



**INSPECTION CERTIFICATE  
(MILL TEST CERTIFICATE)  
EN 10204 3.1**

**PURCHASER**  
**ORDER NO.** : RK1432  
**ORDER FOR RAW MATERIAL** : ASTM A106 Gr. B, ASTM A234 Gr. WPB  
**ORDER FOR INSPECTION** : ASTM A234 - 13e1 WPB  
 ASME SA234 - 2013 WPB

**JOB NO.** : PII510089A

ASME B16.9-2012 / ASME B16.25-2012  
 BS EN 10204 3.1-2004

**CERTIFICATE NO.** : Q151201089A-05  
**DATE** : DEC. 01, 2015

PO. Item No.	Product & Size(Inch)		Heat Code		Quantity	Heat No.	Certificate No.									
74	90 ELBOW LR	10	XS	44V	25	1331644V	C201341143-1									
75	90 ELBOW LR	12	XS	476	6	WB530476	32120000853012-1									
1	90 ELBOW LR	1-1/2	STD	136	4250	15-107931	111114-2-2									
2	90 ELBOW LR	2	STD	041	1350	15307041	BGSAG1506120001900									
3	90 ELBOW LR	2-1/2	STD	352	325	322352	BGSAG1210190002500									
<b>Chemical Composition %</b>												<b>Tension Test</b>			<b>Hardness Test</b>	<b>Magnetic Particle Exam.</b>
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	CE	Yield Strength	Tensile Strength	Elongation		
X100	X100	X100	X1000	X1000	X100	X100	X100	X100	X1000	X1000	X100	P.S.I	P.S.I	%		
	10	29										35000	60000	30		
25		106	50	58	40	40	40	15	80	20	42		95000		197	
13	20	86	16	8	8	3	5	1	3	1	29	45095	71485	37	147	N/A
12	21	125	14	5	1	2	3	0	5	2	34	43065	71920	37	137	N/A
16	37	130	15	9	1	1	2	1	2	—	38	49590	66410	36	146	N/A
13	22	124	8	1	4	2	4	1	<10	1	35	48575	71050	37	136	N/A
18	24	56	6	2	4	2	4	1	<10	<1	29	37555	62640	37	130	N/A
<b>Visual Examination</b>			<b>Dimensional Inspection</b>			<b>Heat Treatment</b>										
Acceptable			Acceptable			N/A										

$$= C + Mn/6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15$$

MATERIAL (HARDNESS) CONFORMS TO THE REQUIREMENTS OF NACE MR0103-2012/ NACE MR0175-2009 and ISO 15156-2009

hereby certify that the products described here in have been manufactured and tested in accordance

specifications and also the purchaser's requirements concerned.

products have been made from Seamless steel pipe.

NOTE:

ABOVE - LISTED ELBOWS HAVE BEEN HOT - FORMED AT

TEMPERATURE ABOVE 1150° F (620°C) AND BELOW 1800° F

° C) AND SUBSEQUENTLY COOLED IN STILL AIR.

THE QUALITY MANAGEMENT SYSTEM OF ISO 9001-2008 AND PED 97/23/EC, ANNEX I SEC. 4.3

TE BEEN APPROVED BY LRQA

NOTHER PED 97/23/EC, ANNEX I SEC. 4.3 TUV-NORD 0045

THE MANGANESE ABOVE THE SPECIFIED MAXIMUM WILL BE PERMITTED UP

A MAXIMUM OF 1.65%. (FOOTNOTE D IN TABLE 1 OF ASTM A234 -13e1 WPB).

**Quality Assurance Section/ Manager**