

STRENX® 960 FOR STRONGER AND SAFER REAR UNDERRUN PROTECTION DEVICE

When quality matters, turning to Strenx® 960 high-strength steel for protection in your heavy-duty vehicles is a good choice. It is ideal in applications like rear underrun protection devices (RUPD), which help lower the risk of fatal injuries in rear-end collisions involving heavy-duty vehicles.

An insufficiently strong RUPD can't prevent severe damage to a car's passenger compartment, reducing the survival space for its occupants.

Statistics show that the number of serious or fatal injuries is increasing. To reverse this trend, new regulations from the UN's Economic Commission for Europe (ECE) are being implemented during 2019–2021 that will oblige truck and trailer manufacturers to roughly double the necessary load-carrying capacity of RUPDs.

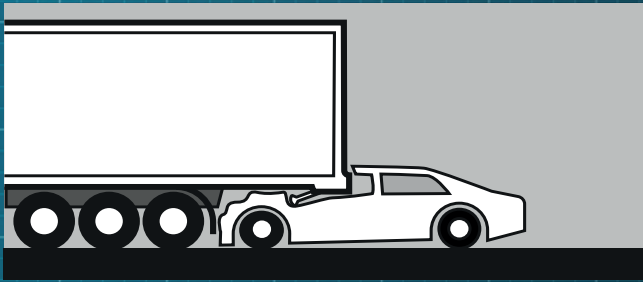
The right design using Strenx® 960, which complies with ECE regulations, delivers a better strength-to-weight ratio compared to aluminum.

STRENX® 960 –
Stronger and
safer RUPD



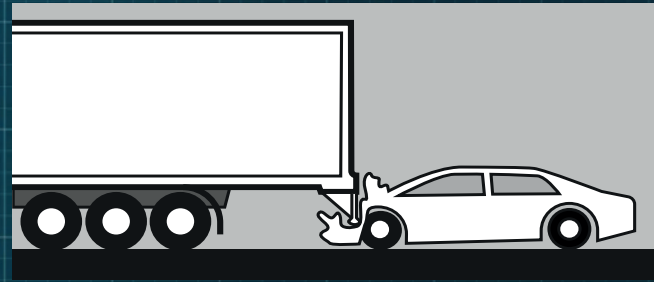
WEAK

rear underrun protection
RISKS damage in car-to-truck crashes



STRONG

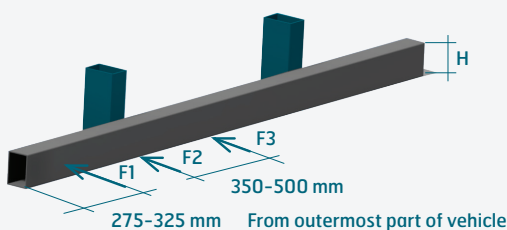
rear underrun protection
PREVENTS damage in car-to-truck crashes



HIGHER LOAD CARRYING CAPACITY REQUIRES STRONGER MATERIAL

The new regulations in brief

- F1 100 kN (previously 50 kN).
- F2 180 kN (previously 100 kN).
- F3 is 100 kN at the midpoint of the RUPD (previously 50 kN).
- H Minimum height of the cross section beam should be at least 120 mm (previously 100 mm).



Partner in design

In addition to Strenx 960 tubes, sheets and plates for RUPD, SSAB also offer tube sawing and tube laser cutting for more complex shapes as well as cutting and press brake bending for different types of support structures for an RUPD.

SSAB offers cooperation when designing an RUPD. The performance of an RUPD depends on parameters such as material choice, shape and thickness of different parts, distance between supports, and design of connections between different parts.

The combination of different parameters leads to many different designs. An engineering study is necessary to evaluate them to find the one that satisfies cost and performance requirements. SSAB actively cooperates with customers at almost all engineering levels to design an optimal RUPD.

THE BENEFITS OF STRENX® 960

- Better weight efficiency
- Lower costs
- Less environmental impact than aluminum*
- Different cross-section profiles possible thanks to its adaptability and workability

STRENX® 960 SHEETS AND PLATES

Standard products	Thickness range [mm]			Conforms to standard	Formats
	Plate	Hot rolled strip	Cold rolled strip		
Strenx® 960MC	–	3-10	–	S960MC in EN 10149-2 / Impact test at -40°C	Sheets
Strenx® 960 Plus	–	2-8	–	S960QL in EN 10025-6 / Impact test at -40°C	Sheets
Strenx® 960 CR	–	–	0.7-2.1	SSAB specification	Sheets
Strenx® 960 E	4-100	–	–	S960 QL in EN 10 025-6 / Impact test at -40°C	Plates

STRENX® 960 TUBES

Shape	Dimensional range [mm]	Wall thickness [mm]	Mill length [m]	Conforms to standard
Circular	114.3- 244.5	4-6	6-12/18	Tolerances based on the requirements of EN 10219
Square	100x100- 200x200	4-6	6-12/18	Tolerances based on the requirements of EN 10219
Rectangular	120x80- 250x150	4-6	6-12/18	Tolerances based on the requirements of EN 10219

*According to case studies released by WorldAutoSteel.

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SSAB