

Test Report of IP66 on RC200 according to EN 60529:

Date: 2017-10-18

Test object:

RC220-SR087

RC280-SR087

Background:

The test was carried out according to standard EN 60529. IP66 means it is dustproof and cope with heavy water jets. The test is carried out by spraying the enclosure from all practical directions, with a water jet from a nozzle (as shown in Figure 6).

Water flow: 100 l/min +/- 5%

Test duration: 1 min/m², minimum 3 minutes

Nozzle diameter: 12.5 mm

Distance from nozzle to enclosure: 2.5-3 m.



Figure 1: Water jet on actuator.

Test procedure:

A tank was filled with 349 liters of water and pressurized to 2.5 bar, the water flowed at about 100 liters per minute (l/min) for three minutes. The size of the nozzle was 12.5mm diameter, according to Figure 6 of SS-EN 60529. The distance between the nozzle and the actuator was approximately 2.75 meters (Figure 2). The actuators were sprayed from all practical areas, and focusing on the sealing surfaces (Figure 1).



Figure 2: Set up and spraying distance.

After the test, there were 61 liters left, which means that 288 liters have passed in the test (Figure 3). Split in 3 minutes will be 96 l/min.



Figure 3: Water volume before and after test.

When the test was carried out, the actuators were dried on the outside and disassembled (Figure 4).

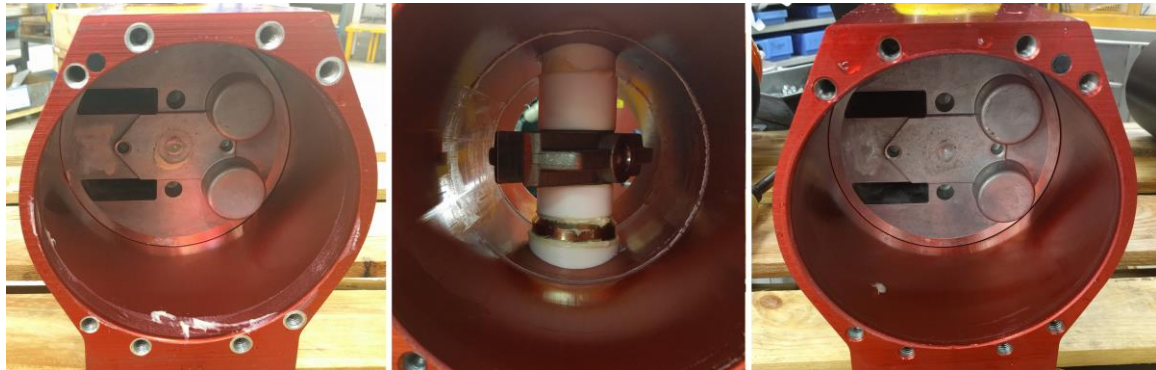


Figure 4: Observation after test.

Actual test circumstances:

Temperature: +16°C

Relative humidity: 60%

Air pressure: 1012 mbar

Results:

No visible water could be observed when the actuators were disassembled.

Comments:

The test objects RC220-SR and RC280-SR representing one of the smallest and largest actuator. Therefore it should also represent the actuator range RC210-RC280, and RC88.