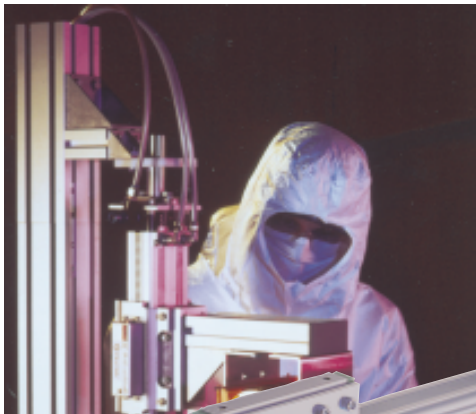


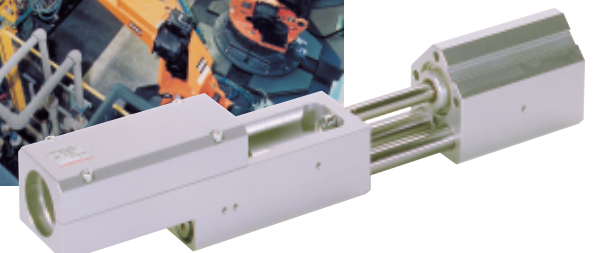
## Customer specific special components

The integration of system components such as drives, controls, guides, special functions, sensors and system interfaces in to a sub-assembly (macro-component) provide highly efficient customer specific automation solutions

### Examples of customer-specific special components



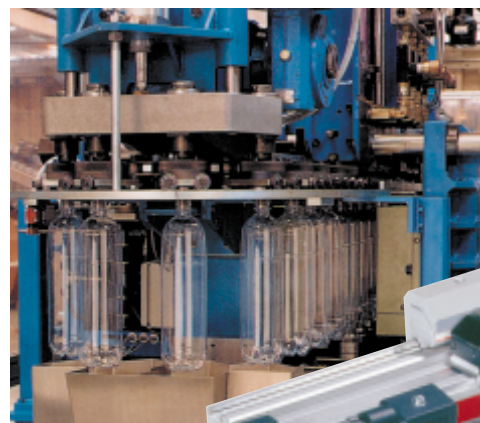
**Clean room pneumatic cylinders**  
this pneumatic cylinder is equipped with wear-resistant components for use in clean rooms. Particle emissions from the actuator are prevented by the integration of an internal vacuum system



**Pneumatic feed unit**  
for positioning welding heads in automatic welding devices



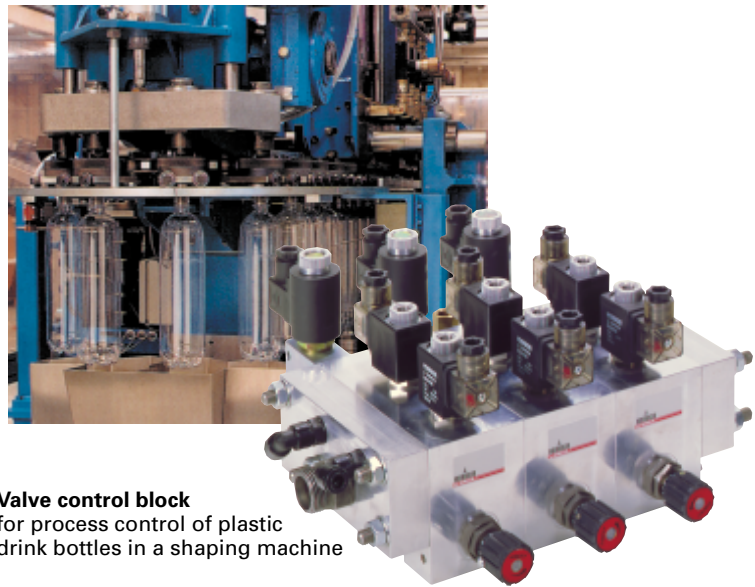
**Linear drive for roll cleaning**  
Used in the sheet metal, film, paper, printing, and surface coating industry



**Macro-component used in a plastic blow-moulding machine**  
- for forming plastic bottles  
The drive moves a filler neck which shapes the PET bottle with high pressure air (40 bar) in the forming die



**Non-rotating cylinder-valve combination for precision lifting**  
Used in sorting equipment for reagents



**Valve control block**  
for process control of plastic drink bottles in a shaping machine



**Maintenance device combination**  
with integrated security function for use in roller offset machines



**Over thrust unit**  
For use as a distribution guide to distribute packed parts on a conveyor.  
E.g. airport installations