

**CERTIFIED MATERIAL TEST REPORT**

Trinity Fitting Group Inc.

Hackney \* Ladish \* Flo-Bend

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

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

Order Number: 4845

(259267-011) INV #00120487 02/11/18 Date: 11/19/02

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

Ship to: TUBOS CONEXIONES Y TANQUES 001  
 C/O SPECIALIST IN TRANSIT FWR  
 1801 MARKLEY - MODERN IND PARK  
 LAREDO TX 78041

Heat Code	Quantity	Description / Specifications
EF01AR ✓	1	18 S/40 TEE A/SA 234 - 00 WPB A106-B 9/S01157 NORM. 1650 NACE MR0175
EF01AW ✓	1	18 STD TEE A/SA 234 - 00 WPB A106-B 9/A21272 NORM. 1650 NACE MR0175
EK02WO ✓	3	24 STD TEE WPBW A/SA 234 - 01 WPBW A516-70 154/2103068 NORM. 1650 NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
EF01AR	M	.180	1.140	.004	.004	.210	.020	.030	.040	.020	.0270
EF01AW	M	.170	1.040	.007	.005	.210	.030	.030	.040	.010	.0220
EK02WO	M	.200	.960	.012	.004	.190	.260	.070	.100 <	.010	.0300

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
EF01AR	.0060	.060	.0005	.0100	.010	.003	.003	.002	.050	.397
EF01AW	.0060	.010	.0005	.0100	.010	.004	.003	.002	.050	.359
EK02WO	<	.010	.0007	<.0100	<.010	.013	<.002	<.001	<.050	.406

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
EF01AR	75.3	L		50.2	33.0	70.0	126
EF01AW	73.3	L		49.3	36.0	73.0	140
EK02WO	82.0	T		50.9	32.0	70.0	143

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
EF01AR						
EF01AW						
EK02WO						

Test: M=Mill Product

Type: L=Longitudinal 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