

Transport, installation, commissioning

INDEX MBL76

Note on applicability

Illustrations in this publication may deviate from the product supplied. Errors and omissions due to technical progress expected.

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Table of Contents	3
General note	5
Symbols	6
Safety instructions	7
Information on transport, installation, commissioning	7
Transporting and lifting aids	7
General hazards during on-site transport	8
Dimensions and masses	8
Reception	8
Preparations	9
Suitable transporting and lifting aids	9
Space requirements	10
Subsoil, foundation	10
Fastening/anchoring	10
Ambient conditions	11
Power supply	12
Delivery	13
Other separate units	13

Transport.....	14
... by a crane.....	14
... by a forklift.....	15
Important when transporting by a forklift.....	15
Suspension and lashing points.....	17
Lashing MBL76 - 3200/4200 (according to Stahl)	18
 Transport with rotary trolleys.....	 20
Transport with rotary trolleys	20
Preparation	21
Control cabinet side	21
Machine side	22
 Installation.....	 23
Connecting to the machine.....	23
Aligning the bar loading magazine.....	23
Fastening to the floor.....	24
 Commissioning.....	 25
External data transfer.....	25

General note



All documents and drawings (working documents) required for the operation of the machine can be found on the supplied data carrier under Chapter 1 "Instructions" or 2 "Diagrams and drawings").

Documents and drawings of add-on equipment from other manufacturers can be found in Chapter 3 "Third-party documentation".

In addition, these data/documents are stored on the controller.*

(* - **iXpanel** installation required)

Symbols

Explanation of the symbols used in the user documentation.



This symbol warns against a direct, imminent danger to the life and health of individuals. Failure to observe this danger warning may result in severe health impairment, such as perilous injury and even death.



This symbol warns against a direct, imminent danger from electricity. Failure to observe this danger warning may result in severe health impairment, such as perilous injury and even death.



This symbol indicates important notes for the proper operation of the machine.
Failure to observe this caution may cause malfunctions on the machine. This can result in damage to entire assemblies or parts thereof.



Reference to other documents.

Safety instructions



The user documentation and, in particular, the document "Safety Precautions and Technical Details" must be observed



The safety instructions described in this document relate exclusively to the transport, installation, and commissioning of the bar feeder.

Information on transport, installation, commissioning

Transporting and lifting aids



If the door to the work area is open, the door safety switch will remain open after disconnecting the power supply line.



Use only an appropriate crane or a forklift with adequate load-bearing capacity for transporting the bar loading magazine.

Failure to follow proper procedures for transport, installation and, commissioning is prone to cause accidents and may induce damages to or malfunctions of the bar loading magazine for which **INDEX** rejects any liability or warranty.

Carefully plan unloading, transport to the installation site, installation, and commissioning, and be sure to observe the following instructions in this document.



General hazards during on-site transport



Danger to life!

Do not step under suspended loads!

The transport must be carried out by authorized and qualified personnel only.

Act responsibly when transporting the system and always consider the consequences. Avoid dangerous and risky actions.

Slopes and gradients (driveways, ramps, etc.) are particularly dangerous. Use extra care if such passageways cannot be avoided.

Ensure secure and proper seating of the load. If necessary, use additional fixtures to ensure that the cargo is not able to slip.

The transport vehicles must be able to produce sufficient traction and braking forces for safe transport.

Dimensions and masses

The bar loading magazine masses are indicated on the respective machine installation plan in Chapter 2, "Diagrams and drawings".



The installation plan applicable for this bar loading magazine was already submitted for approval after contract award. Upon delivery of the bar loading magazine, it is included in the working documents on the supplied documentation CD.

Reception

After unloading, unpack the machine accessories and check them against the information on the delivery form for completeness (compare with the bill of lading or delivery form).

In case of discrepancies, contact **INDEX** or your **INDEX** representative.

Preparations



Damage resulting from non-compliance with the following transportation conditions cannot be lodged as warranty claims.

This section is addressed to the persons responsible for the installation and their staff.

The information provided here allows you to prepare the installation site and its surroundings such that the bar loading magazine, when delivered, can be installed and put into operation immediately.

Be sure to carefully plan the delivery, unloading, and transporting of the bar loading magazine from the unloading site to the installation site.

Take the size (dimensions) and masses of each unit into consideration.

Suitable transporting and lifting means must be available when the bar loading magazine is delivered.

Any obstacles along the transport route from the unloading site to the installation site must be eliminated before the bar loading magazine is delivered.

Check the transport route for load capacity, levelness, damaged pavement, traverse grooves, slopes, gradients, etc.

Is the width and height of entrances and gates sufficient?

If elevators are to be used, do they have sufficient capacities?

Proper planning will pay off!

Suitable transporting and lifting aids

- Forklift
- Rotary trolley
- Crane

Space requirements

The following must be ensured:

- Sufficient free space around the bar loading magazine.
- Sufficient movement space for the operator.
- Sufficient space for maintenance and repair.
- It must be possible to open all doors of the bar loading magazine completely.
- Space for placing blank and workpiece pallets, workpiece collectors, chip trolleys, tool trolleys, etc.



Use the machine installation plan in Chapter 2, “Drawings and diagrams”, to determine the required space.

Subsoil, foundation

A special foundation is not necessary. Only the load-bearing capacity and strength of the installation floor section must be suitable for the weight of the bar loading magazine based on constructional aspects.



Comply with the requirements set out in **DIN 18202:2019**. In particular, note the specifications for “**Limits of flatness tolerances**”. There must be **no expansion joints** in the area of the installation surface.



The guidelines and regulations applicable in the country of use must be followed.

Fastening/anchoring



The bar loading magazine must be anchored in the foundation. For the distances between the anchoring holes, see the machine installation plan in Chapter 2, “Drawings and diagrams”.

Fixing materials – dowels and threaded rods – are included with the accessories.

When using a bar loading magazine, **INDEX** also recommends anchoring the machine in the foundation.

Ambient conditions



The user documentation and, in particular, the document "Safety Precautions and Technical Details" must be observed.



If the actual conditions at the installation site differ from these specifications, be sure to contact INDEX or an INDEX representative.



Power supply



The bar loading magazine is supplied with power and protected through a machine-installed electrical interface. Note the information in the circuit diagrams and in Chapter 2 "Diagrams and drawings".

The bar loading magazine can be controlled by an integrated PLC.



The guidelines and regulations applicable in the country of use must be followed.

Delivery

The bar loading magazine will be delivered by truck.

Other separate units

Loose parts, such as keys, tools, and fittings, are supplied in a separate box, which may be included with a separate unit.

Have the carrier confirm any damages or missing parts on the bill of lading or delivery form.

In case of damages during transport, it is recommended to take photos of the damages for evidence.

Inform **INDEX** or the **INDEX** representative.

INDEX MBL76

INDEX

Transporting the bar loading magazine

Kunde: _____
 Projekt.-Nr.: _____ Masch. Nr.: _____

Mass of the MBL76
3200/4200
 max. 2400/2900 kg



Transport

... by a crane



Transport the bar loading magazine only in a horizontal position. Angled pulling > 45° is not permitted. (Fig.: 1)
Angled pulling at 45° results in a rope force of 20,000 N (2,000 kg) per strand.

For transporting the bar loading magazine MBL76 with a crane, install 2 high-strength, rotating eyebolts **2/X** (Fig.: 1, 2 + 3) and a load stand **3** (Fig.: 4). The eyebolts can be used to attach ropes, slings, or chains. Check the proper seating of the ropes/chains in the transport hooks before lifting the bar loading magazine.



After transport by crane, it is essential to remove the eyebolts (2/X) on both sides and cover the transport openings with the enclosed cover plates (Y in Fig.: 2+3).
Operation with installed eyebolts is not permitted!
Risk of injury due to fast-moving parts. Destruction of the energy chains and shutdown of the bar loading magazine would be additional consequences.

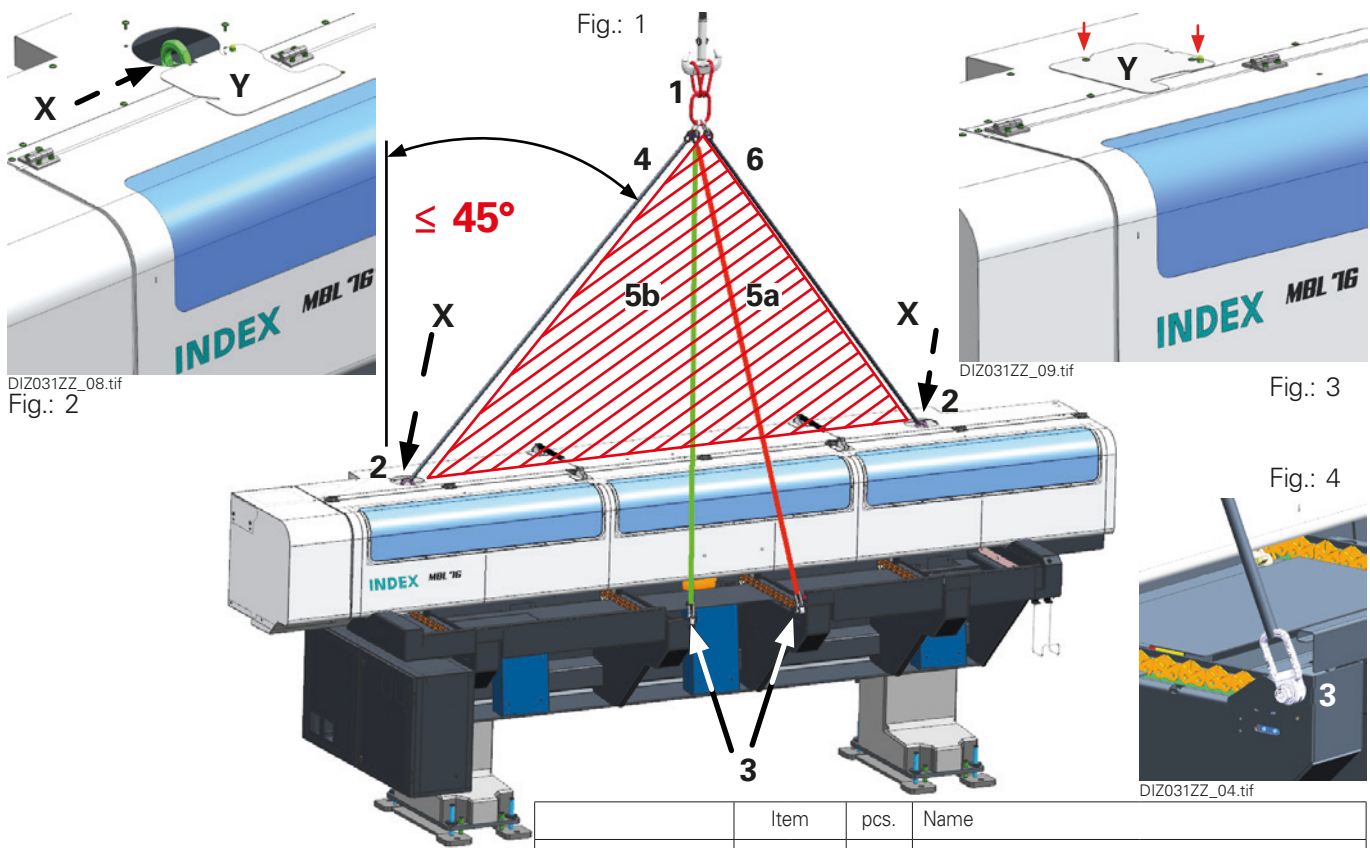


Fig.:
Lifting points for crane transport

	Item	pcs.	Name	
Lifting device	1		12117143	
	2	2	Eyebolt M20 high-strength, swivel	
	3	1	Load stand M16, rotatable	
Belt lengths	MBL76:		Version 3200 mm	Version 4200 mm
	4	1	2040 mm	
	5a	5b	2150 mm	
	6	1	1900 mm	

... by a forklift

Important when transporting by a forklift

For transport, the feed cart (**Y**) and the bearing plates (**Z**) were each moved to the home position on the far right and left.



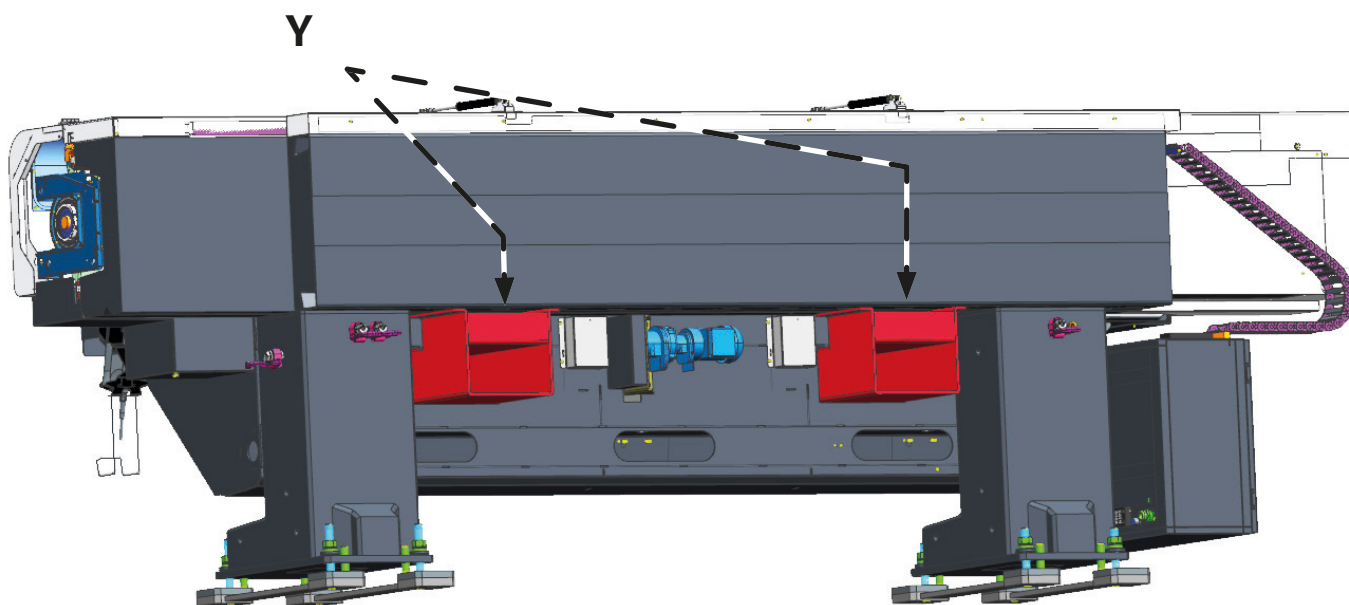
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Transporting with a forklift is done only from the rear of the bar loading magazine. Fig.: 4 and 5.



When lifting with a forklift truck, the transport lugs (**Y** Fig.: 4) must be mounted on the bottom of the bar loading magazine, and anti-slip mats be placed on the forks. Always lift the MBL as closely as possible to the mast of the forklift, and be sure to incline the mast (**risk of tipping - top-heavy**). See Fig.: 5.



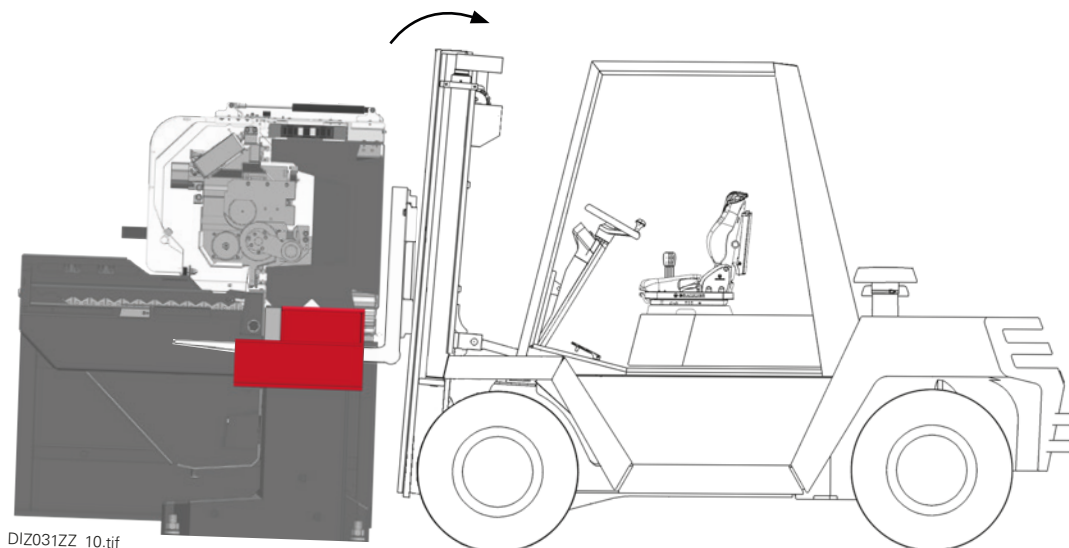
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Fig.: 4 View with transport lugs for forklift transport



For transporting the bar loading magazine on a truck or with other means of transport, always place the control cabinet in the direction of travel. Also, always place it on the edge of the loading platform to allow access for the forklift.

Fig.: 5
Overall view with
forklift




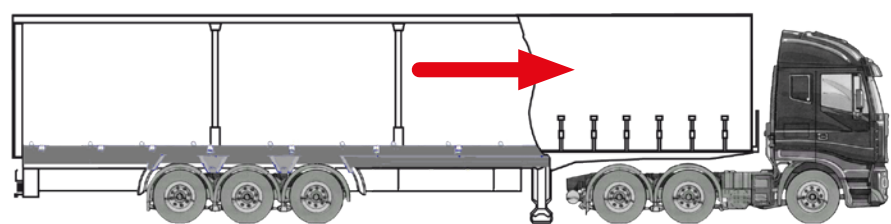
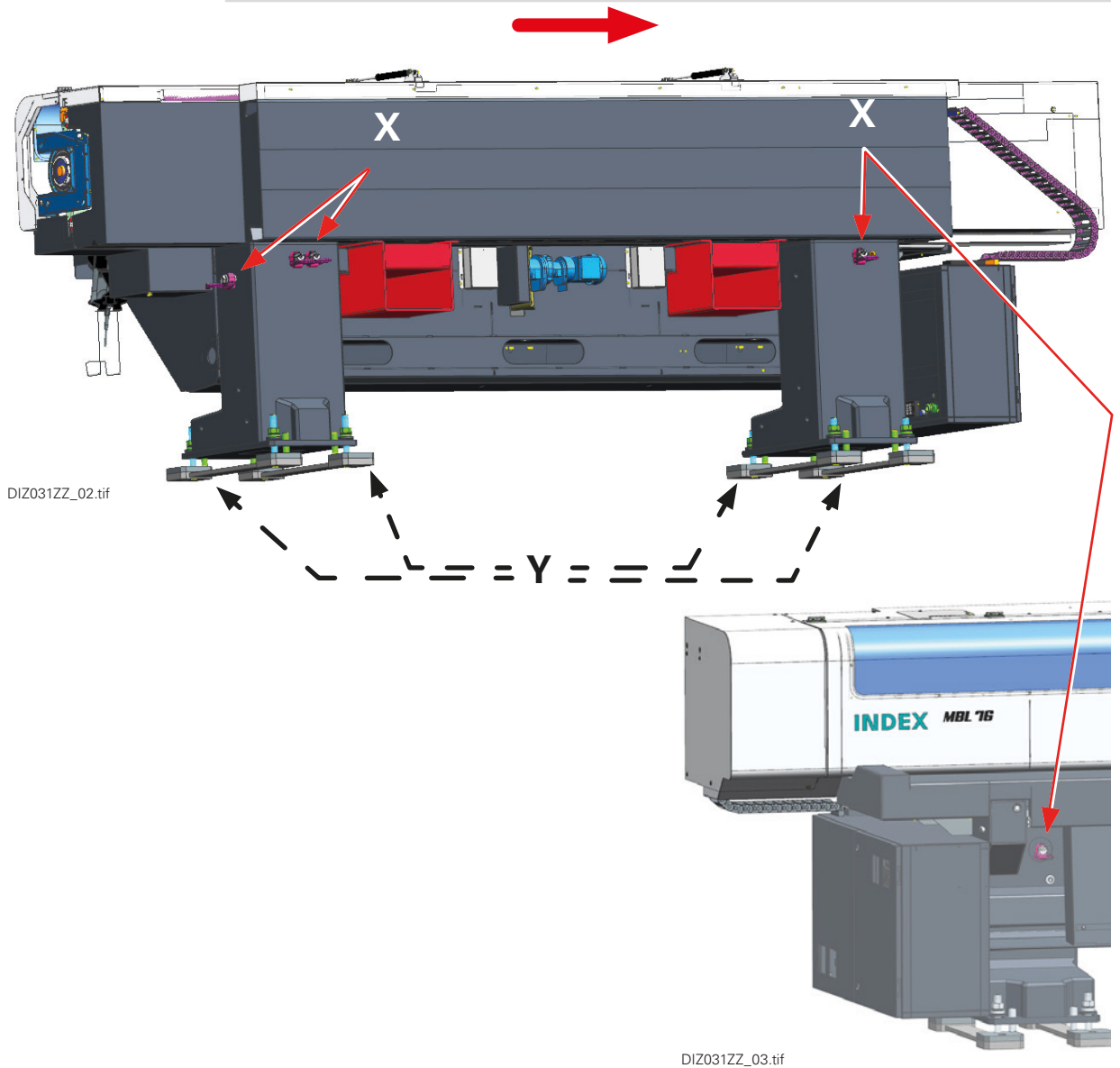
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Suspension and lashing points

Suspension and lashing points **(X)** are used to secure the load (inclined/diagonal lashing) on the truck or other means of transport.

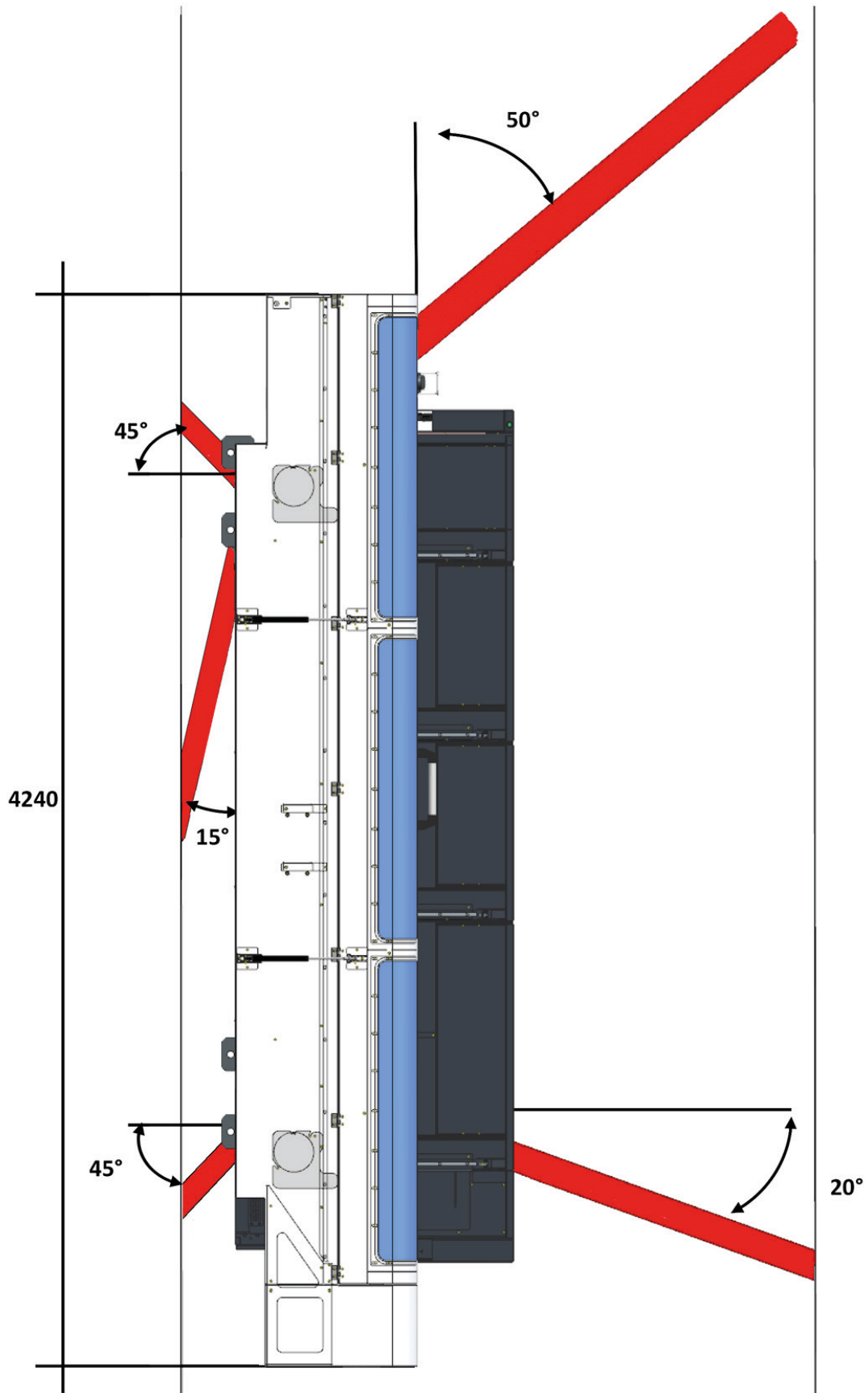


The load must be secured to prevent slipping on the loading platform using the lashing points **(X)**.
In addition, anti-slip mats must be used between the loading platform and the alignment bars **(Y)** of the adjustable feet.
The MBL must always be transported with the control cabinet  in the direction of travel.

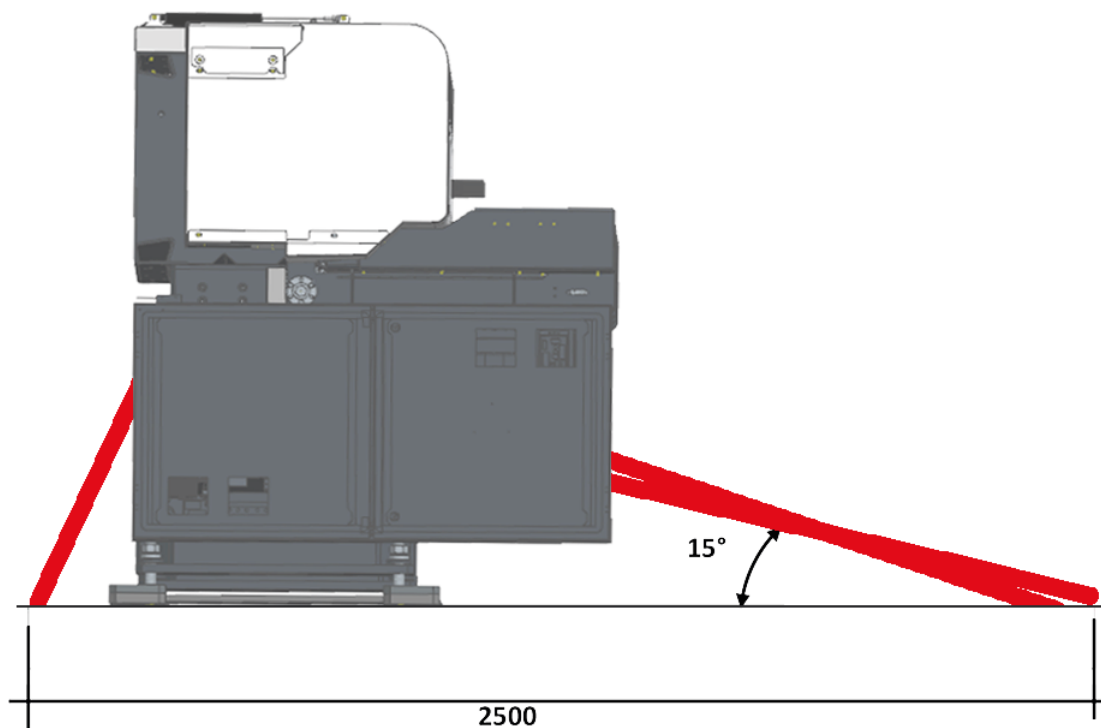
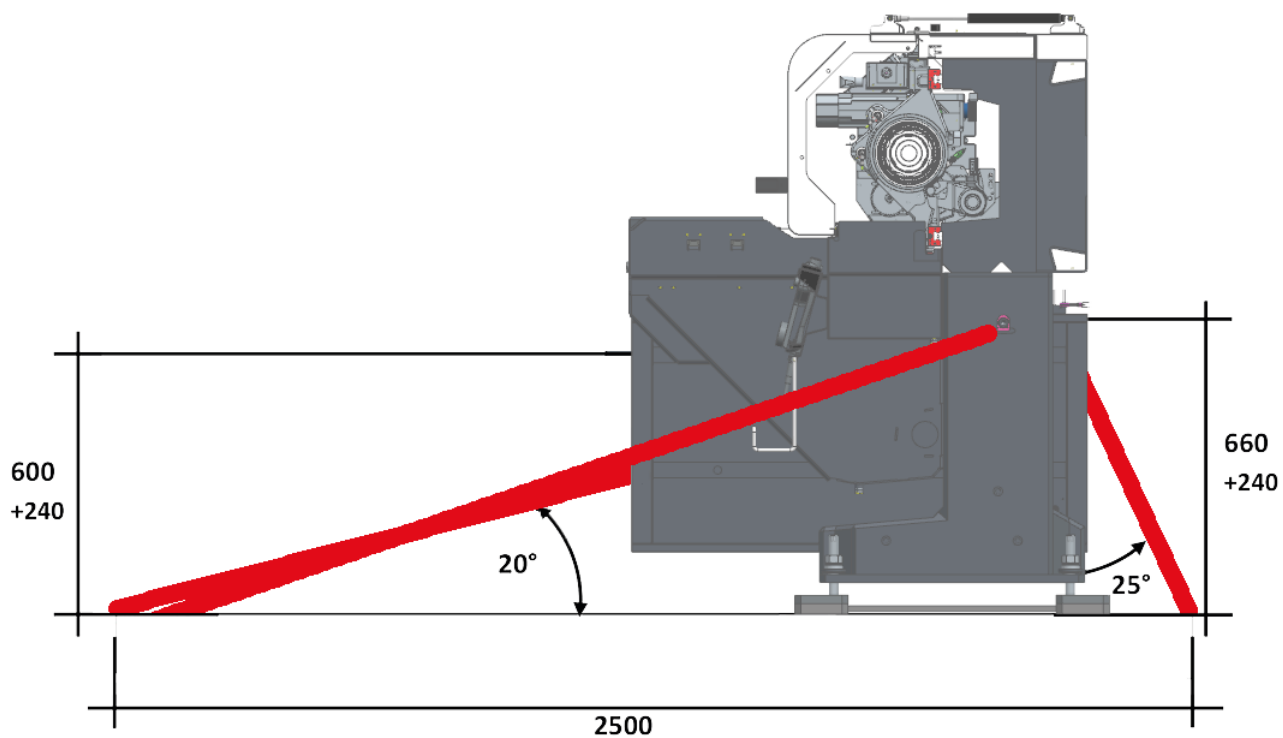


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Lashing MBL76 - 3200/4200 (according to Stahl)



Lashing MBL76 - 3200/4200 (according to Stahl)



Transporting the bar loading magazine

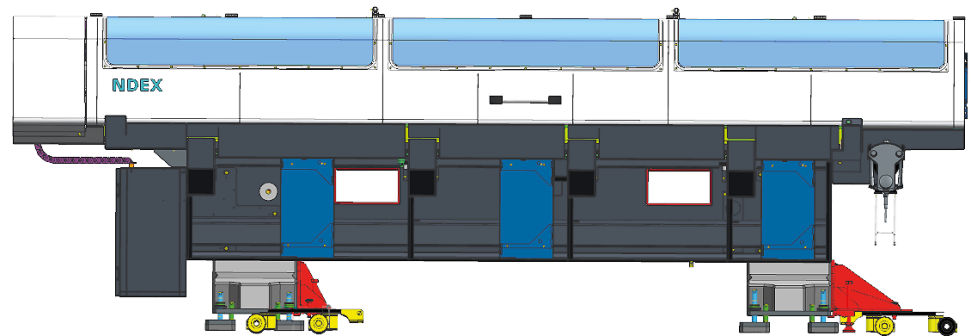
Transport with rotary trolleys



Transport with rotary trolleys must be carried out as described here. The procedure/sequence of the individual steps must be followed as described on the following pages.

Fig.: 1

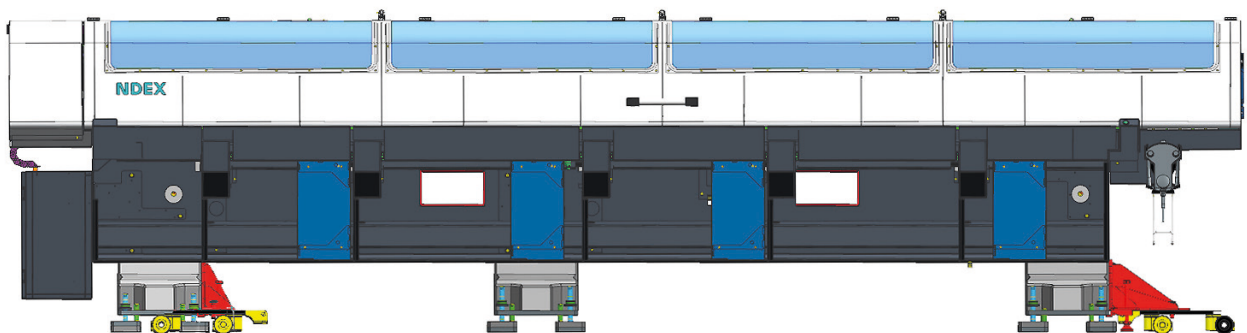
3200 mm



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Fig.: 2

4200 mm



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Preparation

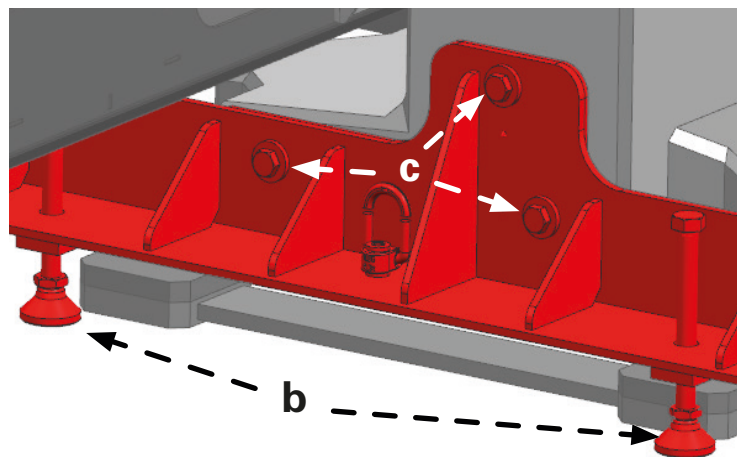
- Have screws **(c)** ready for fastening the console **X** and **Y**.
- Have the locking pin **(a)** ready for securing the rotary trolleys.
- If necessary, turn back set screws **(b)** on both consoles:



When transporting with rotary trolleys, be **sure to start** by mounting the transport console **X** on the control cabinet side.
Be sure to pay attention to power cables, plug connections, and cable clamps between the machine base and the control cabinet.

Fig.: 3

X



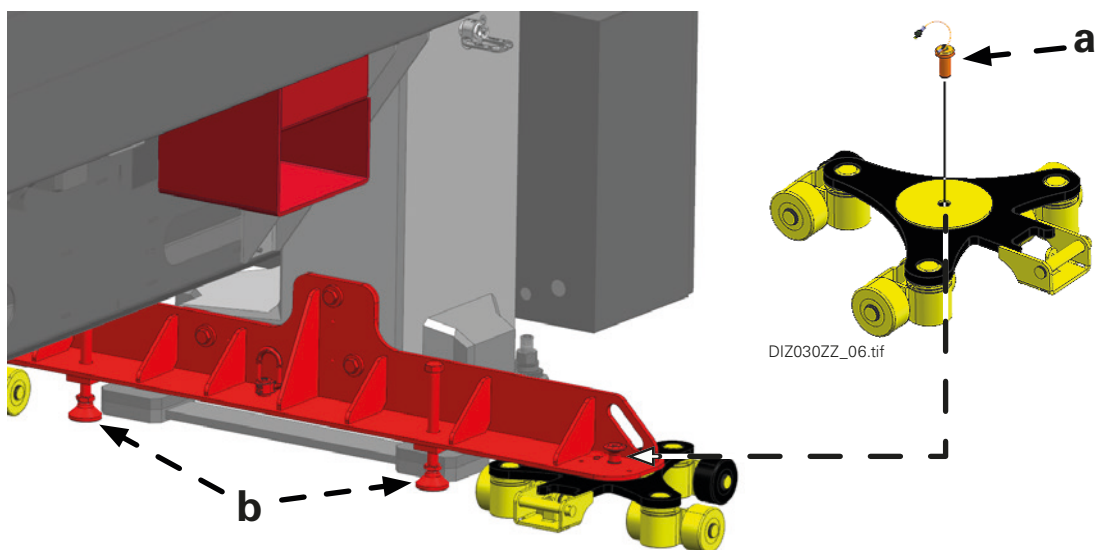
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Control cabinet side

- Screw the console **X** to the machine base with the screws **(c)** and tighten (Fig. 3).
- Next, use the two set screws **(b)** to raise the bar feeder until the rotary trolleys can be pushed under the console (Figs. 4 and 5).
- Insert locking pins **(a)** through the console in the rotary trolleys.
- Lower the bar feeder evenly onto the rotary trolleys using the set screws **(b)**.
- The bar feeder unit must be fully seated on the rotary trolleys.
- Turn the set screws **(b)** back until they are clearly visible protruding from the ground.

Fig.: 4

X

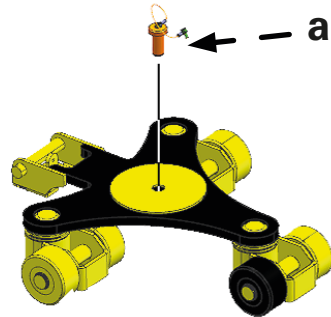


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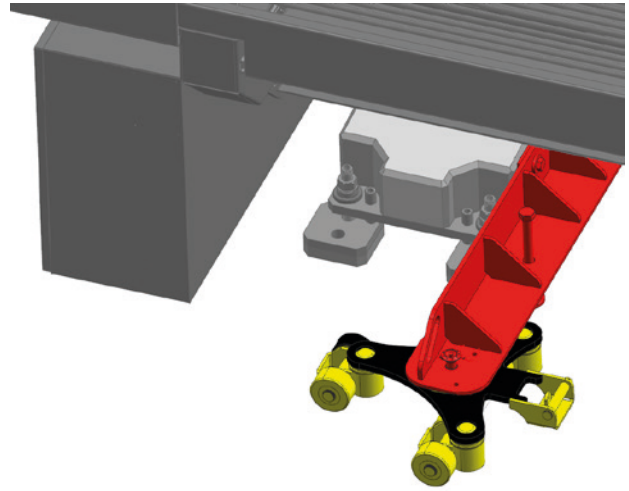
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Fig.: 5

X



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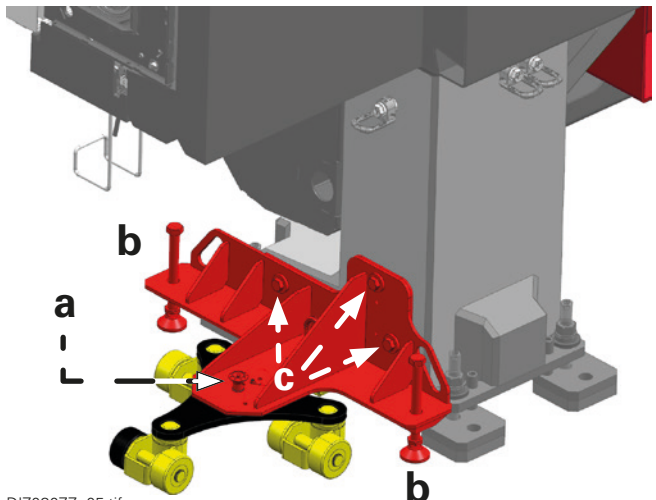
Secure the second rotary trolley to the console (**X**), also with locking pins (**a**).

Machine side

Mount console **Y** in exactly the same way as console **X**.

Fig.: 6

Y



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Installation

Connecting to the machine

The bar loading magazine is connected to the machine through a Profibus interface.

The bar loading magazine is installed on the left front side of the machine. The distance between the outer panel of the machine and the bar loading magazine should be <10 mm.



The installation plan for the bar loading magazine can be found in Chapter 2, "Drawings and diagrams" of the machine's operating instructions, but it can also be obtained separately.

The height is adjusted using the adjusting screws in the column base plate.

Aligning the bar loading magazine

The bar loading magazine must be aligned such that the bearing plate center is exactly aligned with the work spindle axis.

Measuring points:

1. Front edge of magazine.
2. At a distance of 2.0 m to 2.5 m from the front edge of the magazine.

This alignment must be carried out with utmost care because the precision of the alignment not only determines the speeds that can be reached but also influences vibrations, noise, surface finish, and tolerance of the workpieces.

Alignment options:

- with mechanical alignment parts
- with an accurately straight circular bar stock
- using appropriate optical, analog, or digital devices

After finishing the alignment, anchor the machine and bar loading magazine firmly on the floor using fasteners suitable for the specific ground.

Fastening to the floor



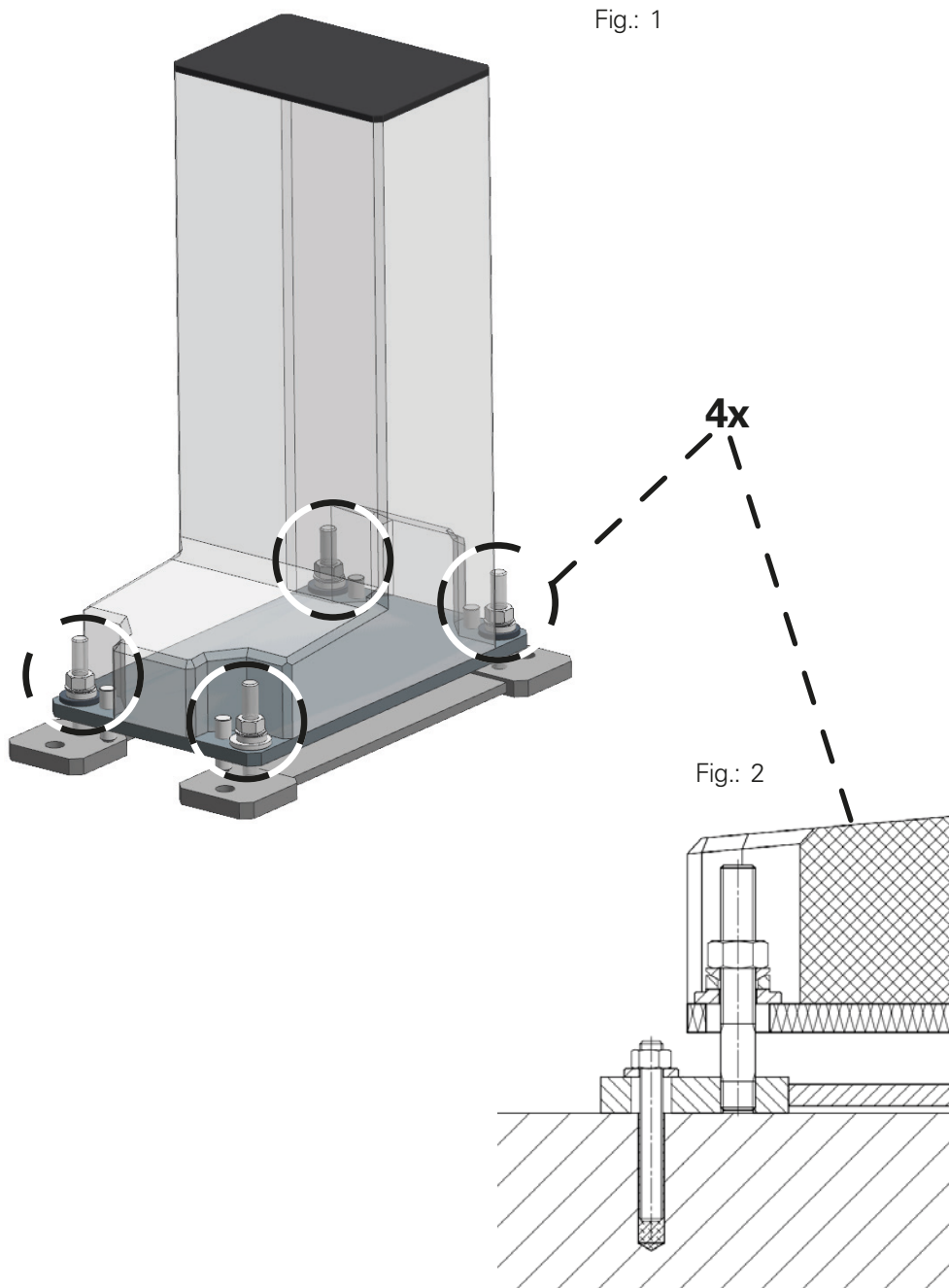
The bar loading magazine and the machine must be firmly anchored to the floor.

Before installing the machine, drill the holes and insert dowels according to the machine installation plan.

The bar loading magazine can be drilled and fastened through the alignment bars after it has been aligned (4x per foot Figs. 1 + 2).

The length of the mounting screws depends on the floor condition and may require some adjustment.

Fig.: 1



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Commissioning

Before commissioning, the MBL76 must be connected to the machine via the electrical interface.



The guidelines and regulations applicable in the country of use must be followed.

External data transfer



Data lines must not be routed directly next to power lines.

For data transfer to/from external computers or storage devices, suitable metal conduits must be installed for the data lines.

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