



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	: 130124
Product	: CARBON STEEL FITTINGS	Order No	: PO. 13745
Specification	: ASTM A-234 WPB - 2011A	Date	: MARCH 4, 2013
	: ASME SA234 WPB	L/C No	: M929152

Raw Material Standard	Inspection Standard	Visual Inspection	Dimensional Inspection
PIPE : ASTM A106 B / A53B / API5LB PLATE : ASTM A516 Gr 50 / 50	ANSI B16.9 ANSI B16.28	PASS	PASS

Product & Size (Inch)	Heat ID.	Quantity	Heat NO.	Raw Material Maker
1 CAP STD 16"	32442	16	232442	050696
2 CAP STD 18"	33442	20	232442	050696
3 CAP STD 20"	33442	6	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 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100	x 100	x 100	x 1000	x 1000	psi	psi	%		
Min.	-	10	20	-	-	-	-	-	-	-	-	-	35,000	60,000	TRANSVERSE 17		
Max.	30	-	106	48	58	40	40	40	15	5	-	50	-	85,000		197	42
1	18	19	80	16	11	0	0	0	0	0	-	-	49300	71700	27	162	31
2	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 ASME B16.9-03 STANDARD SPECIFICATION AT 650-650 °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