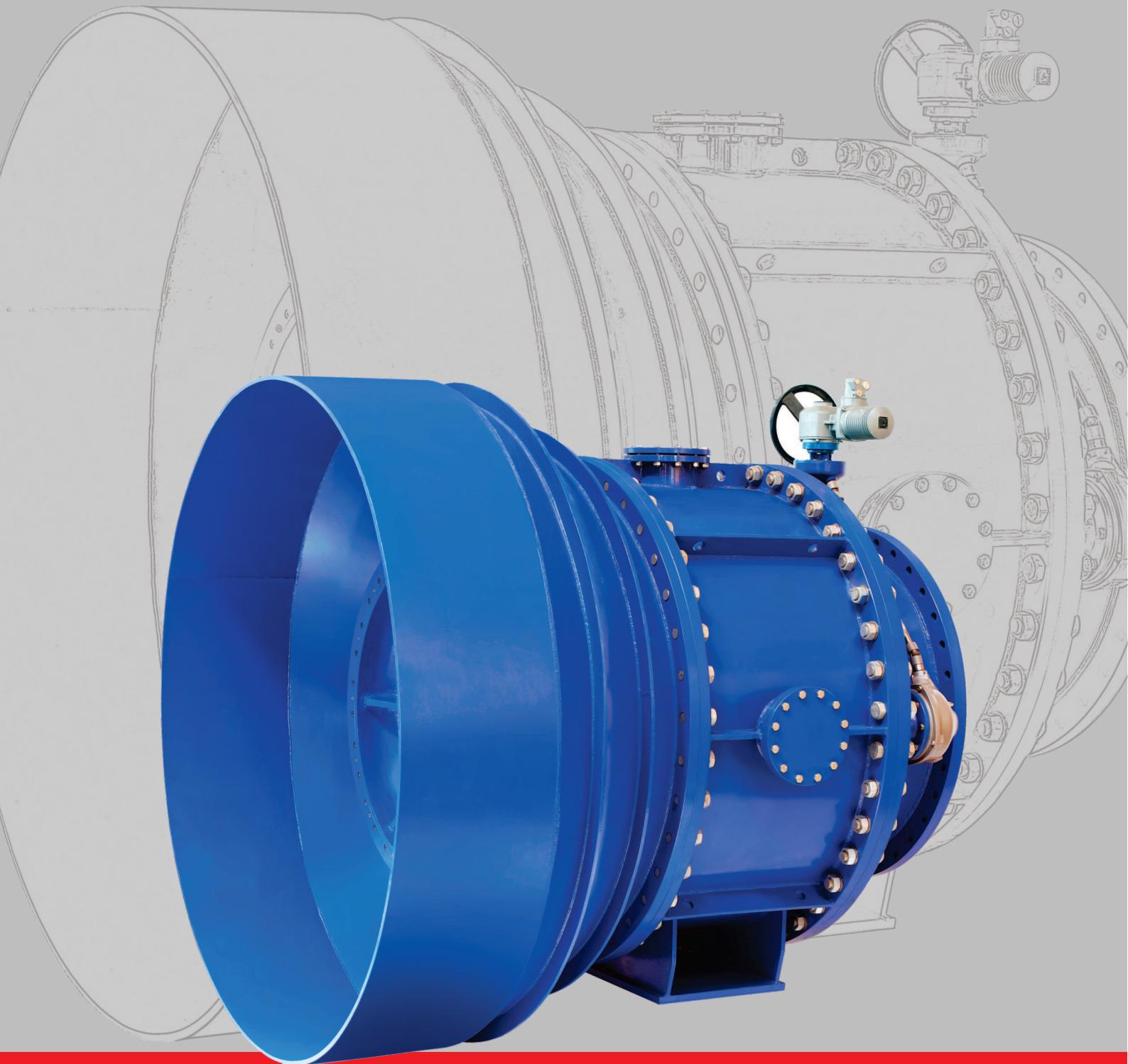




MIRAB CO.
Manufacturer of Industrial Valves
and Relevant Equipment



Fixed Cone Free Discharge Valves
CFD

Fixed Cone Free Discharge Valves

Sizes: DN 400 - DN 2000 mm

Pressure: PN 6 - 25 bar

Flange: DIN EN 1092-1 (DIN 2501)

Installation type: as discharge, end of pipe line

Actuators: electro mechanical, hydraulic

End connection type: Flanged type according to DIN EN standard,(other standards as request).

Product Features:

Mirab Fixed Cone Free Discharge valves are used at the end of pipelines, dam outlets, and water power plants to discharge water. These valves are capable of keeping the flow in a constant and steady condition. In addition, they can increase the volume of flow in an emergency e.g. flood water, etc. (The reason for increasing flow, is to prevent any damage to the walls of the dam) So the valve's structure is robust enough to eliminate any cavitation and vibration and can prevent damages to the other structures. In the high speed of flow, water takes some big solid parts into the valve (such as stones, wooden parts, etc.) The structure of the valve is in a way that these parts can't harm the body of the valve and they can pass through the valve and will not make any difficulty for free operation.

Advantages:

- Low head loss.
- Simple and reliable design.
- Suitable material for desired applications.
- Suited profile for flow of medium and solid particles.
- Possibility of installation in valve room or end of pipeline.
- Wide range for different sizes and pressures.
- The option of selecting either Electrical or Hydraulic actuators (as requested)

Coating:

Color coating and working temperature are according to the table below.

| Temperature of coating | |
|-----------------------------|-----------------|
| Coating | Temperature(°c) |
| RAL 5005 (Epoxy Powder) | Up to 70 |
| RAL 7001 (Epoxy Powder) | Up to 110 |
| RAL 9001 (ZINGA) | Up to 150 |
| RAL 9001 (SILICONE ACRYLIC) | Up to 250 |

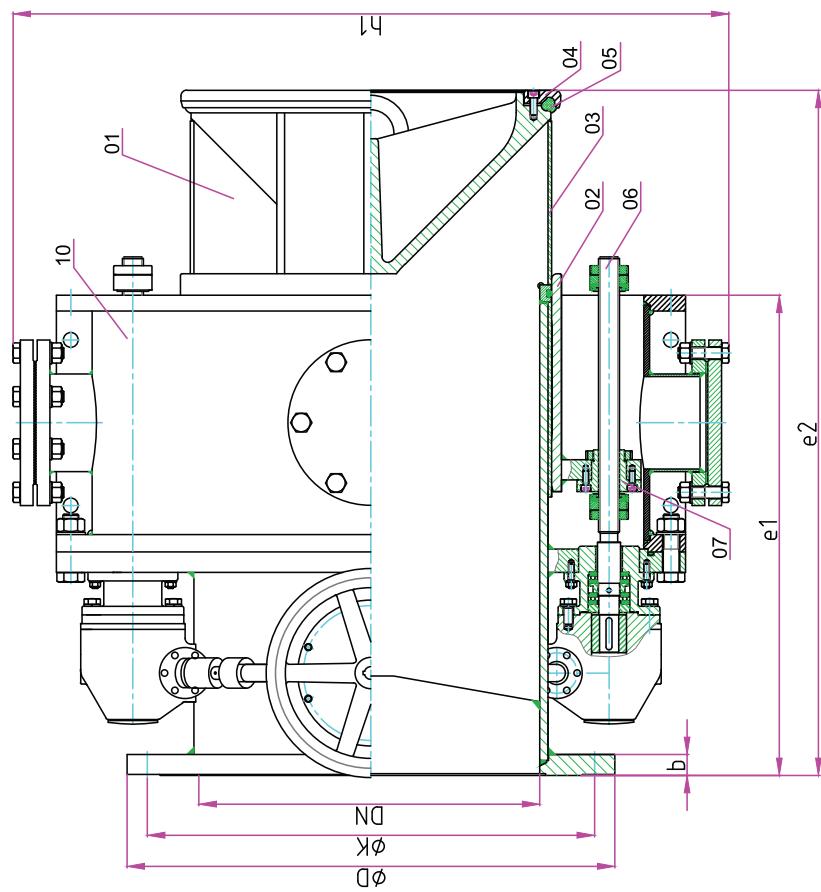
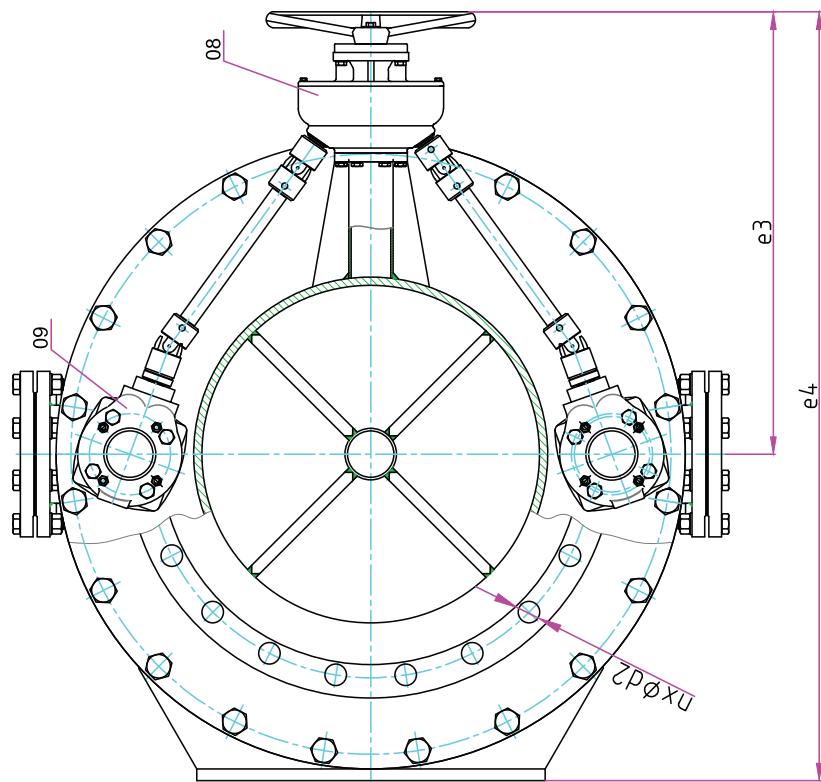
Hydrostatic test Pressure:

The test is according to the table below.

| Hydrostatic test Pressure (bar) according to DIN EN 12266-1 | | |
|---|----------------------------------|------------|
| Nominal Pressure PN (bar) | Test Pressure, with water, (bar) | |
| | Closure Test | Shell Test |
| 6 | 7 | 12 |
| 10 | 11 | 17 |
| 16 | 18 | 25 |
| 25 | 28 | 38 |



Part List



Part List

| Part No. | Part Name | Part Material | Spare parts |
|----------|----------------------|--------------------------|-------------|
| 01 | Main Body | St 37-2 | |
| 02 | Obstructive cylinder | DIN EN 10088-3/ 1.4301 | |
| 03 | Cylinder Guide | 2.0401.30 (CuZn39Pb3)F50 | |
| 04 | Clamping Ring | DIN EN 10088-3/ 1.4301 | |
| 05 | Sealing Rubber | EPDM / NBR | ● |
| 06 | Transmission Rod | DIN EN 10088-3/ 1.4021 | |
| 07 | Transmission Rod nut | ASTM B148 UNS C95200 | |
| 08 | Multi-turn gearbox | - | |
| 09 | Bevel gearbox | - | |
| 10 | Guard body | St 37-2 | |

Dimensions and weight

| DN (mm) | ØD (mm) | B (mm) | ØK (mm) | Ød2 (mm) | n | h1 (mm) | e1 (mm) | e2 (mm) | e3 (mm) | e4 (mm) | Weight (Kg) |
|------------|------------|-----------|------------|-------------|----|------------|------------|------------|------------|------------|----------------|
| 400 | 565 | 26 | 515 | 26 | 16 | 980 | 687 | 900 | 591 | 1016 | 655 |
| 500 | 670 | 28 | 620 | 26 | 20 | 1143 | 747 | 1000 | 703 | 1223 | 1100 |
| 600 | 780 | 28 | 725 | 30 | 20 | 1233 | 830 | 1180 | 761 | 1325 | 1512 |
| 700 | 895 | 30 | 840 | 30 | 24 | 1440 | 935 | 1340 | 890 | 1545 | 2500 |
| 800 | 1015 | 32 | 950 | 33 | 24 | 1500 | 1020 | 1500 | 860 | 1580 | 3300 |
| 900 | 1115 | 34 | 1050 | 33 | 28 | 1629 | 1130 | 1650 | 910 | 1690 | 3881 |
| 1000 | 1230 | 34 | 1160 | 36 | 28 | 1993 | 1295 | 1825 | 1010 | 2020 | 6600 |
| 1200 | 1455 | 38 | 1380 | 39 | 32 | 2052 | 1390 | 2025 | 1110 | 2140 | 7450 |
| 1400 | 1675 | 42 | 1590 | 42 | 36 | 2355 | 1575 | 2307 | 1262 | 2463 | 11673 |
| 1500 | 1785 | 46 | 1700 | 44 | 36 | 2603 | 1625 | 2392 | 1333 | 2663 | 13900 |
| 1600 | 1915 | 46 | 1820 | 48 | 40 | 3290 | 2135 | 3060 | 2025 | 3530 | - |
| 1800 | 2115 | 50 | 2020 | 48 | 44 | 3700 | 2400 | 3450 | 2280 | 3975 | - |
| 2000 | 2325 | 54 | 2230 | 48 | 48 | 4110 | 2670 | 3830 | 2530 | 4415 | - |

The above dimensions are related to PN10, other sizes and pressures can be manufactured as requested.



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