

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.