ASYS TECTON – Tray Handling and Transfer Systems

Tray Handling System

PARIO 4000







Description

The PARIO 4000 3-shaft palletizer with integrated component handling is optimized for large quantities in serial production. It is designed for internal logistics based on the standard floor rollers (trolley). Components delivered on trolleys as stacked trays up to a height of 1400 mm can directly be pushed into the PARIO 4000 or removed with any further repacking. The PARIO is therefore an integrated part of the logistics chain. This concept and its high level of autonomy get the optimal palletizer for loading and unloading of automated assembly lines.

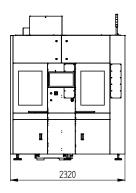
Loading and unloading are parallel and independent processes of tray and part handling. After registration of the material at MES/ERP system, the tray handling system takes a single tray from above and places it on the free tray shuttle of the staging module. Alternating with an emptied tray, the full tray enters the part handling system. There, the components are removed from the tray and, depending on the requirements, placed in a product carrier or another assembly step is carried out. The integrated transfer system transports the component to the next machine. The empty tray is remaining on the shuttle and is taken over by the tray handling system and added to the empty tray stack. From there it is returned to the tray circulation, again on a trolley of course. The whole process can be connected to a MES/ERP system or monitored by Smart Alert out of the PULSE PRO Software Suite. PARIO 4000 can used for loaded or unloaded of tray stacks according to the requirements.

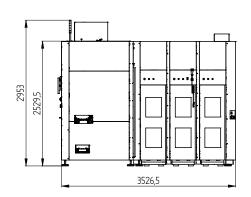
Options

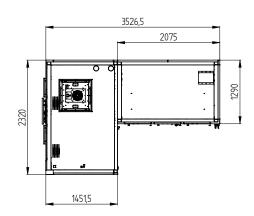
- _Enhancement packages
- _Pharma / Medical
- _Cleanroom
- _Customized workpiece handling
- _Alternative control concept
- _Sector specific standardization and qualification documents
- _Further customer-specific adaptations on request
- MES Connection
- _Can be combined with Smart Alerts
- _Cleaning and ionization systems
- _Automatic gripper change units
- _Identification systems such as scanners, RFID etc.

Features

- _Processing of tray stacks up to 1400mm height
- _High autonomy through trolley logistics concept
- _Tray formats up to 600 x 800 mm
- _Trays/KLT of different designs and materials
- _Pick-& Place time ≥ 5.0 s
- _Change of trays in the intake in 3.0 s
- _Usable as loader and unloader
- _Logistics feed from the rear side
- SIMPLEX interface designed to be easily operated
- _Perfect logistic facilities by changing pallets and trays without interruption fully automated
- _Low in maintenance
- _ESD Variant







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Machine Configuration

Conveying height 950mm (upper conveyor section)

350mm (lower conveyor section)

Transfer position at machine edge

Operating side

300 mm front

max. workpiece weight up to 15 kg

Tray Format

Traysizes up to 400 x 600 mm

max. tray weight 12 kg
max. Tray stack weight 200 kg
Tray stacking height up to 1400 mm

Installation Requirements

Power supply 400 V / 50 HzPower supply system 3L + N + PEPower consumption 4 kW

Air supply min. 6 bar / 87 psi
Air consumption 50 NI/min

Machine Description

Length x Width x Height $3526 \times 2320 \times 2525 \text{ mm}$ Weightapprox. 3500 kgNoise Level< 72 dB(A)Repeatability $\pm 0.1 \text{ mm}$ Tray changing time3,0 sCycle time workpiece handling $\geq 5,0 \text{ s}$

