

# Transport, Installation, Commissioning

## **iXcenter M**

## **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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## Safety

### Explanation of symbols

Explanation of the symbols used in the user documentation:

1.



**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.**

2.



**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.**

3.



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.



The general safety instructions and technical details, as a separate document, are part of the INDEX TRAUB user documentation.

The safety instructions and technical details described in this document relate exclusively to the transport, installation, and commissioning of the iXcenter.

## Safety instructions

### Information on transport, installation, commissioning

#### Transporting and lifting aids



**When the doors to the iXcenter work area, hereinafter referred to as the robot cell, are open, the door interlock of the safety switch remains open when the power supply line is disconnected.**



**Use only appropriate load rollers/load stands or a forklift with adequate load-bearing capacity for transporting the iXcenter.**

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

The procedures for unloading, transporting to the installation site, installation, and commissioning must be carefully planned while absolutely observing the precautions below 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 cargo. 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 iXcenter masses are indicated on the respective machine installation plan in Chapter "Working Documents".



The installation plan applicable for this iXcenter was already submitted for approval after the order was submitted. Upon delivery of the iXcenter, it is included in the working documents on the supplied documentation data carrier of the machine.

### **Acceptance**

After unloading, unpack the accessories and check them against the information on the delivery form for completeness (comparison with the consignment note 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 robot cell, when delivered, can be installed and put into operation immediately.

Be sure to carefully plan the delivery, unloading, and transporting of the robot cell 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 robot cell is delivered.

Any obstacles along the transport route from the unloading site to the installation site must be eliminated before the robot cell 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?

### Suitable means of transport

- Forklift
- Lift truck

### Space requirements

The following must be ensured:

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

Use the installation plan to determine the required space..

### Floor condition

A special foundation is not necessary. Only the bearing capacity and strength of the floor must be suitable for the weight of the machine including iXCenter based on constructional aspects.



Comply with the requirements set out in **DIN 18202:2019**.  
In particular, note the information regarding **"Flatness tolerance for finished floors"**.



There must be **no expansion joints** in the area of the machine footprint.



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

### Fastening/anchoring

If an iXcenter M is used, **INDEX** also recommends anchoring the machine in the foundation.

When extending the iXcenter (module) from a third-party manufacturer, it is essential to observe the corresponding manufacturer documentation.



## Power supply

### Electrical connection



The iXcenter is powered and protected through a machine-installed electrical interface. See the information in the wiring diagrams.



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

**Delivery**

The robot cell is 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.

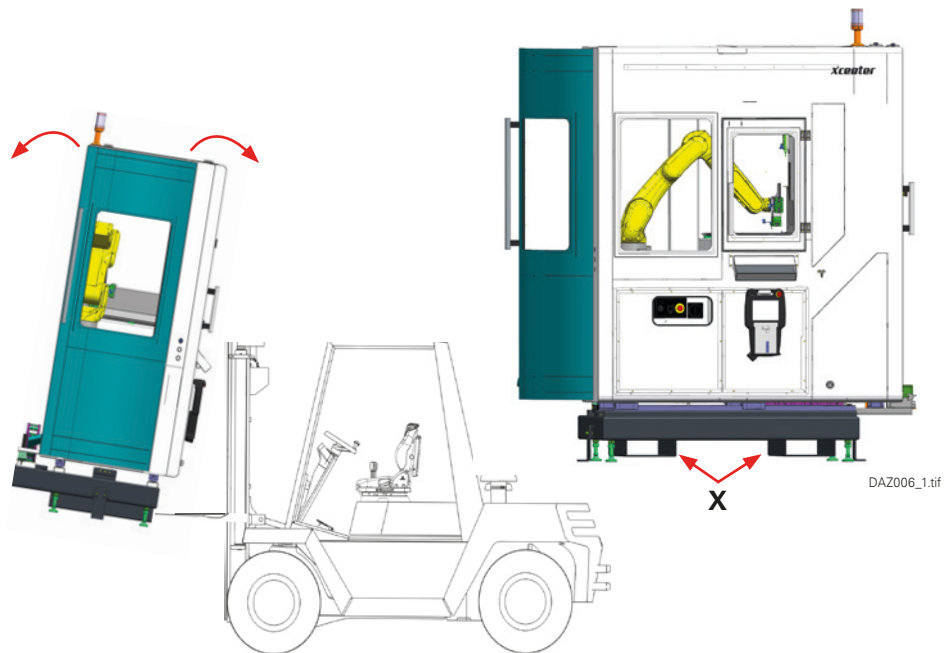
Inform **INDEX** or the **INDEX** representative.

Kunde: _____	<b>Mass of iXcenter M</b> max. 1000 kg
Projekt.-Nr.: _____ Masch. Nr.: _____	

### Transport By a forklift



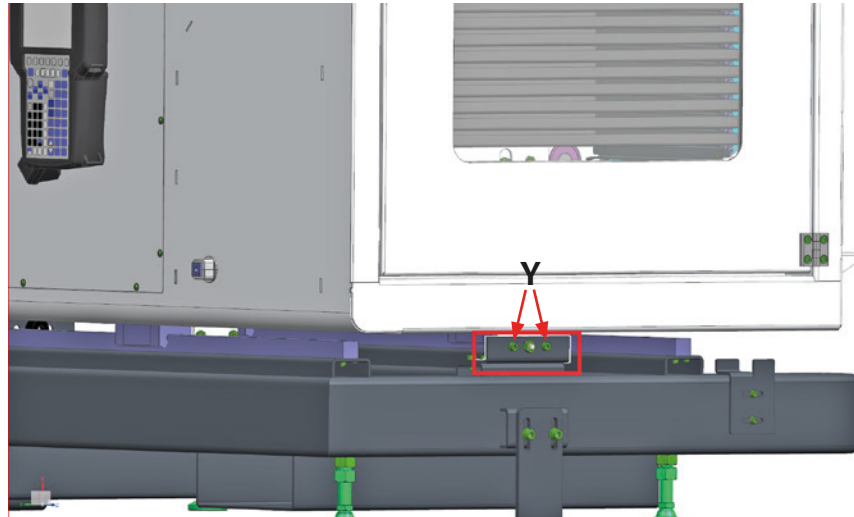
- Transporting by a forklift is done only from the operator side of the of iXcenter.
- For lifting with a forklift, the transport lugs (X) already present in the console must be used. Anti-slip mats must be placed on the fork arms. Always lift the iXcenter as closely as possible to the mast of the forklift and be sure to incline the mast lightly (**risk of tipping**).



For transporting the iXCenter on a truck, always place the safety door in the direction of travel. Also, always place on the edge of the loading platform to allow access for the forklift.

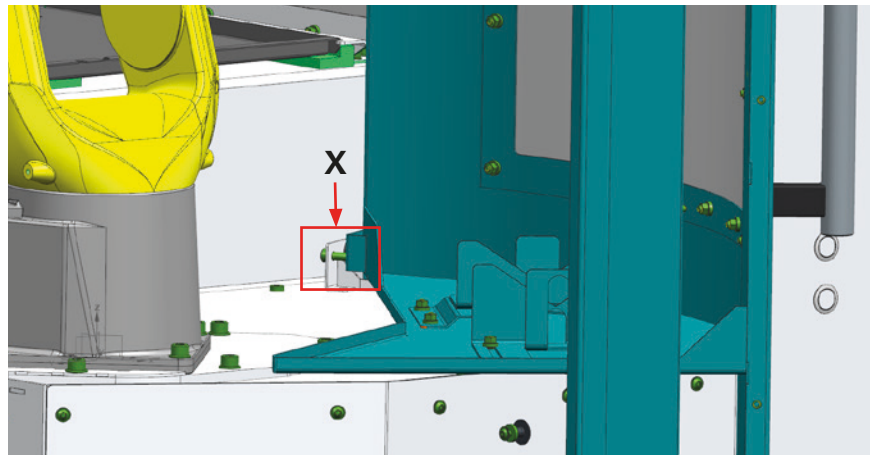
### Removing the transport locks

For transport, the robot cell was secured against displacement on the console with screws (**Y**).



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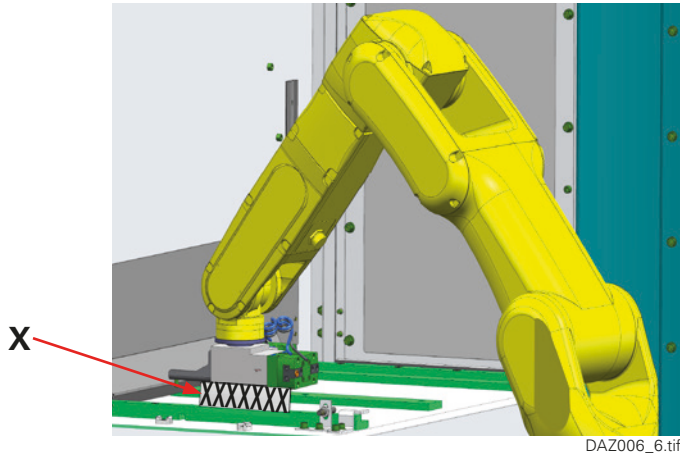
The safety door is secured with a screw (**X**) when open.



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### Important when transporting by a forklift

For transport, the robot is moved to a specific position in the robot cell and secured (see FANUC operating manual), additionally underlaid with polystyrene (X). Protect the wall elements and the robot against damage with a film.



### Suspension and lashing points

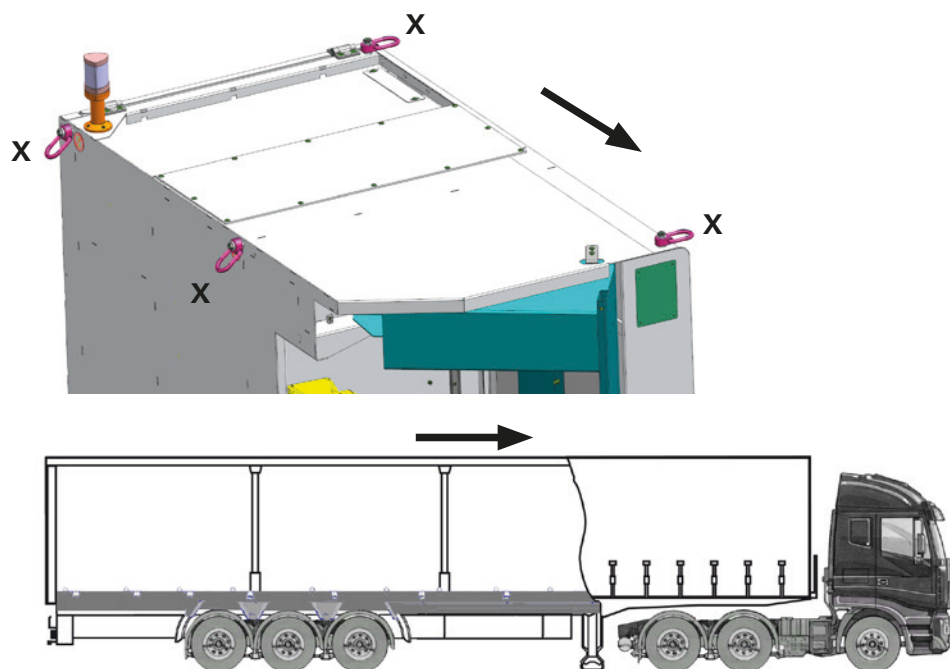
Suspension and lashing points (X in Fig.) are used to secure the load (inclined/diagonal lashing) on the truck or other means of transport.



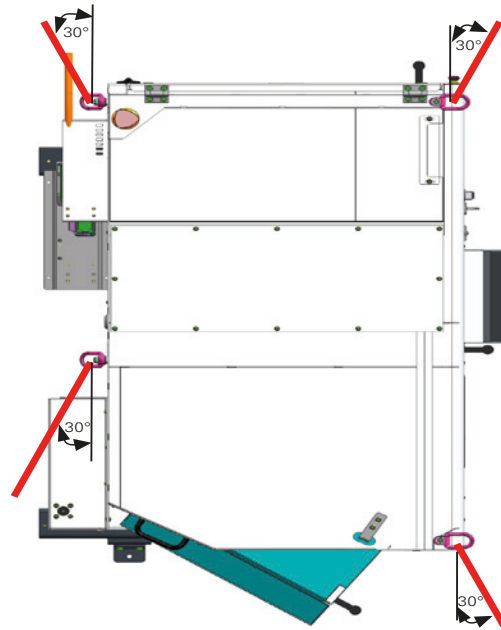
The load must be secured to prevent slipping on the loading platform using the lashing points (X). The lashing straps must be hooked into these points (X).

In addition, anti-slip mats must be used between the loading platform and the contact surfaces of the iXcenter (forklift lugs and feet).

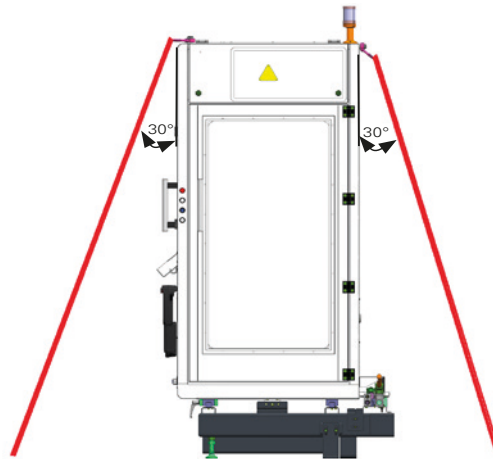
Always orient the iXcenter has with the safety door in the direction of travel during transport.



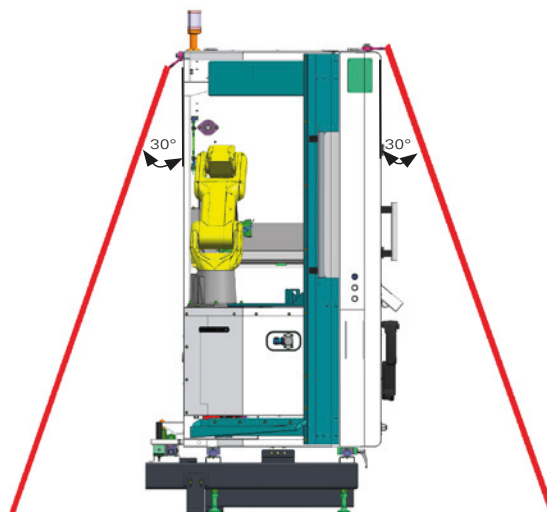
## Lashing the iXcenter



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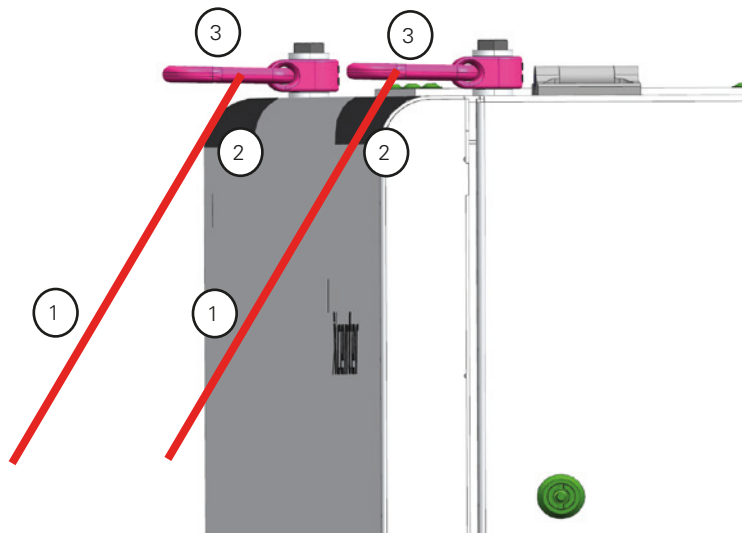
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DAZ006\_11.tif



Tighten the lashing straps only hand-tight.



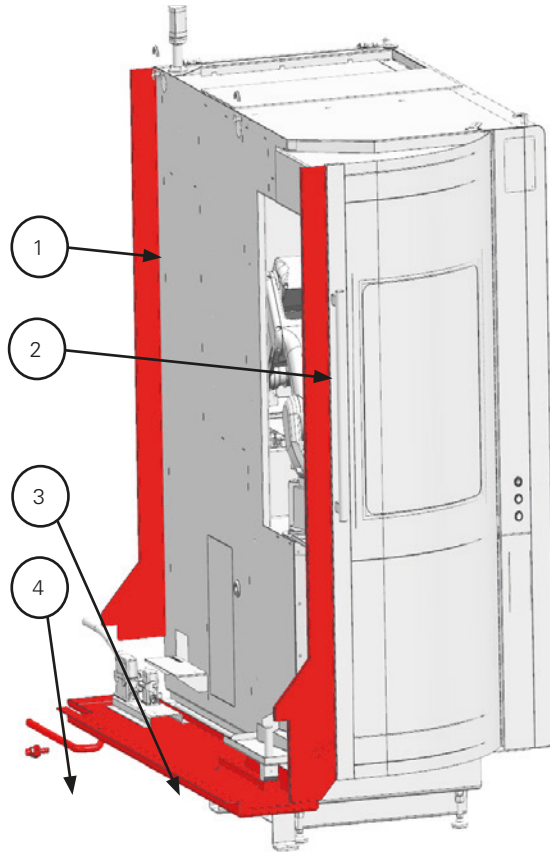
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- 1 Lashing straps
- 2 Anti-slip mats (protecting the sheet metal and paint finish)
- 3 Load stands

## Installation Mechanical interfaces



The attachment parts shown in the illustration (panels, tray and connection for chip conveyor) are mounted on the machine only after transport and installation.



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- 1 Sheet metal on pallet storage side
- 2 Sheet metal on safety door side
- 3 Pan
- 4 Chip conveyor connection

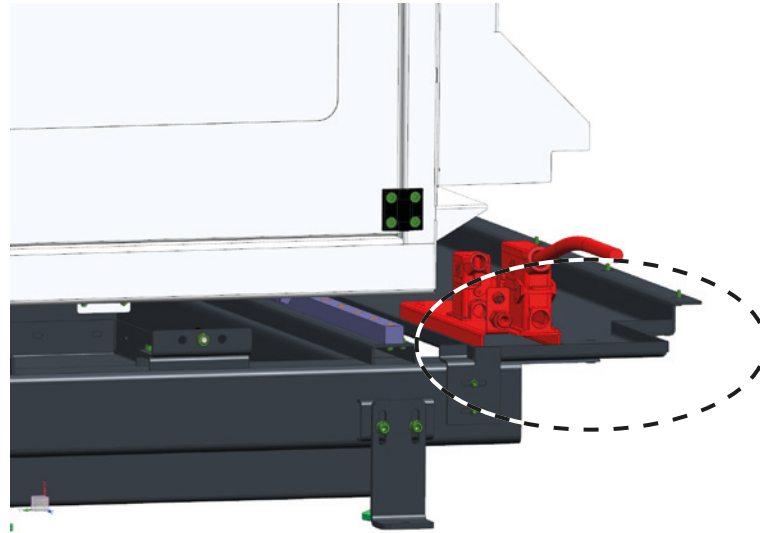
Pos. 1 Sheet metal on pallet storage side is screwed either to the robot cell or the machine enclosure. This depends on the machine type.



**Control and electrics**

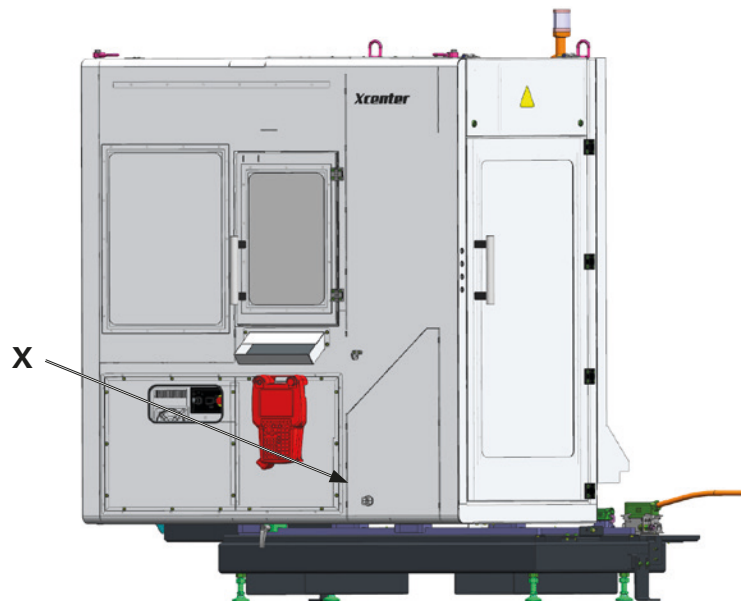
The robot cell is connected to the machine through a Profibus interface (Unihand).

- In addition, the air pressure supply must be connected at the rear of the robot cell. Also, the robot cell must be grounded by means of a ground wire.



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- Connect the operator panel (X) to the existing cable at the front of the cabin.



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### Aligning the robot cell

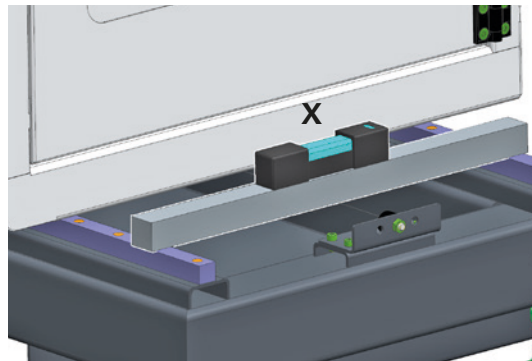


This alignment is mandatory before a workpiece is fed to the machine by the robot.

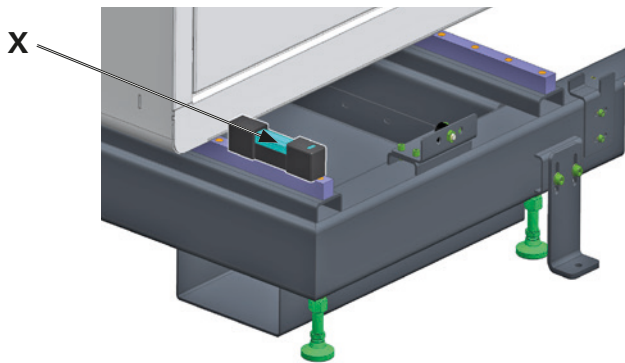
The robot cell is installed in front of the machine. The respective distance between the work area door (design element) and the robot cell can be found in the installation plan and should not be less than 10 mm.

The position of the robot cell is given by the pan (cover of the machine)

- The height is adjusted using the adjusting feet in the console.
- Level the robot cell using a spirit level (**X**).



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DAZ006\_18.tif

### Leveling the robot:

Using the supplied alignment tip, the robot can be aligned within the robot cell. To align the robot to the machine spindles, a separate fixture is required. You can obtain this fixture from INDEX or an INDEX representative.

- After finishing the alignment, anchor the machine and iXcenter firmly on the floor using fasteners that are suitable for the specific ground.

### Fastening to the floor

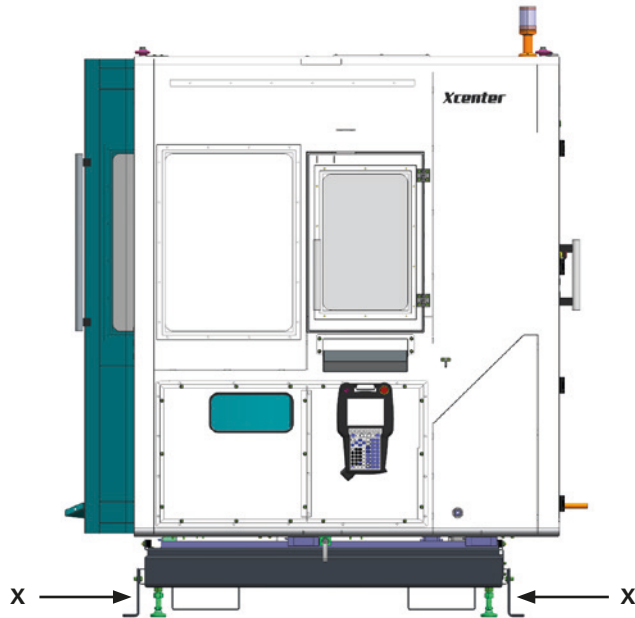


The iXcenter and the machine must be firmly anchored to the floor.

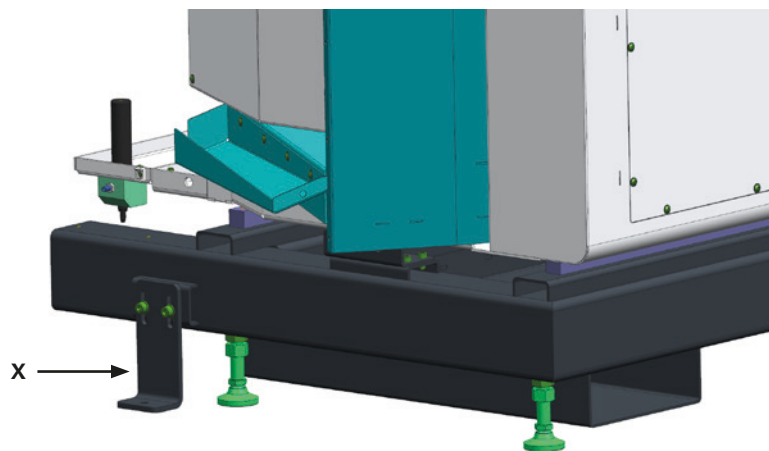
Before installing the machine, drill the holes and insert dowels as described in the machine installation plan.

- The robot cell can be drilled and fastened through the steel brackets (X) after it has been aligned. (2x)

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



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DAZ006\_15.tif

## Commissioning

The robot cell must be connected to the existing power supply before commissioning.

## Power supply



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



The power supply cord to the machine should be as short as possible. Use a sufficient wire size.

The power supply for the machine requires stable mains conditions; the max. allowed operating voltage fluctuations are +10% or -10%.

The mains line must comply with the regulations of the local electricity supplier and the VDE directives.

## Main circuit breaker



Check that the building connection has sufficient capacity to cover the additional load to be protected. Discuss any unclear conditions with your local electricity supplier.

The main circuit breaker is not included with iXcenter.

It must be installed outside the iXcenter according to DIN EN 60204-1.

If a pre-transformer is required, the main circuit breaker must be installed after the pre-transformer, i.e., on the secondary side. The fuse protection on the primary side must be designed according to the connection data of the pre-transformer.

The loads to be protected depend on the existing operating voltage.

For the information on machine connection, operating voltage, main circuit breaker, see the electrical diagrams or Chapter Electrical connection.

## External data transfer



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

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

The connection to the internal network (DNC) requires an RJ45 network cable.

An additional connection to the external network (IoT) must be made with a separate RJ45 network cable.

# INDEX

**INDEX-Werke GmbH & Co. KG  
Hahn & Tessky**

Plochinger Straße 92  
D-73730 Esslingen

Fon +49 711 3191-0  
Fax +49 711 3191-587

[info@index-werke.de](mailto:info@index-werke.de)  
[www.index-werke.de](http://www.index-werke.de)