



Tool holder for dies.

May 05, 2020 07:30 -12

Uddeholm Idun: when time is what matters

With Uddeholm Idun, the tool holder market is revolutionized, by offering a safe and reliable fast forward button to finished tool holders for indexable inserts. Uddeholm Idun is a pre-hardened and corrosion resistant steel grade, which makes the production a one-stop-shop where heat treatment and coatings will no longer be necessary.

In today's market, time is of the essence for tool producers. Recent years have seen an increasing trend in machining more tools in hard condition, not only to meet the market demand and shorter delivery times, but also to save both time and money on less heat treatment. Naturally the next step to further

decrease the production time is to dispose of costly and time demanding coatings. Until now this has not been possible. Uddeholm Idun changes this by being the first patented corrosion resistant tool holder grade on the market.

MATERIAL SUPPLY

Standard material

ROUGH MACHINING

TRANSPORTATION

HARDENING & TEMPERING

TRANSPORTATION

FINISH MACHINING

SURFACE TREATMENT

PACKING

Uddeholm Idun

ROUGH/FINISH MACHINING

PACKING

Big savings in cost and time

Corrosion resistance is requested both for its pleasing aesthetics, as well as to protect the tool holder from corrosion attacks. Uddeholm Idun has undergone comparison tests in a salt spray chamber according to SS-EN ISO 9227 in 0.1M salt solution at 35°C for 3.5 hours. The steel showed no corrosion, which proves that the corrosion resistance is at least in parity with nickel coating or better.

Uddeholm Idun is meeting the market demands by being pre-hardened to 42-46 HRC, a hardness range used for milling cutters. The steel is manufactured by electro slag remelting, which gives it an even microstructure with small carbides in a martensitic matrix. The hardness is even from the surface to the centre. Although delivered in hard condition, Uddeholm Idun still offers good machinability. Uddeholm Idun can be induction hardened to 55 HRC on the surface if wear resistance needs to be improved locally.

Uddeholm Idun has much better softening resistance than standard P20 type

materials at a constant temperature of 450°C and it keeps a high hardness at 500°C for a long time. Competing materials tend to get a soft surface due to the temperatures created when in production. When losing the surface hardness, the function of the steel is of course lost.

In addition, Uddeholm Idun will give a lower impact on the environment compared to competitor steel grades. Nickel coating is applied for the majority of tool holders and this has a negative impact on health and the environment.

MATERIAL SUPPLY

Standard material

ROUGH MACHINING

TRANSPORTATION

HARDENING & TEMPERING

TRANSPORTATION

FINISH MACHINING

SURFACE TREATMENT

PACKING

Uddeholm Idun

ROUGH/FINISH MACHINING

PACKING

Lower environmental impact

- Starting material from recycled steel scrap
- Corrosion resistant steel, no need for nickel plating
- Delivered in pre hardened condition, no need for heat treatment
- No need for transportation for heat treatment and nickel plating

When time is what matters, the natural step is to move to the new and revolutionary corrosion resistant steel grade on the market: Uddeholm Idun.

This article was written by:

Uddeholm is the world's leading manufacturer of tool steel for industrial tools. And that is no accident. We put our hearts into every piece of steel and every step of the process, from raw material to finished product. Technology is important, just as know-how and product development. But equally vital are desire and courage, power and a forward-looking spirit.

It's about the passion within us – the love of steel!

Contacts



Robert Gustafsson

Press Contact

Brand and Communication Manager

robert.gustafsson@uddeholm.com

+46 72 547 08 04

+46 563 170 48