

# 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.

<b>Manufacturer</b>	<b>Samson AG</b>
<b>Address</b>	Weismüllerstraße 3, Frankfurt am Main, 60314, Germany
<b>Type</b>	Low Temperature Valves
<b>Description</b>	Globe Control Valves
<b>Trade Name</b>	3241, 3244, 3251, 3254
<b>Application</b>	Marine, offshore and industrial fields for cryogenic applications. <u>Restrictions:</u> Not to be used for emergency shut-down systems and terminal end valves or means to prevent back-flow of liquid. Only types and sizes with prototype cryogenic tests are to be used for piping systems which are required to comply with Chapter 5 of Lloyd's Register's Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk.
<b>Specified Standard</b>	Lloyd's Register's Rules and Regulations for Classification of Ships, 2019; Lloyd's Register's Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk, July 2019; ASME B16.34; EN 12516
<b>Ratings</b>	<u>Type3241</u> For cryogenic industrial service

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

---

**Johannes Wiegel**

Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register Group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

---

## Type Approval Certificate

Size [DN]: 15 to 300  
Size [NPS]: ½ to 12

For LNG service and process gas systems\*  
Size[DN]: 25 40 50 80 100 150 250  
Size[NPS]: 1 1½ 2 3 4 6 10

Temperature Range: -196 °C to 450 °C  
Pressure/Temperature Ratings acc. ASME B16.34 / EN 12516-1

Body: casting A351 CF3M / 1.4409  
Flange: A182 F316(L) / 1.4401/1.4404  
Seat: A182 F316(L) / 1.4401/1.4404  
Cone: 1.4409/1.4404  
Shaft: A479 316(L) / 1.4401/1.4404

Type 3244\*  
Size[DN]: 50  
Size[NPS]: 2

Temperature Range: -196 °C to 450 °C  
Pressure/Temperature Ratings acc. ASME B16.34 / EN 12516-1

Body: casting: A351 CF8M / 1.4408  
Flange: A182 F316(L) / 1.4401 / 1.4404  
Seat: A182 F316L / 1.4404  
Cone: A182 F316L / 1.4404  
Shaft: A479 316(L) / 1.4404

Type 3251\*  
Size[DN]: 150  
Size[NPS]: 6

Temperature Range: -196 °C to 550 °C  
Pressure/Temperature Ratings acc. ASME B16.34 / EN 12516-1

---

71 Fenchurch Street, London, EC3M 4BS, United  
Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

---

## Type Approval Certificate

Body: casting: A351 CF8M / A182 F316 / 1.4408 / 1.4401  
Seat: A479 F316L / A351 CF3M / 1.4404 / 1.4409  
Cone: A479 F316L / A351 CF3M / 1.4404 / 1.4409  
Shaft: A351 CF8M / A182 F316 / 1.4408 / 1.4401

Type 3254\*  
Size[DN]: 100  
Size[NPS]: 4

Temperature Range: -196 °C to 550 °C  
Pressure/Temperature Ratings acc. ASME B16.34 / EN 12516-1

Body: casting: A351 CF8M / 1.4408  
Seat: A479 316(L) / A351 CF3M / 1.4401 / 1.4404  
Cone: A479 316(L) / A351 CF3M / 1.4401 / 1.4404  
Shaft: A351 CF8M / A182 F316 / 1.4408 / 1.4401

\*)other sizes on request require additional cryogenic type tests

### Other Conditions

The manufacturer's instructions for material selection and installation are to be sought. Material A351 CF8M is not to be used for welded connections in marine environment. Only the low carbon types C <0.03% are to be used here.

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.

The Design Appraisal Document No. HTS/ENS 39795-19 and its supplementary Type Approval Terms and Conditions form part of this Certificate.