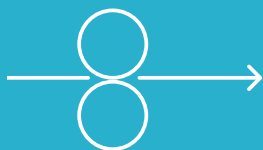


Contact Lubrication



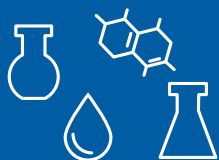
Non-Contact Lubrication



Dosing Units



Lubricants



Raziol® Zibulla & Sohn GmbH

Lubricants



Raziol: Best quality for lubrication plants and lubricants!

The family enterprise **Raziol® Zibulla & Sohn GmbH** has established its expertise in over 75 years in lubrication and oiling technology for coils, blanks and formed parts. Renowned enterprises all over the world are among our customers.

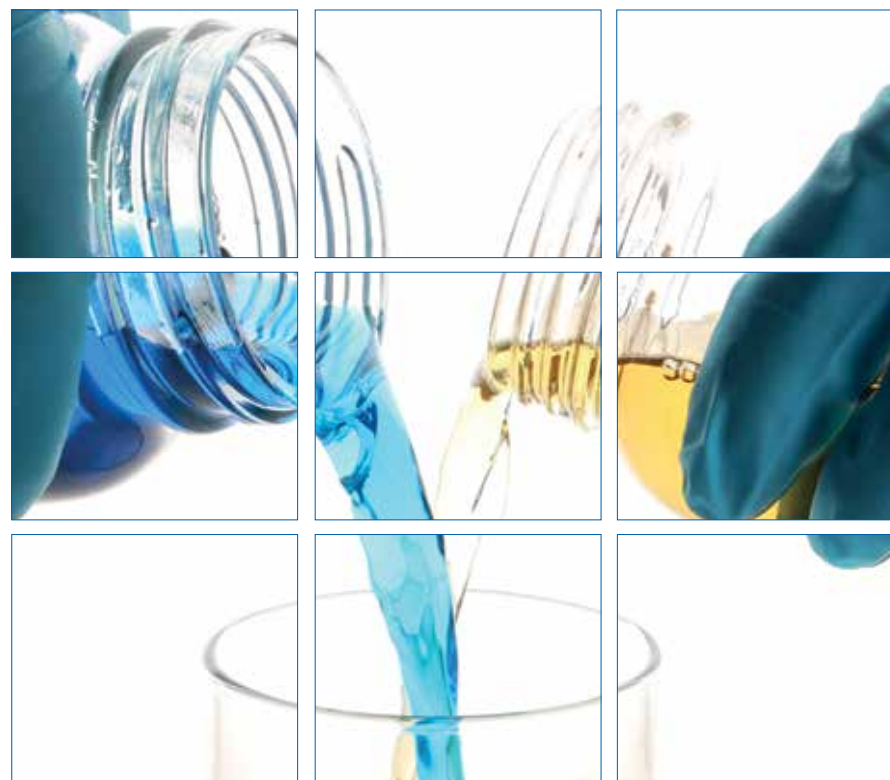
They receive an optionally functional and harmonised all-round package from our location in Iserlohn. It goes without saying that this also includes consulting and services such as repair, inspection, modernisation and training.

www.raziol.com
www.raziol-news.com



Raziol lubricants

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Special products for lubricating	40



Dear Business Partners,
and all other interest parties!

As requested, we are happy to provide you with information on our lubricant range with a focus on non-cutting metalworking. This information only represents an excerpt of our comprehensive range.

Please contact us if you fail to find the lubricant you require for your particular application purpose on the following pages. Take advantage of our expertise and the many years of experience of our application technicians to develop a solution tailored to your application.

Contact: rl@raziol.com



Please note that all the details relating to use of our products are based on practical experience, and variations can arise due to different machine parameters and material compositions, etc.

We therefore wish to point out that testing of our lubricants is necessary for the desired application, including possible testing of downstream processes.

Additional information on our range of applications techniques (contact and non-contact lubrication) is available on our website at www.raziol.com. A combination of our efficient lubricants in conjunction with our modern application systems enables you to achieve cost-effective production.



Development and production of lubricants

In close cooperation with our customers, our Raziol Lubrication continuously develops new, modern and environmentally friendly lubricants for every area of non-cutting metalworking and minimum lubricant technology.

Consistent lubricant quality of a very high standard is assured through our own in-house production and laboratory.

Purchased and retail products are also included in our range.



Lubricants for metalworking

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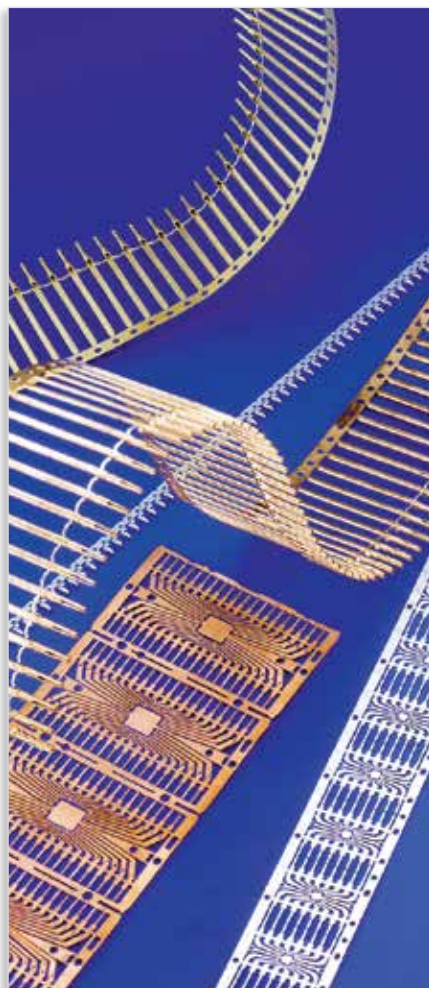
www.raziol-news.com

Characteristics

- Quickly evaporating
- Low aromatics
- Contains no chlorinated additives
- Non-hazardous material
- Flash point $\geq 61^{\circ}\text{C}$

Application

- Suitable for use during the production of electrical contacts, stamping and bending parts, springs, wires, clocks, metallic goods and sealing elements, as well as white goods and elements of communication technology
- For manufactured goods on which only a minimal amount of residue should remain
- In many cases, follow-up processes such as gluing and the adhesion of labels can be resulted without the need for washing
- Covers a wide range of products due to the introduction of various performance-enhancing additives
- Cost-effective, defined lubrication with products from the Raziol CLF 11 series possible in conjunction with Raziol application systems such as roller lubricators or spray systems



Electrical contacts

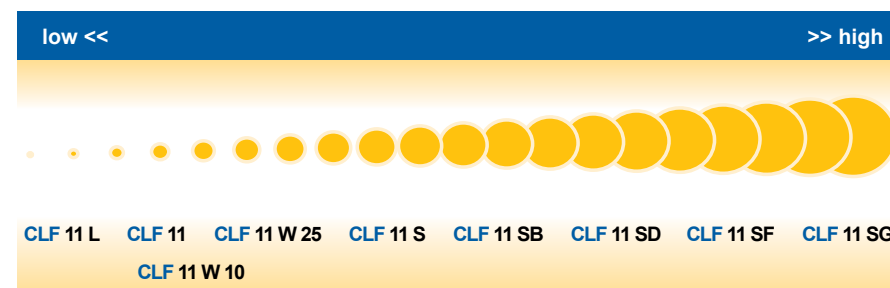
Product overview of Raziol CLF 11 series

Product	Steel up to approx. [mm]	NF metal up to approx. [mm]	Aluminium up to approx. [mm]	Alloy steel up to approx. [mm]
CLF 11 L	0.15	0.30	0.30	-
CLF 11	0.15	0.30	0.30	-
CLF 11 W 10	0.20	0.40	0.40	0.10
CLF 11 SE	0.20	0.30	0.40	0.15
CLF 11 S	0.30	0.50	0.50	0.20
CLF 11 SF	0.50	0.80	0.80	0.30
CLF 11 W 25	0.60	1.00	1.00	0.40
CLF 11 SB	0.80	1.50	1.50	0.50
CLF 11 SD	1.50	2.00	2.00	0.90
CLF 11 SG	3.50	5.00	3.50	2.00

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Residue behaviour



Characteristics

- Contains no chlorinated additives
- Low aromatics
- Non-hazardous material
- Flash point $\geq 100^{\circ}\text{C}$

Application

- Suitable for transfer dies without relubrication or profiling, during the production of electrical contacts, stamping and bending parts, springs, wires, clocks, metallic goods and sealing elements, as well as white goods and elements in communication technology
- For manufactured goods on which only a minimal amount of residue should remain
- In many cases, follow-up processes such as gluing and the adhesion of labels can be resulted without the need for washing
- Solvent reduction through use of special evaporating hydrocarbons
- Cost-effective, defined lubrication with products from the Raziol CLF 12 series possible in conjunction with Raziol application systems such as roller lubricators or spray systems



Steel chamber



Heat exchanger

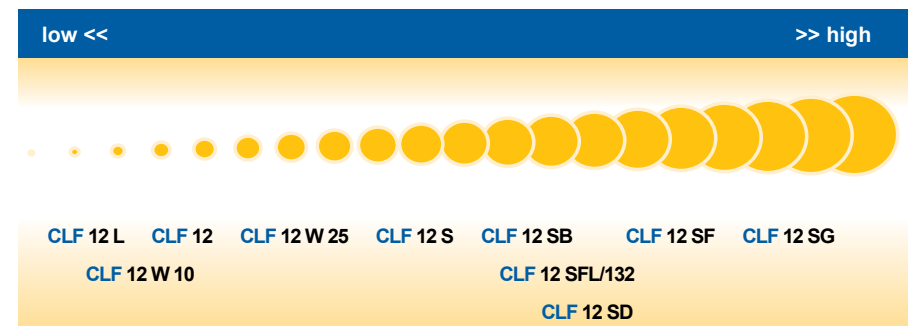
Product overview of Raziol CLF 12 series

Product	Steel up to approx. [mm]	NF metal up to approx. [mm]	Aluminium up to approx. [mm]	Alloy steel up to approx. [mm]
CLF 12 L	0.20	0.35	0.35	-
CLF 12	0.20	0.35	0.35	-
CLF 12 W 10	0.25	0.45	0.45	0.15
CLF 12 S	0.35	0.60	0.55	0.25
CLF 12 SFL / 132	0.45	0.70	0.65	0.25
CLF 12 SF	0.60	0.90	0.90	0.35
CLF 12 W 25	0.70	1.10	1.10	0.50
CLF 12 SB	0.90	1.75	1.75	0.60
CLF 12 SD	1.50	2.00	2.00	0.90
CLF 12 SG	4.00	6.00	4.00	2.50

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Residue behaviour



Characteristics

- Low aromatics
- Contains no chlorinated additives
- Non-hazardous material
- Flash point $\geq 70^{\circ}\text{C}$

Application

- Suitable for use during the production of electrical contacts, stamping and bending parts, springs, wires, clocks, metallic goods and sealing elements, as well as white goods and elements of communication technology
- For manufactured goods on which only a minimal amount of residue should remain
- Cost-effective, defined lubrication with products from the Raziol CLF 1 series possible in conjunction with Raziol application systems such as roller lubricators or spray systems



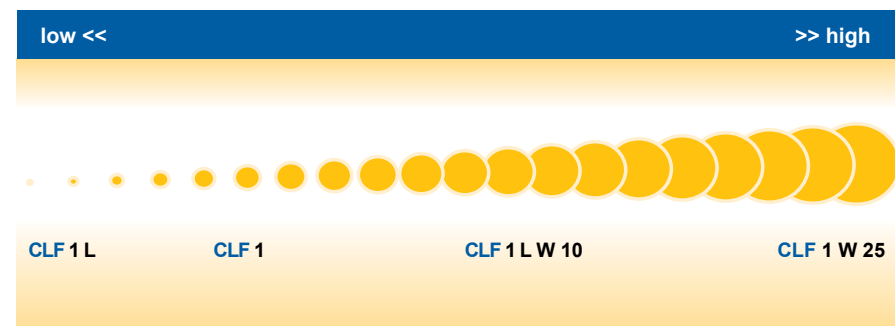
Product overview of Raziol CLF 1 series

Product	Steel up to approx. [mm]	NF metal up to approx. [mm]	Aluminium up to approx. [mm]	Application
CLF 1 L	0.15	0.30	0.30	Stamping, light forming
CLF 1	0.15	0.30	0.30	Stamping, light forming
CLF 1 W 10	0.25	0.40	0.40	Profiling, drawing, bending
CLF 1 W 25	0.35	0.50	0.50	Profiling, drawing, bending

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



Characteristics

- Quickly evaporating
- Low aromatics
- Contains no chlorinated additives
- Non-hazardous material
- Flash point $\geq 61^{\circ}\text{C}$
- Effective corrosion protection for contact materials

Application

- Particularly suitable for the production of electric contacts with starting protection
- Optimum electrical transfer resistance, even after lengthy periods in intermediate storage
- Cost-effective, defined lubrication with products from the Raziol CLF 25 series possible in conjunction with Raziol application systems such as roller lubricators or spray systems



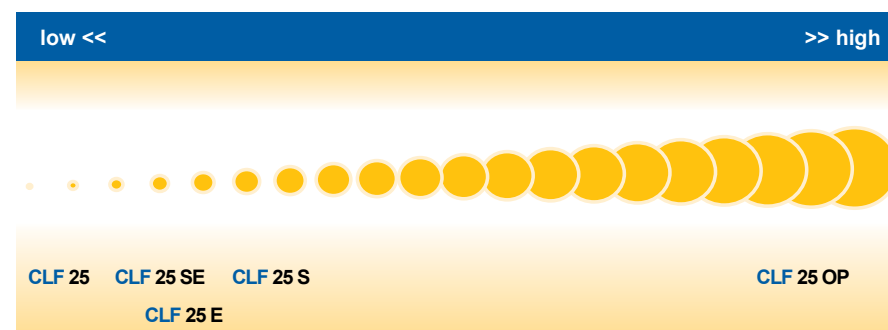
Product overview of Raziol CLF 25 series

Product	Steel up to approx. [mm]	NF metal up to approx. [mm]	Aluminium up to approx. [mm]	Alloy steel up to approx. [mm]
CLF 25	0.15	0.30	0.30	-
CLF 25 SE	0.25	0.40	0.40	0.15
CLF 25 S	0.30	0.50	0.50	0.20
CLF 25 E	0.60	0.80	0.80	0.30
CLF 25 OP	3.50	5.00	5.00	2.00

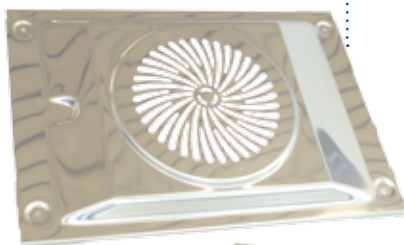
The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



Fan cover



Internal oven components



Front frame for ovens

Characteristics

- Polymer-based
- For non-cut shapes
- Hand-dry parts can be achieved after processing
- Good surface quality
- Long tool service lives
- Low wear
- For complex shapes
- For steel, stainless steel, precious metals, aluminium
- Non-hazardous material
- Follow-up processes generally possible without degreasing

Application

- For non-cutting forming of steel, stainless steel, galvanised steel and aluminium
- Frequently better forming properties when compared to standard forming lubricants
- Good degreasing properties (aqueous alkaline)
- Cost-effective, defined lubrication with Raziol Fluid possible in conjunction with Raziol application systems such as roller lubricators or spray systems

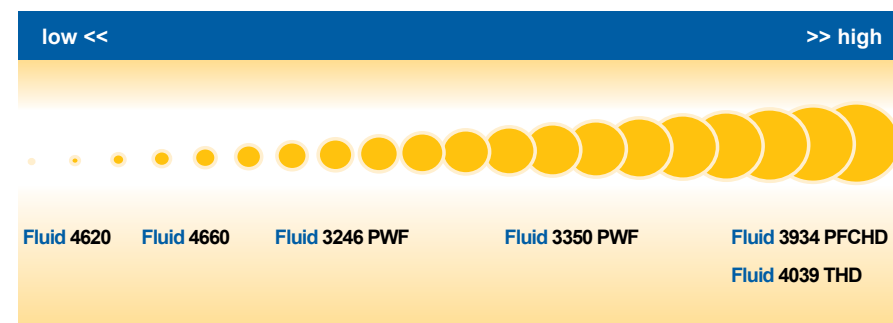
Product overview of Raziol Fluid

Product	Application	Application
Fluid 4620	Stamping, bending (thin sheet material)	Including steel, galvanised steel, aluminium
Fluid 4660	Stamping, bending (thin sheet material)	Including steel, galvanised steel, aluminium
Fluid 3246 PWF	Stamping, bending, drawing, cutting	Including steel, stainless steel, galvanised steel, aluminium
Fluid 3350 PWF	Stamping, bending, drawing, cutting	Including steel, stainless steel, galvanised steel, aluminium
Fluid 3934 PFCHD	Paste for pipework	Including steel, stainless steel, galvanised steel, aluminium
Fluid 4039 THD	Stamping, bending (thin sheet material)	Including steel, galvanised steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



Characteristics

- Contains no chlorinated additives
- Polymer-based
- No changes in viscosity at high temperatures
- The formation of a polymer coating in the tool ensures maximum tool service life

Application

- For the manufacture of formed parts involving difficult deep drawing operations and complicated geometries
- For deep drawing processes which are frequently impossible using conventional deep drawing oils
- Application of film thicknesses of only 0.2 - 0.5 g/m² via spray application
- Cost-effective, defined lubrication with Raziol Drylub possible in conjunction with Raziol spray systems



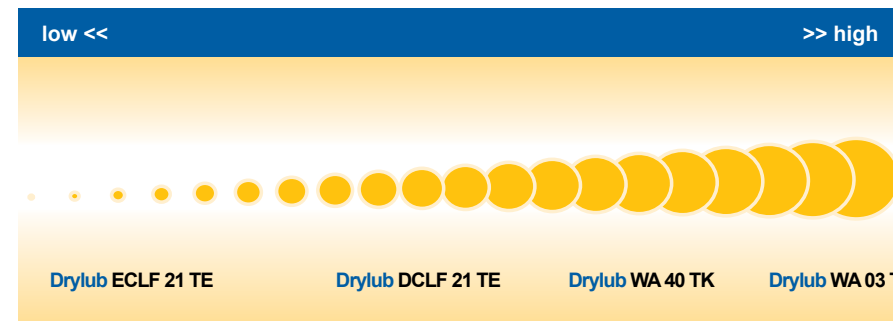
Product overview of Raziol Drylub

Series	Raziol Drylub® types	Characteristics	Film strength	Utilisation as
Series 03	Raziol Drylub WA 03 T	Polymer wax dispersion with solid lubricant	High	Forming lubricant
Series 40	Raziol Drylub WA 40 TK	Polymer wax dispersion with solid lubricant	Medium	Forming lubricant
Series 21	Raziol Drylub D CLF 21 TE	Polymer wax dispersion with solid lubricant	Low	Forming lubricant for high performance requirements
Series 21	Raziol Drylub ECLF 21 TE	Polymer wax dispersion with solid lubricant	Extremely low	Forming lubricant for high performance requirements

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downtime processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Film strength

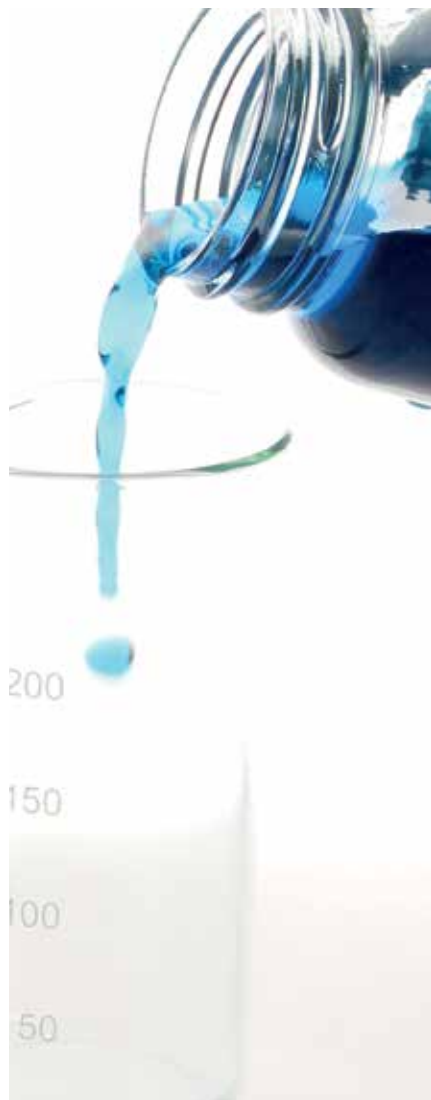


Characteristics

- With base oils low in aromatic content to ensure minimal burdening of the working environment
- Very efficient
- Contains no chlorinated additives
- With special polar and high-pressure additives (EP) for outstanding lubricating properties, as well as increased life-expectancy of the stamping and forming tools

Application

- For formed parts featuring extremely sophisticated shapes
- Cost-effective, defined lubrication with Raziol forming oils possible in conjunction with Raziol application systems such as roller lubricators or spray systems



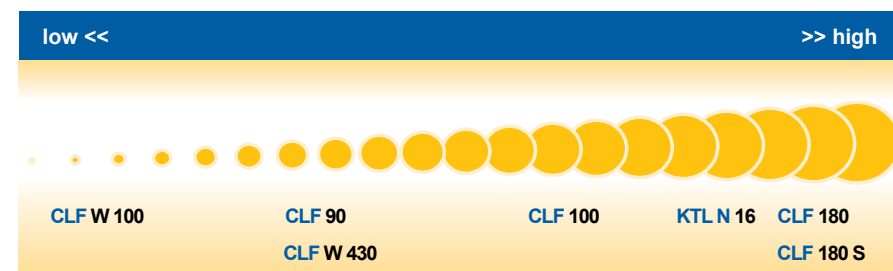
Product overview of forming oils

Series	Colour	Viscosity at 40°C [mm²/s]	Application
CLF 90	Amber	90	Stainless steel, steel, aluminium, non-ferrous metal
CLF 100	Amber	100	Stainless steel, steel, aluminium, non-ferrous metal
KTL N 16	Amber	160	Steel, aluminium, non-ferrous metal
CLF 180	Amber	180	Stainless steel, steel, aluminium, non-ferrous metal
CLF 180 S	Amber	180	Stainless steel, steel, aluminium
CLF W 100	Amber, opaque	100	Steel, aluminium, non-ferrous metal
CLF W 430	Amber, opaque	430	Steel, aluminium, non-ferrous metal
CLF 100 V	Amber	100	Steel, aluminium, non-ferrous metal

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downtime processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview





Characteristics

- Contains no chlorinated additives
- Non-hazardous material
- High wear protection
- Seven viscosity classes available
- Excellent lubricating properties, a high pressure absorbing capability and enhanced wear protection are achieved through the addition of special high-pressure additives (EP)

Application

- For manufacturing formed parts from stainless steel, steel and aluminium
- For formed parts with very sophisticated shaping and part geometries
- Cost-effective, defined lubrication with Raziol high-performance forming oils possible in conjunction with Raziol application systems such as roller lubricators or spray systems



Stainless steel sink

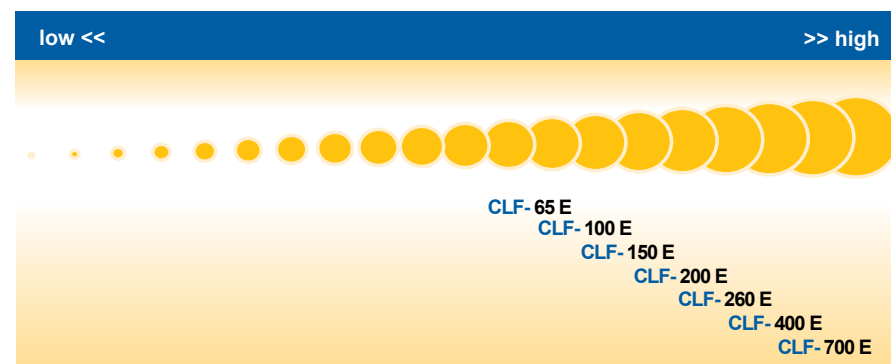
Product overview of Raziol CLF-... E series

Product	Colour	Viscosity at 40°C [mm²/s]	Application
CLF-65 E	Amber	65	Stainless steel, steel, aluminium
CLF-100 E	Amber	100	Stainless steel, steel, aluminium
CLF-150 E	Amber	150	Stainless steel, steel, aluminium
CLF-200 E	Amber	200	Stainless steel, steel, aluminium
CLF-260 E	Amber	260	Stainless steel, steel, aluminium
CLF-400 E	Amber	400	Stainless steel, steel, aluminium
CLF-700 E	Amber	690	Stainless steel, steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone, zinc or chlorine-based additives.

Performance overview



Characteristics

- Contains no chlorinated additives
- Low aromatics
- Optimum wetting and adhesion capabilities
- With special additives for outstanding cutting properties
- With base oils low in aromatic content to ensure minimal burdening of the working environment

Application

- For fine blanking parts with high degrees of complexity
- For cutting thicknesses up to 12 mm
- For the machining of steel, stainless steel and aluminium
- Cost-effective, defined lubrication with Raziol fineblanking oils possible in conjunction with Raziol application systems such as roller lubricators or spray systems



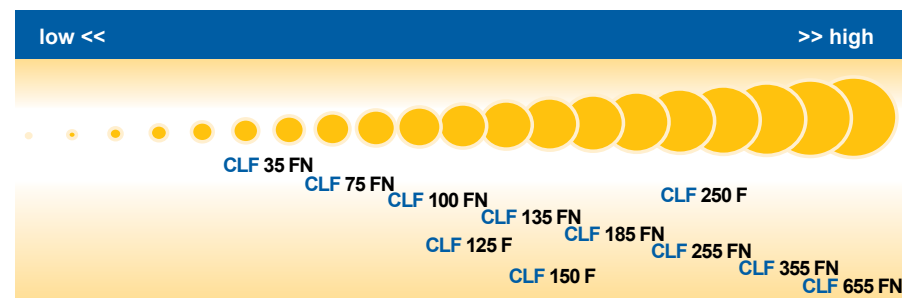
Product overview of fineblanking oils

Product	Colour	Viscosity at 40°C [mm²/s]	Application
CLF 35 FN	Greenish	35	Stainless steel, steel, aluminium
CLF 75 FN	Greenish	75	Stainless steel, steel, aluminium
CLF 100 FN	Greenish	100	Stainless steel, steel, aluminium
CLF 135 FN	Greenish	135	Stainless steel, steel, aluminium
CLF 185 FN	Greenish	185	Stainless steel, steel, aluminium
CLF 255 FN	Greenish	255	Stainless steel, steel, aluminium
CLF 355 FN	Greenish	355	Stainless steel, steel, aluminium
CLF 655 FN	Greenish	655	Stainless steel, steel, aluminium
CLF 125 F	Amber	125	Stainless steel, steel, aluminium
CLF 150 F	Amber	150	Stainless steel, steel, aluminium
CLF 250 F	Amber	255	Stainless steel, steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downtime processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



Characteristics

- Contains no chlorinated additives
- Low aromatics
- Powerful
- Specially refined mineral oils with performance-enhancing additives for increased service life of the tools

Application

- For production parts made of materials difficult to work
- Also for production of parts made of soft materials which tend to smear (aluminium)
- Raziol CLF 19 B for processing of non-ferrous metals
- Cost-effective, defined lubrication with Raziol cutting oils possible in conjunction with Raziol application systems such as roller lubricators or spray systems



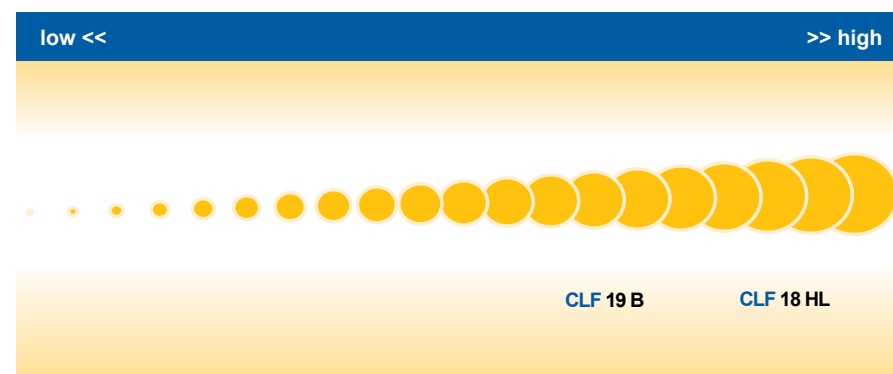
Product overview of cutting oils

Product	Colour	Viscosity at 40°C [mm²/s]	Application
CLF 19 B	Amber	≥ 21	Stainless steel, steel, non-ferrous metals
CLF 18 HL	Amber	≥ 21	Stainless steel, steel

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



Storage

- All Raziol lubricants should be protected during transport and storage against contamination with dirt, water and other substances
- Severe heat (e.g. sunlight) or the effects of frost should be avoided during storage. The storage temperature should therefore lie between 5 and 40°C (frost-free)
- The max. storage period for a water-miscible cooling lubricant is generally one year

Product

- The mixing water should be clean and of potable water quality and, where possible, have medium water hardness
- Information on water quality can be obtained from the local water supplier
- Avoid water temperatures that are too low
- The specified concentrations should not be excessively exceeded or undershot, as there is otherwise a risk of corrosion or foam formation
- The concentrate is slowly added to the mixing water provided, and the product may only be used after an adequately long mixing period. Use of an automated dispensing system is recommended

Water-miscible Lubricants

Characteristics

- Water-miscible
- Free of secondary amines
- High-grade
- Optimum cooling effect

Application

- For cutting or non-cutting metalworking
- Cost-effective, defined lubrication with Raziol water-miscible lubricants possible in conjunction with Raziol application systems such as roller lubricators or spray systems



Product overview of water-miscible lubricants

Product	Colour	Viscosity at 40°C [mm²/s]	Application
BZK II	Amber	Approx. 50	Galvanised sheet metal; excellent protection against white rust; deep drawing and profile rolling; mix ratio with water: 10 to 30 %
BZK ST	Amber	Approx. 46	Steel; excellent corrosion protection; deep drawing and profile rolling; mix ratio with water: 5 to 30 %
ECLF 100 N	Amber	70	Steel, aluminium, rustproof sheet metal; large-scale deep drawing parts; stamping and bending operations; mix ratio with water: 5 to 20 %
D ECLF	Yellow	100	Steel, non-ferrous metals, aluminium; ester-based synthetic special lubricant; also suitable for chipping; mix ratio with water: 5 to 10 %
BZK XI	Amber	approx. 100	Steel; rustproof steel; semi-synthetically, waterbased, stamping and drawing oils, without chlorinated additives

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

Characteristics

- Contains no chlorinated additives
- Low volatilisation
- With a specific selection of combined materials comprising of native or synthetic fatty acid esters or fatty alcohols for prolonged service life of tools, as well as excellent surface quality of the workpieces
- With biologically degradable, low volatilisation base oils to improve the overall working environment
- Powerful

Application

- For cutting or non-cutting metalworking
- Cost-effective, defined lubrication with Raziol minimum quantity lubricants possible in conjunction with Raziol application systems such as roller lubricators or spray systems



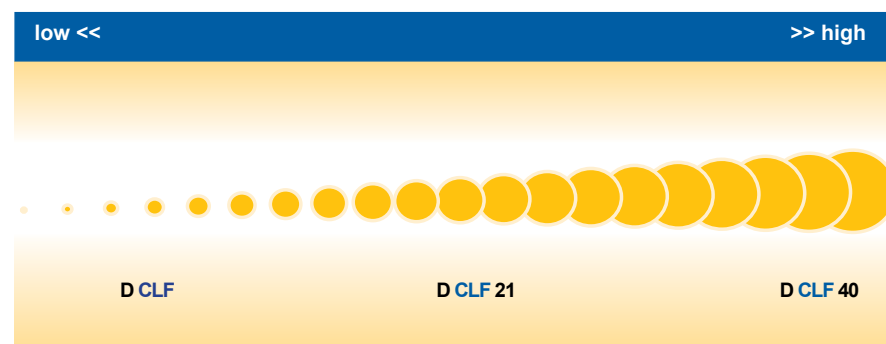
Product overview of minimum quantity lubricants

Product	Colour	Viscosity at 40°C [mm²/s]	Application
D CLF	Yellow	47	Steel, aluminium, non-ferrous metal
D CLF 21	Colourless	25	Steel, aluminium, non-ferrous metal
D CLF 40	Brown	40	Stainless steel, steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downtime processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

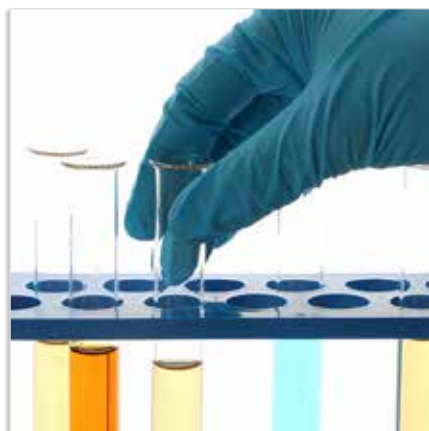
All lubricants in this series are free of silicone or chlorine-based additives.

Performance overview



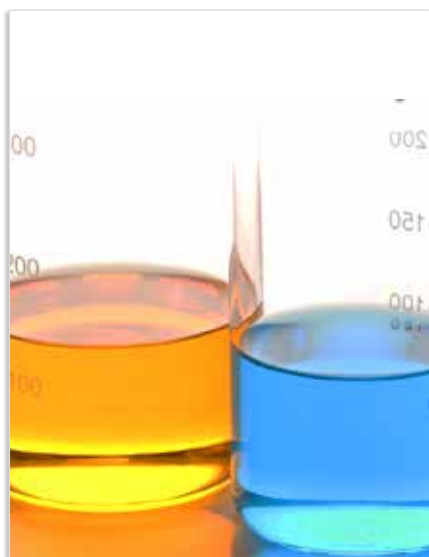
Characteristics

- Polymer-based
- Contains no chlorinated additives
- Powerful
- Non-hazardous material
- Six viscosity classes (CEP...E series)



Application

- For manufacturing formed parts from stainless steel, steel and aluminium
- Not suitable for non-ferrous metals
- Efficient, defined lubrication with Raziol chlorine substitute products can be achieved without difficulty in conjunction with Raziol application systems



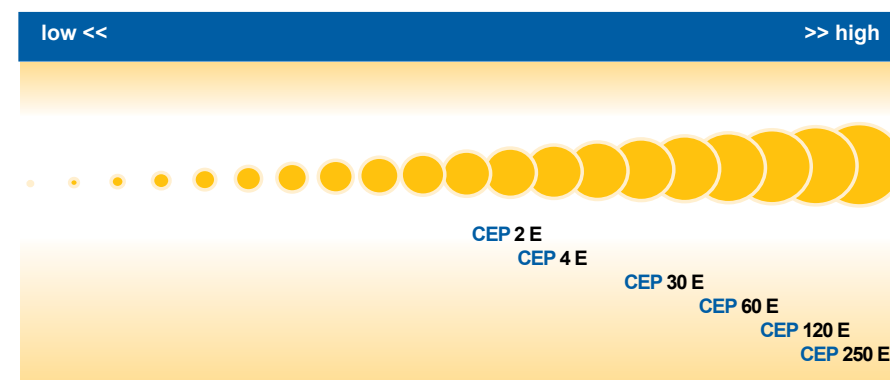
Product overview of Raziol® CEP...E series (water-based)

Product	Colour	Viscosity at 40°C [mm²/s]	Application
CEP 2 E	Amber	2	Stainless steel, steel, aluminium
CEP 4 E	Amber	4	Stainless steel, steel, aluminium
CEP 30 E	Amber	30	Stainless steel, steel, aluminium
CEP 60 E	Amber	60	Stainless steel, steel, aluminium
CEP 120 E	Amber	120	Stainless steel, steel, aluminium
CEP 250 E	Amber	250	Stainless steel, steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone, zinc or chlorine-based additives.

Performance overview





• Characteristics

- Polymer-based
- Contains no chlorinated additives
- Powerful
- Non-hazardous material
- Eight viscosity classes (CEP series)

Application

- For manufacturing formed parts from stainless steel, steel and aluminium
- Not suitable for non-ferrous metals
- Efficient, defined lubrication with Raziol chlorine substitute products can be achieved without difficulty in conjunction with Raziol application systems



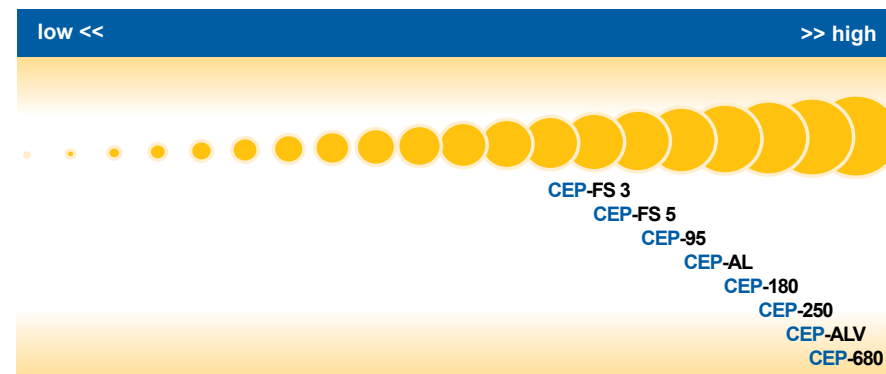
Product overview of Raziol CEP series (mineral oil-based)

Product	Colour	Viscosity at 40°C [mm²/s]	Application
CEP-FS 3	Reddish brown	38	Stainless steel, steel, aluminium
CEP-FS 5	Reddish brown	69	Stainless steel, steel, aluminium
CEP-95	Reddish brown	105	Stainless steel, steel, aluminium
CEP-AL	Reddish brown	130	Stainless steel, steel, aluminium
CEP-180	Reddish brown	180	Stainless steel, steel, aluminium
CEP-250	Reddish brown	250	Stainless steel, steel, aluminium
CEP-ALV	Reddish brown	360	Stainless steel, steel, aluminium
CEP-680	Reddish brown	680	Stainless steel, steel, aluminium

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downtime processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone, zinc or chlorine-based additives.

Performance overview



Characteristics

- Extremely high efficiency
- Various classes of viscosity available
- Chlorinated (approx. 18 - 29 weight %)

Application

- Fineblanking, stretch forming, deep drawing, thread forming, stamping, thread cutting
- For extremely complex shapes involving high-alloy materials
- For the commissioning of new tools (WKZ 2000)
- Cost-effective, defined lubrication with Raziol chlorinated forming oils possible in conjunction with Raziol application systems such as roller lubricators or spray systems

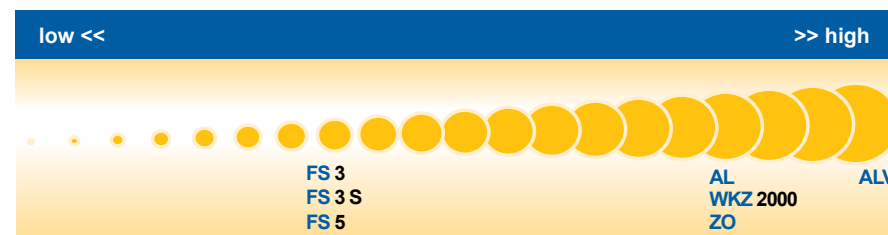


Product overview of chlorinated forming oils

Product	Colour	Viscosity at 40°C [mm²/s]	Application
FS 3	Red	Approx. 40	Stainless steel, steel, aluminium, non-ferrous metal
FS 3 S	Yellow	Approx. 40	Stainless steel, steel, aluminium, non-ferrous metal
FS 5	Red	63	Stainless steel, steel, aluminium, non-ferrous metal
AL	Brown	120	Stainless steel, steel, aluminium, non-ferrous metal
ZO	Brown	125	Stainless steel, steel, aluminium
ALV	Brown	300	Stainless steel, steel, aluminium, non-ferrous metal
WKZ 2000	Green	125	Stainless steel, steel, aluminium, non-ferrous metal

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

Performance overview



Characteristics

- Contains no chlorinated additives
- Good temperature stability, as it is based on synthetic base oils
- Optimum wetting and adhesion capabilities
- For outstanding lubricating properties and increased life expectancy of stamping and forming tools

Application

- Hydroforming
- For extreme pressure loads without stripping the lubricant film, even with long friction surfaces
- For the commissioning of new tools (WKZ 2000)
- Cost-effective, defined lubrication with Raziol IHU external lubricants possible in conjunction with Raziol application systems such as roller lubricators or spray systems



Product overview of IHU external lubricants

Product	Colour	Viscosity at 40°C [mm²/s]	Application
IHU 340 Mg	Yellow	340	<p>Base synthetic ester</p> <p>This product was specially developed for the machining of magnesium components</p> <p>More temperature-stable than conventional mineral oil-based IHU lubricants</p>
IHU 1000 Mg	Yellow	1000	<p>Base synthetic ester</p> <p>This product was specially developed for the machining of magnesium components</p> <p>More temperature-stable than conventional mineral oil-based IHU lubricants</p>

The above information on the application area is based on laboratory tests and practical experience. This information does not relieve the user of the responsibility of testing the suitability of the lubricant for his application and downline processes. We reserve the right to make amendments due to new laws, regulations, findings, etc.

All lubricants in this series are free of silicone or chlorine-based additives.



Special products for lubricating

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Raziol RSP

High-performance cutting oil

- Cutting oil for steel, stainless steel and aluminium
- Contains special refined mineral oils with high-performance additives
- Extends tool service life and improves the surface quality of workpieces
- Reduces built-up edges
- Not suitable for non-ferrous metals

Raziol WKZ

Tool running-in spray

- Specially developed for commissioning new tools
- Improves the tool contact pattern
- Suitable for severe shaping on fine, medium and coarse sheets
- Creates an extremely pressure-resistant lubricant film and is even suitable for extreme drawing operations
- High performance due to chlorinated additive



Raziol CPS

Corrosion protection spray

- Prevents formation of rust and corrosion
- Raziol CPS infiltrates, lubricates, cleans, prevents corrosion and displaces moisture
- Frees screws and bolts rusted fast
- Cleans and protects all exposed parts such as weapons, angling accessories, diving, ski and golf equipment
- Prevents the formation of rust and corrosion during storage of metal parts, tools and instruments



Raziol RLM

Rust solvent

- Suitable for all mechanical repairs
- Frees all parts rusted fast
- Extreme creeping properties, contains MoS₂
- Keeps parts moving smoothly and free of corrosion
- Prevents malfunctions caused by water and moisture





Raziol RMS

Installation spray

- Keeps moving parts moving smoothly and free of corrosion
- Extreme creeping properties
- Temperature resistant up to 180°C
- Also ideal for brass fittings and forging presses
- For hinges, blocks, hoists, cable, chain and Bowden pulleys and screw connections of all types



Raziol ZFS

Gear spray

- For strong lubrication and long-term corrosion protection
- Creates a durable tough elastic lubricant and adhesive film
- Only changes its consistency at 80 - 100°C
- Resistant to water and chemicals
- Also suitable for lubricating conveyor chains, sprockets, cables, gear racks, etc.



Raziol RSW

Adhesive spray

- White spray grease with PTFE
- Suitable for lubricating, maintenance and installation in all technical areas
- Suitable for the food industry (conforms to USDA H1)
- Extreme creeping properties
- Resistant to cold and hot water, salt water and many kinds of alcohol and acid
- Does not contain mineral oil or silicones



Raziol RFF

Liquid chain grease

- For maintenance and lubrication of joints, hinges, locks, chains, cables, etc.
- Excellent creeping properties mean it sets in the surface roughness and creates a long-lasting lubricant
- Generally O-ring neutral
- Resistant to cold and hot water, salt water and common cleaning agents

RES installation cleaner



- Powerful degreaser
- Leaves behind a completely dry surface free of residue (contains acetone)
- Removes oil, grease, resinous lubricants, abrasion residue and other dirt
- For machinery, motor or gear parts, bearing casings, brakes, clutch cables, etc.

Raziol hand protective foam



- Highly effective hand protection lotion for use in industrial operations, clinically tested
- Protects the skin for approx. four hours when working with grease, emulsions and solvents
- Extremely fast absorption into the skin
- Does not leave any greasy residues
- Not water-soluble

RCC citrus cleaner



- Special vegetable solvent
- Effectively removes excess adhesive and sealing agents, grease, wax, bitumen and paint splashes, etc.
- Developed for the entire industrial area
- Contains no chlorinated additives
- Avoid overuse on rubber and varnish/paint

Production, workshop or maintenance:

- Our spray can range is now also available in a practical carrier system!



Carrier system for Raziol spray cans

Carrier system

- Holder for spray cans in the Raziol spray can range
- Practical design for transporting Raziol spray cans
- Carrier system can be divided and wall mounted to save space
- Enables rapid and uncomplicated reactions during work
- System can be ordered as an accessory or is included in an order quantity of at least four cartons of Raziol spray cans

Carrier system for Raziol spray cans, divided and mounted



Description

- Automatic lubricant dispensers
- The grease is pressed into the bearing from a refillable container by a stainless steel spring
- The grease only flows if the bearing is running
- Simple installation in any position
- Easy refilling with the grease gun
- Grease should not leak and be continually homogenous during use
- Readable lubricant consumption
- Maintenance-free

Version

- Series 200 light version
- Series 300 heavy version
- Series 500 for chemically aggressive media

Application

- Series 200 for most roller and friction bearings
- Series 300 for bearings in eccentric presses, agitators, stone mills, construction machinery, pumps
- Series 500 for use in the chemical and food industry



Product overview of Raziol automatic lubricant dispensers

Part no.	Designation	Capacity [g]	Height [mm] H	Pressure gauge [mm] D
1077000202	LUBE 202	28	92	45
1077000205	LUBE 205	56	120	61
1077000302	LUBE 302	28	89	45
1077000305	LUBE 305	56	120	61
1077000360	LUBE 360	170	152	76.2
1077000502	LUBE 502	28	89	45



Lubricating Grease

Special grease for different applications

Raziol BH

Hot bearing lubricating grease

- Used for lubrication of roller and friction bearings at high bearing temperatures
- Suitable for lubrication in household appliances, rotary kilns and sintering plants
- Oxidation resistant, non-dripping and water resistant, very squeeze stable with a temperature range of -15°C to +150°C



Raziol MLI P

High-performance grease in cartridge

- Used for lubrication of roller and friction bearings under high pressure loads, including intermittently, and vibration
- Oxidation resistant, water resistant, very squeeze stable, good anti-corrosion properties, high pressure absorption, adhesive, temperature range -30°C to +130°C



Lubricating Grease

Special grease for different applications

Raziol RHT

Hot screw releasing agent

- Use for releasing stubborn screw connections (even after annealing at 700°C)
- Excellent corrosion protection and particularly adhesive
- high pressure absorption capacity



We would be more than happy to provide you with information on the special features of lubricants and support during trials with our application technology.

Please contact us:

Phone: +49 2374 5000-0

E-mail: info@raziol.com

Raziol®
Zibulla & Sohn GmbH

Hagener Straße 144 - 152
58642 Iserlohn
Germany

Phone.: +49 2374 5000-0
Fax: +49 2374 5000-12
E-mail: info@raziol.com
Web: www.raziol.com