



## Top-notch performance in the new year — expertise in additives makes GTL oils the better alternative

Your customer's modern production processes place the highest demands on process stability, integrated health and safety, cost-effectiveness and viability for the future — and 2018 is no different. Finding a product that meets all the requirements under these conditions can be very challenging. So that your customers can once again go about their business this year without having to compromise, Siebert has developed a future-oriented solution that is a very good alternative to conventional products, made using polyalphaolefins (PAOs) and hydrocracked oils containing mineral oils (HCs): GTL grinding oils with an innovative GTL base, combining

efficient, health-and-safety-conscious work and cost optimisation.

### **What is the driving force behind GTL?**

The acronym GTL stands for “gas-to-liquids”, a process in which natural gas is converted into a synthetic and particularly pure base oil. The mineral-oil-free product forms an integral part of Siebert GTL oils.

### **Efficient and cost-effective production**

With Siebert GTL oils, you provide your customers with innovative grinding oils that are in no way inferior to comparable

PAO products — but come at a lower price. They are designed for demanding grinding tasks involving hard metals, gearing components and tools. The grinding oils achieve such an exceptional performance through the interplay of the future-oriented GTL technology and the special Siebert additive combination.

**The advantages at a glance:**

- Siebert GTL oils help your customers to actively save costs as evaporation is particularly low, making them economical to use.
- The extremely good separation of air allows effective cooling of the workpiece, meaning higher quantities can be produced.
- The excellent foaming behaviour ensures extended service life and reduced tool wear.

- Good rinsing behaviour means that users experience clean processing machines.

**Best performance in occupational health and safety**

Another advantage of the GTL products is the improved occupational health and safety — something that is increasingly becoming a priority with regard to the employer's duty of care toward employees and that will be benefitted by these innovative

products. Thanks to a very high flash point of up to 200°C, the risk of fire is reduced and the respiratory system of the machine operator is not strained, thanks to favourable anti-fog behaviour. At the same time, the GTL oils are particularly skin-friendly as they are free from aromatics, heavy metals, and any zinc and chlorine compounds. The absence of mineral oils (only synthetic oils are used) sets them apart from HC oils.

**An analysis: GTL oils set against high-performance requirements**

The direct comparison test of the base oils shows the advantages of GTL oils in relation to HC oils and PAOs:

	Appearance/odour	V40 [mm <sup>2</sup> /s]	VI	FP (COC) [°C]	PP [°C]	Foam level		Noack (250°C) [%]
						5,64 l/h	11,28 l/h	
HC oil	Clear/neutral	9–10	109	170	<-27	20 ml, 0 n. 10 s	80 ml, 0 n. 30 s	64
PAO 20	Clear/neutral	10	110	183	<-27	0 ml	20 ml, 0 n. 7 s	56
GTL oil	Clear/neutral	9–10	113	193	<-27	0 ml	0 ml	49

- Excellent foaming behaviour (foam-free even with higher recirculation volumes)
- Very low evaporation (low Noack value)
- Higher flash point for safer production

These qualities mean that GTL oils offer attractive conditions and are currently superior to PAO oils in the high price segment in terms of price/performance.

**We are there for you**

Are you interested in learning more about the GTL technology from Siebert and would you like to know what GTL grinding oils can do for your customers? Our Siebert expert Hans van Gerwen will be happy to answer your questions.

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