Swagelok Hose Services Company
29900 Solon Industrial Parkway
Solon, Ohio 44139 U.S.A.

TITLE

Burst Testing of Swagelok® T Series Hose Assemblies

PRODUCT TESTED

The tested products consisted of 12 in. length T series assemblies with 316 stainless steel Swagelok end connections.

Series	Quantity Tested
TH4	18
TC4	48
TH6	12
TC6	54
TH8	12
TC8	54
TH12	12
TC12	54
TH16	12
TC16	32
TL4	66

PURPOSE

These tests were performed to observe the burst performance of Swagelok T series hose assemblies under laboratory test conditions.

TEST CONDITIONS

Original test date: December 2019

Test media: nitrogen
Test temperatures: –65°F (–53°C), 200°F (93°C), and 450°F (232°C)

TEST METHOD

1. The hose assemblies were proof tested at 1.5 × working pressure before burst testing was conducted.
2. The test assemblies were pressurized at the specified temperature by increasing pressure at a ramp rate of 333 psig per second (22.9 bar per second) until test sample failure.
3. Test results were compared to the minimum required burst pressure of 4 × working pressure.

Swagelok Hose Services Company
29900 Solon Industrial Parkway
Solon, Ohio 44139 U.S.A.

TEST RESULTS

The burst test results are presented below. Passing the burst test required that a sample not rupture at or below 4 × working pressure. Some leakage was permitted at retaining joints, such as O-rings, gaskets, etc. as long as the system pressure was maintained.

Series	Burst Test at Temperature –65°F (–53°C)		
	4 × Working Pressure psig (bar)	**Samples Tested**	**Samples Passed**
TH4	9000 (620)	6	6
TC4	9000 (620)	16	16
TH6	9000 (620)	6	6
TC6	9000 (620)	16	16
TH8	8000 (551)	6	6
TC8	8000 (551)	16	16
TH12	6000 (413)	6	6
TC12	6000 (413)	16	16
TH16	4000 (275)	6	6
TC16	4000 (275)	16	16
TL4	6000 (413)	22	22

Series	Burst Test at Temperature 200°F (93°C)		
	4 × Working Pressure psig (bar)	**Samples Tested**	**Samples Passed**
TH4	9000 (620)	6	6
TC4	9000 (620)	16	16
TC6	7500 (516)	22	22
TC8	6000 (413)	22	22
TC12	4500 (310)	22	22
TL4	6000 (413)	22	22

Swagelok Hose Services Company
29900 Solon Industrial Parkway
Solon, Ohio 44139 U.S.A.

Series	Burst Test at Temperature 450°F (232°C)		
	4 × Working Pressure psig (bar)	**Samples Tested**	**Samples Passed**
TH4	9000 (620)	6	6
TC4	9000 (620)	16	16
TH6	7500 (516)	6	6
TC6	7500 (516)	16	16
TH8	6000 (413)	6	6
TC8	6000 (413)	16	16
TH12	4500 (310)	6	6
TC12	4500 (310)	16	16
TH16	3000 (206)	6	6
TC16	3000 (206)	16	16
TL4	4868 (335)	22	22

The tests were conducted beyond the product's recommended operating parameters and do not modify the published product ratings.

This test was performed to consider a specific set of conditions and should not be considered valid outside those conditions. Swagelok Company makes no representation or warranties regarding these selected conditions or the results attained. Laboratory tests cannot duplicate the variety of actual operating conditions. See the product catalog for technical data.

SAFE PRODUCT SELECTION

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.