

# Trademarks of socket head cap screws

In the world there are three manufacturers that have distinguished themselves by focusing on a niche within socket head cap screws. Here we try to present those

differences that make them better than the rest of the manufacturers of socket head cap screws. First follows a brief description of the three.

## FONTANA - Consistent and reliable

Italian manufacturer that may be the world's largest manufacturer of standard screws. As the automotive industry is the largest group of customers, the manufacturing is designed with a unique process control. Especially when it comes to control of the materials for the products, where they foremostly in 2001 differed from other manufacturers. This guarantees minimum variation. Producing a strict standard (both 8.8 and 12.9), they have a somewhat narrower assortment than similar suppliers that have focused on socket head cap screws.

## HOLO•KROME® - Smart and gripping

An American specialist with the business idea of manufacturing high-tensile (12.9) standard socket head cap screws. This results in that they in their factory manufacture a very wide assortment of socket head cap screws. HOLO•KROME® has focused on joints that demand a maximum reliable screw. They were first in the industry and still have an outstanding handling when it comes to individual marking of screws. They have better and smoother (perhaps the best on the market) surface finish that is far beyond what the standards require. This results in a more constant friction at assembly. Choice of material, measure tolerances and angles are chosen to achieve maximum clamping force.

## UNBRAKO® - Pretty and strong

A known trademark in Sweden, where socket head cap screws were called Unbrako® when the standard for socket head cap screws in class 12.9 was introduced in Sweden. Nowadays the manufacturing is carried out in Ireland. Unbrako® works within the segment of high-tensile 12.9 screws. They have a very fine surface finish and tapered socket head grips for better socket head feeling. They have decided to position themselves within the higher tolerance limit within the tolerance area for hardness. They call it H130. Unbrako® products are also available marked with a production batch.

**Table 133 Grades**

Table of comparison with grades 1-10. It is judged in comparison with the well-known leading manufacturers on the market.

	FONTANA	HOLO•KROME®/HOLO•KROME <sup>+</sup>		UNBRAKO®
Assortment 8.8	3	0	0	0
Assortment 12.9	2	8	1	6
Assortment Special	5	1	1	4
Choice of material	7	8	9	9
Method of production	6	8	9	6
Variation in material	7	7	8	7
Clamping force	5	8	10	5
Fatigue	6	8	10	7
Variation in hardness	6	6	6	6
Automatical assembling	6	8	8	2
Aesthetic	5	7	10	6
Surface finish	5	8	10	9
Traceability markings	5	10	10	9