The Fort Vale Range of Butterfly Valves
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<th>BUTTERFLY VALVES</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; Clamped Widdop Butterfly Valve</td>
<td>1</td>
</tr>
<tr>
<td>3&quot; Hygienic Butterfly Valve</td>
<td>2</td>
</tr>
<tr>
<td>3&quot; Clamped Widdop Butterfly Valve</td>
<td>3/4</td>
</tr>
<tr>
<td>3&quot; Clamped Pneumatic Widdop Butterfly Valve</td>
<td>5/6</td>
</tr>
<tr>
<td>3&quot; Flanged Widdop Butterfly Valve</td>
<td>7/8</td>
</tr>
<tr>
<td>3&quot; Flanged Widdop Butterfly Valve - dual drilled inlet</td>
<td>9/10</td>
</tr>
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<td>3&quot; Tank-Pro Road Tanker Butterfly Valve</td>
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</tr>
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<td>3&quot; Unifly Road Tanker Butterfly Valve</td>
<td>13/14</td>
</tr>
<tr>
<td>TW80 Clamped Butterfly Valve</td>
<td>15</td>
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<td>TW100 Clamped Butterfly Valve</td>
<td>16</td>
</tr>
<tr>
<td>4&quot; Clamped Widdop Butterfly Valve</td>
<td>17/18</td>
</tr>
</tbody>
</table>
2” Clamped Widdop Butterfly Valve

2” Clamped Butterfly Valve - left hand operated with TIR and padlock facility to handle. Contact parts manufactured in 316 stainless steel with PTFE main seal.

Options - Alternative seal materials. Alloy C276 version. 904L version. Available with pneumatic actuation. A range of 3” and 4” clamped valves is available.

Fitting Details
Part Number : 355/7000

Part Number : 355/7000

Specification
Weight 2.18 Kgs
Design Pressure (MAWP) 6 Bar (87 PSI)
Test Pressure 10 Bar (145 PSI)
Design Temperature -40°C to 200°C (-40°F to 392°F)

Approved to BS EN14432.

Associated Parts

<table>
<thead>
<tr>
<th>Associated Parts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNAF/PTFE inlet gasket</td>
<td>5005-724</td>
</tr>
<tr>
<td>CNAF/PTFE outlet gasket</td>
<td>6005-610</td>
</tr>
</tbody>
</table>

Note: Gasket drilling 4 x 18mm holes on a 125mm PCD.

Associated Parts

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Split ring</td>
<td>368/0011</td>
</tr>
<tr>
<td>2</td>
<td>M6 countersunk bolt</td>
<td>5111-030</td>
</tr>
<tr>
<td>3</td>
<td>Washer</td>
<td>20370</td>
</tr>
<tr>
<td>4</td>
<td>Operating lever</td>
<td>368/9837</td>
</tr>
<tr>
<td>5</td>
<td>Handle</td>
<td>368/0050</td>
</tr>
<tr>
<td>6</td>
<td>Handle location spring</td>
<td>368/0012</td>
</tr>
<tr>
<td>7</td>
<td>Handle location pin</td>
<td>368/0010</td>
</tr>
<tr>
<td>8</td>
<td>Sockethead capscrew (2)</td>
<td>5111-148</td>
</tr>
<tr>
<td>9</td>
<td>Plain washer (2)</td>
<td>5113-005</td>
</tr>
<tr>
<td>10</td>
<td>Stuffing clamp</td>
<td>368/0040</td>
</tr>
<tr>
<td>11</td>
<td>PTFE stuffing clamp bush</td>
<td>368/0301</td>
</tr>
<tr>
<td>12</td>
<td>PTFE O ring (2)</td>
<td>20363</td>
</tr>
<tr>
<td>13</td>
<td>Viton O ring</td>
<td>20361</td>
</tr>
<tr>
<td>14</td>
<td>Spindle</td>
<td>355/5020</td>
</tr>
<tr>
<td>15</td>
<td>PTFE spindle seat</td>
<td>355/5009</td>
</tr>
<tr>
<td>16</td>
<td>Spring washer (2)</td>
<td>5113-003</td>
</tr>
<tr>
<td>17</td>
<td>Full nut (2)</td>
<td>5112-001</td>
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<tr>
<td>18</td>
<td>Body</td>
<td>355/7010</td>
</tr>
<tr>
<td>19</td>
<td>PTFE O ring</td>
<td>5005-541</td>
</tr>
<tr>
<td>20</td>
<td>PTFE O ring</td>
<td>5005-048</td>
</tr>
<tr>
<td>21</td>
<td>Bottom spindle</td>
<td>355/5005</td>
</tr>
<tr>
<td>22</td>
<td>PTFE lower bush</td>
<td>355/5007</td>
</tr>
<tr>
<td>23</td>
<td>Closure plate</td>
<td>355/5030</td>
</tr>
<tr>
<td>24</td>
<td>PTFE main seal</td>
<td>355/0202</td>
</tr>
<tr>
<td>25</td>
<td>Seal clamp plate</td>
<td>355/0201</td>
</tr>
<tr>
<td>26</td>
<td>EPDM O ring</td>
<td>5005-476</td>
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</tbody>
</table>

SEAL KIT
Part number 355/70SK contains all parts marked □
3" Concentric Disc Butterfly Valve - Suitable for hygienic applications. Inlet/outlet connections available include 3”BSP, 3”RJT, 3”Camlock, flanged and weld prepared. Single hand operation with TIR facility. Contact parts manufactured in 316 stainless steel fitted with Silicone seal as standard.

Options - Other seal materials available on request. Other connections available on request.

**Fitting Details**

Example shown : 358/160X

**Associated Parts**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3” BSP blank cap – seal separate</td>
<td>10303SS</td>
</tr>
<tr>
<td>3” RJT blank cap – seal separate</td>
<td>358/RJT3</td>
</tr>
<tr>
<td>3” Camlock cap – seal separate</td>
<td>90/DC300</td>
</tr>
</tbody>
</table>

**Specification**

- Weight: 4 Kg (See Note)
- Design Pressure (MAWP): 4 Bar (58PSI)
- Test Pressure: 6 Bar (87 PSI)
- Silicone Seal Design
- Design Temperature: -55°C to +200°C (-67°F to +392°F)

**Note**: Weight and seal design temperature varies

**Range**

<table>
<thead>
<tr>
<th>Inlet</th>
<th>Outlet</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3” RJT</td>
<td>3” RJT</td>
<td>358/160X</td>
</tr>
<tr>
<td>3” RJT</td>
<td>3” BSP</td>
<td>358/1700</td>
</tr>
<tr>
<td>3” BSTD</td>
<td>3” RJT</td>
<td>358/1100</td>
</tr>
<tr>
<td>3” BSTD</td>
<td>3” BSP</td>
<td>358/0000</td>
</tr>
<tr>
<td>TW 80</td>
<td>3” BSP</td>
<td>358/120S</td>
</tr>
<tr>
<td>DIN 80</td>
<td>3” Camlock</td>
<td>358/3950X</td>
</tr>
</tbody>
</table>

"X" in part number indicates variable seal options.

**Parts drawing**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/32” split pin</td>
<td>5118-016</td>
</tr>
<tr>
<td>2</td>
<td>M10 plain washer</td>
<td>5113-009</td>
</tr>
<tr>
<td>3</td>
<td>M10 half nut</td>
<td>5112-032</td>
</tr>
<tr>
<td>4</td>
<td>Handle assembly</td>
<td>358/2010</td>
</tr>
<tr>
<td>5</td>
<td>Top flange</td>
<td>358/1605</td>
</tr>
<tr>
<td>6</td>
<td>Spring washer (4)</td>
<td>5113-003</td>
</tr>
<tr>
<td>7</td>
<td>M8 nut (4)</td>
<td>5112-001</td>
</tr>
<tr>
<td>8</td>
<td>Body half (2) - See Note</td>
<td>358/XXXX</td>
</tr>
<tr>
<td>9</td>
<td>Main seal</td>
<td>5005-58X</td>
</tr>
<tr>
<td>10</td>
<td>Spindle bearing (2)</td>
<td>358/3023</td>
</tr>
<tr>
<td>11</td>
<td>Lower bearing support</td>
<td>358/3024</td>
</tr>
<tr>
<td>12</td>
<td>M8 hex screw (4)</td>
<td>5111-038</td>
</tr>
<tr>
<td>13</td>
<td>Closure plate</td>
<td>358/3020G</td>
</tr>
</tbody>
</table>

"X" indicates that the part number varies according to the valve specification.
3” Clamped Widdop Butterfly Valve

3” Clamped Butterfly Valve - left hand operated with TIR to handle and padlock facility. Contact parts manufactured in 316 stainless steel with PTFE main seal.

Options - lockable handle. “Congealing cargo” version with semi-spherical closure plate. Right hand operated version. Range of 2” and 4” clamped valves. TW style body available.

Specification

Weight 3.5 Kg
Design Pressure (MAWP) 6 Bar (87 PSI)
Test Pressure 10 Bar (145 PSI)
Design Temperature -40°C to 200°C
(-40°F to 392°F)

Design approvals by Lloyds Register of Shipping, Rijksdienst, SNCF, RMRS. Approved to BS EN14432

Range

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>368/7000B</td>
<td>Left hand standard butterfly valve</td>
</tr>
<tr>
<td>368/9110B</td>
<td>Left hand with semi-spherical closure plate</td>
</tr>
<tr>
<td>368/4000A</td>
<td>Right hand standard butterfly valve</td>
</tr>
</tbody>
</table>

Associated Parts

<table>
<thead>
<tr>
<th>Associated Parts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNAF/PTFE inlet gasket</td>
<td>5005-049</td>
</tr>
<tr>
<td>CNAF/PTFE outlet gasket</td>
<td>5005-490</td>
</tr>
<tr>
<td>CNAF/PTFE square inlet gasket - 4 hole</td>
<td>5005-198</td>
</tr>
<tr>
<td>CNAF/PTFE square outlet gasket - 4 hole</td>
<td>5005-195</td>
</tr>
<tr>
<td>Bolting kit</td>
<td>368/1100</td>
</tr>
<tr>
<td>3” BSP outlet flange</td>
<td>368/8047</td>
</tr>
<tr>
<td>3” BSP blank cap with PTFE washer</td>
<td>10303PS</td>
</tr>
<tr>
<td>3” Camlock outlet flange</td>
<td>368/8058</td>
</tr>
<tr>
<td>3” Camlock blank cap</td>
<td>90/DC300</td>
</tr>
<tr>
<td>3” NPT outlet flange</td>
<td>368/8049</td>
</tr>
<tr>
<td>3” NPT blank cap with PTFE washer</td>
<td>425/3250</td>
</tr>
</tbody>
</table>

Assembly Details

Example Discharge Assembly

IMPORTANT NOTE
BUTTERFLY VALVE MUST BE ASSEMBLED TO THE FOOTVALVE/TANK OUTLET PIPEWORK WHILST IN THE CLOSED POSITION.

M16 BOLTS TORQUE SETTING : 80 NM (60 LBF FT)
A detailed step-by-step repair manual is now available for our range of discharge butterfly valves. Please contact our Sales team for further information.
3” Clamped Butterfly Valve with Spring Return Pneumatic Actuator - valve connection to actuator to ISO 5211 / DIN 3337 standards. Counter-clockwise opening. Contact parts manufactured in 316 stainless steel with PTFE seal.

Options - a full range of manually operated valves are available.

### Specification

- **Weight**: 14 Kg
- **Design Pressure (MAWP)**: 6 Bar (87 PSI)
- **Test Pressure**: 10 Bar (145 PSI)
- **Max Actuator Pressure**: 8 Bar (116 PSI)
- **Valve Design Temperature Range**: -40°C to 200°C (-4°F to 392°F)
- **Actuator Design Temperature Range**: -20°C to 80°C (-4°F to 176°F)
- **M16 clamping bolts torque setting**: 81 NM (60 LBF FT)

### Operating Pressure Requirements

- **Start to open**: 3.1 Bar (45 PSI)
- **Fully open**: 3.8 Bar (55 PSI)

Butterfly valve approved to BS EN14432

### Range

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>368/7000B</td>
<td>Standard manually operated butterfly valve</td>
</tr>
<tr>
<td>368/7000BPN</td>
<td>Butterfly valve with pneumatic actuator</td>
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</tbody>
</table>

### Associated Parts

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Associated Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>5005-049</td>
<td>CNAF/PTFE inlet gasket</td>
</tr>
<tr>
<td>5005-490</td>
<td>CNAF/PTFE outlet gasket</td>
</tr>
<tr>
<td>368/1100</td>
<td>Bolting kit</td>
</tr>
<tr>
<td>368/8047</td>
<td>3” BSP outlet flange</td>
</tr>
<tr>
<td>10303PS</td>
<td>3” BSP blank cap with PTFE washer</td>
</tr>
<tr>
<td>368/8058</td>
<td>3” Camlock outlet flange</td>
</tr>
<tr>
<td>90/DC300</td>
<td>3” Camlock blank cap</td>
</tr>
<tr>
<td>368/8049</td>
<td>3” NPT outlet flange</td>
</tr>
<tr>
<td>425/3250</td>
<td>3” NPT blank cap with PTFE washer</td>
</tr>
</tbody>
</table>

### Fitting Details

Part Number: 368/7000BPN
## Parts drawing

### Item | Description | Part No.
--- | --- | ---
1 | Spring return actuator | 5127-115
2 | Drive adaptor assembly | 368/2824
3 | Bridge assembly | 368/2820
4 | M8 flat section spring washer (6) | 5113-003
5 | M8 x 20mm hex head bolt (4) | 5111-822
6 | Stuffing clamp bush | 368/0301
7 | PTFE O ring (2) | 20363
8 | Viton O ring | 20381
9 | Spindle | 368/0200
10 | Split bearing | 252/0517
11 | PTFE spindle seat | 368/0009
12 | Closure plate | 368/0400
13 | Main seal | 368/0002
14 | Nitrile O ring | 5005-342
15 | Seal clamp plate | 368/0045
16 | Bottom bush | 368/0035
17 | Bottom spindle | 368/0036
18 | Body | 368/0150
19 | M8 full nut (2) | 5112-001
20 | M8 plain washer (2) | 5113-005
21 | M8 x 25mm socket capscrew (2) | 5111-148

### SEAL KIT
Part number **368/00SK** contains all parts marked □
3” Flanged Butterfly Valve - inlet flange drilled 6 x 14mm holes spaced as shown below on a 168mm PCD; outlet flange with 4 slots 17mm equi-spaced on a 146mm PCD. Left hand operated with TIR and padlock facility to handle. Contact parts manufactured in 316 stainless steel with PTFE seals.


Example Top Discharge Assembly

<table>
<thead>
<tr>
<th>Associated Parts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNAF/PTFE inlet gasket</td>
<td>5005-169</td>
</tr>
<tr>
<td>Solid PTFE outlet gasket</td>
<td>5005-417</td>
</tr>
<tr>
<td>Dished blind flange</td>
<td>312/0022CM</td>
</tr>
<tr>
<td>Bolting kit</td>
<td>311/3500</td>
</tr>
<tr>
<td>Pivot pin</td>
<td>368/7506</td>
</tr>
</tbody>
</table>

- **Part Number**: 368/3160A
- **M12 BOLTS TORQUE SETTING**: 50 NM (37 LBF FT)
- **Weight**: 7 Kgs
- **Design Pressure (MAWP)**: 6.9 Bar (100 PSI)
- **Test Pressure**: 10.35 Bar (150 PSI)
- **Design Temperature**: -55°C to 200°C (-67° to 392°F)

Design approvals by Lloyds Register of Shipping, Rijksdienst, SNCF, RMRS. Approved to BS EN14432.
### Part Number: 368/3160A

#### SEAL KIT
Part number 368/00SK contains all parts marked

#### SELF ADHESIVE DECAL - PART NO. 368/0300
Text in English, German and French

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Countersunk setscrew</td>
<td>5111-030</td>
</tr>
<tr>
<td>2</td>
<td>Washer</td>
<td>20370</td>
</tr>
<tr>
<td>3</td>
<td>Split ring</td>
<td>368/0011</td>
</tr>
<tr>
<td>4</td>
<td>Operating lever</td>
<td>368/9837</td>
</tr>
<tr>
<td>5</td>
<td>Handle</td>
<td>368/0050</td>
</tr>
<tr>
<td>6</td>
<td>Handle location spring</td>
<td>368/0012</td>
</tr>
<tr>
<td>7</td>
<td>Handle location pin</td>
<td>368/0010</td>
</tr>
<tr>
<td>8</td>
<td>Sockethead cap screw (2)</td>
<td>5111-255</td>
</tr>
<tr>
<td>9</td>
<td>Plain washer (2)</td>
<td>5113-005</td>
</tr>
<tr>
<td>10</td>
<td>Stuffing clamp</td>
<td>368/0040</td>
</tr>
<tr>
<td>11</td>
<td>Full nut (2)</td>
<td>5112-001</td>
</tr>
<tr>
<td>12</td>
<td>PTFE stuffing clamp bush</td>
<td>368/0301</td>
</tr>
<tr>
<td>13</td>
<td>PTFE O ring (2)</td>
<td>20363</td>
</tr>
<tr>
<td>14</td>
<td>Viton O ring</td>
<td>20361</td>
</tr>
<tr>
<td>15</td>
<td>Spindle</td>
<td>368/0200</td>
</tr>
<tr>
<td>16</td>
<td>Split bearing</td>
<td>252/0517</td>
</tr>
<tr>
<td>17</td>
<td>PTFE spindle seat</td>
<td>368/0009</td>
</tr>
<tr>
<td>18</td>
<td>Body</td>
<td>368/9141</td>
</tr>
<tr>
<td>19</td>
<td>Bottom spindle</td>
<td>368/0036</td>
</tr>
<tr>
<td>20</td>
<td>PTFE bottom bush</td>
<td>368/0035</td>
</tr>
<tr>
<td>21</td>
<td>Closure plate</td>
<td>368/0400</td>
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<tr>
<td>22</td>
<td>PTFE main seal</td>
<td>368/0002</td>
</tr>
<tr>
<td>23</td>
<td>Nitrile O ring</td>
<td>5005-342</td>
</tr>
<tr>
<td>24</td>
<td>Seal clamp plate</td>
<td>368/9148</td>
</tr>
</tbody>
</table>
3” Flanged Butterfly Valve - Dual Drilled Inlet

3” Flanged Butterfly Valve - inlet flange dual drilled: 6 x 14mm holes on a 168.3mm PCD and 4 x 18mm holes on a 160mm PCD. Outlet flange with 4 x 17mm open slots on a 146.1mm minor PCD. Left hand operated with TIR and padlock facility to handle. Contact parts manufactured in 316 stainless steel with PTFE main seal.

Options - different flange drillings and seal materials are available. Semi-spherical closure plate for congealing cargo.

Specification

Weight: 6.9 Kgs
Design Pressure (MAWP): 6.9 Bar (100 PSI)
Test Pressure: 10.35 Bar (150 PSI)
Design Temperature: -40°C to 200°C (-40°F to 392°F)
Approved to BS EN14432

Range

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>368/3280A</td>
<td>Inlet flange dual drilled, 6 hole/4 hole</td>
</tr>
<tr>
<td>368/3180A</td>
<td>Inlet flange dual drilled, 4 hole/4 hole</td>
</tr>
<tr>
<td>368/3160A</td>
<td>Inlet flange with flat, drilled 6 holes</td>
</tr>
</tbody>
</table>

Associated Parts

<table>
<thead>
<tr>
<th>Associated Parts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNAF/PTFE dual drilled inlet gasket</td>
<td>5005-770</td>
</tr>
<tr>
<td>CNAF/PTFE inlet gasket - 6 hole</td>
<td>5005-222</td>
</tr>
<tr>
<td>CNAF/PTFE inlet gasket - 4 hole</td>
<td>5005-034</td>
</tr>
<tr>
<td>Solid PTFE outlet gasket</td>
<td>5005-417</td>
</tr>
<tr>
<td>Dished blind flange</td>
<td>312/0022CM</td>
</tr>
<tr>
<td>Outlet bolting kit</td>
<td>311/3500</td>
</tr>
<tr>
<td>Pivot pin</td>
<td>368/7506</td>
</tr>
</tbody>
</table>

Parts drawing

Part number: 368/3280A
### Parts drawing

**Part number:** 368/3280A

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sockethead setscrew</td>
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</tr>
<tr>
<td>2</td>
<td>Washer</td>
<td>20370</td>
</tr>
<tr>
<td>3</td>
<td>Split ring</td>
<td>368/0011</td>
</tr>
<tr>
<td>4</td>
<td>Operating lever</td>
<td>368/9837</td>
</tr>
<tr>
<td>5</td>
<td>Handle</td>
<td>368/0050</td>
</tr>
<tr>
<td>6</td>
<td>Handle location spring</td>
<td>368/0012</td>
</tr>
<tr>
<td>7</td>
<td>Handle location pin</td>
<td>368/0010</td>
</tr>
<tr>
<td>8</td>
<td>Sockethead capscrew (2)</td>
<td>5111-255</td>
</tr>
<tr>
<td>9</td>
<td>Plain washer (2)</td>
<td>5113-005</td>
</tr>
<tr>
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<td>Stuffing clamp</td>
<td>368/0040</td>
</tr>
<tr>
<td>11</td>
<td>Full nut (2)</td>
<td>5112-001</td>
</tr>
<tr>
<td>12</td>
<td>PTFE stuffing clamp bush</td>
<td>368/0301</td>
</tr>
<tr>
<td>13</td>
<td>PTFE O ring (2)</td>
<td>20363</td>
</tr>
<tr>
<td>14</td>
<td>Viton O ring</td>
<td>20361</td>
</tr>
<tr>
<td>15</td>
<td>Spindle</td>
<td>368/0200</td>
</tr>
<tr>
<td>16</td>
<td>Split bearing</td>
<td>252/0517</td>
</tr>
<tr>
<td>17</td>
<td>PTFE spindle seat</td>
<td>368/0009</td>
</tr>
<tr>
<td>18</td>
<td>Body</td>
<td>368/9192</td>
</tr>
<tr>
<td>19</td>
<td>Bottom spindle</td>
<td>368/0036</td>
</tr>
<tr>
<td>20</td>
<td>PTFE bottom bush</td>
<td>368/0035</td>
</tr>
<tr>
<td>21</td>
<td>Closure plate</td>
<td>368/0400</td>
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<td>22</td>
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<td>23</td>
<td>Nitrile O ring</td>
<td>5005-342</td>
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<tr>
<td>24</td>
<td>Seal clamp plate</td>
<td>368/9148</td>
</tr>
</tbody>
</table>

**SEAL KIT**

Part number **368/00SK** contains all parts marked □

**SELF ADHESIVE DECAL - PART NO. 368/0300**

Text in English, German and French
3" NB Tank-Pro Butterfly Valve - weld-prepared inlet and 3”BSP threaded outlet. Lockable handle with T.I.R. as standard. Contact parts manufactured in 316 stainless steel with PTFE main seal.

Options - body may be supplied with or without 3/8”BSP venting port. Outlet may be supplied 3”BSP standard or extended, 3”NPT or weld-prepared. Congealing cargo closure plate may be incorporated.

**Features**

- Designed specifically to meet the needs of the road tanker industry and especially suited to chemical applications.
- Supplied as a complete unit requiring no extra parts to assemble the valve to the tank.
- The valve concept eliminates the need for the valve to be centralized when fitting to the tank, thus avoiding potential valve damage and/or leakage.
- Optional 3/8”BSP port integral to the valve body allows for a purge or sampling facility.
- Clean valve internal lines reduces the risk of contamination between successive cargoes.
- Eccentric outlet facilitates full self-draining.
- Simple maintenance procedure with all internal mechanism and seals common to the standard Fort Vale 3" butterfly valve, thus reducing the required stock of spare parts.
- Lockable handle with TIR facility as standard to meet ADR requirements. A removable square drive key is included with each valve.

**Specification**

- Weight: 6.07 Kgs
- Design Pressure: 6 Bar (87 PSI)
- Body Hydraulic Test Pressure: 10 Bar (145 PSI)
- Design Temperature: -40°C to 200°C (-40°F to 392°F)

Lloyds Register of Shipping Design Appraisal document number DCF9376/1. Approved to BS EN14432. Rijksdienst voor het Wegverkeer Approval number VLG S-9301.

**Range**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Body</th>
<th>Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>368/9400SXBA</td>
<td>Non-vented</td>
<td>3”BSP standard</td>
</tr>
<tr>
<td>368/9400SVBA</td>
<td>Vented 3/8”BSP</td>
<td>3”BSP standard</td>
</tr>
<tr>
<td>368/9400SXEA</td>
<td>Non-vented</td>
<td>3”BSP extended</td>
</tr>
<tr>
<td>368/9400SVEA</td>
<td>Vented 3/8”BSP</td>
<td>3”BSP extended</td>
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</table>

**Associated Parts**

<table>
<thead>
<tr>
<th>Associated Parts</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3” BSP blank cap with PTFE seal</td>
<td>10303PS</td>
</tr>
<tr>
<td>Conversion mounting kit</td>
<td>368/9401KIT</td>
</tr>
</tbody>
</table>

**Fitting Details**

Example shown: 3” Tank-Pro Butterfly Valve - part number 368/9400SXBA
### Item | Description | Part No.
--- | --- | ---
1 | M6 socket head set screw | 5111-030
2 | Washer | 20370
3 | Handle assembly | 368/0075
4 | Electrical continuity spring | 368/0014
5 | M8 socket head cap screw (2) | 5111-148
6 | M8 plain washer (2) | 5113-005
7 | Stufing plate | 368/0041
8 | Stufing clamp bush | 368/0301
9 | PTFE O Ring | 20363
10 | Viton O ring | 20361
11 | Spindle | 368/0200
12 | Split bearing *See Note A | 252/0517
13 | Perfluoroelastomer O Ring | 5005-586
14 | PTFE spindle seat | 368/0009
15 | M12 full nut (4) | 5112-006
16 | M12 spring washer (4) | 5113-010
17 | M12 hex head set screw (4) | 5111-023

### Note A: Split bearing, part no. 252/0517 is used in valves manufactured since November 2011. Please order 252/0517 in addition to 368/00SK if it is required as a spare part.

### Item | Description | Part No.
--- | --- | ---
18 | Inlet adaptor *See Note B | 368/9410
19 | CNAF/PTFE inlet gasket | 5005-707
20 | Nitrile O ring | 5005-342
21 | Seal clamp | 368/9148
22 | PTFE main seal | 368/0002
23 | Closure plate | 368/0400
24 | 3/8 Taper plug *See Note B | 5128-0XX
25 | Bottom spindle | 368/0036
26 | Bottom spindle bush | 368/0035
27 | M10 socket head cap screw (4) | 5111-053
28 | M10 spring washer (4) | 5113-002
29 | 3" BSP outlet *See Note B | 368/9430
30 | PTFE outlet seal | 5005-706
31 | Body (non-vented) *See Note B | 368/9420A
32 | M8 full nut (2) | 5112-001
33 | M8 spring washer (2) | 5113-003
34 | Key | 368/4625

### Note B: Part number varies according to specification

**SEAL KIT**: part number 368/94SK contains all parts marked □
3” Unify Road Tanker Butterfly Valve - weld-prepared inlet and 3” BSP threaded outlet. Contact parts manufactured in 316 stainless steel with PTFE main seal.

Options - body may be supplied with or without 3/8” BSP venting port. Inlet adaptor available straight, angled or with 85mm I/D.

### Range

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Body</th>
<th>Inlet Adaptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>368/2500AVA</td>
<td>Vented 3/8” BSP</td>
<td>Angled</td>
</tr>
<tr>
<td>368/2500ANA</td>
<td>Non-vented</td>
<td>Angled</td>
</tr>
<tr>
<td>368/2500SVA</td>
<td>Vented 3/8” BSP</td>
<td>Straight</td>
</tr>
<tr>
<td>368/2500SNA</td>
<td>Non-vented</td>
<td>Straight</td>
</tr>
<tr>
<td>368/2500BVA</td>
<td>Vented 3/8” BSP</td>
<td>85mm I/D</td>
</tr>
<tr>
<td>368/2500BNA</td>
<td>Non-vented</td>
<td>85mm I/D</td>
</tr>
<tr>
<td>368/2500NVA</td>
<td>Vented 3/8” BSP</td>
<td>No inlet adaptor</td>
</tr>
<tr>
<td>368/2500NNA</td>
<td>Non-vented</td>
<td>No inlet adaptor</td>
</tr>
</tbody>
</table>

### Specification

- **Weight**: 5.76 Kgs
- **Design Pressure (MAWP)**: 6 Bar (87 PSI)
- **Service Test Pressure**: 10 Bar (145 PSI)
- **Design Temperature Range**: -40°C to 200°C
- **-40°F to 392°F**

Approved to BS EN14432.

### Associated Parts

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10303PS</td>
<td>3” BSP blank cap with PTFE seal</td>
</tr>
</tbody>
</table>

### Fitting Details

Part Number : 368/2500XXA

![Diagram of fitting details]
**SEAL KIT**

Part number **368/25SK** contains all parts marked "**".

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### SEAL KIT

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Split ring</td>
<td>368/0011</td>
</tr>
<tr>
<td>2</td>
<td>Handle lever</td>
<td>368/9837</td>
</tr>
<tr>
<td>3</td>
<td>Countersunk bolt</td>
<td>5111-030</td>
</tr>
<tr>
<td>4</td>
<td>Retaining washer</td>
<td>20370</td>
</tr>
<tr>
<td>5</td>
<td>Butterfly handle</td>
<td>368/0050</td>
</tr>
<tr>
<td>6</td>
<td>Handle spring</td>
<td>368/0012</td>
</tr>
<tr>
<td>7</td>
<td>Electrical continuity spring</td>
<td>368/0014</td>
</tr>
<tr>
<td>8</td>
<td>M8 cap screw (2)</td>
<td>5111-148</td>
</tr>
<tr>
<td>9</td>
<td>M8 plain washer (2)</td>
<td>5113-005</td>
</tr>
<tr>
<td>10</td>
<td>Stuffing clamp</td>
<td>368/0040</td>
</tr>
<tr>
<td>11</td>
<td>M8 full nut (2)</td>
<td>5112-001</td>
</tr>
<tr>
<td>12</td>
<td>M8 spring washer (2)</td>
<td>5113-003</td>
</tr>
<tr>
<td>13</td>
<td>Stuffing clamp bush</td>
<td>368/0301</td>
</tr>
<tr>
<td>14</td>
<td>Spindle</td>
<td>368/0201</td>
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<tr>
<td>15</td>
<td>Split bearing</td>
<td>252/0517</td>
</tr>
<tr>
<td>16</td>
<td>Viton O ring</td>
<td>20361</td>
</tr>
<tr>
<td>17</td>
<td>PTFE spindle seat</td>
<td>368/0009</td>
</tr>
</tbody>
</table>

---

### Item 19

- **Note** Item 19 is required only on the vented assembly.
- **See note** Item 19 is required only on the vented assembly.

### Item 25

- **Note** Item 25 part no. varies according to specification.
80mm Clamped Butterfly Valve - drilled TW80. Designed to clamp between two TW80 flanges with the bolts passing through the valve body holes. Left hand operated lockable handle with T.I.R. Contact parts manufactured in 316 stainless steel with PTFE seal.

Options - TW100 style body.

**Specification**

- Weight: 5.4 Kg
- Design Pressure (MAWP): 6 Bar (87 PSI)
- Test Pressure: 10 Bar (145 PSI)
- Design Temperature: -40°C to 200°C (-40°F to 392°F)

Design approval by AIB Vincotte. Approved to BS EN14432

**Range**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>368/5500B</td>
<td>TW80 clamped butterfly valve</td>
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<tr>
<td>468/5500B</td>
<td>TW100 clamped butterfly valve</td>
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</table>

**Associated Parts**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Associated Parts</th>
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</thead>
<tbody>
<tr>
<td>5005-715</td>
<td>PTFE/CNAF TW80 envelope gasket</td>
</tr>
<tr>
<td>845/001</td>
<td>TW80 mating flange</td>
</tr>
<tr>
<td>368/5513</td>
<td>3” BSP eccentric TW80 outlet flange</td>
</tr>
</tbody>
</table>

**Parts Drawing**

**Item**

1. M8 socket capscrew (2) 5111-148
2. M8 plain washer (2) 5113-005
3. M6 countersunk setscrew 5111-030
4. Barrel lock handle 368/0075
5. Stuffing clamp 368/0041
6. Stuffing clamp bush 368/0301
7. PTFE O ring (2) 20363
8. Viton O ring 20361
9. Butterfly valve spindle 368/0200
10. Split bearing 252/0517
11. PTFE spindle seat 368/0009
12. Body 368/5510
13. Closure plate 368/0400
14. Main seal 368/0002
15. Nitrile O ring 5005-342
16. Seal clamp 368/9148
17. Bottom bush 368/0035
18. Bottom spindle 368/0036
19. M8 full nut (2) 5112-001
20. M8 flat section spring washer (2) 5113-003
21. Washer 20370
22. Operating key (sold separately) 368/4625

SEAL KIT 368/00SK contains all parts marked ○
REPAIR KIT 368/50RKB contains all parts marked □
100mm Clamped Butterfly Valve - drilled TW100. Designed to clamp between two TW100 flanges with the bolts passing through the valve body holes. Left hand operated lockable handle with T.I.R. Contact parts manufactured in 316 stainless steel with PTFE seal.

Options - TW80 style body.

**Specification**

- **Weight:** 4 Kg
- **Design Pressure (MAWP):** 6 Bar (87 PSI)
- **Test Pressure:** 7.8 Bar (113.1 PSI)
- **Design Temperature Range:** -40°C to 200°C (-40°F to 392°F)

Approved to BS EN14432

**Associated Parts**

<table>
<thead>
<tr>
<th>Part No.</th>
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<tbody>
<tr>
<td>5005-832</td>
<td>PTFE/CNAF TW100 inlet gasket</td>
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<tr>
<td>5005-832/1</td>
<td>PTFE/CNAF TW100 outlet gasket</td>
</tr>
<tr>
<td>875/8001</td>
<td>TW100 mating flange</td>
</tr>
<tr>
<td>468/5175</td>
<td>4&quot; BSP eccentric TW100 outlet flange</td>
</tr>
</tbody>
</table>

**Parts Drawing**

- **Item** | **Description** | **Part No.** |
  - 1       | M6 countersunk setscrew | 5111-030 |
  - 2       | Washer                   | 20370   |
  - 3       | Barrel lock handle       | 368/0075|
  - 4       | M8 socket cap screw (2)  | 5111-148|
  - 5       | M8 plain washer (2)      | 5113-005|
  - 6       | Stuffing clamp           | 368/0041|
  - 7       | Stuffing clamp bush      | 368/0301|
  - 8       | PTFE O ring (2)          | 20363   |
  - 9       | Viton O ring             | 20361   |
  - 10      | Spindle                  | 368/0020|
  - 11      | Split bearing            | 252/0517|
  - 12      | PTFE spindle seat        | 368/0009|
  - 13      | M8 full nut (2)          | 5112-001|
  - 14      | Closure plate            | 468/0400|
  - 15      | Bottom spindle           | 368/0036|
  - 16      | Bottom bush              | 368/0035|
  - 17      | M8 flat section spring washer (2) | 5113-003|
  - 18      | 4" Butterfly valve body  | 468/0160|
  - 19      | PTFE seal                | 468/0002|
  - 20      | Nitrile O ring           | 5005-357|
  - 21      | Seal clamp plate         | 468/5505|
  - 22      | Operating key (sold separately) | 368/4625|

**SEAL KIT 468/00SKB** contains all parts marked ☑

**REPAIR KIT 468/50RKB** contains all parts marked ☐
4” Clamped Butterfly Valve - left hand operated with TIR to handle and padlock facility. Contact parts manufactured in 316 stainless steel with Flextyt main seal.


A range of 2” and 3” clamped valves is available.

**Specification**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>468/7250B</td>
<td>Standard butterfly valve</td>
</tr>
<tr>
<td>468/7200BPN</td>
<td>Pneumatically actuated</td>
</tr>
<tr>
<td>468/725HTB</td>
<td>Fitted with high temperature seals</td>
</tr>
<tr>
<td>468/7260SHB</td>
<td>St. heated, semi-spherical closure plate</td>
</tr>
</tbody>
</table>

| Weight | 4 Kg |
| Design Pressure (MAWP) | 6 Bar (87 PSI) |
| Test Pressure | 10 Bar (145 PSI) |
| Design Temperature Range | -40°C to 250°C (-40°F to 482°F) |

The above information varies according to the valve specification.

Design approval by Lloyds Register of Shipping. Approved to BS EN14432.

**Associated Parts**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>5005-468</td>
<td>CNAF/PTFE inlet gasket</td>
</tr>
<tr>
<td>5005-469</td>
<td>CNAF/PTFE outlet gasket</td>
</tr>
<tr>
<td>468/1100</td>
<td>Bolting kit (8 x bolts, nuts, washers)</td>
</tr>
<tr>
<td>468/8047</td>
<td>4” BSP outlet flange</td>
</tr>
<tr>
<td>10304PSC</td>
<td>4” BSP blank cap with PTFE washer</td>
</tr>
<tr>
<td>468/8049</td>
<td>4” NPT outlet flange</td>
</tr>
<tr>
<td>425/4000</td>
<td>4” NPT blank cap with PTFE washer</td>
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</tbody>
</table>

**Fitting Details**

**Part number: 468/7250B**
### Parts drawing

**Part number**: 468/7250B

<table>
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<th>Item</th>
<th>Description</th>
<th>Part No.</th>
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<tbody>
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<td>1</td>
<td>Split ring</td>
<td>368/0011</td>
</tr>
<tr>
<td>2</td>
<td>Operating lever</td>
<td>368/9837</td>
</tr>
<tr>
<td>3</td>
<td>Countersunk bolt</td>
<td>5111-030</td>
</tr>
<tr>
<td>4</td>
<td>Washer</td>
<td>20370</td>
</tr>
<tr>
<td>5</td>
<td>Handle</td>
<td>368/0050</td>
</tr>
<tr>
<td>6</td>
<td>Handle spring</td>
<td>368/0012</td>
</tr>
<tr>
<td>7</td>
<td>Handle location pin</td>
<td>368/0010</td>
</tr>
<tr>
<td>8</td>
<td>Sockethead cap screw (2)</td>
<td>5111-148</td>
</tr>
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<td>Plain washer (2)</td>
<td>5113-005</td>
</tr>
<tr>
<td>10</td>
<td>Stuffing clamp</td>
<td>368/0040</td>
</tr>
<tr>
<td>11</td>
<td>PTFE stuffing clamp bush</td>
<td>368/0301</td>
</tr>
<tr>
<td>12</td>
<td>PTFE O ring</td>
<td>20363</td>
</tr>
<tr>
<td>13</td>
<td>Viton O ring (2)</td>
<td>20361</td>
</tr>
<tr>
<td>14</td>
<td>Spindle</td>
<td>368/0205</td>
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<tr>
<td>15</td>
<td>Split bearing</td>
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<td>High temperature seal</td>
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<td>PTFE O ring</td>
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<td>Lower spindle</td>
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<td>22</td>
<td>Spring washer (2)</td>
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<td>Full nut (2)</td>
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<td>Flexyt PTFE main seal</td>
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<td>Nitrile O ring</td>
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</tr>
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<td>28</td>
<td>Seal clamp plate</td>
<td>468/0033</td>
</tr>
</tbody>
</table>

**SEAL KIT**

Part number **468/725SKB** contains all parts marked ☐
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