



Overview

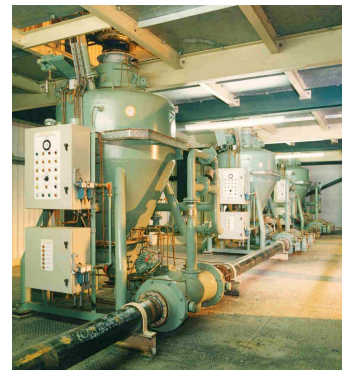
As the needs of developed and developing countries for construction materials grow, so does the demand for gypsum. Cement and plasterboard production continues to be the greatest consumers of gypsum, utilising over 130Mt of the commodity in 2004.

Gypsum manufacturers are increasingly relying on synthetic gypsum as an alternative to natural gypsum ore. The former is a by-product, or waste material of other manufacturing processes, such as the flue gas desulphurisation gypsum (FGD) process used in fossil-fuelled power plants.

Clyde Materials Handling (CMH) has used its technology, expertise and domain knowledge to power pioneering solutions globally across the gypsum industry. CMH is recognised as one of the leading pneumatic conveying, injection and materials handling solutions providers, and is ideally positioned in the marketplace to manage the movement of substances and help deliver increased system reliability and availability.

CMH has created innovative solutions that have the capability to transport the most stubborn and unmanageable of materials such as desulphogypsum (DSG), heat resistant accelerators (HRA) and screened oversized stucco.

The challenge for many gypsum manufacturers is to ensure that they have the supporting infrastructures in place that will enable them to handle and manage the array of materials that can be used in the production process and can help drive an efficient and effective operation.



Clyde Built Solutions

CMH's 'Clyde Built' solutions are known for their quality, durability, reliability and exceptional performance. These traits are of great importance within the gypsum industry where system availability and reliability are integral to success.

CMH is the world's leading dense phase pneumatic conveying specialist, which provides organisations with the ability to transport material in an unrestricted, controlled and continuous manner at low velocity, consuming low volumes of compressed air. The result is the creation of a solution that absorbs a minimal amount of power, causes less wear on system components and pipelines, and therefore, reduces maintenance costs and increases system availability, reliability and production.

This results in the production of a system that generates sustainable economic advantages, which include:

- Significant increases in system reliability, availability and performance
- Reduction in operational and power consumption, compared with existing systems, helping to drive down operating expenditure
- Reduction in air usage and energy costs
- Low maintenance, long life solution helping to dramatically reduce maintenance costs
- Optimised and highly adaptable conveying pipeline design
- Totally enclosed, dust and spillage free system, generating exemplary environmental benefits
- Fully automated, helping to reduce operating costs and provide even greater availability

These solutions are further enhanced through the use of Clyde's Dome Valve, widely regarded as the best material handling valve in the world. The Dome Valve has the ability to cut through static or moving columns of material through the use of its innovative inflatable seal mechanism, ensuring that a consistent pressure tight seal is created when the valve is in the closed position, but in the open position it provides an unrestricted full bore opening for the best product flow characteristics possible.

The Clyde Dome Valve is recognised as a low maintenance, long life solution that can last at least 1 million cycles between maintenance inspections.

CMH have also developed 'AutoFlow' conveying technology, which is a unique system designed to handle difficult materials associated with the gypsum industry. AutoFlow technology has been used successfully to convey difficult materials such as pre calcined DSG, calcined DSG and screened oversized stucco.

Clyde also has an extensive test house and R&D facility that has played an integral part in the development of new solutions across many industries, including gypsum. Clyde's test house has the capability to run comparisons against the characteristics and densities of specific substances, in order to ascertain how Clyde technology would be used to handle and manage its movement.

If a particular substance has a unique composition, Clyde Materials Handling will work tirelessly to create a solution that is able to transport the respective material. The AutoFlow conveying application is one example of this approach functioning successfully.

Clients

CMH has over three decades of experience in deploying innovative solutions that have addressed and resolved a vast array of business problems within the gypsum industry.

Clyde's expertise and outstanding track record enables them to continue to deliver value to their successful and prominent customer base.



Clyde has handled the following materials within the Gypsum industry:

- Alpha Base Plaster, Autoclave Mineral, Browning, Cement Ordinary Portland, Crushed Limestone
- Ground Silica, Ground Waste, Ground Waste Mix, HRA, Lime Hydrate, Mica Mix, Mica Powder
- Perlite, Perlite Expanded, Perlite Fines, Plasterboard Edge Trimmings, Plasterboard Ground
- Plaster – Stucco, Pre & Calcined DSG, Sander Dust (Asbestos Free, Masterboard & Superlux), Screened Oversized Stucco, Thistle, Vermiculite, Vermiculite Course

Materials Handled