

MACHINE TOOL COOLANT

Quick STUDY

Hydra-Cell
Seal-less Pumps

www.Hydra-Cell.com

Location:	France
Application:	Machine tool metal cutting - drilling, turning, boring, milling
Media:	• Coolant • Emulsion
Model No.:	D10XKCTHFECA D12XKCTHFECA
Flow Rate:	264 - 400 gph (1000-1500 lph)
Pressure:	725 psi (50 bar)
Hydra-Cell Advantages:	• Reliability • Proven low maintenance • Low life cycle costs • Ability to handle particles in suspension • High-pressure capability



High-pressure Coolant Pump Still Performing at 22,000 Hours

Several years ago, a manufacturer of turbo-chargers, primarily for the automobile industry, equipped its OKUMA machines with a high-pressure coolant facility. Coolant was previously fed to the machines from a low-pressure central filtration system. OKUMA recommended Mayfran HP filtration units that included Hydra-Cell as the high-pressure pump.

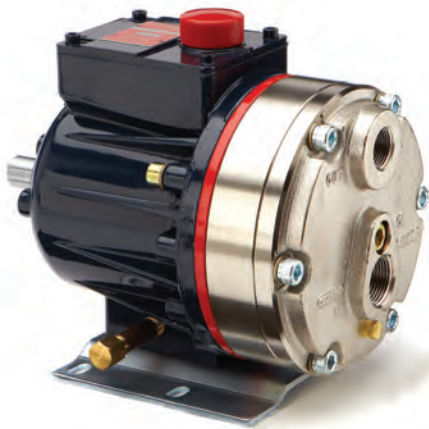
The Mayfran HP unit “stands alone” next to each machine. Metal particles are filtered out of the coolant (down to 50 microns), by means of a drum filter. There are 11 Hydra-Cell pumps in total.

Since then the company has benefited from high-pressure coolant in many ways:

- faster cutting speeds
- continuous lubrication of the cutting tool - extending tool life
- consistent, predictable workpiece quality
- fewer rejects and less downtime

The manufacturer enjoys predictable production rates and knows the cost-per-workpiece.

In 2008 one of the Hydra-Cell pumps was opened for a maintenance-training check. The original valves and diaphragms were working after 22,000 hours of operation. The reliability of Hydra-Cell and proven low maintenance are essential pump requirements at this 24/7 continuous production site.



Characteristics of Fluid Pumped:

☐ Contains Abrasives ☐ Corrosive ☒ Solids in Suspension ☐ High-temp. (>158°F/70°C) ☐ Non-lubricating ☐ High-viscosity (>500 cPs)