



Marine & Offshore

Certificate number: 39487/B0 BV

File number: ACM 135/2743/01

Product code: 2080H

*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*

**HIDROTEN S.A.**

ALICANTE - SPAIN

*for the type of product*

**THERMOPLASTIC MATERIAL PIPES AND FITTINGS**

Valves and Fittings made of PVC-U or PPFV

### Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units
- IMO Resolution A.753(18)

*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: 12 Dec 2027**

**For Bureau Veritas Marine & Offshore,**

At BV BILBAO, on 12 Dec 2022,

Juan jose GUTIERREZ GARCIA

***This certificate was created electronically and is valid without signature***



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. 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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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

<b>Series</b>	PVC-U & PPFV Valves and Fittings
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#### 1.1 Technical Data for valves

##### FAMILIA 09 - Butterfly Valves

Range	QUARTERING COMPACT BUTTERFLY VALVE	QUARTERING IMPLEX® BUTTERFLY VALVE	QUARTERING IMPLEX® BUTTERFLY VALVE
Diameters	Ø 90 to Ø 160	Ø 63 to Ø 160	Ø 200 to Ø 315
Max. Working Pressure	PN 10 bar	PN 10 bar	PN 6 bar
Max. Working Temperature	0 - 60 °C	0 - 60 °C	0 - 60 °C
Material	PVC-U	PVC-U & PPFV	PVC-U & PPFV

##### FAMILIA 11 - "Basic" Ball Valves

Range	QUARTERING	QUARTERING	QUARTERING FULL FLOW VALVE XXL
Diameters	Ø 20 to Ø 63	Ø 75 to Ø 160	Ø 125 - Ø 140 - Ø 160
Max. Working Pressure	PN 16 bar	PN 10 bar	PN 10 bar
Max. Working Temperature			
Material	PVC-U	PVC-U	PVC-U

#### 1.2 Technical Data for fittings

##### FAMILIA 01/02/10 - U-PVC Pressure Fittings

Diameters	Ø 63 to Ø 140	Ø 160 to Ø 315	Ø 400
Max. Working Pressure	PN 16 bar	PN 10 bar	PN 6 bar
Max. Working Temperature	0 - 60 °C	0 - 60 °C	0 - 60 °C
Material	PVC-U	PVC-U	PVC-U

- Fittings: sockets, elbows (45° / 90°), tees, reducers, cap, threaded fittings & flanges

#### Raw Material

Fittings	PVC-U & PPFV
Gaskets	EPDM

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

### 2. DOCUMENTS AND DRAWINGS

#### Specifications

Number	Edition	Manufacturer's catalogue
---	May 20	FAMILIA 01/02/10 - U-PVC Pressure Fittings
---	May 20	FAMILIA 09 - Butterfly Valves
---	May 20	FAMILIA 11 - "Basic" Ball Valves

*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**

Date	Test Report
23/04/2015	AT-0452/15 <b>FAMILIA 09</b> N° 14/2328 Determination of resistance to internal pressure according to EN ISO 1452-3 on specifications of EN ISO 1167-1:2006  <i>Test performed at 15 bar</i>
26/08/2015	AT-1109/15 <b>FAMILIA 01/02/10</b> N° 15/1411 Determination of resistance to internal pressure according to EN ISO 1452-3 on specifications of EN ISO 1167-1:2006  <i>Tests Performed at 33.6 &amp; 67.2 bar</i>
10/12/2015	AT-1615/15 <b>FAMILIA 01/02/10</b> N° 15/2662 Determination of resistance to internal pressure according to EN ISO 1452-3 on specifications of EN ISO 1167-1:2006  <i>Tests Performed at 9, 15, 24, 33.6 &amp; 67.2 bar</i>

\* witnessed by a Surveyor's Classification Society

**Determination of the Resistance to Internal Pressure – Based on standard UNE-EN ISO 1167-1:2006**

Date	Test Report
04/10/2022	PLA-0301/22-1 * <b>FAMILIA 11</b> <ul style="list-style-type: none"> <li>Hidroten PN16 (Ø32, Ø50, Ø63, Ø75)</li> </ul> <i>Test performed at 24 bar for (Ø32, Ø50, Ø63, Ø75))</i>
28/10/2022	PLA-0302/22-1 * <b>FAMILIA 09</b> <ul style="list-style-type: none"> <li>mariposa PN10 Mercado (Ø63, Ø140, Ø160)</li> <li>Porta bridas con tallo encolado de PVC-U (PN16 : Ø63 &amp; Ø140 - PN10 : Ø160 &amp; Ø315)</li> <li>Bridas Mercado (PN16 : Ø63 &amp; Ø140 - PN10 : Ø160 &amp; Ø315)</li> <li>Juntas planas EVA amarilla Mercado (Ø63, Ø140, Ø160)</li> <li>Válvula mariposa Mercado (PN06 : Ø315)</li> </ul> <i>Test performed at : 15,0 bar for Ø63, Ø140, Ø160 - 9,0 bar for Ø315</i>
13/09/2022	LA-0417/21-1 R1 * <b>FAMILIA 01/02/10</b> <ul style="list-style-type: none"> <li>Elbow 90° (PN16 : Ø16 &amp; Ø63, PN10 : Ø160)</li> <li>Junction double socket (PN16 : Ø16 &amp; Ø63)</li> <li>Equal tee (PN16 : Ø16)</li> </ul> <i>Test performed at : 67,2 bar for Ø16, Ø63 - 33,6 bar for Ø160</i>
02/11/2022	PLA-0548/22-1 * <b>FAMILIA 01/02/10</b> <ul style="list-style-type: none"> <li>Codo 90° Mercado 'NETWELL System PVC-U (PN10 : Ø315)</li> <li>Junction double socket (PN16 : Ø16 &amp; Ø63)</li> <li>Equal tee (PN16 : Ø16)</li> </ul> <i>Test performed at : 33,6 bar for Ø315</i>

\* Test Performed by the CEIS (Centro de ensayos innovacion y servicios) , Madrid, Spain

**4. APPLICATION / LIMITATION**

4.1 Approved for use in locations and for non-essential applications where no fire endurance and no flame spread characteristics are required according to Pt C, Ch 1, App 3 [2.3.1] of Bureau Veritas Rules or appendix 4 of IMO Resolution A.753 (18) when the abbreviations "O or NA" are specified. For inst. domestic water system (hot/cold, sea and fresh water), chilled and potable

water systems, sanitary systems, heating systems and non-essential systems. Further these products are not to be installed in hazardous areas.

4.2 Detailed drawings of piping system for each application on board ships are to be submitted for review of compliance with the BUREAU VERITAS Rules and the applicable regulations.

4.3 Penetration in watertight and fire class divisions is not covered by this approval. The drawing examination is subject to the Society's approval in each case.

4.4 The valves and fittings assembly is to be carried out in accordance with the manufacturer's instructions and the person performing these tasks is to be qualified to the satisfaction of the Society Surveyor.

4.5 The valves and fittings have not been type tested for flame spread, fire endurance, smoke generation, toxicity and external pressure.

4.6 The valves are not to be used as ship side valves according to BUREAU VERITAS Rules in Pt C, Ch1, App 3, [3.7.1].

## **5. PRODUCTION SURVEY REQUIREMENTS**

5.1 The products are to be supplied by **HIDROTEN S.A.** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of this certificate.

5.2 This type of product is within the category HBV of BUREAU VERITAS Rule Note NR 320.

5.3 **HIDROTEN S.A.** has to make the necessary arrangements to have its works recognised by BUREAU VERITAS in compliance with the requirements of NR 320 for HBV products.

5.4 Each valve and fitting is to be tested by the manufacturer at a hydrostatic pressure not less than 1.5 times the nominal pressure. Other recognised national or international standard may be accepted for valves and fittings not employing hand lay up techniques. Depending upon the intended application the Society may require the pressure testing of each valve and/or fitting.

5.5 No BUREAU VERITAS product certificate is required.

5.6 For information, **HIDROTEN S.A.** has declared to Bureau Veritas the following production site:

**HIDROTEN S.A.**  
**Pol. Ind. Pla de la Vallonga**  
**Calle Agua N°28**  
**ALICANTE**  
**SPAIN**

## **6. MARKING OF PRODUCT**

Valves and fittings shall be marked with at least:

- Manufacturer's name or logo
- Type and size of the product
- Pressure rating
- Design standard
- Raw material

The permanent label for the product shall remain legible under normal handling and installation practices.

## **7. OTHERS**

It is **HIDROTEN S.A.**'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. 39487/A1 BV issued by the Society.*

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