

# **Service Manual**

for the air- pressure test & repair of immersion suits

# Inspection Device for Immersion suits 70168



The aluminum kit contains a set of Servicing Equipment.

- A Face fixture (two parts)
- B Pressure gauge (0-6kPa)
- **C** Foot pump (with multi-valve adaptor)
- **D** Glue and applicator (two pieces)

# Instruction process

### 1. Adjust the air-pressure test cevice on the immersion suit



1. Lay the immersion suit on a work table and check for damages.



2. Place Face Fixture (Part 1) inside the immersion suit hood area and zip up. Attention: Stretch the hood fabric by pulling it to the direction of arrows. The hood should not have any folds.



**3.** Place Face Fixture (Part 2), by adjusting its holes carefully through the bolts and joints.



**4.** Above is an example image of assembled face fixtures with hood. **Attention:** The zipper head should pass through the hole.





5. Install the o-ring gasket



6. Tighten up the <u>butterfly nut</u> so as to eliminate leakage around the face seal.



7. Check the operational condition of pressure gauge (Dial surface & Pointer).



**8.** Insert the Pressure Gauge at face fixture socket, at the same time press down the joint and secure the connection between them.



**9.** Install the Connector for the foot pump, by pressing down the proper joint, so as to insert it properly.



10. Adjust the multi-valve adaptor on the connector of face fixture.



# 2. Air - test procedure



1. Provide air into the suit, through the foot pump. Pressure should be from 0, 7 up to 1,4Kpa (0.1 to 0,2psi) [acc. MSC/Circ.1114.] Maintain the pressure to those limits for the air-test. (It is normal that some bubbles appear at the zipper slides and at the zipper toothed part in the face fixture).



**2.** Sprinkle along seams and closures of the immersion suit with a soapy water solution.



**3.** Check carefully if any bubbles appear from the Immersion Suit and mark properly the leaking areas of the suit.

#### 3. Repair procedure

Remove the air-test device and clean the suit thoroughly with fresh water and dry it, trying to leave the marks visual.

#### A. Repair of seams and closures



1. Adapt the applicator on the glue tube for use.



2. Above is an example image of assembled face fixtures with hood. Apply a gentle amount of glue on the marked leaking areas. Let it dry for 8-10 minutes. Then apply once again, a glue layer on the immersion suit damaged area. Let it dry for 8 hours.



#### B. Repair of Rips, Tears and Punctures



**1.** With use of glue tube and applicator, apply a glue layer on both sides of immersion suit damaged area.



**2.** Let it dry for 8-10 minutes. Then apply, once again, a glue layer on both sides of Immersion suit's damaged area.



**3.** Then press the 2 sides together for 2 minutes. Let the immersion suit dry for 8 hours.



