

High Pressure Coolant for Ultra Hard Material Machining

Location	Germany	Hydra-Cell model	G10XKCGCCECA / G25XKCGCCECA
Type of application	High Pressure Coolant for Ultra Hard Material Machining	Flow rate	G10 Up to 30 I/min (8 gpm) / G25 Up to 76 I/min (20 gpm)
Liquid	Machine Tool Coolant	Pressure	Up to 70 bar (1000 psi)
Application details	A German manufacturer of lip drillers from very hard materials found that Hydra-Cell pumps were an ideal choice for pumping coolant at the high pressures required for successful dissipation of the high heat energy generated during machining.		
	The nature of the materials (Wolfram carbide stainless steel was one example) was such that the machining process formed particles of less than 10 microns – small enough to pass through the fine filters required by screw pump manufacturers as standard practice. Even with their 'normal' protection screw pumps would fail.		
	Centrifugal type filtration could help to remove some of these particles, but some would remain in the coolant.		
	The seal-less design of the Hydra-Cell pump, which does not require fine filtration, avoided these problems.		
	Various Hydra-Cell models have been successfully used on this application. They include the G10, G25 and the G40.		
Advantages of Hydra-Cell pump on this application	Seal-less design. Ability to handle partic capability.	culates, with no need for t	ine filtration. High pressure

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