

Collaborative robotics across every industry.

Industry e-book

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01

Collaborative automation entering every industry.

Constant industrial and technological progress have made the metalworking and machining industry highly competitive. The new challenge is to increase productivity without compromising on quality. The field of collaborative robotics provides one of the most promising avenues in meeting this challenge.



02

Stay competitive and boost productivity.

Collaborative robots (cobots) provide highly attractive automation opportunities for a wide range of applications and production facilities.



>50k

Massive installed base

Universal Robots' 50,000+ cobot solutions have been deployed around the world in both tier 1 automotive suppliers and small machine shops, and thousands of facilities in between.

1/2

Simple to redeploy

Cobots can be reconfigured and programmed for a new task in as little as half a day.

90

Easy programming

After an online 90-minute course on [UR Academy](#), anyone can become a certified cobot programmer. There are even in-person classes for hands-on learning.

17

Collaborative-ready

The e-Series 17 standard adjustable safety functions effectively and easily mitigate risk in a work cell, following a risk assessment.

1

Quick payback

UR cobots routinely deliver payback within a year.

03

Human-robot collaboration can happen anywhere.

Our cobots are suitable for any manufacturing industry as they are ideal for automating a wide range of processes. They also handle complex and challenging tasks with ease, such as:



Screwing

Our cobots ensure precise screwing by maintaining ideal torque levels while tightening in procedures with consistent repeatability.



Quality Control

Automated quality control ensures consistent production and maximizes product quality.



CNC

Automating CNC machine tending is fast and efficient, with quick reprogramming on robotic arms where needed, as well as the ability to mount different end effectors and image-processing systems.



Gluing, Dosing & Welding

Cobot arms have the precision needed to increase efficiency in gluing and welding while reducing surplus material and relieving employees from this hazardous activity.



Assembly

Our cobots increase production rates and process quality while assembling parts made of plastic, metal or other materials.



Injection Moulding

Our collaborative robots enable rapid and accurate injection mould processing for prototyping and production in small batches.



Pick & Place

Collaborative robots boost process accuracy and cut down on waste in automated pick-and-place processes, which can continue in lights-out operation. The light-weight design and small footprint mean that the robotic arms are suitable for operation and retooling for various processes in constricted spaces.



Palletizing & Packaging

Cobots ensure that deliveries are always put together safely and reliably and packaged in compliance with applicable regulations.



Lab Analysis & Testing

Cobots are ideal for automating complex and challenging research projects that require flexible and efficient use of premises as well as a seamless integration with lab peripherals.



Polishing

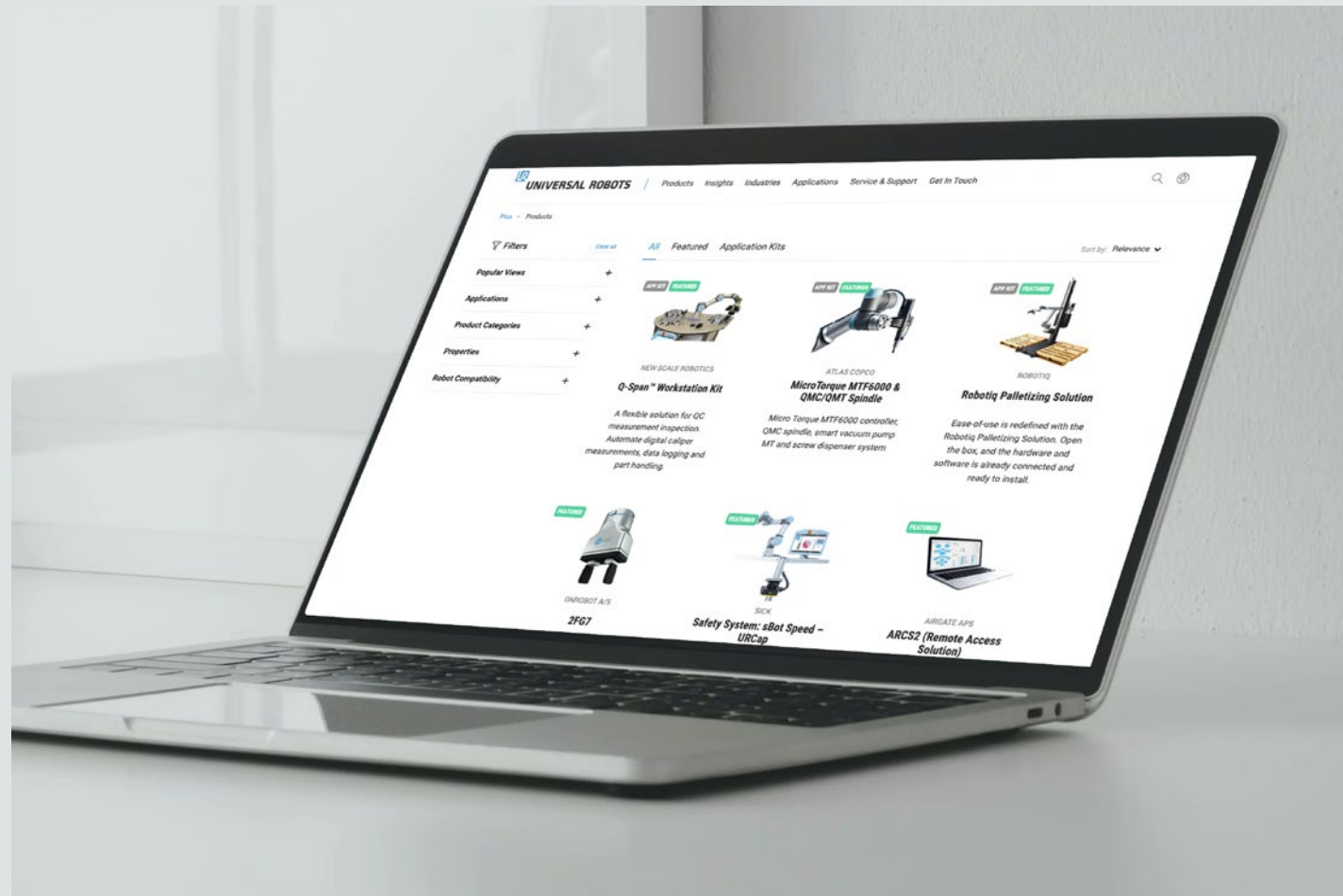
Integrated force control in our cobots ensures consistent polishing and buffing, even on uneven surfaces.

04

Automate easier than ever with UR+

The Universal Robots+ (UR+) ecosystem ensures smooth integration of 3rd party innovative peripheral products and software to match your requirements for highly specific robot applications.

UR+ solutions are certified for our cobots and provide Plug & Produce compatibility for guaranteed immediate deployment.



Plug & Produce

compatibility

Explore UR+ for a range of:

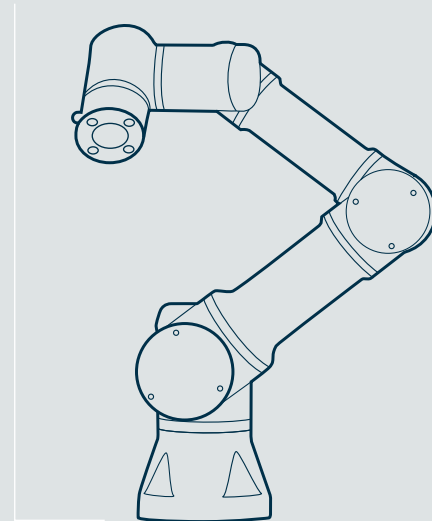
- Grippers
- Vision Systems
- Software
- Process Tools
- Hardware



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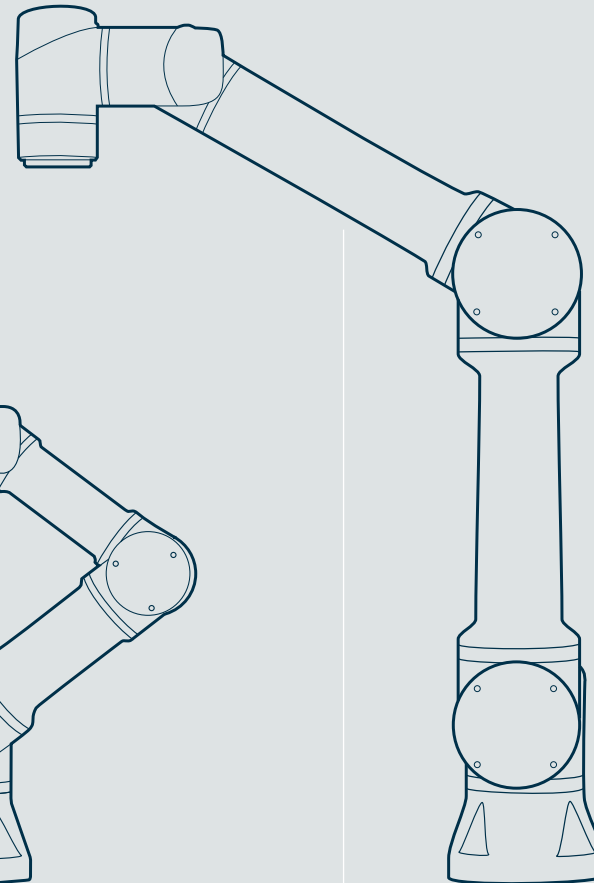
05

Our cobots at a glance.



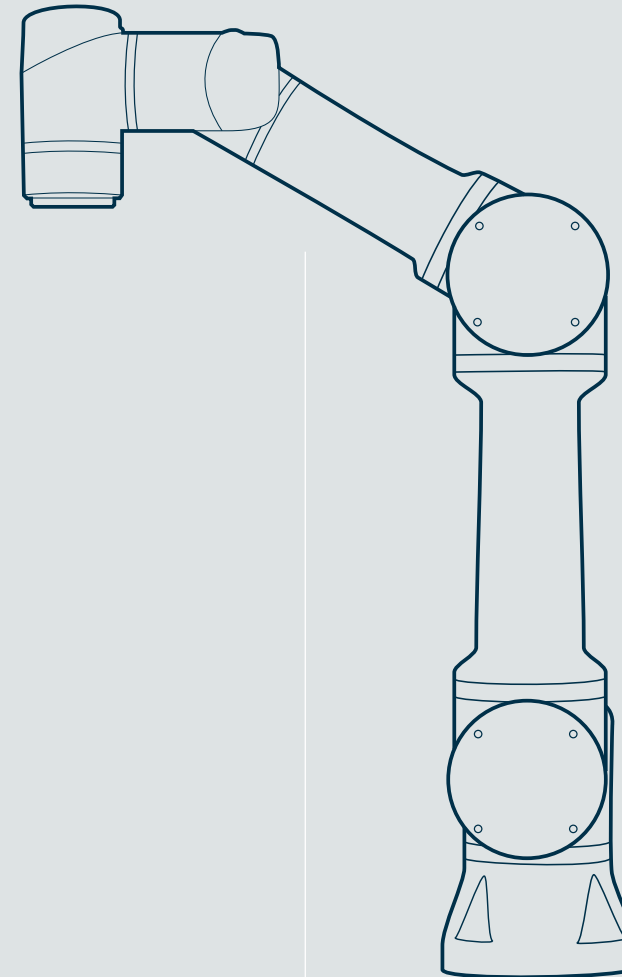
UR3e

Small but powerful, the UR3e has a payload of 3 kg and reach radius of 500 mm. With 360-degree rotation on all wrist joints and infinite rotation on the end joint, this tabletop cobot handles high precision tasks and light assembly tasks with ease.



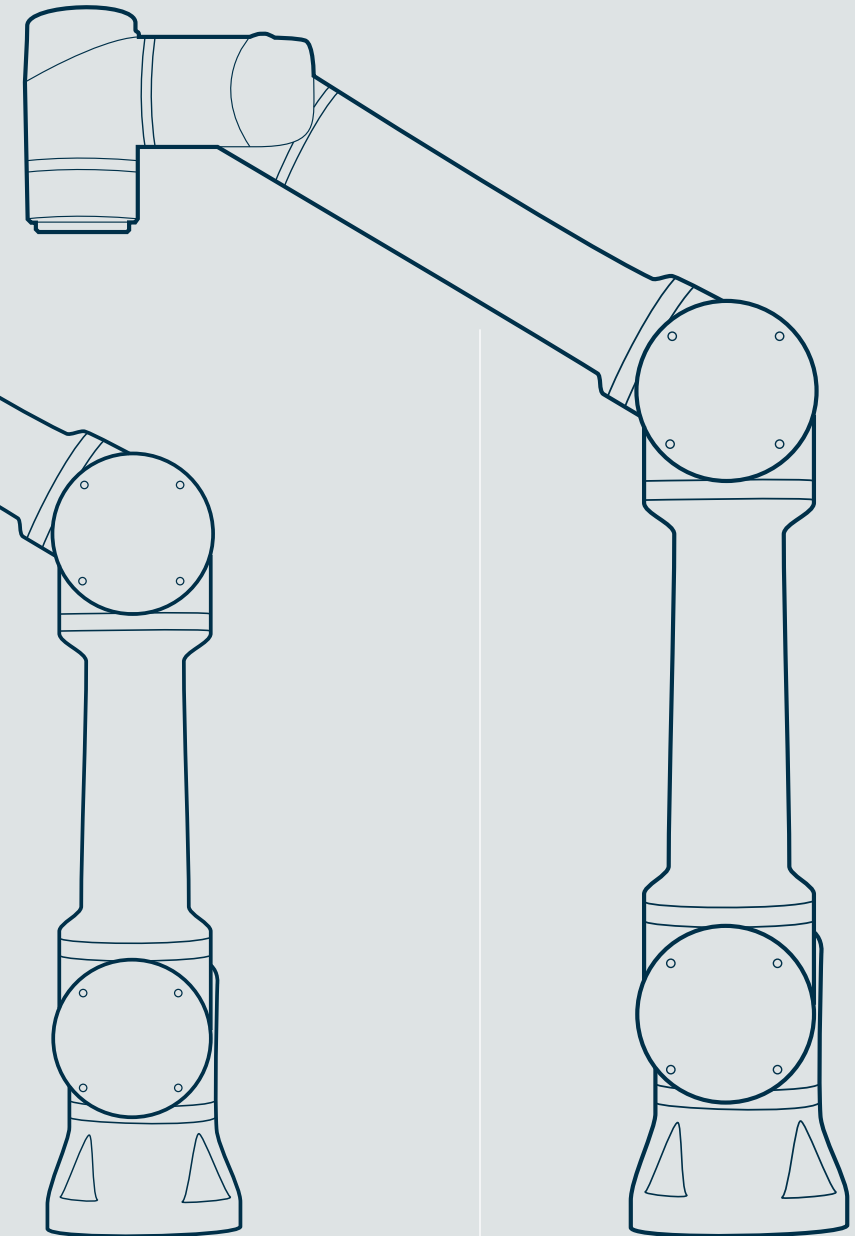
UR5e

The medium-sized member of the Universal Robots family is ideal for automating low weight processing tasks with its 5 kg payload and 850 mm reach radius. Easy to program and fast to set up, the UR5e strikes the perfect balance between size and power.



UR16e

With its 16 kg payload, the UR16e helps reduce the costs, injuries, and downtime associated with heavy part handling. A small footprint and 900 mm reach make the UR16e ideal for applications such as heavy-duty material handling and CNC machine tending applications, including multipart handling.



UR10e






Capable of automating tasks up to 12.5 kg with the same reliability and performance characterized by the e-Series, the UR10e has a reach radius of 1300 mm. This enables it to carry out tasks like packaging and palletizing in facilities where there is a greater distance between different operating areas.

Ask our experts
to find out more
about automating
using our cobots.

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