

7th September, 2021

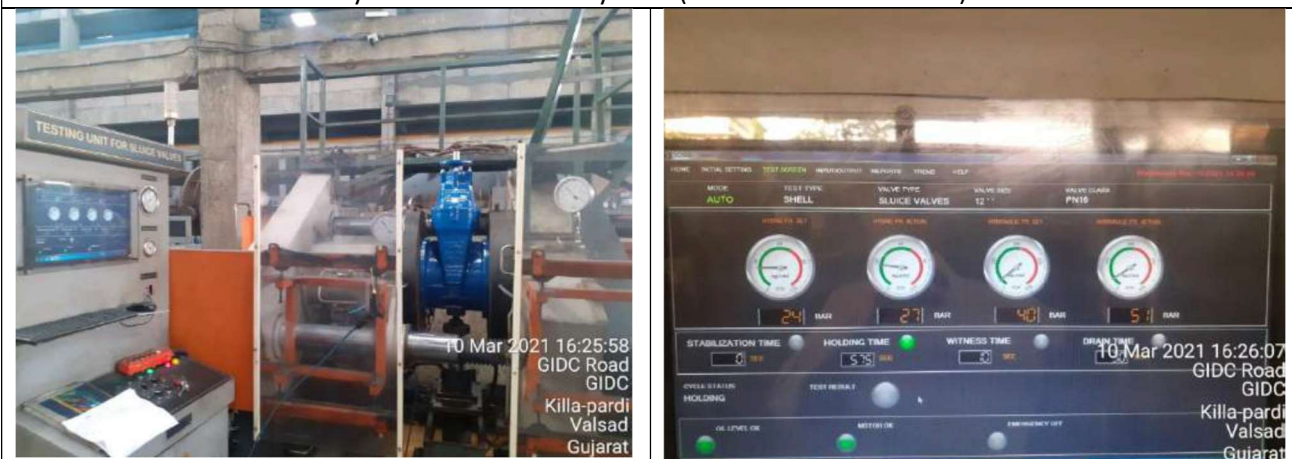
R&D Multiples conducts tests to comply with EN 1074 specifications

Over the last few months, we have successfully conducted all tests required for gate valves & butterfly valves in compliance with the EN 1074 standard titled “Valves for water supply – Fitness for purpose requirements and appropriate verification tests”. We are one of the few manufacturers to be able to do so with TUV India as the witnessing third party inspection agency. The following tests were carried out on DN 300 (rating PN 16) gate valve & butterfly valve:

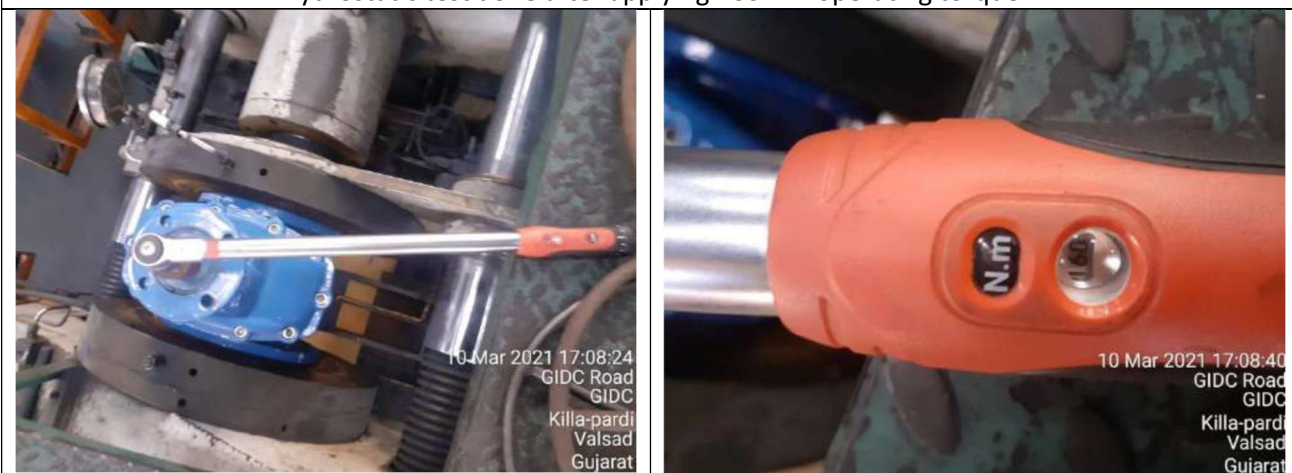
- Visual inspection carried out on accessible area of valve assembly
- Functional inspection - each valve opened / closed
- Hydrostatic test of body shell to check resistance to internal pressure (both valve ends closed) at 25.50 kg/cm² pressure for holding time of 10 minutes
- Hydrostatic test of seat to check obturator resistance to differential pressure (both sides with valve closed) at 21.50 kg/cm² pressure at 160 Nm operating torque (40 Nm for butterfly valve) for holding time of 10 minutes
- Hydrostatic test of seat under bending test load (885 to 900Kg) to check resistance to bending (both sides with valve closed) at 18 kg/cm² pressure at 160 Nm operating torque for holding time of 10 minutes
- Hydrostatic test of body shell to check leak tightness to internal pressure (valve closed) at 25.50 kg/cm² pressure for holding time of 10 minutes
- Air test of body shell to check leak tightness to internal pressure (both sides with valve closed) at a pressure of 6 kg/cm² for holding time of 10 minutes
- Leak tightness to external pressure: Vacuum test at 172 mbar (-0.08 bar) pressure and valve isolated for 2 Hrs. Pressure variation with respect to initial internal pressure and at the end of 2 Hrs found within +/-0.02 bar (+/-20 mbar)
- Hydrostatic test of body seal to check seat tightness (both sides with valve closed) at 18 kg/cm² (high differential pressure test) at 160 Nm operating torque (40 Nm for butterfly valve) for holding time of 10 minutes
- Hydrostatic test of body seal to check seat tightness (both sides with valve closed) at 0.50 kg/cm² (low differential pressure test) at 100 Nm (20 Nm for butterfly valve) operating torque for holding time of 10 minutes
- Hydrostatic test (Gear box immersion pressure test) of closed Gear box to check leak tightness of gear box witnessed at 3-meter water head for holding time of 3 hours – only for butterfly valve
- Maximum operating torque (MOT) checked for resistance to operating load at 320 Nm torque (100 Nm for butterfly valve) (2 times MOT=mST) to close and open valve, mST applied for 10 minutes

- Cycle test / valve endurance test carried out at 16 kg/cm² pressure at 160 Nm (40 Nm for butterfly valve) operating torque for holding time of 5 seconds for each cycle (cycle closing / pressurizing / opening for the specified number of cycles i.e. 250 Cycles)
- Solution test [NaClO (Active Chlorine)] carried out to check resistance to disinfection of product test solution fill in the valve for 48 hours. After 48 Hours, valve was emptied and internals were visually inspected
- All measuring instruments/ equipment verified for continued suitability for intended use, proper identification, calibration status, traceability to national standards

Hydrostatic test – body shell (both valve ends closed)



Hydrostatic test done after applying 160 Nm operating torque



Hydrostatic test - under bending load to check resistance to bending (both sides checked, valve closed)



Solution test [NaClo (Active Chlorine)] - Solution preparation



Solution test – internal valve visual inspection after 48 hours



Vacuum test in progress



No water ingress found after immersion test of gearbox under 3 meter headpipe



About R&D Multiples:

We are one of the leading manufacturers of valves used in a variety of industrial applications in multiples countries over the globe. Founded over 3 decades ago, we have developed a wide product range over the years. We make valves up-to 4.5 meters size & 40 bar pressure ratings. A wide variety of operators & actuators as drives & many accessories are also offered to make the valve versatile & user friendly. The materials offered to suit customer specifications range from Cast Iron, Carbon Steel, Stainless steel & other corrosion resistant/ high strength alloys.

For more details, please visit our website www.rdmultiples.com. For inquiries, please write to us at mumbai@rdmultiples.com or mumbai1@rdmultiples.com. To contact the nearest regional office, please visit our "Contact Us" page.