

# Parker Automation Offers Selectable Levels of Integration™

Customers benefit from a single-source solution for components, sub-systems, and complete automation solutions

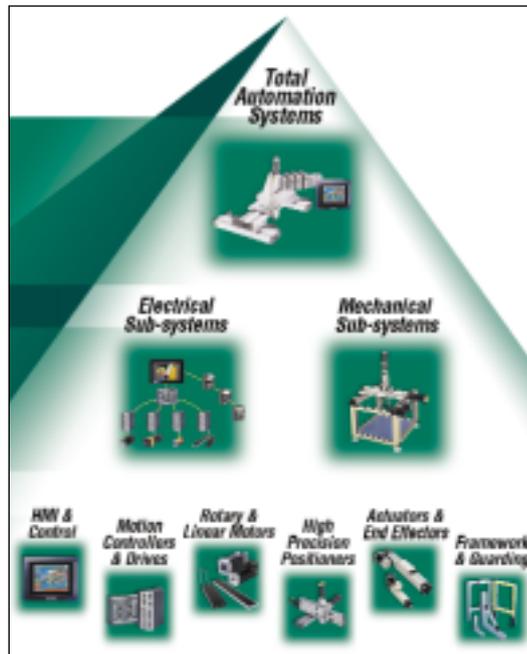
The idea behind Parker Automation's Selectable Levels of Integration (SLI) sounds so simple, it's natural to wonder why every vendor doesn't adopt it. The answer is equally simple: Most other vendors don't have what it takes.

Parker is one of the industry's largest suppliers of machine automation products. Its lineup ranges from HMIs and controllers to framework and guarding, with motors, drives, positioners, gearheads, actuators, and lots more in between.

The breadth of Parker's machine automation product line makes it possible not only to supply virtually every need that an integrator or machine builder might have, but also, with the help of Parker's integrators, to design, assemble, and deliver turnkey automation machinery to manufacturers. "Our fundamental strategy is to let our customers choose the design alternative that suits them best," says John Walewander, marketing manager for Parker Automation's Compumotor division.

In addition to selecting components or complete systems, customers now have a third option from Parker—purchasing electrical and/or mechanical sub-systems. Parker's sub-systems are key to its SLI concept, since customers can select the combinations that best fit their manufacturing requirements and their budgets.

"No other vendor offers products, sub-systems, and complete packages, and unless a vendor has a broad range of products, as well as extensive experience in designing and assembling automation machinery, it's not cost-effective to expand beyond what it currently offers," says Walewander. "There are potential cost/performance and time-to-market tradeoffs to be made between components and sub-systems. Individual products offer a greater



Parker Automation allows customers to choose complete systems, electrical and mechanical subsystems or products.

potential for customization, while sub-systems save time and facilitate connectivity."

One example of the sub-system approach is the use of CTC's Motion Panel™ and Compumotor's 6K Controller. "The Motion Panel is a motion/HMI solution for the 6K family of controllers," says Roy Glassett, general manager and vice president of operations for Parker's Electromechanical Divisions. "MotionPanel, a PC-based graphical interface, attaches right to the 6K, a multi-axis motion controller. Customers can use the system right out of the box, and can immediately manage and run programs on the 6K Controller. The MotionPanel even comes with more than 70 pre-configured motion control panels that automatically boot up when you plug in the system, saving the customer many hours of programming time."

Another example is Parker's linear servomotor product offering. End-users can benefit from the engineering expertise of the Daedal division by purchasing an integrated linear motor positioning system, complete with bearings, encoder, and cabling. As a second option, linear servomotors are available as components through the Compumotor division. The OEM can take advantage of the cost savings and flexibility of purchasing customized components and utilize its own engineering talents to create a system. While the sub-system approach is cost-effective, Parker's complete systems and components have their place, too. Here are a few highlights:

## Complete Systems

Total automation systems are a complete electro-mechanical solution, ensuring that every component is compatible and speeding time to market. (See top of pyramid.) This option requires minimal design engineering. Parker's network of Automation Technology

Centers will help customers locate the most qualified independent systems builders best suited for their application, or give them the technical support they need to integrate the solution themselves.

### Electrical and Mechanical Sub-systems

Machine builders often find sub-systems efficient, since they allow for collaboration and specialization. The sub-systems address applications such as automated assembly, labeling, vision system inspection, opto/electronic testing and measurement, and warehousing/inventory control and packaging, among many others. (See center of pyramid.)

- **Electrical Sub-systems.** Incorporating all the electrical/active elements of the machine, electrical sub-systems feature a variety of methods for controlling a machine. Electrical sub-systems contain the control elements of the system—including the HMI machine control and motion control. Parker's electrical sub-systems offer customers a variety of options to fit their control scheme.
- **PC Logic Control.** This solution provides the open environment inherent with PCs, without having to re-educate the whole factory, enhancing supportability. Parker's MachineLogic uses a real-time operating system control program that provides deterministic control via a standard PC or one of Parker's PC-based PowerStation HMI systems. Those systems include solid-state, non-rotating Compact Flash drives, which are far more reliable than conventional hard drives, especially on the factory floor.
- **Motion Controller-based Control.** Parker's controllers are capable of controlling I/O as well as motion parameters, and in many applications they offer the optimum coupling between motion and machine.
- **PC-based Control.** Personal computers offer more power for less money, and so they have become a viable alternative to conventional PLCs. PCs offer the ability to blend motion control and database technologies with high-level business systems, for enhanced supervisory control within a manufacturing facility or anywhere in the world. Unlike PLCs, PCs offer the expansion and connectivity benefits of an open architecture and can be programmed in many languages.
- **PLC-based Control.** Programmable logic controllers are cost-effective solutions that have proven their worth in countless machine control applications throughout the world over the past three decades. Parker's sub-system strategy is to assemble a range of fieldbus-ready controls with appropriate HMI drivers for virtually every PLC.
- **Mechanical Sub-systems.** Mechanical sub-systems incorporate the structure and mechanical components that put the machine into motion. No matter what a customer's automation need, Parker Automation has the right mechanical solution. Using the most comprehensive array of products in the industry, Parker engineers will craft a system solution to meet the specific requirements. These systems can be provided in any mechanical configuration, ready for direct integration with motors and controls.

Parker's mechanical sub-systems include Gantry

robots, linear motor systems, precision positioning tables, and rod and rodless actuator-style positioning systems.

"The mechanical sub-systems utilize our wide spectrum of mechanical building blocks and are designed to be assembled in a highly modular fashion, so we can offer an unrivaled variety of form factors to meet just about any customer need," says Paul Horvat, marketing manager for Parker Daedal. "Thanks to these modular systems, a machine builder can use its own engineering resources to focus on the overall machine instead of wasting time inventing custom mechanical systems. We let the customer pick the level of integration that is appropriate to the needs of his project, ranging from simple modifications to complex mechanical sub-systems."

Positioning systems needed for many of today's high-technology applications must satisfy an ever-increasing demand for high throughput and extreme precision. Parker's linear motor systems are built for both high-speed and accurate positioning. The slotless linear motor design allows quick response, high acceleration, high velocity, and fast settling times, in conjunction with micron- and sub-micron-level positioning. Parker's linear motor systems are available in both Gantry style and standard XY configurations. Applications include vision inspection, laser manufacturing, component handling, high-speed assembly, and pick-and-place.

Precision positioning systems from Parker offer up to six axes of motion and feature precision-ground ballscrew drives for high positioning accuracy. These screw-driven positioners come in several standard forms including traditional XY to cantilevered XY and table-top systems. All precision systems from Parker come complete with laser interferometer accuracy certification. Applications include test and measurement, fiber-optic coupling, high-precision arrayers, automated assembly, and precision manufacturing, including applications that call for clean room- and/or vacuum-compatibility.

### Products

For customers with engineering expertise, Parker offers a broad range of machine automation products. These components include HMI and control, motion controllers and drives, rotary and linear motors, gearheads, high-precision positioners, actuators and end effectors, and framework and guarding. (See bottom of pyramid.) Parker products are found in machine tools, pick-and-place applications, semiconductors, amusement park attractions, and any place where machines depend on electromechanical control. Even the do-it-yourselfer will have the support of Parker behind him.

### FOR MORE INFORMATION

Visit Parker Automation's website at [www.parker.com/machineautomation](http://www.parker.com/machineautomation), call (800) 237-0181, or circle the appropriate number on the Reader Service Card included in this supplement.

Selectable Levels of Integration . . . . . circle 106