

# Spiral Toothed (upcut spiral)

### Solid Carbide

- Spiral toothed
- Fishtail
- Upcut-spiral

(- (Shank): 3,175mm (1/8"

#### **Characteristics**

Industrial Quality -

- Problem-free chip evacuation through spirals
- Low wear
- Clean surfaces
- Very good cost-performance ratio

### **Applications**

Glass fibre -

- Carbon fibre
- Wood
- Printed circuit boards

Available as ø1mm, ø2mm and ø3mm

# (Flute Fish (upcut spiral-2

### **Technical Specifications**

Solid Carbide -

- Double-Flute
- Fishtail Bottom
- Upcut-spiral
- (- (Shank): 3,175mm (1/8"

#### **Characteristics**

Industrial Quality -

- Through Fishtail Bottom easy dive into material
- Low wear
- Clean surfaces

#### **Applications**

universally applicable -

- Aluminium
- Plastics
- Wood

Available as ø1mm, ø2mm, ø3mm

## 3D Print Head PH-40

With the 3D Print Head PH-40 you can create high quality 3D models layer by layer. The variable temperature control makes it possible to use all filaments with a processing temperature of 150 to 265°C and a diameter of 1.75 mm. Additionally, the PH-40 contains numerous useful features, e. g. the quick release for the filament change, the automatic shutdown of the hot-end and the heating or the integrated .active cooling of the hot-end, making 3D printing even more comfortable and safe

In order to start 3D printing, please export an STL-file from your CAD program or select one of the many templates you will find in the internet. Afterwards, this file needs to prepared for the STEPCRAFT CNC System in a slicing software like CURA. This is also where the most significant 3D print parameters, such as layer thickness, nozzle diameter and infill, are defined. You will find a download file with the most important parameters for CURA here. The created work file can be processed by the control software . WinPC-NC, UCCNC or others

The control software WinPC-NC Starter does not support the operation of the 3D Print Head. Either an .upgrade to the USB full version or the control software UCCNC is required

#### :(Technical Specification (Control Unit

- (Temperature control between 150 to 265°C (equals 300 to 500 degree Fahrenheit •
- Integrated system control to handle print temperature and temperature of the heating bed
  - Continuous speed control of the optional workpiece fan •
  - Automatic shutdown of hot-end and heating bed when printing is finished
    - row LC-Display-2 •
    - (Language setting (German, English, French, Spanish •
  - (Sub-D plug to connect control box to STEPCRAFT CNC System (Plug-and-Play-15 •

- External power supply with 30 V 120 W •
- Integration on other CNC routers possible due to documented interface (see operating (instruction
  - Dimension: L 200 mm x W 165 mm x H 64 mm •

## :(Technical specification (Printing Head

- Possible diameter of filament: 1.75 mm •
- Filament material can be any material with a processing temperature between 150 to 265°C ((equals 300 to 500 degree Fahrenheit
  - (Nozzle diameter 0.4 mm, optional nozzle diameters available (0.3, 0.5, 0.7 and 1.0 mm
    - Integrated active cooling for the hot-end •
    - Continuously adjustable pressure on the pinch roller for the feed of filament
      - Quick release for the filament exchange •
      - Integrated connector socket for optional workpiece fan
        - mm mounting collar 43 •
        - (Watts heating cartridge (hot-end 40 •
        - Length of flexible hose connection: 0.8 m
          - Easy change of printing nozzle •
        - Dimension: L 80 mm x W 55 mm x H 110 mm •

وحدة الطابعة ثلاثية الأبعاد سهلة الاستخدام كما يمكن وضع المواد الخام بداخل الأداة التي تقوم بمهام الطباعة ثلاثية الأبعاد حيث يمكن تصميم النماذج المختلفة باستخدام هذه القطعة

# (End Mill 2-flute fish (upcut 6 mm pole

End Mill 2-flute fish (upcut) 6 mm pole

### **Applications:**

Universal usability for all Materials

Wood -

Aluminum -

Non-ferrous metals -

- Only partially usable for high strength metals

Available as ø6mm

اداة تستخدم للحفر بمساحة 3,175 مم يمكن استخدامها مع جميع المواد مثل الخشب والالومونيوم كما تتوفر بمساحة 6مم

# (End Mill 2-flute fish (upcut

#### **Characteristics:**

**Industrial Quality** 

Through Fishtail Bottom easy dive into material

Low wear

Clean surfaces

## **Applications:**

universally applicable

Aluminium

Plastics

Wood

## **Technical Specifications:**

Solid Carbide-End Mill Available as ø1mm, ø2mm, ø3mm

Double-Flute

Fishtail Bottom

Upcut-spiral

((Shank): 3,175mm (1/8"

## **End Mill Diamond**

Product name: End Mill Diamond

Solid Carbide -

- Diamond toothed
- Fishtail

(- (Shank): 3,175mm (1/8"

Characteristics

Industrial Quality -

- Low wear
- Clean surfaces
- Very good cost-performance ratio

## **Applications**

#### Glass fibre -

- Carbon fibre
- Wood
- Printed circuit boards

Available as ø1mm, ø2mm and ø3mm

# **End Mill Single Flute**

#### **Characteristics:**

Industrial Quality
Problem-free chip evacuation
Low wear
Clean surfaces

## Applications:

High quality contours
As only one Flute, much space for chip evacuation
Very good for softmaterials
Soft plastics
PE, Teflon, Plexiglass, Styrodur
Soft Aluminium

Available as ø1mm, ø2mm and ø3mm

#### **Technical Specifications:**

Solid Carbide-End Single-Flute Flat Bottom Upcut-spiral

((Shank): 3,175mm (1/8"

# (End Mill Spiral Toothed (downcut spiral

Solid Carbide-End Mill Spiral toothed Fishtail Downcut-spiral

((Shank): 3,175mm (1/8"

#### **Characteristics**

**Industrial Quality** 

Problem-free chip evacuation through spirals

Low wear

Clean surfaces

Very good cost-performance ratio

### **Applications**

Glass fibre

Carbon fibre

Wood

Printed circuit boards

Available as ø1mm, ø2mm and ø3mm

# (End Mill Spiral Toothed (upcut spiral

Solid Carbide

Spiral toothed

**Fishtail** 

**Upcut-spiral** 

((Shank): 3,175mm (1/8"

#### **Characteristics**

**Industrial Quality** 

Problem-free chip evacuation through spirals

Low wear

Clean surfaces

Very good cost-performance ratio

## **Applications**

Glass fibre

Carbon fibre

Wood

Printed circuit boards

## **ER11** Collet for HF-Spindle

Collets for STEPCRAFT HF-spindle 350 / 500 W with diameters from 1 mm to 8 mm

يمكن وضعها مع محور الدوران HF Spindle 500

## **Exhaust Adapter HF-Spindle**

The Vacuum Adapter is constructed as a ring nozzle, which encompasses the milling cutter completly and reliably extracts the dust. The detachable ring nozzle enables the change of a tool while the Vacuum Adapter is attached. The cup brush provides a good sealing of the workpiece and recedes in the case of .contact with the clamping bars

The enclosed tube can be connected, for example, to an commercially available vacuum cleaner. This can be accomplished with the use of the appropriate Air Regulator

.The use of the Vacuum Adapter together with the Automatic Tool Changer is not possible

### **Scope of Delivery:**

Vacuum Adapter, fully assembled and suitable for HF-Spindle

محول او مهئ العادم مناسب مع محور الدوران يوجد بها فوهة دائرى التي تقوم بالدوران كما يوجد بها فرشاة في طرف جهاز محور الدوران الذ يستطيع استخراج الغبار في المكان المراد الدوران فيه . يمكن فك الفوهة الدائرية الموجودة في طرف الجهاز وتغيرها بمحول اخر بكل سهولة .

## Exhaust adapter Proxxon

The Exhaust Adapter is designed to remove dust from your work piece using a standard shop vac that you can find from most home improvement and department stores

It is designed to work with the Dremel (models: 2000, 3000, 4000 and 4200) as well as the Proxxon IBS/E

SAFETY NOTE: It can be very dangerous to breath in the dust of some materials, especially carbon fiber, so please take care that the area that you use your Stepcraft machine is well ventilated and you have adequate dust collection