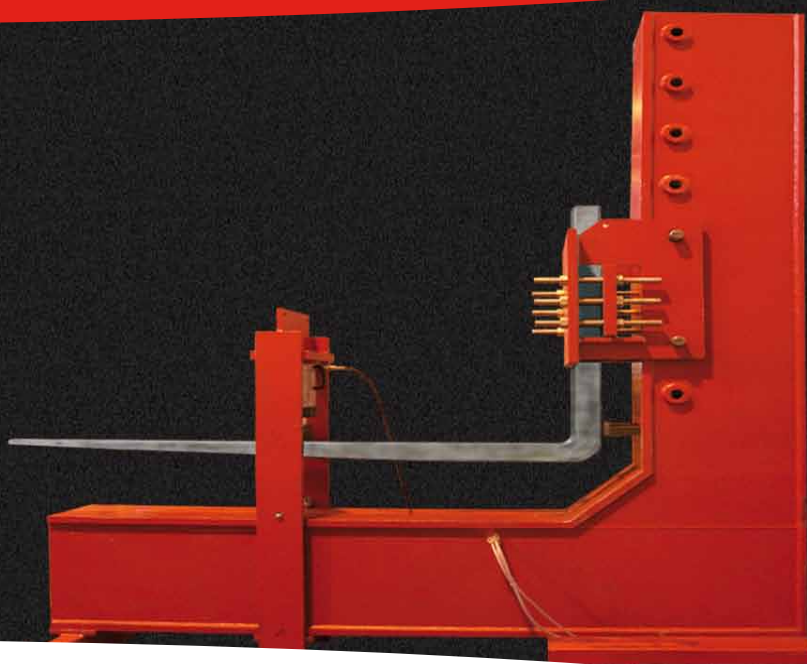


# Scana Fork Material



## Kunnande

Scana Booforge arbetar med ett eget framtaget stål till lyftgafflar. Scana Booforge har en lång tradition. Mer än 350 år för att vara lite mer exakt. Det var nämligen redan 1646 det började, med ett genuint hammarsmide i svenska Karlskoga. Smidesverksamheten drevs under många år vidare inom Alfred Nobels välkända företag Bofors.

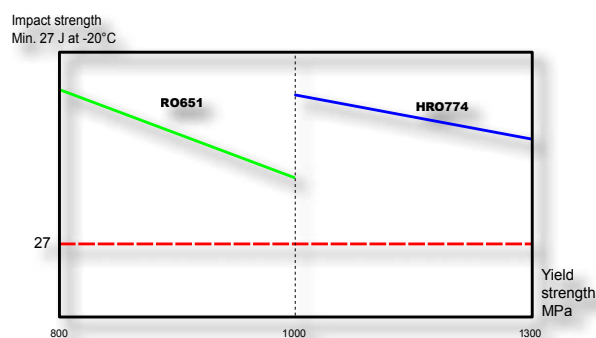
Under årens lopp har Scana Booforge byggt upp unik materialkompetens och kvalitetsmedvetenhet. Idag är företaget en ledande aktör inom sina produktområden: lyftgafflar, värmebehandling och friformsmide.

Scana Booforge är specialiserade på truckar från 8 ton och uppåt. Genom en unik metod av material, smide och värmebehandling är Scana Booforge i en klass för sig avseende kvalitet och säkerhet.



## Säkerhet

Normen för slagseghet ska vara större än 27 joule vid -20° C. Scana Booforges material ligger över denna gräns på en jämn och säker nivå. Slagsegheten i kombination med sträckgränsen anger hur stark och säker produkten är. Scana Booforges strategi är att leverera högkvalitativa produkter där säkerheten alltid sätts i centrum.



Material / Sträckgräns *	
Gaffelmaterial	Sträckgräns MPa
RO651	800- 900
RO651 PRO	900-1000
HRO774	1001-1180
HRO774 PRO	1181-1300

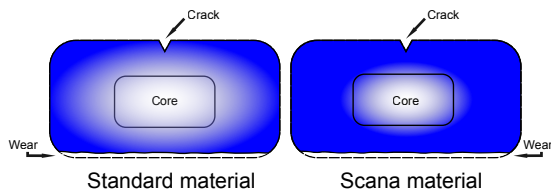
\* enligt ISO 683-1

**A solution that lifts**

# Scana Fork Material

## Fork Material

Standard fork material on the market usually presents a hard shell from the edges of the cross section which allows for a high strength product which, under normal circumstances, is sufficient for its application. However in the event of an impact blow, crack initiation or wear on the fork the material quickly loses its strength due to the soft core. The Scana material, on the other hand, has a more even transition from high strength at the edges to normal strength towards the core of the cross section, which allows for a robust product more resistant to cracks and impact blows.

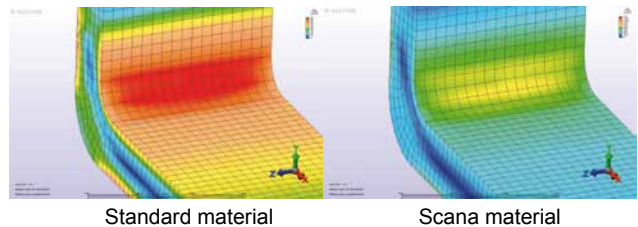
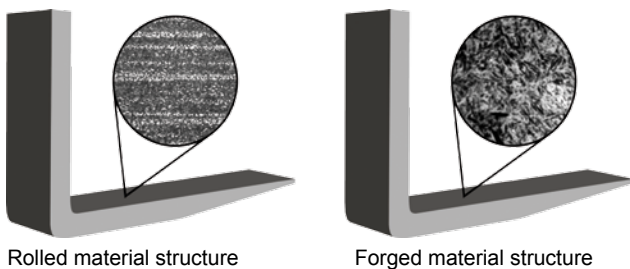


## Deflection

The deflection of a fork under a certain load case is not directly affected by material quality/strength as long as the yield strength is not exceeded. To achieve a stiff fork the most important factor is to maximize the thickness of the fork as it has a big influence on the stiffness, much more so than the width of the fork.

## Rolled vs Forged

There are two main processes when manufacturing a fork blank – Forging or Rolling. Since rolled material is hot processed it reduces cavities and imperfections existing in the starting material. The forging process takes it one step further, homogenizing the material and refining the material structure leaving a fork with very high and even strength qualities. A forged fork blank is optimal if the demands on safety and fatigue resistance is extremely high. The refined material structure in a forged blank also enable the product to respond very well to welding and heat treatment.



## Yield Strength

When exposed to the same load it clearly shows how different the stress level affect the material when comparing a standard material to the Scana material. With a stress level closer to the yield strength of the material makes the product more sensitive to plastic deformation or fatigue cracks. The Scana material incorporates an extra safety margin within the same cross section of a product.

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