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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 | : 140422 |
| Product | : SEAMLESS STEEL WELDING FITTING | Order No | : PO. 18799 |
| Specification | : ASTM A-234 WPB – 2011A | Date | : JULY 24, 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 | Net Wts KG |
|-------------------------|----------|----------|----------|--------------------|------------|
| 1 90 ELBOW LR STD 3" | 47805 | 488 | 321843 | 2554-805 | 990.64 |
| 2 90 ELBOW LR STD 3" | 44805 | 12 | 321843 | 2554-805 | 24.36 |
| 3 90 ELBOW LR STD 16" | 48318 | 30 | 0844607 | 2554-318 | 2676.00 |
| 4 90 ELBOW LR STD 14" | 47315 | 30 | 0844607 | 2554-315 | 2040.00 |
| 5 90 ELBOW LR STD 18" | 48952 | 1 | 836981 | 2554-952 | 113.00 |
| 6 90 ELBOW LR SCH40 14" | 48141 | 4 | 80560 | 2554-141 | 316.40 |
| 7 90 ELBOW LR SCH40 16" | 48511 | 9 | 1036925 | 2554-511 | 1062.00 |
| 8 45 ELBOW LR STD 12" | 47807 | 56 | 671365 | 2554-807 | 1512.00 |
| 9 45 ELBOW LR STD 12" | 48807 | 22 | 671365 | 2554-807 | 594.00 |
| 10 45 ELBOW LR STD 14" | 47315 | 10 | 0844607 | 2554-315 | 340.00 |
| 11 45 ELBOW LR STD 24" | 48954 | 3 | 601208 | 2554-954 | 303.00 |
| 12 90 ELBOW SR STD 4" | 48273 | 21 | 801A-163 | 2554-273 | 55.02 |

| 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 | % | 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 | 22 | 43 | 16 | 10 | 2 | 1 | 1 | - | - | - | - | 42500 | 72100 | 34 | 167 | 38 |
| 2 | 20 | 22 | 43 | 16 | 10 | 2 | 1 | 1 | - | - | - | - | 42500 | 72100 | 34 | 167 | 38 |
| 3 | 20 | 23 | 50 | 12 | 10 | 10 | 4 | 4 | - | - | - | - | 45700 | 67500 | 33 | 140 | 36 |
| 4 | 20 | 23 | 50 | 12 | 10 | 10 | 4 | 4 | - | - | - | - | 45700 | 67900 | 33 | 132 | 36 |
| 5 | 21 | 25 | 51 | 2 | 1 | 2 | 2 | 5 | - | - | - | - | 39800 | 68900 | 32 | 145 | 30 |
| 6 | 16 | 24 | 77 | 21 | 12 | <1 | 1 | 3 | <1 | 2 | - | - | 46300 | 69200 | 40 | 138 | 30 |
| 7 | 22 | 21 | 40 | 10 | 3 | 5 | 3 | 3 | 1 | <1 | 2 | 1 | 40600 | 65300 | 44 | 165 | 30 |
| 8 | 19 | 21 | 57 | 16 | 7 | 6 | 2 | 4 | - | - | - | - | 40400 | 65400 | 38 | 164 | 30 |
| 9 | 19 | 21 | 57 | 16 | 7 | 6 | 2 | 4 | - | - | - | - | 40400 | 65400 | 38 | 164 | 30 |
| 10 | 20 | 23 | 50 | 12 | 10 | 10 | 4 | 4 | - | - | - | - | 45700 | 67900 | 33 | 132 | 36 |
| 11 | 20 | 24 | 50 | 1 | 2 | 2 | 2 | 5 | - | - | - | - | 37500 | 68900 | 34 | 154 | 28 |
| 12 | 20 | 20 | 53 | 8 | 6 | 13 | 13 | 7 | 1 | <1 | - | - | 43600 | 66800 | 35 | 160 | 32 |

COUNTRY OF EXPORT : THAILAND
 COUNTRY OF ORIGIN : THAILAND

- 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