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Spray lubricator EOS 1

The system for precision application

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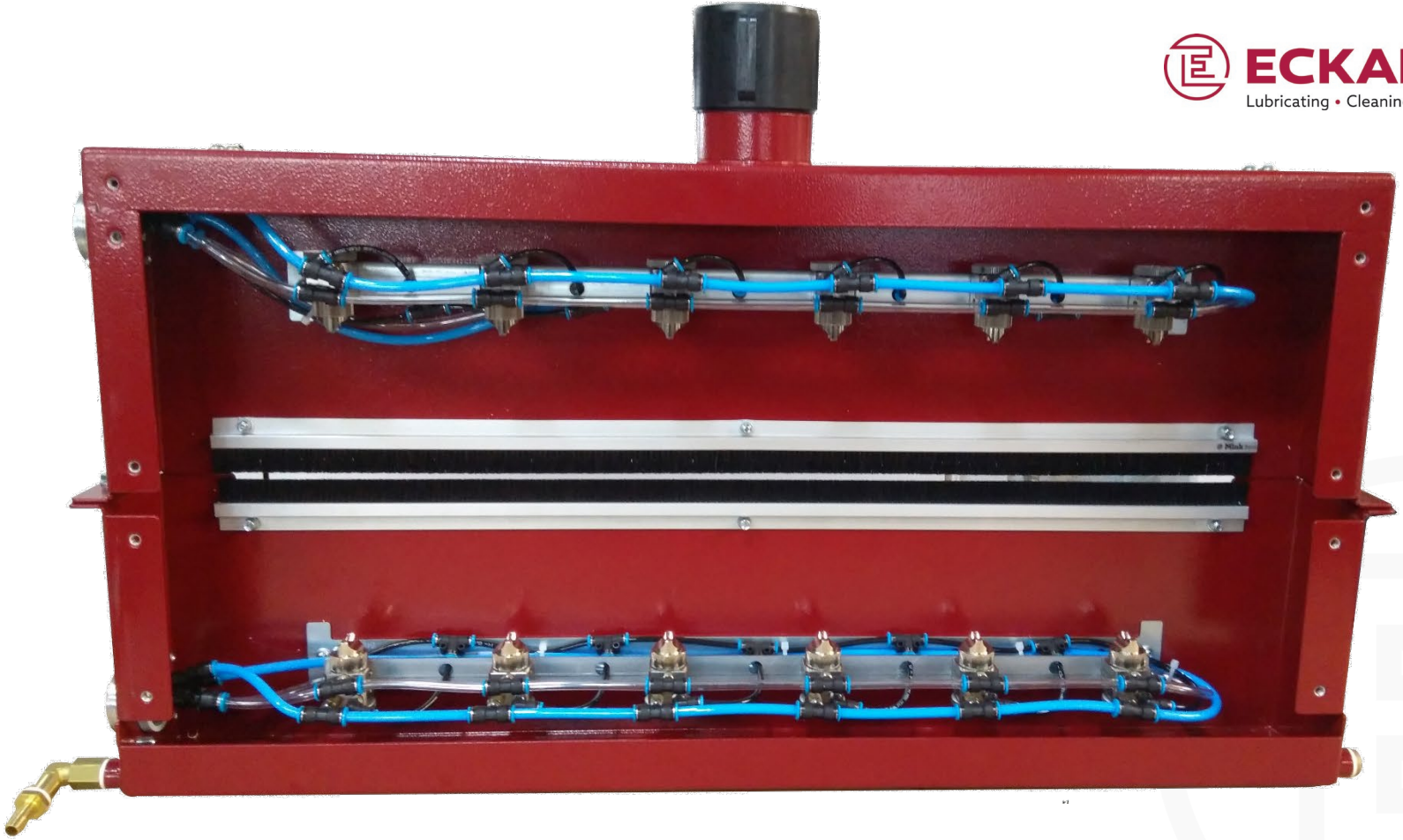
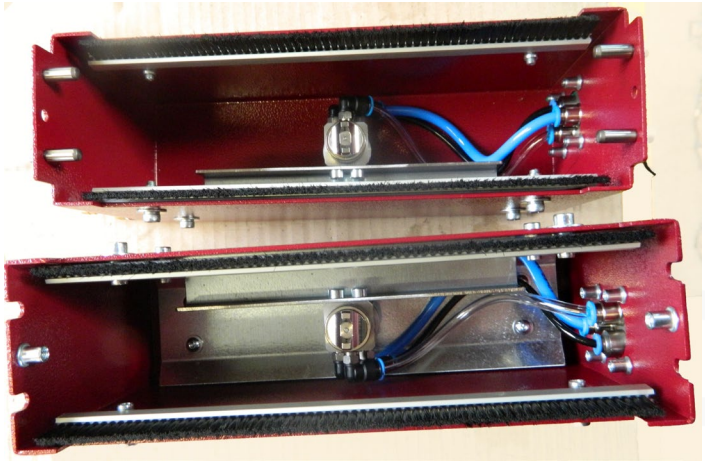
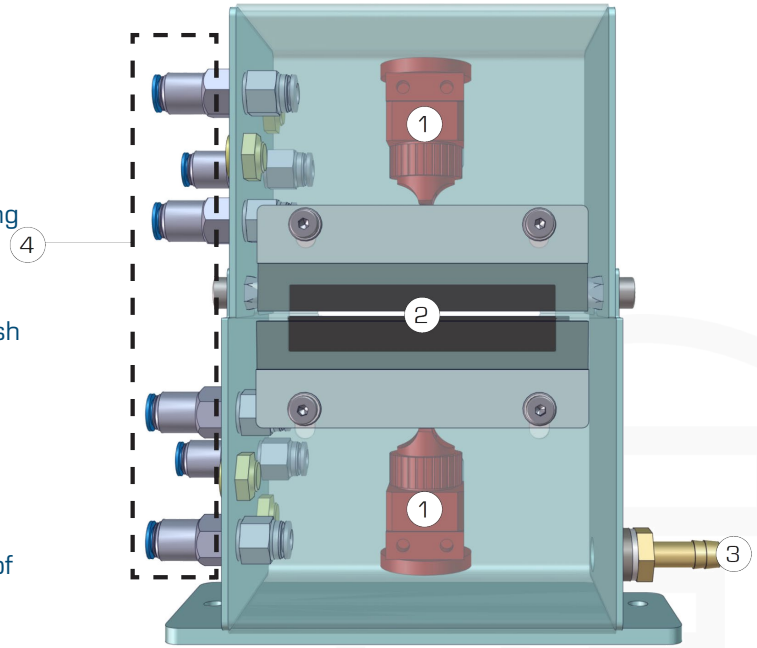


Spray lubricator EOS 1: At a glance

- The EOS 1 spray lubricator is used for lubricating strip on both sides.
- The oil is fed in and discharged via on-site conveying equipment. The belt is transported through the spray lubricator and lubricated according to preset parameters.
- The housing of the EOS 1 system is made of powder-coated sheet steel.
- The spray chamber is divided into an upper and a lower half, which are bolted together.
- The EOS 1 is available as standard for many belt widths up to 900 mm.
- We recommend it for use with strip thicknesses from 0.5 to 3 mm.
- Individual special formats and special configurations can also be realized.

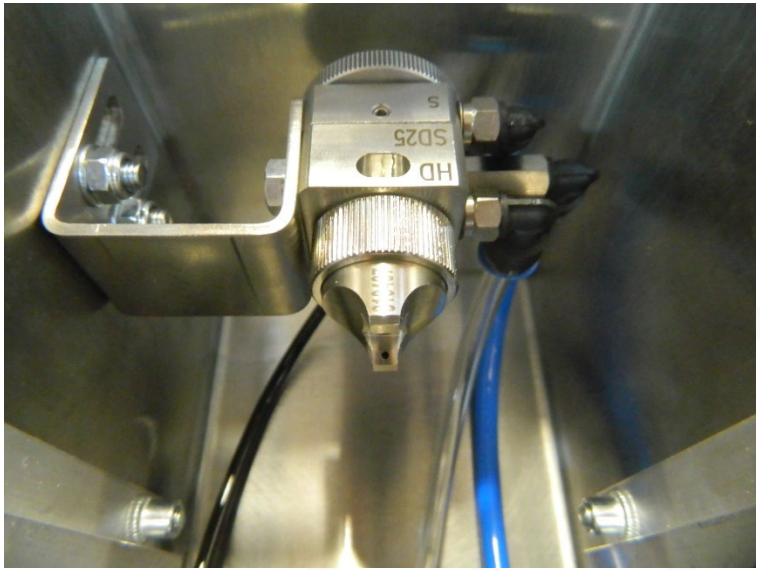


- One or more adjustable spray nozzles (1) are installed in the top and bottom halves of the housing.
- The nozzles are supplied with lubricant, spray air and control air via inlets (4) located on the side of the housing.
- Lubricant sprayed past the belt edges is collected by the lower part of the housing and can be fed to an on-site container via the connection for the oil return (3).
- The escape of oil mist from the spray chamber is prevented or contained by brush strips (2) on the inlet and outlet slits.
- The EOS 1 can also be coupled with an extraction system. In this case, a centrifugal separator extracts the oil mist directly from the spray chamber.
- If necessary, a final filter stage can also be integrated, e.g. a HEPA filter system of class H13.



Spray lubricator EOS 1: Spray nozzle SD 25

- The SD 25 spray nozzle from Eckardt is used as standard in the EOS 1.
- The SD 25 is a powerful two-substance nozzle specially optimized for oil application.
- Depending on the viscosity of the application material, the application pattern can be individually set up and applied.
- According to the attached air cap, the medium is sprayed in a round or flat jet.
- Weight: approx. 140 g
- Control air pressure: 3 - 6 bar
- Spray air pressure: 0.5 - 6 bar
- Material pressure: max. 3 bar
- Spraying angle round jet 5°- 8°.Spraying angle flat jet 60°- 90°.
- Available nozzle sizes (mm): 0.2 - 0.3 - 0.5 - 0.8 - 1.0 - 1.2 - 1.5



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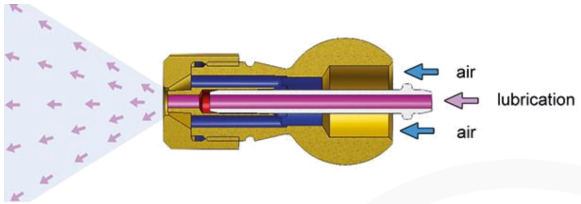
- A spray jet is generated from the interplay between control air, material feed pressure and spray air. It can take the form of either an intermittent or continuous spray process.
- Depending on which air cap is used, the spray output may be flat or round.
- The control air is supplied to the spray valve via a pilot valve. The spray air is supplied directly to the spray valve via a second air line. The integrated spray air control closes the spray air opening in the basic position.
- Once the pilot valve receives the signal, the front section of the needle piston chamber is flooded with air.
- The air valve is then pushed backwards on the needle against the needle guide, opening the spray air supply. Now the needle is pushed back and opens the nozzle.



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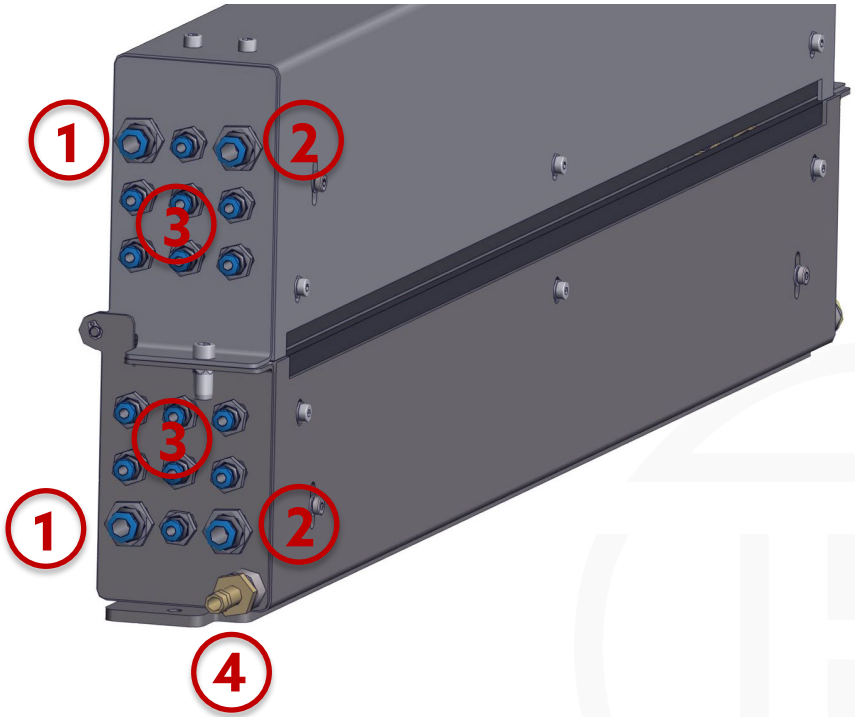
- 1 Oil supply
- 2 Spray air supply
- 3 Control air supply
- 4 Connection for residual oil discharge



Spray lubricator EOS 1: Configuration example

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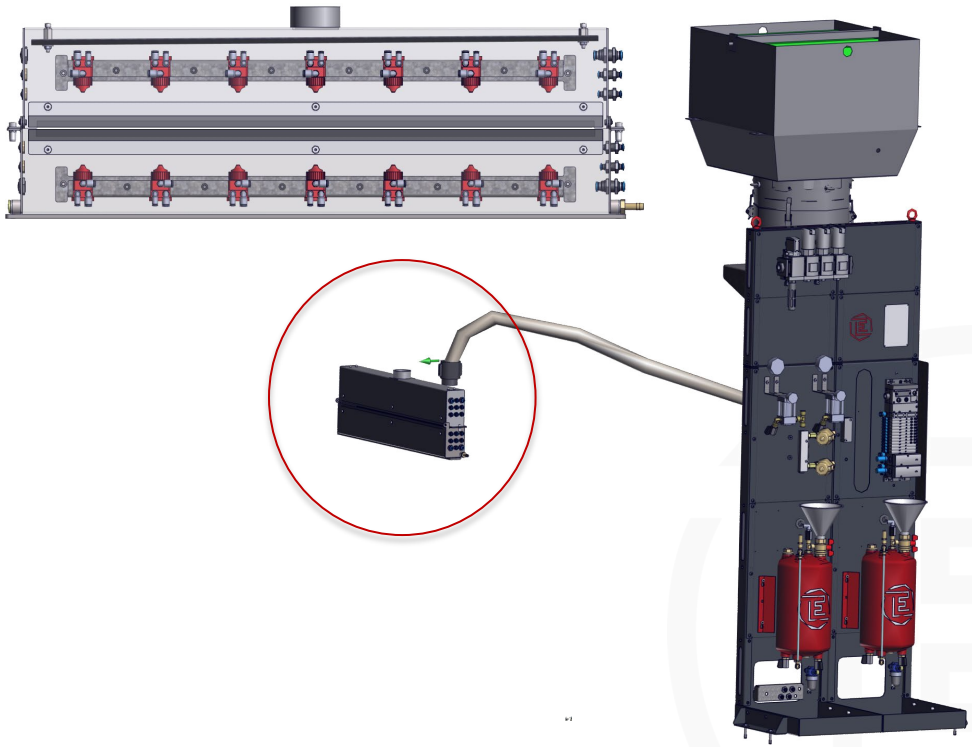
- Spray lubricator EOS1-700 with two-medium nozzle Eckardt SD 25
- 2 nozzle bars (top/bottom) equipped with 7 nozzles each
- Dosing systems Eckardt EDS for 2 oil grades
- Oil mist exhaust (centrifugal separator,final filter)
- Dimensions EOS: 823 x 94 x 271 (L x W x H)Pass-through height: 115 mm
- Pass-through width: max. 720 mm
- Material width: max. 700 mm
- Material thickness: max. 3 mm



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Infeed side

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Spray lubricator opened

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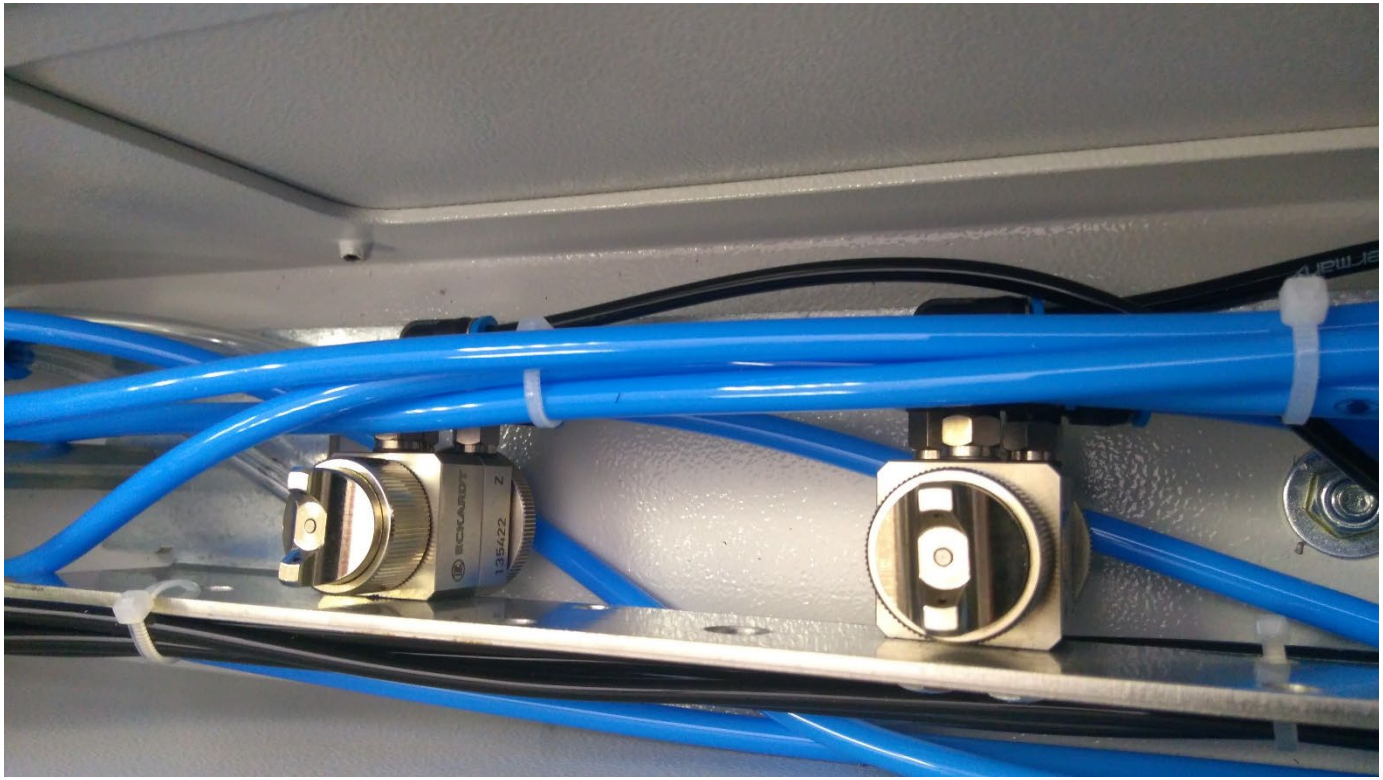

Spray nozzles with feed lines

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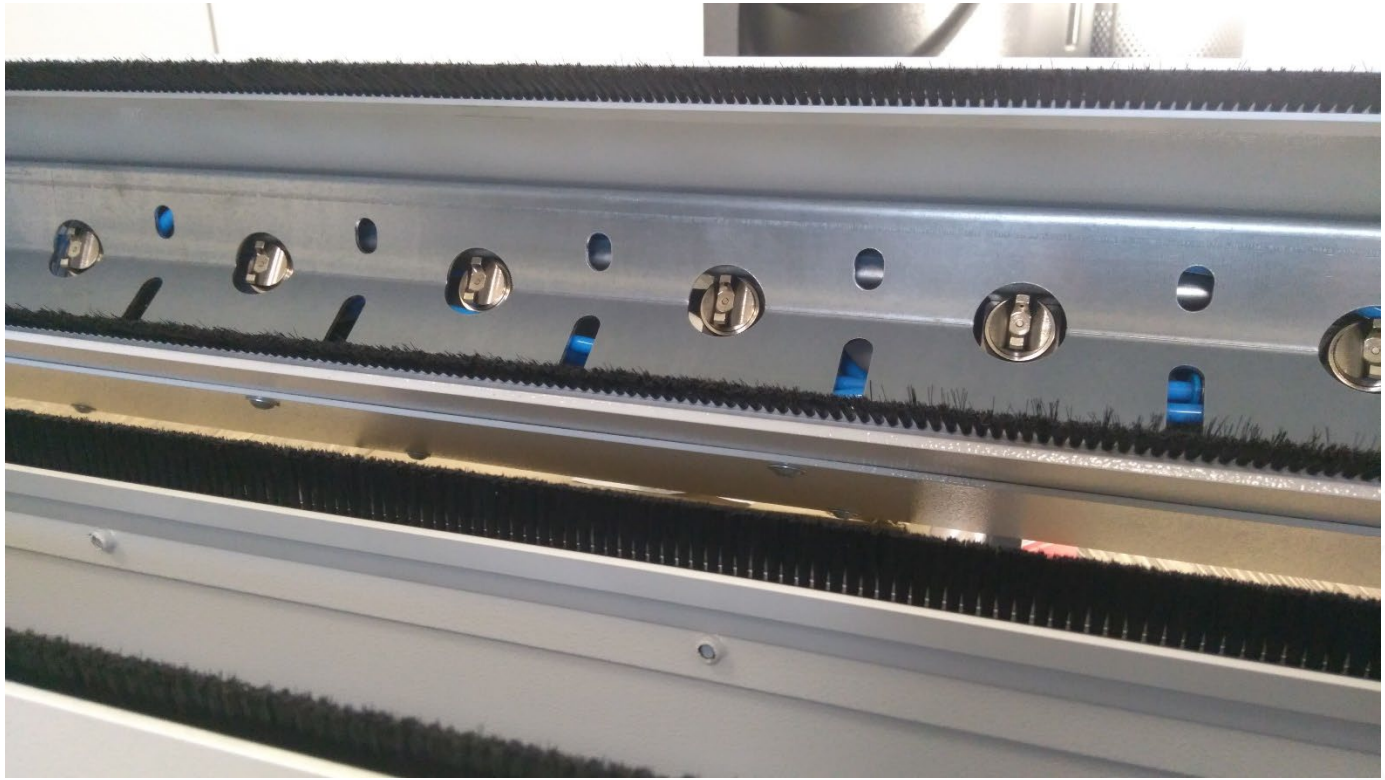

Spray nozzles behind cladding sheet

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Manual nozzle adjustment

by knurled wheel

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Eckardt Systems

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Second generation family-owned business

- 100% family-owned
- ca. 35 staff
- In-house electronics department

  (development, testing laboratory)
- In-house service team of electrical engineers
- Worldwide customer base

Services

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Consulting

- Extensive survey of existing production environments
- Development of solution concepts, integration in existing processes

Engineering

- Individual modifications to our technology based on customer requirements
- Addition of control systems, development of control concepts

Installation & commissioning

- System integration in existing workflows
- Fine adjustments and necessary adaptions to ensure operational readiness

Service & maintenance

- Regular maintenance of our systems carried out by service staff of our own
- Customer-specific spare part bundles and quick, flexible procurement

Retrofitting

- System modernization with respect to all mechanical and electrical parts
- Particular focus on controls with paying attention to all components involved

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Thank you!

Eckardt Systems GmbH

Westliche Gewerbestr. 2

D-75015 Bretten, Germany

Phone: +49 (0)7252 9420-0

info@eckardt-systems.com

www.eckardt-systems.com