

Structural dimension applicators

CAD-054 / REV A / 2026.09.01

Apply dimensions according to member geometry and a defined detailing convention. Work on a copy first. Record application version, units and active document/configuration. Names below identify the catalogued workflow; they do not claim a particular button layout or verified implementation.

STATUS	Recovered/Partial
CLASSIFICATION	CAD
MATERIAL	CAD / AUTOMATION
DISPOSITION	PUBLIC / RECOVERED/PARTIAL
CATEGORY	CAD / Scanning / Automation
RECORD TYPE	how-to

TECHNICAL NOTES

Apply dimensions according to member geometry and a defined detailing convention.

GOAL

Run the first test described in this guide and record the result for structural dimension applicators.

SOURCE STATE

Operational reference/specification; original rule or add-in source not inspected

PREPARATION / NOTES

Work on a copy first. Record application version, units and active document/configuration. Names below identify the catalogued workflow; they do not claim a particular button layout or verified implementation.

EQUIPMENT

- CAD / automation tool
- Representative test model
- Measurement or inspection method

METHOD / STEPS

1. Identify the section type and the drawing view's orientation.
2. Select functional datums and dimension overall length, cuts and relevant hole locations from those references.
3. Use the approved convention for miters, copes and sloped ends, avoiding redundant closed dimension chains.
4. Review extension-line attachment and legibility after a model change.

THINGS TO WATCH FOR

A projected view length may not be the true member length. Automatically selecting the longest visible edge can misidentify a coped or mitered part.

FIRST TEST / WHAT TO RECORD

Dimensions stay attached to the intended features and describe the actual manufactured member.

RESULT / WHERE THIS STANDS

Dimensions stay attached to the intended features and describe the actual manufactured member.

TROUBLESHOOTING

- A projected view length may not be the true member length. Automatically selecting the longest visible edge can misidentify a coped or mitered part.

SAFETY / LIMITATIONS

- Use qualified judgment and current manufacturer or code guidance for safety-critical work.

SPECIFICATION

TOOL PATH	CAD / automation tool
DELIVERABLE	HOW-TO
VALIDATION	Representative model / known dimension
STATUS	Recovered/Partial

DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

REFERENCE NOTES

SOLIDWORKS API reference

(<https://help.solidworks.com/2025/English/api/sldworksapiproguide/Welcome.htm>).

HOW-TO SOURCES

SOLIDWORKS API reference

<https://help.solidworks.com/2025/English/api/sldworksapiproguide/Welcome.htm>

RELEASED MATERIAL / SOURCE LINKS

cad-054-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/cad-054-public-summary.txt>

RETURN TO THE LIVING RECORD

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This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/CAD-054>