

## Movement of cooling lubricant Metalworking, Berlin, Germany



**Alfred Rexroth GmbH & Co. KG**

**Operation**

**1 tank with 1200 l cooling lubricant for CNC grinding machine with 1 OLOID Type 200**

**Period**

**Since Feb. 2015**

**Success**

**Prevention of odor  
Avoid foaming**

**Application description and problem definition:**

A CNC grinding machine with cooling lubricant (water with 3-4% synthetic lubricant Castrol Syntilo 9954) is used in production. During long periods of downtime of the grinding machine and the subsequent cleaning process in the 1 shift operation (holidays, weekend, night) there has frequently been a very strong foam formation in the cleaning system of the emulsion in recent years. This was also associated with a strong odour. In addition, the tank, the emulsion of 1200 l purified by a nonwoven, had to be completely or at least partly replaced. This is associated with additional costs for the lubricant.



**Solution and result:**

By installing and operating an OLOID Type 200 during periods of standstill, **both foam formation and odour nuisance could be prevented**. The OLOID Type 200 has even been able to achieve this task with only 10% of its power. The energy consumption is thus only around **10 W**. Since February 2015, the pH values have been **constant by pH 9** and a strong reduction to pH 6 combined with the foam formation no longer occurred. Also, the measured nitrite value of the emulsion has since then been constantly very low as is necessary for the processing step.

**Outlook:**

Whether the installation can even extend the service life of the emulsion of about one year will be shown in the coming months.