

Head Office : 395/5 Silom Road, BangRak, Bangkok 10500, Thailand. Tel: (662)-2377230-40 Fax : (662)-2366627, 2377241
 Production Plant : 33/3 GP. 7, Soi Pon-Chareon, K.M. 16.5 Bangna-Trad Road, Bangplee, Samutprakan 10540, Thailand
 website : www.ttu.co.th email address : sale001.ttu@ttugroup.com, chris.ws@ttugroup.com

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 | : 140075 |
| Product | : SEAMLESS STEEL WELDING FITTING | Order No | : PO. 17201 |
| Specification | : ASTM A-234 WPB – 2011A | Date | : JANUARY 31, 2014 |
| | : ASME SA234 WPB | L/C No | : T/T |

| Raw Material Standard | Inspection Standard | Visual Inspection | Dimensional Inspection |
|--|---------------------------|-------------------|------------------------|
| PIPE : ASTM A106 B / A53B / API5LB 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 STD 14" | 41442 | 10 | 232442 | 050696 |
| 2 CAP STD 16" | 42442 | 14 | 232442 | 050696 |
| 3 CAP STD 16" | 41442 | 3 | 232442 | 050696 |
| 4 CAP STD 20" | 41442 | 20 | 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. | - | 10 | 29 | - | - | - | - | - | - | - | - | - | 35,000 | 60,000 | TRANSVERSE 17 | Hb | x 100 |
| Max. | 30 | - | 106 | 48 | 58 | 40 | 40 | 40 | 15 | 8 | - | 50 | - | 85,000 | | | |
| 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 |
| 4 | 18 | 19 | 80 | 16 | 11 | 0 | 0 | 0 | 0 | 0 | - | - | 49300 | 71700 | 27 | 162 | 31 |

COUNTRY OF EXPORT : THAILAND
COUNTRY OF ORIGIN : THAILAND



Chief of Quality Assurance Dept

• 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)