



If it was easy anybody could do it  
– go for a better steel

UDDEHOLM HIGH PERFORMANCE STEEL  
FOR THE RACING INDUSTRY

## You cannot compromise on reliability or durability

Racing really puts material to the test. Extending the limits of engineering and advanced technology is a daily practice. Uddeholm High Performance Steel gives you components with increased reliability and durability. The culmination of these factors leads to better results. Examples of products made utilising Uddeholm High Performance Steel for the Racing Industry are drive shafts, crankshafts, wrist pins, cam followers, valve seats and fastening devices.

## 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 steels.

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 steels 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.





KENNETH HANSEN, RALLY CROSS



CHARLEY KARLING, TOP FUEL DRAG BIKE RACING



OPEL TEAM SWEDEN, STCC RACING



NOBUHIRO 'MONSTER' TAJIMA, PIKES PEAK

# Confidence and superior materials take you to pole position

Within the motorsport arena, racing and rallying, only top performance matters – nothing else. High-alloy steel from Uddeholm, combining high strength, toughness and wear resistance, together with the correct heat treatment, is the key to achieving this. Uddeholm High Performance Steel offers top performance through lower weight, greater precision, lower maintenance costs and longer life time. Stay ahead – try the latest steels from Uddeholm in your components.

## INCREASED STRENGTH WITHOUT GAINING WEIGHT

“High durability is the most important thing for us at Opel Team Sweden. You must have shafts that do their job, simple as that. By working with Uddeholm we now have drive shafts that last at least twice as long, compared to shafts made from conventional engineering steel.

To reach pole position the car must be as light as possible. Uddeholm High Performance Steel makes it possible for us to use as little material as possible and still stand the extreme pressure.”

*Göran Olsson, Crew Chief, Opel Team Sweden – Winner of the STCC 2007 final at Mantorp*



VALVE SEATS MADE OF MOLDMAX HH



VALVE RETAINER MADE OF ALUMEC  
OR UDDEHOLM CALDIE



CAM SHAFT MADE OF  
UDDEHOLM VANADIS 4 EXTRA



CONNECTING ROD MADE OF UDDEHOLM  
ORVAR SUPREME OR UDDEHOLM DIEVAR

## MATERIAL FOR CRANKSHAFTS

Extreme race engines sometimes use a billet crankshaft for extra strength. Uddeholm has the knowledge and resources to help you choose and produce a material according to your specifications. Technical information and advice are always available from all our sales companies worldwide.





DRIVE SHAFT MADE OF  
UDDEHOLM ORVAR SUPREME

## DRIVE SHAFTS WITH SIX TIMES LONGER LIFE TIME

Uddeholm Orvar Supreme is used with great success in several different racing car types. Very good heat treatment properties will result in excellent stability and small dimensional changes. A great advantage in precision work. Kenneth Hansen, eleven time European champion in Rallycross, uses the Uddeholm Orvar Supreme drive shaft. The result speaks for itself – six times longer life time. For more information we also have a Shaft Concept folder.

## LOW FRICTION WRIST PIN

A wrist pin in a racing engine needs good lubrication to give its best performance. Solve the problem with Uddeholm Vancron 40 – a specially developed steel with ultra low friction properties. Save money by avoiding additional surface coating after heat treatment, preventing shape distortion.



WRIST PIN MADE OF UDDEHOLM VANCRON 40



CYLINDER LINER MADE OF UDDEHOLM IMPAX SUPREME

## BETTER TUNING WITH UDDEHOLM IMPAX SUPREME

When tuning cars, reliability of the component delivering the power is vitally important. When conventional materials are not strong enough, Uddeholm Impax Supreme can offer higher resistance to wear, deformation and fatigue. Making liners out of Uddeholm steel gives you more reliable engines, which deliver more power.

## DRAG RACING SLIDER CLUTCH

Extreme stress calls for persistence. Handling high forces is a matter of details. These slider clutches belong to Charley Karling's drag racing bike and the drag racing car of Leanders Bros. They are made out of seven different Uddeholm steels, including the input and output drive shaft which are made of Uddeholm THG 2000 HT.



WHEEL STUD MADE OF  
UDDEHOLM THG 2000 HT

## PRECISION WHEEL STUD

Wheel studs made from prehardened Uddeholm THG 2000 HT can be machined directly to exact tolerances, without any subsequent heat treatment. This will give you precision wheel studs that withstand the powerful forces from a racing car.

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) or [www.assab.com](http://www.assab.com)