# DIMAX Y-STRAINER
# PN16 CAST IRON Y-STRAINER

Installation and Operating Instructions

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## PRODUCT LIFE CYCLE

The life of the strainer is dependent on its application, frequency of use and freedom from misuse. Compatibility with the system into which it is installed must be considered. The properties of the fluid being transported such as pressure, temperature and the nature of the fluid must be taken into account to minimise or avoid premature failure or non-operability. A well-designed system will take into consideration all the factors considered in the strainer design, but additionally electrolytic interaction between dissimilar metals in the strainer and the system must be examined. Before commissioning a system, it should be flushed to eliminate debris and chemically cleaned as appropriate to eliminate contamination, all of which will prolong the life of the strainer.

DN50 up to DN300 1600kPa @70°C

## PRESSURE/TEMPERATURE RATING

Strainers must be installed in a piping system whose normal pressure and temperature do not exceed these ratings. The maximum allowable pressure in Strainers as specified in the standards is for non-shock conditions. Water hammer and impact for example, should be avoided. If the limits of use specified in these instructions are exceeded or if the Strainer is used on applications for which it was not designed, a potential hazard could result.

## LAYOUT AND SITING

It should be considered at the design stage where strainers will be located to give access for operation, cleaning, maintenance and repair. Strainers must be provided with adequate support. Adjoining pipework must be supported to avoid the imposition of pipeline strains on the strainer. Heavy strainers may need independent support or anchorage.

## INSTALLATION

Prior to installation, a check of the identification plate and body marking must be made to ensure that the correct Strainer is being installed. Strainers are precision manufactured items and as such, should not be subjected to misuse such as careless handling, allowing dirt to enter the strainer through the end ports, lack of cleaning both strainer and system before operation and excessive force during bolting. All special packaging material must be removed. Strainers must be provided with adequate support. Adjoining pipework must be supported to avoid the imposition of pipeline strains on the strainer. When large strainers are provided with lifting lugs or eye nuts, these should be used to lift the strainer. Immediately prior to installation, the pipework to which the strainer is to be fastened should be checked for cleanliness and freedom from debris.

**Must be installed in accordance to AS/NZS 3500.1.**

**NOTE:**
The strainer must be installed with the direction arrow on the body coincident with the direction of flow in the pipeline. For vertical pipework the flow direction shall be downwards only. If strainers are installed in horizontal pipework the strainer body must be lowermost. For the purpose of maintenance, the strainer shall be installed with sufficient room so that the strainer element can be withdrawn from beneath in a downwards direction. End protectors should only be permanently removed immediately before installation. The strainer interior should be inspected through the end ports to determine whether it is clean and free from foreign matter. The mating flange (both strainer and pipework flanges) should be checked for correct gasket contact face, surface finish and condition. If a condition is found which might cause leakage, no attempt to assemble should be made until the condition has been corrected. The gasket should be suitable for operating conditions or maximum pressure/temperature ratings. The gaskets should be checked to ensure freedom from defects or damage.
Care should be taken to provide correct alignment of the flanges being assembled. Suitable lubricant on bolt threads should be used. In assembly, bolts are tightened sequentially to make the initial contact of flanges and gaskets flat and parallel followed by gradual and uniform tightening in an opposite bolting sequence to avoid bending one flange relative to the other, particularly on flanges with raised faces. Parallel alignment of flanges is especially important in the case of the assembly of a strainer into an existing system. Flanged joints depend on compressive deformation of the gasket material between the flange surfaces. The bolting must be checked for correct size, length, material and that all connection flange bolt holes are utilized.

## OPERATING

The element will require cleaning after the flushing process and periodically thereafter.

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## MAINTENANCE

The strainer should be at zero pressure and ambient temperature prior to any maintenance. Maintenance Engineers & Operators are reminded to use correct fitting tools and equipment. A full risk assessment and methodology statement must be compiled prior to any maintenance. This must include the removal of dust deposits by good housekeeping. The risk assessment must take into account the possibility of the limits of use being exceeded whereby a potential hazard could result. A maintenance programme should therefore include checks on the development of unforeseen conditions, which could lead to failure. In systems where corrosion could be a potential hazard, wall thickness checks on the body and cover should be made. This requires either the removal of the strainer from the pipeline or removal of the cover with the system at zero pressure. If the wall thickness has reduced by 25%, the strainer must be replaced.

## STRAINER ELEMENT CLEANING AND GASKET REPLACEMENT

1. Isolate the strainer from the system pressure and drain.
2. Slacken all bolts gradually and remove sequentially taking care to support the weight of the cover as the final bolt is removed. (If the drain plug is fitted, please note the position for re-assembly).
3. Clean the strainer element using a brush and or water jet. A face mask should be worn as a precaution to prevent inhalation of particles or contaminated water.
4. Once the strainer element has been cleaned the strainer can be re-assembled. The sealing gasket should be renewed if damage has occurred. Ensure the body and cover joint faces are clean.
5. Locate the strainer in the cover and offer up to the body, aligning the bolt holes. (If the drain plug is fitted, position the cover as previously noted). Fit bolts and tighten sequentially.

## DRAIN PLUG

The drain plug may be removed to allow debris to be flushed from the strainer and will require isolation of the strainer from the system. Prior to commissioning a drain cock may be fitted to replace the plug which will allow strainer flushing whilst under line pressure.

## SPECS

The Dimax Cast Iron Y-Strainer is applicable to potable and non-potable water, it's function is to allow scale and dirt residue to be effectively captured, preventing the chance of imminent damage to equipment such as pumps, valves, flow equipment etc. The strainer allows the full flow of fluid with only a minimal pressure loss. The easily removable cover allows access to the filter screen for cleaning and maintenance, a plugged tapping point is provided for draining or blowdown.

## FEATURES

- Fully epoxy coated internal and external
- Flanges conform to AS2129 Table D or E
- Easily removable cover

| No | Description<br>Material / Standard |
|---|---|
| 1 | Body<br>Cast Iron / JL-250 to AS1830 |
| 2 | Screen<br>Stainless Steel / 316 to ASTM A276 |
| 3 | Cover<br>Cast Iron / C48600 to AS1568 |
| 4 | Plug<br>DZR Brass / C48600 to AS1568 |
| 5 | Gasket<br>Synthetic Rubber / EPDM AS1646 |
| 6 | Bolt<br>Stainless Steel / A4-70 to ISO898 |

| NOMINAL SIZE DN | L mm | H mm | Plug bsp | Weight kg |
|---|---|---|---|---|
| 50 | 230 | 176 | 1/2" | 8.5 |
| 65 | 273 | 202 | 1" | 12 |
| 80 | 295 | 220 | 1" | 16 |
| 100* | 352 | 256 | 1" | 25 |
| 125 | 416 | 332 | 1 1/4" | 37 |
| 150* | 470 | 370 | 1 1/2" | 52 |
| 200 | 543 | 465 | 1 1/2" | 89 |
| 250 | 660 | 532 | 2" | 145 |
| 300 | 770 | 616 | 2" | 192.5 |

* Table D option available