



Marine &amp; Offshore

Certificate number: 34595/A2 BV

File number: ACM 135/2208/06

Product code: 2170H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Victaulic Company**

Easton - UNITED STATES OF AMERICA

*for the type of product*

**PIPE COUPLING WITH O-RING SEAL**

Vic-Press Compression Type Couplings

**Requirements:**

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 30 Oct 2018**

**For Bureau Veritas Marine & Offshore,**

At BV PORT EVERGLADES CENTRE, on 21 Jun 2017,

Flavio Rosas



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://www.veristar.com). Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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This certificate consists of 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

#### **Vic-Press Compression Type Couplings**

##### 1.1 Design (compression couplings, press type)

Style	Type	Nominal Size inches (mm)
P507	Standard Coupling (P x P)	1/2" to 2" (15 to 50)
P508	Slip Coupling (P x P)	1/2" to 2" (15 to 50)
P560	End Cap	1/2" to 2" (15 to 50)
P562	90° Street Elbow (P x T)	1/2" to 2" (15 to 50)
P563	45° Street Elbow (P x T)	1/2" to 2" (15 to 50)
P568	90° Elbow (P x P)	1/2" to 2" (15 to 50)
P571	45° Elbow (P x P)	1/2" to 2" (15 to 50)
P572	Tee (P x P x P)	1/2" to 2" (15 to 50)
P573	Tee with Reducing Branch (P x P x P)	3/4" x 3/4" x 1/2" to 2" x 2" x 1/2" (20 x 20 x 15 to 50 x 50 x 15)
P574	Concentric Reducer (P x P)	3/4" x 1/2" to 2" x 1-1/2" (20 x 15 to 50 x 50)
P575	Flange Adapter (P x L)	1/2" to 2" (15 to 50)
P576	Male Threaded Adapter (P x M)	1/2" x 1/2" to 2" x 2" (15 x 15 to 50 x 50)
P577	Transition Nipple (G x T)	3/4" to 2" (20 to 50)
P578	Tee with Threaded Branch (P x P x F)	1/2" x 1/2" x 1/2" to 2" x 2" x 1/2" (15 x 15 x 15 to 50 x 50 x 15)
P579	Female Threaded Adapter (P x F)	1/2" x 1/2" to 2" x 2" (15 x 15 to 50 x 50)
P585	Threaded Union (P x P)	1/2" to 2" (15 to 50)

End Type Code: P=Press, F=Female Pipe Thread, M=Male Pipe Thread, T=Plain End, L=Flanged, G=Grooved

##### 1.2 Technical Ratings

Nominal Size inches (mm)	1/2" to 2" (15 to 50)
Max. Working Pressure psi (bar)	232 (16)
Pipe Thickness	Schedule 10S Type 316 Stainless Steel Pipe

Temperature range depending on seal material selected

Seal	Temperature °F (°C)
HNBR	-20/+210 (-29/+98)
EPDM	-30/+250 (-34/+121)
Fluoroelastomer	+20/+300 (-7/+149)

##### 1.3 Material specification

Parts	Grade
Housing Body	316 Stainless Steel
Flange, ends	316 Stainless Steel
Pipe	Schedule 10S 316/316L Stainless Steel
Seals	HNBR, EPDM, Fluoroelastomer

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

### 2. DOCUMENTS AND DRAWINGS

- Drawing N° F-000-P510-001 Rev.U dated 05/05/2011

- Drawing N° F-000-P520-001 Rev.J dated 12/09/2013

- Drawings for coupling Style P507:

N° F-000-P507-002 Rev.K dated 23/06/2011 & N° F-000-P507-003 Rev.H dated 19/09/2011

N° G-000-P507-000 Rev.O dated 23/08/2012 & N° F-000-P507-001 Rev.I dated 15/10/2013

- Drawings for coupling Style P508:

N° F-000-P508-002 Rev.H dated 20/07/2011 & N° F-000-P508-001 Rev.G dated 19/09/2011

- Drawings for coupling Style P560:

N° F-004-P560-002 Rev.C dated 27/06/2011 & N° F-004-P560-004 Rev.B dated 27/06/2011

N° F-004-P560-003 Rev.C dated 15/10/2013

- Drawings for coupling Style P562:  
N° F-000-P542-001 Rev.G dated 19/09/2011 & N° F-000-P542-002 Rev.J dated 13/10/2011
- Drawings for coupling Style P563:  
N° F-000-P543-001 Rev.F dated 19/09/2011 & N° F-000-P543-002 Rev.H dated 13/10/2011
- Drawings for coupling Style P568:  
N° F-000-P568-001 Rev.G dated 19/09/2011 & N° F-000-P568-002 Rev.J dated 13/10/2011
- Drawings for coupling Style P571:  
N° F-000-P571-001 Rev.G dated 19/09/2011 & N° F-000-P571-002 Rev.I dated 13/10/2011
- Drawings for coupling Style P572:  
N° F-004-P572-007 Rev.F dated 27/06/2011 & N° F-004-P572-008 Rev.G dated 19/09/2011
- Drawings for coupling Style P573:  
N° F-006-P573-007 Rev.G dated 07/07/2011 & N° F-006-P573-008 Rev.G dated 19/09/2011
- Drawing for coupling Style P574: N° F-000-P574-000 Rev.K dated 12/11/2012
- Drawings for coupling Style P575:  
N° F-000-P575-013 Rev.F dated 22/06/2011 & N° F-000-P575-014 Rev.H dated 23/06/2011  
N° F-000-P575-017 Rev.B dated 15/11/2011 & N° F-000-P575-018 Rev.B dated 15/11/2011  
N° F-000-P575-019 Rev.B dated 12/11/2012
- Drawings for coupling Style P576:  
N° F-000-P576-001 Rev.E dated 08/07/2011 & N° F-000-P576-002 Rev.G dated 12/07/2011  
N° F-000-P576-003 Rev.I dated 19/09/2011 & N° F-000-P576-000 Rev.I dated 19/09/2011
- Drawing for coupling Style P577: N° F-000-P577-001 Rev.J dated 15/10/2013
- Drawings for coupling Style P578:  
N° F-004-P578-001 Rev.E dated 14/07/2011 & N° F-004-P578-007 Rev.G dated 14/07/2011  
N° F-006-P578-002 Rev.D dated 15/07/2011 & N° F-010-P578-003 Rev.D dated 15/07/2011  
N° F-004-P578-008 Rev.J dated 19/09/2011
- Drawings for coupling Style P579:  
N° F-004-P579-001 Rev.F dated 14/07/2011 & N° F-006-P579-001 Rev.E dated 14/07/2011  
N° F-006-P579-002 Rev.E dated 14/07/2011 & N° F-010-P579-001 Rev.E dated 14/07/2011  
N° F-010-P579-002 Rev.E dated 14/07/2011 & N° F-010-P579-003 Rev.E dated 14/07/2011  
N° F-014-P579-001 Rev.E dated 14/07/2011 & N° F-014-P579-002 Rev.E dated 14/07/2011  
N° F-014-P579-003 Rev.E dated 14/07/2011 & N° F-020-P579-001 Rev.E dated 14/07/2011  
N° F-020-P579-002 Rev.E dated 14/07/2011 & N° F-020-P579-003 Rev.E dated 14/07/2011  
N° F-000-P579-000 Rev.K dated 19/09/2011
- Drawing for coupling Style P585: N° C-000-P584-001 Rev.K dated 19/09/2011

*The drawings list above of all Pres-Vic couplings, within the type and size range noted in section 1.1 "Product Description-Ratings" are BV Type Approved – unless otherwise noted. No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.*

### **3. TEST REPORTS**

3.1 Type tests carried out, witnessed by Class Societies: vacuum test, pull out test, tightness test, burst test and fire resistance test acc. ISO 19921/19922. Test reports dated 16-17/10/2013.

3.2 Pressure pulsation with vibration (fatigue) test conducted at Aero Nav Laboratories, Inc (USA). Test reports N° 12-5841-1 to -7 dated 08-19/07/2013.

#### **4. APPLICATION / LIMITATION**

4.1 May be used on board for services of Class III:

- **Flammable fluids (flash point  $\leq 60^{\circ}\text{C}$ )** - cargo oil (4), crude oil washing (4), vent lines (3)
  - **Inert gas** - water seal/scrubber effluent, main lines (2+4), distributions lines (4)
  - **Flammable fluids (flash point  $> 60^{\circ}\text{C}$ )** - cargo oil (4), fuel oil (2+3), lubricating oil (2+3), hydraulic oil (2+3), thermal oil lines (2+3)
  - **Sea water** – bilge/ballast/cooling water (1), water/non-water filled fire extinguishing systems (3), fire main, tank cleaning/non-essential lines
  - **Fresh water** - cooling water (1), condensate return (1), non-essential lines
  - **Deck drains (internal)** (5), sanitary drains, scuppers and discharge (overboard)
  - **Sounding and venting** - water tanks/dry spaces, oil tanks (flash point  $> 60^{\circ}\text{C}$ ) (2+3)
  - **Miscellaneous** - starting/control air (1), service air (non-essential), brine, CO2 system (1), steam
- (1)- *Inside machinery spaces of category A – only approved fire resistant types.*  
 (2)- *Not inside machinery spaces of category A or accommodation spaces. May be accepted in other machinery space provided the joints are located in easily visible and accessible positions.*  
 (3)- *Approved fire resistant types except in cases where such mechanical joints are installed on exposed decks, as defined in SOLAS II-2/Reg. 9.2.3.3.2.2 (10) and not used for fuel oil lines.*  
 (4)- *Only in pump rooms and open decks – only approved fire resistant types.*  
 (5)- *Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.*

4.2 The seal material is to be compatible with the fluid to be conveyed and the maximum working temperature in accordance with the manufacturer's instructions.

4.3 Austenitic stainless steel is not to be used for sea water applications

4.4 In all cases, the associated pipes are to be suitably supported and anchored. The joints are to be at any time accessible, excepting inside tanks where permitted by the Society's rules.

4.5 Couplings and seals are to be assembled with pipes in accordance with the assembly instructions given by the manufacturer.

4.6 The approval does not cover any pipes penetration through watertight bulkheads and fire divisions.

#### **5. PRODUCTION SURVEY REQUIREMENTS**

5.1 The products are to be supplied by **Victaulic Company (USA)** in compliance with the type described in this certificate.

5.2 This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 **Victaulic Company (USA)** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

For information, **Victaulic Company (USA)** has declared to Bureau Veritas the following production site:

**Victaulic De Mexico S. de R.L. de C.V.: Avenida Aeroespacial 12601, Parque Industria Sur, Tabalaopa 31385  
Chihuahua, CHIH. Mexico**

#### **6. MARKING OF PRODUCT**

Each product shall be marked with at least:

- Manufacturer's name or logo
- Type designation
- Size

Mark per P-000-P500-001 Rev. J

#### **7. OTHERS**

It is **Victaulic Company (USA)**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

*This certificate supersedes the Type Approval Certificate No. 34595/A1 BV by the Society.*

\*\*\* END OF CERTIFICATE \*\*\*