

VOITLÄNDER-INTERNATIONAL

WEBSITE

www.voitlaender-international.com/qr/fullysynthetic/website/



VOITLÄNDER

INTERNATIONAL

HIGH PERFORMANCE MEETS RESPONSIBILITY
• LUBRICANTS FOR A NEW GENERATION.

FULLY SYNTHETIC
METALWORKING FLUIDS
• WATER-MISCIBLE,
MINERAL OIL-FREE

Voitländer-International, your partner for high-performance lubricants in modern metalworking, where precision and quality make the difference.

MADE IN GERMANY

ISO 9001:2015 CERTIFIED

FULL PRODUCT RANGE
ONLINE

www.voitlaender-international.com/qr/fullysynthetic/range/



TECHNICAL SERVICE

Comprehensive analysis

detailed examination of your in-service metalworking fluids for optimal performance

Experience and know-how

decades of expertise in lubricant development and customization

Precise recommendations

custom-tailored solutions based on exact laboratory results

Innovative technologies

state-of-the-art testing methods for maximum quality and efficiency

Partnership

we support you from the first idea to final implementation

ABOUT US

ABOUT VOITLÄNDER-INTERNATIONAL

• INNOVATION MEETS EXPERIENCE

- ◆ **Voitländer-International unites more than 180 years of German lubricant manufacturing with the innovative drive of a modern startup. From the fusion of a heritage company dating back to 1843 with LubeLabs, a young specialist focused on high-performance industrial lubricants, a new brand emerged: the best of both worlds, heritage and innovation combined.**
- ◆ **Today, Voitländer-International develops and produces industrial lubricants for applications where precision and quality are decisive. This catalog presents our fully synthetic, water-miscible metalworking fluids: mineral oil-free solutions for grinding, machining and forming. They are part of a full-range portfolio of more than 2,000 high-quality products, made in Germany and certified to ISO 9001:2015.**
- ◆ **What sets us apart is not only the product, but the partnership: our laboratory analyzes your in-service metalworking fluids, adapts formulations to your process and supports you from the first idea to the final implementation. Custom-tailored solutions are based on exact laboratory results.**

Our roots: the original Voitländer works, est. 1843, merged with LubeLabs (Green Industrial Lubricants) to form Voitländer-International. Innovation meets experience, setting tomorrow's standards.



PRODUCT OVERVIEW

PRODUCT SELECTOR · WHICH FULLY SYNTHETIC FITS YOUR APPLICATION?

Seven fully synthetic, water-miscible metalworking fluids: all mineral oil-free, all forming true, transparent solutions when diluted. From the grinding specialist to the renewable-ester high performer. All values from the current technical data sheets.



PRODUCT	RECOMMENDED CONCENTRATION	REFRACTOMETER FACTOR	POSITIONING	PAGE
Syntholab P100	6-10 %	2.4	Grinding specialist, equally capable in general machining	4
Syntholab P200	6-10 %	1.2	Universal all-rounder with outstanding lubricity	5
Syntholab AERO	6-10 %	1.3	Precision machining and optics manufacturing · meets ZEISS requirements regarding prohibited substances	6
Syntholab Brass	5-8 % (steel) · 6-10 % (aluminum)	1.3	Copper-alloy specialist, equally strong on aluminum and alloyed steels	7
Syntholab P 100 PLUS	5-10 % (machining and forming)	2.2	Machining, peeling and grinding on steel, stainless steel and cast iron	8
Syntholab P 110 PLUS	5-10 % (machining) · 3-5 % (grinding)	1.7	Forming specialist · ideal for tube forming on steel and stainless steel	9
Syntholab BIO PLUS	5-8 % (machining) · 8-10 % (forming)	1.1	Based on renewable synthetic esters · amine-free high performance	10

Refractometer factor: concentration % = °Brix reading × factor. Rating scale used on all product pages: O = not recommended · + = suitable · ++ = good · +++ = very good · ++++ = excellent

Syntholab P100

The grinding specialist that also machines: one transparent solution for steel, non-ferrous metals and engineering plastics.

Syntholab P100 is a modern, mineral oil-free metalworking fluid developed specifically for grinding, and just as capable when machining steel and non-ferrous metals. Its special formulation even accommodates a range of engineering plastics. Diluted with water, it forms a true, transparent solution whose high stability keeps central systems and stand-alone machines running with little maintenance. Free from boron and formaldehyde-releasing agents, P100 pairs excellent corrosion protection with dependable everyday performance: the grinding specialist of the Syntholab range.

TECHNICAL BENEFITS

- DEVELOPED FOR GRINDING, EQUALLY CAPABLE IN GENERAL MACHINING
- FORMS A TRUE, TRANSPARENT SOLUTION WITH HIGH SOLUTION STABILITY
- FOR CENTRAL SYSTEMS AND STAND-ALONE MACHINES
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS
- EXCELLENT CORROSION PROTECTION (DIN 51360/2)

KEY DATA

CONCENTRATION	6-10 % (general application)
REFRACTOMETER FACTOR	2.4
CORROSION TEST	DIN 51360/2, rating 0/0 at 4 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
+++	Steel
+++	Cast iron
+++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Grinding of steel and cast iron components; general machining of steel, non-ferrous metals and engineering plastics in central systems and stand-alone machines.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

TDS / SDS

/qr/fullysynthetic/syntholab-p100/



All data are typical values, not specifications. Always refer to the current TDS and SDS.

Syntholab P200

The universal fully synthetic: outstanding lubricity, corrosion protection proven from just 3 %.

Syntholab P200 is the universal fully synthetic for the full breadth of machining operations. Outstanding lubricity makes even difficult operations possible with process security, while the true, transparent solution it forms keeps quality predictable shift after shift. Its corrosion protection stands out in numbers: rating 0/0 already at 3 % concentration in the DIN 51360/2 test, comfortably below the minimum operating concentration. Mineral oil-free and free from boron and formaldehyde-releasing agents, P200 is the dependable all-rounder for central systems and stand-alone machines alike.

TECHNICAL BENEFITS

- UNIVERSAL FLUID FOR A BROAD RANGE OF MACHINING OPERATIONS
- OUTSTANDING LUBRICITY FOR DIFFICULT OPERATIONS
- CORROSION PROTECTION RATING 0/0 AT 3 % (DIN 51360/2)
- FORMS A TRUE, TRANSPARENT SOLUTION WITH HIGH SOLUTION STABILITY
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS

KEY DATA

CONCENTRATION	6-10 % (general application)
REFRACTOMETER FACTOR	1.2
CORROSION TEST	DIN 51360/2, rating 0/0 at 3 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
+++	Steel
+++	Cast iron
+++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Universal machining of steel, cast iron and aluminum in central systems and stand-alone machines; operations with elevated lubricity demands.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

TDS / SDS

/qr/fullysynthetic/syntholab-p200/



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Syntholab AERO

Precision machining and optics manufacturing: meets ZEISS requirements regarding prohibited substances.

Syntholab AERO is the high-performance fully synthetic for precision machining and optics manufacturing. It meets ZEISS requirements regarding prohibited substances: the formulation of choice for production environments with strict substance-compliance rules. Outstanding lubricity carries difficult, tolerance-critical operations on aluminum, steel and cast iron, while the true, transparent solution it forms delivers high solution stability in central systems and stand-alone machines. Mineral oil-free and free from boron and formaldehyde-releasing agents, AERO combines very good corrosion protection with the formulation discipline that precision industries demand.

TECHNICAL BENEFITS

- MEETS ZEISS REQUIREMENTS REGARDING PROHIBITED SUBSTANCES
- DEVELOPED FOR PRECISION MACHINING AND OPTICS MANUFACTURING
- OUTSTANDING LUBRICITY FOR TOLERANCE-CRITICAL OPERATIONS
- FORMS A TRUE, TRANSPARENT SOLUTION WITH HIGH SOLUTION STABILITY
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS

KEY DATA

CONCENTRATION	6-10 % (general application)
REFRACTOMETER FACTOR	1.3
CORROSION TEST	DIN 51360/2, rating 0/0 at 4 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
++++	Steel
++++	Cast iron
++++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
++++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Precision machining of aluminum, steel and cast iron components; optics manufacturing and other production environments with substance-compliance requirements.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

TDS / SDS

/qr/fullysynthetic/syntholab-aero/



All data are typical values, not specifications. Always refer to the current TDS and SDS.

Syntholab Brass

Made for yellow metals: clear, low-foaming solutions, minimal residue, full performance on steel and aluminum.

Syntholab Brass is the copper-alloy specialist of the Syntholab range: a mineral oil-free fully synthetic with excellent cooling and lubricating properties. The concentrate forms clear, low-foaming solutions and leaves only minimal residues on workpieces and machines. Developed for machining non-ferrous metals, above all brass, bronze and copper, it performs equally well on aluminum and alloyed steels. For mixed-material shops, Brass covers yellow metals and ferrous workloads with a single fluid.

TECHNICAL BENEFITS

- DEVELOPED FOR COPPER ALLOYS (BRASS, BRONZE) AND PURE COPPER
- CLEAR, LOW-FOAMING SOLUTIONS WITH MINIMAL RESIDUE
- EQUALLY STRONG ON ALUMINUM AND ALLOYED STEELS
- VERY GOOD CORROSION PROTECTION (DIN 51360/2)
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS

KEY DATA

CONCENTRATION	5-8 % (steel machining) · 6-10 % (aluminum machining)
REFRACTOMETER FACTOR	1.3
CORROSION TEST	DIN 51360/2, rating 0/0 at 4 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
+++	Steel
+++	Cast iron
+++	Aluminum
++++	Copper alloys (brass, bronze)
++++	Copper (pure)
+++	Plastics

● = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Machining of brass, bronze, copper and other non-ferrous metals; mixed-material production alongside aluminum and alloyed steels.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

TDS / SDS
[/qr/fullysynthetic/syntholab-brass/](https://qr.fullysynthetic.com/syntholab-brass/)



All data are typical values, not specifications. Always refer to the current TDS and SDS.

Syntholab P 100 PLUS

Machining, peeling, grinding: excellent grinding performance on steel, stainless steel and cast iron.

Syntholab P 100 PLUS was developed for machining, peeling and grinding operations on steel, stainless steel and cast iron, and it excels at grinding. Forming is a documented application at 5-10 % concentration, making it the versatile PLUS fluid for plants that cut, peel, grind and form on shared systems. The mineral oil-free formulation forms a true, transparent solution with high solution stability and very good corrosion protection. Free from boron and formaldehyde-releasing agents, P 100 PLUS is built for daily heavy use in central systems and stand-alone machines.

TECHNICAL BENEFITS

- FOR MACHINING, PEELING AND GRINDING ON STEEL, STAINLESS STEEL AND CAST IRON
- EXCELLENT GRINDING PERFORMANCE
- FORMING DOCUMENTED AS AN APPLICATION (5-10 %)
- FORMS A TRUE, TRANSPARENT SOLUTION WITH HIGH SOLUTION STABILITY
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS

KEY DATA

CONCENTRATION	5-10 % (machining) · 5-10 % (forming)
REFRACTOMETER FACTOR	2.2
CORROSION TEST	DIN 51360/2, rating 0/0 at 4 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
+++	Steel
+++	Cast iron
+++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
+++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Grinding and peeling of steel and stainless steel; machining of cast iron; forming operations on shared coolant systems.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

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Syntholab P 110 PLUS

The forming specialist: ideal for tube forming on steel and stainless steel.

Syntholab P 110 PLUS is the forming specialist of the PLUS family, ideal for tube forming on steel and stainless steel. Its high-performance formulation masters difficult forming operations, and as a grinding fluid it performs at an economical 3-5 % concentration. The transparent, mineral oil-free solution offers very good corrosion protection and high solution stability in central systems and stand-alone machines. Where forming quality decides the job, P 110 PLUS delivers, batch after batch.

TECHNICAL BENEFITS

- IDEAL FOR TUBE FORMING ON STEEL AND STAINLESS STEEL
- GRINDING PERFORMANCE AT AN ECONOMICAL 3-5 % CONCENTRATION
- HIGH LUBRICITY FOR DIFFICULT FORMING OPERATIONS
- FORMS A TRUE, TRANSPARENT SOLUTION WITH HIGH SOLUTION STABILITY
- MINERAL OIL-FREE; FREE FROM BORON AND FORMALDEHYDE-RELEASING AGENTS

KEY DATA

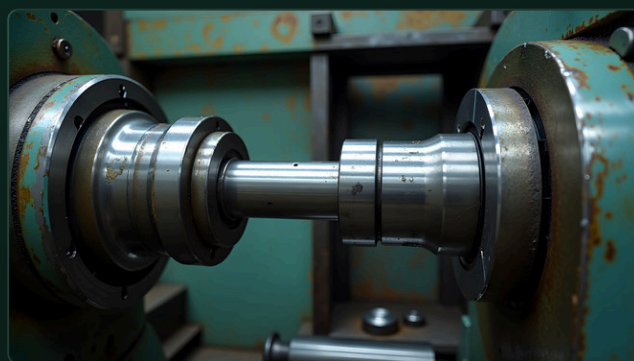
CONCENTRATION	5-10 % (machining) · 3-5 % (grinding)
REFRACTOMETER FACTOR	1.7
CORROSION TEST	DIN 51360/2, rating 0/0 at 4 % concentration · even below the minimum operating concentration
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
++++	Steel
++++	Cast iron
++++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
++++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Tube forming and difficult forming operations on steel and stainless steel; grinding at low concentrations; heavy-duty machining.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

All data are typical values, not specifications. Always refer to the current TDS and SDS.



Syntholab BIO PLUS

High performance based on renewable synthetic esters: amine-free, with very good skin compatibility.

Syntholab BIO PLUS is the high-performance fully synthetic based on renewable synthetic esters. The advanced formulation combines excellent lubricity with outstanding bio-stability, and it is free from amines, boron and formaldehyde-releasing agents. Very good skin compatibility and optimized, low foaming behavior make it the strong choice for aluminum machining, in central systems and stand-alone machines alike. BIO PLUS is the answer for plants that place operator health on the same level as cutting performance.

TECHNICAL BENEFITS

- BASED ON RENEWABLE SYNTHETIC ESTERS
- FREE FROM AMINES, BORON AND FORMALDEHYDE-RELEASING AGENTS
- OUTSTANDING BIO-STABILITY FOR EXTENDED SUMP LIFE
- VERY GOOD SKIN COMPATIBILITY
- OPTIMIZED, LOW FOAMING BEHAVIOR · IDEAL FOR ALUMINUM MACHINING

KEY DATA

CONCENTRATION	5-8 % (machining) · 8-10 % (forming)
REFRACTOMETER FACTOR	1,1
PACK SIZES	pail 20 L · drum 208 L · IBC 1,000 L

MATERIAL SUITABILITY

RATING	MATERIAL
+++	Steel
+++	Cast iron
++++	Aluminum
++	Copper alloys (brass, bronze)
○	Copper (pure)
+++	Plastics

Suitable for copper alloys (brass, bronze); not recommended for pure copper.

○ = not recommended + = suitable ++ = good +++ = very good
++++ = excellent



TYPICAL APPLICATIONS Machining of aluminum at 5-8 % concentration; forming operations at 8-10 %; plants with elevated occupational-health requirements.

FOR FURTHER DETAILS AND INFORMATION:

Contact our technical service to request the current technical data sheet (TDS) and safety data sheet (SDS) for detailed product, application, disposal and safety information.

TDS / SDS
[/qr/fullysynthetic/syntholab-bio-plus/](https://qr.fullysynthetic/syntholab-bio-plus/)



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SERVICES

OUR SERVICES • MORE THAN A PRODUCT

The right fluid is only the beginning. Voithlender-International supports your process with laboratory expertise and custom development: services that large corporations reserve for their largest accounts.

01**FREE FLUID ANALYSIS**

detailed examination of your in-service metalworking fluids for optimal performance and sump life

02**CUSTOM-TAILORED DEVELOPMENT**

formulations adapted to your materials, water quality and process

03**LABORATORY AND TECHNICAL SERVICE**

precise recommendations based on exact laboratory results

04**RESEARCH AND DEVELOPMENT**

state-of-the-art testing methods for maximum quality and efficiency

05**TRAMP OIL AND BATH MAINTENANCE GUIDANCE**

keep your coolant stable and your machines clean

REQUEST A FREE FLUID ANALYSIS

technology@voitlaender-international.com

CONTACT

</qr/fullysynthetic/contact/>



AN INDUSTRY PARTNER FOR MORE THAN 180 YEARS

High Performance Meets Responsibility · Lubricants for a New Generation.



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