



TTU INDUSTRIAL CORP., LTD.

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MANUFACTURER'S CERTIFICATE

(Mill Test Certificate) DIN 50049-3.1-B / EN 10204-3.1

Purchaser : PLESA ANAHUAC Y CIAS., SA DE C.V. Certificate No : 130488
 Product : CARBON STEEL FITTINGS Order No : PO. 16082
 Specification : ASTM A-234 WPB /NACE MR-01-75 Date : AUGUST 5, 2013
 : ASME SA234 WPB L/C No : M929849

Raw Material Standard	Inspection Standard	Visual Inspection	Dimensional Inspection
PIPE : ASTM A106 B / A53B / API5L B PLATE : ASTM A516 Gr 50 / 60	ANSI B16.9 ANSI B16.28	PASS	PASS

Product & Size (inch)	Heat ID.	Quantity	Heat NO.	Raw Material Maker
1 90 ELBOW LR SCH160 4"	37909	17	101614	2554-909

Standard	Chemical Composition %												Mechanical Test			Average Hardness	CE Long Formula	
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Al	YS	TS	E			
	x 100	x 100	x 100	x 10000	x 10000	x 100	x 100	x 100	x 100	x 100	x 100	x 1000	x 1000	psi	psi	%	Hb	x 100
Min.	-	10	29	-	-	-	-	-	-	-	-	-	-	35,000	60,000	30	-	-
Max.	30	-	106	48	58	40	40	40	15	8	-	50	-	85,000	-	-	197	42
1	20	21	39	16	17	2	2	2	-	-	-	-	39200	67500	32	146	27	

- We hereby certify that the products described herein have been manufactured, inspected and conforms to standard as specified above.
- ALL FITTINGS ARE HEAT TREATED TO MEET NACE MR0175-03 STANDARD SPECIFICATION AT 650-680 C x 1.0 HR.
- CE = C + (Mn/6) + (Cr + Mo + V)/5 + (Ni+Cu)/15
- ALL TEES ARE TESTED BY MAGNETIC PARTICLE EXAMINATION (MT)


 Chief of Quality Assurance Dept