

**CERTIFIED MATERIAL TEST REPORT**

Trinity Fitting Group Inc.

Hackney \* Ladish \* Flo-Bend

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

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Order Number: 5301 (261200-001) INV #00122050 02/12/19 Date: 12/20/02

Sold to: TUBOS CONEXIONES Y TANQUES	Ship to: TUBOS CONEXIONES Y TANQUES 001
VALLE DE LAS ALAMEDAS NO.66 B	C/O SPECIALIST IN TRANSIT FWR
SAN FRANCISCO CHILPAN	1801 MARKLEY - MODERN IND PARK
TULTITLAN, EOO. DE MEXICO	LAREDO TX 78041

Heat Code	Quantity	Description / Specifications
M3HH	20	3 X 1 1/2 STD ECC A/SA 234 - 01 WPB A106B 133/ 871UO (30) AS FORMED NACE MR0175
M3CS	20	3 X 1 1/2 STD ECC A/SA 234 - 01 WPB A106B 133/ 774UO (30) AS ROLLED NACE MR0175
EJ02NE	25	4 X 3 STD ECC A/SA 234 - 01 WPB A106-B 55/45972 NORM. 1650 NACE MR0175
M3DE	10	5 X 4 STD ECC A/SA 234 - 01 WPB A106B 133/ 818UN NSS NORMALIZED NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
M3HH	M	.210	.650	.013	.007	.250	.220	.140	.150	.050	
M3CS	M	.200	.610	.010	.007	.220	.210	.130	.160	.050	
EJ02NE	M	.190	.760	.019	.004	.310	.050	.020	.030	<.010	.0240
M3DE	M	.210	.890	.004	.001	.210	.180	.090	.050	.020	

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
M3HH		.002			.002					.382
M3CS		.001			.003					.366
EJ02NE		<.010	<.0005	<.0100	<.010	.005	<.002	.001	<.050	.331
M3DE		.001			.001					.390

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
M3HH	76.8			50.0	33.0		197
M3CS	72.8			48.4	36.0		197
EJ02NE	77.0	L		51.1	31.0	64.0	128
M3DE	78.4			55.6	35.9	71.2	197

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
M3HH						
M3CS						
EJ02NE						
M3DE						

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