



All the advantages of the UNIFEED® at a glance:

- Flexible product feed for a wide range of products.
- Rapid changeover to other products.
- Handles a higher individual part weight than other systems on the market.
- Cycle times of up to 50 parts/min.
- UNIFEED® is readily available and can be delivered quickly all over the world.
- High productivity and operational availability – products cannot become stuck.
- The conveyor belt surface can be customised so that even spherical objects or products with awkward shapes can be conveyed.
- Quick time to market, even if parts are modified.
- Use of standard components.
- Quick installation of the correct parts, short queuing time in the feeder.
- Integrated quality control using image processing possible.
- Simple implementation of modifications by the optimisation of specimens into series production parts.
- Uncomplicated connection technology (230 VAC, compressed air 6 bar).
- Use in palletisation, insertion and joining processes possible.
- Illumination by IR backlight (ambient light levels reduced) or visible light.
- No additional switch cabinet required.
- The UNIFEED® is available in various widths and lengths to suit the dimensions of the product to be processed.



Our performance profile

- | | |
|----------------------------------|--------------------------------|
| • Manufacture of turnkey systems | • Control engineering |
| • Main contractor | • Gauging and testing |
| • Engineering | • Robotics |
| • Design | • Laser technology |
| • Production control | • Optical measuring techniques |
| | • Field bus systems |
| | • Installing and commissioning |
| | • Instruction and training |
| | • Service |

UNIFEED®
The intelligent, flexible
robot supply system

- Conveying
- Checking
- Feeding

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UNIFEED®

The intelligent, flexible robot supply system sets new standards:

Flexible product feed for a wide range of products.
Two variants processed at same time.
Rapid changeover to other products.
Products cannot become stuck.
Handles a higher individual part weight than other systems on the market.
Cycle times of up to 50 parts/min.
Integrated quality control using image processing possible.
The UNIFEED® is readily available and can be delivered quickly all over the world.
Compact dimensions.

The demand for individual product design and innovation in product development is increasing while product cycles are ever decreasing. The resulting variants – with shortened product life – are having to be taken much more into account in product manufacture and production engineering. With the UNIFEED® **bwm** has successfully reconciled the conflicting requirements of automation and flexibility by the use of intelligent modularisation.

The feeding of components for automatic assembly presents great challenges. In contrast to all generally available sorting and conveying systems the UNIFEED® can be used for a wide range of different products without the need for complex reequipping.

The intelligent, flexible feeder module was developed by bwm based on proven technology in combination with innovative ideas and reduces the complexity for

the user in the field of supply systems both in terms of procurement and production.

The main components of the UNIFEED®:

- Feeder / singulator unit
- Image processing system, PC-based
- Robot with any kinematics

The UNIFEED® positions small parts or other components individually, in a specific orientation and on a particular supporting surface.

The UNIFEED® is not designed around a particular type of product; it offers unlimited flexibility to allow you to feed products of any kind into the assembly system.

The parameterising of the vision system is product-related and saves the user from expensive programming, which ensures a quicker, smoother run up to production.

Functions / operation:

The bulk supply of parts is stored ready for use in a parts bin. From here the parts are separated by the feeder and fed into the working range of the robot.

The conveyor surface (belt) is accelerated and braked as specified. The acceleration and braking parameters can be parameterised and therefore can be adjusted to suit the products to be separated. The separation of the products is further assisted by vibration and the parts are placed in the correct position.

The permanently installed image processing system determines the exact position of the parts to be processed. The camera uses the programmed product references to carry out a quality inspection and decide whether each part passes or fails. The calculated coordinates are sent from the camera to the robot. The robot moves precisely into this position, takes up the part and places it down in the specified position. The lighting of the image processing system is provided by an IR backlight or white light, which is installed under the transparent conveyor surface. This ensures excellent lighting of the parts.

Two different products can be moved on the UNIFEED® at the same time. The parts only require to be programmed into the image processing system using a teach-in process. Once programmed the parameters of a part or product can be stored and are available for use anytime in the future.

UNIFEED® dimensions:

Length: 904 mm
Width: 364 mm
Height: 262 mm

Accessories:

- Parts bins
- Camera system
- Lighting
- Image processing software
- Robots



We would be pleased to carry out a test at no cost to you. All you have to do is send us a few specimens and we will provide you with a report on the results.