

**F.L.** 12/20/50/75/100 /  
125/170/250/400/500

Synthetic hydraulic and gear oils



## The benefits at a glance

- NSF-H1 registered
- High ageing and oxidation stability
- Good sealing compatibility
- Neutral odour
- Fully synthetic
- Good miscibility with mineral oils
- Very good demulsifying behaviour
- Low evaporation propensity



### Properties

**Rivolta F.L.**-oils consist of synthetic base oils and selected additives which fulfil the high hygiene requirements in the food industry. Depending on their viscosity the oils meet and exceed the demands HLP of DIN 51524 part 2 for hydraulic oils respectively the demands CLP according to DIN 51517 part 3 for gear oils and show outstanding properties in view of viscosity stability, wear protection, ageing stability and corrosion protection.

### Fields of application (depending on viscosity range)

- Hydraulics (hydraulic motors, hydraulic pumps)
- Gears (spur gear, bevel gear, helical gear, worm gear pair)
- Chain lubricant in the low-temperature area (**Rivolta F.L. 12 / 20 / 50**)

<b>Form</b>	liquid
<b>Colour</b>	yellowish transparent
<b>Odour</b>	neutral

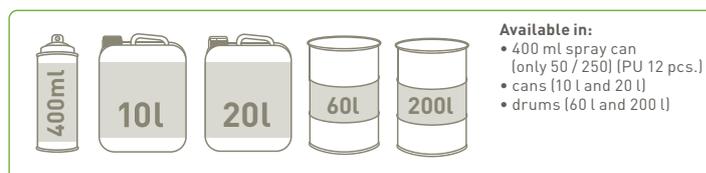
### Material compatibility

The products are miscible with mineral oils and ester oils but not with polyalkylene glycols.

### Preparation of the lubricating point

First drain the old product. If the system was filled with a miscible product, no particular flushing is necessary before the new filling. However, in the context of the food legislation and for the purposes of purity of grades we recommend a flushing with the **Rivolta F.L.** oil which shall be used.

If the system was filled with an oil which is not miscible, a flushing with the **F.L.** oil, which shall be used, must be included before the new filling. Suitable application devices and accessories in our [accessories brochure](#).

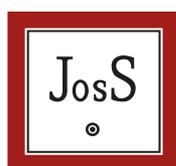


Hydraulic oils	Value					Norm
	F.L. 12	F.L. 20	F.L. 50	F.L. 75	F.L. 100	
<b>NSF Reg.-No.</b>	145811	139533	023935/131279 (Ae)	119522	119523	-
<b>Density at +15 °C</b>	0,81 g/cm <sup>3</sup>	0,83 g/cm <sup>3</sup>		0,84 g/cm <sup>3</sup>		DIN 51757
<b>Viscosity index</b>	> 100	> 120	> 140			DIN ISO 2909
<b>Kine. Viscosity at +40 °C</b>	5,5 mm <sup>2</sup> /s	15 mm <sup>2</sup> /s	32 mm <sup>2</sup> /s	46 mm <sup>2</sup> /s	68 mm <sup>2</sup> /s	DIN 51562-1
<b>Kine. Viscosity at +100 °C</b>	1,8 mm <sup>2</sup> /s	3,9 mm <sup>2</sup> /s	5,8 mm <sup>2</sup> /s	7,8 mm <sup>2</sup> /s	10,7 mm <sup>2</sup> /s	DIN 51562-1
<b>Flash point</b>	> +150 °C		> +200 °C			DIN EN ISO 2592
<b>Pourpoint</b>	<-68 °C	-65 °C	-62 °C		-55 °C	DIN ISO 3016
<b>Temperature range</b>	-65 °C to +100 °C	-62 °C to +100 °C	-59 °C up to +140 °C*		-52 °C to +140 °C*	-

\* Permanent temperature, short-term peaks up to +150 °C

Gear oils	Value					Norm
	F.L. 125	F.L. 170	F.L. 250	F.L. 400	F.L. 500	
<b>NSF Reg.-No.</b>	023931	132760	023933/127663 (Ae)	139748	023936	-
<b>Density at +15 °C</b>	0,85 g/cm <sup>3</sup>				0,86 g/cm <sup>3</sup>	DIN 51757
<b>Viscosity index</b>	> 140					DIN ISO 2909
<b>Kine. Viscosity at +40 °C</b>	100 mm <sup>2</sup> /s	150 mm <sup>2</sup> /s	220 mm <sup>2</sup> /s	320 mm <sup>2</sup> /s	460 mm <sup>2</sup> /s	DIN 51562-1
<b>Kine. Viscosity at +100 °C</b>	14 mm <sup>2</sup> /s	19 mm <sup>2</sup> /s	25 mm <sup>2</sup> /s	36 mm <sup>2</sup> /s	44 mm <sup>2</sup> /s	DIN 51562-1
<b>Flash point</b>	> +200 °C					DIN EN ISO 2592
<b>Pourpoint</b>	-50 °C	-47 °C	-45 °C	-40 °C	-36 °C	DIN ISO 3016
<b>Temperature range</b>	-45 °C to +140 °C*	-40 °C to +140 °C*	-35 °C to +140 °C*	-35 °C to +140 °C*	-33 °C to +140 °C*	-

\* Permanent temperature, short-term peaks up to +150 °C



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