

# Rautaruukki launches steel tubes for the new

## High strength **RAEX® OPTIMAX** steel tubes and effectiveness

Rautaruukki is launching a new high strength steel tube, Raex Optimax, in the early autumn. The tube is made from thermomechanically hot rolled steel and opens up opportunities for the advanced engineering industry to improve the performance and overall economy of its products.

“Raex Optimax steel tubes give the biggest benefits in machines and pieces of equipment that require very strong structures with a high load-bearing capacity. Cranes and other load-lifting equipment are typical examples. Since the machine itself has a lighter structure, the weight saved can be converted into a higher payload and/or improved performance. Further benefits are savings in energy consumption and a reduction in the running costs for the machine and in the impact on the environment,” states product manager **Tomi Harju** from Rautaruukki Metform.

“Another major technical property of Raex Optimax steel tubes is their weldability. Thermomechanically hot rolled steels have a low carbon equivalent and are low alloy. This means that these high strength steel tubes can be welded with all normal welding methods and do not need an elevated working temperature,” Harju continues.

High strength steel tubes have a hard abrasion-resistant surface. For that reason Harju recommends them for machines and equipment where the surface is subject to continuous, long-term abrasion. The surface of Raex Optimax steel tubes can be painted or galvanized.

### Clarifying the product range

For the designer, high strength Raex Optimax steel tubes are easy to use. They are available with circular, square, and rectangular cross sections, and in several wall thicknesses. Strength categories 500 and 700 MPa give designers greater freedom to choose what is technically the most effective solution. Raex Optimax products are made according to the EN 10219 standard for structural hollow sections. The only exception is the corner radius for Optimax 700 tubes, which is slightly greater than the standard to avoid hairline cracks in the corners.

“We have developed the Raex Optimax family together with our pilot customers. We have made pilot deliveries to customers and products have been tested in customer’s process. Development work has continued using the test results and the experience obtained in usage,” says Tomi Harju.

“The new products replace the old Raex HSF grades. We believe that they will help us standardize our range of structural tubes, making it easier for customers to see what grades are available and which properties they have. In addition to Finland, the main markets for Raex Optimax will be the other Nordic countries and central Europe,” states Harju.