

Move forward  
Go for a better steel



UDDEHOLM HIGH PERFORMANCE STEEL  
FOR THE STEEL, MILL AND MINING INDUSTRIES

## Solve problems before they arise

Downtime costs money. A lot of money. Machines and components in the steel, mill and mining industries often operate in the harshest possible conditions. Reducing downtime can mean massive savings. The key is to take a smart approach and solve problems before they arise.

Uddeholm High Performance Steel grades are more advanced and last longer to produce better results. They are more expensive than standard engineering steel, but they pay for themselves – through higher quality, better availability, less downtime, 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 application 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.

## A better steel reduces maintenance costs

Unplanned production downtime in the steel, mill and mining industries can lead to extremely high costs. Those costs can be reduced significantly by performing preventive maintenance and choosing better solutions from the start. High-alloy steel from Uddeholm High Performance Steel put you in a better position from the word go. This creates new potential for improving and streamlining production, reducing maintenance costs and reducing downtime.





## INCREASE AVAILABILITY WITH FEWER, SHORTER PRODUCTION STOPPAGES

For many years Uddeholm Tooling has been making spare parts from its own steel for its own production – with excellent results. The outcome has been a longer life span, less wear and less unplanned downtime.

Care is the key. Materials subjected 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 throughout the process, such as ultrasonic testing

The Uddeholm High Performance Steel range includes steel grades that have unique properties. High strength, wear resistance and corrosion resistance, along with good heat treatment properties, are some of the benefits that add value to most applications.



UDDEHOLM IMPAX® SUPREME

## SHAFTS THAT SURVIVE IN TOUGH ENVIRONMENTS

Tough environments place tremendous strain on materials. A shaft transfers momentum and carries loads, so whatever the environment it is vital that the shaft lasts. Uddeholm High Performance Steel is an extensive programme of materials for the very toughest conditions.

### 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

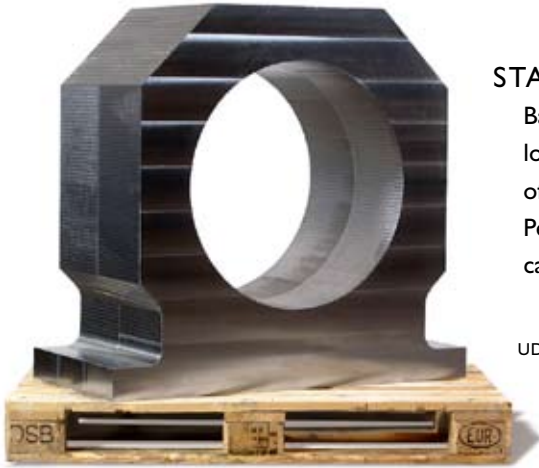
Ø 12.7–800 mm  
Delivery condition: Rough turned  
Prehardened to: 300–330 HB

*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](http://www.uddeholm.com), [www.assab.com](http://www.assab.com) or your local website.



## STABLE BEARING HOUSINGS

Ball bearings in rolling mills have to withstand some serious loads. The housings for the bearings must therefore be made of extremely stable high strength steel. The Uddeholm High Performance Steel range includes large-scale materials that can cope with this kind of extreme load.

UDDEHOLM IMPAX® SUPREME

## FEED ROLLERS OF UNMATCHED STRENGTH

Feeding rods into a peeling machine calls for extremely hardwearing feed rollers. Uddeholm High Performance Steel includes steel grades that can meet these demands thanks to good heat treatment properties.

UDDEHOLM SVERKER™ 21



## EXTRA LONG-LASTING BACKING ROLLER

Production processes often need reliable, sturdy support that can stay the distance without weakening. A backing roller in high-alloy powder steel from Uddeholm High Performance Steel strongly increases the life of the component.

UDDEHOLM VANADIS 4® EXTRA

## DIRECTION ROLLER FOR TOUGH CONDITIONS

Direction or straightening rollers need to retain their shape and withstand high loads at high temperatures. Rollers made from Uddeholm Caldie show three times the life span of conventionally produced rollers.

UDDEHOLM CALDIE®



## SAFE, RELIABLE ATTACHMENT

A lathe chuck has to keep the workpiece in an extremely firm hold. Uddeholm Unimax is a new quality steel from Uddeholm with a unique combination of hardness and toughness, which means it can take extremely high stresses and strains.

UDDEHOLM UNIMAX®