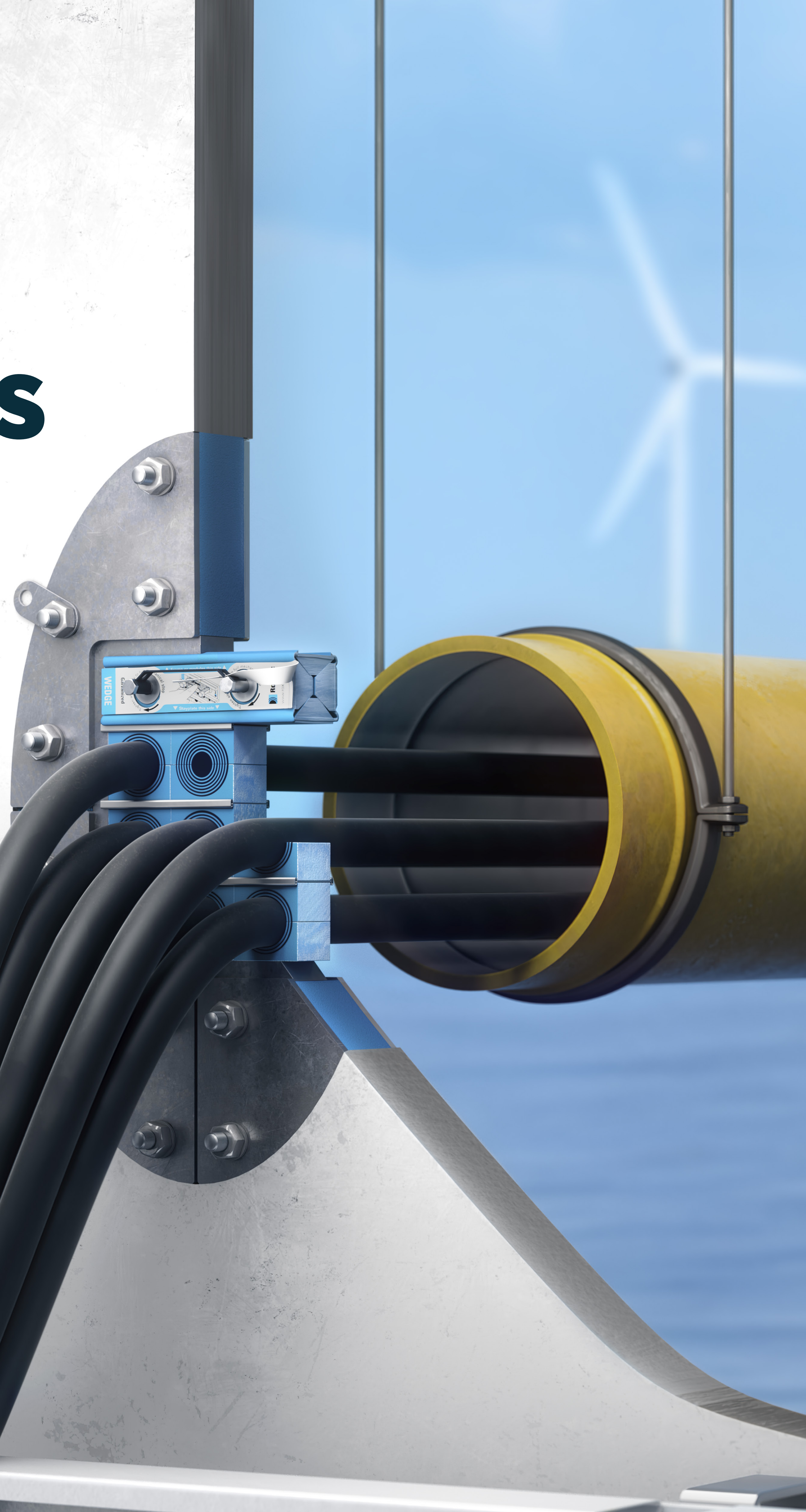




Oval cable seals

Ovals seals contribute to reliable operation and efficient usage of valuable resources such as steel.

[Read the full story](#)



How to save 1,000 tons of steel

Smart engineering

Structural design engineers and sealing solution providers cooperated to develop oval cable and pipe penetration seals.

Pure mathematics

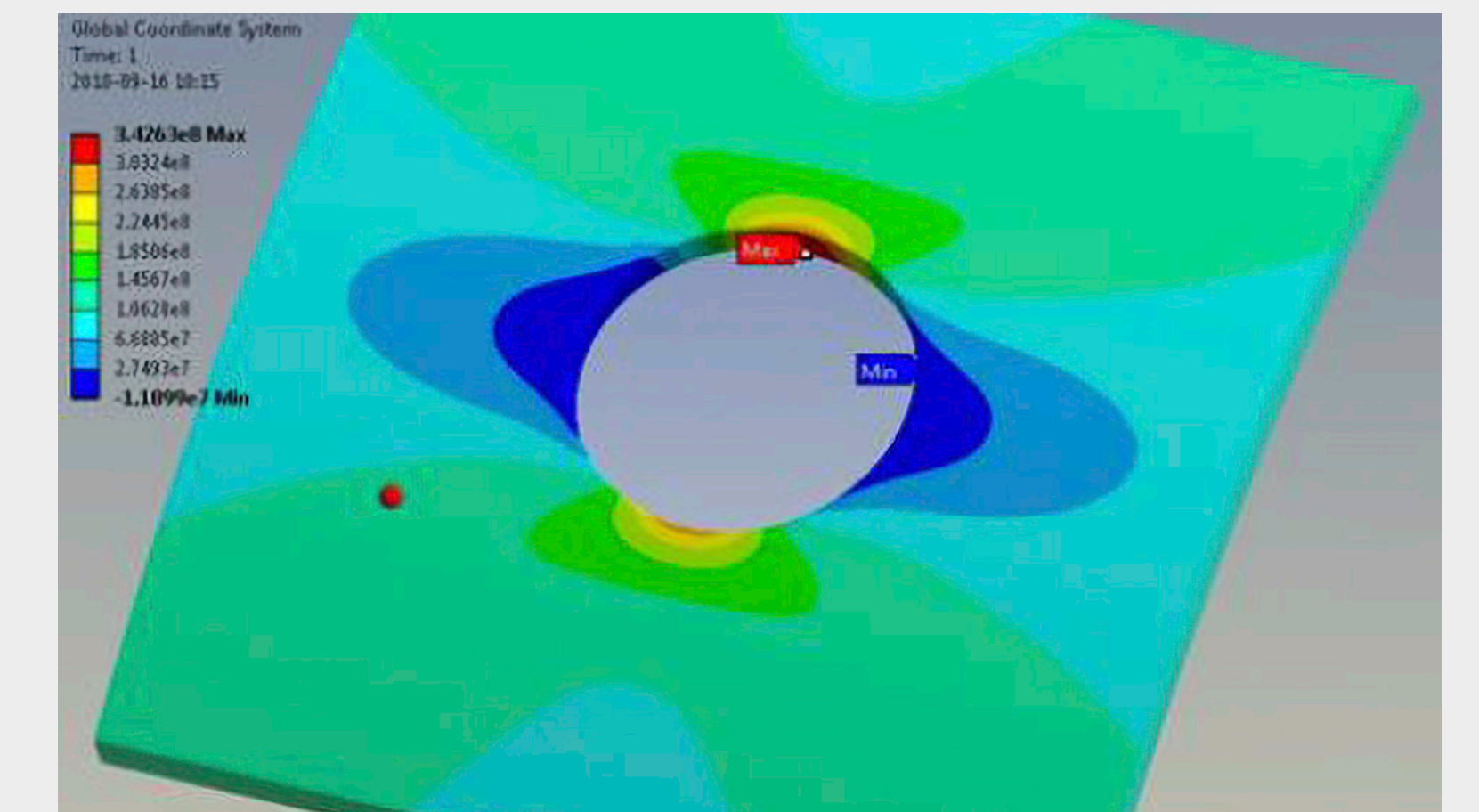
Stress forces choose better ways if you have oval openings instead of round or rectangular openings in the steel structure.

Saving much steel

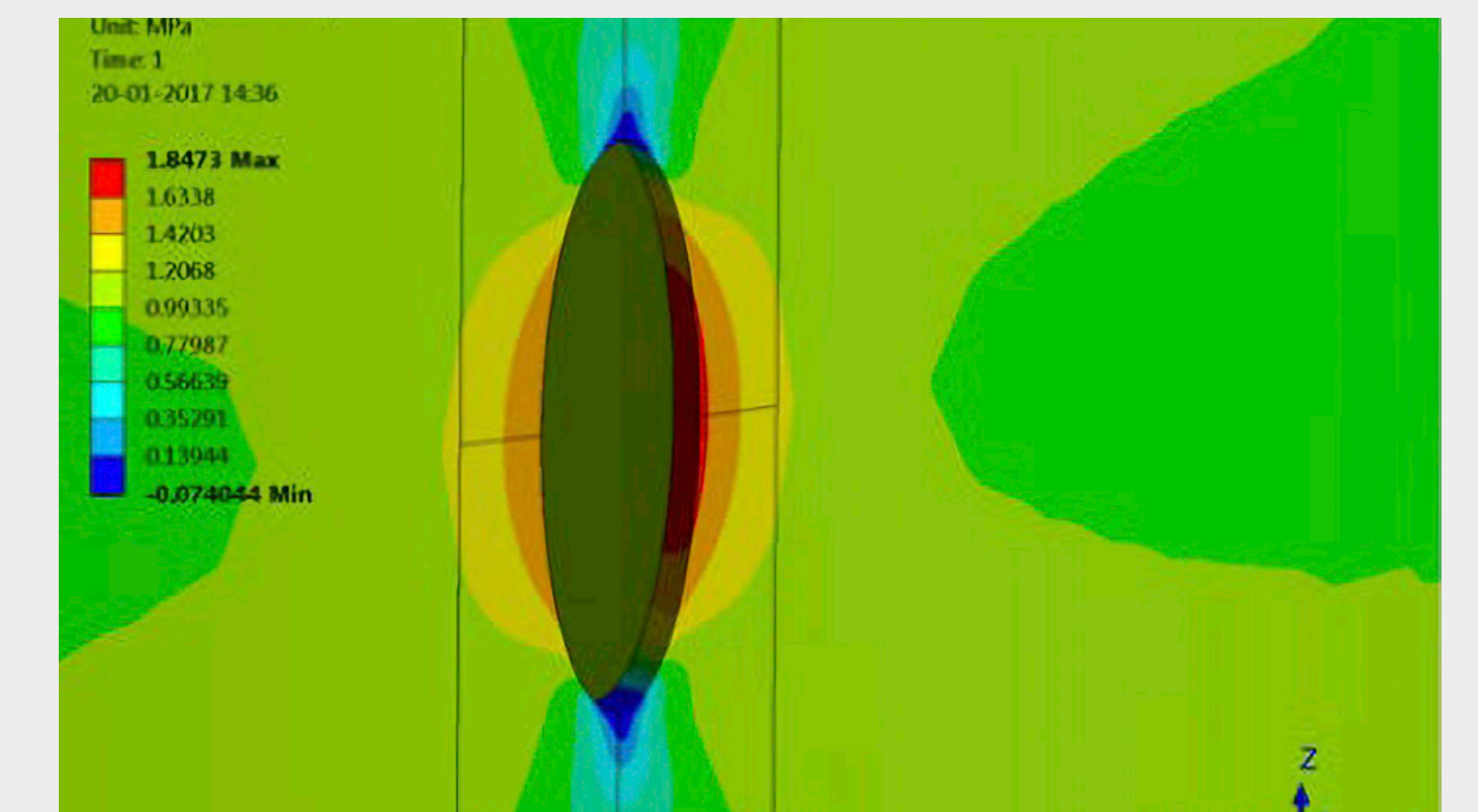
Oval seals minimize the stress concentration factor, require less steel and enable significant steel savings for offshore wind farms.

Efficient use of resources

This innovative cooperation reduces the need for steel and makes it easier to roll out lighter structures for renewable offshore wind power.



Round seal
Stress Concentration Factor ≈ 3.4



Oval seal
Stress Concentration Factor ≈ 1.85

Steel saving with oval solution

- SCF Round 3.4
- SCF Oval 1.85
- Difference $1.85/3.4 = 1.8$
- Steel saving in 1 can section, approximate 40–50%

Typical Transition Piece Can section weight 46T

- Approximate double steel weight $46 * 1.8 = 80T$
- Transition piece weights 150–250 T

Protecting life and assets

Roxtec provides modular-based cable and pipe transits. The sealing solutions are used worldwide in demanding industries and challenging projects for efficient protection against multiple hazards.

Get in touch

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[Watch video on seals for offshore wind farms](#)

