



Precasterz

HollowCoreSlab Plugin **for AutoCAD 2021 — 2024**

Section Library · Live Placement · Openings · Core-Fill Templates · Shop Drawings · BOQ Export

GROUP SPECIALIST ENGINEERS

www.precasterz.com | contact@precasterz.com | (+974) 5568-0307

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ABOUT HOLLOWCORESLAB



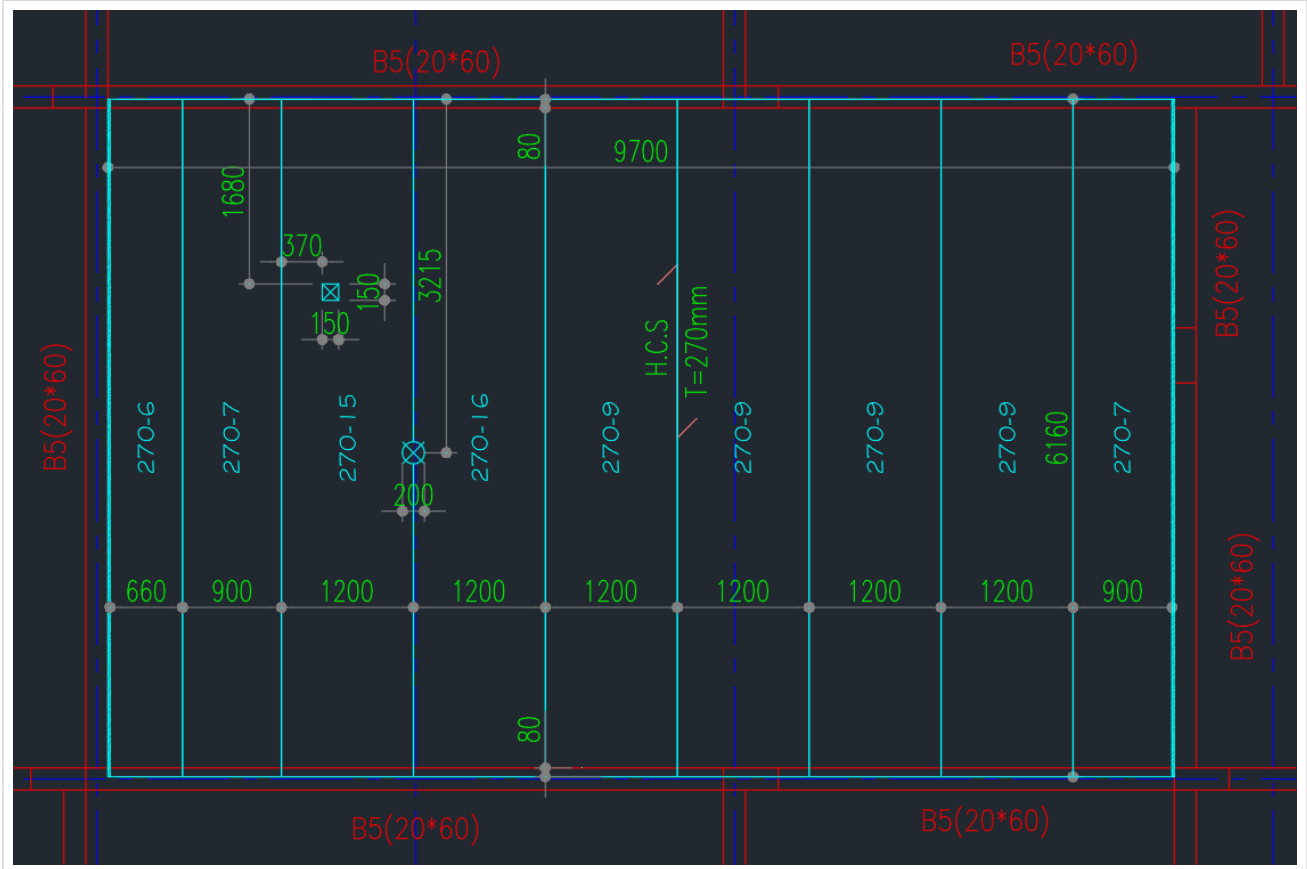
HollowCoreSlab is the in-house precast hollow-core slab plugin developed by Precasterz, a team of dedicated Group Specialist Engineers founded in 2024. We deliver innovative, efficient, and sustainable precast concrete solutions for the construction industry — combining deep structural engineering expertise with advanced software tools to produce precise, fabrication-ready deliverables at every stage of a project.

The plugin replaces manual hollow-core slab drafting with parametric, repeatable placement: pick a section, drag a rectangle, and the plugin places full pieces, cut pieces, CIS infill strips, openings, core-fills, and element tags according to your factory rules — then exports the same data to detail sheets and BOQ XLSX in a single click.

PRECISION	SPEED	CONSISTENCY	AUTOMATION
Every piece, dimension, and tag generated to factory tolerance.	A 20-minute layout placed in 30 seconds, BOQ inclusive.	Tags, BOQ, and detail sheets share one source of truth.	One command from layout to fabrication-ready shop drawings.

PLUGIN OVERVIEW

HollowCoreSlab is a .NET plugin loadable into AutoCAD 2021, 2022, 2023, and 2024. It runs on the engineer's normal AutoCAD install — no external server, no browser, no separate licence manager. The image below shows real plugin output: nine pieces, two openings, CIS strips, dimensions, and element tags, all committed in a single command.



Real AutoCAD output — one HOLLOWCORESLAB command, nine pieces, two openings, CIS infill, tags and dimensions.

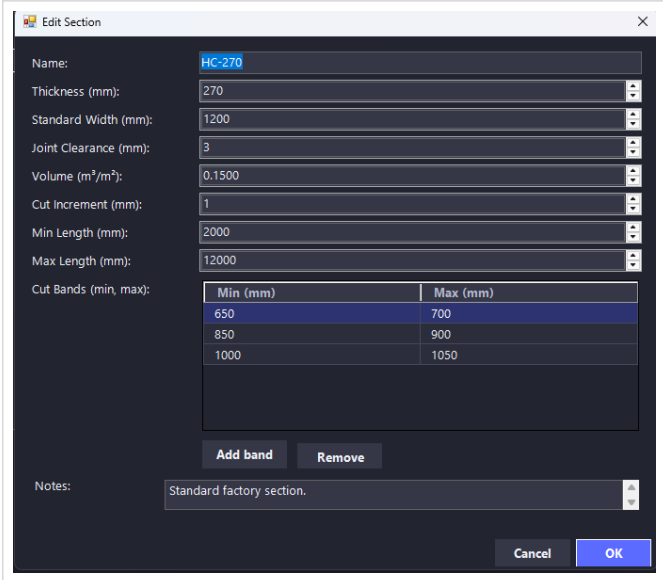
30 sec
placement time
 per layout, fully dimensioned

1 click
BOQ + detail sheet
 exported to XLSX and DWG

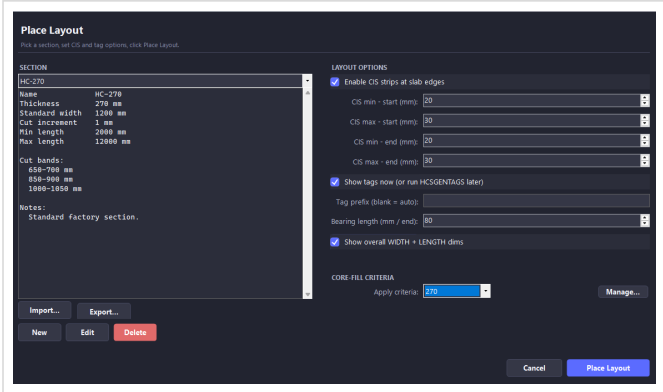
4 versions
AutoCAD support
 2021, 2022, 2023, 2024

SECTION LIBRARY & PLACE LAYOUT

Every section your factory casts lives in a JSON-backed library shared across drafters: thickness, standard width, joint clearance, cut bands, increments, and length range. The Place Layout dialog reads from that library and turns its rules into a feasibility-checked layout in seconds.



Edit Section — bands, lengths, notes

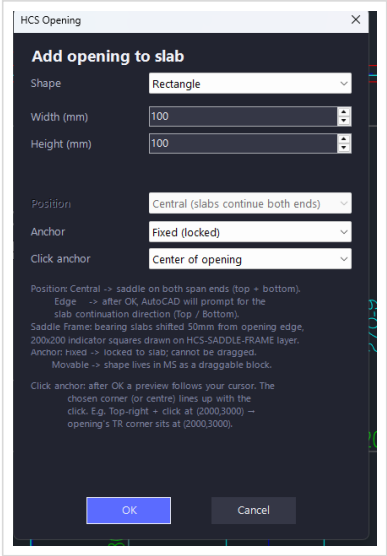


Place Layout — section, CIS, tags, criteria

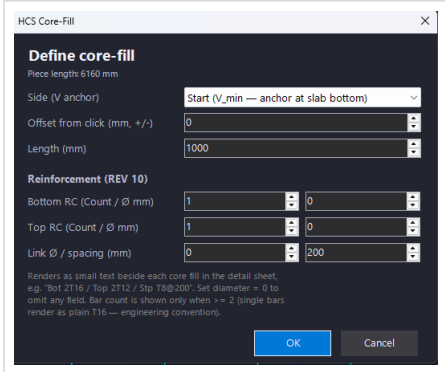
Section editor	Manage thickness, standard width, joint clearance, cut bands (min/max), cut increment, length range, and notes. Bands enforce the factory's producible cut widths — the solver will not pick anything outside them.
Place Layout dialog	Pick a section, set CIS strip ranges, enable element tags, attach a core-fill criteria template, and place. Live preview shows the proposed layout as you drag the rectangle.
Library import / export	Sections export to a portable JSON; new drafters import the company library in one click and start working immediately.

OPENINGS & CORE FILLS

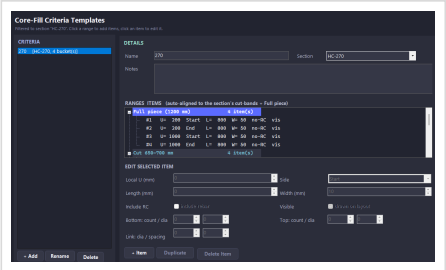
Openings and core-fills are first-class concepts inside the plugin: openings auto-trim piece edges and place their own dimensions; core-fills can be defined per-piece or driven by section-keyed criteria templates that apply to every layout automatically.



Opening dialog



Per-piece core-fill

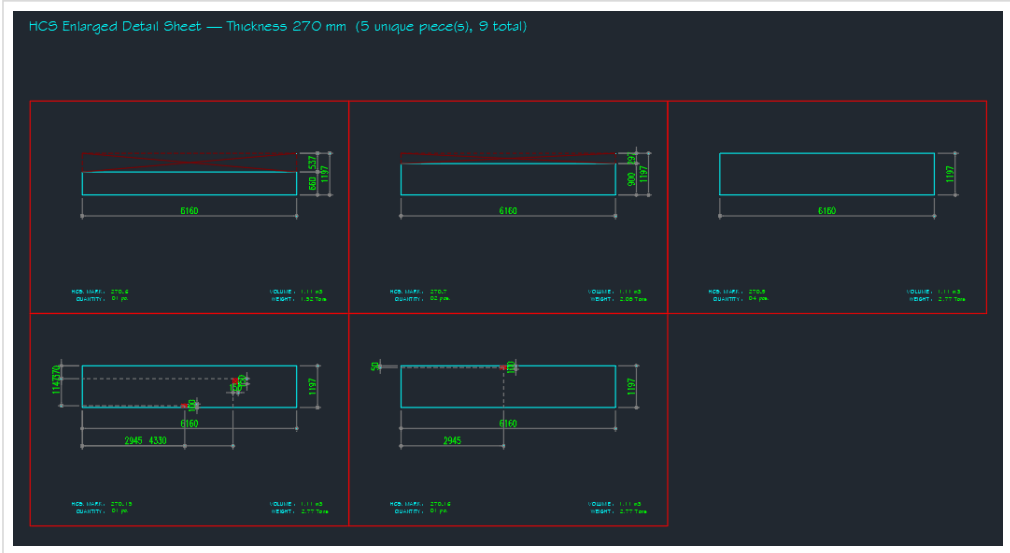


Core-fill criteria templates

<p>Openings — rectangle / circle</p>	<p>Place rectangular or circular openings inside a layout. Piece edges are auto-trimmed; aligned dimensions are placed automatically and remain editable via standard AutoCAD grips.</p>
<p>Per-piece core-fill</p>	<p>Click a piece, define start side / offset / length / rebar (top, bottom, links). The core-fill annotation renders next to the piece in the detail sheet, e.g. "Bot 2T16 / Top 2T12".</p>
<p>Criteria templates</p>	<p>Define section-keyed rules that auto-apply core-fills to every Full and Cut piece on every layout — bands grouped by cut-width range. Manual fills coexist and survive rebuilds.</p>

SHOP DRAWINGS & BOQ EXPORT

A single command renders an enlarged detail sheet of every unique piece type with cell-grid layout, tag, quantity, volume, and weight. Another command exports a complete BOQ plus area summary as XLSX, ready to attach to your submission.



Enlarged detail sheet — five unique piece types, dims, tags, quantity and weight

Tag	Section	Kind	Width (mm)	Length (mm)	Std width (mm)	Balance (mm)	Area delivered (m ²)	Balance area (m ²)	Volume (m ³)	Weight (t)
270-6	HC-270	Cut	660	6160	1197	537	4.07	3.31	1.11	1.52
270-7	HC-270	Cut	900	6160	1197	297	5.54	1.83	1.11	2.08
270-15	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-16	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-9	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-9	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-9	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-9	HC-270	Full	1197	6160	1197	0	7.37	0	1.11	2.77
270-7	HC-270	Cut	900	6160	1197	297	5.54	1.83	1.11	2.08

Section	Thickness (mm)	Actual std width (mm)	Pieces	Cut pieces	HCS area delivered (m ²)	Balance area = offcut from std (m ²)	Sum (m ²)
HC-270	270	1197	9	3	59.39	6.97	66.36
TOTAL			9	3	59.39	6.97	66.36

HCSEXPORTBOQ — pieces table + section summary, ready for submission

Shop drawings	Cell-grid detail sheet, one cell per unique piece type, auto-dimensioned, with HCS Mark, Quantity, Volume, and Weight. Total quantity on its own toggle-able layer.
BOQ + area summary	XLSX with a pieces table (Tag, Section, Kind, Width, Length, Std Width, Balance, Area, Volume, Weight) and a section summary (Pieces, Cut pieces, HCS area delivered, Balance, Sum). Opens directly — no save prompt.

SPECIFICATIONS & ACTIVATION

HollowCoreSlab is distributed as a single .NET plugin bundle and licensed per machine. Activation is a one-time exchange with our team: send your machine ID, receive your license file, load it into AutoCAD.

Host application	AutoCAD 2021, 2022, 2023, 2024 (Windows, x64)
Runtime	.NET Framework 4.8 (preinstalled with AutoCAD)
Installation	Drop bundle into ApplicationPlugins, restart AutoCAD
File size	Approximately 1 MB plugin + 700 KB Newtonsoft.Json
Activation	Per-machine license file, offline-validated
Network	Required only at activation; works fully offline after
Data persistence	Drawing-resident; no cloud upload, no telemetry
Updates	Free updates within the major version, by email

HOW ACTIVATION WORKS

<p>1 Download</p> <p>Download the plugin bundle from your release link.</p>	<p>2 Install</p> <p>Drop the folder into ApplicationPlugins, restart AutoCAD.</p>	<p>3 Request</p> <p>Run HCSFINGERPRINT, email the machine ID to our team.</p>	<p>4 Activate</p> <p>We reply with a .lic file. Run HCSACTIVATE, pick the file.</p>
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CONTACT US

Reach out to discuss licensing, customisation, or precast engineering services. We respond promptly to every enquiry from precast manufacturers, main contractors, structural engineers, and project owners.

WEBSITE	www.precasterz.com
EMAIL	contact@precasterz.com
PHONE	(+974) 5568-0307
LINKEDIN	linkedin.com/company/precasterz
INSTAGRAM	instagram.com/precasterz

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