

Proof Test Certification for fittings acc. to ASME B16.9 Edition 2018

Company Springer GmbH Herrenpfad -Süd 4c D-41334 Nettetal (Germany) has chosen proof testing to qualify their production range of fittings. This is to certify that the below indicated fittings manufactured by Company Springer GmbH fulfil the requirements of ASME B16.9 Factory-Made Wrought Butt welding Fittings Edition 2018. The fittings listed in the table below have been subjected to a proof test according to B16.9 Para 9.4 and apply to the production ranges listed in the table.

Ranges:

B16.9 Para 9.4.1 Size: From one-half to twice of the tested fitting.
 B16.9 Para 9.4.2 Thickness: t/D range from 1/2 - three times of the tested fitting.
 B16.9 Para 9.4.3 Material: Group 2 Austenitic Table 5-1

Proof Test Objects			Fabrication Ranges covered as per B16.9			
Item	Size	Material	Size Range	Thickness Range t/D	Material Range	Elbow Radius
B16.9	(mm)	Section II-A	(Para 9.4.1)	(Para 9.4.2)	(Para 9.4.3)	
1" Elbows 90°	33,4 x 3,38	SA-403 316/316L	1/2" - 2"	0,0506 - 0,3035	Group 2 Austenitic Table 5-1	long radius
2" Elbows 90°	60,3 x 3,91	SA-403 316/316L	1" - 4"	0,0324 - 0,1945		
6" Elbows 90°	168,3 x 6,30	SA-403 316/316L	3" - 12"	0,0187 - 0,1122		
6"/4" Reducer conc.	168,3 x 7,11	SA-403 316/316L	3" - 12"	0,0211 - 0,1301	Group 2 Austenitic Table 5-1	
3" / 2" Reducer	88,9 x 5,49	SA-403 316/316L	1 1/2 - 4"	0,0308 - 0,1852		
1" Tie Cross	33,4 x 3,38	SA-403 316/316L	1/2" - 2"	0,0506 - 0,3035	Group 2 Austenitic Table 5-1	
2" Tie Cross	60,3 x 3,91	SA-403 316/316L	1" - 4"	0,0324 - 0,1945		
6" Tie Cross	168,3 x 7,11	SA-403 316/316L	3" - 12"	0,0211 - 0,1301		

Proof Test Report:

TÜV-Nord Systems GmbH & Co.KG Report SAP-No: 8122185788-100 Date: 08.03.2024

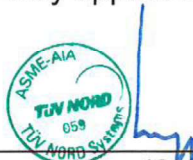
Certification:

During the bursting test, the test items reached the calculated bursting pressure over the required time of 180 seconds.

Note:

This certification only applies in connection with the above-mentioned Proof Test Report.

08.03.2024



Proof Tests witnessed by: (Signature)

Mr. Hermann Schlupp
 Authorized Inspector Supervisor / Authorized Nuclear Inspector Supervisor
 NB # 15644 AI, B, R, N, NS
 AIA-49 TÜV NORD Systems GmbH & Co. KG
 Am TÜV 1 / D-45307 Essen (Germany)