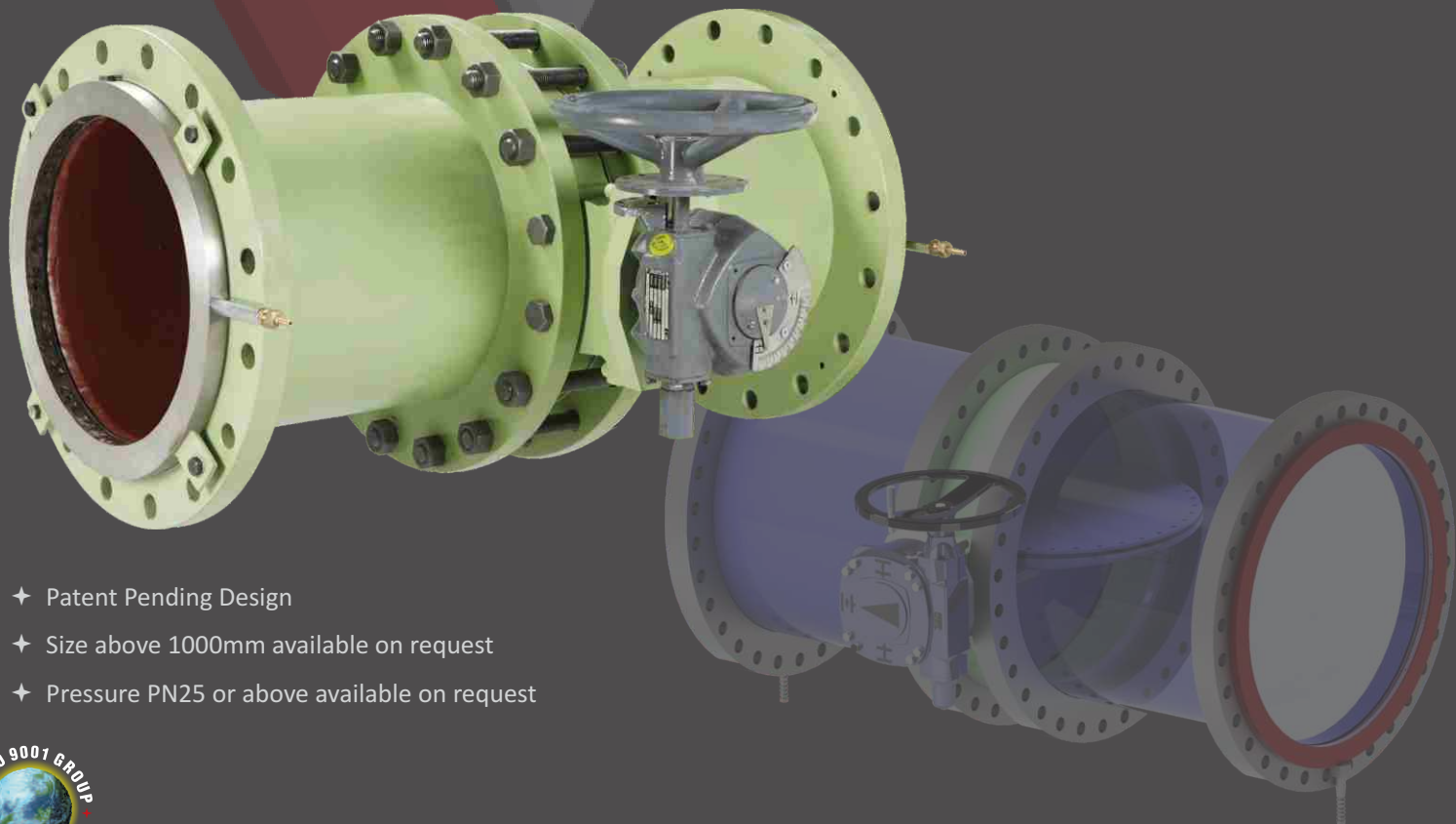


LARGE SIZE BALANCING VALVE

- Available in size upto 1000mm (40")
- Precise Double Regulation and Flow Measurement within 2.5D or less
- Valve Rating PN16 and PN20
- Positive Shutoff High Performance Butterfly Valve
- EPDM Seal
- Stainless Steel construction for critical components
- Zero Backlash Gear Box with 1 degree accuracy of setting
- Tamper Proof Locking
- Open position memory setting
- With Pressure Test Cocks



- ✦ Patent Pending Design
- ✦ Size above 1000mm available on request
- ✦ Pressure PN25 or above available on request



Changing the way you think about valves...

CONSTRUCTION AND TECHNICAL INFORMATION

Advance Large Size Balancing Valves, a first in the world design by Advance, is a unique Manual Balancing solution for the present trend of large size HVAC and district cooling plants, optimizing space, and integrating all features into a single valve. The valve is designed using state of the art CFD tools validated on in-house flow test bed.

CONSTRUCTION: High Performance (double eccentric) Soft Seated Butterfly Valve as regulating member with a unique precisely engineered differential pressure measurement system that includes two measuring rings designed to read average static pressure at the pipe cross sections.

GEARBOX: The valve operation is by custom built zero backlash gearbox. The gearbox is capable of setting valve opening angle within $\pm 0.5^\circ$ providing a flow setting accuracy of $\pm 7\%$. The gearbox is provided with tamper proof locking arrangement to prevent unauthorised resetting or closing the valve. The gearbox is also provided with mechanical adjustable stop. This arrangement prevents unauthorised resetting of the valve opening the maximum set value but enabling closing the valve including total shut off.

VALVE SELECTION: Valve selection shall be normally made based on pipe size after ensuring the flow rate is within the minimum and maximum flow rate of the valve and pressure drop is around 200 to 500mm Hg.

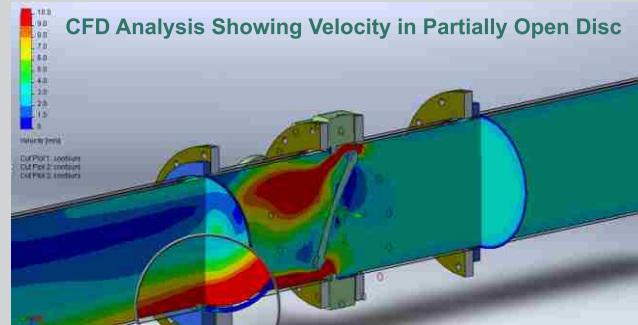
INSTALLATION: Valve may be installed in horizontal, vertical and slanting pipe lines. Differential pressure reading to be corrected for vertical and slanting installation. Minimum of 1D distance to be maintained between valve flanges to any other valves, fittings & equipments on upstream and down stream

REGULATION: Flow regulation in a wide range of 20° to 70° angle of opening. Changing the opening changes the valve Kv and provides flow regulation.

FLOW MEASUREMENT & COMMISSIONING: Valve is provided with two pressure taps and one set of pressure test quarter turn cocks. Pressure drop across the valve can be measured with ADVANCE digital differential Pressure Meter having instant couplings with the pressure test cocks. Pressure test cocks are opened by 1/4 turn using 6mm square double end spanner. Flow through the valve can be calculated by measuring differential pressure across the valve, noting the angle of opening of the valve and then using the published Kv value for the valve or ADVANCE Flow Computation Software. During purging of pipe line ensure that the measuring rings are replaced with dummy flanges to avoid blocking of pressure taps.

OPTIONAL: Hand held digital Differential Pressure Meter, Auto closing, PT plugs, MT extension

SOFTWARE & SERVICES: ADVANCE Flow Computation Software and System Balancing Software that work with the Hand held digital Manometer are available on request. Advance also provides On-site Water Balancing Services to achieve maximum energy saving right from commissioning



Size Range: DN 350 to DN1000

Pressure Rating : PN 16 Standard, PN 20 Optional

Temperature : - 40°C to 120°C

Fluid : Chilled Water / Glycol solution

Face To face Distance : As per ISO 5752 Table 8 (Globe Valves)

Valve Model : Flanged as per IS 6392 PN 16 as standard Others optional

Flow measurement : accuracy : $\pm 7\%$

Maximum flow : Upto 5m/s fluid velocity

BODY - PN 16 : Cast iron FG 260

- PN 20 : SG Iron IS 1865 Gr 450 / 10

DISC : SG iron IS 1865 Gr 450/10 or Eq

SEAL : EPDM (Elastomer)

SHAFT/STEM : SS 431

TRIM and measuring Rings: SS 304 or equivalent

Body Extension, Flanges : Low carbon steel IS 2062 or Eq

Worm Gear box : Body and worm wheel in SG Iron and SS 410 worm

Testing:

♦ Hydro Testing

	Shell (Body)	Seat
PN-16	24 bar (g)	17.6 bar (g)
PN-20	30 bar (g)	22 bar (g)

Direction of Flow : Marked on the Valve Body

VALVE DATA TABLE

Valve Size (DN)	Face to Face (mm)	Minimum Flow (M3/Hr)	Maximum Flow (M3/Hr)	Weight (Kg)
350	980	105	1730	317
400	1100	145	2260	396
450	1200	155	2860	520
500	1250	175	3535	657
600	1450	235	5090	797
700	1650	335	6930	1320
750	1750	430	7950	1578
800	1850	590	9050	1780
900	2050	1230	11450	2217
1000	2250	2065	14000	3500

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