

## Klübersynth CFH 2-400

Special high-temperature oil for sliding chain systems operating at very high speeds in biaxial film stretchers made by Brückner Maschinenbau



### Your benefits at a glance

- Especially developed for high-performance film stretchers
- Very low residue formation even under extreme operating conditions
- Extremely low residue formation minimises need for component maintenance
- Long chain life due to low wear rate
- High equipment economy due to optimised availability especially at high speeds
- Low friction reduces temperature in the chain system

### Your requirements - our solution

Operators of film stretchers attach great importance to machine availability and performance to secure profitable production. High-speed stretchers made for large-volume film production have a particular requirement for special chain oils.

For a film stretcher to offer good productivity over a long period of time, the chain oil used must have good backflow characteristics and a very low tendency to form residues. After all, it is often oil residues that lead to more friction and hence higher lubricant consumption. This will in turn lead to further contamination, making premature cleaning of the whole machine (TDO) necessary - a costly and time-consuming procedure. Downtime is inevitable, leading to less machine availability.

Our aim is therefore to maximise machine performance while minimising maintenance and the associated costs.

Klübersynth CFH 2-400 was especially developed for film stretchers involving chain speeds of more than 450 m/min and oven temperatures in excess of 200 °C. Over 40 years of cooperation and partnership with film stretcher OEMs such as Brückner Maschinenbau and operators has helped us build sound technical expertise in the development of high-temperature chain oils.

Klübersynth CFH 2-400 offers you an ideal solution for the continuous operation of film stretchers at very high speeds. This product is a new development and the first to contain a special combination of selected ester oils and additives.

With this raw material combination, Klübersynth CFH 2-400 considerably reduces the formation and adhesion of residues in the chain system. As a result, the friction points can be supplied with

sufficient lubricant for many months or even years. Moreover, machine availability increases due to a lower need for cleaning. Klübersynth CFH 2-400 therefore offers film stretcher operators high machine availability and high cost efficiency, extreme performance and high profitability. This makes it the most powerful product in our successful series of chain oils.

### Application

Klübersynth CFH 2-400 is a fully synthetic high-temperature oil that was especially developed for the requirements of conveyor chain sliding systems and pins in biaxial high-speed film stretchers running at speeds > 450 m/min. Oven temperatures may be higher than 200 °C in these applications.

### Application notes

Klübersynth CFH 2-400 is miscible with all Klüber chain oils (except PRIMIUM FLUID SPECIAL) offered for biaxial film stretchers. It is therefore not necessary to use a special cleaning or flushing oil for an oil changeover. We recommend, however, to clean the chain system and all machine parts in contact with the oil before filling in the new lubricant so that it can unfold its full benefits. For this purpose, we recommend using our chain cleaning and lubricating oil Klübersynth CZ 2-85.

When changing over from chain oils made by other manufacturers, please ask for advice.

### 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	Klübersynth CFH 2-400
Canister 1 l	+
Canister 20 l	+
Drum 200 l	+

Characteristics	Klübersynth CFH 2-400
Article number	002153
Composition, type of oil	ester oil
Appearance	clear
Colour space	yellow
Service temperature, upper limit	250 °C
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 270 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 25 mm <sup>2</sup> /s
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 400 mm <sup>2</sup> /s
Viscosity index, DIN ISO 2909	≥ 75
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 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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