

**MILL TEST CERTIFICATE**

ISO9001:2015/ EN10204 3.1

CUSTOMER: TW METALS  
 P.O.:US-2527  
 TW ORDER NO.M49434598  
 GRADE : ASTM A213/A213M-19a ; ASME SA213/SA213M-17 AVG WALL  
 ASTM A269/A269M-15A TP304/304L  
 COMMODITY: STAINLESS STEEL SEAMLESS TUBE  
 CONDITION: COLD FINISH /SOLUTION TREATED/PICKLED/PLAIN END/OD POLISHED 240 GRIT.

DATE: JULY 7, 2021

CERTIFICATE NO.:TC2021070121

HEAT NO. : 200720C42

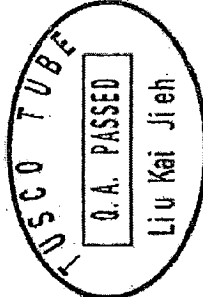
**CHEMICAL COMPOSITION (%)**

ELEMENTS	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Cu	N	Co
MIN						8	18					
MAX	0.035	1	2	0.045	0.03	12	20					
RESULTS	0.020	0.35	1.31	0.032	0.002	8.03	18.15					

**PHYSICAL PROPERTIES**

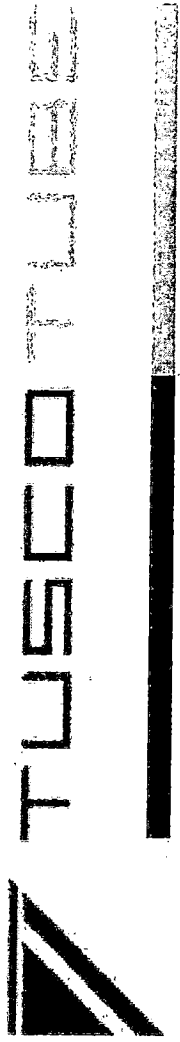
OD (INCH)	Dimensions		Quantity	Tensile Properties			Hardness		Flattening	Flaring	Grain Size	Hydrostatic	I.C.T A262E	EDDY CURRENT TEST (100%)
	W.T (INCH)	LENGTH (FT)		Y.S 0.2% (MPa)	T.S (MPa)	EL ≥35(%)	HRB	80max						
	0.250	0.20		315	705	60	80	OK						
0.500	0.095	20	1660	265	655	64	77	OK	OK	OK	/	OK	OK	OK

**REMARKS:**  
 IN COMPLIANCE TO NACE MR0175-2015/MR0103  
 SOLUTION HEAT TREATMENT :1050°C X 1.5m/min  
 NO WELD REPAIR WAS PERFORMED  
 FREE FROM MERCURY CONTAMINATION  
 FREE FROM RADIATION CONTAMINATION  
 IC TESTING ACCORDANCE TO ASTM A262 E-SATISFACTORY  
 MELT AND MANUFACTURE COUNTRY: CHINA  
 ROHS COMPLIANT  
 100% PMI TESTED  
 MATERIAL TEST CERTIFICATES TO EN 10204/3.1  
 MATERIAL COMPLIANT WITH ISO 9001:2015  
 THE FOLLOWING CLAUSES ARE NOT APPLICABLE;  
 ~ FAR BAA(FAR 52.225-1 BUY AMERICAN ACT-SUPPLIES)  
 ~ DFARS BAA(DFARS 252.225-7001 BUY AMERICAN ACT & BAL. OF PAYMENTS PROG  
 ~ FAR TAA( FAR 52.225-5 TRADE AGREEMENTS)  
 ALL MATERIAL PROVIDED UNDER THIS PURCHASE ORDER IS FREE OF  
 CONFLICT MINERALS IN ACCORDANCE WITH THE DODD FRANK ACT SECTION 1502  
 ADD: NO.12, XUE'AN COMMUNITY ZONE, XUE'AN, RUGAO, NANTONG, JIANGSU PROVINCE, CHINA



TW METALS  
 TEST REPORTS  
 AUG 24 2021  
 ACCEPTED BY

MANAGER OF QUALITY ASSURANCE DEPARTMENT



**MILL TEST CERTIFICATE**  
**ISO9001:2015/ EN10204 3.1**

CUSTOMER: TW METALS

P.O.:US-2567

TW ORDER NO.M49440738

GRADE : ASTM A213/A213M-21a ; ASME SA213/SA213M-17 AVG WALL

ASTM A269/A269M-15A TP304/304L

COMMODITY: STAINLESS STEEL SEAMLESS TUBE

CONDITION: COLD FINISH /SOLUTION TREATED/PICKLED/PLAIN END/OD POLISHED 240 GRIT.

DATE: NOV. 12, 2021

CERTIFICATE NO.:TC2021102816

HEAT NO. : J3210845

**CHEMICAL COMPOSITION (%)**

ELEMENTS	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Cu	N	Co
	0.035	1	2	0.045	0.03	8	18					
	0.020	0.45	1.34	0.023	0.001	8.02	18.29					

**PHYSICAL PROPERTIES**

OD (INCH)	W.T (INCH)	LENGTH (FT)	Quantity		Tensile Properties			Hardness		Flattening	Flaring	Grain Size	Hydrostatic	I.C.T A262E	EDDY CURRENT TEST (100%)
			FT	KG	Y.S 0.2% MPa	T.S MPa	EL ≥35(%)	HRB	80max						
0.625	0.065	20	5620	984	280	670	62	78	OK	OK	OK	/	OK	OK	OK
0.250	0.020	20	560	15	310	700	60	80	OK	OK	OK	/	OK	OK	OK
0.625	0.035	20	560	58	300	690	62	78	OK	OK	OK	/	OK	OK	OK

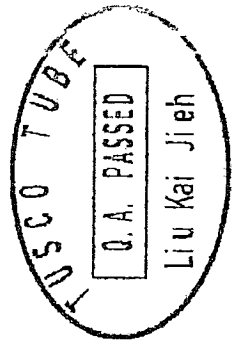
**REMARKS:**

IN COMPLIANCE TO NACE MR0175-2019/MR0103 SOLUTION HEAT TREATMENT :1050 °C X 1.5m/min  
 NO WELD REPAIR WAS PERFORMED  
 FREE FROM MERCURY CONTAMINATION  
 FREE FROM RADIATION CONTAMINATION  
 IC TESTING ACCORDANCE TO ASTM A262 E-SATISFACTORY  
 MELT AND MANUFACTURE COUNTRY: CHINA  
 RoHS COMPLIANT  
 100% PMI TESTED  
 MATERIAL TEST CERTIFICATES TO EN 10204/3.1  
 MATERIAL COMPLIANT WITH ISO 9001:2015  
 THE FOLLOWING CLAUSES ARE NOT APPLICABLE;  
 ~ FAR BAA(FAR 52.225-1 BUY AMERICAN ACT-SUPPLIES)  
 ~ DFARS BAA(DFARS 252.225-7001 BUY AMERICAN ACT & BAL. OF PAYMENTS PROG  
 ~ FAR TAA( FAR 52.225-5 TRADE AGREEMENTS)  
 ALL MATERIAL PROVIDED UNDER THIS PURCHASE ORDER IS FREE OF  
 CONFLICT MINERALS IN ACCORDANCE WITH THE DODD FRANK ACT SECTION 1502  
 ADD: NO.12, XUE'AN COMMUNITY ZONE, XUE'AN, RUGAO, NANTONG, JIANGSU PROVINCE, CHINA

1.WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT OF TW METALS  
 PO#M49440738

2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF TUSCO TUBE.

TW METALS RECEIVED  
 T E S T  
 JAN 31 2022  
 ACCEPTED BY  
 (Signature)  
 Q.A. PASSED  
 Liu Kai Jieh



MANAGER OF QUALITY ASSURANCE DEPARTMENT