4" VENTURI NOZZLE (A051405-Y622G).

03/15/2011 From:AMERICAN ALLOY STEEL To:BRADKEN CANADA LTD. D
P.O.# :205018 S.O.# :387032 AA PL#:6.25A05140
Item :2 (121 PC) 6-1/4" X 6.25" DIA X 12.75" LONG
:TAG: PN 0215111153

P.O. Box 216
Pell City, Alabama 35125
Phone: 205.338.5100
Fax: 205.338.2731

CERTIFIED MILL TEST REPORT

For additional copies call (888) 682-7337

Tom Carter
Quality Assurance Manager

HEAT NO.: A051405-Y6229
SECTION: RD 6-1/4
GRADE: 1022 MOD EF VD NORMALIZE

SOLD TO

SHIP TO

SHIP#:
BOL #:
INV #:
CUST PO#:
CUST P/N:

CHEMICAL ANALYSIS

	%
C	0.20
Mn	0.89
P	0.012
S	0.007
Si	0.28
Cu	0.23
Cr	0.11
Ni	0.11
Mo	0.030
Cb	0.000
V	0.002
Sn	0.012
B	0.0001
Ti	0.002
C.Eq.	0.40
Al	0.027
N	0.010

PROPERTIES

MECHANICAL	TEST 1 IMPERIAL	TEST 1 METRIC	TEST 2 IMPERIAL	TEST 2 METRIC	TEST 3 IMPERIAL	TEST 3 METRIC
Yield Strength	54 KSI	369 MPA				
Tensile Strength	79 KSI	541 MPA				
Elongation	30 %	30 %				
Gauge Length	2 IN					
Reduction of Area	60 %	60 %				
Bend Test						
Diameter						
Charpy Impact	22 FTLB	30 J	26 FTLB	35 J	26 FTLB	35 J
Test Temp	-50 FAH	-46 CEL	-50 FAH	-46 CEL	-50 FAH	-46 CEL
Sample Size						
Orientation						
Hardness	143 BHN					
RR	4.43:1					
Austenitize						
Temper						

Bradken MTR Review

Review	Signature	Date
PS & MTR to PO, MTR to AML		
MTR to Drawing BOM		3-24-11

NTEMP 1725 FAH
NTIME 27 MIN

JOMINY RESULTS - Rockwell C hardness at 1/16th inch increments

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	18	20	22	24	26	28	30	32

GRAIN SIZE
METHOD: E112
RESULT:

INCLUSION RATING
METHOD:
TYPE:
SIZE: T H T H T H T H

100% MELTED AND MANUFACTURED IN THE USA AND FREE OF MERCURY CONTAMINATION IN THE PROCESS

REMARKS:
SHEAR 10, 10, 10 LAT EXP 19, 24, 24 MEETS REQUIREMENTS OF ASTM A350-95B-2004 LF2 CL1 A105-95B-2005, A675 GR 70, A696-90A-1990 GD C
ASME SA350-89-2004 GR LF2, SA105-2005, SA675 GR 70, AND ASME SA696-1990 GR C, ALSO MEETS NACE MR01-75 & ASTM A350 SUPPL S6
CERTIFICATE PREPARED TO EN 10204 3.1.B & DI 3.1.B. NO WELD REPAIR. MERCURY FREE. YIELD TAKEN AT .2% OFFSET

AUG-06-2010 15:11

6-1/4" Dia.
SA-350 LF-2 SA-675 Gr-70 Dark
SA-105 SA-696 Gr.C Green
Ht. A051405 Yellow

Certified a true copy of the original, retained in our file.
AMERICAN ALLOY STEEL
AL 9-25-10