SINTERTEK

Solidzer 450 Pro

Layered Laser Fusion Technology



The next generation of Additive Manufacturing

Sintertek's **Layered Laser Fusion Technology** represents the pinnacle of additive manufacturing solutions, delivering unique performance, production rate, tolerance, durability and surface quality.

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NEW GENERATION PRODUCTION

Layered Laser Fusion Technology

With **LLF** Technology it is possible to produce parts that are fit for function and have similar prope injection molding. Manufactured parts can be used in many areas including automotive, aerospace, and medical industries. This technology enables the user to produce spare parts, functional prototypes digital models economically and quickly without using any molds or tools.



*Vacuum cleaner housing part made from XForm PA22 using the **Solidzer 450Pro.***

How it works?

Once you select production material **Solidzer 450 Pro** can manufacture your model without any additional user input, fully automatically.

Automated process starts with virtual layering of your model and calculating the required parameters. **Solidzer** spreads the powder material on to the building area. Then a physical layer is formed with the help of the laser as it scans and melts the needed shape. This process is repeated layer by layer thousands of times until the all the part are completed. With this method **Solidzer** manufactures smooth surfaces without any supports, where the part is suspended in un fused powder.

All processes such as drilling, dying, plating, sanding and cutting can be applied to the produced parts similar to injection parts. If required, produced parts can be glued together to form larger sizes without loosing any physical properties.

In addition to all the advantages of layered laser fusion technology, Sintertek and its partners provide you with 25 years of local service support and production experience.

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SOLIDZER

Solidzer 450 Pro

Solidzer machine platform developed specifically for layered fusion technology provides the user with simplified interface and efficiency improving features.

Customized serial manufacturing

Products manufactured have competing properties to injection molding technology these parts can be build without any molds or tools. These parts can be built at the same time even, when each part differs from each other.

From design to product : Fastest way

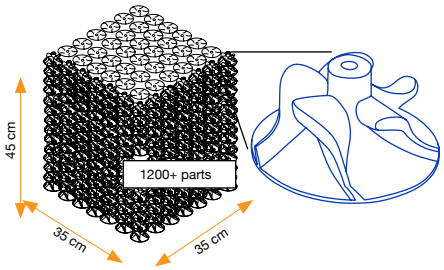
Solidzer 450Pro's reduces the cooling and warm up times of the production up to 75% thanks to it's modular building area and advanced thermal sensors.

Repeatable and consistent parts

Solidzer with it's digital laser scanner, absolute positioning sensors, servo motors and heat treated block frame will keep it's consistent output for many years to come.

Many parts at once

Building box can be stacked with hundreds of different parts and all these parts will be manufactured at once even if they are on top of each other. Thanks to this ability user can optimize and speed up their manufacturing schedule.





*Turbine model made from XForm PA22 using the **Solidzer 450Pro.***

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XForm Materials

Select from XForm materials and match the material performance required for your specific applications.

XForm PA11B

This material is defined as flexible and robust plastic. It has **high strength** and **heat resistant.**

XForm PA22

Polyamide-based material used for **functional part**s.

XForm PA32GB

Glass powder reinforced thermoplastic used for **wearproof** functional parts.

XForm PA42MF

Aluminium powder reinforced thermoplastic used for functional parts.

XForm PA52CF

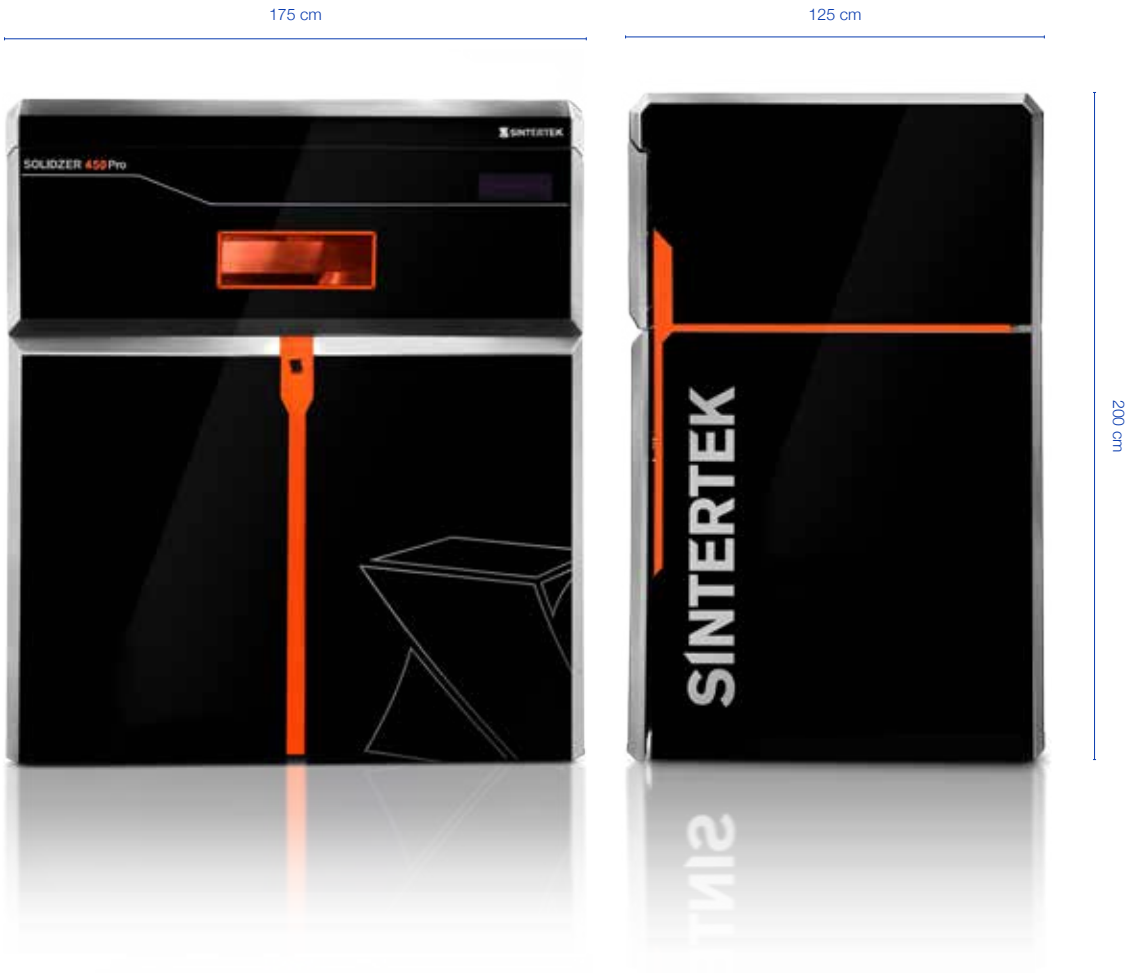
Carbon-fiber powder reinforced thermoplastic used for functional parts.

XForm PP90

This material is defined as economic plastic used for **prototypes** and **mock-ups.**

XForm TPU90

Polyurethane - based thermoplastic resistant to **abrasion** and **stretching.**



Technical Data Solidzer 450Pro	
Building Area	*350mm x 350mm x 450mm*
Effective Building Area	*310mm x 310mm x 430mm*
Building Speed (Z)	*30mm/h*
Layer Thickness	*60 µm - 150 µm*
Laser Type	*70W / CO2*
Scan Speed During Build Process	*10m/s*
Power Consumption	*3.5kW normal, 10kW maximum*
Power Supply	*32A 380V 3 Faz*
Compressed Air Supply	*6bar 100lt/dk*
Nitrogen Generator	*Integrated*
Software	*SolidzerGO,ReportMaster*

Dimensions	
Dimensions (X x Yx Z)	*200cm x 175cm x 125cm*
Recommended Installation Space	*250cm x 350cm x 300cm*
Weight	*1400kg*

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