

Jo/ke

■ **NEW!**

ENESKArecoat 85

Next generation of carbide coating devices!



100%
made in Germany



Tungsten carbide coating unit

ENESKArecoat 85

| | | Price from |
|---|--|------------------------|
| | | Order No. 1 Set |
| ENESKArecoat 85 Tungsten carbide coating unit, Set | | |
|  | Control unit: | 0 700 300 |
| | Maximum achievable coating hardness: | 82 HR 30 |
| | Working voltage: | 30-54 V |
| | Vibration frequency: | variable up to 120 Hz |
| | Supply voltage: | 115/230 V AC, 50/60 Hz |
| | Dimensions (W x D x H): | 135 x 476 x 321 mm |
| | Weight: | 10 kg |
| | Application gun: | |
| | Vibration frequency: | variable up to 120 Hz |
| | Working area lamp: | 4 LEDs, 5000 K |
| Weight, incl. cable packet: | 0.84 kg | |
| Cable length: | 1.80 m | |
| Scope of supply: | | |
| | <ul style="list-style-type: none"> • Carbide coating device, control unit (Order No. 0 700 301) • Application handpiece, complete with cable packet (Order No. 0 700 302) • Ground cable (2 m), 10 mm² with magnetic pole terminal (Order No. 0 700 351) • Set of clamping elements for carbide electrodes (12 pieces) including spare screws and screwdriver (Order No. 0 700 060) • Set of carbide electrodes (24 items) (Order No. 0 700 034) | |

Accessories

| | | Price from |
|---|--|-------------------|
| | | Order No. 1 Piece |
| ENESKArecoat 85 foot switch | | |
|  | Foot control / foot switch for on/off function of the coating process. | 0 700 360 |
| | Optionally connectable to the ENESKArecoat 85 control unit (Order No. 0 700 301). (Alternative to control via application gun) | |

Matching set of electrodes

| | | Price from | |
|---|--|------------------|---------------|
| | | Order No. | 1 Set 10 Sets |
| Set of tungsten carbide electrodes (24 pieces) | | | |
|  | consisting of: | 0 700 034 | |
| | • 3 pieces each 1.0 mm round (Order No. 0 700 036) | | |
| | • 3 pieces each 1.3 mm round (Order No. 0 700 046) | | |
| | • 3 pieces each 1.8 mm round (Order No. 0 700 047) | | |
| | • 3 pieces each 2.3 mm round (Order No. 0 700 048) | | |
| | • 3 pieces each 1.1 mm square (Order No. 0 700 039) | | |
| | • 3 pieces each 1.6 mm square (Order No. 0 700 040) | | |
| | • 3 pieces each 2.1 mm square (Order No. 0 700 041) | | |
| | • 3 pieces each 1.95 mm triangular (Order No. 0 700 042-0) | | |

Single shapes of electrodes available!
Additional electrodes and clamping elements
 you will find in our shop at: www.joke-technology.com



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Tungsten carbide coating unit ENESKArecoat 85

Better surface results, faster application, lower usage costs: After two years of development work, joke Technology presents the ENESKArecoat 85, a new generation of carbide coating devices.

ENESKArecoat 85 is used to coat severely stressed surfaces quickly and easily. A carbide coating is applied by burning a tungsten carbide electrode at 2800 degrees Celsius, which achieves a maximum surface hardness of 82 HR 30 N.

This process is especially suitable for tools, devices and surfaces that have to be especially tough, hard and wear-resistant – such as punching and bending tools. In comparison to the previous model, the ENESKArecoat 85 achieves a higher maximum coat thickness by now having an up to 30 percent higher maximum working voltage of 54 volts. The specially controlled ignition spark and the higher vibration frequency of 120 Hertz allow working up to 20 percent faster and give an even better surface result. This also prevents burning out of the electrodes, which reduces usage costs. Furthermore, in comparison to the previous model, larger electrodes can be used, which expand the possible range of uses.

There have also been further developments in the handling of ENESKArecoat 85: In addition to the conventional foot switch, the new type of ergonomically shaped handpiece has an operating button for sensitive control of the coating process. In-built LEDs guarantee optimal, glare-free illumination of the workplace and enable monitoring of the electrode contact.

The preset parameters in the software are also new. They ensure a fast start and have an calibration function for automatically balancing the ignition timing. The user can also store and call additional, individual empirical values.



Several application possibilities



Coating of a machine part

14 advantages at a glance

- 30 percent higher working voltage giving a higher maximum achievable layer thickness
- Faster application with a 20 percent higher vibration frequency of 120 Hertz
- A new type of ignition spark control improves the surface finish
- No burning out of electrodes (reduced tool costs)
- Electrodes up to 25 percent larger widen the range of fields of work
- Reduction in vibrations on the outside of the handpiece
- Maximum achievable coating hardness of 82 HR 30 N
- Ergonomic, user-friendly handpiece with integrated operating button
- LEDs for optimal, glare-free illumination of the workplace and contact monitoring
- Function control with animated LED line on the control unit and on the handpiece
- Software: Call of preset parameters and storage of individual parameters
- Calibration function for balancing of the optimal ignition timing
- Well-proven ENESKA user interface with language support (D, E, F)
- Assistant function

Modern operating panel ENESKArecoat 85



■ User-friendly, intuitive user guidance

Tungsten carbide coating unit

ENESKArecoat 85

Methods

Nowadays, very high demands are made on the toughness, hardness and surface wear resistance of tools, equipment and machines. The following options came to light in seeking a tough material with a more wear-resistant coating:

1. Galvanic coating with hard layers,
2. Plasma gun spraying method,
3. Electroerosive tungsten carbide coating.

The adhesive strength of the coatings in methods 1 and 2 is unsatisfactory in the case of heavy stresses since the coatings are likely to scale off. With the third method, however, it is possible to apply tungsten carbide in a very wear-resistant surface on the heavily stressed points of a workpiece.

Properties of the tungsten carbide coat

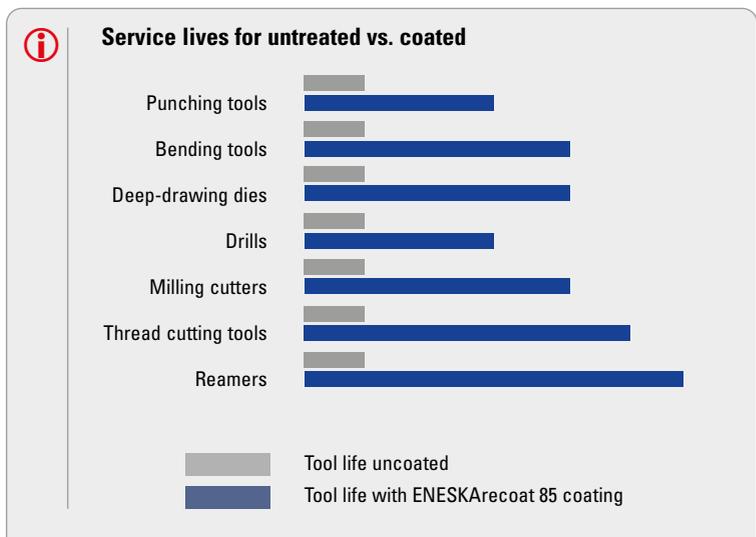
The layer applied combines joins perfectly with the steel and adheres in such a way that it withstands almost any mechanical stress. Blows, bending, stretching or compressive strains are incapable of detaching the coating. This can only be done by grinding or special sand blasting; it can, however, be relapped with diamond or silicon carbide. The steel beneath is not softened by the coating but increases in hardness in the upper zone. In the case of certain steel alloys the tungsten carbide layer even penetrates into the base material. The coating produces a hardness of up to 82 HR 30N, without the workpiece undergoing any change or distortion since the depositing process is practically cold. The coating possesses a high degree of heat resistance. The surface is uniform and shows no directional texture. With good saturation, it achieves a mean roughness of 2-9 µm.

Examples of applications

- Hardness coating of tools or wear parts to extend service life.
- Post hardening of additively manufactured parts
- Coating of smooth surfaces in order to achieve greater adhesion through the structure of the layer
- Coating of sliding surfaces in order to avoid cold weldings as a result of the structure of the layer

Materials and their pretreatment

Any soft, heat-treated and hardened unalloyed or alloyed steel is suitable as material for coating with tungsten carbide. The surface must be clean and metallically pure.





For any kind of support or demonstration please contact us.
We will be pleased to help you!

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