



# EasyRobotics PROFEEDER X Automatic Drawer System User Manual

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## Introduction/intended use

ProFeeder X is designed for easy feeding of CNC machines and other workplaces and machines. Should be mounted with a fully installed cobot.



### Safety notice

#### Introduction

The intension of this manual is to give a guideline of mounting a cobot at the ProFeeder X and this is not valid as a CE marking of the robot cell.

A risk assessment must be full filled after the full installation is concluded. Including the robot, gripper and other equipment and installations at the workspace. ProFeeder X must be bolted to the floor when performing working operation. The local governmental safety rules and legislation must be followed when installing and operating with a robot on the ProFeeder X.

#### Legend



This symbol means danger to life or risk of personal injury or damage to the equipment. Read carefully.

Caution is required!

### Potential hazards

When the robot drags the trays or takes part from the trays there is a danger of pinching.

### Installation

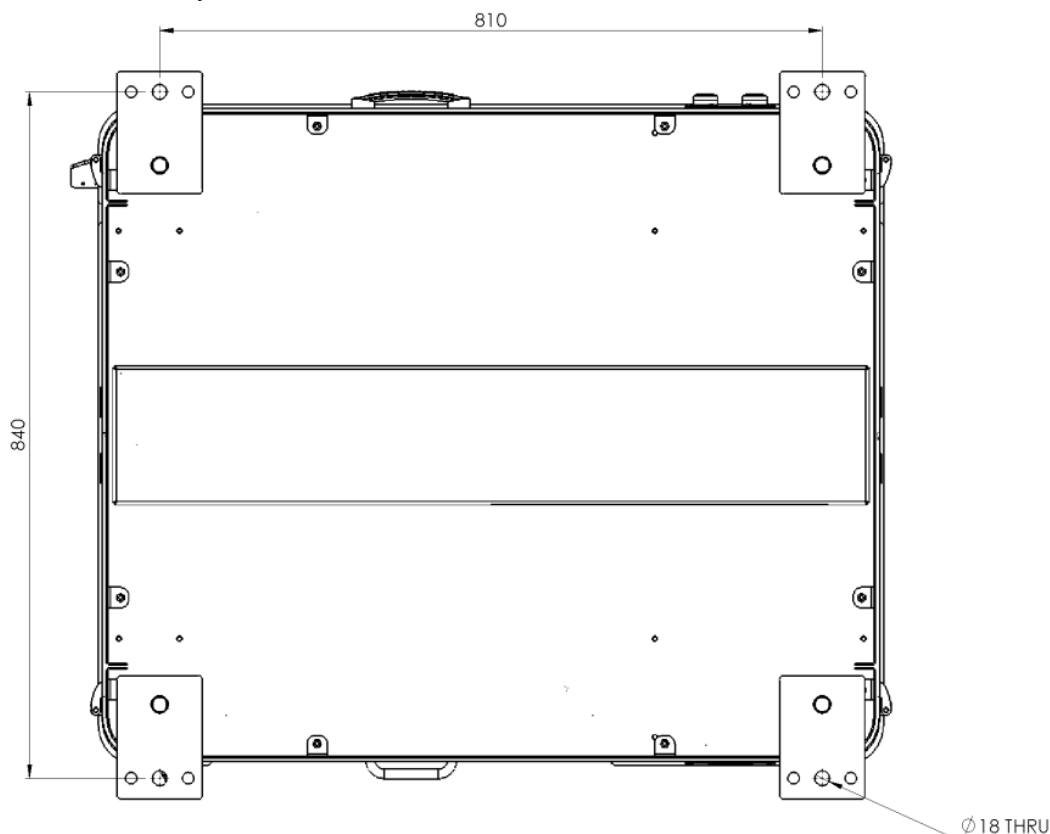


The installation of the ProFeeder X must be carried out only by trained, skilled personnel with the relevant profession. It is crucial to the safety and function of the machine, that it is properly aligned and securely anchored.

#### Fix to floor



Securely anchor the ProFeeder X to the floor with floor-suitable anchor bolts.



#### Relocate bracket for the teach pendant if needed

Dismantle the knobs holding the T-pad and mount these to the included holder. Locate the cable inside the hole and mount the T-Pad holder with the included M6x12 bolts.



Mounting the controller inside the ProFeeder X



Place the control box inside the biggest console. Check that none of the cables are squeezed



### Mounting the robot



Follow the mounting guidelines of the robot manual. Attach the robot on top of the horizontal robot console. Mind the cable if connected. Use the hole plate for cable management. If the robot bolt-circle is different than the Universal Robots UR10e, use an adapter plate for fixation.

Use the included cable tie mount to fix the robot cable along the machine.



#### **Air connection**

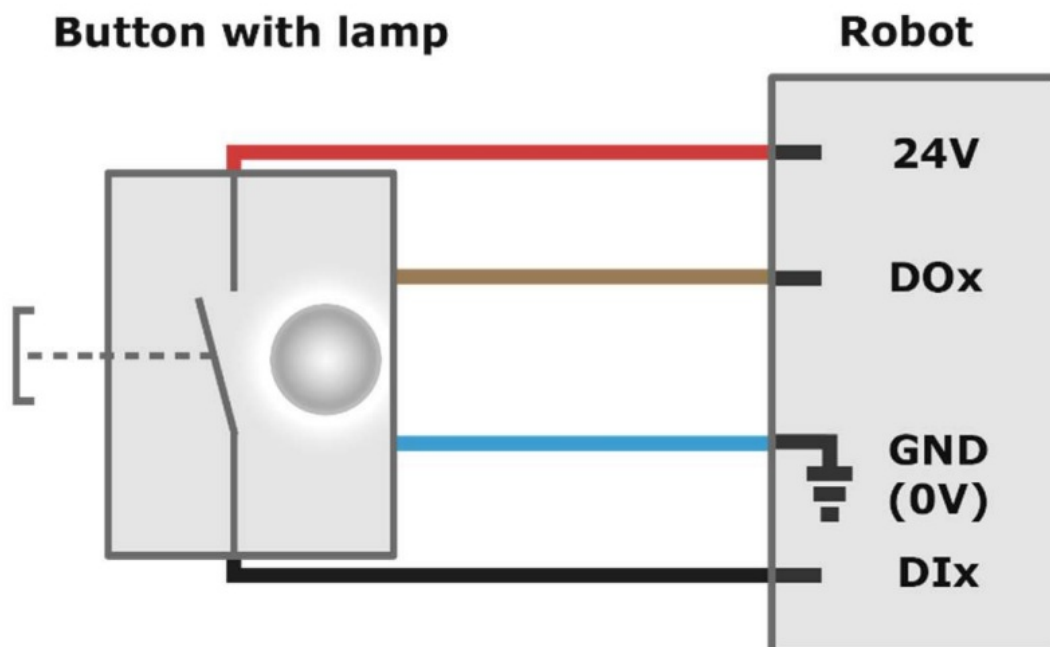
Connect air to the ProFeeder X, use a maximum of 8 bar dry air supply. Pressure can be regulated by using the included air regulator.





Connect buttons with integrated light

Connect the buttons as shown.







## Adjustments

### **Adjusting the spring plungers**

Loosen the nut and adjust the spring plungers so it touches the lock plate. Retighten the nut after adjustment.

### **Adjusting the feet**

Loosen the lock nut, adjust the foot by turning, retighten the lock nut. The feet should be adjusted so:

- The ProFeeder X stands stable without rocking, use a bubble level.



## **Using the ProFeeder X**




### **General**

Do not have more than one drawer out on each side.

### **ProFeeder X – Airlock**

The Airlock-system must be connected to the mounted robot. The system uses ModBos TCP and must be connected through the included RJ45 cable.

The system must be controlled by the mounted button, which must be connected to the robot and programmed so that the buttons can activate the valve and thereby releasing the tray. And vice versa when the tray is reloaded. The light must be programmed as below:

Light	Status
	<b>Blinking Light</b> <b>Status:</b> <i>Tray is currently being worked on.</i> <b>Action needed:</b> <i>No</i>
	<b>Light constantly on</b> <b>Status:</b> <i>Tray is done.</i> <b>Action needed:</b> <i>Reload tray or parts. Press button to reset.</i>
	<b>Light off</b> <b>Status:</b> <i>Tray has not been worked on yet.</i> <b>Action needed:</b> <i>No</i>

### 5.3 ProFeeder X – Mechlock

When the Profeeder X is setup with the Mechanical lock, calibrate the spring plungers before using the cell.

#### Max part height

# of drawers	Height
10	75 mm
5	160mm
2	410 mm

### Transport

#### Fixation for transport

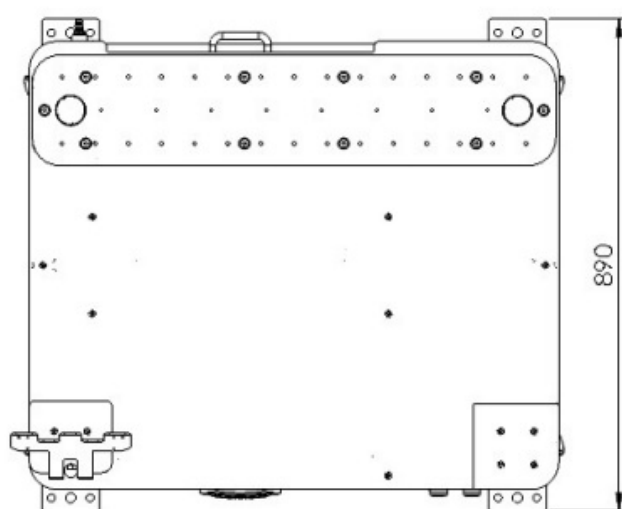
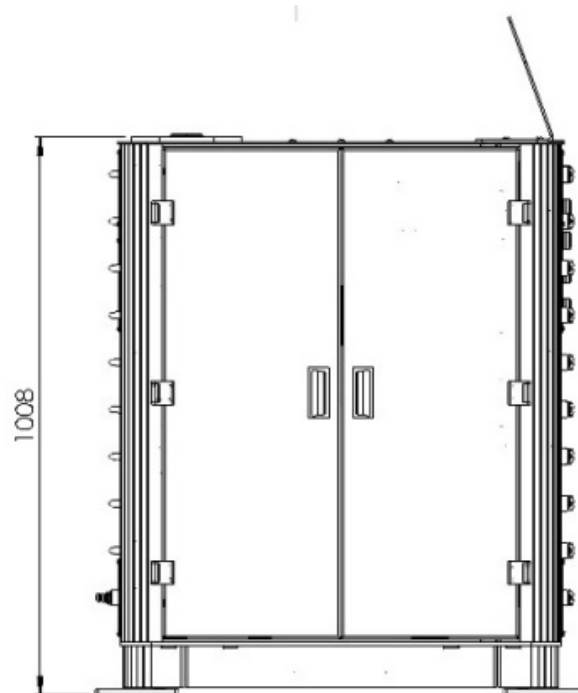
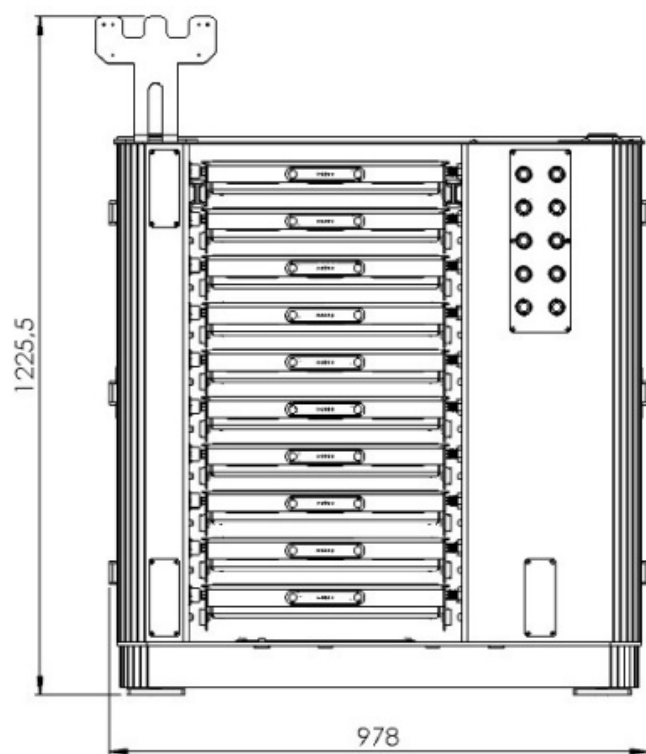
The ProFeeder X is delivered in a wooden box if assembled by EasyRobotics ApS. Please reuse this box for any further transport.



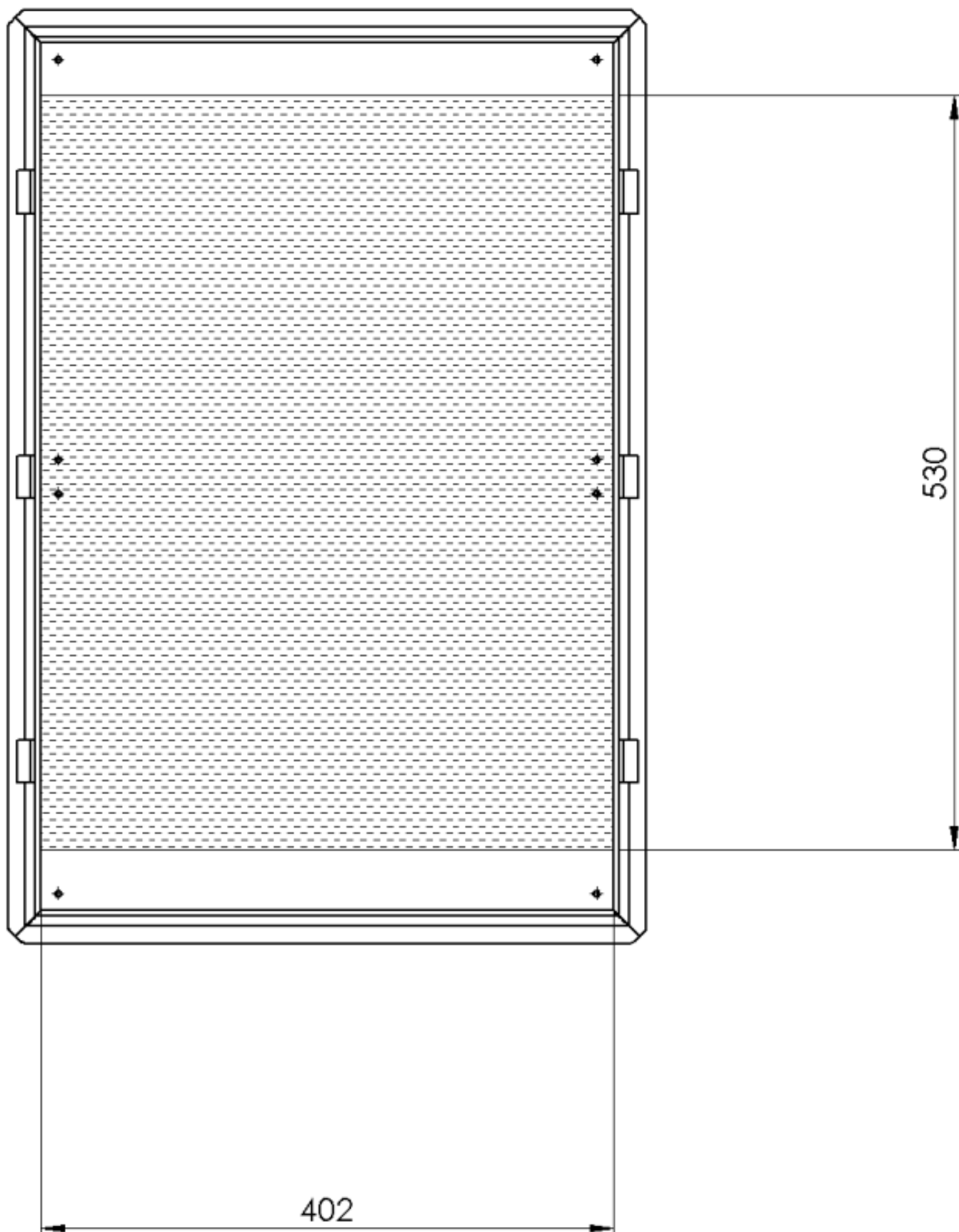
If the ProFeeder X should be moved without the wooden box, please remove the two side skirts to lift the machines with a pallet lifter or truck.



## Dimensions

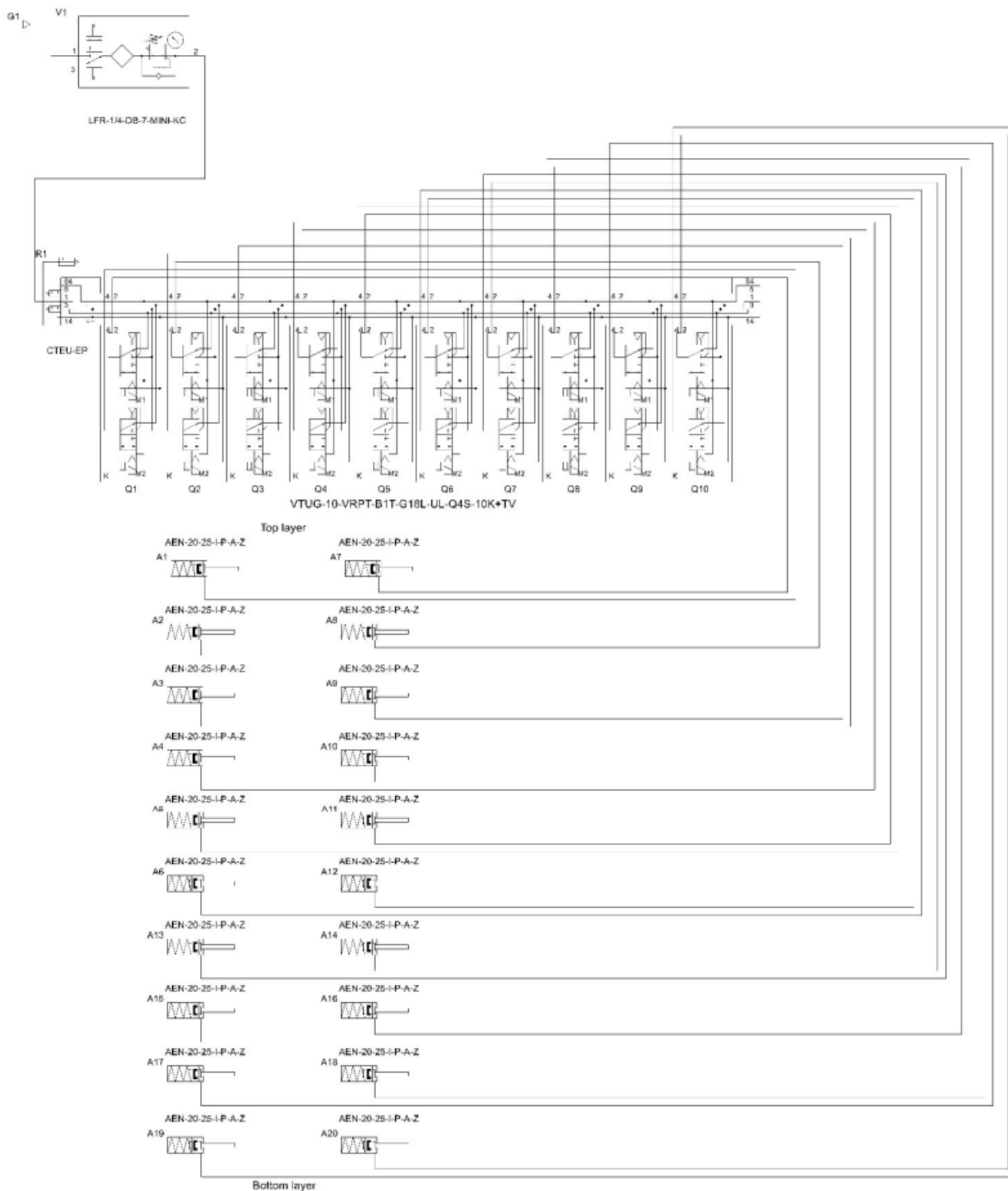


**Working area**



**Weight: Max 480 kg. without robot.**

**Pneumatic Diagram**



## Optional equipment

1. AirLock Kit
2. Spare drawer
3. Spare tray

## Declaration of incorporation of partly completed machinery (for CE-marking)

### Declaration of incorporation

according to the EU Machinery Directive 2006/42/EC, Annex II 1. B for partly completed machinery



**Manufacturer**

EasyRobotics ApS  
Mommarmvej 5  
DK – 6400 Sønderborg

**Person established in the Community authorized to compile the relevant technical documentation**

Per Lachenmeier  
EasyRobotics ApS  
Mommarmvej 5  
DK – 6400 Sønderborg

**Description and identification of the partly completed machinery**

Product / Article	ProFeeder X
Type	PFX-1001-10
Project number	0063-00002
Commercial name	ProFeeder X
Function	The ProFeeder X (when robot is installed) is to be used for automated feeding f or CNC machines and other machines/workplaces. The ProFeeder X provides a framework for the robot's location and it contains both the processed and unp rocessed parts.

**It is declared that the following essential requirements of the Machinery Directive 2006/42/EC have been fulfilled:**

1.2.4.3, 1.3.1, 1.3.2, 1.3.7, 1.5.3, 1.6.3, 1.7.3, 1.7.4

**It is also declared that the relevant technical documentation has been compiled in accordance with part B of Annex VII.**

**Reference to the harmonized standards used, as referred to in Article 7 (2):**

EN ISO 12100:2010-11	Safety of machinery – General principles for design – Risk assessment and risk reduction (ISO 12100:2010)
EN ISO 4414:2010	Pneumatic fluid power — General rules and safety requirements for systems a nd their components (ISO 4414:2010)
EN 1037:1995+A1:2008	Safety of machinery – Prevention of unexpected start-up (Amendment)

The manufacturer or his authorized representative undertake to transmit, in response to a reasoned request by

the national authorities, relevant information on the partly completed machinery. This transmission takes place

This does not affect the intellectual property rights!

**Important note! The partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of this Directive, where appropriate.**

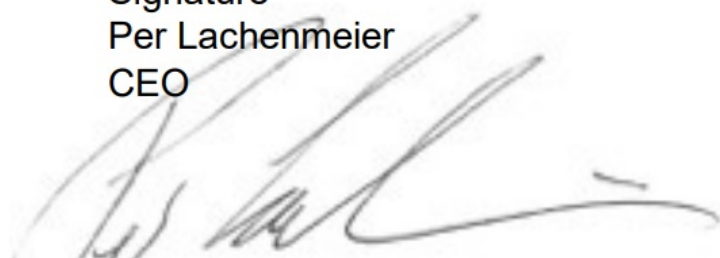
Sønderborg, 03/03/2020

Place, Date

Signature


Per Lachenmeier

CEO



**EasyRobotics®**  
- we move your parts

## Documents / Resources

	<p><a href="#">EasyRobotics PROFEEDER X Automatic Drawer System</a> [pdf] User Manual PROFEEDER X, Automatic Drawer System, PROFEEDER X Automatic Drawer System, Drawer System, System</p>
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Manuals+.