



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 07-JAN-2023. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Valve, Trunnion Mounted Ball
Model Name(s): F, G, FF, GG, FT, GT, FW, GW, FC, GC

Presented to:
GWC ITALIA SPA
VIA A GRANDI 5
MILANO 20056
Italy

Intended Service: Marine and offshore applications - Transmission pipelines, pumping, compression and reinjection units, offshore platforms, onshore terminals - non cryogenic services.

Description: Model F/G: Trunnion Ball, 2 piece, split body, full bore/reduced bore Model FF/GG: Trunnion Ball, 3 piece, split body, full bore/reduced bore Model FT/GT: Trunnion Ball, 1 piece, top entry, full bore/reduced bore Model FW/GW: Trunnion Ball, fully welded body, full bore/reduced bore Model FC/GC: Trunnion Double Ball, compact body, full bore/reduced bore Body in Carbon Steel, austenitic steel, Duplex or SuperDuplex, Nickel Alloy Seat and insert in Elastomeric HNBR, Elastomeric Viton, Thermoplastic Devlon, PTFE, PTFE+ELGILOY LIP SEAL, PEEK, PCTFE, Nylon

Tier: 3

Ratings: Class 150/300/600 from 2" to 36" Class 900 from 2" to 30" Class 1500 from 2" to 24" Design Pressure is as given below: Class 150 - 19.6 bar Class 300 - 51.1 bar Class 600 - 102.1 bar Class 900 - 153.2 bar Class 1500 - 255.3 bar Design Temperature of all the valves are -50 degC to +200 degC

Service Restrictions: Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments: 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. 2) The manufacturer is to guarantee that the valve has been tested before shipment to the pressure required by the pressure rating of the valve. 3) All valves are to bear the trademark of the manufacturer legibly stamped or cast on the exterior of the valves as well as the pressure rating.

Notes / Documentation: Drawing No. 160026 - test report, 160026 - test report dated 14 Nov 2016 at GWC Laboratory, Revision: 0, Pages: 1 Drawing No. 160026-002 Drawing, Machining, Revision: 0, Pages: 1 Drawing No. 160039-003, Drawing, Revision: 0, Pages: 1 Drawing No. 160040 - test report, 160040 - test report dated 24 Mar 2017 at GWC Laboratory, Revision: 0, Pages: 1 Drawing No. 160040-010 Drawing, Machining, Revision: 0, Pages: 1 Drawing No. 160049 - test report, 160049 - test report dated 21 Mar 2017 at GWC Laboratory, Revision: 0, Pages: 1 Drawing No. 160049-001 Drawing, Machining, Revision: 0, Pages: 1 Drawing No. 170001 - test report, 170001 - test report dated 22 Aug 2017 at GWC Laboratory, Revision: 0, Pages: 1 Drawing No. 170001-001 Drawing, Machining, Revision: 0, Pages: 1 Drawing No. 170003 - test report, 170003 - test report ,dated 11 Aug 2017 at GWC Laboratory, Revision: 0, Pages: 1 Drawing No. 170003-001 Drawing, Machining, Revision: 0, Pages: 1 Drawing No. Certificate_160039_03, Certificate, Revision: 0, Pages: 1 Drawing No. Company, Catalogue, Revision: 0, Pages: 1 Drawing No. GA-170003-001_R2, Drawing, Revision: 2, Pages: 1 Drawing No. GA_160026-001_R2, Drawing, Revision: 2, Pages: 1 Drawing No. GA_160039-003_R2, GA Drawing, Revision: 0, Pages: 1 Drawing No. GA_160040-010_R0, Drawing, Revision: 0, Pages: 1 Drawing No. GA_160049-001_R0, Drawing, Revision: 0, Pages: 1 Drawing No. GA_170001-001_R2, Revised Documnets, Revision: 0, Pages: 1 Drawing No. GA_170001-002_R0, Drawing, Revision: 0, Pages: 1 Drawing No. NDC_160026-002_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NDC_160039-003_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NDC_160040-001_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NDC_160049-001_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NDC_170001-001_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NDC_170003-001_R0, Calculation, Revision: 0, Pages: 1 Drawing No. NP.N6D.120.x.040.01.1, API 6D Nameplate, Revision: 0, Pages: 1 Drawing No. NP.N6S.120.x.040.01.0, API 6D SS Nameplate, Revision: 0, Pages: 1 Drawing No. PQR_WPS_12_06, PQR_WPS_12_06, Revision: 2, Pages: 1 Drawing No. TARF, TA Request Form, Revision: 0, Pages: 1 Drawing No. Welding Procedure, Body, Revision: 0, Pages: 1

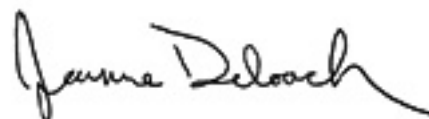
Term of Validity: This Product Design Assessment (PDA) Certificate 17-GE1695757-1-PDA, dated 08/Jan/2018 remains valid until 07/Jan/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules: Rules for Conditions of Classification 2018: 1-1-4/7.7, 1-1-Appendix 3 and 1-1-Appendix 4 Steel Vessel Rules 2018: 4-6-1/7.5.2 Table 1 & 2, 4-6-2/3, 4-6-2/5.11, 4-6-2/5.17; Steel Vessels Under 90 Meters (295 Feet) in Length 2018: 4-1-1/3.3, 4-4-2/9, 4-4-2/11; Offshore Support Vessels 2018: 4-1-1/3.3, 4-6-1/7.1.2, 4-6-2/5.11, 4-6-2/5.17; Mobile Offshore Drilling Units Rules 2018: 1-1-4/9.7, 1-1-Appendix 2 and 3; Facilities on Offshore Installations 2018: 1-1-4/9.7, 1-1-Appendix 2 and 3

National Standards:
International Standards: API 6D 24TH Ed.; API 6DSS 2ND Ed.; ASME B16.34 2013; ASME VIII 2015

Government Authority:
EUMED:
Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	17-GE1695757-1-PDA	29-JAN-2018	07-JAN-2023



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.