



January, 26th 2021

Swagelok has earned a reputation for unmatched quality and consistency at the component level. We are committed to maintaining this reputation while continuing to grow and improve our product offering. At times, this requires changes to the form, fit or function of our core products.

This Level 1 – Notification of Change sets forth changes to one or more of the products you may have purchased from Swagelok or an authorized Swagelok sales and service center. Prior to release, each change listed was carefully evaluated in accordance with the Swagelok Quality System, to minimize impact to you, our end customer.

A Level 1 Notification relates to an applicable* change impacting Form, Fit and/or Function ("FFF") or the cosmetic appearance of a standard product. "Standard product" is any product that does not include a customer specified product or process attribute and can be purchased by any customer. This includes off-catalog product that can be assembled through designators, assemble to order ("ATO"), make to order ("MTO"), product produced by other means.

Product Name: T Series Ho	ose						
Product Details: T Series Hose Transition to a Crimped Design							
Change Impact: Form	Fit	Function Cosmetic Appearance					

Description and Reason for

As previously announced in July 2019 and August 2020, Swagelok's Hose Service Group (HSG) is transitioning the T series hose from a swaged end connection to a crimped design. The transition started with made-to-stock (MTS) products, which are listed in the catalog as BHT and MBHT, in late 2020 and is now coming to completion with ATO/MTO products.

As we finalize this transition, the ATO/MTO versions of the T series will use the remaining inventory of swaged components. Once that inventory is depleted, that end connection will begin using crimped components. If two different end connection styles are needed on a hose, the end connections will not be mixed between connection methods (both will be swage or both will be crimp). Furthermore, a single order will not use mixed styles.

To assist in making this transition as smooth as possible for customers, all existing certifications on the swage design (such as CRN and ECE) are already in place for the crimp design.

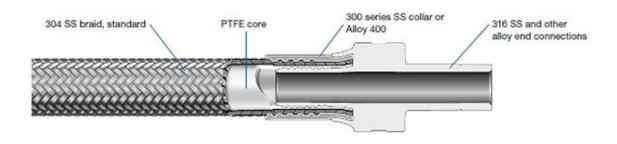


The new design offers significant advantages over the older swaged product:

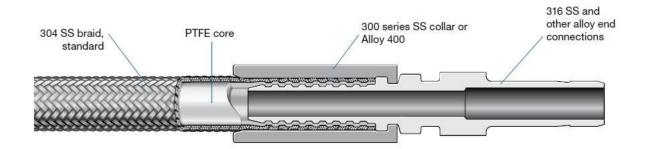
- <u>Increased pressure rating</u> at elevated temperatures, potentially increasing customer applications
- Improved traceability with the transition of the product from material trace 2 to a trace 1 design with a stamped heat code
- Consideration for inclusion for assembly at our sales and service centers around the world. Our plan is to further investigate this capability in 2021.

The product catalog, *Hose and Flexible Tubing*, MS-01-180, will be updated in the coming weeks to reflect the updated appearance, pressure ratings, and live lengths

Current Swaged Design



Future Crimped Design



Pressure-Temperature Ratings

Ratings are based on burst testing.

Braid Material	304 SS (TH and TC)					Alloy 400 (TL4)
Nominal Hose Size in.	1/4	3/8	1/2	3/4	1	1/4
Temperature °F (°C)	Working Pressure, psig (bar)					
-65 (-53) 0 (-17) to 100 (37) 200 (93)	2250 (155) 3000 (206) 2250 (119)	2250 (155) 2500 (172) 1875 (129)	2000 (137) 2000 (137) 1500 (103)	1500 (103) 1500 (103) 1125 (77.6)	1000 (68.9) 1000 (68.9) 750 (51.7)	1500 (103) 1500 (103) 1500 (103
300 (148) to 450 (230)	2250 (119)	1875 (129)	1500 (103)	1125 (77.6)	750 (51.7)	1215 (83.7)



End Connection Selection Table Example

		End Connection Designator	Dimensions		
Tube Adapte Size	Nominal Hose Size Designator		A	End Connection Inside Diameter	Maximum Outside Dimension
Dimen	sions, in. (mm)				
1/4	4	TA4®	2.04 (51.8)	0.13 (3.3)	0.49 (12.4)
0.00	6	TA6®	2.18 (55.4)	0.23 (5.8)	0.59 (15.0)
3/8	8	TA6 ^①	2.47 (62.7)	0.26 (6.6)	
1/2	8	TA8®	2.73 (69.3)	0.34 (8.6)	0.78 (19.8)
3/4	12	TA12	2.90 (73.7)	0.54 (13.7)	1.04 (26.4)
3/4	16	TA12	3.37 (85.6)	0.58 (14.7)	1.35 (34.3)
1	12	TA16	3.25 (82.6)	0.54 (13.7)	1.24 (31.5)
- 59	16	TA16	3.65 (92.7)	0.78 (19.8)	1.35 (34.3)
Dimen	sions, mm (in.)				
6	4	TM6 [⊕]	51.8 (2.04)	3.3 (0.13)	12.4 (0.49)
8	4	TM8 ^①	53.3 (2.10)		
10	6	TM10 ^①	55.4 (2.18)	5.8 (0.23)	15.0 (0.59)
12	8	TM12®	69.3 (2.73)	8.6 (0.34)	19.8 (0.78)
18	12	TM18 [®]	73.7 (2.90)	13.7 (0.54)	26.4 (1.04)
25	16	TM25	92.7 (3.65)	19.8 (0.78)	34,3 (1.35)

Please refer to the attached catalog for a full copy of updated catalog pages related to this T series change

Available Options:

No options

Effective Date: 🔀 Immediately	Future Date [ESTIMATED IMPLEMENTATION D.	ATE]
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Unless otherwise noted, all changes are rolling changes and will take some time to flow through our global inventory. If you have questions regarding the impact of this change on your applications, please contact your local authorized Swagelok sales and service center representative. They, along with regional technology centers, and trained field engineers, are available to assist you.

* Applicable changes which would require notification to a Distributor or end user include changes which impact the form, fit or function of a product attribute or measurement as described in Swagelok data readily available to customers or when a change is made that is cosmetically detectable to the customer.

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