

Modular cobot workstation fleximate

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Product description

The robot-based handling system is used to automate individual test fixtures and various other processes that are currently operated by employees. The special feature of the automation solution is that it also includes the material feed and is particularly easy to install. The concept offers an integrated overall solution for mechanics, control, safety technology and particularly simple software programming.

In general, however, the workstation can also be used for handling a wide variety of products in addition to the test area. Products up to a weight of 10 kg including the necessary gripping technology and a size of approximately one shoe box are possible.

The system can be modularly adapted in terms of material provision and can be used both as a stand-alone new workstation and flexibly integrated into existing production structures (brownfield).

Depending on requirements, materials are supplied via KLT boxes, trays, stackers or driverless vehicles.

The customer should be able to set up the sequence of operations, gripper changeover and palletizing completely independently. This is supported by a visually implemented, intuitive user interface. This reduces the need for programming specialists.

Highlights

- ▶ Easy to use
- ▶ Easy to remove
- ▶ Easy to reuse
- ▶ Easy to customize
- ▶ Quick installation
- ▶ Quick return on investment
- ▶ Support for workforce transition
- ▶ Small footprint
- ▶ Simple interface to existing processes/workstations
- ▶ Proven in practice
- ▶ Real and adaptive safety thanks to RADAR
- ▶ Modular, standard enables customized solution
- ▶ Various docking options including AMR/AGV
- ▶ Connection to existing equipment



Robotic Workstation
Click here for more
information

Technical data fleximate

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Weights Roboterhandling max. 12 kg
Suction gripper: max. 10 kg
Parallel gripper max. 165 N Greifkraft

Speed: 1,3 m/s average

Surface area: 770x650 mm

Max. reach Cobot: 1200 mm (Radius)

Gripper quantity: 1-n (suction- and parallel gripper)

ESD-Capability: Optionally possible

Clean room capability: Optionally possible
individual components area

Available for brownfield use or as a new investment

Dockable to existing solutions

Safety technology can be customised to conditions thanks to 3-dimensionally adjustable sensors

- The speed of the cobot is automatically adjusted
- Automatic restart after leaving the protected zone
- Low safety distance thanks to the latest technology
- Resistant to dirt and interference

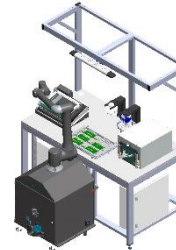
Simple set-up:

Preconfigured features for robot operation
Simple setup of safety technology

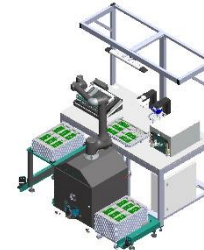


View
configurations

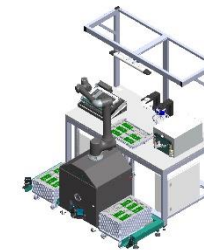
Supply-Chain Variants



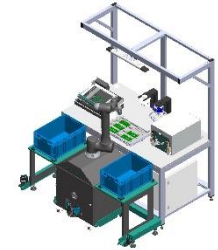
Basic modul



Traydepot left
Trays on floor roller
right (AGV-able)



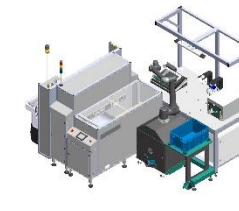
Trays on floor roller
left + right
(AGV-able)



KLTs on floor roller
left + right



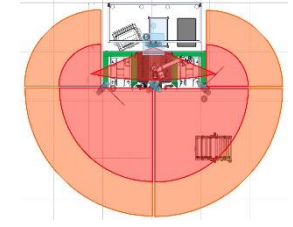
Material feed
with 1 magazine
and NIO-depot



Material feed
with 3 magazines
and NIO-depot



Traydepot left
depot right
on AMR



2 safety zones
with speed
adjustment & stop

Tray-Size max. 400 x 600 mm
KLT-Size max. 400 x 600 mm
Magazine size up to size L (Use up to 460x470 mm)

Work table optional

Features: Table base plate, Workplace lighting LED,
12 HE rack, Holder for Gripper station

Possible adaptations: Hand adapter, HF-Test system,
Exchange kits for various test systems and other processes

Benefits cobot workstation

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1. Shortage of skilled staff

Employees can be further developed and deployed for other value-adding/higher-value tasks

2. Brownfield suitable

Existing production equipment can be automated through seamless integration

3. Modular configurable standard modules enable customized solutions

- Specific applications from the modular system can be seamlessly integrated into the production environment
- The complete supply chain can also be supplied by Engmatec as an option: The material can be fed optionally by trays, KLTs, panel handling, magazines
- Various connection options including AMR/AGV

4. Product or process-specific applications

as additional services from Engmatec

5. Software „Easy to Configure, easy to use with easy to adapt safety concept“

- Quick set-up and configuration without software knowledge, intuitive operation
- Special predefined processes in the software that the customer can use as a basis
- HMI for operation
- Easy to expand/convert to new products (e.g. implement new grippers)
- No CE reissue when changing the workplace environment due to radar sensors used

6. Energy-efficient

- Low CO2 footprint thanks to purely electrical 230V connections
- Pneumatic installations and leaks are avoided

7. Fast amortization of the investment

Cost-effective and efficient, amortization period approx. 1.5-2 years

8. Comprehensive portfolio around the workplace

- Board handling, test adapters, contacting units, work tables, connection to existing processes and databases (PLC with OPC UA) if necessary
- System integrator/general contractor for various processes and measurement technology

9. High safety standard with customizable safety concept

using RADAR instead of error-prone area scanners

- Safety distance of only max. 1.6 meters to the risk area required
- No safety fences and restrictions thanks to configurable safety zones and adapted speed of the cobot
- Differentiation between static and moving objects, operation continues automatically when the moving object moves out of the safety zone again
- Small footprint makes it ideal for integration into existing production structures
- Safe restart when the danger zone is left
- As a service, Engmatec can offer an overall Declaration of Conformity after installation of the workstation