

P0197701

CPA-027
 5" Rd.

CERTIFIED MATERIAL TEST REPORT		No. 30795	
HA ORDER NO./ITEM 100050445 1	DATE 04/03/12	PAGE 1	OF 2
QUANTITY 2010 LBS	INSPECTED BY HA/SMC		
CHARGE ORDER NO. 26641	MARK ORDER NO. 26641		
DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 5.0000 IN 120-168 IN NOM	HOT FIN END ROUGH T STR REL		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.
 REV. 8/08

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****

SPECIFICATIONS: **ASTM B 164-03 (2008)\ASME SB-164 2010 EDITION 11 ADDENDA\ UNS:N04400**
ASTM B 564-10 CHEM ONLY
ASME SB-564 2010 EDITION 11 ADDENDA CHEM ONLY
US FED QQ-N-281D AN 2 CL A FN 1 MARKING WAIVED.
NACE NRO175-ISO 15156-3 (2009)
QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125);
EN 10 204/DIN 50049 (TYPE 3.1)

HEAT#	CHEMICAL ANALYSIS (WT. %)								
	C	MN	FE	S	SI	CU	NI	AL	CO
	P	PB/PPH	SN/PPH	ZN/PPH	NI+CO				
M44P9BG	0.14	1.04	1.45	<0.001	0.27	31.97	65.03	0.06	0.03
	0.006	3.6	2.6	7.9	65.06				

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA
 TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.
 MELT METHOD: **AIM + ELECTROSLAG REMELTED**

HEAT/LOT	QUANTITY	MECHANICAL PROPERTIES						
		HARDNESS	GRAIN SIZE	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	R/A	DEC F
				.2%PSI	PSI	2"	%	
M44P9BG 11	2 PCS							
ROOM TEMP-HRB	-AS SHIPPED	84.8		0558	0900	39.9	74.1	
	PC# 121,122							

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YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

NO WELDING OR WELD REPAIR WAS PERFORMED.



HUNTINGTON ALLOYS CORPORATION
A Special Metals Company
HUNTINGTON, WEST VIRGINIA 25705-1771

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NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

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DESCRIPTION OF MATERIAL SHIPPED HONEL ALLOY 400	HOT FIN RND ROUGH T STR REL		
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MATERIAL HEAT TREAT: STRESS RELIEVED AT 1100 DEG. F. FOR 1 HR AIR COOLED.

THIS REPORT SUPERSEDES OUR REPORT DATED 01/16/12, CMTR 26959, TO UPDATE SPECIFICATIONS.

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE), ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 30, 2014)."

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 127805 (EXPIRES APRIL 30, 2013) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION.

MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REV. 49, DATED 2/17/2011

**AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :
W.E. BOLEN, M.A. MORRISON, D.K. MILLER, J.L. JEFFREY**

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