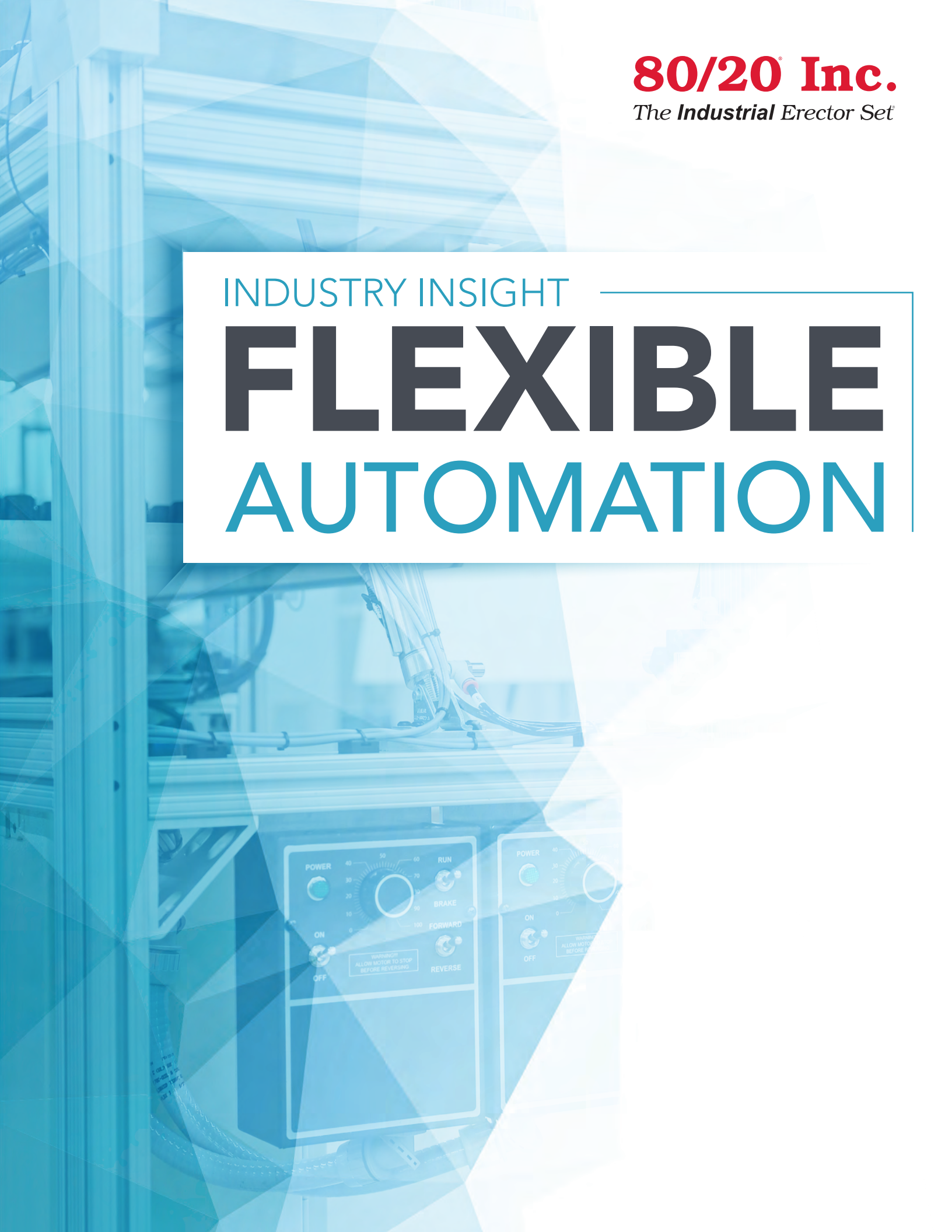
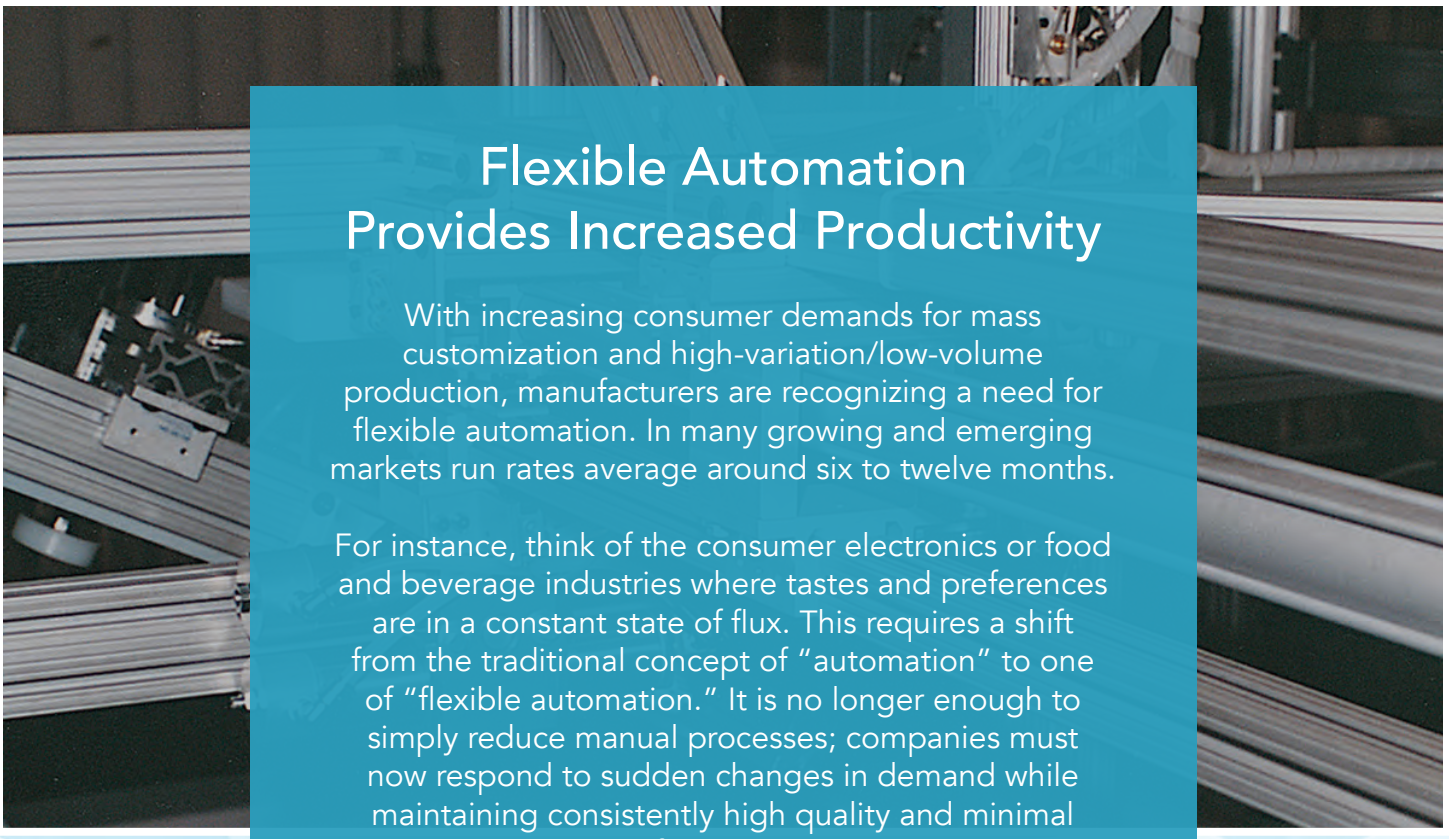
80/20® Inc.

The *Industrial* Erector Set®

INDUSTRY INSIGHT

# FLEXIBLE AUTOMATION





# Flexible Automation Provides Increased Productivity

With increasing consumer demands for mass customization and high-variation/low-volume production, manufacturers are recognizing a need for flexible automation. In many growing and emerging markets run rates average around six to twelve months.

For instance, think of the consumer electronics or food and beverage industries where tastes and preferences are in a constant state of flux. This requires a shift from the traditional concept of "automation" to one of "flexible automation." It is no longer enough to simply reduce manual processes; companies must now respond to sudden changes in demand while maintaining consistently high quality and minimal reconfiguration time.

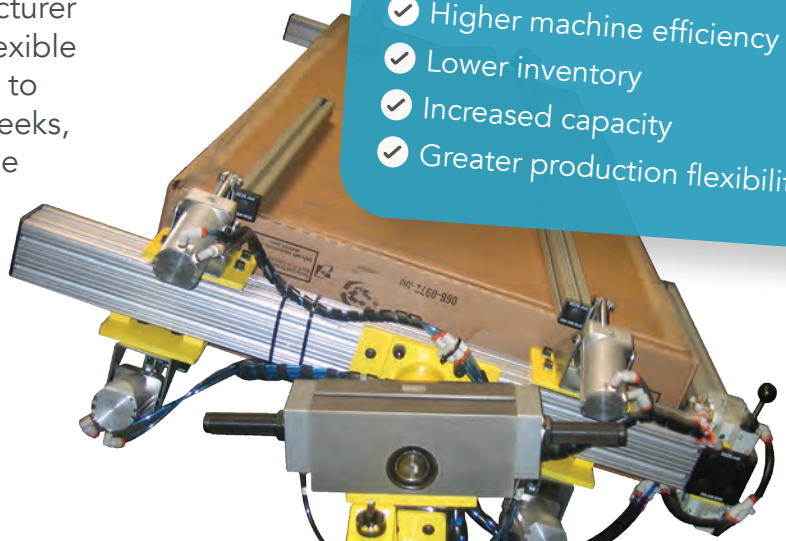
## Quantifiable Results

Flexible automation allows robots and systems to quickly and easily change from one task to another, enabling both low and high mix manufacturing. This is different from traditional processes that centered on fixed automation where the application is customized around a specific product or task, making it less scalable than flexible solutions.

As an example, a large auto manufacturer overhauled its plant to implement flexible capabilities. This allowed the factory to add new models in as little as two weeks, compared to a two-month time frame prior to the installation of flexible manufacturing. Combined with the declining prices of industrial robots, the return on investment was staggering. The company estimates over $2 billion in savings.

**The benefits of a flexible manufacturing system can be sizable:**

- Less waste
- Fewer workstations
- Quicker tool changeover
- Reduced downtime
- Increased quality control
- Reduced labor costs
- Higher machine efficiency
- Lower inventory
- Increased capacity
- Greater production flexibility



# Adapt and Overcome

T-slot aluminum profiles and products are rapidly becoming the standard for structural foundations of many automation systems. Strength, coupled with the ability to quickly and easily make adjustments as your needs and requirements change, make profiles an optimal solution.

Take a look at the design of a T-slot profile. They have channels that allow you to mount components directly to your frame. This provides infinite positioning of accessories such as sensors, valves, actuators, safety controls, vision systems, bar code scanners and human-machine interfaces that can be integrated into your equipment. When your product mix or processes change, simply adjust the system and accessories accordingly. You have an adaptable and modular application that enables fast changeover and increased productivity through efficiencies.

These modular cells also allow you to eliminate large linked systems and replace them with interchangeable units that can be pulled from one area and rolled to another on an as-needed basis. This enhances scalable capabilities and decreases changeover and downtime while also utilizing less floor space.

**STRENGTH SIMILAR TO STEEL**

**WEIGHS LESS THAN STEEL**

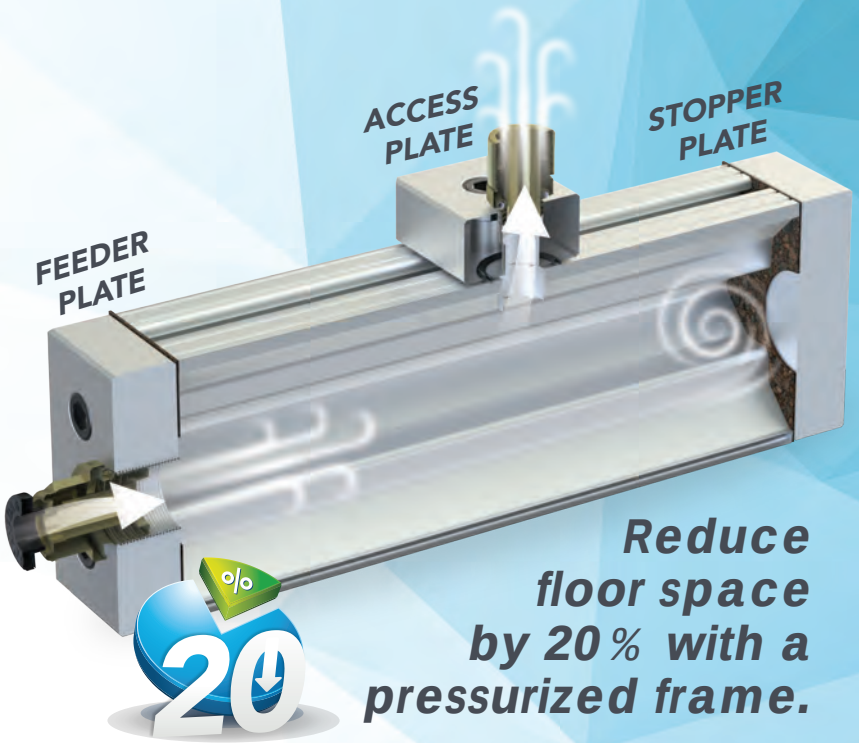
**NOT MAGNETIC**

**CORROSION RESISTANT**

# Product Efficiency

Profiles allow you to run tubes and wires within the T-slot channel or add pressurization directly to your frame. The T-slot profile becomes part of your equipment, completing tasks and eliminating the need for duplicate resources.

Flexible solutions will require product options as your processes change. 80/20 provides a wide range of parts and accessories to enhance your initiatives. The products are designed to work with T-slot profiles, providing multiple options for different scenarios.




***Reduce floor space by 20% with a pressurized frame.***


## Safety Priorities

Safety issues are always a priority when implementing any new manufacturing system. 80/20 products create efficiencies by integrating guarding and safety features into the automation solution itself. As rules, OSHA regulations, policies, and personnel change, 80/20 simply adjusts to accommodate.

Speed up your reaction time without sacrificing quality - 80/20 products create reconfigurable systems that improve flexible automation solutions.

Download our Automation Solutions Booklet for more information on integrating 80/20 T-slot products to save costs and enhance your application. Visit 8020.net/requests