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Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

<http://www.optimum.nt-rt.ru> || [omt@nt-rt.ru](mailto:omt@nt-rt.ru)

## ТЕХНИЧЕСКОЕ ОПИСАНИЕ НА ОБОРУДОВАНИЕ ДЛЯ 3D ПЕЧАТИ

### Feed roller pair with diamond coating

Variations

Productdetails



Title

DESCRIPTION

for 1.75 mm filament

for 2.85 mm filament

- High-quality design
- Milled drive grooves

### GRP Build Plate Set

Variations

Dimensions and weights

Title	length approx. (mm)	Width/depth approx. (mm)	
370 x 410 мм	370	410	1
600 x 245 мм	600	245	1
980 x 500 мм	980	500	1



## Productdetails

- Black glass fiber
- Removing the printed part with the plate
- Easily bendable, thus better detachment of printed parts in cold state Very strong adhesive effect on the printed part in heated state
- Created print parts with particularly plain underside
- Plate can be well and easy cleaned and is very durable

## Tool holder set 3d print head

### Title

BT 30

BT 40

## Titanium nozzle set

### Variations

#### Title

for 1.75 mm filament

for 2.85 mm filament

### Productdetails

#### DESCRIPTION

- Suitable for carbon material



## Stainless steel nozzle

### Variations

#### Title

for 1.75 mm filament

for 2.85 mm filament

### Productdetails

#### DESCRIPTION

- Suitable for PLA plastics or similar



# Brass nozzle set

Variations

## Title

for 1.75 mm filament  
for 2.85 mm filament

Productdetails

### DESCRIPTION



- Suitable for PLA material

# Hotend duct

Variations

## Title

for 1.75 mm filament  
for 2.85 mm filament

Productdetails

### DESCRIPTION



- Suitable for PLA material

# Torque support

Variations

## Title

120 mm  
125 mm  
130 mm  
140 mm  
150 mm  
155 mm  
160 mm

Productdetails

### DESCRIPTION



- For attachment to the main spindle
- Special sizes on request

# OPTImill 3X

Printing instead of milling



Convert your CNC milling machine into a fully functional 3D printer within minutes.

The OPTIMUM print heads OPTImill 3X and OPTImill 5X turn your machine into a top class 3D printer!

The included software can convert 3D models, read them in and convert them into a machine-compatible G-code. I.e. the components are programmed via the slice program Cura and output suitably on our machines by means of add-on software.

A very big advantage of our concept is that the wire feed is controlled via the spindle speed. This allows us to decelerate in corners and accelerate out, which leads to a very good result. Thanks to the use of web anticipation and the regulation of the feed, it is possible to print significantly faster than all commercially available competitors while maintaining the same quality. More than three times the printing speed with the same or better print quality.

The 5x print head can also print 5-axis on a 5-axis milling machine. The prerequisite for this is a CAD/CAM system that supports this function.

Set-up times of no more than 20 minutes\* - very easy integration on the machine thanks to the 3D interface.

The installation space of your CNC machine allows you to print workpieces that commercially available printers cannot produce. The advantage of our concept is that you can machine on the CNC machine during the day, and you can turn the downtime of your machine into money by using the machine effectively, for example overnight.

Due to the two heating elements on the print head of the Optimill 3x and the ring heater of the Optimill 5X, we achieve temperatures up to 300 °C, thus a wide variety of filaments can be printed. Materials like PA, PLA, ABS, Nylon, Carbon are no problem for the printer.

Unlimited possibilities result from the OPTIMUM print heads OPTImill 3X and OPTImill 5X

Whether you need large or small 3D prototypes or highly complex components; due to the flexibility and the speed, together with the accuracy of your CNC machine, you produce as cost-effective and flexible as never before. For our programming we used the 3D software Cura, in 5-axis machining we work with Siemens NX as programming software.

With the standard delivery filament with a thickness of 1.75 mm can be printed. For 2.85 mm filament, the conversion kit for the print head is required. You can also benefit economically from our exchangeable print nozzles. This does not require the entire assembly to be replaced, as is often the case with other manufacturers.

Extruder drive mount	16 mm
Heating	100 W
Explanation to heating	at 24 V
Heating element	2 heating cartridges
Adjustable temperature range	150 – 300 °
Temperature control	PID (Proportional, Integral und Differential)
Extrusion speed	± 75 mm/s, depending on the drive concept of the
Ambient temperature Relative humidity	CNC milling machine
VPE	20 – 30 °
	no condensation
	1

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Extruder drive mount	16 mm
Heating	100 W
Explanation to heating	at 24 V
Heating element	Ring heater
Adjustable temperature range	150 – 300 °
Temperature control	PID (Proportional, Integral und Differential)±
Extrusion speed	75 mm/s, depending on the drive concept of the CNC milling machine
Ambient temperature	20 – 30 °
Relative humidity	no condensation
VPE	1

## Hot plate size 1

Prevents fast cooling of objects and improves and facilitates bonding. Increases adhesion especially for large components.



Productdetails Fully operational

### DESCRIPTION

- Heating temperature adjustable from 0 °C to 120 °C

### Dimensions

Work surface	600 x 245 mm
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### Electrical Data

Supply voltage	230 V
Mains frequency	50 Hz

### Performance data

Power	500 W
Heating temperature	0 – 120 °C

VPE	1
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## Hot plate size 2

Prevents fast cooling of objects and improves and facilitates bonding. Increases adhesion especially for large components.



Productdetails Fully operational

### DESCRIPTION

- Heating temperature adjustable from 0 °C to 120 °C

### Dimensions

Work surface	980 x 500 mm
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### Electrical Data

Supply voltage	230 V
Mains frequency	50 Hz

### Performance data

Power	2200 W
Heating temperature	0 – 120 °C

VPE	1
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## Hot plate size 3

Prevents fast cooling of objects and improves and facilitates bonding. Increases adhesion especially for large components.



Productdetails Fully operational

### DESCRIPTION

- Heating temperature adjustable from 0 °C to 120 °C

### Dimensions

Work surface 370 x 410 mm

### Electrical Data

Supply voltage 230 V  
Mains frequency 50 Hz

### Performance data

Power 500 W  
Heating temperature 0 – 120 °C

VPE 1

## Nozzle cleaning set small

For nozzle size 0.4 mm / 0.6 mm / 0.8 mm



## Nozzle cleaning set large

For nozzle size 0.8 mm / 1.0 mm / 1.2 mm



# Wire break monitoring

## Productdetails

### DESCRIPTION

- Machine stops at wire breakage or wire end
- Fault message is displayed in the control



# 3D printing interface

## Productdetails

### DESCRIPTION

- Connection plug on the milling head for the OPTImill 3X printhead
- Power supply is installed in the control cabinet
- Prepared for connection to wire-break detection
- Filament holder
- Including assembly from stock D



# Infrared radiant heater 600 x 600 x 17 mm

## Productdetails

### DESCRIPTION

- Utilization of the entire construction area
- Optimized temperature of the installation space
- 300 W of heating capacity
- Protection class IP 44





# Cleaning scraper

## Productdetails

### DESCRIPTION

- Material: stainless steel
- Color: silver
- Protection by completely retractable blade
- 40 mm blades
- 5 blades included



# Spare blades

## Productdetails

### DESCRIPTION

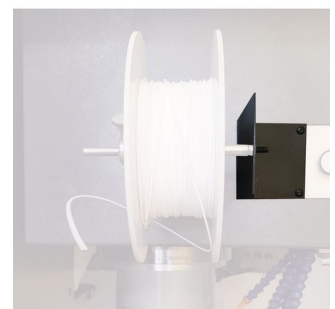
- Spare blades

# Filament roller support

## Productdetails

### DESCRIPTION

- for machines with wide heads
- Holder must be screwed (customer-side)



## Dimensions and weights

Length approx.	250 mm
Width/depth approx.	85 mm

VPE	1
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# Tool holder set 3d print head

## Productdetails

### DESCRIPTION

- Colstress holder ER32 / SK40 DIN69871
- Collet holder Key ER32
- collet chuck ER32/16mm



# Conversion kit to 2.85 mm filament

## Productdetails

### DESCRIPTION

- High quality design



### Title

for OPTImill 3X  
for OPTImill 5X

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