

**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  
VALLE DE LAS ALAMEDAS NO.66 B  
SAN FRANCISCO CHILPAN  
TULTITLAN, EOO. DE MEXICO

Ship to:

Heat Code	Quantity	Description / Specifications
EM01YY	6 XH CAP	A/SA 234 - 00 WPB
	AS16-70 117/R1F517	NORM. 1650 NACE MR0175
KF01NB	1 STD TEE	A/SA 234 - 00 WPB
	A106B/086/2-80102	STRESS RELIEVED NACE MR0175
ED00DT	8 X 6 STD ECC	A/SA 234 - 99 WPB
	A106-B 66/54227K	NORM. 1650 NACE MR0175
KK00JC	2 X STD TEE	A/SA 234 - 99 WPB
	A106B/009/A03119	STRESS RELIEVED NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
EM01YY	M	.180	1.020	.006	.002	.230	.200	.090	.100	.030	.0290
KF01NB	M	.190	.820	.015	.007	.240	.010	.020	.030	.010	
ED00DT	M	.190	.650	.010	.005	.300	.080	.030	.040	.010	.0120
KK00JC	M	.190	.790	.008	.003	.200	.010	.010	.050	.010	

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
EM01YY		.010	.0005	.0300	.010	.011	.004	.002	.050	.397
KF01NB		.002			.010					.337
ED00DT		.010	.0005	.0100	.010	.008	.002	.002	.050	.317
KK00JC		.007			.001					.336

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	Elong. (4D)	RA	Hardness HB
EM01YY	77.4	T	ab7	48.9	34.0	67.0	140
KF01NB	73.8			50.2	33.0	99.9	131
ED00DT	69.5		ab73	40.4	37.8	59.0	135
KK00JC	68.5		ab999	47.9	38.5	99.9	119

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp (F)	Foot Pounds	Later. Expansion	% Shear
EM01YY						
KF01NB						
ED00DT						
KK00JC						

Test: M=Mill Product  
Type: T=transverse 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