

50016



**INSPECTION CERTIFICATE**  
EN 10204 3.1 : 2004

**AWAJI MATERIA (THAILAND) CO.,LTD.**

81,MOO4, PRAKASA ROAD, TAMBOL BANGMUANG, AMPHUR MUANG  
SAMUTPRAKARN THAILAND 10270, Tel : (662)701-5226

ISO 9001 :2008 Manufacturing Company  
Certified by BV. Certificate No. A-TH10000101

Material manufacturer QMS acc.  
PED 97/23/EC. Annex1. Par4.3/AD2000W0  
Certified by Lloyd's Register  
Certificate No. 50207/1A1

Date : NOVEMBER 15, 2012

Certificate No. : T12-Y0883

Purchaser : FORGINGS FLANGES & FITTINGS, INC.

**MADE FROM SEAMLESS STEEL PIPE**

Order No. 173733/WPB-1/7		Job No. -		Product CARBON STEEL BUTT WELDING FITTINGS		Raw Material Pipe Maker SUMITOMO METAL INDUSTRIES, LTD. (JAPAN)																	
Inspection Standard ASME B16.9-07, ASME B16.25-07 ASTM A960-10 NACE MR-0175/ISO 15156-09 MR-0103-10		Material Standard ASTM A234-11a, WPB ASME SA234-10, WPB except nuclear usage		Visual GOOD		Dimension GOOD																	
Pipe Heat No. : J2L6576		*4 UT Inspection		Magnetic Particle Test		W.T. INSPECTED																	
Manufacturing No. (Heat code.) 2XA07		Product Code -		Material WPB		Article & Size XS 90 SHORT RADIUS ELBOW 1"																	
Quantity 940 Pcs.		Note.																					
Specification		*1 Chemical Composition (%)																*2 Mechanical Test			Hardness		
Min.		C	Si	*3 Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	Ca	N	Al	C.E.	Y.S.	T.S.	E	HB	
Max.		X100	X100	X100	X1000	X1000	X100	X100	X100	X100	X100	X100	X100	X10000	X10000	X1000	X1000	X100	MPa	MPa	%	HB	
Heat No.		30	-	106	50	58	40	40	40	15	8	2	-	-	-	-	-	50	-	-	-	197	
J2L6576		L	19	20	63	18	7	1	2	4	2	0	0	0	1	10	3	19	31	299	444	53	121
		P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C.E. = C + $\frac{Mn}{6}$ + $\frac{Cr+Mo+V}{5}$ + $\frac{Ni+Cu}{15}$		*4 UT = Ultrasonic thickness inspection																					
*1 Equivalent for A234 WPB																							
*2 Y.S.= Yield Strength (0.2% offset), T.S. = Tensile Strength, E = Elongation (in 50mm)																							
*3 As per foot note D of ASTM A234 Table 1.																							
L = Ladle Analysis, P = Product Analysis																							
Weld repair is not applied to our products.																							
Steel Making by Vacuum degassed, killed steel.																							
<b>Country of Melt : JAPAN</b>																							

ELBOW / Forming temperature 850°C--945°C and cooled in still air  
TEE, REDUCER & CAP / Normalizing : 910°C

AT-24(2)17

\*We hereby certify that the material described herein has been duly inspected and conforms to the standard as specified above.

Surveyor to

QA. QM. /Work Inspector S. MAEKAWA

Inv# 439183; PO# 83; H# 2XA07; 1 SR 90 XH WPB