

# Vapormatt | Puma

Overview, technical specifications  
and options



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## Overview

The Vapormatt Puma is a highly versatile system designed to allow the component's surface to have full coverage in a compact size footprint. Ideal for surface preparation of components, additional options such as turntables and wheel holding jigs make it a very adaptable machine. Additionally, with flat sides, the machine can be placed against a wall to optimise space.

### Key features include:

- High quality stainless steel construction
- Ergonomically designed for operator comfort and maintenance
- Large cabinet dimensions and wide opening door to help with the loading of large heavy components
- Powerful blast gun with adjustable pressure to prevent damage to fragile components
- Designed with ease of use and maintenance in mind
- Hand operated water and air nozzles for rapid post process rinsing and drying
- Highly bespoke with a range of options
- Window wash to ensure visibility of the blast process
- S-Tank filtration system to help keep running costs to a minimum by cleaning and recirculating water for rinsing and window wash

## Industries and applications

The Puma is suitable for general wet blasting surface finishing in most industries including:

### Industries

- Additive manufacturing
- Aerospace
- Aluminium extrusion dies
- Automotive
- Composites
- General use
- Medical implants
- Medical instruments
- Round shank tools

### Applications

- Alloy wheel preparation and repair
- Component cleaning
- Deburring
- Paint stripping
- Peening
- Preparation for coating
- Preparation for composite bonding
- Preparation for sterilisation
- Surface improvement after casting

## Processing description

The Puma wet blasting machine offers a manual blast station ergonomically designed to assist the operator. The process helps to remove paint, flatten and prepare the surface for re-painting. It can also remove any welding, heat marks, oxides and machining blemishes and gives a consistent surface finish.

As standard, it is fitted with a 10mm (0.4") blast nozzle, air blow-off nozzle and recirculated water system with a diaphragm pump. A side loading swing door with a safety lock allows the operator easy access to the inside of the cabinet.

The processing time and coverage can be changed via a pressure regulator and abrasive concentration.

## Optional configurations

### Barrel

The Puma machine can be fitted with the Vapormatt mini barrel. The mini barrel is designed for the mass finishing of smaller components, including additive manufactured parts. This optional feature enhances the versatility of the Puma by retaining the large working area that is so ideal for larger items whilst adding a rotating barrel for the rapid finishing of multiple smaller items. Additional information regarding this option can be found under 'Optional items'.

### Wheel-holding jig

The Puma machine can be fitted with the optional swing-out wheel-holding jig making it ideal for wheels of varying sizes including alloy wheels and carbon wheels. Additional information regarding this option can be found under 'Optional items'.



## Technical specification

The following features are included with each machine's basic configurations.

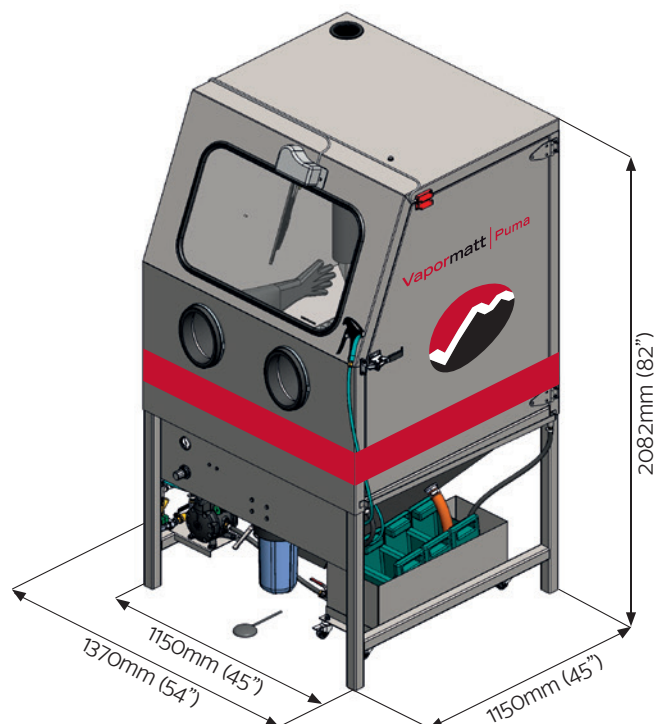
Feature	Description
1	Cabinet construction is 2mm (0.08") thick stainless steel; Sump 3mm (0.12")
2	Machine footprint: 1400 x 1200 x 2100mm (55.1 x 47.2 x 82.7") With door open, length - 2400mm (95") Internal dimensions: 1100 x 1100 x 1200mm (45 x 45 x 47") With optional wheel jig removed - excluding chimney
3	All components for the filtering of abrasives are contained within the footprint of the main cabinet
4	Load bearing sump grids, 50kg (110lb) max load
5	Sump capacity is 127L (28 gal) with overflow
6	Abrasive charge is between 13 - 36kg (29 - 79lb)
7	Designed to take up to a Ø762mm (30") max outer diameter
8	Side loading with a work surface max load of 50kg (110lb)
9	Abrasive pump - polyurethane
10	Vapormatt Mk7 blast gun, 10mm (0.4") nozzle, 1.13 Nm <sup>3</sup> /min @ 5.5 bar (40 SCFM @ 80 psi)
11	Manual rinse nozzle
12	Toughened safety glass window unit
13	Window wiper and wash bar
14	Footswitch for machine operation
15	Integral LED unit
16	Process handling gloves fitted to the access ports
17	Clear S-Tank filtration system with reservoir tank
18	Recirculated rinse system
19	Component blow-off nozzle
20	Sump water decant valve, allows partial drain down of machine



## Optional items

The following features can be added to the machine's basic specification.

Feature	Cabinet enhancements
1	Translation of operation manual, HMI screen and labels in non-English
Feature	Loading and component handling
2	Stainless steel turntable on stand (Ø500mm (20"), with a maximum load of 50kg (110lb)
3	Protective polyethylene mat for turntable, Ø500mm (20")
4	The wheel holding jig features an Ø48mm (2") shaft over which a car wheel can be located, the back of the wheel rests up against the x4 round bars. The wheel is free to rotate around the inclined central shaft. The jig arm can swing in and out of the cabinet to assist with loading and unloading. Max dimensions: Ø762 x 380mm (30 x 15")
Feature	Slurry system enhancement
5	The mini barrel features a 225mm (9") ID drum that can be loaded with small components (up to 20kg (44lb)). The mini barrel assembly is integrated into the back wall of the stock machine (near the door opening). The barrel motor mechanism on the outside back of the machine will increase the depth to 1470mm (58.9"). Tumbling speed is variable, between 1.33 - 7.67 rpm, controlled by a variator. * This option will increase the electrical current requirement and will be specified at time of order.
6	Spare mini barrel with lid
7	Concentrator for PAP media, includes a long series nozzle and HP impellor



## Services to be provided by the customer

The following services are required for the machine to be run correctly.

Service	Requirement
Electricity	400/480V AC, 3 phase, 50/60Hz, 7amp (dependent on options selected) Must be protected by a residual current device (RCD or "Earth trip") and isolation switch within reach of the machine.
Air supply	Connection: DN15 (1/2" BSP) External pressure regulator recommended Pressure 2 - 7 bar (30 - 100 psi) Flow 1.13 Nm <sup>3</sup> /min (40 SCFM) Quality DIN ISO 8573-1 class 5.6.4
Water supply	Connection: DN15 (1/2" BSP) Max pressure 7 bar (100 psi) Flow intermittent 13 L/min (approx. 3 gpm)
Weight	350kg (772lb) (includes filter unit) The weight is approximate and will be confirmed at shipping time.
Packed size	1450 x 1250 x 2300mm (57 x 49 x 91")

## Dedicated project management and the Vapormatt Promise

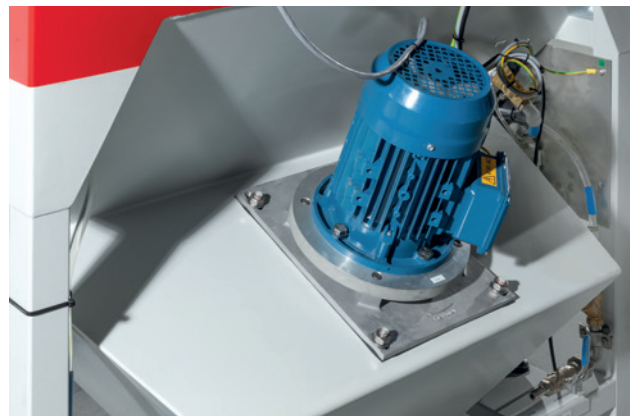
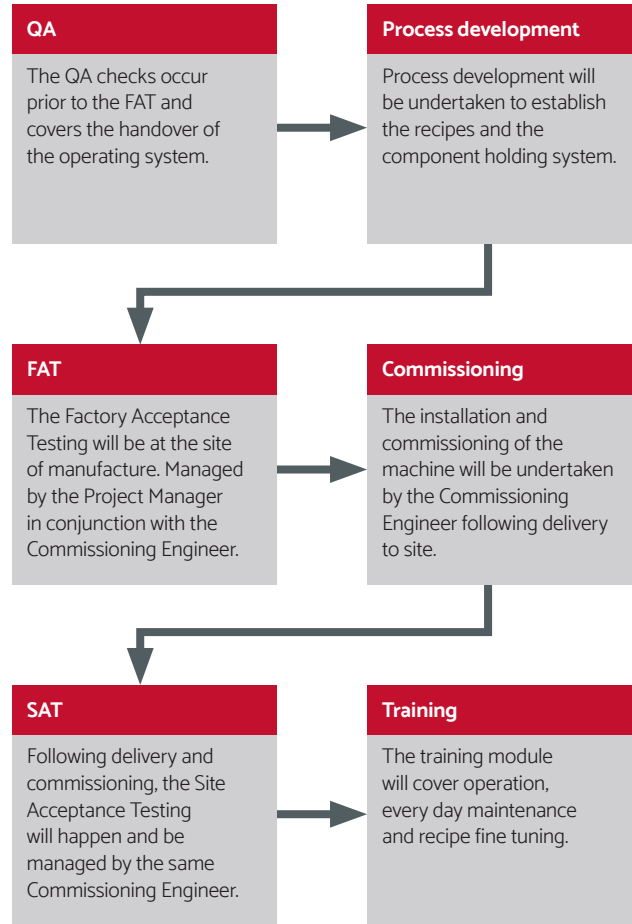
We always ensure our machines operate to the specification agreed with the customer, that's the Vapormatt Promise.

To achieve this every customer is assigned a dedicated project leader from order to installation.

Project management includes our detailed technical acceptance process, see opposite, a key part of which is our factory acceptance testing (FAT). This is where the customer's wet blasting system is extensively tested, often with the actual components the customer will be regularly processing, before it leaves us.

Vapormatt support doesn't end there, our aftermarket support includes spares, servicing and Vapormatt 4.0, our Industry 4.0 solution, to ensure maximum production up time.

## Technical acceptance process



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