

**CERTIFIED MATERIAL TEST REPORT**

Trinity Fitting Group Inc.  
Hackney \* Ladish \* Flo-Bend

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

BPCS

Order Number: 7541

(272327-012) DOC #00142568 03/12/15 Date: 12/16/03

Sold to: TUBOS CONEXIONES Y TANQUES  
VALLE DE LAS ALAMEDAS NO 66 B  
SAN FRANCISCO CHILPAN  
TULTITLAN EOO DE MEX 54940

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	
164WN	3	18 X 14 STD ECC A106B 133/ 09/ A61108	A/SA 234 - 02 WPB HOT FORMED & A.C. NACE MR0175
12WO	3	12 X 6 STD ECC A106B 133/ 09/ U23452	A/SA 234 - 02 WPB HOT FORMED NACE MR0175
RE03HY	2	24 STD LR 90 DEG EL 470 9 A61331	A/SA 234 - 01 WPB AS ROLLED NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
164WN	M	.190	1.050	.009	.005	.250	.020	.030	.060	.020	
12WO	M	.200	1.120	.008	.007	.240	.010	.010	.010	.000	
RE03HY	M	.180	.690	.008	.004	.230	.020	.040	.080	.020	

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
164WN		.001			.001					.384
12WO		.001			.004					.390
RE03HY		.001	.0001		.001					.319

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
164WN	74.4	L		53.6	35.0	73.2	197
12WO	81.0	T		56.0	35.0		197
RE03HY	70.0			47.2	44.0		174

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
164WN						
12WO						
RE03HY						

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