



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 TEE SCH80 6"	37505	17	101614	2554-505
2 90 ELBOW LR SCH160 3"	37421	50	J0L3907	2554-011
3 90 ELBOW LR XXS 3"	37429	50	11-101429	JCCJ - 00044211-9

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	x	x	x	x	x	x	x	x	x	x	x	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
2	19	23	93	16	4	1	2	4	1	0	-	-	52800	75900	59	158	36
3	15	25	48	9	8	2	1	-	-	-	-	-	42780	65540	35/36	157	23

- 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)/8 + (Cr + Mo + V)/5 + (Ni+Cu)/15
- ALL TEES ARE TESTED BY MAGNETIC PARTICLE EXAMINATION (MT)


 Chief of Quality Assurance Dept