

PO#: 400 Pack#: 300587 Order#: 957388 Lot#: AWA-58154 Desc: 3 STD SMLS LR 90 A/SA420 WPL6 AWA

**Awaji**



**INSPECTION CERTIFICATE**

EN 10204 3.1 : 2004

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

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

ISO 9001 :2008 Manufacturing Company  
Certified by BV. Certificate No. TH004535

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

Date : AUGUST 17, 2015

Certificate No.: T15-80914/2

Purchaser : FORGINGS FLANGES & FITTINGS, LLC.

MADE FROM SEAMLESS STEEL PIPE

Order No. 205781/15		Job No. -		Product CARBON STEEL BUTT WELDING FITTINGS										Raw Material Pipe Maker NIPPON STEEL & SUMITOMO METAL CORPORATION. (JAPAN)												
Inspection Standard ASME B16.9-12, ASME B16.25-07 ASTM A980-14a NACE MR-0175/ISO 15158-09 MR-0103-12		Material Standard ASTM A420-14, WPL6 ASME SA420-13, WPL6 except nuclear usage										Visual GOOD		Dimension GOOD		*5 UT Inspection W.T. INSPECTED		Magnetic Particle Test -								
Manufacturing No. (Heat code.) 58154		Product Code -		Material WPL6		Article & Size STD 90 LONG RADIUS ELBOW 3"						Quantity 561 Pcs.		Note.												
*1 Chemical Composition (%)																		*2 Mechanical Test			Hardness		Impact Test			
Specification		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	Ca	N	Al	C.E.	Y.S.	T.S.	E	HB	J			
Min.		X100	X100	X100	X1000	X10000	X100	X100	X100	X100	X1000	X100	X10000	X10000	X1000	X1000	X100		MPa			%				
Max.		-	15	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	415	25.5	-	-50°C			
Heat No.		30	40	135	35	400	40	40	30	12	8	20	-	-	-	-	-	-	-	655	-	197	*3 2			
J5L3B14		L	10	23	131	13	8	2	3	13	2	0	0	1	1	23	4	32	35	320	460	69	137	*4 E 42.59 E 41.61 E 43.82 A 42.67		
		P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				140				
$C.E. = C + \frac{Mn}{8} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cu}{15}$ <p>*5 UT = Ultrasonic thickness inspection</p> <p>*1 Equivalent for A420 WPL6</p> <p>*2 Y.S.= Yield Strength (0.2% offset), T.S. = Tensile Strength, E = Elongation (in 50mm)</p> <p>L = Ladle Analysis, P = Product Analysis</p> <p>Weld repair is not applied to our products.</p> <p>Steel Making by Vacuum degassed, fully silicon aluminium killed &amp; fine grain.</p>																		Impact Test								
																		*3 Size of Specimen			A		E		*4	
																		F. 10.0 by 10.0			17.8		13.8		E = Each Test	
																		7. 10.0 by 7.5			13.8		10.8		A = Average Value	
																		5. 10.0 by 5.0			9.5		7.0			
																		2. 10.0 by 2.5			5.4		4.1			

**Country of Melt : JAPAN**

ELBOW , TEE , REDUCER & CAP / Normalizing : 910°C (Holding Time : (Nominal Wall Thickness/1mm) x 1.5 min.)

AT-24(2)24

\*We certify that the fitting was manufactured, sampled, tested and inspected in accordance with the specification and was found to meet the requirements.

Material complies with ASTM A/SA234 WPB (14)

Surveyor to

QA. GM. /Work Inspector S. MAEKAWA  
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