

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pipe Couplings, Bite and Compression Type**

with type designation(s)

Straight-, three way- and penetration unions

Issued to

**Yancheng Haite Machinery Technology Co., Ltd.
Jianhu, 100, China**

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems**DNV GL class programme DNVGL-CP-0185 – Type approval – Mechanical joints****Application :****Products approved by these certificate are accepted for installation on all vessels classed by DNV GL.****Temperature range:** see certificate**Max. working press.:** 250 [bar]**Sizes:** 6 [mm] to 30 [mm]Issued at **Hamburg** on **2020-06-02**This Certificate is valid until **2025-06-01**.for **DNV GL**DNV GL local station: **Shanghai**Approval Engineer: **Ana Cristina Do Carmo Insfran****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.



Product description

Design Standard:

Design Temperature:

35# : -20°C to +120°C
022Cr17Ni12Mo2: -55°C to +200°C

Design pressure: 25 [MPa] / 250 [bar]

Pipe Outside Diameter: 6 [mm] to 30 [mm]

The 24° Compression unions consists of the following components:

Component	Materials ¹	Standard
Body (Straight-, three way-, penetration joint)	35#	GB/T699-2015
	022Cr17Ni12Mo2	GB/T1220-2007
Core	10#	GB/T699-2015
	022Cr17Ni12Mo2	GB/T1220-2007
Nut	35#	GB/T699-2015
	022Cr17Ni12Mo2	GB/T1220-2007

Note 1: or of equivalent quality

Application/Limitation

The mechanical joints systems is approved for application in pipe class I, II and II piping systems, according to DNV GL Rules Pt. 4, Ch.6, Sec 9.

The maximum allowable working pressure represents the highest pressure inclusive pressure peaks. Pressure reduction is required for temperatures of 50 [°C] and above for stainless steel in accordance with the international recognized standards and the instructions of the manufacturer respectively.

Penetration Unions: Where "A" class division are penetrated, such penetration shall be tested in accordance with the IMO Fire Test Procedure Code (FTP Code 2010) as amended. However, where a pipe penetration is made of steel or equivalent material having a thickness of 3 [mm] or greater and a length of not less than 900 [mm] (preferably 45 [mm] on each side of the division), and there are no openings, testing is not required. Such penetrations shall be suitably insulated by extension of the insulation at the same level of the division. This means that the welding coupling are to be fitted at least with pipes of 450 [mm] length on each end having a wall thickness of 3 [mm] or greater.

The selection of the compression unions for the corresponding application and the right installation are to be in accordance with the instructions of the manufacturer.

The use of the compression unions outside the range of application is subject to special consideration by DNV GL in each individual case.



Job Id: **262.1-033272-1**
Certificate No: **TAP000021D**

Type Approval documentation

Tests carried out

Burst pressure test

Marking of product

For traceability to this type approval each filter shall be marked:

- Manufacturer's sign or trademark
- Serial number
- Size

Periodical assessment