

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Pipe Couplings, Bite and Compression Type

with type designation(s)
STPJ-316L, TPJ-316L

issued to

Yangzhong Zhongyang Electrical and plastic factory
Zhenjiang, Jiangsu Province, China

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV class programme DNV-CP-0185 – Type approval – Mechanical joints
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021

Application:

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

Type:	Temperature range:	Max. working press.:	Sizes:
STPJ-316L	-40°C to +120°C	250 bar / 25 MPa	6 mm to 42 mm O.D.
TPJ-316L	-40°C to +120°C	250 bar / 25 MPa	6 mm to 18 mm O.D.

Issued at **Hamburg** on **2026-01-12**

This Certificate is valid until **2031-01-11**.

for **DNV**

DNV local unit: **Nanjing NB & CMC**

Approval Engineer: **Christian Kaemmer**

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

The Yangzhong Zhongyang pipe-joints are pipe couplings to join pipes, designed in accordance with GB/T 3745-2008 & GB/T 3737-2008.

The pipe joints of type **STPJ-316L** and **TPJ-316L** consist of the components: body, nut and ferrule (cutting-ring) and are without elastomeric sealing. Specific connection-form is for both ends: body, nut and ferrule.

Component	Type Designation	Pipe Diameter
Tube to tube joints		
STPJ-316L	Straight Trough Pipe Joint	6 to 42 mm
TPJ-316L	Tee Pipe Joint	6 to 18 mm

Materials:

Body, nut, ferrule (cutting ring): Stainless Steel AISI 316L

Application/Limitation

The Yangzhong Zhongyang pipe-joints are type approved for application in pipe class I, II and III-piping systems. For transporting water, oil and compressed air.

Classified as Compression coupling – “Bite type” - listed in DNV-Rules “Ships” Pt. 4, Ch. 6, Sec. 9 Table 8, 9 & 10.

The pipe-joints are without elastomeric seals, therefore classified as fire-resistant.

May be applied for pipe systems “wet, dry/wet and dry” according to DNV-Rules “Ships” Pt. 4, Ch. 6, Sec. 9 Table 9. In general, pipe joints are not approved for application in high pressure fuel injection systems of combustion engines.

Selection of materials

It shall be noted that the selection of the materials considers the applicable service condition with respect to type of media, flow velocity, media temperature and installation area of the piping system. In particular, the resistance to corrosion, erosion, oxidation and other deterioration during projected service life are to be considered.

References: DNV Rules “Ships” Pt.4 Ch.6 – Section 2 – Materials.

Sea water application

The term sea water application includes sea water piping systems and installation of piping systems on open deck. Stainless steel materials 1.4571 (AISI 316Ti) are approved for sea water systems with operation mode “flowing seawater” but not for application in piping systems with operation mode “stagnant seawater”.

Service Pressure range

Straight fitting	Tee	Tube O.D. [mm]	Nominal pressure PN [bar]
STPJ-316L	TPJ-316L	6	250
STPJ-316L	TPJ-316L	8	
STPJ-316L	TPJ-316L	10	
STPJ-316L	TPJ-316L	12	
STPJ-316L	TPJ-316L	14	
STPJ-316L	TPJ-316L	15	
STPJ-316L	TPJ-316L	16	
STPJ-316L	TPJ-316L	18	160
STPJ-316L		22	
STPJ-316L		28	100
STPJ-316L		35	
STPJ-316L		42	

Pressure reduction factor:

For service temperatures above 20°C the operating pressure is to be reduced with the pressure reduction factors:

20°C up to 50°C:	- 5 %
up to 100°C:	-15 %
up to 200°C:	-29 %

A tube grade suitable for cold bending and flaring is to be used.

The wall thickness of the tubes is to be selected acc. to DNV Rules "Ships" Part 4 Chapter 6 Section 9 Table 3.

Assembling and Installation

To ensure the performance of the mechanical joint connection the assembly instructions specified in Yangzhong Zhongyang - datasheets and installation instructions are to be observed.

Type Approval documentation**Tests carried out****Manufactured by:**

Yangzhong Zhongyang Electrical and plastic factory, China

Marking of product

For traceability to this Type Approval, the tube fittings are to be marked with:

- Manufacturer's name or trade-mark
- Design temperature
- Design pressure
- Test pressure
- Size
- Manufacturing date

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV - CP-0338, Section 4.

In addition, burst pressure testing on selected sizes to be carried out in the course of renewal of the certificate. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>