Accredited Standards Committee H35 ALUMINUM and ALUMINUM ALLOYS ANSI Accredited Standards Committee	Secretariat: The Aluminum Association, Inc. 1400 Crystal Drive, Suite 430 Arlington, VA 22202 Telephone: (703) 358-2978 e-mail: smuhamed@aluminum.org

DATE: March 19, 2024

TO: Jeremy Lin
Jeremy.Lin@boeing.com

FROM: Sam Muhamed
Manager, Standards & Technology
smuhamed@aluminum.org

SUBJECT: Re: Clarification on ANSI H35.2 Table 11.2 note9

Dear Mr. Lin,

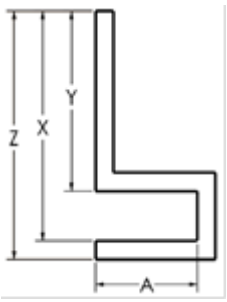
The question that you submitted was reviewed by our Technical Committee on Product Standards. Your question and our response to it are as follows:

Your Question:

I need your support on ANSI H35.2

- Q1:Table 11.2 Note⑨:

These tolerances do not apply to space dimensions such as dimensions “X” and “Z” of the example (right), even when “Y” is 75 percent or more of “X. For the tolerance applicable to dimensions “X” and “Z,” use Col. 4, 5, 6, 7, 8 or 9, dependent on distance “A.”



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My understanding is: From explanation what I marked in yellow , I think this sentence should be :These tolerances do not apply to metal dimensions such as dimensions “X” and “Z” of the example (right), even when “Y” is 75 percent or more of “X.

Does my understanding is correct?

Our Response:

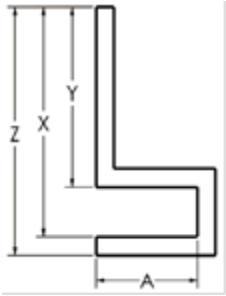

Figure 1

X and Z in Figure 1 are space dimensions. A dimension in the context of aluminum extrusion tolerances is considered a “metal dimension” if the length of the measurement is entirely across metal, or if it contains a completely enclosed void which does not occupy more than 25% of the dimension - for example, the dimensions denoted by Y in Figure 2 are metal dimension:

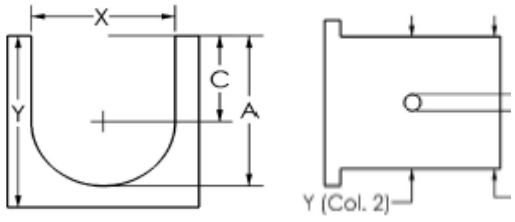

Figure 2

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A dimension across "open space", such as X and Z shown in Figure 1, even in cases where less than 25% of the dimension is a void, cannot be considered a "metal dimension; instead, it is a "space dimension", and the corresponding space dimensional tolerances apply to them depending on the distance from the base of the leg, A.

Therefore, the wording in ANSI H35.2 can be considered as correct without changes.

The following video resource provides more clarity on how metal and space dimensions are calculated in hollow profiles:

1. The Aluminum Association: https://youtu.be/8MFVrMH75RE?si=FB_HKfXiQEBOf1wp

With best regards,

Sam Muhamed

cc: TCPS Members
ASC H35 Members
Dima Atiya – Baker & Hostetler
"Response Letters to Interpretation Questions" Folder