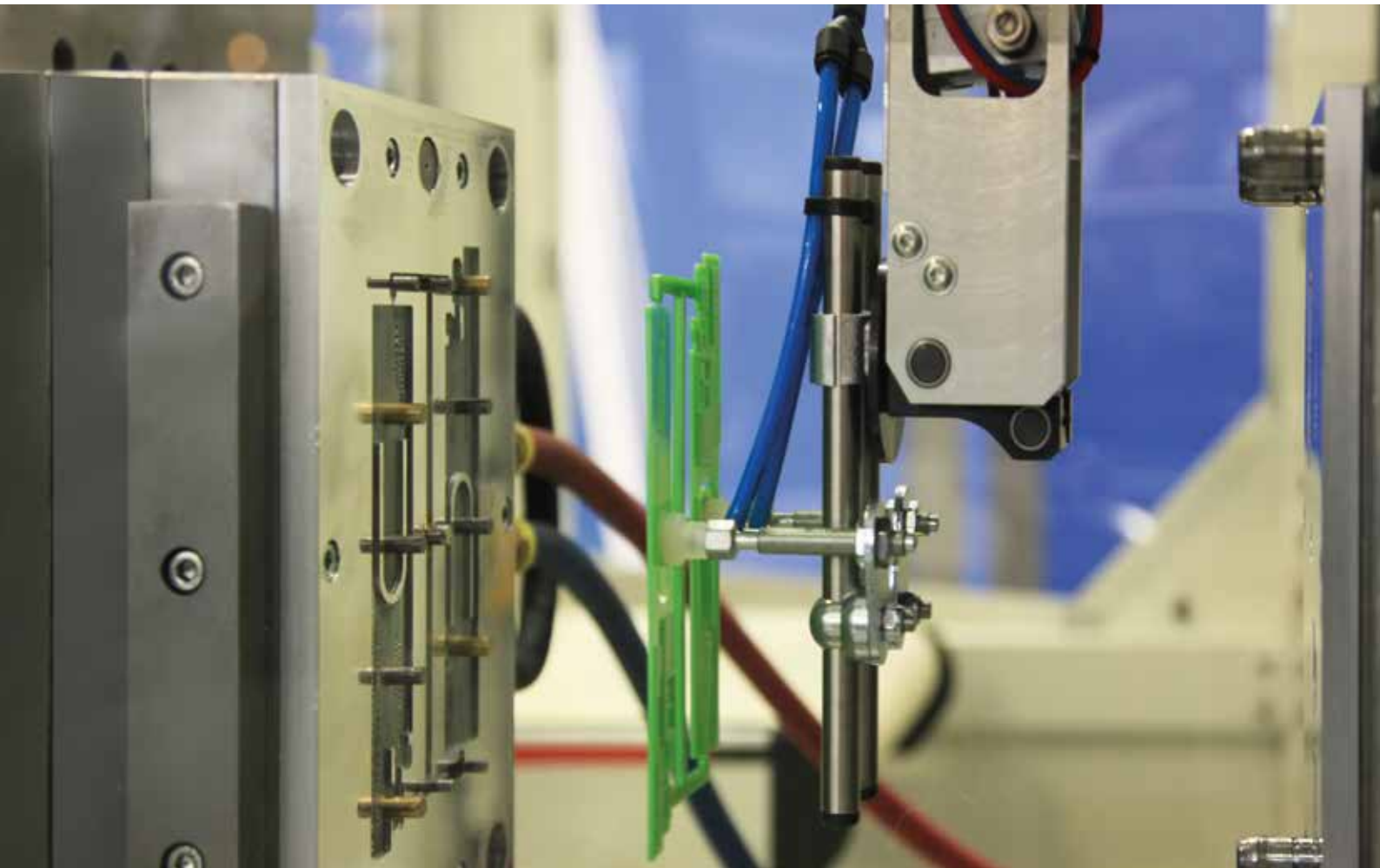


# TUNAP Industry

Special lubricants, release agents and cleaning agents for the plastics industry

# Consultancy, development and production from a single source



## Our certificates

**ISO 9001** Quality Management

**ISO 14001** Environmental Management

as well as **ISO 21469** Hygiene requirements for H1 lubricants

With the certification according to ISO 21469, TUNAP has proven that they meet the most comprehensive hygiene requirements for the production of H1 lubricants. International certification is the most demanding proof of safety, reliability and product responsibility. The standard requires a holistic view of the life cycle for an NSF H1 product. The highest quality is guaranteed by the strict control of the composition, constituents, production, handling, packaging, storage and use.

## H1

H1 lubricants are also called food grade lubricants. They are used where there is occasional or technically unavoidable contact between the lubricant and food products, e.g. in plastic packaging for food. Our products are registered with the National Sanitation Foundation so that they can be used in the food industry.

The TUNAP lubricants, release agents and cleaning agents, meet the requirements according to:

**Halal** Labelling for products that are

halāl (permissible, allowed) according to Islamic law as well as

**Kosher** Labelling for products that are classified as kosher (suitable, pure) according to Jewish dietary laws.





TUNAP stands for passion and expertise. We help you select the right products and assist you with their implementation on site.

Thanks to our in-house development and production departments, we offer professional solutions to take on the challenges in the plastics industry. Together with developers and application engineers, we also create products customised to our customers' wishes. Thanks to an extensively equipped

chemical-analytical test laboratory and test field, we can carry out numerous tribological tests in-house. In order to convert plastics into the desired shape, machines and systems are exposed to extreme forces and temperatures. To reduce machine downtimes and extend the service life of your machines and systems, our special lubricants are a reliable partner. TUNAP offers tribological solutions that meet the special requirements of individual lubrication points.



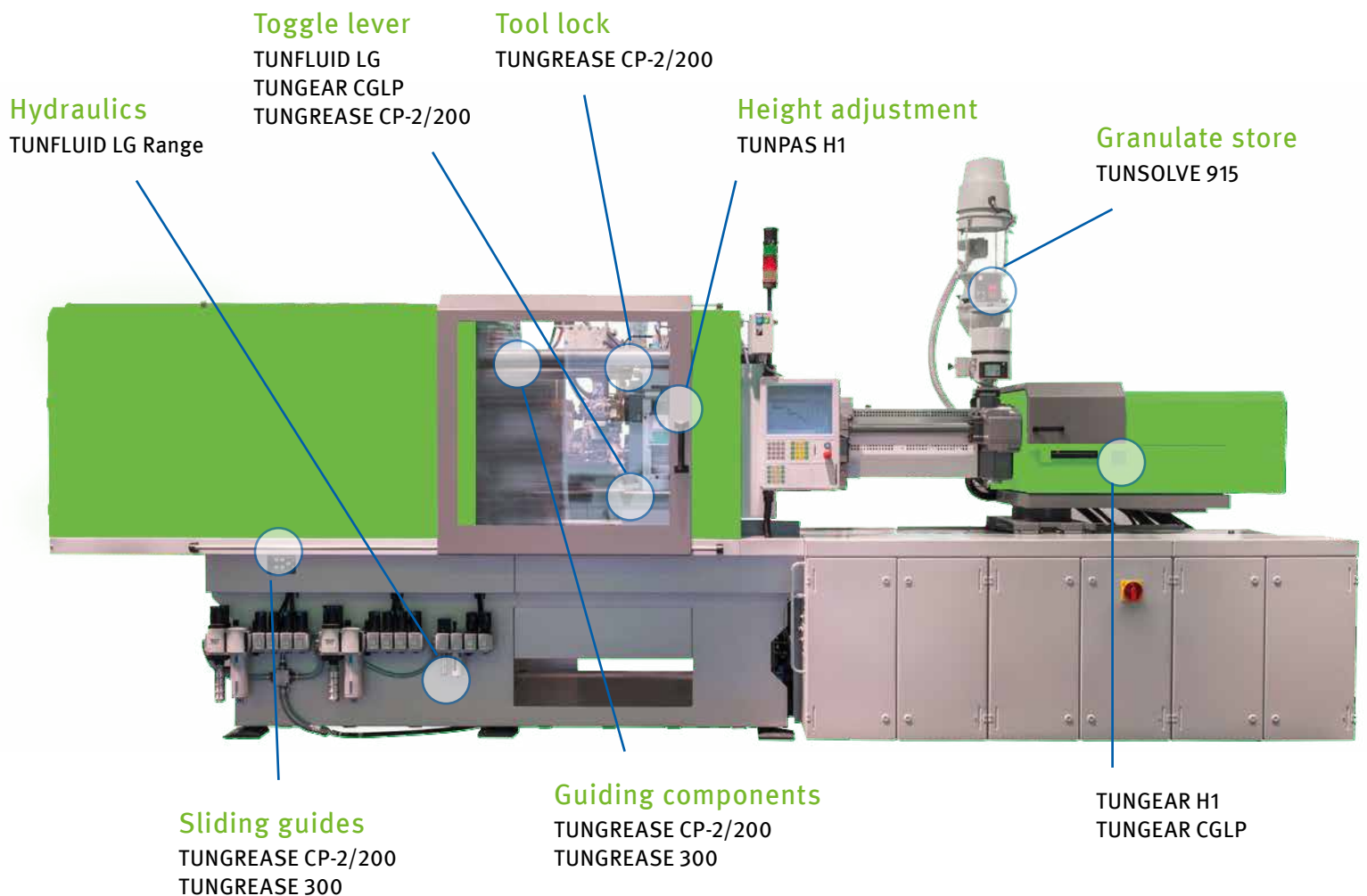
# Packaging overview

PRODUCT AREA	PRODUCT DESIGNATION	MATERIAL NUMBER	SIZE OF TRADING UNIT	
Greases	TUNGREASE SG	11ACF13127G0001	100 G	Dispenser
		11ACF13027G0001	100 G	Can
		11ACF13027A0001	100 ML	Aerosol
		11ACF13027G0010	1 KG	Can
	TUNGREASE 300	11ACF13014G0008	800 G	Cartridge
		11ACF13014G0010	1 KG	Can
		11ACF13014G0100	10 KG	Bucket
	TUNGREASE 400	11ACF13400G0001	100 G	Can
		11ACF13400G0010	1 KG	Can
	TUNGREASE CP-2/50	1103743	400 G	Cartridge
		1103744	1 KG	Can
		113745	25 KG	Bucket
	TUNGREASE CP-2/200	1103747	400 G	Cartridge
		1103748	1 KG	Can
		1103803	25 KG	Bucket
Pastes	TUNPAS AL	11ACD12002A0400	400 ML	Aerosol
		11ACD12002G0010	1 KG	Can
	TUNPAS WP	11ACD12252G0001	100 G	Tube
		11ACD12252G0010	1 KG	Can
		11ACD12252E0200	20 KG	Bucket
	TUNPAS H1	1101868	100 G	Tube
		1101869	1 KG	Can
		1102853	25 KG	Bucket
Hydraulic oil	TUNFLUID LG RANGE	VARIOUS	20 L	Canister
Gear oils	TUNGEAR H1 RANGE	VARIOUS	20 L	Canister
	TUNGEAR CGLP 220	1101140	20 L	Canister
Release agent	TUNSLIP SF	1102060	400 ML	Aerosol
Corrosion protection	TUNPRO WK	1102061	400 ML	Aerosol - red
		11ACH29821A0400	400 ML	Aerosol - colourless
		11ACH20300A0400	400 ML	Aerosol
	TUNGARD MP	11ACH20301A0400	400 ML	Aerosol
	TUNGARD FD	11ACH20301A0400	400 ML	Aerosol
CLEANING AGENT	TUNCLEAN FDB	11ACH21794A0500	500 ML	Aerosol
		1100197	500 ML	Aerosol
	TUNCLEAN FG 215	1101031	200 L	Barrel
		11ACH21364A0500	500 ML	Aerosol
		11ACH21364L0050	5 L	Canister
	TUNCLEAN 895	11ACH21364L0200	20 L	Canister
		11ACH21364L2000	200 L	Barrel
		1100923	500 ML	Aerosol
	TUNSOLVE 915	1103118	20 L	Canister
		1103762	60 L	Barrel
		11ACH21250A0300	300 ml	Aerosol





# Fields of application



## EJECTOR PINS / SLIDES

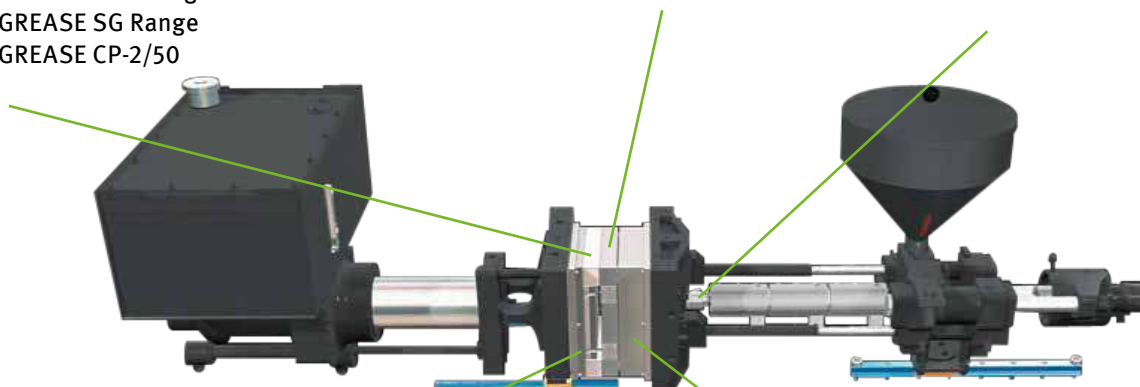
TUNGREASE 400  
TUNGREASE 300 Range  
TUNGREASE SG Range  
TUNGREASE CP-2/50

## Gear tools

TUNGREASE CP-2/50  
TUNGREASE 300

## NOZZLE / SCREW CONNECTION

TUNPAS WP  
TUNPAS AL  
TUNPAS H1



## TOOL CLEANING

TUNCLEAN 895  
TUNCLEAN FDB  
TUNCLEAN FG 215

## TOOL MAINTENANCE / PROTECTION

TUNPRO WK  
TUNSLIP SF  
TUNGARD FD  
TUNGARD MP

# Greases

## TUNGREASE SG

### Chemically inert special grease for long-term lubrication at extremely high temperatures

High-performance lubricant without solid lubricants and low content of consistency enhancers. For the lubrication of ejector pins with tight tolerances and low loaded folding units, slides, latch locks, etc.

- ✓ Enables long service lives, even with a minimum lubrication quantity
- ✓ Excellent site stability prevents lubricant from entering the mould
- ✓ Excellent compatibility with plastics, evaporation stability and resistance to high temperatures



## TUNGREASE 300

### Chemically inert special grease for universal lubrication at high temperatures and high loads

High-performance lubricant with high solid lubricant content. For the universal lubrication of highly loaded ejector pins, slides, etc. in combination with high temperatures.

- ✓ Particularly high thermal stability with extremely low evaporation loss
- ✓ Enables extended relubrication intervals



## TUNGREASE 400

### Chemically inert special grease for long-term lubrication at high temperatures and high loads

High-performance lubricant with high solid lubricant content. For the long-term lubrication of extremely highly loaded components, such as punches and columns, in combination with extremely high temperatures.

- ✓ Reliable long-term lubrication of highly loaded components
- ✓ Particularly high thermal stability with extremely low evaporation loss
- ✓ Enables extended relubrication intervals



## TUNGREASE CP-2/50

**Fully synthetic high-performance grease for the universal lubrication of dynamically loaded components**  
High-performance lubricant based on a soap thickener and synthetic base oils with low base oil viscosity.  
For the universal lubrication of highly loaded guiding components, bearings and robot units.

- ✓ Excellent pressure absorption for optimum wear protection for extended component and machine service life
- ✓ Special water resistance and excellent corrosion protection enable reliable lubrication



## TUNGREASE CP-2/200

**Fully synthetic high-performance grease for the universal lubrication of dynamically loaded components**  
High-performance lubricant based on a soap thickener and synthetic base oils with high base oil viscosity.  
For the universal lubrication of highly loaded slides, sleeves, guiding components with higher stress.

- ✓ Excellent pressure absorption capacity for optimum wear protection for extended component and machine service life for extended component and machine service life
- ✓ Special water resistance and excellent corrosion protection enable reliable lubrication





# Pastes

## TUNPAS WP

### **Adhesive, white assembly paste for high temperatures with protection against tribocorrosion**

Assembly paste based on synthetic base oil and white solid lubricants. For the release lubrication of connections subject to high pressure and temperature loads such as on cylinder heads, nozzles or non-return valves in the screw conveyor.

- ✓ Enables reliable disassembling at extremely high temperatures due to the exceptional resistance to high temperatures of the solid lubricants
- ✓ Reliably prevents tribocorrosion due to the metal-free solid lubricants

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## TUNPAS AL

### **Silver-coloured multi-purpose lubricating and release paste for normal to high temperatures**

Metal-bearing, silver-coloured, multi-purpose paste based on synthetic base oil and metal powder. For separating at high temperatures and stresses.

- ✓ Enables reliable disassembling at high temperatures

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## TUNPAS H1

### **White high-performance paste especially for the lubrication of highly loaded applications and slow-running sliding movements.**

White high-performance paste based on synthetic base oils, a special complex soap and high-quality solid lubricants. For the lubrication of components that are subjected to high static and dynamic loads, e.g. screw connections, sliding guides or screw drives.

- ✓ Reliable protection for static and dynamic separation lubrication against wear, tribocorrosion and seizure
- ✓ Particularly good water resistance and excellent corrosion protection
- ✓ Enables extended relubrication intervals





# Hydraulic oil

## TUNFLUID LG Range

### H1 Hydraulic oils for medium temperatures and loads

Hydraulic oils based on medical white oil. For use in hydraulic systems and for circulation lubrication.

- ✓ Reliable long-term lubrication of loaded hydraulic and circulation systems



# Gear oil

## TUNGEAR H1 Range

### Fully synthetic H1 gear oils for extreme operating conditions

Gear oils based on synthetic oils.

- ✓ Fully synthetic gear oil series for a wide temperature range
- ✓ Excellent ageing resistance enables long oil change intervals with reliable wear and corrosion protection of the gears and bearings



## TUNGEAR CGLP 220

### Fully synthetic H1 gear and slideway oil

Synthetic gear oil for universal use. Special adhesive additives provide the product with a multi-purpose character as gear and slideway oil.

- ✓ Reliable long-term lubrication of loaded gears and circulation systems



# Release agent

## TUNSLIP SF

### Silicone-free release agent and lubricant

Release agent and lubricant with plastic enhancing properties. As a release agent and antistatic agent in the demoulding of thermoplastics and thermosets.

- ✓ High wetting capacity due to active solvents
- ✓ The high purity of the raw materials prevents the contamination of the injection moulded parts by oxidation residues

# Corrosion protection

## TUNPRO WK

### Corrosion protection wax for toolmaking with good corrosion protection properties

Pressure-resistant, highly adhesive wax film with exceptionally safe corrosion protection and excellent water resistance.

- ✓ Long-term corrosion protection of injection and die-casting tools
- ✓ Easy depreservation when starting up the tool after a few shots due to the low melting point of the wax film

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## TUNGARD MP

### Synthetic rust remover with excellent lubricating and corrosion protection properties

Rust remover based on low-aromatic solvents and high-performance wear additives based on OMC2 technology.

- ✓ Effective release of rusted parts for easy disassembly

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## TUNGARD FD

### Synthetic H1 multi-purpose oil

Multi-purpose H1 oil for universal use. For lubricating moving components such as bolts or plug-in connections.

- ✓ Enables extended relubrication intervals



# Cleaning agent

## TUNCLEAN 895

### Highly volatile cleaner with high cleaning power

Cleaning agent based on hydrocarbon alcohol and a high proportion of acetone for excellent dissolving capacity.

- ✓ For the removal of lubricant residues, resin or light residues from plastic condensate

## TUNSolve 915

### Highly volatile safety cleaning agent

n-Hexane and aromatic-free solvent cleaning agent. For degreasing and cleaning lubricant residues and soiling.

- ✓ Reduced hazard potential due to tested fire and consequential fire risk
- ✓ Recommended product according to the Ordinance on Hazardous Substances (protection level 2 "Basic measures for the protection of employees")



## TUNCLEAN FG 215

### Flash-off cleaning fluid

Flash-off cleaning fluid based on hydrocarbons For the partial cleaning of moulded parts which could come into contact with foodstuffs.

- ✓ Enables fast subsequent treatment due to short flash-off times



## TUNCLEAN FDB

### H1 Solvent cleaner based on high-purity hydrocarbons

Cleaning fluid based on hydrocarbons with a medium evaporation number.

- ✓ Extended exposure time due to a higher evaporation number



# TUNAP works.



The TUNAP company group is an internationally operating manufacturer of aerosols and active ingredients for industrial, technical and cosmetic applications.

Research, development, production and sales from one source: TUNAP Systems care, protect and combine innovative chemistry with high sustainability standards.



Have we convinced you?  
We look forward to hearing from you...



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Presented by: