

Certificate No.: GLIS/DEL/2025/04/CC-5569

GL Ref. No.: 101-091-5202-04-0455

CERTIFICATE

The Product(s)

BALL VALVE**Manufactured by,****DUNCAN ENGINEERING LIMITED****F-33, RANJANGAON MIDC, KAREGAON, SHIRUR-PUNE 412220, INDIA.**

has been reviewed / assessed with respect to Functional Safety Standards

IEC 61508 Parts 1-2 and 4-7 : 2010**IEC 61511 Parts 1-3 : 2004****Systematic capability : SIL 3 Capable
(with HTF=1, SIL 2 Capable with HTF=0)****Date of Issue : 10-04-2025****Valid up to : 09-04-2028***Applications/Limitations: See page 2.***Note :**

This Certificate is valid for mentioned product and with yearly Surveillance as mentioned in page 2.
The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction may render this certificate invalid.
All product liabilities rest to manufacturer in case of damage or noncompliance product(s).
Gulf Lloyds does not accept any liabilities or claims raised due to this certificate.
For genuinity check please visit www.gulfloyds.info

Issued at:
Local HO
Ahmedabad



10.04.2025



Place

Date

Head – Tech. Certification

H.O.(INDIA) : Gulf Lloyds (India) Limited.

910, GALA Empire, Drive-In Road, Ahmedabad-380052, Gujarat, India.

+91-79-48001320; contact@gulfloyds.com; india@gulfloyds.com**H.Q.(UAE) : Gulf Lloyds (Middle-East) LLC**P.O. Box-30765, Abu Dhabi, U.A.E. ; uae@gulfloyds.com ;www.gulfloyds.org(DOC NO.:GLIS/FET/009)
جلف لويذر (الشرق الأوسط) ذ.م.م

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PRODUCTS COVERED BY THIS CERTIFICATE

Sr. No.	Description	Type	Size & Class
01	Floating Ball Valve / Trunnion Mounted Ball Valve	2 Way	1" to 6" (150#, 300#) / 4" to 10" (150#, 300#)

SITE(S) COVERED BY THIS CERTIFICATE

Production site name	Production site address
DUNCAN ENGINEERING LIMITED	F-33, RANJANGAON MIDC, KAREGAON, SHIRUR-PUNE 412220, INDIA.

CERTIFICATION HISTORY

Revision	Description	Issue Date
00	Original Certification	10.04.2025

SAFETY FUNCTION

Return Ball valve to its required position and ensure external and internal tightness.

SPECIFIC REQUIREMENTS

The instructions of the associated Installation, Operating and System Manual have to be considered.

The valves are suitable for use in a safety instrumented system up to (Safety Integrity Level) SIL 2.

Under consideration of the minimum required hardware fault tolerance HFT = 1 the valves may be used in a redundant structure up to SIL 3.

IEC 61508 FAILURE RATES IN FIT*

Static Application – Clean Service	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Full Stroke	0	0	0	603
Tight Shut-Off	0	0	0	1126
Open on Trip	0	105	0	498
Full Stroke with PVST†	0	0	260	343
Tight Shut-Off with PVST	0	0	260	866
Open on Trip with PVST	104	1	260	238
Static Application – Severe Service	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}
Full Stroke	0	0	0	998
Tight Shut-Off	0	0	0	2023
Open on Trip	0	201	0	797
Full Stroke with PVST	0	0	413	585
Tight Shut-Off with PVST	0	0	413	1610
Open on Trip with PVST	199	2	413	384

* FIT = 1 failure / 109 hours

† PVST = Partial Valve Stroke Test of a final element Device

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APPLICATION / LIMITATIONS

1. This Material Manufacturer Certificate does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of IEC 61508 Parts 1-7 and 4-7 : 2010 and IEC 61511 Parts 1-3 : 2004 with Functional Safety requirements.
2. Supply of the products as listed above shall be as per Inspection documentation *BS EN 10204 3.1 or 3.2* certification requirements under the discretion of the Purchaser.
3. The qualification held with respect to sample prototype of above mentioned products.
4. The re-qualification process shall be repeated if any essential changes are made to the production route or the manufacturing procedure. E.g. change in the manufacturing process, a major change of manufacturing equipment, Material selection.
5. If production is carried out at different plants / locations, a separate qualification is required for each plant. This applies also for change of in-house to subcontractors or change of subcontractor for essential operations.
6. Any type of changes in products' design, construction, process and amendments must be notified at Local H.O.

TERMS AND CONDITIONS

The certificate is subject to the following terms and conditions:

- Product Liability rests with Manufacturer, in case of damages caused by defective products.
- The Certificate is only valid for the sample product(s) listed above.

The following may render this certificate invalid:

- Any deviation to application/limitation listed above.
- Changes in the design or construction of the product(s).
- Changes or amendments to the referenced standards.

1 st Surveillance: Sign-Date-Stamp	2 nd Surveillance: Sign-Date-Stamp	3 rd Surveillance: Sign-Date-Stamp
Due: Apr. 2026	Due: Apr. 2027	Due: Apr. 2028

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Local HO
Ahmedabad



10.04.2025



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