

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Safety Valve

with type designation(s)
06800, 06801, 06805, 06806

issued to
HEROSE GMBH Armaturen und Metalle
Bad Oldesloe, Schleswig-Holstein, Germany

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.4 Ch.7 Pressure equipment
DNV rules for classification – Ships Pt.5 Ch.7 Liquefied gas tankers
DNV rules for classification – Ships Pt.6 Ch.2 Propulsion, power generation and auxiliary systems
DNV rules for classification – Ships Pt.6 Ch.2 Sec.6 Low flashpoint liquid fuelled engines – LFL fuelled
DNV rules for classification – Ships Pt.6 Ch.2 Sec.14 Gas fuelled ship installations – Gas fuelled ammonia
DNV class programme DNV-CP-0186 – Type approval – Valves

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

K. factor: see certificate

Issued at **Hamburg** on **2026-06-08**

for **DNV**

This Certificate is valid until **2031-06-07**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Ana Cristina Do Carmo Insfran**



Digitally Signed By:
Sven Klinger
Location: DNV Hamburg,
Germany

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Cryogenic Safety Valve type: 06800, 06801, 06805, 06806 for applications in various cryogenic medium: LNG, Methanol and Ammonia piping system installations.

Type: 06800, 06801, 06805, 06806

Spring loaded 90° angle type, metal to metal seating, closed bonnet. The inlet is threaded to the outlet body. Below seal on the stem.

Working temperature: -270 [°C] to +225 [°C]

Set pressure range: 3 - 25 [bar]

Nominal sizes: ½", ¾" and 1"

K-values:

Nominal size	½"	½"	¾"	1"
α_w , vapours, gases	0.60	0.50	0.60	0.66
α_w , liquids	-	0.39	0.45	0.48

Materials:

Valve parts	Material	Standard
Outlet body	1.4308	ASTM A351 CF8
Inlet body	1.4571	ASTM A276 Grade 316Ti
Disc	1.4541	ASTM A276 Grade 321
Stem	CW453K	ASTM B103 UNS C52100
Seat	PTFE	-

Application

Safety relief valves for air, gases, vapours, cryogenic liquefied gases.

Limitation

Stainless steel safety valve types: 06800, 06801, 06805, 06806 approved for the use in ships piping, machinery piping, fuel systems and cargo handling piping systems. Operating media include flammable gases and cryogenic liquefied gases including LNG.

Stainless steel safety valve types: 06800, 06801, 06805, 06806 in this type approval certificate has a connection between pipe lengths and pressure equipment, up to 25 mm.

Valves are not approved for liquid and gaseous hydrogen and for media specified as toxic and/or dangerous fluids.¹

Note¹: See United Nations (UN) Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

For valves to be installed on board of ships other than liquefied gas tankers the following limitations apply:
 Valves for installation in systems operating with flammable gases are to be classed within Pipe Class I, see DNV Rules Pt. 4 Ch. 6 - Piping systems.

Threaded joints may be used for outside diameters as stated below except for piping systems conveying toxic or flammable media or services where fatigue, severe erosion or crevice corrosion is expected to occur.

- Threaded joints in CO₂ systems shall be allowed only inside protected spaces and in CO₂ cylinder rooms
- Threaded joints with tapered thread shall be allowed for pipe class I, outside diameter not more than 33,7 mm.
- Pipe Class II and Class III outside diameter not more than 60,3 mm.
- Threaded joints with parallel thread shall be allowed for Pipe class III, outside diameter not more than 60.3 mm.

The installation of safety valves in pressurized systems has to be observed under consideration of the specific operating conditions, type of flowing media and observation of the applicable DNV Rules and Pipe Classes.

Tests carried out

Flow test, Seat and leakage test, Cryogenic test

Type Approval documentation

Type approval Application dated 2025-09-16
 Herose test plan for cryogenic safety valves performed at markers test lab on 2015-06-25 according to DIN EN 4126 / API 527 witnessed by Lloyds Register on 2015-06-25 and 2015-07-09 accepted based on the old Type approval Certificate TAP00000K7
 Drawings: 06800-X-X000; 06801-X-X000; 06805-X-X000; 06806-X-X00
 Technical specification Safety valve Herose: BP SIVE 1105

Production testing and Certification

Production Testing and Certification for the actual intended application shall follow the latest applicable edition of the Rules (as mentioned on the front page of this certificate).

Valve type approval tests carried out¹

Type of test	Test standard
Determination of discharge coefficient	DIN EN ISO 4126-1
Verification of discharge capacity	
Hydraulic pressure test of the valve housing Test pressure = 1,5 times the design pressure	
Check of set pressure and reset pressure at room temperature	
Tightness test	
	API527

Note¹: Tests were for cryogenic safety valves performed at markers test lab on 2015-06-25 according to DIN EN ISO 4126-1/ API 527 witnessed by Lloyds Register on 2015-06-25 and 2015-07-09

Each safety relief valve is subject to production testing according to the applicable DNV Rules as following:
 Part 4, Chapter 6 – Piping systems, Section 9 - Valves
 Part 4, Chapter 7 – Pressure equipment, Section 5 and Section 7

Place of Production

HEROSE GMBH Armaturen und Metalle
 Elly-Heuss-Knapp-Str.12
 23843 Bad Oldesloe Germany

Marking of product

Each valve shall be clearly marked for identification. The identification marking may be performed on the body or on a plate of non-corrosive material. When a metallic plate is used, the plate shall be permanently fixed to the body. Identification marking on the body shall be located to non-stressed areas and shall be clearly legible. The identification marking shall as a minimum include the following:

- Manufacturer's name or trademark
- Valve type designation
- Size
- Maximum design pressure and temperature
- Arrow to indicate direction of flow on one-way flow valves

Periodical assessment



Job ID: **262.1-044698-1**
Certificate no.: **TAP0000354**

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with.
Refer to DNV CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

END OF CERTIFICATE