

**CERTIFIED MATERIAL TEST REPORT**

Trinity Fitting Group Inc.

Hackney \* Ladish \* Flo-Bond

P.O. Box 568887 - 2525 Stemmons Freeway - Dallas, TX 75356 - 8887

Phone: (214) 589-8177 Fax: (214) 589-8892

Order Number: 4224

Date: 07/02/02

Sold to: TUBOS CONEXIONES Y TANQUES Ship to:  
 VALLE DE LAS ALAMEDAS NO.66 B  
 SAN FRANCISCO CHILEAN  
 TULTITLAN, EOO. DE MEXICO

| Heat Code | Quantity | Description / Specifications |                             |
|-----------|----------|------------------------------|-----------------------------|
| KD02QI    |          | 6 X 3 STD TEE                | A/SA 234 - 01 WPB           |
|           |          | A106B/007/P20026             | STRESS RELIEVED NACE MR0175 |
| ED01WP    |          | 8 STD CAP                    | A/SA 234 - 00 WPB           |
|           |          | A516-70 117/A1D164           | NORM. 1650 NACE MR0175      |

**Chemical Analysis**

| Heat Code | Test | C    | Mn   | P    | S    | Si   | Cu   | Ni   | Cr   | Mo   | Al    |
|-----------|------|------|------|------|------|------|------|------|------|------|-------|
| KD02QI    | M    | .140 | .710 | .005 | .002 | .220 | .120 | .050 | .050 | .000 |       |
| ED01WP    | M    | .200 | .990 | .008 | .001 | .270 | .320 | .140 | .060 | .040 | .0270 |

**Chemical Analysis (cont.)**

| Heat Code | N | V    | B     | Ti    | Cb   | Sn   | W    | Pb   | Co   | Ce   |
|-----------|---|------|-------|-------|------|------|------|------|------|------|
| KD02QI    |   | .004 |       |       | .001 |      |      |      |      | .280 |
| ED01WP    |   | .010 | .0005 | .0200 | .010 | .024 | .006 | .003 | .050 | .427 |

**Physical Properties**

| Heat Code | Tensile KSI | Type | Thickness | Yield KSI | % Elong. (4D) | % RA | Hardness HB |
|-----------|-------------|------|-----------|-----------|---------------|------|-------------|
| KD02QI    | 63.5        |      |           | 44.8      | 47.6          |      | 139         |
| ED01WP    | 79.6        | T    |           | 52.1      | 30.0          | 63.0 | 165         |

**Charpy Results**

| Heat Code | Size x 10mm | Type | Temp. (F) | Foot Pounds | Later. Expansion | % Shear |
|-----------|-------------|------|-----------|-------------|------------------|---------|
| KD02QI    |             |      |           |             |                  |         |
| ED01WP    |             |      |           |             |                  |         |

Test: M=Mill Product  
 Type: T-Transverse

We certify that the material herein described has been manufactured, heat treated, sampled, tested, and inspected in accordance with the above standards and specifications and satisfies those requirements. We certify these flanges and fittings capable of passing a hydrostatic test compatible with their rating. The above figures are correct as contained in the records of the Company. This information has been electronically transmitted to our customer.  
 /S/ Glinda LaFleur