

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pipe Couplings**

with type designation(s)

Victaulic fittings no: 10, 11, 12, 13, 20, 25, 30, 50, 51, 60 and FireLock 001, 002, 003, 006

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: EPDM:0°C to +110°C / Nitrile: 0°C to +82°C****Max. working press.: 20 bar****Sizes: See page 2**Issued at **Høvik** on **2018-10-16**for **DNV GL**This Certificate is valid until **2023-06-29**.DNV GL local station: **New York**Approval Engineer: **Iselinn Vindstad****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: **262.1-009291-14**
 Certificate No: **TAP00001DV**

Product description

Victaulic fittings no: 10, 11, 12, 13, 20, 25, 30, 50, 51, 60 and FireLock 001, 002, 003, 006

Design:

The grooved fitting is joined to the grooved pipe by couplings. The sealing is provided by a rubber gasket, internal to the coupling.

Fitting material: Ductile iron to ASTM A-536 65-45-12

Sizes:

Style No	Type	Size (inch)
10	90° Elbow	¾, 1, 1 ¼, 1 ½, 2, 2 ½, 3, 3 ½, 4, 5, 6, 8, 10, 12
11	45° elbow	
12	22,5° elbow	
13	11,25° elbow	
20	Tee	
25	Reducing Tee	1 x 1 x ¾, 1 ¼ x 1 ¼ x 1, 1 ½ x 1 ½ x ¾, 1 ½ x 1 ½ x 1, 1 ½ x 1 ½ x 1 ¼, 2 x 2 x ¾, 2 x 2 x 1, 2 x 2 x 1 ¼, 2 x 2 x 1 ½, 2 ½ x 2 ½ x ¾, 2 ½ x 2 ½ x 1, 2 ½ x 2 ½ x 1 ¼, 2 ½ x 2 ½ x 1 ½, 2 ½ x 2 ½ x 2, 3 x 3 x ¾, 3 x 3 x 1, 3 x 3 x 1 ¼, 3 x 3 x 1 ½, 3 x 3 x 2, 3 x 3 x 2 ½, 4 x 4 x ¾, 4 x 4 x 1, 4 x 4 x 1 ¼, 4 x 4 x 1 ½, 4 x 4 x 2, 4 x 4 x 2 ½, 4 x 4 x 3, 5 x 5 x 1, 5 x 5 x 1 ½, 5 x 5 x 2, 5 x 5 x 2 ½, 5 x 5 x 3, 5 x 5 x 4, 6 x 6 x 1, 6 x 6 x 1 ½, 6 x 6 x 2, 6 x 6 x 2 ½, 6 x 6 x 3, 6 x 6 x 4, 6 x 6 x 5, 6 ½ x 6 ½ x 3, 6 ½ x 6 ½ x 4, 8 x 8 x 1 ½, 8 x 8 x 2, 8 x 8 x 2 ½, 8 x 8 x 3, 8 x 8 x 4, 8 x 8 x 5, 8 x 8 x 6, 8 x 8 x 165.1, 10 x 10 x 1 ½, 10 x 10 x 2, 10 x 10 x 2 ½, 10 x 10 x 3, 10 x 10 x 4, 10 x 10 x 5, 10 x 10 x 6, 10 x 10 x 8, 12 x 12 x 1, 12 x 12 x 2, 12 x 12 x 2 ½, 12 x 12 x 3, 12 x 12 x 4, 12 x 12 x 5, 12 x 12 x 6, 12 x 12 x 8, 12 x 12 x 10
30	45° Lateral	3, 4
50	Eccentric Reducer	1 ¼ x ¾, 1 ¼ x 1, 1 ½ x ¾, 1 ½ x 1, 1 ½ x 1 ¼, 2 x ¾, 2 x 1, 2 x 1 ¼, 2 x 1 ½, 2 ½ x ¾, 2 ½ x 1, 2 ½ x 1 ¼, 2 ½ x 1 ½, 2 ½ x 2, 3 x ¾, 3 x 1, 3 x 1 ¼, 3 x 1 ½, 3 x 2, 3 x 2 ½, 3 ½ x 3, 4 x 1, 4 x 1 ¼, 4 x 1 ½, 4 x 2, 4 x 2 ½, 4 x 3, 4 x 3 ½, 5 x 2, 5 x 2 ½, 5 x 3, 5 x 4, 6 x 1, 6 x 1 ½, 6 x 2, 6 x 2 ½, 6 x 3, 6 x 4, 6 x 5, 8 x 2 ½, 8 x 3, 8 x 4, 8 x 5, 8 x 6, 10 x 4, 10 x 5, 10 x 6, 10 x 8, 12 x 4, 12 x 6, 12 x 8, 12 x 10
51	Concentric Reducer	
60	Cap	¾, 1, 1 ¼, 1 ½, 2, 2 ½, 3, 3 ½, 4, 5, 6, 8, 10, 12

Style no	Type	Sizes (inch)
001 FireLock	90° Elbow	2, 2 ½, 3, 4, 5, 6, 8
002 FireLock	Straight Tee	
003 FireLock	45° Elbow	
006 FireLock	Cap	1 ¼, 1 ½, 2, 2 ½, 3, 3 ½, 4, 5, 6, 8

Manufacturing locations:

Victaulic Company
 4901 Kesslersville Road,
 Easton, PA 18040 USA

Victaulic Polska Sp. z o.o.
 ul. Niepodległości 8
 66-530 Drezdenko, Poland

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Dalian Bingshan Metal Technology Co., Ltd.
No.9 Northeastern 7th Street Economic and Technology Development Zone,
Dalian, Liaoning, 116600, China

Application/Limitation

The fittings are approved to be used in piping systems of class II and III with the following DNV GL type approved couplings:

Coupling type	Coupling type approval certificate
Style 75, 750, 07, 005H, 77	TAP00001E7, TAP00001EE, TAP0000029

The application/limitations stated in the above mentioned certificates are applicable.

Materials chosen for the specific system shall be suitable for the intended medium and environmental conditions.

Type Approval documentation

- manufacturer's product catalogue no. 07.01 "Victaulic® Grooved End Fittings", rev. AF
- manufacturer's product catalogue no. 10.03 "Victaulic® FireLock™ Fittings", rev. N
- CCS Burst pressure testing reports dated July 31, 2017 (witnessed by DNV GL)
- Renewal burst pressure test reports witnessed by DNV GL

Tests carried out

Burst pressure test

Certification

Material certification shall be as per DNVGL-RU-SHIP Pt. 4 Ch. 6 Sec. 2 Table 3.

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.