

METERING

Quick STUDY

Hydra-Cell®
Seal-less Pumps

www.Hydra-Cell.com

Location:	Norway
Application:	Metering catalyst into explosive
Media:	• Water • Lubricant • Catalyst
Model No.:	M03XKSGHHECG
Flow Rate:	0.5 - 1.05 gpm (2-4 l/min)
Pressure:	70 - 175 psi (5 - 12 bar)
Hydra-Cell Advantages:	• Seal-less design • Compact construction • Ability to handle abrasives and give accurate controllable metering • Low pulsation



Metering Catalyst into Nitroglycerin Slurry

In the course of pumping Nitroglycerin slurry into rock, the inert slurry must be metered with a mixture of water, lubricant and catalyst so that it can become an active explosive when it dries out inside the bore hole. For this purpose, the metering pump chosen had to be compact, accurate, low-pulsation and have a flow rate that could easily be adjusted over a wide pressure range. Also, the catalyst is slightly abrasive and would create wear problems in many types of pumps.

The Hydra-Cell M03 pump, fitted with a variable speed hydraulic drive, proved ideal for this duty. Flow is directly proportional to pump speed regardless of pressure and is easily adjustable. Benefits include accurate metering, smooth pulse-free delivery and consistent, repeatable performance. Seal-less design, with no metal-to-metal contact in critical areas, avoids problems of rapid wear which in other pumps would cause loss of performance and accuracy when handling abrasive material.

Characteristics of Fluid Pumped:

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