

Screen Printing on Complex Shaped Items

ISIMAT's Servo-Based Screen Printing Machines Print onto Modern Packaging

ELLWANGEN, Germany, 5 October 2006 – ISIMAT will be exhibiting its new single-colour screen printing machine EC 1440 UV at Emballage World Packaging Exhibition 2006, held in Paris, France, 20 – 24 November 2006; the printing station of the EC 1440 UV has four servo axes, the simultaneous movements of these four axes are synchronised during screen printing onto modern packaging containers.

Today's designs of bottles, jars and containers have moved on from simple geometric shapes such as cylindrical or oval, to shapes that combine oval, linear and circular elements to ensure maximum shelf impact for the packaged products.

Direct screen printing onto these modern shapes requires maximum flexibility from a printing station; four servo axes in ISIMAT's printing stations provide this flexibility: one servomotor moves the screen, a second moves the print head with screen and squeegee up and down, a third moves the squeegee independently from the screen and a fourth rotates the fixture.

ISIMAT has used this type of four-axes servo system in the design of the printing station of the single-colour EC 1440 UV which is on display. The same design is also incorporated into the printing stations of ISIMAT's multi-colour screen printing machines with rotary indexing tables, where it is required that each fixture of an indexing table is driven by its own servomotor.

The synchronised movements of four servo axes enable the squeegee edge to follow a sophisticated contour during printing. For example, a wrap around can be printed onto a square bottle that has round corners; the radius of the corners can be as small as 10 mm.

Servo technology in screen printing machines does not increase the complexity of machine setting. On the contrary, extensive motorisation reduces changeover times. Job specific machine settings can be stored and then recalled for motorised machine pre-setting. A touch screen interface provides intuitive user guidance.

ISIMAT will be exhibiting in Hall 001, Stand 5a, where personnel will be on the stand to discuss specific applications with visitors.