

High Pressure Coolant for Through Tool

Location	Denmark	Hydra-Cell model	G10XKBTHFEHA
Type of application	High Pressure Coolant for Through Tool	Flow rate	28 l/min (7 gpm)
Liquid	Machine Tool Coolant	Pressure	70 bar (1000 psi)
Application details	An early convert to Hydra-Cell pumps for coolant delivery on high-speed machine tools was a Danish machining sub-contractor. The company's rapid growth was being hindered by ineffective chip removal and inefficient cooling on machines capable of high running speeds but fitted with low pressure (20 bar max) coolant pumps. Working in aluminium, with machines designed for through-spindle and through-tool coolant feed, the pipes and coolant channels often became blocked with small chips. Also coolant delivery pressures were sometimes too low to overcome the centrifugal forces of the fast-running spindles. Tool life was short, surface finish quality uneven and too many parts had to be rejected. After installing a Hydra-Cell pump along with a new filter system, these problems vanished. Coolant fluid was maintained in the cutting zone and chips forced out. Following this successful retrofit, the company adopted a general requirement that future machines should be delivered already fitted with Hydra-Cell pumps.		
Advantages of Hydra-Cell pump on this application	High pressure capability. Compatibility wi	th coolant liquid. Toleran	ce of small particles.

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