



DYEMANSION POWERFUSE S

The green & industrial vapor polishing system for sealed surfaces

Green technology fulfilling all industrial health & safety standards

Our eco-friendly VaporFuse Eco Fluid solvent is non CMR and approved for the processing of plastics with food contact according to regulation (EU) 10/2011. The solvent is circulated continuously in a closed loop and automatically recovered by the system. This enables a sustainable contact-free process without chemical waste. Operating the Powerfuse S does not require protective clothing against chemical hazards.

Improvements beyond aesthetics: sealed, strong & airtight parts

VaporFuse Surfacing (VFS) delivers sealed and washable parts with injection molding like surfaces. The surface roughness is reduced to a minimum. The entire process chamber is flooded with vapor while undergoing vacuum. This ensures a reproducible processing of complex geometries and internal surfaces. VFS works for all common plastics and particularly for flexible polymers such as TPU, for which mechanical techniques are not suitable.

Ready for the factory of the future

The Powerfuse S is Industry 4.0 ready. The system offers fully automatic loading, connectivity via OPC-UA server and batch tracking features. Efficient service is ensured via remote access. Validated and specially developed programs for all common materials are available and ready to use. All process parameters can be adapted individually for other materials. This ensures flexibility and a seamless integration with existing production processes such as the Dyemansion Print-to-Product workflow.

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)*

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 operations (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