



PSA-80 PRO

Autonomous Cabinet Sanding

Multiply your output.
Not your headcount.



The Production Problem

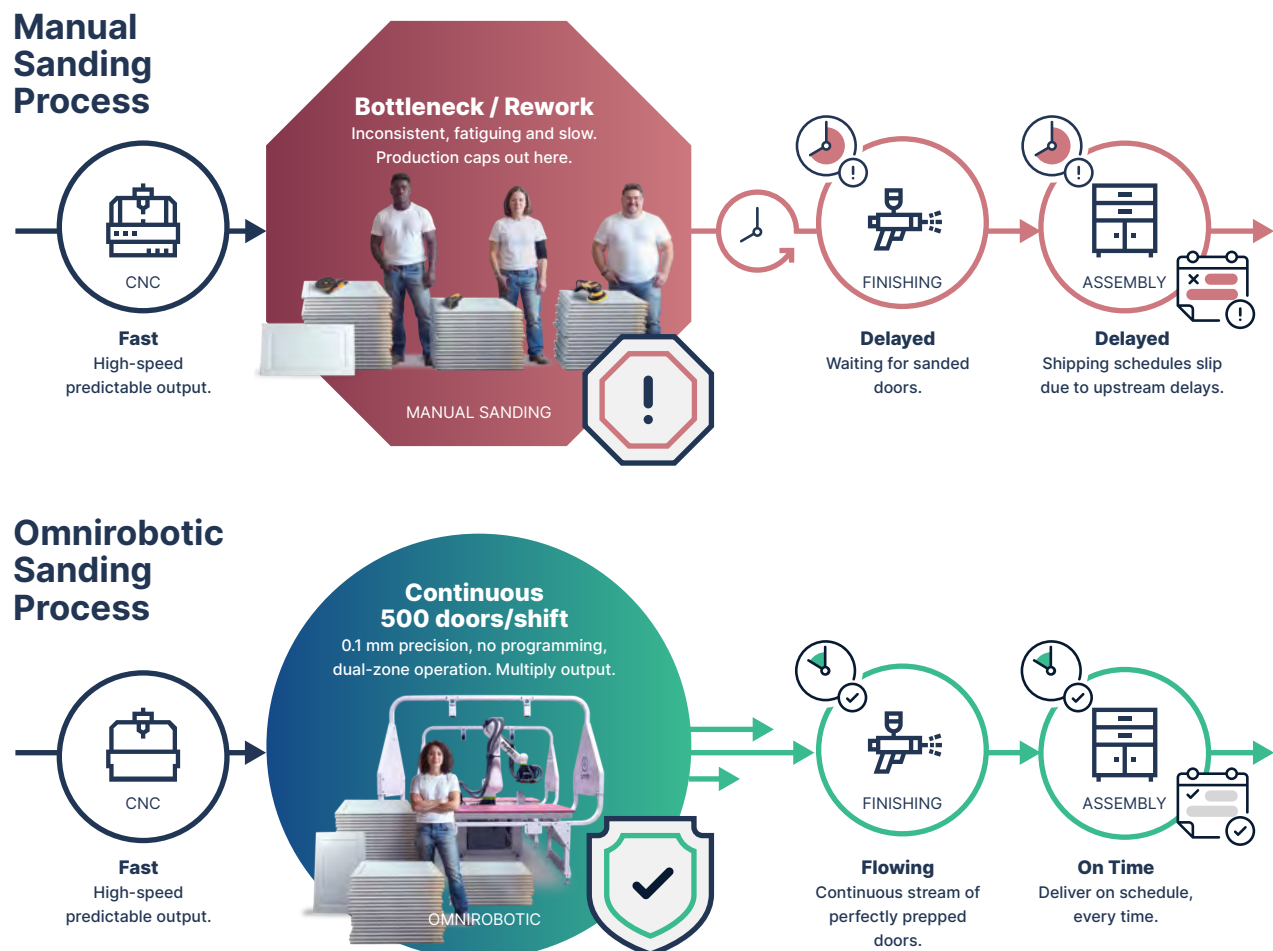
Sanding is one of the most difficult finishing steps to standardize in production environments.

Your CNC runs flawlessly and assembly is fast, but your finishing department is drowning. Manual sanding leads to inconsistent finish quality, and rework slows down your entire production line. Stop losing margin to the sanding bottleneck.

- ✗ Finish quality varies from operator to operator.
- ✗ Results shift with fatigue, pressure, and technique.
- ✗ Sanding capacity becomes a production bottleneck.
- ✗ Skilled labor is hard to scale and hard to replace.
- ✗ Rework quietly accumulates downstream.

Workflow Comparison

Stop Losing Margin With Manual Sanding





Transform Sanding From a Bottleneck Into a Continuous Production Flow

Omnirobotic removes the manual sanding constraint that limits throughput across your operation.



Increase Throughput

Produce up to 500 doors per shift without adding labor.



Deliver On Schedule

Keep finishing and assembly supplied with a continuous flow of prepared parts.



Consistent Every Day

Every door receives the same sanding process, every time.



Reduce Labor Dependency

More production. Fewer staffing constraints.



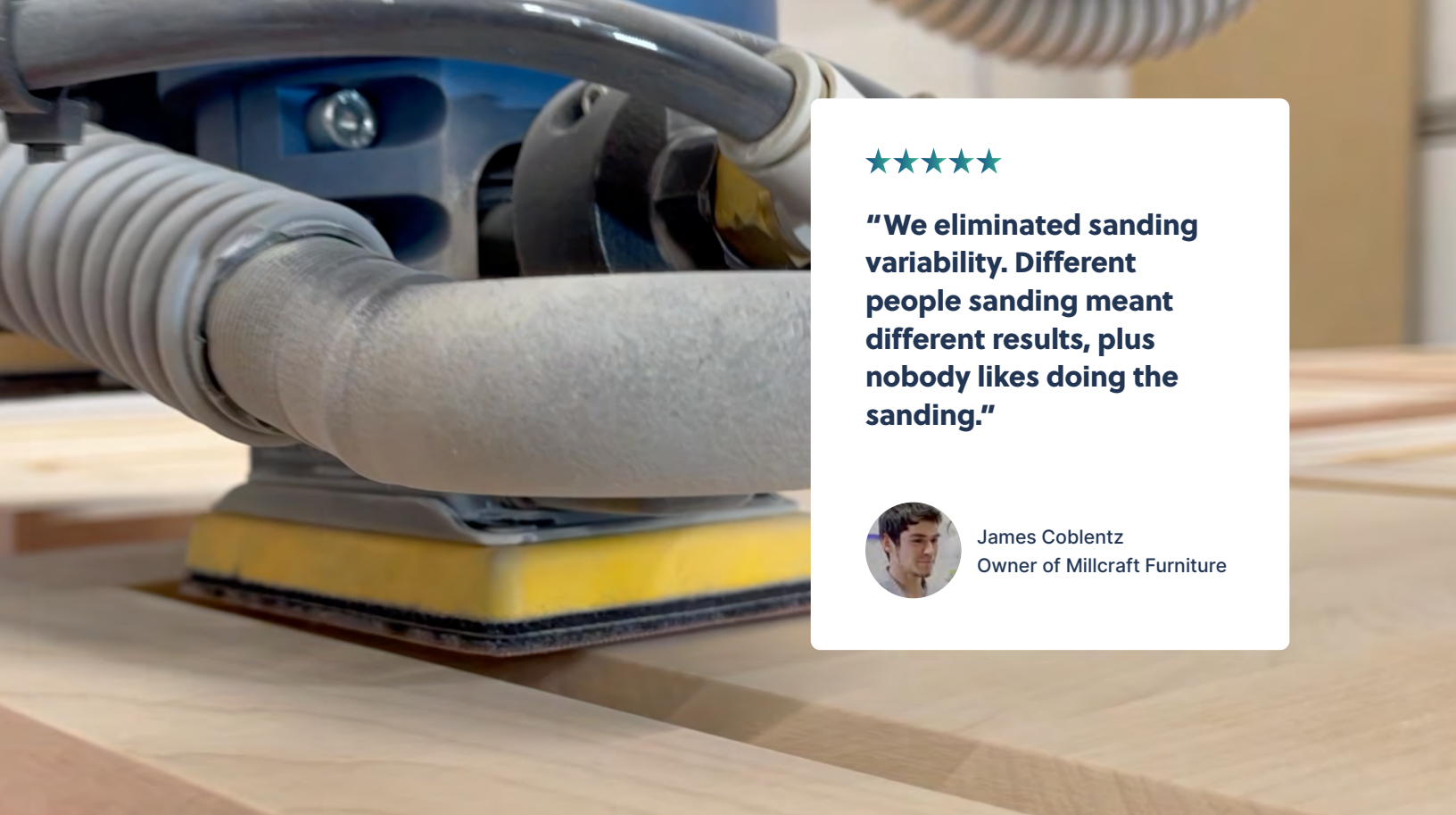
Reduce Rework

Consistent pressure and motion dramatically reduce finishing defects.



Reduce Waste Material

Built-in tracking for consumables ensures predictable maintenance intervals.



"We eliminated sanding variability. Different people sanding meant different results, plus nobody likes doing the sanding."



James Coblentz
Owner of Millcraft Furniture

Precision-Driven Quality Standard

Consistency starts at the micron level.

APC™ Automatic Pitch Control

Panels are never perfect. PSA-80 PRO doesn't assume they are. APC™ continuously adjusts tool orientation in real time to maintain optimal surface contact across every panel. No manual tuning. No operator judgment. No drift in quality.

- ✓ Stable contact across warped or variable panels.
- ✓ Consistent sanding edge to edge.
- ✓ Eliminates angle-related quality variation.
- ✓ Consistent finish depth without manual calibration.

AFC™ Active Force Control

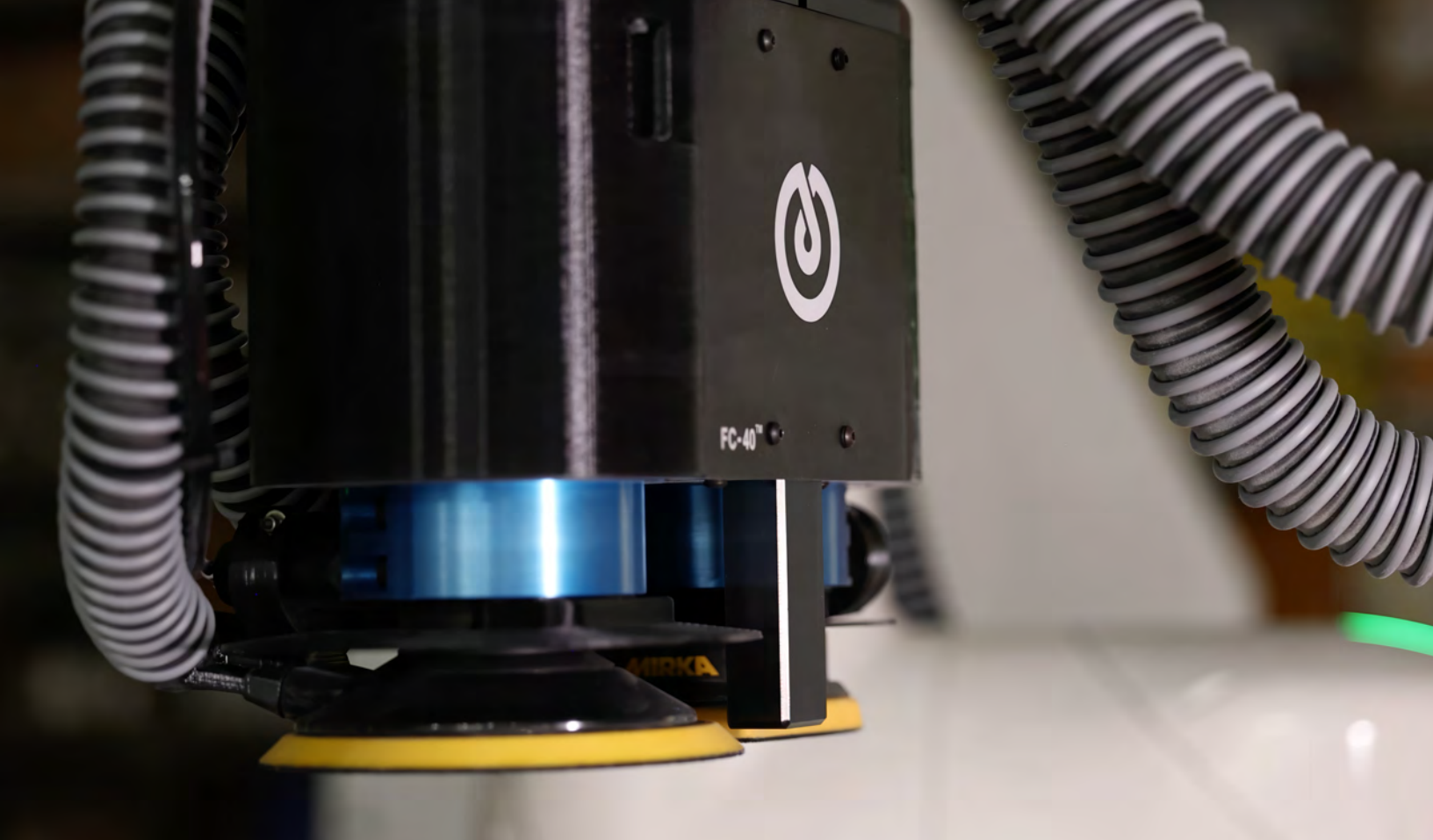
Precision pressure, dynamically maintained. Sanding quality depends on force stability. PSA-80 PRO controls it continuously. AFC™ regulates contact pressure in real time based on surface response.

- ✓ Constant force across all surface conditions.
- ✓ Prevents over-sanding and surface damage.
- ✓ Ensures uniform material removal rate.
- ✓ Quality remains stable across shifts and operators.

0.1 mm Sanding Precision

Every pass is executed exactly where intended. This precision is maintained through dual-sensor feedback and real-time correction. Result: industrial-grade repeatability that supports consistent finish quality at scale.

- ✓ Industrial-grade repeatability.
- ✓ No positional drift over long production runs.
- ✓ Complete tool mark removal from inside profile.
- ✓ Reliable performance across different panel geometries.
- ✓ Reduces dependency on operator setup accuracy.



Load. Start. Walk Away.

It Sees, It Knows, It Sands.



1

Load

Position your doors anywhere on the machine. No need for precise alignment or time-consuming adjustments.



2

Start

The PSA-80 PRO's advanced 3D vision and AutonomyOS™ take care of the rest.



3

Walk Away

Experience flawless, professional-perfect finish. Consistently high-quality results, every time.



"I can set it, let it run, and work on other things. It's not like other machines where you're babysitting it the entire time. I can really trust it."



Trent Jandrin, Paint & Finish
Cabinet Creations and Design

System Specifications & Capabilities

Industry	Custom Cabinetry, Architectural Millwork, Furniture, and Commercial Cabinetry.	Setup Time	From loading dock to fully operational in 3 hours.
Applications	Stain Preparation, Primer/Sealer Sanding, Lacquer Sanding, CNC Tool Mark Removal, and Cross-Grain Scratch Removal.	Required Skill	Anyone, even your intern, can operate it with 2 minutes of training. Drastically reduce dependency on skilled manual labor.
Throughput	Up to 500 doors per 8-hour shift.	Operation	Dual-zone pendulum system allows continuous sanding while loading.
Ready-to-Run Presets	Proven in 400+ cabinet shops. Includes customizable, production-ready parameters for: Raw MDF, Thermofoil Prep, Stain Prep, Primer, Sealer, Cross-Grain, and Putty Removal.	Autonomy	20-minute walkaway autonomy. Load the table, press start, and leave.
Part Sizes	4" × 4" drawer fronts up to 36" × 80" pantry doors. Taller doors up to 30" × 160" can be processed in dual cycles.	Support	Future-proof AI with continuous over-the-air (OTA) updates.
Materials	MDF, HDF, Hardwood, Solid Surfaces, and Wood Veneer.	Footprint	120" × 120" (3m × 3m).
Door Styles	Mullions, Multi-Panel, Multi-Width Rails and Stiles, Open Frames, Raised Panels, Recessed Panels, Slabs, Shakers, and Face Frames.	Electrical Requirements	240 VAC @ 30A single-phase.
Sanding Tools	3" × 4" pneumatic orbital sander and 6" dual-action pneumatic orbital sander, running with dust-free net abrasives.	Pneumatic Requirements	60 psi @ 17 cfm (4.1 bar @ 480 lpm).
Calibration Tools	Auto-Tool Calibration with base laser. 20 years of perfect sanding. Zero technicians, zero fees.	Maintenance	Engineered for dusty industrial environments, the robotic IP67 arm will run 48,000 hours before requiring its first mechanical maintenance.
Abrasives	Universal compatibility with any pad type or grit. Ships with a starter kit of ABRANET® ACE dust-free net abrasives (120 to 600 grit), interface pads, and pad savers.	Warranty	Your investment is covered. Comes with a 1-year warranty for total peace of mind. Each PSA-80 PRO undergoes a rigorous 82-point inspection by certified technicians.
Precision	Scans door geometry with 0.1 mm precision to safely sand inside profiles, eliminating the need for hand-sanding.		
Dust Extraction	Built-in HEPA extractor (no factory ductwork required).		



Built For Long-Term Consistency

Smarter Every Year.
Consistent Every Day.

Forget performance drift and outdated software. The PSA-80 PRO unites self-calibration, rugged hardware, and evolving software into a sanding platform designed for decades of production.



Consistent Quality for Decades

The PSA-80 PRO self-calibrates to maintain perfect accuracy, eliminating technician visits, service appointments, and recurring fees.



Unstoppable in Harsh Environments

Sealed against dust and vibration with IP67 protection, the core FANUC CRX-25iA cobot is engineered to run for 48,000 maintenance-free hours.



Future-Proof Software

Secure over-the-air updates ensure the robot you install today becomes more capable tomorrow, delivering continuous improvement for decades.

Autonomous Robots. Trusted by Industry Leaders.



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