

Application story



Pentane Metering in Foam Production

Location	Italy	Hydra-Cell model	G03SDBGHFEHA / G10XKBGHFEHA
Type of application	Pentane Metering in Foam Production	Flow rate	G10 10-20 l/min (2-5 gpm) G03 2.5-8 l/min (0.6-2 gpm)
Liquid	Freon Pentane Cyclopentane	Pressure	8 bar (116 psi)
Application details	This customer has preferred to use Hydra-Cell pumps over traditional metering pumps for the delivery of measured volumes of chemicals to the foaming head in the production of block sheets and special items in expanded polyurethane. The blowing chemicals used (originally freon and subsequently pentane and other products) are hazardous, highly volatile chemicals with low boiling points. In pumping them, any deviation of +/- 3% of the target volume is unacceptable. Dosing must not be influenced by the low viscosity of the chemicals, which means allowing no internal leakage, and the pump must be suitable for suction pressure of at least 5 bar. The customer is using G03 and G10 Hydra-Cell pumps with head materials and elastomers chosen to suit the liquids being pumped on individual production lines. Consistent, reliable dosing is being achieved, with results well inside the permitted deviation. They range from 30g on 10g at best, to 200g on 10g at worst (0.3% - 2%). On instructions from Italian head office, the company's subsidiary in the USA is also using Hydra-Cell pumps.		
Advantages of Hydra-Cell pump on this application	Precise, repeatable dosing. Acceptance of suction pressure. Resistance to chemicals. Seal-less design.		

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