



TYPE APPROVAL CERTIFICATE
No. MAC142815XG/002

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	MECHANICAL JOINTS FOR PIPES
<i>Type</i>	Mechanical T & Crosses - Elbows - Tees - Reducers and Caps and Butterfly Valves Vic-300 MS
<i>Applicant</i>	VICTAULIC COMPANY KESSLERSVILLE ROAD 4901 18040 EASTON U.S.A.
<i>Manufacturer</i>	VICTAULIC COMPANY
<i>Place of manufacture</i>	KESSLERSVILLE ROAD 4901 18040 EASTON U.S.A. See Remark (1)
<i>Reference standards</i>	RINA RULES
<i>Reference documents</i>	RINA TYPE APPROVAL SYSTEM

Issued in **Hamburg** on **August 28, 2015**. *This Certificate is valid until* **August 27, 2020**


RINA Services S.p.A.
Giuseppe Russo

Remark (1): Manufacturing locations are listed on page 1 of enclosed sheets.

This certificate consists of this page and 1 enclosure

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Mechanical T & Crosses - Elbows - Tees - Reducers and Caps and Butterfly Valves Vic-300 MS

Manufacturing Locations

Victaulic Easton Facility

4901 Kesslersville Road
Easton, PA 18040 - USA

Victaulic Alburtis Facility

8023 Quarry Road
Alburtis, PA 18011 - USA

Victaulic Polska Facility

STR Niepodleglosci 8
66-530 Drezdenko
Prov. Gorzow, Poland

Dalian Bingshan Metals Technology Co. Ltd.

No. 9 Northeast 7th Street
Dalian Economy & Development Zone
Dalian, 116600 China

Victaulic Piping Products (Dalian) Co. Ltd (VPP)

No. 13 Tie Shan Dong 2 Road
Dalian Development Zone
Dalian, 116630 China

Mechanical T & Crosses; Elbows; Tees; Reducers and Caps

Reference documents

Victaulic Product Description No.07.01, 11.02,11.03.

Manufacturers Catalogue "Victaulic Mechanical Piping Systems - General Catalogue".
Test Report No. 24425 dated March 7, 1997 from Underwriters' Laboratories of Canada.
Gasket Selection Data 05.01.

Materials/Components

Fitting: Ductile iron conforming to ASTM A-536 or SWS Fitting according to ASTM A-53.
Coupling Gasket: see above mentioned Gasket Selection Data 05.01.
Bolts/Nuts: ASTM A-183 or equivalent having a minimum tensile of 760 N/mm².



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**Mechanical T & Crosses - Elbows - Tees - Reducers and Caps and Butterfly Valves Vic
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Technical characteristic

Style 920, 920N Mechanical T	
Dimension DN	Pressure rating kPa
50x15 up 200x100	2065 kPa up 2750 kPa

No.10 90 Degree Elbows	
Dimension DN	Pressure rating kPa
20 up 300	see footnotes (1)

No.11 45 Degree Elbows	
Dimension DN	Pressure rating kPa
20 up 300	see footnotes (1)

No. 12 22,5 Degree Elbows	
Dimension DN	Pressure rating kPa
20 up 200	see footnotes (1)

No. 13 11,25 Degree Elbows	
Dimension DN	Pressure rating kPa
50	see footnotes (1)
80	see footnotes (1)
100	see footnotes (1)
150	see footnotes (1)
200	see footnotes (1)

No.20 Tees	
Dimension DN	Pressure rating kPa
20 up 300	see footnotes (1)
350 up 600	see footnotes (1)

No. 25 Reducing Tees	
Dimension DN	Pressure rating kPa
50x50x20	see footnotes (1)
50x50x25	see footnotes (1)
80x80x25	see footnotes (1)
100x100x25	see footnotes (1)
100x100x50	see footnotes (1)
100x100x65	see footnotes (1)
100x100x80	see footnotes (1)
150x150x50	see footnotes (1)
150x150x80	see footnotes (1)
150x150x100	see footnotes (1)
200x200x100	see footnotes (1)
200x200x150	see footnotes (1)

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No. 50 Concentric Reducers	
Dimension DN	Pressure rating kPa
40 x 25 up 300 x 250	see footnotes (1)

No. 60 Caps	
Dimension DN	Pressure rating kPa
20 up 300	see footnotes (1)

(1) the pressure rating is the one of the associated mechanical joint as per RINA type approval certificate MAC150010XG/01 issued on November 22, 2010.

Field of application

- Fresh Water System.
- Sea Water Cooling System inboard of required shell valves.
- Bilge Pipes not in cargo holds or deep tanks.
- Ballast Systems when the pipelines pass through other ballast tanks.
- Cargo Oil Piping on oil tankers, cargo tanks and pump room.
- Fuel Oil Transfer Systems on deck and through other fuel tanks only. Not acceptable in oil line in pipe duct keels.
- Lube Oil Transfer Systems on deck and through other lube tanks only. Not acceptable in oil line in pipe duct keels.
- Compressed Air Systems.
- Sanitary Systems inboard of required shell valves
- Acceptable in Vents, Overflows and Sounding pipes provided that they are not located in such a position that subsequent leakage would create hazards by way of fire, damage to electrical systems or cargo and by the release of noxious or toxic vapours in enclosed spaces
- Potable Water Systems.
- Fire Main Systems.

The joints are to be used in easily accessible locations only. The fields of application are to be in accordance with Table 16 and 17 of Section 10 Chapter 1 Part C of RINA Rules..

Acceptance conditions

The components are to be installed in a location where leakage would not create a hazard by way of damage to electrical systems or otherwise create a hazard to the vessel, equipment or personnel onboard.

The components and gaskets (Victaulic Gasket Selection data 05.01) are to be installed in accordance with manufacturer's recommendations / limitations / requirements.

The acceptance on board is subject to testing as per RINA Rules.



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**Mechanical T & Crosses - Elbows - Tees - Reducers and Caps and Butterfly Valves Vic
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Butterfly Valves Vic-300 MS

Reference documents

Victaulic Product Description No. 08.20.

Manufacturing Locations

Body and end face cast at: Victaulic Alburdis Facility, Victaulic Polska Facility, Dalian Bingshan Metals Technology Co. Ltd. and Victaulic Piping Products (Dalian) Co. Ltd (VPP).

Valve assembly at: Victaulic Easton Facility, Victaulic Polska Facility and Victaulic Piping Products (Dalian) Co. Ltd (VPP).

Materials/Components

Body, End Face (diameter from 50 to 150 mm) or Seal Retainer (diameter from 200 to 300 mm):

Ductile Iron according to the following standards: ASTM A-536 gr 65-45-12

Disc:

Ductile Iron according to the following standards: ASTM A-536 gr 65-45-12 with electroless nickel coating conforming to ASTM B-733

Liner :

EPDM or Nitrile

Stem :

416 Stainless steel ASTM A-582,

Technical characteristic

VIC-300 MS	
Dimension DN	Pressure rating kPa
50 up 300	2065

Working temperature:

EPDM + -34 °C to + 110 °C

Nitrile + 29 °C to + 82 °C



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Field of application

- Fresh Water System.
- Sea Water Cooling System inboard of required shell valves.
- Bilge Pipes not in cargo holds or deep tanks.
- Ballast Systems when the pipelines pass through other ballast tanks.
- Cargo Oil Piping on oil tankers cargo tanks and pump room
- Fuel Oil Transfer Systems on deck and through other fuel tanks only. Not acceptable in oil line in pipe duct keels.
- Lube Oil Transfer Systems on deck and through other lube tanks only. Not acceptable in oil line in pipe duct keels.
- Compressed Air Systems
- Sanitary Systems inboard of required shell valves
- Acceptable in Vents, Overflows and Sounding pipes in accessible locations provided that they are not located in such a position that subsequent leakage would create hazards by way of fire, damage to electrical systems or cargo and by the release of noxious or toxic vapours in enclosed spaces
- Potable Water Systems.
- Fire Main Systems.

The valves are to be used in easily accessible locations only

The fields of applications in general, are to take into account the applicable requirements of RINA Rules.

Acceptance conditions

Valves and accessories are to be built in accordance with recognised standard. Evidence is to be given to the Surveyor in charge of the tests.

Final acceptance of valves is subject to satisfactory outcome of testing as per RINA Rules.

The butterfly valve body, disc and sealing are to be suitable for the foreseen service.

Evidence of what follows is to be given on the test certificate:

- butterfly valves not fitted with flanges are not to be used for sea chests or overboard discharges unless provisions are made to allow disassembling at sea of the pipes served by these valves without any risk of flooding.
- bilge valves will be fitted in association with a non return valve.
- the use of grey or nodular cast iron will be restricted as per RINA Rules according to Tab. 4 Pt.C, Ch 1, Sec 10.
- for sea water pipe systems, the use of austenitic stainless steel is not recommended according to Tab. 4 Pt.C, Ch 1, Sec 10

The maximum working pressure is to be reduced as per the Manufacturer's instructions, according to working temperature

This certificate does not cover any appropriate system for remote control valve.

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Installation on board

The components are to be installed in a location where leakage would not create a hazard by way of damage to electrical systems or otherwise create a hazard to the vessel, equipment or personnel onboard.

The installation on board is to be made in compliance with Manufacturer's instructions and with applicable RINA Rules.

This Type Approval Certificate is the renewal of the certificate MAC150010XG/002 dated November 22,2010

Hamburg August 28, 2015

