Test of resistance to liquid pressure

Test of resistance to liquid pressure for Wencon

Product: WENCON RAPID

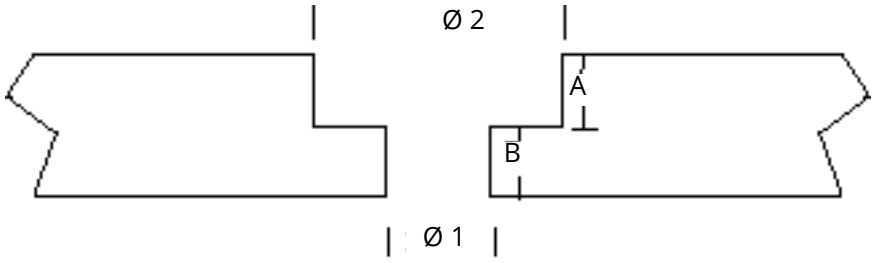
Test issued by: Flådestation Frederikshavn (The Danish Navy) being accredited test facility for pressure tests.

Objective: To establish a description for the product´s ability for use in repairing holes and leaks in pressure vessels, pipes, etc.

Description: Two specimens were made, having holes as shown in ill.

1. Ø 1 = 11,2 mm, Ø 2 = 50,0 mm, A = 5 mm, B = 7 mm, reinforcement.: None.
2. Ø 1 = 16,0 mm, Ø 2= 50,0 mm, A = 10,0 mm, B = 9 mm , reinforcement : 2 layers of fiber tape

The water pressure was given from the side, where Ø 2 is situated.



The test pieces were made and were left for curing in 48 hours. Hereafter they were subjected to water pressure.

1. Test piece No. 1 was mounted in the test stand, sealed with klingerit seal for 25 bar. The pressure was raised to 60 bar, at which pressure the seal was blown out. The test stand was renovated and O-ring seats were machined instead. The test was repeated. In the second test, the pressure was raised to 160 bar, at which pressure the flange was deformed to an extent, where the O-rings were blown out.

Conclusion:

At a pressure of 160 bar, there was no sign of damage to the repaired area of Testpiece 1.

2. Test piece No. 2 was mounted in the test stand, and the pressure was raised to 425 bar, at which pressure the flange was deformed to an extent, where the O-rings were blown out.

Conclusion:

At a pressure of 425 bar, there was no sign of damage to the repaired area of Testpiece 2.

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