

DAFRAM - BALL VALVES & TRUNNION MOUNTED VALVES INSPECTION &

TESTING

[!\[\]\(919a2cb85b99741a73c0c31a427236a8_img.jpg\)](http://www.dafram.it)

According to written procedures the whole manufacturing process of ball valves is continuously monitored by the following inspections and tests procedures:

- Customer evaluation and monitoring
- Checking of raw incoming materials certification
- Inspection of manufacture of valve components
- Pressure tests
- Functional tests
- Non destructive tests
- Final inspection of finished valves

STANDARD TEST

PRESSURE TEST

Every Dafram ball valve is 100% pressure tested in accordance with API 6D & API-598 International standards, including Double Block & Bleed and Double Piston Effect tests, where applicable.

SPECIAL TESTS

If specified by the purchaser, for different purposes, to verify valve properties and performances, to verify material chemical composition or mechanical properties, to qualify valves to special working conditions or to long working life, many different tests can be performed as below:

- VALVE TESTS**
- Pressure test at high/low temperatures
 - Low & High pressure seat gas test in accordance with Annex C of API 6D
 - On customer request, pressure tests can be performed in accordance with customer standards.
 - Anti static test
 - Valve Torque test.
 - Functional valve test or functional valve and actuator test.
 - Fugitive emission test to ISO 15848 or to other standards
 - Paint dry film thickness check
 - Insulating coat testing by holiday detector ISOLTEST HD93
 - Cavity relief test
 - Cryogenic test down to minus 196 °C
 - Strain gauge test

NON DESTRUCTIVE MATERIAL TESTS

- All tests performed by qualified personnel, certified in accordance with EN 473 or SNT-TC-1A
- Radiographic examination (RT), X-Ray or Gamma-ray
- Magnetic particle examination (MT)
- Ultrasonic examination (UT)
- Dye penetrant examination (DP)
- Positive material identification (PMI)
- Hardness test

DESTRUCTIVE MATERIAL TESTS

- Mechanical tests, hardness test and Impact test down to 196 °C
- Chemical analysis of carbon, stainless steels, duplex, superduplex and high alloys using spectrometer
- Corrosion tests (e.g. Pitting, SSCC, Huey, Crevice)
- Micro examinations by electronic microscope up to x500 magnifications
- Ferrite check to E562
- Hydrogen-induced cracking test
- Pull-off test for paint adhesion check

QUALIFICATION TESTS

- Fire tests according
- Fugitive emission tests to ISO 15848
- High pressure gas tests
- High and low temperature tests
- Delayed torque tests
- Cycle operational and pressure tests