Pallet transport — Technical specifications

Roller conveyors

Rollers	: Ø 88.9 x 2.9 mm., axle Ø 20 mm. (optional Ø 25 mm.) and double sprocket wheels 5/8" x 15t
Drive	: from roller to roller or tangential (e.g. transfers)
Width	: 900 mm. up to 1,300 mm.
Speed	: up to 24 m/min
Rolling pitches	: 135 mm., 151 mm. and 183 mm.

Chain conveyors

Chain type	: 5/8" duplex or 1" simplex, in both cases with straight side plates
No. of chains	: two or three centre-to-centre
Transfer wheels	: 76 mm. (with 5/8" chain)
Width	: 700 mm. up to 1,300 mm.
Speed	: up to 30 m/min

Transfers

Rollers	: Ø 88.9 x 2.9 mm., axle Ø 20 mm. and single sprocket wheel 3/4" x 13t
Drive	: tangential
Width	: 1,100 mm.
Speed	: up to 24 m/min
Capacity	: up to 250 pallets/h
Lifting motor	: 0.55 kW in combination with two eccentric shafts and 1" drive chain.

Turntables

Versions	: roller or chain conveyor
Turning motor	: 0.37 kW with pinion and 19 teeth
Turning rim	: Ø 625 mm. with 122 teeth
Turning speed	: approx. 6 sec. per 90 degrees
Capacity	: up to 150 pallets/h at 90-degree angle

General

Drives	: SEW reducing motors
Bearings (in rollers, etc.)	: suppliers' standard
Bearing blocks	: Nachi
Preservation	: Epoxy powder coating
Colour (standard)	: RAL 1015 ivory white
Side guide	: guide disks (on rollers) or fixed guide in the form of angle/ C sections
Supports	: variable in height by means of slider or screw adjustable feet
Pneumatics	: Festo
Deepfreeze version	: one of the standard options is a version suitable for application at temperatures of up to -30 °C

The CSi pallet transport systems can be created from a number of standard modular components. This modular structure allows systems to be manufactured and installed quickly and efficiently. The modules are suitable for the transportation of all types of pallets, with a weight of up to 2 tonnes and at capacities of up to 300 pallets per hour.
By making the best use of good quality materials and motor-driven movements, the operational costs are kept to a minimum and an extremely high degree of reliability and system availability is achieved. Extra care is devoted to simple design, accessibility for maintenance and a very low operational noise level.

IMPROVING PERFORMANCE

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IMPROVING PERFORMANCE

Greatest system availability

Chain-driven roller conveyor

The roller conveyors we supply are available in several versions as standard. Various roller widths, roller pitch's, conveyor speeds and pallet guidance systems are available. All components are tested and put into operation under continuous full production conditions. This enables us to guarantee total functionality and system availability.

Lift

If pallets have to be transported to another floor of the building, use is made of a pallet lift. Depending on the capacity required, one or two pallets could be transported at a time. The lift platform is fitted with a counterweight and powered by a frequency controlled drive. The lift is fully guarded and fitted with safety light curtains.

Shuttle car

If pallets are fed, removed or supplied over various delivery points, the shuttle car is an excellent tool. To ensure that the shuttle moves in and out smoothly and in a controlled manner, use is made of a frequency controlled drive. For accurate positioning of the shuttle car, laser distance measurement is used. The power supply and signal cabling is usually by means of a cable caterpillar track. The shuttle cars are fitted with vulkolan supporting and guiding wheels, resulting in a smooth, low-noise operation.

Turntable

If the direction of travel of the pallet needs to be changed without the orientation of the pallet itself being changed, a turntable is used. The advantage of this is that the turntable does not necessarily have to move through 90 degrees, but in principle can make any angle at all. A turntable can have either a roller conveyor or a chain conveyor mounted on it to transport the product. The structure consists of a sub-frame and a mainframe, between which a strong turntable mechanism is mounted on a ball bearing ring. The turntable is fitted with external gearing and is powered by a motor gearbox combination with a pinion, which connects to the external gears of the ring.

Checking the pallet profile

- Load height, width and length
- Checking the runners
- Free profile inspection for crane forks

Right angled transfer

A 90 ° transfer unit is used if pallets are to be transferred at right angles from a roller conveyor to a chain conveyor or vice-versa. The chain conveyor features a central support in the form of rollers. The roller conveyor is lifted using a motor reduction gearbox with eccentric lift mechanism to ensure the pallet is correctly positioned on the outfeed. The same drive can be used to operate an optional pallet location and aligning stop device. This mechanical stop disappears below the level of the roller as the pallet is driven out, there is no risk of the pallet being misaligned. Positioning and alignment of pallets at right angles is performed at low speed by means of a frequency controlled motor.

Chain conveyors

Chain conveyors are often used to travel larger distances. The advantage of this is that the chains do not disturb the loaded pallet during transportation. For heavy or poor quality pallets, where there is a risk of the pallet sagging or even breaking, a central support can be fitted in the form of non-driven overlapping wheels or indeed a third chain. The extremely small chain conveyor transfers between individual conveyors make it possible to transport the pallet with the supports running crossways.