

# Case Study Chemical Industry

## **Quick Clean Valves**

Valves where the internals of the valve need to be accessed quickly for clean down are common in the food, pharmaceutical and chemical industries.

The MID quick clean valve is taken apart easily without tooling while still maintaining high levels of safety and accuracy on reassembly. The inside of the valve is polished to ensure the valve can be easily cleaned.

The rotor is removed on linear bearings making the strip down a simple one-man job.





# SCA Packaging

We don't just make valves- we can also engineer systems to handle powders. Here the customer wanted to accurately dose starch in the on-site production of adhesive for cardboard manufacture.

Their old system relied on a chain and tube conveyor which was inaccurate, affecting the viscosity of the adhesive and the performance of their production of product. The chain and tube conveyor was also prone to breakdown and was high maintenance.

We designed a system that had some capacity to allow bag changing to prevent production running short of adhesive. The weighing was also dramatically improved by the use of screw conveyors with a dribble feed facility allowing fine control of the product weight.

## **Ciba Speciality Chemicals**

The customer, handling fertiliser products, wanted a special rotary valve with 2 outlets. The drive direction of the valve is reversed to feed the required outlet so a diverter valve is not required below the valve.

We fabricated a valve and used a standard rotary valve rotor in the

design. It was also fitted with mechanical seals as the product was abrasive.

The valve was specified for use in a zone 22 hazardous area so explosion proof, dust tight motors were used. We can now, of course, supply valves compliant with the Atex directive, in force from July 2003.



#### **Midland Industrial Designers Limited**

Common Lane • Watnall • Nottingham • England • NG16 1HD T: (+44)(0)115 9382154 • F: (+44)(0)115 9386315 E: enquiry@mid.uk.com • W: www.mid.uk.com Manufacturers of powder handling equipment since 1962