



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: 746134 5 Mail To: \_\_\_\_\_ Ship To: \_\_\_\_\_ Date: 12/21/2021 Page: 1  
Customer: 007090 001 NC. \_\_\_\_\_ Steel: 316/316L  
Finish: ST  
Corrosion: ASTM A262/15 Prac A/E OK  
Your Order: P186677842 NAS Order: PN 0128554 01 Heat Treat Code: 67,823 Red Ratio: 7.0 :1

## PRODUCT DESCRIPTION :

## REMARKS :

Round Bar, Annealed, Smooth Turned, Cold Finished  
UNS S31600/S31603, EN 10204 3.1, ASTM A484/20b  
ASTM A276/17, ASTM A479/20, ASTM A182/21 CHEM ONLY,  
ASME SA479/19, ASME SA182/19 CHEM ONLY, GRAIN SIZE = 6-8  
AMS 5648/M, AMS 5653/J, AMS-QQS-763/D, QQS:763/F  
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)  
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/18 CL 1 GR B8M  
ASME SA193/19 CL 1 GR BBM(EXC PAR 7.3.1)  
ASTMA193/20 CL 1 GR BBM(EXC PAR 6.2.1)

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

R311938  
521657  
HT# P38D  
Load # 51997

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BM2963 3		3.2500		1,054	144.00	1	1	521657

ANAB, 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 A751/20

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
P38D	US	.017	.42	16.72	.32	1.45	2.040	.040	10.50	.027
		S %	SI %							
		.0230	.37							

## MECHANICAL PROPERTIES

Product Id	l o c i d	HB	.2YS KSI	UTS KSI	RA %	Elong % 4D
BM2963 3	R L	187.0	56.42	92.40	73.39	41.45

Provided by CPA

www.flowconditioner.com,info@cpacl.ca

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

12/21/2021



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## CHEMICAL ANALYSIS

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