

MELFA EASYFEED WITH ASYRIL

For innovative parts feeding



- Flexible 3-axis vibrating table
- Simple setup and parameter adjustment
- Control via the robot program
- Integrated Backlight & tool-free quick-change system of the vibrating plate

MELFA EasyFeed with AsyriI

Flexible parts feeding combined with robots opens up new possibilities in practically every industrial field. This cost-optimized and flexible solution for singulating and aligning small and large components ensures compliance with quality demands – also with sensitive products. The MELFA EasyFeed solution with AsyriI permits space-saving cells for machine feeding systems in innovative automation installations.



Classical feeding

When single or different components must be fed to a machine, classical vibratory feeder systems (i.e. bowl feeders) require lots of space, and every component change is costly and time-consuming.

Recirculation systems involving many cycles can damage the components, and sometimes defective parts are permanently transported through the process.

Consequently, there is a lack of flexibility to changing parts, and adaptations to new applications are only possible with considerable time expense and further investments.

Feeding with robots

Already now, MELFA robots enable the adaptability of processes to be optimized.

Nonetheless, also classical systems such as 3-D cameras for retrieving from a container or simple shaking feeders frequently have limits. It is precisely for these cases that MELFA EasyFeed with AsyriI offers a suitable solution.

3-axis vibrating table

Thanks to the 3-axis vibration tables developed by AsyriI, MELFA robots are able to exhibit their full flexibility and speed for component singulation and orientation.

In addition, various options such as the integrated backlight or tool-free quick-change system of the vibrating plate, help to detect components accurately and adapt them to different requirements. Moreover, the quick-exchange plates – which consist of milled or printed plastic – can be fitted with integral pallet structures, so that e.g. cylindrical components can be pre-oriented or prevented from rolling.

Optional side walls with an automated chute (fast emptying) simply discard excess components from the work area.

MELFA EasyFeed plug-in

For the simple connection of the innovative AsyriI feeder technology with MELFA robots, Mitsubishi Electric has developed a plug-in that makes even easier for the user to adjust the parameters for the solution, and to adapt the system for customer-specific components.

In this way, the solution can be used not only by the end customer, but also by engineering companies and systems integrators who are then able to offer services such as component adaptation or minimum production changeover times.

MELFA EasyFeed benefits

With increasing quality demands, and particularly for sensitive components, the MELFA EasyFeed approach with AsyriI is a flexible, simple, and cost-optimized solution for singulating and orienting parts from <1mm up to 150mm.



3-Axis Vibration Technology
Innovation by **asyriI**

Functionality

Asyriil's unique and patented 3-axis vibration technology permits the parts to move freely in different directions on a platform.

With the choice of suitable parameters for vibration amplitude and frequency, phase shifts and the signal's shape can be adjusted very accurately, so that the bulk parts can be optimally transported.

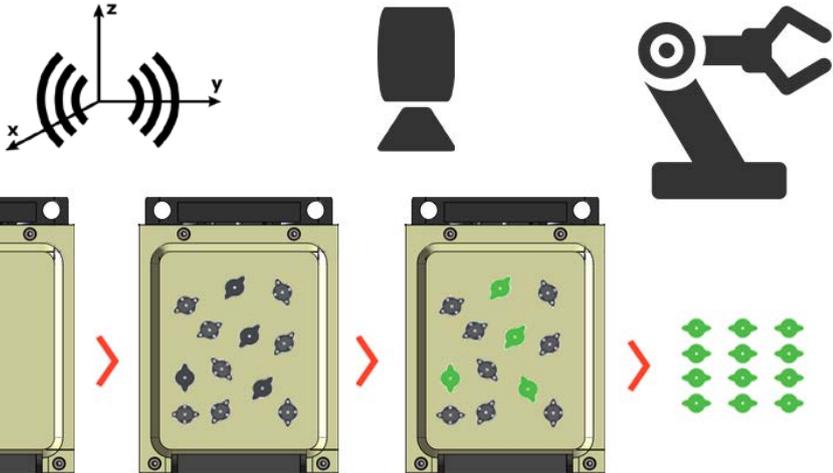
Thanks to the intelligently structured platform (grooves, holes, recesses), a systematic orientation of the parts is possible.

By coupling the system to the MELFA robot programming, all parameter can be controlled by the program. Furthermore, the continuous exchange of data optimizes the cycle times, and the interaction between the MELFA robot and the Asyriil feeder is perfected:

- Simple connection between robot and feeder
- Extremely gentle handling of the parts
- Perfect control of parts movement
- No compelling need for a vision system
- Shorter cycle times

Advantages of a feeder system with MELFA robots

- Direct programming and communication via the MELFA robot
- No programming know-how required for the function library
- Function test and sequence control already possible in the simulation of the RT ToolBox3



3-axis vibration technology from Asyriil

- Consistent communication for cycle time optimization
- Compatible with all component geometries
- The parts can be moved in any direction, and the optimum turning amplitude can be defined for every item
- Minimum wear of the parts, as they are not moved continuously
- Fast emptying of the platform is possible
- Advanced reliability and durability due to State-of-the-Art Voice Coil Technology; no compressed air
- Isolated vibrating platform and base of the feeder system prevents the transfer of vibrations to adjacent machines
- Precise part detection thanks to integrated, adjustable backlight
- Minimum set-up times make the system flexible and future-proof

Target applications

The MELFA EasyFeed solution can be installed in many applications, whereby practically all industrial fields are covered.

Typical examples are feeding of electric components, metal and plastic parts, but also medical and pharmaceutical products:

- Springs, pins, connectors, clamps
- Housing parts and covers
- Pills and dragees
- Small medical items
- Electrical components

APPLICATION EXAMPLES

ZORN MASCHINENBAU

Five different parts are to be inserted in a machine by a robot. Feeding is external, the robot handles the palletizing.

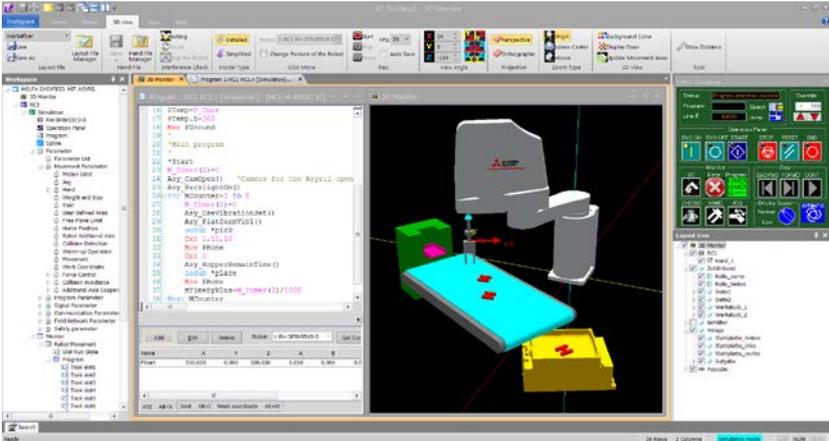
SPECIAL FEATURE

The feeder is mounted on a linear axis, so that only one AsyCube is required. Components are emptied via a side purge.

COST SAVINGS

Apart from reduced space requirements, the elimination of five vibratory bowls with conveying equipment enabled costs of about € 35.000,- to be saved.

The installation was accompanied by a Mitsubishi Electric partner.



The MELFA EasyFeed solution with the AsyCube plug-in

Simple decision:

The MELFA EasyFeed solution results in cost reductions and less space requirements. Thanks to the wide range of 3-axis vibration tables coupled with MELFA robots, you will be able to find a solution that is perfectly matched to your needs.

Benefit from the advantages of the Asyrlil and Mitsubishi Electric partnership, and let us make you a detailed offer or decide for our pre-configured starter package, which can already cover a wide range of applications.

Let us prepare a non-binding offer, and discuss your solution with our experienced application specialists. Together with Asyrlil we can prepare a perfect all-inclusive package for your requirements.



e-F@ctory symbolizes Mitsubishi Electric's alignment towards the increasing digital transformation affecting business. In this context, we are supporting our customers in further developing their overall business approach by offering advice on industrial automation and information technology. The e-F@ctory Alliance is a global network including manufacturers of industrial components as well as specialised system integrators and software providers. These partner companies collaborate at an individual level to offer flexible, optimised solutions for different customer requirements.



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