

House of Design

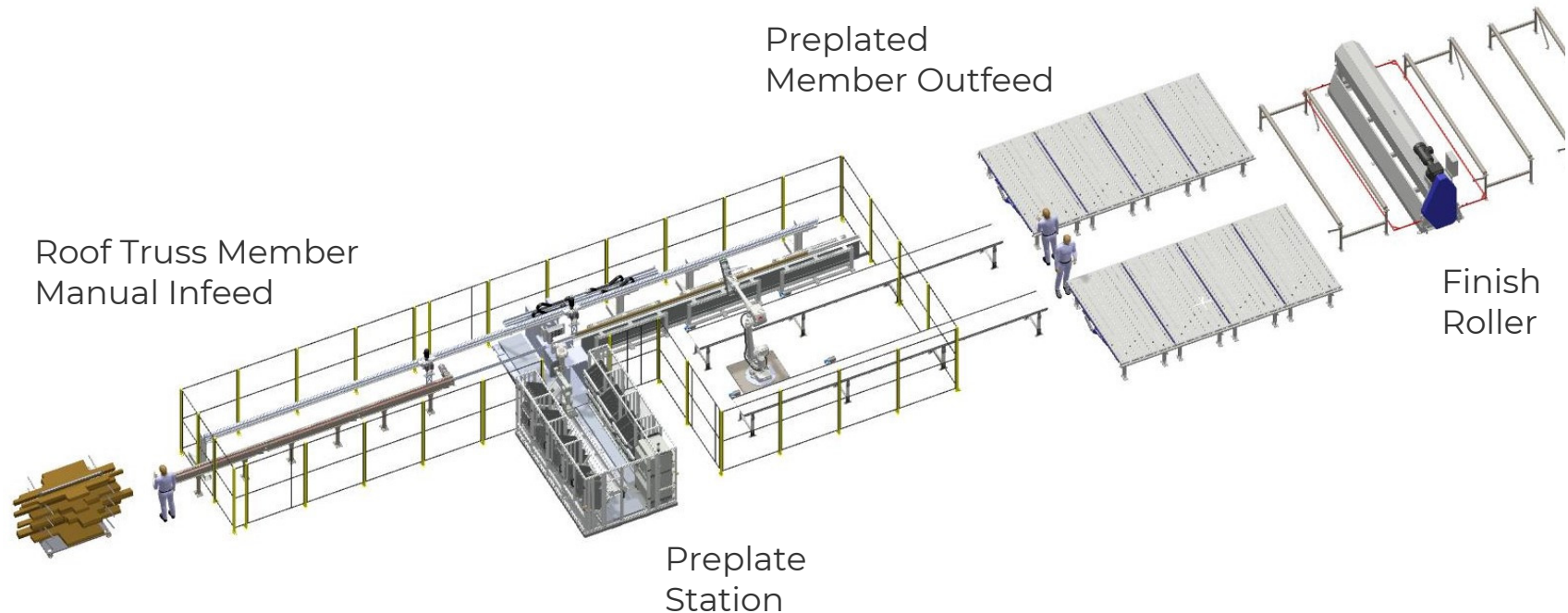
ROOF MEMBER PREPLATE SPECIFICATIONS

Robotic Roof Member Preplate

SPECIFICATION SHEET

SOLUTIONS FOR COMPONENT MANUFACTURERS

Industry experts estimate that 25% of all trusses built have a span of 8' or less and demand for jack, hipped roof and gable trusses is at record highs in some areas. Although these specialty trusses are small, they can cause labor and production disruptions that cut into margins. House of Design's Roof Member Preplate uses all common connector plates from most manufacturers and operates at a rate of 800 Cp/Hr.*



- Efficiently produce specialty trusses that may only be requested in small quantities
- Reduce errors and waste in the truss assembly process
- Ergonomic set-up to lessen required physical demand on workers

*Many different factors can affect rate including but not limited to operator experience, lumber type and quality, proper system maintenance, complexity of truss design, number of nail plates used, etc.

ROOF MEMBER PREPLATE SPECIFICATION DATA

PRODUCT OVERVIEW

An operator loads pre-cut truss members, the station robotically preplates members for correct layout sequence and assembly on the table.

KEY FEATURES

SYSTEM COMPONENTS: Manual Infeed, Preplate Station, Preplated Member Outfeed.

THE SYSTEM DOES NOT INCLUDE: tables, exit roller(s), finish press.
Designed to pick nail plates from most manufacturers. The system builds trusses using standard construction practices and material.

LIMITS

System can accept 2x4, 2x6, 2x8, and 2x10 members.
The length of the 2x10 is limited to 10'.
The shortest member for preplating is 6".

NOTE: This is a collaborative system - an operator will need to ensure the completed truss meets internal specifications.

For 25 - 30% of your business, the Roof Member Preplate Station is a great way to introduce automation to your manufacturing facility. The HoD preplate station is designed to dramatically increase output and save labor by providing preplated members to an assembly table. This allows an operator to quickly orient the pieces, staple or tack them into place, and then slide the truss under the gantry for final assembly. No more looking for connector plates or waiting for materials to be delivered to the table. Welcome to truss automation!

SOFTWARE & PROGRAMMING

Includes software to aid in the sequencing and grouping (batching) of trusses for optimum performance - HoD's TEd software.

Processes customer truss files from a standard ASD and TRE file. TEd integrates with most design suite file types.

Includes a Human Machine Interface (HMI) for entry of part numbers, display of rate, display of system state (errors, alerts, alarms), operation in manual or automatic mode, starting/stopping the system, etc.

Includes programming for automatic operation, producing the components listed in this document.

Detects errors and signals personnel.

System includes a display to direct order and placement of members at the manual infeed.

PREPLATE

Places connector plates on both sides of the member depending on assembly sequence.

Uses all common connector plates from most manufacturers. The system allows for connector plates to be manually placed before the member is pressed.

Connector plate magazines - sizes configured per customer's requirements.

Non-typical connector plate shapes (non-rectangular) require manual installation.



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RATE

System throughput is primarily dependent on the number of connector plates in the truss design. See throughput values shown to the right. Questions regarding connector plates per hour? Call our office for complete rate data sets and a consultation.

SOFTWARE

House of Design TEd Software

SAFETY

The system meets all applicable safety requirements. For robotics, meets ANSI Robot Safety Standard, ANSI/RIA R15.06 – 2012. System allows for lock-out/tag-out maintenance access.

DIMENSIONS

System footprint: 68' X 23', not including tables

ELECTRICAL REQUIREMENTS

220A @ 480V 3-phase
UL listed electrical cabinets

AIR REQUIREMENTS

110 PSI - clean and dry air

ENVIRONMENT

Indoor operation, ceiling height equal or greater than 14'.
Slab thickness: equal or greater than 6" thick.
Relative humidity - at or below 95%.
Ambient temperature 41° - 104°F (5° - 40°C).

Safer interactions, placement accuracy and reduced labor costs are some of the benefits of robotic integration. The Roof Member Preplate is a solution supporting House of Design's full Automated Roof Truss System.

Cp/Mem	Cp/Hr (single)	Cp/Hr (dual)
.50	377	754
1	384	768
1.5	391	781
2	397	794
2.5	404	808
3	410	821
3.5	417	834
4	424	848
4.5	430	861
5	437	874
5.5	444	888

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