



MILL TEST CERTIFICATE

PANTECH STAINLESS & ALLOY INDUSTRIES SDN. BHD. (733428W)

(A MEMBER OF PANTECH GROUP HOLDINGS BERHAD, LISTED ON MAIN MARKET OF BURSA MALAYSIA)

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Certified to NSF/ANSI 61

Cert. No.: ISO9001-0047465



MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO.: 0348/PED/MUM/1110006/1

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Unimech Engineering (M) Sdn Bhd
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-4396
Date: 8 Feb 2022

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification			Delivery Condition
APO-2112-0157	L000012598	ASTM A403/A403M - 20 / ASME SA 403/SA403M - 21	ASME B16.9 - 18 / ASTM A960/A960M - 20 / ASME SA 960/SA960M - 21/ ASME SECTION II PART A - 2021			Solution Treated, Pickled-Passivated
Heat No.	Product & Size		Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
KG098-1	1"	SCH 10s 90° LR ELBOW	993	WP304/304L-W	PASSED	-
KG065-1	1" X 1/2"	SCH 10s CON-REDUCER	400	WP304/304L-W	PASSED	-
CFA158-04-112CR	1" X 3/4"	SCH 40s CON-REDUCER	20	WP304/304L-W	PASSED	-
KG064-1	1 1/2" X 1"	SCH 10s CON-REDUCER	100	WP304/304L-W	PASSED	-
JG201-1	2" X 1 1/2"	SCH 40s CON-REDUCER	50	WP304/304L-W	PASSED	-
KS125-1	2 1/2" X 2"	SCH 10s CON-REDUCER	100	WP304/304L-W	PASSED	-
KG226-1	4" X 3"	SCH 10s CON-REDUCER	50	WP304/304L-W	PASSED	-
				WP304/304L-W	0	0

Specification	Chemical Composition (%)									Tensile Test **			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb	YS (KSI / MPa)	TS (KSI / MPa)	E (%)			
	Max	Min	Heat No.											
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-	-	-	-	90		
	-	-	-	-	-	18.00	8.00	-	205	515	28	-		
KG098-1	0.029	0.40	1.17	0.032	0.001	18.24	8.02	< 0.01	332	640	65	81	PASSED	
KG065-1	0.028	0.41	1.17	0.024	0.002	18.07	8.03	< 0.01	339	640	67	84	PASSED	
CFA158-04-112CR	0.025	0.53	1.02	0.037	0.002	18.30	8.14	< 0.01	372	702	56	88	PASSED	
KG064-1	0.019	0.41	1.12	0.027	0.002	18.12	8.03	< 0.01	373	673	46	83	PASSED	
JG201-1	0.023	0.44	1.13	0.028	0.002	18.05	8.02	< 0.01	348	655	46	79	PASSED	
KS125-1	0.024	0.52	1.00	0.028	0.001	18.14	8.02	< 0.01	392	689	48	84	PASSED	
KG226-1	0.026	0.38	1.15	0.031	0.001	18.16	8.03	< 0.01	363	673	54	88	PASSED	

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED & INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION & PURCHASE ORDER;

AND WAS FOUND SATISFIED TO THE REQUIREMENTS. MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

TENSILE REQUIREMENT: CONFORMS TO ASTM A370-12a STANDARD, SPECIMEN GAUGE WIDTH 19.2MM FOR 3" ABOVE & 3" BELOW DONE SIMULATION TEST FROM PIPE. LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS: AOD / VOD
PIPE RAW MATERIAL - WELDED BY ELECTRIC FUSION WELDING PROCESS WITH NO FILLER METAL
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E
HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156 -2015 & NACE-MR0103-2015
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER
CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION
MATERIAL CONFORMS TO THE SPECIFICATION / STANDARD SHOWN

Signature of Head of Quality Assurance Department
QAQC MANAGER HASSANUDDIN
Head of Quality Assurance Department