INSPECTION CERTIFICATE

(Type 3.1 acc to EN 10204)

Certificate No. C220513 - 15 / 25

Specification ASTM A269-15a /A213-21b /ASME SA213-19

Grade TP316/316L

Melting Process : E.A.F. / V.O.D. / Strand Casting

Date 2022-05-13

Customer PAC Stainless

Purchase Order No. 61176H

Manuf No	Heat No	Lot No	Size (Inch, Ft)		Item	* Chemical Composition(WT %)										
						C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Ti	N
220504	N25992	CSEA22032467	OD 3/4" * 0.049"T * 20'		Spec					0.005	10.00	16.00	2.00			
220504	N25992	CSEA22032464	OD 3/4" * 0.049"T * 20'			0.035	1.00	2.00	0.045	0.015	14.00	18.00	3.00			
					Result(L)	0.014	0.491	0.948	0.0278	0.0069	12.066	16.648	2.046	0.279	0.0040	0.0107
					Result(P)	0.013	0.443	0.960	0.0296	0.0090	12.221	16.683	2.049	0.306	0.0030	0.0081

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	37.2	82.6	53.8	77.6	Good	Good	Good	Good	12~17

* Remarks :
-. NACE MR0175 / MR0103
-. Wall Thickness : AW
-. Seamless Tube

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℃ 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

CTC C T C

Manager of QC Team

FO12-03 (Rev.0)

A4(210x297)