



MILL TEST CERTIFICATE

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

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

PTD 204334, JALAN PLATINUM UTAMA,

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MATERIAL MANUFACTURER APPROVAL ACCORDING TO PED 2014/68/EU, ANNEX 1, PARA 4.3. PED CERTIFICATE NO.: 0038/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-4267
Date: 10 May 2021

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification	Delivery Condition			
APO-2104-0146	L000011570	ASTM A403/A403M - 20 / ASME SA 403/SA403M - 19	ASME B16.9 - 18 / ASTM A960/A960M - 20 / ASME SA 960/SA960M - 19	Solution Treated, Pickled-Passivated			
Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
IYA118-02-112CR	1" X 3/4"	SCH 40s	CON-REDUCER	10	WP304/304L-W	PASSED	-
HSA296-01-112CR	2 1/2" X 1"	SCH 10s	CON-REDUCER	25	WP304/304L-W	PASSED	-
KG012-1	3" X 2"	SCH 10s	CON-REDUCER	100	WP304/304L-W	PASSED	-
JG205-1	4" X 3"	SCH 10s	CON-REDUCER	12	WP304/304L-W	PASSED	-
JS175-1	4" X 3"	SCH 10s	CON-REDUCER	68	WP304/304L-W	PASSED	-
HSA273-02-112CR	8" X 5"	SCH 10s	CON-REDUCER	20	WP304/304L-W	PASSED	-
JS136-1	8" X 6"	SCH 10s	CON-REDUCER	60	WP304/304L-W	PASSED	-

Specification	Chemical Composition (%)									Tensile Test ¹¹			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb	YS (KSI / MPa)	TS (KSI / MPa)	E (%)			
	Max	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-	-	-	90		
Heat No.	-	-	-	-	-	18.00	8.00	-	-	205	515	28	-	
IYA118-02-112CR	0.022	0.47	1.60	0.020	0.001	18.20	8.10	< 0.01		345	632	56	86	PASSED
HSA296-01-112CR	0.015	0.51	1.05	0.030	0.001	18.16	8.05	< 0.01		379	666	51	85	PASSED
KG012-1	0.022	0.41	1.14	0.032	0.001	18.18	8.04	< 0.01		347	648	51	82	PASSED
JG205-1	0.022	0.43	1.13	0.031	0.001	18.11	8.02	< 0.01		346	670	55	78	PASSED
JS175-1	0.016	0.51	1.08	0.031	0.002	18.12	8.01	< 0.01		375	687	44	84	PASSED
HSA273-02-112CR	0.022	0.40	1.42	0.029	0.001	18.13	8.20	< 0.01		358	660	57	84	PASSED
JS136-1	0.015	0.44	1.19	0.032	0.001	18.02	8.04	< 0.01		350	669	52	81	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



 QAQC MANAGER
 PASIRBUDDIN
 Head of Quality Assurance Department



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INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

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

Certificate No: PSA3-FT-1607
Date: 10 May 2021

PO No.	Invoice No.	Product Specification	Dimension & Inspection Specification				Delivery Condition																																																																																																							
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Signature and stamp of QA Manager Hassanuddin, Head of Quality Assurance Department