

# LINEAR TRANSFER SYSTEMS **OVERVIEW**

LS LINK FREELY PROGRAMMABLE LINK CONVEYOR SYSTEM LS 280 FIXED CYCLE LINEAR TRANSFER SYSTEM LS ONE DIRECT DRIVE LINEAR TRANSFER SYSTEM LS HYBRID HYBRID DRIVEN LINEAR TRANSFER SYSTEM

# LINEAR TRANSFER SYSTEMS **AUTOMATED ASSEMBLY ON THE LINE**

When end products become more complex and therefore require many process stations as well as different process times, linear transfer systems offer the necessary flexibility and freedom of design. The WEISS portfolio includes four linear transfer systems with five drive types, because every application has its own requirements. What all systems have in common is that they are part of an overall system and integrate seamlessly. That is why integration is a key component of product engineering at WEISS.

Linear transfer systems from WEISS are supplied as an all-in-one solution. Pre-configured, pre-parameterized, pre-commissioned.



Assembly requirements vary greatly

Repeatability between

 $\pm 0,06$  mm and  $\pm 0,03$  mm

Max. loading of  $0_{kg} - 50_{kg}$ 

Process forces of

 $0_{\rm N} - 1.000_{\rm N}$ 

Directions of motion





Focus on what matters: your process. We create

the reliable and therefore efficient

### CONTROL SYSTEM SOLUTIONS SIMPLIFYING COMPLEXITY

With the control solutions and packages from WEISS, users have it easy. The basic programming required for a Linear Transfer System is done in-house at WEISS. In this way, the system integrator and user receive a prepared system. The W.A.S. control package is preconfigured and can be used without in-depth control knowledge. In this way, the Linear Transfer Systems become an efficient platform for any automated assembly system. W.A.S. offers freely accessible interfaces to the higher-level system control system and can be used with EtherCAT, PROFINET, EtherNet/IP, Ethernet POWERLINK and OPC UA.

basis for this.

#### Advantages in system design

A LARGE STATES

Thanks to W.A.S. LS, it is easy to connect WEISS solutions and start-up and set-up can be completed faster.

#### Benefits during operation

Teach options, diagnostic options and the available interfaces make it easier to operate and customize the system.

# FREELY PROGRAMMABLE LINK CONVEYOR SYSTEM **LS LINK**

LS Link is a freely programmable link conveyor system. The servo motor drive and the gear unit allow for the free programming of process stations, regardless of the chain link length.



You can find more details about your LS Link at: weiss-world.com/LS-Link





### DRIVE TYPE

The drive train of LS Link with zero backlash is the basis for its high positioning and repeat accuracy, as well as the high speed that make the linear transport system so impressive. Drive wheels and eight bearings per chain link ensure zero backlash in all directions (x, y, z).



#### FIELDS OF APPLICATION

Assembly tasks and process steps with similar time requirements in mass and large-scale production, e.g. in the electronics and plastics industry for clipping parts, in the cosmetics industry for filling containers or for filling construction chemicals such as sealing foams in cartridges. FEATURES AT A GLANCE

Repeatability

 $\pm 0.05$  mm

Max. load (vertical)

**50** kg

Strokes for 200 mm ca.

**0.2**s

Process forces up to

**1,000** N

Direction of motion



Communication module

PLC

# FIXED-CYCLE LINEAR TRANSFER SYSTEM **LS 280**

The LS 280 drives and positions the process stations using a high-precision drive cam. This and the asynchronous motor allow the processing stations to be positioned according to the customer process.

You can find more details

about your LS 280 at: weiss-world.com/LS-280





**DRIVE TYPE** 

With the Linear Transfer System LS 280, WEISS transfers the drive concept of its rotary indexing tables to linear workpiece transport. With an extremely resilient and precise drive cam, the workpiece carriers are moved along the transport line and reliably positioned for machining.



FIELDS OF APPLICATION

With the Linear Transfer System LS 280 as a basis, all standard assembly lines can be set up. Constant process steps with high quantities in large-scale and mass production are predestined for LS 280 such as in the consumer goods industry or in the production of beauty or healthcare products.

#### FEATURES AT A GLANCE



Max. load

**4**<sub>kg</sub>

Strokes for locking station ca.

**0.4**<sub>s</sub> - **1.2**<sub>s</sub>

Process forces Z direction up to

**300** N

Direction of motion

**W.A.S.** LS •••

CCW

Software



# DIRECT DRIVE LINEAR TRANSFER SYSTEM **LS ONE**

As a direct-drive linear transfer system, LS One is specially designed for tasks that demand the highest levels of precision and flexibility. The linear motors make high dynamics and a freely selectable motion profile possible.



You can find more details about your LS One at: weiss-world.com/LS-One





**DRIVE TYPE** 

LS One is extremely fast with a high repeat accuracy thanks to the linear motor drive. The guide concept supports these properties. The linear motors enable high dynamics and a freely programmable sequence of movements of the workpiece carriers.



FIELDS OF APPLICATION

Assembly tasks in which different process times have to be mapped on one platform or where there is a high variety of variants, such as in battery pack assembly (small to large), consumer goods, electronic products or the pharmaceutical industry.

### FEATURES AT A GLANCE



Max. load

**5**kg

Max. speed linear motor

**4**<sub>m/s</sub>

Process forces up to

**300** N

Software

Direction of motion



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# HYBRID DRIVEN LINEAR TRANSFER SYSTEM **LS HYBRID**

LS Hybrid combines several drive types at once. A cam drive as well as a belt and a linear motor section enable the mapping of the most complex processes with high process forces through combined use.



You can find more details about your LS Habrid at: weiss-world.com/LS-Hybrid





#### **DRIVE TYPE**

Both a cam drive, a belt section and a linear motor section can be combined with each other in LS Hybrid. This variety of combinations enables a high degree of adaptability to the customer's application, because each drive type plays to its strengths to the full.



#### FIELDS OF APPLICATION

Assembly tasks with different process times and motion sequences that simultaneously require high process forces and the transport of high workpiece weights. LS Hybrid is often used in the automotive environment, in the assembly of electrical appliances and in the consumer goods sector. FEATURES AT A GLANCE



Max. load

Strokes for locking station (eCam) ca.

**0.25**<sub>s</sub>-**0.90**<sub>s</sub>

Process forces up to

**1,000** N

Direction of motion

Software W.A.S. LS •••2





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