

FLEXIBOWL®

FlexiBowl®: A Flexible Part Feeding System

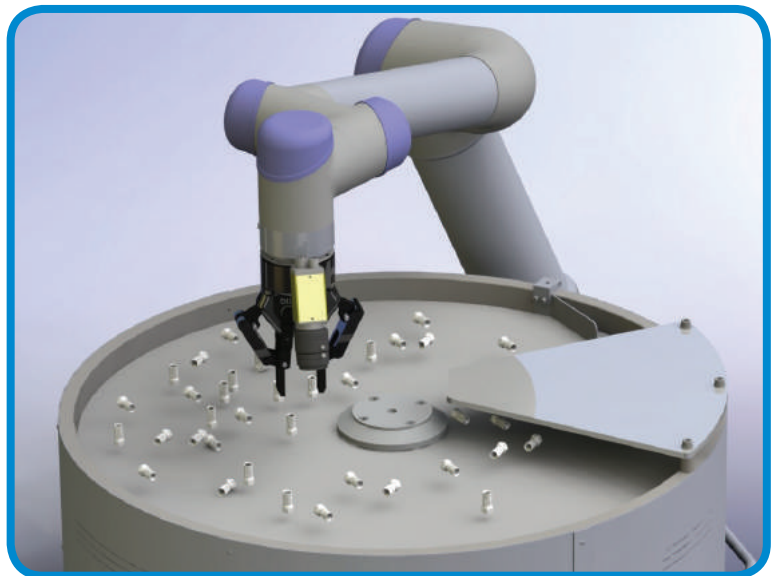
FlexiBowl® is an innovative device to feed bulk components. It is easily integrated with any robot and vision system. Among its distinctions are simple design, reliable construction, and low operating noise.

FlexiBowl®: An Efficient and Reliable Solution

FlexiBowl® is highly versatile and suitable for feeding a wide variety of parts, regardless of:

- Geometry (cylindrical, complex 3D shape)
- Surface (smooth, sticky, tangled, etc.)
- Material (delicate, fragile, rubber and silicone)
- Weight and Dimensions (metal stamped parts)

Several comparison studies have proven FlexiBowl® to be suitable for feeding parts in a more uniform, continuous and efficient way. Parts can also be fed in continuous movement, i.e. circular tracking, to provide higher productivity.



FlexiBowl®: The Ideal Solution For The Current Manufacturing Needs

Integrators of assembly automation and OEM's who need equipment to manufacture assemblies are faced with a very large challenge of how to introduce parts into production equipment, minimize workcell complexity, and keep costs down. Whether there is a need to increase productivity, reduce costs, or add product variants, flexible part feeding systems are well suited to improve applications with complex parts and to simplify frequent part changes.

MEDICAL



Medical disposables for dentistry, bloodline components, needles, syringes.

COSMETIC



Mascara, lipsticks, powder compacts, brushes, perfumes, etc.

ELECTRICAL COMPONENTS



Switches, connectors, fuse blocks, electromagnetic components, coils, etc.

AUTOMOBILE



Switches, electrical actuators, connectors, electrical and electro-mechanical components, engine and suspension parts, etc.

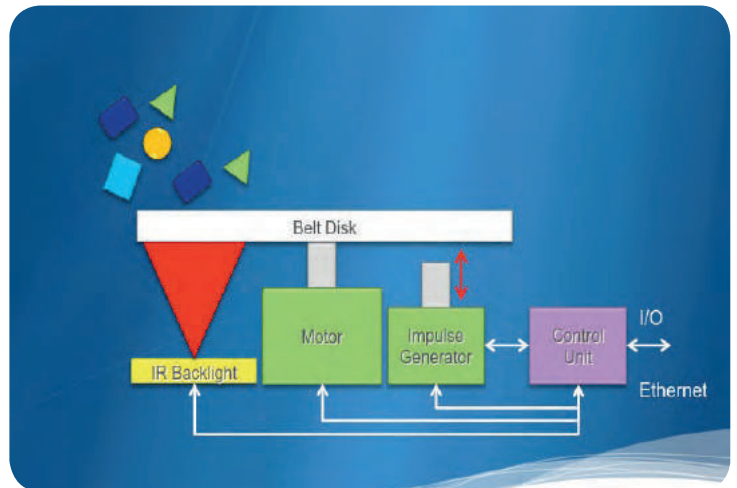
How it works

FlexiBowl® includes a rotating disk that is directly actuated by a servomotor and an impulse generator underneath the surface. The servomotor can move the disk in both directions. An intelligent drive unit and optional backlight are directly installed inside the system.

The working principle is very simple and straightforward: parts that are released by the hopper and fall on the surface are separated through the combined actuation of servomotor and impulse generator. The resting position is changed and allows the vision to locate parts and drive the robot for pick up with the proper orientation.

An available set of instructions allows changes to acceleration/deceleration parameters and impulse frequency according to part geometry to achieve an optimal result.

Communication with the robot controller and vision system is done by sending simple commands through the available communications ports: ethernet, ethercat, digital I/O signals.



FlexiBowl®: Available Models and Main Options

FlexiBowl® is currently available with different bowl sizes: 350, 500, 650, 800mm inner diameter.

The rotating disk is made of standard conveyor belt material and can be easily replicated and replaced from wide variety of sources. Changing out the surface takes only a few minutes. The disk is available in a wide variety of different colors and materials (silicon, textured surfaces, etc.). We are available to assist with determining the appropriate disk material for your parts and application requirements.



An optional internal backlight is available (red, white, infrared led).

To facilitate the necessary unattended running capacity we offer a range of hoppers with standard 5, 10, 20 litre capacity. Larger capacity (40-80 liter) or elevating trays can be supplied upon request

FASHION ACCESSORIES AND METAL PARTS



Eyeglass components,
buckles, zip fasteners,
buttons, etc.

CONSUMER ELECTRONICS



Components for
appliance, computers,
phones, remote controls,

HOUSE & PERSONAL CARE



Perfume dispensers, dental
brushes, etc.

TOYS AND GADGETS



Assembly, Kitting, Pad
Printing, etc.

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