

Registry of Radioactive Sealed Sources and Devices
Safety Evaluation of Device
(AMENDED IN ITS ENTIRETY)

NO.: NR-1382-D-101-E

DATE: June 2, 2015

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DEVICE TYPE: Gun Sights

MODEL: Series 1

Rear Sight: GLN111, GLN112, MPN111, SGN111, SFN111

Front Sight: MPN101, SGN101, SFN101, GLN101, LCRN101,
SWN101

MANUFACTURER/
DISTRIBUTOR:

North Pass, Ltd. (**Primary Address**)
dba HIVIZ Shooting Systems
620 S. Adams St.
Laramie, WY 82070

North Pass, Ltd.
dba HIVIZ Shooting Systems
1941 Heath Parkway, Ste. #1
Fort Collins, CO 80524

SEALED SOURCE MODEL
DESIGNATION:

mb-microtec Model: 400/1
SRB Technologies Model: MH, RH

ISOTOPE:

MAXIMUM ACTIVITY:

Hydrogen-3

18.1 mCi (0.67 GBq) for front
sight

Hydrogen-3

36.2 mCi (1.34 GBq) for rear sight

Hydrogen-3

54.3 mCi (2.01 GBq) for front and
rear set

LEAK TEST FREQUENCY:

Not Required

PRINCIPAL USE:

(W) Self-Luminous Light Sources

CUSTOM DEVICE:

 Yes X No

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DEVICE TYPE: Gun Sights

DESCRIPTION:

The Series 1 gun sights are constructed with tritium (H-3) gas in sealed borosilicate glass tubes to be mounted on handguns. The overall dimensions for the Series 1 gun sights are listed in the table below.

Sight Model No.	Nominal Length (in)	Length Range (in)	Nominal Height (in)	Height Range (in)	Nominal Width (in)	Width Range (in)	Weight (g)	Activity (GBq)
GLN101	0.400	.30-.50	0.207	.20-.45	0.125	.12-.25	1.00	0.67
GLN111	0.449	.40-.60	0.256	.24-.35	0.700	.62-.72	5.40	1.34
GLN112	0.474	.40-.60	0.273	.24-.35	0.700	.62-.72	6.20	1.34
LCRN101	0.544	.30-.72	0.251	.20-.45	0.245	.20-.35	1.80	0.67
MPN101	0.338	.30-.50	0.230	.20-.45	0.400	.12-.60	1.40	0.67
MPN111	0.835	.40-.60	0.334	.24-.35	0.665	.62-.72	14.90	1.34
SWN101	0.513	.30-.72	0.394	.20-.45	0.124	.12-.25	1.40	0.67
SGN101	0.349	.30-.50	0.217	.20-.45	0.47	.12-.60	1.40	0.67
SGN111	0.416	.40-.60	0.249	.24-.35	0.625	.62-.72	4.10	1.34
SFN101	0.35	.30-.50	0.22	.20-.45	0.47	.12-.60	1.35	0.67
SFN111	0.551	.40-.60	0.284	.24-.35	0.665	.62-.72	6.80	1.34

The gun sights are designed to withstand the shock and vibration that may be experienced during operations. In the gun sights, the source containing tritium gas, is sealed into a protective base that is constructed of borosilicate glass and mounted inside an aluminum sleeve. A room temperature vulcanizing adhesive is used to affix the sealed source into the bore in the sight. A white paint is applied in the counter bore around the sapphire lens of the sealed source. A small amount of adhesive is applied to cover the viewing end of the source in the sight. The sight is then placed under an UV light to harden the adhesive for a protective layer over the sights viewing end. This adhesive secures the tritium sealed source into the sight housing, making the source inaccessible to the user.

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DESCRIPTION (Cont.):

The Series 1 gun sights use mb-microtec Model 400/1, or SRB Technologies, Inc. Model MH or RH sealed sources.

The manufacturer stated that the expected working life for the gun sights is 10 years.

A laser engraved label on the lateral surface of the gun sight contains the appropriate information in accordance with 10 CFR 32.25(b). The devices are shown in Attachments 1 through 5.

North Pass, Ltd. has submitted a quality assurance and control (QA/QC) program that has been found to be acceptable by NRC for production and distribution of Series 1 gun sights. A copy of this program is on file with the NRC.

Based on our review of the information and test data provided by the manufacturer, the NRC concludes that North Pass, Ltd.'s Series 1 gun sights meet the safety criteria set forth in 10 CFR 32.23. Therefore, the NRC concludes that the Series 1 gun sights are acceptable for exempt distribution.

REFERENCES:

The following supporting documents for the Series 1 luminous gun sights are hereby incorporated by reference and are made part of this registry document.

- North Pass, Ltd. application dated October 7, 2013 with enclosures thereto.
- North Pass, Ltd. letter dated March 26, 2014, with enclosures thereto.

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DEVICE TYPE: Gun Sights

REFERENCES (Cont.):

- North Pass, Ltd. letter dated April 30, 2015 (ML15131A301) with enclosures thereto. North Pass, Ltd. Letter dated May 20, 2015, (ML15142A387)

ISSUING AGENCY:

U.S. Nuclear Regulatory Commission

Date: June 2, 2015

Reviewer: /RA/
Tomas Herrera

Date: June 2, 2015

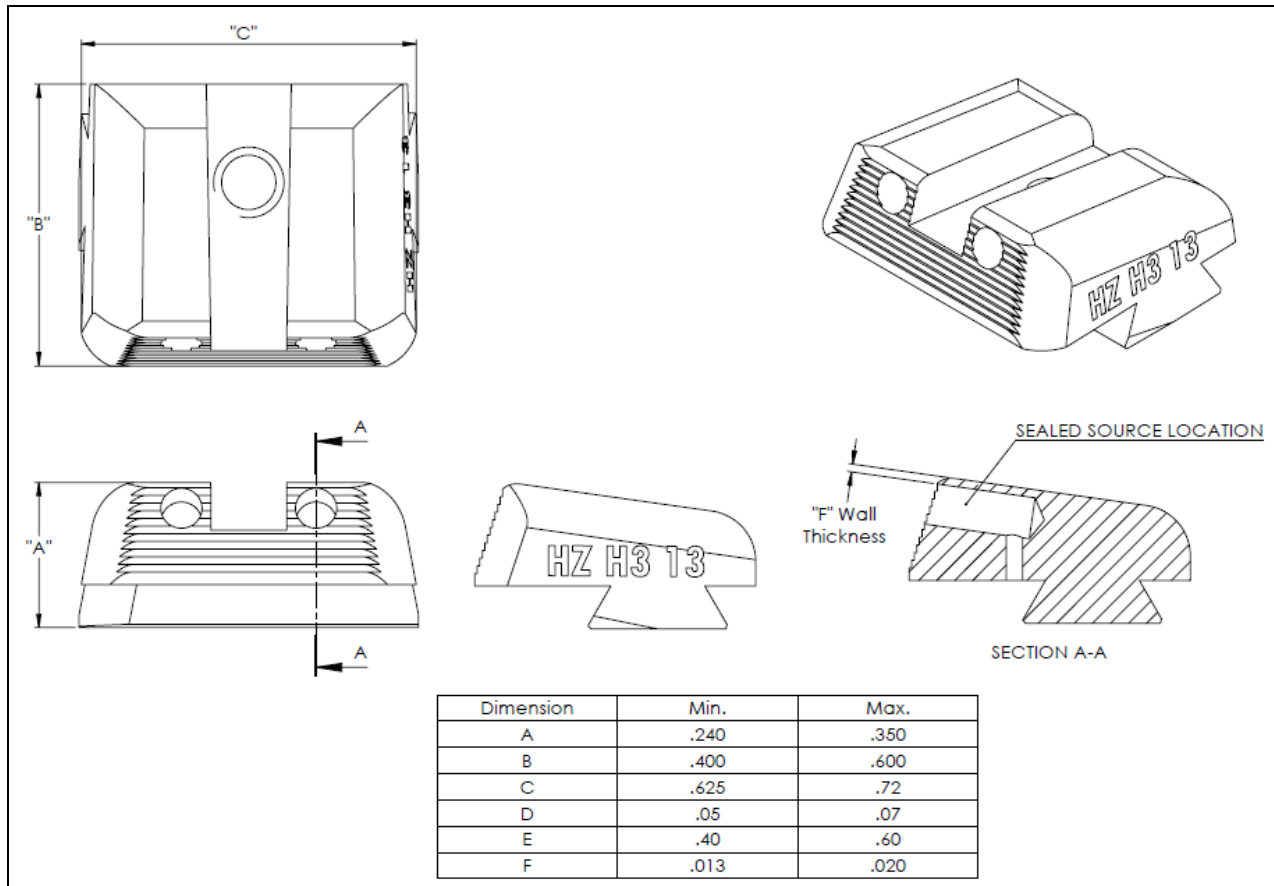
Concurrence: /RA/
Maria Arribas-Colon

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ATTACHMENT 1 of 5



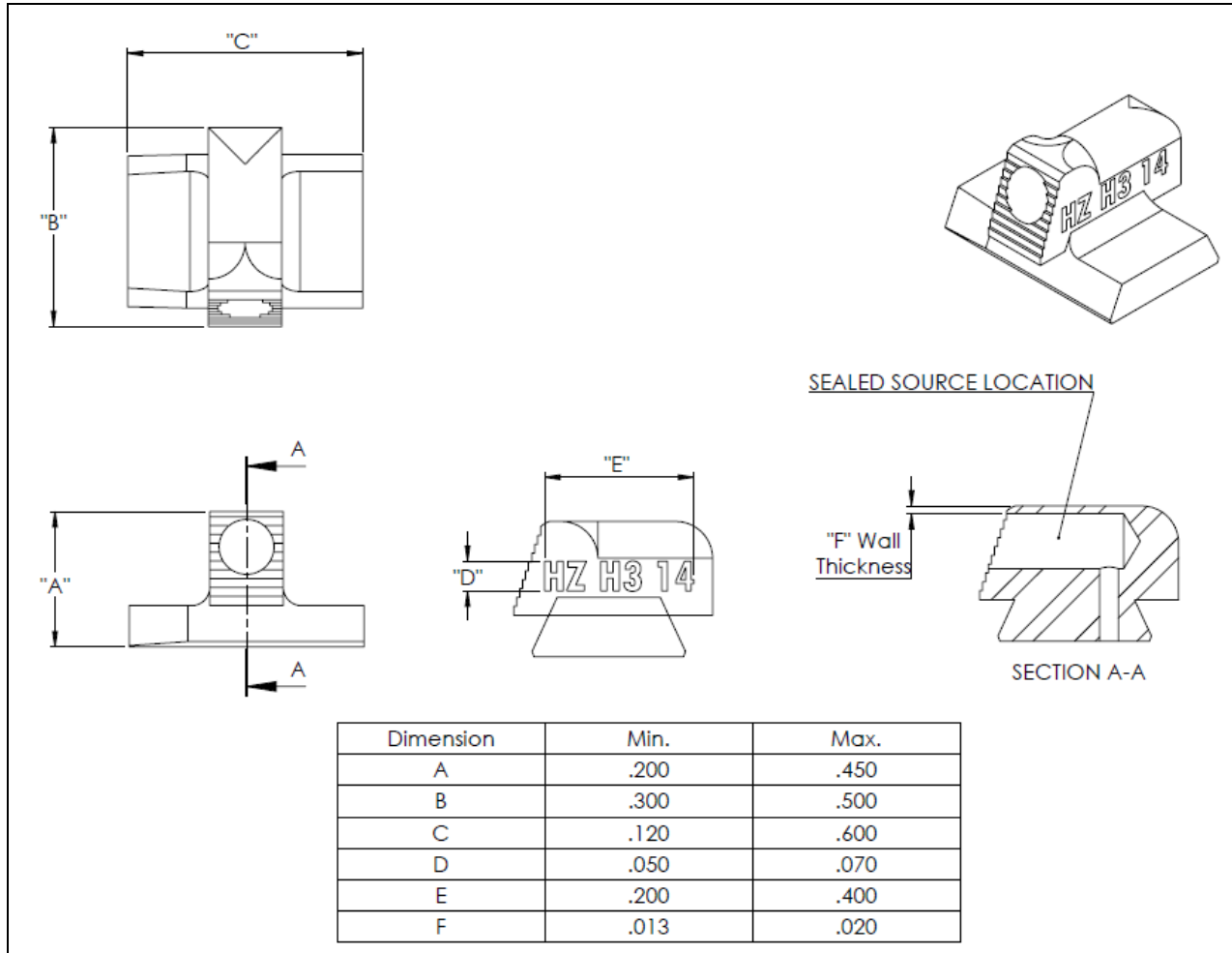
Rear Sight Models:
GLN111, GLN112, MPN111, SGN111, SFN111

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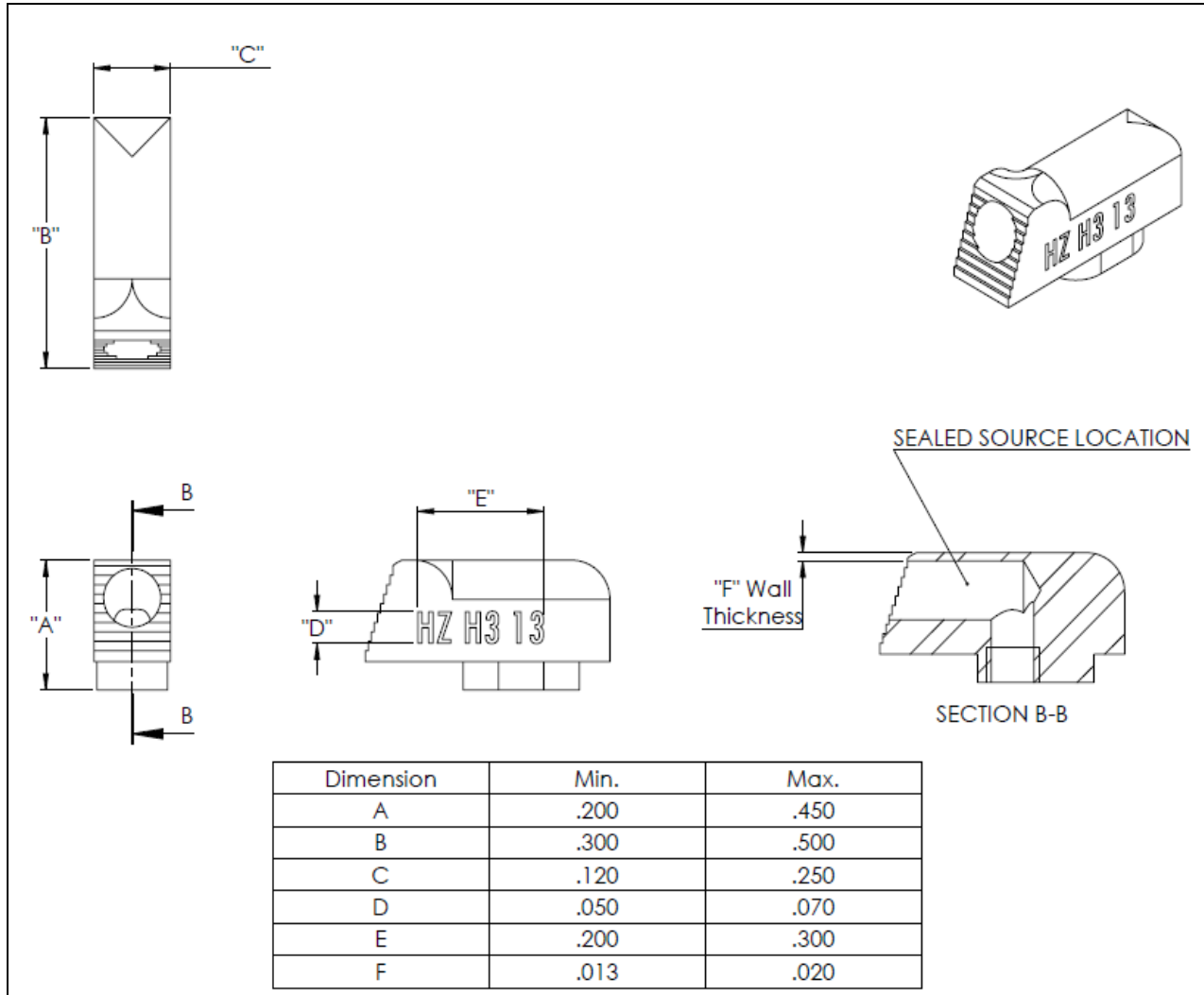
Front Sight Models:
MPN101, SGN101, SFN101

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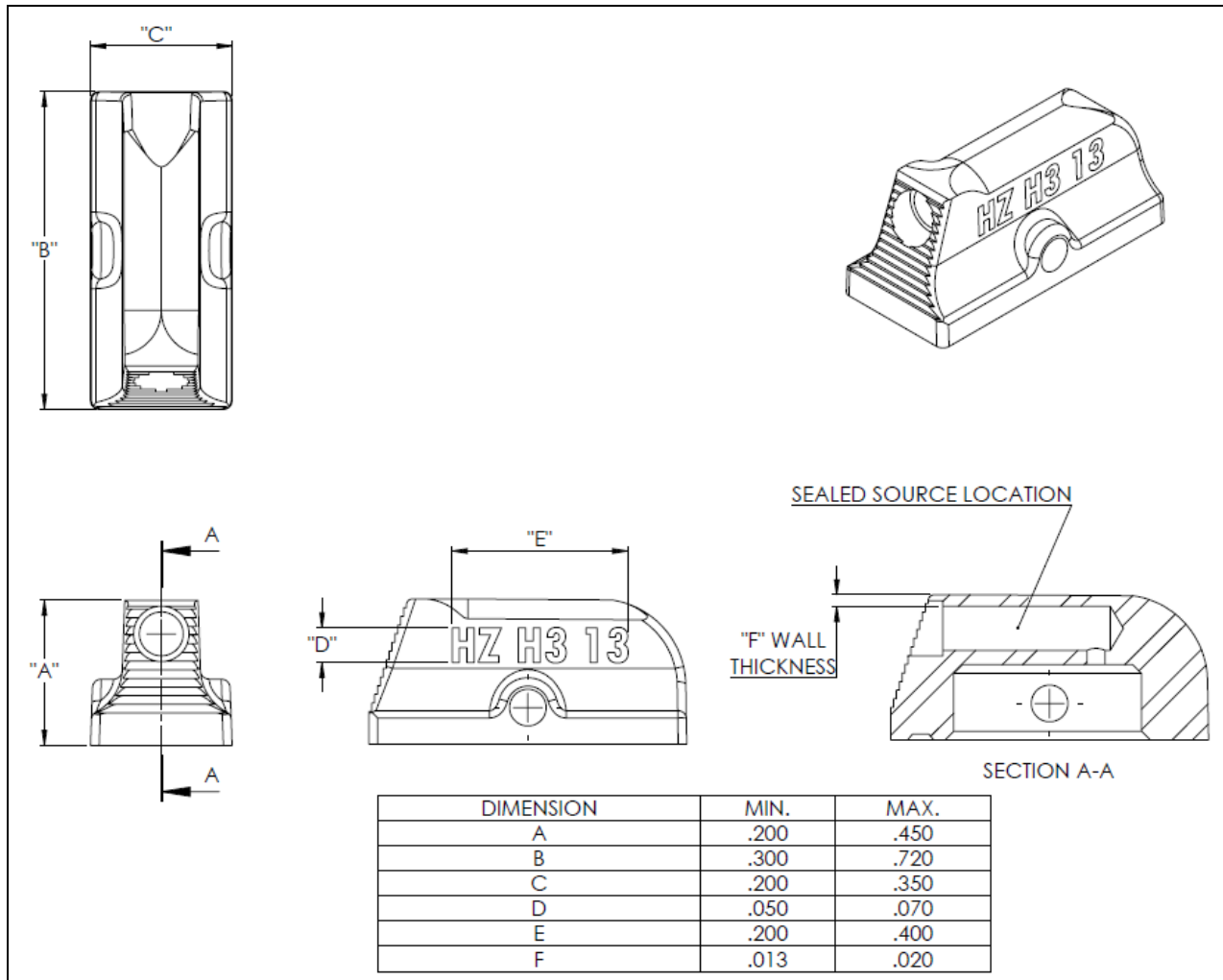
Front Sight Model:
GLN101

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Front Sight Model:
LCRN101

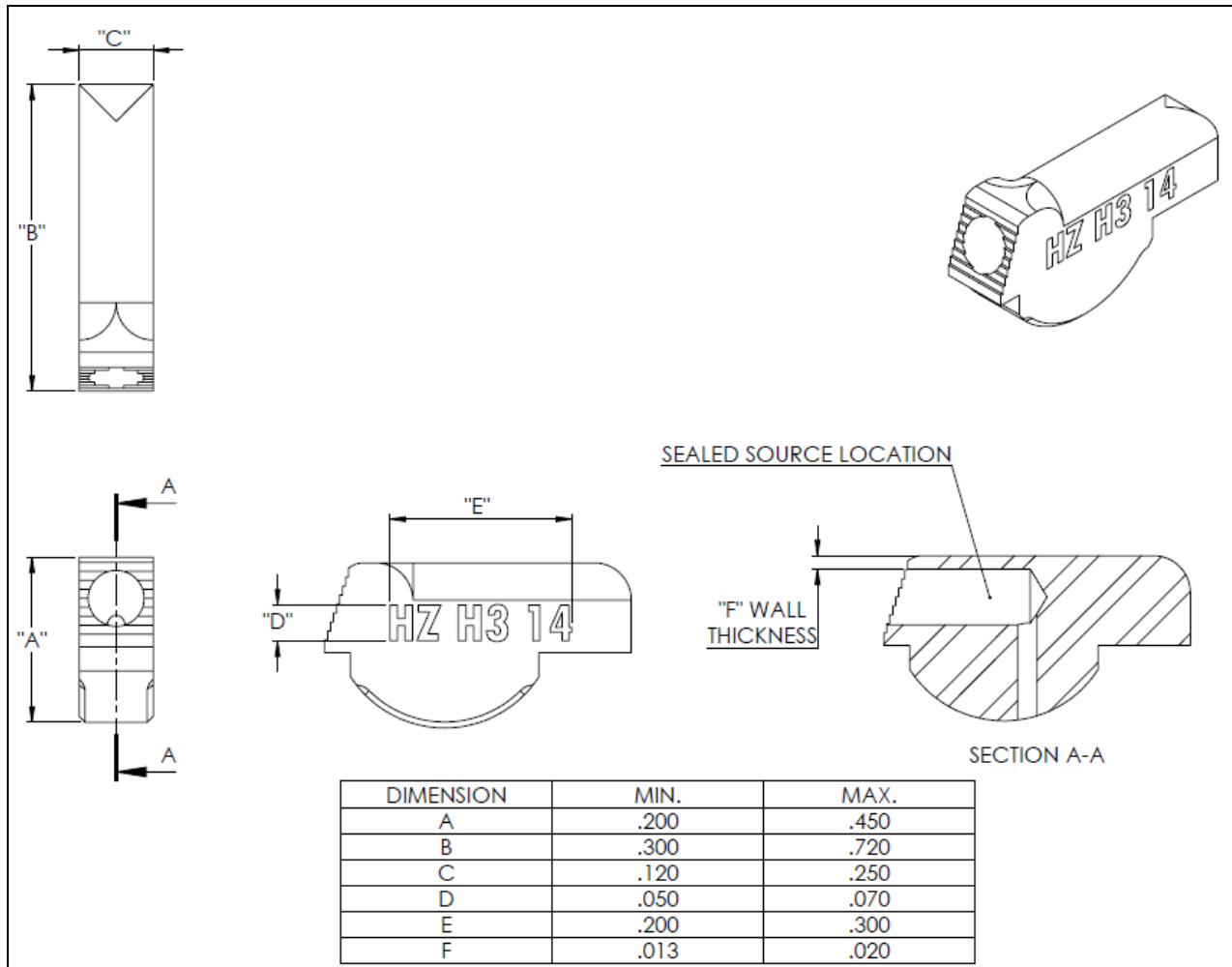
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DEVICE TYPE: Gun Sights



Front Sight Model:
SWN101