



## **COMPLETE SYSTEMS**

# MINIATURE AUTOMATION LTM-CI

**Quick - Precise - Smart** 

## MINIATURE AUTOMATION LTM-CI

## STIWA MECHATRONIC SYSTEMS – YOUR PARTNER FOR OPTIMIZED PRODUCTION

As a leading manufacturer of automation technology, we have been providing products, projects and services for many years, thereby enabling optimized technology integrations with the best possible overall effect. Through the targeted interaction of mechanics, software and electronics, we achieve production solutions that guarantee the

greatest possible flexibility, standardization, and safety. Our approach is all about "cooperative growth", meaning we are there every step of the way along our client's value added chain. Whether you need supply, handling, transportation or complete systems, STIWA is your partner for mechatronic special solutions!

### MINIATURE AUTOMATION SYSTEMS

STIWA miniature automation solutions represent the latest assembly units in industrial manufacturing with cycle times in the sub-second range. The LTM-CI system impresses by rapidly producing small parts series with part diagonals of up to approximately 30 millimeters. At the same time, the STIWA miniature automation solution covers the full range of functions in the minimum amount of space: from its basic design and precisely tailored feeding technology with fitting portal handling, through to its transportation system including complete control technology.

## **MECHANICAL STRUCTURE**

The LTM-CI system has a modular design and is optimized for small parts assembly.

#### 1. Basic design

#### 2. Handling

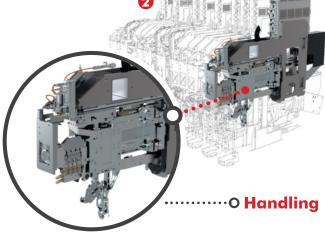
- » Modular placement up to 5 degrees of freedom for maximum flexibility in assembly.
- » A variety of gripping systems for individual requirements

#### 3. Transportation system

» A rigidly linked transportation system provides the basis for a high-performance operation. This guarantees minimum workpiece carrier changeover times.





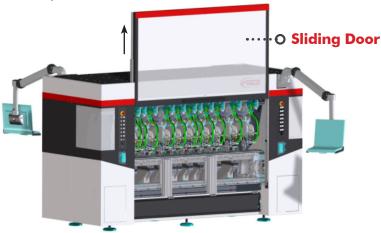


## INTELLIGENT MEANS OF PRODUCTION

With high-performance control cycles of our products, we enable you to control your processes almost in real time. Included basic software guarantees networked processes. Easy integration ensures quick implementation and optimized control. There is also the option of an ERP connection for operation and product data collection, which opens up further analysis options and records important parameters from your production processes.

### **BENEFITS**

STIWA miniature automations are scalable, combinable, and individually expandable. A financial advantage is assured as a result of very short cycle times, little space requirements and user-friendly operation.



#### **OBJECTIVES AND IMPACT**

#### **Technology Integration**

- » Laser welding
- » Pick & place (3–5 degrees of freedom)
- » Screwing
- » Pressing
- » Labelling
- » Test processes
- » Measuring

#### Quality

» High accuracy ensures reliable production at the lowest possible cycle times

#### **Flexibility**

» Up to 22 processing modules, flexible feeding strategies, flexible handling options and a variety of evaluation methods

#### **Traceability**

» Process results and standard values for each production step are assigned to a specified product/part and documented.

#### **Ergonomics**

- » Minimal vibration and noise generation
- » Great accessibility for filling, feeding, and assembly



» We offer individual training courses and advice for your specific requirements.

## **CHARACTERISTICS**

#### **Basic design**

- » Modular machine structure
- » Workpiece carrier transportation system
- » Modular units
- » Direction operation via the device itself

#### Reusable

» Simple adjustment and adaptation possible during integration of existing or new assembly processes

## **OPTIONAL ACCESSORIES**

#### **Portal handling**

- » Drive units with linear motors
- » Individual modules for turning, pivoting, gripping, and suction processes, tailored to production requirements.

#### Feeding technology

- » Vertical and vibratory conveyor feeding
- » Infeed conveyor with stop unit
- » Customized hoppers for parts, 2D supply
- » Two alternating supplying tracks
- » Gap-free transitions specifically for micro components

### **TECHNICAL DATA**

Miniature Automation	LINTRANS Modular LTM-CI
Cycle time starting from	0.55 sec.
Positioning accuracy	+/- 0.07 mm (transportation system)
System grid / modular dimension	360 mm / 90 mm
Parts dimensions	30 mm to space diagonal
Feedings	Parts hoppers  Vertical conveyors (e.g. spiral conveyor, cleat conveyor)  Vibratory conveyors with chicanes and 2D camera system (reflected light/transmitted light) as well as buffer section with stop unit
Hopper volume	0.1 – 3.5
Tare weight	Up to approx. 7000 kg (depending on configuration)
Device length	2520 – 3240 mm
Device depth	1400 mm
Device height	2520 – 3240 mm
Noise emission	Approx. 70 dBA (depending on component)
Power range	3 x 400 V AC ± 5% 50/60 Hz

## **COMPLETELY INTEGRATED – by this we unterstand:**

- » Flexible solutions tailored to your needs
- » Mastering the IIoT (Industrial Internet of Things): Optimized technology and system integrations due to many years of experience in the production and networking of automation systems.
- » Safe processes with the best possible overall effect and lowest total costs
- » Adaptive, subsequent production: Based on the pre-production processes and according to the situational requirements
- » Comprehensive standardization high scalability



## Your contact person

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