Process Selection Criteria for Raziol Lubrication Systems

Lubrication Systems
Quality from the Market Leader
Lubricants

Raziol®
Zibulla & Sohn GmbH

HENNLICH
CEMA-TECH
HENNLICH
ŽIJEME TECHNIKOU

o.z. HENNLICH CEMA-TECH,
Dolní 183/30, 591 01 Žďár nad Sázavou

Telefon: +420 566 630 524
E-mail: cema-tech@hennlich.cz

www.hennlich.cz/cema-tech

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Contact Lubrication - Non-Contact Lubrication

HENNLICH
ŽIJEME TECHNIKOU

o.z. HENNLICH CEMA-TECH,
Dolní 183/30, 591 01 Žďár nad Sázavou

Telefon: +420 566 630 524
E-mail: cema-tech@hennlich.cz

www.hennlich.cz/cema-tech

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Raziol®
Zibulla & Sohn GmbH

HENNLICH
ŽIJEME TECHNIKOU

o.z. HENNLICH CEMA-TECH,
Dolní 183/30, 591 01 Žďár nad Sázavou

Telefon: +420 566 630 524
E-mail: cema-tech@hennlich.cz

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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

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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

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Contact Lubrication
Pictures

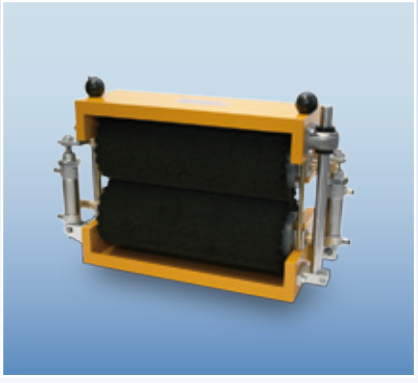
Sector lubrication systems SBA
- Lubrication widths from 500 to 1600 mm
- Lubrication sectors with felt or brush rollers
- Use: Stamping, fine-blanking, deep-drawing, bending, profile rolling, coil slitting

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

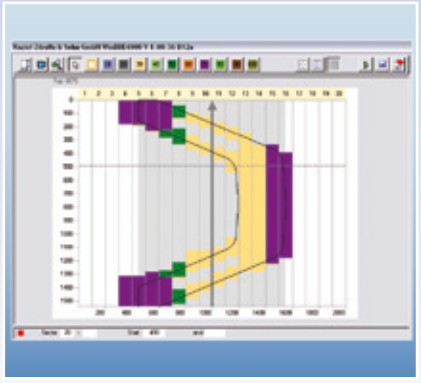
Supply station

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

SPC control 4000

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

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



WinBBE 4000

Lubrication pattern editor WinBBE 4000

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

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Contact Lubrication
control unit

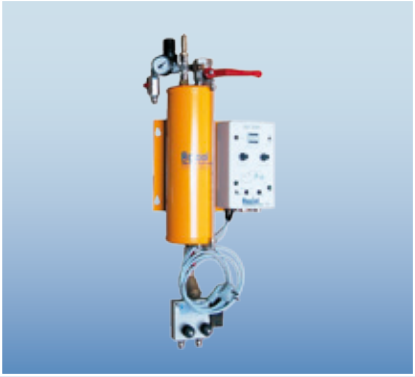
Electronic control system EBAD 3000

- 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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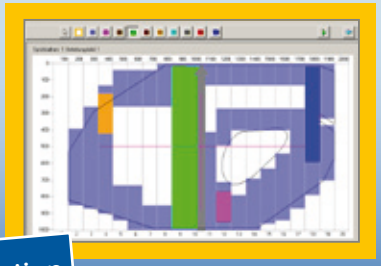
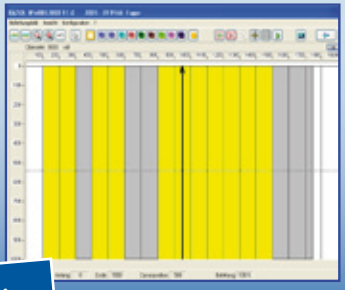
Non-Contact Lubrication

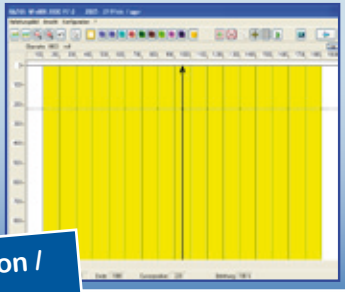
lubrication patterns



Partial / sector lubrication



Partial / sector lubrication



Full-surface lubrication / sector lubrication

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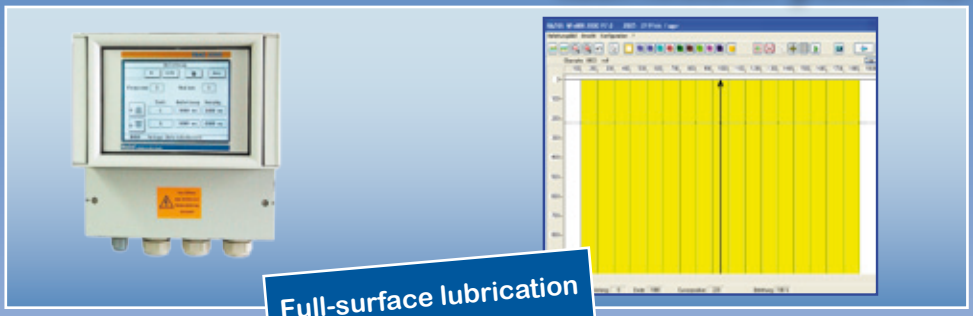
Contact Lubrication

lubrication patterns



Full-surface lubrication

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Non-Contact Lubrication

Connection principle

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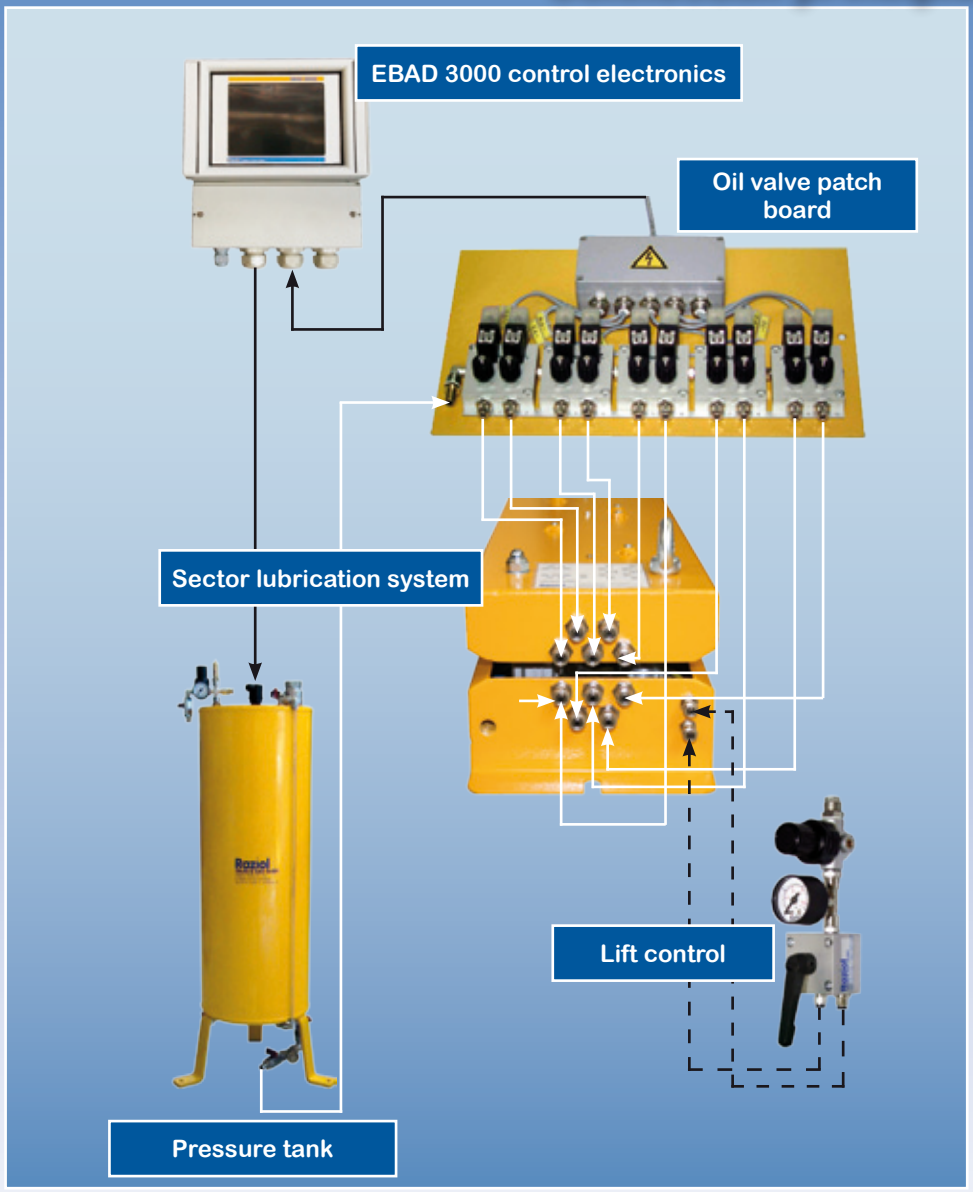
Contact Lubrication

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

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