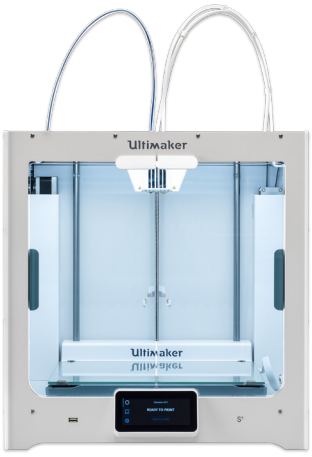


Ultimaker S5

Product data sheet

Reliability at scale

The Ultimaker S5 is built to maximize uptime with great print results and a large build volume. It delivers best-in-class technical specifications for a desktop 3D printer, plus the performance and peace of mind that comes with using our complete 3D printing solution – one trusted by hundreds of thousands of professionals worldwide.

Open and connected system

With the Ultimaker S5, you are not only getting a market-leading 3D printer. Our open filament system ensures you are never locked in. Our online Ultimaker Marketplace gives you free access to material profiles from leading brands. And our software simplifies the 3D printing workflow, from integration with leading CAD platforms to managing your printers via your network or the cloud.

Key features

- ✓ **Larger build volume:** Scale up with bigger parts or batch production
- ✓ **Network connectivity:** Print via Wi-Fi, LAN, cloud, or with USB
- ✓ **Touch screen:** Effortless operation via an award-winning user interface
- ✓ **Advanced active leveling:** Reliable first-layer adhesion, enables unattended use
- ✓ **Front enclosure:** Improved printing environment for better print results
- ✓ **Flow sensor:** Stay informed when filament runs out to increase print success
- ✓ **Easy setup and monitoring:** With NFC material recognition and internal camera
- ✓ **Composite materials compatible:** Print parts with high strength and unique properties

Why choose Ultimaker

3D printers that simply work
Our award-winning 3D printers are robust, reliable, and easy to use. They deliver quality parts time and again. Certified to run 24/7, they allow you to achieve the results you need more quickly and easily.

Software ready for Industry 4.0
Trusted by millions of users across 14 languages, Ultimaker Cura integrates with any workflow through Ultimaker Marketplace plugins.
Then scale production and digital distribution with Ultimaker Cloud.

Material choice like never before
Ultimaker offers the widest material choice on the market. Through our Material Alliance, choose the perfect filament for your application – from advanced polymers to carbon fiber composites.

Support dedicated to your success
Wherever you are in the world, Ultimaker support is close by. Our global network of service partners offer professional installation, training, and maintenance in your language and time zone.

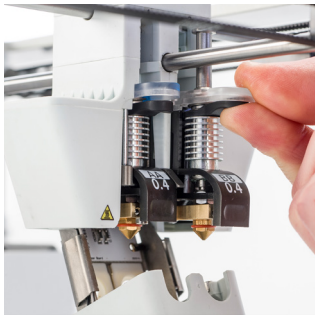
Request a quote today at ultimaker.com/quote/request

Ultimaker

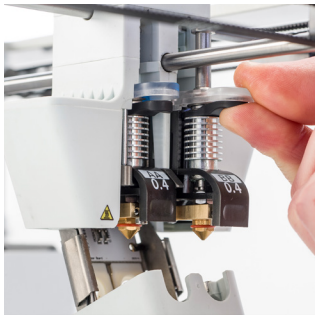
Ultimaker S5 specifications

Printer and printing properties	Technology	Fused filament fabrication (FFF)
	Print head	Dual extrusion print head with a unique auto-nozzle lifting system and swappable print cores
	Build volume (XYZ)	330 x 240 x 300 mm (13 x 9.4 x 11.8 in)
	Layer resolution	0.25 mm nozzle: 150 - 60 micron 0.4 mm nozzle: 200 - 20 micron 0.6 mm nozzle: 300 - 20 micron 0.8 mm nozzle: 600 - 20 micron
	XYZ resolution	6.9, 6.9, 2.5 micron
	Build speed	< 24 mm^3/s
	Build plate	Heated glass build plate (20 - 140 °C)
	Nozzle diameter	0.4 mm (included) 0.25 mm, 0.6 mm, 0.8 mm (sold separately)
	Operating sound	< 50 dBA
	Connectivity	Wi-Fi, LAN, USB port
Physical dimensions	Dimensions (with Bowden tubes and spool holder)	495 x 585 x 780 mm (19.5 x 23 x 30.7 in)
	Net weight	20.6 kg (45.4 lbs)
Software	Supplied software	Ultimaker Cura, our free print preparation software Ultimaker Connect, our free printer management solution Ultimaker Cloud, enables remote printing
	Supported OS	MacOS, Windows, and Linux
Warranty	Warranty period	12 months

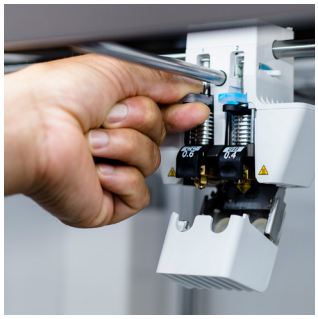
Compatible accessories



Print core AA
0.25, 0.4, 0.8 mm
Quick-swap nozzles minimize downtime



Print core BB
0.4, 0.8 mm
Specially designed for printing soluble support material



Print core CC
0.6 mm
Ruby-tipped for printing abrasive composites

Nozzle covers
x10
Replacement covers keep your print head in top condition

Compatible materials

Unlock a wide range of applications with complete material choice. Use Ultimaker materials, any third-party filament, or access material profiles from leading brands. Choose from these materials and more.

Easy to print and visual quality
- Ultimaker PLA
- Ultimaker Tough PLA

Mechanical strength
- Ultimaker ABS
- Ultimaker PC
- Ultimaker CPE

Wear resistance
- Ultimaker Nylon
- Ultimaker PP
- Igus Iglidur I180-PF

Heat resistance
- Ultimaker CPE+
- DSM Arnitel ID 2060 HT

Flexibility
- Ultimaker TPU 95A
- DuPont™ Hytrel® 3D4100FL

Reinforced composites
- Owens Corning XSTRAND™ GF30-PA6
- DSM Novamid® ID1030 CF10

Support
- Ultimaker PVA
- Ultimaker Breakaway

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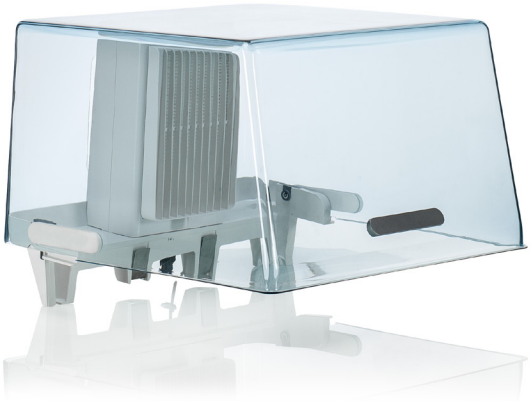
DESIGN AWARD 2019

Ultimaker

Specifications subject to change. EN 07/2019 v1.01



Ultimaker S5 Air Manager
Product data sheet

Improved air quality, safer workplace

The Ultimaker S5 Air Manager ensures a safer working environment, providing a closed, inside-out airflow for the Ultimaker S5 3D printer. It filters up to 95% of all ultrafine particles (UFPs) emitted during 3D printing and forms a safe, physical barrier to the print area.

More materials, less hassle

Optimized software profiles precisely control filtering for every Ultimaker material and over 40 third-party filaments. So you can focus on creating the perfect 3D printed part with any material you choose. No worries about UFPs, and no extra time configuring your printer.

Key features

- ✓ **EPA filter:** Removes up to 95% of UFPs
- ✓ **Controlled extraction:** Inside-out airflow optimized for filtering and print quality
- ✓ **Enhanced safety:** Physical barrier prevents reaching inside the printer
- ✓ **Optimized for your application:** Detects material being used and adjusts airflow
- ✓ **Easy setup:** Printer detects when the Air Manager is connected
- ✓ **Smart monitoring:** Printer tracks filter usage and prompts replacement

Why choose Ultimaker

3D printers that simply work
Our award-winning 3D printers are robust, reliable, and easy to use. They deliver quality parts time and again. Certified to run 24/7, they allow you to achieve the results you need more quickly and easily.

Software ready for Industry 4.0
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Then scale production and digital distribution with Ultimaker Cloud.

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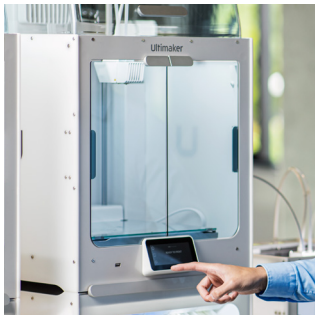
Ultimaker

Ultimaker S5 Air Manager specifications

Properties	Filter technology	EPA filter
	Fan technology	Air extraction by low-noise brushless fan
	Air refresh rate	1 - 50 m^3/h (35 m^3/h nominal rate for most materials at 23°C)
	Filter efficiency	Up to 95%
	Filter replacement	Recommended every 1,500 print hours (approx. 1 year)
	Operating sound	< 51 dBA (including Ultimaker S5)
	Connection (data and power)	UMB connection (included)
	Compatible 3D printers	Ultimaker S5
	Compatible materials	Optimized for Ultimaker PLA, Tough PLA, ABS, Nylon, CPE, CPE+, PC, PP, TPU 95A, PVA, Breakaway (Also supports third-party materials)
Physical dimensions	Dimensions	490 x 503 x 350 mm (19.3 x 19.8 x 13.8 in)
	Dimensions (including Ultimaker S5)	490 x 503 x 967 mm (19.3 x 19.8 x 38 in)
	Net weight	3.6 kg (7.9 lbs)
Software	Supplied software	Ultimaker Cura, our free print preparation software Ultimaker Connect, our free printer management solution Ultimaker Cloud, enables remote printing
Warranty	Warranty period	12 months

Compatible products

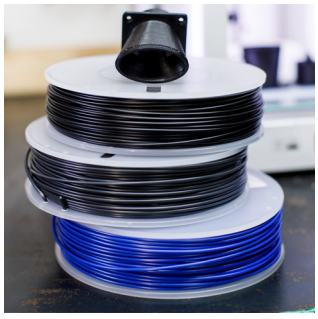


Ultimaker S5

Ultimaker S5 3D printer is required for use

Ultimaker S5 Material Station

Simplify and automate material handling



Ultimaker materials

Compatible with the full Ultimaker material range

Third-party materials

Use with any other material, including composites

Compatible materials

Unlock a wide range of applications with complete material choice. Use Ultimaker materials, any third-party filament, or access material profiles from leading brands. Choose from these materials and more.

Easy to print and visual quality
- Ultimaker PLA
- Ultimaker Tough PLA

Mechanical strength
- Ultimaker ABS
- Ultimaker PC
- Ultimaker CPE

Wear resistance
- Ultimaker Nylon
- Ultimaker PP
- Igus Iglidur I180-PF

Heat resistance
- Ultimaker CPE+
- DSM Arnitel ID 2060 HT

Flexibility
- Ultimaker TPU 95A
- DuPont™ Hytrel® 3D4100FL

Reinforced composites
- Owens Corning XSTRAND™ GF30-PA6
- DSM Novamid® ID1030 CF10

Support
- Ultimaker PVA
- Ultimaker Breakaway

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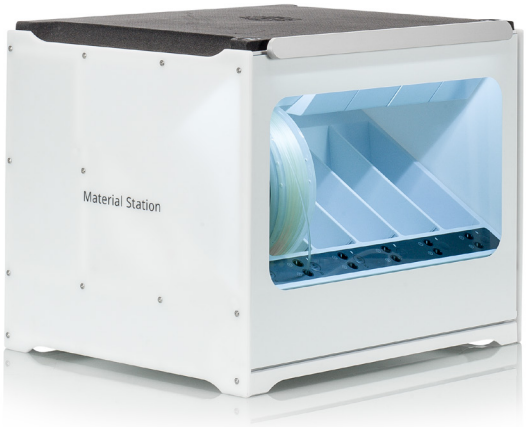
Ultimaker

Specifications subject to change. EN 08/2019 v1.01



Ultimaker S5 Material Station

Product data sheet

Productivity to power your business

Seamlessly integrating with the Ultimaker S5, the Material Station redefines material handling – to unlock truly 24/7 production. Load up to six material spools inside the humidity-controlled chamber and smart features take care of the rest – composite-ready feeder wheels, filament flow sensors, and automatic switching when a material runs out. Now you can achieve increased productivity and higher-quality production.

Simplify your 3D printing workflow

We've been making 3D printing easier since 2011 – and this is our biggest step yet. Front-load materials in seconds, configure to your needs, and stop worrying about material storage conditions. The Ultimaker S5 Material Station is also fully integrated into our software tools, so you stay informed and 100% focused on doing your best work.

Key features

- ✓ **Fast and easy loading:** Front-facing bay for up to six materials reduces loading time to a few seconds
- ✓ **Uninterrupted printing:** Sensors detect when one material spool ends and automatically loads the next
- ✓ **Humidity control:** Intelligent atmospheric management keeps relative humidity below 40%
- ✓ **Easy setup and monitoring:** NFC material auto-recognition and seamless integration with Ultimaker software
- ✓ **Composite materials compatible:** Print parts with high strength and unique properties
- ✓ **Limitless configurations:** Keep your most-used materials ready to print when you need – Ultimaker and third-party filaments

Why choose Ultimaker

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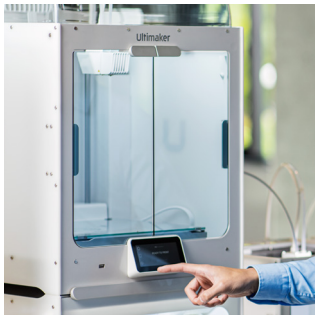
Ultimaker

Ultimaker S5 Material Station specifications

Properties	Filament diameter	2.85 mm
	Material spool dimensions	Width: 50 - 70 mm (2 - 2.7 in) Diameter: 197 - 203 mm (7.8 – 8 in) Core diameter: > 98 mm (3.8 in)
	Material capacity	6 spools
	Material recognition	Auto-recognition enabled with NFC scanner
	Feeder type	Dual-geared, abrasion-resistant
	Data connection	UMB connection (included)
	Power input	85 - 264VAC, max. 125 W
	Power output	Max. 10A (for Ultimaker S5)
	Compatible 3D printers	Ultimaker S5
	Compatible materials	Optimized for Ultimaker PLA, Tough PLA, ABS, Nylon, CPE, CPE+, PC, PP, TPU 95A, PVA, Breakaway (Also supports third-party materials)
Physical dimensions	Dimensions	491 x 438 x 400 mm (19.3 x 17.2 x 15.7 in)
	Net weight	17.7 kg (39 lbs)
Software	Supplied software	Ultimaker Cura, our free print preparation software Ultimaker Connect, our free printer management solution Ultimaker Cloud, enables remote printing
Warranty	Warranty period	12 months

Compatible products

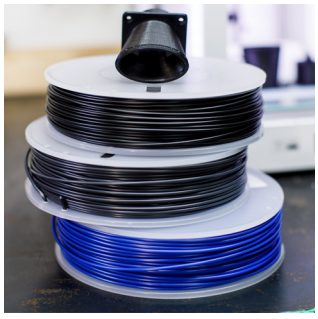


Ultimaker S5

Ultimaker S5 3D printer is required for use

S5 Air Manager

EPA filter removes up to 95% of UFPs



Ultimaker materials

Load any of the full Ultimaker material range

Third-party materials

Use any other material, including composites

Compatible materials

Unlock a wide range of applications with complete material choice. Use Ultimaker materials, any third-party filament, or access material profiles from leading brands. Choose from these materials and more.

Easy to print and visual quality
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- Ultimaker Tough PLA

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- Ultimaker ABS
- Ultimaker PC
- Ultimaker CPE

Wear resistance
- Ultimaker Nylon
- Ultimaker PP
- Igus Iglidur I180-PF

Heat resistance
- Ultimaker CPE+
- DSM Arnitel ID 2060 HT

Flexibility
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Reinforced composites
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Support
- Ultimaker PVA
- Ultimaker Breakaway

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Ultimaker

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