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NEW from autumn 2007: STEP-FOUR Club

THE venue for ambitious modelbuilders

As one of the leading mechanical engineering companies in the field of modelbuilding, we have always wanted to be there for our customers and friends at large advertising or trade fair events, where we can exchange ideas. One annual highlight is of course our in-house exhibition. In order to give our partners and friends an even greater opportunity to meet us and find out about our latest activities, we have gone one step further and have set up: THE STEP-FOUR CLUB.

Starting Autumn 2007

From autumn 2007 we will cordially invite all our partners, customers and friends to join our club. The club enables you to communicate with each other via Internet, ask questions and present your own results. In the chat room you can obtain valuable hints and brainwaves directly from other modelbuilders all over the world-wide web. Step-Four will answer vital questions and tell club members about all the latest innovations and improvements "hot from the press". Furthermore, members' ideas and suggestions will, as always, be hugely appreciated and used to develop our machines. One of the highlights of the Step-Four Club is definitely the Step-Four Club Team, which will



participate in all the most important modelbuilding events in the German-speaking region and have its own tent. In future, therefore, we look forward to meeting you in the Step-Four "camp", where we can have a good conversation and enjoy refreshments. The idea is for club members to receive technical software updates free of charge or at special rates in future. This also applies to various constructional drawings. In addition, a Step-Four Shop will be opened offering members a range of interesting, new and useful articles at knockdown prices. Our Step-Four Team is pleased to invite you to join the club and take advantage of all the special offers. The membership fee is only €35 per year. Just send away for the club details in autumn 2007 and we will inform you about all the club's activities.

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Issue No. 21**

Customer Information

**In-House Exhibition
13 October 2007**



www.step-four.at

STEP FOUR

Editorial



Join Step-Four in the Future

■ Ernst Ramberger

With our STEP-FOUR Club starting this autumn we plan to offer the ambitious modelbuilder a special range of services. Read all about it in our cover story.

We are delighted to work with the companies CNC Modellbautechnik Bayer and TurboCAD Training Center. Now we can offer our customers a future-oriented package that extends from the CAD program to the milling machine. See inside the newsletter for more details about synergy effects and planned activities.

For the current issue our customers have sent us numerous projects and creative ideas. We are very happy about this lively cooperation, as we love working together with people who are not only our customers but meanwhile also good friends. As a result, our personnel are inspired to give their all to their job, which should not be taken for granted nowadays. That is why I would like to say a big thank you not only to our creative customers but also to all my colleagues. Now it only remains for me to wish you and us all the best for the future, and what is more, a wonderful summer!

Webshop Discount

On all webshop orders. 3% discount. Valid NOW. Offer ends 31 August 2007. Just enter the code "SPAREN" in the comment field when you order.

Cooperation with the Acroteam



■ The Acroteam YAK 54



■ The YAK 54 prototype.



■ The YAK 54 is made entirely of wood.

The well-known Acroteam (www.acroteam.de), one of the best aerobatic teams in Europe, is planning to build the largest, series-manufactured modelplane authorized by the aviation authority. Step-Four is sponsoring the project with a Basic 1000 milling machine and the WING designer software for constructing the wings. The main sponsor is Canon.

Composite Construction

The YAK plane is a composite construction made entirely of wood. The firewall has a diameter of 700 mm. It will be exhibited at air shows, e.g. at La Ferté Alais in France and at Lehrte in Germany, and also displayed at a range of trade fairs and competitions.

Joint Venture between STEP-FOUR and CNC-Modellbautechnik Bayer



Step-Four, the leading manufacturer of high-quality CNC processing machines and modelbuilding software, the Turbo CAD Training Centre, the official sales and training center for Turbo CAD®, the low-cost fully parametric 3D CAD program, and CNC-Modellbautechnik Bayer have agreed to work together with immediate effect.

As the complete product range of CNC-Modellbautechnik Bayer has been produced with the aid of Step-Four units and the Turbo CAD system, it is logical for the companies to start a joint venture.

Seminar Series

To start with, a new two-day seminar series will be initiated with the aim to help interested modelbuilders get a foothold in modern construction using computer-supported methods. The entire procedure from the first click of the mouse into the CAD program to the ready-made workpiece on the CNC machine.

Three companies involved

Thus the modelbuilder can profit of the joint expertise of three companies. Whoever wishes to extend his freshly gained knowledge and use the 3D TurboCAD programs, is very welcome to visit the Training Center with its wide range of courses. Both beginners and ad-

vanced users are trained individually in TurboCAD courses that last from one to four days. However, you can also pick up the program itself and training manuals, and study at home. The next step concerns product sales. From now on all Step-Four products are available at CNC-Modellbautechnik Bayer. This applies both to all machinery and to the XpertMILL milling software and the Wing Designer. At the same time, Step-Four is to sell the 3D TurboCAD V.12 Pro program in Austria. According to Mr Bayer, the owner of CNC-Modellbautechnik Bayer: "As early users of the whole Step-Four product range, we have worked with the Step-Four company for at least 10 years. All our models were built using Step-Four machinery and software as well as TurboCAD's CAD program.

Cooperation

We consider this joint venture to be a milestone in our company history. For the first time we can offer machines, software and courses in addition to our modelplane kits. Anyone who just wants to build a plane, can select a kit from our large range of exclusive scale models. On the other hand, if you want to create a customised model, we now have all the tools and software that you need. That is unique in the field of modelbuilding."

We are currently planning the first workshops and informative ses-

sions. The project starts in autumn 2007. For further details, go to www.turbocad.de, www.turbocadkurse.de and www.cnc-modellbautechnik.de.

TurboCAD

**High Productivity.
First-class results.**



TurboCAD Professional Version 12 features high performance, precision and efficiency. Includes integrated 2D design functions, 3D surface and body modeling as well as photo-realistic rendering. TurboCAD offers second-to-none design productivity and perfect visual results. Flexible tool ranges, context-related tools and an intuitive procedure ensure the user learns quickly how to work productively and effectively. The parametric option means the user can enhance his productivity even further due to new, geometric and dimension-related criteria. Contact us for further information: www.turbocad.de.



Light-Weight Trade Fair

The euroLITE is the European trade fair for constructors and manufacturers of light-weight parts. It focuses on ways to save costs, raw materials, energy, mass and mass moments of inertia and to increase dynamics. The trade fair provides a complete overview of

- Construction and design
- CAE / simulation
- Prototype construction
- Component tests
- Light-weight prefabricated parts
- Light-weight series parts
- System solutions

It constitutes the international meeting and sales platform for constructors, designers, development engineers and buyers from the vehicle industry, aerospace industries, boat and yacht construction and mechanical engineering.

■ [26-28 June 2007]

euroLITE, Salzburg Trade Fair Centre, Hall 1, booth C027

Further dates

■ [30 June – 1 July, 2007]

Sailing ship competition, Kuchl/Hochreith, Austria

■ [5-6 September, 2007]

Teckpokal, Kirchheim a. d. Teck, Germany

■ [5-6 October, 2007]

Oldtimer meeting, „Original and Model“ in Hausen am Albis near Zürich in cooperation with LAU-MAT, our partner in Switzerland.



■ (from left to right): Ursula Troger, Franz Tutschka, Gerald Högler, Roman Tutschka, Dieter König; vorne: Reinhard Leithner, Ernst Ramberger, Michael Schmalzer, Jutta Schober and Hannes Schmalzer

Day Trip to Munich

This year the STEP-FOUR team painted the town red in Munich, the Bavarian capital. We were particularly impressed by the English Garden and the Bavaria Film City. After so much sightseeing we were of course quite exhausted, so natu-

rally we couldn't resist trying the local cuisine. And what is good food if not washed down by the delicious local beer? Which surpassed all our expectations....

Model Exhibition in Piding

On 31 March and 1 April a huge model exhibition took place just across the border from Salzburg in Piding in Bavarian Berchtesgadener Land. The 1000 m² large hall presented an enormous range of planes ranging from tiny indoor toys to a glider with a 9 m wingspan. Furthermore, the Truck Club Berchtesgaden displayed practically everything that has four wheels in a separate 150 m² area. Step-Four showed visitors what can be milled with a Basic 540: you name



■ The Basic 540 in Piding.

it, we mill it. Whether amateurs or experts, the show was a rewarding experience.

New Engraving Fixture

The new engraving fixture for the Kress FM6990E milling unit (old model), 800FME, 1050FME (new models) is also suitable for most milling motors with a 43 mm clamp collar. It enables you to produce excellent engraving results. The engraving depth is set with a rotary POM cap with a resolution of 0.012 mm per detent.

Uneven surfaces up to 10 mm are linearly compensated. The cap is made of POM to avoid damaging sensitive surfaces. The router/graver is exchanged by simply removing the lower unit with a locking screw. During milling the lower section is removed. The depth is compensated by means of the locking screw.



■ The new engraving fixture. Special short-term offer: €340 incl. VAT (instead of €402).

Wine Festival at Möbel Leiner

On 28-29 September 2007 there is a large Oktoberfest/wine festival at the Leiner furniture store (www.leiner.at) in Salzburg, Adolf Schemelstrasse 11-13 (near Alpenstraße and Ginskeyplatz): Friday from 10 am to 6 pm and Saturday from 10 am to 5 pm.

Modelbuilding for Kids

Inside the store we will mill hand-launch gliders, as part of our "Build and Fly It" session for kids. Afterwards the kids can build and fly their own planes. The personnel of the children's furniture department at Leiner will help and encourage the young modelists. Outside wine-growers from all over Austria will present their products and let you try their delicious wines.

Antik Cup 2007

On 5-6 May 20 participants from Austria, Germany and Switzerland competed in the Salzburg Antik Cup. This is a national competition with international competitors in the categories ARC 1b (remote-controlled antique gliders with unlimited wingspans) and ARC 4 (remote-controlled antique motor-planes with original, replica or 4-cylinder motors). On the Saturday, which was quite windy but sunny, three rounds could be flown in both categories. There were also several models that had been built using a Step-Four milling unit, e.g. a replica Kadett by Christian Pöschl.



■ The "Antik Flyers"



■ Step-Four part of every competition.

ENTRANCE TICKET

Wine Festival at Möbel Leiner

28-29 Sept. 2007





In exchange for this ticket you will get a €5 euro Leiner voucher..

Cut out voucher and cash it at wine festival.

Hot Wheels

Rene and Wolfgang Wöran from Black Power Racing (www.black-power.at) develop and manufacture 1/24 electric model racing cars. They produce the fibre-carbon, fibre-glass, titanium and aluminium parts on Step-Four CNC milling machines. Even their small CNC lathe is controlled by Step-Four software.

Black Power Racing distributes its top cars in Austria, Spain, Germany, Denmark and Slovakia. Interest has been shown from as far away as Japan. The advantages of this type of racing car: the point of gravity is placed below the wheel axles, so that the car grips the road surface extremely well. In addition, lithium polymer is used to reduce the car's weight by about 20%, which improves the acceleration behaviour remarkably. Since 2007 the cars have also been available in glass-fibre for beginners.



■ Black Power flasher



■ carbon-fibre undercarriage

Milled Belt Buckles

The Munich Harley-Davidson motorbike club of Thomas Eckner (www.eckmeister.de) had been wanting to create a belt buckle based on the club's emblem for some time. After several experiments did not work out (either too expensive or not attractive) Thomas had the idea of milling them himself on his STEP-FOUR Precise 760.

Do-It-Yourself

The club emblem was scanned in using a specially prepared CAD program, creating a suitable Step-Four file in 14 layers. After selecting the optimum router, lubricant, milling depth and advance feed for the brass material, the mini-series of 25 pieces could be produced. According to club members' tastes, the belt buckles can be worn as they are or chrome- or silver-plated.



■ Work in progress



■ Mould



■ The finished belt buckle

Hovercraft

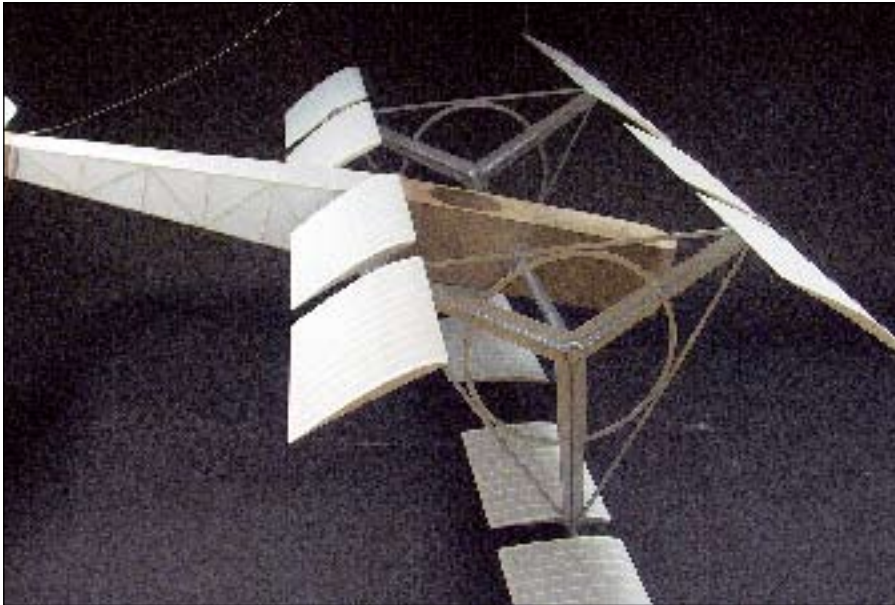


Mark Porter from the Isle of Wight (www.model-hovercraft.com) uses a STEP-FOUR Basic 540 to create his beautiful hovercraft models. It makes you want to get on board and sail to our British friends...

MS Design



Here you can see the latest model by MS Design: Mike Bank's Pier Pawnee. Each component was made on a Basic 540. With a wing-span of 54 inches (approx. 1.37 m) the plane weighs only slightly more than 4 lb (approx. 1.8 kg).



■ The historical Rüb paddle-wheel plane

Awesome But Not Airworthy

The company Hauck-Modelle (www.hauck.modelle.de) was requested to build a model of the Rüb paddle-wheel plane to the scale of 1:5 for the special "Zeppelin Aircraft" show.

History

Ludwig Rüb from Ulm worked in various mechanical workshops and was interested in air ships, combustion engines, motor vehicles and watercraft and also aviation technology. In 1899 he was able to convince Count Zeppelin of his idea of a flying machine. In the same year a contract was signed covering financial support, the testing procedure and the distribution of profits. This important document is the first indication of aircraft manufacture in Friedrichshafen.

Naturally the flying machine was never airborne, because the ex-

periments and tests probably swallowed up most of the available money. From our perspective Rüb may seem to have had some crazy ideas: an analogue conversion of wingbeats into a circular movement whilst replacing the two solid airfoils by triangular deck-paddle wheels on either side of the fuselage.

Ambitious Mechanism

The ambitious mechanism was to be controlled by way of an excenter wheel and chains. With this construction Rüb attempted to combine uplift and propulsion. One follower of this principle was heavily criticised. This was Professor Georg Wellner who taught at the technical university of Brunn (Austria) and who carried out a series of unsuccessful experiments during the nineties.

New Seminars

In autumn our training seminar cooperation starts with TurboCAD Training Center and CNC Modellbautechnik Bayer, when a special package of courses will be offered. But you can of course book individual sessions.

TurboCAD, 2D Basic Course:

Thursday 11 October 2007
Course fee: €210.

STEP-FOUR Workshop:

Friday 12 October 2007
Course fee: €210

- All-inclusive price for both courses: €395
- Application deadline for both courses: 25 September 2007
- Max. no of participants per course: 6

Please contact STEP-FOUR directly for further details or to apply.

Workshop

For interested modelbuilders without any experience in PC-controlled milling, but who are thinking of using machinery to build their models, Step Four is offering a workshop. The aim is to teach the basic principles of model technology.

Friday, 6 July 2007
Apply by 15 June 2007
Fee: €210

Booked up

STEP-FOUR/TurboCAD

Summer Package

Celebrate the cooperation between STEP-FOUR and TurboCAD with us!



STEP-FOUR/TurboCAD Summer Package

- Basic 540 milling kit
- SF-C2 control electronics
- XpertLINK Windows adapter
- XpertMILL LT milling software
- Kress 800 FME milling motor
- 10-piece VHM router set
- TurboCAD Professional V.12
- €50 voucher for STEP-FOUR/TurboCAD course in autumn
- We pay freight (A and D)

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Order now!

Phone: +43(0)662 45 93 78-0 or EMail: office@step-four.at

Offers restricted to Austria and Germany: valid until 31 July 2007.



New Trainer DVD

After the success of the first Step-Four DVD, "CNC Processing in Modelplane Construction" a new DVD is available, this time focusing on wing construction. Again our expert Hannes Schmalzer leads you step by step through this complicated field. The new DVD produced by VTH Verlag costs €29 incl. VAT.

By the way, there are still some copies of the first DVD ("CNC Processing in Modelplane Construction") available for only €19.90 incl. VAT. So if you want to find out everything about building modelplanes, now's your chance.

In-House Exhibition 2007

Saturday 13 October 2007, from 10 am to 5 pm

Welcome to our fourth in-house exhibition. See the Porsche 944 belonging to our pilot Reinhard Brandstätter as well as exclusive scale models of classic and modern planes in wooden and composite designs by CNC

Modellbautechnik Bayer. There will be plenty to eat and drink!

Do come and visit our company.



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