



www.ct-duo.com

CT DUO is a machine tending solution for Universal Robots that turns your CNC machine into a flexible, efficient and automated production cell. Besides relieving your machine operators from repetitive work, your employees will be available for more valuable tasks and your CNC machines will be able to run more hours. Add value to your business with CT DUO and Universal Robots. The investment is typically returned within less than 9 months!

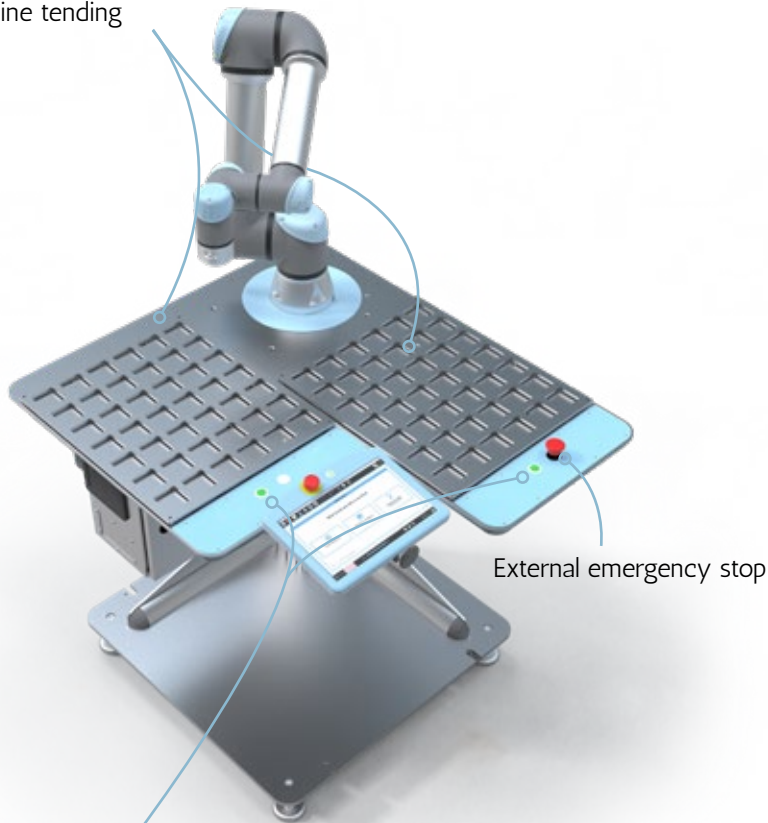


KEY FEATURES

- CT DUO has an unique design with dual patterns which means that it is always ready to tend your machine. While the robot picks parts from one pattern, the operator can load and unload the other pattern. Keep at least one of the two patterns loaded and the machine will run continually with zero down time.



Dual patterns for non-stop machine tending



Pushbuttons make the application easily controlled

External emergency stop

KEY FEATURES

- CT DUO is designed for mobility and with a small compact footprint. The equipment can be easily moved between machines with an ordinary pallet truck and it can normally be placed so that an operator still has access for manual work inside the machine.

- CT DUO is built from thick powder coated steel and extruded aluminum. The design of CT DUO includes a very well protected placement of the robot control box, but still with easy access. In addition the height of the table and the placement of the robot Teach Pendant is ergonomically correct.

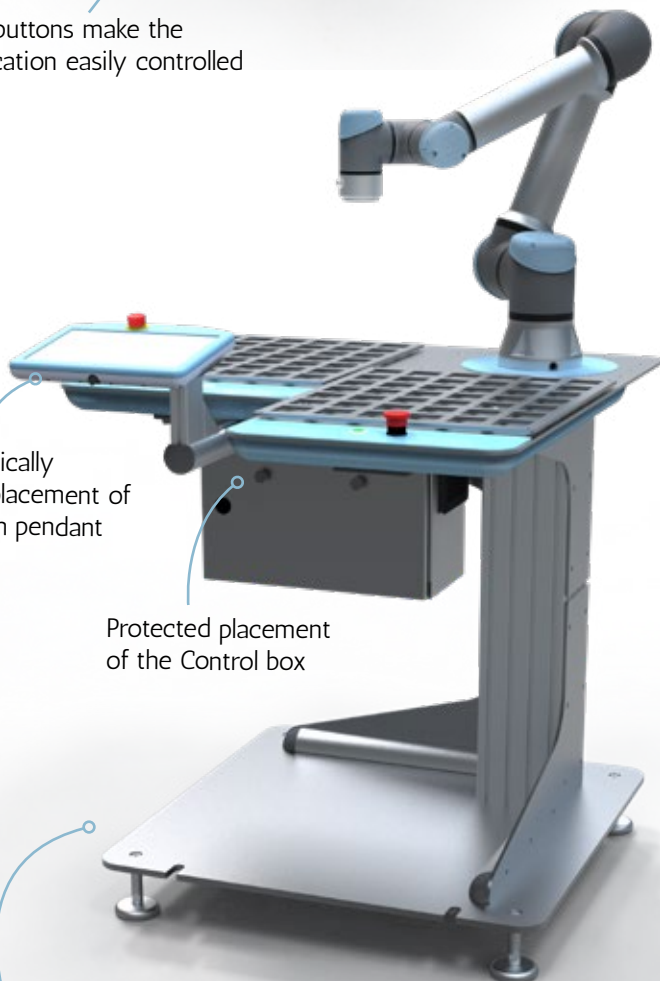
- CT DUO is delivered with a URCap and an example program for machine tending. This simplifies the programming of the robot and together with the UR Palletizing Template your machine tending application is up and running without too much effort.

- CT DUO is available in two sizes, one for UR5e-robots and one for UR10e-robots. The larger CT DUO 10 will take advantage of the UR10e's longer reach and the surface area for parts is about 70% larger compared to the CT DUO 5.

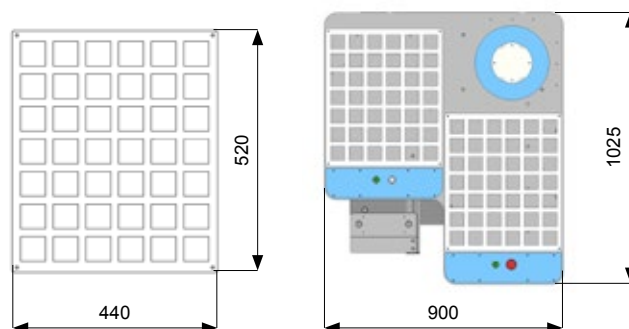
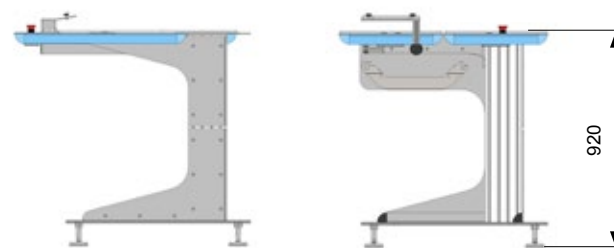
Ergonomically correct placement of the Teach pendant

Protected placement of the Control box

Designed for mobility and with a small compact footprint



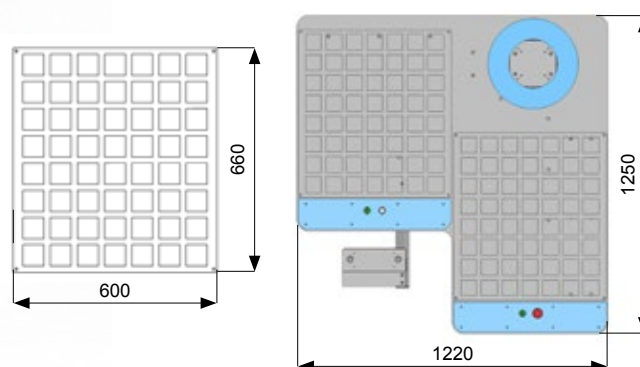
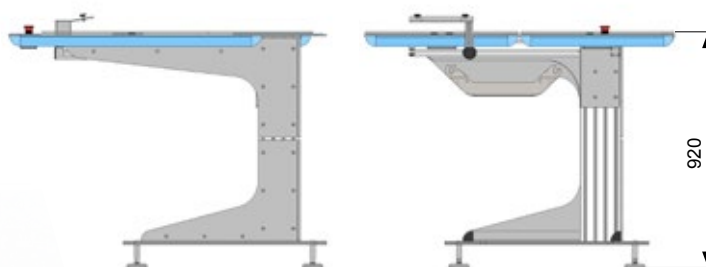
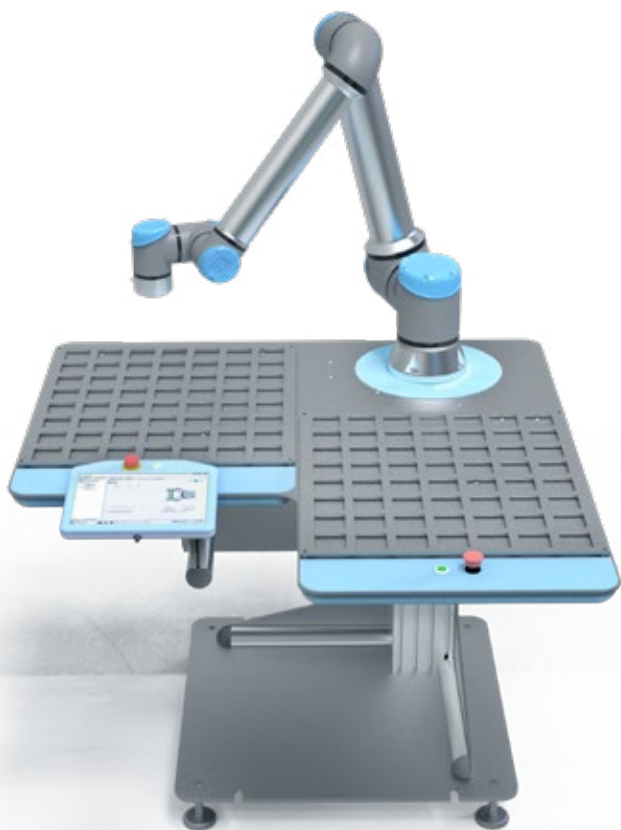
CT DUO 5

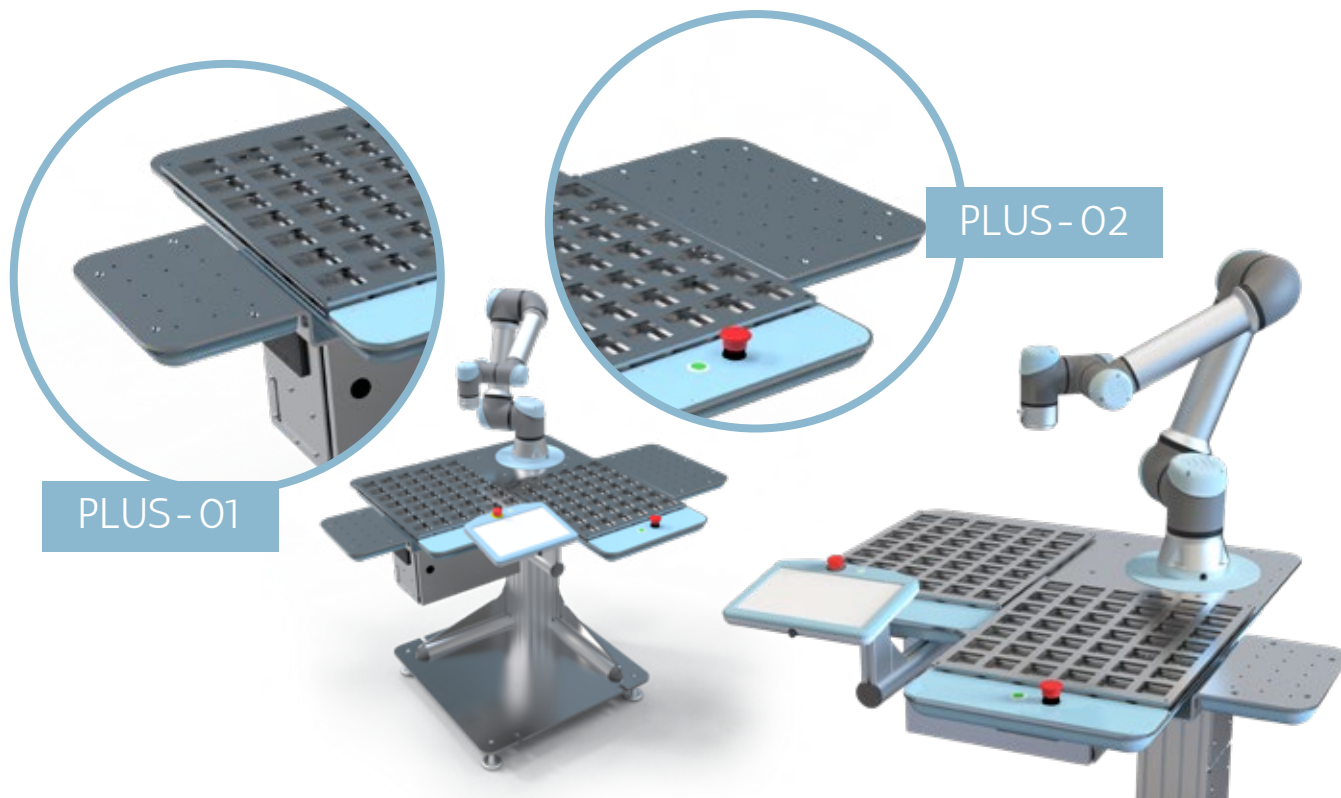


DIMENSIONS

The two pattern plates are easily changeable. Parts of different sizes can be placed inside the squared holes, positioning the parts into one of the corners. The pictures shown here have squares sized 52x52mm (CT DUO 5) and 62x62mm (CT DUO 10), but the pattern plates are custom made upon order to best suit your specific parts. This means that if you for instance are running parts spanning from 40mm to 70mm, squared holes sized 72x72mm is appropriate. If you have a large difference in part size we recommend one or two extra pairs of pattern plates.

CT DUO 10





ACCESSORIES

A PLUS-series of accessories are available for CT DUO as described below. Utilizing the PLUS-products below will make it easier to build your application and have your automation up and running faster.

PLUS-01 and PLUS-02

The PLUS-01 and PLUS-02 shelves are attached to either side of CT DUO and can be placed in different locations along the side. They have a pattern of M6 - threaded holes with cc 50mm for easy attachment of additional equipment such as re-grip stations, measuring devices, cleaning equipment etc. The area of PLUS-01 measures 200x300mm and the larger PLUS-02 measures 300x450mm.

PLUS-03

This accessory provides an extra surface located 350mm above CT DUO. The surface measures 180x230mm and has a pattern of M6 - threaded holes with cc 50mm for easy attachment of additional equipment. There is a 25mm hole in the center for wires, pneumatic tubes etc. Excellent option for a re-grip station!





PLUS-04

The PLUS-04 setup features a robotic arm mounted on a stand with a large, open grey container on a wooden pallet to the left. The arm is positioned over a worktable with a grid of holes and a control panel.

PLUS-04

Finished parts from your machine can be placed in the pattern, same location as picked from. The operator can then easily inspect the finished parts when loading new blanks. Two good accessories are available though for placing finished parts outside CT DUO. PLUS-04 is attached to the left or right side of CT DUO and finished parts can then simply slide into a pallet or similar.

PLUS-05

If finished parts should be placed into a plastic Euro container (KLT box) or similar, PLUS-05 is a good option. Designed for a maximum Euro container sized 400x300mm. The container is easily changed when full.



PLUS-05

The PLUS-05 setup features a robotic arm mounted on a stand with a plastic Euro container (KLT box) attached to the right side. The arm is positioned over a worktable with a grid of holes and a control panel.



PLUS-06

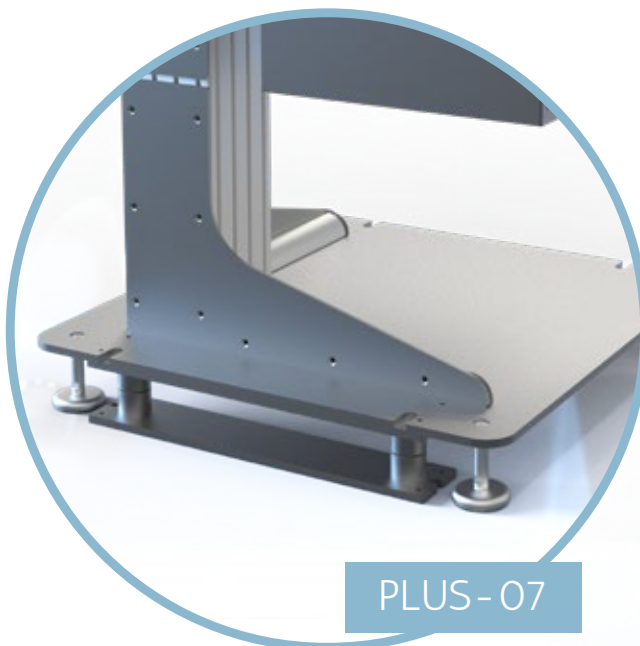
There are several ways to position CT DUO correctly if it has been moved. The easiest way is simply to use the bolts anchored to the shop floor or simple markings around the feet. Although this will position the equipment quite inaccurate, the simple adjustment of one or two waypoints inside the CNC machine is a quick task and is in many ways a favourable working method. There are, however, two options for more accurate positioning:

PLUS-06

The L-shaped accessory PLUS-06 is bolted to the shop floor and when CT DUO is relocated, it is simply positioned in contact with the tabs of PLUS-06. Several PLUS-06 units can be mounted next to different machines and CT DUO can easily be relocated between these. It is however important that CT DUO is properly in contact with the four tabs on PLUS-06 for accurate positioning.

PLUS-07

This is our most accurate positioning system for CT DUO. It consists of two parts. One part is bolted to the shop floor and the other is bolted to CT DUO. There are matching conical surfaces between the two parts and CT DUO is consequently perfectly guided by the conical surfaces into the correct position.



PLUS-07





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