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# HERZ - Metering Station

## Operation & Maintanance Manual






## Specification

**For sizes DN15 to DN50**: DZR copper alloy body metering station for size ½" to 2". Equipped with 2 test points.

**For sizes DN65mm and bove:** Stainless steel orifice plates, used in combination with flanged valves. Designed in accordance with BS1042, and flow characteristics confirmed to BS7350. Outside diameter locates centrally within flange bolting to BS EN 1092-2 PN16.

## Materials

**For size DN15 - DN50**

| | |
|---|---|
| Body: | DZR Copper alloy CC752S |
| Test point: | DZR COpper alloy CW602N |

**For Size DN65mm and above.**

| | |
|---|---|
| Body: | Stainless steel |
| Extension: | Stainless steel |
| Test Point: | DZR Copper alloy CW602N |

## Product Life

The life of the metering station and associated components depends on the application, frequency of use, and right methods of usage. A factor that greatly affects the life of the orifice, is the fluid properties like temperature, pressure, and fluid composition. Electrolytic interaction between dissimilar fluids should also be checked to ensure prolonged life. Before commissioning the system, the system should be flushed to eliminate debris, and appropriately cleaned to eliminate contamination.

## Layout and Siting

Metering stations should be installed with a minimum of 5 pipe diameters of straight pipe upstream having the same pipe diameter upstream, and should not include any reducers or any other intrusions into the bore within this specified length. A minimum of 3 pipe diameters of straight pipe must be fitted downstream.

## Installation

Metering stations are precision manufactured items and as such, should not be subjected to misuse such as careless handling, allowing dirt to enter the metering station through the end ports, lack of cleaning both metering station and system before operation.

The pipework to which the metering station is to be fastened should be checked for cleanliness and freedom from debris.

The mating flange for stainless steel orifice should be checked for correct gasket contact face, surface finish and condition. The gasket should be suitable for operating conditions of pressure and temperature.

The gasket should be checked to ensure freedom from defects or damage.

The bolting must be checked for correct size, length, material and that all the connection bolts are utilized.

It is important that the internal pipe bore at the point upstream to the metering station is free from internal burrs, weld spatter or other defects which will disrupt the velocity profile of the liquid and induce inaccuracies outside the flowrate accuracy specified.

It is important to ensure that the flow arrow on the metering station is coincident with the direction of flow in the pipeline. If close coupled to a valve, the metering station must be upstream, that is the flow passing through the metering station before the valve.

### Test Points

Herz test points are fixed on the metering stations as follows:

- Remove the blanking plugs, in any, from the metering station.
- If extensions are required, fix the extensions into the metering station.
- Fit the test points into the extensions, ensuring that the red strap is on the downstream size, and the blue strap is on the upstream side.
- The test points can be installed in any orientation.

## Operation

The only operation requires is during the commissioning stage. During this stage, all the entrained air must be expelled from the system before accurate measurements of differential pressure signals can be taken from the test points.

Each test points are fitted with a captive cap retained by a coloured strainer.

**Upstream** - blue

**Downstream** - red

Measurements are taken by inserting the test probe directly, by using Herz Measuring computer**- 8900.**

## Maintenance

Metering stations are maintenance free.

Maintenance engineers and Operators are reminded to use correct fitting tools and equipment for operation and maintenance.

## Accessories

| | |
|---|---|
| 1 **8900** 04 | HERZ-Measuring device |
| 1 **8903** 02 | HERZ-Measuring device |

## Spare parts

| | |
|---|---|
| 1 **0284** 01 | test point for HERZ circuit control valve, blue cap |
| 1 **0284** 02 | test point for HERZ circuit control valve, red cap |
| 1 **0284** 11 | test point for HERZ circuit control valve, extended model, blue cap |
| 1 **0284** 12 | test point for HERZ circuit control valve, extended model, red cap |

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