

**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: 4224

Date: 07/02/02

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

Heat Code	Quantity	Description / Specifications			
EF01AM		14 X 10 STD TEE	A/SA 234 - 00	WPB	
		A106-B 9/B09164	NORM. 1650		NACE MR0175
EF01AO		14 X 12 STD TEE	A/SA 234 - 00	WPB	
		A106-B 9/A21018	NORM. 1650		NACE MR0175
EC02IB		10 X 8 STD TEE	A/SA 234 - 00	WPB	
		A106-B 61/916857	NORM. 1650		NACE MR0175
EF01AO		14 X 12 STD TEE	A/SA 234 - 00	WPB	
		A106-B 9/A21018	NORM. 1650		NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
EF01AM	M	.180	1.030	.007	.009	.230	.010	.040	.060	.010	.0240
EF01AO	M	.180	1.040	.005	.006	.210	.030	.090	.090	.030	.0210
EC02IB	M	.150	1.060	.007	.005	.230	.050	.100	.090	.040	.0260
EF01AO	M	.180	1.040	.005	.006	.210	.030	.090	.090	.030	.0210

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
EF01AM	.9999	.010	.0005	.0100	.010	.003	.002	.002	.050	.370
EF01AO		.010	.0005	.0100	.010	.003	.002	.003	.050	.387
EC02IB		.066	.0005	.0100	.010	.011	.003	.002	.050	.375
EF01AO		.010	.0005	.0100	.010	.003	.002	.003	.050	.387

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
EF01AM	75.2	L		45.1	33.0	71.0	114
EF01AO	76.6	L		48.0	35.0	71.0	126
EC02IB	77.8	L		56.1	36.0	79.0	146
EF01AO	76.6	L		48.0	35.0	71.0	126

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
EF01AM						
EF01AO						
EC02IB						
EF01AO						

Test: M=Mill Product  
 Type: L=Longitudinal

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