

UNIVERSAL ROBOTS
Preferred Distributor



VENTION™
Automation Partner

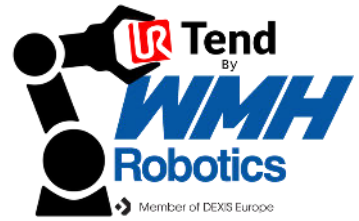
Cobot Machine tending stands alone in the market as its own unique solution. It provides manufacturers with a small footprint, flexible, short lead time and cost-effective tending solutions:

FEATURES

- **Small Footprint**
 - Allows systems to be retrofitted without the expense or hassle of re-locating machines.
- **Flexible Deployment**
 - One of the key features of cobots is the simplicity of programming. With simple templates and accessories, cobots can be deployed on small to large batch sizes.
- **Short lead times**
 - With systems typically being delivered in 3-7 weeks, you can scale to demand quickly
- **Lights-out running**
 - Gain more throughput and profit from your CNC machine by keeping it running 24/7
 -
- **Low Cost**
 - Using off the shelf components, we create proven systems with the market leading components

URTEND OVERVIEW

Typical URTend specifications



FEATURES

- **Part Weight**
 - 0-11kg per part - Single gripper
 - 0-5Kg per part - Dual gripper
- **Robot Reach**
 - 1300mm Reach available
- **Gripping technology (product specific)**
 - 2 & 3 Finger grippers
 - Vacuum Grippers /Magnetic grippers
- **Machine integration**
 - Out-of-the-box communication to machine tool available 90% of the time - Can also work directly with the manufacturer providing signals.
- **Safety**
 - Can be purchased with our URSafe package to come with a UKCA mark.
 - Or as a full self-deploy package.

Features



TYPICAL ROI

With Systems often costing between £45-£70,000 We expect to see payback on a single sift of around 18 months.

Running lights out can often half this time, taking possible ROI's to under 6-9 months....

EXAMPLE

If we take a £60,000 machine tending solution, working 80 hours a week we can calculate the cost per hour over a three-year period:

48 weeks per year x 3 years = 144 weeks

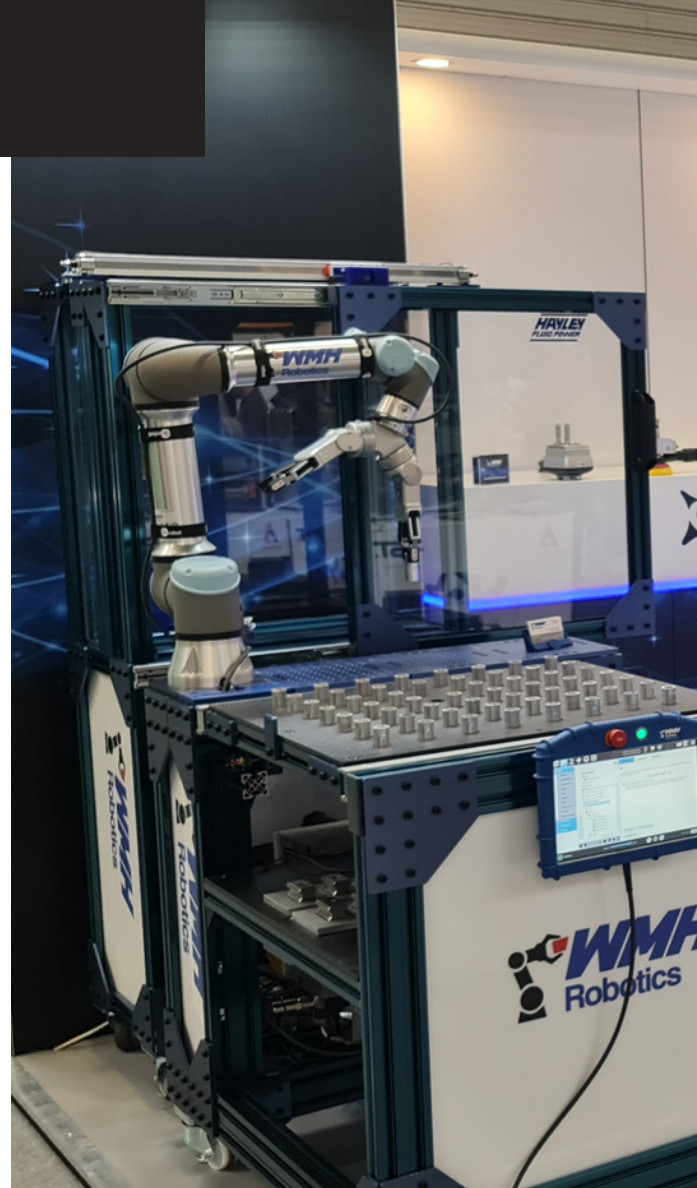
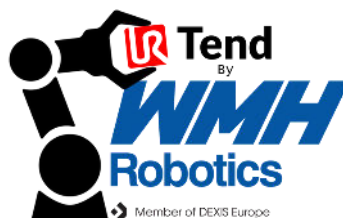
Working 80 hours per week = 11,520 Hours over 3 years

£45,000 / 11,520 Hours = £5.20 Per hour

UK Minimum wage 2023 - £10.42

Without including - sickness, training, breaks, efficiency etc.

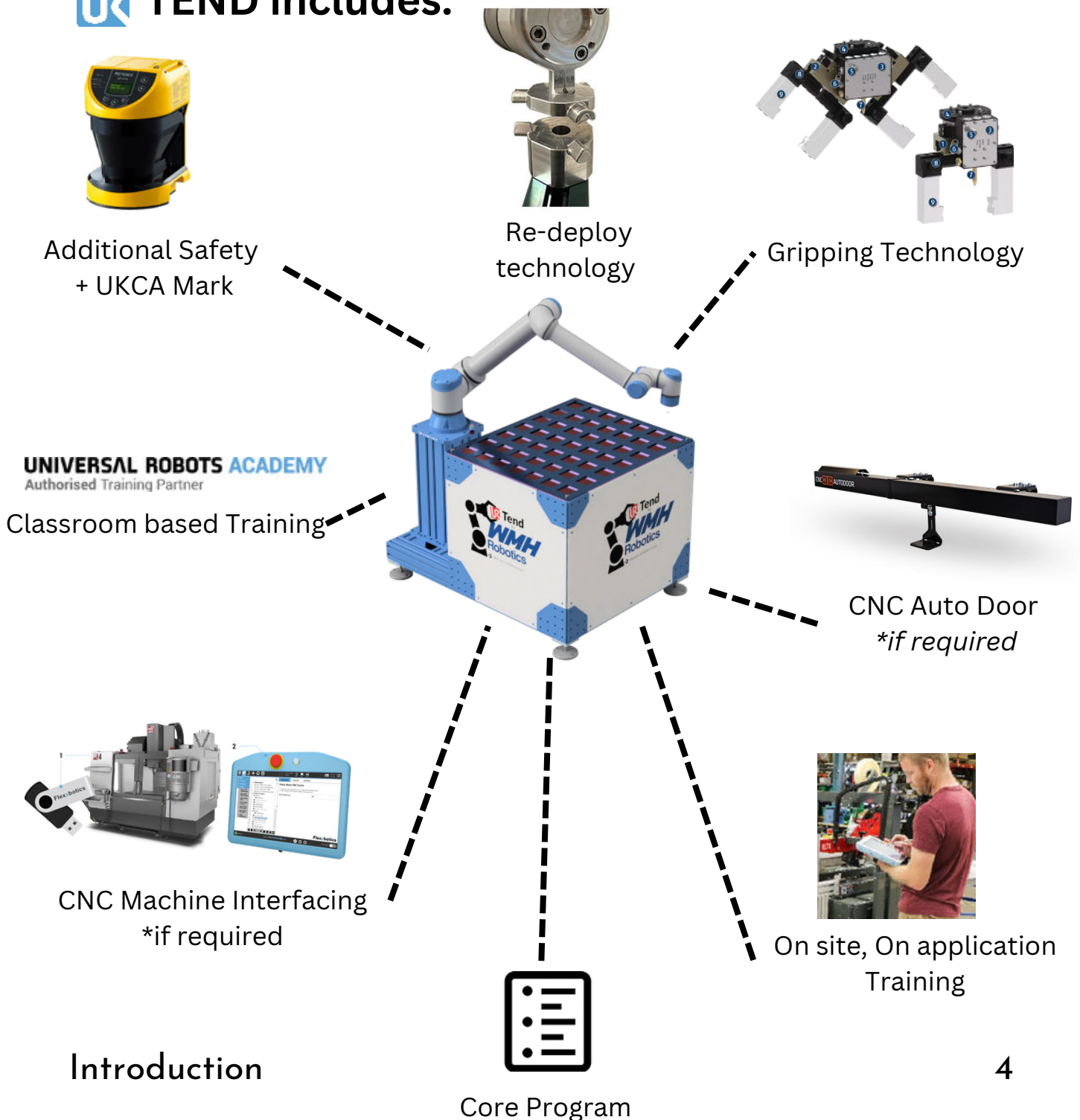
ROI Example



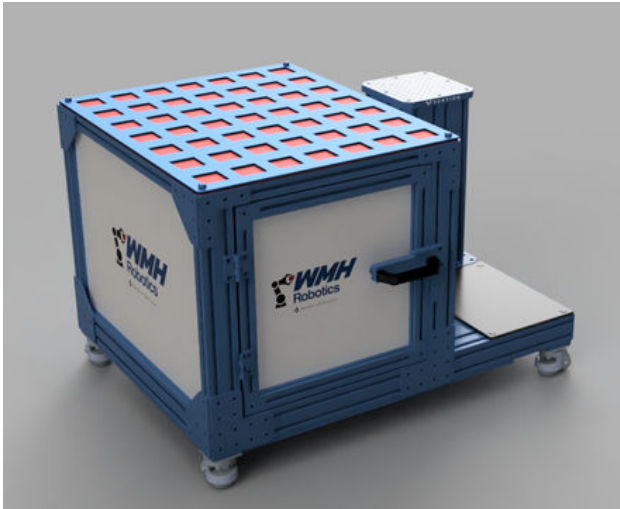
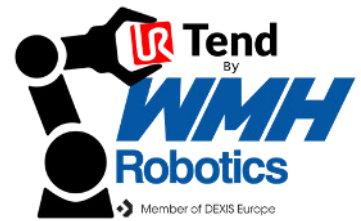
UR TEND OVERVIEW

Combining off-the-shelf components, training and application support to offer UR-Tend - The machine tending product from WMH Robotics which breaks down the barriers of cost, flexibility, safety and simplicity;

UR TEND includes:



URTEND - COMPACT

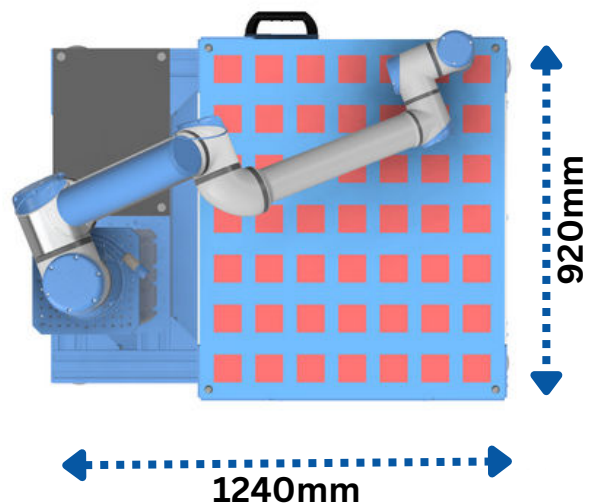


URTend - Compact offer users a very compact and robust machine tending cell for varied production.

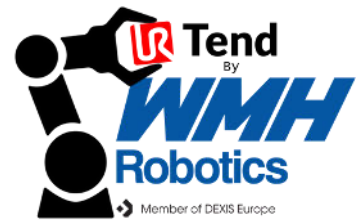
With a Sturdy pedestal for reliability, an enclosed cabinet to protect our controllers and levelling base feet, simplicity is the key here.

We have a number of standard jigs to choose from, which varies the number of parts which can be carried on the table.

- 5-11kg Part weight depending on gripper selection
- 900mm x 765mm jig area - Shown here with space for 47 parts of 50mm.
- Enclosed Cabinet
- Base feet (movable with pallet truck)
- Heavyweight construction with robot pedestal and framework



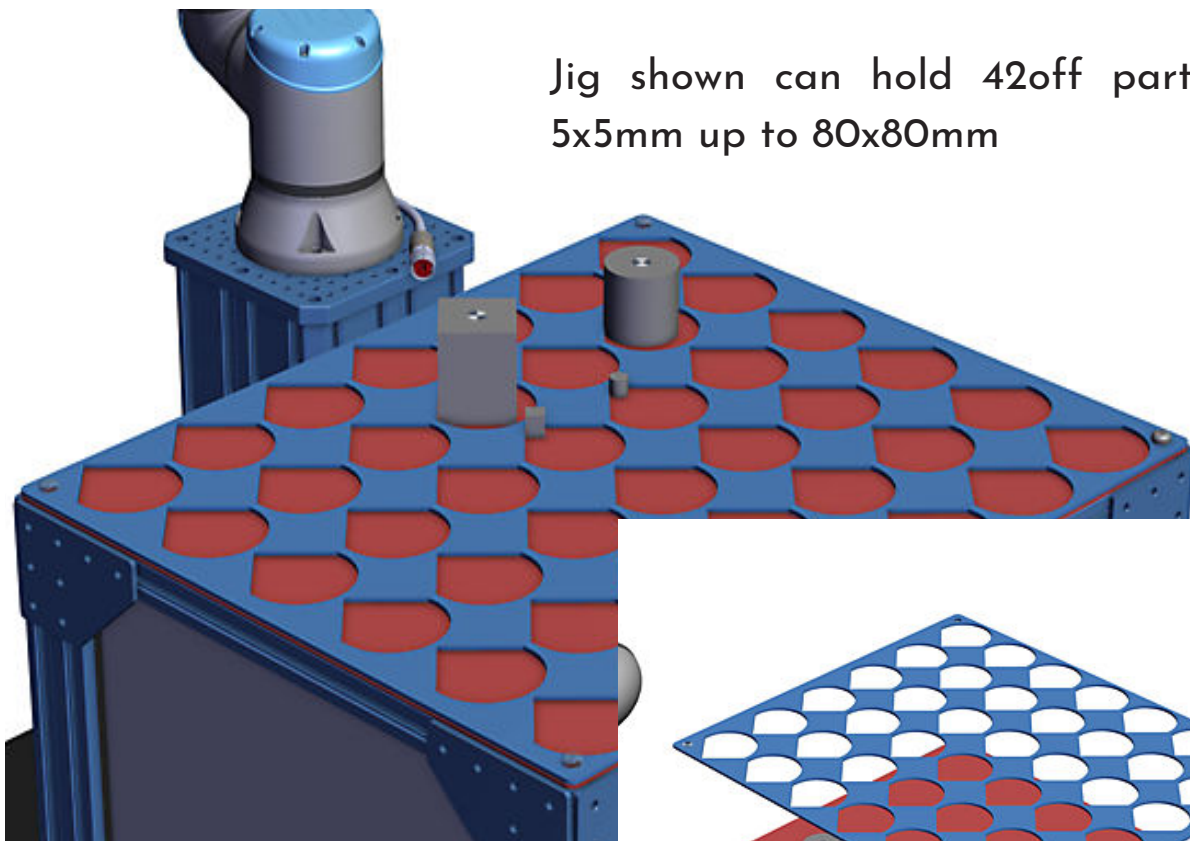
URTEND - COMPACT



Each URTend stand comes with the option of a laser-cut jig package to get you started.

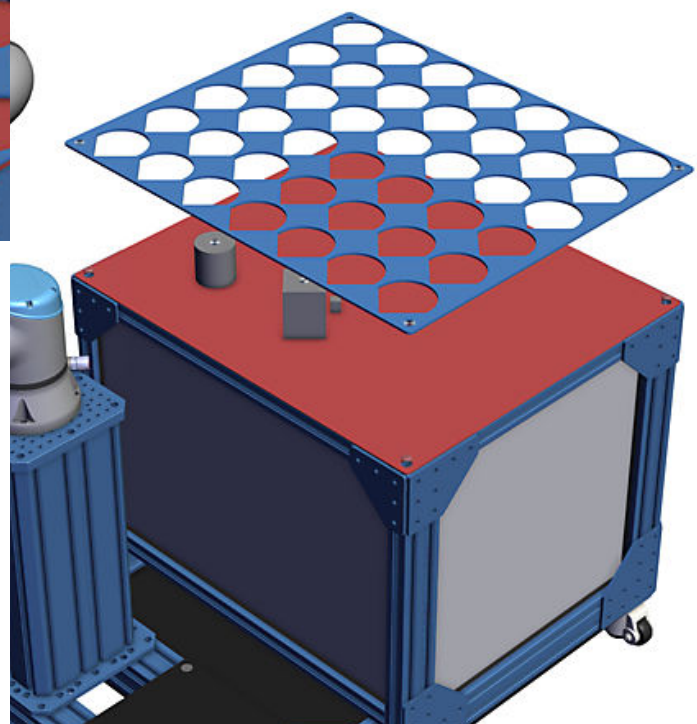
With programs easy to change these really can provide the basis of a simple and easy-to-setup system while maintaining part flexibility.

Jig shown can hold 42 off parts from 5x5mm up to 80x80mm



Jigs can be removed and interchanged quickly and easily - Meaning you spend more time machining.

Cad file of Jig provided with cell for custom jigs.



Compact Stand

As a direct UR Gold distributor, we have the right to represent, maintain, repair, train and sell UR products directly to our customers.



With our standard cells, we have specified the UR10e Robot as standard due to its reach & payload. Please enquire with us if you require a UR5e or UR20 system.

System Parameter	UR10e
Degrees of Freedom	6 rotating joints
Payload	12.5 kg / 22 lbs
Repeatability	±0.05 mm, with payload, per ISO 9283
Weight with cable	33.5 kg / 73.9 lbs
Reach	1300 mm / 51.2 in
Motion Range	Base: ± 360°Shoulder: ± 360°Elbow: ± 360°Wrist 1: ± 360°Wrist 2: ± 360°Wrist 3: Infinite
Maximum Speed	Base: ± 180°/Sec.Shoulder: ± 180°/Sec.Elbow: ± 180°/Sec.Wrist 1: ± 360°/SecWrist 2: ± 360°/SecWrist 3: ± 360°/Sec
Power Consumption	100-240VAC, 47-440Hz
Robot Mounting	Any
Ambient Temperature	0-50°*



UR Tend comes with the option of a safety package called, URSafe.

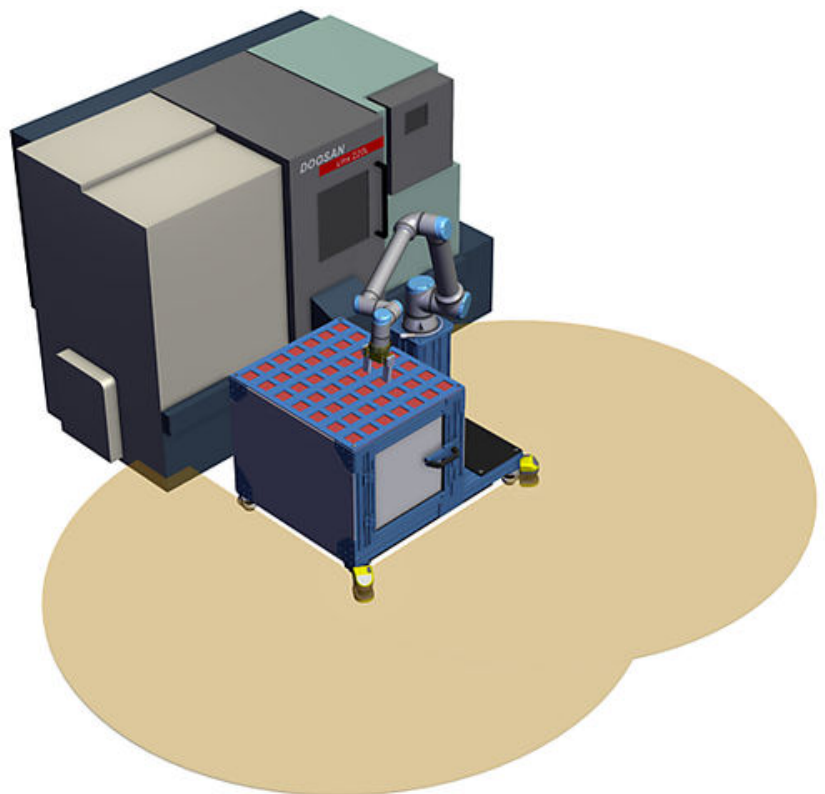
By providing URTend with additional safety we can offer this product with a UKCA mark and with cost-effective Pneumatic grippers.

End users still have to risk asses their system, but this is made simpler with the provided documentation.

By Using area scanners, we remove the requirement for fixed guarding, meaning less footprint is required.

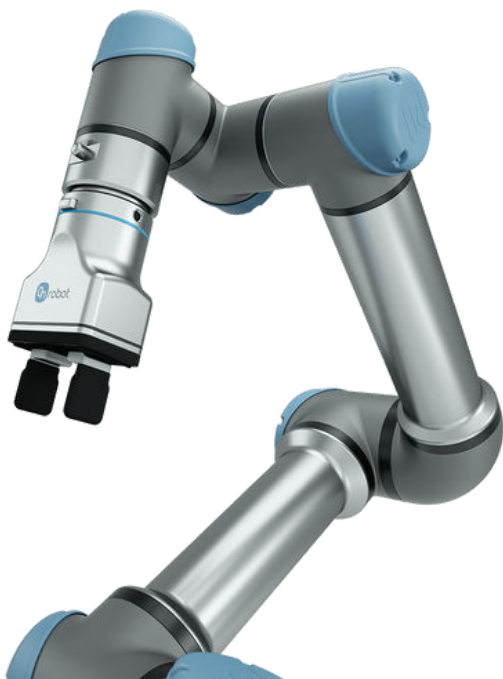
This also has the benefit of being mobile, with only software adjustments made between deployments.

*URSafe is only available on our standard packages. Self-deployment is still also a possibility.





UNIVERSAL ROBOTS ACADEMY
Authorised Training Partner



PRODUCT TRAINING

Self deploy robotics systems don't have to come with a headache. At WMH we offer both Classroom based CORE training as well as on-site, on-application training to ensure you get your investment running as quickly as possible!

Product Training

CONNECTED With FlexxCNC™

Integrate your Universal Robot onto any machine in your shop in half a day. Ensure once your new cobot hits your loading dock you'll have it cutting chips straight away

1

Connect your cobot and machine to the FlexxCNC™ middleware



Wire to your peripherals

- Dedicated & labeled I/O
- Wiring kits & instructions to all peripherals

2

Build your program

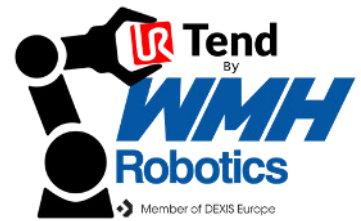
- Upload the executable/configure server connection
- Build your program in polyscope using Flexx programming nodes

One days connection training included*
Flexx CNC



10

CONNECTED With FlexxCNC™



Flexx CNC supports the following CNC controllers out of the box...

LOKUMA



OSP200/300LA
Lathes



OSP200/300SA
Multitasking



OSP200/300MA
Machine Centers



OSP200/300GA
Grinders

FANUC



30I - B SERIES
Superior Machining Solutions



31I - B SERIES
Powerful Basic CNC



31I - B5 SERIES
5-Axis Simultaneous Machining



OI - F SERIES
Compatible All-Round CNC



OI - F PLUS SERIES
Reduced Cycle Time



32I / 35I - B SERIES
Standard CNC

Mazak



MAZATROL
SmoothEz



MAZATROL
SmoothAi



MAZATROL
SmoothX



MAZATROL
SmoothG



MAZATROL
SmoothC

HAS



VF SERIES
Popular CNC Mills



VR SERIES
2-Axis Spindle Head Machines



VMT SERIES
Verticle Mill Turn



VR SERIES
2-Axis Spindle Head Machines

brother



S1000X1
Wide Travel Model

DMG MORI



MAPPS FANUC
Program Loading

MITSUBISHI



800/800V SERIES
Program Loading



E80 & C80
Single Op

Flexx CNC

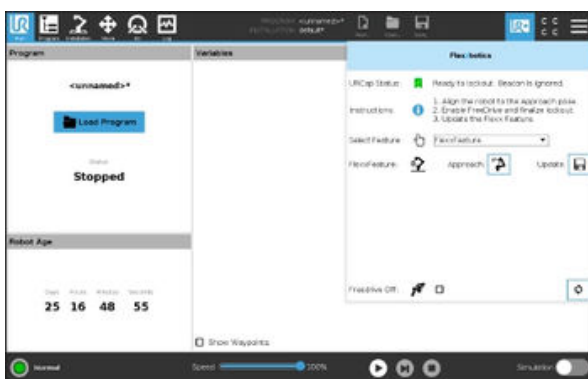
11

If your controller is not specified - please contact us to discuss



Moving automation solutions can be troublesome as trying to align the stand perfectly is a time-consuming process.

By utilising Flexx Reference, we simply have a reference feature bolted to each machine you want accessible by URTend.



By Freedriving the robot into the fixture, attaching the lock-outs and pressing a button in the program, your cobot tending cell is now referenced between URTend and your machine tool.

FlexxReference™ ensures that your robot is never idle by giving you the ability to:



Easily repurpose a cobot from one work cell to another when demand changes



Get your work cell up and running within minutes after planned or unplanned downtime



Rapidly switch your work cell from manual to automated operation



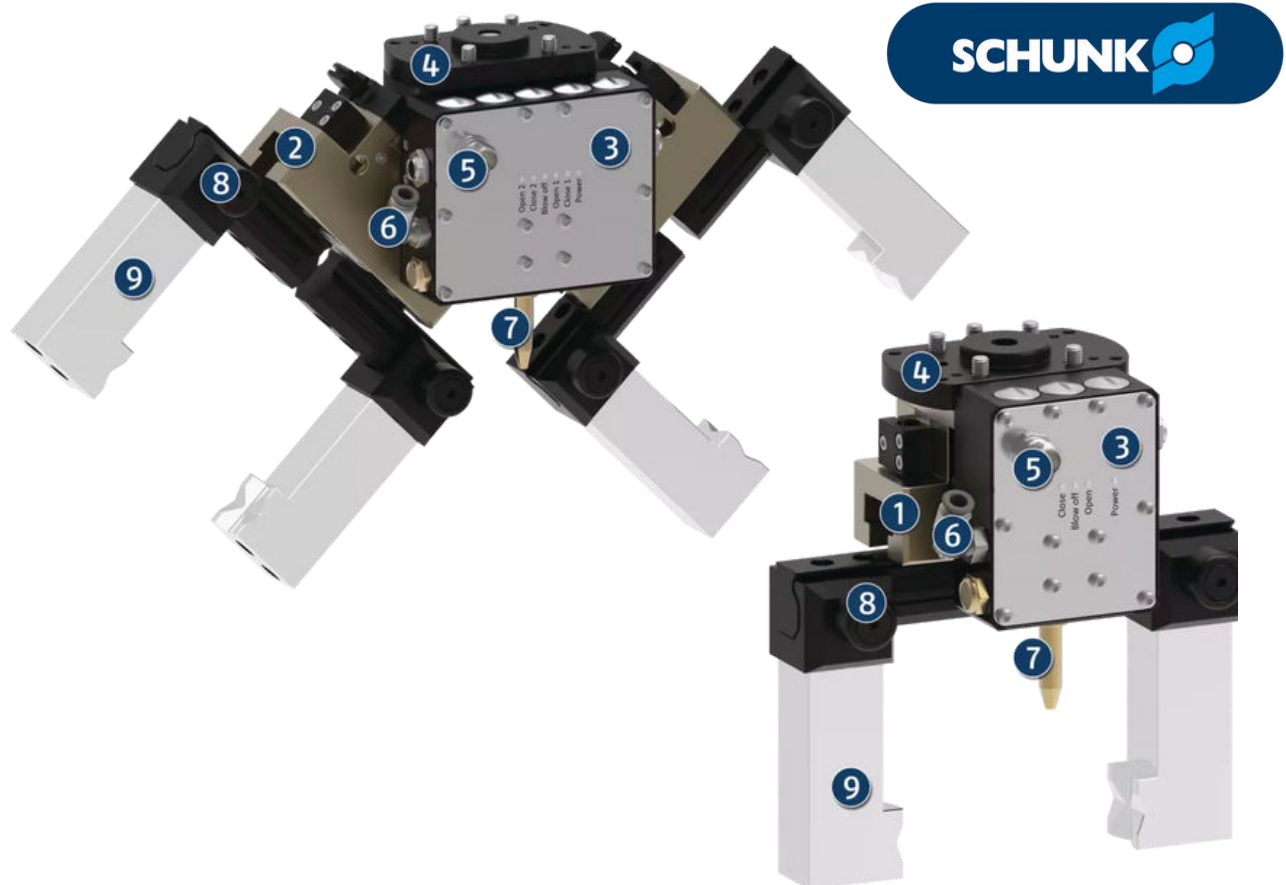
Quickly respond to accidental or deliberate work cell adjustments

URTend comes with a narrowed-down selection of gripping technology from industry-leading suppliers. Depending on the application WMH will work with you to select the appropriate tooling. Two of our main suppliers are shown below:



OnRobot tooling is designed with flexibility and simplicity in mind. Some of the creative products enable applications to be solved, all while working within the collaborative robotics window of force and design.

Where payloads are higher and a pneumatic supply is provided, we can often increase the specification and reduce costs by using an MTB application kit from Schunk:



Single grippers (1) are perfect for confined spaces and allow easy entry into automated machine loading. Double grippers (2) can increase machine productivity as the machine is loaded and unloaded in just one cycle.

- 1 - Single gripper
- 2 - Double gripper
- 3 - Sealed valve box with status LED
- 4 - Mechanical adapter for robot connection
- 5 - M12 connector for electrical connection
- 6 - Push-in fitting for compressed air connection
- 7 - Pre-assembled blow-off nozzle
- 8 - Universal intermediate jaw UZB (available as an accessory)
- 9 - Universal top jaw AUB JGP-P (available as an accessory)

***Typically Pneumatic grippers require additional Safety features due to gripping force - see our UR-Safe package.**

Configuring a solution with URTEND:

- 1

Robot Selection
Based upon part weight, unmanned time and reach required (included grippers)
- 2

Framework Selection
Choose from one of our standard and proven framework options based on your requirements
- 3

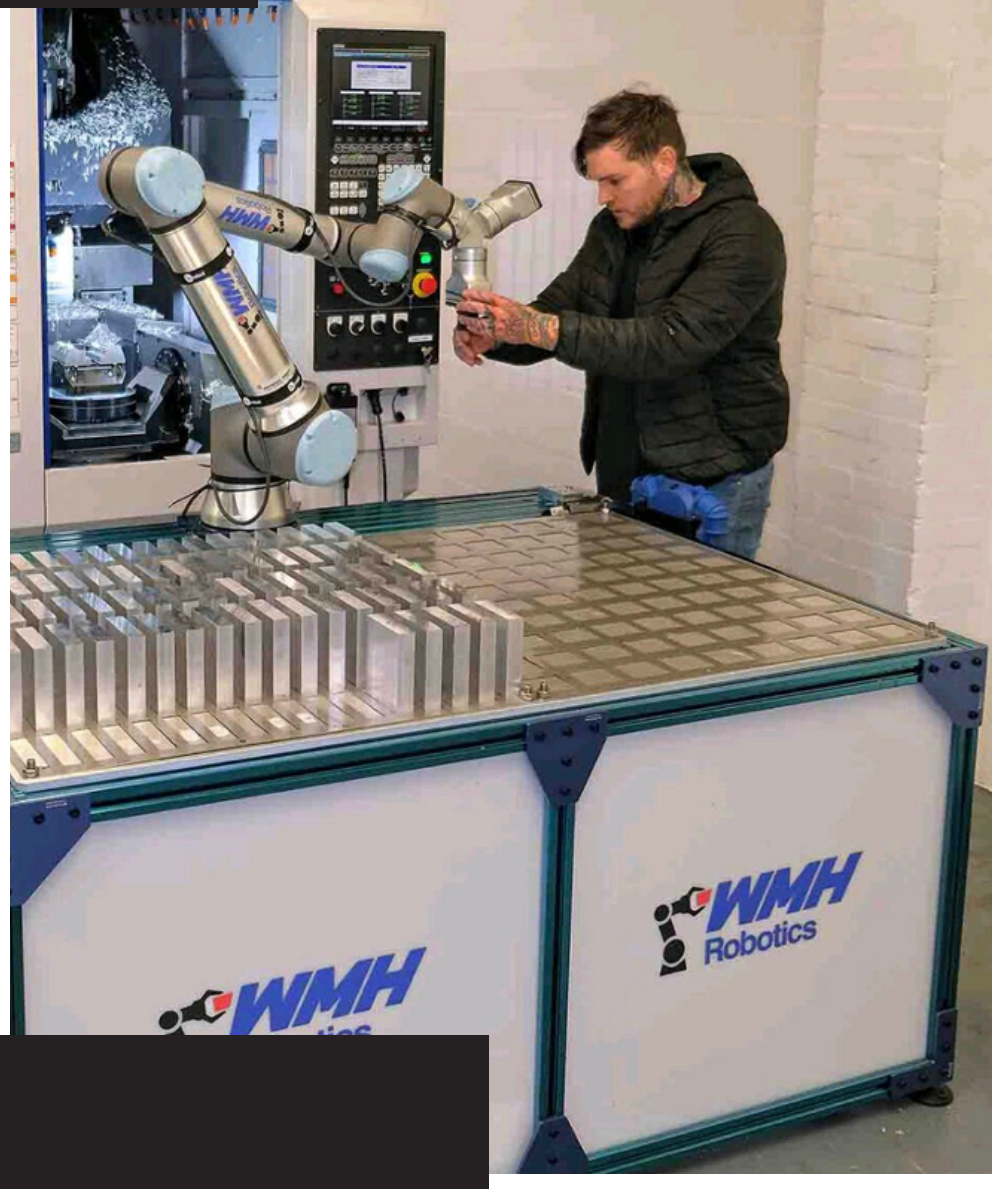
UR-Connected Package
Do you require Flexx Connect or not and is it compatible?
- 4

UR-Datum Package
If you require your system to be movable between machines you will require our Flexx Reference
- 5

UR-Safe Package
Add additional safety to your cell and receive your solution with a UKCA mark.
- 6

UR-Trained Package
Receive two seats at the UR Academy + 2 days on-site support and training to get you producing

THANK YOU



We hope this has provided you with an introduction to Cobot machine tending with WMH Robotics and URTend

To take the next steps please get in touch and we can invite you to get hands-on with the solutions at WMH Robotics, Tamworth UK

CONTACT US



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