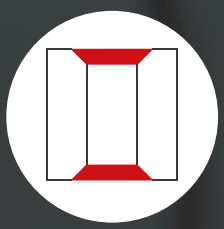
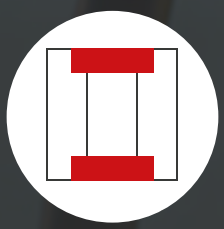
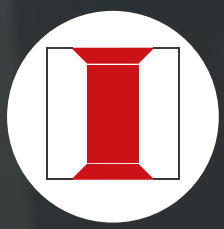
HEULE
PRECISION TOOLS

# EV Manufacturing


Deburring


Chamfering


Counterboring


Drilling combined

ONE OPERATION

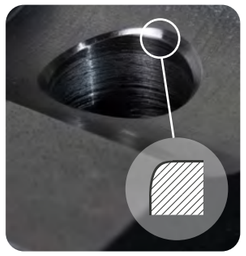
# YOUR PARTNER IN ELECTRIC VEHICLE MANUFACTURING

Manufacturing for electric vehicles requires uncompromising component cleanliness and precision. Particle-free surfaces and absolutely perfectly machined bore edges are essential here. The critical point here is burrs on the back side of the bore. Our tried-and-tested tools enable reliable double-sided deburring, chamfering, counterboring or combined drilling on the existing machining centre – without the need to re-clamp the workpiece and in a single operation. This reduces cycle times, conserves resources and guarantees the reliability required for battery housings, electric motors and chassis components. Our technologies come into their own where alternative methods reach their limits. Together, we are shaping the clean mobility of tomorrow – efficiently, precisely and with a view to the future.

## TECHNOLOGY

In focus: the back of the bore. HEULE develops reliable tool solutions which machine both bore edges in a single operation – especially those hard-to-reach back edges. Solutions with combined drilling and customised solutions are also possible.

### Deburring



HEULE deburring tools deburr **even and uneven** bore edges, **front and back in a single operation** – without turning the workpiece or stopping the spindle. The automated process is highly reliable and cost-effective.

COFA | DL2 | COFA-X

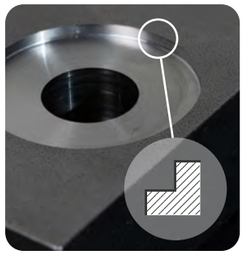
### Chamfering



HEULE chamfering tools remove burrs on **both sides** of the bore while **creating a defined chamfer**. They are particularly suitable for fully automated CNC operations and large batch quantities and impress with their consistent chamfer sizes.

SNAP | DEFA | GH-K

### Counterboring



HEULE backspotfacing tools machine the back of the bore **without turning the workpiece**. Backspotfacing is possible **up to 2.3 x bore diameter**. It is also possible to counterbore both sides of the bore and produce formed counterbores.

BSF | SOLO

### Drilling combined



HEULE's combination drilling tools simplify production processes by **combining drilling with deburring, chamfering, or counterboring.** Customised designs ensure the best possible optimisation of cycle times.

VEX | SNAP Module

## IN THE FIELD




### Rotor & motor shaft

A manufacturer producing around 250,000 rotor shafts per year was dissatisfied with the service life of the deburring tool previously in use, which is why the company was looking for a new solution. Each workpiece requires four radial bores with a diameter of 5.0 mm to be machined on the inner surface.

HEULE offers the customer the ideal solution for this application with the **COFA deburring tool**. The COFA reliably ensures burr-free bore edges and impresses in particular with the long service life of its cutting edges.

- \+ Tool life of up to **40,000 bores**
- \+ Consistent deburring results
- \+ Less machine downtime due to necessary tool changes, as well as reduced effort in the tool presetting area
- \+ Cost savings of **25,000 EUR** per year




### Battery housing

A long-standing customer in the aluminium casting industry was looking for a reliable method to remove burrs from the edges of dozens of mounting holes on an EV battery housing made from cast aluminium.

The **SNAP chamfering tool** is used, which creates chamfers on the back of the bore. As the machining is carried out from the front, there is no need to turn the workpiece over or re-clamp it.

- \+ Elimination of another time-consuming production set-up
- \+ Time savings of around **1,600 hours** based on 50,000 workpieces per year
- \+ Consistent chamfers and reliable quality
- \+ No reworking required



# On-site worldwide

HEULE PRECISION TOOLS



**Head office**
HEULE Werkzeug AG
Balgach / Switzerland
Tel. +41 71 726 38 38
info@heule.com
www.heule.com

**Subsidiaries**
HEULE Tool Corporation
Loveland OH / USA
Tel. +1 513 860 9900
info@heuletool.com
www.heuletool.com

HEULE Precision Tools
(Wuxi) Co. Ltd.
Wuxi / China
Tel. +86 510 8202 2404
china@heule.cn
www.heule.cn

HEULE Korea Co.Ltd.
Gyeonggi-do / South Korea
Tel. +82 31 8005 8392
info@heule.co.kr
www.heule.co.kr

HEULE Germany GmbH
Wangen im Allgäu / Germany
Tel. +49 7522 99990 60
info@heule.de
www.heule.de

**Global Sales Network**
50 exclusive partners in
35 countries worldwide
www.heule.com

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