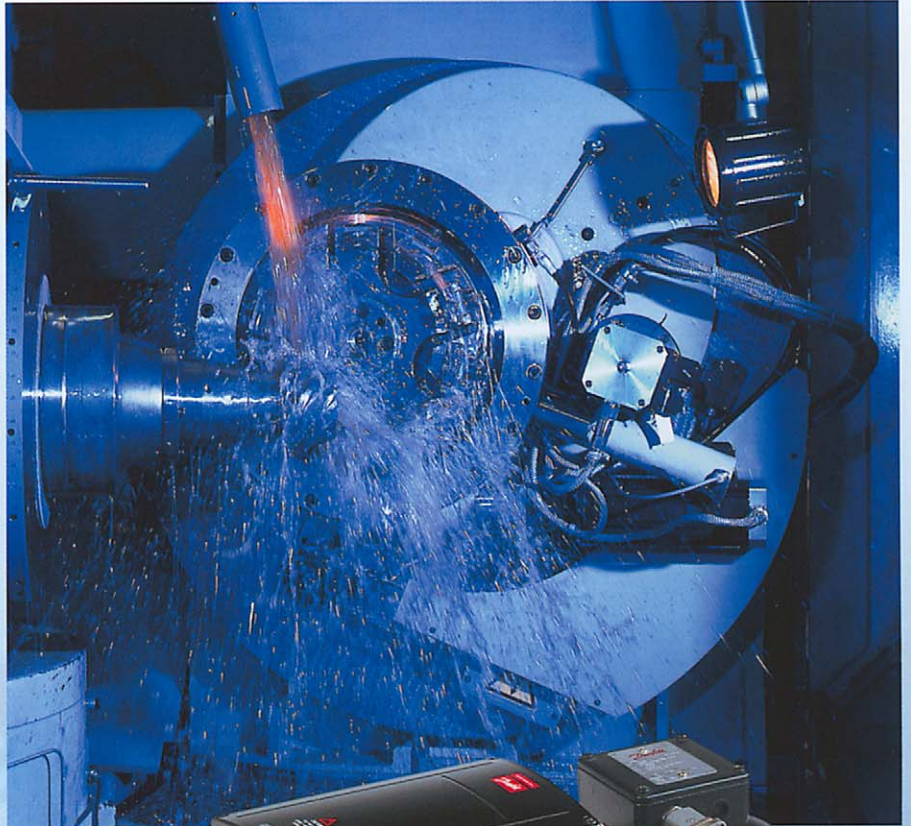


Cooling and lube oil pump for machine tools

Variable speed pump unit based on the Voith EAPAF system with a medium pressure internal gear pump provides significant advantages:

- Up to 50% less cooling capacity required
- Energy consumption of cooling and lube oil pump reduced by up to 50%
- Lower connecting power required
- Any operating points can be selected on account of the variable speed, e.g. to drill characteristic curve to VDI 3208; only one pump required
- Compensation of pump wear by speed adjustment
- Stable supply current in case of pressure variations



*Variable speed pump unit with
Voith IPME internal gear pump*

EPAF Cooling and lube oil pump

The cooling and lubricating unit EPAF is a combination of a three-phase current asynchronous motor with a frequency converter and the new developed Voith medium-pressure internal gear pump IPME. This electric motor driven pump unit permits the creation of a variable flow rate and thus cooling agent flow. Thus, any operating points of the required drill characteristic curve can be run with only one pump, in a flexible manner and very exactly.

The pump type IPME is a new developed medium-pressure internal gear pump based on the Voith Superlip® principle.

The most important advantages for the operator can be summarized as follows:

In addition to the variable flow rate and the low noise level, the high volume efficiency of the pump is of particular importance. On account of the specific pump advantages and the variable speed of the pump unit, it is possible to reach significant reductions both of the cooler capacity, connecting power and energy consumption of the pump.

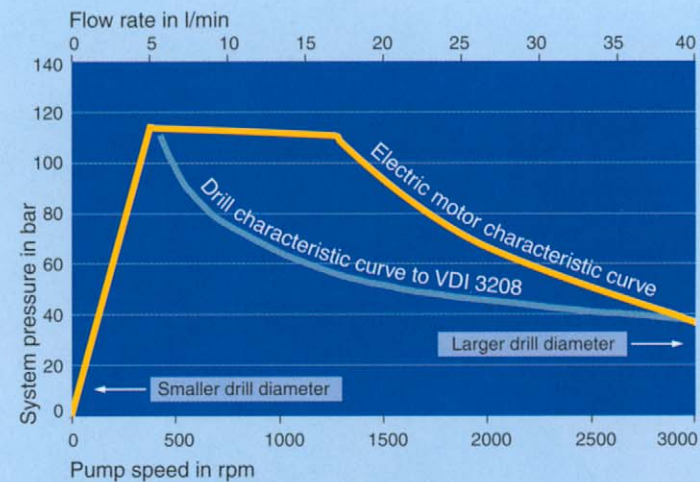
Applications:

Metal cutting and machining, e.g. deep drillers, Machining centers and transfer lines

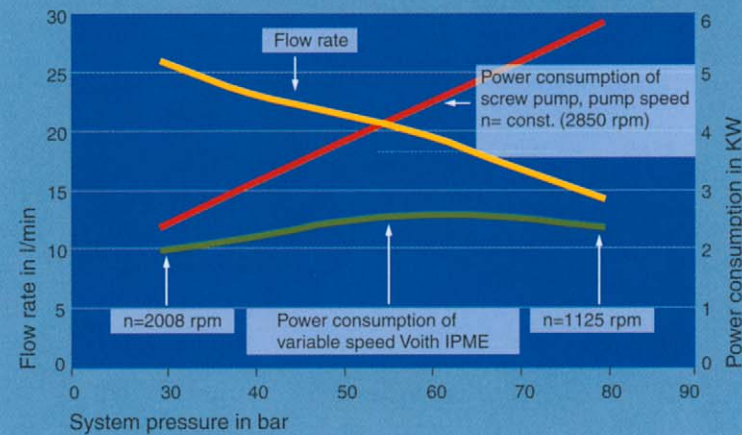
Pumping fluids:

For example, deep drilling oils, cutting oils.

Variable speed Voith Superlip® IPME



Comparison of the variable speed Voith Superlip® IPME with a screw pump



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