

# METASCO®Hci

Economical and flexible high characteristics steel solution for hot forgings component heat treated by induction



## Bainitic grade for forging parts, alternative to 42CrMo4, suitable for induction treatment reinforcement and high characteristics (UTS > 1100 Mpa).

Metasco®Hci steel is a bainitic grade, with high C content, which presents an alternative to quenched and tempered forged steel grades.

Its high C content makes it possible to consider strengthening of the surface by an induction treatment, as high as 56 HRC.

Originally designed for forging parts for the automotive and the truck markets, such as a crankshaft for example, it's possible with this grade to obtain a homogeneous structure on large cross-section forged parts, obtained directly after forging.

The mechanical properties achieved after forging are superior to those obtained with ferrite-pearlitic grades such as 38MnVS6, and equivalent to those of quenched and tempered 42CrMo4 grade.

### Characteristics

- Large bainitic range grade
- High characteristic grade
- Absence of V

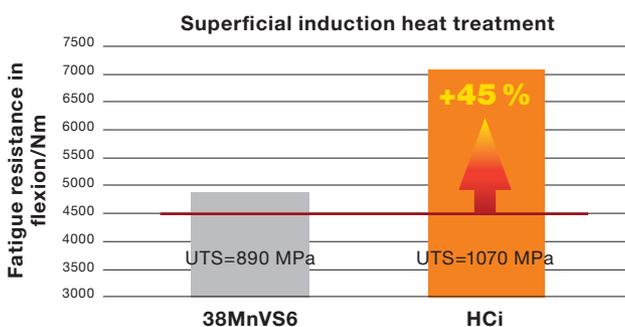
### Advantages

- Grade suitable for induction treatment
- Characteristics achieved in hot forging
- Homogeneous structure up to sections of 90 x 90 mm<sup>2</sup>

### Benefits

- Elimination of bulk heat treatment
  - Economic benefit
  - Simplification of the range
- Reduction of distortions

### A gain in endurance on forged parts, 45% higher / 38MnVS6





## Ascometal “green” by nature!

Based on a manufacturing process combining scrap metal recycling and remelting in an electrical arc furnace, powered by a local low-carbon energy mix, the Ascometal’s carbon footprint is particularly favorable.

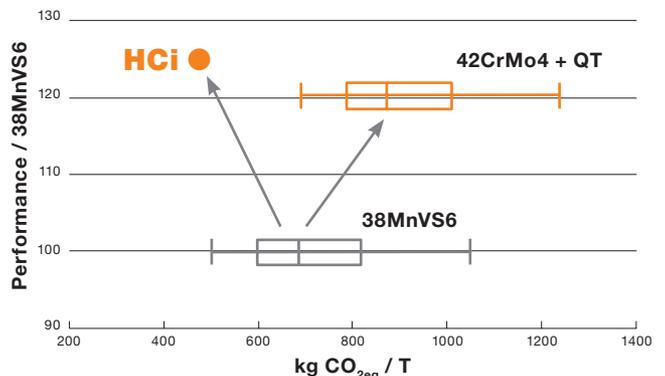
The environmental performance (low CO<sub>2</sub> emissions) associated with the geographical proximity of the majority of our customers, contributes to the reduction of their own.

## A robust economic solution which allows downsizing

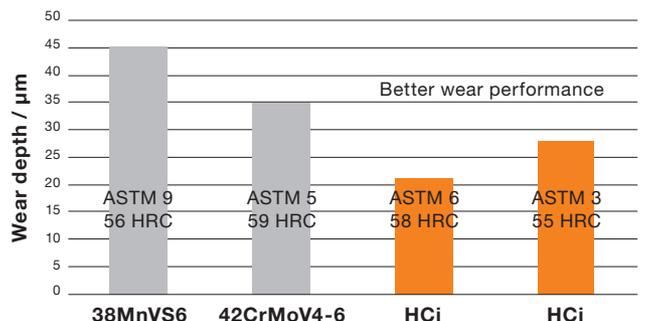
The Metasco HCi grade, originally designed for induction treatment, also offers superior performance in fatigue for mechanical reinforcement of the surface as the “roller burnishing” type as practiced on the crankshaft.

Its machinability performance, as well as its suitability for wear resistance, make this grade a perfect economical alternative for existing grades.

### A favorable performance / carbon footprint positioning



### Better wear performance whatever the forging process



**Ascometal**

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