

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

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

PLOT 809, JALAN KAMPUNG PASIR GUDANG BARU,

PASIR GUDANG INDUSTRIAL ESTATE, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com

ITEM NO: 21

PO NO: APD-1810-0144

DO NO: 115062-

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: FUZHE STEEL SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-0031
Date: 05/4/2012

PO No.	Invoice No.	Specification for Pipe	Specification for Fittings: Made from Welded Pipe			Specification for Inspection		
201202002	-	ASTM A312/A312M - 09 / ASTM SA312/SA312M - 09	ASTM A403/A403M - 10 / ASME SA 403/SA403M - 10			ASME B16.9 - 07		
Heat No.	Product & Size		Quantity (pcs)	Dimensional Inspection		Visual Examination		Remarks
AC052	45° ELBOW LR SCH 10S 4"		8	WP304/304L-W		PASSED		PASSED
AC062	45° ELBOW LR SCH 10S 5"		12	WP304/304L-W		PASSED		PASSED
AB192	45° ELBOW LR SCH 10S 6"		9	WP304/304L-W		PASSED		PASSED
AD142	90° ELBOW LR SCH 40S 3"		1	WP304/304L-W		PASSED		PASSED
AB112	45° ELBOW LR SCH 40S 5"		18	WP304/304L-W		PASSED		PASSED
AA32T2	TEE SCH 40S 3"		17	WP304/304L-W		PASSED		PASSED
AA77R2	REDUCING TEE SCH 40S 4" X 1 1/2"		30	WP304/304L-W		PASSED		PASSED
AA37R2	REDUCING TEE SCH 40S 6" X 3"		20	WP304/304L-W		PASSED		PASSED
AA11C2	CON-REDUCER SCH 10S 2 1/2" X 1 1/2"		21	WP304/304L-W		PASSED		PASSED
AA13C2	CON-REDUCER SCH 10S 4" X 2"		4	WP304/304L-W		PASSED		PASSED

Specification Min Max Heat No.	Chemical Composition (%)								Tensile Test ¹			Hardness	Inter-Granular		
	C	Si	Mn	P	S	Cr	Ni				YS	TS	E		
	X 1000	X 100	X 100	X 1000	X 1000	X 100	X 100				(KSI / MPa)		(%)	(HRB)	
	30	100	200	45	30	2000	1200				170	485	28	-	
	-	-	-	-	-	1800	800				-	-	-	90	Corrosion Test
AC052	19	22	173	31	5	1820	803				380	679	53	87	PASSED
AC062	25	52	95	37	7	1820	806				381	680	57	87	PASSED
AB192	19	39	145	21	2	1810	809				345	607	59	86	PASSED
AD142	28	49	108	42	9	1830	801				375	666	54	82	PASSED
AB112	23	50	97	38	3	1820	802				364	651	55	83	PASSED
AA32T2	30	47	87	42	4	1810	800				383	688	57	86	PASSED
AA77R2	22	37	145	26	11	1810	809				398	658	53	89	PASSED
AA37R2	16	38	142	29	5	1820	802				368	617	57	84	PASSED
AA11C2	23	40	144	26	12	1830	804				358	615	55	83	PASSED
AA13C2	22	60	101	39	6	1820	802				331	563	57	86	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 STANDARD, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE:

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175 / ISO 15156 - 03

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

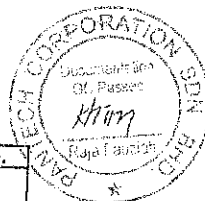
CHEMICAL COMPOSITION BASED ON SPARK TEST, TEST ACCORDING TO ASTM A751 REQUIREMENTS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION

Head of Quality Assurance Department

PANTECH CORPORATION SDN. BHD.
Certified True Copy

WOO HUI NEE





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0036/PED/MUM/1110006/1

ITEM NO: 30

PO NO: AP0-1810-01WY

DO NO: 113062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA3-FT-1473

Date: 13 Aug 2018

PO No.	Invoice No.			Product Specification							Dimension & Inspection Specification				
201807025	L000008032			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15							ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15				
Heat No.	Product & Size			Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination			Remarks					
FSA091-01-113CR	2" X 1"	SCH 10s	CON-REDUCER	50	WP316/316L-W		PASSED			-					
BLA024-01-113CR	2" X 1 1/4"	SCH 40s	CON-REDUCER	10	WP316/316L-W		PASSED			-					
FSA111-02-113CR	2" X 1 1/2"	SCH 40s	CON-REDUCER	200	WP316/316L-W		PASSED			-					
BLA002-02-113CR	2 1/2" X 1"	SCH 10s	CON-REDUCER	20	WP316/316L-W		PASSED			-					
BJA036-03-113CR	2 1/2" X 1 1/2"	SCH 40s	CON-REDUCER	30	WP316/316L-W		PASSED			-					
BJA110-02-113CR	2 1/2" X 2"	SCH 40s	CON-REDUCER	30	WP316/316L-W		PASSED			-					
EEA133-01-113CR	3" X 1 1/4"	SCH 10s	CON-REDUCER	20	WP316/316L-W		PASSED			-					
GSA169-01-113CR	3" X 1 1/2"	SCH 10s	CON-REDUCER	38	WP316/316L-W		PASSED			-					
GSA169-01-183CR	3" X 1 1/2"	SCH 10s	CON-REDUCER	1	WP316/316L-W		PASSED			-					
FSA119-01-113CR	3" X 2"	SCH 40s	CON-REDUCER	20	WP316/316L-W		PASSED			-					
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ¹			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS	E (%)	(HRB)	
	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
FSA091-01-113CR	0.013	0.61	0.89	0.036	0.002	16.75	10.25	2.06	< 0.10		356	687	53	77	PASSED
BLA024-01-113CR	0.014	0.36	0.83	0.024	0.002	16.63	10.05	2.01	< 0.10		335	598	61	83	PASSED
FSA111-02-113CR	0.011	0.57	0.91	0.032	0.001	16.85	10.05	2.05	< 0.10		394	616	55	83	PASSED
BLA002-02-113CR	0.018	0.37	0.84	0.033	0.001	16.89	10.01	2.01	< 0.10		343	575	56	82	PASSED
BJA036-03-113CR	0.024	0.47	1.76	0.036	0.002	17.00	10.00	2.05	< 0.10		383	613	58	81	PASSED
BJA110-02-113CR	0.027	0.48	1.77	0.035	0.002	17.20	10.10	2.06	< 0.10		371	599	57	79	PASSED
EEA133-01-113CR	0.013	0.49	0.93	0.034	0.001	16.66	10.19	2.05	< 0.10		328	591	54	81	PASSED
GSA169-01-113CR	0.023	0.56	0.68	0.033	0.001	16.55	10.16	2.07	< 0.10		359	668	49	86	PASSED
GSA169-01-183CR	0.023	0.56	0.68	0.033	0.001	16.85	10.16	2.07	< 0.10		359	668	49	86	PASSED
FSA119-01-113CR	0.017	0.52	1.00	0.032	0.002	16.82	10.20	2.08	< 0.10		389	702	53	86	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 & 1" BELOW DONE SIMULATION TEST FROM PIPE, LONGITUDINAL DIRECTION, GAUGE LENGTH 12" (50mm)

NOTE: MADE IN MALAYSIA STEEL MAKING PROCESS: AOD / VOD

PIPE RAW MATERIAL: WELDED BY ELECTRIC FUSION WELDING PROCESS WITH NO FILLER METAL

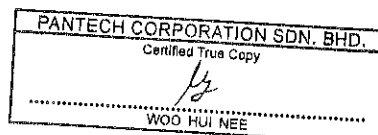
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE B

HARDNESS ACCORDING TO NACE-MR01-75-2015 / ISO 15156-2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.:
0038/PED/MUM/1130006/1

ITEM NO: 19
PO NO: WPO-1810-0144
DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA3-FT-1402
Date: 24 May 2018

PO No.	Invoice No.		Product Specification				Dimension & Inspection Specification	
201805022	L000007878		ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15	
Heat No.	Product & Size		Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination	Remarks	
GVA014-01-193LR	1/2"	SCH 10s 90° LR ELBOW	500	WP316/316L-W		PASSED	-	
BJA029-04-193LR	1/2"	SCH 40s 90° LR ELBOW	200	WP316/316L-W		PASSED	-	
BJA008-01-193LR	3/4"	SCH 10s 90° LR ELBOW	300	WP316/316L-W		PASSED	-	
DGA021-02-193LR	3/4"	SCH 40s 90° LR ELBOW	50	WP316/316L-W		PASSED	-	
EDA246-01-113LR	1"	SCH 10s 90° LR ELBOW	1200	WP316/316L-W		PASSED	-	
EFA308-02-113LR	1"	SCH 40s 90° LR ELBOW	200	WP316/316L-W		PASSED	-	
CSSA630LR3	1 1/4"	SCH 10s 90° LR ELBOW	50	WP316/316L-W		PASSED	-	
GSA147-05-113LR	2"	SCH 10s 90° LR ELBOW	500	WP316/316L-W		PASSED	-	
FSA119-04-113LR	2"	SCH 40s 90° LR ELBOW	100	WP316/316L-W		PASSED	-	
CJA115-03-113LR	2 1/2"	SCH 10s 90° LR ELBOW	49	WP316/316L-W		PASSED	-	

Specification	Chemical Composition (%)										Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)		
	Max	Max	Max	Max	Max	Max	Max	Max	Max						
Min	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
Heat No.	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
GVA014-01-193LR	0.022	0.43	1.49	0.025	0.010	17.08	10.28	2.17	< 0.10		316	613	43	70	PASSED
BJA029-04-193LR	0.021	0.46	1.76	0.034	0.001	17.20	10.00	2.11	< 0.10		381	798	62	81	PASSED
BJA008-01-193LR	0.019	0.47	1.75	0.032	0.001	17.00	10.10	2.09	< 0.10		316	615	40	84	PASSED
DGA021-02-193LR	0.025	0.32	1.42	0.029	0.005	16.66	10.00	2.04	< 0.10		264	672	60	78	PASSED
EDA246-01-113LR	0.020	0.31	1.40	0.028	0.002	16.70	10.01	2.02	< 0.10		351	591	54	89	PASSED
EFA308-02-113LR	0.021	0.46	1.01	0.033	0.002	16.81	10.11	2.14	< 0.10		297	590	44	82	PASSED
CSSA630LR3	0.024	0.48	1.79	0.035	0.001	17.20	10.10	2.07	< 0.10		410	641	49	80	PASSED
GSA147-05-113LR	0.012	0.45	0.92	0.032	0.005	16.81	10.13	2.04	< 0.10		374	609	53	88	PASSED
FSA119-04-113LR	0.017	0.52	0.95	0.032	0.002	16.82	10.20	2.06	< 0.10		318	554	56	77	PASSED
CJA115-03-113LR	0.022	0.48	1.78	0.032	0.001	17.10	10.00	2.06	< 0.10		354	597	58	82	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 A370-42a 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

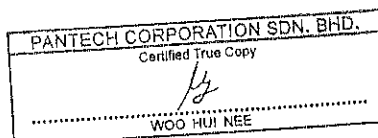
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLA 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/110006/1

ITEM NO: 18
PO NO: APO-1810-0148
DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA3-FT-1489
Date: 27 Aug 2018

PO No.	Invoice No.				Product Specification						Dimension & Inspection Specification				
201808007	L000008092				ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15						ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15				
Heat No.	Product & Size				Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination		Remarks					
GVA014-01-193LR	1/2"	SCH 10s	90° LR ELBOW		200	WP316/316L-W		PASSED		-					
EGA235-02-193LR	3/4"	SCH 40s	90° LR ELBOW		300	WP316/316L-W		PASSED		-					
BJA022-04-113LR	1 1/4"	SCH 40s	90° LR ELBOW		150	WP316/316L-W		PASSED		-					
GSA147-05-113LR	2"	SCH 10s	90° LR ELBOW		100	WP316/316L-W		PASSED		-					
FSA119-04-113LR	2"	SCH 40s	90° LR ELBOW		150	WP316/316L-W		PASSED		-					
BJA110-02-113LR	2 1/2"	SCH 40s	90° LR ELBOW		100	WP316/316L-W		PASSED		-					
GEA231-01-113LR	4"	SCH 10s	90° LR ELBOW		4	WP316/316L-W		PASSED		-					
HYA016-03-113LR	4"	SCH 10s	90° LR ELBOW		96	WP316/316L-W		PASSED		-					
GSA147-01-113LR	5"	SCH 10s	90° LR ELBOW		2	WP316/316L-W		PASSED		-					
AJA005-02-113LR	5"	SCH 40s	90° LR ELBOW		10	WP316/316L-W		PASSED		-					
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ¹			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Mo	Pb		YS (KSI / MPa)	TS	E (%)	(HRB)	
	0.030	1.00	2.00	0.045	0.030	18.00	14.00	3.00	-		-	-	-	90	
	-	-	-	-	-	16.00	10.00	2.00	-		205	515	28	-	
GVA014-01-193LR	0.022	0.43	1.49	0.025	0.01	17.08	10.28	2.17	< 0.10		316	613	43	80	PASSED
EGA235-02-193LR	0.025	0.32	1.42	0.029	0.005	16.66	10.00	2.04	< 0.10		264	672	60	78	PASSED
BJA022-04-113LR	0.027	0.40	1.71	0.044	0.001	17.10	10.20	2.18	< 0.10		366	614	64	82	PASSED
GSA147-05-113LR	0.012	0.45	0.92	0.032	0.005	16.81	10.13	2.04	< 0.10		374	609	53	88	PASSED
FSA119-04-113LR	0.017	0.52	0.96	0.032	0.002	16.82	10.20	2.08	< 0.10		316	554	56	77	PASSED
BJA110-02-113LR	0.027	0.46	1.77	0.035	0.002	17.20	10.10	2.06	< 0.10		371	599	57	79	PASSED
GEA231-01-113LR	0.010	0.59	0.98	0.035	0.001	16.75	10.09	2.04	< 0.10		360	613	64	80	PASSED
HYA016-03-113LR	0.024	0.51	1.20	0.031	0.002	16.80	10.20	2.09	< 0.10		336	568	59	85	PASSED
GSA147-01-113LR	0.012	0.45	0.92	0.032	0.005	16.81	10.13	2.04	< 0.10		256	580	54	83	PASSED
AJA005-02-113LR	0.017	0.47	1.76	0.027	0.001	17.10	10.10	2.06	< 0.10		380	592	53	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 12" (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



for komagh
Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 8012814

PED CERTIFICATE NO.: 0038/PED/04UM/1110006/1

ITEM NO: 17
PO NO: APO-1810-014
DO NO: 118762

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-2457
Date: 16 Dec 2016

PO No.	Invoice No.				Product Specification						Dimension & Inspection Specification					
201611037	L000004769				ASTM A403/A403M - 15 / ASME SA 403/SA403M - 15						ASME B16.9 - 12 / ASTM A960/A960M - 15 / ASME SA 960/SA960M - 15					
Heat No.	Product & Size				Quantity (pcs)	Material Grade				Visual / Dimension / PMI Examination			Remarks			
CBA091-01-112CR	10" X 8"	SCH 40s	CON-REDUCER		2	WP304/304L-W				PASSED			-			
EGA228-02-192CR	1" X 1/2"	SCH 40s	CON-REDUCER		50	WP304/304L-W				PASSED			-			
YAA312CR2	8" X 6"	SCH 40s	CON-REDUCER		30	WP304/304L-W				PASSED			-			
FFA372-02-112CR	8" X 6"	SCH 40s	CON-REDUCER		50	WP304/304L-W				PASSED			-			
DFA262-03-112ER	2 1/2" X 2"	SCH 10s	ECC-REDUCER		30	WP304/304L-W				PASSED			-			
ESA054-01-112ER	3" X 2"	SCH 10s	ECC-REDUCER		1	WP304/304L-W				PASSED			-			
FFA373-03-112ER	3" X 2"	SCH 10s	ECC-REDUCER		24	WP304/304L-W				PASSED			-			
ADA025-01-212ER	6" X 4"	SCH 10s	ECC-REDUCER		30	WP304/304L-W				PASSED			-			
BFA124-01-212ER	8" X 6"	SCH 10s	ECC-REDUCER		1	WP304/304L-W				PASSED			-			
DFA221-01-112ER	8" X 6"	SCH 10s	ECC-REDUCER		1	WP304/304L-W				PASSED			-			
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ¹⁾			Hardness		Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS	E (%)	(HRB)		
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-			
	-	-	-	-	-	18.00	8.00	-			205	515	28			
CBA091-01-112CR	0.025	0.49	1.48	0.026	0.003	18.20	8.10	< 0.10			331	616	58	77	PASSED	
EGA228-02-192CR	0.023	0.68	1.07	0.031	0.003	18.24	8.03	< 0.10			287	653	52	77	PASSED	
YAA312CR2	0.027	0.51	0.98	0.033	0.001	18.31	8.13	< 0.10			340	696	52	76	PASSED	
FFA372-02-112CR	0.029	0.51	1.01	0.034	0.003	18.17	8.04	< 0.10			361	683	65	83	PASSED	
DFA262-03-112ER	0.023	0.47	0.87	0.035	0.002	18.01	8.04	< 0.10			365	629	50	82	PASSED	
ESA054-01-112ER	0.018	0.51	1.02	0.042	0.003	18.16	8.03	< 0.10			336	646	44	84	PASSED	
FFA373-03-112ER	0.027	0.53	1.02	0.034	0.003	18.19	8.05	< 0.10			413	684	59	83	PASSED	
ADA025-01-212ER	0.023	0.41	1.48	0.026	0.007	18.25	8.04	< 0.10			392	614	52	86	PASSED	
BFA124-01-212ER	0.028	0.56	1.54	0.028	0.003	18.41	8.16	< 0.10			362	660	53	89	PASSED	
DFA221-01-112ER	0.029	0.55	1.05	0.033	0.002	18.34	8.02	< 0.10			329	626	51	85	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

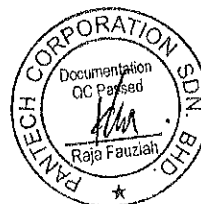
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156-2015 & NACE-MR0103-2015

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

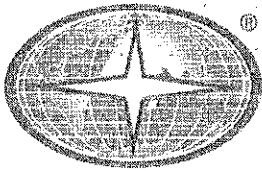
CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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

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

PLOT 809, JALAN KAMPUNG PASIR GUDANG BARU,
PASIR GUDANG INDUSTRIAL ESTATE, ZONE 12B, 81700 PASIR GUDANG
JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2518888 E-mail: info@pantechssalloy.com
http://www.pantech-group.com

ITEM NO: 17.

PO NO: APO-1810-0144

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: FUZHE STEEL SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No : PSA2-FT-0058
Date : 09/4/2012

PO No.	Invoice No.	Specification for Pipe	Specification for Fittings: Made from Welded Pipe		Specification for Inspection	
201202002	-	ASTM A312/A312M - 09 / ASTM SA312/SA312M - 09	ASTM A403/A403M - 10 / ASME SA 403/SA403M - 10		ASME B16.9 - 07	
Heat No.	Product & Size		Quantity (pcs)	Dimensional Inspection	Visual Examination	Remarks
AA63C2	CON-REDUCER SCH 40S 3" X 1 1/4"		21	WP304/304L-W	PASSED	PASSED
AA89C2	CON-REDUCER SCH 40S 1 1/2" X 1 1/2"		233	WP304/304L-W	PASSED	PASSED
AC88C2	CON-REDUCER SCH 10S 1 1/4" X 1"		318	WP304/304L-W	PASSED	PASSED
AA88C2	CON-REDUCER SCH 40S 8" X 6"		48	WP304/304L-W	PASSED	PASSED
AC85C2	CON-REDUCER SCH 40S 2" X 1 1/2"		4	WP304/304L-W	PASSED	PASSED

Specification	Chemical Composition (%)								Tensile Test ^{*1}			Hardness	Inter-Granular Corrosion Test
	C	Si	Mn	P	S	Cr	Ni		YS	TS	E	(HRB)	
	X 1000	X 100	X 100	X 1000	X 1000	X 100	X 100		(KSI / MPa)		(%)		
Mln	30	100	200	45	30	2000	1200		170	485	28	-	90
Max	-	-	-	-	-	1800	800		-	-	-	-	
Heat No.	-	-	-	-	-	-	-		-	-	-	-	
AA63C2	16	38	142	29	5	1820	802		368	617	57	84	PASSED
AA89C2	26	44	104	36	3	1830	806		365	656	58	85	PASSED
AC88C2	21	40	147	19	5	1820	806		363	644	56	82	PASSED
AA88C2	25	23	135	27	2	1830	806		335	593	58	82	PASSED
AC85C2	26	38	147	20	2	1800	805		338	610	60	82	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 STANDARD, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE:

INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262 PRACTICE B

HARDNESS ACCORDING TO NACE-MR0175 / ISO 15156 - 03

HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

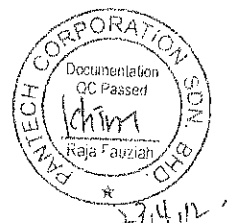
CHEMICAL COMPOSITION BASED ON SPARK TEST, TEST ACCORDING TO ASTM A751 REQUIREMENTS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION


Head of Quality Assurance Department

PANTECH CORPORATION SDN. BHD.
Certified True Copy

WOO HUI NEE



23/4/12



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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0036/PED/MUM/111006/1

ITEM NO: 16

PO NO: APO-1810-0144

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3654

Date: 24 May 2018

PO No.	Invoice No.			Product Specification				Dimension & Inspection Specification							
201805022	L000007678			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15							
Heat No.	Product & Size			Quantly (pcs)	Material Grade		Visual / Dimension / PMI Examination		Remarks						
FFA385-01-112CR	2 1/2" X 1 1/2"	SCH 40s	CON-REDUCER	80	WP304/304L-W		PASSED		-						
CFA152-01-112CR	2 1/2" X 2"	SCH 40s	CON-REDUCER	50	WP304/304L-W		PASSED		-						
GEA223-01-112CR	3" X 1"	SCH 10s	CON-REDUCER	80	WP304/304L-W		PASSED		-						
FSA059-02-112CR	3" X 1"	SCH 40s	CON-REDUCER	20	WP304/304L-W		PASSED		-						
FSA108-01-112CR	3" X 1 1/2"	SCH 10s	CON-REDUCER	75	WP304/304L-W		PASSED		-						
FSA123-01-112CR	3" X 1 1/2"	SCH 10s	CON-REDUCER	5	WP304/304L-W		PASSED		-						
EFA291-01-112CR	3" X 2"	SCH 40s	CON-REDUCER	50	WP304/304L-W		PASSED		-						
DFA223-02-112CR	4" X 1 1/2"	SCH 40s	CON-REDUCER	10	WP304/304L-W		PASSED		-						
GSA136-02-112CR	4" X 2"	SCH 10s	CON-REDUCER	80	WP304/304L-W		PASSED		-						
FFA384-01-112CR	4" X 2"	SCH 40s	CON-REDUCER	20	WP304/304L-W		PASSED		-						
Specification Max Min Heat No.	Chemical Composition (%)									Tensile Test ^{*1}			Hardness (HRB)	Inter-granular corrosion test	
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS (%)			E (%)
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		90
	-	-	-	-	-	18.00	8.00	-			205	515	28		-
FFA385-01-112CR	0.026	0.45	1.01	0.035	0.003	18.19	8.06	< 0.10			352	627	59	82	PASSED
CFA152-01-112CR	0.025	0.51	1.04	0.031	0.003	18.16	8.10	< 0.10			341	680	57	82	PASSED
GEA223-01-112CR	0.024	0.37	1.23	0.035	0.007	18.06	8.02	< 0.10			364	624	53	80	PASSED
FSA059-02-112CR	0.019	0.38	1.53	0.035	0.003	18.16	8.05	< 0.10			321	640	44	83	PASSED
FSA108-01-112CR	0.019	0.37	1.53	0.033	0.001	18.03	8.20	< 0.10			387	640	55	87	PASSED
FSA123-01-112CR	0.021	0.36	1.46	0.036	0.002	18.25	8.04	< 0.10			408	665	50	89	PASSED
EFA291-01-112CR	0.029	0.45	0.91	0.028	0.002	18.29	8.09	< 0.10			355	672	50	85	PASSED
DFA223-02-112CR	0.028	0.46	0.93	0.035	0.002	18.22	8.05	< 0.10			363	705	46	85	PASSED
GSA136-02-112CR	0.029	0.29	1.15	0.038	0.003	18.48	8.18	< 0.10			206	844	53	82	PASSED
FFA384-01-112CR	0.027	0.52	1.04	0.037	0.002	18.15	8.08	< 0.10			320	568	53	90	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

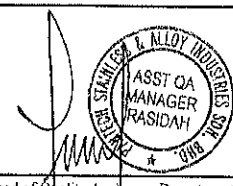
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssellcoy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/110006/1

ITEM NO: IS

PO NO: APO-1810-044

DO NO: 118062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3762

Date: 30 Jul 2018

PO No.	Invoice No.			Product Specification				Dimension & Inspection Specification							
201807025	L000007951			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15							
Heat No.	Product & Size			Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination		Remarks						
HSA250-01-112LR	3"	SCH 10s	90° LR ELBOW	800	WP304/304L-W		PASSED		-						
GEA225-01-112LR	4"	SCH 10s	90° LR ELBOW	1000	WP304/304L-W		PASSED		-						
HSA251-01-112LR	4"	SCH 40s	90° LR ELBOW	200	WP304/304L-W		PASSED		-						
GSA166-02-112LR	5"	SCH 10s	90° LR ELBOW	200	WP304/304L-W		PASSED		-						
DFA213-01-112LR	5"	SCH 40s	90° LR ELBOW	26	WP304/304L-W		PASSED		-						
FEA139-04-112LR	5"	SCH 40s	90° LR ELBOW	24	WP304/304L-W		PASSED		-						
HSA251-03-112LR	6"	SCH 10s	90° LR ELBOW	500	WP304/304L-W		PASSED		-						
HSA254-02-112LR	8"	SCH 10s	90° LR ELBOW	200	WP304/304L-W		PASSED		-						
GSA168-01-112LR	8"	SCH 40s	90° LR ELBOW	32	WP304/304L-W		PASSED		-						
HYA008-05-182LR	8"	SCH 40s	90° LR ELBOW	18	WP304/304L-W		PASSED		-						
Specification Max Min Heat No.	Chemical Composition (%)									Tensile Test ¹			Hardness	Inter-granular corrosion test	
	C	Si	Mn	P	S	Cr	Ni	Pb		YS (KSI / MPa)	TS	E (%)	(HRB)		
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		90
	-	-	-	-	-	18.00	8.00	-			205	515	28	-	
HSA250-01-112LR	0.012	0.39	1.35	0.032	0.002	18.08	8.07	< 0.10			347	575	48	82	PASSED
GEA225-01-112LR	0.026	0.36	1.15	0.037	0.014	18.07	8.04	< 0.10			369	663	52	86	PASSED
HSA251-01-112LR	0.018	0.43	1.55	0.032	0.002	18.03	8.07	< 0.10			320	590	54	88	PASSED
GSA166-02-112LR	0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	PASSED
DFA213-01-112LR	0.027	0.51	1.01	0.031	0.001	18.10	8.01	< 0.10			387	675	51	83	PASSED
FEA139-04-112LR	0.022	0.44	0.93	0.038	0.008	18.08	8.08	< 0.10			364	669	58	81	PASSED
HSA251-03-112LR	0.018	0.43	1.55	0.032	0.002	18.03	8.07	< 0.10			299	508	50	83	PASSED
HSA254-02-112LR	0.019	0.48	0.96	0.028	0.002	18.26	8.15	< 0.10			324	580	45	83	PASSED
GSA168-01-112LR	0.014	0.57	0.93	0.032	0.005	16.71	10.11	< 0.10			370	624	52	80	PASSED
HYA008-05-182LR	0.018	0.44	1.67	0.033	0.002	18.20	8.00	< 0.10			278	645	58	70	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

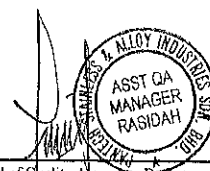
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156-2015 & NACE-MR0103-2015

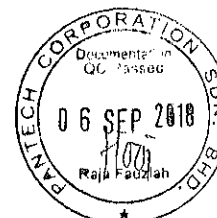
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIALS HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2516888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No : KLR 6012614

ISO 9001
PED CERTIFICATE NO :
0038/PED/MUM/1110005/1

ITEM NO: 14
PO NO: APO-1810-0144
DO NO: 113062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3437

Date: 14 Feb 2018

PO No.		Invoice No.				Product Specification					Dimension & Inspection Specification						
201802001		L000007159				ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15					ASME B16.9 - 12 / ASTM A960/A960M - 15 / ASME SA 960/SA960M - 15						
Heat No.		Product & Size				Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination		Remarks						
FFA377-01-112LR		1 1/2"	SCH 40s	90° LR ELBOW		100	WP304/304L-W		PASSED		-						
GSA151-02-112LR		12"	SCH 10s	90° LR ELBOW		10	WP304/304L-W		PASSED		-						
GBA133-01-112RT		1 1/2" X 1"	SCH 10s	REDUCING TEE		1	WP304/304L-W		PASSED		-						
GBA133-01-182RT		1 1/2" X 1"	SCH 10s	REDUCING TEE		32	WP304/304L-W		PASSED		-						
GSA136-02-112RT		4" X 3"	SCH 10s	REDUCING TEE		10	WP304/304L-W		PASSED		-						
GSA166-02-112RT		5" X 3"	SCH 10s	REDUCING TEE		3	WP304/304L-W		PASSED		-						
GSA166-02-182RT		5" X 3"	SCH 10s	REDUCING TEE		2	WP304/304L-W		PASSED		-						
AFA041-02-112RT		8" X 4"	SCH 40s	REDUCING TEE		1	WP304/304L-W		PASSED		-						
AFA041-02-112RT		8" X 6"	SCH 40s	REDUCING TEE		5	WP304/304L-W		PASSED		-						
DDA235-01-112CR		1 1/2" X 3/4"	SCH 40s	CON-REDUCER		20	WP304/304L-W		PASSED		-						
Specification Max Min Heat No.		Chemical Composition (%)									Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test		
		C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS			E (%)	
		0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-			-	90
		-	-	-	-	-	18.00	8.00	-			205	515			28	-
FFA377-01-112LR		0.027	0.56	1.16	0.027	0.003	18.32	8.15	< 0.10			476	843	56	89	PASSED	
GSA151-02-112LR		0.020	0.39	1.51	0.033	0.002	18.15	8.09	< 0.10			353	597	63	88	PASSED	
GBA133-01-112RT		0.019	0.40	1.75	0.033	0.001	18.20	8.00	< 0.10			379	630	48	87	PASSED	
GBA133-01-182RT		0.019	0.40	1.75	0.033	0.001	18.20	8.00	< 0.10			379	630	48	87	PASSED	
GSA136-02-112RT		0.029	0.29	1.15	0.038	0.003	18.48	8.18	< 0.10			266	844	53	82	PASSED	
GSA166-02-112RT		0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	PASSED	
GSA166-02-182RT		0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	PASSED	
AFA041-02-112RT		0.024	0.48	0.97	0.032	0.003	18.48	8.05	< 0.10			344	668	56	79	PASSED	
AFA041-02-112RT		0.024	0.48	0.97	0.032	0.003	18.48	8.05	< 0.10			328	632	52	76	PASSED	
DDA235-01-112CR		0.018	0.31	1.34	0.031	0.011	18.13	8.02	< 0.10			425	692	47	86	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

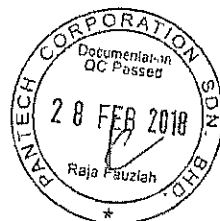
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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.

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

<http://www.pantech-group.com>



Cert. No.: KLR 6012814

PED CERTIFICATE NO. :
0038/PED/MUM/1110006/1

ITEM NO: 14

PO NO: APO-1310-0144

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-2292

Date: 13 Oct 2016

14

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

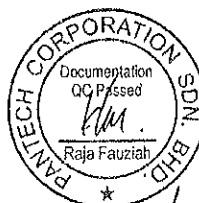
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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



Head of Quality Assurance Department

28/10/16.





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/1110006/1

ITEM NO: 13

PO NO: APD-1810-0144

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3793

Date: 21 Aug 2018

PO No.	Invoice No.			Product Specification			Dimension & Inspection Specification								
201808004	L000008074			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15			ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15								
Heat No.	Product & Size			Quantlty (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks								
FVA004-01-282LR	1/2"	SCH 40s	90° LR ELBOW	2	WP304/304L-W	PASSED	-								
FVA002-01-292LR	3/4"	SCH 10s	90° LR ELBOW	4	WP304/304L-W	PASSED	-								
FVA003-01-292LR	1"	SCH 10s	90° LR ELBOW	1	WP304/304L-W	PASSED	-								
GVA008-01-292LR	1"	SCH 40s	90° LR ELBOW	2	WP304/304L-W	PASSED	-								
ESA057-01-212LR	1 1/4"	SCH 10s	90° LR ELBOW	1	WP304/304L-W	PASSED	-								
BCA025-08-212LR	1 1/4"	SCH 40s	90° LR ELBOW	7	WP304/304L-W	PASSED	-								
FSA124-02-212LR	1 1/2"	SCH 10s	90° LR ELBOW	12	WP304/304L-W	PASSED	-								
FFA377-01-212LR	1 1/2"	SCH 40s	90° LR ELBOW	6	WP304/304L-W	PASSED	-								
FSA122-03-212LR	2"	SCH 40s	90° LR ELBOW	2	WP304/304L-W	PASSED	-								
GSA141-01-212LR	2 1/2"	SCH 10s	90° LR ELBOW	3	WP304/304L-W	PASSED	-								
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ^{*1}			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS (KSI / MPa)	E (%)		
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		
	-	-	-	-	-	18.00	8.00	-			205	515	28	-	
FVA004-01-282LR	0.026	0.39	1.44	0.026	0.012	18.26	8.11	< 0.10			310	625	45	69	PASSED
FVA002-01-292LR	0.022	0.50	1.36	0.026	0.011	18.17	8.09	< 0.10			316	624	43	79	PASSED
FVA003-01-292LR	0.024	0.43	1.25	0.029	0.009	18.06	8.11	< 0.10			306	625	43	70	PASSED
GVA008-01-292LR	0.027	0.55	1.49	0.029	0.011	18.29	8.18	< 0.10			308	607	44	80	PASSED
ESA057-01-212LR	0.017	0.47	0.98	0.023	0.002	18.18	8.10	< 0.10			385	690	57	87	PASSED
BCA025-08-212LR	0.018	0.46	1.42	0.033	0.029	18.18	8.03	< 0.10			462	698	55	86	PASSED
FSA124-02-212LR	0.025	0.33	1.44	0.031	0.002	18.20	8.14	< 0.10			401	663	55	85	PASSED
FFA377-01-212LR	0.027	0.56	1.16	0.027	0.003	18.32	8.15	< 0.10			476	843	56	89	PASSED
FSA122-03-212LR	0.026	0.38	1.43	0.036	0.002	18.32	8.19	< 0.10			303	666	51	85	PASSED
GSA141-01-212LR	0.015	0.47	1.10	0.033	0.002	18.10	8.12	< 0.10			252	646	53	87	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

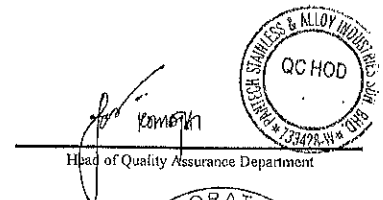
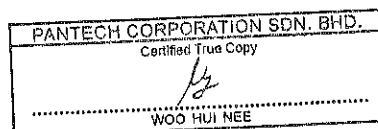
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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



INSPECTION CERTIFICATE

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

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

PLO 809, JALAN KAMPUNG PASIR GUDANG BARU,

PASIR GUDANG INDUSTRIAL ESTATE, ZONE 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

<http://www.pantech-group.com>



Cert. No.: KLR 6012814

ITEM NO: 13 .

PO NO: APC-1810-0144

DO NO: 115062.

PED CERTIFICATE NO.:
OD38/PED/MUM/1110006/

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer:

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-0020

Date: 30 Jan 2012

[illegible]

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 STANDARD, LONGITUDINAL DIRECTION, GAUGE LENGTH 2" (50mm)

NOTE:

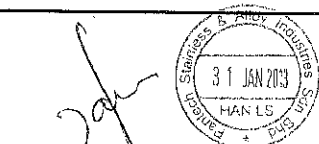
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262 PRACTICE E

HARDNESS ACCORDING TO NACE-MR0175 / ISO 15156 - 03 & NACE MR 0103-07

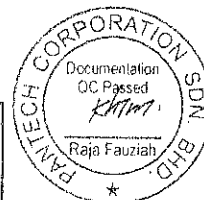
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION BASED ON SPARK TEST, TEST ACCORDING TO ASTM A751 REQUIREMENTS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department



20, 2, 13



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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 9012814

PED CERTIFICATE NO.: 0038/PED/MUN/111006/1

ITEM NO: 12
PO NO: APO-1810-0144
DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3646
Date: 24 May 2018

PO No.	Invoice No.			Product Specification				Dimension & Inspection Specification							
201805022	L000007678			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15							
Heat No.	Product & Size			Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination		Remarks						
FVA004-01-192LR	1/2"	SCH 40s	90° LR ELBOW	500	WP304/304L-W		PASSED		-						
FEA143-01-112LR	1"	SCH 10s	90° LR ELBOW	700	WP304/304L-W		PASSED		-						
FSA094-02-112LR	1"	SCH 10s	90° LR ELBOW	100	WP304/304L-W		PASSED		-						
FVA003-01-192LR	1"	SCH 10s	90° LR ELBOW	200	WP304/304L-W		PASSED		-						
GVA008-01-192LR	1"	SCH 40s	90° LR ELBOW	500	WP304/304L-W		PASSED		-						
DFA262-03-112LR	1 1/4"	SCH 10s	90° LR ELBOW	1500	WP304/304L-W		PASSED		-						
BCA025-08-112LR	1 1/4"	SCH 40s	90° LR ELBOW	50	WP304/304L-W		PASSED		-						
HSA233-03-112LR	1 1/2"	SCH 10s	90° LR ELBOW	1000	WP304/304L-W		PASSED		-						
FSA104-04-112LR	1 1/2"	SCH 40s	90° LR ELBOW	500	WP304/304L-W		PASSED		-						
GSA163-02-112LR	2"	SCH 10s	90° LR ELBOW	2000	WP304/304L-W		PASSED		-						
Specification Max Min Heat No.	Chemical Composition (%)									Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test	
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS (KSI / MPa)			E (%)
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		90
	-	-	-	-	-	18.00	8.00	-			205	515	28		-
FVA004-01-192LR	0.026	0.39	1.44	0.026	0.012	18.26	8.11	< 0.10			310	625	45	84	PASSED
FEA143-01-112LR	0.014	0.42	1.09	0.036	0.002	18.22	8.06	< 0.10			352	648	56	87	PASSED
FSA094-02-112LR	0.023	0.42	1.26	0.036	0.002	18.10	8.04	< 0.10			417	677	53	88	PASSED
FVA003-01-192LR	0.024	0.43	1.25	0.029	0.009	18.08	8.11	< 0.10			306	625	43	69	PASSED
GVA008-01-192LR	0.027	0.55	1.49	0.029	0.011	18.29	8.18	< 0.10			308	607	44	70	PASSED
DFA262-03-112LR	0.023	0.47	0.87	0.035	0.002	18.01	8.04	< 0.10			349	690	46	83	PASSED
BCA025-08-112LR	0.018	0.46	1.42	0.033	0.029	18.18	8.03	< 0.10			462	698	55	86	PASSED
HSA233-03-112LR	0.017	0.43	0.97	0.032	0.001	18.10	8.18	< 0.10			264	665	51	83	PASSED
FSA104-04-112LR	0.015	0.30	1.52	0.027	0.002	18.16	8.16	< 0.10			369	574	47	82	PASSED
GSA163-02-112LR	0.011	0.47	0.91	0.032	0.001	18.07	8.09	< 0.10			402	704	60	89	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

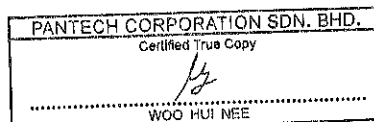
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2519888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No: KIR 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/1110006/1

ITEM NO: 2

PO NO: APD-1810-0144

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD

Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3812

Date: 27 Aug 2018

PO No.	Invoice No.			Product Specification						Dimension & Inspection Specification					
201808007	L000008092			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15						ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15					
Heat No.	Product & Size			Qty (pcs)	Material Grade		Visual / Dimension / PMI Examination			Remarks					
FVA003-02-192Lr	1"	SCH 10s	45° Lr ELBOW	200	WP304/304L-W		PASSED			-					
GEA205-03-112Lr	1 1/2"	SCH 10s	45° Lr ELBOW	50	WP304/304L-W		PASSED			-					
DGA165-01-192Lr	1 1/2"	SCH 40s	45° Lr ELBOW	50	WP304/304L-W		PASSED			-					
GSA166-02-112Lr	5"	SCH 10s	45° Lr ELBOW	15	WP304/304L-W		PASSED			-					
DGA022-02-192T	1/2"	SCH 40s	TEE	100	WP304/304L-W		PASSED			-					
GSA166-02-112T	5"	SCH 10s	TEE	100	WP304/304L-W		PASSED			-					
DGA208-02-192RT	1" X 1/2"	SCH 40s	REDUCING TEE	50	WP304/304L-W		PASSED			-					
BDA174-02-192RT	1 1/4" X 1"	SCH 40s	REDUCING TEE	20	WP304/304L-W		PASSED			-					
HSA249-01-112RT	3" X 2 1/2"	SCH 10s	REDUCING TEE	120	WP304/304L-W		PASSED			-					
FSA129-01-112RT	4" X 3"	SCH 40s	REDUCING TEE	15	WP304/304L-W		PASSED			-					
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS	E (%)		
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		
	-	-	-	-	-	18.00	8.00	-			205	515	28	-	
FVA003-02-192Lr	0.024	0.43	1.25	0.029	0.009	18.06	8.11	< 0.10			306	625	43	65	PASSED
GEA205-03-112Lr	0.021	0.38	1.16	0.029	0.004	18.07	8.01	< 0.10			359	621	56	82	PASSED
DGA165-01-192Lr	0.022	0.29	1.39	0.030	0.004	18.25	8.06	< 0.10			290	627	53	76	PASSED
GSA166-02-112Lr	0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	PASSED
DGA022-02-192T	0.025	0.46	1.07	0.029	0.004	18.26	8.06	< 0.10			310	620	59	85	PASSED
GSA166-02-112T	0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	PASSED
DGA208-02-192RT	0.019	0.26	1.34	0.029	0.002	18.21	8.02	< 0.10			362	570	59	75	PASSED
BDA174-02-192RT	0.021	0.36	1.42	0.027	0.004	18.10	8.01	< 0.10			292	663	52	76	PASSED
HSA249-01-112RT	0.013	0.46	1.40	0.033	0.002	18.07	8.16	< 0.10			356	617	62	84	PASSED
FSA129-01-112RT	0.025	0.42	0.80	0.037	0.001	18.21	8.17	< 0.10			372	677	57	83	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

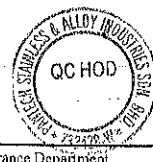
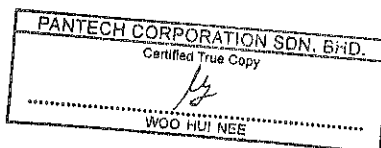
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE B

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



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KUR 6012814

FED CERTIFICATE NO.: 0038/PEC/MUM/1110006/1

ITEM NO: 4.
PO NO: APC-1810-0144
DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3775
Date: 13 Aug 2018

PO No.	Invoice No.	Product Specification				Dimension & Inspection Specification	
201807025	L000008032	ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15	
Heat No.	Product & Size			Quantity (pcs)	Material Grade	Visual / Dimension / PMI Examination	Remarks
CFA158-04-112CR	1" X 1/2"	SCH 40s	CON-REDUCER	2	WP304/304L-W	PASSED	-
DSA036-01-112CR	1" X 1/2"	SCH 40s	CON-REDUCER	51	WP304/304L-W	PASSED	-
EGA228-02-192CR	1" X 1/2"	SCH 40s	CON-REDUCER	10	WP304/304L-W	PASSED	-
FFA382-01-112CR	1" X 3/4"	SCH 10s	CON-REDUCER	312	WP304/304L-W	PASSED	-
DDA215-01-112CR	1 1/4" X 1"	SCH 10s	CON-REDUCER	100	WP304/304L-W	PASSED	-
GEA205-03-112CR	1 1/2" X 3/4"	SCH 10s	CON-REDUCER	100	WP304/304L-W	PASSED	-
FFA387-01-112CR	1 1/2" X 3/4"	SCH 40s	CON-REDUCER	50	WP304/304L-W	PASSED	-
FEA150-01-112CR	1 1/2" X 1"	SCH 10s	CON-REDUCER	150	WP304/304L-W	PASSED	-
GEA205-03-112CR	1 1/2" X 1 1/4"	SCH 10s	CON-REDUCER	50	WP304/304L-W	PASSED	-
BFA097-04-112CR	2" X 3/4"	SCH 10s	CON-REDUCER	100	WP304/304L-W	PASSED	-

Specification	Chemical Composition (%)									Tensile Test **			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb		YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
	Max													
Heat No.	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-		-	-	-	90	
CFA158-04-112CR	0.025	0.53	1.02	0.037	0.002	18.30	8.14	< 0.10		205	515	28	-	PASSED
DSA036-01-112CR	0.030	0.39	1.60	0.040	0.002	18.10	8.01	< 0.10		356	666	59	86	PASSED
EGA228-02-192CR	0.023	0.58	1.07	0.031	0.003	18.24	8.03	< 0.10		323	627	61	84	PASSED
FFA382-01-112CR	0.024	0.45	1.03	0.032	0.005	18.13	8.09	< 0.10		287	653	52	77	PASSED
DDA215-01-112CR	0.019	0.31	1.34	0.030	0.005	18.03	8.00	< 0.10		404	706	55	89	PASSED
GEA205-03-112CR	0.021	0.38	1.16	0.029	0.004	18.07	8.01	< 0.10		369	672	52	87	PASSED
FFA387-01-112CR	0.021	0.45	1.06	0.033	0.002	18.45	8.03	< 0.10		359	621	56	82	PASSED
FEA150-01-112CR	0.018	0.36	0.94	0.036	0.001	18.00	8.07	< 0.10		441	700	53	85	PASSED
GEA205-03-112CR	0.021	0.38	1.16	0.029	0.004	18.07	8.01	< 0.10		412	728	57	89	PASSED
BFA097-04-112CR	0.020	0.47	1.13	0.043	0.005	18.37	8.01	< 0.10		359	621	56	82	PASSED
	0.020	0.47	1.13	0.043	0.005	18.37	8.01	< 0.10		389	666	56	84	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 A262-19 PRACTICE B

HARDNESS ACCORDING TO NACE-MR0175-2015 / ISO 15156-2015 & NACE-MR0103-2015

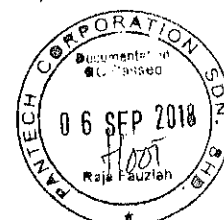
HEAT TREATMENT: SOLUTION TREATED AT MINIMUM 1050°C, RAPIDLY COOLED WITH WATER

CHEMICAL COMPOSITION CAPTURED FROM RAW MATERIAL'S HEAT ANALYSIS

*1: YS: YIELD STRENGTH TS: TENSILE STRENGTH E: ELONGATION



Head of Quality Assurance Department





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6072814

PED CERTIFICATE NO.: 0038/PED/MUM/1130006/1

ITEM NO: 3

PO NO: APO-1810-044

DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3811
Date: 27 Aug 2018

PO No.	Invoice No.		Product Specification				Dimension & Inspection Specification	
201808007	L000008092		ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15				ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15	
Heat No.	Product & Size			Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination	Remarks
HSA249-03-112LR	6"	SCH 10s	90° LR ELBOW	300	WP304/304L-W		PASSED	-
GSA223-04-112LR	8"	SCH 10s	90° LR ELBOW	4	WP304/304L-W		PASSED	-
HSA251-04-112LR	8"	SCH 10s	90° LR ELBOW	125	WP304/304L-W		PASSED	-
HSA254-02-112LR	8"	SCH 10s	90° LR ELBOW	332	WP304/304L-W		PASSED	-
HYA010-01-112LR	8"	SCH 10s	90° LR ELBOW	39	WP304/304L-W		PASSED	-
GSA186-02-112LR	10"	SCH 10s	90° LR ELBOW	72	WP304/304L-W		PASSED	-
HYA018-02-112LR	10"	SCH 10s	90° LR ELBOW	6	WP304/304L-W		PASSED	-
HYA018-02-182LR	10"	SCH 10s	90° LR ELBOW	2	WP304/304L-W		PASSED	-
HEA251-01-112LR	10"	SCH 40s	90° LR ELBOW	9	WP304/304L-W		PASSED	-
HEA251-01-182LR	10"	SCH 40s	90° LR ELBOW	1	WP304/304L-W		PASSED	-

Specification	Chemical Composition (%)								Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb	YS (KSI / MPa)	TS	E (%)		
	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max		
Heat No.	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-	-	-	-	90	PASSED
HSA249-03-112LR	0.013	0.46	1.40	0.033	0.002	18.07	8.16	< 0.10	205	515	28	-	
GSA223-04-112LR	0.026	0.51	1.52	0.029	0.002	18.18	8.20	< 0.10	364	684	58	80	
HSA251-04-112LR	0.018	0.43	1.55	0.032	0.002	18.03	8.07	< 0.10	355	636	58	81	
HSA254-02-112LR	0.019	0.48	0.96	0.028	0.002	18.26	8.15	< 0.10	312	560	45	85	
HYA010-01-112LR	0.020	0.52	1.55	0.033	0.004	18.20	8.00	< 0.10	324	580	45	83	
GSA186-02-112LR	0.013	0.44	1.10	0.031	0.002	18.17	8.03	< 0.10	267	640	55	82	
HYA018-02-112LR	0.013	0.44	1.10	0.031	0.002	18.17	8.03	< 0.10	339	647	57	85	
HYA018-02-112LR	0.020	0.49	1.58	0.030	0.001	18.00	8.00	< 0.10	360	654	59	88	
HYA018-02-182LR	0.020	0.49	1.58	0.030	0.001	18.00	8.00	< 0.10	360	654	59	88	
HEA251-01-112LR	0.018	0.44	1.53	0.035	0.006	18.20	8.00	< 0.10	305	596	52	83	
HEA251-01-182LR	0.018	0.44	1.53	0.035	0.006	18.20	8.00	< 0.10	305	596	52	83	

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

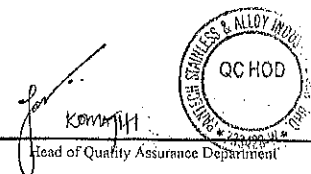
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssalloy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/111009/1

ITEM NO: J.
PO NO: APO-1910-0144
DO NO: 115062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3810
Date: 27 Aug 2018

PO No.	Invoice No.			Product Specification						Dimension & Inspection Specification					
201808007	L000008092			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15						ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15					
Heat No.	Product & Size			Quantity (pcs)	Material Grade		Visual / Dimension / PMI Examination			Remarks					
HSA233-01-112LR	1/2"	SCH 10s	90° LR ELBOW	2000	WP304/304L-W		PASSED			-					
HSA245-02-112LR	3/4"	SCH 40s	90° LR ELBOW	200	WP304/304L-W		PASSED			-					
DFA262-03-112LR	1 1/4"	SCH 10s	90° LR ELBOW	500	WP304/304L-W		PASSED			-					
GEA215-03-112LR	1 1/2"	SCH 10s	90° LR ELBOW	1500	WP304/304L-W		PASSED			-					
FSA104-04-112LR	1 1/2"	SCH 40s	90° LR ELBOW	100	WP304/304L-W		PASSED			-					
GSA223-01-112LR	2"	SCH 40s	90° LR ELBOW	300	WP304/304L-W		PASSED			-					
HSA250-01-112LR	2 1/2"	SCH 10s	90° LR ELBOW	500	WP304/304L-W		PASSED			-					
GEA196-01-112LR	3"	SCH 10s	90° LR ELBOW	175	WP304/304L-W		PASSED			-					
GSA150-04-112LR	3"	SCH 10s	90° LR ELBOW	825	WP304/304L-W		PASSED			-					
GSA166-02-112LR	5"	SCH 10s	90° LR ELBOW	200	WP304/304L-W		PASSED			-					
Specification Max Min Heat No.	Chemical Composition (%)										Tensile Test ¹			Hardness	Inter-granular corrosion test
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS (KSI / MPa)	E (%)	(HRB)	
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-	90	
	-	-	-	-	-	18.00	8.00	-			205	515	28	-	
HSA233-01-112LR	0.017	0.43	0.97	0.032	0.001	18.10	8.18	< 0.10			442	705	51	83	PASSED
HSA245-02-112LR	0.023	0.46	1.15	0.029	0.002	18.17	8.13	< 0.10			355	621	54	83	PASSED
DFA262-03-112LR	0.023	0.47	0.87	0.035	0.002	18.01	8.04	< 0.10			349	690	46	83	PASSED
GEA215-03-112LR	0.020	0.35	0.99	0.034	0.001	18.02	8.05	< 0.10			408	694	56	86	PASSED
FSA104-04-112LR	0.015	0.30	1.52	0.027	0.002	18.16	8.16	< 0.10			369	574	47	82	PASSED
GSA223-01-112LR	0.026	0.51	1.52	0.029	0.002	18.18	8.20	< 0.10			356	640	58	85	PASSED
HSA250-01-112LR	0.012	0.39	1.35	0.032	0.002	18.08	8.07	< 0.10			404	673	61	87	PASSED
GEA196-01-112LR	0.020	0.31	0.89	0.034	0.006	18.24	8.06	< 0.10			271	623	51	86	PASSED
GSA150-04-112LR	0.023	0.41	1.53	0.034	0.001	18.15	8.15	< 0.10			328	599	56	80	PASSED
GSA166-02-112LR	0.016	0.42	1.07	0.033	0.003	18.01	8.01	< 0.10			340	631	62	84	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

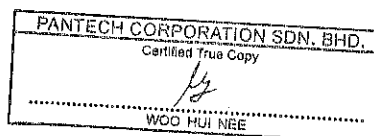
INTERGRANULAR CORROSION TEST ACCORDING TO ASTM A262-10 PRACTICE E

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





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,

KAWASAN PERINDUSTRIAN PASIR GUDANG, ZON 12B, 81700 PASIR GUDANG

JOHOR DARUL TAKZIM, MALAYSIA

Tel: +607-2518888 Fax: +607-2519999 E-mail: info@pantechssailoy.com

http://www.pantech-group.com



Cert. No.: KLR 6012814

PED CERTIFICATE NO.: 0038/PED/MUM/1110006/1

ITEM NO: 1.
PO NO: APO-1810-0147
DO NO: 113062

INSPECTION DOCUMENT: EN 10204: 2004 Type 3.1

Customer: Fuzhe Steel SDN BHD
Product: Welded Austenitic Stainless Steel Fitting

Certificate No: PSA2-FT-3760
Date: 30 Jul 2018

PO No.	Invoice No.			Product Specification			Dimension & Inspection Specification								
201807025	L000007951			ASTM A403/A403M - 16 / ASME SA 403/SA403M - 15			ASME B16.9 - 12 / ASTM A960/A960M - 16 / ASME SA 960/SA960M - 15								
Heat No.	Product & Size			Qty (pcs)	Material Grade	Visual / Dimension / PMI Examination		Remarks							
FVA006-01-192LR	1/2"	SCH 10s	90° LR ELBOW	2000	WP304/304L-W	PASSED		-							
GSA225-03-112LR	3/4"	SCH 10s	90° LR ELBOW	1382	WP304/304L-W	PASSED		-							
HSA245-02-112LR	3/4"	SCH 40s	90° LR ELBOW	200	WP304/304L-W	PASSED		-							
GSA225-04-112LR	1"	SCH 10s	90° LR ELBOW	479	WP304/304L-W	PASSED		-							
DSA042-02-112LR	1"	SCH 40s	90° LR ELBOW	500	WP304/304L-W	PASSED		-							
FSA124-02-112LR	1 1/2"	SCH 10s	90° LR ELBOW	1640	WP304/304L-W	PASSED		-							
GBA133-01-112LR	1 1/2"	SCH 10s	90° LR ELBOW	360	WP304/304L-W	PASSED		-							
FFA377-01-112LR	1 1/2"	SCH 40s	90° LR ELBOW	30	WP304/304L-W	PASSED		-							
FFA377-01-182LR	1 1/2"	SCH 40s	90° LR ELBOW	47	WP304/304L-W	PASSED		-							
FSA104-04-112LR	1 1/2"	SCH 40s	90° LR ELBOW	123	WP304/304L-W	PASSED		-							
Specification Max Min Heat No.	Chemical Composition (%)									Tensile Test ¹			Hardness (HRB)	Inter-granular corrosion test	
	C	Si	Mn	P	S	Cr	Ni	Pb			YS (KSI / MPa)	TS			E (%)
	0.030	1.00	2.00	0.045	0.030	20.00	11.00	-			-	-	-		90
	-	-	-	-	-	18.00	8.00	-			205	515	28	-	
FVA006-01-192LR	0.025	0.48	1.27	0.027	0.011	18.06	8.06	< 0.10			326	626	44	86	PASSED
GSA225-03-112LR	0.020	0.35	1.04	0.031	0.003	18.20	8.02	< 0.10			382	726	48	81	PASSED
HSA245-02-112LR	0.023	0.46	1.15	0.029	0.002	18.17	8.13	< 0.10			355	621	54	83	PASSED
GSA225-04-112LR	0.020	0.35	1.04	0.031	0.003	18.20	8.02	< 0.10			331	607	54	84	PASSED
DSA042-02-112LR	0.026	0.49	1.00	0.037	0.002	18.13	8.09	< 0.10			308	640	52	80	PASSED
FSA124-02-112LR	0.025	0.33	1.44	0.031	0.002	18.20	8.14	< 0.10			401	663	55	85	PASSED
GBA133-01-112LR	0.019	0.40	1.75	0.033	0.001	18.20	8.00	< 0.10			379	630	48	87	PASSED
FFA377-01-112LR	0.027	0.56	1.16	0.027	0.003	18.32	8.15	< 0.10			476	843	56	89	PASSED
FFA377-01-182LR	0.027	0.56	1.16	0.027	0.003	18.32	8.15	< 0.10			476	843	56	89	PASSED
FSA104-04-112LR	0.015	0.30	1.52	0.027	0.002	18.16	8.16	< 0.10			369	574	47	82	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



Head of Quality Assurance Department

