There are only a few technical accomplishments that have their origin in the Stone Age and are just as indispensable now as they will be in the future. One of these is adhesives. It is in this segment that Avery Dennison is writing innovation history in the 21st Century.

The adhesive is as old as man. The Neanderthals are said to have used pitch that they extracted from birch bark to glue stones and wood together in order to produce tools. The inventive tour de force of our predecessors has developed into a cutting-edge technology of the centuries, resulting in products that we can no longer do without.

Adhesive from Switzerland for Europe

The US-American company Avery Dennison is the global market leader in the adhesive products segment such as labels, foils, textiles, packaging and much more, it also being one of the most important suppliers in this segment in Europe. The acrylate adhesives that are required for the production in the European plants are Made in Switzerland: they are manufactured using reactors for the polymerization in the Kreuzlingen plant.

Not all adhesives are the same

The output comprises a wide range of adhesives with various properties for numerous specific applications: the focuses here are on permanent and removable. A specialty are crystal clear adhesives for Clear-on-Clear applications with which transparent labels can be applied to transparent glass or plastic containers.

Adhesives also have to meet special requirements in cases where labelled products are subjected to extreme environmental conditions. One example is blood units that are in some cases stores at temperatures of up to 196 degrees below zero.

Expanding the production capacity

The increasing diversity of the possibilities offered by acrylic adhesives goes hand in hand with an increase in demand. Plant Engineer René Kremer: «We are increasingly experiencing bottle-necks with our production capacities. This was the reason why we filed an application with the corporate group for the creation of an additional reactor line and this was also approved. The preparatory work is at an advanced stage in the meantime and the construction of the reactor is in full swing.»

New approaches in valve technology with Bachofen

The precision of the valve technology is of primary importance during polymerization as the end product has to be exactly compliant with the required specifications. The decision has to be substantiated as a new procurement of valve technology for projects of this size trigger a high need for investments. Bachofen, Schubert & Salzer’s representative in Switzerland intensively engaged with the process and made a recommendation to the engineers from Avery Dennison that is superior compared to the valves in the existing reactors. The customer leant a sympathetic ear to watertight arguments and permitted himself to be convinced by the technical benefits provided by the ATEX certified Schubert & Salzer ball sector and sliding gate valves.
With its special design based on two slotted discs sliding against each other and forming a seal, sliding gate valves are the only valves that combine high control accuracy with the lowest leakage rate. Also the throttling element - the slotted discs that slide against each other - suffers scarcely any wear so that long service lives can also be achieved under extreme conditions, an inherent feature of the system design.

The special cut-out ball sectors with double shaft bearing provides ball sector valves with an extraordinarily wide control range with a rotation angle of 90° and an extremely high position ratio. The elliptic flow surface and a generous overlapping to the sealing zone of the ball sector ensure an enormous degree of resistance to contaminated process utilities and a high degree of tightness during a long service life.

Contact:
Schubert & Salzer Control Systems GmbH
Bunsenstr. 38, 85053 Ingolstadt, Germany
Tel: +49 (0) 841 96 54-0 · Fax: +49 (0) 841 96 54-590
info.cs@schubert-salzer.com | www.schubert-salzer.com