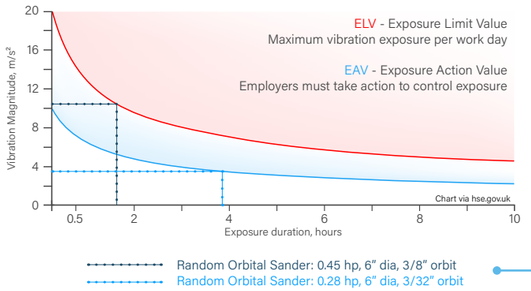
EMMA & SAM

HEALTH & SAFETY

Temple Allen Industries values the health and safety of our clients. We are committed to improving the workplace by offering tools that protect artisans from all four health hazards associated with surface preparation operations: vibration exposure, high grip forces, poor postures, and toxic dust.

Ergonomics

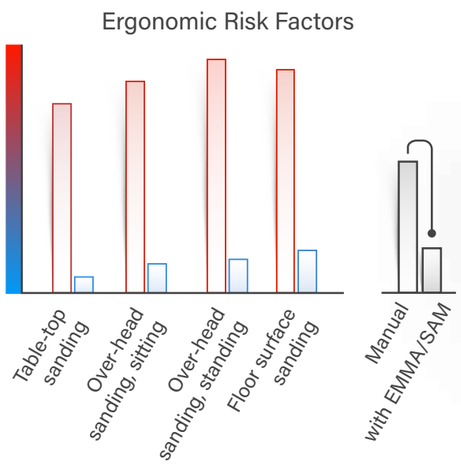
Three of the four major hazards
in surface preparation involve physical factors: an artisan contends with poor postures, high force input, and exposure to extreme vibration. Supporting, gripping, and pushing a sanding tool against a surface places a constant strain on the body. This causes fatigue, even within minutes, along with reduced productivity and morale. Overuse can 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. The UK established regulations for exposure limits (left) that are commonly used as industry reference.

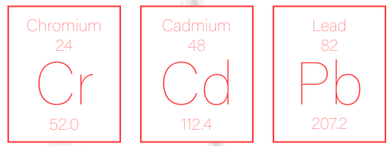
EMMA and SAM address these challenges
by taking the tool out of the artisans' hands. Vibration is damped and a consistent force applies the tool to the surface. An artisan is free to focus on the task at hand, rather than the feel of their hand (or wrist, shoulder, elbow, back, knee...). A reduction 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 an artisan's well-being.



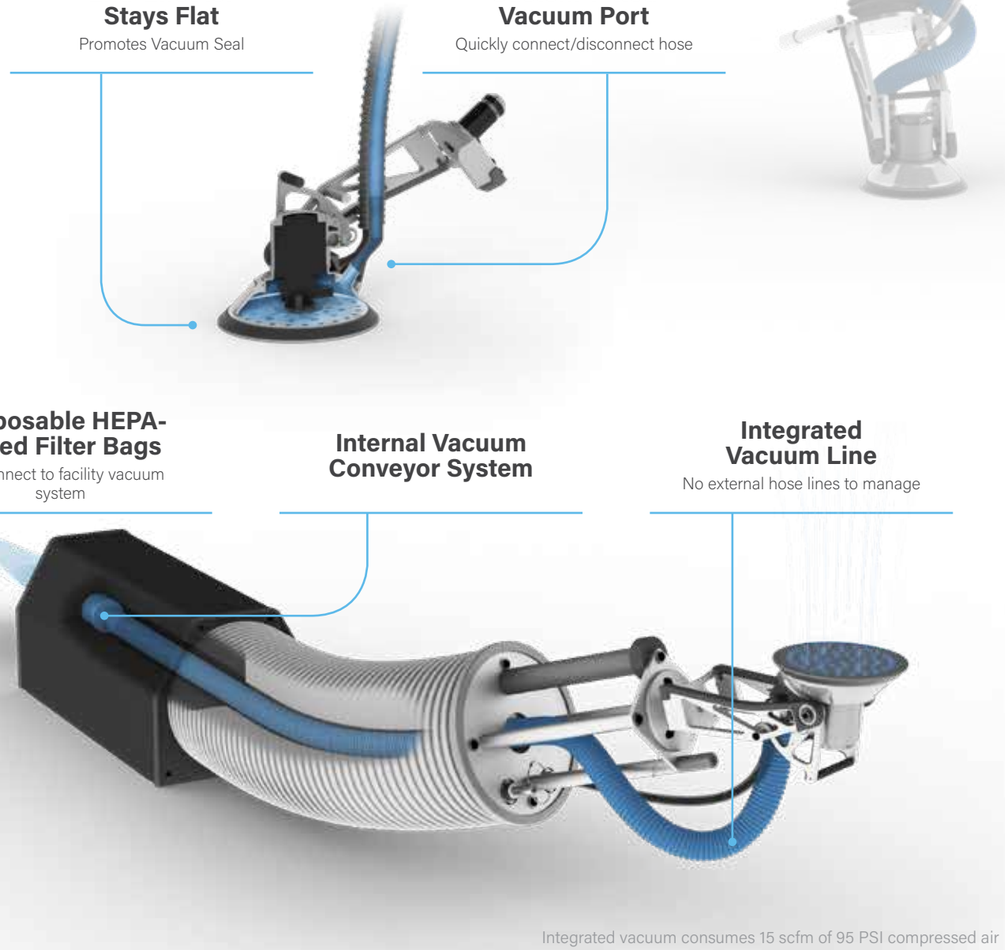
Dust Control

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 substances.



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 reduces the amount of particulate in the air and adds to the life of the abrasive by reducing loading.



Integrated vacuum consumes 15 scfm of 95 PSI compressed air

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Temple Allen Industries
(301) 541-3662 (EMMA)
info@templeallen.com