

Raex[®] ABRASION
RESISTANT STEEL

**RAEX
ANY TIME, ANY WEAR**



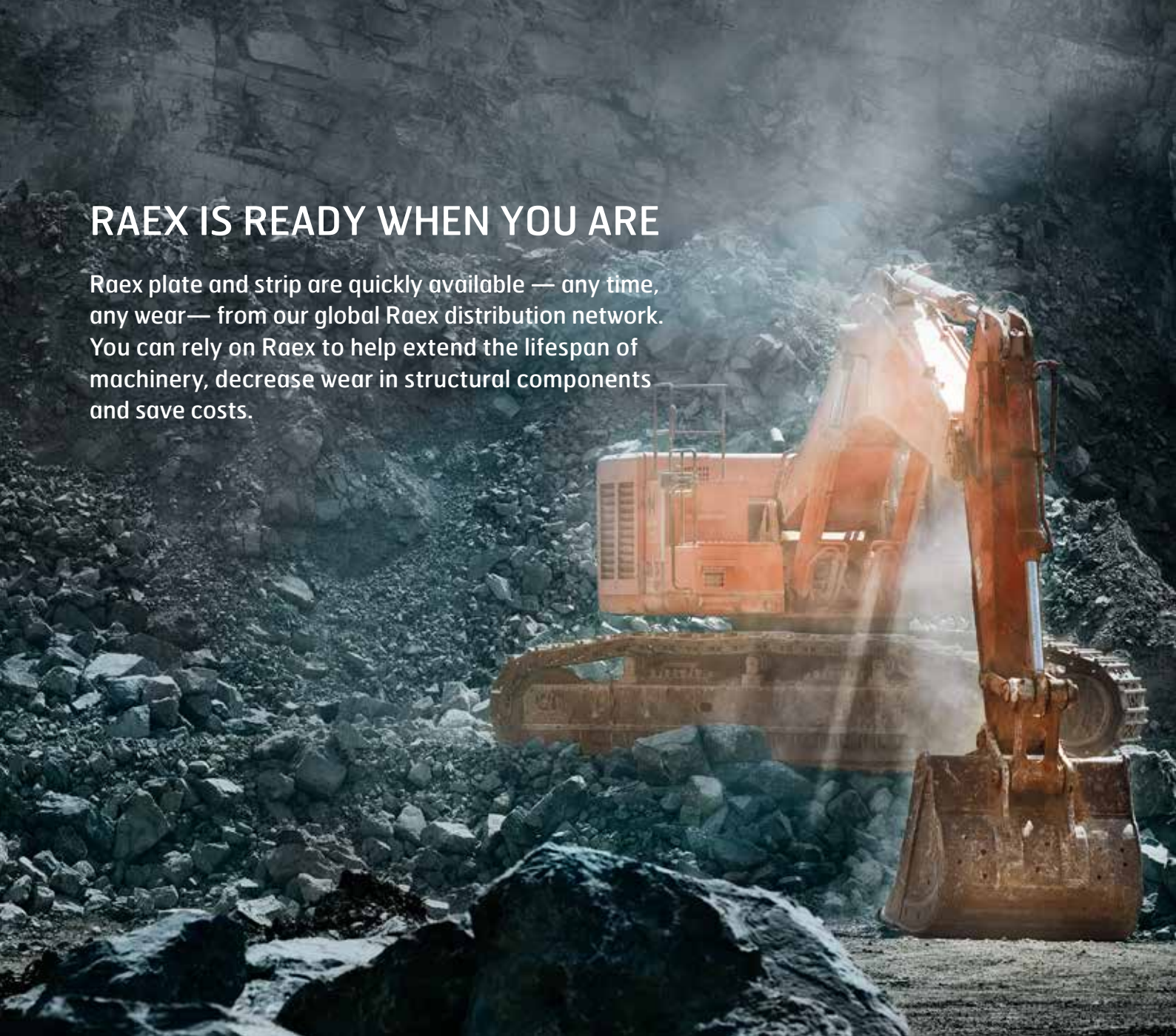
YOUR WEAR DEMANDS COVERED

Raex abrasion resistant steel is designed for steel structures that are exposed to abrasive wear and tear. The wear resistance properties of Raex can significantly prolong the service life of your equipment, saving you time and money.

Raex extends the service life of steel structures by cutting down their weight in comparison to mild steel. Lighter components increase load capacity, often 10–20 percent and sometimes even more. This saves fuel and reduces emissions by reducing the number of trucks in service.

RAEX IS READY WHEN YOU ARE

Raex plate and strip are quickly available — any time, any wear— from our global Raex distribution network. You can rely on Raex to help extend the lifespan of machinery, decrease wear in structural components and save costs.



With its dependable quality and reliable performance, Raex delivers high value for all your typical wear applications. A complete product range of abrasion resistant steels, Raex comes in thicknesses of 2-80 mm and a hardness range of 300-500 HB.

Raex performs well in the workshop thanks to its good cutting, welding and forming properties. This originates not only from the clean steel that Raex is made of, but also the consistency of the product.

Clean steel means fewer problems when welding and cutting the material. Consistent thickness and excellent flatness performance make it easier to handle in the cutting machine and when bending the piece.

Consistency means that your piece of Raex has the same properties over the full sheet or plate: piece after piece, day after day, and month after month. This allows you to use the

same tools and settings saving you save time and money in your workshop.

Raex outperforms in surface quality and flatness which is achieved by modern production technology. Flat plates can easily be welded together without problems with the welding gap. And if you are producing equipment with large flat surfaces, excellent flatness and surface quality ensure a great look, even when painted.

When processing the plate, even a fraction of a millimeter counts, since bending force and springback are directly related to thickness. The uniform thickness of Raex will make the springback turn out the same all over the bent part resulting in a nice, even bend. The narrow tolerances for thickness also guarantee that your finished structure will be as light as you expect.



QUALITY INSPIRES EFFICIENCY

Raex delivers high performance in all typical wear applications. Together with trouble-free production Raex brings you a new level of cost efficiency and competitiveness.



MINING

The mining industry consists of a great deal of material extracting, crushing and transport. Raex wear resistant steel is ideal for lining equipment parts, such as the interior of crushers or feed hoppers, impact surfaces, transport equipment and conveyor belts.



ROAD BUILDING

A variety of equipment is needed when building a road, for example trucks transporting heavy material long distances and machines that can withstand wear breaking ground. Thinner Raex plates with higher strength will lower overall weight and increase payload.



RECYCLING

In recycling processes productiveness and competitiveness are key. Raex abrasion resistant steel will withstand the abuse and allow recyclers and recycling equipment manufacturers to cut costs, improve service life and optimize production.



AGRICULTURE

Agricultural machinery and equipment are exposed to continuous wear and stress. During hard field work, the machinery is extremely vulnerable to abrasion. Raex is hard yet flexible. This increases equipment lifespan and decreases the frequency of, and costs for, replacement of wear parts.

GOOD WORKABILITY

Despite its high strength, Raex abrasion resistant steels can be formed and joined using conventional machining techniques. And no matter whether you are going to weld, bend or machine the material, you can expect reliable performance.



MACHINING

Raex abrasion resistant steel is easily machined with high-speed steel tools. Thanks to its properties, drilling, countersinking, tapping, turning, and milling are done using conventional machining techniques.



WELDING

Raex abrasion resistant steel, with good flatness, make for easy automatic welding shortening the time for fit up and tacking.

PRODUCT PROGRAM

CUT LENGTHS

| Steel grade | Thickness range [mm] | Width range [mm] | Length [mm] |
|-------------|----------------------|------------------------|-------------|
| Raex 300 | 2.00–8.00 | 870–1860 ¹⁾ | 2000–12000 |
| Raex 400 | 2.00–8.00 | 870–1860 ¹⁾ | 2000–12000 |
| Raex 450 | 2.50–8.00 | 870–1775 ¹⁾ | 2000–12000 |
| Raex 500 | 3.00–6.50 | 870–1775 ¹⁾ | 2000–12000 |

1) Maximal width depends on thickness and product.

HEAVY PLATES

| Steel grade | Thickness range [mm] | Width range [mm] | Length [mm] |
|-------------|----------------------|-------------------------|-------------|
| Raex 400 | 6.00–80.00 | 1800–3300 ¹⁾ | 2000–12000 |
| Raex 450 | 6.00–80.00 | 1800–3300 ¹⁾ | 2000–12000 |
| Raex 500 | 6.00–80.00 | 1800–3300 ¹⁾ | 2000–12000 |

1) Maximal width depends on thickness and product.



BENDING

Raex abrasion resistant steel is well suited for free and roll bending, thanks to its uniform properties and smooth surface.



CUTTING

Raex abrasion resistant steel can be cut both hot and cold. The recommended methods are oxyfuel, plasma or laser cutting.

RAEX HOT ROLLED PLATE PRODUCT

| Product | Thickness range [mm] | Hardness (HBW) | Yield strength $R_{p0.2}$ Typical [MPa] | Tensile strength R_m Typical [MPa] | Elongation A_5 Typical % | CET Typical ¹⁾ [mm] | CEV Typical ²⁾ [mm] | Impact toughness Typical Charpy V 30 J |
|----------|----------------------|----------------|---|--------------------------------------|----------------------------|--------------------------------|--------------------------------|--|
| Raex 400 | 6–80 | 360–440 | 1000 | 1250 | 10 | 0.28–0.35 | 0.42–0.57 | -40°C |
| Raex 450 | 6–80 | 420–500 | 1200 | 1450 | 8 | 0.34–0.37 | 0.47–0.64 | -40°C |
| Raex 500 | 6–80 | 450–540 | 1250 | 1600 | 8 | 0.40 | 0.57–0.66 | -40°C |

1) CEV-values are available on product sheet. 2) CET-values in the table are for information only.

RAEX HOT ROLLED STRIP PRODUCT

| Product | Thickness range [mm] | Hardness (HBW) | Yield strength $R_{p0.2}$ Typical [MPa] | Tensile strength R_m Typical [MPa] | Elongation A_5 Typical % | CET Typical ¹⁾ [mm] | CEV Typical ²⁾ [mm] | Impact toughness Typical Charpy V 30 J |
|----------|----------------------|----------------|---|--------------------------------------|----------------------------|--------------------------------|--------------------------------|--|
| Raex 300 | 2–8 | 270–390 | 900 | 1000 | 11 | 0.24 | 0.46 | -40°C |
| Raex 400 | 2–8 | 360–440 | 1000 | 1250 | 10 | 0.29–0.31 | 0.48–0.53 | -40°C |
| Raex 450 | 2.5–8 | 420–500 | 1200 | 1450 | 8 | 0.35 | 0.53 | -40°C |
| Raex 500 | 3–6.5 | 470–540 | 1250 | 1600 | 8 | 0.40 | 0.54 | -40°C |

1) CEV-values are available on product sheet. 2) CET-values in the table are for information only.

CONTACT