

# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the Pipe System with Couplings**

with type designation(s)  
**Vic-Press**

Issued to  
**Victaulic Company**  
**Easton, PA, USA**

is found to comply with  
**DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems**  
**DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition January 2018**  
**DNV GL class programme DNVGL-CP-0185 – Type approval – Mechanical joints**

**Application :**

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

**Temperature range:** **Dependent on the sealing, see page 3**  
**Max. pressure:** **16 bar**  
**Design:** **Compression Style Coupling / Fitting**

Issued at **Høvik** on **2018-10-18**

This Certificate is valid until **2023-06-29**.

DNV GL local station: **New York**

Approval Engineer: **Iselinn Vindstad**

for **DNV GL**

Digitally Signed By: Marveng, Marianne Spæren

Location: DNV GL Høvik, Norway



**Marianne Spæren Marveng**  
**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: **262.1-012960-4**  
 Certificate No: **TAP0000045**  
 Revision No: **1**

## Product description

Design:

Compression Style Coupling/ Fitting (Press type) with O-ring seal. The fittings are crimped on the tubes with a special crimping tool, - the Victaulic PFT510 handheld tool.

Materials:

Fittings: Austenitic stainless steel ASTM A312 Type 316L

Pipes: : Austenitic stainless steel ASTM A312 Type 316L/316, Schedule 10S

Sealing: O-rings made of HNBR, EPDM or Fluorelastomer

Sizes:

Style	Type	Size (inch)
Standard coupling	P507	1/2, 3/4, 1, 1 1/2, 2
Slip coupling	P508	1/2, 3/4, 1, 1 1/2, 2
Tee	P572	1/2, 3/4, 1, 1 1/2, 2
Tee with reducing branch	P573	3/4 x 3/4 x 1/2, 1 x 1 x 1/2, 1 x 1 x 3/4, 1 1/2 x 1 1/2 x 1/2, 1 1/2 x 1 1/2 x 3/4, 1 1/2 x 1 1/2 x 1, 2 x 2 x 1/2, 2 x 2 x 3/4, 2 x 2 x 1, 2 x 2 x 1 1/2
Tee with threaded branch	P578	1/2 x 1/2 x 1/2, 3/4 x 3/4 x 1/2, 3/4 x 3/4 x 3/4, 1 x 1 x 1/2, 1 x 1 x 3/4, 1 x 1 x 1, 1 1/2 x 1 1/2 x 1/2, 1 1/2 x 1 1/2 x 3/4, 1 1/2 x 1 1/2 x 1, 2 x 2 x 1/2, 2 x 2 x 3/4, 2 x 2 x 1
Elbows	P568, 90°	1/2, 3/4, 1, 1 1/2, 2
	P562, 90°	
	P571, 45°	
	P563, 45°	
Male threaded adapter	P576	1/2 x 1/2, 3/4 x 1/2, 3/4 x 3/4, 3/4 x 1/2, 3/4 x 1, 1 x 3/4, 1 x 1, 1 1/2 x 3/4, 1 1/2 x 1 1/2, 2 x 2
Female threaded adapter	P579	1/2 x 1/2, 3/4 x 1/2, 3/4 x 3/4, 3/4 x 1/2, 1 x 1/2, 1 x 3/4, 1 x 1, 1 1/2 x 1, 1 1/2 x 1 1/4, 1 1/2 x 1 1/2, 2 x 1/4, 2 x 1 1/2, 2 x 2
End cap	P560	1/2, 3/4, 1, 1 1/2, 2
Threaded union	P585	1/2, 3/4, 1, 1 1/2, 2
Concentric reducer	P574	3/4 x 1/2, 1 x 1/2, 1 x 3/4, 1 1/2 x 1/2, 1 1/2 x 3/4, 1 1/2 x 1, 2 x 1/2, 2 x 3/4, 2 x 1, 2 x 1 1/2
Transition nipple	P577	1/2, 3/4, 1, 1 1/2, 2
Flange adapter (Class 150)	P575	1/2, 3/4, 1, 1 1/2, 2
Van Stone flange adapter	P566	1/2, 3/4, 1, 1 1/2, 2

Manufacturing location:

Victaulic De Mexico S. de R.L. de C.V.  
 Chihuahua CHIH,  
 Mexico

## Application/Limitation

The couplings may be used for the following systems on board:

Systems			Systems		
Flammable fluids (Flash point ≤ 60 °C)			Fresh water		
1	Cargo oil lines	+ 1)	21	Cooling water system	+
2	Crude oil washing lines	+ 1)	22	Condensate return	+
3	Vent lines	+	23	Non-essential system	+
Inert gas			Sanitary/Drains/Scuppers		
4	Water seal effluent lines	+	24	Deck drains (internal)	+ 2)
5	Scrubber effluent lines	+	25	Sanitary drains	+
6	Main lines	+ 1)	26	Scuppers and discharge (overboard)	+
7	Distribution lines	+ 1			

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Flammable fluids (Flash point > 60°C)			Sounding/ vent		
8	Cargo oil lines	+ 1	27	Water tanks/Dry spaces	+
9	Fuel oil lines	+	28	Oil tanks (flash point > 60°C)	+
10	Lubrication oil lines	+		Miscellaneous	
11	Hydraulic oil	+	29	Starting/control air	+
12	Thermal oil	+	30	Service air (non-essential)	+
			31	Brine	+
			32	CO2 system	+
			33	Steam	+

The fittings are permitted for use in systems marked '+', not permitted for systems marked '-'.

Limitations/remarks:

- 1) Only in pump rooms and open decks - only approved fire resistant types.
- 2) Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

Temperature range:

HNBR: -29°C to +98°C

EPDM: -34°C to +121°C

Fluor elastomer: -7°C to +149°C

The couplings covered by this certificate are of fire resistant types, and may be used in systems where fire safe application is required.

Pipe penetrations through watertight bulkheads or decks as well as through fire divisions shall be Type Approved (reference is made to DNVGL-RU-SHIP Pt. 4 Ch. 6 Sec. 3 [1.4.6]) and is not covered by this type approval.

The components are to be mounted according to manufacturer's instructions.

The approval is only valid when the couplings are assembled with tubing of correct temper and tolerances as recommended by the manufacturer.

When used in systems where vacuum may occur, precautions shall be taken to prevent the internal gasket from being drawn into the gap of the two pipe ends.

The fittings are not considered seawater resistant and shall not be used in direct contact with seawater. Materials chosen for the specific system shall be suitable for the intended medium and environmental conditions.

EPDM may not be used for hydrocarbon services.

The couplings are approved to be used in piping systems of class III.

### Type Approval documentation


- Manufacturers catalogue no. 18.11 "Vic-Press © for schedule 10S type 316 stainless steel", rev. M
- Manufacturers test reports nos D2/L2 pull-out test, D1/L1 Vacuum test, D3/L3 Tightness test, D4/L4 Burst test, D5/L5 Fire test
- Test reports nos 12-5841-3/4/5/6/7 dated July 8, 2013

### Tests carried out

Pressure pulsation, vibration, pull-out, vacuum, tightness, burst, fire endurance

### Certification

The couplings are to be delivered with material certificates as per DNVGL-RU-SHIP Pt. 4 Ch. 6 Sec. 2 Table 3.



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### **Marking of product**

For traceability to this type approval, the couplings are at least to be marked with:

- manufacturer's name or trade mark
- type designation
- size

### **Periodical assessment**

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