







Ultimaker Metal Expansion Kit

Take advantage of a new range of metal 3D printing applications by upgrading the Ultimaker S5 with the Metal Expansion Kit. Its seamless workflow makes creating stainless steel parts easier, more efficient, and affordable.

How it works

-  1. Print with BASF Forward AM Ultrafuse® 17-4 PH stainless steel filament¹ to create a “green part”
-  2. Send your green part for post-processing by BASF's network of certified debinding and sintering services
-  3. Track debinding and sintering progress via an online portal, and receive your part back in 10 business days
-  4. Put your finished metal part to use – from small series of tools to auxiliary components

Why choose the Metal Expansion Kit?

An end-to-end metal 3D printing workflow

The Ultimaker Metal Expansion Kit provides access to software optimizations, post-processing services, and extensive e-learning modules.

Design and print high-quality steel parts

17-4 PH stainless steel plus a metal-optimized support material² offers the freedom to create strong parts with complex geometries.

What's included

- ✓ BASF Forward AM Ultrafuse® 17-4 PH (1 kg)
- ✓ BASF Forward AM Ultrafuse® Support Layer (300 g)²
- ✓ Packaging for green parts and voucher for post-processing
- ✓ Ultimaker Print Core CC 0.4
- ✓ Ultimaker Print Core DD 0.4²
- ✓ Magigoo Pro Metal (50 ml) adhesive
- ✓ Free Ultimaker Cura software with optimized metal part slicing features
- ✓ Access to exclusive metal FFF e-learning content on Ultimaker Academy

Metal parts. Up to 90% cheaper

Comparing the Ultimaker S5 and Metal Expansion Kit to CNC and other additive methods, you can save up to 90% creating the metal tools and parts you need.

Plastic or metal? You decide

3D print either plastic or metal depending on your needs. Simply swap materials and change out the print cores, for more versatility and potential applications.

[Learn more](#)

1. Use of the Air Manager is strongly recommended when printing with BASF Forward AM Ultrafuse® 17-4 PH material
2. Only available in Europe

The Ultimaker platform



3D printers that simply work

Our award-winning 3D printers are robust, reliable, and easy to use. They deliver quality parts time and again. Designed and tested 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 Digital Factory.



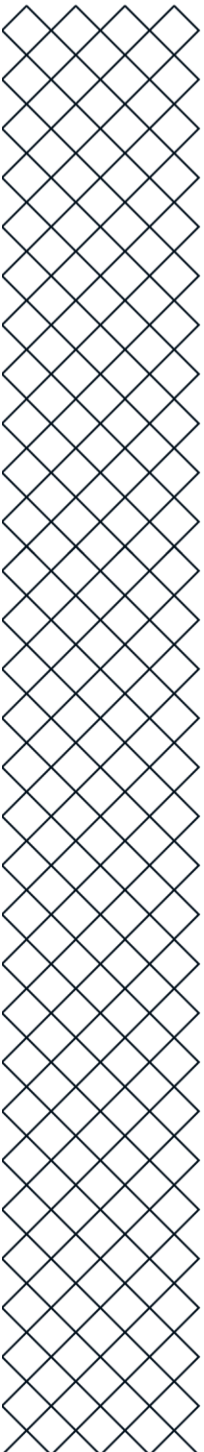
Material choice like never before

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.



Product

What is the Ultimaker Metal Expansion Kit?

The Ultimaker Metal Expansion Kit is an upgrade for the Ultimaker S5 to unlock new metal FFF printing capabilities and allows you to explore a new range of metal 3D printing applications. Its easy workflow makes creating stainless steel parts easier, more efficient, and affordable.

What problems does the Ultimaker Metal Expansion Kit solve?

Although metal printing on an FFF printer like the Ultimaker S5 was already possible, the process was still labour intensive and time-consuming and required a lot of knowledge. With the Ultimaker Metal Expansion Kit we deliver a complete solution that enables the user to go from CAD to metal part with minimum hassle.

What are the benefits of the Metal Expansion Kit?

The Ultimaker Metal Expansion Kit enables customers to create stainless steel parts on an Ultimaker in an easy way. It comes with the following benefits:

- **End-to-end metal 3D printing workflow**
The Ultimaker Metal Expansion Kit provides access to software optimizations, post-processing services, and extensive e-learning modules.
- **Freedom to design high-quality steel parts**
17-4 PH stainless steel plus a metal-optimized support material* offers the freedom to create strong parts with complex geometries.
- **Metal parts. Up to 90% cheaper**
Comparing the Ultimaker S5 and Metal Expansion Kit to CNC and other additive methods, you can save up to 90% creating the metal tools and parts you need.
- **Plastic or metal? You decide**
3D print either plastic or metal depending on your needs. Simply swap materials and change out the print cores, for more versatility and potential applications.

(* Only available in Europe)

Which items are included in the Ultimaker Metal Expansion Kit?

The Metal Expansion Kit is a complete solution that combines materials, accessories, software, and services. The following is included:

- **Materials**
 - BASF Forward AM Ultrafuse® 17-4 PH – Ultimaker Certified (1 kg)
 - BASF Forward AM Ultrafuse® Support Layer – Ultimaker Certified (300 g)*
- **Accessories**
 - Print core CC 0.4
 - Print core DD 0.4*
 - Magigoo Pro Metal (50 ml)
 - Glue release tray
 - Cleaning filament (10 pcs)
 - Nozzle covers (4 pcs)
 - Packaging material for green part shipment
- **Software & services**
 - Ultimaker Cura 5.1 with new MFFF features
 - 1-hour e-learning course in Ultimaker 3D printing Academy



- Access to debinding & sintering services via BASF's D&S portal
- A voucher for debinding & sintering to get started

(*) Only available in Europe

Which printers is the Ultimaker Metal Expansion Kit compatible with?

It is recommended to use the Ultimaker Metal Expansion Kit with the Ultimaker S5 and Air Manager. Technically, the kit is also compatible with the Ultimaker S3, however, good ventilation like with the Air Manager is strongly advised to directly remove emissions.

What are the key applications of Ultimaker's metal printing solution?

The Metal Expansion Kit is ideal for creating low volumes (series of 1-20 pieces) of non-standard small parts. This includes applications such as functional prototypes, tools, jigs & fixtures, replacement parts for production lines, and auxiliary components.

How does the Ultimaker Metal Expansion Kit compare to other solutions in the market?

The Ultimaker S5's low total cost of ownership and small size makes it easy to adopt and scale an affordable metal 3D printing solution. Compared to CNC and other additive methods, you can save up to 90% creating the metal tools and parts you need.

In comparison with other MFFF desktop printing solutions Ultimaker offers a more complete workflow, that allows the user to go through the whole process with minimum hassle.

How can customers gain access to the metal 3D printing courses and other digital assets that comes with the Ultimaker Metal Expansion Kit?

Customers that purchase the Metal Expansion Kit are entitled to MFFF training on the Ultimaker 3D Printing Academy, and access to other digital assets to help them succeed in metal 3D printing. These assets will be made available on the Getting Started Portal. Please note that the customers will be onboarded to this portal via the Quick Start Guide found in the Metal Expansion Kit.

The Getting Started Portal

