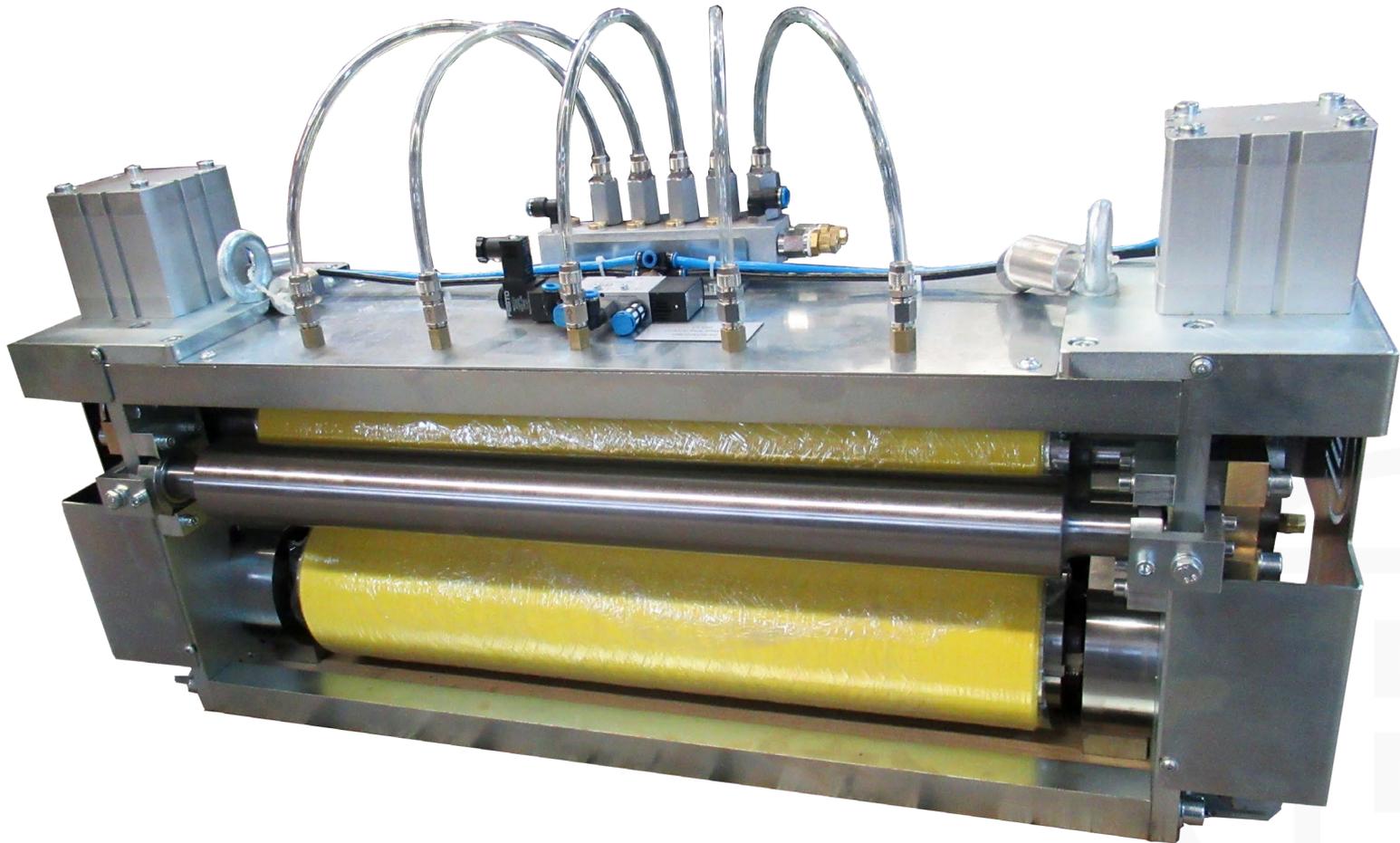


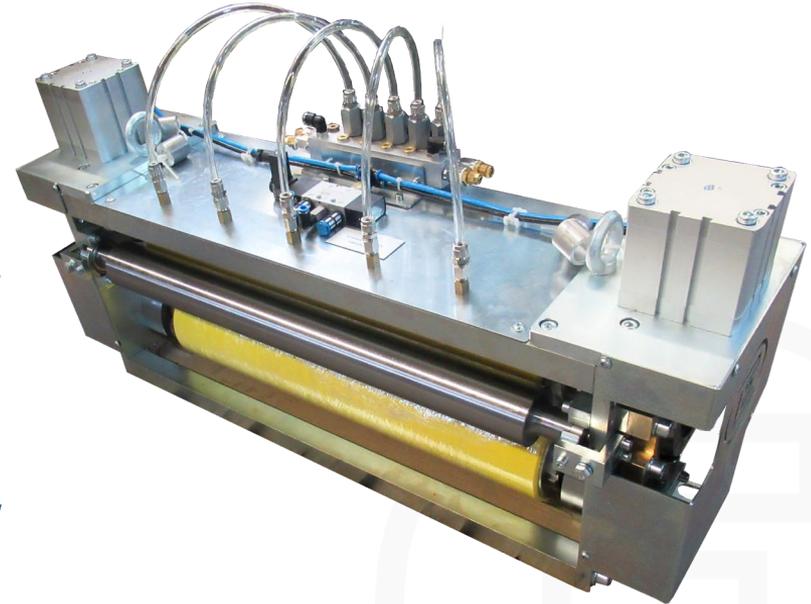
Squeeze-on Lubricator WQ

Exclusive by Eckardt. Particularly rugged and long-lasting



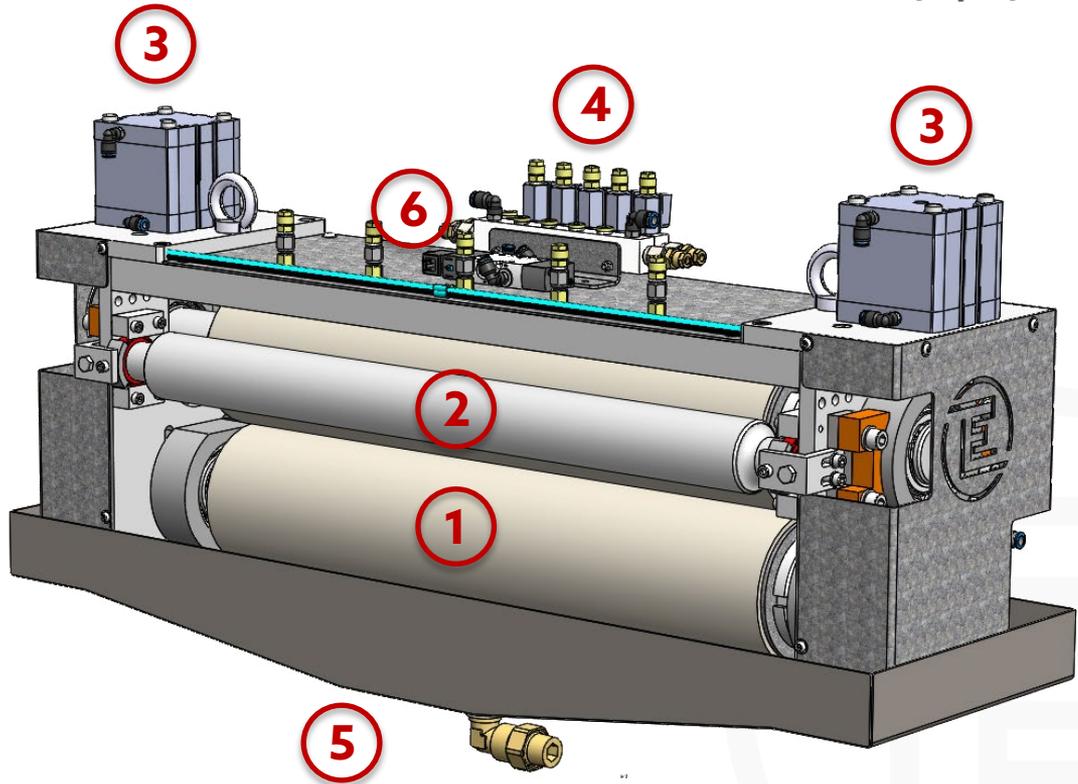
Squeeze-on lubricator WQ: The idea

- The ROTOL squeeze-on roller system is a lubricator developed exclusively in house by Eckardt.
- Fleece rollers remove cleaning liquid, for example, from cleaned metal parts during the forming process of carbody parts.
- Following close consideration we came to the conclusion that this principle of “squeezing off” could be reversed and used to apply lubricants. That is the basis for the ROTOL squeeze-on lubricator.
- The ROTOL squeeze-on roller system is an exceptionally rugged, long-lasting lubricating machine.
- By exerting very high pressures to the material the system is able to apply lubricant in precisely defined film thicknesses over an entire surface.



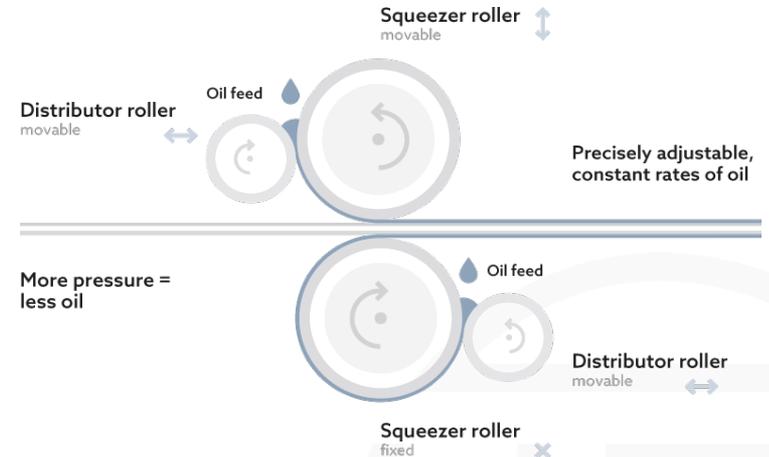
Squeeze-on lubricator WQ: Layout

- 1 Squeezer roller
- 2 Distribution roller
- 3 Lifting cylinder for upper roller
- 4 Oil supply
- 5 Drip tray with oil return device
- 6 Pilot release valve



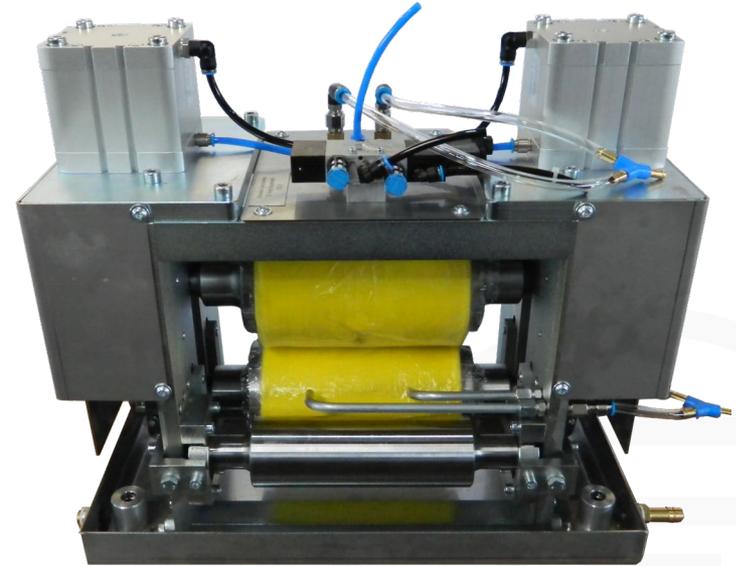
Squeeze-on lubricator WQ: How it works

- The fluid medium is fed between the distributor roller and the fleece rollers and is absorbed by the open pores of the fleece roller.
- The line pressure acting on the pores increases constantly as the roller rotates on the surface of the sheet metal; the roller begins to flatten. The fluid forms a wedge between the fleece and the surface of the sheet metal.
- Depending on the pressure the porosity of the fleece roller reaches practically zero. The media is squeezed onto the surface absolutely homogeneously. The film thickness decreases as the contact pressure applied by the roller is increased.
- The line pressure acting on the roller (pores) drops again, the pores open and soak back up a certain residual amount of the fluid like a sponge.

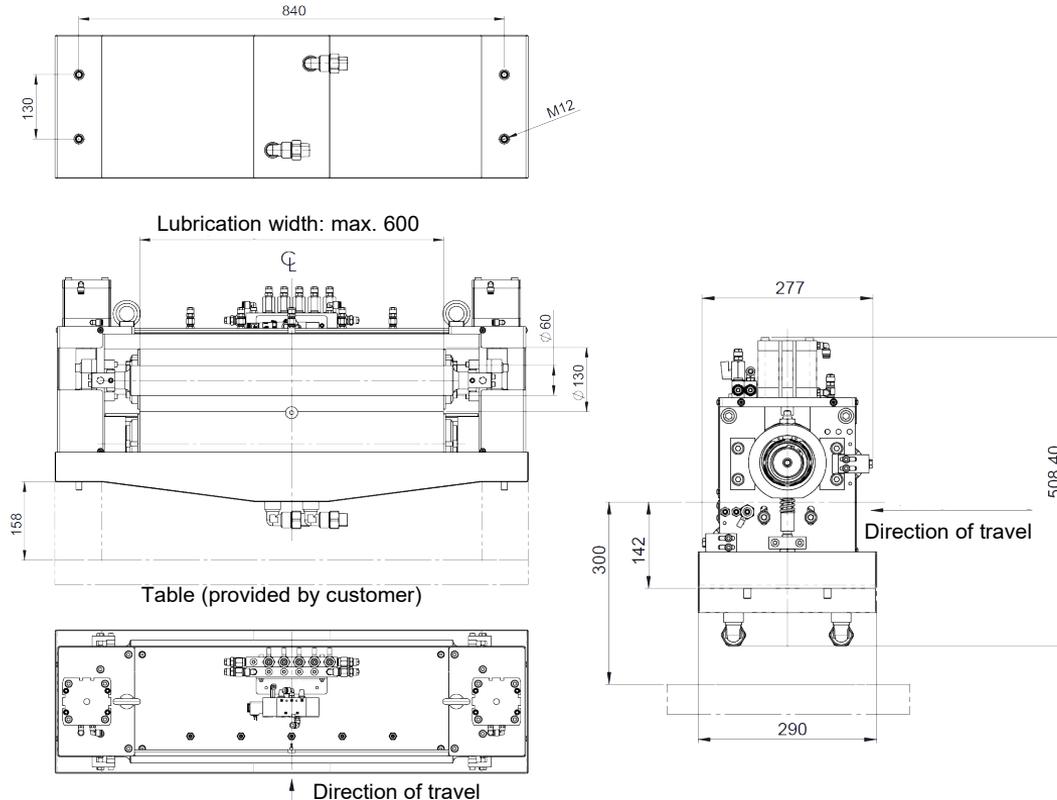


Squeeze-on lubricator WQ: Benefits

- The ROTOL calender roller made is made of non-woven material and therefore highly resistant to “indentation”. Just one machine is all that is required for all sheet metal and coil widths.
- The roller surface is only absorbent to a certain degree. The applied material does not penetrate deeper into the roller where it could remain as residue.
- It is possible to use all fluid lubricants through to grease, depending on their viscosity. The medium spreads evenly across the roller width so that it applied homogeneously at all times.
- The gap between the ROTOL calender rollers determines the thickness of the lubricant film. The gap is set by means of a digital display. The settings are allocated a retrievable numerical value. That means it is always possible to reproduce the film thickness precisely - by design.



Squeeze-on lubricator WQ: Configuration example



WQ-E 130-600

- Dimensions (incl. oil return valves):
290 x 935 x 508 mm (L x W x H)
- Lubrication width: max. 600 mm
- Transportation height: 142 mm
- Weight: ca. 170 kg
- Roller diameter:
130 mm (squeezer roller)
60 mm (distribution roller)
- Roller coating: ROTOL synthetic material,
20 x 600 mm

Eckardt Systems



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



■ Eckardt machines in use

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

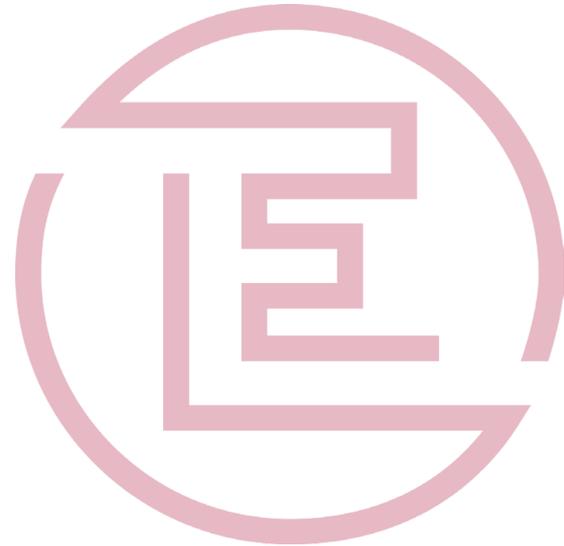
- System integration in existing workflows
- Fine adjustments and necessary adaptations to ensure operational readiness

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



Contact

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

