kiwa
Partner for progress

Test Report

Client

Hauff-Technik GmbH & Co. KG
Giengener Straße 35
89428 Syrgenstein - Landshausen

Order no.:

A 9091-3a / 2010

Date of contract	:	December 8th, 2010
Contract	:	Testing of the water-tightness of the ring sealing insert HSD 150/110 in a concrete core hole
Specimen delivery	:	Client
Delivery on	:	March 24th, 2011
Test period	:	March 28th - 31th, 2011

Augsburg, May 30th, 2011
di

Department Manager

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Holger Dietrich

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Laboratory Manager

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This Test Report consists of 8 pages
It may only be published unabridged.
The test results relate only on the items tested. The test material is dissipated.

bautest
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Deutscher Akkreditierungs Rat
DAR
DAP-PL-1379.00

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1 General

Kiwa MPA Bautest GmbH was contracted by Hauff-Technik GmbH & Co. KG to evaluate the water tightness of a ring seal insert with a seal width of 40 mm for use as house lead-in.

Therefore a prefabricated test setup was delivered by Hauff-Technik GmbH & Co. KG to our test laboratory in Augsburg.

2 Test procedure

2.1 Test preparation (Hauff-Technik GmbH & Co. KG)

According to the Manufacturer information the test setup was pre-assembled as follows:

In a test member of water impermeable concrete a core hole with a diameter of 150 mm was generated. Afterwards in the untreated and unsealed core hole of the test member a ring seal insert HSD 150/110 with a plain wire protection tube with an outer diameter of 110 mm was inserted. Then a cover plug with three stop straps was inserted in the ring seal insert. Finally a pressure bell was put over the sealing system and fixed (see Figure 1 to Figure 4). The test setup was stored for ten days with a permanent water pressure of 0,5 bar till the start of the real tightness test.

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2.2 Test procedure (Kiwa MPA Bautest GmbH)

The test member delivered by the Manufacturer was a pre-assembled test member with a test setup with pre-assembled manometer and pressure regulator in accordance with section 2.1 (see Figure 1 to Figure 4). A calibration of the manometer and the pressure regulator by Kiwa MPA Bautest GmbH was not carried out.

After consultation with the Manufacturer a tightness test with water filled pressure bell over a period of 72 h with a nominal pressure of 2,5 bar was carried out. The filling of the pressure bell with water was carried out until the water-level reached the inlet and the air bleed valve respectively. According to the dimensions of the pressure bell the ring seal insert and the concrete surface around the sealing were exposed with water pressure during the test period.

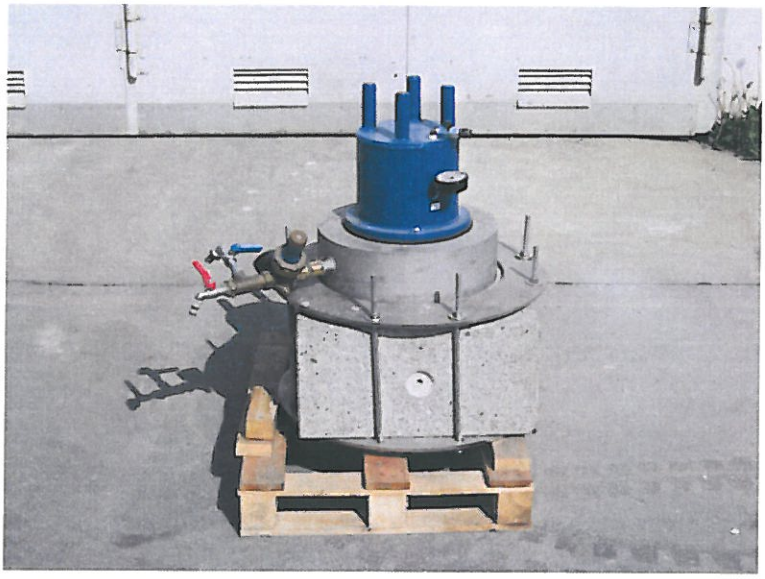


Figure 1: Test Setup

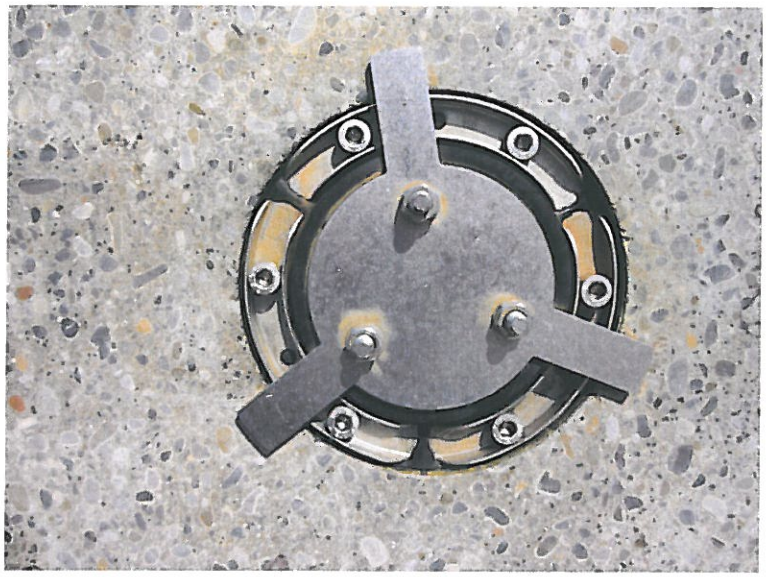


Figure 2: Ring seal insert HSD 150/110 with inserted cover plug

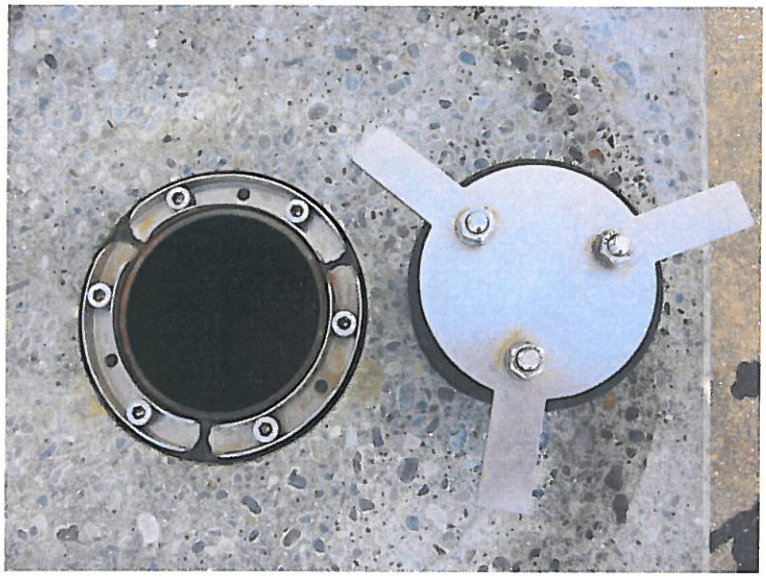
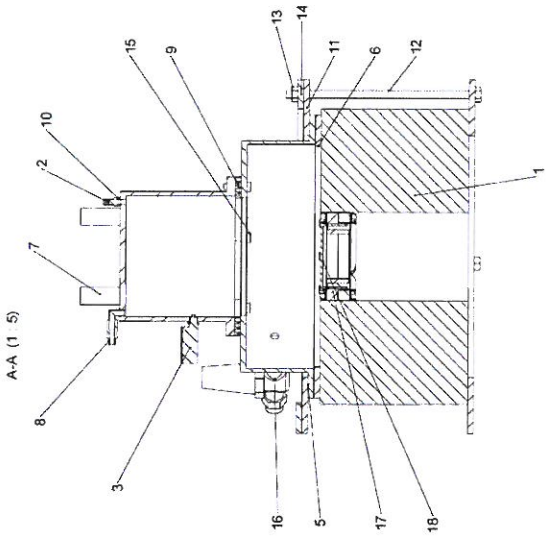
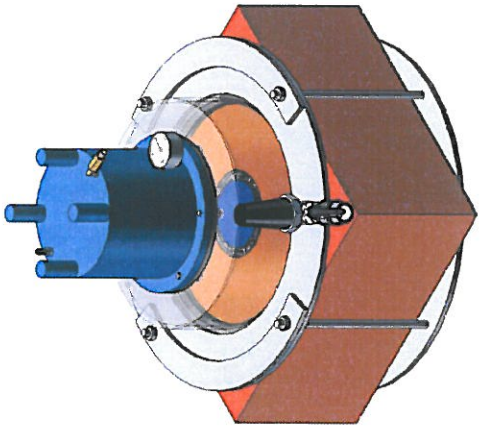
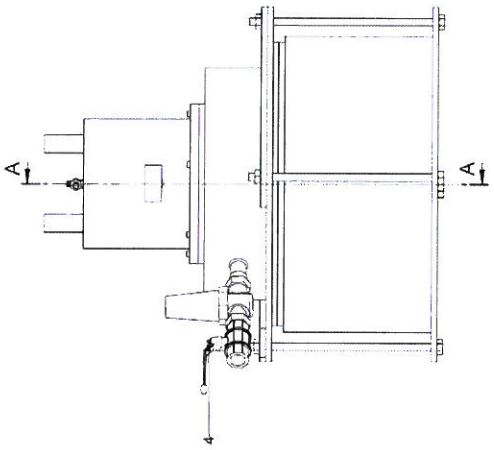


Figure 3: Ring seal insert HSD 150/110 with removed cover plug







Item	Quantity	Designation	Material
18	1	cap	
17	1	HSD 150/110	
16	1	Pressure reducing regulator	
15	6	Allen head screw M8x60	DIN EN ISO 6912
14	2	Back up ring	
13	11	Screw nut M12	
12	4	Thread rod M12	
11	2	Special stell ring	
10	1	Screw nut M8	
9	1	Rubber seal	EPDM 55x5
8	1	Stop and regular valve	
7	1	Pressure container	
6	1	Rubber part	EPDM 50x5
5	1	Intermediate flange	
4	1	Ball valve	
3	1	Pressure gauge	
2	1	Bleed valve	
1	1	Touchstone 500x500x250	C30/35 Polymer cement

Figure 4: Test setup (Manufacturer drawing)

3 Test results

Subsequent in Figure 5 the manometer display at the beginning and at the end of the tightness test is shown.

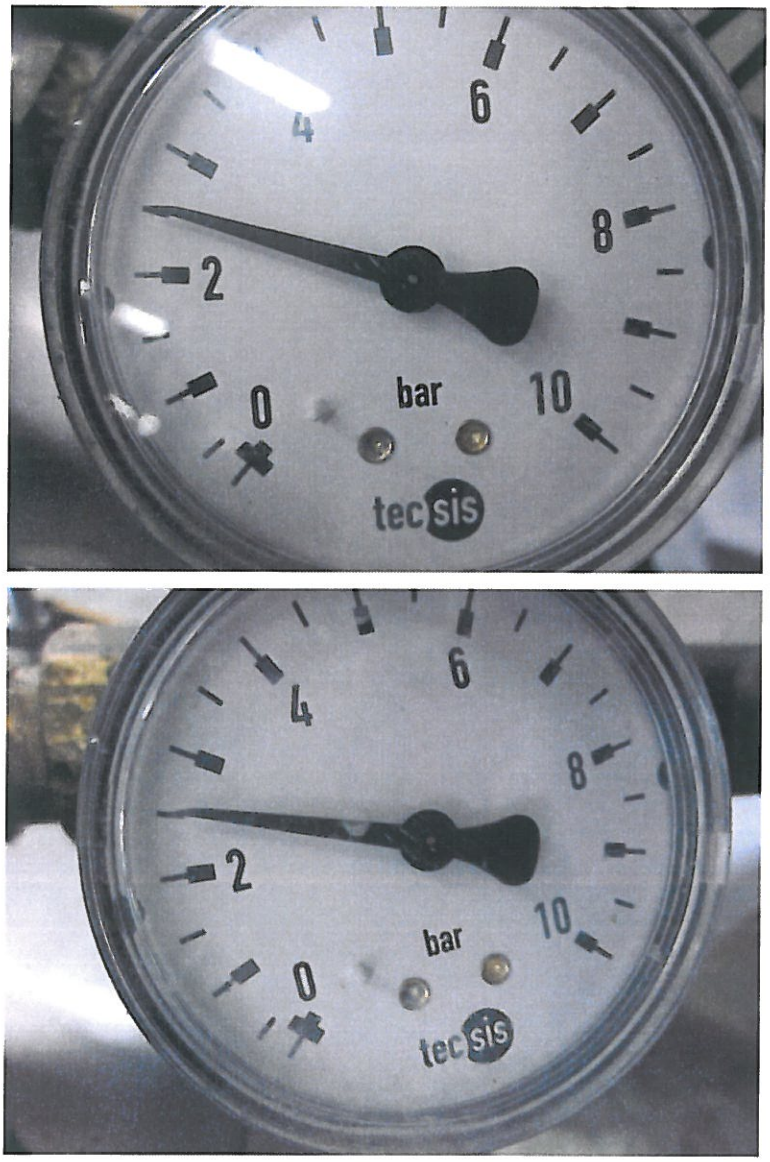


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Figure 5: Tightness test with water filled pressure bell at a nominal pressure of 2,5 bar (above: manometer display at the beginning of the test at 03/28/2011 8:00; below: manometer display at the end of the test at 03/31/2011 8:45)

4 Summary

During the tightness test of the ring seal insert HSD 150/110 with water filled pressure bell with a nominal pressure of 2,5 bar over a test period of 72 h no defect as a result of water discharge could be detected.

Augsburg, May 30th, 2011

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