



# **confreecut ONE**

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THE INNOVATIVE SOLUTION FOR  
CONTAMINATION-FREE WIRE EROSION

**bedra**  
intelligent alloys



# confreecut ONE

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## WIRE EROSION AND CONTAMINATION

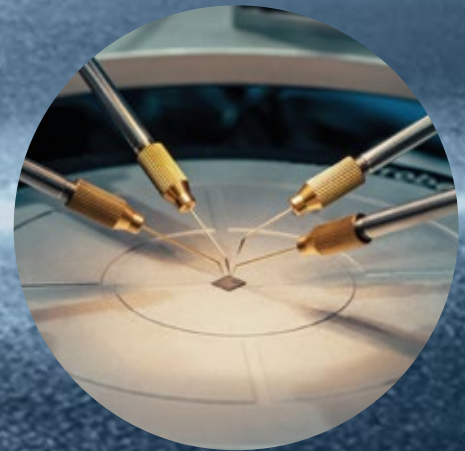
Wire EDM (WEDM) is an established manufacturing technology for high-precision machining of hard and difficult-to-machine materials, such as tool steel, carbide and PCD. Traditionally, the process has been used in tool and die making. In the meantime, however, numerous applications have also been developed in other industries that make use of the wire erosion design possibilities.

These include these industries in particular:

- Medical Technology
- Aeronautical Engineering
- Semiconductor technology

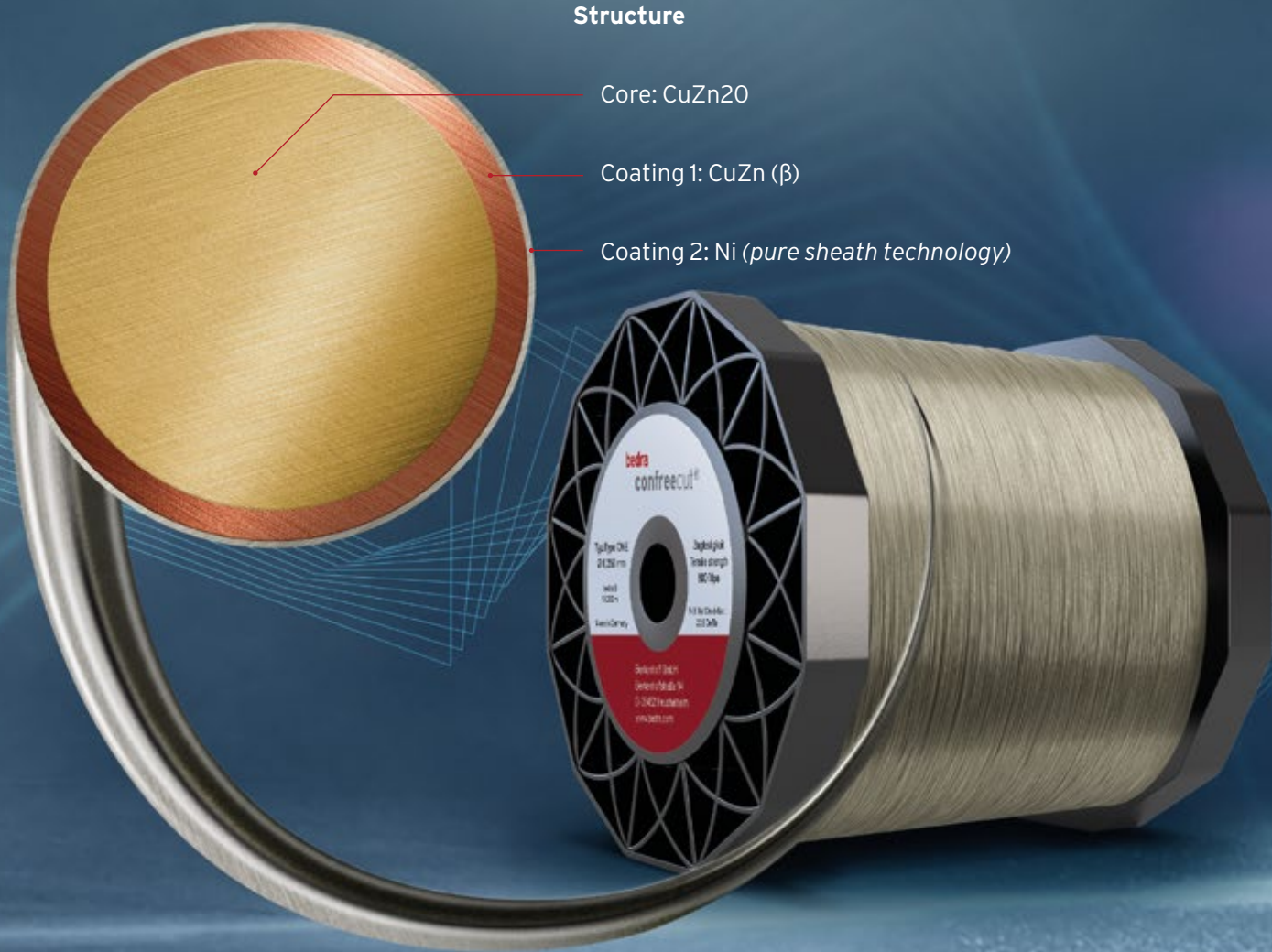
In these areas, it is particularly important that the component surfaces are free of contamination from foreign materials after they have been produced.

In conventional wire erosion, the surfaces of the cut component may show residues of copper and zinc. In these cases, subsequent chemical cleaning is required. The additional cleaning process increases throughput times and production costs enormously. In the case of component surfaces that are difficult to access, the cleaning effect is also limited or insufficient. Currently, EDM wires made of molybdenum or tungsten are used for this application. However, molybdenum and tungsten wires have a high material price. In addition, the wire guides are subject to heavy wear and automatic threading can be problematic. The solution: confreecut ONE.





**confree**cut ONE - THE CONTAMINATION-FREE INNOVATION  
WITH HIGH CUTTING PERFORMANCE



To increase efficiency in the EDM production of contamination-free components, bedra has developed the innovative **confree**cut ONE EDM wire.

**confreecut** ONE stands for contamination-free and fast machining with low wire guide wear and lower wire costs. The wire has a high-purity outer nickel coating with an optimized layer thickness. Run lengths of up to 60,000 m per spool permit significantly more autonomous production compared with the usual fabrication of molybdenum and tungsten wires.

bedra was able to prove in numerous tests that **confree**cut ONE reduces the copper and zinc contamination and zinc is reduced to almost zero during processing with 2-4 recuts. In the process, the components were examined for these residues using highly sensitive analysis technology.

bedra will be happy to advise you on your specific erosion application.



# confreecut ONE

## Technical data

Core material	CuZn20
Coating	Ni ( <i>pure sheath technology</i> )
Surface	Paraffin-free
Tensile strength	800 MPa
Elongation	> 1%
Color	grey-gold

## Delivery program

Ø mm	0.20	0.25	0.30
bedra8: 8 kg	•	•	•
Running length m	30,000	19,000	13,300
bedra16: 16 kg	•	•	•
Running length m	60,000	38,000	26,600
P10: 10 kg	•	•	•
Running length m	37,400	24,000	16,600
P5: 5 kg	•	•	
Running length m	18,700	12,000	

\* other dimensions on request



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