

PHS

Powder
Handling
Station



Recover the maximum amount of unsintered powder from SLS 3D printing

with the Sinterit Powder Handling Station, a tool for cost-effective post-processing



| Why does recovering powder matter?

- The per-print cost with SLS is not as linear as with FDM or SLA technologies. Cost per part shouldn't be figured based on material cost per liter or kilogram. That is mostly because **unsintered powder can be reused, thus considerably reducing powder costs.**
- The **time you spend on post-processing and refreshing powder is also crucial.**

With PHS you can optimize both cost and time spend on post-processing.



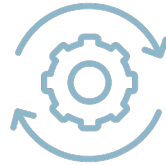


What makes our PHS unique?



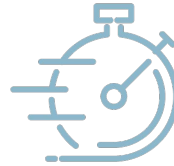
MAXIMUM POWDER RECOVERY & SAVINGS

- **Recover up to 95% of powder** with our advanced powder collecting system
- **Refresh and reuse recovered powder** to drive savings and limit maintenance costs



EFFICIENT WORKFLOW

- PHS **covers all stages of post-processing:** depowdering, cleaning, sifting and refreshing. It can also be **combined with our sandblasting machine.**
- Sinterit's PHS can be used for a few of our printers (if you use the same material in each)



EASY AND FAST CLEANING PROCESS

- Cleaning the printer and refreshing the collected powder in the PHS **takes up to 40 minutes.**
- The PHS collects all unsintered powder in the container. You then simply add the fresh powder to the powder chamber and **the PHS does the rest**, setting you up with a refreshed powder mix for your next print run.



MATERIAL COMPATIBILITY & CAPACITY

- Compatible with **all Sinterit powders**
- **Powder capacity - 20L.** That's sufficient for both compact and industrial machines



| Sinterit objectives for the PHS design

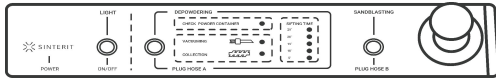
- To make post-processing easier and cost-effective.
- To deliver a reliable machine with low machine failure rates.
- To ensure that operating costs stay low and no components degrade during use. This is why our machines have virtually no plastic components in their design.
- To enable easy-to-perform remote service.
- There's no need to buy extra chambers or PHS to manage cake change. This means long-term costs may prove even more optimal.

Useful features

to make your work efficient

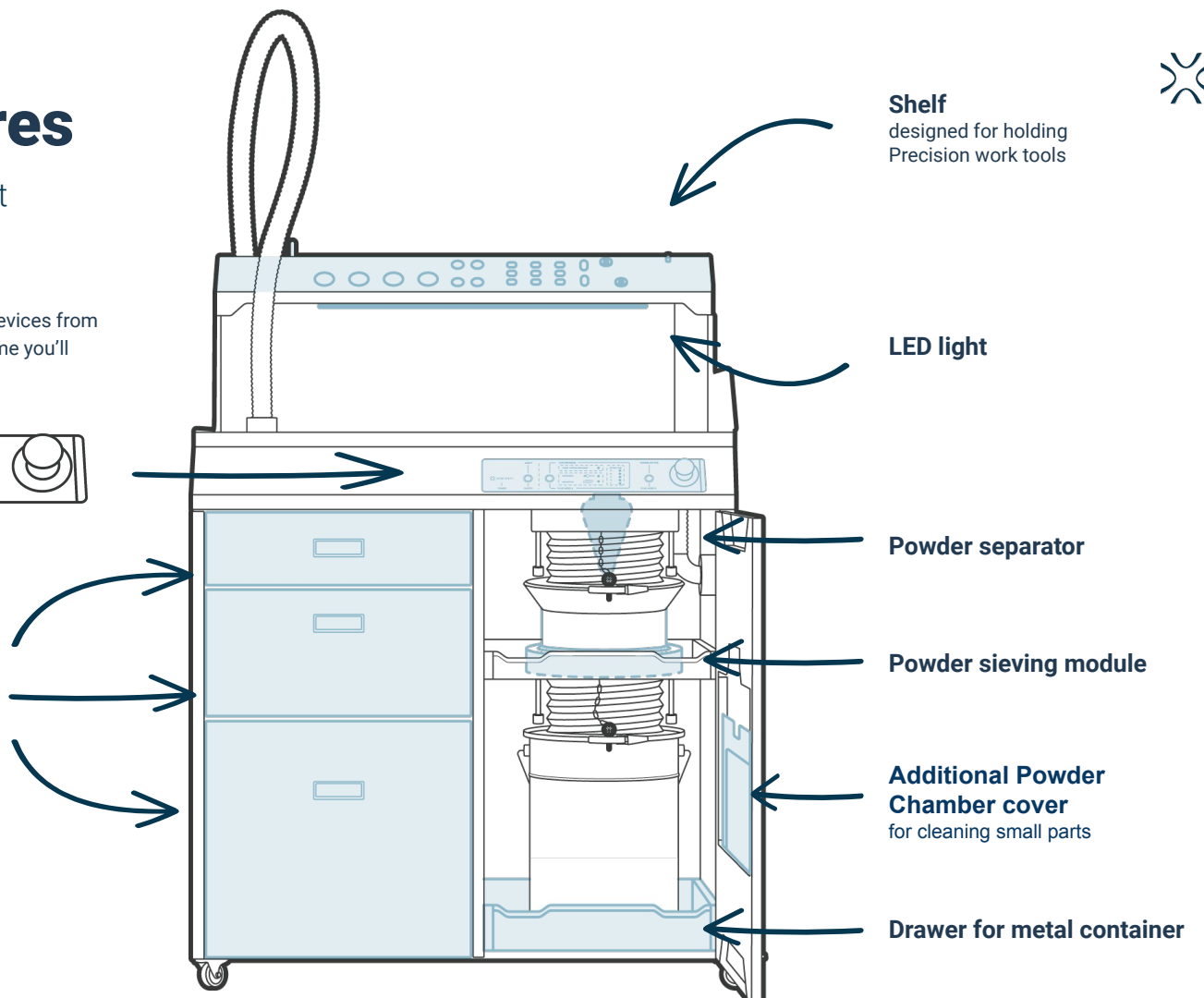
The control panel

Allows you to operate all interconnected devices from a single console while also showing the time you'll need to finish sieving.



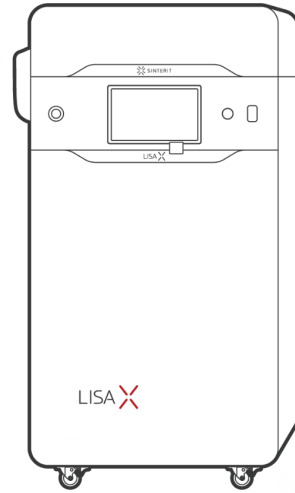
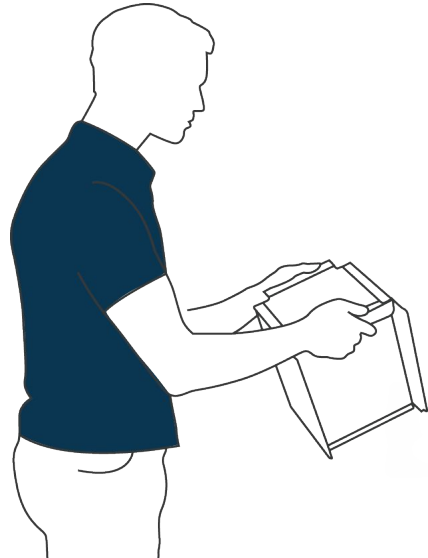
Spacious drawers,

ready to hold your IO Box, an additional powder container and other accessories you want to have on hand.



Efficient work

all processes are handled
in one place



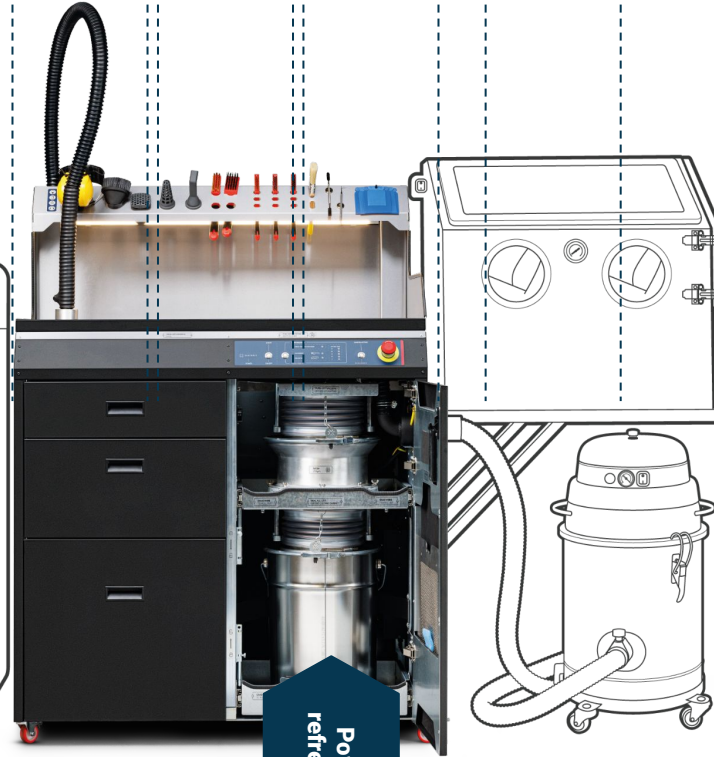
Printing

Cleaning
the printer
& work area

Initial
depowdering

Precise
depowdering

Printouts
sandblasting



Powder
refreshing





| How does it work?

PHS makes post processing of printouts in 3D SLS technology **faster, cost-effective, ergonomic** and **user friendly**.



1 Initial post processing

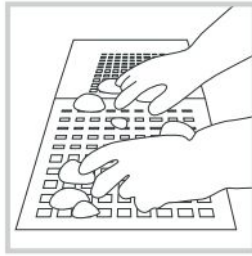
2 Precise depowdering

3 Printout sandblasting

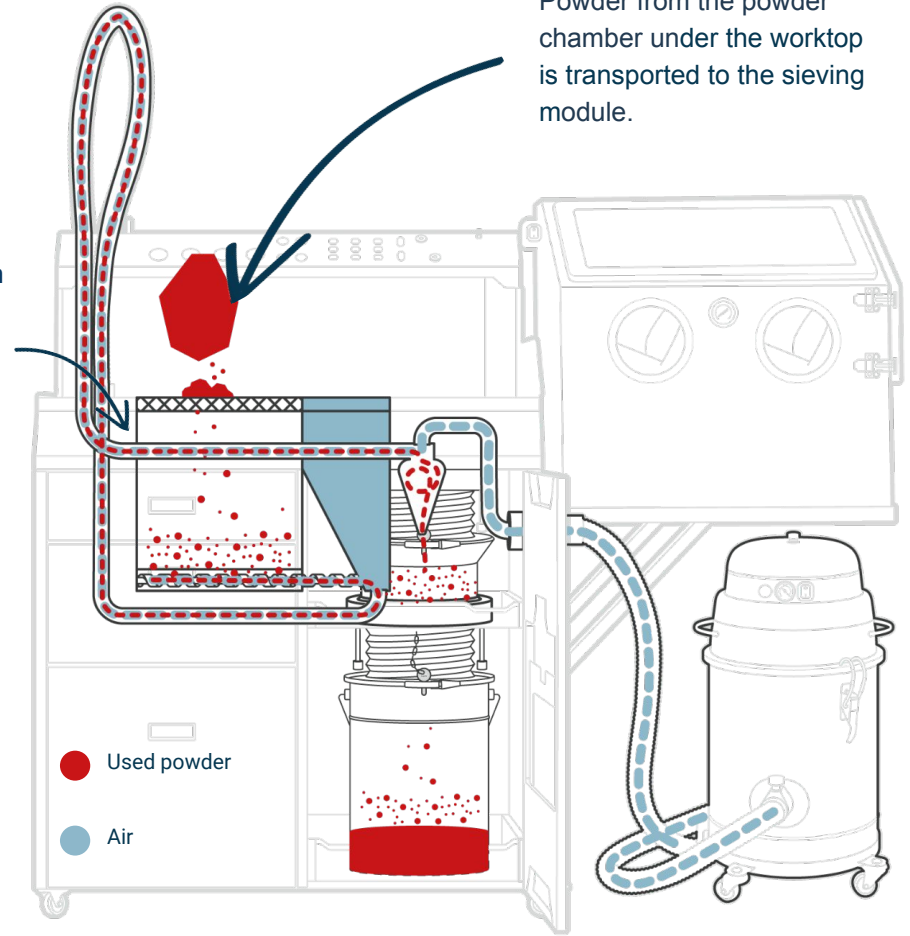
4 Cleaning the printer & work area

5 Powder refreshing

1 Initial post processing



Thanks to the chamber cover with large holes located on the worktop, you can **easily push the unsintered powder through while pre-cleaning the print.**



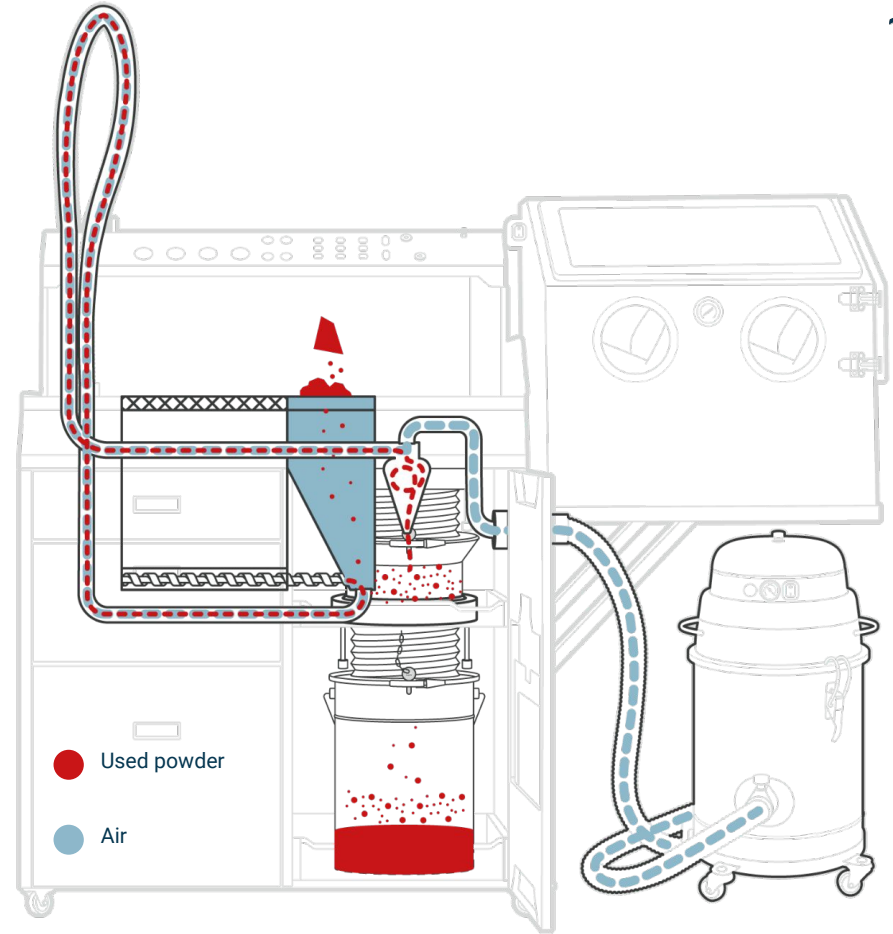


2 Precise depowdering



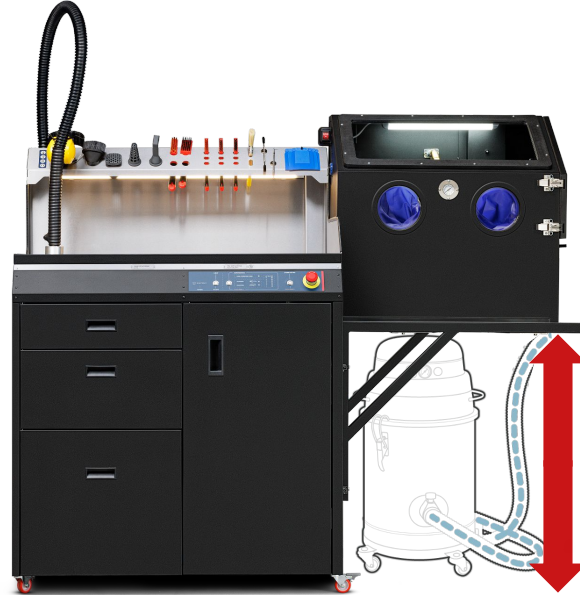
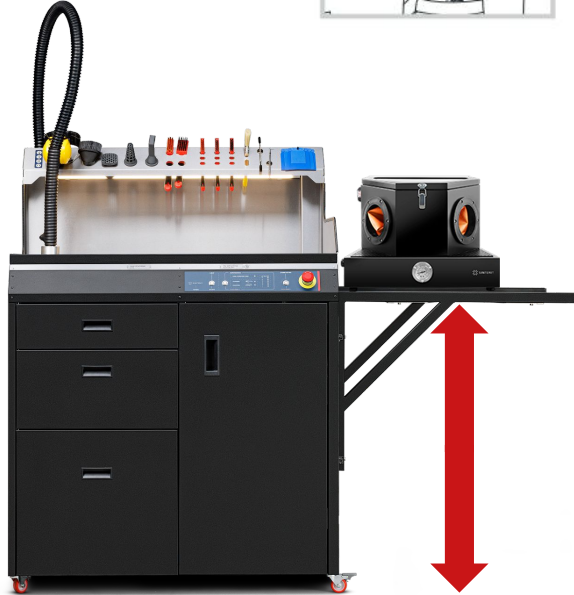
The station enables all processes as soon as the SLS print is removed from the chamber.

We also offer Dedicated Powder Tools to optimize powder recovery, enable cleaning and minimize dust dispersion into the environment.





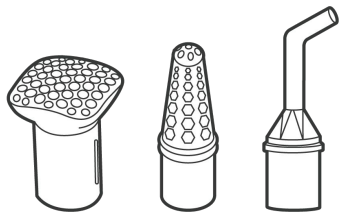
3 Printouts sandblasting



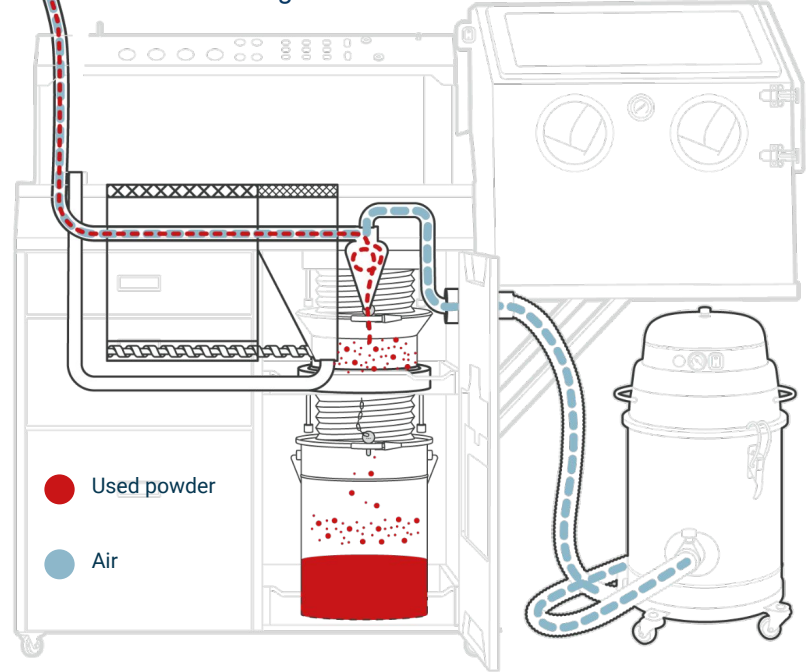
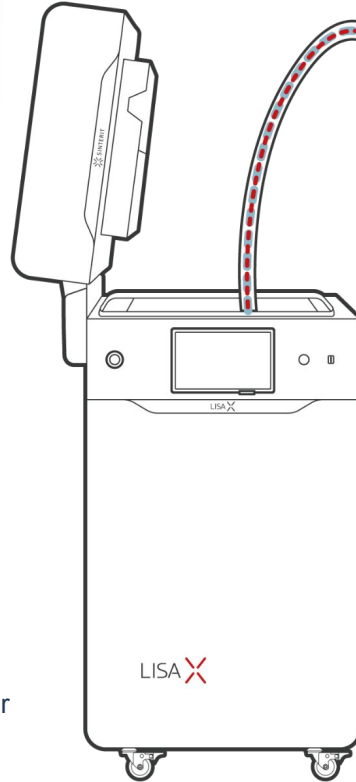
The metal shelf (included in the set) allows you to place the **Foldable Tray** or **sandblaster** close to the PHS workspace, shortening your work time and limiting the radius of powder distribution outside the station

Two mounting heights.
Dedicated for both Sandblaster and Sandblaster SLS.

4 Cleaning the printer & work area



Useful nozzles for easier cleaning.



The flexible 1,7m suction hose easily reaches the printer and entire PHS workspace. This allows for initial cleaning of the print, the printer itself and the work area.

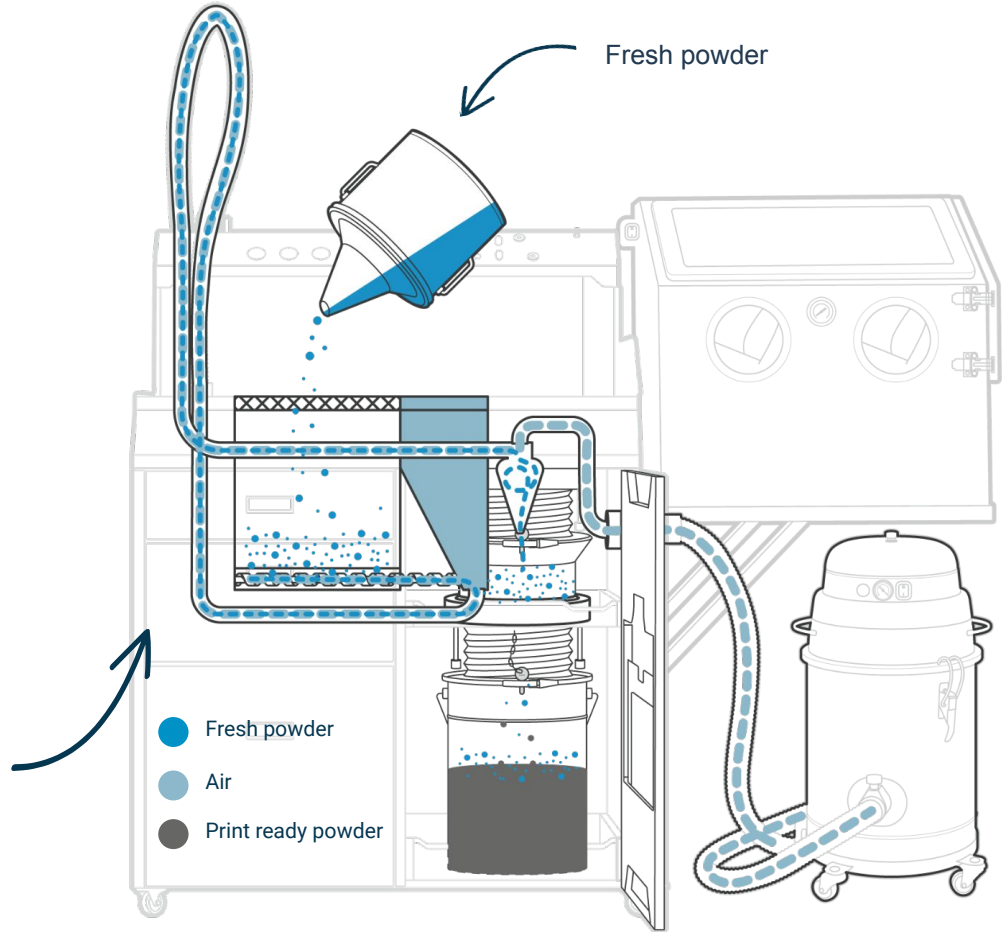
All powder recovered from the cleaning is reusable.



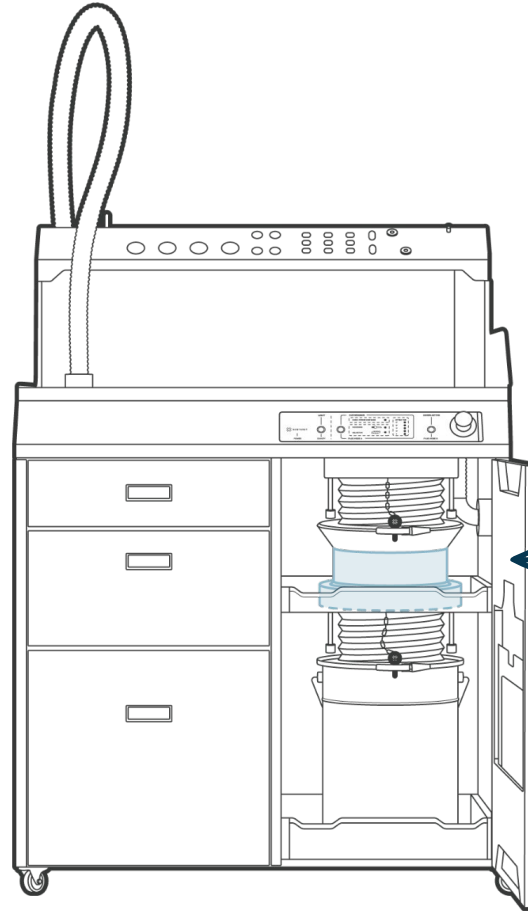
5 Powder refreshing



All the recovered powder is transferred to a sieving module and then goes into a metal container. Now it's ready to reuse and can be mixed with fresh powder.



5 Powder refreshing



The sieving module located under the worktop sieves all the powder spilled during work and **readies it for further processing** - mixing the used powder with the fresh





PHS Specification	
Dimension [mm / in] :	700 x 1000 x 1580 / 27.6 x 39.4 x 62.2
Weight [kg / lb]:	150 / 331
Installation size (FULL SYSTEM - WITH PRINTER) [mm / in] :	1700 x 2200 x 1800 / 66.9 x 86.6 x 70.9
Set contains:	Sieving module
	Built-in powder separator
	3 drawers - storage space 63 L
	Shelf for sandblaster
	Hoses, connectors & special 3d-printed vacuum inlets
	LED lighting
2 Metal containers 20 L	
Power supply [V]	110/230 [V] AC, 12 VDC 6,67 A, 80W



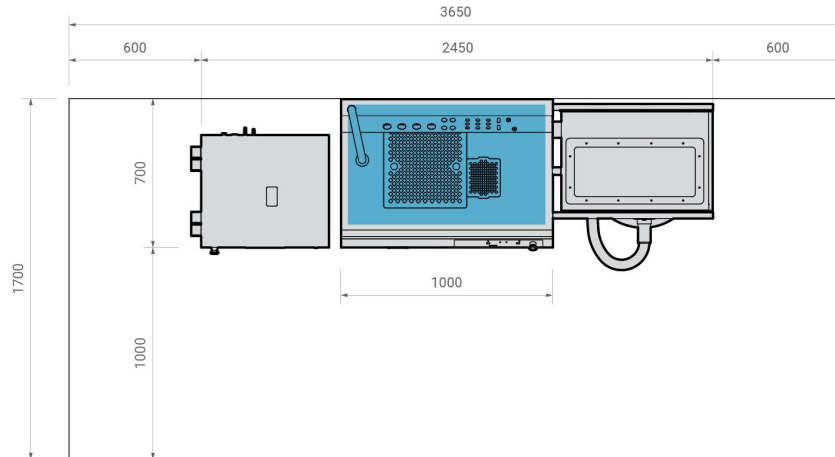


5.5 m²



Space needed for a full set

Including Lisa X printer, PHS, Sandblaster,
ATEX/Intertek Vacuum and Dedicated
Powder Tools



Need more information about PHS?

Contact our SLS experts:

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Want to learn more about cost-effective SLS 3D printing?

[Download our ebook on How to reduce SLS 3D printing costs:](#)



How to reduce SLS 3D printing costs?



Optimize fusion space

If you know how to position material in your printing area, you can significantly increase the number of parts printed with each SLS 3D printer. This means you can print more parts in less time, which reduces the cost per part. To learn more about how to optimize your SLS 3D printing process, download our ebook on How to reduce SLS 3D printing costs.

Production - Large parts

Material	Volume	Weight	Price
PA12 GF	100 cm ³	100 g	100 €
PA12 GF	1000 cm ³	1000 g	1000 €
PA12 GF	10000 cm ³	10000 g	10000 €

How much you can print with compact SLS 3D printer

How much you can print with compact SLS 3D printer depends on the volume of parts, the material, the price of the material, and the price of the printer. To learn more about how to optimize your SLS 3D printing process, download our ebook on How to reduce SLS 3D printing costs.

Production - small parts

Material	Volume	Weight	Price
PA12 GF	100 cm ³	100 g	100 €
PA12 GF	1000 cm ³	1000 g	1000 €
PA12 GF	10000 cm ³	10000 g	10000 €

Prototyping - 4 prototypes

Material	Volume	Weight	Price
PA12 GF	100 cm ³	100 g	100 €
PA12 GF	1000 cm ³	1000 g	1000 €
PA12 GF	10000 cm ³	10000 g	10000 €