

STD LR 90ELL WPB 18; HEAT TREATMENT MATERIAL TEST REPORT

203601

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

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BPCS

Order Number: 04-1064

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

Ship to: GFF, INC.
5650 PONCE DE LEON AVE
STONE MOUNTAIN GA 30083

Heat Code	Quantity	Description / Specifications
RE04RX	2	18 STD LR 90 DEG EL A/SA 234 - 03 WPB A106B 48 16685 AS ROLLED - HOT FORMED NACE MR0175
RE04RW	2	18 STD LR 90 DEG EL A/SA 234 - 03 WPB A106B 55 16683 AS ROLLED NACE MR0175
RL04MT	2	18 STD LR 90 DEG EL A/SA 234 - 03 WPB A106B 55 18925 AS ROLLED/ HOT FORMED NACE MR0175
RL04MC	3	18 XH LR 90 DEG EL A/SA 234 - 03 WPB Y56 48 18749 AS ROLLED - HOT FORMED NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
RE04RX	M	.180	1.010	.012	.002	.250	.013	.070	.100	.040	.0200
RE04RW	M	.180	1.030	.011	.002	.220	.119	.070	.100	.030	.0200
RL04MT	M	.170	1.020	.011	.002	.230	.016	.070	.070	.050	.0200
RL04MC	M	.140	1.270	.009	.001	.230	.149	.050	.040	.065	.0240

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
RE04RX		.000	.0000		.000	.010				.381
RE04RW		.000	.0000	.0000	.000	.009				.390
RL04MT	.0000	.000	.0000	.0000	.000	.011				.369
RL04MC		.058	.0000		.006	.008				.397

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
RE04RX	76.6			54.3	42.0		197
RE04RW	78.3			54.3	44.0		197
RL04MT	75.3			53.3	43.0		149
RL04MC	82.6			53.4	46.0		169

Charpy Results

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
RE04RX						
RE04RW						
RL04MT						
RL04MC						

Test: M=Mill Product
Type:

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