



our approach
to **surface
preparation**
solutions

surface preparation

Temple Allen understands that every surface preparation process is different and brings its own set of challenges. We want to help solve these challenges.

Our approach to surface preparation starts with a baseline of the current process. Our EMMA and SAM technologies have been successfully deployed across a wide spectrum of applications. From there, we aim to improve by considering many of the variables that impact performance.

Optimizing a surface preparation process involves selecting from a multi-dimensional array of variables. Many will rely on current process requirements, but EMMA or SAM may enable formerly impractical alternatives.

types of preparation

- polishing
- scratching
- cleaning
- scuffing
- reactivating
- sanding
- abrading
- finishing
- fairing
- de-painting
- grinding
- scaling

tools

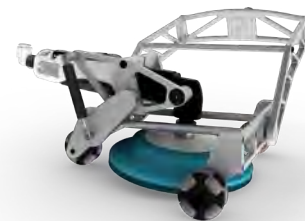
orbital (jitterbug)



random orbital



rotary



scaler



preparation variables

e.g.

sanding pad

size

The unit pressure applied to the surface is a function of the size of the pad selected. An increase in pad dimensions decreases the pressure on the surface.

firmness

For curved surfaces, a soft pad backing aids in following contours and maintaining a consistent surface pressure. More aggressive abrasion can be achieved by using a firmer pad.

abrasive

type

Abrasive types (Al_2O_3 , CSi, ceramics, diamond) present varying levels of performance due to different durability, hardness, friability, loading, etc. characteristics. Lighter applications may benefit from the use of non-wovens.

grain size

Due to their consistency, an EMMA or SAM can often deploy a coarser grit than manual sanding for more efficient processing.

tool

throttle

In some cases, restricting air flow to a tool may have a positive impact on controllability. The throttle settings on all EMMA and SAM tools are adjustable to meet the needs of a particular application.

number

Both EMMA and SAM have the capability of holding multiple sanding heads and are configured to address the process and part. Multiple sanding heads increase surface coverage and may improve efficiency, especially in open areas.

approach angle

A tool held flat maximizes surface area used and minimizes unit pressure. Rotary tools perform best when used at slight angles.

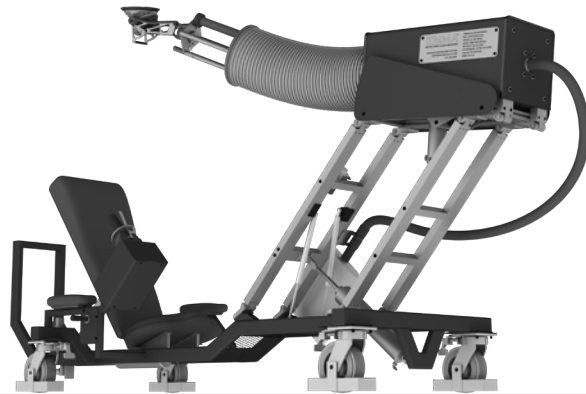
process

dry/wet

While many applications require dry sanding that can be successful with both EMMA and SAM, wet processing is useful for cleaning processes.

surface force

The force applied to the surface can be tuned and set to enable consistency among all artisans.



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