

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Safety Valve

with type designation(s)

S476.03.204.01MA, S476.03.230.01MA, S476.03.236.01MA, S476.03.236.12MA

Issued to

Armaturenfabrik Franz Schneider GmbH & Co.KG
Nordheim Baden-Württemberg, Germany

is found to comply with

DNV GL rules for classification – Ships

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

DNV GL class programme DNVGL-CP-0186 – Type approval – Valves

Application :

The safety relief valve may be used in: Thermal oil, Heavy fuel oil, Lubrication oil, Starting-air piping and as Diesel Engine Cylinder Sentinel valve

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type:	K. factor:
S476.03.204.01MA	see safety valve data sheet
S476.03.230.01MA	see safety valve data sheet
S476.03.236.01MA	see safety valve data sheet
S476.03.236.12MA	see safety valve data sheet

This Certificate is valid until **2021-12-13**.

Issued at **Hamburg** on **2016-12-14**

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Guido Friederich**

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Olaf Drews
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id:
Certificate No: **TAP00000N5**

Product description

Direct loaded spring, safety relief valves. Threaded end connections M22x1,5.

Application/Limitation

Maximum working pressures and temperature range:

Type	SetPressure	Nominal pressure	Temperature Range
S476.03.204.01MA	45 bar	PN 300	0°C to 300°C
S476.03.230.01MA	200 bar	PN 300	
S476.03.236.01MA	230 bar	PN 300	
S476.03.236.12MA	230 bar	PN 300	

Each valve is to be:

- Subject to hydraulic test of body (1,5 times the design pressure)
- Subject to leakage test (at 90% of set pressure) after reset
- Supplied with material test report certificate (3.1)

Each valve is to be inspected and certified by DNV GL when DNV GL certificate is required.

Limitation

The safety valves are not to be used on boilers or steam heated steamgenerators.
For use in connection with gases or chemicals approval must be obtained in each case.

Type Approval documentation

Marking of product

For traceability to this Type Approval the products are at least to be marked with:

- Manufacturer's name or trade mark
- Valve type designation
- Size
- Maximum design pressure and temperature
- Set pressure
- ID Number

Periodical assessment

A condition for retention of the Type Approval Certificate in its validity period is that periodical assessments are successfully carried out. The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered. The main scope of the periodical assessment will normally include:

- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production.
- Review of possible changes to the design, the material and the performance of the product.
- Verification of the product marking.

END OF CERTIFICATE