



**Fischio Pneumatico Omologato**  
(Tromba per imbarcazioni da 20m a 75m)

**Approved Pneumatic Whistle**  
(Marine horns for vessels between 20m to 75m in length)

**152 002 12 - PW3-BC 12V**  
**152 002 13 - PW3-BC 24V**





**DESCRIZIONE DEL PRODOTTO**

Avvisatore sonoro omologato completo di tromba  $\varnothing 300$ mm cromata, valvola elettrica ed accessori di montaggio. Funzionamento ad aria compressa 6/12 BAR. Omologazione RINA, LLOYD'S REGISTER MCA e BUREAU VERITAS in accordo alle norme internazionali COLREG 1972 IMO classe III, NMMA ABYC A-23

**DATI TECNICI**

| TIPO   | CODICE     | V  | A   | dB (1/3 Oct.)(1m) | Hz  | DIMENSIONI (mm)         | PEZZI PER CARTONE |
|--------|------------|----|-----|-------------------|-----|-------------------------|-------------------|
| PW3-BC | 152 002 12 | 12 | 4,5 | 132               | 630 | 457 x $\varnothing$ 300 | 1                 |
| PW3-BC | 152 002 13 | 24 | 2,5 | 132               | 630 | 457 x $\varnothing$ 300 | 1                 |

**ISTRUZIONI PER L'INSTALLAZIONE DEL FISCHIO**

1. **Montare la tromba inclinandola leggermente verso il basso (5°) per evitare il ristagno d'acqua all'interno del cono .**
2. Collegare la tromba alla rete ad aria compressa attraverso il tubo rilsan ed utilizzando gli accessori del kit come da schema allegato.
3. Fissare l'elettrovalvola ad un piano con delle viti M4.
4. Collegare il pulsante di azionamento in serie al cavo rosso.
5. Collegare l'estremo del cavo rosso al polo positivo della batteria (+) e l'estremo del cavo nero al polo negativo della batteria (-).

**DATI TECNICI ELETTRICI**

Pulsante di azionamento fornito

**Sezione dei cavi:**

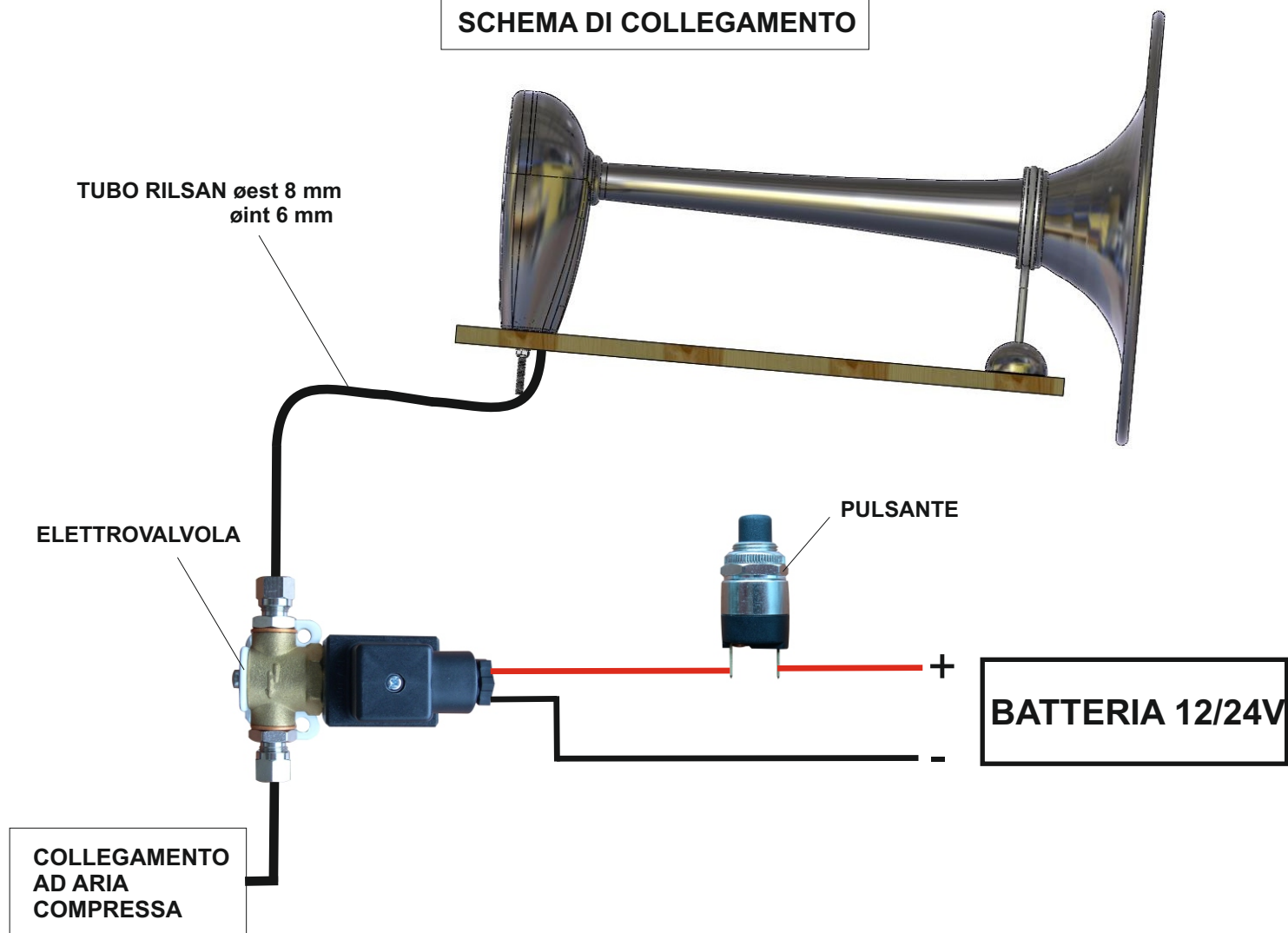
|                                                 |                                                            |
|-------------------------------------------------|------------------------------------------------------------|
| Per collegamenti alla batteria fino a 20 metri: | 1,5 mm <sup>2</sup> per 24V<br>2,5 mm <sup>2</sup> per 12V |
| Per collegamenti alla batteria fino a 40 metri: | 2,5 mm <sup>2</sup> per 24V<br>6,0 mm <sup>2</sup> per 12V |

**RISOLUZIONE DI PROBLEMI**

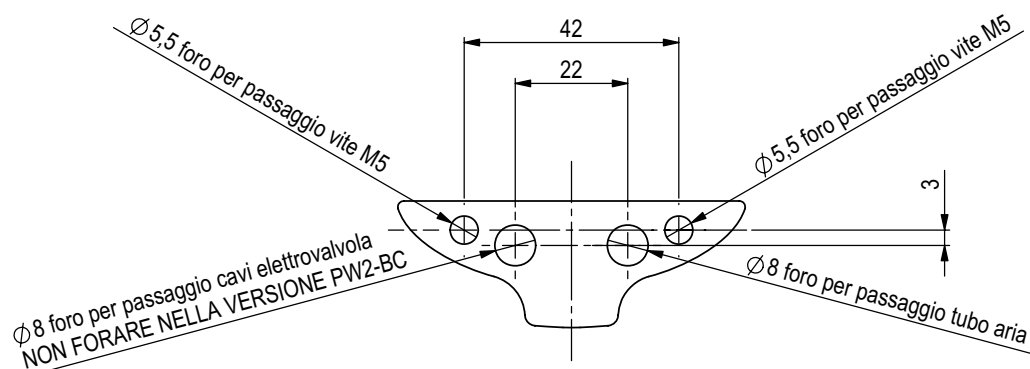
Nel caso di mancato funzionamento del sistema procedere come segue :

Piccoli corpi solidi come ad esempio limatura di metallo possono arrivare alle membrane bloccandone il funzionamento. In tal caso bisogna smontare la tromba, pulire le membrane, e rimontare il tutto.

## SCHEMA DI COLLEGAMENTO



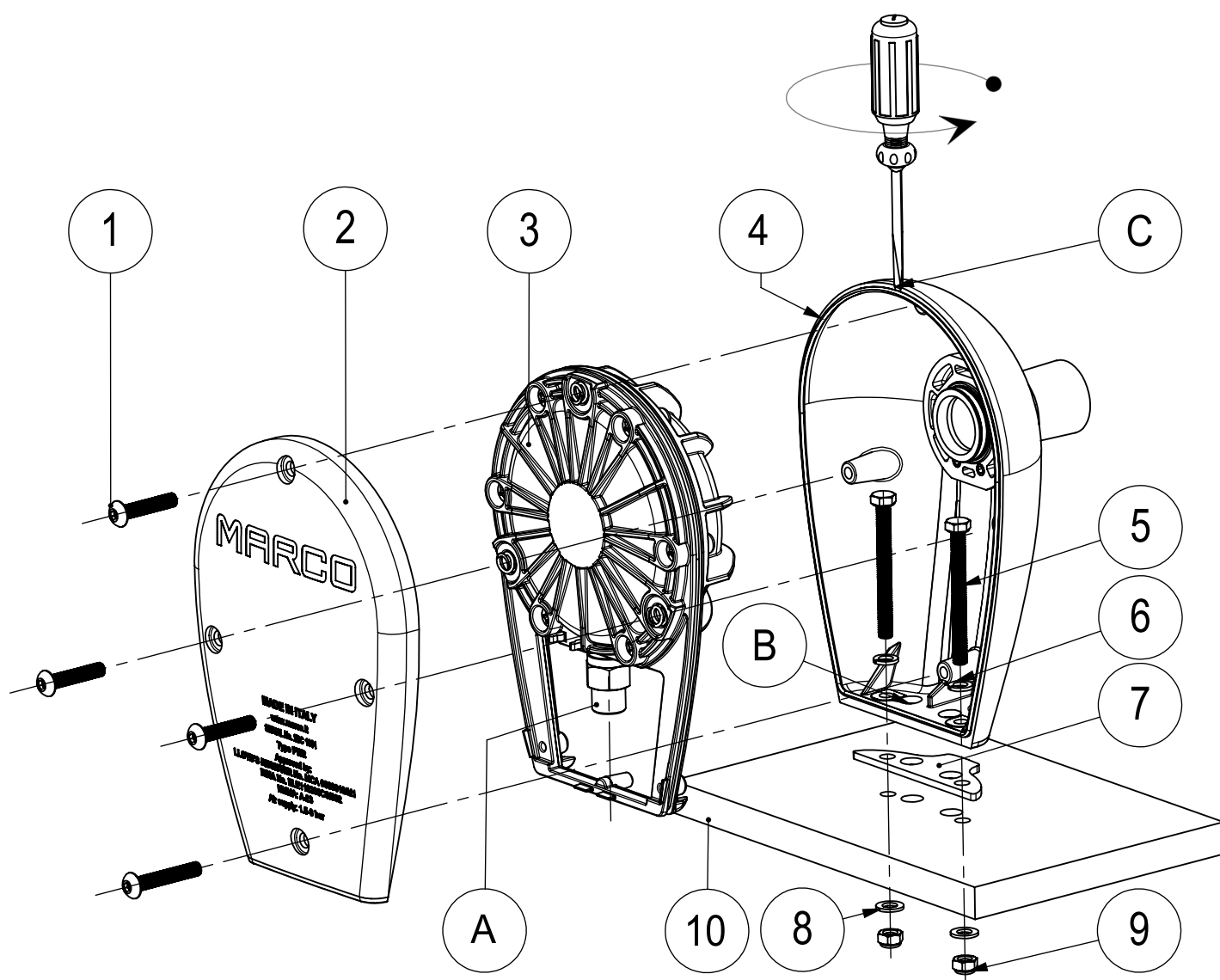
## TAPPETO IN GOMMA



## GARANZIA

1. Il periodo di garanzia è di 2 anni dalla data d'acquisto come risulta dalla relativa fattura.
2. Nel caso la fattura non fosse disponibile il periodo di garanzia di 2 anni, sarà calcolato dalla data di fabbricazione.
3. La garanzia decade e s'intende nulla in caso d'utilizzazione non corretta o nel caso venissero ignorate le istruzioni contenute nel presente manuale.
4. La garanzia copre solamente i difetti di fabbricazione.
5. La garanzia non copre i costi connessi di installazione e smontaggio.
6. I costi di trasporto sono rimborsabili solo nel caso in cui la garanzia è stata debitamente riconosciuta e accettata da Marco S.p.A. Questi costi saranno limitati ai costi di spedizione tra il magazzino di Marco S.p.A. e la sede del cliente.
7. Nessuna nota di credito o reso sarà emessa prima di un test eseguito dal controllo di qualità di Marco S.p.A. che dichiari difettoso il prodotto.

## SCHEMA DI MONTAGGIO

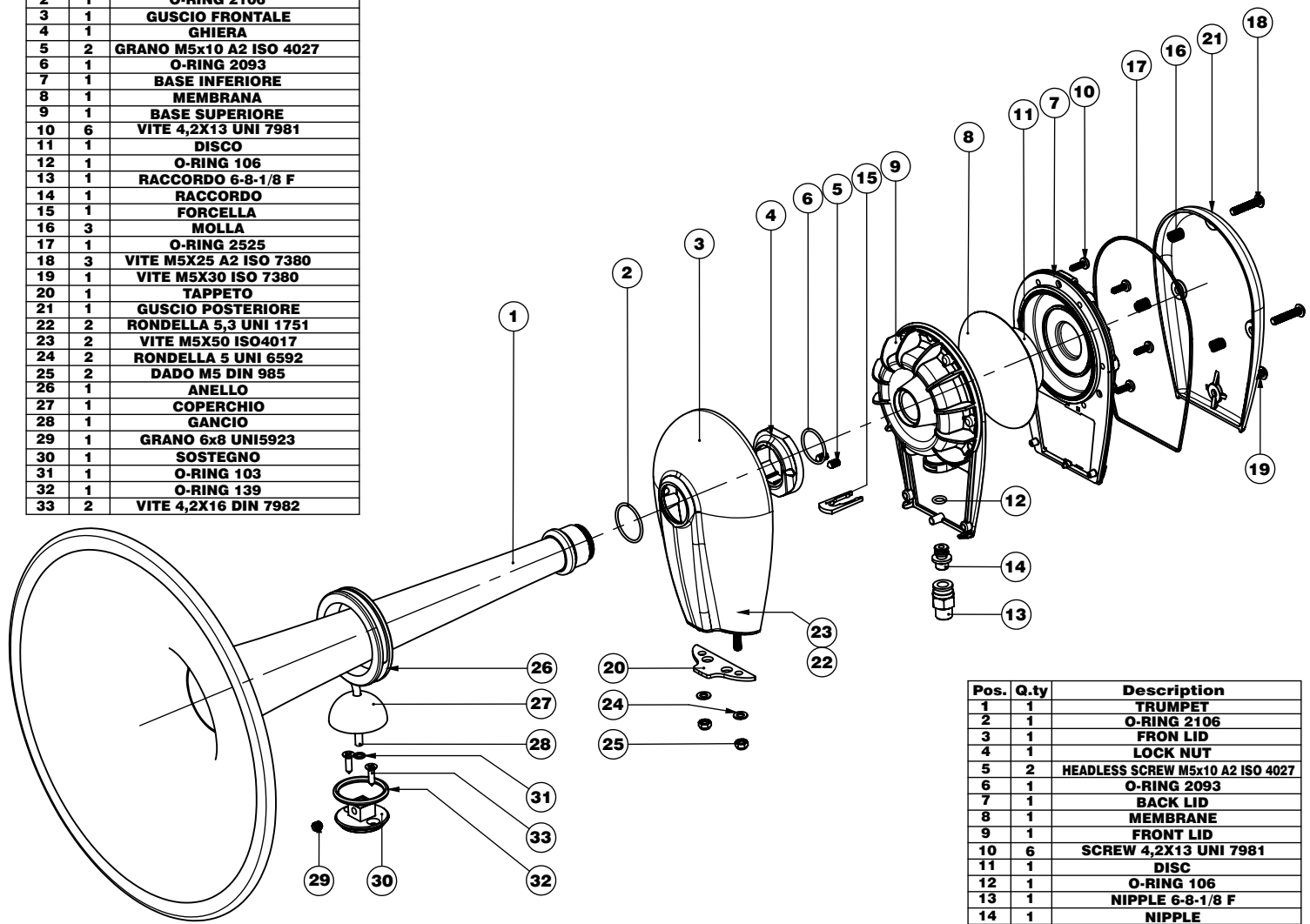


## SEQUENZA DI MONTAGGIO

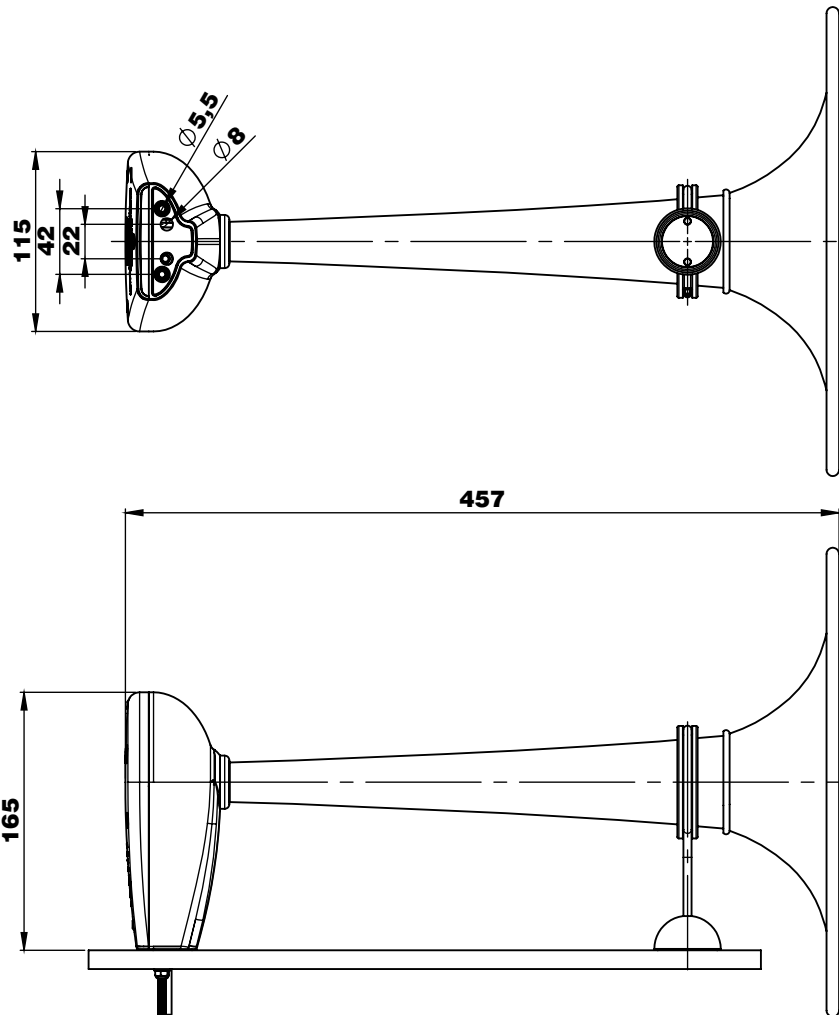
1. Forare il piano di appoggio (10) del fischio utilizzando il tappeto in gomma (7) come dima;
2. Svitare le quattro viti M5 (1);
3. Togliere il guscio posteriore (2);
4. Sfilare delicatamente la cartuccia (3) facendo leva con un cacciavite piatto nel punto (C);
5. Appoggiare il tappeto in gomma (7);
6. Appoggiare il guscio anteriore (4) sul tappeto in gomma (7);
7. Fissare il guscio anteriore completo di tromba (4) sul piano di appoggio (10) dell'imbarcazione con le viti M5 (5) complete di rondelle elastiche (6) e bloccarlo tramite i dadi autobloccanti (9) preceduti dalle rondelle (8);
8. Infilare dal basso il tubo rilsan nell' apposito foro (B) ed inserirlo nel raccordo rapido (A). Collegare il tubo rilsan alla elettrovalvola fornita;
9. Centrare la cartuccia (3) sul tubo centrale del guscio anteriore (4); Accertarsi che il tubo monti l'OR in testa, che la cartuccia (3) monti l'OR sul suo perimetro e che abbia le tre molle di compensazione nelle apposite sedi;
10. Appoggiare il guscio posteriore (2) alla cartuccia (3) appena inserita;
11. Fissare le viti M5 (1) e portare in appoggio il guscio posteriore (2) al guscio anteriore completo di tromba (4). Verificare che in chiusura l'OR perimetrale alla cartuccia (3) non fuoriesca dal guscio (2) garantendo così la tenuta.

| Pos. | Q.tà | Descrizione             |
|------|------|-------------------------|
| 1    | 1    | CORNETTO                |
| 2    | 1    | O-RING 2106             |
| 3    | 1    | GUSCIO FRONTALE         |
| 4    | 1    | GHIERA                  |
| 5    | 2    | GRANO M5x10 A2 ISO 4027 |
| 6    | 1    | O-RING 2093             |
| 7    | 1    | BASE INFERIORE          |
| 8    | 1    | MEMBRANA                |
| 9    | 1    | BASE SUPERIORE          |
| 10   | 6    | VITE 4,2X13 UNI 7981    |
| 11   | 1    | DISCO                   |
| 12   | 1    | O-RING 106              |
| 13   | 1    | RACCORDO 6-8-1/8 F      |
| 14   | 1    | RACCORDO                |
| 15   | 1    | FORCELLA                |
| 16   | 3    | MOLLA                   |
| 17   | 1    | O-RING 2525             |
| 18   | 3    | VITE M5X25 A2 ISO 7380  |
| 19   | 1    | VITE M5X30 ISO 7380     |
| 20   | 1    | TAPPETO                 |
| 21   | 1    | GUSCIO POSTERIORE       |
| 22   | 2    | RONDELLA 5,3 UNI 1751   |
| 23   | 2    | VITE M5X50 ISO4017      |
| 24   | 2    | RONDELLA 5 UNI 6592     |
| 25   | 2    | DADO M5 DIN 985         |
| 26   | 1    | ANELLO                  |
| 27   | 1    | COPERCHIO               |
| 28   | 1    | GANCIO                  |
| 29   | 1    | GRANO 6x8 UNI5923       |
| 30   | 1    | SOSTEGNO                |
| 31   | 1    | O-RING 103              |
| 32   | 1    | O-RING 139              |
| 33   | 2    | VITE 4,2X16 DIN 7982    |

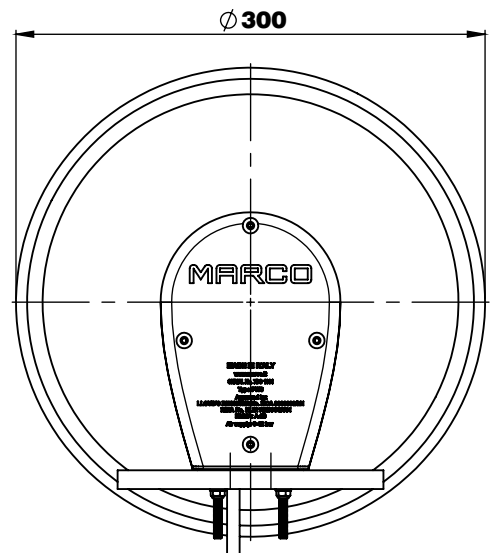
## ESPLOSO / EXPLODED VIEW



## DIMENSIONI DI MASSIMA / DIMENSIONS



| Pos. | Q.ty | Description                      |
|------|------|----------------------------------|
| 1    | 1    | TRUMPET                          |
| 2    | 1    | O-RING 2106                      |
| 3    | 1    | FRON LID                         |
| 4    | 1    | LOCK NUT                         |
| 5    | 2    | HEADLESS SCREW M5x10 A2 ISO 4027 |
| 6    | 1    | O-RING 2093                      |
| 7    | 1    | BACK LID                         |
| 8    | 1    | MEMBRANE                         |
| 9    | 1    | FRONT LID                        |
| 10   | 6    | SCREW 4,2X13 UNI 7981            |
| 11   | 1    | DISC                             |
| 12   | 1    | O-RING 106                       |
| 13   | 1    | NIPPLE 6-8-1/8 F                 |
| 14   | 1    | NIPPLE                           |
| 15   | 1    | FORK                             |
| 16   | 3    | SPRING                           |
| 17   | 1    | O-RING 2525                      |
| 18   | 3    | SCREW M5X25 A2 ISO 7380          |
| 19   | 1    | SCREW M5X30 ISO 7380             |
| 20   | 1    | CARPET                           |
| 21   | 1    | BACK LID                         |
| 22   | 2    | WASHER 5,3 UNI 1751              |
| 23   | 2    | SCREW M5X50 ISO4017              |
| 24   | 2    | WASHER 5 UNI 6592                |
| 25   | 2    | NUT M5 DIN 985                   |
| 26   | 1    | RING                             |
| 27   | 1    | COVER HOOK                       |
| 28   | 1    | HOOK                             |
| 29   | 1    | HEADLESS SCREW 6x8 UNI5923       |
| 30   | 1    | SUPPORT HOOK                     |
| 31   | 1    | O-RING 103                       |
| 32   | 1    | O-RING 139                       |
| 33   | 2    | SCREW 4,2X16 DIN 7982            |



**PRODUCT DESCRIPTION**

Approved signalling whistle complete with chrome plated horn  $\varnothing 300$  mm, electric valve and mounting accessories, for compressed air operation 6/12 bar. Meets COLREG 1972 IMO class III regulations.

Approvals: RINA, LLOYD'S REGISTER MCA and BUREAU VERITAS, NMMA ABYC A-23

**TECHNICAL DATA**

| TYPE   | PART NUMBER | V  | A   | dB (1/3 Oct.)(1m) | Hz (2nd) | DIMENSIONS (mm)         | PCS X BOX |
|--------|-------------|----|-----|-------------------|----------|-------------------------|-----------|
| PW3-BC | 152 002 12  | 12 | 4,5 | 132               | 630      | 457 x $\varnothing$ 300 | 1         |
| PW3-BC | 152 002 13  | 24 | 2,5 | 132               | 630      | 457 x $\varnothing$ 300 | 1         |

**INSTALLING INSTRUCTION OF THE WHISTLE**

1. **Install the horn angled slightly downward (5°) in order to avoid the water stagnation within the cone.**
2. Connect the horn to the air compressed system through the Rilsan pipe utilizing the accessorizes of the kit, see the layout attached.
3. Fix the compressor to a flat surface using M4 screws.
4. Connect in series the service switch to the red cable.
5. Connect the extreme part of the red cable to the positive pole of the battery (+) and the extreme part of the black cable to the negative pole of the battery (-).

**ELECTRICAL TECHNICAL DATA**

Service switch supplied

**Section of cables:**

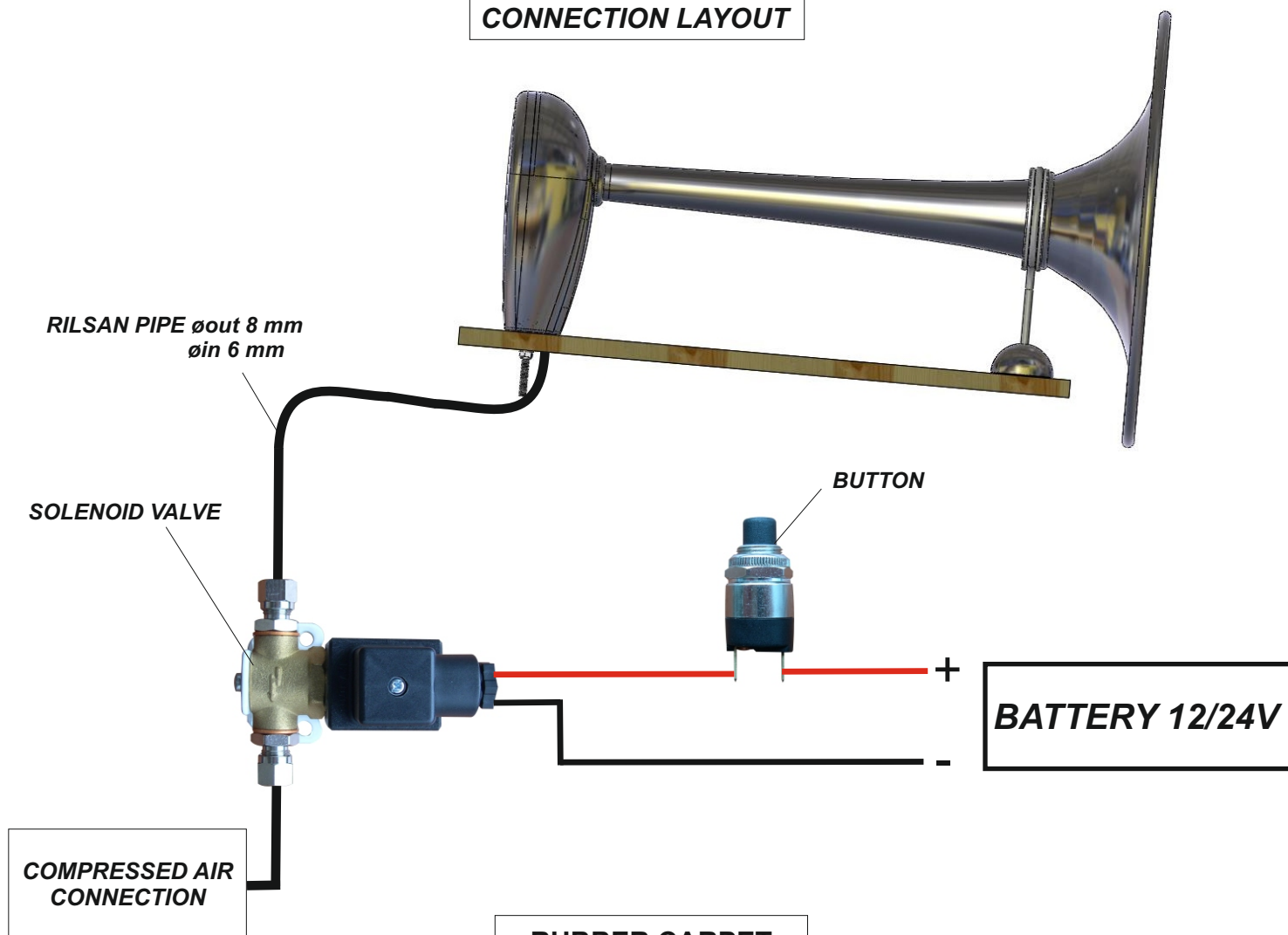
|                                                     |                             |
|-----------------------------------------------------|-----------------------------|
| For connections to the battery up to 20 meters:     | 1,5 mm <sup>2</sup> per 24V |
|                                                     | 2,5 mm <sup>2</sup> per 12V |
| For the connections to the battery up to 40 meters: | 2,5 mm <sup>2</sup> per 24V |
|                                                     | 6,0 mm <sup>2</sup> per 12V |

**PROBLEM RESOLUTIONS**

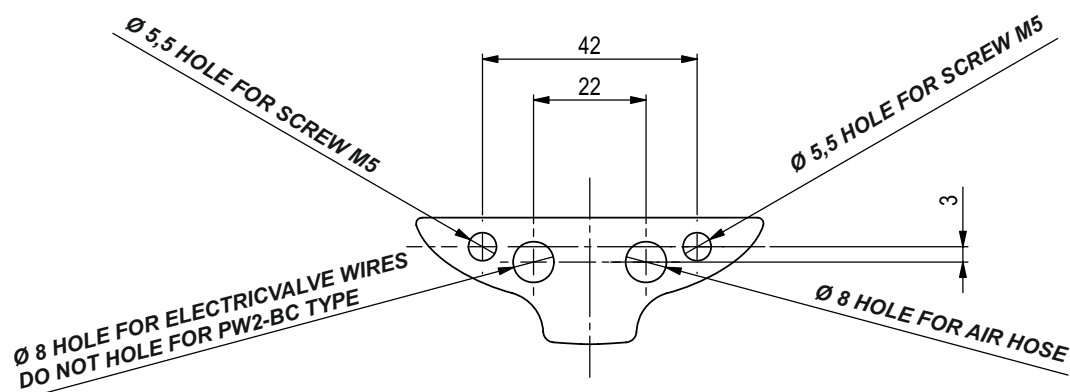
In the case of a system malfunction proceed as follows :

Impurities can reach the membrane blocking the normal performance of the whistle. In this case dismantle the horn, clean the membranes and re-assemble.

## CONNECTION LAYOUT



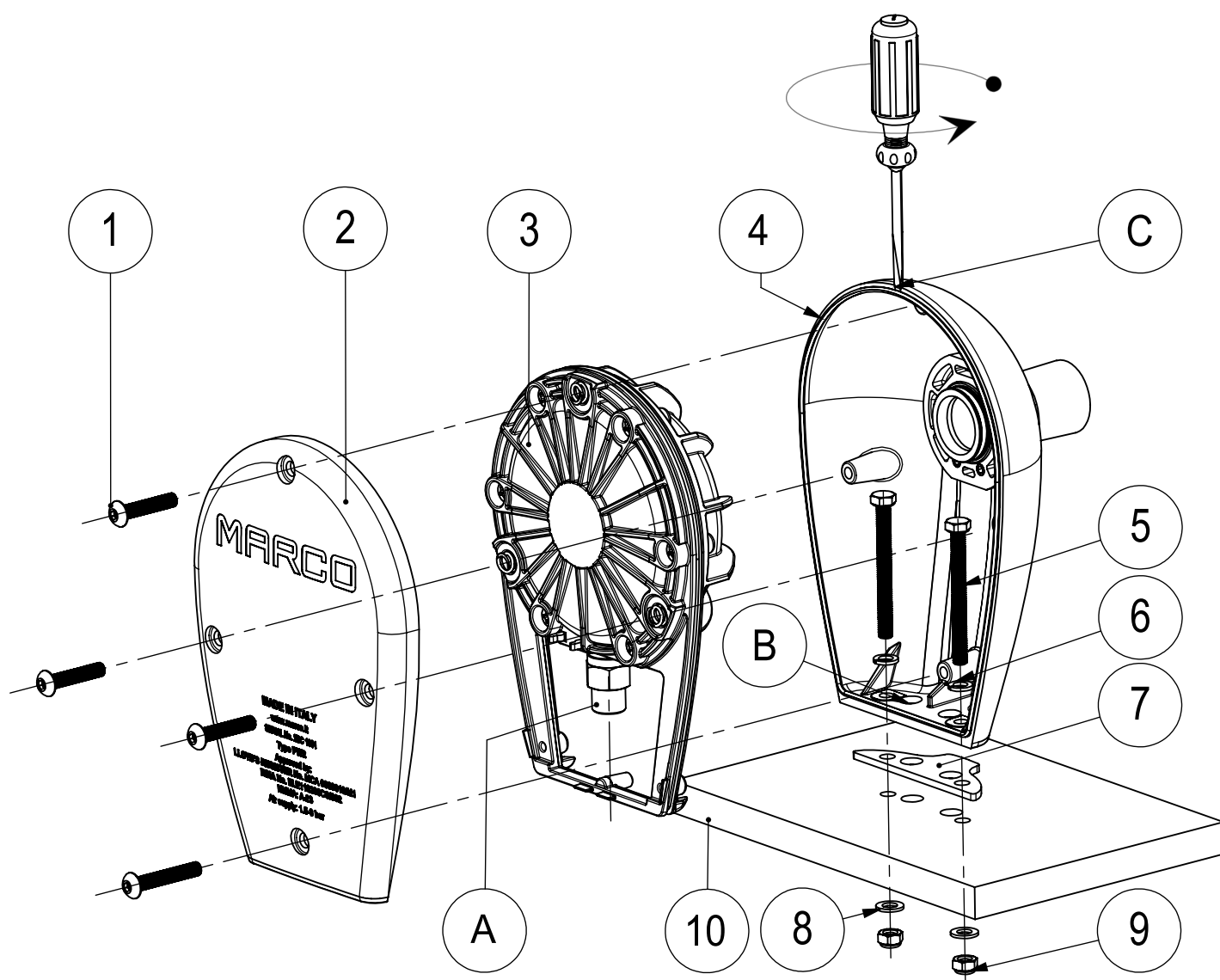
## RUBBER CARPET



## WARRANTY

1. The Warranty period is 2 years from date of purchase on production of the appropriate sales invoice.
2. Should the original sales invoice not be available, then the 2 year warranty period will be valid from date of production.
3. The Warranty becomes null and void in the case of incorrect utilization or disregard of the instructions contained herein.
4. The Warranty only covers original production defects.
5. The Warranty does not cover any related installation costs involved.
6. Transport costs are refundable only in the case where warranty has been duly recognized and accepted by Marco Spa. These costs will be limited to the actual shipment costs between Marco Spa warehouse and the client's delivery address.
7. No credit notes or replacement items will be issued prior to the receipt and proper testing of any Marco goods that are deemed faulty.

## MOUNTING LAYOUT



## WHISTLE MOUNTING SEQUENCE

1. Drill the supporting surface of the whistle (10) using the rubber mat (7) as template;
2. Unscrew the four M5 screws (1);
3. Remove the back cover (2);
4. Slip off carefully the cartridge (3) with a flat screwdriver at the point (C);
5. Put the rubber mat (7) just next to the fixing holes previously made;
6. Put the horn housing complete with trumpet (4) on the rubber mat (7);
7. Fix the horn housing complete with trumpet (4) on the supporting surface of the boat (10) by two M5 screws (5) and elastic washers (6) and lock it through the self-locking nut (9) and washers (8);
8. Insert from below the rilsan tubing into the specially provided hole (B) and insert into the quick-fit connection (A). Connect the rilsan tubing to the electric valve provided;
9. Insert carefully the cartridge (3) into the horn housing complete with trumpet (4) centring it on the trumpet tube end. Make sure that the trumpet tube is complete with the O-ring and that the cartridge (3) has the O-ring on the outer edge and that the three compensation springs are located in the specially provided seats;
10. Place the back cover (2) on the inserted cartridge (3);
11. Insert the four M5 screws (1) into the specially provided seats and screw them until the back cover (2) rests on the horn housing complete with trumpet (4). Make sure that the O-ring of the outer edge of the cartridge (3) does not protrude from the back cover (2) ensuring therefore a perfect tightness.



# TYPE APPROVAL CERTIFICATE



N. ELE252018CS001

This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA type approval system.

|                          |                                                                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Description</i>       | Ship's Whistle                                                                                                                                   |
| <i>Types</i>             | PW2 and PW3                                                                                                                                      |
| <i>Applicant</i>         | Marco S.p.A.<br>Via Mameli, 10<br>25014 Castenedolo (BS)<br>ITALY                                                                                |
| <i>Manufacturer</i>      | Marco S.p.A.<br>Via Mameli, 10<br>25014 Castenedolo (BS)<br>ITALY                                                                                |
| <i>Testing Standards</i> | Convention on the International Regulations for preventing collisions at sea, 1972 _ COLREG<br>(Ref. to Italian Law n. 1085 _27th December 1977) |

Issued in Genova on August 28, 2018

This certificate is valid until August 28, 2023

RINA Services S.p.A.

*Valerio Bonanni*



# TYPE APPROVAL CERTIFICATE



N. ELE252018CS001

## Whistle type PW2

### Field of application (acc. to COLREG Regulations)

Vessels having length  $L < 20$  meters

Sound pressure level 1/3 octave band @ 1 m : 120 dB

Audibility: 0,5 mile

### Feeder

Compressed air.

Air pressure supply : from 0,15 to 0,30 MPa.

### Reference documents:

RINA Report n. 2013/CS/01/534 (19/07/2013): frequency and sound pressure measurements (19/07/2013)

MARCO Letter on 06/02/2008.

Drawing no. 5.412/ S stamped by RINA on 03/06/1988

## Whistle type PW3

### Field of application (acc. to COLREG Regulations)

Vessels having length  $20 \leq L < 75$  meters

Sound pressure level 1/3 octave band @ 1 m : 130 dB

Audibility: 1 mile

### Feeder

Compressed air.

Air pressure supply : from 0,60 to 1,20 MPa.

### Reference documents:

RINA Report n. 2013/CS/01/534 (19/07/2013): frequency and sound pressure measurements (19/07/2013)

MARCO Letter on 06/02/2008.

Drawing no. 5.413 stamped by RINA on 13/04/1988.



Lloyd's  
Register

Notified Body authorised by the MCA

## CERTIFICATE OF TYPE APPROVAL

This is to certify that

LLOYD'S REGISTER, specified as a "person" under the terms of The Merchant Shipping (Delegation of Equipment Approval) Regulations 1996, did undertake the relevant type approval procedures of the equipment identified below which was found to be in compliance with the essential COLREG 72 requirements subject to any conditions in the Design Appraisal Document hereto.

|                              |                                                                                                                                                  |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Producer</b>              | Marco SpA                                                                                                                                        |
| <b>Address</b>               | Via Mameli 10<br>25014 Castenedolo<br>Brescia<br>Italy                                                                                           |
| <b>Equipment Description</b> | SHIPS SOUND SIGNAL (WHISTLE) AIR OPERATED                                                                                                        |
| <b>Type</b>                  | PW3                                                                                                                                              |
| <b>Specified Standard</b>    | International Regulations for Preventing Collisions at Sea 1972, Consolidated Edition 2002, Annex III, 1(a) to (d) inclusive.<br>EN 60945 (2002) |

The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid up to the expiry dated unless cancelled or revoked, or until such date where it is superseded by the requirements of the Marine Equipment Directive whichever is the earlier, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

|                 |               |             |                                                                                          |
|-----------------|---------------|-------------|------------------------------------------------------------------------------------------|
| Date of issue   | 11 March 2016 | Expiry date | 10 March 2021                                                                            |
| Certificate No. | MCA 1600002   | Signed      |      |
| Sheet No        | 1 of 3        | Name        | L. Thomas<br>Surveyor to Lloyd's Register EMEA<br>A Member of the Lloyd's Register Group |

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the nominated body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.



This certificate is issued under the authority given in Merchant Shipping Notice No MSN 1735 (M+F) as amended to date.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



**Lloyd's  
Register**

## Lloyd's Register EMEA

London Design Support Office  
71 Fenchurch Street, London, EC3M 4BS  
Telephone 020 7423 2416 Fax 020 7423 2053  
Email [med@lr.org](mailto:med@lr.org)

|                 |
|-----------------|
| Page            |
| 2 of 3          |
| Document number |
| MCA 1600002     |
| Issue number    |
| 1               |

### DESIGN APPRAISAL DOCUMENT

|               |                                                   |
|---------------|---------------------------------------------------|
| Date          | Quote this reference on all future communications |
| 11 March 2016 | MTES/SFS/TA/LT/WP24449231                         |

#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. MCA 1600002

The undernoted documents have been appraised for compliance with the relevant International Conventions and UK legislation for the Type Approval of Marine Equipment for use on Merchant Ships Registered in the United Kingdom.

This Design Appraisal Document forms part of the Certificate that is issued under the authority given in the MCA Merchant Shipping Notice No MSN 1735.

#### EXAMINED DOCUMENTATION

|                                 |            |
|---------------------------------|------------|
| LR Brescia email                | 11.03.2008 |
| Marco letter                    | 10.03.2008 |
| PW3 Data Sheet, Rev 4 (Trumpet) | 04.10.2013 |

#### TEST REPORTS

|                                                                     |            |
|---------------------------------------------------------------------|------------|
| IQNet Certificate No. CH-21294                                      | 07.02.2006 |
| SQS Certificate No. 21294                                           | 07.02.2006 |
| Environmental and Vibration Test, Test Report No: AERO15_016, Rev 0 | 15.09.2015 |
| Sound Pressure Test after Environmental and Vibration test, Rev 0   | 18.12.2015 |

#### CONDITIONS OF CERTIFICATION

1. The PW3 whistles may only be fitted to vessels greater than 20 meters, but less than 75 metres in length
2. The onboard arrangements and installation of this whistle is not part of this certificate, all such arrangements are to be to the satisfaction of the attending surveyor
3. Each whistle is to be delivered with a copy of this certificate
4. Instructions for use and maintenance are to be supplied with each whistle
5. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
6. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5
7. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and each item, batch, or lot be delivered with an LR Certificate of SOLAS Production Testing issued by the attending LR Surveyors following their witness of the tests. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
8. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained



Lloyd's  
Register

## Lloyd's Register EMEA

London Design Support Office  
71 Fenchurch Street, London, EC3M 4BS  
Telephone 020 7423 2416 Fax 020 7423 2053  
Email [med@lr.org](mailto:med@lr.org)

|                                |
|--------------------------------|
| Page<br>3 of 3                 |
| Document number<br>MCA 1600002 |
| Issue number<br>1              |

### DESIGN APPRAISAL DOCUMENT

|                       |                                                                                |
|-----------------------|--------------------------------------------------------------------------------|
| Date<br>11 March 2016 | Quote this reference on all future communications<br>MTES/SFS/TA/LT/WP24449231 |
|-----------------------|--------------------------------------------------------------------------------|

#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. MCA 1600002

##### PLACE OF PRODUCTION

Marco SpA  
Via Mameli 10  
25014 Castenedolo  
Brescia



Lijo Thomas  
Senior Specialist  
Statutory Fire & Safety  
Marine Technology and Engineering Services  
Lloyd's Register EMEA



Marine & Offshore  
Division

Certificate number: 14450/C1 BV

File number: NAV 39/1469/02

Product code: 4005H

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

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**MARCO SpA**

Castenedolo (BS) - ITALY

*for the type of product*

**SHIP's SOUND SIGNALS (WHISTLES)**

Air whistle type: PW2/PW3

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

*This certificate is issued to attest that BUREAU VERITAS 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: 02 Sep 2020**

**For BUREAU VERITAS,**

At BV GENOA, on 21 May 2015,

Carlo Bozzetti



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. 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 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 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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=mjoghqcrjm>

BV Mod. Ad.E 530 October 2014

This certificate consists of 2 page(s)

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION:**

| Types                | Frequency | Sound pressure level (1m) | Length of vessels |
|----------------------|-----------|---------------------------|-------------------|
| Air whistle type PW2 | 630 Hz    | 123dB                     | < 20 m            |
| Air whistle type PW3 | 630 Hz    | 132dB                     | 20 ≤ L < 75 mm    |

### **2. DOCUMENTS AND DRAWINGS:**

According to Manufacturer's specifications filed in NAV 39/1469/02.

### **3. TEST REPORTS:**

#### 3.1 - Air whistle type PW2:

Department of Trade Marine Directorate Certificate of Inspection and Tests,  
EMIT Vibration test report RP 712 FIA 86,  
City University London report on measurement sound output.

#### 3.2 - Air whistle type PW3:

Department of Trade Marine Directorate Certificate of Inspection and Tests,  
City University London report on measurement sound output.

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

4.1 - Air whistle type PW2 to be installed on vessels < 20 m in length,

Air whistle type PW3 to be installed on vessels 20 ≤ L < 75 m in length.

4.2 - On board installation & Maintenance requirements according to the specified regulations and standard stated on the front page of the certificate.

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

5.1 - The above products are to be supplied by **MARCO SpA** 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.

5.3 - **MARCO SpA** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

**MARCO SpA**  
**Via Mameli 10,**  
**25014 Castenedolo Brescia**  
**ITALY**

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

6.1 - Maker's name or trademark,

6.2 - Serial number of the units,

6.3 - Equipment type number or model identification under which it was type-tested.

### **7. OTHERS:**

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the Whistles at any time and that **MARCO SpA, 25014 Castenedolo (BS) - Italia**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate No.14450/C1 BV issued on 07 May 2015 by the Society.

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

BSH  
Az.: 4615/6023034/16

Marco  
Via Mameli 10  
25014 CASTENEDOLO Brescia  
Italien



BUNDESAMT FÜR  
SEESCHIFFFAHRT  
UND  
HYDROGRAPHIE

Ihr Antrag auf Baumusterprüfung von Navigationsausrüstung vom 12.04.2016  
*Your application for type examination of navigation equipment dated 12.04.2016*

Hamburg,  
19.04.2016

## Bescheid über die Anerkennung der nationalen Zulassung eines EU-Mitgliedstaates

*Notification of acceptance of a national type approval of a EU member state*

Sehr geehrte Damen und Herren,  
*Dear Madam and Sir,*

für die Navigations Ausrüstung mit der Bezeichnung **PW2, PW3**  
*For the navigation equipment with the type designation PW2, PW3*

wird die mit anliegendem Zertifikat Nr. **MCA1600002, MCA1600003**  
*the approval granted with attached certificate no. MCA1600002, MCA1600003*

für MCA(UK) ausgesprochene Zulassung vom Bundesamt für Seeschifffahrt und Hydrographie (BSH) für die Anwendung auf Schiffen unter Deutscher Flagge akzeptiert.  
*Will be accepted by the Federal Maritime and Hydrographic Agency (BSH) for the use on german flag vessels.*

### Bedingungen

*Conditions*

Diese Anerkennung erlischt bei Fristablauf, Rücknahme oder Widerruf. Der Widerruf kann ausgesprochen werden, wenn die serienmäßig gefertigten nautischen Ausrüstungsgegenstände nicht mit dem zugelassenen Baumuster übereinstimmen.

*This acceptance expires after lapse of time, withdrawal or revocation. A revocation may be ordered if navigational equipment manufactured in serial production is not in compliance with the type-tested prototype.*

### Auflagen

*Obligations*

Der Hersteller oder sein bevollmächtigter Vertreter hat sicherzustellen, dass alle auf Grund dieses Bescheids gefertigten nautischen Ausrüstungsgegenstände mit den geprüften Unterlagen und mit dem Baumuster übereinstimmen.

*The manufacturer or his authorized representative has to ensure that navigational equipment manufactured on the basis of this acceptance, is in compliance with the approved documentation and the type-approved prototype.*

Jeder serienmäßig auf Grund dieses Bescheids gefertigte Bestandteil des nautischen Ausrüstungsgegenstandes muss an gut sichtbarer Stelle und in dauerhafter Form mit der Gerätebeschriftung entsprechend der europäischen Norm EN 60945 gekennzeichnet sein und darf mit der Baumusternummer (Nummer der Baumusterprüfbescheinigung) versehen werden. Ausgenommen davon sind Bauteile, die in der unter Wasser liegenden Außenhaut des Schiffes eingebaut werden.

*Every navigational equipment component which is produced in series on the basis of this acceptance must be marked permanently and visibly with the equipment identification according to the european standard EN 60945 type and may be marked with the approval number (number of the type approval certificate). This does not apply to components installed in the vessel's outside plating below the waterline.*

Der Hersteller oder sein bevollmächtigter Vertreter hat den vom Bundesamt für Seeschifffahrt und Hydrographie betrauten Personen zu gestatten, durch stichprobenartige Nachprüfungen festzustellen, ob serienmäßig hergestellte Ausrüstungsgegenstände dem geprüften Baumuster entsprechen. Das Bundesamt für Seeschifffahrt und Hydrographie kann zu diesem Zweck beim Hersteller oder seinem bevollmächtigten Vertreter Proben anfordern oder entnehmen.

*The manufacturer or his authorized representative has to allow to persons authorized by the Federal Maritime and Hydrographic Agency to take random samples to prove whether equipment manufactured in serial production is in compliance with the type-approved prototype. Therefore, the Federal Maritime and Hydrographic Agency may take or demand samples from the manufacturer or his authorized representative.*

Es wird empfohlen, jedem ausgelieferten Ausrüstungsgegenstand eine vollständige Kopie der Anerkennung beizufügen.

*It is recommended that a complete copy of the admission certificate is provided with each equipment delivery.*

#### Hinweise

*remarks*

Das Bundesamt für Seeschifffahrt und Hydrographie behält sich vor, weitere Auflagen zu erteilen.

*The Federal Maritime and Hydrographic Agency reserves the right to impose additional obligations.*

#### Rechtsbehelfsbelehrung

*Notice on legal remedies available*

Gegen diesen Bescheid kann innerhalb eines Monats nach Bekanntgabe Widerspruch erhoben werden. Der Widerspruch ist beim Bundesamt für Seeschifffahrt und Hydrographie, Bernhard-Nocht-Str. 78, 20359 Hamburg, schriftlich oder zur Niederschrift einzulegen.<sup>1</sup>

*Objection to this document may be filed within one month after notification. The objection must be filed in writing to, or put on record at, Federal Maritime and Hydrographic Agency, Bernhard-Nocht-Str. 78, 20359 Hamburg, Germany.*

#### Anlage(n)

Baumusterprüfbescheinigung Nr. **MCA1600002, MCA1600003**  
Gebührenbescheid 790056064143

#### Attachment(s)

Type examination certificate no. **MCA1600002, MCA1600003**  
Invoice 790056064143

Mit freundlichen Grüßen

Im Auftrag

  
Doreen Thoma

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<sup>1</sup> Der deutsche Text ist verbindlich.  
*The german text is authentic.*











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