CHILES & COMPANY · FOR HOLLOW METAL DISTRIBUTORS AND MANUFACTURERS

MBS 4.0 Door Opening Solution – Hollow Metal

Quote it right. Build it right. Prove it at close-out.

One record for every door opening, from the first quote to the annual NFPA 80 inspection. Built for hollow metal distributors and the manufacturers who supply them.

See the live demo at gotbots.si/dos | **Book a 20-minute walkthrough · 704.622.8885**

What you get

✓ **Faster, accurate quotes**
Configure each opening and price it in one step. Combinations the label does not allow are stopped before they reach the quote.

✓ **Fewer field surprises**
Handing, preps, clearances and punch items are tracked per opening, so problems show up in the office, not on the wall.

✓ **Clean submittals and hardware schedules**
Shop drawings, revisions and hardware rows come from the same opening record, so they match the quote every time.

✓ **Every opening tracked**
From quote and configure through production, install and close-out to the annual inspection, on one record.

Why openings go wrong today

Division 08 work is sold, built and installed one opening at a time. Yet the facts about each opening live in an estimating sheet, a hardware schedule, a submittal set, shop drawings, purchase orders, a punch list and an inspection form. Every change means hunting them all down.

Quoting openings
Door, frame, gauge, label, glazing and preps must all agree. One bad combination costs a reorder.

Submittals and schedules
Re-keyed data drifts between submittals, schedules and orders.

Lead times
Standard, rush and short material decide what ships when, per opening.

Change orders
One change has to reach the quote, drawing, order and schedule.

Field rework
Wrong handing, missed preps and clearances cost the most at install.

NFPA 80 inspections
Fire-rated openings need labels, closers, latching and records at close-out and every year.

One record per opening

MBS 4.0 Door Opening Solution – Hollow Metal makes the opening the unit of work. Every opening (mark, room, opening type and hardware set) is one record, and configuration, rules check, quote, order, release, production, QC, shipping, install, close-out and in-service inspection all attach to it. Anyone in the business can follow one door from bid to annual inspection.

For the distributor
Openings register by project, submittals and releases per opening, hardware schedule, install records, punch items, and a close-out gate that names exactly what is missing.

For the manufacturer
Door and frame series, published product rules, configured variants, BOMs and routings, work orders with serial numbers, shop checks and QC inspection per opening.

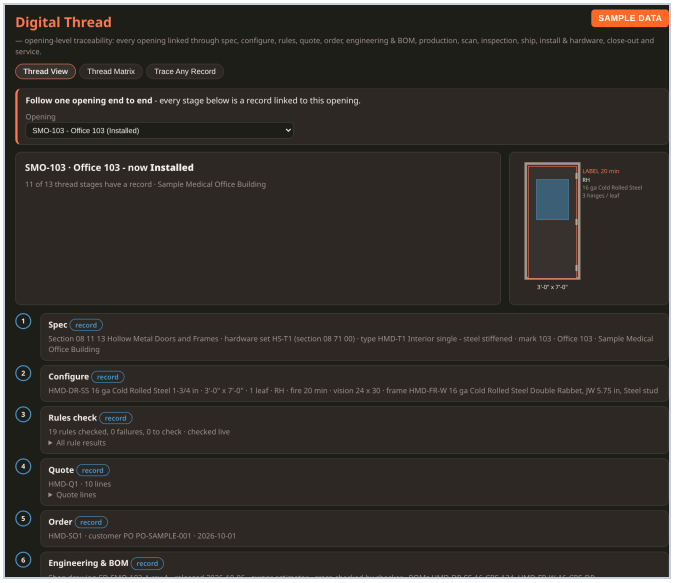
Every opening, tracked from quote to annual inspection

The digital thread is the chain of records behind each opening. Pick any opening and walk it end to end; see every opening against every stage at a glance; or start from a work order, crate or bill of lading and trace it straight back to its opening.

Specified → Configured → Released → In Fabrication → QC Passed → Shipped → Installed → Closed Out → In Service

Nine lifecycle stages, one record per opening

1	**Spec** Section 08 11 13 doors and frames, hardware set (08 71 00), opening type, mark and room.
2	**Configure + rules check** Door and frame series, gauge, material, size, handing, label, glazing; every rule checked live.
3	**Quote + order** Quote lines priced per opening from your price list; customer PO tied to the order.
4	**Engineering & BOM** Shop drawing and revision, owner and a separate cross-checker, door and frame BOMs.
5	**Production** Work orders per leaf and frame with routed operations (punch, form, weld, finish, label) and serial numbers.
6	**Shop check + QC** As-built check against the shop drawing; QC inspection (gauge, hinge and strike locations, label, finish).
7	**Ship** Crate, carrier and bill of lading per opening.
8	**Install & hardware** Installer, date, and each hardware row installed against the schedule.
9	**Close-out** Field check, clearance gauge, install inspection and punch items.
10	**In service** In-service date and the next annual inspection for labeled openings.



Digital Thread, opening SMO-103 (sample data)

Three gates keep bad data from moving downstream

Configuration gate

An opening that breaks a rule cannot be quoted, and the reason is shown, for example a 3-hour label with a half-glass lite.

Release gate

A shop drawing is released only with an owner and a different person as cross-checker. Fresh eyes on every release.

Close-out gate

Passes only when the field check, clearance gauge and inspection are filed and no punch item is open. Worked out from the records, never typed.

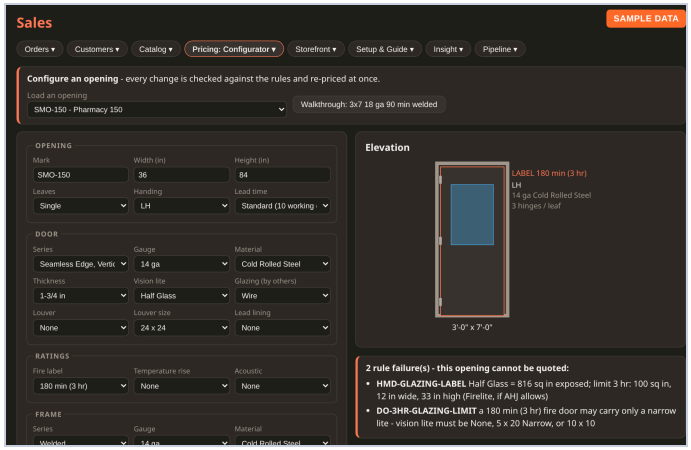
See it live. Opening SMO-103, a 20-minute labeled office door, is installed, but close-out is held because one punch item is still open. SMO-105 is held because its inspection was never filed. No one has to chase it; the gate says so. Open gotbots.si/dos and pick SMO-103.

NFPA 80, built in. The 13 NFPA 80 inspection points (labels, holes or breaks, glazing, hardware and threshold, missing parts, clearances, self-closing, coordinator, latching, auxiliary hardware, field modifications, gasketing and edge seals, signage) drive close-out and the annual inspection on the same opening record.

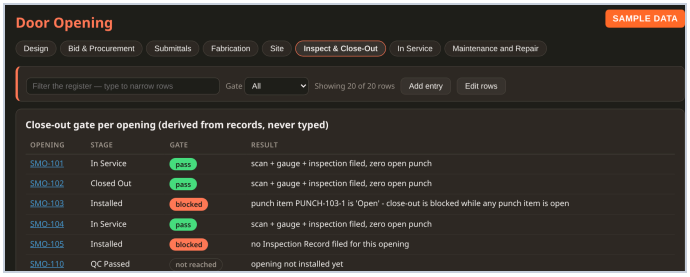
Built for the whole business around the opening

Everything around the door opening, in one place, organized the way a distributor or plant actually runs:

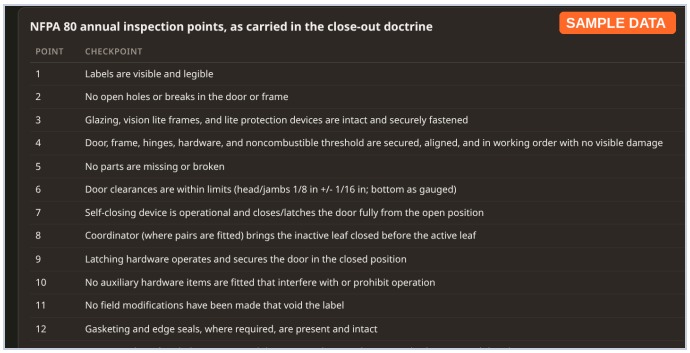
Sell & Serve	Sales (quotations, configurator, quote builder, openings not quoted), customer pipeline, contacts with customers and job sites, and the Door Opening area: Design, Bid & Procurement, Submittals, Fabrication, Site, Inspect & Close-Out, In Service, Maintenance and Repair.
Run Operations	Manufacturing, Shop Floor (door leaf line, frame line, field refurb and re-label, rework bench), Quality, Shipping, Purchase, Inventory, Planning.
Engineering	Product data (door and frame series, preps, options and anchors, configured variants, releases, BOMs, routings), Project (Openings register, Hardware Schedule, Installs, Release and Close-out gates), Digital Thread, drawings and shop checks.
Back office and knowledge	People and pay, accounting and strategy, and a knowledge area where every rule, gate, lifecycle stage and rule source reads in plain language.



Configurator: an opening that breaks two rules is stopped before it is quoted (sample data)



Door Opening, Inspect & Close-Out: gate per opening (sample data)



Quality, Door Openings: NFPA 80 checklist (sample data)

Rules that know hollow metal. 24 product rules from published door and frame specifications (UL label sizes, positive latching, glazing limits by label, hinge count and weight, temperature rise, acoustic STC units, fire-rated louvers, reverse handing with exit devices, double egress, frame material and gauge, anchors, lead-lined doors, lead times) plus 6 door-opening rules, such as: temperature rise requires a fire rating; a pair must state pair handing; electrified hardware needs a voltage on the hardware schedule.

Hardware schedules that hold up. Every schedule row states item, quantity, finish, handing, size and voltage, and install is recorded row by row against it.

Door Openings view in Quality. Shop checks, QC inspections, field records, punch items and the 13-point NFPA 80 checklist sit together in Run Operations, next to the standard quality tools.

Ask about your openings. Ask which openings are blocked at close-out and why, what is waiting on material, or what is due for inspection, and get answers from your own records. A person confirms any change.

A day in the life of a distributor PM

Start of day	Open the Openings register, filter by project, stage or type, and see what is configured, released, in fabrication, shipped, installed or closed out.
Quotes and changes	Change a size, label or lite in the configurator. Rules re-check at once and quote lines re-price. Openings that cannot be built land in Not Quoted with the reason.
Submittals and release	Each opening carries its shop drawing, revision, owner and cross-checker. The release gate shows what is still missing.
Lead times and shortages	Lead time is set per opening (standard or rush), and Material Shortages & ETAs shows what is holding a job.
Field and punch	Install records each hardware row against the schedule. Field checks, clearance gauges, inspections and punch items attach to the opening.
Close-out and annual inspection	The close-out gate names exactly what is missing. Labeled openings are checked against the 13 NFPA 80 points, and the In Service record carries the next inspection.
Questions	Ask which openings are blocked, waiting or due, and get answers from your own records.

Get started: one project, side by side

1. Pick one project, active or recently closed, and agree on what a great result looks like.
2. Load its openings from your door and hardware schedules, with your product lines and price list.
3. Add the published rules for the manufacturers you buy from, each linked to its source.
4. Run the project side by side with how you work today. Nothing is cut over.
5. Review it together: what the gates caught, what moved faster, what to tune next.

1 **See the live demo**
gotbots.si/dos

2 **Book a 20-minute walkthrough**
704.622.8885 · chris@biltmorema.com

3 **Pick your pilot project**
We load your openings and rules

gotbots.si

Christopher Chiles
Chiles & Company · Brevard, NC
gotbots.si
704.622.8885 · chris@biltmorema.com

Live demo: https://gotbots.si/dos

Christopher Chiles: 20 years in hollow metal, wood doors and hardware; 35+ years in manufacturing and engineering. He built MBS 4.0 Door Opening Solution – Hollow Metal at Chiles & Company.