

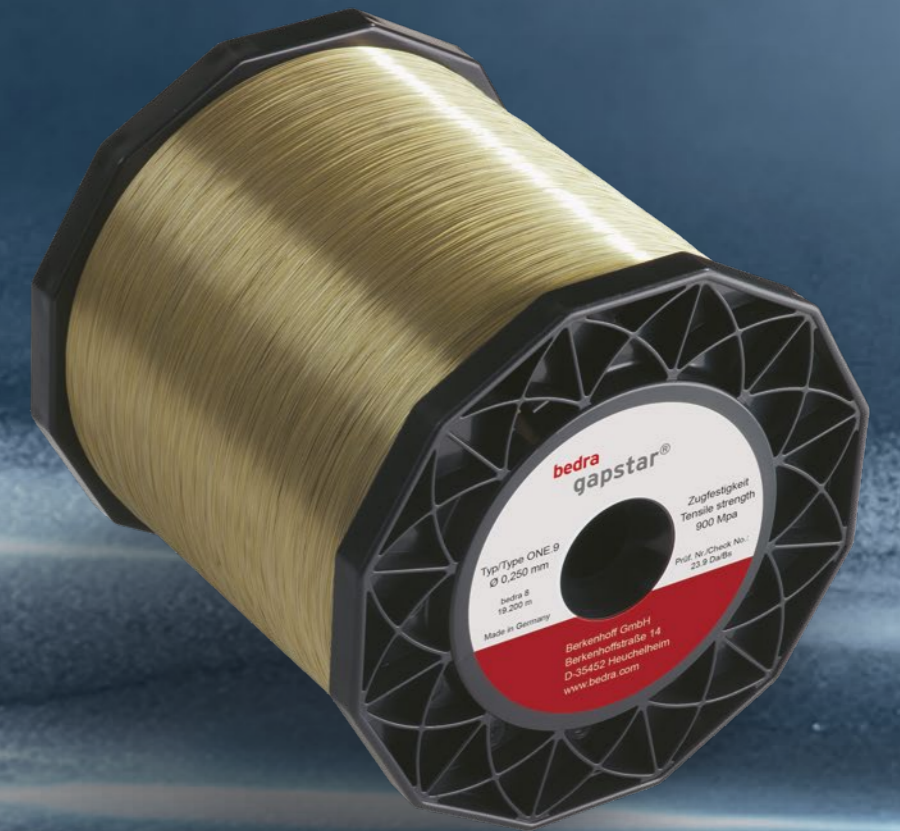
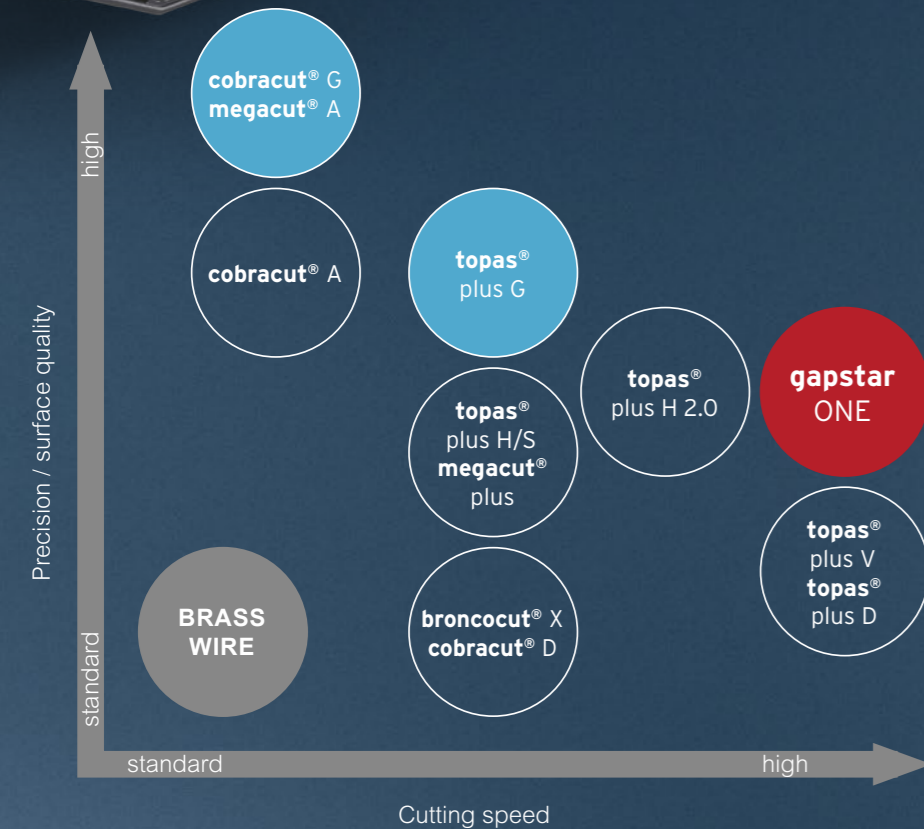
gapstar ONE

THE NEW GENERATION OF HIGH PERFORMANCE WIRES



Being the pioneer in all EDM wire generations, bedra considered the best features of its high performance wires from former generations to invent a new outperforming electrode. The result is gapstar ONE.

- Unprecedented cutting performance for a wide range of applications
- Uncompromising precision and surface quality
- Increased stiffness and excellent straightness for automatic threading



gapstar ONE

THE NEW EDM HIGH PERFORMANCE WIRE WITH THE bedra TRIMPAC TECHNOLOGY

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intelligent wires

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intelligent wires

TRIMPAC

THE NEW bedra TECHNOLOGY

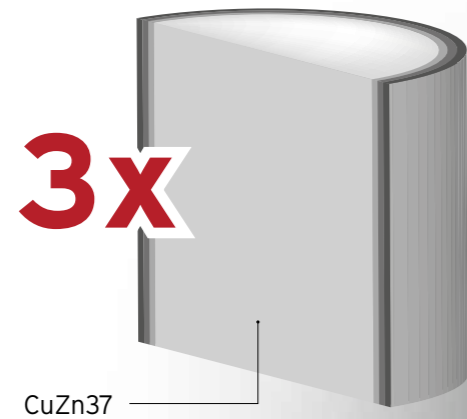
From the strengths of the wire generations **cobra-cut**®, **broncocut**® and **topas**® bedra developed in 2019 the new coating technology **TRIMPAC**.

TRIPLE IMPACT SHEATH:

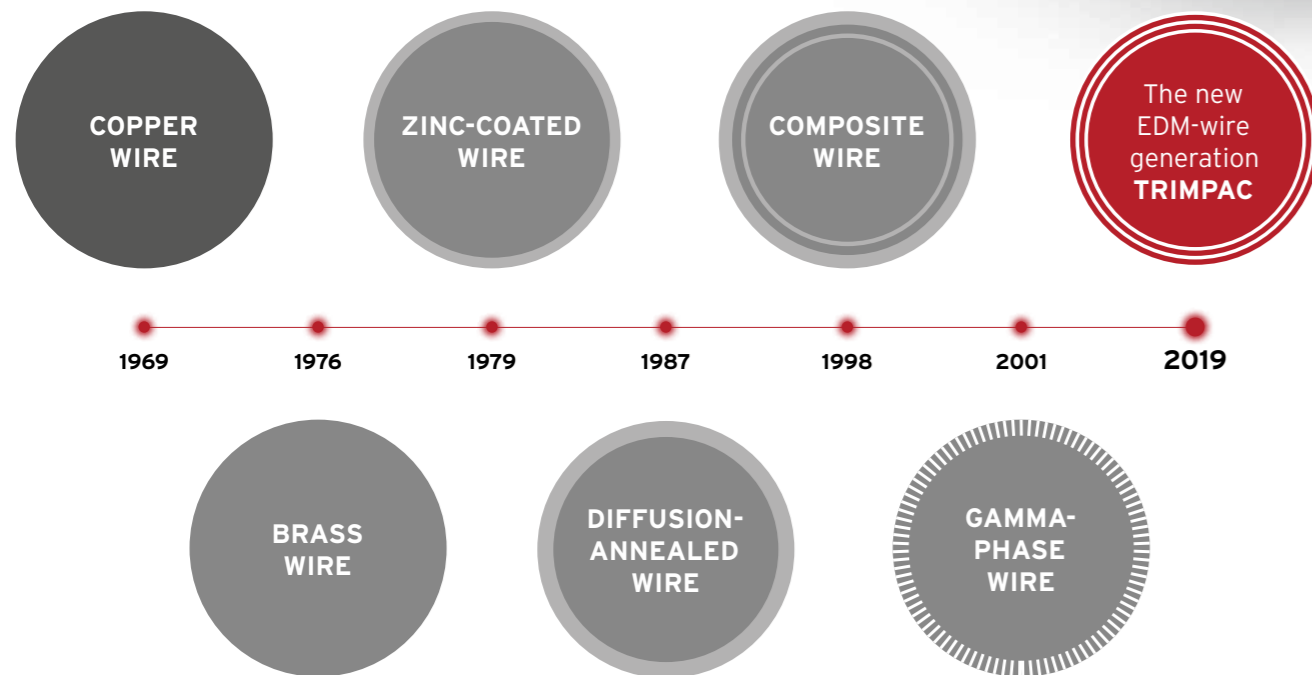
- New heat treatment
- Zinc-enhanced coating
- Structured surface



PATENT PENDING

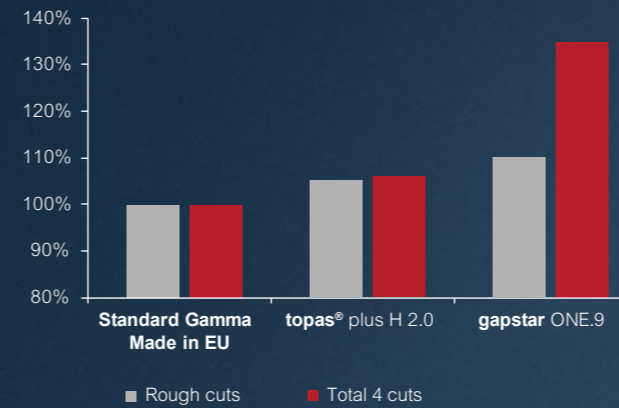


Up to 37% savings

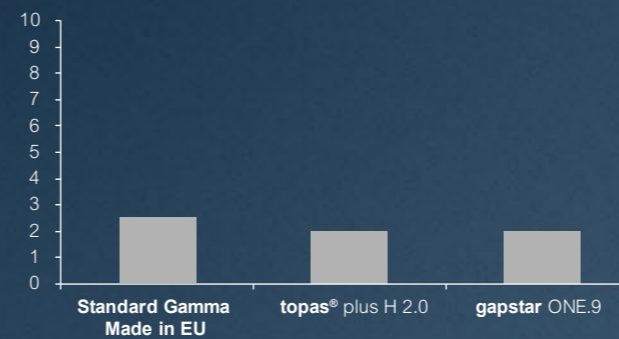


| gapstar ONE.9 | |
|--------------------|------------------------------------|
| Work material | Tool steel |
| Thickness (mm) | 50 |
| Wire diameter (mm) | 0.25 |
| Technology | 4 cuts $R_a = 0.30 \mu\text{m}$ |

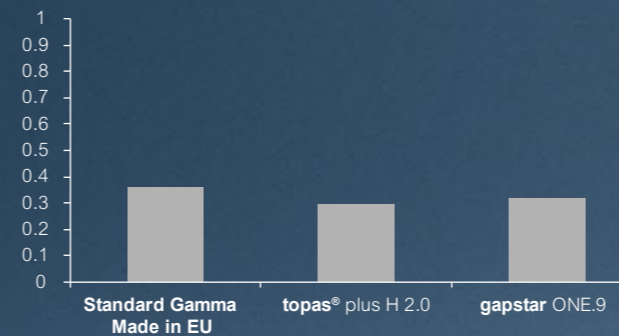
Cutting rate



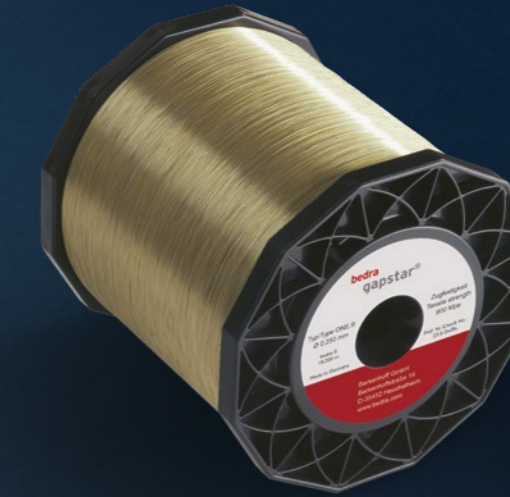
Precision (μm)



R_a (μm)



gapstar ONE.9



gapstar ONE.5



Soft version for taper cutting

Features

- Significant increase of feed rates in rough cut and trimcuts without adjustments
- Reduced abrasion of wire preserves wire guides and power contacts
- Novel TRIMPAC coating enables roughness on the workpiece of $R_a = 0,25 \mu\text{m}$
- Reliable, automatic wire threading

| | gapstar ONE.9 | gapstar ONE.5 |
|------------------------|---|---------------|
| Core | CuZn37 | |
| Coating | TRIMPAC | |
| Color | Amber Brown | |
| Tensile strength (MPa) | 900 | 500 |
| Elongation (%) | 1 | 10 |
| Diameter (mm) | 0.20 / 0.25 / 0.30 | 0.25 |
| Spool types | bedra 8, bedra 16 K250, K355 P5, P10, P15 | |

| Example cost accounting | | Brass-wire | gapstar ONE |
|------------------------------|--------|------------|-------------|
| Input data | | | |
| Wire diameter | mm | 0.25 | 0.25 |
| Wire run-off speed | m/Min. | 10 | 10 |
| Price | €/kg | 8.5 | 15 |
| Hourly rate for WEDM machine | €/h | 30 | 30 |
| No. of machines | | 1 | 1 |
| Cutting time per machine | h | 1,000 | 600 |
| Wire cost | | | |
| Used weight of wire | m | 600,000 | 360,000 |
| Used weight of wire | kg | 247 | 148 |
| Resulting wire cost | € | 2,103 | 2,227 |
| Relative | % | 100 | 100 |
| Machine cost | | 30,000 | 18,000 |
| Overall cost | | € 32,103 | 20,227 |
| savings up to | | € | 11,876 |
| | | % | 37% |