



Time is precious
Go for a better steel

UDDEHOLM HIGH PERFORMANCE STEEL
FOR THE MANUFACTURING INDUSTRY

Effective production demands durable components

Machinery and components are subject to extensive wear and tear in the manufacturing industry. Maintenance costs large sums of money each year. A high proportion of these costs can be avoided by selecting steel with better material properties. Uddeholm High Performance Steel offers more advanced materials that last longer and produce better results. They are more expensive than standard engineering steel, but they pay for themselves through higher quality, better availability, more efficient production and components you can rely on.

Go for a better steel

Success comes from taking a different approach, not from doing what you've always done. Uddeholm High Performance Steel is a new concept in the world of steel, with new areas of applications for Uddeholm's quality steel.

Uddeholm High Performance Steel is a concept whereby the superior properties of tool steel are harnessed and used in contexts other than pure tool applications. Thanks to improved strength and wear resistance, the steel have a longer life span. That means a better overall economy for you, your company and your customers. Go for a better steel. It pays.



Offer your customers a far better product

Better material properties are the most important basic reason for using Uddeholm High Performance Steel in the manufacturing industry. Using high-alloy steel from Uddeholm rather than engineering steel gives you a material with considerably better properties. This creates new potential for improving and streamlining production. Ultimately you can offer your customers a far better product.

MANY REASONS FOR SELECTING A BETTER MATERIAL

There are many reasons for selecting a better steel. A stronger material, for example, enables the production of components and parts that weigh less. The possibility of heat treatment can also yield major benefits and optimise particular properties, such as wear resistance. Steel with higher ductility and toughness have benefits when it comes to reducing costs for wear and maintenance. Uddeholm High Performance Steel is a complete programme of materials and services for industry. Ultimately a better steel increases productivity and improves your overall economy.

BETTER STRENGTH, VASTLY SUPERIOR LIFE SPAN

Care is the key. Materials subject to great stress and strain must be manufactured with care using special technology, which is why Uddeholm High Performance Steel's extensive product and dimension programme is characterised by:

- High-alloy materials
- Production through ESR and powder processes
- Adapted heat treatment
- Meticulous quality control, such as ultrasonic inspection

TOOL HOLDERS FOR TOUGH CONDITIONS

A tool holder made from Uddeholm High Performance Steel lasts considerably longer than one made from engineering steel. It can cope with the high temperatures generated during high-speed cutting processes. Thanks to the harder steel, the tool holder is better at resisting deformation and wear from chip flow.

RELIABLE DIESEL ENGINES

Diesel engines place tough demands on reliability. Fuel injection systems are subjected to high, pulsating pressures. The nozzles are also exposed to high temperatures. Future environmental demands will force the development of diesel injection systems towards higher work pressures to get improved fuel efficiency which will give lower emissions. Diesel used for ships can also be less pure compared to the diesel we use on land, which leads to a higher wear. These high pressures together with high wear will demand a clean, durable and heat treatable steel with equal mechanical properties in all directions. Uddeholm High Performance Steel meets these demands, even in corrosive environments.



100% INCREASE IN PRODUCTIVITY

Sandvik Coromant describes their new CoroDrill 880 as the best drill ever developed, adding that productivity is up 100% using the drill. One of many reasons for this is that the stronger drill body enables a higher feed rate.



© Sandvik Coromant

UDDEHOLM THG™ 2000



UDDEHOLM
MIRRAX® ESR

FIXTURES WITH FINISH

Fixtures in high-precision machines demand materials with excellent properties. One such example is wire EDMs (Electro Discharge Machining) which require temperable, stable materials that do not change shape over time. At the same time, the working environment in water is corrosive. Uddeholm High Performance Steel offers materials superior to most when it comes to corrosion resistance, strength and wear resistance.

THE PRESSURE IS ON

Shafts are some of the most important components. They transfer torque and carry loads – the very foundation of efficient, reliable production. Thanks to superior steel properties, shafts made of Uddeholm High Performance Steel last longer and withstand stress and strain in the best way.



HIGHER STRENGTH

UDDEHOLM DIEVAR®

Ø 25.4–712 mm
Delivery condition: Rough turned
Delivery hardness: 160 HB
Working hardness: 48–52 HRC

UDDEHOLM ORVAR® SUPREME

Ø 10–550 mm
Delivery condition: Rough turned
Delivery hardness: 180 HB
Working hardness: 48–52 HRC

UDDEHOLM THG™ 2000 HT

Ø 16.2–110 mm
Delivery condition: Rough turned
Prehardened to: 39–43 HRC

UDDEHOLM NIMAX®

Ø 35–670 mm
Delivery condition: Rough turned
Prehardened to: 360–400 HB

UDDEHOLM IMPAX® SUPREME

Ø 12.7–800 mm
Delivery condition: Rough turned
Prehardened to: 300–330 HB

Uddeholm Impax Supreme, Uddeholm Nimax and Uddeholm THG 2000 HT are tempered and ready for machining. The finished component can therefore go straight into production with no intermediate heat treatment.

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.

For more information, please visit www.uddeholm.com, www.assab.com or your local website.