Process Selection Criteria for Raziol Lubrication Systems

Lubrication Systems
Quality from the Market Leader
Lubricants

Raziol®
Zibulla & Sohn GmbH

Process Selection Criteria for Raziol Lubrication Systems

Contact Lubrication - Non-Contact Lubrication

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Comparison of Raziol Lubrication Systems

	Non-contact lubrication
Installation	• solid, welded aluminium construction
Control system	• comfortable and user-friendly (self-explanatory) • control with touchscreen
Acquisition costs	• medium to high
Running expenses	• low to medium • non-contact lubrication = no wear
Saving potential regarding medium (application quantity)	• high to very high
Demands on the application system	• medium to very high
Response time in case of change of the application quantity	• prompt
Application quality	• very high, since it can be individually adjusted according to medium and application • no quality losses in case of uneven / arched material
Application quantity	• according to the relevant medium, adjustment to <0.015 g/m² is possible (infinitely adjustable) • uniform application quantities, even if speeds change quickly depending on the equipment
Media	• almost all flowable / sprayable media can be used
Lubrication pattern	• over the entire surface • sectoral • partial (different application quantities can be freely programmed within one lubrication pattern) depending on the equipment
Wear	• very low due to non-contact application
Speed	• up to 500 m/min without any problems
Medium change	• unproblematic, complete with flushing process, depending on the equipment
Reproducibility	• almost perfect
Options and expansion possibilities	• very extensive (e.g. heating system, circulation system, subsequent expansion to another medium, remote maintenance etc.) depending on the requipment
Budget	• from 6,000 € to 150,000 €, depending on the equipment

Roller Lubrication - Spray Lubrication
(Contact Lubrication - Non-Contact Lubrication)

	Contact lubrication
Installation	• simple, robust design
Control system	• simple (restricted performance) • compact control system
Acquisition costs	• low to medium
Running expenses	• medium to high • contact lubrication = wear
Saving potential regarding medium (application quantity)	• low to medium
Demands on the application system	• low to medium
Response time in case of change of the application quantity	• very slow
Application quality	• only adjustable or changeable to a limited extent • different application quantities and/or unlubricated areas in case of uneven / arched material
Application quantity	• application quantities below 1.5 g/m² can hardly be realised • different application quantities can occur if speeds change quickly, depending on the equipment
Media	• medium must not contain solids • higher viscosities (from appr.150 mm²/s) cannot be applied with felt rollers
Lubrication pattern	• over the entire surface • sectoral
Wear	• depending on the application, medium to high, due to permanent contact between application roller and material
Speed	• from 100 m/min up, medium can fly off due to high circumferential speed speed
Medium change	• depending on the type of oil, individual exchange kits are required (felt and/or brush)
Reproducibility	• depending on factors which cannot be influenced (e.g. ambient temperature, wear)
Options and expansion possibilities	• there are hardly any expansion possibilities
Budget	• from 2,000 € to 40,000 €, depending on the equipment

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Non-Contact Lubrication

Pictures

Example of spraying system „Premium“

Example of spraying system „Basic“

Example of spraying system „Basic“=

Spraying systems System „Premium”

- Lubrication widths up to 4,000 mm
- For lubrication tasks within highly complex production lines and/or processes with extreme requirements

Spraying Systems System „SlimLine“

- Lubrication widths up to 4,000 mm
- For lubrication tasks within highly complex production lines and/or processes with extreme requirements

Spraying systems System „Premium PBA“

- Lubrication widths up to 2,000 mm
- For the integration in fully-automatic production lines

Spraying systems System „Customised“

- Individual scope of performance which is adapted to customers‘ requirements

Spraying systems System „Laboratory technology“

- Especially for the use in laboratories for the development of lubricants

Spraying systems System „Basic“

- Lubrication widths up to 2,000 mm
- From simple versions for the sectoral lubrication of coils up to complete systems with media supply unit for the sectoral or partial lubrication of coils

Contact Lubrication
Pictures

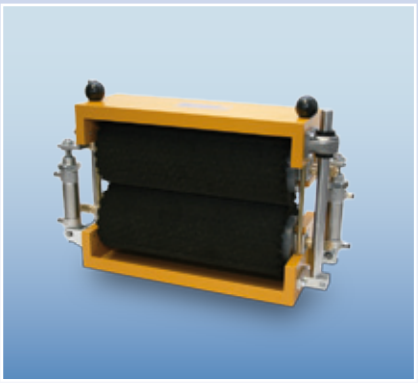
Sector lubrication systems SBA
- Lubrication widths from 500 to 1600 mm
- Lubrication sectors with felt or brush rollers
- Use: Stamping, fine-blanking, deep-drawing, bending, profile rolling, coil slitting

SBA TM 10

Roller lubricator, felt rollers
- Lubrication widths from 15 to 1300 mm
- Roller diameter 32 mm, 60 mm or 110 mm
- Max. material thicknesses from 1.0 to 10.0 mm
- Max. oil viscosity (40°C) from 100 to 180 mm²/s
- Use: Stamping, fine-blanking, deep-drawing, bending, profile rolling, coil slitting

RB SF-SW

Roller lubricator, brush rollers
- Lubrication widths from 55 to 980 mm
- Roller diameter 60 mm, 110 mm
- Max. material thicknesses from 1.5 to 10.0 mm
- Max. oil viscosity (40°C) from medium to high viscosity
- Use: Stamping, fine-blanking, deep-drawing, bending, profile rolling, coil slitting



RB PB-SW

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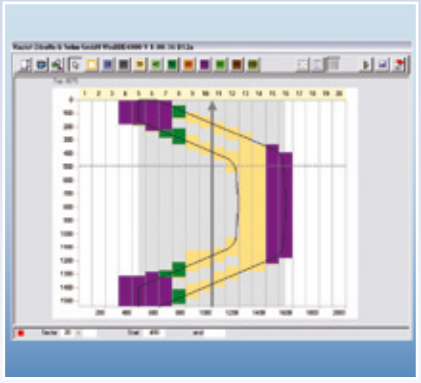
Non-Contact Lubrication

Visualisation / control

Supply station

SPC control 4000



WinBBE 4000

Supply station

- With all necessary electric and pneumatic units
- Control cabinet with touchscreen

SPC control 4000B (Beckhoff) / SPC control 4000S (Siemens) / VISU

- Operation via Raziol PC or press PC supplied by the customer

Lubrication pattern editor WinBBE 4000

- Freely programmable lubrication patterns for partial lubrication
- Freely programmable lubrication amounts

Contact Lubrication
control unit

Electronic control system EBAD 3000
- Separate dosing for several lubricating stations
- Monitoring of the oil storage with automatic refilling system

EBAD 3000 10-D

Electronic control system EST
- Control of air and oil valves depending on the machine cycle
- Delay time and lubrication time can be adjusted


EST 02-D

MST manual control system
- Without control electronics
- With oil manifold

MST 10

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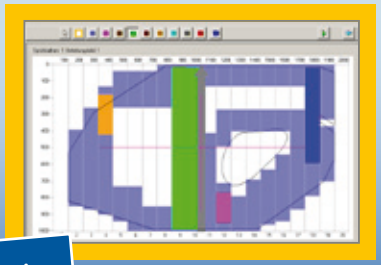
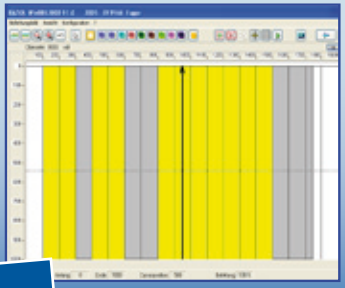
Non-Contact Lubrication

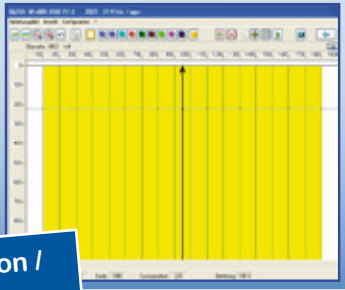
lubrication patterns



Partial / sector lubrication



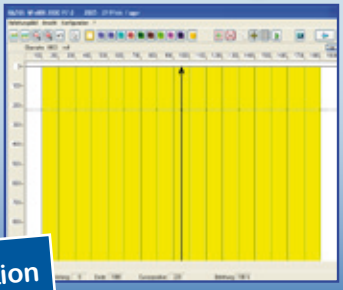
Partial / sector lubrication



Full-surface lubrication / sector lubrication

Contact Lubrication

lubrication patterns



Full-surface lubrication

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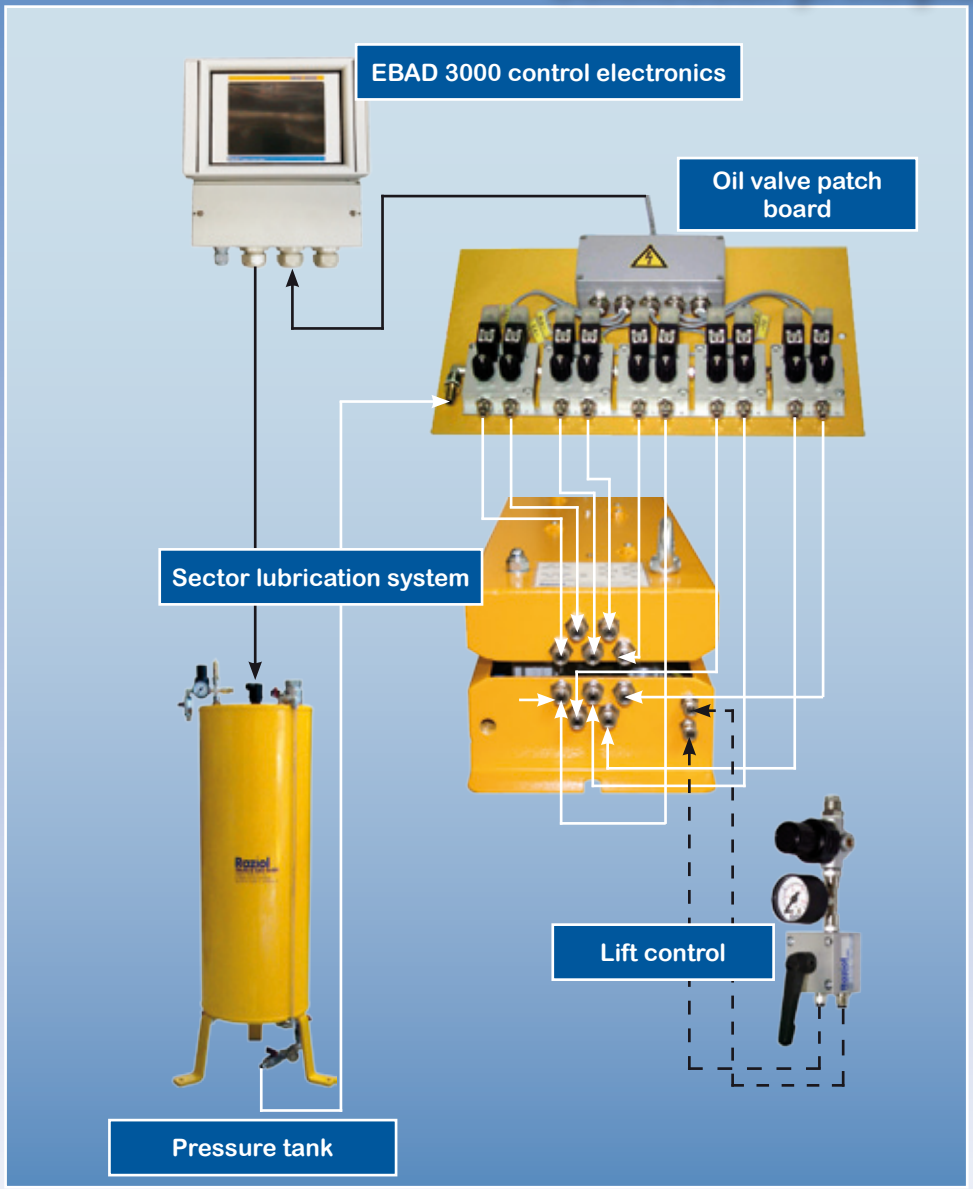
Non-Contact Lubrication

Connection principle

Contact Lubrication

Connection principle



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Our products at a glance

Roller Lubricators and Sector Lubrication Systems
Driven Roller Lubricators and
Blank Lubrication Systems
Dosing Control Units for Contact Lubrication
Nozzles and Lubricating Stations
Dosing Control Units Non-Contact Lubrication
Spraying Systems
Controls
Flow Rate Measuring Systems
Extractors
Lubricants for Metalworking
Special Lubricants for Lubrication

Raziol® Zibulla & Sohn GmbH
Hagener Str. 144 + 152 • D-58642 Iserlohn
Phone: +49 2374 5000-0
Fax: +49 2374 5000-12
Email: info@raziol.de
Internet: www.raziol.com
www.drylub.de

Raziol® Zibulla & Sohn GmbH