Chemical & Pharmaceutical Industry

Manufacturing operations directly involved in the processing or manufacture of chemical products – including paints, fats and oils, detergents, inks, dyes, and cosmetics – or manufacturing sites within the pharmaceutical sector which develop or produce drugs or pharmaceutical products.

Application & Solution

1. **Maintenance cost reduction:**
   Chemical and pharmaceutical manufacturing processes use a wide variety of machinery. Once outside of the original manufacturer’s warranty the mix of component brands used across the production lines creates both a purchasing headache and additional maintenance cost.
   
   **Solution:** Pneumatic Product Brand Consolidation
   
   With the support of SMC Pneumatics, RS can help you reduce the number of different pneumatics brands used within your machinery and offer advice and how machine reliability and productivity can be improved by carefully considered upgrades.

2. **Energy management:**
   Knowing how much electrical energy is used by different parts of your process will enable energy efficiency measures to be implemented.
   
   **Solution:** Local Power Monitoring
   
   RS has a range of kWh meters and power meters which can be easily retro-fitted to provide a local indication of power usage. The range includes a variety of capabilities from simple local kWh measurement to power factor and ThD monitoring and full Ethernet remote data access.

3. **Reducing downtime:**
   Both chemical and pharmaceutical manufacturing production processes require proximity, flow and level sensing to run effectively, but it can be a harsh environment for sensors to work in and remain reliable.
   
   **Solution:** Chemical and Pharmaceutical Industry focused sensing products
   
   RS has a wide choice of sensing technologies and brands, including products tailored for use in the pharmaceutical packaging process, and flow and level sensing solutions for all types of liquids and powders. If you would like to resolve a sensing challenges or consolidate to a single factory automation sensing brand RS can offer a solution.

4. **Hygiene management:**
   Preventing product contamination is particularly important within pharmaceutical and cosmetic manufacturing.
   
   **Solution:** Approved products and shatterproof lamps
   
   RS can help with a range of ‘Foodsafe’ NSF approved cleaners and lubricants suitable for use in pharmaceutical manufacturing environments, and shatterproof fluorescent tubes which prevent fragments from accidental breakages entering the production process.
## Key technology

### Sensing
Proximity and position sensing products, flow and level control sensing, as well as temperature sensors and other technologies – including vision sensors to spot missing tablets, caps or seals.

**RS Brand options available**

### Pneumatics
Pneumatically operated actuators and cylinders provide pick and place operations, as well as product sorting or filling tasks.

**RS Brand options available**

### Motors and Control
Many parts of the process require motion or pump control which combines in panel control via a variable speed drive or DC speed controller, and the AC or DC motor on the machine.

**RS Brand options available**

### Power Transmission and Conveying
Mixing, forming, dispensing and conveying operations all use power transmission components and these require regular maintenance to avoid unplanned production delays or downtime.

**RS Brand options available**

### Lubricants and Cleaners
Within what is most likely a 24/7 operation continual lubrication and cleaning of moving parts and fluid lines is an on-going requirement.

**RS Brand options available**

### Process Control (PLCs and Temperature Control)
Will control virtually all processes within a packaging or printing operation – either individual standalone machines or an entire production line.

**RS Brand options available**

### Tools and Health and Safety
Having the right tool for the job is vital, as is protecting your work force from risks – such as chemical burns and fume/dust inhalation – via the use of Personal Protective Equipment (PPE).

**RS Brand options available**

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