

NEON ENERGY TEST REPORT

SCOPE OF WORK

ANSI/NFRC 400-2017 TESTING ON ULTRA SLIDING GLASS DOOR WITH SCREEN

REPORT NUMBER

I5922.01-301-44 R0

TEST DATE(S)

08/07/18

ISSUE DATE

09/05/18

RECORD RETENTION END DATE

08/07/23

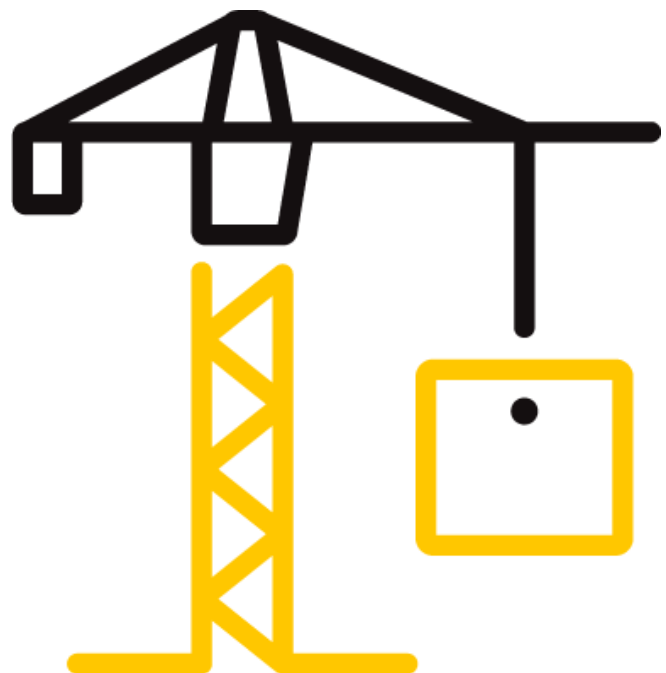
PAGES

35

DOCUMENT CONTROL NUMBER

RT-R-AMER-Test-2803 (06/28/18)

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TEST REPORT FOR NEON ENERGY

Report No.: I5922.01-301-44 R0

Date: 09/05/18

REPORT ISSUED TO

NEON ENERGY

4989 East La Palma Ave.
Anaheim, California 92807

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Neon Energy to perform testing in accordance with ANSI/NFRC 400-2017, *Procedure for Determining Fenestration Product Air Leakage*, on their Ultra Sliding Glass Door with Screen. Results obtained are tested values and were secured by using the designated test method(s) in full compliance with NFRC requirements.

Testing was conducted at Intertek B&C test facility in Fresno, California. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

Product Type: Sliding Glass Door

Series/Model: Ultra Sliding Glass Door with Screen

TITLE	RESULTS
Air Leakage Resistance Test	0.4 L/s/m ² (0.07 cfm/ft ²)
Operating Force (Latches)	45 N (10.1 lbf)
Operating Force (Initiate)	177 N (39.8 lbf)
Operating Force (Maintain)	117 N (26.3 lbf)
Air Leakage Resistance Test	0.4 L/s/m ² (0.07 cfm/ft ²)

For INTERTEK B&C:

COMPLETED BY:	Erick Caldera	REVIEWED BY:	Tyler Westerling, P.E.
TITLE:	Technician	TITLE:	Senior Project Engineer
SIGNATURE:		SIGNATURE:	
DATE:	09/05/18	DATE:	09/05/18

EC:ms

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SECTION 3

TEST METHOD(S)

The specimens were evaluated in accordance with the following:

ANSI/NFRC 400-2017, *Procedure for Determining Fenestration Product Air Leakage*. National Fenestration Rating Council.

SECTION 4

MATERIAL SOURCE/INSTALLATION

Test specimen was provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of five years from the test completion date.

The specimen was installed into a Douglas-Fir wood buck. The rough opening allowed for a no shim space. The exterior perimeter of the door was sealed with tape.

LOCATION	ANCHOR DESCRIPTION	ANCHOR LOCATION
Wood buck	Wood blocks	6" from corners

SECTION 5

EQUIPMENT

A calibration was performed on the Intertek B&C Structural Control Panel, Asset #005724, on 03/08/18. The calibration procedure is fully described in Standard Calibration Procedure 31-12. The basic procedure requires calibrating the pressure transducers and then measuring flow rates through calibrated orifice plates.

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Erick Caldera	Intertek B&C
Nick Keo	Intertek B&C

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TEST SPECIMEN DESCRIPTION

Product Type: Sliding Glass Door

Series/Model: Ultra Sliding Glass Door with Screen

Product Size(s):

OVERALL AREA:	WIDTH		HEIGHT	
	Millimeters	Inches	Millimeters	Inches
4.00 m ² (43.1 ft ²)				
Overall Size	2000	78-3/4	2000	78-3/4
Exterior Panel	1016	40	1949	76-3/4
Interior Panel	1013	39-7/8	1949	76-3/4

Frame Construction:

FRAME MEMBER	MATERIAL	DESCRIPTION
Head, Sill, Jamb	Thermally broken aluminum	Thermally broken by polyamide
	JOINERY TYPE	DETAIL
All Corners	Mitered	Sealed; crimped and keyed corners (2 keys)

Sash Construction:

MEMBER	MATERIAL	DESCRIPTION
Rails, Stiles, and Interlock adaptor	Thermally broken aluminum	Thermally broken by polyamide
	JOINERY TYPE	DETAIL
All Corners	Mitered	Sealed; crimped and keyed corners
Interlock Adaptor	Fastened	Fastened with square drive pan head screws spaced 4" from corners and 17" on center

Reinforcement: No reinforcement was utilized.

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Weatherstripping:

DESCRIPTION	QUANTITY	LOCATION
Wool Pad	2 pads	Head; mid-span
Rubber Pad	2 pads	Sill; mid-span
Polypile	1 row	Head, sill, jambs
Rubber Bulb Gasket	2 rows	Head, sill, jambs, interlock adapter
Polypile	2 rows	Rails, stiles, interlock adapter
Vinyl Leaf Gasket	2 rows	Rails and stiles

Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	TP-D: Thermo-plastic Spacer	1/4" Guardian SN5128	1/4" Guardian IS20	Exterior dry glazed with an EPDM gasket and interior secured with an aluminum glazing bead with EPDM gasket

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		millimeters	inches	
Panel (x2)	1	826 x 1768	32-1/2 x 69-5/8	1/2"

Drainage:

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weephole	1-1/8" x 1/4"	12	Screen track leg.
Weephole	7/8" x 1/4"	6	Center sill leg.
Weephole	1-3/8" x 1/4"	2	Each glazing track.
Weephole	5/8" x 3/16"	2	Each bottom rail, through two layers.

Hardware:

DESCRIPTION	QUANTITY	LOCATION
Latch Assembly	2	Locking stiles; 40" from bottom rail
Keepers	4	Jambs; 11" from sill and 14" from head
Roller Track	2 rows	Sill
Roller Assembly	4	Bottom rail; 2 per panel

Screen Construction: *No screen construction was utilized.*

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SECTION 8

TEST RESULTS

The temperature during testing was 24°C (76°F). The results are tabulated as follows:

Test Specimen #1:

TITLE OF TEST	RESULTS	ALLOWED	TABLE
Operating Force per ASTM E2068 Latches Initiate Maintain	45 N (10.1 lbf) 177 N (39.8 lbf) 117 N (26.3 lbf)	Report only	
Air Leakage, Infiltration per ASTM E283 (qA) at 75 Pa (1.57 psf)	1.1 L/s/m ² (0.22 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1

Table #1:

AIR TEMPERATURE	76°F		
BAROMETRIC PRESSURE	29.58 in. of Hg		
RELATIVE HUMIDITY	65.1%		
TOTAL AIRFLOW (Qt)	TARE (Qe)	NET (Qs)	CORRECTED NET AIRFLOW (Qst)
5.3 l/s (11.20 cfm)	0.9 l/s (1.94 cfm)	4.4 l/s (9.26 cfm)	4.4 l/s (9.26 cfm)

TEST REPORT FOR NEON ENERGY

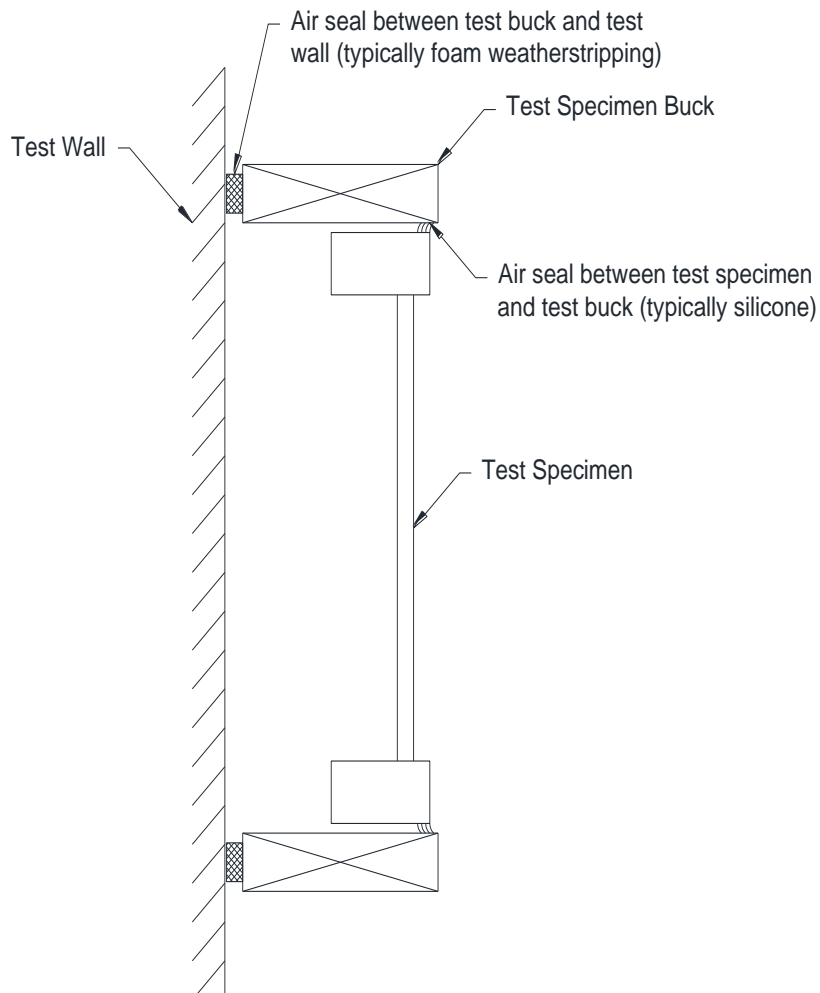
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SECTION 9

LOCATION OF AIR SEAL

The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.





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SECTION 10

CONCLUSION

The specimens tested met the performance requirements of ANSI/NFRC 400-2017.

Air infiltration values included in this report are not meant to be used for NFRC labeling purposes. Official NFRC Rating values may be obtained by submitting this report to an NFRC Licensed Inspection Agency for certification purposes. Only those values identified on a valid Certification Authorization Report (CAR) are to be used for labeling purposes.



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DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

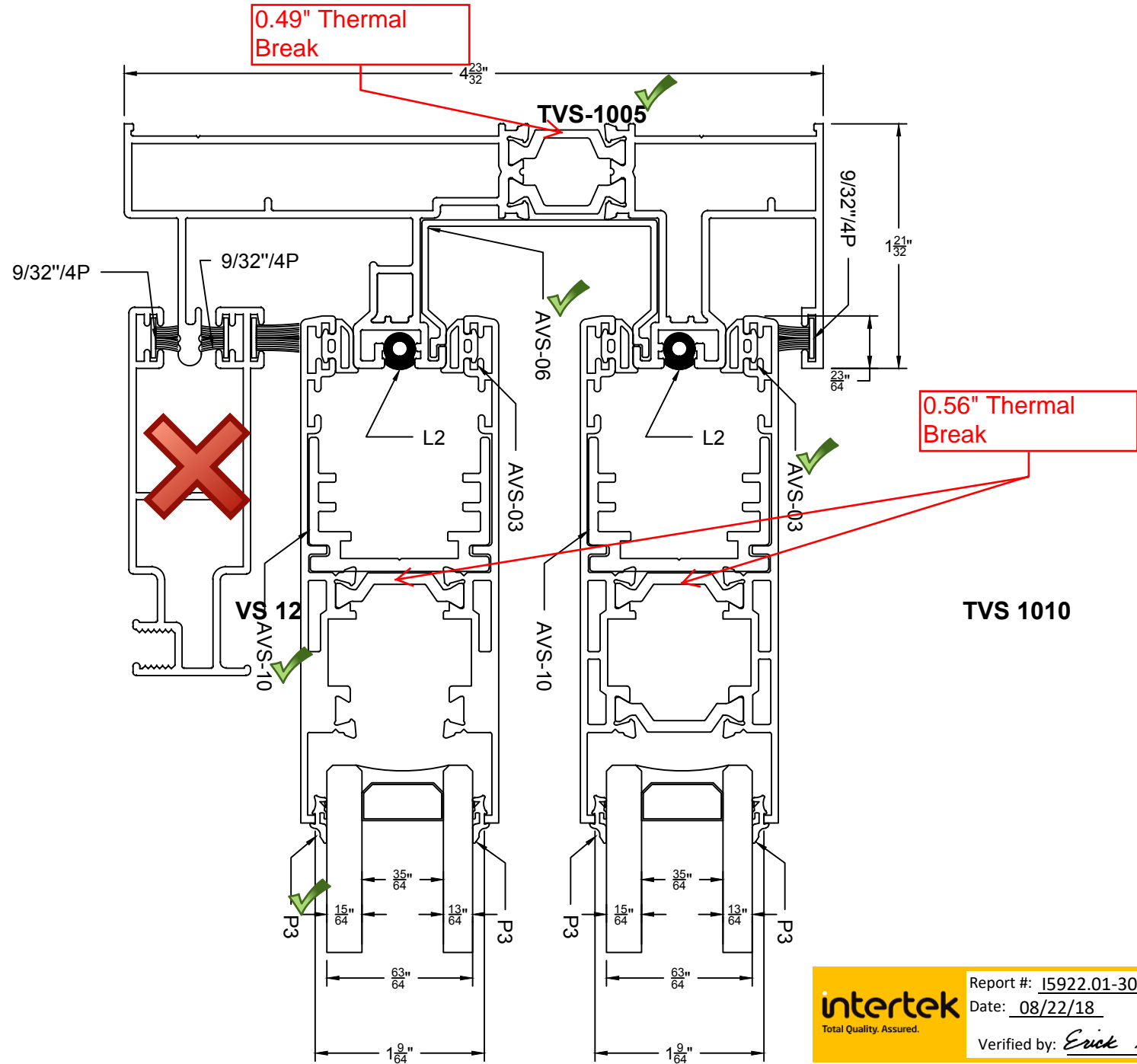
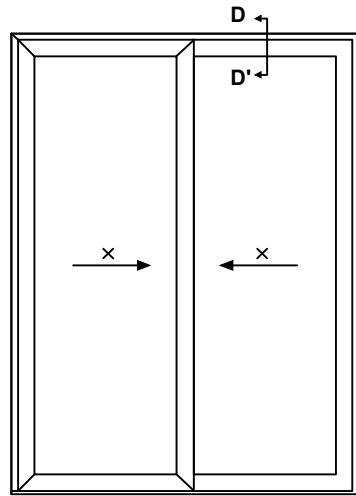
Company Name: Neon Energy

Series/Model: Sliding Glass Door with Screen

Part #	Part Description	Material	Finish
TVS 1010 ✓	-	Aluminum	Painted & Anodized
✓	Sash Thermal Break	Polyamide	-
✓	Head/Jamb Thermal Break	Polyamide	-
✓	Sill Thermal Break	Polyamide	-
AVS-06 ✓	-	Vinyl	-
TVS-1005 a ✓	-	Aluminum	Painted & Anodized
TVS-1005 b ✓	-	Aluminum	Painted & Anodized
TVS 1013 a ✓	-	Aluminum	Painted & Anodized
TVS 1013 b ✓	-	Aluminum	Painted & Anodized
TVS 1013 c ✓	-	Aluminum	Painted & Anodized
TVS 1013 d ✓	-	Aluminum	Painted & Anodized
VSP 11 ✓	-	Aluminum	Painted & Anodized
✓	Roller Track	Stainless Steel	-
VS 82 ✓	-	Aluminum	Painted & Anodized
AVS-09 ✓	-	Vinyl	-
L1 ✓	-	EPDM	-
P3 ✓	-	EPDM	-
AVS-03 ✓	-	EPDM	-
			Paint finish on test sample

VERTICAL SECTION D-D'

Scale. 1:1



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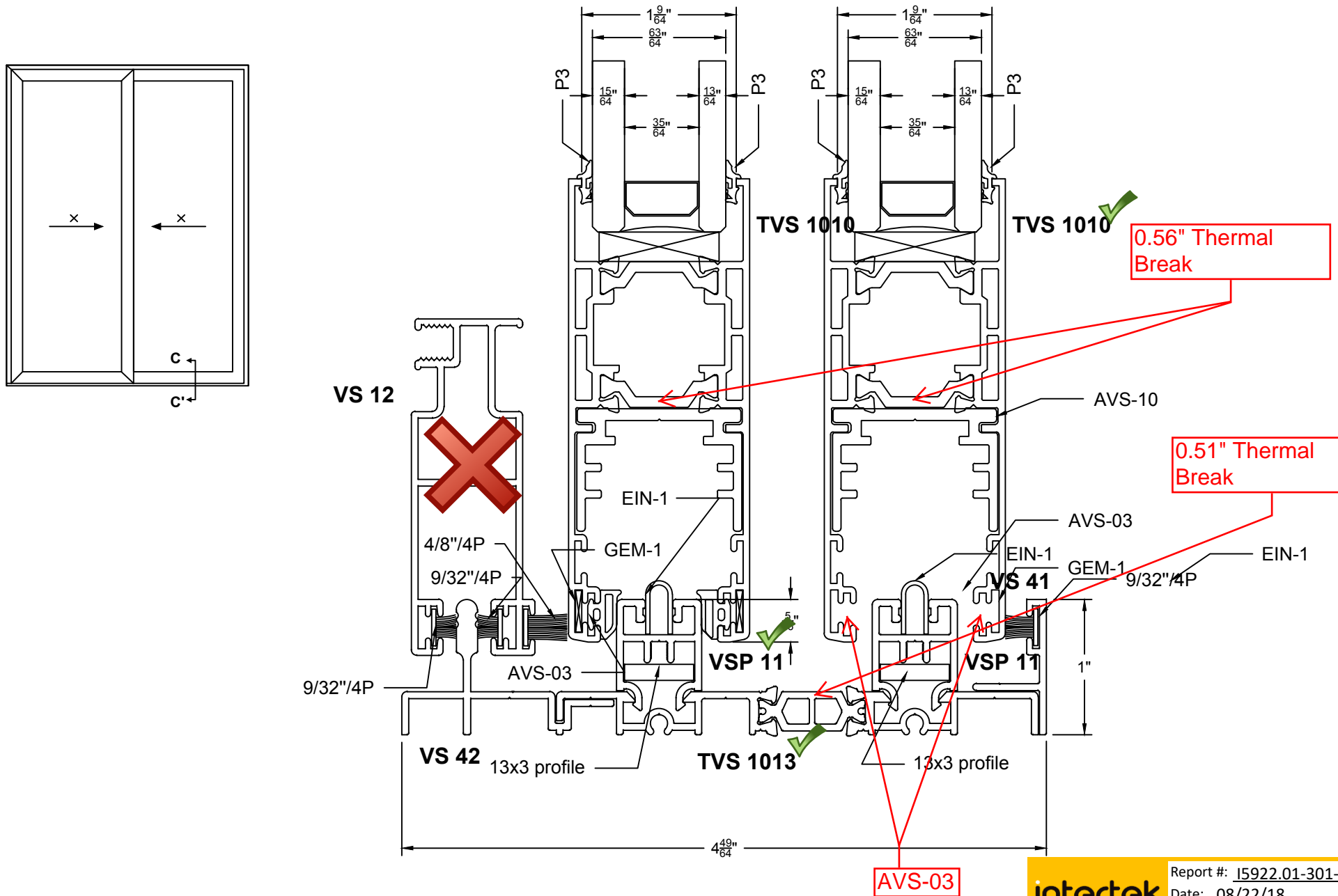
Report #: I5922.01-301-44

Date: 08/22/18

Verified by: *Erick Calhoun*

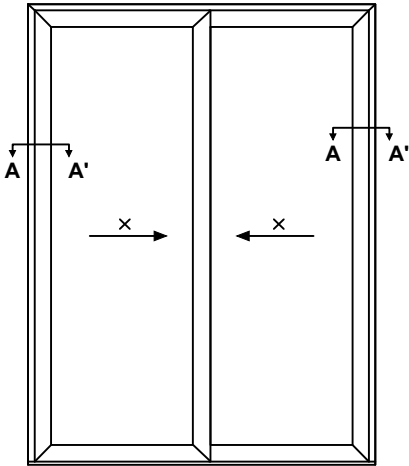
VERTICAL SECTION C-C'

Scale. 1:1



HORIZONTAL SECTION A-A'

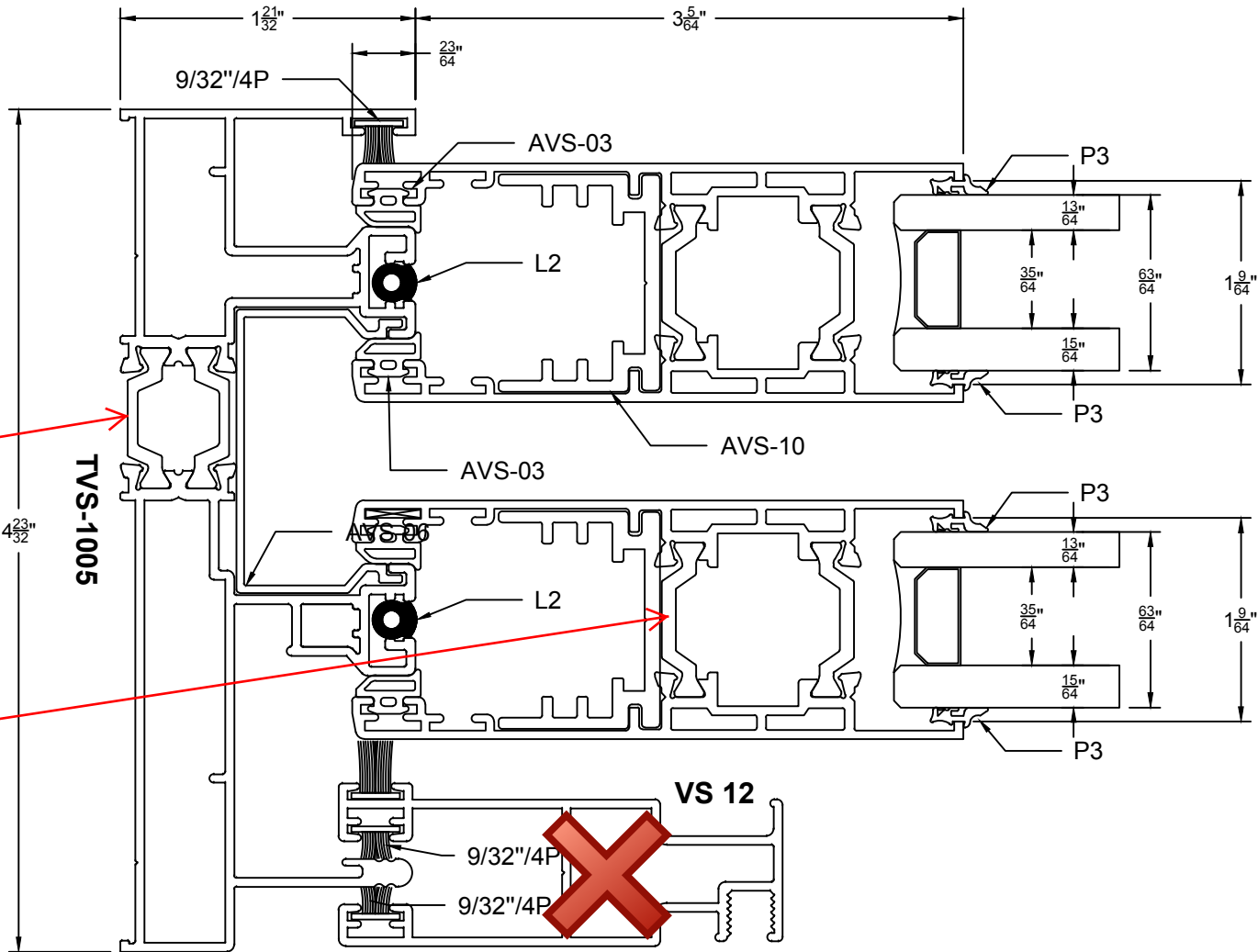
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TVS 1010

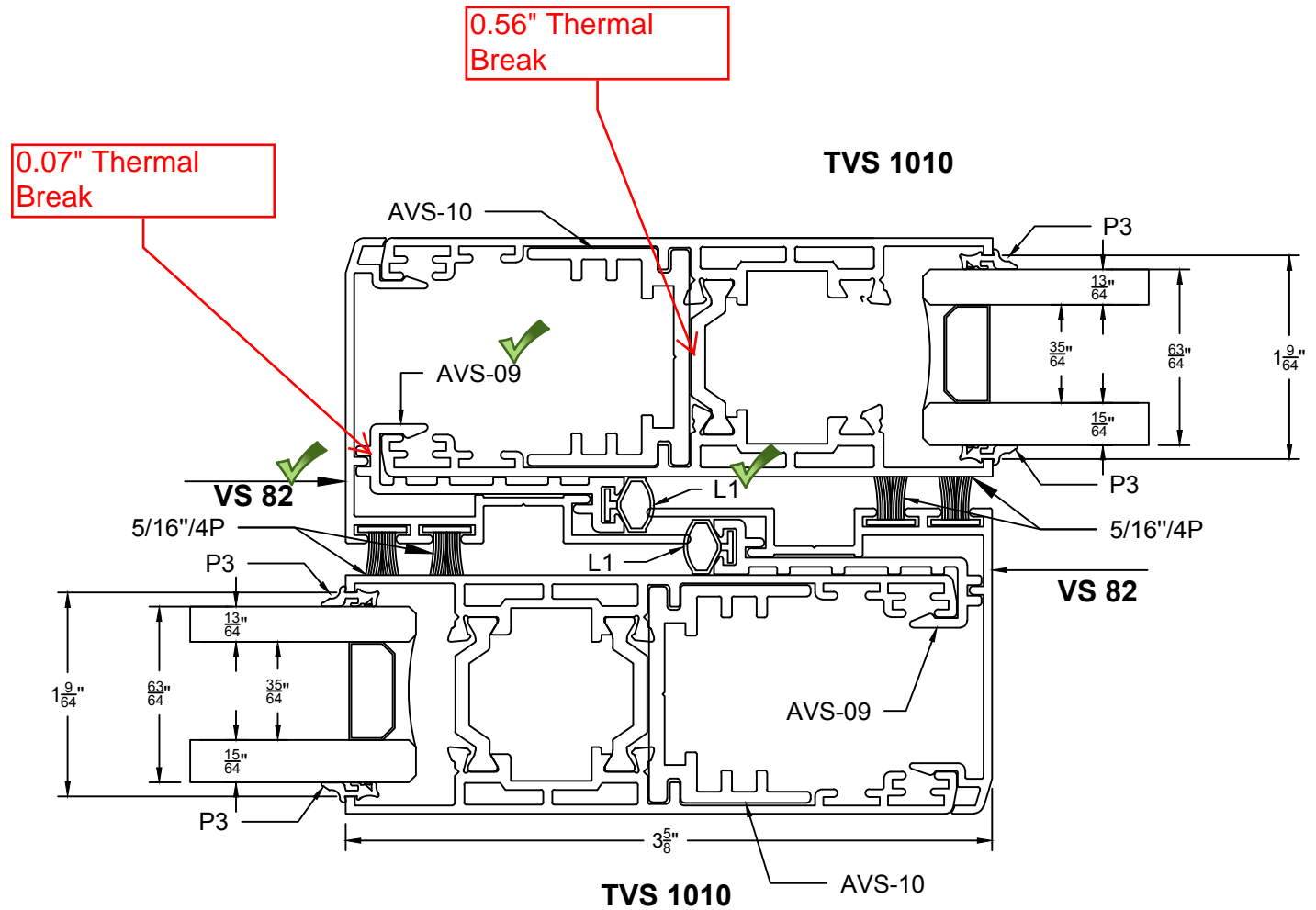
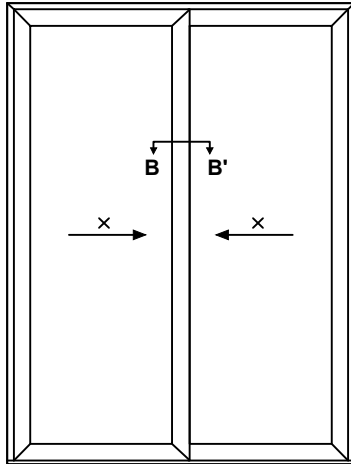
0.49" Thermal Break

0.56" Thermal Break

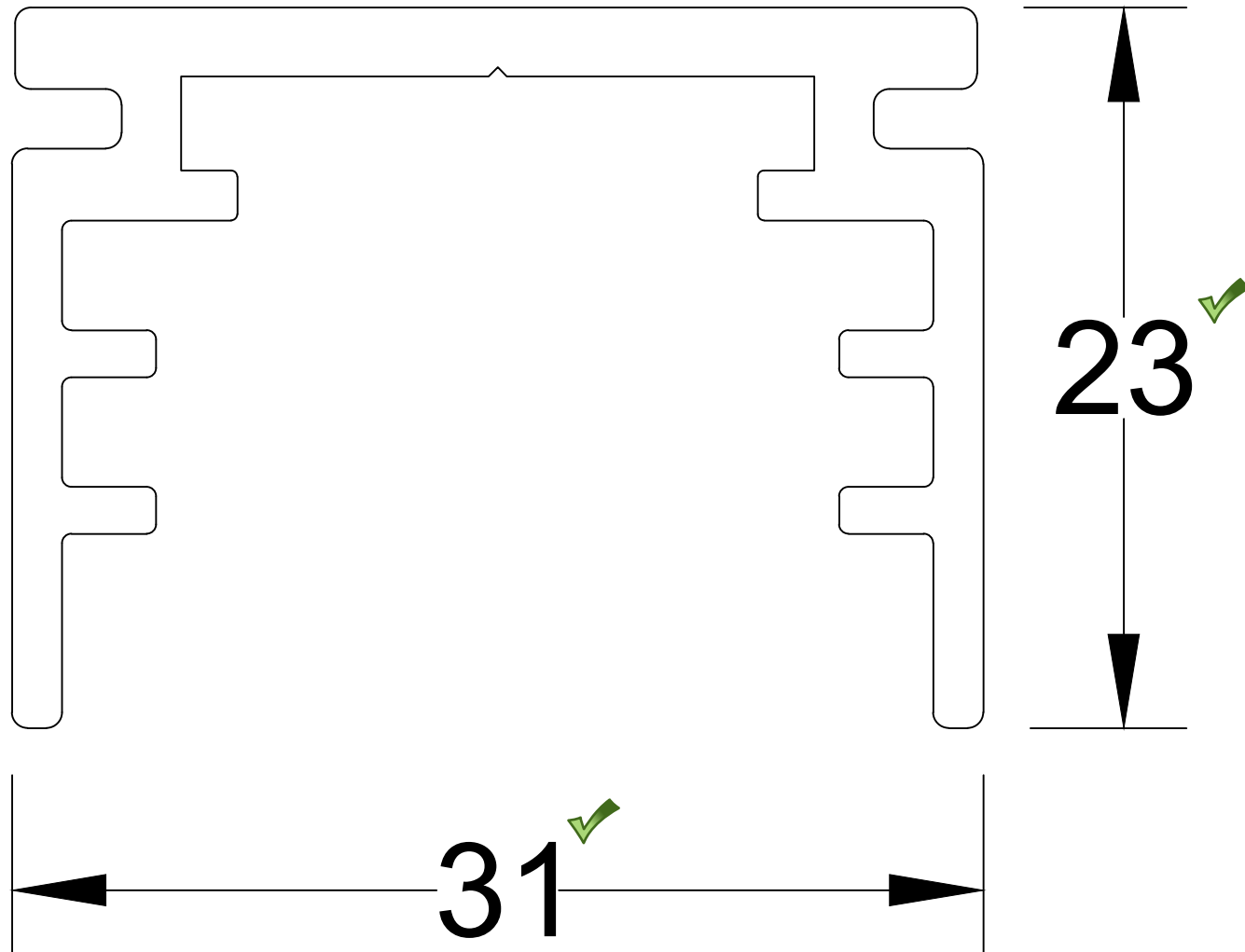


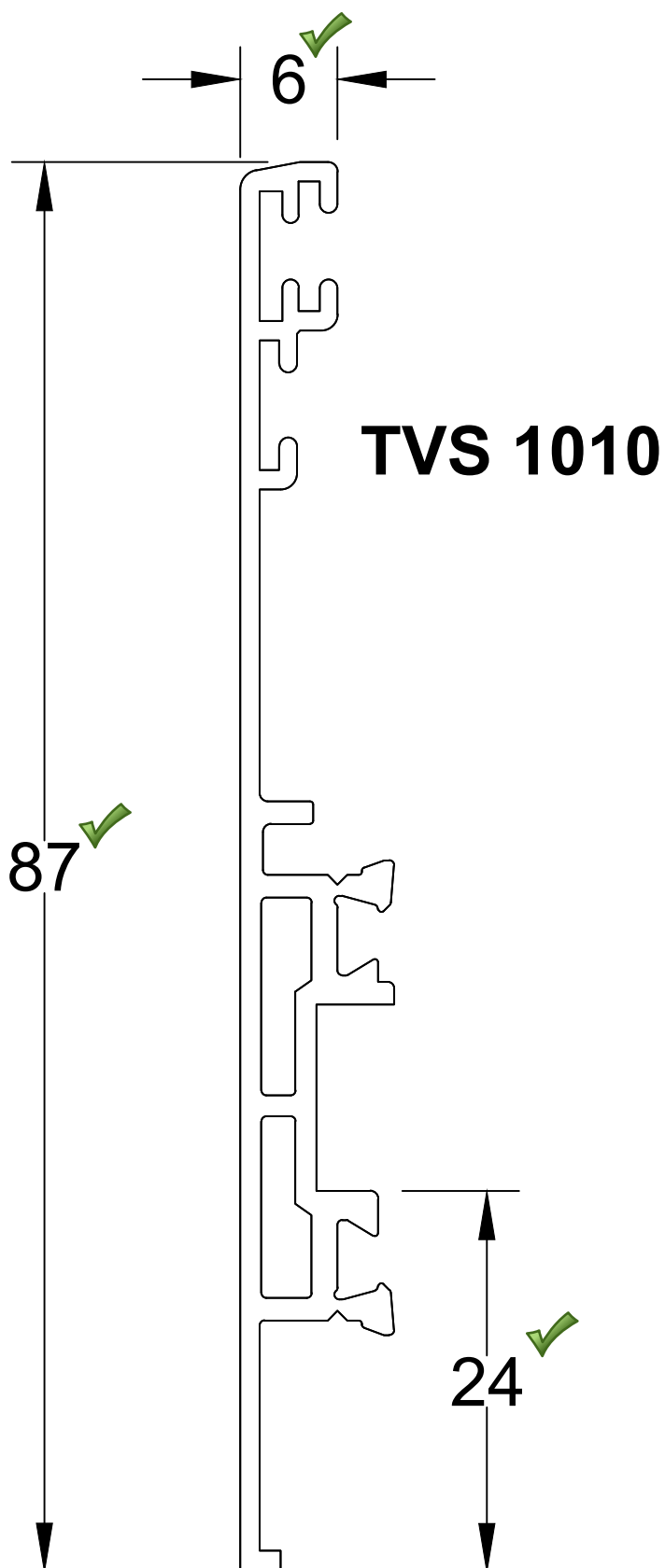
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Scale. 1:1

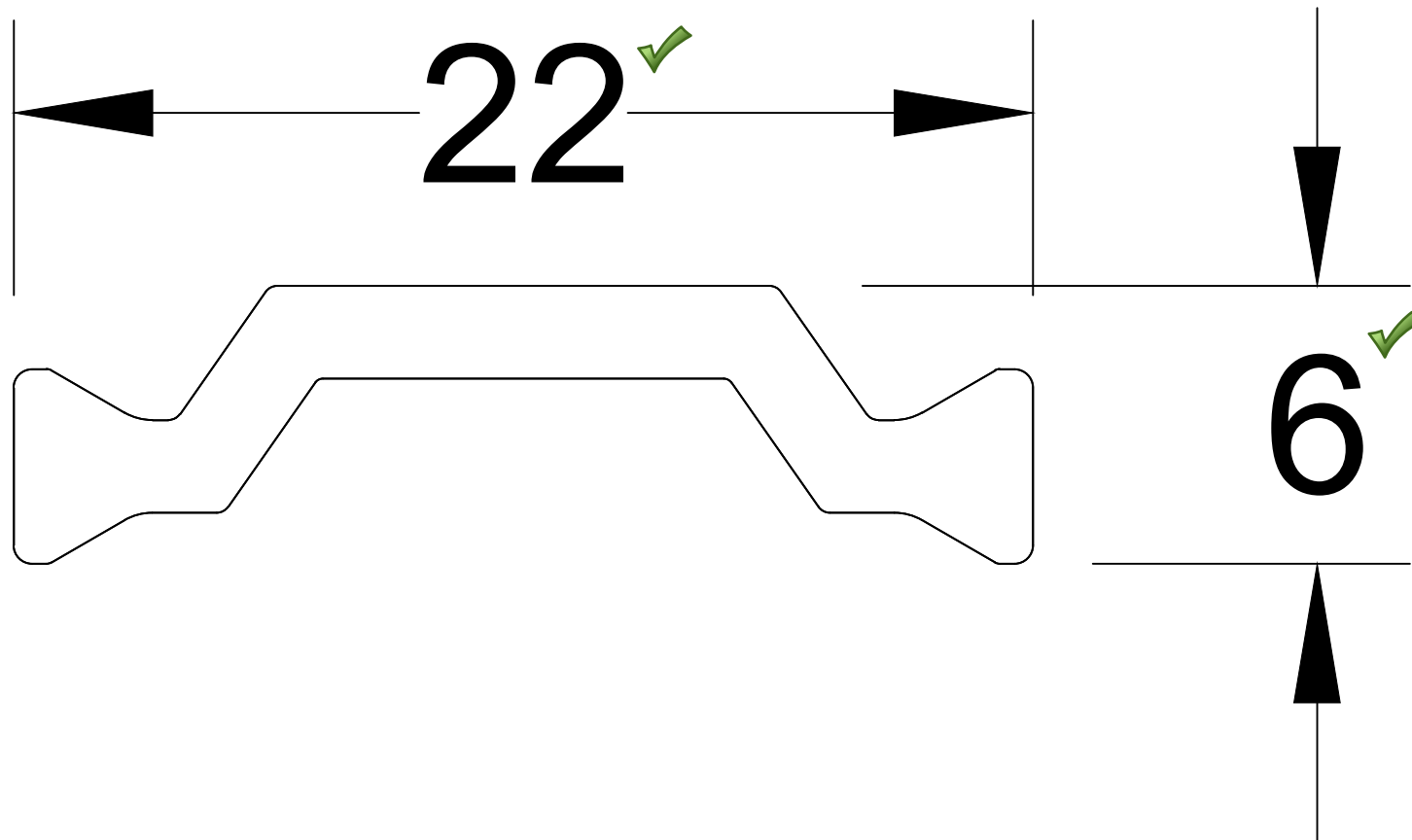


AVS-10

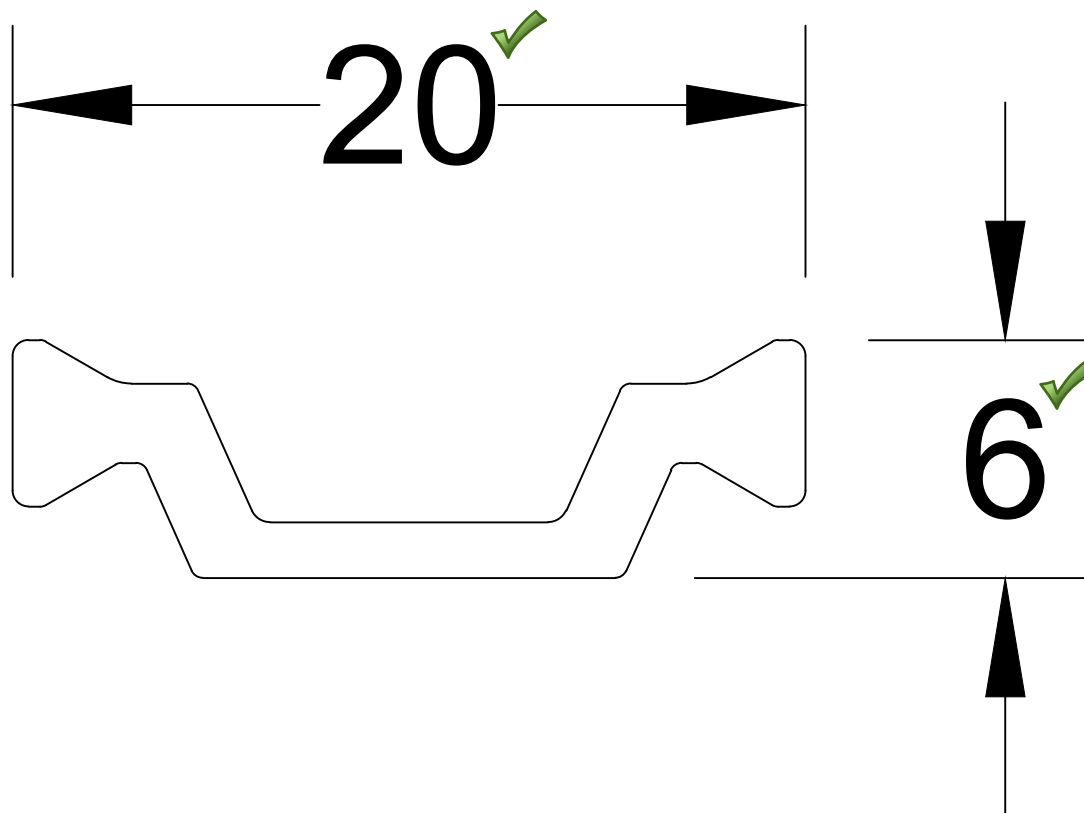




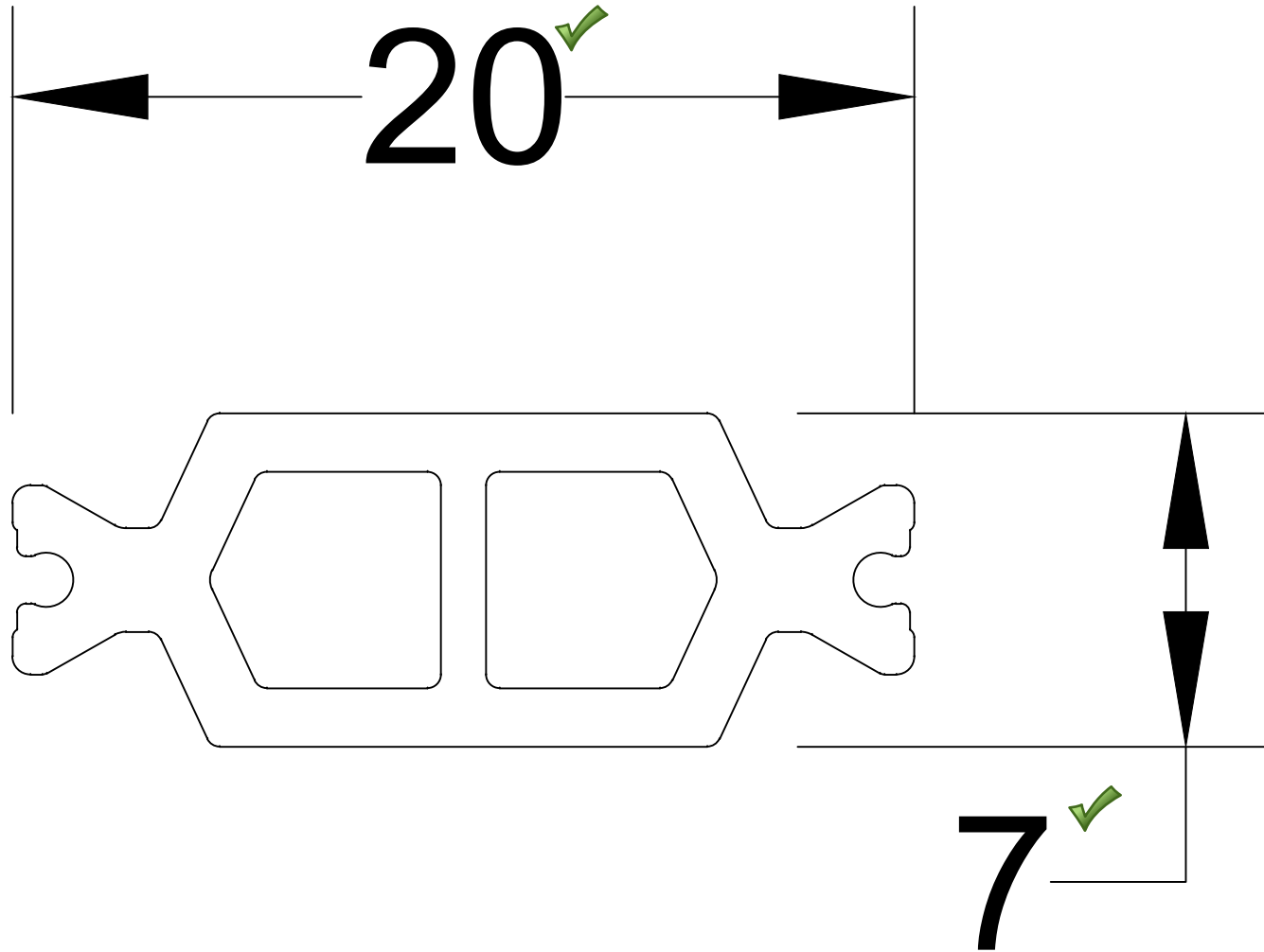
Sash Thermal Break



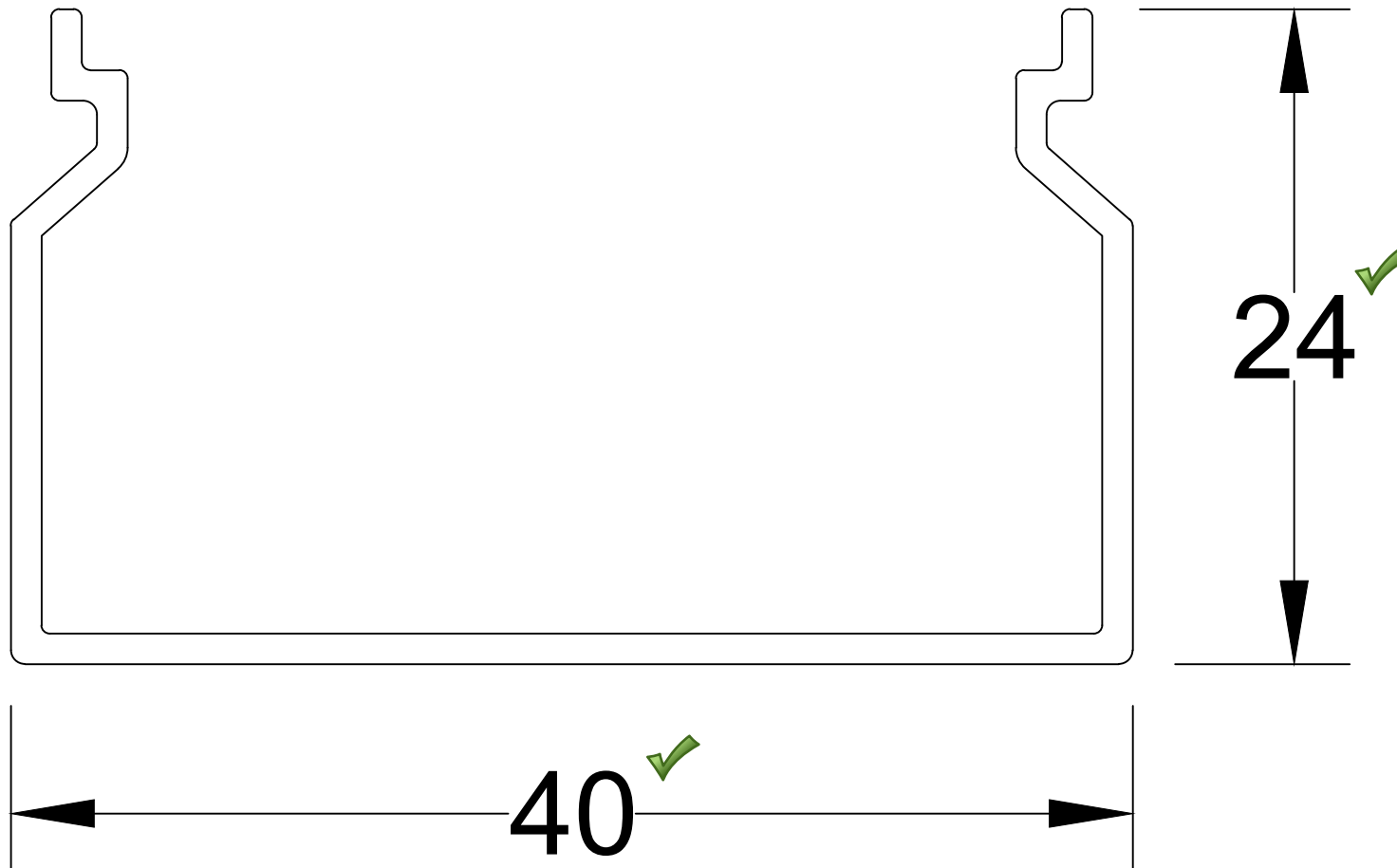
Head / Jamb Thermal Break



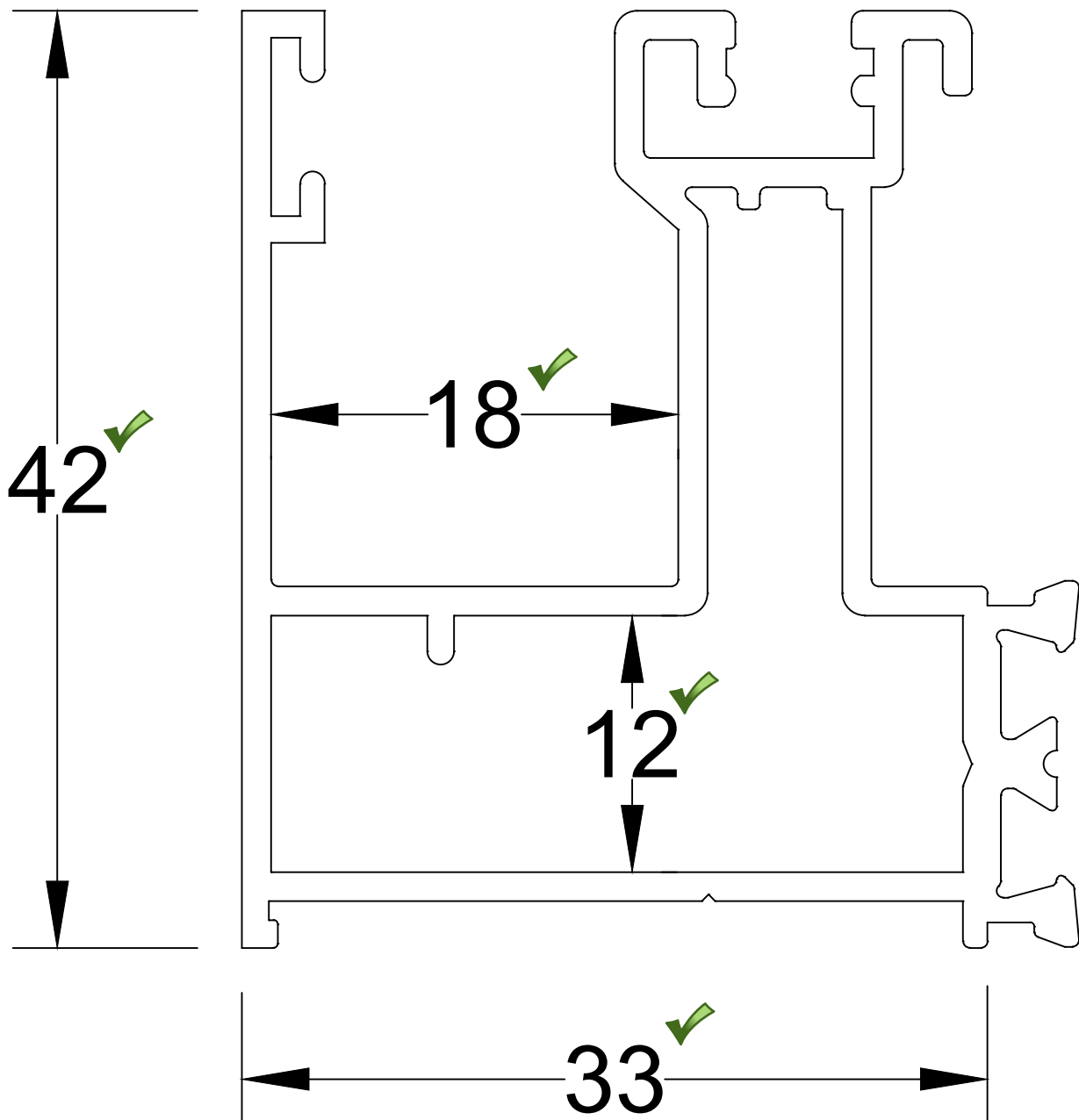
Sill Thermal Break



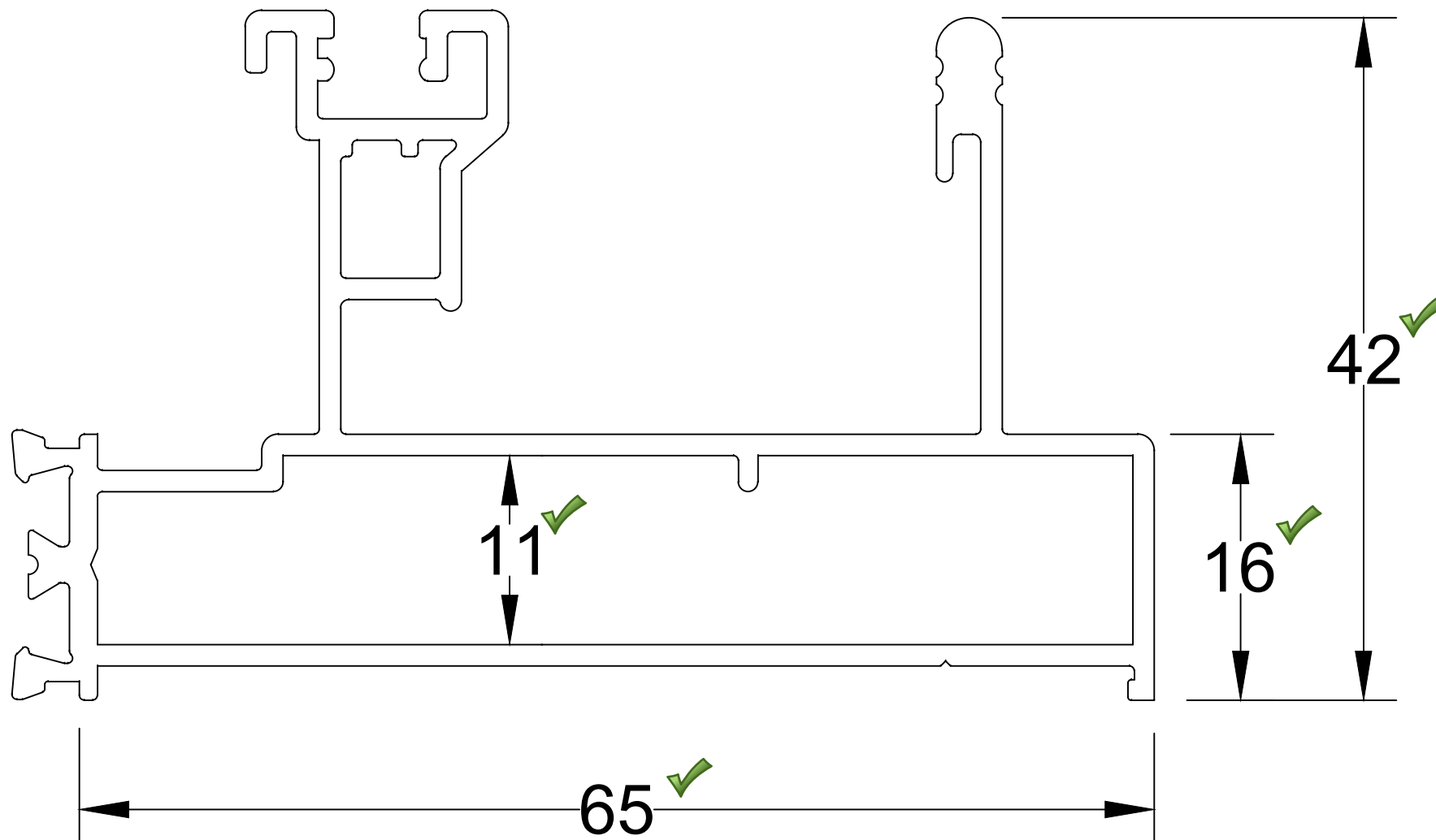
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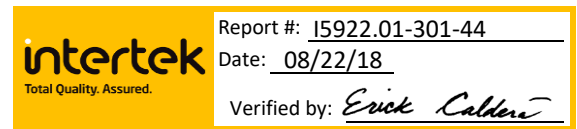
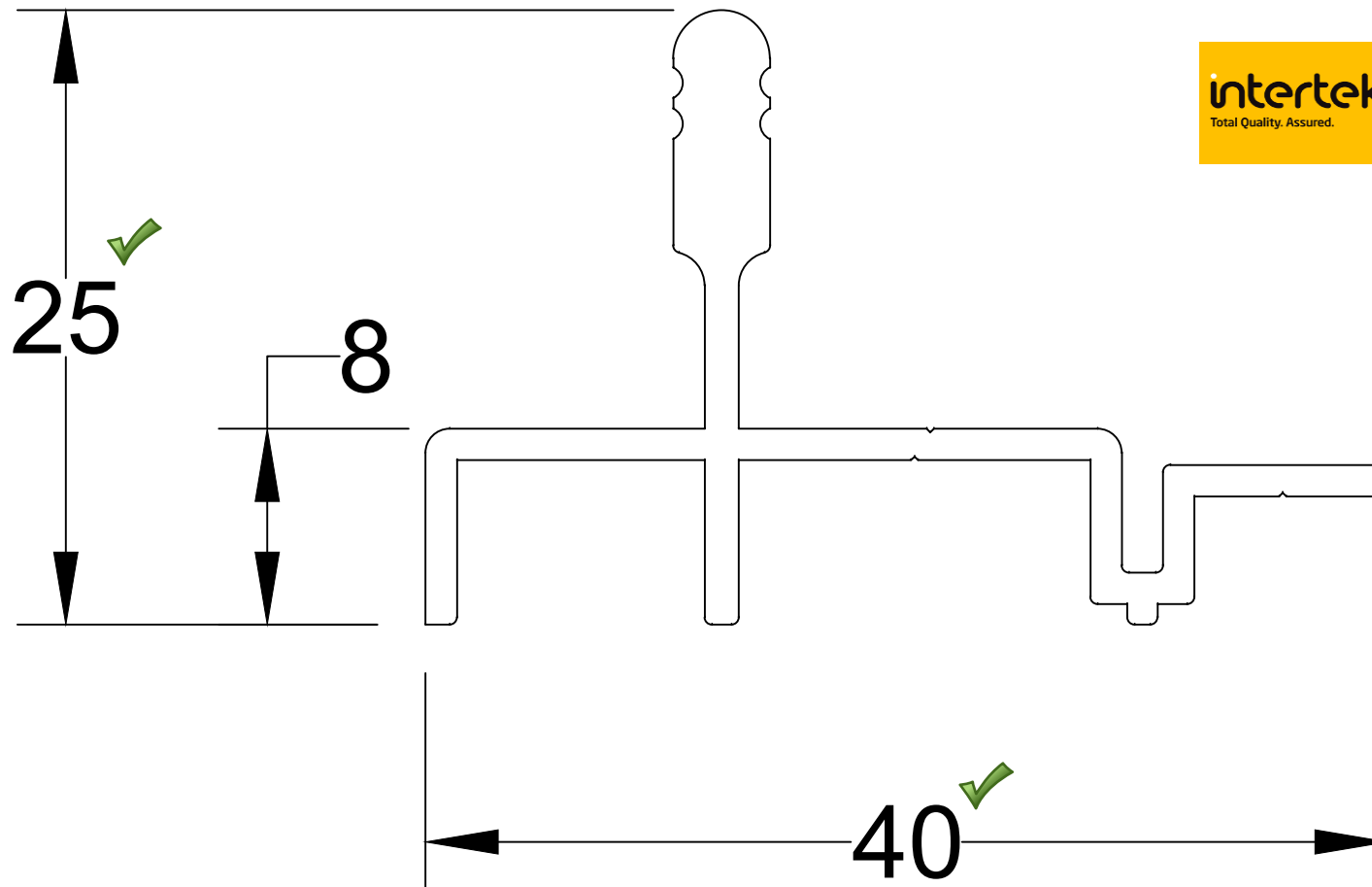
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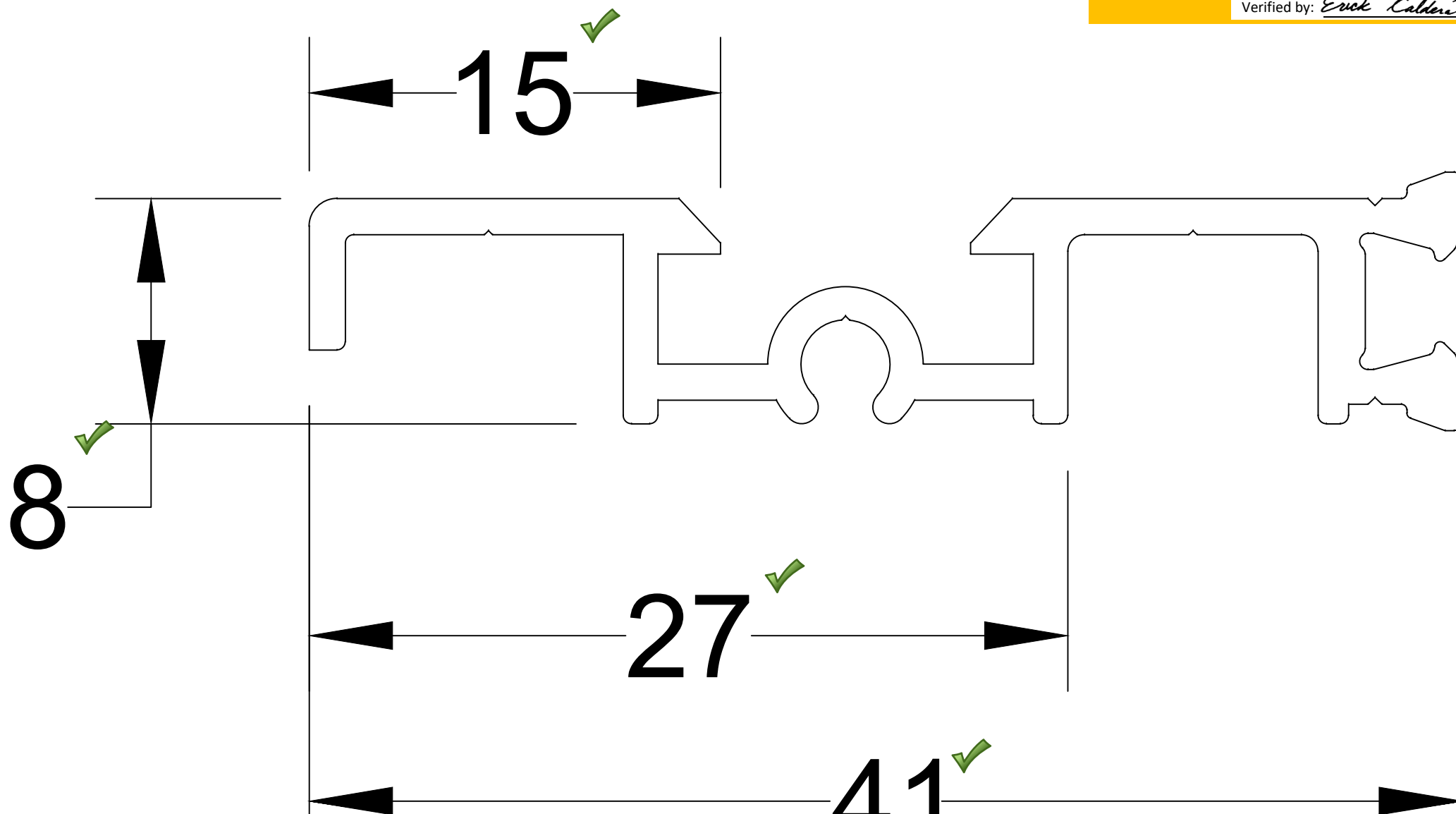
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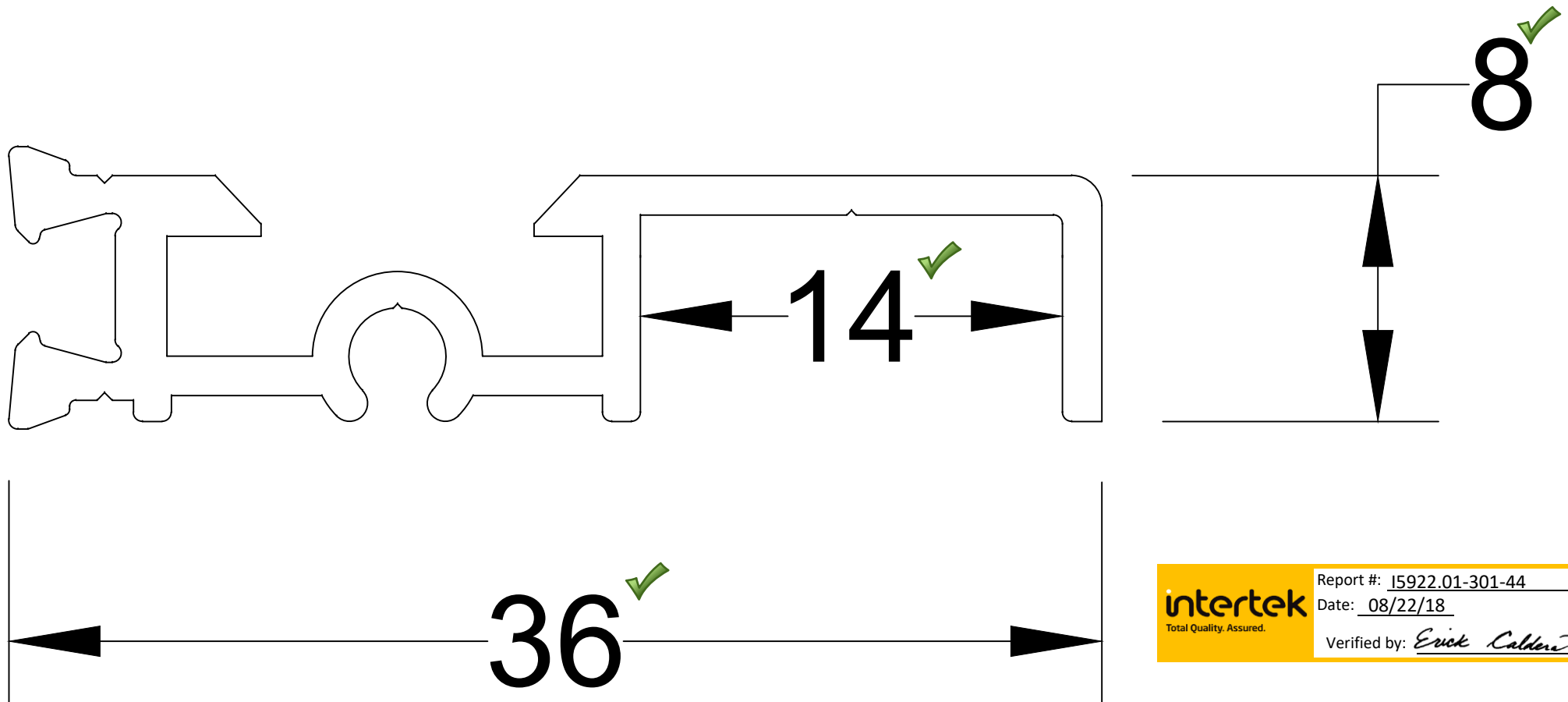
TVS 1013 a



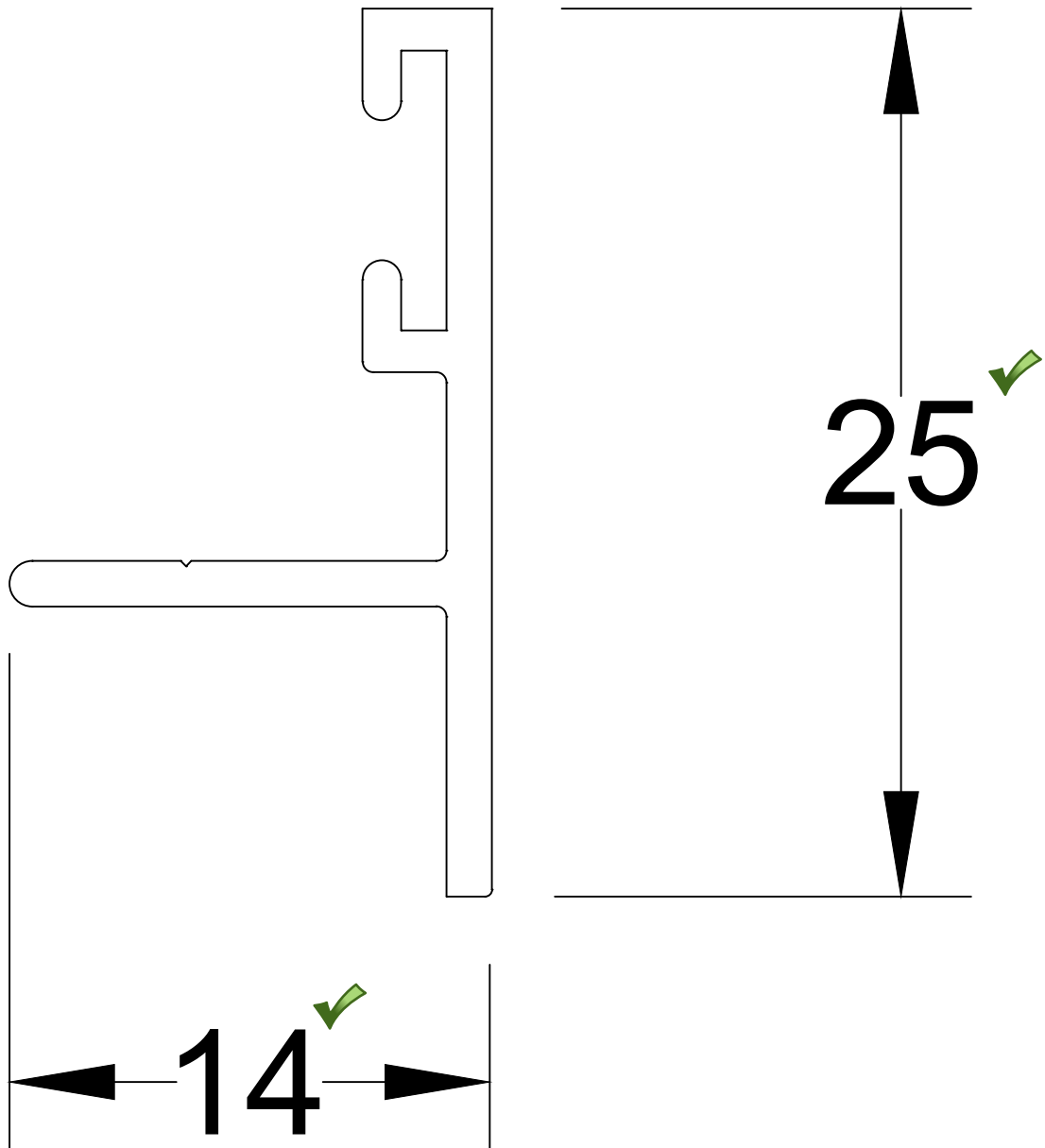
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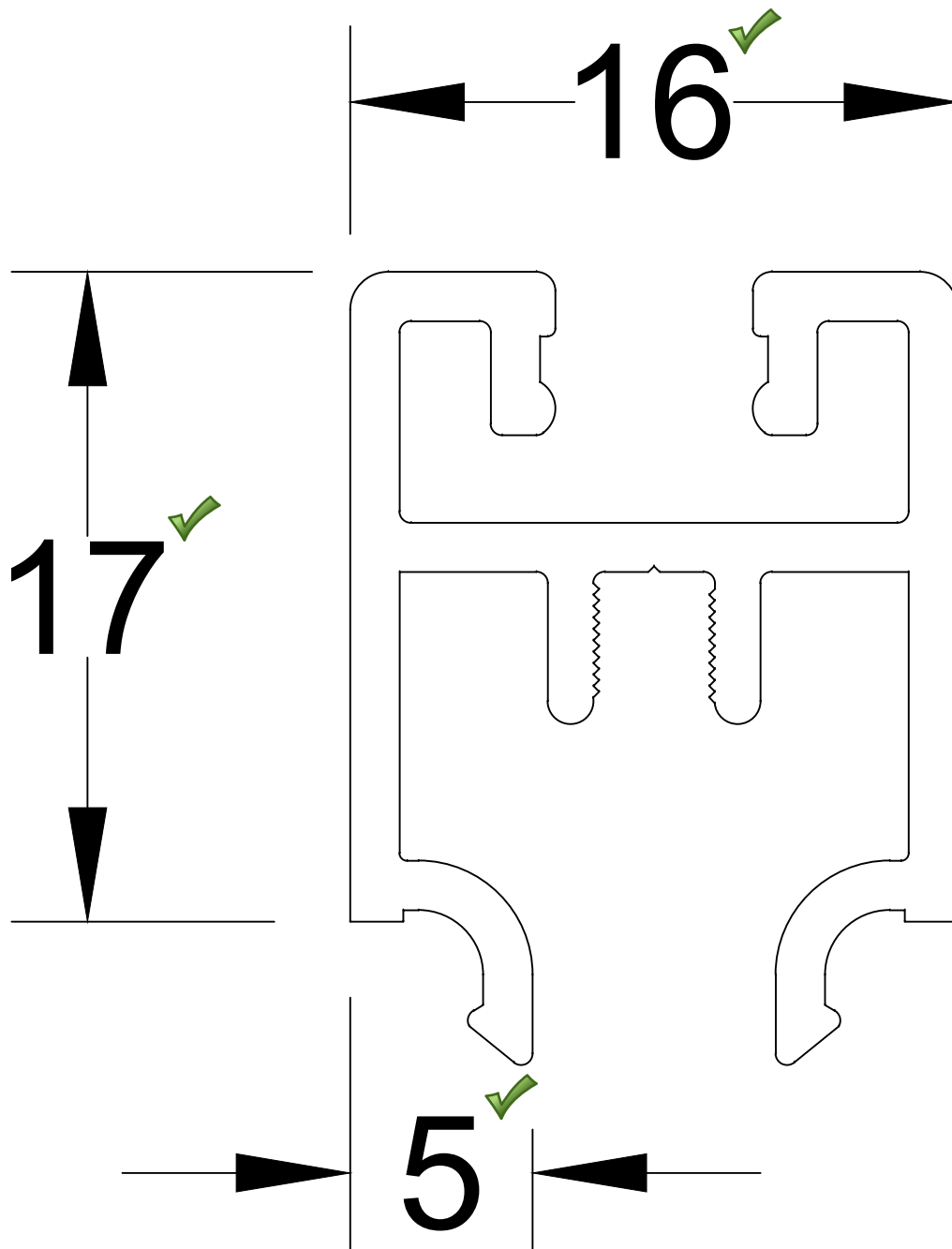


TVS 1013 c



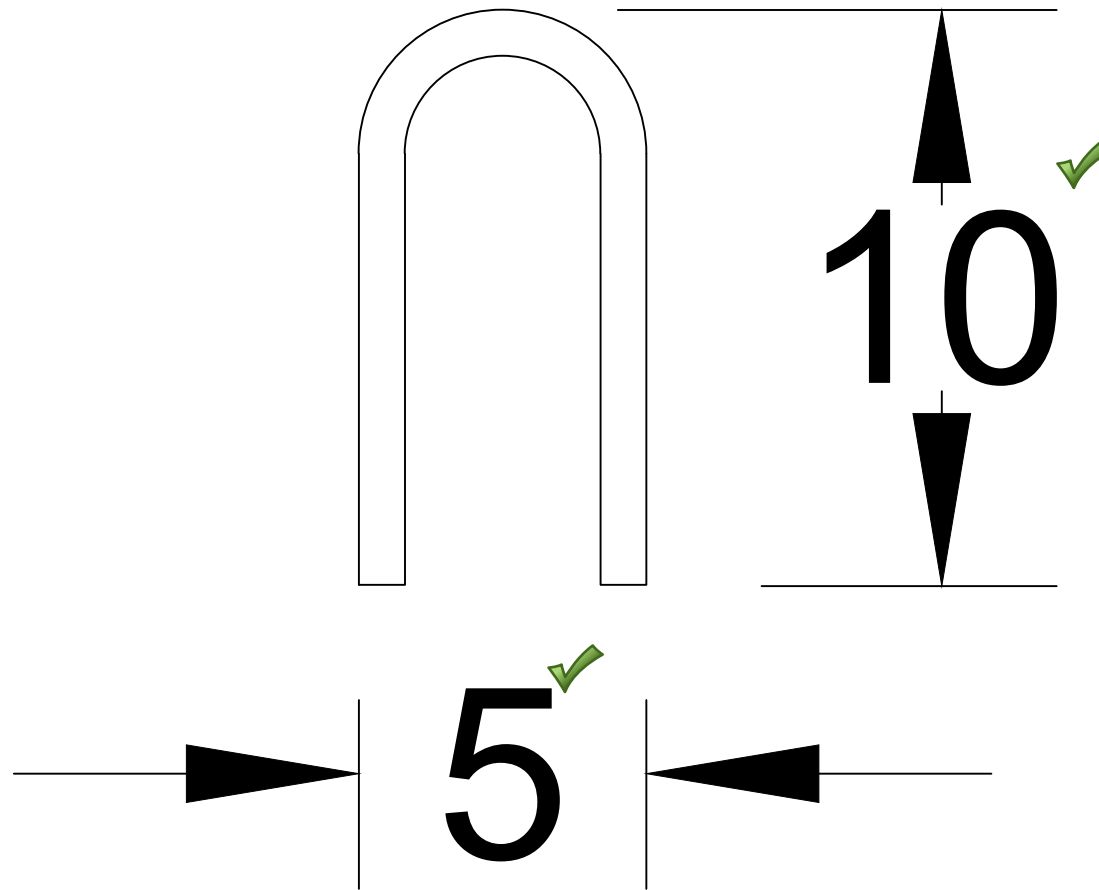
TVS 1013 d

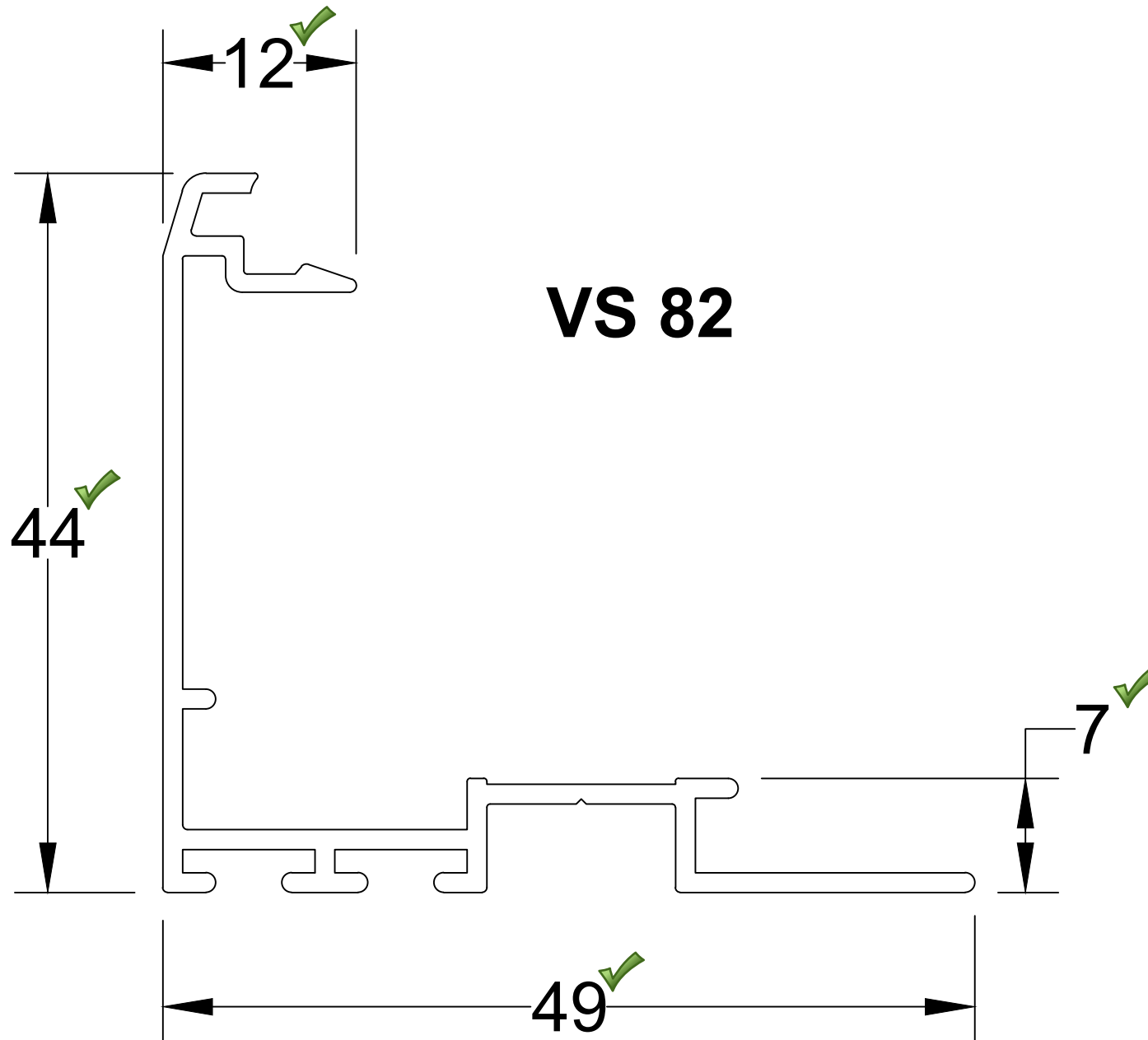




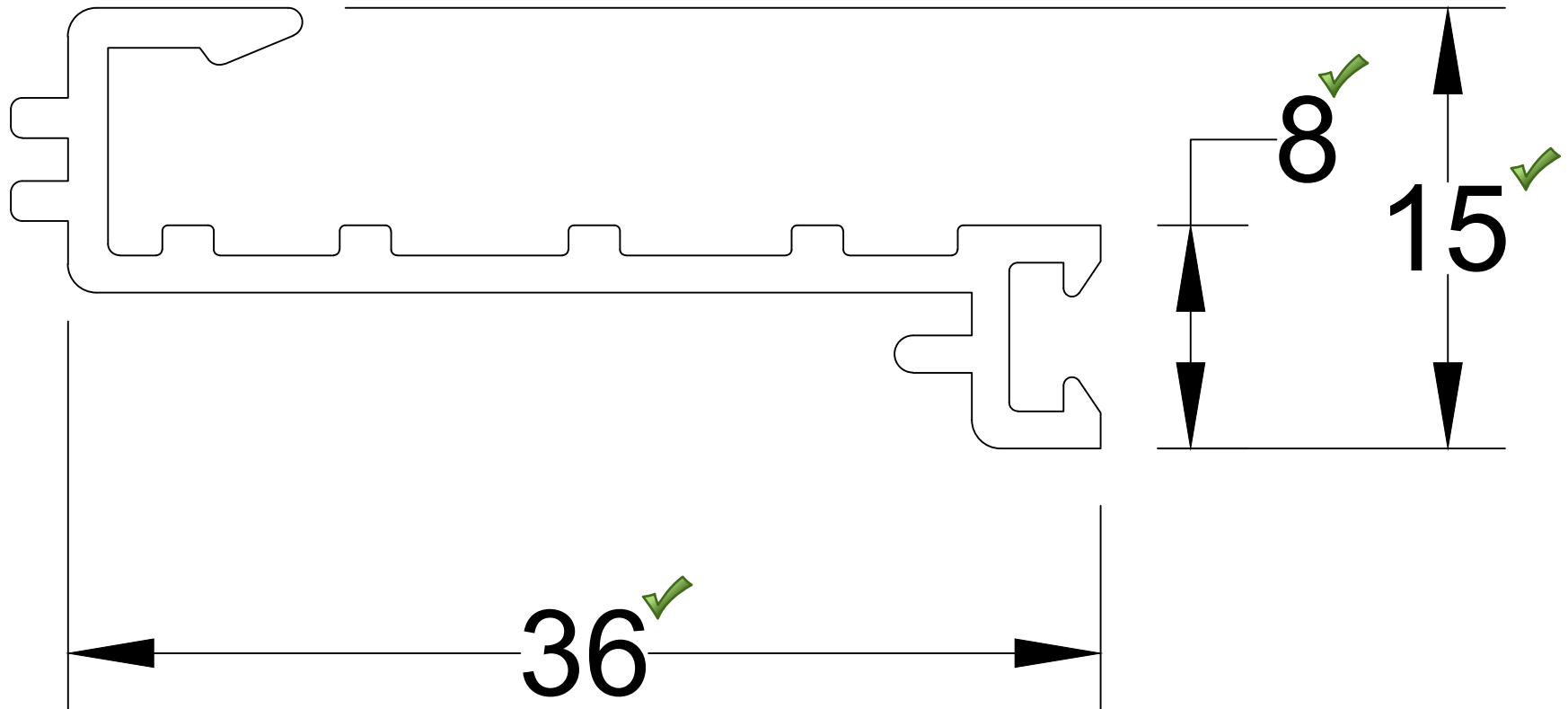
VSP 11

Roller track

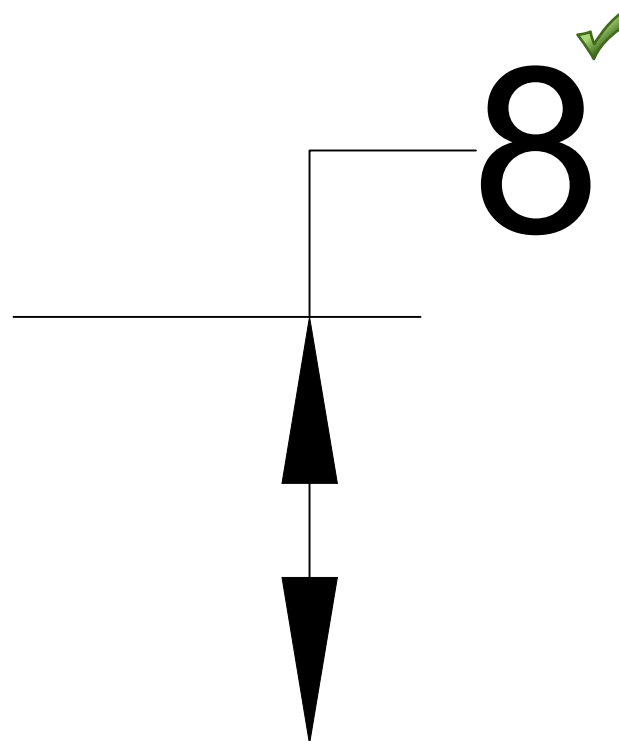
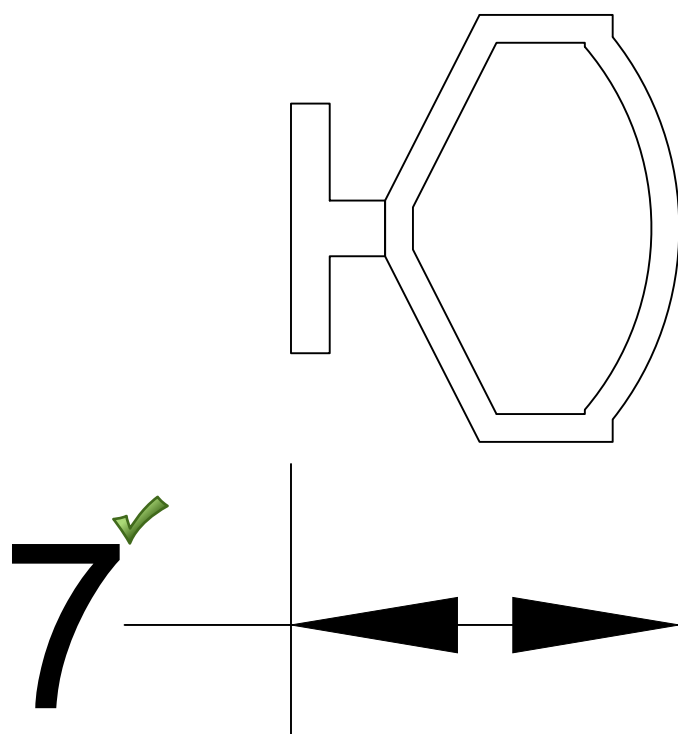


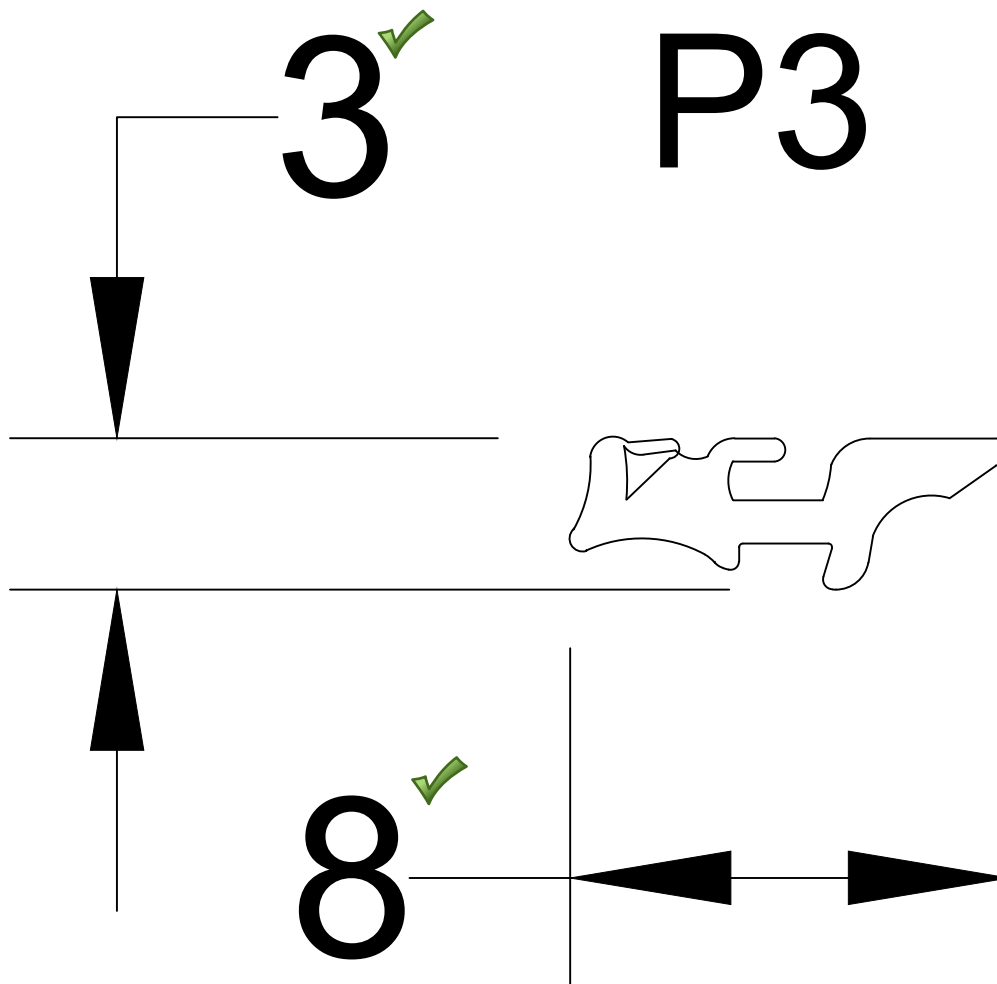


AVS-09

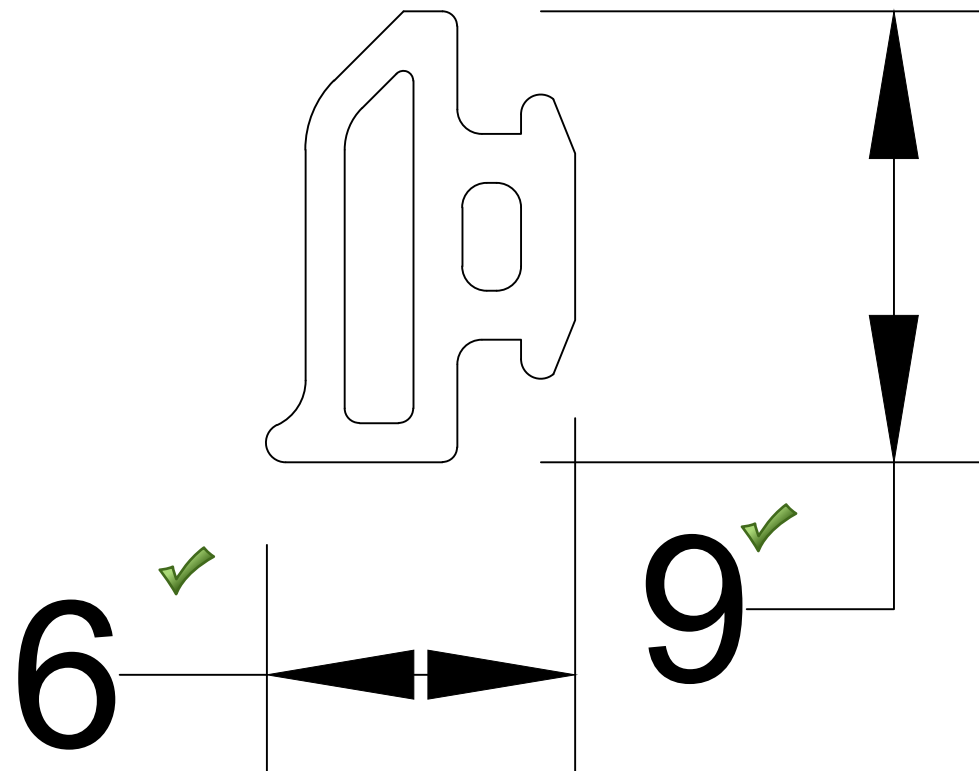


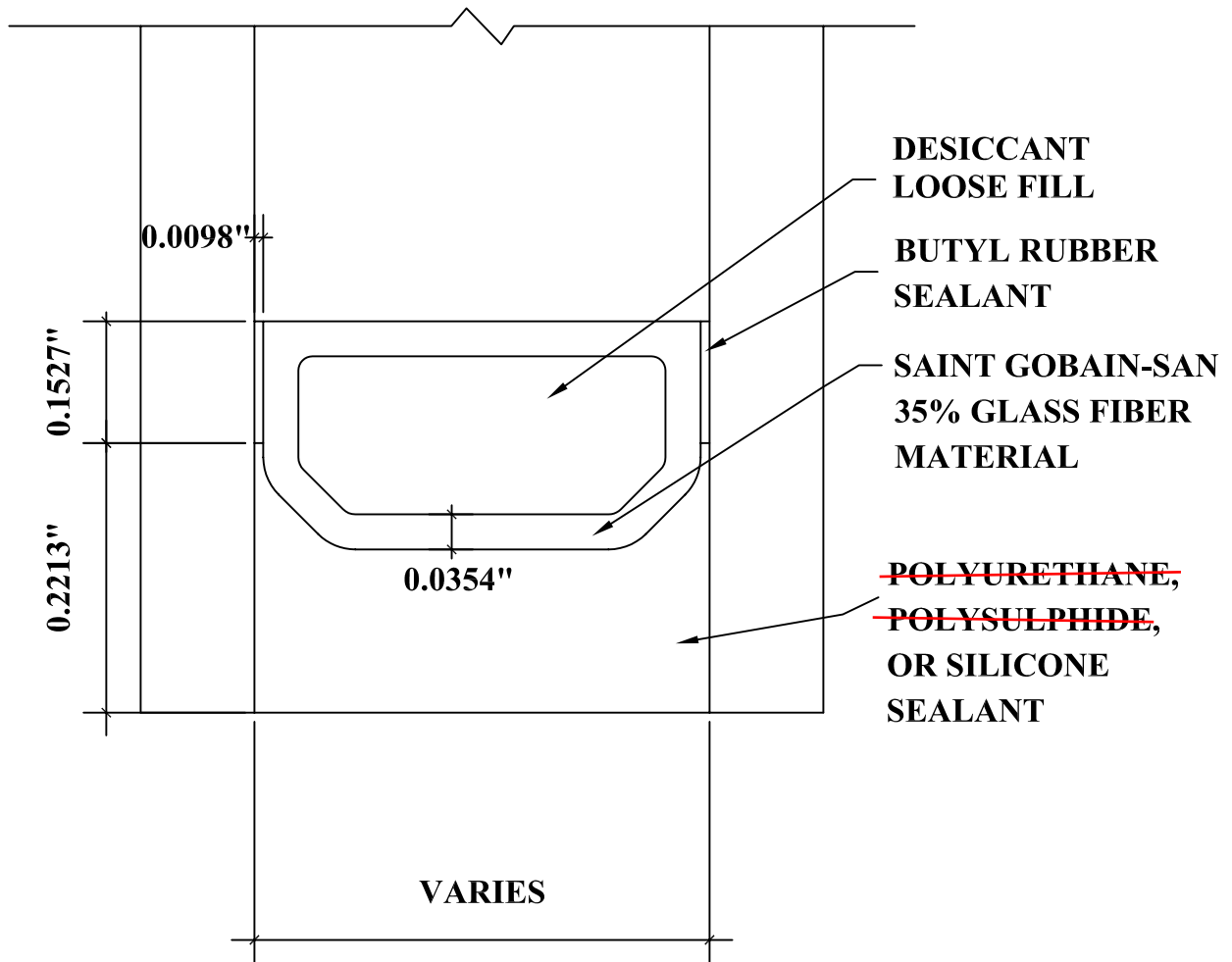
L1





AVS-03





DETAIL FOR THERMAL MODELING OF
SAINT-GOBAIN SWISSPACER (TP-D)



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SECTION 12

REVISION LOG

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