DANOBAT

Got a Challenge?

INNOVATIVE SOLUTIONS FOR E-MOBILITY

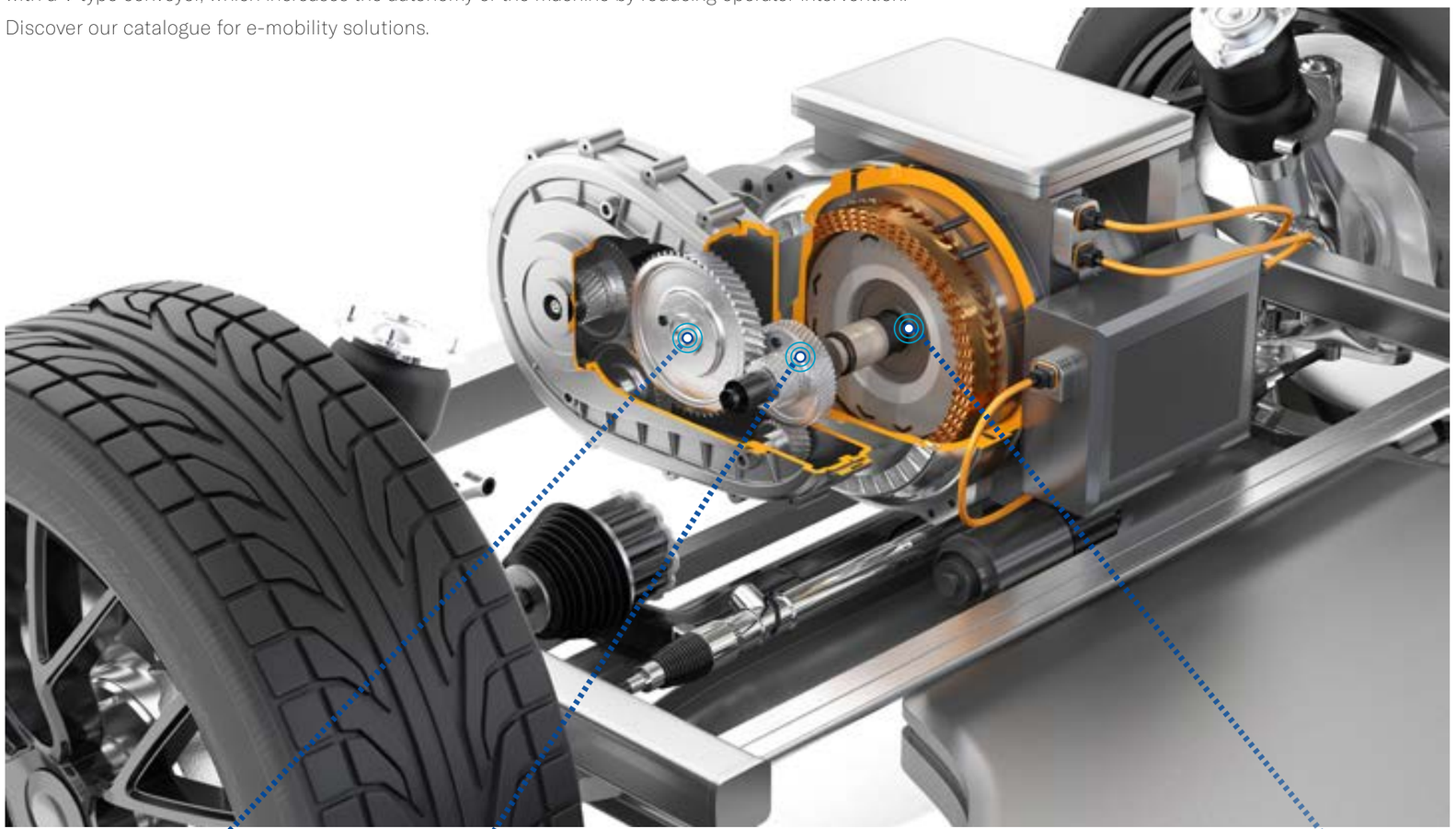
Innovative solutions for e-mobility

There is never just one “best solution.” It really all depends on the part size, the batch size, the production capabilities of your equipment, and several other factors. Our expertise in different technologies allows us to successfully advise you with the best solution to meet your challenges.

Fully customised solutions where endless options can be incorporated to increase your productivity; post-process measuring systems, automatic taper correction, super finishing stations and multiple clamping systems among others.

In addition, it is possible to integrade automatic loading and unloading systems, an in-house integrated gantry with a V type conveyor, which increases the autonomy of the machine by reducing operator intervention.

Discover our catalogue for e-mobility solutions.



EV reducer shaft

EV rotor shaft

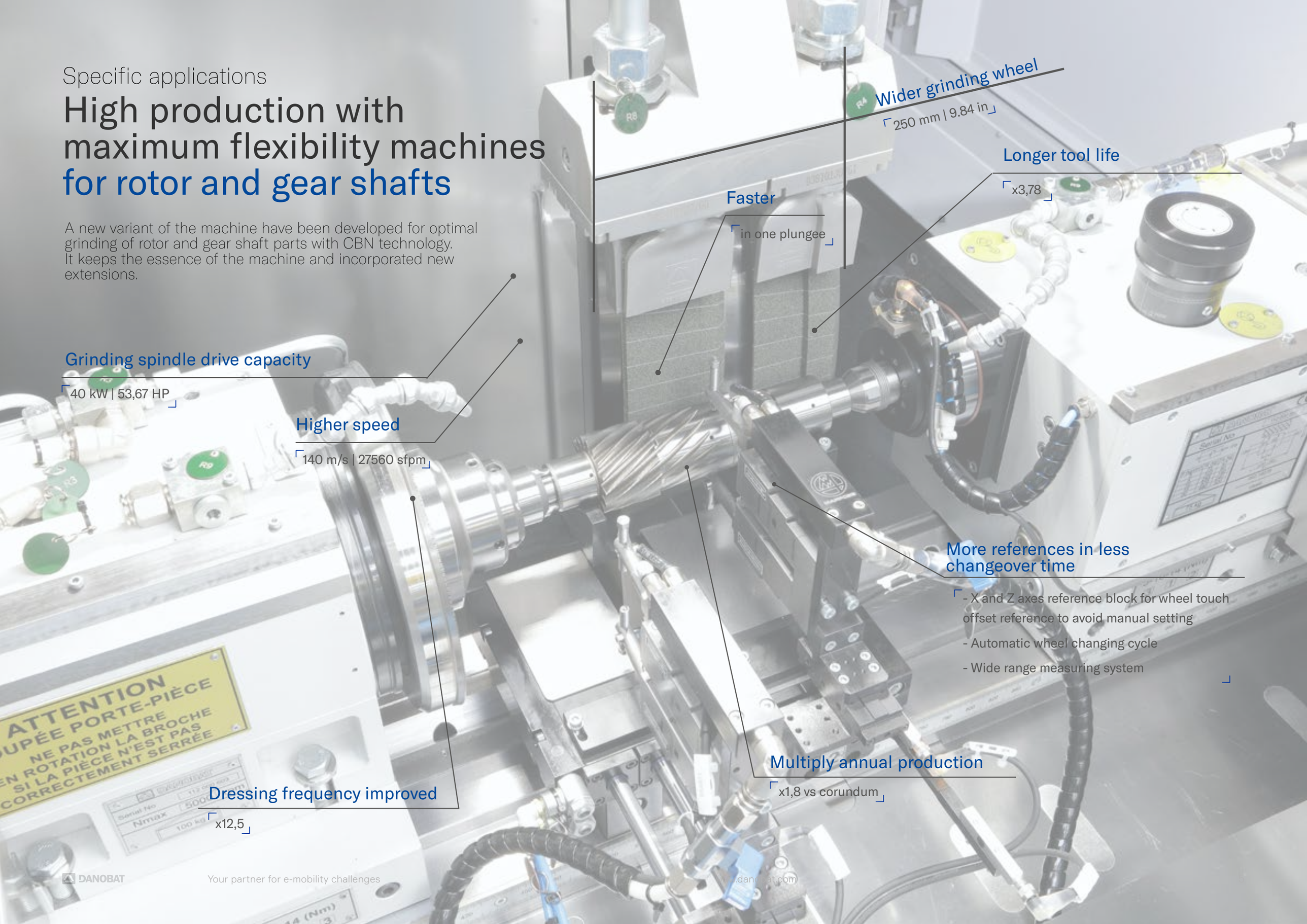
Other applications related to e-mobility:

Batteries

Specific applications

High production with maximum flexibility machines for rotor and gear shafts

A new variant of the machine have been developed for optimal grinding of rotor and gear shaft parts with CBN technology. It keeps the essence of the machine and incorporated new extensions.



Specific applications

High production with maximum flexibility machines for EV reducer shafts

eLG

Max. wheel width 120 mm | 4.72 in
with CBN technology

This machine is specifically designed for the grinding of EV reducer shafts. It is equipped with 400 mm | 15.75 in diameter and 120 mm | 4.72 in width grinding wheels with CBN technology. Thanks to its customised design, it allows very short cycle times to be achieved, thus increasing the annual production of parts.

25 kW
33.53 HP
Grinding spindle drive capacity

120 mm
4.72 in
grinding wheel width

Ø400 mm
Ø15.75 in
grinding wheel diameter

Grinding unit 1: Ø400 x 120 mm | Ø15.75 x 4.72 in

Grinding unit 1: Ø400 x 30 – 0° | Ø15.75 x 1.18 in
Grinding unit 2: Ø400 x 120 – 20° | Ø15.75 x 4.72 in

High production with maximum flexibility machines for EV rotor shafts

eCG

Max. wheel width 250 mm | 9.84 in
with CBN technology

This machine is specifically designed for the grinding of EV rotors shafts. As this type of workpiece with such wide grinding surfaces is usually ground with conventional grinding wheels, this machine offers the optimum economic alternative to grinding using CBN technology. Thanks to the capabilities of this machine, we can mount wheelheads with grinding wheels up to 250 mm | 9.84 in wide without compromising the stroke.

40 kW
53.64 HP
Grinding spindle drive capacity

250 mm
9.84 in
grinding wheel width

Ø400 mm
Ø15.75 in
grinding wheel diameter

Grinding unit 1: Ø400 x 250 mm | Ø15.75 x 9.84 in

Grinding unit 1: Ø400 x 40 – 20° | Ø15.75 x 1.57 in
Grinding unit 2: Ø400 x 160 – 20° | Ø15.75 x 6.30 in

Alternative applications

The ideal external grinding machine for the mass production of long rotor shaft

Wider grinding wheel

350 mm | 13.78 in

Faster

in one plungee

More references in less changeover time

- Automatic wheel changing cycle
- Wide range measuring system

PG

Max. wheel width 350 mm | 13.78 in
with conventional technology

To achieve the grinding of larger rotor shaft sizes Danobat offers the PG model, the most productive cylindrical grinding machine alternative on the market, with a grinding wheel width of up to 350 mm | 13.78 in, which allows the machining of large rotor shafts in a single plunge and with a grinding wheel diameter of 760 mm | 29.92 in which provides a long grinding wheel life for long batches without the need of tool changes and adjustments. It allows the grinding of diametrical and face grinding operations in a single plunge and is therefore a very productive alternative with the highest possible stability due to its solid structure.

45 kW
60.34 HP
Grinding spindle drive capacity

350 mm
13.78 in
grinding wheel width

Ø760 mm
29.92 in
grinding wheel diameter

Other applications

The ideal internal grinding machine for the production of battery dies

Ensures geometrical, dimensional and surface tolerances

Ra smaller than 0.03 µm | 0.00000118 in
Run out of less than 2.5 µm | 0.0000984252 in

Radius tolerances, most critical point

Roundness of less than 1.3 µm | 0.0000511811 in

No polishing required by hand after grinding

Specific software cycle for 3 –axis interpolation

OD, ID, radii and face operations

one single set-up

IRD

ID, OD, Radii and face grinding

for battery dies in one clamping

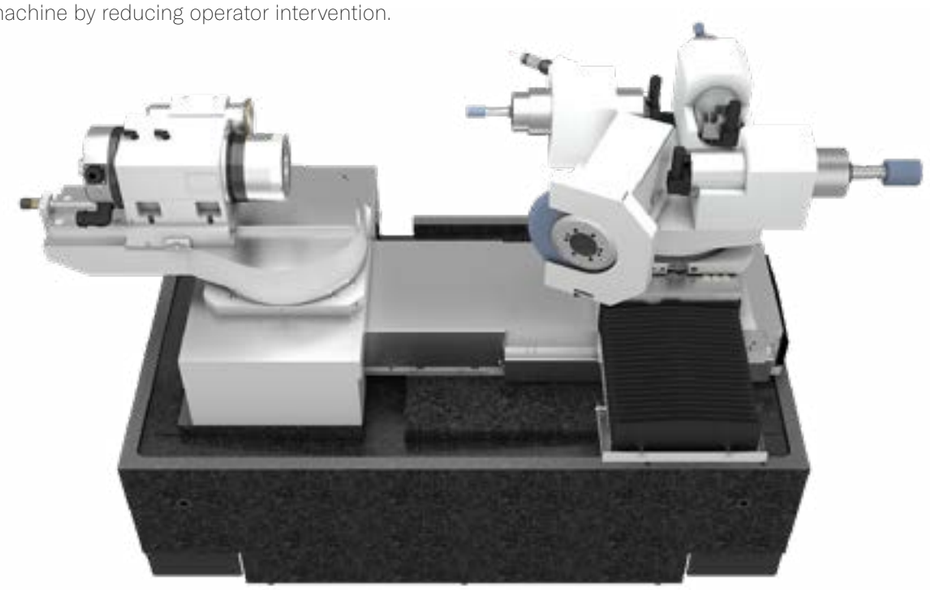
Due to the high quantity of battery cells in each electric car, this solution is focused on high production rates and very short cycle times. Its swiveling B-axis allows internal, external, radii and face operations in one clamping. It can manufacture and regrind the carbide insert of dies with a hardness of +/- 90 HRA. Thanks to the surface finish offered by this machine, Ra smaller than 0.03, the subsequent polishing of the die itself is avoided, reducing the manufacturing process.

In addition, it has an automatic loading and unloading system, a robotic cell with a pallet system, which increases the autonomy of the machine by reducing operator intervention.

+ 450
projects in the mold and die industry

HRA
+/- 90 HRA with diamond wheels

Ra
Smaller than 0.03



Other applications

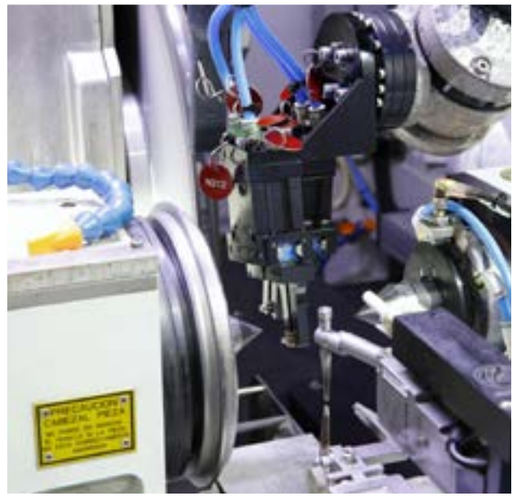
Decades of expertise in many automotive applications

Steering rack

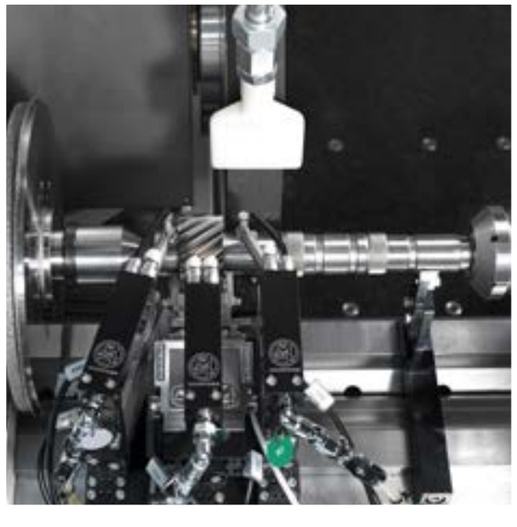
Steering pinion

CV Joint

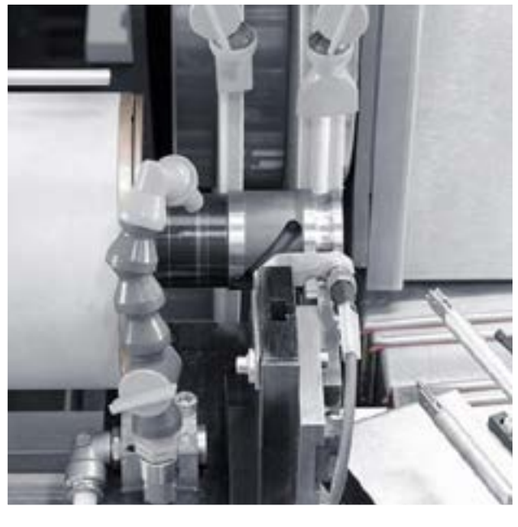
Open differential



Gearbox shaft



Steering nut



Electric turbo shaft

Automation

To ensure shorter changeover times and thus increase productivity, we offer different types of integrated loading and unloading systems.

Reduce cost per part

Increase productivity

Adaptable to every floorspace

Reduce cycle times

Easy to use

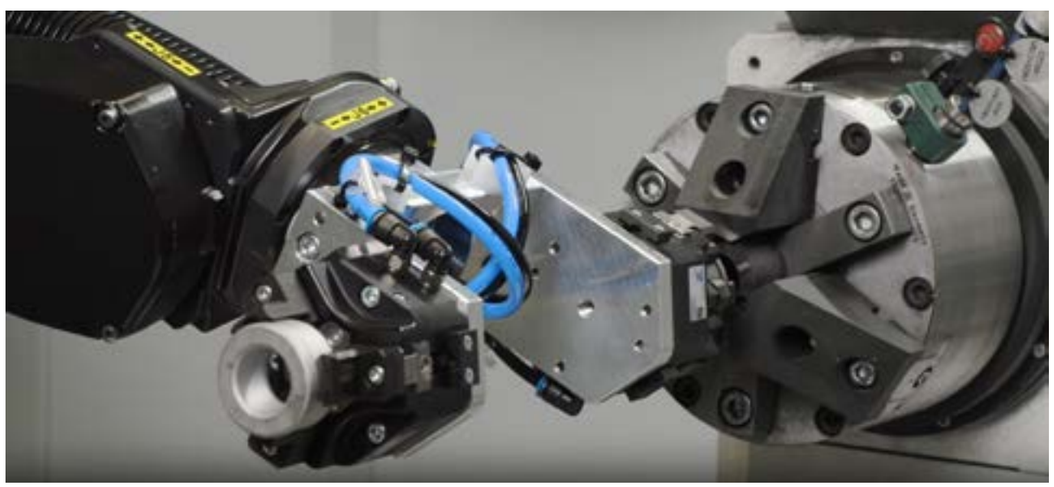
Light out manufacturing

Robot

S Flexmotion
Robot inside the machine

M Flexmotion
Robot integrated in a cell coupled to the machine

L Flexmotion
Robot outside the machine



Gantry

M Motion
Gantry integrated in the machine

L Motion
Gantry outside the machine

Hybrid

M Hybrid
Combination of an integrated gantry and an external robot cell

L Hybrid
Combination of an external gantry and an external robot cell

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HUMANITY AT WORK | MONDRAGON