HT# 421R

C 190273

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 325995 2

Customer: 007226 001

Mail To:
ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Ship To:
ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Date: 8/23/2017 Page: 1

Steel: 316/316L

Finish: ST

Corrosion: ASTM A262 Prac E OK

Red Ratio: 7.0 :1

Your Order: P042019

NAS Order: IN 0252196 04

PRODUCT DESCRIPTION:

NACE MR0175(MID RADIUS ONLY)
Round Bar, Annealed, Smooth Turned, Cold Finished
UNS S31600/S31603, EN 10204 3.1, ASTM A484/16
ASTM A276/16A, ASTM A479/16A, ASTM A182/16A CHEM ONLY,
ASME SA479/16A, ASME SA182/16A CHEM ONLY
AMS 5648M/AMS 5653H, AMS QQS-763D, QQS 763F
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8M

ASTM A193/10A-ASME SA193/10 CL 1 GR B8M(EXC PAR 7.2)

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE 2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-------Length------	Mark	Pieces	Commodity Code
BI8268 3		3.2500		1,010	144.00	4	1	

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
421R	US	.021	.28	16.71	.37	1.46	2.05	.033	10.56	.030

S %	SI %
.0230	.32

MECHANICAL PROPERTIES

Product Id	loc	dir	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 4D
BI8268 3	R	L	143.0	36.00	78.00	74.00	64.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr. KRIS LARK 8/23/2017