

# Klüberpress HF 2-101, 102, 103, 104

Special lubricating oils for hot pressing



## Your benefits at a glance

- Recommended by leading hot press machine manufacturers
- Good workpiece finish
- Low formation of smoke
- Low consumption compared with conventional oil containing graphite
- Reduction of die maintenance and repair
- Stability of the graphite in the oil
- Good cooling and lubricating effect

## Your requirements - our solution

Klüberpress oils are special lubricants and release agents particularly for hot pressing of brass and nonferrous metals.

These lubricants are specially refined and additivated oils which contain graphite of high quality.

Klüberpress oils are based on many years of experience gained in industry in cooperation with leading companies in the field of hot pressing of brass and nonferrous metals.

This ensures high operational reliability, i.e. accuracy of manufacture as well as tool protection and excellent finish of the workpieces. Owing to the special formulation of these oils, contamination of dies is reduced and less cleaning (sand blasting) is required, which in turn extends the die's service life.

Klüberpress oils have a high flash point, which reduces the generation of odour and flames during production.

The additives and special graphite contained in these oils reduce friction and improve the overall performance of Klüberpress. Furthermore, they increase the machine's output per hour and reduce the reject rate.

## Application

Klüberpress oils are particularly suitable for the manufacture of pressed parts made of brass or nonferrous metals, such as

- spherical valves

- gas pipe joints
- construction elements in general
- furniture fittings.

The good lubricating properties of Klüberpress allow the production of pressed parts of different sizes between 50 and 12,000 g and ensure a high pressing capacity (short cycle times).

## Application notes

Prior to application, the oil should be homogenised by stirring since the graphite particles contained tend to form deposits during storage. If the oil is to be pumped from the drum during operation, we recommend installing an electric stirrer. To ensure optimum performance, apply Klüberpress HF 2 oils in an automatic process by means of spray nozzles with a diameter of at least 1 mm and at an oil pressure of 5 to 10 bar. Application by brush or pad is normally also possible.

Klüberpress HF 2 oils are ready-to-use and can be applied directly onto the dies without prior dilution.

Their impact on the working area and water as well as flammability correspond to that of mineral oils having a flash point of  $\geq 200$  °C.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

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Pack sizes	Klüberpress HF 2-101	Klüberpress HF 2-102	Klüberpress HF 2-103	Klüberpress HF 2-104
Canister 1 l				+
Canister 20 l	+	+	+	+
Drum 200 l	+	+	+	+
Container 1000 l	+	+		+

Characteristics	Klüberpress HF 2-101	Klüberpress HF 2-102	Klüberpress HF 2-103	Klüberpress HF 2-104
Article number	042006	042007	042008	042014
Colour space	black	black	black	black
Density, DIN 51757, 20°C	approx. 0.9 g/cm <sup>3</sup>	approx. 0.91 g/cm <sup>3</sup>	approx. 0.92 g/cm <sup>3</sup>	approx. 0.92 g/cm <sup>3</sup>
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 200 °C	≥ 200 °C	≥ 200 °C	≥ 200 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 175 mm <sup>2</sup> /s	approx. 490 mm <sup>2</sup> /s	approx. 630 mm <sup>2</sup> /s	approx. 760 mm <sup>2</sup> /s
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	12 months	12 months	12 months	12 months

## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 90 years.

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The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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