Flexible Tooling

Gripping and Transporting
For over 30 years BILSING AUTOMATION has concentrated its capabilities to the development and production of flexible tooling and handling systems for press shop and body shop applications. BILSING AUTOMATION’S tooling is an innovative modular system, assuring extraordinary quality and the highest flexibility. The focus is concentrated on finding the best solution for automation and handling tasks, either by single components, modular systems or complete grippers.

Wherever gripping and transporting becomes necessary in the automated process, the flexible tooling minimizes the expense for design and development. A customized solution is developed rapidly from a variety of standard components. Our customers benefit from BILSING AUTOMATION’S commitment to the continuous improvement and development of our Flexible Tooling System. BILSING AUTOMATION draws upon its extensive project experiences to develop solutions that give our customers a competitive advantage in the market.

All these attributes have made BILSING AUTOMATION a worldwide leading supplier in this market segment. Today some of the most recognized manufacturers, as well as their suppliers and system integrators, are counted among BILSING AUTOMATION’S clients. BILSING AUTOMATION has a worldwide network of 16 subsidiaries located in Europe, North America, South America, Asia and the Pacific Rim. This ensures that the BILSING AUTOMATION’S components and modular systems are available anywhere and at any time.

Quality and delivery reliability is our corporate philosophy and begins with our own manufacturing facilities. The core of the mechanical production is established by high-precision CNC machines. Multilateral treatment of components is used to achieve both reduction in set up and process time. BILSING AUTOMATION’S pre-assembly and assembly processes are vital to delivering the highest quality components in the shortest time possible.
BILSING AUTOMATION has established itself as a global leader in the development and manufacturing of modular tooling systems for automated press shop applications. We offer tooling systems for: robotic press to press transfer, linear transfer, tri-axis transfer presses and crossbar transfer presses. Our modular tooling solutions can adapt to a variety of different logistics and manufacturing structures in most press shop applications.

Special materials like aircraft grade aluminium for vacuum cup mounting and customized rubber mixtures help to guarantee the operational stability, high performance and a long product life of our vacuum cup products. BILSING AUTOMATION is constantly striving to reduce the weight of our tooling systems. We are succeeding through the use of innovative lightweight alloys and carbon fiber technology.

Our engineers have focused on developing automation tooling that has superior performance under the most adverse environments. While understanding the need for production efficiency and cost minimization of the products that our customers produce, BILSING AUTOMATION has developed its Flexible Tooling System to help our customers meet their goals. BILSING AUTOMATION has standard automatic coupling systems for the mechanical, electrical and pneumatic connections on our tooling. This coupling system allows for very efficient tool change process. When given the opportunity BILSING AUTOMATION can implement its carbon fiber tubing into the design for additional weight savings of a tooling solution. This allows our customers to realize an increase in their production rates that otherwise could not be achieved when using standard aluminium or steel tubing.
One of the most important preconditions for the successful development of our body shop tooling is the detailed comprehension of the application. BILSING AUTOMATION offers the most comprehensive modular system of clamping connections available on the market. Our engineers have developed special components for any application in the body shop. BILSING AUTOMATION completes its tooling designs in CATIA. If our customer requires exact presentation and simulation of their processes we can provide this service in ROBCAD or IGRIP.

BILSING AUTOMATION’s Flexible Tooling System helps to avoid costly single frame welded constructions, which typically can consume much of the robots payload capacity. Another benefit to using BILSING AUTOMATION’s Flexible Tooling System is that all of our clamp blocks are available in a split version; this makes facilitating an exchange of components without disassembly or modification of the gripper assembly. The use of our Flexible Tooling will help reduce down time when components need to be replaced due to schedule maintenance or an unfortunate crash situation.

BILSING AUTOMATION’s Flexible Tooling System for body shop applications will decrease your design time, decrease your manufacturing time, and allow your company to specify robots with smaller payloads. All of this equates to bottom line savings that you, our customer, can experience each and every time we are called upon.
BILSING AUTOMATION has established itself as a highly competent supplier of automation tooling for the plastic injection molding industry. We transferred our long-lasting experience of "press shop" and "body shop" applications, expanding our product range according to the requirements of the plastic injection molding industry.

Our engineers understand that being in direct contact with a plastic surface, the grippers have a great influence on the process stability and thus on the quality of the end product. The gripping systems must be very solid in order to avoid any deformation of large plastic parts. This is critical when unloading hot plastic parts from injection molding machines. For this purpose BILSING AUTOMATION has developed special vacuum cups with a high temperature resistance, which allows for the part to cool when handling.

Again, understanding the market and the needs of our customers, BILSING AUTOMATION developed our "Series 16" tooling to handle smaller parts. This size of tooling is distinguished by its light weight, small construction and high stiffness. The "Series 16" is used primarily for small parts in the 1K and 2K sector as well as for multi cavity molds.

Many companies have been convinced that our circular tube system's flexibility and the associated advantages in which it provides for the "gripping and transporting" of their plastic products have greatly contributed to the success of their processes.
The products of BILSING AUTOMATION are used in many different industries that require products to be handled either in automated or manual processes. BILSING AUTOMATION has provided solutions to the automotive, aerospace, appliance, glass, food, and packaging industries.

BILSING AUTOMATION has a diverse knowledge base of engineering talent. Our global presence allows us to tap into many different resources that have specific expertise in all of the markets that BILSING AUTOMATION serves.

BILSING Automation’s Flexible Tooling Systems have made handling products easy. We will continue to draw from our diverse experiences, listen to our customers and develop modular components or systems that make sense.

BILSING AUTOMATION – "Handling made easy"
To develop new ideas and world class solutions, BILSING AUTOMATION must understand the pulse of the market. Through market research and the scientific findings of our highly competent research and development team, BILSING AUTOMATION continues to provide its customer with a unique world class Flexible Tooling System.

Closely collaborating with our customers allows BILSING AUTOMATION to understand their specific needs and requirements. When developing new automation concepts, our development team analyses the overall process flow of the operation in question and determines the best solution that will provide our customers with the best return on their investment.

Depending on the application, BILSING AUTOMATION will prepare designs using state of the art design software to develop its Flexible Tooling Systems. When simulation is required to help optimize production we utilize ROBCAD or IGRIP. BILSING AUTOMATION documents the smooth operation, maintenance, and repair under CE guidelines.

All of the Flexible Tooling components are developed with future challenges in mind. The family of components can be used effortlessly amongst each other. The materials used to produce these components are aluminum, steel, and carbon fiber. Using specific types of material and a unique way of controlling the process in which the carbon fiber is manufactured, makes BILSING AUTOMATION a leading authority in carbon fiber technology.
For more than 30 years, service has been a key focal point in the success of BILSING AUTOMATION. Throughout the “Life Cycle” of your project BILSING AUTOMATION can provide that support your company requires to ensure project success. Whether planning or designing, project management or installation support we offer continuous support to our customers.

A highly motivated and professional team guarantees maximum flexibility, quality and delivery reliability. BILSING AUTOMATION’s quality management team offers a level of proficiency being unrivalled anywhere in the world. Our groundbreaking, “Spare Part Management Program” allows our customers to have the inventory required to maintain existing equipment or assemble new tools with no cost to them until the products are used.

BILSING AUTOMATION can provide complete on-site training. Our experienced service engineers will communicate their know-how from numerous applications directly to your engineering or manufacturing personnel.

BILSING AUTOMATION recommends that our customers get us involved as early as possible. Understanding the complete process allows BILSING AUTOMATION to optimize the tooling concepts and provide our customers with the best possible solution.

The catalogues and manuals, which we will gladly provide on request, are as practical as our tooling systems. If you have any questions, please contact us.

Advantage - BILSING AUTOMATION:
- More than 30 years of experience in automation
- Flexible Modular System
- Easy installation and adjustment
- Constant weight reduction through the use of light weight alloys and carbon fiber technology
- Only one Allan key, size 8, for all the components
- Components are reusable
- Delivery time: Stock items 24 hours
- Reduction of engineering times, as all components are also available as 3D-solids at www.partserver.com

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The customer takes center stage
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