

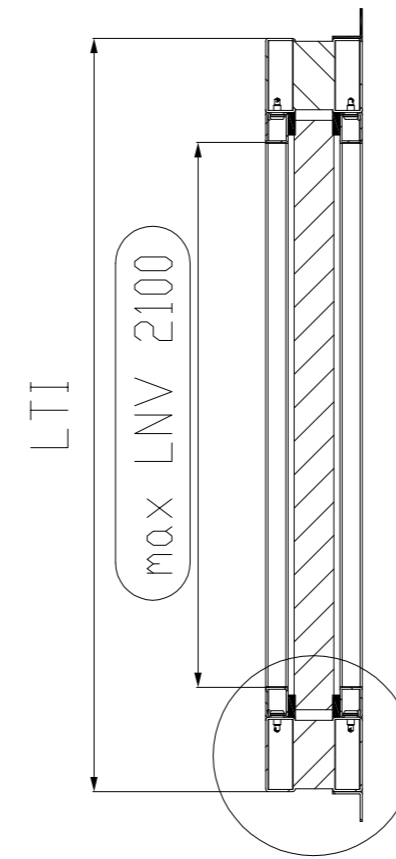
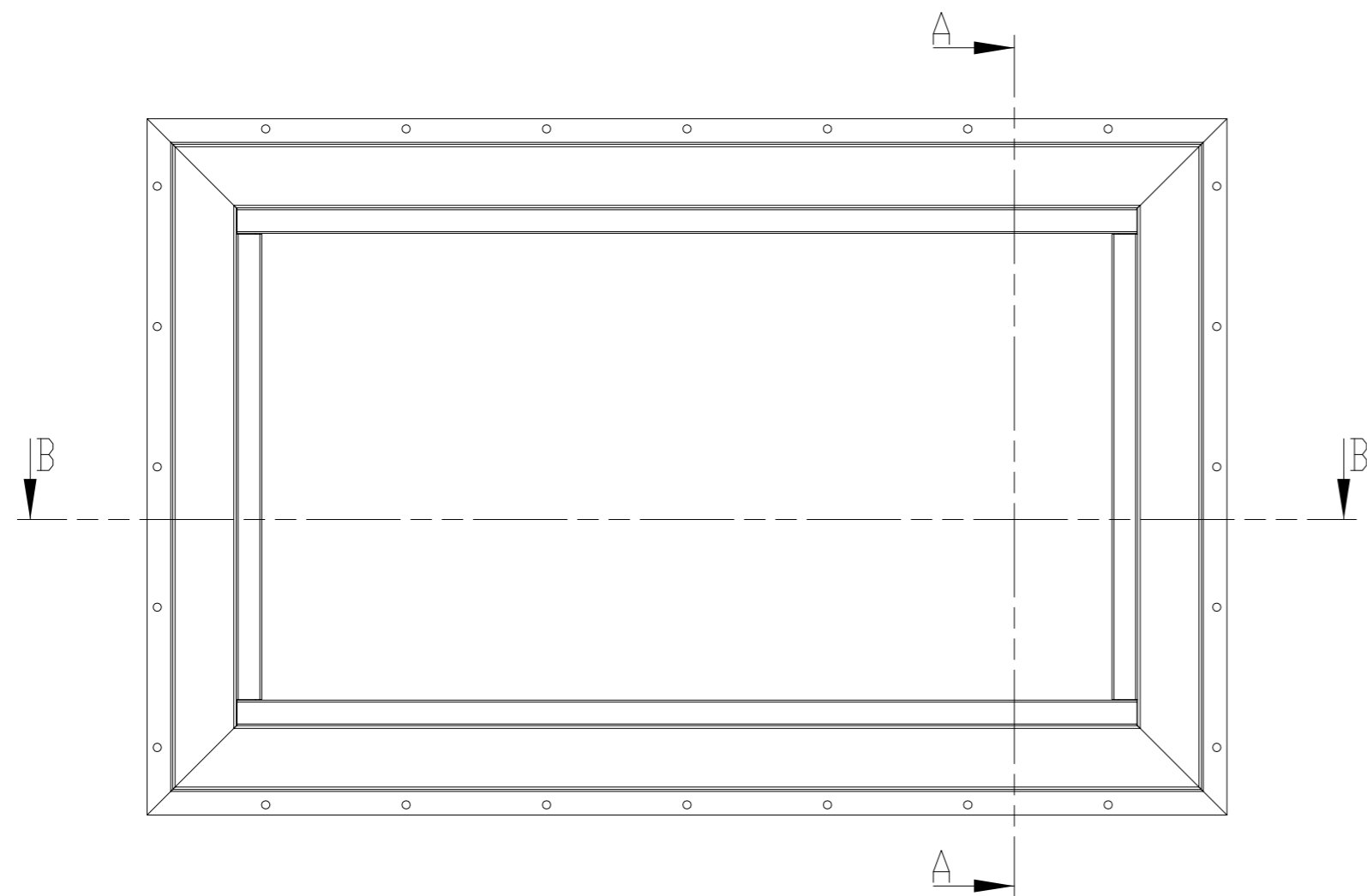


# WINDOW

# Product data sheet

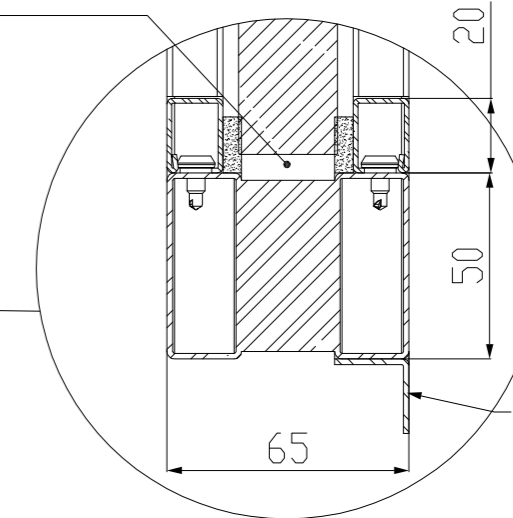
General Information	
description	internal windows or glass wall
type	A60WFG1
manufacturer	Blu Bud srl
Application	
fire properties	A60 Class fire resistant
certificates, approvals	RINA MED Module B Nr. MED080914CS/005
drawing number	A60WFG1
Size	
max horizontal clear opening (LNO)	1000 mm
max vertical clear opening (LNV)	2000 mm
horizontal cut in bulkhead (TPO)	LNO + 140 mm + 10 mm
vertical cut in bulkhead (TPV)	LNV + 140 mm + 10 mm
Frame	
section shape	see dwg
section size	see dwg
thickness of steel	various
materials	steel or stainless steel (ss)
finishing	raw, paint, brushed or polished (ss)
counter frame thickness	TBD
Leaf	
glass	PYROBEL 25
thickness minimum of glass	26,6 +/- 1 mm
thickness of door leaf	65 mm
Accessories	
decoration	custom request
Mechanical and physical properties	
noise reduction	n.a.
Watertightness	30.901 Pa ovvero 3.15 metri di acqua

A60\_window\_rev00

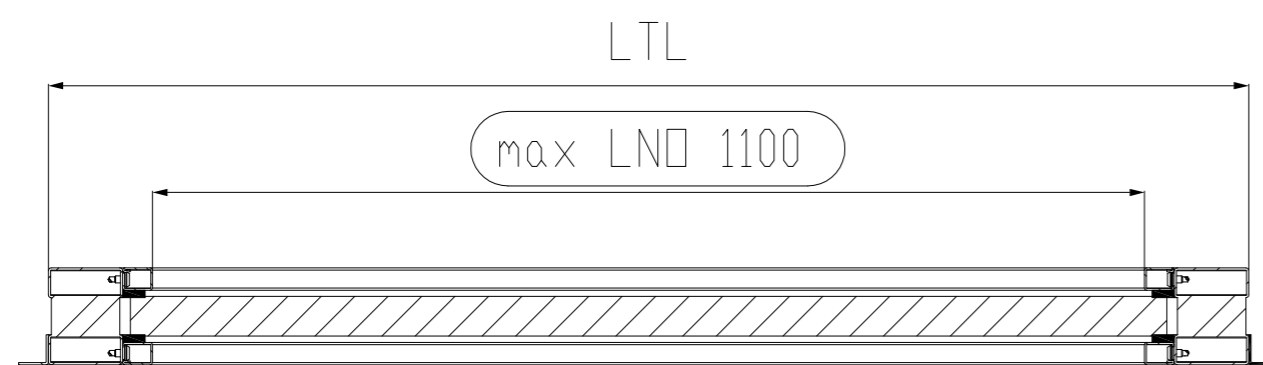


SEZIONE A-A

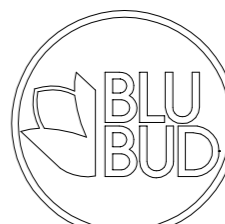
Riempire di sigillante per evitare passaggio dell'acqua



DETTAGLIO C  
SCALA 1 : 1,



SEZIONE B-B

0	-	EMISSIONE		
REV.	DATA / DATE	DESCRIZIONE DELLE MODIFICHE / DESCRIPTION OF ALTERATIONS	CONTROLLATO CHECKED	MODIFICATO REVISED
RIFERIMENTO REFERENCE BLU BUD				
DESCRIZIONE DESCRIPTION A60 GLASS WALL - A60WFG1				
MATERIALE MATERIAL -	BLUBUD SRL Operational office: via Ivo S/3 16128 Genova - ITALY Tel +39. 010. 8601 379 Fax +39. 010. 8183 053		SCALA SCALE 1:5	DATA DATE 27-Aug-20
SPESSORE THICKNESS -	PESO NETTO kg NET WEIGHT kg 0.000		CONTROLLATO DA CHECKED BY -	DISegnato DA DRAWN BY -
NOTE NOTES XXX			Registered office: via Fieschi 20/9 16121 Genova - ITALY E-MAIL: info @blubud.it WWW: http://www.blubud.it	
A2	A60WFG1	ASSEM	A60WFG1	FOGLIO SHEET 1 / 1 DIS. N° DWG N° A60WFG1
QUESTO DISEGNO NON PUO' ESSERE USATO O RIPRODOTTO SENZA NOSTRA AUTORIZZAZIONE THIS DRAWING CANNOT BE COPIED, DUPLICATED OR DISCLOSED TO ANYONE WITHOUT OUR APPROVAL				



Marine & Offshore  
Division

Attestation number: 0649GEN16H016/17/SB  
The continuation sheet(s) form(s) part of the attestation.

www.veristar.com

## ATTESTATION FOR WINDOW / SIDE SCUTTLE / PORTHOLE

**Applicant** : BLU BUD Srl (Genova - ITA)  
**Specifications** : See Blu Bad - Test Report 1.2  
**Product description** : **A60 - WATERTIGHT FIXED WINDOW**  
**Quantity** : 1 pc.

**Particulars of products as declared by the applicant:**

**Manufacturer** : BLU BUD Srl (Genova - ITA)  
**Manufacturer's ref. N°** : 16047  
**Type** : 16047A001 - Vetrata A60  
**Drawing number & revision** : 16047A001 Rev.:-  
**Fire classification** : A60  
**Type Approval Certificate number** : MED080914CS-005 - MED007516TS-035 Rina  
**Piece / Serial number(s)** : 16047  
**Declared as intended for** : Engine Control Room (L 590mmxH 787mm)  
**Performed** : Hydrostatic Test Water at 30901 Pa

**Enclosures / Remarks** : See attached FR032-A60 Watertight fixed window.

At the request of the applicant identified here above, this is to attest that the interventions as described in the subsequent page(s) were carried out with satisfactory results and within the scope of the General Conditions of Marine & Offshore Division of Bureau Veritas

**Marking** : S.N. 16047A001  
**Last attendance date** : 21 Dec 2016  
**Surveyor** : Sandro BRUSEGAN

**Issuance date** : 08 Feb 2017  
**Office** : BV VENEZIA

*Sandro Brusegan*



This attestation is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore Division 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 for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgment, 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.

## **SCOPE OF INTERVENTION**

### ***INSPECTIONS PERFORMED:***

- *Check remarks and/or technical comments on reviewed documents,*
- *Check requirements in Approval Certificate,*
- *General visual examination,*
- *Witnessed , hydrostatic test according to FR032 - A60 Watertight fixed windows Verision 1.2.*

*Bureau Veritas Surveyor : Mr. SANDRO BRUSEGAN*

*Bureau Veritas ITALY*

**\*\*\*\*\* End of Certificate \*\*\*\*\***



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## **FR032 - A60 WATERTIGHT FIXED WINDOW**

### **TEST REPORT**

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Version <1.2>

<09/01/2017>

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File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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## VERSION HISTORY

Version	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	M. MIANI	05/12/2016		06/12/2016	draft
1.1	M. MIANI	21/12/2016	F.FURLAN	21/12/2016	updated according BV survey
1.2	M.MIANI	09/01/2017	S.BRUSEGAN	09/01/2017	updated BV regulations

A handwritten signature in black ink, appearing to be 'S. Brusegan', written over a horizontal line.

File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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## 1.0 Introduction

### 1.1 Purpose

This FR032 - A60 WATERTIGHT FIXED WINDOW Test Report provides a summary of the results of test performed as outlined within this document.

## 2.0 Test Summary

**Project Name:** FR032 – A60 WATERTIGHT FIXED WINDOW

**System Name:** 16047A001

**Version Number:** 1.1

**Test Description:** hydrostatic test water

### 2.1 HYDROSTATIC TEST WATER

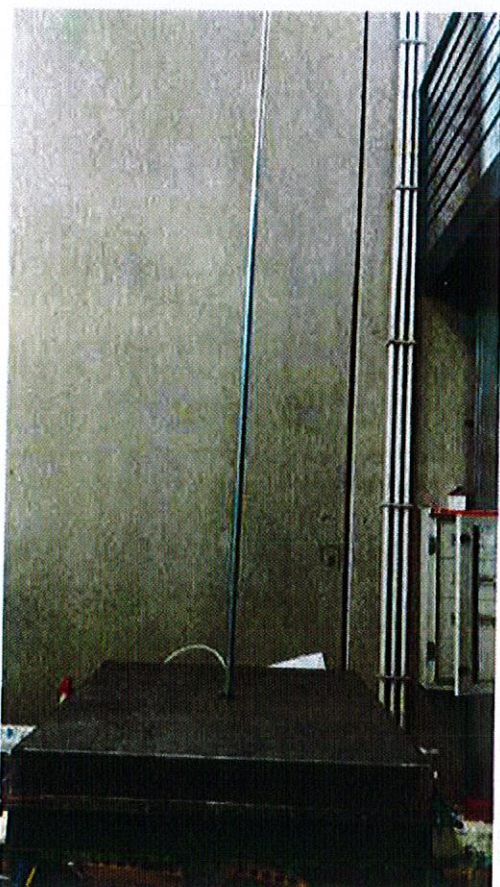


figure 1 – panoramic test

#### What was tested:

Hydrostatic test performed on a A60 glass wall made according EC type examination (MODULE B) certificates nr. MED080914CS/005.

The window tested had clear light size of 590x787 mm and external size of 730x927 mm.

The glass, type PYROBEL 25 with a total thickness of 26,6 mm, is composed of five panes and, in between, four layers of thermo-expanding gel. The frame is composed of steel fire proof profiles welded and sealed.

The glass retaining frames, fitted on both sides, are sealed between ceramic fiber gaskets and frame with polymer sealant.

The frame is bolted to a steel or aluminum bulkhead by M8 screws fitted with pitch of 280 mm.

The system test made according our drawing nr. 16047A001 ensures a water head of 3150 mm.

File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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figure 2 – starting test

What happened:

With the Bureau Veritas surveillance prot. number bvn 29117B, Blu Bud srl proceeds to fill with water in the system test (figure 2).



figure 3 – after 15 minutes

After 15 minutes all system test was full. From this time the hydrostatic pressure required is guaranteed by

$$P = \rho gh$$

where:

P is the hydrostatic pressure (Pa)

$\rho$  is the density of the fluid ( $\text{Kg/m}^3$ )

g is the acceleration of gravity ( $9,81 \text{ m/s}^2$ )

h is the height from internal side glass to the top of tube (m)

The hydrostatic pressure tested on the window is:

$$P = 30901 \text{ Pa}$$

In the figure 3 and 4 is possible to check the deformation top steel plates caused by water static pressure after 15 and 30 minutes.



figure 4 – after 30 minutes

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figure 5 – no water leaks

30 minutes later we have been no water leaks.  
The test is stopped as required by the BV surveillance.

**Test Owner:** BLU BUD SRL  
**Test Date:** 06/12/2016  
**Test Results:** no water leaks  
**Additional Comments:** no any comments from BV surveillance

### 3.0 Test Assessment

The glass wall produced by Blu Bud hadn't water leak following the hydrostatic test requested by Bureau Veritas register ref. pt B, Ch 2, Sec 2 - 7 for Openings in watertight bulkheads and decks onboard installation where the maximum operating height of water is less than 3150 mm.

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File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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## APPENDIX A: Test Report Approval


The undersigned acknowledge they have reviewed the FR032 - A60 WATERTIGHT FIXED WINDOW **Test Report** and agree with the approach it presents. Changes to this **Test Report** will be coordinated with and approved by the undersigned or their designated representatives.

Signature:  \_\_\_\_\_ Date: 21/12/2016  
Print Name: \_\_\_\_\_  
Role: \_\_\_\_\_

**Blu Bud S.r.l.**  
Sede Oper.: Via Ilva, 5/3 - 16128 Genova  
Sede Leg.: Via Fieschi, 20/9 - 16121 Genova  
Tel. 0039 010 8183053 Fax 0039 010 8183053  
Tel. 0039 010 8601379 Fax 0039 010 8183053  
www.blubud.it info@blubud.it  
Part. IVA: 01766240996

Request survey by BV register:

Signature: \_\_\_\_\_ Date: 21/12/2016  
Print Name: ING. S. BRUSEGAN  
Role: SURVEYOR





File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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## APPENDIX B: REFERENCES

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
16047A001_rev00	System test drawing	Z:\0_BLUBUD\vendite\ordini\Rossinavi\16047 - FR032 Prova idrostatica vetrata A60\PROGETTO\16047 Rossi Navi - Simulacro prova tenuta H2O su vetrata A60
16047A002_rev00	A60 glass Wall drawing	Z:\0_BLUBUD\vendite\ordini\Rossinavi\16047 - FR032 Prova idrostatica vetrata A60\PROGETTO\16047 Rossi Navi - Simulacro prova tenuta H2O su vetrata A60
MED080914CS/005	Module B	Z:\0_BLUBUD\qualità\Blu Bud\Moduli B\Blu Windows\A60WFG1-Vetrata
MED007516TS/035	Module F	Z:\0_BLUBUD\vendite\ordini\Rossinavi\16047 - FR032 Prova idrostatica vetrata A60\DOCUMENTI_QUALITA\0_MED F
2016_TS_01_75_35	Conformity Declaration	Z:\0_BLUBUD\qualità\Blu Bud\0_COLLAUDI MED PRODUZIONE\2016\2016-TS-01-75
BV Pt B, Ch 2, Sec 2-7	Bureau Veritas - Rules for Yachts	Z:\0_BLUBUD\vendite\ordini\Rossinavi\16047 - FR032 Prova idrostatica vetrata A60\DOCUMENTI_QUALITA\TEST_IDROSTATICO

File: FR032 - A60 WATERTIGHT FIXED WINDOW\_test\_report\_rev02

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