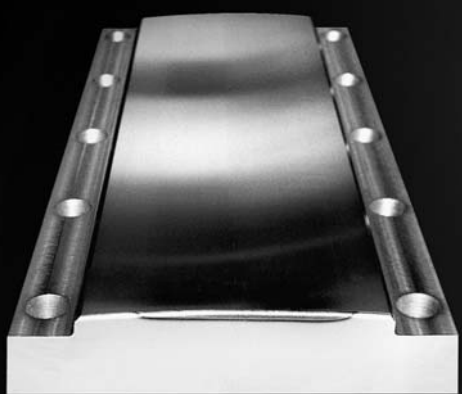
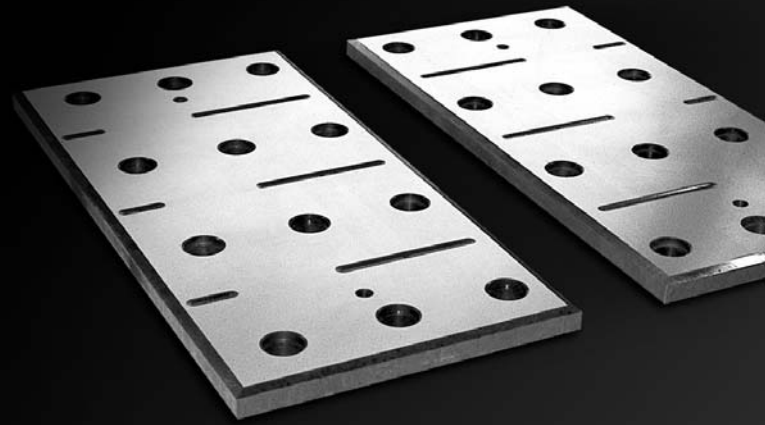


Steel Industry

Liners and wear parts
for rolling mills





Liner Requirements

As the liner is a part of the integral mill design, it has to remain its dimensional shape and hardness.

If a liner wears out and the dimension is changing gradually, it does allow inaccuracies in the rolling operations. Position of work rolls and/or back up rolls may get out of tolerance, the crown, or cross section of the rolled strip will get out of tolerance, or thickness may get wavy.

Dis-positioned liners cause higher wear on bearings and mill rolls, and marking on the rolls, which are transferred to the end product, the strip .

Liners need to withstand load impact, erosion, wear, friction, corrosion and vibrations.

Liner Groups

Housing Liners

Housing liners are mounted on the mill post.

Housing liners can only be replaced during down time as the rolls have to be taken out of the mill.

Chock Liners

Chock liners are mounted on the bearing blocks of the work rolls and the back up rolls.

When rolls are in the roll shop for maintenance, the liners can be replaced if necessary.

Hence no down time beyond scheduled roll change time is required.

Miscellaneous Liners

Rocker Plates

Stack Plates

Sled Liners

Bending Liners

The Solution

Angelo Romani Surface Hardened Liners AR38

These are made out of one piece of material, which can be a carbon steel AR38-S, or a corrosion resistant steel AR38-I.

The surface is induction hardened with a depth of 3-5 mm, sufficient to accommodate the maximum allowable design wear of a liner.

The non hardened part of the liner will function as a dampener.

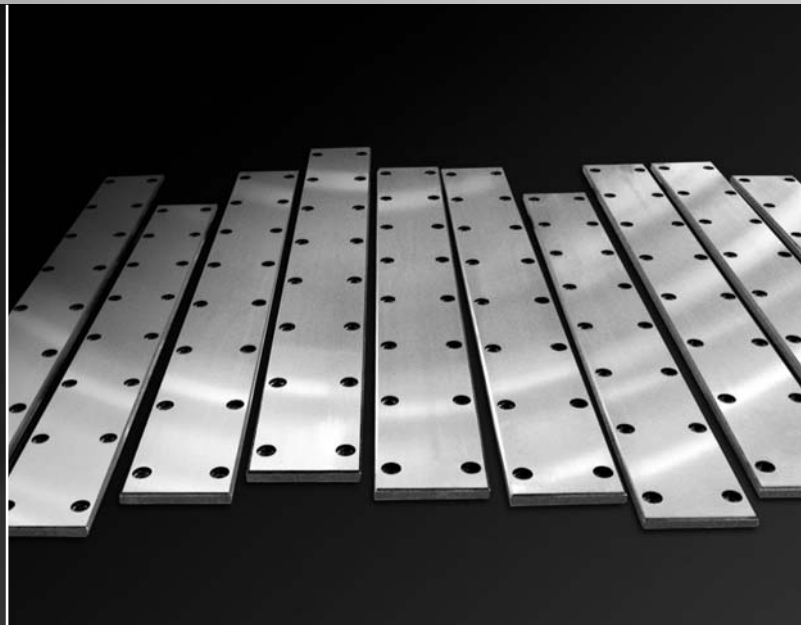
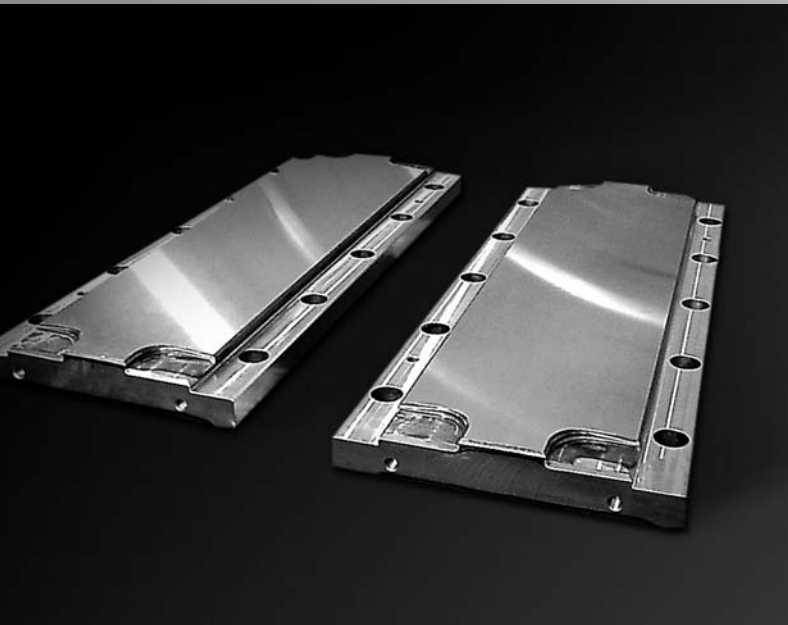
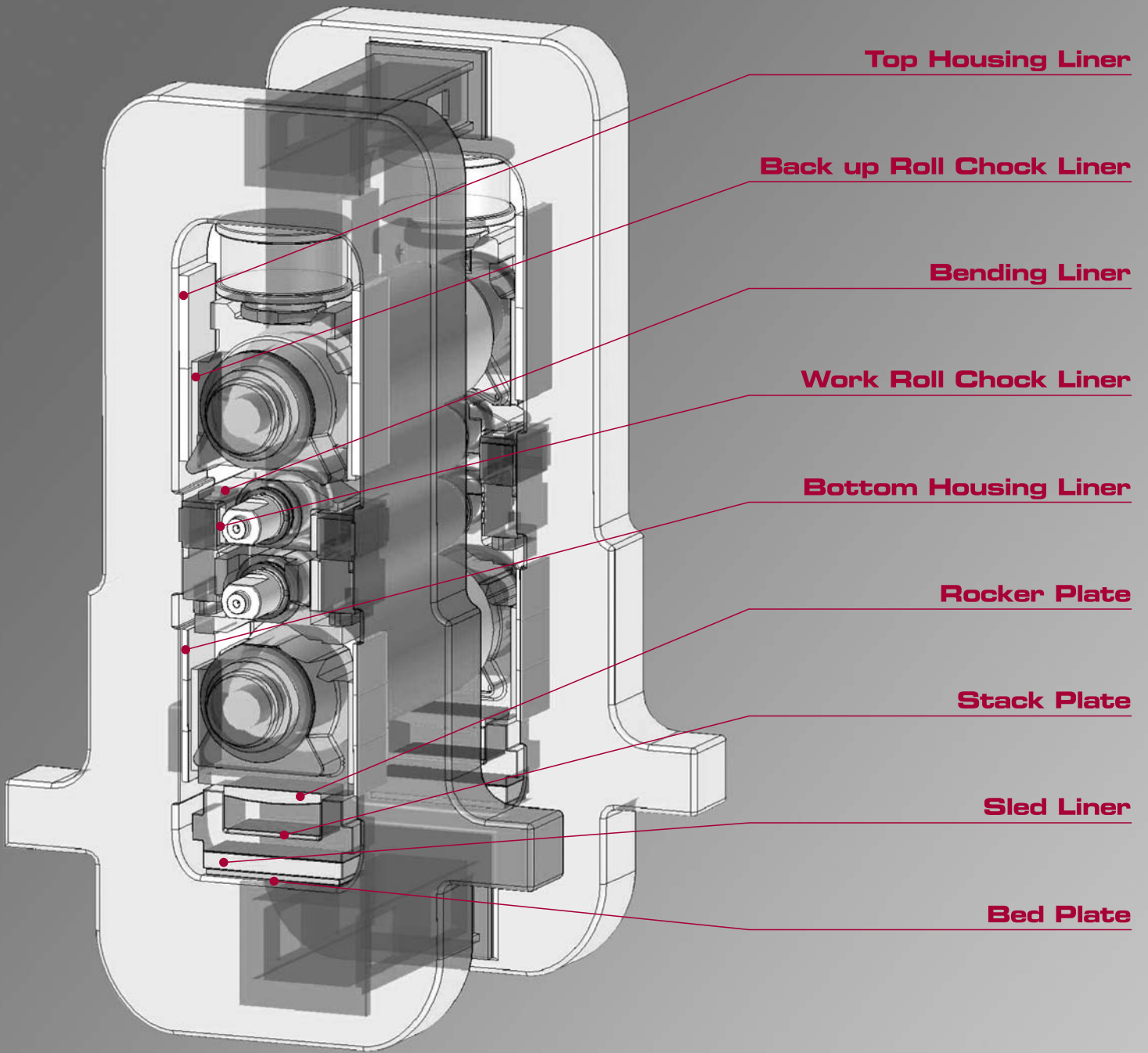
The AR38 liner is a solid liner, material stress is minimized, tension and crack problems are history.

This proven design of liner carries all the positive properties of other available liner types, while leaving out the disadvantages.

The AR38 liner is a smart and simple design, meeting highest performance standards.

Its price-performance ration resulted in a high rating of satisfaction amongst the numerous user.

	Hardness HRc	Hardening Depth
AR38-S	60 +/-2	3-5mm
AR38-I	56 +/-2	3-5mm



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