

CERTIFIED MATERIAL TEST REPORT  
 Trinity Fitting Group Inc.  
 Hackney \* Ladish \* Flo-Bend

212205

P.O. Box 568887 - 2525 Stemmons Freeway - Dallas, TX 75356 - 8887  
 Phone: (214) 589-8177 Fax: (214) 589-8892

Order Number:

Date: 01/18/05

Sold to: GFF INC  
 5650 EAST PONCE DE LEON  
 STONE MOUNTAIN GA 30083

Ship to:

Heat Code	Quantity	Description / Specifications	
RJ03SJ	1	STD LR 45 DEG EL	A/SA 234 - 02 WPB
		A106B 55/ 27587	STRESS RELIEVED
			NACE MR0175
RL04MT	18	STD LR 45 DEG EL	A/SA 234 - 03 WPB
		A106B 48 18925	AS ROLLED/ HOT FORMED
			NACE MR0175
RE04RW	18	STD LR 45 DEG EL	A/SA 234 - 03 WPB
		A106B 55 16683	AS ROLLED / HOT FORMED
			NACE MR0175
EE04CI	4	STD TEE	A/SA 234 - 03 WPB
		A106-B 55/31614	NORM. 1650
			NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
RJ03SJ	M	.190	.810	.011	.002	.310	.046	.026	.030	.020	.0180
RL04MT	M	.170	1.020	.011	.002	.230	.016	.070	.070	.050	.0200
RE04RW	M	.180	1.030	.011	.002	.220	.119	.070	.100	.030	.0200
EE04CI	M	.190	.750	.012	.010	.310	.040	.030	.040	.010	.0110

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
RJ03SJ	.0030	.001	.0001	.0030	.001	.004				.340
RL04MT	.0000	.000	.0000	.0000	.000	.011				.369
RE04RW	.000	.000	.0000	.0000	.000	.009				.390
EE04CI	.0030	< .010	<.0005	<.0100	<.010	.004	<.002	<.001	.050	.331

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
RJ03SJ	82.2	L	.130	62.6	33.0	57.0	79
RL04MT	75.3			53.3	43.0		149
RE04RW	78.3			54.3	44.0		197
EE04CI	73.1	L		46.9	30.0	64.0	133

Charpy Results

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
RJ03SJ						
RL04MT						
RE04RW						
EE04CI						

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