

A man with dark hair and a goatee, wearing a blue button-down shirt, is smiling and looking towards the camera. He is holding a small, light-colored object in his right hand, palm up. On his left chest, there is a name tag with the Uddeholm logo and the name 'ANDREW'.

# Life made easier – Uddeholm Machining

COMPONENTS MADE FROM THE WORLD'S BEST TOOL STEEL

# Time is of the essence

Saving time is crucial in industry. That's why it pays to let someone else do part of the job. Uddeholm Machining is your partner for shortening lead times, reducing administration and improving logistics.

We offer bespoke solutions for everything from pre-machined steel to finished components and systems. Our customers benefit from an improved production flow and higher quality – and attain the highest performance and lowest cost per unit produced.

Uddeholm makes the world's best tool steel. The range of products that can benefit from a high-quality tool steel is increasing all the time – our customers are from industries as diverse as tooling, packaging, offshore and recycling. Uddeholm Machining is a wholly-owned subsidiary of Uddeholm. Thanks to a close collaboration with Uddeholm's research and development department, we know how to get the most from Uddeholm's quality steel. All to make life easier for you.

CHOOSE THE RIGHT MATERIAL | 3

LARGE COMPONENTS | 4

MACHINE COMPONENTS | 6

HOT FORGING | 8

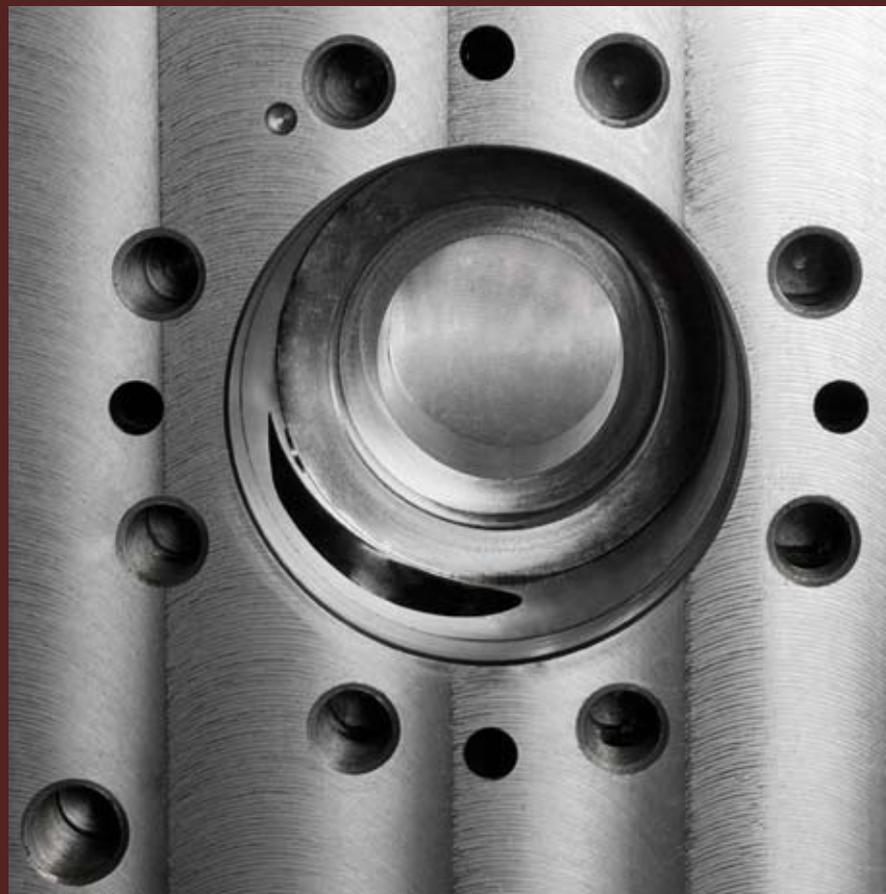
DIE CASTING | 9

EXTRUSION | 10

COLD WORK | 11

ADDITIONAL SERVICES | 12

CERTIFICATION | 14





## Choose the right material from the start

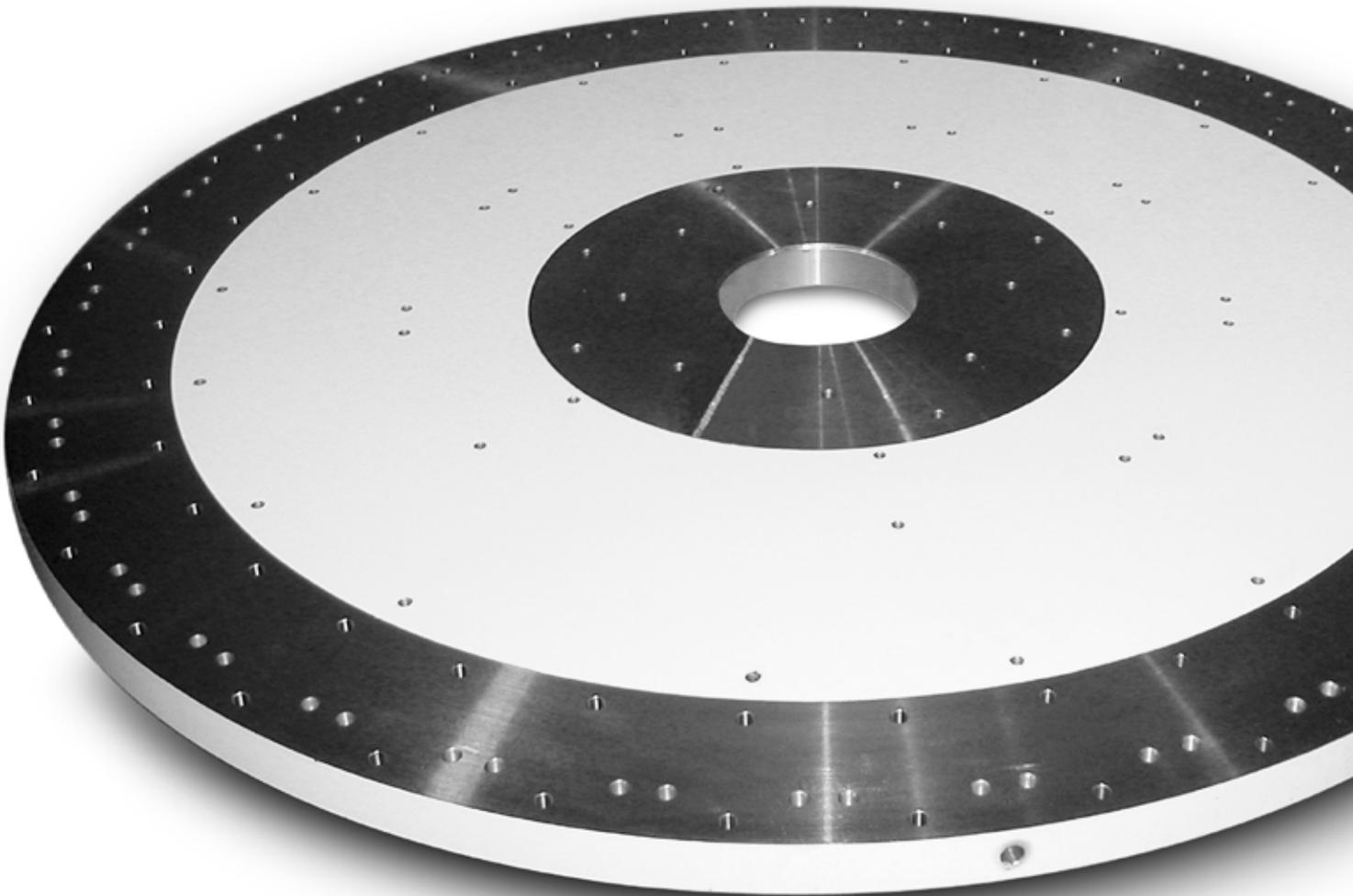
It pays to choose quality from the start. That's why it's worth considering your choice of material carefully right from the word go. Uddeholm Machining is a resource in the development process. Naturally we are specialists in machining tool steel, in both its hardened and unhardened state. Turning, milling and grinding are some of our core areas of expertise, but we are also proficient in hardening, design, technical solutions and efficient logistics. CAD/CAM is a natural part of our operation. Uddeholm Machining analyses the problems and advises you on suitable solutions.

This is how we make life easier for you. Because Uddeholm has long experience of producing the world's leading tool steel, we have every opportunity to offer the best steel for your particular application – Uddeholm is always on the leading edge when it comes to knowledge of materials, and research and development. Our products are continuously being developed and always state-of-the-art. Consequently, we have built a reputation as the world's most innovative steel producer. Moreover, Uddeholm's global network and large warehouses increase accessibility.

# Take advantage of our ability to handle large components

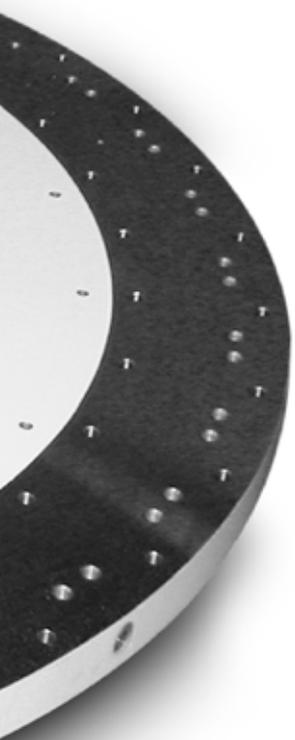
At Uddeholm Machining we are also accustomed to handling larger, heavier components. Our machine fleet is adapted to manage very large units, up to 20 tonnes. This is something many customers take advantage of.

Uddeholm Machining also works with other materials such as bronze, stellite and brass. Furthermore, we are happy to work with the customer's own materials. This means you can always bring your projects to us.

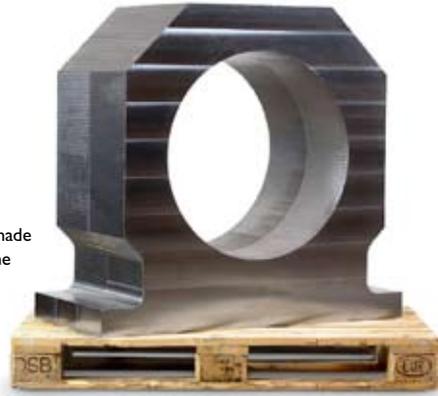




Main valve plate for the press-forge at Uddeholm Tooling,  
made from Uddeholm Impax® Supreme



Pre-machined bearing housing made from Uddeholm Impax® Supreme



## Superior total economy

The right steel makes a big difference. Machinery and components are subject to extensive wear and tear in the manufacturing industry. Maintenance costs large sums of money each year. Some of these costs can be avoided by turning to Uddeholm Machining. We know steel and can ensure you have the right material with superior properties.

This results in more efficient production, better availability and less downtime. Reliable components ultimately mean far better total economy. And what's more, a better steel leaves you more time to focus on what you're best at.

### CARE IS KEY

Uddeholm Machining always works closely with its customers. We collaborate on component design. Care is fundamental. Components that are subject to great stress and strain must be manufactured with care.

We fulfil the tough demands set by the packaging and recycling industries, for example. Uddeholm Machining also delivers to the offshore industry with its famously stringent requirements.



Cam curves made from Uddeholm Rigor®, 58 HRC

MACHINE COMPONENTS



Knife made from Uddeholm Sleipner®



Shafts made from Uddeholm Impax® Supreme



Direction roller made from Uddeholm Caldie®



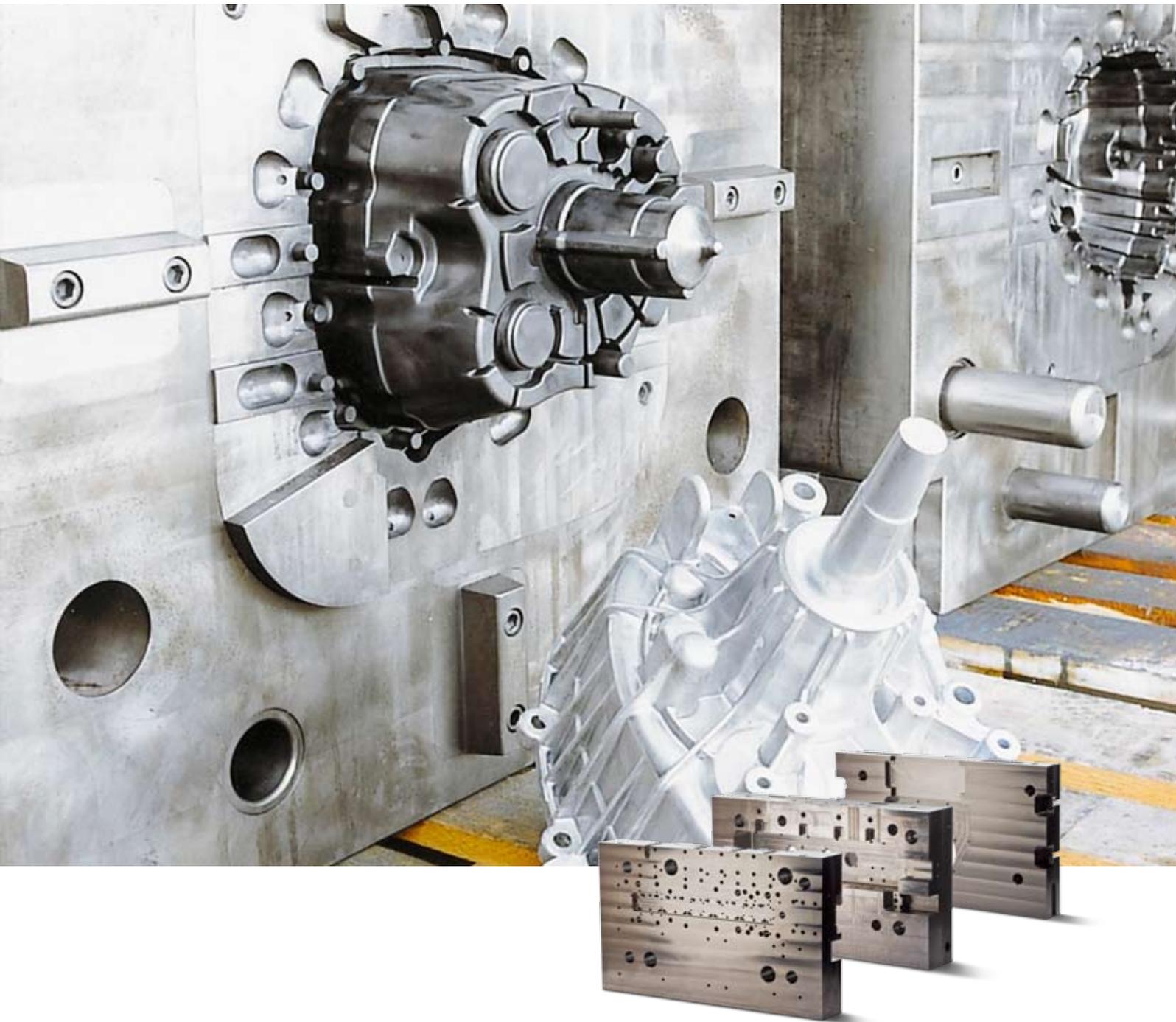
Machine component made from the customer's own material

## Save time on tools

The manufacturing industry's tough demands on tools, along with narrow time margins, entail a continuous demand for good hot work steel. Uddeholm has steel specially developed to withstand the high temperatures of hot forging. This property means major improvements in strength for parts that are exposed to heat.

It makes it possible to adapt the heat treatment of each part to its function. By working with Uddeholm Machining, you can truly save time. We can deliver hardened prefabricated pieces, finished components or even entire tools if you prefer.





## Long series set high demands

In die casting, the material has to withstand both pressure and high temperatures. In recent years Uddeholm Tooling has played a leading role in developing hot work steel to meet the stricter demands of the die casting sector.

Long production series are common and place tough demands on tools and materials. Uddeholm Machining mainly produces clam-

ping and holding plates, as well as pre-machined inserts. We have extensive experience of producing components that really do their job.

Selecting a material is an important part of the process. Uddeholm Machining has the best knowledge about the best steels on the market – Uddeholm's own steels. This is a major benefit in terms of achieving truly excellent results.

## Complete extrusion systems

The extrusion industry requires materials that can cope with difficult conditions. Uddeholm has developed special steels for extrusion – steels that can deal with the extrusion of aluminium, brass, copper, stainless steel and standard steel.

Uddeholm Machining is a leading supplier to the extrusion industry. Market-leading companies such as SAPA, Hydro and Profilgruppen choose Uddeholm steel and Uddeholm Machining as their business partner.

We carry out basic design and produce extrusion tools. These are delivered complete with heating and cooling systems. When the extrusion container needs reconditioning,

Uddeholm Machining carries out a service at its plant in Hagfors, Sweden. We also keep a log of our customers' tools, making it easy to amass knowledge over time and monitor the customer's tool and any servicing carried out. This is a service we know is valuable.



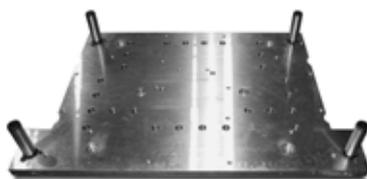


Uddeholm Machining produces parts for cold working tools

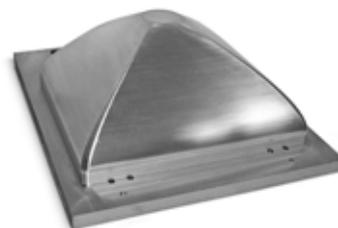
## Hardwearing tools can withstand the strain

There are many factors to consider when creating a tool that can handle the strain of the cold working industry. When it comes to the tool itself, the most important criterion is, of course, that the steel is sufficiently hardwearing.

Uddeholm has special steels for cold work, such as PM steels (powder) and high strength steels. Uddeholm Machining mainly produces top-class clamping and holding plates, as well as moulding-parts for cold working tools.



Clamping plate made from Uddeholm UHB 11



Pressure pad made from Uddeholm Formax®

ADDITIONAL SERVICES



## Hardening is an art

To complement our core areas of turning, milling and grinding, Uddeholm Machining provides additional services such as heat treatment, surface treatment, flame cutting, water cutting and welding.

Heat treatment is an art with a long tradition. We use the latest technology to achieve the best results. The majority of components produced by Uddeholm Machining are delivered in a hardened version.

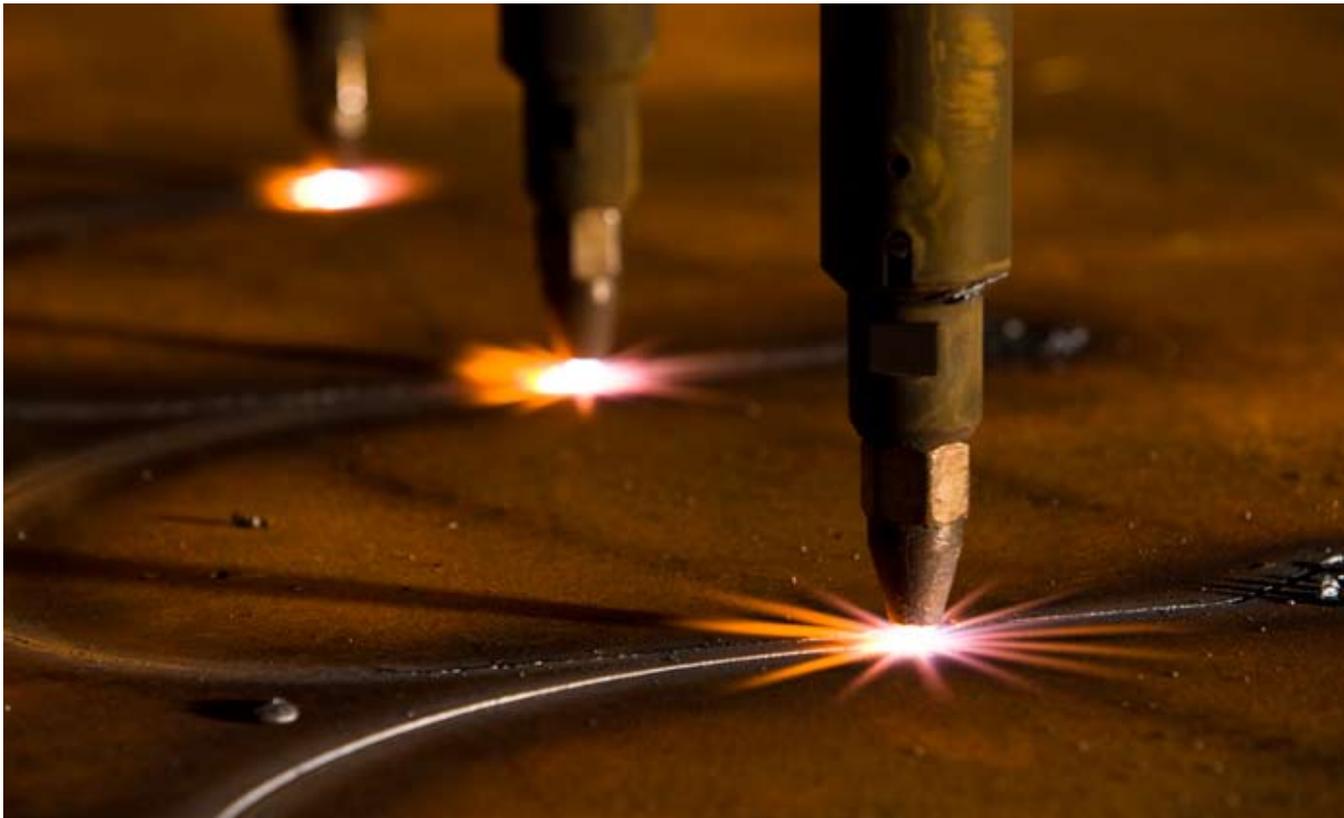
Through collaboration, Uddeholm Machining offers all types of hardening, such as:

- vacuum heat treatment
- conventional hardening
- nitride hardening
- induction hardening
- case hardening

## Flame cutting

The need for flame-cut sheet metal has increased. Uddeholm Machining offers flame-cut and CNC machined components in mate-

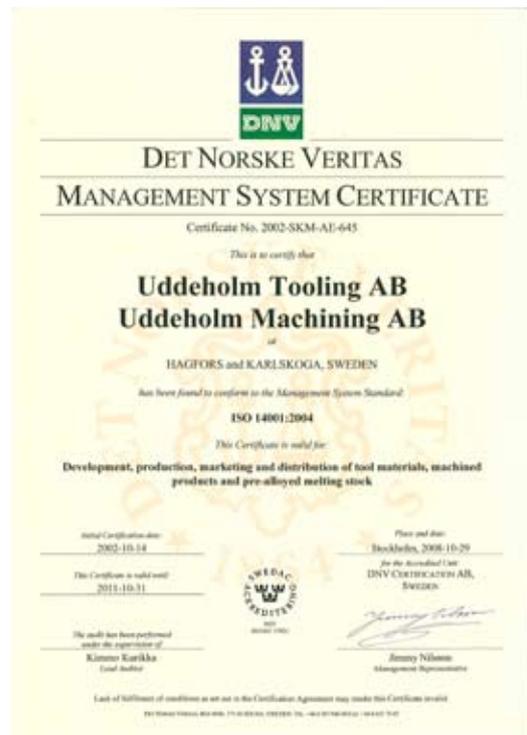
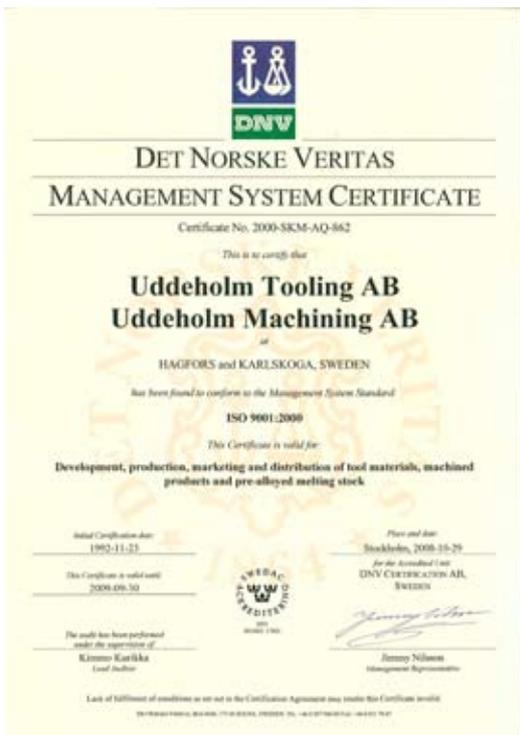
rial up to 300 mm thick. We can work directly from your drawings, or program customised solutions to meet your needs.



# Quality throughout the process

Steel from Uddeholm has always been associated with quality. As a customer of Uddeholm Machining you can be sure that our products fulfil the requirements you set. To us, quality is not only about material properties. Quality encompasses every stage in the process, from raw material to finished product for the end user.

The quality systems at Uddeholm Machining and Uddeholm Tooling cover everything from research and development to production and warehousing. We are certified to SS-EN ISO 9001:2000 for quality by DNV and ISO 14001:2004 for environmental management.

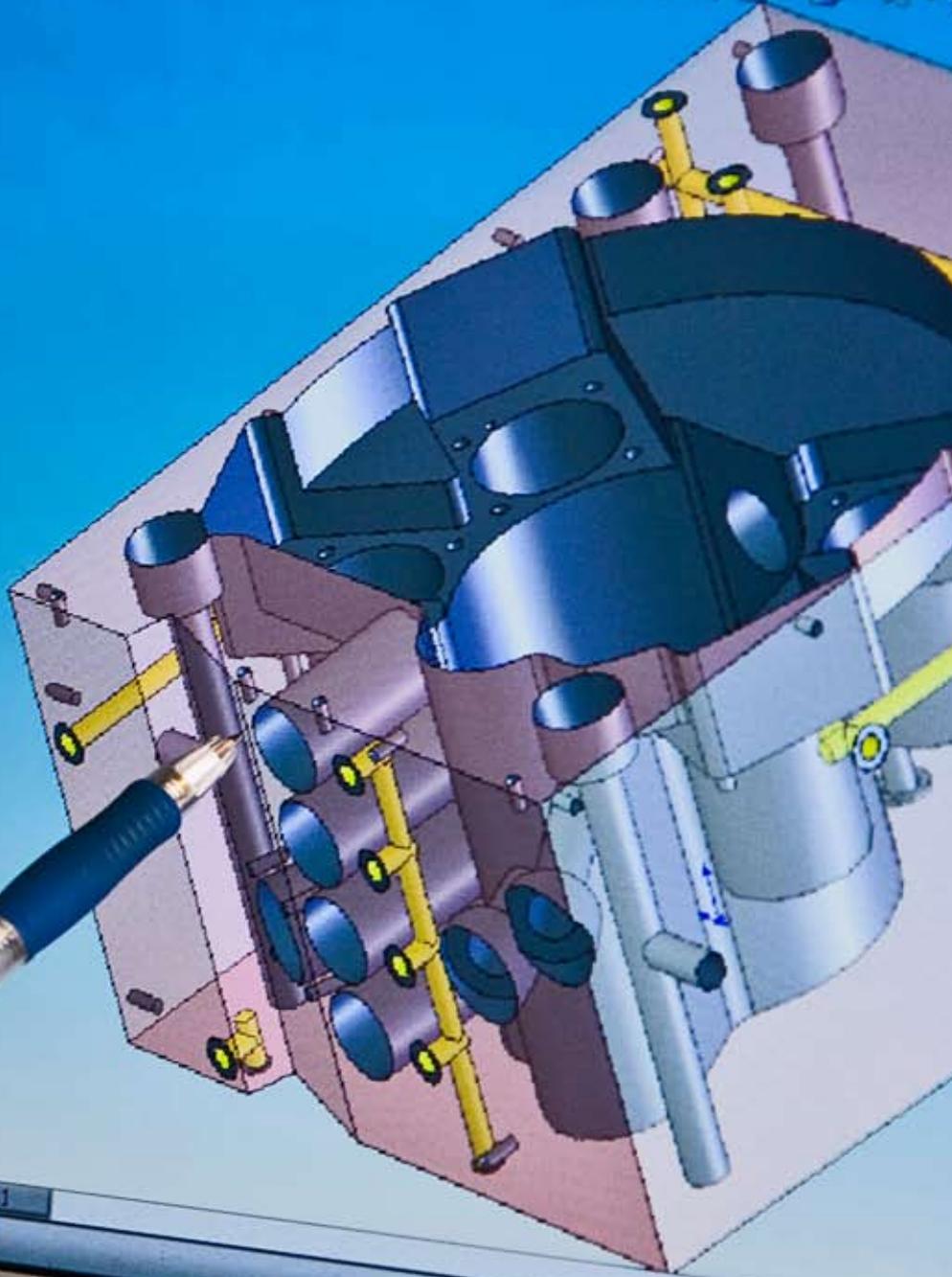


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UDDEHOLM is the world's leading supplier of tooling materials. This is a position we have reached by improving our customers' everyday business. Long tradition combined with research and product development equips Uddeholm to solve any tooling problem that may arise. It is a challenging process, but the goal is clear – to be your number one partner and tool steel provider.

Our presence on every continent guarantees you the same high quality wherever you are. ASSAB is our wholly-owned subsidiary and exclusive sales channel, representing Uddeholm in various parts of the world. Together we secure our position as the world's leading supplier of tooling materials. We act worldwide, so there is always an Uddeholm or ASSAB representative close at hand to give local advice and support. For us it is all a matter of trust – in long-term partnerships as well as in developing new products. Trust is something you earn, every day.

Uddeholm Machining is a machining workshop and is a wholly-owned subsidiary of Uddeholm. We offer bespoke solutions for everything from pre-machined materials to finished components.

Further information is available at [www.uddeholm-machining.com](http://www.uddeholm-machining.com).  
Alternatively, contact your local sales company via [www.uddeholm.com](http://www.uddeholm.com)  
or [www.assab.com](http://www.assab.com)