

EMMA & SAM

HEALTH & SAFETY

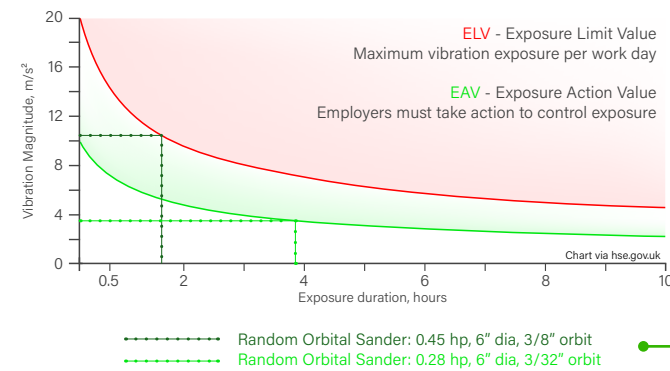


Temple Allen Industries values the health and safety of the artisans responsible for getting difficult jobs done. We improve the workplace with tools that protect users from all four health hazards associated with surface preparation operations: vibration exposure, high grip forces, poor postures, and toxic dust.

ERGONOMICS

Three of the four major hazards

in surface preparation involve physical factors: an artisan contends with poor postures, high force input, and exposure to vibration. Supporting, gripping, and pushing a sanding tool against a surface places a constant strain on the body. This activity causes fatigue along with reduced productivity and morale. Over time, this can often lead to injury and require rehabilitation or surgical repair.



Extended exposure to vibration

can cause permanent disability in the form of HAVS (Hand-Arm Vibration Syndrome) where nerves and blood vessels are damaged and hands/fingers are painful, numb, tingle or lose color. European Directive 2002/44/EC establishes exposure and action values (left) that limit how long tools can be used and are commonly used as industry reference within the U.S.

EMMA and SAM address these challenges

by taking the tool out of the artisans' hands. This eliminates vibration risk and applies the tool to the surface with consistent force. An artisan is free to focus on the task at hand, rather than the pain in their hand (or wrist, shoulder, elbow, back, knee...). A reduction in injuries also provides stability to the production schedule and eliminates potential training or retraining costs.

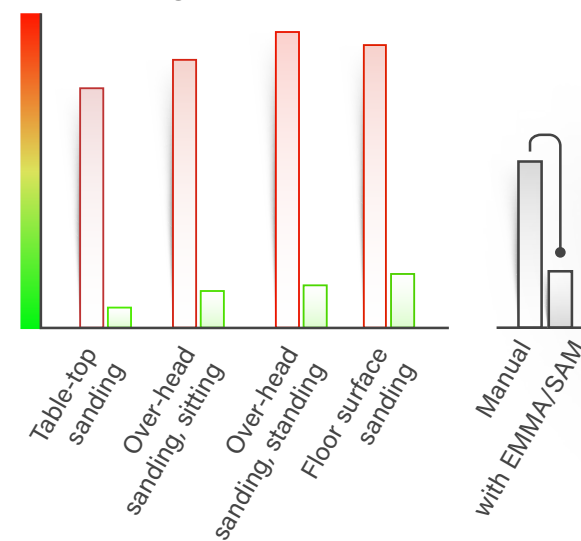


Ergonomic Risk Assessment forms are commonly used

to quantify the hazards associated with an activity. While forms and inputs may differ, the conclusions are unanimous: manual sanding is a difficult and dangerous job. Evaluating an EMMA or SAM implementation using the same metrics is a helpful way to illustrate the positive impact the technology can have on each artisan's well-being.



Ergonomic Risk Factors



DUST CONTROL

Airborne dust is a major health issue

associated with surface preparation. OSHA regulation 1910.1026 (c) establishes a Permissible Exposure Limit (PEL) that requires no employee be exposed to hexavalent chromium in excess of 5 µg/m³. Similar regulations protect workers from exposure to cadmium, lead, and other hazardous substances.

Chromium 24 Cr 52.0	Cadmium 48 Cd 112.4	Lead 82 Pb 207.2
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Both EMMA and SAM

are equipped with integrated vacuum systems to aid in dust control. Dust from abrading is drawn into the integrated vacuum line and is collected in disposable HEPA-rated filter bags. Alternatively, a facility's dust collection system can be connected directly to the equipment's vacuum outlet.

By holding the End-Effector flat,

EMMA and SAM maintain better vacuum seals. This leads to improved dust collection, which adds to the life of the abrasive, increasing trigger time, and reduces the amount of particulate in the air.

End-Effector Stays Flat

Promotes Vacuum Seal

Custom-Fitted Vacuum Port

Quickly connect/disconnect hose



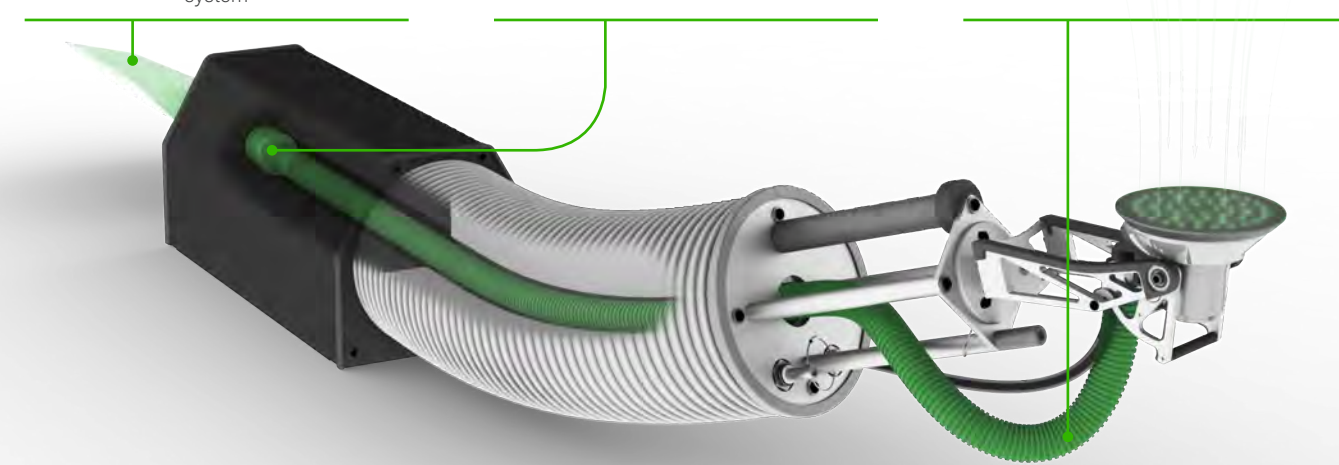
Disposable HEPA-Rated Filter Bags

Or connect to facility vacuum system

Internal Vacuum Conveyor System

Integrated Vacuum Line

No external hose lines to manage





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