



## 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 AKTIENGESELLSCHAFT</b>
<b>Address</b>	3,Weismüllerstraße, 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, 3256
<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 with design temperatures lower than -55°C on LR classed ships.
<b>Specified Standard</b>	Lloyd's Register's Rules and Regulations for Classification of Ships, 2024; Lloyd's Register's Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk, July 2024; Lloyd's Register's Rules and Regulations for the Classification of Ships using Gases or other Low-flashpoint Fuels, July 2024; ASME B16.34; EN 12516

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## Type Approval Certificate

### Ratings

#### **Type 3241**

For cryogenic industrial service

Size [DN]: 15 to 300

Size [NPS]: ½ to 12

Class: 150/300 all sizes

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, A351 CF8M / 1.4408

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]: 50 100

Size[NPS]: 2 4

Class: 150 150/300

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



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### **Type 3251\***

Size[DN]: 25            50            100          150  
Size[NPS]: 1            2            4            6  
Class:        150 600/900/2500 900          1500

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

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]: 80          100  
Size[NPS]: 3            4  
Class:            1500

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

### **Type 3256\***

Size[DN]: 40 50  
Size[NPS]: 1½ 2  
Class:        2500

Body, shaft, cone, seat: A351 CF3M / 1.4409, A351 CF8M / 1.4408, A182 F316 / 1.4401, A182 F316L / 1.4404, A479 316 / 1.4401, A479 316L / 1.4404





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\*)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.

**Previous Version:** LR2003773TA-02

The Design Appraisal Document TSO/24-017295 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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