

Haelok AG, Ruetistrasse 26, 8952 Schlieren

Schlieren, December 8, 2022

Declaration of Performance as specified by AGFW FW 449 regulations; Update 02

Ladies and Gentlemen

Haelok is testing its fittings in accordance with AGFW FW 449 regulations, which were published in February 2022. As early as 2020, Haelok tested fittings according to the FW449 working paper at the time. For this reason, we can also make statements on sizes that have yet to be tested to the published values of the regulation.

According to official information from IMA Dresden we state that the Haelok fittings, made of galvanized steel 1.0570 (AISI 1024) and stainless steel for sizes D25 to DN80 meet the requirements of the published FW 449 (Feb 2022) according to chapter 6., with values as in Table A.1 (see Table 1 in Appendix).

We understand that the cyclic tension-compression load test is essential to district heating applications. Therefore, these tests were also carried out for the sizes DN40, DN50 and DN65 with wall thickness according to EN 253. With this in mind, we declare the press connectors up to DN80 to be 100% compliant with FW 449. This also applies to the wall thickness according to EN 253.

For the size DN100 the test report no. A342/19 of the IMA Dresden from October 20, 2020, states that they withstand 70% of the cyclic tension-compression load as in Table A.1 of the current FW 449 (see Table 2 in Appendix).

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Appendix: Table 1 & Table 2

Appendix

Table 1. Approved values for Haelok THERMO fittings according to AGFW FW 449:2022

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Size in DIN	Pipe ϕ outer diameter	Wall thickness FW 449	Wall thickness EN 253	Compression strength one-time	Tensile and compression strength low cycle +-	Bending Moment 1 Point pulsation 1000x	Torsion Moment pulsation 1000x
DN	Do	s/t	s				
	[mm]	[mm]	[mm]	[kN]	[kN]	[Nm]	[Nm]
15	21.3	2.0	2.0				
20	26.9	2.6	2.0				
25	33.7	2.6	2.3	60	30	400	40
32	42.4	3.2	2.6	93	47	600	90
40	48.3	3.2	2.6	107	54	1000	130
50	60.3	3.2	2.9	135	68	1400	250
65	76.1	3.2	2.9	172	86	1800	320
80	88.9	3.2	3.2	202	101	2400	500

Table 2 Approved values for Haelok THERMO fittings for DN100

Size in DIN	Pipe ϕ outer diameter	Wall thickness	Wall thickness EN 253	Tensile and compression strength one-time	Tensile and compression strength low cycle +-
DN	Do	s/t	s		
	[mm]	[mm]	[mm]	[kN]	[kN]
100	114.3	3.6	3.6	204	102