

CERTIFIED MATERIAL TEST REPORT

Trinity Industries Inc. Fitting and Flange Group
 Hackney * Ladish * Flo-Bend * CQ
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8887

Order Number **00/07** (221624-001 INV #00046521 00/03/27 Date **03/28/00**)

Sold to FERRETERA ANAHUAC, S.A. DE C.V Ship to VALLE DE LAS ALAMEDAS NO.66 B SAN FRANCISCO CHILPAN TULTITLAN, EOO. DE MEXICO	FERRETERA ANAHUAC, S.A. DE000 C/O SPECIALIST IN TRANSIT FWR 1801 MARKLEY MODERN IND. PARK LAREDO TX 78041
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Heat Code	Quantity	Description / Specifications	
WA00AS	50*	4 X 3 STD RED TEE A/SA 234 - A WPB A106B 49 / 60193 STRESS RELIEVED	NACE MR0175
WM99LK	50*	4 X 2 STD RED TEE A/SA 234 - 99A WPB A106B 09 / B88158 STRESS RELIEVED	NACE MR0175
KK99DV	50*	3 X 1 1/2 STD RED TEE A/SA 234 - 99 WPB A106B 09 / A82582 STRESS RELIEVED	NACE MR0175
SKAAZ	10 7	3 X 1 STD RED TEE A/SA 234 - 99A WPB A106B 141 / J51A550 NORMALIZED	NACE MR0175

Chemical Analysis

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
WA00AS	M	.180	.740	.013	.002	.370	.200	.080	.060	.030	
WM99LK	M	.180	.710	.007	.003	.220	.040	.020	.050	.010	
KK99DV	M	.200	.730	.009	.002	.230	.020	.020	.040	.010	
SKAAZ	M	.209	.510	.021	.009	.160	.010	.030	.030	<.010	

Chemical Analysis (cont.)

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
WA00AS		.005			.004					.340
WM99LK		.001			.001					.314
KK99DV		.001			.001					.334
SKAAZ		<.010			<.010					.306

Physical Properties

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
WA00AS	74.6			53.1	40.0		187
WM99LK	70.5			44.9	41.0		134
KK99DV	69.0			45.8	37.5		127
SKAAZ	70.1			45.9	40.0		119

Charpy Results

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
WA00AS						
WM99LK						
KK99DV						
SKAAZ						

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