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Plus

BEST PRODUCTS
OF THE YEAR!
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JIM TIGHE,
Engineer
of the **Year**

How his SpaceShipOne beat
the competition, p82

WINNER ASBPE
2004 BEST REDESIGN

EXPO

BEST PRODUCTS, Continued

BEARINGS

Save space, weight, and material cost Kaydon Bearings Division's Reali-Slim® TT Series miniature turntable bearings are designed to deliver the needs for weight savings, reduced product envelope size, and greater design flexibility. They are a single four-point contact radial ball design, consisting of a "gothic arch" raceway for strength and one-piece separators for low frictional torque and long life. They can handle radial, axial, and moment loading. According to the company, they can be installed quickly and easily.

Kaydon Bearings

<http://rbi.ims.ca/4388-618>

HYDRAULIC SYSTEM

Provides high force and rapid displacement LatchTool Group's PowerCylinder is engineered as a compact, three-speed hydraulic system that integrates a pump, accumulator, actuator, and controller combination into one package. Motorized

or manually driven, the product uses three Pascal compliant circuits to provide high force and rapid displacement economically. Miniaturization, integration, and economy are made possible by a family of floating seal valves that require little space, yet they permit large unidirectional fluid flows. As an OEM component, the product provides the advantages of a hydraulic system to small spaces; with its cartridge-like features, designers can amplify force and speed without the mess of hydraulic fluid containment.

LatchTool Group

<http://rbi.ims.ca/4388-619>

MOTION SYSTEM

Increases throughput

VascuLathe, from Aerotech, is designed as an approach to satisfy the demanding requirements of stent manufacturing applications. The fully integrated motion system couples automated material handling functionality with high performance direct-drive linear and rotary motion capability. The integral linear-rotary design increases throughput by two to five times when compared to traditional screw-based or other manufacturing approaches, while still maintaining submicron tolerances on tight part geometries. The

increased throughput is designed to give much-needed flexibility in the stent-manufacturing environment; a higher throughput means fewer machines are required to produce an equivalent number of stents, resulting in lower total labor costs and reduced floor space requirements.

Aerotech

<http://rbi.ims.ca/4388-620>

ROTARY STAGES

Features compact footprint

Aerotech's ADRS series rotary stages reportedly provide ultra-smooth rotary motion in a low-profile, compact footprint. It is designed to solve the problem of providing high performance rotary motion in a low-profile, compact footprint, which runs counter to conventional designs where one needs to increase the profile of the rotary device to achieve higher accuracies. The product uses a cog-free, slotless motor that offers increased velocity stability and smooth motion.

Aerotech

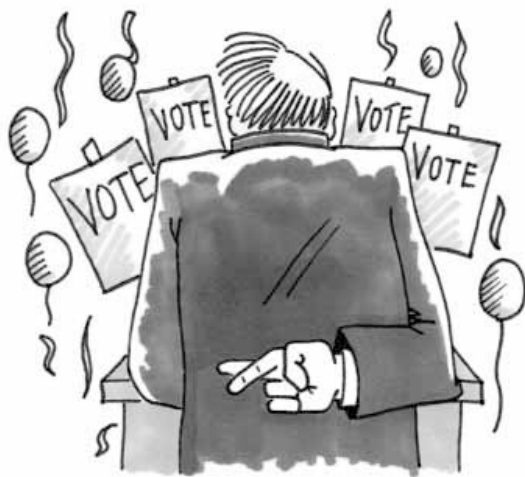
<http://rbi.ims.ca/4388-621>

LINEAR ACTUATOR

Features improved weld quality

Tol-O-Matic's ServoWeld SW44 is engineered as a high-thrust linear actuator

Glass so pure politicians are jealous.



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