

MUTUAL CORNELL

December 8, 2022

Piercing King Ltd
5802 Dalglish Road Northwest
Calgary, Alberta, T3A 1K5

CERTIFICATE OF ANALYSIS

Date Submitted: 12/2/22
22077279-2R

PO Number: N/A
Style number: BCR18
Sample Desc.: 18g 3/8" Hoop
Sample Date: 11/29/22

XRF Assay Composition

Date Analyzed: 12/06-12/08/22
Analyzed by: MS

Revised

	Before Grinding	After Grinding	Unit
Chromium	16.343	16.463	%/wt.
Cobalt	0.250	0.397	%/wt.
Copper	0.157	0.290	%/wt.
Iron	64.130	64.927	%/wt.
Manganese	1.550	1.553	%/wt.
Molybdenum	2.707	2.473	%/wt.
Nickel	14.863	13.897	%/wt.

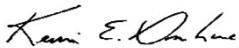
Note(s): The submitted samples were tested in accordance with the 18Chromium-14Nickel-2.5Molybdenum Stainless ASTM F138 guidelines.

The chemical composition for 18 Chromium- 14Nickel-2.5Molybdenum Stainless Alloy is specified as 17.00-19.00% Chromium, 13.00 - 15.00% Nickel, 2.25-3.00% Molybdenum, \leq 2.00% Manganese, \leq 0.50% Copper, and $<$ 0.10 Cobalt. The results do not included composition of Nitrogen, Carbon, Sulfur, Silicon, or Phosphorous which may be present in the alloy.

The closest grade of stainless is 316/316L based on the percentages of chromium, manganese & nickel, with the listed grade being only a possibility & not a definitive result. The composition ranges for each component make an exact grade fit less likely.



Revision Note: Information about ASTM F-138 was added to the report MJS 12/9/22. Contact info revised 1/4/24 KED



Kevin E. Donahue
Laboratory Director



Jeff Mascoli
Laboratory Manager

The above results were obtained using a Fischer Technologies Fischerscope XAN-DPP-X-Ray Fluoroscope (XRF). After grinding test results indicate the approximate assay composition of the substrate base metal only. The measurement error is within +/- 5.0% of the measured values per typical instrumental methods. Samples submitted by customer, results relate only to items tested. Test report shall not be reproduced except in full, without written approval of the laboratory.

Pg. 1 of 1