

Transport, Installation, Commissioning

iXcenter XL

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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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 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 contract award. 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 machine accessories and check them against the information on the delivery form for completeness (compare with 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 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 transporting and lifting aids

- Forklift
- Load rollers/load stands

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 the robot cell completely.
- Space for placing blank and workpiece pallets, workpiece collectors, chip trolleys, tool trolleys, etc.

Floor condition

A special foundation is not necessary. Only the load capacity and strength of the floor area must be suitable for the machine weight 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

Doweling of the machine is not necessary.

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

Power supply

Electrical connection



See the information in the wiring diagrams. The iXcenter XL requires its own power supply.



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

Delivery

The iXcenter will be delivered by a 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.

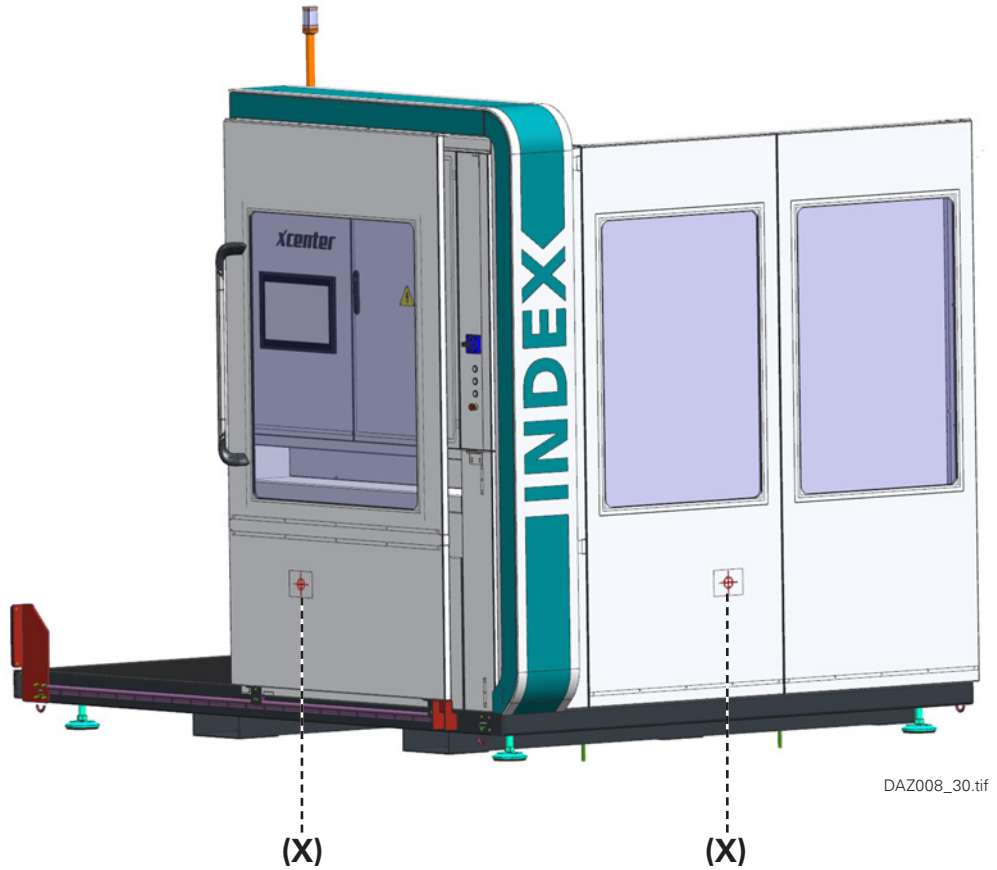
Inform **INDEX** or the **INDEX** representative.

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

Mass of iXcenter
max. 4500 kg

Transport

iXcenter center of gravity



The marked center of gravity (X) must be taken into account during transport!

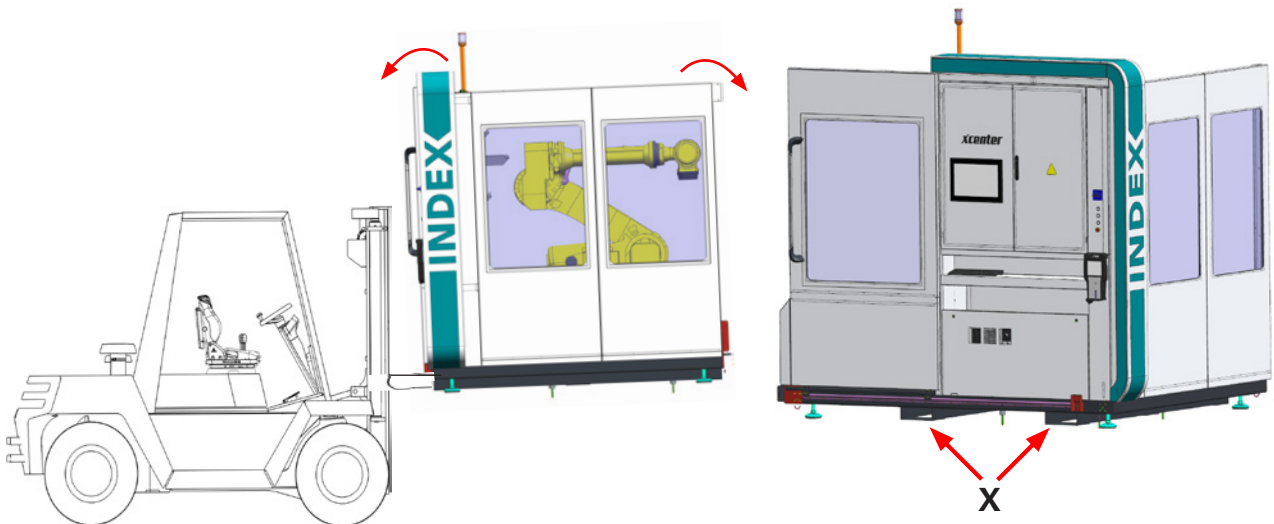
By a forklift



Transport only using a suitable fork lift. Load capacity and distance of the load center of gravity must be ensured.



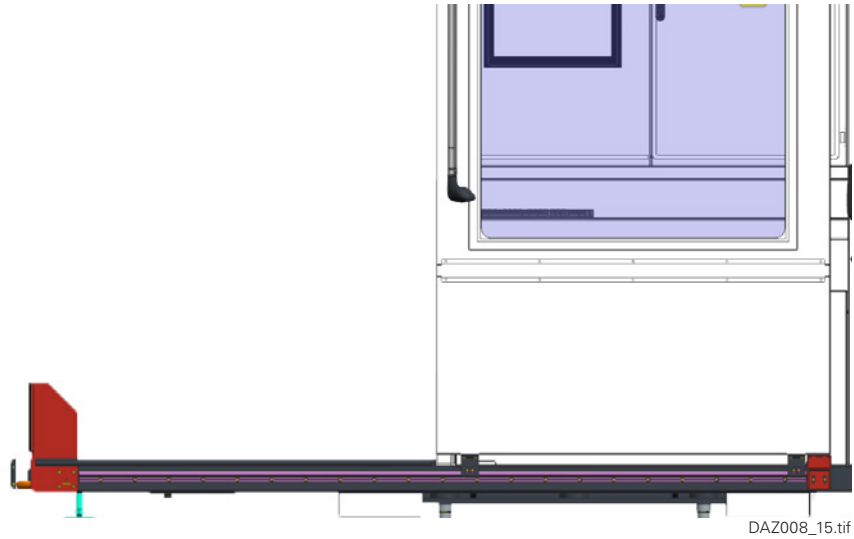
- Approach the iXcenter with the forklift only from the side of the access door.
- For lifting with a forklift, the transport lugs (X) already present in the console of the iXcenter must be used. Anti-slip mats must be placed on the fork arms. Always lift the iXcenter as closely as possible to the mast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



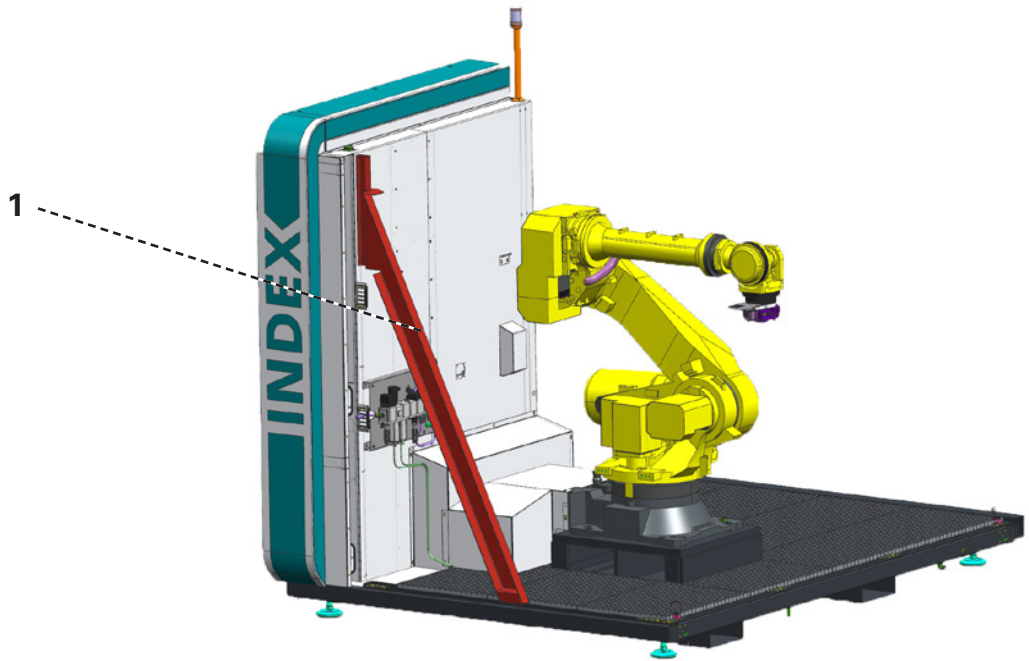
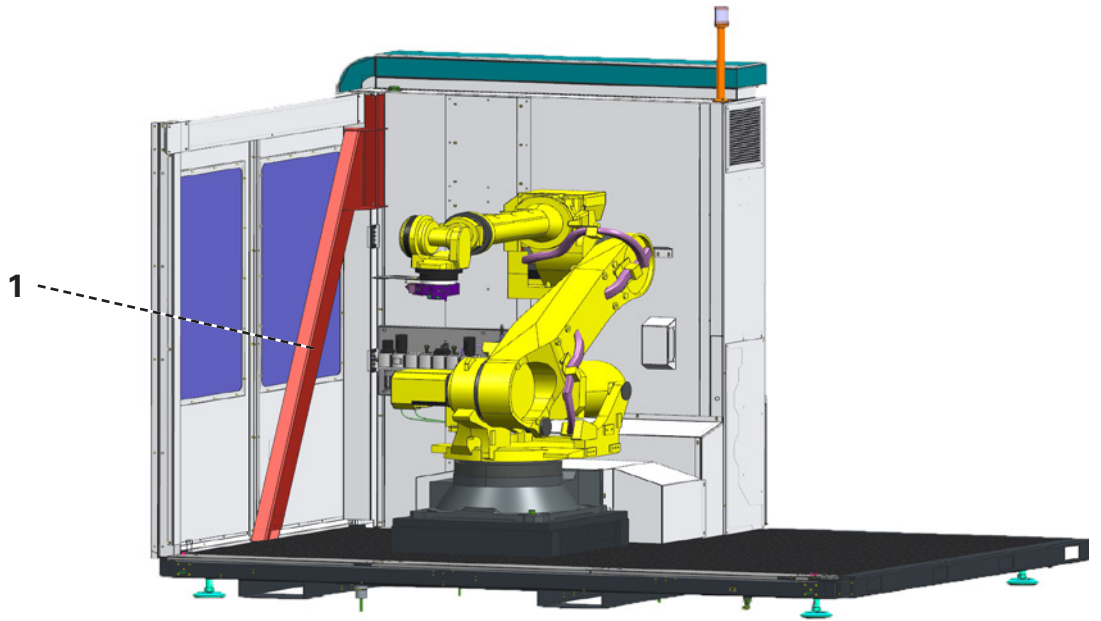
When transporting the iXcenter on a truck, always set it down with the "INDEX logo side" of the iXcenter facing the opposite direction of travel. Also, always place on the edge of the loading platform to allow access for the forklift.

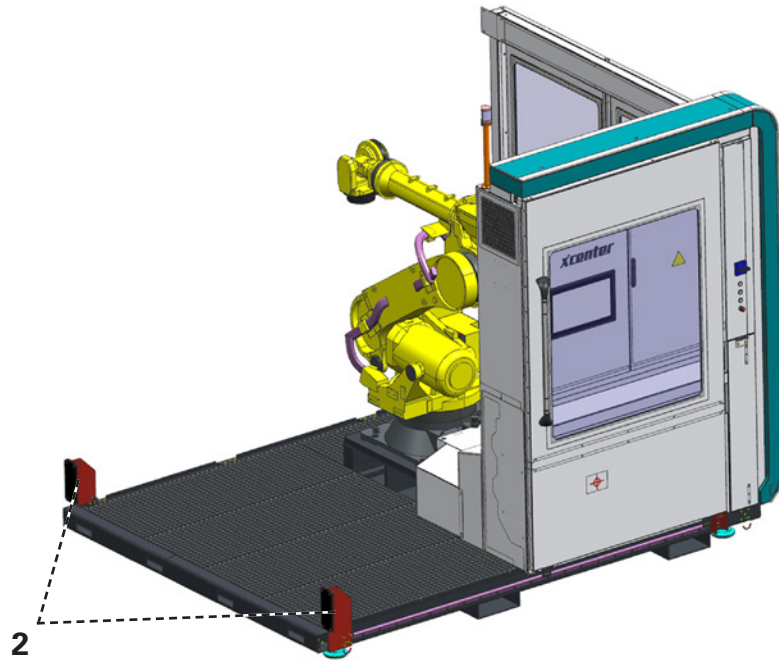
Removing the transport locks

For transport, the access door of the iXcenter is secured against shifting. Once the robot cell is in place, you can remove this securing bracket **(X)** and set it aside for storage.



The load beam **(1)** must be mounted before transport and removed after transport.

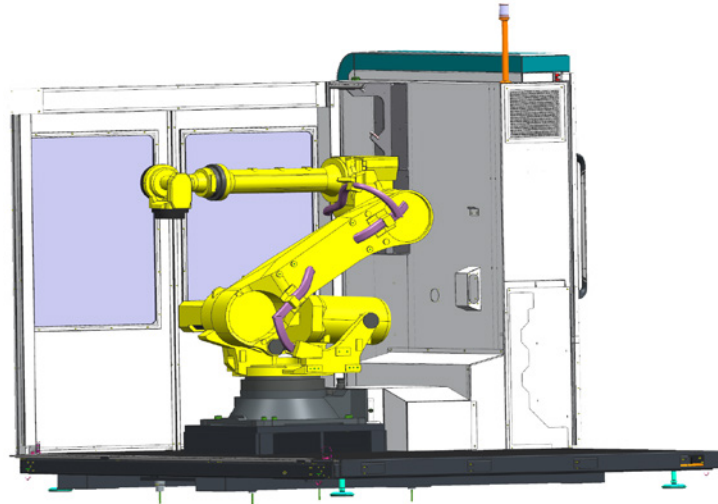




The red brackets **(2)** are used to set up the robot cell. If these are not fitted on delivery, they must be attached.

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). In addition, protect the wall elements and the robot against damage with a film.



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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.

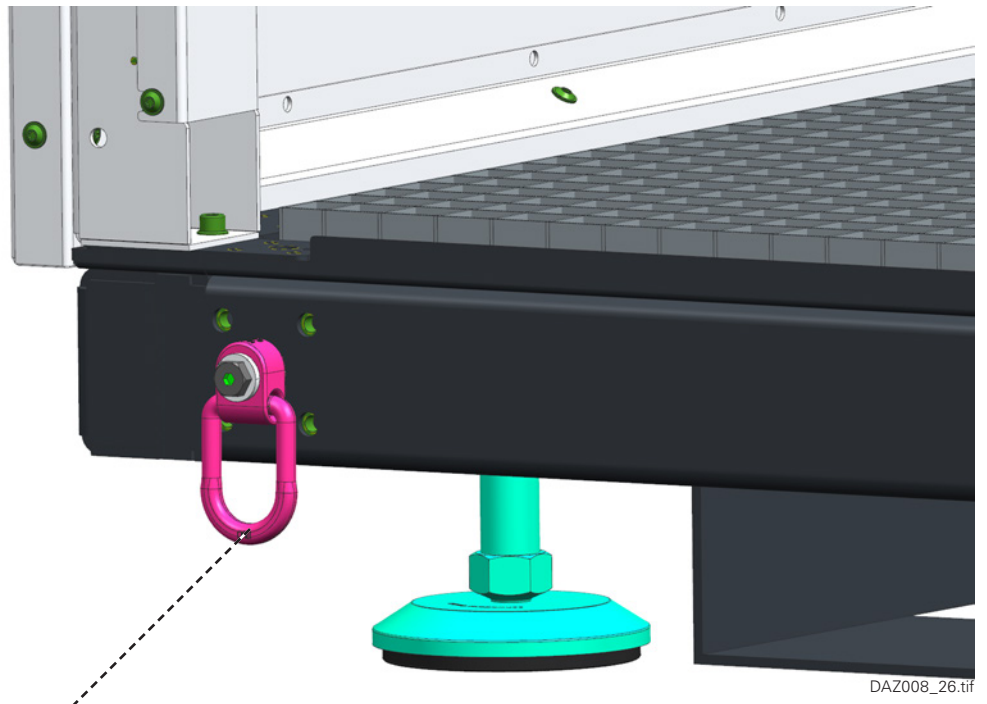


The load must be secured to prevent slipping on the loading platform using the lashing points (**X**). The lashing straps must be hooked into these points (**X**).

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

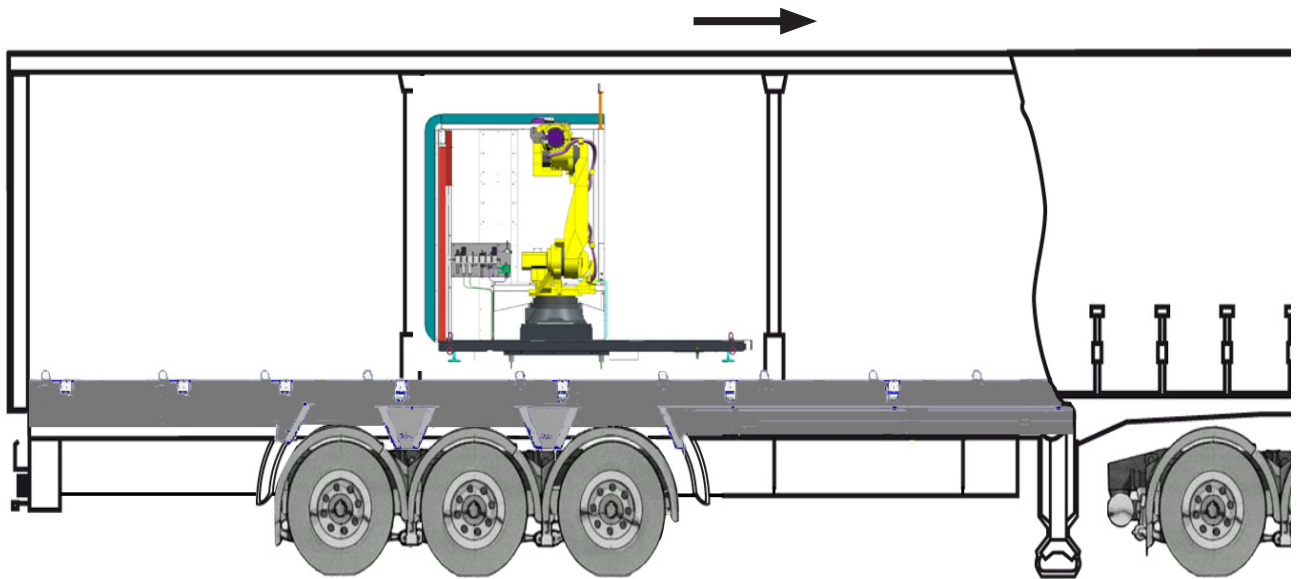
When transporting the iXcenter, always align it with the "INDEX logo side" opposite the direction of travel.



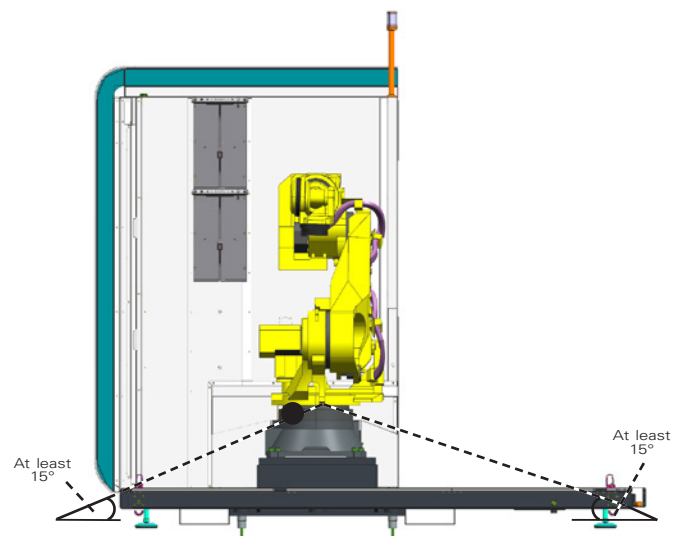
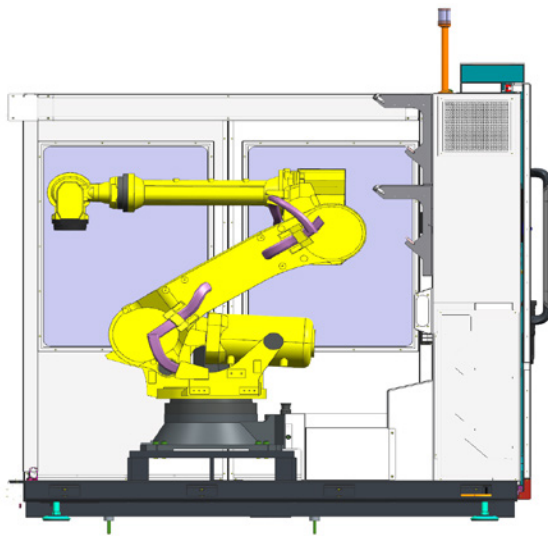
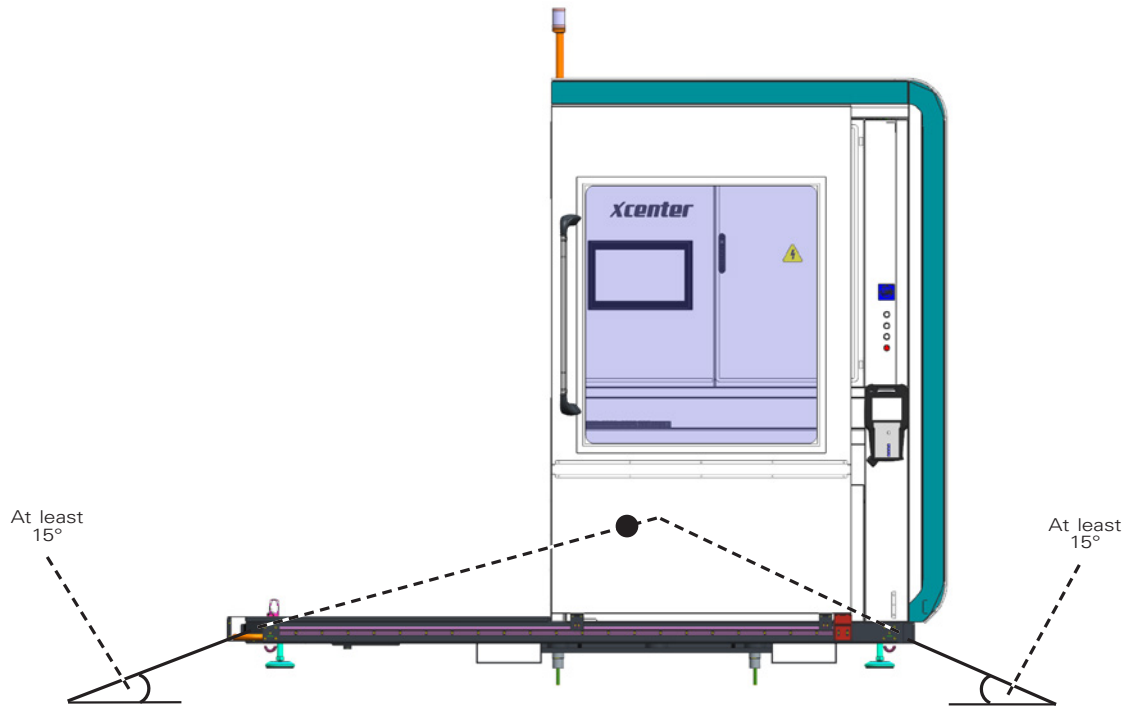


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Lashing point



Lashing the iXcenter



Tighten the lashing straps by hand at a minimum angle of 15°.

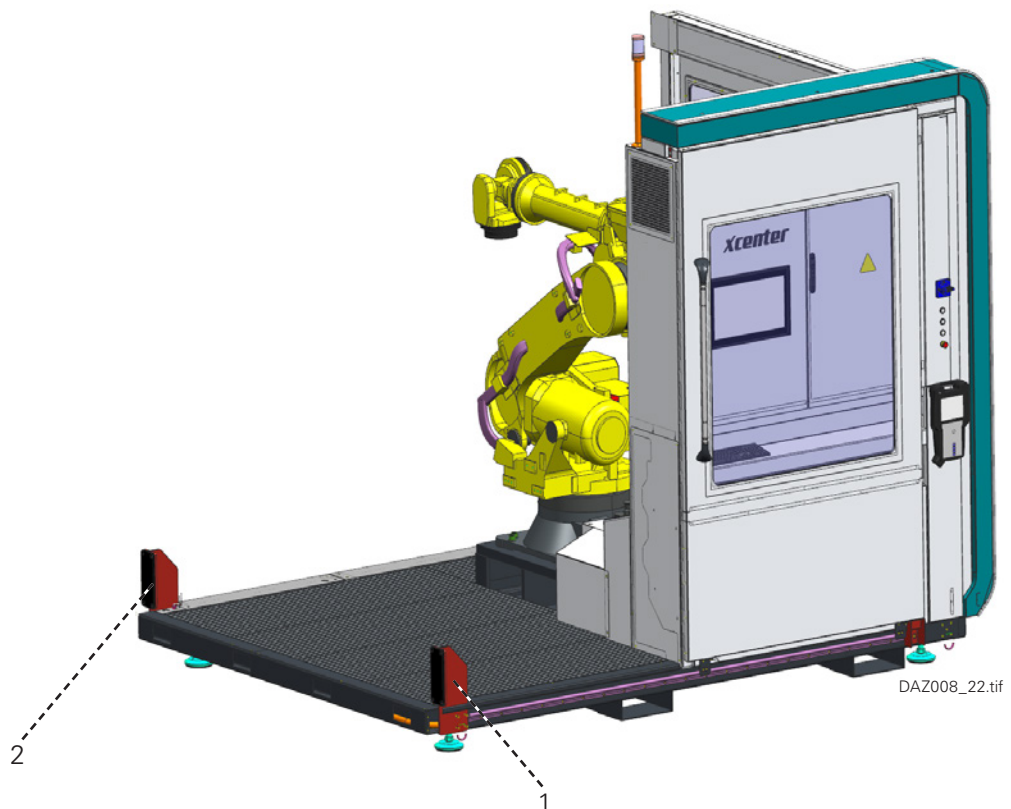
For the location of the center of gravity, see section "iXcenter center of gravity".

Installation

Mechanical interfaces

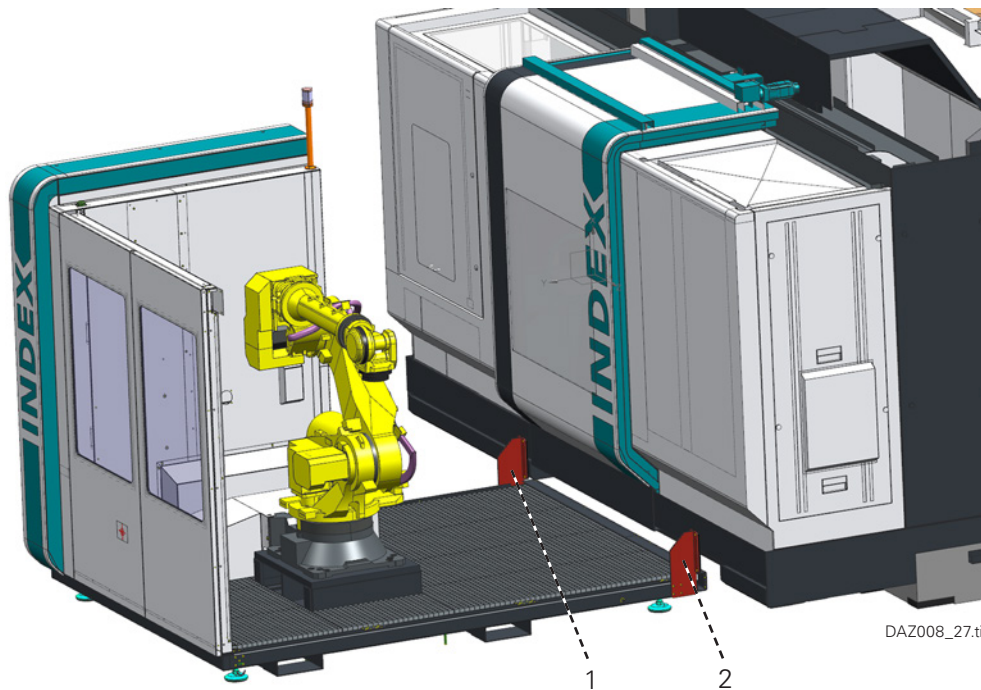


The attachments (brackets) shown in the graphic are only mounted to the iXcenter after transport.

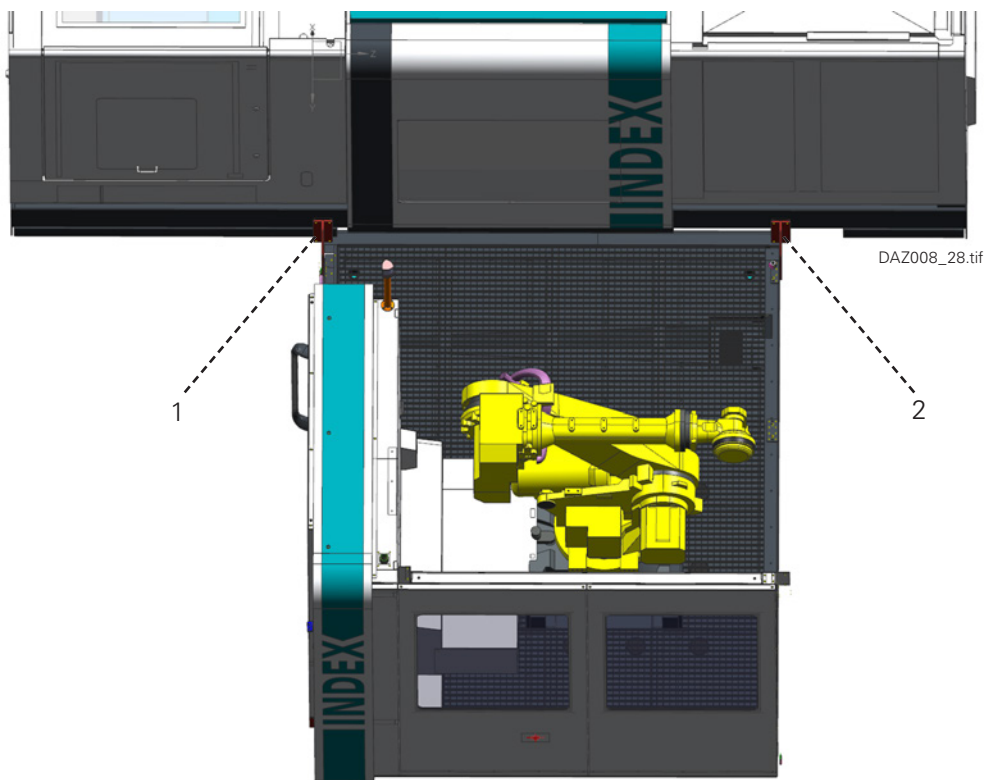


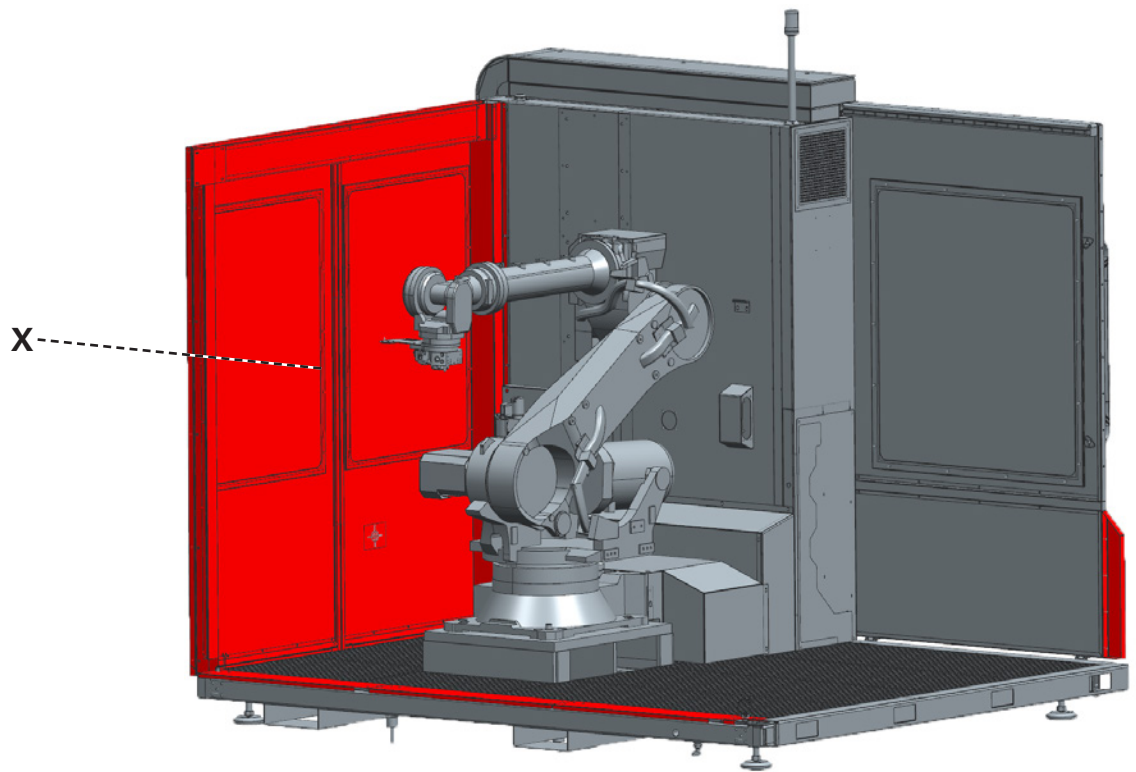
1 Bracket on the access side

2 Bracket on the right side

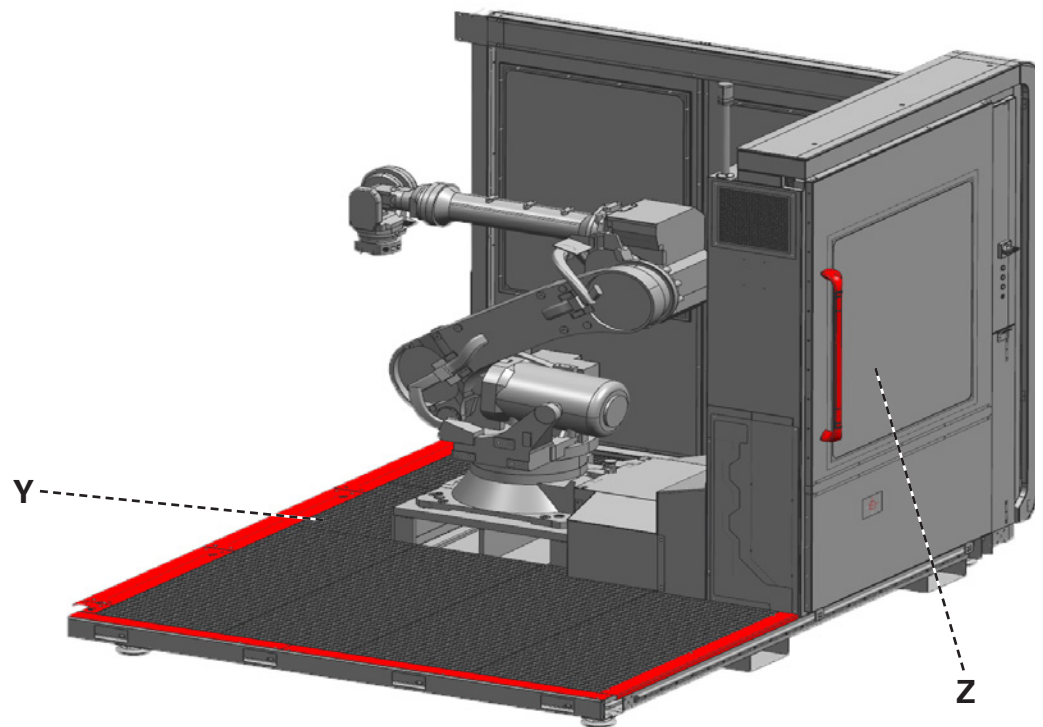


Installation, dimensions, and weight can be obtained from the installation plan.





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DAZ008_36.tif

The wall elements **(X)**, tread plates **(Y)** and the door handle **(Z)** are mounted on the robot cell only after transport and before alignment.

Aligning the robot cell

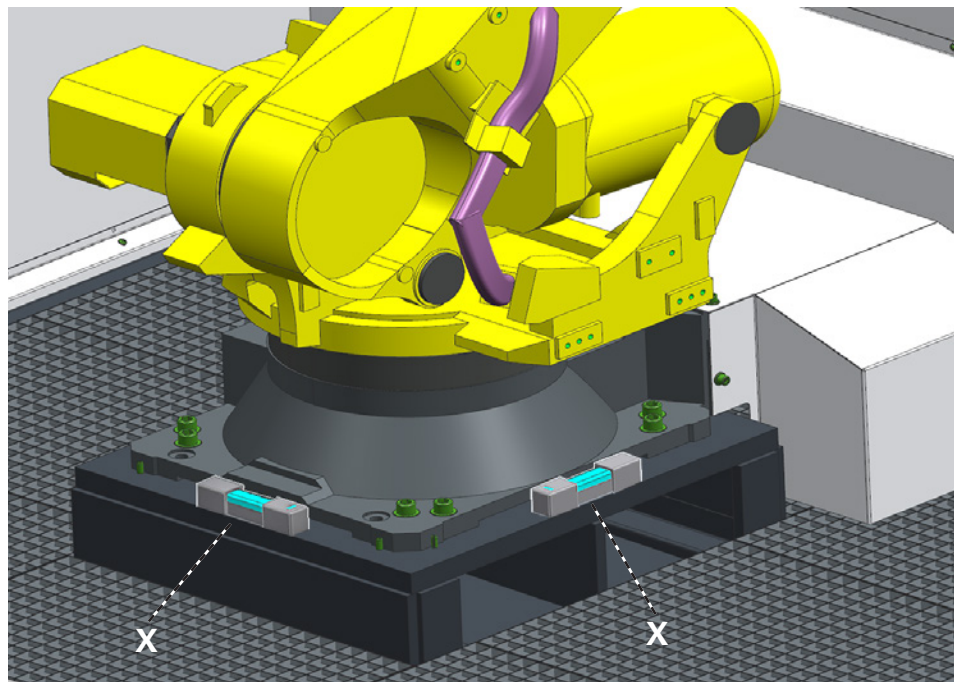


This alignment is mandatory before a workpiece is fed to the machine by the robot.

The robot cell is installed in front of the machine. The distance between the machine and the iXcenter is defined by the red brackets. For the dimensions, refer to the installation plan.

- Level the robot console using a spirit level (**X**).

The leveling and the height is adjusted using the adjusting feet of the console.



Leveling the robot:

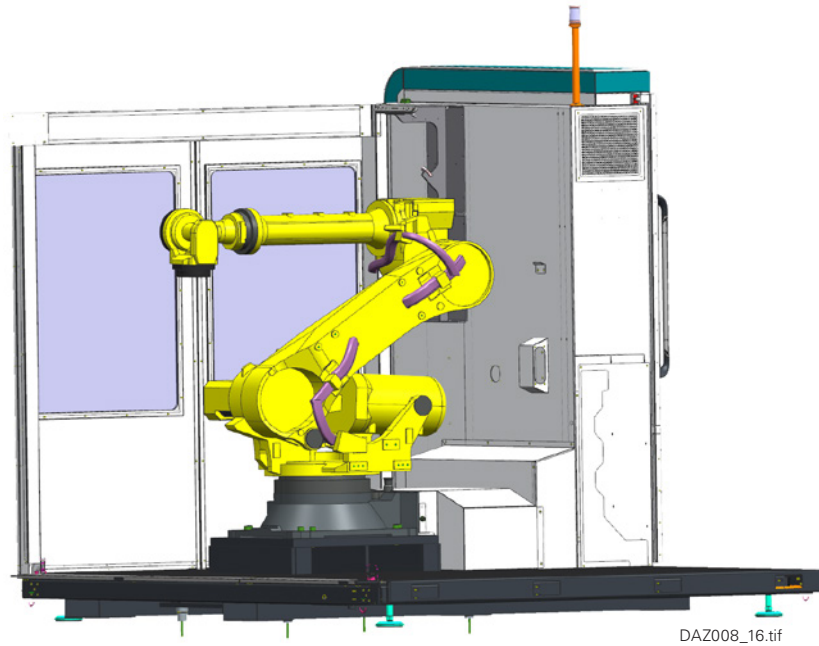
Using the supplied alignment tip, the robot can be aligned within the robot cell. To align the robot to the machine spindles, a separate fixture is required. You can obtain this fixture from INDEX or an INDEX representative.

Fastening to the floor



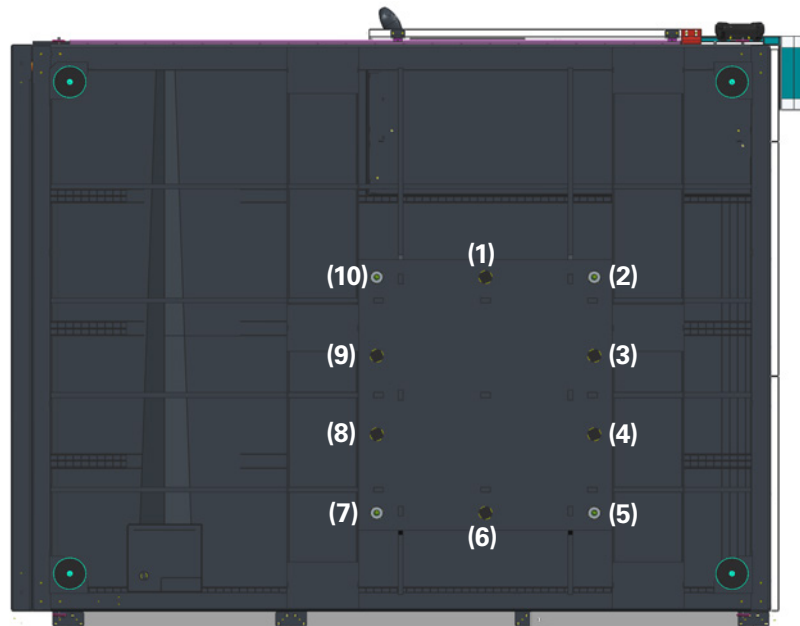
The iXcenter must be firmly anchored to the ground. The drilling dimensions can be found in the installation plan.

The length of the mounting bolts (**10x**) depends on the floor condition and may require some adjustment.



(1) (2) (3) (4)

(Only 4 of 10 mounting bolts are shown in this illustration)



Start-up

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.

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