

News from Wanner

High Pressure Cooling with Hydra-Cell

Hydra-Cell high-pressure coolant pumps are claimed to provide long life durability, unmatched by other pump technologies.

High pressure coolant delivery (up to 170 Bar) has many benefits in terms of metal cutting efficiency. It can offer dramatic reductions in cycle time of up to 70% while improving the quality of surface finish, extending the life of tooling and inserts and enhancing chip control.

Many pump types offer the pressures and flows required for high pressure coolant delivery but few claim the reliability performance of Hydra-Cell® hydraulically balanced diaphragm pumps.

The problem lies in the fact that machining produces fines as well as chips; small particles of metal that are highly abrasive and, if not removed from the system by ultra-fine filtration will eventually destroy any pump where bearings and seals are exposed to the pumped coolant.

Even the most efficient filtration system can fail; a bag filter can split or planned maintenance may be inadequate as filters are changed allowing fines to pass through to the pump.

Hydra-Cell pumps are designed to operate under such conditions and handle fines over 500 µm in diameter, removing the need for expensive fine filtration. Fines between 10 & 50µm in diameter can cause severe damage to screw pumps.

Should a filter become completely blocked, screw and gear pumps will tend to overheat as they need the pumped fluid for sealing, internal lubrication and cooling, whereas Hydra-Cell pumps will continue to operate without damage, indefinitely.

Further information from:

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