

TRANSLATION OF THE ORIGINAL VERSION



Operating Manual

EXAKT HD

Heavy-duty roller conveyors with and without length stop system
and two available roller conveyor widths (S = 600 mm / W = 1150 mm)



Types for EXAKT HD: **A, C and E**

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Revisions:

Revision	Autor	Modification	Date
001	AG	Original manual translated	12.09.2023


1 Introduction

The information in this operating manual enables safe, proper and economical operation of your roller conveyor. Please observe all the explanations, notes and regulations

- to avoid dangers and malfunctions,
- to reduce repair costs and downtimes
- and to increase reliability and service life

of your roller conveyor.

The operator must ensure that this operating manual is read by the persons entrusted with the operation, maintenance and repair of the roller conveyor. This operating manual as well as any appendices and additional documents must be kept easily accessible at the roller conveyor's place of use.

	<p><i>Ignorance or non-observance of these operating instructions may result in certain accident hazards during <u>handling</u> with the roller conveyor. Before commissioning, this operating manual and any appendices and additional documents must be read thoroughly. All instructions, in particular the safety regulations, must be observed!</i></p> <p><i>Handling</i> the roller conveyor in the sense of these instructions means</p> <ul style="list-style-type: none"> • the installation and commissioning, • the operation and proper usage, • the influence on operating conditions, as well as the maintenance, troubleshooting and repair.
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Apart from the operating manual and the legally binding accident prevention provisions applicable in the country and place of use, the recognized technical regulations for safe and proper work must also be observed.

1.1 Legal notice




All contents of these operating instructions are subject to the rights of use and copyright of Reinhold Beck Maschinenbau GmbH. Any reproduction, modification, further use and publication in other electronic or printed media, as well as their online publication, requires the prior written consent of Reinhold Beck Maschinenbau GmbH.

1.2 Illustrations

All photos, figures and graphics contained in this document are for illustration and better understanding only and may differ from the current state of the product.

2 Symbols

2.1 General Symbols

Symbol	Meaning
	Indicates passages within this operating manual that must be particularly observed in order to prevent malfunctions or damage to the roller conveyor.
	Refers to chapters, sections, or figures within this document.
	Refers to an external document or a third-party source.

2.2 Symbols in Safety Instructions

Safety instructions are provided with corresponding danger symbols which have the following meanings:

Symbol	Safety Instruction
	Reading and applying the operating manual is mandatory for the operating personnel. <i>Failure to abide by the following precautions could lead to fatal injury.</i>
	General danger symbol, which requires the highest attention! <i>Failure to observe may result in damage to the equipment, acute injury or even death.</i>
	Reference to a prohibited zone under a lifted load! <i>Do not enter! There is an increased risk of injury or even death.</i>
	Reference to a prohibited zone on a platform! <i>Do not enter! There is an increased risk of injury or even death.</i>
	Reference to a possible crushing hazard! <i>Non-observance increases the risk of injury to hands and fingers!</i>
	Reference to a possible crushing hazard! <i>Non-observance increases the risk of injury to feet and toes!</i>
	Possible dangerous crushing hazard in the area of stationary objects! <i>Risk of personal injury and additional equipment damage.</i>
	Reference to a hazard due to forklift traffic! <i>Non-observance can result in life-threatening injuries.</i>
	Reference to a danger under suspended loads! <i>Non-observance can result in life-threatening injuries.</i>
	Reference to tripping and slipping hazards on the floor! <i>Non-observance may result in minor or severe injuries.</i>
	Reference to possible environmental pollution! <i>Non-observance poses a risk of pollution of the environment and groundwater!</i>
	Reading and applying the operating manual is mandatory for the operating personnel. <i>Non-observance of the above precautions can lead to serious or fatal injuries.</i>
	Note on the obligation to wear tight-fitting protective work clothing! <i>Non-observance may result in increased risk of injury or even death!</i>
	Reference to the obligation to wear safety shoes resp. protective gloves! <i>Non-observance may result in increased risk of injury to feet & toes or hands & fingers!</i>
	Note on the obligation to wear protective goggles/face protection resp. hearing protection! <i>Non-observance increases the risk of injury to eyes/face resp. ear canals.</i>
	Note on the obligation to wear a dust protection resp. respiratory mask! <i>Non-observance increases the risk of injury to the respiratory tract.</i>
	Note on the obligation to wear a safety helmet! <i>Non-observance may result in increased danger of head injuries or even death!</i>
	Fire hazard! Do not smoke and do not ignite open fire.
	Access for unauthorized persons prohibited! <i>Risk of personal injury and additional equipment damage.</i>

3 General



The operating manual must be read carefully and understood before handling the roller conveyor! If anything is unclear, please contact the manufacturer.

The roller conveyors of the "Heavy Duty" series EXAKT HD have been specially designed for heavy-duty applications. The extremely robust welded steel construction, made of thick-walled profile tubes ($\varnothing 108 \times 3.25 \text{ mm}$) and laser-machined sheet metal parts, is particularly suitable for metal and steel construction. Their stable and open front design allows loading and unloading by crane or forklift truck. Two different roller widths are available for all models (variant S with 600 mm and variant W with 1150 mm usable roller width).

The positioning of the solid material stop is precise and fast and (depending on the model) by manual shifting or by handwheel adjustment. On the EXAKT HD A and EXAKT HD E models equipped with a measuring system, the set dimension can be read off via a digital position indicator.

3.1 Features

- 800 kg load capacity per meter roller conveyor
- Roller conveyor lengths 2 to 12 meters (special lengths on request)
- Working height selectively 855 mm or 905 mm (each height adjustable by $\pm 75 \text{ mm}$)

3.2 Application

The roller conveyor can be used for all work that corresponds to its intended use in section $\Rightarrow 4.2$. The roller conveyor is suitable for fencing and transporting workpieces in order to bring them into a specific position for machining. The roller conveyor must not be used for pushing or pulling workpieces.

- The roller conveyor must not be used for work that does not correspond to its intended use (see $\Rightarrow 4.2$).
- The roller conveyor is intended exclusively for commercial use.

3.3 Target group and previous experience

This operating manual is intended for the operating and maintenance personnel of the roller conveyor. The operating personnel is to be determined by the operator and must further meet the following requirements:

- Basic technical and mechanical knowledge as well as knowledge of the associated technical terms
- Reading and understanding these operating and maintenance instructions

In order to acquire the knowledge required to operate this roller conveyor, the operator must ensure the following measures:

- Product training for every operator (also possible external personnel)
- Regular safety instruction

3.4 Requirements for the operators

- ⚠ The operator is responsible for the safe use of the roller conveyor!
- ⚠ The roller conveyor may only be operated by trained personnel who have also read this manual.
- ⚠ Inspection, maintenance, cleaning and repair may only be performed by technical specialists with product-specific training and mechanical and/or electrical training.
- ⚠ Specialists with product-specific training are to be commissioned and held responsible for planning and checking the work.
- ⚠ The national protective regulations for employees must be observed
- ⚠ The legal minimum age must be observed.

3.5 Accident prevention

To avoid accidents, the following rules must be observed for operation:

- ⚠ Prevent unauthorised persons from having access to the roller conveyor.
- ⚠ Keep unauthorized persons away from the danger areas.
- ⚠ Repeatedly inform other persons present about existing residual risks (see ⇨ 4.6).
- ⚠ Conduct recurring training and instructions for persons who have to be in the area of the roller conveyor, which are also recorded.
- ⚠ New employees must be trained internally for working on a roller conveyor and this training must be documented.
- ⚠ It is forbidden to enter the roller conveyor or to climb or sit on the roller conveyor.

3.6 General safety regulations

In general, the following safety regulations and obligations apply when handling the roller conveyor:

- ⚠ The roller conveyor may only be operated when in perfect working order.
- ⚠ It is prohibited to remove, modify, bypass or bypass any protective, safety or monitoring device.
- ⚠ Defective or missing safety devices must be repaired resp. replaced immediately by authorised qualified personnel! The roller conveyor must not be operated during this time!
- ⚠ It is forbidden to modify or change the roller conveyor without the written approval of the manufacturer / supplier.
- ⚠ Malfunctions or damage must be reported to the operator immediately. In case of malfunctions, proceed as follows: Take the roller conveyor out of operation, eliminate the cause of the malfunction, eliminate the malfunction, check the roller conveyor for safe condition and only then put it back into operation!
- ⚠ Repair and maintenance work on electrical and pneumatic components may only be carried out by authorised and trained personnel.
- ⚠ Maintenance work must be carried out and documented according to the maintenance instructions.
- ⚠ Only original spare parts from the roller conveyor manufacturer may be used for repairs.
- ⚠ Additional electronic components may only be purchased from the roller conveyor manufacturer.
- ⚠ Only instructed, trained or qualified persons may work on and with the roller conveyor.
- ⚠ It is not permitted to enter the roller conveyor or to transport persons.
- ⚠ For the operation of the roller conveyor, the respective national safety regulations for employees as well as the national safety and accident prevention regulations apply.

4 Safety

4.1 Basic safety instructions

Roller conveyors can cause hazards if used improperly. Therefore, observe the safety instructions listed in this chapter and the accident prevention regulations of your employer's liability insurance association!



The manufacturer accepts no liability for damage and malfunctions resulting from failure to observe these operating instructions.

4.2 Application area and intended use

With their conformity to the Machinery Directive 2006/42/EC, the roller conveyors of the EXAKT HD series are suitable as technical aids for operational/commercial applications.



Improper use may endanger persons and lead to a defect or damage. and to a defect or damage of the roller conveyor.

- ⚠ The roller conveyor is primarily intended for operation in covered indoor areas.
- ⚠ The roller conveyor is suitable for transporting workpieces to a specific holding position before machining.
- ⚠ Work on the roller conveyor may only be carried out in sufficiently illuminated working areas.
- ⚠ The maximum load capacity (refer to section ⇒ 6) of the roller conveyor must not be exceeded.
- ⚠ The roller conveyor may only be operated on horizontal floors.
- ⚠ The roller conveyor is not intended for moving and transporting persons.
- ⚠ The roller conveyor must not be operated in potentially explosive working areas.
- ⚠ Any other use is considered improper and is prohibited.

4.3 Improper use




Improper use is when the roller conveyor is used for purposes other than those prescribed in this operating manual and in section ⇒ 4.2, for example

- ⚠ use and application for private or non-commercial purposes,
- ⚠ use in disregard of the regulations in the operating manual,
- ⚠ use after unauthorized conversions or modifications,
- ⚠ exceeding the maximum permissible load (refer to section ⇒ 6)
- ⚠ non-compliance with the permissible workpiece dimensions.
- ⚠ transporting persons or stepping on the roller conveyor
- ⚠ or feeding or pulling of workpieces.

In case of improper use of the roller conveyor, any warranty, liability and other claims for damages of the operator against the manufacturer are excluded!





4.4 Consequences in case of disregard


If the roller conveyor is not operated, maintained or repaired in accordance with the safety regulations, not as intended, improperly or in an abusive manner, the following will result:

-  Dangers to the health of the operating personnel
-  Dangers to the roller conveyor and objects in its vicinity
-  Impairment of the roller conveyor function


In case of improper use of the roller conveyor, any warranty, liability and other claims for damages of the operator against the manufacturer are excluded!

4.5 Conversions and modifications of the roller conveyor

-  Only use the roller conveyor in its original condition, i.e. as delivered!
-  The components of the roller conveyor must not be changed in their type and condition.
-  Only original spare parts and accessories from the manufacturer may be used.
-  Deviations are not permitted.








	<i>Unauthorized modifications or conversions by the operator, without the written consent of the manufacturer, are prohibited. This excludes any warranty, liability and other claims for damages by the operator against the manufacturer!</i>
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4.6 Supplementary safety equipment

	<i>The functionally safe provision and installation of supplementary machine protection fences and protective grilles for the roller conveyor supplied is the responsibility of the operator! These measures are not part of the scope of delivery of Reinhold Beck Maschinenbau GmbH.</i>
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4.7 Personal protective equipment

To minimise the risk of injury in case of danger, personal protective equipment must be worn when working on and with the roller conveyor. The operator of the roller conveyor is obliged to wear the protective equipment required for the respective work!

	Close-fitting protective clothing with low tear resistance, tight sleeves and no protruding parts must be worn for all work on and with the roller conveyor. The main purpose is to protect against being caught by moving parts of the installation. Do not wear watches, rings, chains or other jewellery. Wearing long open hair is prohibited during work.
	Safety shoes with non-slip soles must be worn for all work on and with the roller conveyor. These serve to protect against falling parts and at the same time to prevent slipping on slippery surfaces.
	Wearing protective gloves serves to protect the hands from abrasions, puncture wounds or deeper injuries, as well as from irritating and corrosive substances and from burns.
	Hearing protection protects the hearing from the effects of noise that is harmful to health. As soon as the workplace-related noise emission values exceed 85 dB(A), personnel must be provided with suitable hearing protection!
	Safety goggles protect the eyes from injuries caused by dust, chips and flying off parts on a processing machine as well as from compressed air and irritating resp. corrosive or toxic liquids.
	A respiratory respirator resp. dust mask protects the respiratory tract from respiratory air contamination (e.g. from wood dust or similar) and from toxic exhaust gases (e.g. from a forklift truck).
	The safety helmet serves to protect against falling parts and head injuries. It is mandatory to wear a safety helmet especially when unloading the roller conveyor by means of a forklift truck.


4.8 Residual risks

The roller conveyor is built according to the latest state of the art and the recognised safety rules. Nevertheless, the use of the roller conveyor may cause danger to life and limb of the user or third parties or damage to the roller conveyor and other equipment. Due to the construction of the roller conveyor, the following residual risks can occur even when used as intended and despite compliance with all relevant safety regulations:

	The operating personnel must read and apply the operating manual. Furthermore, the operating manuals of additional third-party components must be observed.
	Be alert to possible crushing hazards: a) when transporting the roller conveyor by forklift truck: between forks & pallet / roller conveyor b) when picking up the roller conveyor: between roller conveyor / pallet and floor c) when lowering the roller conveyor: between roller conveyor and fixed equipment
	In addition, be aware of possible crushing hazards when setting down the roller conveyor (from the freight pallet to the ground) using a forklift truck. Wearing protective gloves and safety shoes is mandatory when transporting and setting up the roller conveyor.
	Toxic exhaust gases are produced by forklift trucks or comparable vehicles with combustion engines. Generally wear a respiratory protection mask in working environments with the above-mentioned exhaust gas development.
	Be aware of the danger from falling objects such as workpieces, tools or similar. Therefore wear safety shoes, especially when transporting and setting up the roller conveyor.
	Riding on the roller conveyor during a lifting operation (by forklift truck or indoor crane) is prohibited. There is a risk of falling!
	Increased risk of injury or even death. Entering the danger zone under a suspended load during transport or installation by means of a forklift truck is prohibited! Generally wear a safety helmet in working environments with suspended loads.
	Increased risk of injury or even death. It is forbidden to enter the forklift platform during transport or installation!
	Unauthorised persons are not allowed to enter the installation area of the roller conveyor. Compliance with this regulation is the responsibility of the operator.
	Danger of electric shock on models with optional digital Z58 position indicator! Work on the electrical components may only be carried out by qualified personnel.
	Be aware of tripping and slipping hazards on the floor. Prevent hazards by keeping the floor dry and clean and by using anti-slip floor coverings around the roller conveyor.
	Risk of injury due to crushing, jamming as a result of reaching between moving parts! There is an increased risk of accidents with loss of limbs or even death. Observe the handling instructions and follow the warnings! Wear protective gloves if necessary.
	Risk of injury from compressed air components! Do not exceed the permissible operating pressure (max. 6 bar)! Wear protective goggles when handling compressed air.
	When using additional machines on the roller conveyor, read the respective operating manual of the machine used beforehand and comply with the safety instructions contained therein.
	Be aware of the fire hazard during the processing of wood due to wood dust, in connection with flying sparks and/or open fire!

4.9 Observe the Environmental Protection Regulations

During all work with the roller conveyor, the environmental protection regulations, obligations and laws for waste avoidance and proper recycling and/or disposal applicable at the place of use must be observed. This applies in particular to installation, repair and maintenance work involving substances that could pollute the groundwater (e.g. hydraulic oils and cleaning agents and liquids containing solvents). In any case, prevent them from seeping into the ground or entering the sewage system.

	<p>Store and transport the above-mentioned hazardous substances only in suitable containers. Avoid leakage of hazardous substances by using suitable collection containers. Ensure that the above-mentioned substances are disposed of by a qualified disposal company.</p>
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4.10 Organisational measures

- ⚠ Always keep this operating manual within easy reach and at the place of use of the roller conveyor.
- ⚠ In addition to the operating manual, observe and instruct on applicable legal and other binding regulations for accident prevention and environmental protection.
- ⚠ Supplement the operating manual with further instructions, including supervisory and reporting duties, to take account of special operational features (e.g. with regard to work organisation, work processes, personnel employed).
- ⚠ Before starting work on the roller conveyor, the person responsible for its operation must have read the operating instructions, especially the chapter "Safety." This applies in particular to personnel who only occasionally work on the roller conveyor.
- ⚠ Check that work is carried out in a safety-conscious and hazard-conscious manner and in compliance with the operating manual.
- ⚠ When using additional machines on the roller conveyor, read the respective operating instructions and keep them handy. Pay particular attention to the respective safety and hazard information.
- ⚠ In case of safety-relevant changes to the roller conveyor or its operating behaviour, shut down the entire system immediately and report the fault to the responsible office/person.
- ⚠ Use personal protective equipment as necessary or required by regulations (see section ⇨ 4.7).
- ⚠ Do not make any modifications, additional attachments or conversions to the roller conveyor without the manufacturer's approval! This will compromise safety and invalidate the manufacturer's warranty and any liability claim.
- ⚠ Spare parts must meet the technical requirements specified by the manufacturer. The exclusive use of original spare parts ensures this. Therefore, only use original spare parts from the manufacturer.
- ⚠ Observe the fire alarm and firefighting possibilities. Make the location and operation of fire extinguishers (fire class ABC) known. Do not use water!

4.11 Personnel selection and qualification - basic duties

- ⚠ The design and operation of the roller conveyor is equally suitable for right- and left-handers.
- ⚠ The roller conveyor is designed to be operated by a single person. Other persons in the vicinity of the roller conveyor must keep a suitable safety distance.
- ⚠ Work on and with the roller conveyor may only be carried out by reliable personnel. Observe the legal minimum age!
- ⚠ Only use trained or instructed personnel. Clearly define the responsibilities of the personnel for operating, setting up, maintaining and repairing!
- ⚠ Ensure that only authorised personnel work on the roller conveyor.
- ⚠ If personnel to be trained or apprenticed have to work on the roller conveyor, this may only be done under the constant supervision of an experienced resp. qualified person.
- ⚠ Work on pneumatic equipment of the roller and measuring conveyor may only be carried out by authorised and trained personnel.
- ⚠ Work on electrical equipment may only be carried out by a qualified electrician or by instructed persons under the direction and supervision of a qualified electrician in accordance with the electrotechnical rules.

5 Types and product description

5.1 EXAKT HD C

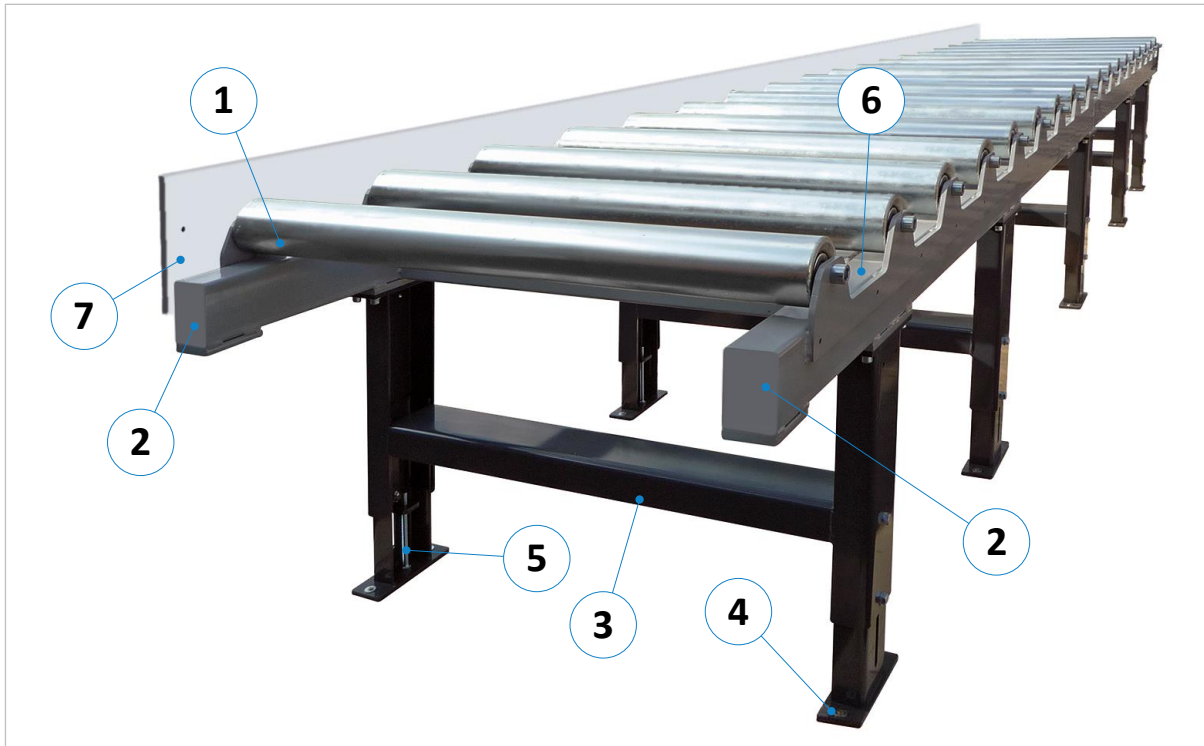


Figure 1: Roller conveyor EXAKT HD C

Pos.	Description	Pos.	Description
1	Carrying roller	5	Height adjustment (± 75 mm)
2	Support frame	6	Spaces for loading and unloading
3	Support profile	7	Roller back wall
4	Adjustable foot (anchorable)		

The EXAKT HD C roller conveyor (see \Rightarrow Figure 1) is a pure infeed and outfeed roller conveyor without measuring and stop system. At the same time, it is the basic version for the other two models in the EXAKT HD series.

The roller conveyor consists of the support frame (2) with a track width of 600 mm (variant S) resp. 1150 mm (variant W) and the solid carrying rollers (1) made of galvanised steel with a diameter of 108 mm and a load capacity of 800 kg per meter of roller conveyor. Thanks to the generous spaces between the rollers (6), the roller conveyor on the front side can easily be loaded with a forklift truck (see also chapter \Rightarrow 10).

The foot unit consists of the adjustable feet (4) and the upper part of the foot with the supporting profile (3) welded to it. The feet already have the necessary holes to anchor the roller conveyor to the floor with heavy-duty dowels. The roller conveyor can be adjusted in height resp. levelled with a machine spirit level via the height adjustment (5). The adjustment range for the height adjustment is ± 75 mm.

5.2 EXAKT HD A

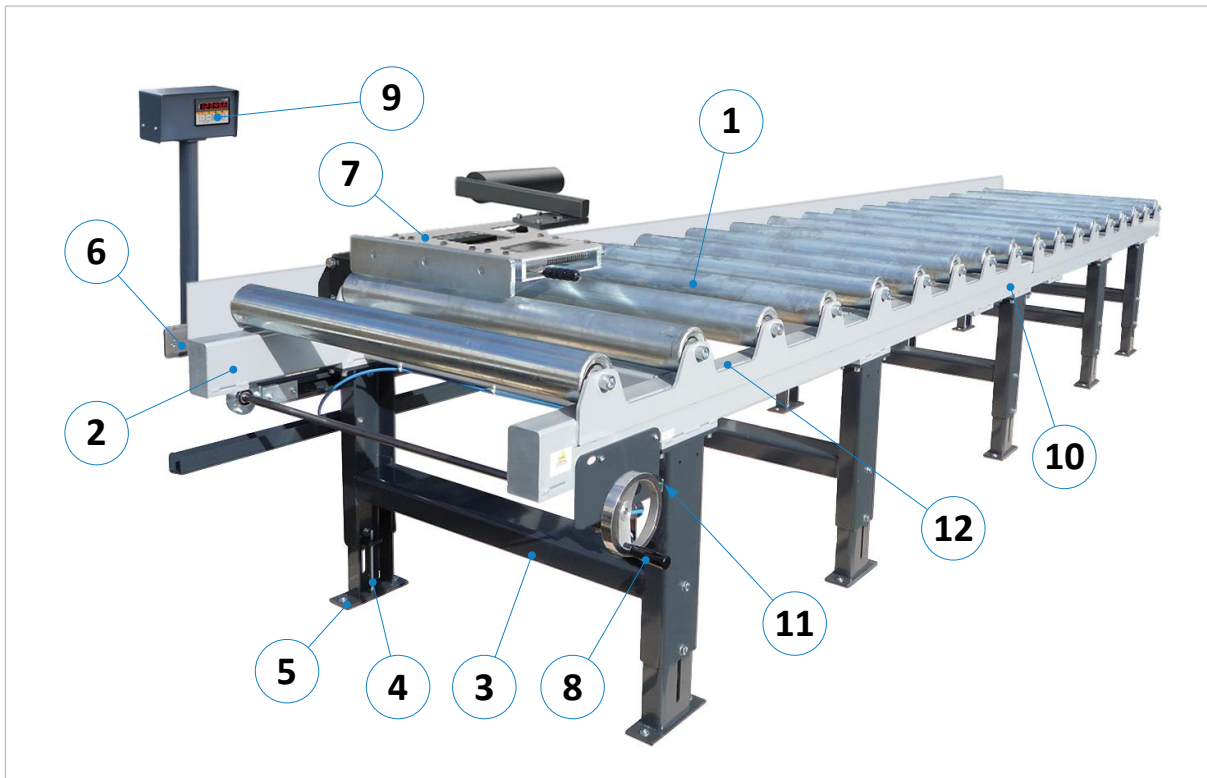


Figure 2: Roller and measuring conveyor EXAKT HD A

Pos.	Description	Pos.	Description
1	Carrying roller	7	Material stop
2	Support frame with roller back wall	8	Handwheel
3	Support profile	9	LED position indicator type Z58 (option)
4	Adjustable foot (anchorable)	10	Support frame loading side
5	Height adjustment (± 75 mm)	11	Compressed air connection
6	Precision guide profile	12	Spaces for loading and unloading

The roller conveyor in the EXAKT HD A version (see \Rightarrow Figure 2) is based on the basic roller conveyor version EXAKT HD C (see section \Rightarrow 5.1).

Additional features of the type EXAKT HD A in the standard version:

- Rear support frame (2) with precision guide profile (6) for the sliding carriage
- Sliding carriage (7) with anti-friction bearings and spring-loaded stop plate (500 x 100 mm), compressed air connection (11) and pneumatic brake
- Sliding carriage adjustable by handwheel (8) through rotating chain
- Smooth-running hand wheel (8) with LED position indicator Z58 (9) at eye level and rotary signal detection via magnetic ring on handwheel axle

Options:

- Position indicator Z58 (9) with linear signal detection via magnetic tape on flat steel guide
- For article numbers and details of the options, refer to chapter \Rightarrow 16

5.2.1 Material stop for EXAKT HD A

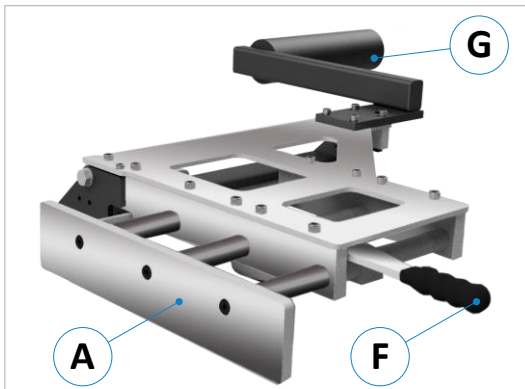


Figure 3: Material stop for EXAKT HD A

Components of the EXAKT HD A material stop:

Pos.	Description
A	Spring-loaded stop plate
F	Eccentric lever for clearance stroke
G	Balance weight for folding up position

5.3 EXAKT HD E

The type EXAKT HD E is also based on the basic roller conveyor version EXAKT HD C described in section ⇨ 5.1. In contrast to EXAKT HD A, however, the sliding carriage of EXAKT HD E is not moved to the desired position by means of a hand wheel, but by manually moving it with an operating lever.

Electrical and pneumatic connections are not required, as the measuring system and the position indicator are powered by two batteries and there is no pneumatic brake installed in the sliding carriage.

5.3.1 Material stop for EXAKT HD E

The material stop for EXAKT HD E consists of the following components:

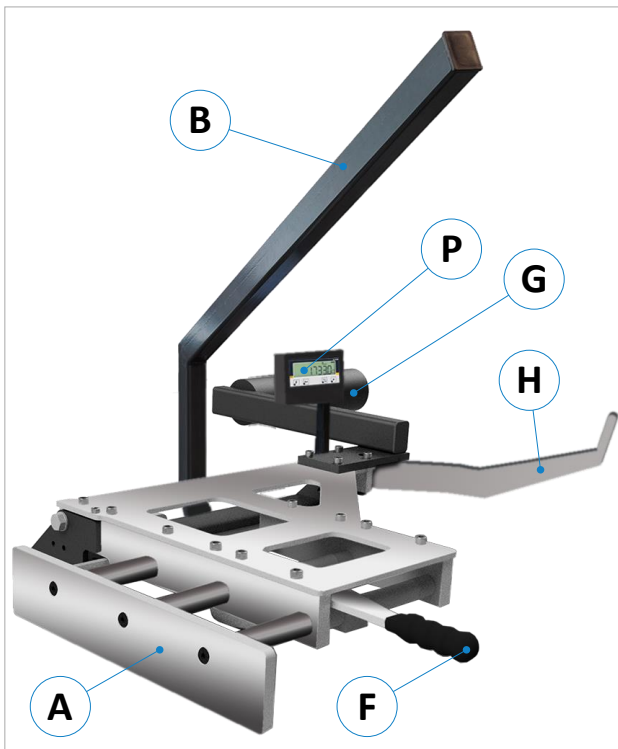


Figure 4: Material stop for EXAKT HD E

Pos.	Description
A	Spring-loaded stop plate
B	Control lever "Brake / Move"
F	Eccentric lever for clearance stroke
G	Balance weight for folding up position
H	Control lever "Lock / Release"
P	LCD position indicator IZ17E

Additional features of the type EXAKT HD E:

- Rear support rail with precision guide profile for the sliding carriage.
- The guide profile is equipped with a magnetic tape-based measuring system
- Anti-friction bearing carriage with spring-loaded 500 x 100 mm stop plate (A) and a robust disc spring brake that can be activated via lever (B).
- The sliding carriage is moved and fixed manually via the service levers (B) + (H).
- The battery-operated LCD position indicator (P) is attached on the sliding carriage

6 Technical specifications

General technical data	
Load per meter	800 kg per meter of roller conveyor
Roller conveyor length	2 - 12 m (or customer-specific special length)
Roller conveyor segments	length = 2 m or 3 m (selectively)
Working height	order suffix 1 = 888 mm order suffix 2 = 905 mm (selectively)
Adjustable feet	± 75 mm height adjustable
Carrying rollers	galvanised steel tubes, roller $\varnothing = 108 \times 3.25$ mm, ball bearing, axle $\varnothing = 30$ mm
Idler spacing	333 mm
Roller track width	variant S = 660 mm variant W = 1210 mm (selectively)
Usable roller width	variant S = 600 mm variant W = 1150 mm (selectively)
EXAKT HD A (roller and measuring conveyor)	
Measuring system	<u>standard</u> : rotative linear encoder via magnetic pole ring on the handwheel axis and digital Z58 LED position indicator. <u>optional</u> : alternatively magnetic linear encoder and magnetic tape instead of pole ring
Energy chain guide	from 5 m track length (obligatory with option "magnetic tape measuring system")
Measuring accuracy	± 0.2 mm per meter
Max. measuring length	= track length minus 670 mm
Stop system	material stop carriage with anti-friction bearings, roller chain drive, pneumatic brake and spring-loaded fence plate (500 x 100 mm); movable via handwheel adjustment and large-dimensioned guide profile
Electrical connection	230 VAC / 50 Hz with power supply unit
Pneumatic connection	via quick coupling (operating pressure max. 6 bar)
EXAKT HD C (pure infeed/outfeed roller conveyor)	
Length measuring system	not equipped
Stop system	not equipped
EXAKT HD E (roller and measuring conveyor)	
Length measuring system	manually movable magnetic tape measuring system with battery-operated IZ17E LCD position indicator, mounted directly on the sliding carriage
Measuring accuracy	± 0,1 mm/m
Max. measuring length	= track length minus 670 mm
Stop system	material stop carriage with anti-friction bearings, disc spring brake and spring-loaded fence plate (500 x 100 mm); manually adjustable and fixable via operating lever and large-dimensioned guide profile

6.1 Manufacturer







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 Fax: +49 (0) 7576 / 962 978 - 90
 Email: info@beck-maschinenbau.de

Note: Before using the unit in a way that deviates from the described suitability (see section ⇨ 4.2), it is essential to consult the manufacturer. Otherwise all warranty, liability and other claims for damages of the operator against the manufacturer will be voided!

7 Transport to the installation site

Only trained unloading personnel may be used for the work listed in this chapter!

Note: Roller conveyors longer than 6 meters are usually shipped in single segments and are packed either on two separate freight pallets or on top of each other.

	<p>There is an increased risk of accidents when unloading and transporting the roller conveyor! The roller conveyor can fall or tip over due to its weight!</p>
	<p>Only use approved, tested lifting gear and load handling attachments with a load capacity of at least <u>1000 kg per meter</u> of roller conveyor length. Only transport the roller conveyor on level, solid ground!</p>
	<p>When setting up, pay attention to the possible danger of crushing in the area of stationary objects around the roller conveyor!</p>
	<p>Increased risk of crushing and impact to hands, feet and head! To avoid serious injuries, wear protective gloves, safety shoes and safety helmet!</p>
	<p>Warning: Increased risk of injury and death! Never stand under the load when lifting and setting it down! Instruct bystanders to leave the danger zone!</p>
	<p>Warning: Increased risk of injury and death! Do not enter or climb onto the forklift platform during transport!</p>

7.1 Unloading with a forklift truck

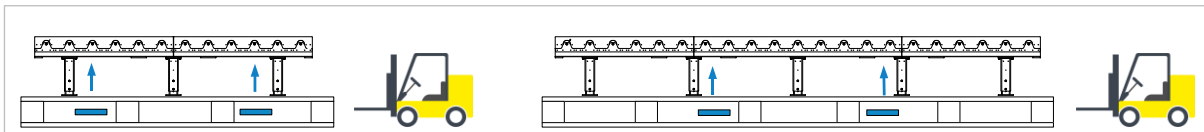



Figure 5: Lifting down from the transport vehicle with a forklift truck

- Centre the appropriately adjusted forks on the freight pallet at the points marked in ⇒ Figure 5 and carefully lift them by a few centimetres. Carefully and consistently lift the roller conveyor including the pallet from the truck and transport it to the desired installation site in accordance with the general safety regulations.
- Only use forklift trucks with sufficient fork length and with a load capacity suitable for the weight of the roller conveyor (approx. 200 kg per meter of roller conveyor length).



	<p>Danger to life when using a forklift truck! Keep a sufficient distance from the forklift truck and watch its speed. Vehicles with internal combustion engines also produce toxic exhaust gases. Wear a breathing mask if necessary.</p>
---	---

7.2 Check delivery condition

Check for completeness and transport damage. In case of transport damage or missing parts, document these immediately on the consignment note of the transport company → Inform the manufacturer of the situation.

7.3 Unpacking and placing

Unpack the roller conveyor and remove all packing material. Lift the roller conveyor from the transport pallet according to the procedure in section ⇒ 8.1.

	<p>Fire hazard! Do not smoke or light an open fire.</p>
	<p>Dispose of the packaging material in an environmentally friendly manner!</p>

7.4 Transport to the place of use

After unpacking, the roller conveyor can be moved to the installation site by means of a pallet truck. The general safety regulations must be followed and observed. For roller conveyors longer than 3 m, use two pallet trucks to avoid damage to the roller conveyor. For installation see section ⇒ 8.1.

7.5 Requirements for the installation site

The following guidelines apply with regard to space requirements, load-bearing capacity and the condition of the substrate:

- Space requirements: L x H x W = Length according to customer requirements x 1800 x 700 mm
- Load capacity: Concrete of classification B 15
- Conditions: Level, smooth, non-slip and tilt-free

7.6 Temporary storage

If the roller conveyor is not put into operation immediately after delivery, it must be stored carefully in a protected place. Carefully cover the entire roller conveyor so that neither dust nor moisture can penetrate.

7.6.1 Short term storage

- Dry environment
- Protect components at risk of corrosion
- Park in a stable place

7.6.2 Long term storage

- Dry environment
- Protect components at risk of corrosion
- Protect roller conveyor from dirt
- Park in a stable place
- Dismantle roller conveyor into individual segments if required

7.7 Lashing on a transport vehicle

For further transport, the roller conveyor must be lashed to the loading area of the transport vehicle on a pallet. For this purpose, a sufficient number of lashing straps with the appropriate load-bearing capacity must be used.

The responsibility for safe loading is borne by the respective shipper!



A separate lashing strap must be used for each lashing and must be tensioned individually on the floor of the loading area of the vehicle! The pallet must also be secured against slipping.

Please note the following when lashing in the transport vehicle:

- The loading area of the transport vehicle must always be clean and dry.
- The lashing straps used and their number must be suitable for the total weight of the roller conveyor and distributed accordingly. The weight is approx. 200 kg per meter of roller conveyor length.
- Loose and moving parts must be secured against slipping or packed in separate boxes if necessary.
- Fastening on the loading area is done by lashing down: This means that the transport pallet is secured by frictional locking. The load is pressed so firmly onto the loading surface that it can no longer slip. The clamping tool should have a high STF value at the frictional connection, e.g. long-lever ratchets.
- In addition, anti-slip mats should be used to provide even more safety.
- The ideal lashing angle (α) for tie-down lashing is 83° to and 90°. Therefore, the lashing straps should pull downwards approx. vertically. As the angle decreases, the pretensioning force of the lashing is reduced.
- Observe the permissible total weight of the transport vehicle.
- Ensure that the permissible axle loads of the transport vehicle are observed. The load must be distributed evenly on all axles of the vehicle.

8 Installation

The installation must be done by a competent person. Make sure that the roller conveyor is stable and installed in such a way that no crushing or shearing points occur between the roller conveyor and objects in the vicinity. Therefore, ensure sufficient space around the roller conveyor in advance. When operating the roller conveyor as intended, it must always be possible to carry out activities on the roller conveyor without obstructions.



Before commissioning the roller conveyor, it must be levelled with a machine spirit level and anchored to the ground at the designated points by a competent person.

The following installation and operating requirements must be observed:

- ⚠ The roller conveyor must be integrated into the existing machinery in such a way that the basic safety requirements of the EU Machinery Directive 2006/42/EC are met. This must be checked and ensured by the operator of the roller conveyor.
- ⚠ The environment must not be explosive.
- ⚠ This operating manual and any supplementary documents must be read carefully and understood. All safety instructions and regulations must be observed and complied.



Note for EXAKT HD A: At the end of the installation, the power supply lines required for operation must still be routed to the roller conveyor in a hazard-free and proper manner.

8.1 Lifting the roller conveyor off the transport pallet

The roller conveyor is lifted off the pallet by means of a forklift truck. Depending on the length of the roller conveyor, a second forklift truck is required to prevent the roller conveyor from bending and being damaged.

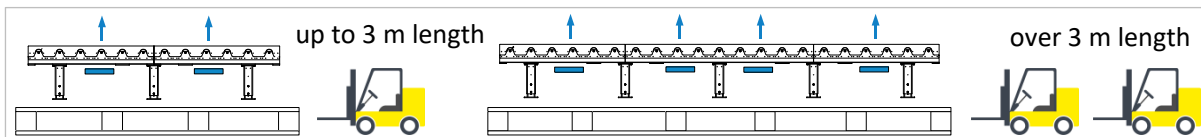


Figure 6: Lifting the roller conveyor off the transport pallet

- For roller conveyors up to 3 meters long, one forklift truck is sufficient.
- Guide the appropriately wide set forks to the points marked in ⇒ Figure 6 (left).
- Then lift the roller conveyor only a few centimetres. Remove the pallet and move the roller conveyor to the place of use as described in section ⇒ 8.2.
- For lengths over 3 meters, two forklift trucks are required for the lifting process due to the weight.
- Guide the appropriately wide set forks to the points marked in ⇒ Figure 6 (right).
- Then lift the roller conveyor with both forklift trucks as consistently as possible and only a few centimetres to protect the mechanics at the joints. Then remove the pallet and move the roller conveyor to the place of use according to section ⇒ 8.2.

8.2 Moving the roller conveyor to the place of use

Use one or more wooden underlay boards (U) to make the roller conveyor accessible for one (resp. two) pallet trucks at the points marked in ⇒ Figure 7. Insert the forks at the marked points and lift the roller conveyor carefully and consistently at all points. Then move the roller conveyor to the final place of use (e.g. to the processing machine) and set it down there.

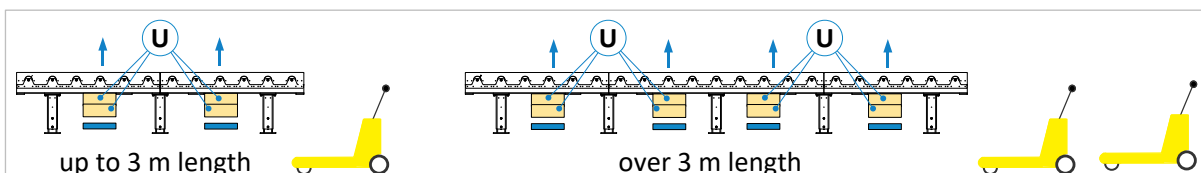


Figure 7: Moving the roller conveyor to the place of use

If the roller conveyor is longer than 3 meters, please ensure that two pallet trucks are used and that it is lifted consistently. At the place of use, the roller conveyor must then be aligned according to ⇒ 8.3.

8.3 Aligning and levelling the roller conveyor

To align the roller conveyor optimally to the processing machine, proceed as follows:

- Align the roller conveyor both in line and level with the existing processing machine. With a split roller conveyor EXAKT MES A, always start with the roller conveyor part on which the handwheel is mounted (right or left of the processing machine, depending on the roller conveyor configuration).

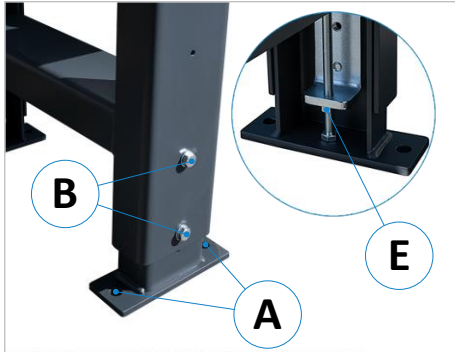


Figure 8: Height adjustment

- An open-end spanner SW 19 is required for levelling and height adjustment.
- To adjust the height, loosen the two outer fastening screws (B) and adjust the height ± 75 mm (via slotted hole) with the inner adjusting nut (S).
- Adjust the feet so that the roller conveyor stands securely and horizontally on all feet. Level the roller conveyor exactly with a machine spirit level and adjust it to the level of the processing machine.
- Then tighten the fastening screws (B) again.
- Bores (A) see section \Rightarrow 8.5.

- Only EXAKT HD A and EXAKT HD E:** Firmly join the processing machine with the roller conveyor.

8.4 Connecting roller conveyor segments together

In the case of a roller conveyor delivered in sections, the roller conveyor segments must be connected to each other at the joints. For this purpose, the corresponding connecting brackets and mounting screws are included in the delivery and must be attached as described below:

- First align roller conveyor segment 1 correctly \rightarrow Then place the roller conveyor segment 2 against the already aligned roller conveyor segment 1 and align it exactly to it.

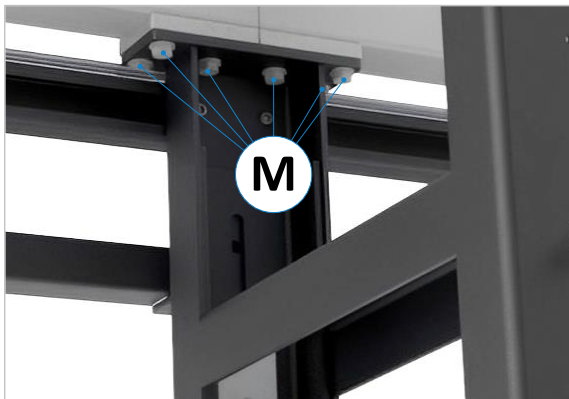


Figure 9: Connecting segments (front side)

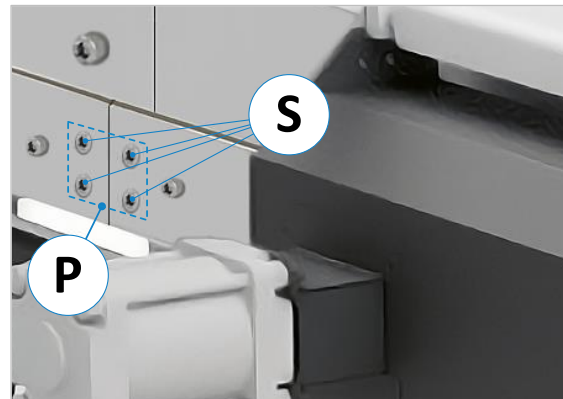


Figure 10: Connecting segments (rear side)

- Connect the roller conveyor segments (S) at the joints by inserting the six screws supplied from the top through the mounting holes of the segments and connecting supports shown in \Rightarrow Figure 9. Then screw them together from below with the corresponding washers and nuts (M). Two SW 19 open-ended or socket spanners are needed for this.
- EXAKT HD A and E only:** To attach the guide flat bars (F) for the stop system to each other at the joints, use one of the supplied connecting plates (P) with the four threaded holes for each joint (see \Rightarrow Figure 10). Attach them from the front resp. inner side and fasten them with an SW 6 Allen key from the rear side via the four Allen screws (S).

Important: Before tightening, make sure that the guide flat bars (F) are exactly flush with each other.
 \rightarrow The air gap between the flat bars should be as small as possible.

- **Only EXAKT HD A:** Loosen the two hexagon socket screws (**S**) of each of the clamping plates (**P**) pre-mounted on the back so that you can push a chain guide tube (**R**) onto a clamping plate (**P**) from each side (see ⇒ Figure 11). The joint of two chain guide tubes (**R**) must then be exactly in the middle of a clamping plate (**P**). Then align the chain guide tubes (**R**) flush with each other and tighten the screws (**S**).
- The deflection (**U**) for the chain is mounted on the end pieces (see ⇒ Figure 12).

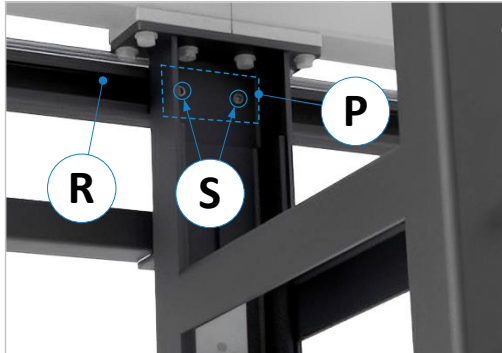


Figure 11: Fitting the chain guide tube



Figure 12: Chain deflection

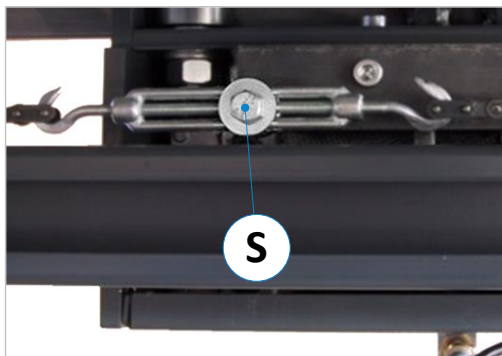


Figure 13: Fitting and tensioning the link chain

- The link chain supplied is guided around the chain wheels and hooked into the chain turnbuckle at both ends. To do this, the chain turnbuckle must first be removed from the sliding carriage using the screw (**S**).
- Then tension the chain so that it has a medium to strong tension according to the chain size. Please make sure that the chain is not turned.
- Then reassemble the chain turnbuckle to the sliding carriage with the screw (**S**).

8.5 Anchoring in the ground




Figure 14: Base plate with anchoring holes

- When all parts of the roller conveyor are assembled and aligned with the machine, anchor the roller conveyor to the floor using the two anchoring holes in the base plates (see ⇒ Figure 14).
- Use heavy duty dowels for this purpose.

8.6 Installing the magnetic tape for position measurement

The magnetic tape supplied is stuck onto the guide flat bar of the stop roller guide - starting from the processing machine - at a distance of 18 mm from the upper edge of the flat bar. The magnetic tape contains the incremental coding for position detection of the length stop. In order to achieve the maximum accuracy of the measuring system, the magnetic tape may only be applied after the roller measuring conveyor has been set up, aligned and anchored.

	<p>The magnetic tape must not be rolled up tightly or bent, otherwise it will be destroyed.</p> <p>The magnetic tape must not be exposed to direct contact with other magnetic fields (e.g. magnetic metal parts, electromagnets, holding magnets or similar). The influence of foreign magnets will destroy the coding, falsify the measurement result and render the magnetic tape unusable.</p>
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8.6.1 Magnetic tape installation for EXAKT HD A and EXAKT HD E

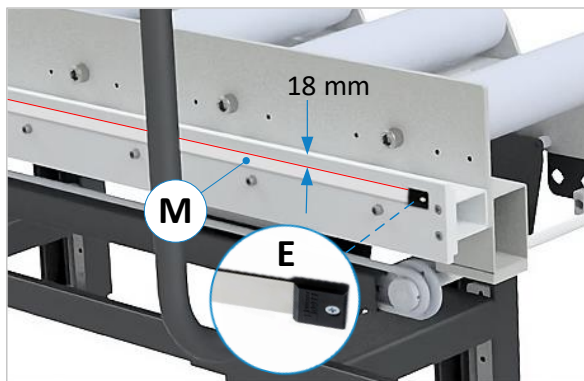


Figure 15: Magnetic tape installation - EXAKT HD A

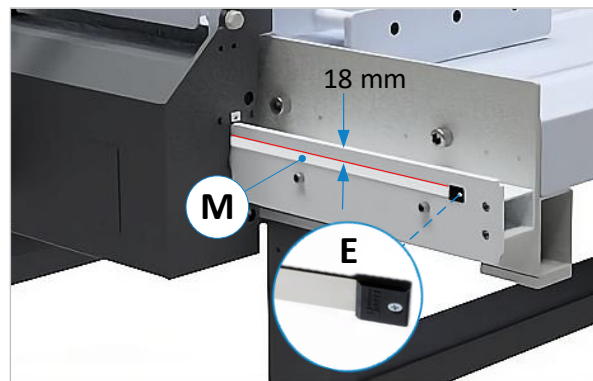


Figure 16: Magnetic tape installation - EXAKT HD E

1. In both versions, the magnetic tape (**M**) is glued to the vertical guide flat bar guide.
2. First remove the two plastic end caps (**E**) from the magnetic tape → These are required for mechanical protection and must be refitted later on.
3. There are already two factory holes for the end caps in the flat bar guide and the correct position of the upper edge of the magnetic tape is marked with a scribe mark at the factory (the distance to the upper edge of the flat steel must be 18 mm over the entire length of the magnetic tape).
4. Before gluing, clean the flat bar guide in the gluing area with a grease-dissolving agent.
5. First push the magnetic tape through the sliding carriage (do not remove the protective adhesive film yet).
6. Orientate yourself on the two factory holes in the flat bar guide and on the scribe mark (see red line).
7. Then pull off the protective film a little (slightly longer than the approximate width of the sliding carriage) and stick the magnetic tape only at this point for the time being.
8. Now position the sliding carriage on the position of the magnetic tape already stuck on.
9. Peel off the remaining protective adhesive film, stick on the magnetic tape over the entire length and press on well.
10. Then stick the supplied steel cover tape flush onto the magnetic tape so that it is protected from mechanical influences.
11. Now slide the two plastic end caps (**E**) onto the two magnetic tape ends and fix them in the factory holes with the screws supplied.
12. To enable exact positioning, the position indicator must be referenced with the stop system to the processing machine (for procedure see section ⇨ 8.8).

8.7 Connecting the roller conveyor (EXAKT A only)

- The electrical connection for the position indicators is established by plugging the safety plug into the corresponding socket.
- The compressed air supply is established by connecting the to a suitable compressed air network. The maximum operating pressure is 6 bar.

8.8 Referencing the stop system (EXAKT HD A and E only)

The digital position indicators of the stop system must be referenced during commissioning of roller conveyor in relation to the already connected processing machine (e.g. crosscut saw).

Procedure:

- Position the stop of the roller conveyor with the handwheel against the end stop.
- Then clamp the sliding carriage manually or pneumatically (depending on the model).
- Attach the test piece to the stop, cut to length with the machine and then measure.
- Now compare the dimension of the position indicator with the actually measured dimension of the cut part. If the dimension differs, the actually measured dimension must be stored as a reference value in the position indicator (the corresponding parameter can be found in the respective operating manual).
- Finally, set the position indicator to the stored reference value (calibration).

8.9 Operational readiness of the roller conveyor (EXAKT A only)

The roller conveyor is ready for operation after it has been correctly installed and assembled and the electrical and pneumatic connections have been made by suitably qualified personnel.

9 Operating the stop system

9.1 Material stop for EXAKT A



When adjusting the handwheel, pay attention to existing crushing hazards between moving parts (stop system / workpiece / roller conveyor). Keep hands out of the danger areas!

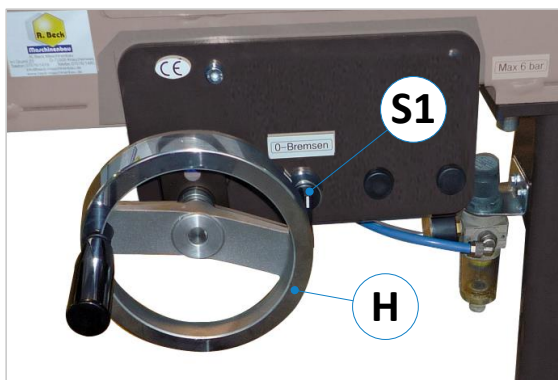


Figure 17: Operating elements of the EXAKT HD A stop system

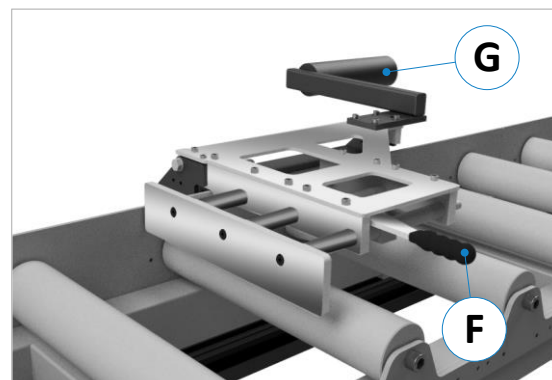


Figure 18: Balance weight and lever for clearance stroke

Positioning and clamping the stop:

- Move the material stop to the desired dimension using the handwheel (H) and position indicator.
- After reaching the desired position, hold the handwheel (H) firmly with one hand and turn the brake switch (S1) to the right with the other hand in order to clamp the stop in this position.

Set the clearance stroke and fold up the stop:

- Before starting the machining process (e.g. cutting), create the 10 mm clearance stroke by swivelling the eccentric lever (F), see ⇒ Figure 18.
- With the eccentric lever (F) the stop can also be folded up at any length position. In the upper position, the stop keeps itself in this position by means of the balance weight (G).



Be aware of the risk of crushing when folding down the stop. Hold the stop firmly when doing so and do not let it fall down. Keep your hands out of the danger zone!

9.2 Material stop for EXAKT E



When moving the stop via sliding carriage, pay attention to the danger of crushing between moving parts (stop / workpiece / roller conveyor). Keep hands out of the danger areas!

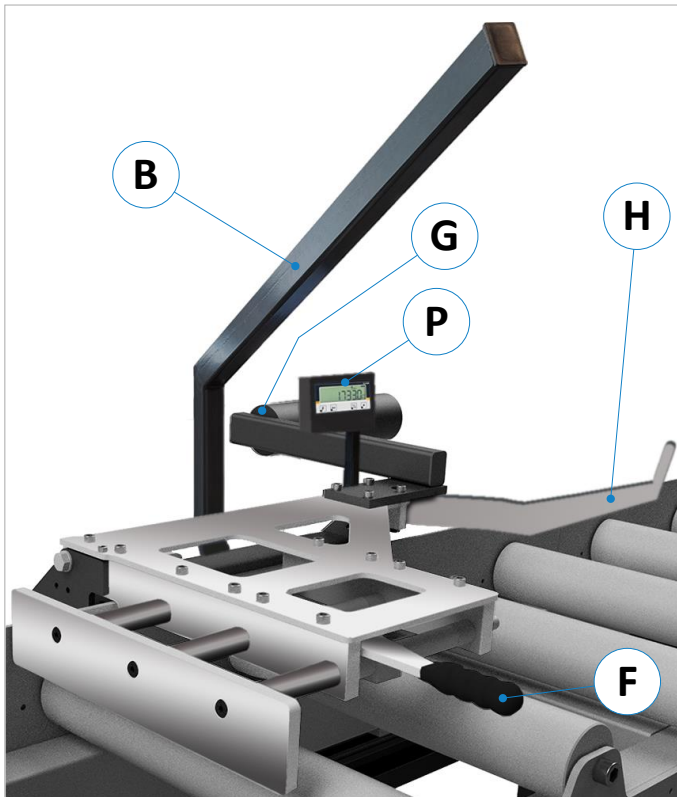


Figure 19: Operating elements of the EXAKT HD E stop system

Move the fence manually:

- Pull the brake lever (B) down firmly as far as it will go (the lever will then remain in this position).
- Pull the locking lever (H) slightly upwards and hold it there.
- The sliding carriage can now be moved smoothly to the left or right using the brake lever (B).

Positioning and clamping the stop:

- Pull the locking lever (H) slightly downwards during positioning of the sliding carriage to be able to position more precisely to the target dimension. At the same time read the dimension in the display of the position indicator.
- After reaching the desired position, pull the locking lever (H) down firmly to hold the new position.
- At the same time, carefully move the brake lever (B) upwards and hold it firmly (Caution: The lever can dangerously shoot upwards by itself).
- The stop is now locked.



Caution! Always hold the brake lever (B) firmly when raising it in order to prevent it from shooting up by itself and the associated risk of injury.

Set the clearance stroke and fold up the stop:

- Before starting the machining process (e.g. cutting), create the 10 mm clearance stroke by swivelling the eccentric lever (F), see ⇒ Figure 19.
- With the eccentric lever (F) the stop can also be folded up at any position. In the upper position, the stop keeps itself in this position by means of the balance weight (G).



Be aware of the risk of crushing when folding down the stop. Hold the stop firmly when doing so and do not let it fall down. Keep your hands out of the danger zone!

9.3 Setting the material stop height

In some cases it may be necessary to adjust the height of the stop system (distance to the roller conveyor):



Figure 20: Setting the material stop height

- Loosen the lock nuts on the two grub screws (M) and use a pin spanner to adjust the desired height consistently over the two grub screws. Note: The right-hand screw is located in a hole inside the mounting plate of the balance weight.
- Ensure parallelism by re-measuring the distance to the roller conveyor on both sides.

10 Loading the roller conveyor

10.1 Loading with a forklift truck



Danger to life when using a forklift truck! Keep a sufficient distance from the forklift truck and watch its speed. Vehicles with internal combustion engines also produce toxic exhaust gases. Wear a breathing mask if necessary.



Figure 21: Loading the EXAKT HD roller conveyor with a forklift truck

The roller conveyors of the EXAKT HD models, which are designed for heavy-duty applications, have sufficient space between the carrying rollers at the front to be able to load them with a forklift truck when the fork width is set accordingly. Be careful not to damage the back wall of the carrying rollers with the forklift truck's forks.



Make sure that the forks of the forklift truck are not fed too deeply to the rear. Feeding the forks too deeply to the rear can cause damage to the back wall where the carrying rollers are fixed.


10.2 Loading with a crane

When loading the roller conveyor with a crane, the general safety regulations must be observed.



Danger to life when lifting loads by crane! Loads must not be moved over persons. It is forbidden for persons to stand under the load while it is being lifted.

11 Troubleshooting

	Repair work on electrical, mechanical and pneumatic components may only be carried out by authorised and trained specialist personnel.
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Proceed systematically when searching for the cause of a malfunction. If you are unable to find the fault or remedy the malfunction, call our customer service on the telephone no. 0049 7576 / 962 978 - 0.

Before you call us, please follow these steps:




- Keep these operating instructions and any supplementary documents at hand.
- The more precisely you describe the fault to us, the better we can then remedy the situation.

EXAKT HD A and EXAKT HD E only:

Fault	Possible Cause	Remedy
EXAKT HD A: LED position indicator Z58 (option) remains dark	No power supply	→ Check cables and connections
	Position indicator defective	→ Replace or have repaired
	Power supply unit defective	→ Check/replace power supply unit
EXAKT HD A: LED position indicator Z58 (option) does not count (no measurement) or provides incorrect measurement results	No sensor signals	→ Check sensor connections
	Magnetic sensor defective	→ Replace magnetic sensor
	Distance sensor/band too high	→ Distance must not exceed 5 mm
	Position indicator defective	→ Replace or have repaired
EXAKT HD E: LCD position indicator IZ17E on the sliding carriage remains dark	No power supply	→ Check cables and connections
	Position indicator defective	→ Replace or have repaired
	Batteries empty or defective	→ Check/replace batteries
	No signals	→ Check sensor connections
EXAKT HD E: LCD position indicator IZ17E on the sliding carriage does not count (no measurement) or provides incorrect measurement results	Magnetic sensor defective	→ Replace magnetic sensor
	Distance sensor/tape too high	→ Distance must not exceed 5 mm
	Position indicator defective	→ Replace or have repaired
	Magnetic tape defective	→ Replace magnetic tape (⇒ 8.6)
EXAKT HD A: The stop cannot be moved via handwheel	Brake is activated	→ Release brake
	Chain broken	→ Repair or replace chain
	Other reasons	→ Contact customer service
EXAKT HD A: The stop cannot be braked	No compressed air available	→ Connect compressed air
	Brake pads worn	→ Replace brake pads
	Pressure regulator set too low	→ Increase pressure (max. 6 bar)
	Valve defective	→ Replace valve
	Pressure regulator defective	→ Replace pressure regulator
	Other reasons	→ Contact customer service


12 Maintenance and repair

Maintenance and repair work may only be carried out by competent, trained and instructed personnel. If necessary, further operating instructions and/or additional documents must be observed.

	<i>If maintenance or repair work has been carried out on the roller conveyor, a functional test must be carried out afterwards.</i>
	<i>Maintenance and repair work on electrical, pneumatic and mechanical components may only be carried out by authorised and trained personnel.</i>
	<i>Before carrying out any maintenance or repair work, the chapter ⇨ 4 "Safety" must be read carefully and observed!</i>

- **EXAKT HD A only:** During maintenance and repair work, make sure that the compressed air and power supplies to the roller conveyor are disconnected.
- **EXAKT HD A and EXAKT HD E:** The guide of the sliding carriage must be cleaned daily.
- **EXAKT HD A only:** Before using the roller conveyor, all electrical cables and compressed air hoses must be checked for damage. Damaged parts must be replaced by qualified personnel due to the risk of accidents! Afterwards, the power and compressed air supplies can be restored.

13 Supplementary documents

	<i>Repair work on electrical resp. electronic components may only be carried out by authorised and trained specialist personnel.</i>
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Please note: If necessary, purchase electronic spare parts exclusively from R. Beck Maschinenbau GmbH. This is the only way to ensure that the correct components are ordered and that compatibility with the roller conveyor is guaranteed.

R. Beck Maschinenbau GmbH excludes all liability and warranty for damage to property and personal injury caused by incorrect or incompatible components.

13.1 EXAKT HD A

The operating manual for the LED position indicator type **Z58** can be found via the following link:

☞ https://www.elgo.de/fileadmin/user_upload/pdf/manual/indicators/Z58-600-MA-E.pdf


13.2 EXAKT HD E

The short manual for the battery-powered position indicator type **IZ17E** can be found via the following link:


☞ https://www.elgo.de/fileadmin/user_upload/pdf/manual/indicators/IZ17E-000-SI-DE.pdf

14 Disassembly and scrapping


When dismantling and scrapping the roller conveyor, the current EU regulations or the respective regulations and laws of the country of operation, which are prescribed for proper dismantling and disposal, must be observed. The aim is to dismantle the roller conveyor and its various materials and components properly, to recycle all parts and to dispose of non-recyclable components in the most environmentally friendly way.

	<p>Please pay particular attention to</p> <ul style="list-style-type: none"> • <i>the dismantling of the roller conveyor in the working area</i> • <i>proper dismantling of the roller conveyor and accessories</i> • <i>a safe and proper removal of the roller conveyor</i> • <i>proper separation of all components and materials.</i>
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When dismantling and disposing the roller conveyor, the laws and regulations in force at the place of use concerning health and environmental protection must be observed.


	<p>Remove all residues of oil, grease and other lubricants and have them disposed of properly by a qualified disposal company.</p>
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When separating, disposing of or recycling the roller conveyor materials, comply with the environmental protection laws in force at the place of use regarding the disposal of industrial solid waste toxic and hazardous waste.

	<ul style="list-style-type: none"> • <i>Hoses and plastic parts as well as other components that are not made of metal must be dismantled and recycled or disposed of separately.</i> • <i>Electrical components such as cables, switches, connectors, devices or similar must be extended and (if possible) recycled or otherwise disposed of in a qualified manner.</i> • <i>Pneumatic parts such as valves, pressure regulators, hoses or similar must be dismantled and (if possible) recycled or otherwise disposed of in a qualified manner.</i> • <i>Dismantle the base frame and all metal parts of the roller conveyor and sort them according to material type. Metals can be melted down and recycled.</i>
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In the event of improper disposal of lubricants, the following residual risks to the environment and health exist:

	<p>Pollution of the environment by seepage into groundwater or sewage system.</p>
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	<p>Poisoning of the personnel contracted for the disposal.</p>
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Note: The disposal of lubricants considered toxic and hazardous must be carried out in accordance with the regulations and laws in force at the respective place of use. Only qualified disposal companies that have the appropriate permits for the disposal of used oil and lubricants are to be commissioned with the disposal.

15 Machine card

Company		
Branch		
Street		
Country / postcode / city		
Phone		
Model	EXAKT HD A / EXAKT HD E	
Additional remark		
Manufacturer	Reinhold Beck Maschinenbau GmbH, Im Grund 23, DE 72505 Krauchenwies	
Working range	by type	mm (L x W)
Pressure range		bar
Control		
Connection		V / Hz
Connected load		W
Length	by type	mm
Depth	by type	mm
Height	by type	mm
Weight	by type	kg
Extras		
Paintwork	Anthracite RAL 7016, traffic grey RAL 7042	
Machine number		
Year of manufacture		

16 Options and accessories

	<p><i>Only use original accessories and spare parts specified by the manufacturer. The use of other accessories or spare parts may cause injury to persons and damage to the roller conveyor. In case of any use of non-prescribed accessories and spare parts or of additional components of third parties, the manufacturer does not assume any liability for resulting damages!</i></p>
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16.1 Accessories for all models

Article	Description	Art. No.
Cover plate	between the carrying rollers, galvanised.	SZ 06

16.2 Accessories for EXAKT HD A

Article	Description	Art. No.
Measuring system Z58	Magnetic measuring and indicating system with 1/10 mm indicator Z58, magnetic pole ring and sensor head.	SZ 09
Z 58 + magnetic tape 2 - 8 m	The EXAKT HD A roller conveyors can also be supplied with a linear magnetic tape measuring system incl. Z58 indicator.	
	2 m	SZ 10
	3 m	SZ 11
	4 m	SZ 12
	5 m	SZ 13
	6 m	SZ 14
	7 m	SZ 15
	8 m	SZ 16

EU - Declaration of Conformity

in accordance with the EU Machinery Directive 2006/42/EC Annex II A

The manufacturer,

Fa. Reinhold Beck
Maschinenbau GmbH
Im Grund 23
DE-72505 Krauchenwies (Germany)
Phone: 0049 - 7576 962 978 0
Fax: 0049 - 7576 962 978 90

hereby declares that the manufactured machine

Models: **EXAKT HD C, A, E**
Type designation: Roller conveyor / Roller and measuring conveyor
Serial number(s):
Year of manufacture:

in the version provided complies with the EU Machinery Directive 2006/42/EC and the following further directives.

The following harmonised standards and instructions have been applied in manufacturing the machine:

- **EN ISO 12100:2010** Safety of machinery - General principles for design - Risk assessment and risk reduction

Name: Beck
First name: Reinhold
Position: Managing Director

Krauchenwies, 12.09.2023

Place and date



Signature