

# tk360

Customer magazine  
thyssenkrupp Materials Schweiz AG  
No. 2 | October 2024



FOCUS:

The fascinating world of  
mould and tool making

“Nose to tail”  
in steel utilisation



Optimal utilisation and use of our forging blocks is a top priority for reasons of economic efficiency and sustainability. Our “from megablock to microblock” strategy addresses this requirement.

More on page 4

## From steel distributor to system supplier

With the 360° service strategy “Materials as a Service”, thyssenkrupp Materials Schweiz AG is pursuing the goal of supporting its customers with valuable services along the entire supply chain and generating added value. The positive feedback from customers such as Marbach Werkzeugbau GmbH confirms we are on the right path and is extremely pleasing to hear.

More on page 3



## WoM – the e-shop for cubic components

The online shop “World of Materials” (WoM) provides our customers with effective support in simplifying and speeding up their request and ordering process. The shop has some interesting features, especially for calculating cubic components.

More on page 3



thyssenkrupp

## The right partner, even in difficult times



### Dear reader,

I am pleased to present you the second edition of our "tk360" magazine. The focus is on mould and tool making, my favourite area.

### Identifying future requirements

Mould and tool makers are innovators and always meet new challenges with creative solutions. As a sparring partner throughout the entire process chain, we have always supported our customers in an advisory capacity. Thanks to our in-depth material expertise and our "Materials as a Service" 360° service programme, we help identify future market requirements and develop viable solutions.

### Active exchange as a basis for new developments

Intensive customer contact forms the basis for new developments. Our THYROHARD-Xtra mould insert steel is the best example of this. Based on customer requirements, the must-have properties of the steel were defined together with the manufacturing plant, with steel quality always a top priority. We would have loved to have developed a "solution for any application". However, I think we're quite close with THYROHARD-Xtra.

### "All stainless" concept

THYROHARD-Xtra is not only popular in the fields of medical technology and food packaging. The steel also demonstrates its strengths in other areas of application. THYROHARD-Xtra is the crowning glory of our "all stainless" concept.

Especially in difficult economic times, we are committed to providing you with the best possible support in your endeavours on the market. Working together is the best way to master the challenges of the future.

Kind regards,

Stephan Helbling,  
Sales Manager Tool Steels / Cubic Machining  
at thyssenkrupp Materials Schweiz AG

# "Without steel nothing is possible"

Steel belongs to our world like bones belong to vertebrates. Countless inventions, innovations and top products depend on this excellent material. Steel can be found in everything from cutlery to modern bicycles and has become an integral part of our civilisation. But what if there were no steel? We asked Claudio Roth.



Claudio Roth,  
CEO thyssenkrupp  
Materials Schweiz

### Can you imagine what it would be like if all steel vanished into thin air overnight?

A world without steel is unimaginable in the market segment of mould manufacturing and toolmaking. In other words: without steel, nothing is possible. Different alloying elements have different influences on the material properties, which places high demands on construction and work preparation. Selecting the correct material optimises the manufacturing process and reduces unit costs. Steel is therefore an important element in the value chain. For us, the real artists are the tool and mould makers who, with foresight, planning, construction, diligence and incredible skill, create work that never ceases to amaze us.

### How does thyssenkrupp Materials Schweiz contribute to the innovative capacity of the industry?

The perfect tool steel helps our customers improve their creative thinking and problem-solving skills. By examining the subtleties of our premium tool steels, we can give our mould makers new perspectives and ideas to help them find even better answers to complex issues.

### How do you perceive the fascinating world of mould and tool manufacturers?

Increasingly, we see that customers value the fundamental trust they have in the reliability of our solutions. We want to convey the feeling that our "Alberto Giacomettis" – the mould and tool makers – who invest weeks in the "sculpting" process can rely on the excellent end results of our material solution. We want to continue to grow in line with this ambitious goal.

### What underpins these parallels between mould and tool makers and the world of art?

Art is a metaphor for the immortal. It is tasked with keeping alive what is important and necessary for us humans. This is exactly what a precision mould and tool manufacturer is.

**Claudio Roth, thank you for this interview!**

## THYROHARD-Xtra – the reliable solution

The THYROHARD-Xtra mould insert steel from the "all stainless" range is used when other high-performance steels aren't up to the job. Find out why the steel can also be the right solution for your application.



### Forging material for better dimensional stability and durability

THYROHARD-Xtra is supplied in a forged version according to specific thyssenkrupp specifications and with an optimum degree of forming. This guarantees the longevity of the steel – even in situations where similar nitrogen-alloyed materials fail. THYROHARD-Xtra remains efficient, especially at the limits of tensile and compressive loads and when aggressive media attack the corrosion resistance. We have already seen numerous borderline areas, for example cubic mould inserts with different thickness levels, which continued to function due to the forging structure. The forged material is also distinguished by its high dimensional stability when machining intricate components. The inserts also exhibit significantly less distortion after hardening.

We recommend that THYROHARD-Xtra be heat-treated under partial nitrogen pressure from the outset. We have a good network of hardening shops in the DACHregion with expert knowledge of this process.

We are happy to help!



Find out  
more about  
THYROHARD-Xtra

# The online shop for metals



World of Materials



“World of Materials” provides a quick and easy way to configure, calculate and order the metallic materials required for your projects. Over 7,500 different articles are available.

## Interesting features for cubic components

The “World of Materials” online shop offers interesting functions for block and panel cutting. You can choose between sawn, milled or ground versions – with or without bevelling – and immediately see the price and all conditions. 3D visualisation ensures you have a clear overview at all times. Simplify and accelerate your request/order process with WoM.

## Practical experience

“The thyssenkrupp shop is simple and easy to navigate. I quickly felt at ease. The biggest advantage is the acceleration of the enquiry process. I no longer have to send out enquiries, but can configure my material requirements myself and see the price immediately. The customer account also gives me a good overview of all calculations, shopping baskets and orders.”



Discover the “World of Materials” online shop



Andreas Fischer  
Technical Buyer at Büchler Reinli + Spitzli AG



Find out more about Büchler Reinli + Spitzli AG

## From steel distributor to system supplier

The history of thyssenkrupp Materials Schweiz AG goes back to 1927. Having started out as a stainless steel trader, our company, which currently has around 110 employees, has developed into a materials service provider with a high level of expertise in consulting, materials and service. Our 360° service strategy “Materials as a Service” (MaaS) aims to support customers with useful services and added value throughout the entire supply chain. A key component of MaaS is the customised and customer-specific pre-processing of components and materials.

### Growing with customer requirements

Based on a broad range of high-quality metallic materials, thyssenkrupp Materials Schweiz has developed into a sparring partner for its customers. This enables us to analyse and optimise production processes together. As a result, we are continuing to take on additional processing steps and are increasingly moving into the role of extended workbench and integrated system supplier.

### Material and deep hole drilling from a single source

Sawing, milling, deep hole drilling, 5-axis processing, flat grinding: the machining options at thyssenkrupp Materials Schweiz are as varied and individual as our customers in mould and tool making, the machine industry, medical technology and the watch industry. The combination of “material and deep-hole drilling from a single source” is very popular throughout the DACH area and is one of our unique selling points. For example, the panels delivered from Bronschhofen/Wil often look like Swiss cheese.

### New construction opens up additional possibilities

With the new prodrill production hall completed in 2021, we have not only invested in process and production optimisation, but also created new capacities for in-depth machining. Thanks to the new premises and optimised space, we were able to further improve our workflows and reduce lead times. Our customers appreciate the added flexibility this offers at all stages of production. Topics such as multiple clamping for deep hole drilling and the pre-milling of P-plates are further factors for greater efficiency and customer service.



Marbach's core competence: XXL thermoforming tools with up to 140 cavities for M100, TSL FT8000, FT7500.

“Thanks to the high level of material and processing expertise of thyssenkrupp Materials Schweiz – everything from ‘a single source’ – we were able to simplify the production processes and significantly reduce the organisational effort.”



Lars Schwarzmannseder  
Head of Production  
Marbach Werkzeugbau GmbH



Find out more about Marbach Werkzeugbau GmbH



## From megablock to microblock

Nose-to-tail cuisine postulates that if you slaughter an animal, you must utilise it completely. That is a matter of respect. While noble cuts such as fillet and steak are favoured in Switzerland, offal is considered a highly prized delicacy elsewhere in the world. In Switzerland and Germany, kidneys or hearts may be processed into dog food. But why? And what does thyssenkrupp think about nose-to-tail and the optimal utilisation of its metallic materials?



From large forging blocks to small parts, at thyssenkrupp Materials Schweiz, we ensure optimum and complete utilisation of our materials

### From megablock to microblock

The optimal utilisation and use of our metallic materials, especially the large forging blocks, is very important from an economic and ecological point of view. For us, however, the concept is not “nose-to-tail”, but rather from “megablock to microblock”.

### Assuming responsibility

The facts are clear: the iron and steel industries account for around 2.3 gigatonnes of CO<sub>2</sub> each year, equating to 7 per cent of global carbon emissions. thyssenkrupp is aware of its responsibility and holds a pioneering role in the 2030 sustainability concept. One important measure for improving sustainability is the optimal recycling of our forging blocks. For example, we use 3D nesting software to ensure that as little scrap as possible is produced and unused material returns to the steel production cycle. Why? Because we owe it to nature and future generations to maintain the climate balance of our planet Earth.

### Seamless traceability

Our “from megablock to microblock strategy” ensures optimum utilisation and use of our steel blocks. Whether a large component or a small part the size of a matchbox, the quality is always at the same high level. Components made from forged ingots in particular are characterised by a perfect, uniform structure. Ensuring seamless traceability from the original block to the small part is an additional important aspect. Our new t-kontrol® app for improving supply chain transparency offers you real added value. We would be happy to show you t-kontrol® in detail.

## Welcome to Fakuma

We look forward to welcoming you to Fakuma in Friedrichshafen from 15–19 October 2024 on the far shore of Lake Constance. In addition to brilliant material solutions, we will be showing you our exciting digital tools in the form of “World of Materials” and t-kontrol®. We also bring you up to date with the 360° service programme “Materials as a Service”.

Your thyssenkrupp booth team awaits you with a “sweet and shiny” surprise in hall A2 / booth no. A2-2224 (same booth location as in 2023).



Scan the QR code to get your free ticket for Fakuma 2024



15–19 October  
Fakuma Friedrichshafen  
Booth A2-2224, hall A2

## “tk360” no. 3 will focus on sustainability



Sustainability issues are becoming increasingly important for the economic success of a company. In the next issue of our print medium “tk360” we will present our sustainability solutions as part of the Greenability programme. The focus here is on CO<sub>2</sub>-reduced materials, the product carbon footprint (the PCF calculator validated by DNV) and our sustainability consulting services.

## Your contact for mould and tool making



**Roman Bürgi**  
Head of Production Engineering  
Projects and Technical  
Project Manager Sales  
Deputy Sales Manager  
Phone: +41 (0)71 913 64 82  
E-mail: roman.buergi@thyssenkrupp-materials.com



**Cuno Sutter**  
Materials Expert /  
Key Account Manager  
Phone: +41 (0)79 352 80 41  
E-mail: cuno.sutter@thyssenkrupp-materials.com



**Marc Hoksbergen**  
Technical Project Manager  
Sales  
Phone: +41 (0)71 913 64 76  
E-mail: marc.hoksbergen@thyssenkrupp-materials.com



**Samuel Gonzalez**  
Client Manager  
Western Switzerland  
Phone: +41 (0)71 913 64 74  
E-mail: samuel.gonzalez@thyssenkrupp-materials.com



**Sandro Berdux**  
Technical Project Manager  
Sales  
Phone: +41 (0)71 913 64 75  
E-mail: sandro.berdux@thyssenkrupp-materials.com