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Certificate No: LR2332714TA Issue Date: 15/02/2023 Expiry Date: 14/02/2028

## **Type Approval Certificate**

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer Galperti Engineering & Flow Control SpA

**Address** Via Prati della Rosa, 17, Colico, (LC), 23823, Italy

**Type** Mechanical Pipe Joints

**Description** Standard or Heavy duty hubs;

Standard, heavy duty or lightweight clamps

Trade Name G-LOK®

**Application** Onshore, Offshore and Petrochemical piping systems

**Specified Standard** ASME VIII Div.1, Ed. 2021

ASME VIII Div.2, Ed. 2021 ASME B31.3, Ed. Ed. 2022 API 6A 21st Edition

Ratings Pipe diameter (inch) and Pressure Rating: 0.5 to 38 (Upto ASME #2500 Rating)

0.5 to 24 (Upto API 6A 10,000 psi

Rating)

0.5 to 16 (Upto API 6A 15,000 psi

Rating)

**Materials** 

Standard Grade (Components): AISI 4130 (Hub, Seal ring & Clamp)

**Mohammad Farhan** 

Senior Specialist - Piping and Pressure System to Lloyd's Register EMEA A member of the Lloyd's Register group

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### **Type Approval Certificate**

AISI 4140 (Hub, Seal ring & Clamp)

AISI 4140M (Clamp)

ASTM A522 1 (Hub & Seal ring)

ASTM A105 (Hub & Seal ring)

ASTM A182F1 (Hub & Seal ring)

ASTM A182F11 Cl.1/ Cl.2 (Hub)

ASTM A182F22 Cl.3 (Hub & Clamp)

ASTM A182F22V (Hub & Clamp)

ASTM A182F304/F304L/F304H (Hub, Seal ring & Clamp)

ASTM A182F316/F316L/F316LN/F316H (Hub, Seal ring & Clamp)

ASTM A182F321/F321H (Hub, Seal ring& Clamp)

ASTM A182F347/F347H (Hub, Seal ring& Clamp)

ASTM A182F44 (Hub & Seal ring)

ASTM A182F49 (Hub)

ASTM A182F5/F5a (Hub & Seal ring)

ASTM A182F51/F60 (Hub, Seal ring & Clamp)

ASTM A182F53 (Hub, Seal ring & Clamp)

ASTM A182F55 (Hub, Seal ring & Clamp)

ASTM A182F6a Cl.2 (Hub)

ASTM A182F9 (Hub)

ASTM A182F904L (Hub)

ASTM A182F91 (Hub)

ASTM A182FXM-19 (Hub)

ASTM A350LF2 Cl.1 (Hub, Seal ring & Clamp)

ASTM A350LF3 Cl.1 (Hub, Seal ring & Clamp)

ASTM A350LF6 Cl.1/Cl.2 (Hub)

**ASTM A694F42 (Hub)** 

ASTM A694F52 (Hub & Seal ring)

ASTM A694F60 (Hub & Seal ring)

ASTM A694F65 (Hub & Seal ring)

ASTM A694F70 (Hub & Seal ring)

ASTM A707L3 Cl.2 / Cl.3 (Hub)

ASTM A707L5 Cl.3 (Hub)

ASTM A859CL.2 (Hub)

ASTM B381F1 (Hub & Seal ring)

ASTM B381F12 (Hub, Seal ring & Clamp)

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ASTM B381F2 (Hub, Seal ring & Clamp)

ASTM B381F3 (Hub, Seal ring & Clamp)

ASTM B381F5 (Hub, Seal ring & Clamp)

ASTM B564UNS N06625 (Hub, Seal ring & Clamp)

ASTM B564UNS N08825 (Hub, Seal ring & Clamp)

ASTM B564UNS N08810 (Hub)

DIN 17103TSE 355 (Hub)

ASTM A193B7 (Clamp)

ASTM A320L7/L7M/L7Mod (Clamp)

ASTM A564Gr. 630 (Seal ring)

ASTM A638Gr. 660 (Seal ring)

ASTM B637UNS N07750 (Seal ring)

ASTM B637UNS N07718 (Seal ring & Clamp)

ASTM B564UNS N10276 (Seal ring)

API 6A CRA UNSN07718 (Seal ring)

API 6A CRA UNSN07725 (Seal ring)

#### **Other Conditions**

- 1. Product Specification Level 4, supporting evidence for PSL(including Charpy Impact Test of materials), material class, performance and Factory Acceptance Test (FAT) are to comply with API 6A 21st Edition.
- 2. For API 6A application the pressure rating is for 121 deg C  $\,$ , for use above this temperatures the end connectors should be de-rated as per Appendix G of API 6A 21st edition.
- 3. Materials exposed to sour service fluids are to comply with the requirements of NACE standard MR 0175 / ISO 15156.
- 4. Refer to Galperti for pressure/temperature ratings.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** 17/90001(E2)

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# **Type Approval Certificate**

The Design Appraisal Document PRJ11100396341-1 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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