

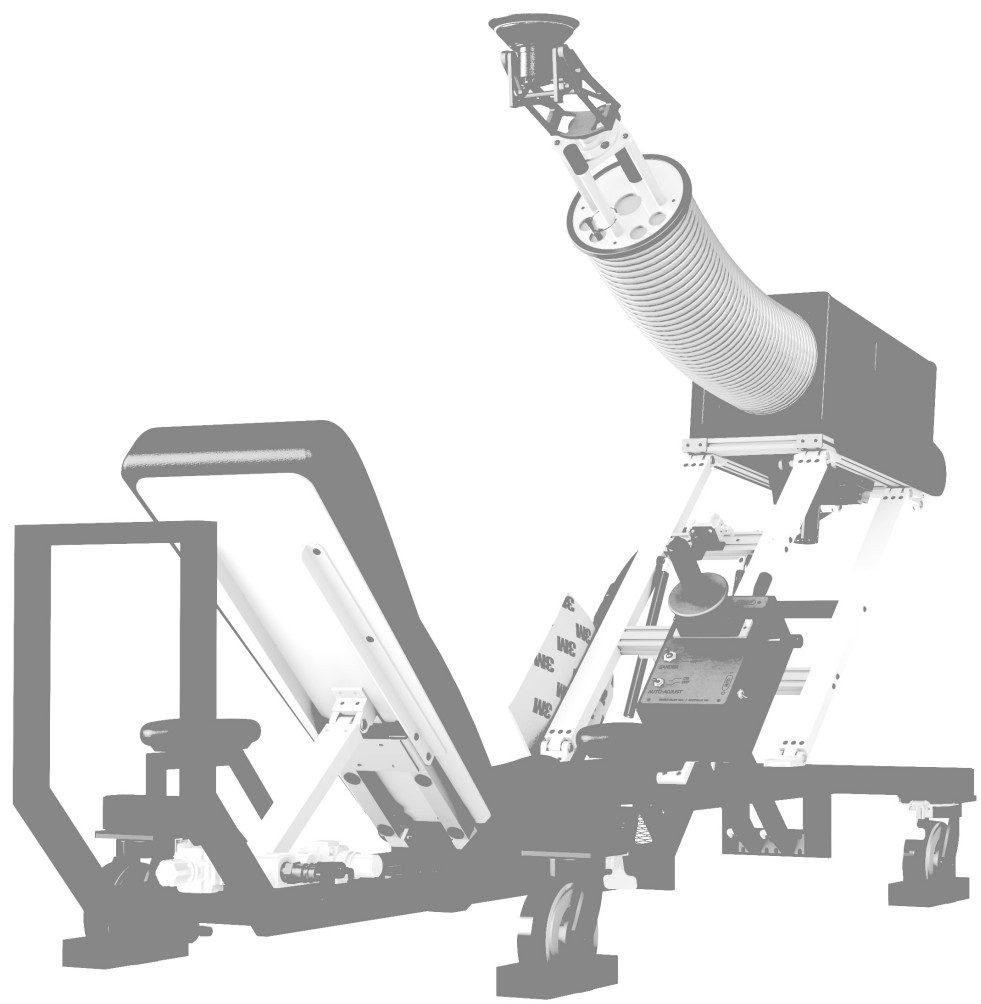
# meet **EMMA** [easily manipulated mechanical arm]

Belly Systems

EMMA (Easily Manipulated Mechanical Arm) from Temple Allen Industries is a 100% pneumatic arm that can deliver a variety of surface preparation tools while effectively shielding artisans from the health and safety problems associated with manual sanding. All EMMA systems include the core technology – the EMMA module – combined with a deployment structure designed to best position the artisan and the End-Effector for a given application.

The EMMA Belly System is ground deployed and designed for maximum maneuverability and easy integration within current shop infrastructure. EMMA systems address some of the most ergonomically challenging surface preparation tasks, including sanding overhead.

The 100% pneumatic system is intrinsically safe, suitable for Class 1 Div 1 environments, and will automatically pull away from the surface if the air supply is cut off.



**TEMPLE ALLEN INDUSTRIES**

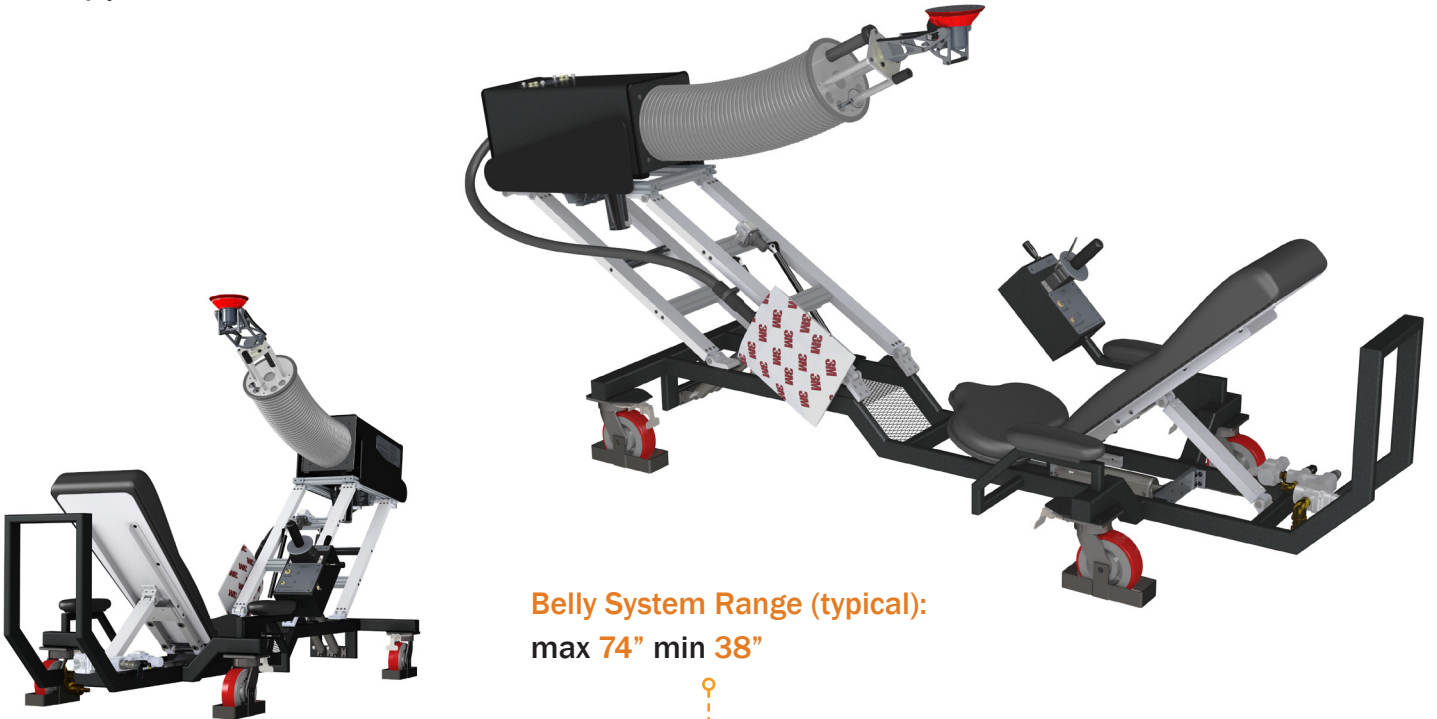
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# EMMA [belly system]



## BELLY SYSTEM

The EMMA Belly System solves the greatest ergonomic challenge in surface preparation - sanding or grinding overhead. EMMA allows the operator to comfortably sand the belly of an aircraft and, for smaller planes, underneath its wings. The operator sits in the EMMA's adjustable reclining chair and controls the system using the joysticks.



**Belly System Range (typical):**  
max 74" min 38"

All min and max heights are estimates based on the standard EMMA model for each system. The reach of each system can be tuned (by changing various components) to best meet the needs of a specific application.

### Common Options

- Auto-sweep
- Integrated Vacuum
- Operator Presence Control
- Variable Wheel Mounting Plates
- Raised Chassis - allows higher reach
- L&R Air Manifolds - simplifies hose routing
- Auxiliary air supply - allows use of hand tools
- Mirror mount(s) - allows user to attach mirror(s) and see objects behind system
- Winch Rings - welded attachment points for lifting or pulling the system mechanically

