





Rollers



Spraving



Preservin



Cleaning



## 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









## Roller-based lubricators

For evenly applied lubrication across whole surfaces









## Roller-based Jubrication



#### Felt roller lubricators

- Various roller diameters: 32, 60, 110 mm
- Suitable for coil gauges of up to 10 mm and viscosities of up to 150 mm<sup>2</sup>/sec
- Versions with integrated transport unit available
- Wear-resistant
- Quick, tool-free roller exchange

#### Sector roller lubricators

- Combination of several 60 mm standard rollers
- Suitable for coil widths of up to 2.100 mm
- Two versions with roller stroke from above/down or below/up available

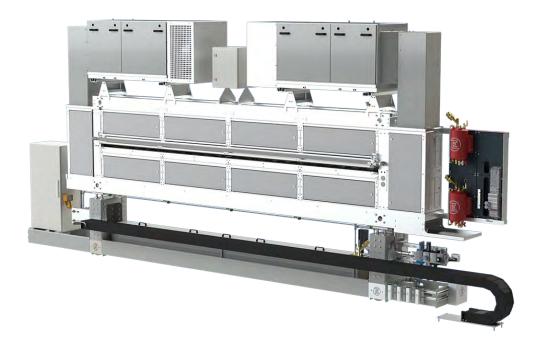
## Squeeze-on lubricators

- Exclusive in-house development by Eckardt
- For lubricant application with maximum homogeneity
- Flexible film thicknesses possible, subject to contact pressure











# Spray lubrication

Flexible, precise, low-wear





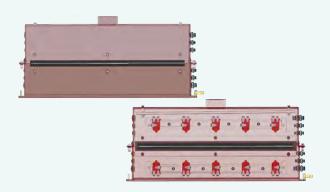


## Spray lubricators



## Spray lubricator series EOS 1

- Rugged, wear-resistant steel construction
- For spray widths from 20 to 900 mm (standard sizes)
- With several nozzles in use: flexibly connectable spray strips
- Removable top part for easy access to maintenance work
- Optional oil mist extraction system, tailored to casing size



### Spray lubricator series EOS-X

- For spray widths of up to 2.500 mm
- Shortened installation length for flexible integration in existing installation space
- Heatable supply lines for ensuring of high viscosities
- Suitable for all flow media and many oil grades
- Efficient exhaust of spray mist and fumes

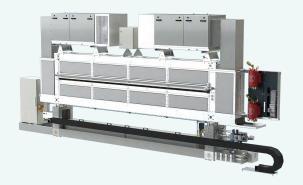


## Spray lubricators



## Spray lubricator series EOS

- Slim, compact machine construction for material widths of up to 4.500 mm
- Shortened installation length for flexible integration in existing installation space
- Perfectly suited for retrofitting requirements
- Maximum efficiency in the extraction of mist from the surrounding air
- Longer maintenance intervals thanks to multiple optimization of construction details (e.g. flange-mounted nozzles)
- Quick delivery thanks to modular construction design
- Also available with automatic spray nozzles for the realization of pinpoint lubrication patterns and different layer strengths
- Seamless integration with many established control systems: Siemens S7,
  Siemens TIA Portal, Allen Bradley, Beckhoff, Bosch Rexroth...









## Mobile lubrication carts

Tailored to individual process requirements











## Spray lubricator series EOS MOVE

- The clever solution for lubricating single blanks
- Available for a variety of blank sizes
- The spray bar moves, the work piece remains staionary
- Greatly enhances ergonomics at work, particularly in confined space

#### Lubrication carts - all-in solutions

- "Lightweight" carts made from galvanized steel
- Individual assembly of supply container, valves for air/oil pressure regulation, dosing control, connections
- Different lubrication techniques to chose from:
- O Eckardt roller lubricators WF 60, WF 110
- Eckardt squeeze-on lubricators ROTOL
- Eckardt spray lubricators EOS1
- Easy accessibility & maximum user comfort, e.g. manual pullout of supply container
- Also available with all around protection doors











# Spray & spit nozzles

The perfect solution for all lubrication requirements







## Spray & spit nozzles



## Spray nozzles

- Various configurations for all requirements
- Flat or round jet spray caps
- Versions with integrated control valve for spray and control air regulation
- Versions with pneumatic or electrical selection
- Versions made of stainless steel for maximum performance and long service life

### Automatic spray nozzles

- Integrated system of nozzle and control unit
- Continuous, sensor-based monitoring of spray needle position
- Optional use of second oil grade (no rinsing required)

## Spit nozzles

- Full spray valve for pin-point and linear application of lubricants
- Particularly suitable for precision lubrication of tools and components
- Optionally selectable heating unit for higher viscosities











# Dosing & Air purification

Reliable oil supply and clean air







## Dosing & Air purification



### Dosing systems

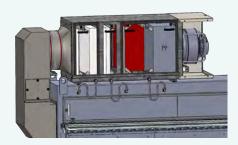
- Various configurations, from integrated units to heatable standalone systems
- Solutions for continuous and pinpoint lubrication
- Various supply containers with capacities of 10 to 40 I available
- Versions including automatic oil supply control for maximum efficiency
- Version for sector roller lubricator with individual roller selection
- Configuration with direct supply from oil container available
- Configuration for use with exchange rollers available (several oil containers)

#### Oil mist extraction

- Extraction of oil mist/oil fumes via separation unit including F9 filter grade
- Three filters (cleanable) und two final filter stages (F7, F9) included
- Extraction requires no electrostatics











## Protected during transport and storage

Special systems for efficient protection against corrosion









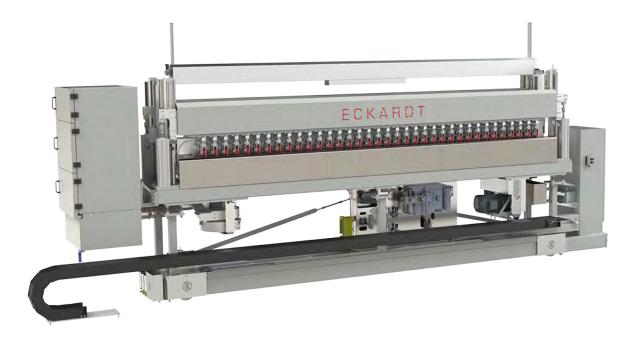
## Corrosion protection



## Corrosion protection system EKS

- Protection for components with exposed metal parts following hot forming
- Transport protection for car body parts/assemblies following welding/riveting
- Hybrid variants for electrostatic spraying available
- Enlarged spray chamber, contains more spray nozzles than other systems
- Spray nozzles movable in all directions
- Ensures better spraying results through accessibility of all surface areas
- Individual creation of reducable spray patterns
- Oil extraction based on multi-layered filter system
- Heatable filters prevent the wax proportion contained in the lubricant from cooling down







## Dry cleaning

Robust machine construction including market-leading brush technology









## Dry cleaning



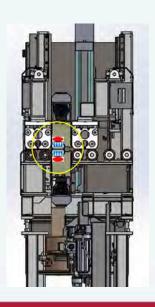
#### Brush cleaner LBE

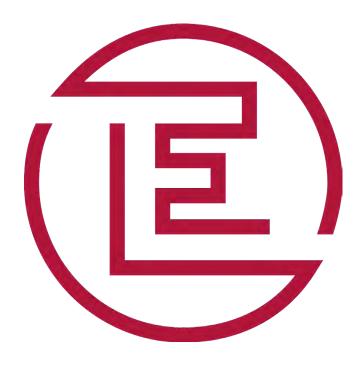
- Resource-saving and thorough cleaning
- Robust machine construction.
- Integrated system for application of Ingromat cleaning fluid
- Continuously clean brush
- Best cleaning results, particularly when processing aluminum blanks (hot melt)
- Longer brush service life in comparison with washing rollers
- No detergents involved, no disposal of pollutants required

## Functional brush correction system

- Use of market-leading technology
- Air cushion for correction of bristle position while processing uneven surfaces
- Ensures consistently high-quality cleaning results









# Services

From comprehensive consulting to ongoing support









### Services



## 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





## Thank you!

## Any questions?

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