



TTU INDUSTRIAL CORP., LTD.

TTU Fittings

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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	: 130489
Product	: CARBON STEEL FITTINGS	Order No	: PO. 16082
Specification	: ASTM A-234 WPB - 2011A	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 CAP SCH80 4"	37953	20	488953	545370
2 CAP XH 10"	37953	10	594398	619536
3 CAP XH 12"	37398	5	594398	619536
4 CAP SCH40 2"	37498	50	243498	050694
5 CAP SCH40 6"	37953	100	488953	545370
6 CAP SCH40 8"	37953	50	488953	545370
7 CAP SCH40 10"	36442	20	232442	050696
8 CAP STD 12"	37442	20	232442	050696
9 CAP STD 14"	37442	10	232442	050696

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	%			
Min.	100	100	100	1000	1000	100	100	100	100	100	1000	1000	35,000	60,000	TRANSVERSE 17			
Max.	30	-	100	48	58	40	40	40	15	8	-	50	-	85,000		197	42	
1	15	37	91	21	14	0	0	0	0	0	-	-	46900	69000	24	158	30	
2	13	24	89	20	10	0	0	0	0	0	-	-	42900	65600	29	168	28	
3	13	24	89	20	10	0	0	0	0	0	-	-	42900	65600	29	168	28	
3	14	21	74	12	14	0	2	2	0	0	-	-	48100	71600	34	154	27	
3	15	37	91	21	14	0	0	0	0	0	-	-	46900	69000	24	158	30	
3	15	37	91	21	14	0	0	0	0	0	-	-	46900	69000	24	158	30	
3	18	19	80	16	11	0	0	0	0	0	-	-	49300	71700	27	162	31	
3	18	19	80	16	11	0	0	0	0	0	-	-	49300	71700	27	162	31	
3	18	19	80	16	11	0	0	0	0	0	-	-	49300	71700	27	162	31	

- 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 650-620 C x 1.6 HR.
- CE = C + (Mn/6) + (Cr + Mo + V)/5 + Ni/15
- ALL TEES ARE TESTED BY MAGNETIC PARTICLE EXAMINATION (MT)

[Signature]
 Chief of Quality Assurance Dept