



ENESKAmicro handpieces and motors

3rd generation | powerful
constant speed | perfectly quiet running
extremely high concentricity





ENESKAmicro | The next generation handpieces and motors

A whole series of new applications have emerged in recent years in the field of surface finishing. New tools have developed in parallel that place different demands on the drive units.

With the 3rd generation of ENESKA motors, joke takes account of these new requirements and in doing so achieves a genuine game change: the range of speeds with conventional surface finishing devices is very wide these days, e.g. 0 - 60,000 rpm, in order to be able to cater for as many applications as possible. This misses the point of everyday work however, as very few users have tasks that cover this entire range. In addition, motors with such a wide range of speeds cannot deliver constant power over the whole spectrum. Torque is often lacking in the lower speed range. This lack of power results in speed fluctuations, which in turn are negatively reflected in the grinding or polishing pattern.

joke is therefore adopting a different, more practical approach with its new generation of motors: For the first time, users now have the possibility of choosing among different motors. They can now choose the one with the **performance characteristics that best suit their applications**. All models are characterised by their **durability, power, ergonomical handling, precision and high efficiency**.

Drives are available that are still suitable for a wide range of tasks but, like competitive athletes, are particularly strong in their main disciplines:

- THE WORKER for tasks that call for particular power, which necessitate a low speed and a high torque at the same time.
- THE FINE FINISHER for light work that requires particularly fine fingertip control.
- THE FAST RUNNER for work with tools that require high speeds, such as milling or grinding

All three motors run at a very constant speed and operate extremely quietly with low vibration.



Video ENESKA motors

Cool cut with a ceramic fibre cut-off disc



Convex shapes - belt grinder and grinding belts



Polishing wood with hand-filing machine



Welding seam with Blue Stones grinding



Aluminium polishing with angle-handpiece and felt



The worker

With the JEM 20R, joke addresses users who mainly work in the low speed range (**up to 20,000 rpm**), but **require a particularly high torque**.

It is precisely these users who usually come up against performance limits with conventional motors. Speed fluctuations, which occur with most motors, are directly reflected in the grinding or polishing pattern and result in problems. The new JEM 20R provides a torque that makes such problems a thing of the past. The **constant-speed motor guarantees an absolutely clean and harmonious microsection**, even with challenging tasks.

ENESKAmicro JEM 20R, brushless AC motor with max. 20,000 rpm | incl. motor cable | Rapid-Change coupling

| | |
|-----------------------|-----------------------------|
| Output: | 73 watts |
| Rotation speed range: | 1,000 - 20,000 1/min |
| Torque: | 5.0 N cm |
| Dimensions: | Ø 27.5 mm x 78.1 mm |
| Weight: | 145 g (without motor cable) |
| Switch: | on motor cable |

Order No.: **0 100 003**

Matching handpieces



ENESKAmicro rapid chuck handpiece JIR 40R
Order No.: **0 100 005**



ENESKAmicro handpiece JBMXLH 40R
Order No.: **0 100 006L**



ENESKAmicro handpiece JEHG 20R
Order No.: **0 100 007**



ENESKAmicro mini hand-filing machine JMH 20R
Order No.: **0 100 009**



ENESKAmicro angle-handpiece JEAH 60 20R
Order No.: **0 100 011**



ENESKAmicro angle-handpiece JERA 90 20R
Order No.: **0 100 004**



ENESKAmicro belt grinder JBS 20R
Order No.: **0 100 008**



ENESKAmicro reducing gear JERG 2
Order No.: **0 100 010**



The fine finisher

The JEM 40R is the perfect choice for light work that requires handpieces that are both fine and delicate. Ideal for use in jewellery working, for example.

ENESKAmicro JEM 40R, brushless AC motor with max. 40,000 rpm | incl. motor cable | Rapid-Change coupling

Output: 84 watts
 Rotation speed range: 1,000 - 40,000 1/min
 Torque: 4.0 N cm
 Dimensions: Ø 25 mm x 71.4 mm
 Weight: 100 g (without motor cable)
 Switch: on motor cable

Order No.: **0 100 002**

Matching handpieces



ENESKAmicro rapid chuck handpiece JIR 40R
 Order No.: **0 100 005**



ENESKAmicro handpiece JBMXLH 40R
 Order No.: **0 100 006L**



ENESKAmicro reducing gear JERG 2
 Order No.: **0 100 010**

Rapid chuck handpiece with Blue Stones grinding point | Top: reducing gear with handpiece | bottom: extra-long handpiece with diamond grinding point





The fast runner

The range is rounded off with the JEM 50C. Owing to its compact design, it offers **perfectly quiet running and extremely high concentricity**. With its high speed of up to 50,000 rpm, it is perfectly suited for all applications with tools that require high speeds, such as milling cutters and the like. Integrated high-quality collets Ø 3 mm for frequent tool changes.

ENESKAmicro COMPACT JEM 50C | motor incl. rapid chuck | motor cable | brushless DC motor

| | |
|-----------------------|---|
| Output: | 200 watts |
| Rotation speed range: | 1,000 - 50,000 1/min |
| Torque: | 8.4 N cm |
| Dimensions: | Ø 27.5 mm x 137.6 mm (without coupling) |
| Weight: | 215 g (without motor cable) |
| Switch: | on motor cable |

Order No.: **0 100 001**



Important: The handpiece is firmly connected to the motor. It is therefore not possible to change the handpiece!

Ideal with the COMPACT handpiece and the SiC-ALU grinding point - aluminium processing





Handpieces

The new generation of handpieces has been consistently optimised to suit the performance characteristics of the new micromotors. State-of-the-art precision bearings enable extremely quiet, low-vibration operation, which on the one hand benefits the quality of the machined surfaces and on the other hand ensures fatigue-free work. Handling is additionally facilitated by rapid-Change rapid-release couplings, which make it possible to change handpieces with just one hand. Matching high-quality collets for frequent tool changes round off these handpieces.

ENESKAmicro rapid chuck handpiece **JIR 40R** | Order No.: **0 100 005**
 Rotation speed range: up to 40,000 1/min | Collet: Ø 3 mm



ENESKAmicro handpiece **JBMXLH 40R** | Order No.: **0 100 006L**
 Rotation speed range: up to 40,000 1/min | Collet: Ø 3 mm | with extended shaft 126 mm



ENESKAmicro handpiece **JEHG 20R** | Order No.: **0 100 007**
 Rotation speed range: up to 20,000 1/min | Collet: Ø 6 mm

*optimal with
JEM 20R*



ENESKAmicro mini hand-filing machine **JMH 20R** | Order No.: **0 100 009**
 Stroke length: 1.0 mm | max. strokes: 12,000 rpm | tool receptacle: up to Ø 3.6 mm
 Rotation speed range: up to 20,000 1/min



ENESKAmicro angle-handpiece **JEAH 60 20R** | Order No.: **0 100 011**
 Rotation speed range: up to 20,000 1/min | Collet: Ø 3 mm

*optimal with
JEM 20R*



ENESKAmicro angle-handpiece **JERA 90 20R** | Order No.: **0 100 004**
 Rotation speed range: up to 20,000 1/min | Collet: Ø 3 mm



ENESKAmicro belt grinder **JBS 20R** | Order No.: **0 100 008**
 Rotation speed range: up to 20,000 1/min | grinding belt width: 4/6/8 mm

*optimal with
JEM 20R*



ENESKAmicro reducing gear **JERG 2** | Order No.: **0 100 010**
 Rotation speed range: up to 40,000 1/min | Reduction 4:1

*optimal with JEM 40R
and JEM 50R*





Adapters

Want to combine new motors with existing, older handpieces? Or new handpieces with earlier generation motors? No trouble at all: these adapters make it possible!

ENESKA micro handpiece adapter **JECR 01** | Order No.: **0 100 090**
for ENESKA 4 handpieces with ENESKA JEM 'R' series



ENESKA micro handpiece adapter **JECR 02** | Order No.: **0 100 091**
for ENESKA 3 handpieces with ENESKA JEM 'R' series



ENESKA micro handpiece adapter **JECR 03** | Order No.: **0 100 092**
for ENESKA JEM 'R' handpieces on ENESKA 4 motor series



ENESKA micro handpiece adapter **JECR 04** | Order No.: **0 100 093**
for ENESKA JEM 'R' handpieces on ENESKA 3 motor series





The control unit

ENESKAmicro – the unbeatable all-round talent for grinding, deburring, milling and polishing

The ENESKAmicro sets the standard for all micromotor systems. The uniqueness of the system - in conjunction with the many different motors and handpieces - lies in its versatility, flexibility and power.

High final speed, more power, high handpiece clamping force, intuitive operation and maximum concentricity are just some of the highlights of this exceptional system.

This not only enables its use in many new application areas, such as aerospace and 3D printing, but also in conventional toolmaking and mould building or in medical engineering.

Simple operation with touch display - ENESKAmicro control unit

The core component of the ENESKAmicro is the intelligent control unit. Intelligent because it automatically detects which micromotor is connected, whether from the joke family or a third-party manufacturer. The individual settings can be saved on the touch display with station keys. The speed input can be set via a finely adjusted rotary knob or optionally via a foot switch. The slim design and low centre of gravity make for high stability. The control unit dispenses with fans or slots - which means less noise pollution for the user as well as prevention and protection against dust (according to IP 54). The newly developed handpieces achieve a higher clamping force than similar devices on the market. Created by a combination of spring and lever force that keeps the tool in position even at high speeds. The high-precision grinding of all axes and the installation of the latest-generation bearings enable a high level of true running to within less than 0.01 millimetres. Further advantages are the on/off switch directly on the motor and the quick-clamping function without using a tool. This saves time and guarantees precise, low-vibration and fatigue-free work. The joke team have developed handpieces with a longer XL shaft for hard-to-reach areas in workpieces.

The facts speak for themselves:

- Made in Germany
- More economical vs compressed air
- High speed, variably adjustable
- Low-vibration work
- Quick tool change without tools
- Low noise pollution
- Infinitely variable speed control up to max. 60,000 rpm (depending on motor)
- Speed limited by potentiometer
- Digital speed display
- Connection for 2 motors BLDC and 1 AC motor
- Motor recognition
- "Speed Memory" button
- Clockwise/anticlockwise running
- Connection for foot control

Weight: 2.4 kg
 Dimensions (W x H x D): 135 x 235 x 200 mm
 Supply Voltage: 90–240 V, 50–60 Hz



Order No.: **0 011 201**

Infinitely variable speed control up to max. 60,000 1/min



The mobile device

ENESKAmobile | mobile polishing system

The handy, battery operated ENESKAmobile polishing system is the ideal tool for setters and toolmakers – anywhere that grinding, polishing, milling or deburring is required. Robust and shock-resistant, it can be used flexibly in any place, and away from the work bench.

This mobile device is extremely versatile as it can be used with all motors, handpieces and filing machines compatible with the ENESKAmicro. It is also powerful and long-lasting. The batteries can be charged separately, which allows non-stop working. With up to 3 hours battery life under full load and a maximum torque of 6.5 N cm at 40,000 rpm, it can be used in a significantly wider range of applications than conventional devices of this type.

The speed is continuously adjustable from 2,000 to 40,000 rpm. Left and right rotation are also a matter of course with this single-handed device.

Highlights:

- Extremely versatile, as it can be connected to all ENESKAmicro motors (BLDC), handpieces and filing machines
- Ergonomic handling given by start/stop function directly on the motor, straightforward control unit and pocket-size casing
- High-quality Li-Ion batteries
- No inconvenient time lost waiting for the batteries to charge, because they are exchangeable and can be recharged separately
- For brushless DC motor (BLDC)
- Runs clockwise/anticlockwise
- Monitoring of battery level and temperature
- Digital control with protective disconnection
- High torque with max. of 6.5 N cm on the motor shaft

technical data:

| | |
|---------------------------|--|
| Speed: | 2,000 – 40,000 rpm (steplessly adjustable) |
| Battery: | 14.8 V Li-Ion |
| Exchangeable battery: | yes |
| Battery capacity: | 3,000 mAh |
| output power: | 44.4 W |
| Operating time: | up to 3 hours |
| Load time: | 2.5 hours for 80 % + 0.5 hours for 100 % |
| Dimensions (w x h x d): | 176 x 103 x 49 mm |
| Weight (without battery): | 200 g |
| Weight (with battery): | 480 g |

Order No.: **0 012 301**

Control unit ONLY, WITHOUT battery and charger!



Device sets and other variants can be found in our shop at:
www.joke-technology.com





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

Your expert team:



Elisabeth Longerich
Sales International
Tel. +49 2204 839-303
Mail: sales@joke.de



Jan Wolfgarten
Sales International
Tel. +49 2204 839-304
Mail: sales@joke.de



Tobias Meyer
Sales International
Tel. +49 2204 839-27
Mail: sales@joke.de



Frank Westerhoff
Head of export
Tel. +49 2204 839-300
Mail: sales@joke.de

joke Technology GmbH
Asselborner Weg 14 -16
51429 Bergisch Gladbach • Germany
Tel. +49 2204 839-0 • Mail info@joke.de
www.joke-technology.com