

Application story



Bead Catalyst Manufacture - Bead Manufacture

Location	Russia	Hydra-Cell model	P400MPGSSB05S / P600MCGSSC05H
Type of application	Bead Catalyst Manufacture - Bead Manufacture	Flow rate	P400 200 - 400 l/hr (50 - 100 gph) / P600 500 - 1000 l/hr (130 - 260 gph)
Liquid	Solvent Slurry Reactant	Pressure	P400 5 bar (70 psi) / P600 5 bar (70 psi)
Application details	This catalyst plant is part of a large refinery plant manufacturing bead catalyst for use in the chemical and petrochemical industries. In the first stage of a 2-stage process, specialised spherical glass beads are produced. A slurry of 40% suspended solids in a carrier solvent is mixed with a reactant to form a water glass which is allowed to fall from the mixing head into a warm bath to form the glass beads. Without accurate proportioning and smooth flow of slurry and reactant to the mixer, the end result is not spherical glass beads but a white powder. Performance of metering pumps delivering slurry and reactant is critical. The plant evaluated single-diaphragm pumps from two internationally-known pump manufacturers, and another of domestic manufacture. Results were ultimately compared with those for the 3-diaphragm Hydra-Cell P Series metering pumps on the same application. None of the single-diaphragm pumps gave the plant the quality and consistency of glass bead it needed. Whereas the Hydra-Cell P400 and P600 metering pumps finally installed met all the plant's requirements – giving smooth, accurate, flow, easily controllable over a wide range with no need for pulsation dampeners. It was the only solution that gave plant engineering the quality and consistency of glass bead it was looking for. Accordingly the need for human inspection necessary when using other pump technologies, has been drastically reduced. Product quality is more consistent, productivity and yields have been greatly improved.		
Advantages of Hydra-Cell pump on this application	Smooth flow, no need for pulsation dampeners. Simple control of flow rate via an inverter to control pump speed. Easy maintenance and reliable operation when pumping slurries. Low LCC.		

www.hydra-cell.co.uk

Wanner Engineering -
World Headquarters & Manufacturing
Minneapolis USA
t: (612) 332-5681
e: sales@wannereng.com

Wanner International
Hampshire UK
t: +44 (0) 1252 816847
e: sales@wannerint.com

Wanner Pumps
Shanghai CHINA
t: +86-21-6876 3700
e: sales@wannerpumps.com

Wanner Pumps
Kowloon HONG KONG
t: +852 3428 6534
e: sales@wannerpumps.com