all-in-one

UniCell

compact automation genius

customize YOUR genius

UniCell
for peak performance
ready, set, go.
key features

modular design → expandable and scalable (800 mm grid)

stand-alone or system integration solutions

enclosed stand-alone cell [e.g. with overpressure systems]
→ suitable even for “rough” ambient conditions

for small to medium-sized components

short delivery and assembly times

customized solution options → individually designable/expandable

for medium to high cycle rates – short cycle times possible

multi-functionality and flexibility → exchangeable process modules,
exchangeable side walls/windows

plug-and-play → customer-specific interface preparation (optional)

robust and sturdy (high rigidity)

optimized accessibility facilitating maintenance and cleaning operations

integrated, comprehensive safety concept

areas of application

handling

pick + place

assembly

component processing

component cleaning

quality assurance

laser marking/component identification + detection (DMC)/tracking

feeding

joining, riveting, glueing

sorting

orientation/positioning

measuring, weighing, testing

dosing/dispensing, application

loading, unloading
control cabinet integrable into system substructure plus storage option for robotics/vision controller (IPC)
modular building block system

loading/feeding systems
- [e.g. step vibratory bowl feeder/spiral conveyor]
- bulk material feeding (also in connection with image processing systems) [e.g. Omron AnyFeeder, ABB FlexFeeder™, ROBA ENG. EYEFEEDER® etc.]
- stacking/destacking (tray magazine)
- preparation of manual loading/feeding process [e.g. tray loading/feeding]
- tape + reel

image processing/camera systems ("deep learning")
- non-contact testing
- [3D] surface testing/surface inspection
- presence detection/completeness checks
- geometrical testing
- testing/verification of DataMatrix codes, QR codes etc.
- measuring
- tracking

robotic systems
- SCARA robot
- 5-/6-axis robot
- delta/spider robot

packaging systems
- bulk material packaging
  - [e.g. in bags, pouches, boxes etc.]
- blister/tray loading
- customized packaging systems

inspection/test systems
- camera-based inspection/test modules
- mechanical and electrical test modules
- thermal test modules

transport/handling systems
- axis systems
  - [e.g. portal and conveyor systems, pick + place etc.]
- rotary indexing tables
- intelligent linear transport systems
- work piece carrier, printed circuit board, and blister transport systems
- component handling systems

exchangeable process modules
- feeding systems
- assembly systems
- handling systems
- inspection/test modules (camera-based inspection/test modules, mechanical and electrical test modules, thermal test modules)
- gluing/dosage systems

other processing systems
- marking systems (e.g. laser, ink, offset etc.)
- cleaning systems
- assembly process systems
  - [e.g. screwing, clipping, gluing etc.]
- additional system options on request

bulk material feeding (also in connection with image processing systems) [e.g. Omron AnyFeeder, ABB FlexFeeder™, ROBA ENG. EYEFEEDER® etc.]

stacking/destacking (tray magazine)

preparation of manual loading/feeding process [e.g. tray loading/feeding]
UniCell – smart + compact automation genius

innovative and intelligent cell module system → maximum efficiency and flexibility, even for most challenging demands

ideal combination of standardization and individualization → adaptation to customized specifications with an excellent price/performance factor at the same time

highly precise and efficient → maximum productivity for cost optimization and fast amortization

multi-functional application and individualization options → smart, wide-ranging modular system design offering a large selection of (automation) solutions (e.g. robots, image processing and handling systems etc.)

standardized machine/design platform → short lead time, fast availability

optional stand-alone or system integration solutions

modular design → virtually arbitrarily expandable and scalable

extensive selection of add-on modules (e.g. feeding systems, packaging systems etc.) → facilitated connectivity due to flexibly designed side walls

standard interfaces [OPC UA] → Industry 4.0 prerequisite

clearly structured, standardized and, if required, individually configurable user interface → designed for intuitive operation

control cabinet integrable into system substructure plus storage option for robotics/vision controller (IPC)

robust and sturdy machine frame [high rigidity] → optimum damping/shock absorption of dynamic robot motions, even at highest traversing speeds

compact design offering excellent accessibility for regular set-up/maintenance measures at the same time

easy machine cell transport [e.g. forklift truck] → meeting nowadays’ requirements of contemporary production plants in terms of flexibility and mobility in every respect → flexible production

esmo automation is a business division of the internationally operating German esmo group of companies.

As an experienced full-service provider, we offer our customers from most various industrial sectors a comprehensive range of services in the areas of industrial automation, custom machine engineering and plant engineering – from the initial stage to the final implementation.

Regardless of the respective requirements – whether components have to be glued, bent, welded, assembled, separated, and tested, or whether goods have to be handled, tracked, conveyed, and packaged – esmo automation designs and realizes state-of-the-art customized and most efficient automation systems by integrating robots, spiral conveyors, conveyor belts, portal systems, laser and industrial image processing systems, or in-house developments/designs. With their global presence, the esmo group of companies guarantees reliable and prompt service and support to its international customer base.
worldwide sales and service network – we are where you are