

UNC and UNF tap-test block generator

CAD-014 / REV A / 2026.09.01

Keep inch-thread designation, threads per inch and pilot size distinct throughout the generator.

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

GOAL

Run the first test described in this guide and record the result for unc and unf tap-test block generator.

SOURCE STATE

New reference guidance; not a recovered test result

EQUIPMENT

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

METHOD / STEPS

1. Store rows such as nominal designation, TPI, series, pilot diameter and depth. Keep any numbered screw designation as text, not a decimal-inch assumption.
2. Convert units once at the CAD boundary; if using millimeters, one inch equals 25.4 mm exactly.
3. Use the intended tap manufacturer's drill chart and verify the thread series before creating geometry.
4. Add clear labels such as 1/4-20 UNC and 1/4-28 UNF, export and compare the model to the source table.

THINGS TO WATCH FOR

UNC and UNF are not interchangeable. A fractional label parsed incorrectly can silently generate a wrong hole. Printed fit coupons are not certified GO/NO-GO gauges.

FIRST TEST / WHAT TO RECORD

Known reference dimensions and all labels survive export at the correct scale.

RESULT / WHERE THIS STANDS

Known reference dimensions and all labels survive export at the correct scale.

TROUBLESHOOTING

- UNC and UNF are not interchangeable. A fractional label parsed incorrectly can silently generate a wrong hole. Printed fit coupons are not certified GO/NO-GO gauges.

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

FreeCAD reference (https://wiki.freecad.org/PartDesign_Hole).

HOW-TO SOURCES

FreeCAD reference

https://wiki.freecad.org/PartDesign_Hole

RELEASED MATERIAL / SOURCE LINKS

cad-014-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/cad-014-public-summary.txt>

RETURN TO THE LIVING RECORD

UNC and UNF tap-test block generator

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

<https://u225x.com/record/CAD-014>