

VAPORFUSE SURFACING

For PA, TPU, ULTEM & more

DYE
MANSION



DYEMANSION POWERFUSE S

The green vapor polishing solution for highly industrial manufacturing & surface improvements beyond aesthetics

Unbeatable cost per part for high-volume production

Unbeatable cost per part at full production capacity due to high degree of automation and closed loop circulation with integrated solvent recovery. The Powerfuse S is Industry 4.0 ready. Running fully automated 24/7, offering traceability and connectivity via our IoT offering.

Best in class results delivering high-quality surfaces with improved properties

VaporFuse Surfacing (VFS) delivers injection molding-like parts, reducing surface roughness by up to 70%. Parts are sealed, water repellent, and achieve washable surfaces that inhibit bacteria growth. Increased mechanical properties benefit delicate structures and soft materials. Achieve an elongation at break increase by up to 200% depending on your material. The Powerfuse S can smooth inner channels which is unique in the industry and key for pipes or tubes.

The only green vapor polishing technology on the market - non-toxic solvent

The non-toxic VaporFuse VF47 EcoFluid is safe to use (no PFAS, no CMR and no vPvM/PMT). Operating the Powerfuse S does not require protective clothing against chemical hazards. No additional equipment or reconstruction of installation site needed. Vapor polished parts treated with the Powerfuse S can be used for consumer, medical or food & beverage applications.

TECHNICAL DATA

POWERFUSE S manual loading



PERFORMANCE

Cycle time	90-180 minutes ¹
Process chamber volume	85l 22.5gal
Basket dimensions (L x W x H)	610mm x 340mm x 315mm (385mm)* 24.0inch x 13.4inch x 12.4inch (15.1inch)*

COMPATIBLE MATERIALS

PA, TPU, ULTEM & more
Detailed material list available on request

You want to smooth your polypropylene (PP) parts? We also have a Powerfuse S product for that - the Powerfuse S PP. Reach out to us for more information.

DIMENSIONS²

System (L x W x H)	Powerfuse S: 1700mm x 1700mm x 2070mm 66.9inch x 66.9inch x 81.5inch Automatic loading: 960mm x 3466mm x 1300mm 37.8inch x 136.5inch x 51.2inch Manual loading: 705mm x 1700mm x 850mm 27.8inch x 66.9inch x 33.5inch
Recommended space requirement for operation (L x W x H)	Automatic loading: 3760mm x 4266mm x 2500mm 148.0inch x 168.0inch x 98.4inch Manual loading: 3505mm x 3300mm x 2500mm 138.0inch x 129.9inch x 98.4inch

WEIGHT²

System	1600kg 3527lb
Automatic loading	800kg 1764lb
Manual loading	180kg 397lb

POWER

Supply	Ca. 20kW
Requirements	400V, 50Hz, 63A or 480V, 60Hz, 63A

COMPRESSED AIR

Consumption	Approx. 70l 78.5gal at 6bar 87psi per run
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NOISE EMISSION

Sound level	< 70dB(A)
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¹ Depending on program, excl. heating-up time of the system of approx. 60 minutes. Automatic heating-up programmable via weekly timer.

² Deviations possible depending on system variant.

* Dimensions with basket top unit.

CERTIFICATION²

✓ CE | 2006/42/EG
| 2014/68/EU

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