 2290820     | SM 80 mm MPV  | SM1200 - 1400<br>SMD 1050 -1400<br>SMMD 900 -1400<br>SPPD 1050 -1200 | 80 mm       |
| 2291005     | SM 100 mm MPV | SMD 1200 -1800<br>SMDD 1200 -1800<br>SPDD 1400 -1600                 | 100 mm      |

• **TM = Top Mount**

• **SM = Side Mount**

## FUNCTIONS OF THE MULTI-PORT VALVE

|  |  |
|--|--|
|  <p><b>WARNING</b><br/>Hazardous pressure</p> | <p><b>Hazardous pressure. Can cause severe injury or major property damage from valve blow up.</b></p> <p>Release all pressure and read instructions before working on system.</p> |
|   | <p><b>To avoid severe injury and major property damage, stop pump before changing handle positions.</b></p>  |
|   | <p><b>To avoid major property damage due to flooding, make sure pointer is accurately positioned and down all the way before restarting pump.</b></p>                              |

Press down on handle to release pressure before turning.

1. FILTER – Normal position during operation of system.
2. BACKWASH – Position when operating system to purge filter of accumulated debris. This normally is necessary when filter pressure gauge reads 10 PSI higher than starting pressure on a clean filter. Consult your filter operating instructions.
3. RINSE – This position is only used with sand filters and is designed to flush stray sand from system before returning to filter operation after backwashing. Consult your filter operating instructions.
4. WINTERISE – Allows drain and winterise filter and pump according to manufacturer's instructions.
5. BY-PASS – This position permits pump to continue recirculating water (chemicals, heat, etc.) without flow through filter. This is advantageous when filter or its components are being repaired or replaced.
6. WASTE – This position permits draining or lowering of pool water level. When pump is stopped with valve in this position, quickly move handle to another position to avoid air getting into piping.

## VALVE MAINTENANCE

|   |   |
|---|---|
|  | <p><b>To avoid severe personal injury and major property damage, stop pump and release all pressure from system before servicing valve.</b></p> |
|---|---|

No regular maintenance is required for proper operation of multi-port valve.

### Winterizing For Freezing Climates:

Place valve handle in winterise position.

## PART REPLACEMENT

To prevent flooding, make sure that system is drained or isolation valves are closed before opening multi-port valve.

### Replacing Handle:

1. Place handle in "FILTER" position.
2. Remove handle pin from handle; remove handle and replace with new one, making sure pointer is in "FILTER" position.
3. Replace pin by tapping lightly into place with hammer.

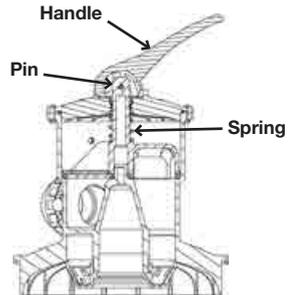


Figure 1

### Replacing Cover and Rotor Assembly (as a unit):

1. STOP PUMP and release all pressure from system.
2. Remove all bolts and nuts around perimeter of cover.
3. Remove assembly by lifting straight up.
4. Align cover pin (see Figure 2) and install new cover and plug. Press down on cover to allow bolts to engage nuts; tighten each bolt securely.

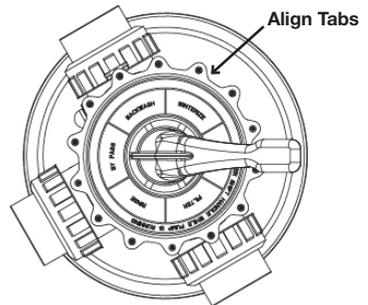


Figure 2

### Replacing Internal Valve Parts:

1. STOP PUMP and release all pressure from system.
2. Place handle in "FILTER" position.
3. Remove all the bolts and nuts in order to replace any internal parts.
4. Remove cover by lifting straight up.
5. Remove handle pin and handle (See procedure "Replacing Handle" above)
6. Remove washer.
7. While disassembled, check condition of plug, rubber gasket, spring, O-Ring, and internal plastic washer. If any of these parts appear worn, replace them.
8. Reassemble plug, cover, and handle by compressing spring (See Figures 1 and 2) and reversing procedure "Replacing Cover and Rotor Assembly" above.
9. Before reinstalling cover, be sure plug and handle are in same position as when cover was removed.
10. Tighten each bolt securely.

## Spider Gasket Replacement:

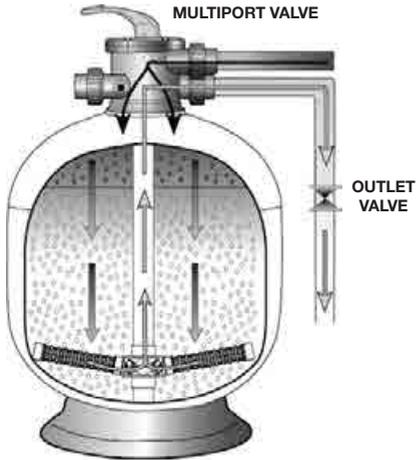
**NOTICE:** Read instructions completely before starting.

1. STOP PUMP and release all pressure from system.
2. Remove the bolts and nuts holding the cover to the valve body. Remove the cover assembly.
3. Remove the old gasket from the valve rotor.
4. Make sure that the gasket groove is free of water, grease, oils, debris and parts of the old gasket. Use alcohol to degrease.
5. NOTICE: Once this step is started, continue through Step 9 without interruption. Apply glue sparingly (a bead about 1/16" wide) to the bottom only (not the sides) of the spider groove in the valve body. The glue lines must be continuous and intersect at the intersections of the grooves.
6. Insert the new gasket into the groove with the rounded bead up. Press the gasket firmly into all groove areas to seat the new gasket evenly.
7. Align the tab on the cover assembly with the pin on the valve body (See Figure 2) and insert the cover assembly into the body, fastening it with the bolts and nuts removed in Step 2. Tighten all bolts securely.
8. Depress the valve handle and rotate it to the closest standard position (FILTER or RINSE), being careful not to rub the plug on the new gasket. Release the handle, allowing the plug to hold the gasket in place while curing.
9. Minimum cure time is 2 hours. Curing for 24 hours is recommended for full strength

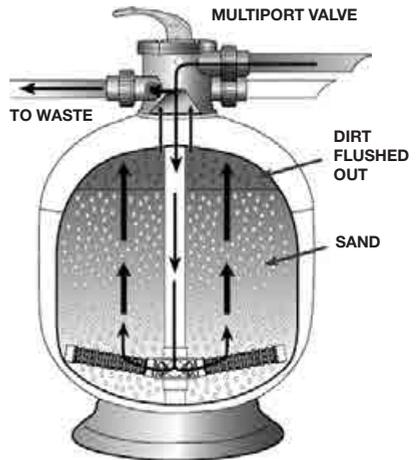
## Valve Position Functions

| Valve Setting    | Flow direction through valve   |
|------------------|--|
| <b>FILTER</b>    | PUMP – TOP – THROUGH FILTER – BOTTOM – RETURN<br>For normal filtration through filter.                                     |
| <b>BACKWASH</b>  | PUMP – BOTTOM – THROUGH FILTER – TOP – WASTE<br>For reversing flow for cleaning filter.                                    |
| <b>RINSE</b>     | PUMP – TOP – THROUGH FILTER – BOTTOM – WASTE<br>For initial start-up cleaning plus resetting filter bed after backwashing. |
| <b>WASTE</b>     | PUMP – WASTE<br>For draining water.  |
| <b>WINTERISE</b> | NO CIRCULATION PAST PUMP PORT<br>For shutting off all flow to filter.  |
| <b>BY PASS</b>   | Air fittings.  |

## Top Mount Configuration

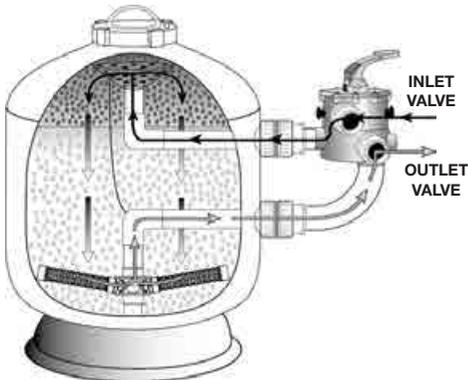


Filter Mode

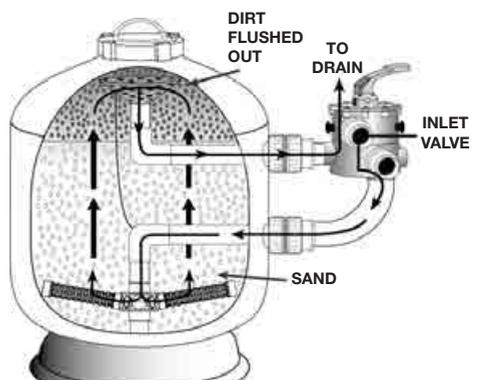


Backwash Mode

## Side Mount Configuration



Filter Mode

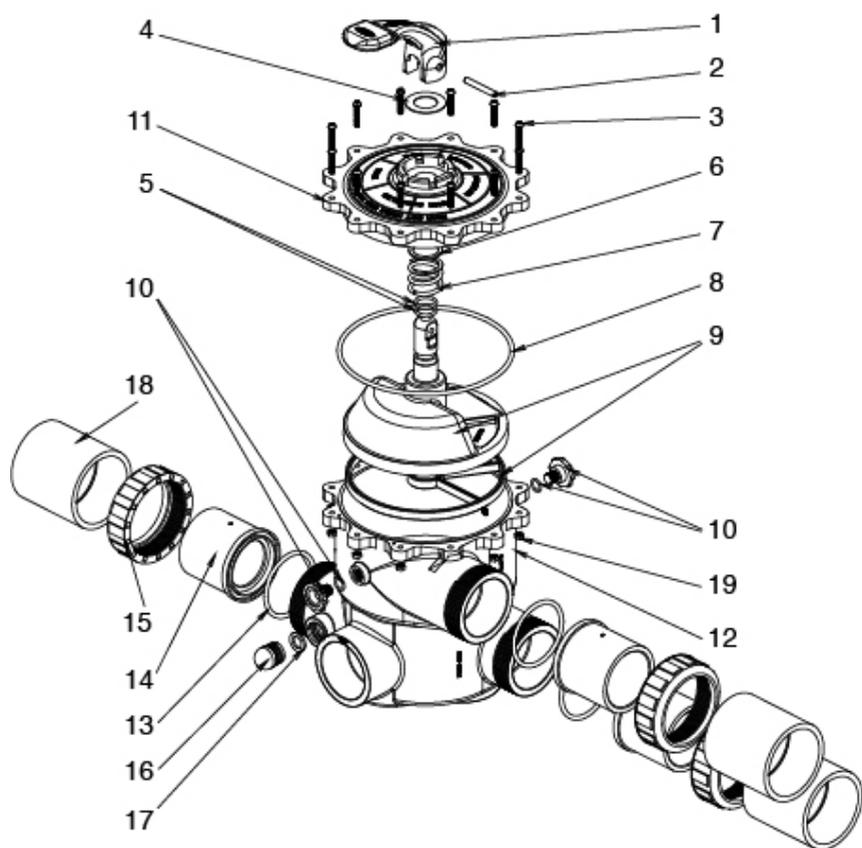


Backwash Mode

Warranty is stated in a separate document

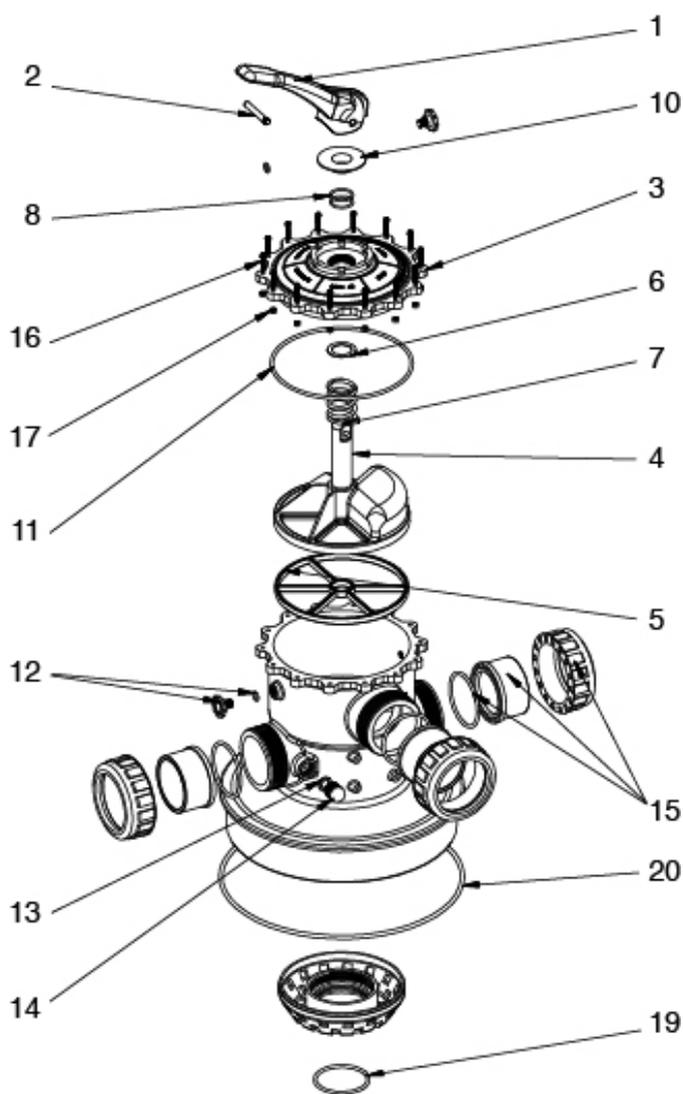
## Multiport Valve 65 mm (Side Mount) Assembly

| Item | Qty | Part Number | Name                   |
|------|-----|-------------|------------------------|
| 1    | 1   | 621451      | HANDLE                 |
| 2    | 1   | 621111      | HANDLE PIN             |
| 3    | 12  | W12109      | SCREW                  |
| 4    | 1   | W02627      | TEFLON WASHER          |
| 5    | 2   | 621201      | AXIAL O'RING           |
| 6    | 1   | W02628      | TEFLON WASHER          |
| 7    | 1   | 621182      | SPRING                 |
| 8    | 1   | 621152      | LID O'RING             |
| 9    | 1   | 621233      | ROTOR WITH GASKET      |
|      | 1   | 621234      | ROTOR                  |
|      | 1   | 621235      | SPIDER GASKET          |
| 10   | 2   | 620221      | AIR RELIEF WITH O'RING |
| 11   | 1   | 6211302     | LIF                    |
| 12   | 1   | 6213021     | BODY                   |
| 13   | 3   | 63406554    | O'RING                 |
| 14   | 3   | 644490      | B/U PLAIN END          |
| 15   | 3   | 63406551BLK | B/U LOCK NUT           |
| 16   | 1   | 621381      | SIGHT GLASS            |
| 17   | 1   | 621341      | SIGHT GLASS GASKET     |
| 18   | 3   | 112780      | COUPLING 80 mm         |
| 19   | 12  | W02624      | NUT                    |



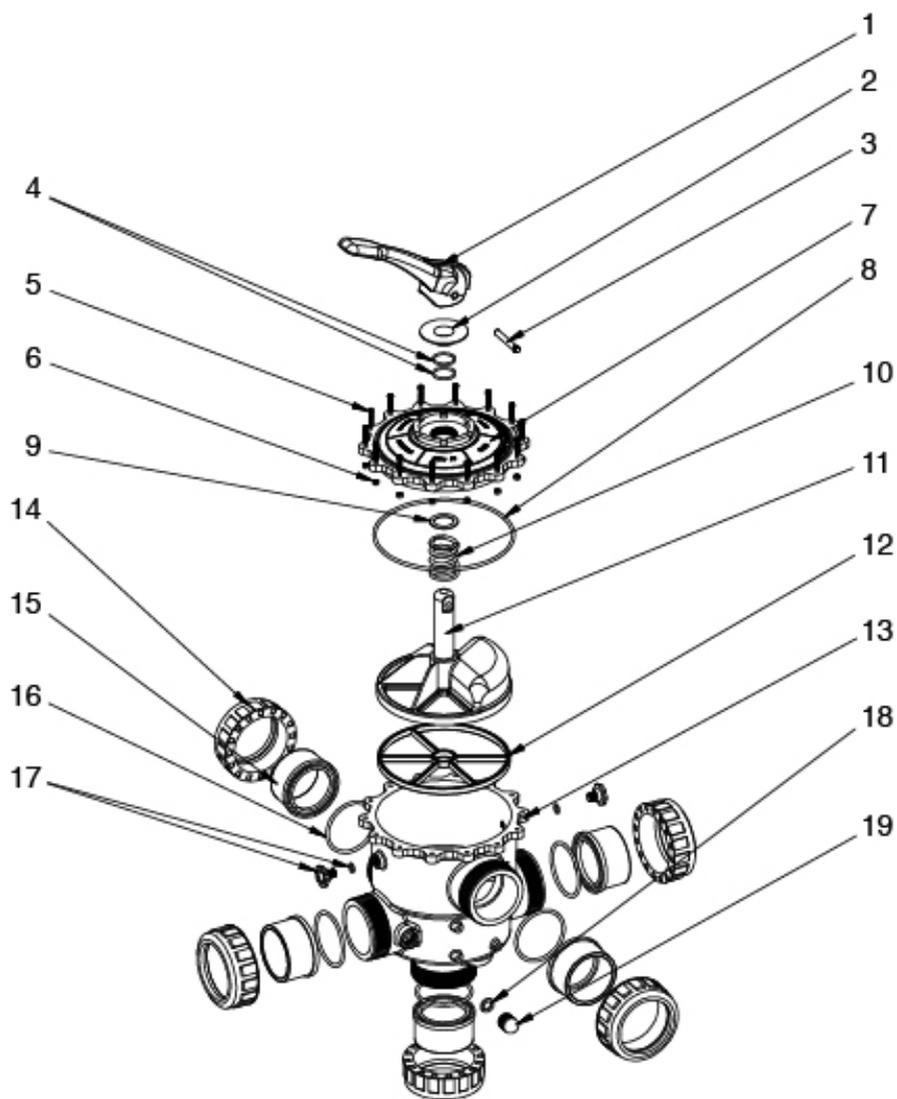
## Multiport Valve 80 mm (Top Mount) Assembly

| Item | Qty | Part Number | Name               |
|------|-----|-------------|--------------------|
| 1    | 1   | 621100      | HANDLE             |
| 2    | 1   | 6211020     | HANDLE PIN         |
| 3    | 1   | 6211310     | LID                |
| 4    | 1   | 621243      | ROTOR              |
| 5    | 1   | 621272      | SPIDER GASKET      |
| 6    | 1   | 6211060     | TEFLON WASHER      |
| 7    | 1   | 621192      | SPRING             |
| 8    | 2   | 621202      | O'RING AXLE        |
| 9    | 1   | 621192      | BODY (T/MOUNT)     |
| 10   | 1   | 621193      | SLEVE              |
| 11   | 1   | 621142      | O'RING LID         |
| 12   | 2   | 620221      | AIR RELIEF VALVE   |
| 13   | 1   | 621341      | SIGHT GLASS GASKET |
| 14   | 1   | 621381      | SIGHT GLASS        |
| 15   | 3   | W02255BLK   | B/U P/END 80 mm    |
|      | 3   | W02253BLK   | B/U LOCK NUT 80 mm |
|      | 3   | W02249      | O'RING B/U 80 mm   |
| 16   | 14  | W12109      | BOLT M6x32         |
| 17   | 14  | W02624      | NUT M6             |
| 18   | 1   | 621013      | DIFFUSER           |
| 19   | 1   | 621194      | DIFFUSER O'RING    |
| 20   | 1   | W02742      | O'RING 9 mm        |



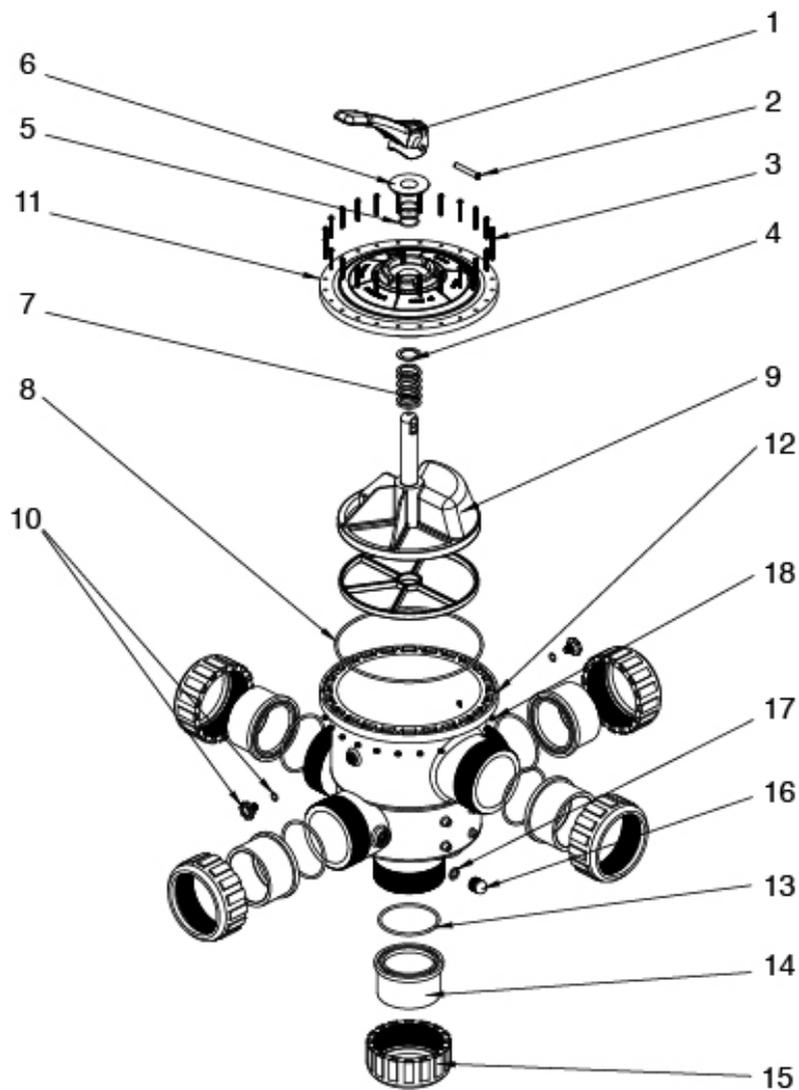
## Multiport Valve 80 mm (Side Mount) Assembly

| Item | Qty | Part Number | Name               |
|------|-----|-------------|--------------------|
| 1    | 1   | 621100      | HANDLE             |
| 2    | 1   | 621193      | SLEVE              |
| 3    | 1   | 6211020     | HANDLE PIN         |
| 4    | 2   | 621202      | O'RING AXLE        |
| 5    | 14  | W12109      | SCREW              |
| 6    | 14  | W02624      | NUT                |
| 7    | 1   | 6211310     | LID                |
| 8    | 1   | 621142      | O'RING LID         |
| 9    | 1   | 6211060     | WASHER             |
| 10   | 1   | 621192      | SPRING             |
| 11   | 1   | 621243      | ROTOR              |
| 12   | 1   | 621272      | SPRIDER GASKET     |
| 13   | 1   | 621293      | BODY               |
| 14   | 5   | W02253BLK   | LOCK NUT B/U 80    |
| 15   | 5   | W02255BLK   | PLAIN END B/U 80   |
|      | 5   | W02255EBLK  | PLAIN END B/U 90   |
|      | 5   | W02249      | O'RING B/U 80      |
| 16   | 5   | 620221      | AIR RELIEF VALVE   |
| 17   | 1   | 621341      | GASKET SIGHT GLASS |
| 18   | 1   | 621381      | SIGHT GLASS        |



## Multiport Valve 100 mm Assembly

| Item | Qty | Part Number | Name               |
|------|-----|-------------|--------------------|
| 1    | 1   | 621100      | HANDLE             |
| 2    | 1   | 6211020     | HANDLE PIN         |
| 3    | 24  | W12781      | SCREW              |
|      | 24  | W12783      | WASHER SPRING      |
|      | 48  | W12782      | WASHER FLAT        |
| 4    | 1   | 6211060     | WASHER             |
| 5    | 1   | 621202      | AXIAL O'RING       |
| 6    | 1   | 621193      | SLEVE              |
| 7    | 1   | 62110150    | SPRNG              |
| 8    | 1   | 62110110    | LID O'RING         |
| 9    | 1   | 62110220    | ROTOR              |
|      | 1   | 62110130    | SPIDER GASKET      |
| 10   | 2   | 620221      | AIR RELIEF VALVE   |
| 11   | 1   | 6211028     | LID                |
| 12   | 1   | 6211029     | BODY               |
| 13   | 5   | W02553      | O'RING             |
| 14   | 5   | 12221011    | B/U PLAIN END      |
| 15   | 5   | 1221009     | B/U LOCK NUT       |
| 16   | 1   | 621381      | SIGHT GLASS        |
| 17   | 1   | 621341      | SIGHT GLASS GASKET |
| 18   | 24  | W02624      | NUT                |



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