

Steel

perform[®] – strong yet formable

High-strength cold forming steels
as an attractive solution in truck
manufacturing.



thyssenkrupp



Strong performance is the result of the skillful combination of different strengths. Our perform[®] steels offer both excellent processing properties and outstanding weight-reduction potential. Reduced part thickness makes for lighter trucks and allows higher payloads, enabling more freight to be carried on every journey, saving fuel and reducing pressure on the transport network. thyssenkrupp perform[®]: a sustainable product for strong performance.

thyssenkrupp perform[®] – strength meets formability

Reconciling conflicting requirements – with perform[®] it's daily routine. Our thermo-mechanically rolled cold forming steels offer a unique combination of properties:



Use for complex
part shapes



Outstanding processing by cutting
and welding, plus small bend radii



High strength,
good toughness



Large variety
of grades



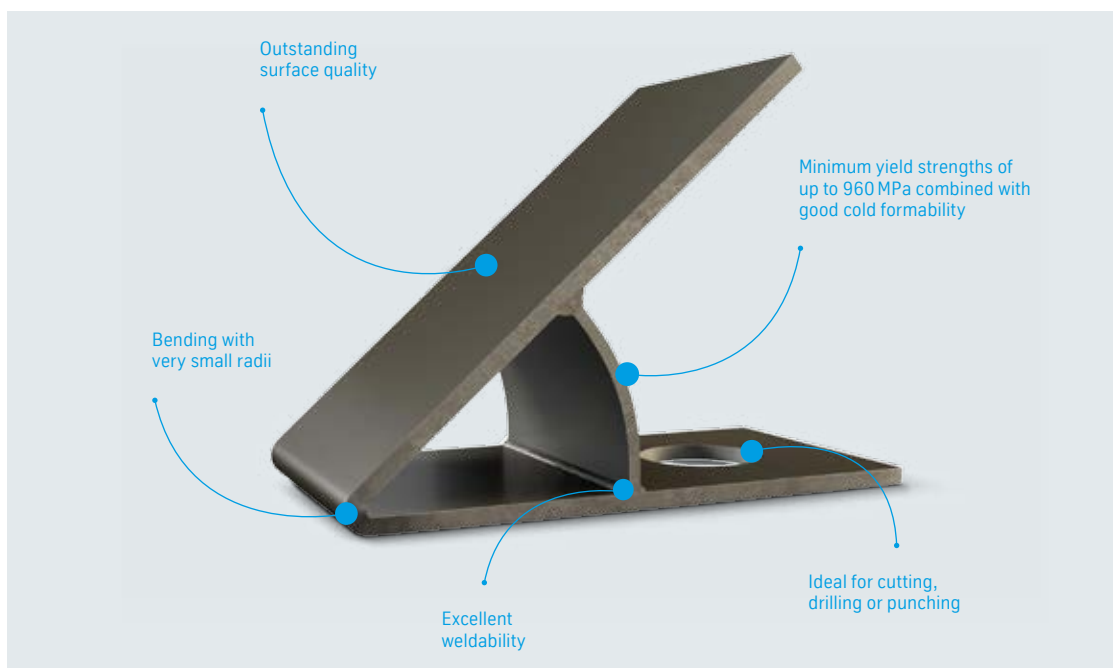
Complete ease of processing

Our perform[®] steels meet the two most important criteria for application in trucks: high toughness and superior formability. This combination is achieved by low sulfur contents, high cleanness levels and a particularly fine microstructure. Its low carbon equivalent makes perform[®] extremely weldable in all strength classes and therefore an ideal material for complex welded structures.

perform[®] steels

are ideal for complex part shapes in truck manufacturing:

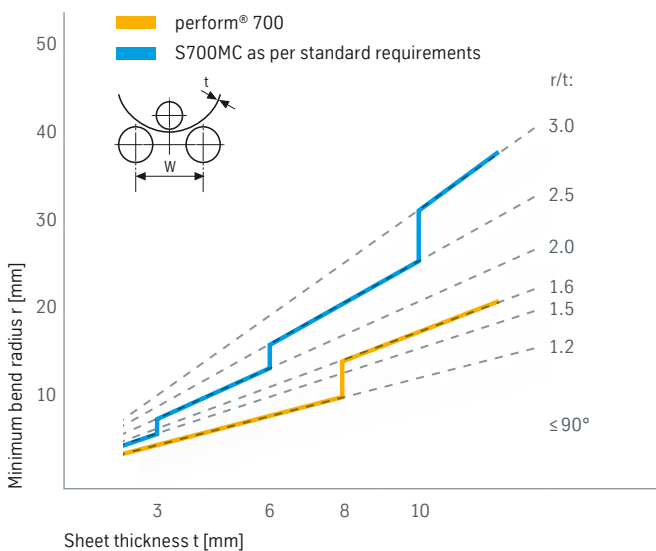
- ⊕ Longitudinal and cross members
- ⊕ Axle structures
- ⊕ Wheel rims



Profit from enhanced processing properties.

The particularly fine microstructure of our perform[®] steels guarantees outstanding forming behavior. Parts made with perform[®] can be formed, bent, punched, and sheared without difficulty. Even challenging processing operations such as stretch forming and deep drawing or multistep forming operations are no problem. In general there is a simple rule for processability: the higher the strength, the larger the minimum bend radius. perform[®] 700, for example, clearly exceeds standard specifications with regard to bend radius.

Bend radii perform[®] 700 versus S700MC



perform[®] 700 can be much more readily bent than the reference grade under DIN EN 10149-2.



- ⊕ Minimum yield strengths of 300 to 960 MPa combined with very good cold formability
- ⊕ Bending with very small radii
- ⊕ Good toughness properties
- ⊕ Excellent surface quality
- ⊕ Outstanding weldability thanks to low CE/CET values
- ⊕ Special perform[®] Lasercut grades with low residual stresses and very good flatness

Bring the benefits to the road.

Our perform[®] steels meet the highest standards for stiffness and connection strength. Particularly in safety-relevant truck parts they offer superior crash performance and fatigue tolerance.

Save with perform[®].

thyssenkrupp perform[®] grades are also available in a special Lasercut version (up to 10 mm). With low residual stresses and very good flatness, these steels are suitable for the production of long, slim parts required to display high dimensional accuracy. Their suitability for laser beam and plasma cutting provides significant cost-saving potential.

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