

INSPECTION CERTIFICATE

(Type 3.1 acc to EN 10204)

Certificate No. C220215 - 1 / 2 Melting Process : E.A.F. Date 2022-02-15
 Specification ASTM A269-15a / A213-21b / ASME SA213-19 V.O.D. PAC Stainless Customer
 Grade TP316/316L Strand Casting TP316/316L Purchase Order No. 61126H

Manuf No	Heat No	Lot No	Size (Inch, Ft)	Item	* Chemical Composition (WT %)													
					C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Ti	N			
220210	N20067	CSEC22012702	OD 3/8" * 0.065" T * 20'	Spec	0.035	1.00	2.00	0.045	0.015	14.00	18.00	3.00						
220210	N20067	CSEC22012701	OD 3/8" * 0.065" T * 20'	Result(L)	0.010	0.330	1.576	0.0294	0.0091	12.596	17.171	2.617	0.290					0.0381
				Result(P)	0.011	0.324	1.605	0.0300	0.0090	12.635	17.316	2.643	0.291					0.0419
				* Remarks : . NACE MR0175 / MR0103 . Wall Thickness : AW . Seamless Tube														
Mechanical Properties	Yield Strength (ksi)	Tensile Strength (ksi)	Elongation (%)	Hardness Test (HRB)	Eddy Current Test	Visual & Dimensions	Flaring Test	Flattening Test	Surface Roughness (µinch)									
Spec	≥30	≥75	≥ 35	≤ 80	no cracks	-	no cracks	no cracks	Ra ≤ 100									
Result	38.8	83.6	53.4	77.8	Good	Good	Good	Good	7-20									

It is hereby certified that the above results are true and correct in every details

- * Chemical Composition is posted from Mill Maker's certificate.
- * Country of Origin : Republic of Korea
- * Heat Treatment : 1,050°C for 10min/Rapidly Air Cooling)
- * Surface Finish : Bright Annealed
- * The country of melt and pour : The Republic of Korea

Certification Status
 -. Pressure equipment Approval (AD2000-Merkblatt W0 and PED 2014/68/EU)
 -. Manufacturer Approval (DNV GL, RMRS), Product Type Approval (ABS)
 -. System Approval : IATF16949:2016, ISO9001:2015, ISO14001:2015, ISO45001:2018