LONG LIFE COMPACT CONTINUOUS AUTOMATION PRECISION

PRECISION PICK & PLACE SYSTEM

Manufacturing - Pick and Place
Actuators offer positional accuracy and repeatability

KEY CUSTOMER:

In order to meet the growing demand for its products, Harvey Water Softeners based in Woking, Surrey, has recently automated the manual process responsible for the assembly of its popular push fit connectors. These connectors are an integral part in the water softener product; there are approximately 12 connectors in each product. The largest water softener manufacturer in Europe, Harvey Water Softeners sell a water softener every 17 minutes!

CHALLENGE:

The application is a manually intensive process that requires precision placement of component parts into multiple receptacle profiles. They require significant force to insert and are repetitive in nature. There are three main universal components that need to be assembled to form the push fit connector. First, the 'O' ring seal is inserted into the receptacle base, followed by a cartridge and finally the collet. Once assembled, these components form the push fit pipe-fitting. The high demand for the products has further added to the company's drive to increase production.

SOLUTION:

For this application, the design team specified HepcoMotion's SBD belt driven actuator and PSD80 screw driven low maintenance actuator to provide the continuous positional control at the speeds required to meet the targets set. SBD offers high accuracy and rigidity – crucial benefits for the precision placing of small components in the assembly. Accurate positioning is also required by the actuator to stop the bases in line with the stations. The space-saving, ready-to-mount PSD80 provides accurate control and to vertically position the 'O' rings correctly. The consistency and reliability of Harvey Water Softeners assembly process has improved as a result of the new system. The new system complements the sophisticated, automated production line in the rest of the factory.

CONTACT US TO DISCUSS YOUR SPECIFIC GUIDED MOTION NEEDS