

**CERTIFIED MATERIAL TEST REPORT**

Trinity Fitting Group Inc.

Hackney \* Ladish \* Flo-Bend

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

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

Order Number: 30357

(250457-148) INV #00104411 02/02/07 Date: 02/08/02

Sold to:

Ship to:

0001

Heat Code	Quantity	Description / Specifications	
MXM1PAO	5	2 1/2 XH TEE WPL-6 A/SA 420 - WPL6 A106B 09 / A04389 NORM. PER PAR 6 A420	NACE MR0175
NCZ1H	4	2 1/2 X 2 XH RED TEE W A/SA 420 - 96 WPL6 A106B 09 / B25817 Q & T 1650 & 1200	NACE MR0175
WZZJKE	4	2 XXH TEE WPL-6 A/SA 420 - WPL6 A420 ES MNF 04549 QUENCH & TEMP	NACE MR0175
KK97AOH	13	2 X 1 1/4 XH RED TEE W A/SA 420 - WPL6 A106B 09 / Y48874 Q & T 1650 & 1200	NACE MR0175

**Chemical Analysis**

Heat Code	Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al
MXM1PAO	M	.160	.730	.010	.011	.210	.020	.020	.040	.010	
NCZ1H	M	.140	.730	.004	.008	.230	.010	.040	.040	.020	
WZZJKE	M	.200	.990	.008	.012	.290	.230	.100	.060	.018	
KK97AOH	M	.170	.720	.009	.002	.230	.020	.020	.090	.030	.0033

**Chemical Analysis (cont.)**

Heat Code	N	V	B	Ti	Cb	Sn	W	Pb	Co	CE
MXM1PAO		.003			.000					.294
NCZ1H		.001			.000					.276
WZZJKE		.002			.000					.403
KK97AOH	.0004	.001	.0002		.001					.316

**Physical Properties**

Heat Code	Tensile KSI	Type	Thickness	Yield KSI	% Elong. (4D)	% RA	Hardness HB
MXM1PAO	70.6	L		51.0	32.0	69.0	116
NCZ1H	71.4			49.2	36.0	79.0	132
WZZJKE	85.0			52.0	32.0	75.0	153
KK97AOH	71.6	L		49.9	38.0	70.0	134

**Charpy Results**

Heat Code	Size x 10mm	Type	Temp. (F)	Foot Pounds	Later. Expansion	% Shear
MXM1PAO	6.7		-50	12, 10, 12	.014	10
NCZ1H	10.0		-50	182, 200, 184	076, 077, 085	100, 100, 100
WZZJKE	10.0		-50	15, 18, 19	.017	10
KK97AOH	7.5		-50	200, 207, 202	079, 073, 084	100, 100, 100

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