

METERING

Quick STUDY

Hydra-Cell
Seal-less Pumps

www.Hydra-Cell.com

Location:	Hungary
Application:	Amine processing
Media:	• Amines • Ammonia
Model No.:	D10XKSAHFEHG
Flow Rate:	4 gpm (15 l/min)
Pressure:	1450 psi (100 bar) nominal; 1000 - 1160 psi (69 - 80 bar) actual
Hydra-Cell Advantages:	• Low energy cost • Beneficial price • Small footprint • Consistently smooth flow



Amine Column Circulation and Input

This long-established plant in the west of Hungary manufactures amines for use as catalysts in the production of polyurethane foam. In 1997 the old plant was acquired by a global manufacturer of specialty chemicals, who introduced a modernization program. As part of this, aging piston pumps were gradually replaced on metering operations by traditional diaphragm metering pumps, (all ordinary single-diaphragm design) and these were also installed in sections newly added to the plant.

Traditional diaphragm metering pumps however have their own disadvantages - including physical bulk, high initial cost and expensive spare parts. In these areas and others the Hydra-Cell offers a more competitive alternative - saving on space, purchase cost and operating cost, including energy and spare parts. Smooth, low-pulse flow at a consistent rate is another important feature for this application.

Encouraged also by the evident success of a D10 installed in a neighboring fertilizer plant, the amine producer purchased four D10 pumps for operation in its own processes.

The pumps are working in a designated area where protection against explosion risk to ATEX class IIC is required. They are handling aggressive amines at high pressures.

Characteristics of Fluid Pumped:

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