



Vapormatt | Jaguar

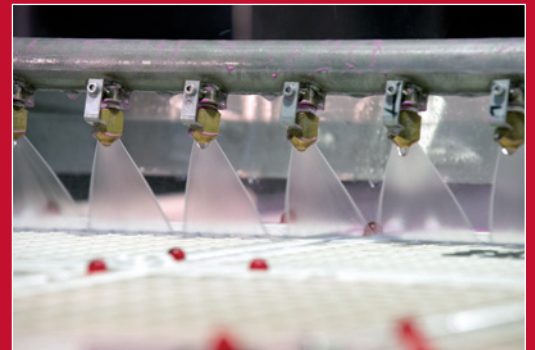


Vapormatt Jaguar

- Automatic in-line wet blasting, cleaning and rinse machine optimised for tooling applications
- Sophisticated process control & monitoring
- Recipe driven parameter setting and post process reporting
- Extremely consistent and reproducible processing
- Fully self contained and ventilated unit suitable for location in quiet, controlled environments

Tooling applications

- Edge honing (up to 100 micron)
- De-burring to remove burrs without dimensional change
- Surface cleaning / skin removal to enhance coating adhesion
- Polishing, pre & post coating
- Selective coating removal
- Peening for coating internal stress profile enhancement
- Suitable for shank tools (drills, reamers etc.) and replaceable inserts of varying geometries



Wet Blast 1

Rinse

Wet Blast 2

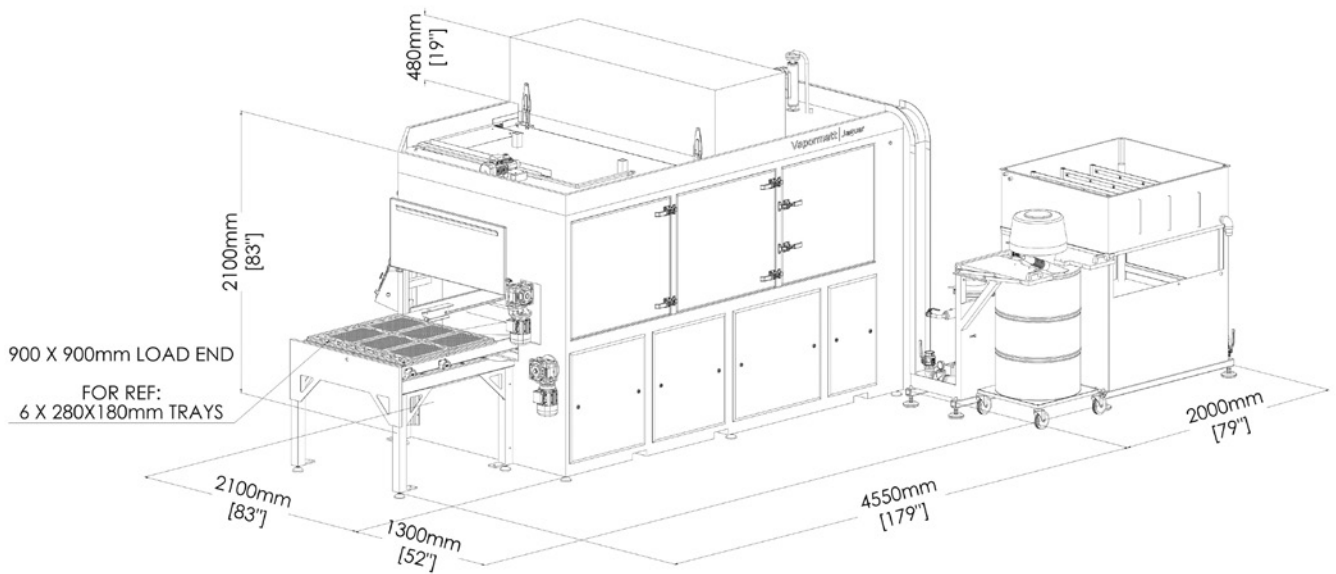
Rinse

Ultrasonic Rinse

DI Rinse

Dry

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The Vapormatt Jaguar is an exceptionally well designed wet blasting and rinsing machine, using leading-edge technology. Its technical features encourage increased production output and profitability in an ever demanding, competitive market.

Wet micro-blasting of a ground substrate such as Cemented Carbides or HSS used for the manufacture of cutting inserts and shank tools, is proven to enhance the cutting performance and working life. The main contribution to these enrichments is the improved surface finish and cleanliness that is achieved by the Jaguar's Vapormatt wet micro-blasting technology, which is essential for excellent Chemical vapour deposition (CVD) and Physical vapour deposition (PVD) coating adhesion.

Consideration should also be applied to the benefits of superior edge preparation/honing for cutting inserts and shank tools. Our research and development team have dedicated meticulous development studies to create and manage the optimum, wet micro-blasting edge honing process. The Jaguar's sophisticated design provides all the hardware required to produce superior controlled and consistent edge preparation.

Constructed from high grade stainless steel, provides a robust, non-corrosive cabinet structure for housing the technically sophisticated processing equipment.

Standard or customer specific trays carrying the cutting inserts or shank tools are loaded on to the tray holding cassette, which upon command automatically traverses into the blasting chamber. The cassette holds a nominal of 6 trays or up to 34 shank tools per cycle.

Pallet sizes range up to 304mm W x 340mm L x 50mm H. Bespoke holding fixtures can usually accommodate other tray sizes.

De-burring, edge preparation and surface finish recipes are generated through the touch screen HMI unit, which controls the many blasting parameters needed for achieving optimal results. Recipes can be retained and coded for each component type to ensure that all future production successions are exact.

A multi-functional blast head assembly contains 8 boron carbide nozzles, equally circumnavigated around a circular disc delivering perfect processing symmetry. The nozzles are pre-set at the desired angle to achieve the specified K factor. Alternatively, an automatic adjustable angle gun head can be fitted, where varying K factor measurements are required.

The blast head manipulation is precision controlled through the Y and Z axis whilst the tray holding cassette indexes smoothly and accurately through the X axis, or the shank tools rotated. The configuration of these movements, continuous particle conditioning by means of the Vapormatt "elutriation" tower and frequent monitoring of the slurry concentration, affords full versatility for achieving a wide spectrum of edge preparation forms and dimensional tolerances.

An integrated temperature regulated spray rinse system with automatic detergent dosing, removes abrasives from the components and ensuring the surface is free of contaminates. A secondary fresh water rinse safeguards the cleanliness of the cutting inserts or shank tools.

Excess moisture remaining on the components and tray fixtures is eradicated using the machines common compressed air supply at high pressure through an array of air jets, effectively positioned inside the cabinet enclosure.

Once the desired processes are completed, the holding tray cassette is allowed to automatically exit through the door hatch and positions on to the load and unload table.

The streamline machine design incorporates a number of service access doors to facilitate ease of maintenance and mechanical adjustments. The free standing filtration tanks and water conditioning unit is positioned within close proximity.

Operational noise levels can be specified down to 75 dBA.

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