3

Metalworking

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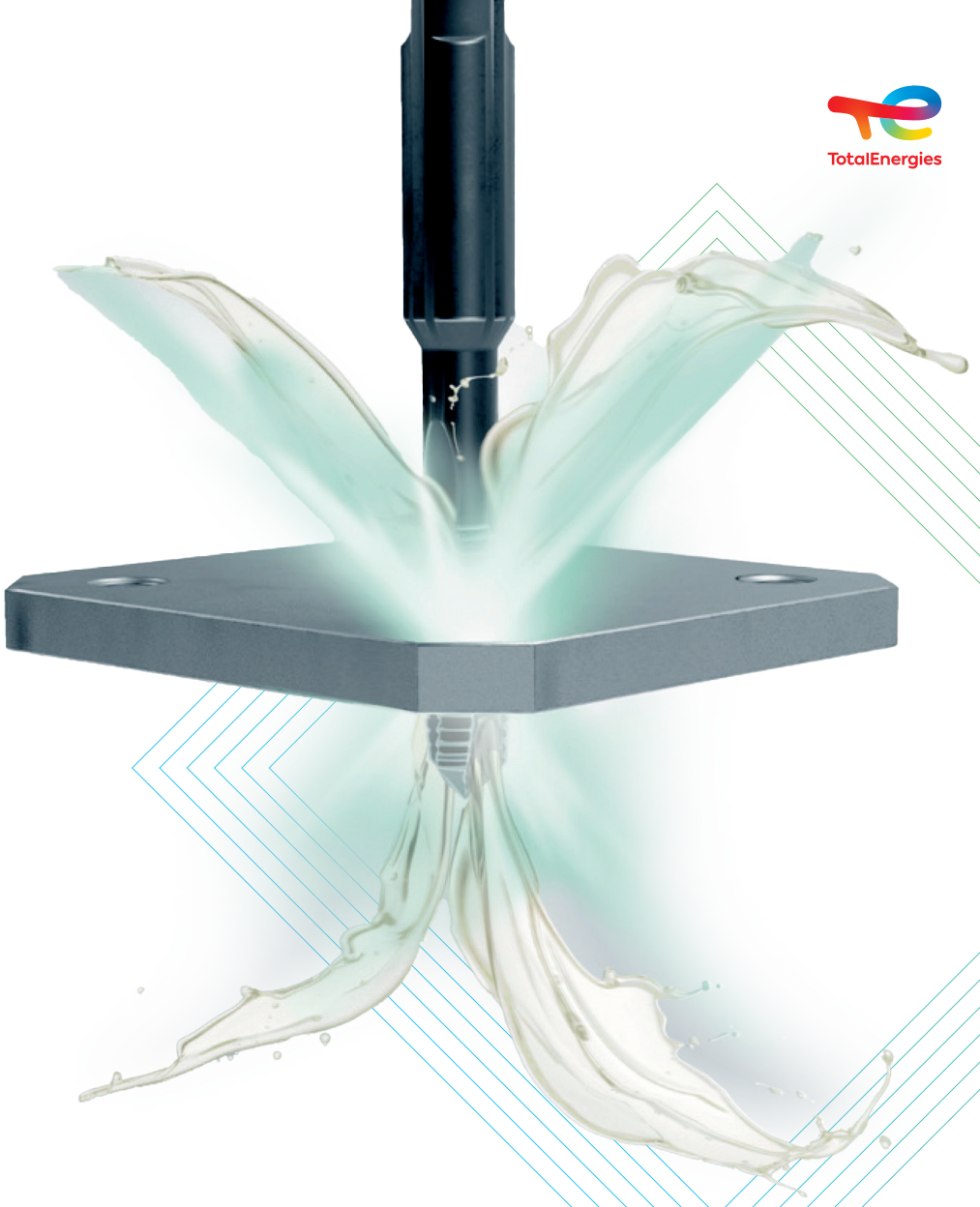
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3 METALWORKING
Innovative synthetic fluid technology

The **Folia** range is an advanced metalworking fluid technology, free from mineral oil and emulsifiers, with no hazard pictograms.

Representing the perfect compromise between lubricity and cooling, Folia delivers exceptionnal performance across various metalworking applications.

HEALTH

- Less hazardous substances
- Boron-free technology
- Free of hazard labeling

SAFETY

- Less odor
- Reduced risk of dermatosis
- Less oil mist
- Cleaner work environment

PERFORMANCE

- Extended tool lifespan
- Longer drain intervals
- Lower fluid consumption
- Increased productivity



OUR LUBRICANTS PROTECT FAR MORE THAN YOUR TOOLS

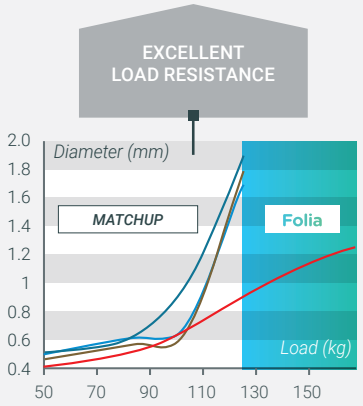
APPEARANCE AFTER MACHINING



Folia maintains its transparent aspect over time thanks to its emulsifier-free technology, which enables efficient tramp oil separation and extends bath service life.

FOUR-BALL TEST
ASTM: D2783

When fully immersed in **Folia**, the four balls resist welding even under extremely high loads, and the wear diameter remains remarkably low. This exceptional performance not only delivers significant tool savings but also makes **Folia** suitable for a wide variety of operations from turning and milling to threading and tapping even in applications where conventional straight oils are typically required.



3 METALWORKING
Innovative synthetic fluid technology

Cost savings | **Eco-friendly** | **Increased productivity** | **More satisfied operators** | **Less maintenance**

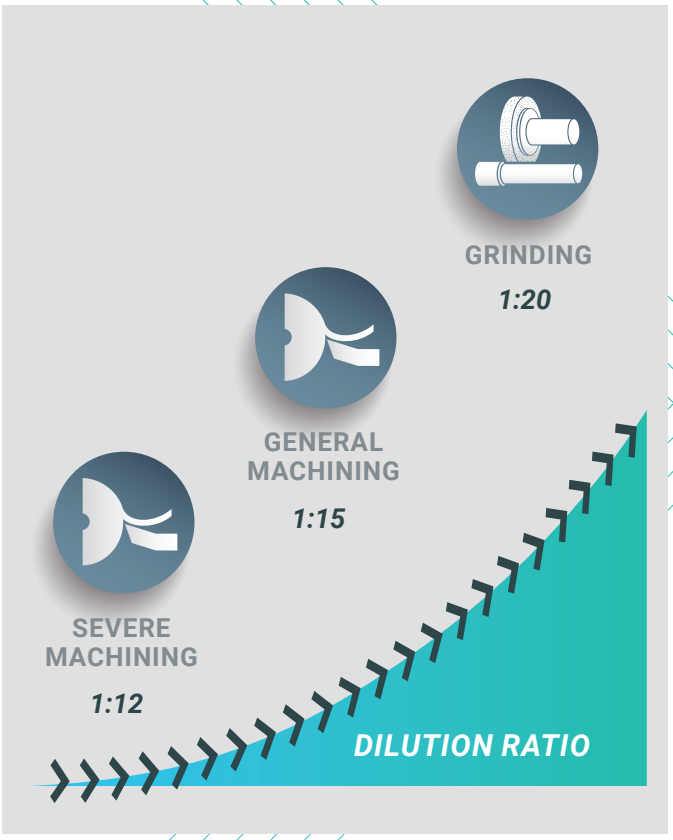
The **Folia** range offers tailored products that cover a wide range of applications, delivering the performance needed to meet customer requirements. All **Folia** products are readily biodegradable according to OECD 301 F.

Folia

PRODUCT	MATERIALS							OPERATIONS		
	Cast Iron	Carbon Steels	High alloyed steels	Aluminium (If > 7%)	Aluminium (If < 7%)	Yellow Metals	Inconel & Titanium alloys	Grinding	Milling, Turning, Sawing, Drilling, Reaming	Threading, Tapping
Folia A 7000	•	••	••	•••	•••	••	•		•••	••
Folia B 7000 D	•••	•••	•••	••			••	••	•••	••
Folia G 3000	•••	•••	••				••	•••		
Folia G 5000	•••	•••	•••				••	•••	•	

Key: • Possible •• Suitable ••• Recommended

◆ **MULTI-FUNCTIONAL PRODUCT**



3 METALWORKING
Semi-synthetic fluid technology

Our **Spirit** range offers robust and reliable semi-synthetic solutions designed to handle a wide variety of machining operations across a broad selection of materials. Combining versatility, stability, and consistent performance, these fluids ensure efficient machining, long tool life, and excellent surface finish in everyday production environments.

The **Spirit AIR** range has been specifically developed to deliver boosted lubricity for the most demanding machining operations. Engineered to perform on sensitive materials commonly used in the aerospace industry, it ensures stable machining conditions, excellent tool protection, and consistent surface quality all to meet the most stringent applications in various demanding industries. The **Spirit AIR** range includes products approved by Safran and others that meet the requirements for Airbus, Boeing, Bombardier, Rolls-Royce, and MTU.

Spirit

PRODUCT	MATERIALS							OPERATIONS			OEM SPECIFICATIONS	
	Cast Iron	Carbon Steels	High alloyed steels	Aluminium (If > 7%)	Aluminium (If < 7%)	Yellow Metals	Inconel & Titanium alloys	Grinding	Milling, Turning, Sawing, Drilling, Reaming	Threading, Tapping	Approvals	Meets requirements for
Spirit 3000 series	•••	•••	•••				••	•••	•			
Spirit 5000 series	•••	•••	•••	••		•	•	•••	•••	•		
Spirit 6000 series	••	•••	••	•••	•••	•••	••	•	•••	••		
Spirit 7000 series	•••	•••	•••	•••	•••	•••	•••	•	•••	•••		
Spirit WBA 5600	•	•••	••	•••		•••	•	•	•••	••		
Spirit D 6000 AIR	••	•••	•••	•••	•••	•••	••	•	•••	••	Safran	Airbus, Bombardier
Spirit D 7000 AIR	•	•••	•••	•••	••	•••	•••		•••	•••	Safran (Ti)	Airbus
Spirit D 9000 AIR	•	•••	•••	•••	•••	•••	•••		•••	•••	Safran	Bombardier, Airbus, Airbus Canada, Boeing, MTU, Rolls Royce

WBA Boron & Amine free

Key: • Possible •• Suitable ••• Recommended

Aerospace approved product

Mineral oil-free, ester-based product

3 METALWORKING
Semi-synthetic fluid technology

The **Spirit X** range offers a safe and operator-friendly solution for modern machining needs. Both biocide-free and label-free, this semi-synthetic line delivers excellent performance across a wide variety of machining operations and materials.

Several products in the range are also formulated without mineral oil and instead use high-lubricity plant based esters to meet customer requirements.

Spirit X

PRODUCT	MATERIALS							OPERATIONS		
	Cast Iron	Carbon Steels	High alloyed steels	Aluminium (If > 7%)	Aluminium (If < 7%)	Yellow Metals	Inconel & Titanium alloys	Grinding	Milling, Turning, Sawing, Drilling, Reaming	Threading, Tapping
Spirit 3000 X	•••	•••	•••				••	•••	•	
Spirit 5000 X	•••	•••	•••	••	•	•	•	•••	•••	•
Spirit 6000 X	••	•••	••	•••	•••	•••	•	•	•••	••
Spirit 7000 X	•••	•••	•••	•••	•••	•••	•••	•	•••	•••

X Biocide free

Key: • Possible •• Suitable ••• Recommended

Mineral oil-free, ester-based product

3 METALWORKING
Macro-emulsion cutting fluids

Lactuca is a range of macroemulsions formulated for applications where a high mineral-oil content is required, whether due to the nature of the application or to machine OEM specifications.

Lactuca

PRODUCT	MATERIALS							OPERATIONS		
	Cast Iron	Carbon Steels	High alloyed steels	Aluminium (If > 7%)	Aluminium (If < 7%)	Yellow Metals	Inconel & Titanium alloys	Grinding	Milling, Turning, Sawing, Drilling, Reaming	Threading, Tapping
Lactuca LT 3000	•	•••	••	•		•••			•••	••
Lactuca WBF 9400	•	•••	•••	••		••	•		•••	•••

LT Yellow metals
WBF Boron- and formaldehyde-free

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Neat cutting oils

Valona cutting oils are a range of neat oils designed to cover a broad spectrum of machining operations, from light to severe, across a variety of materials. They incorporate components that help improve health and safety while reducing environmental impact.

The **Valona HC** product line is formulated with advanced mineral base oils that undergo deep refining processes, making them:

- **Operator friendly:**
  - Low odor
  - Transparent
  - Low in PAHs*
  - Low evaporation
- **Highly efficient:**
  - Low-mist
  - Low-foam
  - Lower consumption
  - Extended tool life

The **Valona HC** product line is formulated exclusively with hydro-cracked oils, free of chlorine and polycyclic aromatic hydrocarbons (PAHs), with Benzopyrene (BAP) levels below detectable thresholds.

The **Valona GR** range offers products tailored for various grinding, honing, lapping, shaving and light machining operations, with a selection of viscosities and additive packages designed to meet various process requirements.

Valona GR

PRODUCT	MATERIALS				OPERATIONS				VISCOSITY AT 40°C (CST)
	Steel	Stainless steel	Titanium	Caribde tool	Honing	Grinding to light machining	General machining	Severe machining	
Valona GR 3008 HC	•••	•••	•••		•••	•			8
Valona GR 5005 HC	•••	•••	•••		•••	•			5
Valona GR 7007 HC	•••	•••	•••		•••	••			8
Valona GR 7012 HC	•••	•••	•••		•	••	••		16
Valona GR 9005 HC	•	•	•	•••	•••	•••			6
Valona GR 9018 HC	•••	•••	•••		•	•••	••		18

*Polycyclic Aromatic Hydrocarbons (PAHs)

GR Grinding and/or Honing

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Neat cutting oils

Valona MS is a versatile range designed for general machining operations of ferrous and non-ferrous alloys, offering excellent performance in a wide range of cutting conditions.

Valona MS

PRODUCT	MATERIALS					OPERATIONS				VISCOSITY AT 40°C (CST)
	Steel	Stainless steel	Aluminium	Yellow metals	Titanium	Honing	Grinding to light machining	General machining	Severe machining	
Valona MS 5009 HC	•••	•	•••	•••	•	••	•••	•		9
Valona MS 5020 HC	•••	•	•••	•••	•		•	•••	•	24
Valona MS 5032 HC*	•••	•	•••	•••	•			•••	••	33
Valona MS 7009 HC	•••	••	•••	•••	••	••	•••	••	•	11
Valona MS 7015 HCE**	•••	••	•••	•••	••			•••	••	15
Valona MS 7116 HC	•••	•••	•••	•••	•••			•••	•••	15
Valona MS 7023 HC	•••	•••	•••	•••	•••			•••	•••	25

*Can be used for machine tool lubrication (ISO VG 32 - DIN 51502 HLPD 32) **Free of H304 Labeling

MS Machining of ferrous and non-ferrous metals

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Neat cutting oils

Valona ST range is designed for medium-to-severe machining operations on high alloyed steel components, providing excellent anti-wear and extreme-pressure performance.

Valona BR is specifically formulated for broaching applications, where exceptionally high EP additive content is required to withstand extreme loads and maintain tool integrity.

Valona MQL is designed for minimum-quantity lubrication systems, optimized for both internal dual-channel (2-voies) and external spray configurations.

Valona ST/Valona BR/Valona MQL

PRODUCT	MATERIALS					OPERATIONS				VISCOSITY AT 40°C (CST)
	Steel	Stainless steel	Aluminium	Yellow metals	Titanium	Honing	Grinding to light machining	General machining	Severe machining	
Valona ST 9013 HC	•••	•••			•••		••	•••	•••	13
Valona ST 9122 HC	•••	•••			•••			•••	•••	23
Valona ST 9037 HC	•••	•••			•••			•••	•••	40
Valona BR 9015 HC	•••	•••			•••			•••	•••	18
Valona MQL 5035	•••	••	•••	•••				•••		36
Valona MQL 3046			•••					•••		45

ST Machining of various steel alloys
BR Broaching
MQL Minimum quantity lubrication

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Neat cutting oils

Valona Bio is a 100% biodegradable synthetic fluid formulated with vegetable based oils. Free from polycyclic aromatic hydrocarbons and benzo[a]pyrene compounds, **Valona Bio** offers an environmentally responsible solution that meets all your performance requirements.
It is also suitable for use in small quantities, making it an ideal choice for micro-quantity lubrication (MQL) applications.

Higher flash point than conventional mineral-based oils, improving process safety.

Excellent HSE profile with no hazard labeling, even for low-viscosity grades (no H304).

Free of aromatic compounds, ensuring a cleaner and safer working environment.

- Superior wettability, resulting in reduced oil drag-out and lower product consumption.
- Outstanding lubricity thanks to its vegetable-ester base.
- Clearer product appearance, providing better visibility of the machining zone.

Valona Bio

PRODUCT	MATERIALS					OPERATIONS				VISCOSITY AT 40°C (CST)
	Steel	Stainless steel	Aluminium alloys	Titanium	Yellow metals	Honing	Grinding to light machining	General machining	Severe machining	ISO 3104
Valona GR 7007 Bio	•••	•••		•••		•••	•••	•••		8
Valona MS 7010 Bio	•••	••	•••	•••	•		•	•••		10
Valona MS 7016 Bio	•••	••	•••	•••	••		•	•••	•	15
Valona MS 7022 Bio	•••	••	•••	•••	•		•	•••	••	25
Valona MQL 3036 Bio	•••	•	•••	•	•			•••		36

GR Grinding and/or Honing
MS Machining of ferrous and non-ferrous metals
MQL Minimum quantity lubrication

Key: • Possible •• Suitable ••• Recommended

Bio-sourced ester based product

3 METALWORKING
Neat forming oils

The **Martol** range offers versatile and innovative products designed for metalforming applications that demand optimized lubrication. This includes:

- Reduced VOC emissions and improved air quality.
- Minimal or no degreasing step after the stamping operation.
- Enhanced forming capability for stringent processes.
- Longer tool lifetime and higher production rates.
- Decreased oil consumption.

Moreover, the **Martol EP CF** range is fully formulated without chlorinated paraffins, delivering excellent performance even in demanding forming operations without compromising efficiency or tool protection.

Our range of neat oils covers all the physical and chemical characteristics essential for the success of your cold-forming operations, including viscosity, lubricity, extreme-pressure and antiwear performance, and more. With our portfolio, you can be confident in finding the product that perfectly matches your requirements.

Whole oils

PRODUCT	MATERIALS				OPERATIONS			VISCOSITY AT 40°C (CST)
	Steel, galvanized steel	Stainless steel	Aluminium	Copper	Fin Stamping, Blanking, Punching	Drawing, bending	Deep drawing	
Martol EP 5 CF	•••	•			•••	•	•	4
Martol EP 65 CF	•••	••			•	•••	•	62
Martol EP 100 CF	•••	••			•	•••	••	101
Martol EP 150 CF	•••	••			•	•••	••	150
Martol EP 235 CF	•••	••			•	•••	•••	230
Martol EP 405 CF	•••	•••			•	•••	•••	385
Martol EP 79	•••	•••			•	•••	••	80
Martol EP 130	•••	••			•	•••	••	130
Martol EP 185	•••	•••			•	•••	•••	170

EP Designed for extreme-pressure applications
EP CF Chlorine free product designed for extreme-pressure applications

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Neat forming oils

Whole oils

PRODUCT	MATERIALS				OPERATIONS			VISCOSITY AT 40°C (CST)
	Steel, galvanized steel	Stainless steel	Aluminium	Copper	Fin Stamping, Blanking, Punching	Drawing, bending	Deep drawing	
Martol AL 20 HC	•	•	•••	••	•••	•••	•	26
Martol AL 60	•	•	•••	•••	•	•••	•	55
Martol AL 150	•	•	•••	•••	•	•••	•••	150

AL Aluminium

Oils for food contact

PRODUCT	MATERIALS				OPERATIONS			VISCOSITY AT 40°C (CST)
	Steel, galvanized steel	Stainless steel	Aluminium	Copper	Fin Stamping, Blanking, Punching	Drawing, bending	Deep drawing	
NSF **Martol** FMO 15 CF	•	•	•••	•••	•••	•••		15
NSF **Martol** FMO 75 CF	•	•	•••	•••	•••	•••	•	74

FMO Food grade products according to NSF 3H (also meets Kosher and Halal requirements)

Key: • Possible •• Suitable ••• Recommended

NSF H3 suitable for incidental food contact

3 METALWORKING
Vanishing forming fluids

Formulated from light hydrocarbon cuts, vanishing oils help reduce, or even eliminate the need for degreasing operations. They are ideally suited for medium-difficulty or high-throughput applications.

The **Martol AQ** range contains no VOCs and still offers a fast evaporation rate, further limiting degreasing requirements.

At the same time, its high flash point minimizes fire hazards, enhancing workshop safety and reducing all associated costs.

Evanescent oils

PRODUCT	MATERIALS					OPERATIONS			VISCOSITY AT 40°C (CST)
	Steel, galvanized steel	Stainless steel	Aluminium	Copper	Thickness (mm)	Fin Stamping, Blanking, Punching	Drawing, bending	Deep drawing	
Martol EV 10 CF	•		•••	•••	< 1.5	•••	•		1.5
Martol EV 10 AQ	•		•••	•••	< 2	•••	•		2.5
Martol EV 30 AQ	•	••	•••	•••	< 1,5	•••	•		2.73
Martol EV 40 CF	••	•	•••	••	< 4	•••	••		2
Martol EV 45 CF	•••	••	•••	•••	< 4	•••	••		2.6
Martol LVG 5 CF	•		••	•••	< 1	•••			1.4
Martol LVG 15 CF	••		•••	•••	< 1	•••	•		1.4
Martol LVG 25 CF	••		•••	•••	< 2	•••	••		1.7
Martol LVG 25 AQ	••		•••	•••	< 2	•••	••		2.8

EV Standard vanishing
LVG Thermal degreasing
CF Chlorine Free
AQ High Flash point and Chlorine Free

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING
Quenching oils

Drasta quenching oils offer a solution for all heat treatment needs and any type of facility. Formulated from base oils selected for their exceptional oxidation resistance, these oils can be used to improve the mechanical properties of your components at a lower cost.

Drasta C oils are cold quenching oils based on technology that reduces odors and raises the flash point to lower the risk of fire. Their very low volatility reduces evaporative losses, for greater user convenience users.

Their strong oxidation resistance extends the lifetime of the oil.

Drasta C oils are suited for all heat treatment needs.

Drasta H are hot quenching oils specially formulated to ensure a longer service life.

Drasta

PRODUCT	QUENCHING TEMPERATURE (°C)	MAXIMUM COOLING SPEED (°C/S)	FLASH POINT (°C)	APPLICATIONS
Drasta C 1022	20-80	53	230	• Steel hardening with high quenching capacity (torsion rods, springs)
Drasta C 5022	20-80	90	222	• Screws and bolts
Drasta C 7025	20-80	102	228	• Steels with initially high martensite content (sheet rolls)
Drasta C 9022	20-80	113	232	• Steels with initially low martensite content (bearings)
Drasta H 5160	120-160	91	282	• Gears

3 METALWORKING
EDM fluids

The **Diel** product line consists of multi-service fluids for spark erosion, from roughing to finishing.

Diel fluids are formulated from refined base oils and comply with health, safety and environmental regulations.

Diel EDM fluids also comply with European Union directives on VOC emissions.

Diel fluids offer:

- Extended bath life due to high oxidation resistance.
- Reduced risk of fire thanks to a high flash point.
- Safer use of the fluid, thanks to a very low aromatic content.

EDM

PRODUCT	APPLICATIONS	APPROVALS	SPECIFICATIONS	
			Viscosity*	Classifications
Diel MS 5000	• Roughing and semi-finishing	• Agie-Charmilles, Krupp-Nassovia	3.9	• ISO-L-MHA
Diel MS 7000	• Semi-finishing and finishing work for complex forms and precise dimensions	• Agie-Charmilles, Ona, Zimmler & Klein, Nassovia, Waldrich Siegen	2.4	• ISO-L-MHA, NADCAP (DMP66)
Diel MS 9000	• Finishing work on parts with difficult shapes and especially precise dimensions	• Agie-Charmilles, Zimmler & Klein, Nassovia, Waldrich Siegen	1.8	• ISO-L-MHA, NADCAP (DMP66)

*Typical kinematic viscosity at 40°C in mm²/s

MS Machining of ferrous and non-ferrous metals

3

METALWORKING

Post-treatment additives

The **Serade** product line consists of performance additives.

When used at the right time, on the recommendation of your technical advisor, these additives will help you extend the service life of your soluble baths.

The soluble LubAnac service can analyze your lubricant.

It provides you with an analysis report that profiles your lubricants so you can make better use of our **Serade** line of products as needed.

Post-treatment additives

PRODUCT	APPLICATIONS	FUNCTIONS
Serade System Cleaner System Cleaner X	• Detergent for machine tools • Biocide free detergent for machine tools	• Cleans the machinery prior to an oil change
Serade Antifoam Antifoam SF (silicone-free version)	• Anti-foaming agent for synthetic soluble emulsions and fluids	• Prevents foaming
Serade ACR Ferrous	• Corrosion inhibitors for ferrous metals	• Prevents corrosion of ferrous metals
Serade ACR Non-Ferrous	• Corrosion inhibitors for non-ferrous metals	• Prevents corrosion of non-ferrous metals
Serade WQ Minus	• An additive for reducing water hardness	• Prevents the formation of white deposits from excessively hard water
Serade WQ Plus	• An additive for increasing water hardness	• Prevents foaming due to soft water
Serade WQ Buffer	• Additive for increasing pH	• Extends the life of the bath
Serade AW Emulsion	• Anti-wear agent for emulsions	• Reduces friction wear
Serade AW Synthetic	• Anti-wear agent for synthetic oil	• Reduces friction wear
Serade STAB Synthetic	• Stabilizing additive for synthetic fluids	• For use in cases of severe contamination with grease or oil (e.g., quenching oil)

The product data sheets and your consulting technician can help you determine the right concentration of **Serade** post-treatment additives for your situation.

3 METALWORKING
Rust preventive fluids

Osyris oils are designed to protect parts from the risk of corrosion during storage and transportation. TotalEnergies offers a wide range of products of different types (oily, waxy or varnish) to create a protective film tailored to your needs.

Osyris can be:

- Applied to all ferrous metals, from cast iron to various steel alloys.
- Applied by dipping, spraying or brush.
- Disposed of using alkaline solvents and cleaners.

Osyris

PRODUCT	TYPE OF FILM			BARRIER				PRODUCT TYPE			FLASH POINT (°C)
	Oily	Waxy	Varnish	< 6 months	6-8 months	8-12 months	> 18 months	Oil	Solvent	Water	
Osyris Y 1000	•			•				•			> 150
Osyris Y 4000	•				•			•			> 150
Osyris Y 5000	•					•		•			> 150
Osyris DWX 3000		•			•				•		< 60
Osyris DWY 4000		•			•				•		> 60
Osyris DWY 5000		•				•			•		> 60
Osyris DWL 3550	•				•				•		> 60
Osyris WB 5000	•				•					•	NA
Osyris X 9100			•				•		•		< 60

X Solvent-based
Y Oil-based
DWX Dewatering & flash point < 60°C
DWY Dewatering & flash point > 60°C
DWL Dewatering & flash point > 60°C & faint odor

Key: • Possible •• Suitable ••• Recommended

3 METALWORKING Degreasing

Finadet detergents are designed to clean production areas and can be used in the food industry and for difficult cleaning of all types of pollution.

Finasol solvents are dispersants for cleaning engines and a very wide range of materials. Their properties permit eliminating greases and removing insoluble components, without affecting the quality of the items cleaned.

Finadet

PRODUCT	TYPE	APPLICATIONS	SPECIFIC BENEFITS	METHOD OF APPLICATION
Finadet SW	• Special washing machine detergent	• Special cleaning of parts placed in closed washing machines	• Automatic • Foam free	• Machines (cloths, rushes)

Finasol

PRODUCT	TYPE	APPLICATIONS	SPECIFIC BENEFITS	METHOD OF APPLICATION
Finasol BAC	• Fast evaporating degreasing agent	• Degreasing mechanical parts: machined parts, chassis, machine tool frames, bearings, pinions, filters, injection moulds • Preparation of surfaces before assembly	• Fast evaporation • Compatible with all metals, most plastic materials and elastomers	• Fountain cleaner brush: high settling capacity
Finasol Bio*	• Pure or diluted degreasing agent, 100% plant based, label free	• Cleaning of all engines, elimination of fuels and resins, removal of tar, bitumen, floor cleaning	• Low odour, biodegradable and non toxic • Not aggressive for elastomers or plastics	• Fountain cleaner brush, spray
Finasol MF	• Emulsifiable degreasing agent	• Multi-purpose	• Leads to the complete dissolution of oily pollutants and the removal of insoluble components	• Immersion, brush, low pressure spray, brush, straight

*Bio-sourced product

3 METALWORKING
Machine-tool lubrication

The **Drosera** product line includes products for lubricating all machine tool parts (hydraulics, slideways, gears).

- Machine spindles: high-speed (viscosities 5, 10, 15 and 22) and very-high-speed (viscosities 2).
- Machine tool slideways in any speed and load conditions (viscosities 68 to 320).
- Hydraulic circuits for hydraulic pumps and motors (viscosities 32 and 46).
- Gearboxes and power supply mechanisms of all types, with or without wet electromagnetic clutches (viscosities 68 to 320).
- Hydrodynamic lubrication of rolling mill supports during rectification (viscosities 460).

Drosera oils offer the following benefits:

- Very low friction coefficient.
- Anti-fogging properties.
- Very good foaming resistance.
- Excellent oxidation resistance.
- Very good protection against rust.
- Very good anti-wear properties.
- Good filtrability.

Spindle oils

PRODUCT	APPLICATIONS	SPECIFIC BENEFITS	SPECIFICATIONS	
			Viscosity*	Classifications
Drosera MS	• Spindle oils for lubricating high-speed spindle mechanisms	• High speed spindles (viscosities at 5, 10, 15 and 22) and very high speed spindles (viscosity 2)	2, 5, 10, 15, 22	• ISO 6743-2: FD 2-5-10-15-22

Slideway oils

PRODUCT	APPLICATIONS	SPECIFIC BENEFITS	SPECIFICATIONS	
			Viscosity*	Classifications
Drosera MS	• Multi-purpose product line for all machine tool components based on lubricant viscosity: hydraulics, slideways, gears, spindle movements, feed and gear box	• Wide range of applications	32, 46, 68, 100, 150, 220, 320, 460	Based on viscosities: • ISO 6743-4: HG 32 • ISO 6743-13: GA 68-100-150-220 • DIN 51502: CGLP 46-68-100-150-220-320-460
Drosera HXE 68	• Oil for slideways including synthetic resin coatings, feed and speed box	• Compatible with cutting oils, including soluble oils	68	• ISO 6743-13: GB 68 • DIN 51524 Part 2: HLP 68 • DIN 51517 Part 3: CLP 68 • DIN 51502: CGLP 68
Drosera HXE 220	• Oil for slideways including synthetic resin coatings, feed and speed box	• Compatible with cutting oils, including soluble oils	220	• ISO 6743-13: GB 220 • DIN 51502: CGLP 220 • DIN 51517 Part 3: CLP 220

*Typical kinematic viscosity at 40°C in mm²/s

MS Machining of ferrous and non-ferrous metals

3 METALWORKING
Interactive Fluid Advisor

MONITORING SOFTWARE

WHAT IS IT?

The **Interactive Fluid Advisor** by TotalEnergies is a digital platform designed to monitor and manage the quality of soluble fluid baths used in metalworking operations.

It enables users to collect, visualize, and report fluid data through dynamic dashboards, offering instant insights and maintenance recommendations based on built-in specifications for each fluid type. Accessible via web or mobile, the tool supports manual data entry (e.g., pH, concentration), automated alerts for deviations, and scheduling reminders to ensure bath quality.

CUSTOMER BENEFITS

- Improved bath stability.
- Easy data visualisation.
- Early detection of deviations.
- Efficient preventive maintenance.
- Accessible and secure.

HOW TO USE IT?

Procedure for using the Interactive Fluid Advisor:

- Log in via interactivefluid.totalenergies.com using your credentials.
- Scan the QR code on the machine or bath to identify the fluid system.
- Take a sample of the metalworking fluid from the bath.
- Measure key parameters like pH and concentration.
- Enter the data manually into the platform via PC or mobile.
- Review the dashboard for instant status updates, recommendations, and alerts.
- Follow maintenance suggestions if any parameters deviate from the target range.

