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July 2006  
Issue No. 18

# Hot-Wire Cutting

Amazing what can be created with a Step-Four cutting machine! 3EL company from Holland have shown themselves again and again to be real masters in the art of hot-wire

cutting. In the middle of this issue you can find a special pull-out article that introduces many more applications in this fascinating field.



■ Designer furniture in the new Dutch embassy in Berlin



■ Matching room and screen systems



■ Islands to relax around the Dutch embassy in Berlin



■ Cast aluminium molds made of polystyrene



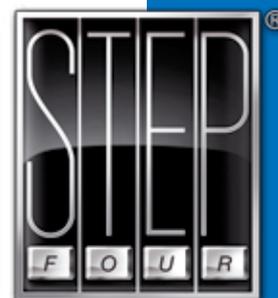
■ Solar-powered boat for inter-university race



■ The power of the sun

Customer  
Information

Big Issue  
Hot-Wire-Cutting



[www.step-four.at](http://www.step-four.at)

STEP FOUR

## Editorial



### Summer-time

At last summer is here. The heatwave has inspired us to write about "hot-wire cutting". Read the special section and find out how versatile this technology is and how it can be implemented in a wide range of applications. By the way, our PC-CUT machines are continuing to conquer the market and are now popular in China and the USA.

The merry month of May is a great time to start a new job! This is what our three new employees must have thought when they started working at Step-Four on May 1, 2006. Get to know them on this page.

We are delighted that a well-known Austrian office furniture manufacturer has started to use a customized Step-Four milling machine. Furthermore, a Step-Four Precise 1600 unit has been sent to the Republic of Georgia. Find out more about our company in this newsletter. Enjoy the informative articles and have a relaxing, sunny summer 2006.

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## New to the Step-Four Team



■ Stefan Maier is in charge of our new website which will go online soon. Stefan likes to relax by playing the accordion.



■ Andrea Wieland produces and assembles profiles for Step-Four machinery. In her free time Andrea keeps fit by doing a lot of physical training.



■ Ursula Troger mounts components in our production department. She does Nordic Walking to keep fit physically and keeps fit mentally by reading.

## Vacancies in the Milling Workshop

Learn every step from the drawing stage to the finished workpiece: in our milling workshop for modelbuilders on 13 October 2006 there are still some vacancies. If you are an enthusiastic modelbuilder with no experience in PC-controlled milling, but are thinking about using such a machine, join us in this special workshop for beginners. We aim to teach you the basic principles of milling technology. For further information and to sign up, contact Step-Four.

Friday 13 October 2006  
Apply before:  
25 September 2006  
Participation fee: €210.  
No. of participants: 6.

## Trade Fair Calendar

In the autumn we will be at the following trade fairs. Come and visit us.

3 - 5 November 2006

**MODELLBAU BODENSEE**  
Friedrichshafen,  
Lake Constance, Germany

29 Nov. - 2 Dec. 2006

**EUROMOLD**  
Frankfurt



## Advertisement

All sorts of milling, cutting and lettering jobs for modelbuilders, crafts and industry.  
Use Step Four Basic 540 and CO2 Laser Trotec Speedy II. Process ABS, DEPRON/ polystyrene, acrylics, alu., stainless steel, wood, glass.  
P. Hirnet, D-83629 Weyarn, peter@hirnet.de,  
+49 (0)80638918 or +49 (0)1733713574.

# Step-Four Delivers Worldwide



## Customized milling unit goes to Bene

In May we delivered an Xpert customized milling unit with a working range of 2010 x 1090 x 290 mm to Bene, Austria's largest furniture manufacturer. This machine serves to construct samples and prototypes. ([www.bene.com](http://www.bene.com))



## Step-Four technician in Dubai

Franz Tuschka, our head of support, spent a week in Dubai in May training employees of the well-known Reprotronics advertising technology company how to handle a PC-CUT 1000 cutting machine. Reprotronics is confident the Step-Four machine will help the company produce top quality displays and logos.



## PC-CUT 2 500 sent to China and the USA

We are pleased to announce that another two large cutting machines, type PC-CUT 2 500, were sent to China and the USA in May and June.



## Premiere: Precise 1 600 supplied to Georgia

In May we delivered a Precise 1 600 milling unit to the beautiful Republic of Georgia. Another new country to add to our expanding list of customers.



## PC-CUT 5 000 for a company in Bavaria

The company B & T GmbH in Raubling near Rosenheim in Bavaria has bought the PC-CUT 5000 polystyrene cutter to manufacture tailormade concrete sheeting for highly complex applications. ([www.cnc-3d.com](http://www.cnc-3d.com)).

# HY-FLY Tailless Wing



■ The creative designer team of the tailless wing.



■ The wooden corpus of the tailless wing.

HY-FLY – an unusual hybrid tailless wing containing a hydrogen/fuel cell. In cooperation with members of the Rhine-Main model plane club students of the hydrogen laboratory at the university of applied sciences in Wiesbaden (Germany) developed a tailless wing with a wingspan of 2m weighing 2.55

kg. As for similar tailless wings, assembly had to take place on an even construction board with birch plywood ribs in the middle and balsa ribs at either end. The spar webbing consists of spruce strips and an auxiliary spar was incorporated for the rudder. 10 sec. glue was mostly used, except for the cov-

ering which was done with PVA. The engine was fixed onto an engine mount at one end of the wing and the fuel cell was mounted on a prefabricated frame in the centre of the wing. Two servos for the rudder (electronically mixed elevator/aleron) are located in the outer areas. The engine regulator is situated between the bottles and the receiver next to the fuel cell. Pore filler and colourful covering tissue and veneer were used as the finish.

We are pleased that Step-Four technology was also used in this project. Go to the [www.hy-fly.de](http://www.hy-fly.de) website to find out more details and see some video clips showing the HY-FLY.



## In-house Exhibition

**Saturday 14 Oct. 2006  
10.00 – 17.00**

On Saturday 14 October 2006 Step-Four is holding its annual in-house exhibition for the third time running. Write down this important date in your diary. We look forward to seeing you.

## New: Xpert Relay Box

The Xpert relay box was developed for operation with an Xpert CNC controller.

It serves to connect four external devices (milling motor, solenoid valves, suction, vacuum pump,...). The device is installed in a high-quality powder-coated aluminium cabinet. The colour and the format of the cabinet match the Xpert CNC controller. The 24 V stabilised power supply inside the unit is fitted with a first-rate ring core transformer allowing a continuous output power of 30 W (= 1.25 A). Four display lamps on the front panel indicate the switch state of the outputs.



### Technical Data:

- Power rating 115 V/230 V
- Outputs: max. 5A per output
- Power rating 24 V
- Total output: max. 30 W (= 1.25 A)
- Power rating for potential-free switch contacts: max. 40 V/2 A
- Price: € 430 excl. VAT

## Suction Device

New: Step-Four suction device for upper milling machine with a 43 mm mounting tube.

Whether you perform fairly rough milling tasks or fine engravings, this device will keep your workshop clean. The integrated touch protection prevents you getting injured while you work. Tools can be changed without any difficulty.

Suction device incl. Brush  
€ 115 excl. VAT

Spare brush € 32 excl. VAT



■ The new suction device

## Digital Slide Rule



■ Step-Four's digital slide rule is waterproof.

- The waterproof digital slide rule from Step-Four
- made of stainless tempered steel
- 150 mm measurement range
- display in inches or millimetres
- measurement in 1/100 mm
- resetting to zero
- fixing wheel
- 3 V lithium button cell and spare
- introductory offer:  
€ 98 excl. VAT



■ Suction device with Kress milling machine

# Summer Package\*



## Basic 540

**All-in-one package  
for EUR 2400**  
excl. VAT and freight\*\*

- Basic 540 milling machine
- V4 Profi milling software
- Kress FM 6990E upper milling unit
- 10-component solid metal milling set
- assembled and tested

**Comparable systems on the market often cost more and include less equipment. See for yourself!**

### STEP-FOUR's Advantages:

- EC certified industrial standard
- Spindle covers to prevent dirt
- Working range is open underneath, easier to handle cabinets and molded parts
- User-friendly, powerful software
- Dragchain cabling
- Flexible modular system
- Top precision and reliability
- Best service and support
- 2 years guarantee
- State-of-the-art STEP-FOUR



**Order now!**

**Telefon: +43(0)662 45 93 78-0**

**E-Mail: [office@step-four.at](mailto:office@step-four.at)**

\* Offer valid all summer until autumn starts on 23 September 2006.

\*\* 20% in Austria, 16% in Germany