

# PRESS RELEASE DÖRRENBERG EDELSTAHL GMBH

## GREEN STEEL at Dörrenberg



Environmental protection, resource-saving work and reduced energy consumption have characterized the working methods of Dörrenberg Edelstahl GmbH for decades. For example, the introduction of a modified sand system, the only one of its kind in the world, reduced the amount of so-called used sand to be landfilled to zero. For several years now, the regenerative share in Dörrenberg's electricity mix has been around 50%.

We are proud to announce that we now obtain 100% electricity from renewable "green" sources for our production sites.



For years we have been melting our steels in Runderoth using the low-CO<sub>2</sub> electric steel route. The generation of electricity has so far indirectly produced only approx. 280 kg CO<sub>2</sub> /t of steel, significantly less than integrated steel mills which emit approx. 1,700 kg CO<sub>2</sub> /t of steel. By sourcing 100% "green electricity", these 280 kg CO<sub>2</sub> /t of steel are eliminated and we are making a significant contribution to further reducing CO<sub>2</sub> emissions.



Melting in our induction furnaces is associated with CO<sub>2</sub> emissions depending on the electricity used. By switching to "green electricity", we reduce the CO<sub>2</sub> emissions of melting to zero.



The hardening of steels is carried out by a wide variety of processes. The use of electrically operated vacuum furnaces with gas quenching produces significantly less CO<sub>2</sub> than, for example, burning oil in oil quenching. By abandoning case hardening in favor of nitriding treatments, we have achieved further significant savings in CO<sub>2</sub> emissions. These measures have resulted in our producing only about 25% of the emissions compared to other hardening shops.

By using "green electricity", CO<sub>2</sub> emissions from hardening at Dörrenberg are reduced to zero compared to gas-fired oil quenching processes.



We are currently working intensively on other CO<sub>2</sub> sources, such as natural gas. Will be continued!

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