


Swagelok® Biopharm Fittings with Third-Party Inspection Documentation

Swagelok biopharm fittings are inspected in accordance with ASME-BPE standards, and certified by an independent third-party inspection service. All inspected fittings are permanently marked with lot numbers and individually bagged for shipment with material certification and third-party inspection documentation, verifying:

- Visual inspection was performed on the inside and outside component surfaces on 100 % of the lot.
- Dimensional inspection was performed on a minimum of 20 % of the lot.
- Chemical composition meets the requirements of the ASME-BPE standard, Table DT-3.
- Each fitting is identified in accordance with the ASME-BPE standard, including heat number, surface finish designator, and lot number.
- The fittings pass the required inspection (before final packaging) in accordance with the ASME-BPE standard.

This value-added, third-party inspection service can help you reduce time and costs related to on-site conformance inspection and validation process delays.


INSPECTION AND TEST REPORT VERIFICATION INFORMATION



Test Information:

Attest: As far as we can determine, material is free from mercury and low melting alloy contamination. We certify the chemical analysis and/or physical tests were determined by standard methods and are correct as contained in the records of the company and are a true copy of the data furnished to us.

Note: If chemical value is not listed it was not present. "BAL" indicates that the element makes up the BALANCE of the composition.



Paul E. Truitt
Engineering Manager
Swagelok Biopharm Services Company

Code	BPE Code	Pass
PC	SP1	30 Per 101 Filled, Not Filled 101
PC	SP2	30 Per 101 Filled, 10 Per 101 Filled
PC	SP3	10 Per 101 Filled and 10 Electroplated, Not Filled 101
PC	SP4	10 Per 101 Filled and 10 Electroplated, 10 Per 101 Filled

Inspection Information:

Purity Systems, Inc. verifies that:

- Dimensional inspections were performed on the fittings on the reverse side, which represents a minimum of 20% of this lot.
- Visual inspections were performed on the inside and outside surfaces of 100% of this lot.
- Chemical compositions of the material of the automatic weld end of tube fittings meet the requirements of the ASME BPE Standard, Table DT-3. Chemical compositions of other components meet the requirements of the specification listed.
- Each fitting has been properly identified in accordance with the ASME BPE Standard, including heat number and surface finish designation.
- Purity Systems, Inc. signature on this document certifies that this lot has passed the required inspections at Swagelok Biopharm Services Company (before final packaging) in accordance with the latest published edition of the ASME BPE Standard, as of the date of inspection.
- Exceptions: *Non-BPE fittings that were inspected by Purity Systems, Inc. were inspected only for chemical composition and the outside diameter (OD) and wall thickness dimensions and tolerances of DT-5, DT-6, DT-8, and Tables DT-3 and DT-5. The fittings have no evidence of rust or other damaging corrosion products, but no other surface finish or surface residue requirements apply. Non-qualifying criteria were crossed out and identified as "NA", "N/A" or "Not Applicable."*



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INSPECTION AND TEST REPORT Swagelok Biopharm Services Company

Lot #: 15383-A Part #: JTL267P2D1, 2" EXT TAN 90 ELL, POL, I+O 316PM Thursday, February 19, 2004


MATERIAL	HEAT #	CHEMICAL ANALYSIS (WT)														MECHANICAL PROPERTIES							
		C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Fe	N	V	Co	Al	Se	W	As	Yield	Tensile	ELN	RP	
316L316L	81328	0.015	1.780	0.012	0.005	0.300	16.400	10.400	2.120	0.010	0.240	0.030	BAL	0.010					46400	87000	12	80	RP

Base Material Spec: ASME SA316-4L, ASTM A316-4L, ASTM A316-4L

ATTEST: See reverse side for verification information. 
Paul E. Truitt, Engineering Manager, Swagelok Biopharm Services Company Lot Size: 20

INSPECTION REPORT:

Surface Finish (in Ra)	Orality (in)		Wall Thickness (in)		ID	Visual	Fac
	Min	Max	Min	Max			
4.5, 6.5	1.993	2.002	.062	.065	A	A	
4.5, 4.8	1.995	2.002	.062	.064	A	A	
5.7, 6.5	1.992	2.008	.059	.063	A	A	
4.6, 5.5	1.994	2.002	.060	.064	A	A	

ATTEST: Purity Systems Signature on this document certifies this lot has passed the required inspection. See reverse side for verification information. 
Purity Systems Inc. Signature Date: 02/19/04

(Rev. 4/12/02)

