HIRT-LINE Europe by B.Mantel Systems | Seestr. 16 | CH-8268 Mannenbach

Customer anonymous

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Customer summary 19.01.2021:

Thanks to the modular, standardized system, Hirt-Line nozzles can be used efficiently and with a manageable investment.

The slot nozzles with slot widths of 0.4mm show a very good laminar, low-air oil jet which, due to its velocity, is tangential to the grinding wheel or workpiece. In field tests, the pump power (8bar) could be reduced to 15-35%.
Since pumps and cooling systems on machine tools are among the largest consumers of electricity, this system can massively reduce energy requirements and thus costs. Its widespread use therefore makes a lot of sense.

The development of machine tools in recent years has led to ever higher pump pressures. Screw pumps with frequency converters and 80 bar are now almost a standard feature of modern machine tools. Tests with a well-known Swiss oil and cooling lubricant supplier showed that pump pressures in the range of 100-200 bar lead to immense disadvantages. Power consumption rises very sharply, foam formation and filterability are very negatively affected, and water-miscible cooling lubricants are broken down. Finally, very large and expensive systems and pumps are required, which also lead to a very high heat input into the medium.

The fixable stainless steel system can no longer be easily adjusted by pump pressure or employees. This supports process capability and repeatability in 24/7 operation.
Plant manufacturers can design their oil and coolant systems smaller and more cost-effective.

The Hirt-Line system offers a very simple and cost-effective optimization option here - always according to the principle "as much as necessary - as little as possible!

A purchased modular box with the necessary standard nozzles, piping and other elements enables practical assembly by programmers, skilled workers or process specialists - without tedious planning of necessary components. Used components can simply be purchased after use.

In this way, the system can be introduced step by step from department to department across the entire company.