

**OPERATION AND MAINTENANCE MANUAL FOR BOSS™ 52W WRAS STRAINERS**

**CONTENTS**

**Purpose, Features And Scope of Application**

**Standards Met**

**Performance**

**Dimensions**

**Transportations and Storage**

**Maintenance**

**Repairs**

**Reassembly**

**Typical Failure Situations and Solutions**

**Installation and Use**

**PURPOSE, FEATURES AND SCOPE OF APPLICATION**

**Strainers are used in various pipeworks to remove foreign matter are not designed to operate under high shock loadings. A pressure shock is usually caused by a sudden reduction in fluid flow velocity, such as caused by the rapid closure of a check valve. All piping to and from the strainer must be properly supported.**

**STANDARDS MET**

**Flange dimensions as per BS EN 1092-2, PN16**

**WRAS**

**PERFORMANCE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Flange Type** | **Maximum Temperature** | **Working Pressure** | **Operating Temperature Range** |
| **PN16** | **120°C** | **16 bar @ 85°C** | **-10 to +120°c** |

**DIMENSIONS**



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DN** | **L** | **H** | **H1** | **Weight****(kg)** |
| **50**  | **230** | **124** | **183** | **8** |
| **65**  | **290** | **145** | **205** | **10** |
| **80**  | **310** | **152** | **238** | **12.5** |
| **100**  | **350** | **205** | **318** | **16.3** |
| **125**  | **400** | **244** | **358** | **24** |
| **150**  | **480** | **269** | **380** | **33** |
| **200**  | **600** | **341** | **508** | **56** |

**All dimensions in millimetres unless otherwise indicated**

**TRANSPORTATION AND STORAGE**

**All strainers should be inspected at the time of delivery for shipping damage, missing parts, and conformance with the specifications**

**The strainers should be stored in a sheltered area, or covered to prevent contamination by the weather or dirt. The strainers should be stored evenly supported on a flat surface. End cap protectors should be in place when the strainers are in storage.**

**MAINTENANCE**

 **To prevent injury to the operator or damage to the valve and/or property the valve must be isolated and line pressure removed from both sides of the valve before opening the valve cover. O-rings should not be changed or installed on an active valve.**

 **Frequency of maintenance inspections should be based upon the operational characteristics of the system. As a minimum an annual inspection is recommended.**

 **During the inspection the following checked.**

1. **All end joints, cover joints and packing for leaks.**
2. **Tightness of the bolts.**
3. **O rings.**

**REPAIRS**

**Seat Leakage - Seats may be fluid cut requiring seat replacement. Check for debris caught in the valve, pits or irregularities on the seat mating surfaces, Also check for pipe deflection which could result in valve seat distortion.**

**Disc Repairs - Inspect the disc for scratches, pits or damage. Replace the rubber disc seats if worn or torn. Minor scratches on bronze disc seats can sometimes be removed by rubbing the disassembled seat with very fine emery cloth on a flat surface.**

**REASSEMBLY**

1. **Remove rust and dirt from parts.**
2. **Check all replacement parts for the correct size.**
3. **Tighten cover bolts.**

**TYPICAL FAILURE SITUATIONS AND SOLUTIONS**

|  |  |  |
| --- | --- | --- |
| **Type of Failure** | **Probable cause** | **Solution** |
| **Difficult operation of handwheel** | 1. **Packing is over compressed.**
2. **The packing gland has been incorrectly installed.**
3. **There is dirt between the stem and stem nut or the threads are damaged.**
4. **The stem is bent**
 | 1. **Loosen the packing gland nuts.**
2. **Remove the packing gland nuts and reseat the packing gland.**
3. **Remove the dirt and if possible recut the thread. If not possible then replace the globe valve.**
4. **Replace the globe valve.**
 |
| **Leaking bonnet gasket** | 1. **Loose bonnet flange bolts.**
2. **Gasket has failed.**
3. **Dirt between the flange sealing faces.**
4. **Flange sealing faces are damaged.**
 | 1. **Tighten the bonnet flange bolts.**
2. **Replace the gasket.**
3. **Clean the flange sealing faces.**
4. **Replace the globe valve.**
 |
| **Seat leaking** | 1. **There is dirt between the sealing faces.**
2. **Sealing faces are damaged.**
 | 1. **Clean the sealing faces.**
2. **Replace the globe valve.**
 |
|  **Leaking Packing** | 1. **The packing gland is not compressed or incorrectly installed.**
2. **Packing has failed or is missing.**
 | 1. **Tighten the gland nuts evenly to compress the packing.**
2. **Replace the packing.**
 |

**INSTALLATION AND USE**

**Before use, the valves need to be cleaned so as to remove dirt.**

**The closing mechanism should be checked to ensure freedom of movement and proper operation. It is important that the valve is installed in the correct flow orientation as shown on the body marking arrow. Prepare the pipe ends as per the manufacturer's instructions and install the valve as per appropriate instructions for the specified joint.**

**All pipework should be properly supported to avoid line stress being transferred to the valve. Do not use the valve to force the pipework into position. Standard wrenches and/or sockets are to be used to tighten all nuts and bolts .**