

THE FACTORY AUTOMATION COMPANY

**FANUC**

# **ROBOCUT** $\alpha$ -CiC series

High-Precision CNC

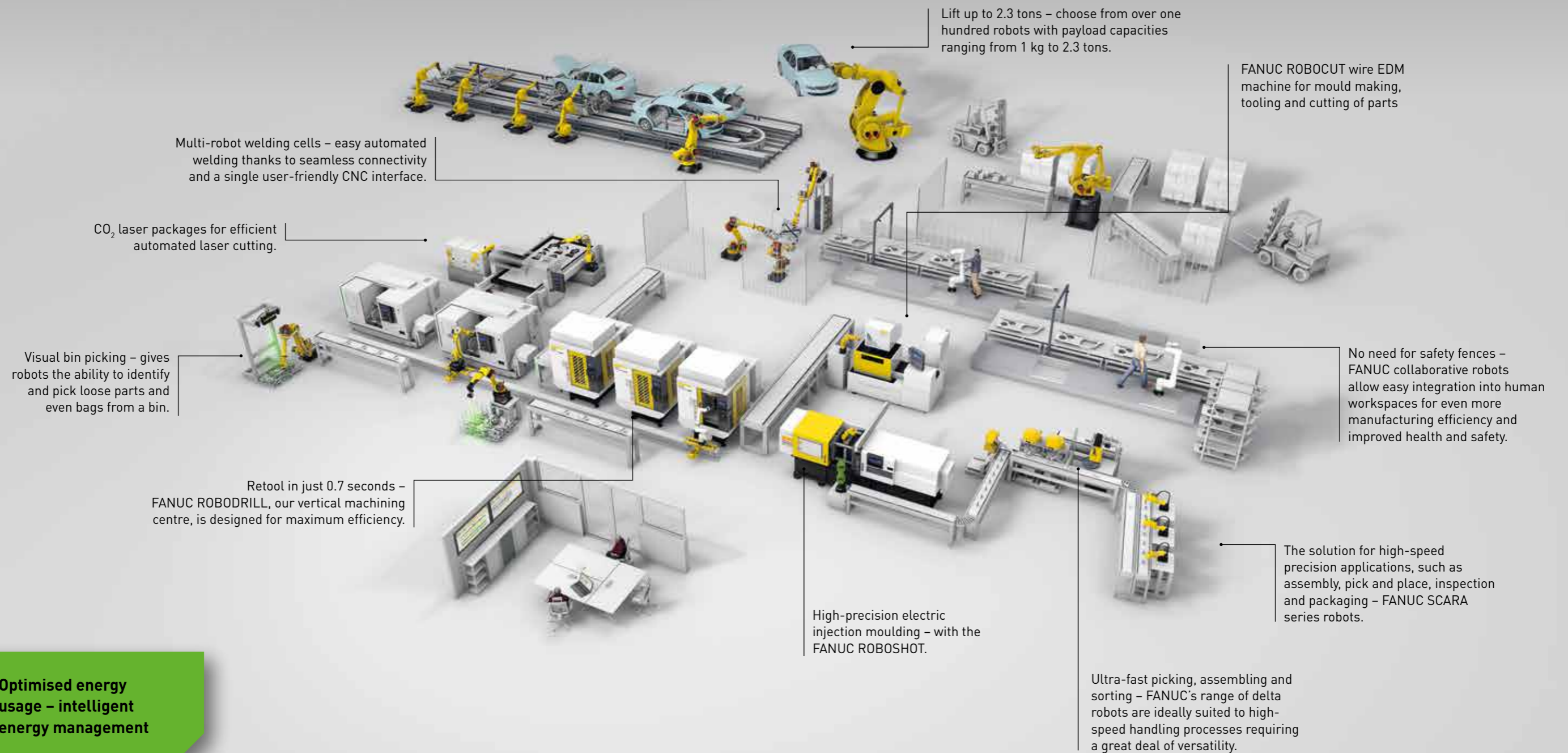
Wire Electrical Discharge Machining



**Extremely versatile wire EDM**

[WWW.FANUC.EU](http://WWW.FANUC.EU)

# intelligent automation – 100% FANUC



Multi-robot welding cells – easy automated welding thanks to seamless connectivity and a single user-friendly CNC interface.

Lift up to 2.3 tons – choose from over one hundred robots with payload capacities ranging from 1 kg to 2.3 tons.

FANUC ROBOCUT wire EDM machine for mould making, tooling and cutting of parts

CO<sub>2</sub> laser packages for efficient automated laser cutting.

Visual bin picking – gives robots the ability to identify and pick loose parts and even bags from a bin.

No need for safety fences – FANUC collaborative robots allow easy integration into human workspaces for even more manufacturing efficiency and improved health and safety.

Retool in just 0.7 seconds – FANUC ROBODRILL, our vertical machining centre, is designed for maximum efficiency.

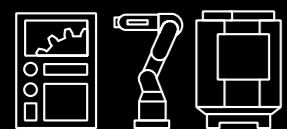
High-precision electric injection moulding – with the FANUC ROBOSHOT.

The solution for high-speed precision applications, such as assembly, pick and place, inspection and packaging – FANUC SCARA series robots.

Ultra-fast picking, assembling and sorting – FANUC's range of delta robots are ideally suited to high-speed handling processes requiring a great deal of versatility.



**Optimised energy usage – intelligent energy management**



With three core product groups, FANUC is the only company in its sector to develop and manufacture all its major components in-house. Every detail, both hardware and software, undergoes stringent quality control checks as part of an optimised chain. Fewer parts and lean technology make FANUC solutions reliable, predictable and easy to repair. They are made to run and provide you with the highest uptime on the market.



All FANUC products – industrial robots, CNC systems and CNC machines – share a common servo and control platform, providing seamless connectivity and making full-automation scenarios really simple. Since all products share common parts, spare parts management with FANUC is fairly efficient. Plus, global standards make it very easy to go international with FANUC.

# ROBOCUT – fast, accurate, multipurpose EDM

Where wire EDM is concerned, accuracy has traditionally come at the cost of speed. That's why FANUC has developed a next generation ROBOCUT wire EDM machine. The  $\alpha$ -CiC series comprises two versatile all-rounders. With incredibly long mean times between failures, low maintenance, longevity and excellent uptimes, these future-proof machines are designed to save time and drive down unit costs while ensuring superlative accuracy and cutting.

## Breakthrough advances of the new ROBOCUT $\alpha$ -CiC series

- higher accuracy thanks to new high precision pitch error compensation function
- hardened and durable workpiece table
- new cutting technologies
- new compact design
- FANUC *iH Pro* with new display and keyboard design
- optimised user-friendly screens
- easy to install, maintain and repair
- manuals on board



## Designed for ultimate performance

- latest CNC and servomotor technology
- generator designed for maximum reliability
- capable of cutting thick and stepped parts
- multi-workpiece cutting
- easy-to-use CORE STITCH Function for even longer unmanned machining
- wire threading in just 10 seconds
- automatic in-path wire re-threading
- accurate twin servo wire tension control

More than

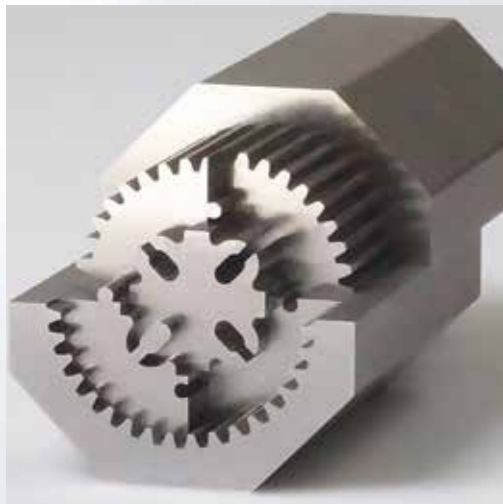
**45** years of  
ROBOCUT  
technology

designed and built in Japan



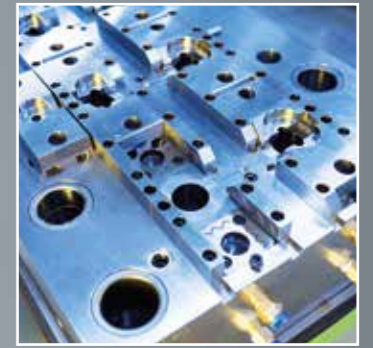
# The efficient all-rounder for a wide range of industries

Every manufacturing industry sector has its own CNC application requirements. Offering versatility across a huge variety of machining tasks, ROBOCUT meets most of them. Boasting a wealth of features designed to help you adapt quickly to new requirements and cutting specifications, ROBOCUT wire-cut EDM machines offer perfect surface quality, excellent repeatability, maximum flexibility for complex shapes, and reliable unmanned operation for extended periods of time. Just what your industry needs.



## For mould makers and job shoppers

ROBOCUT is a versatile all-rounder that does just about everything. Its low running costs and ability to machine sophisticated parts to incredible degrees of accuracy make it perfect for general machining work. Additionally, its unrivalled CORE STITCH function can be programmed easily on the shop floor without a PC and ensures ultimate reliability for jobs that require long unmanned processing times.



## For the medical industry

When equipped with a FANUC rotary table, ROBOCUT offers the flexibility to machine the extremely sophisticated shapes required in the manufacture of medical and surgical equipment. ROBOCUT also delivers the high levels of reliability and repeatability required to mass-produce equipment for the medical industry.



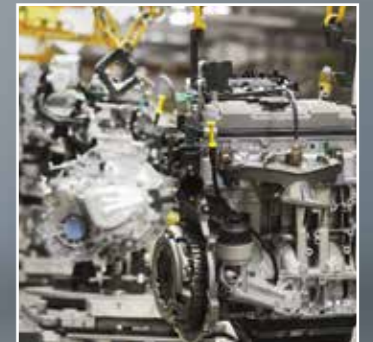
## For the electrical and IT parts industry

Extremely high accuracy on tooling, such as moulds, is needed to make high precision and micro parts such as electrical connectors. Incredible levels of repeatability also ensure the same high standards are obtained time and time again.



## For the automotive industry

Mass producing parts for the automotive industry demands incredibly high levels of reliability and efficiency from machines. These need to deliver repeatable accuracy over extremely long periods of time. ROBOCUT provides incredible accuracy and superior surface finishes on demanding workpieces, such as moulds, that require sophisticated shapes to be cut to very tight tolerances.



## For the aerospace industry

Often aerospace manufacturers need to cut Inconel and other heat resistant alloys. But its material characteristics make this difficult using a conventional milling machine. Wire EDM machines like ROBOCUT, however, cut Inconel, or anything other material that conducts electricity for that matter, effortlessly. And for those applications that require the use of a rotary table, ROBOCUT is available with a proprietary model as well as purpose-designed taper adjustment jig for tapping cutting applications.





# Unbeatable wire EDM versatility

A versatile all-rounder, the FANUC ROBOCUT will do all your everyday cutting tasks without you ever needing to change the set up. When you do though, you will find that ROBOCUT's extensive range of options make adapting it extremely straightforward.

$\alpha$ -C800iC

$\alpha$ -C600iC

$\alpha$ -C400iC

XYZ axis travel: 800x600x310 mm

XYZ axis travel: 600x400x310 mm

XYZ axis travel: 400x300x255 mm

## High-performance cutting

The ROBOCUT  $\alpha$ -CiC series is your choice for accuracy and surface quality. Its high precision ROBOCUT CCR rotary table ensures maximum precision and versatility, while the ROBOCUT PCD generator takes PCD tool applications to a whole new level. And the AI thermal displacement compensation feature ensures extremely stable cutting.

## Minimising downtime

An idle machine does nothing for your productivity. That is why we have upgraded every feature of the ROBOCUT  $\alpha$ -CiC series to minimise downtime, including reliable automatic wire threading, the water tank pre-seal mechanism and ROBOCUT-LINKi, the remote production and quality information management tool for preventing downtime.

## Ease of use

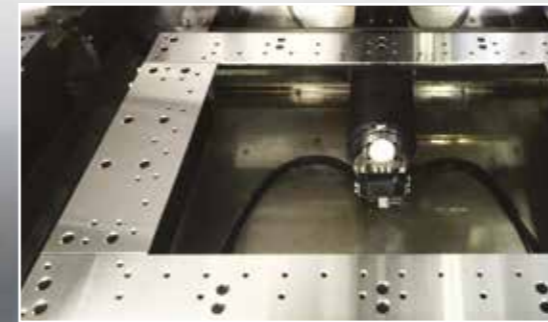
Thanks to a whole range of smart features such as Simple Adjustment, Set-up Guidance or Custom PMC and Custom Screen, the ROBOCUT  $\alpha$ -CiC series sets a new standard in user-friendliness. Additional options such as QSSR for easy automation with FANUC robots, or ROBOCUT CAMi for easy NC programs and CAD data cutting paths, make work even easier.

## Built for precision

ROBOCUT is equipped with a rigid frame designed to prevent distortion and deliver ultimate machining accuracy. The product of advanced finite element method (FEM) analysis, it has been validated through extensive testing on full-size prototypes and allows every machine in the range to cut circles and pitches etc., to a high degree of accuracy under varying environmental conditions.

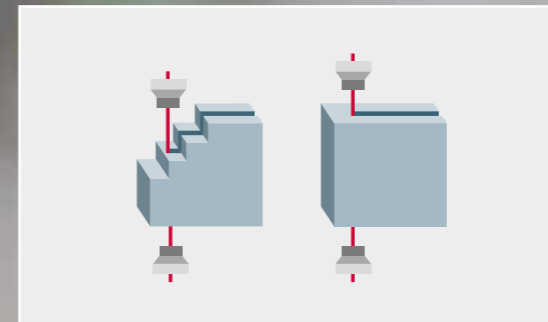
### Discharge device for high-quality cutting

Designed to improve surface quality at higher cutting speeds, FANUC's standard SF3 power supply generates both miniaturisation and high frequency discharges, with the optional MF2 power supply generating the fine discharges required for ultra-smooth surfaces, maximum accuracy and efficient cutting. This makes it ideally suited to producing the moulds required for electric injection moulding high-quality electrical components such as connectors.



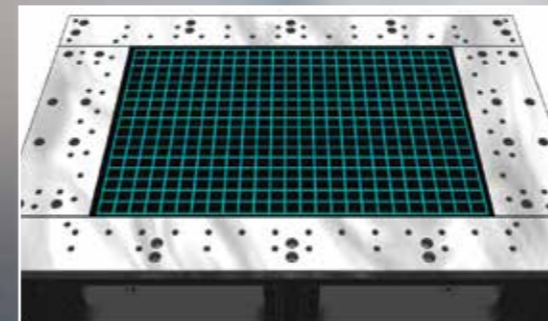
### Hardened workpiece table

Each ROBOCUT  $\alpha$ -CiC series machine comes with an extra durable table as standard which prevents scratches and allows accuracy and reliability to be maintained over time.



### Discharge Control iPulse3

Minimises the risk of wire breakages at high machining speeds, even under difficult conditions such as those involving wide nozzle distances or changing cutting heights.



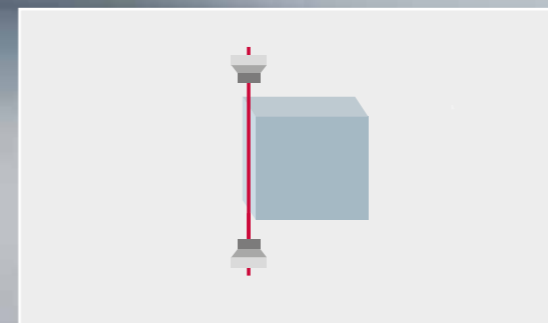
### High precision pitch error compensation function

Delivering significantly improved accuracy, a special factory-calibrated compensation grid ensures pitch error correction over the entire X-Y table area as opposed to the conventionally used single central point.



### Taper adjustment function

New function includes an operation screen and a jig for high-precision taper cutting.



### High-precision positioning function

Finds the workpiece edge using a wire and detecting the last cutting position.



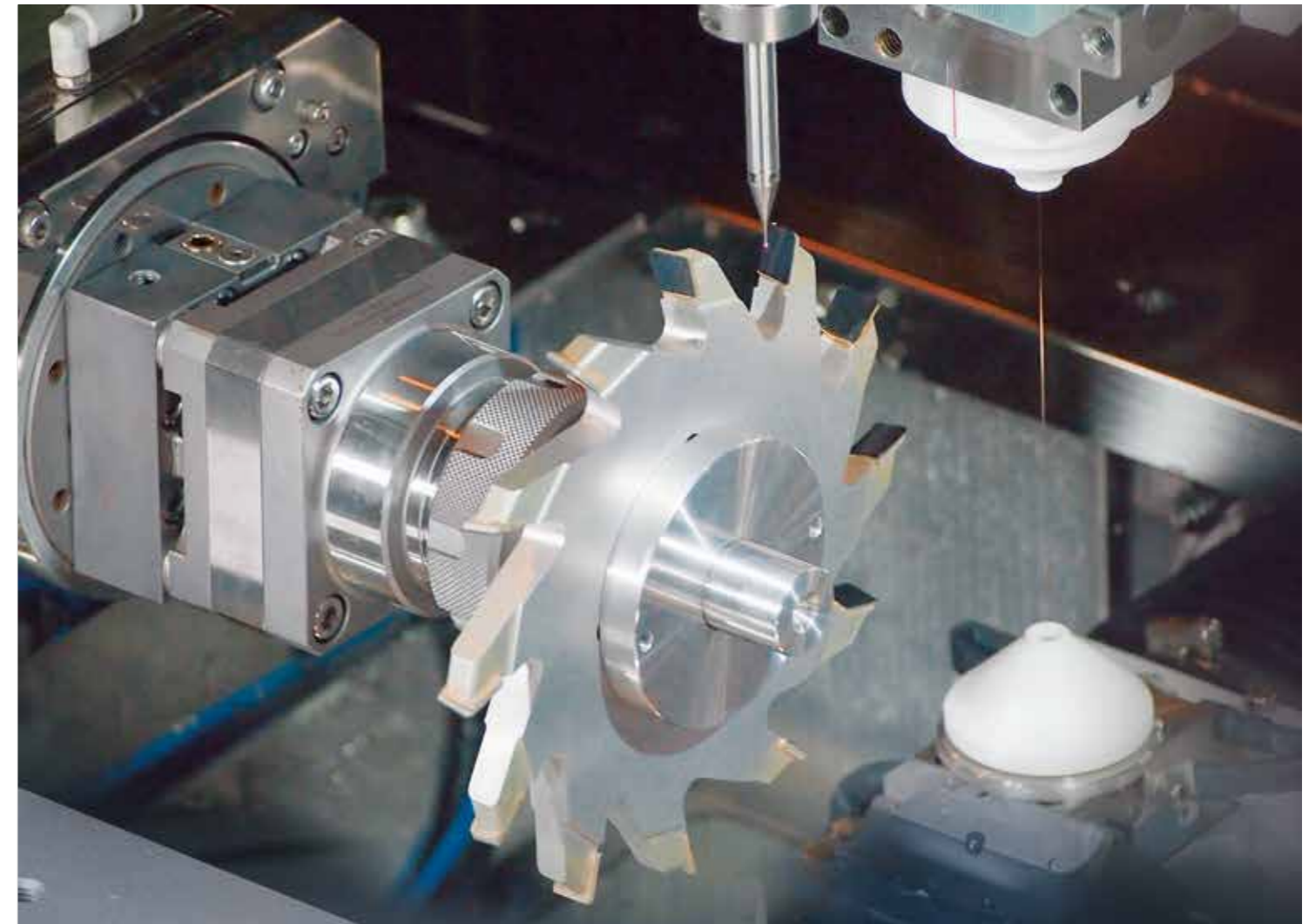
### Maximum precision and versatility – ROBOCUT CCR rotary table

FANUC ROBOCUT is available with a CCR rotary table which can be indexed and simultaneously controlled. The ROBOCUT CCR is equipped with a FANUC servomotor and rotary encoder that offers maximum precision across a wide range of applications.

Saving you time on machining processes by dispensing with the need to manually rotate the workpiece, the FANUC CCR rotary table is ideally suited to the production of medical products or PCD tools. It is sealed against water ingress and comes with flood detection as standard.



Dimensions (LxWxH)	170x155x130mm
Mass of rotary table	16 kg
Indexing accuracy	16 sec.
Repeatability	± 2 sec.
Allowable mass of work piece	40 kg



### PCD tool applications with ROBOCUT CCR

Polycrystalline Diamond (PCD) wire cutting offers considerable advantages over diamond grinding. Edge quality is excellent, operating costs are low and sophisticated profiles can be cut to incredible degrees of accuracy in just a few cutting cycles.

ROBOCUT  $\alpha$ -CiC series machines take PCD toolmaking a step further. This is thanks to the ROBOCUT PCD Generator which ensures that the crystals remain intact during the cutting process. Combined with the PCD power supply,  $\alpha$ -CiC series machines provide high-speed precision machining for tool sharpening and make it possible to process extremely difficult to cut PCD and CBN grades.

Capable of cutting at a variety of different angles, ROBOCUT is ideal for sharpening bonded PCD blanks. The combination with a ROBOCUT CCR rotary table improves cutting complex PCD tools.



### AI thermal displacement compensation function for stable cutting

Thanks to its AI Thermal Displacement Compensation feature, multiple temperature sensors and AI (Machine Learning), ROBOCUT consistently machines to the same standards despite large room-temperature fluctuations. FANUC offers a 3-sensor solution for environments with large temperature fluctuations and an optional 7-sensor solution specifically designed for minimal displacement adjustment on machines installed in temperature-controlled rooms.

## Minimising downtime

### Automatic threading in just 10 seconds

FANUC's unique AWF3 Automatic Wire Feed threading technology provides fast, reliable automatic threading in just 10 seconds. To ensure reliable threading and re-threading, wires are cut electrically leaving a pointed end that is absolutely straight and burr-free, even on soft wire. Aided by a jet of water, threading the wire is both simple and very fast.

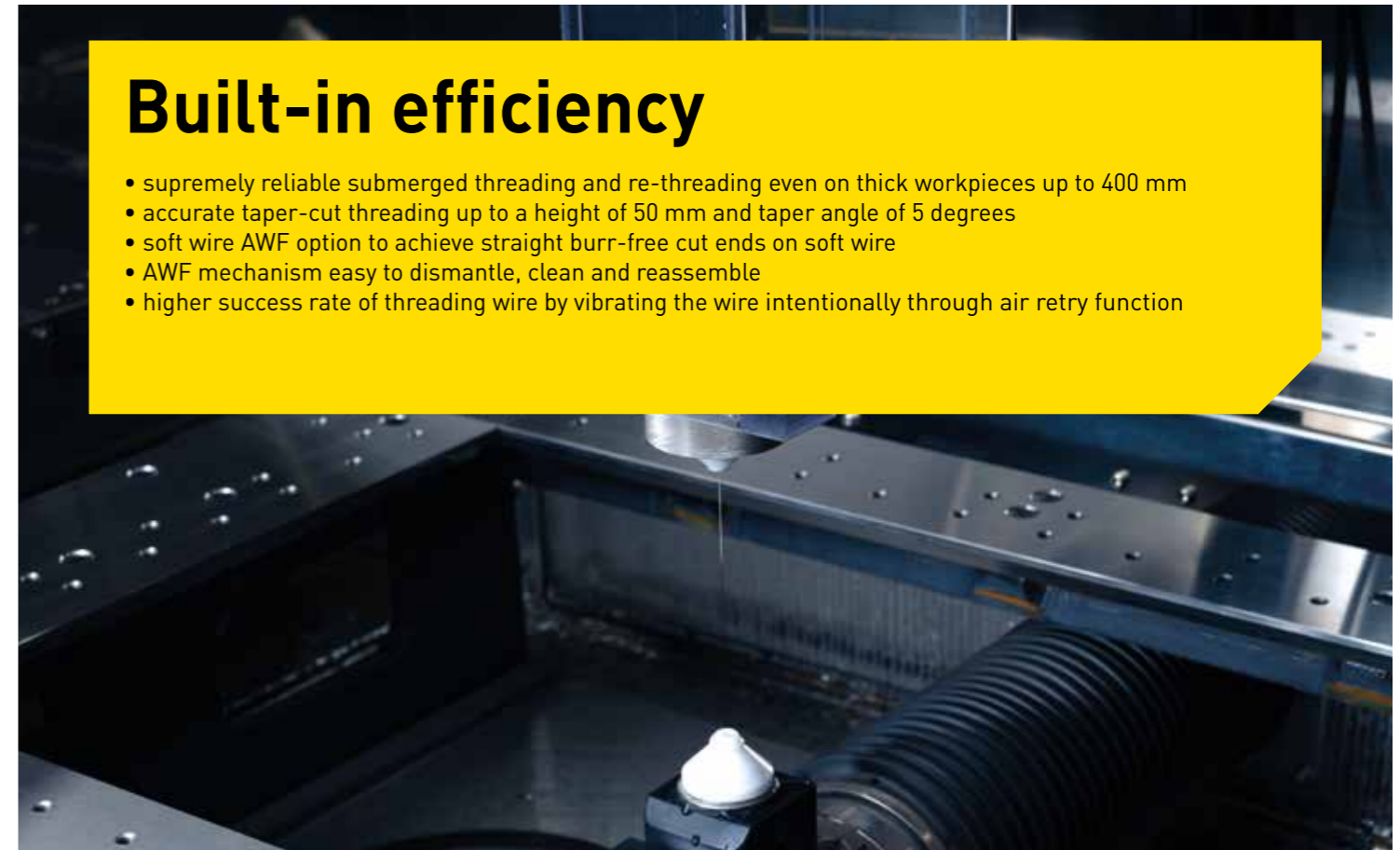


**140** hours of unmanned machining

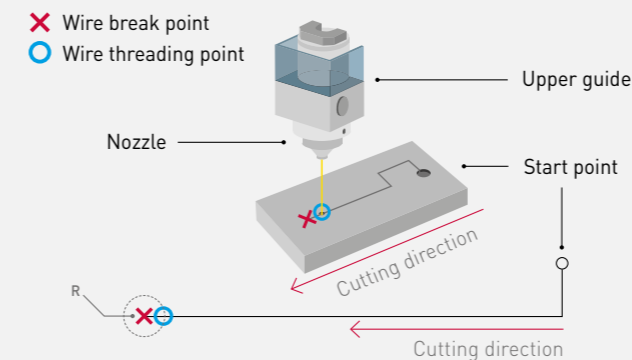
With 60 hours of wire as standard, the 30 kg spool option and wire cutter more than double the period of continuous operation.

### Built-in efficiency

- supremely reliable submerged threading and re-threading even on thick workpieces up to 400 mm
- accurate taper-cut threading up to a height of 50 mm and taper angle of 5 degrees
- soft wire AWF option to achieve straight burr-free cut ends on soft wire
- AWF mechanism easy to dismantle, clean and reassemble
- higher success rate of threading wire by vibrating the wire intentionally through air retry function

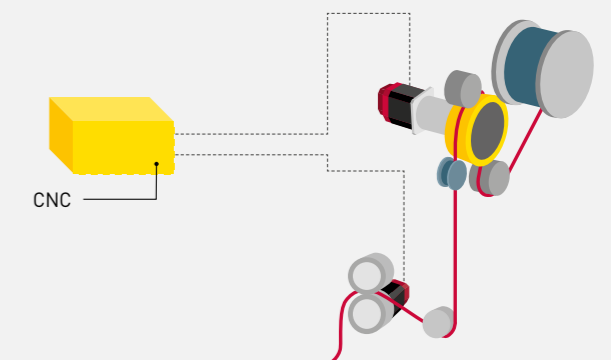


### Reliable re-threading in the wire path



Unlike other machines, ROBOCUT does not need to return to the starting point after a wire break. This radically reduces machining times by re-threading automatically in the wire path on workpieces up to 150 mm thick – even on challenging micro-machining orders.

### Consistent wire tension – improved overall reliability

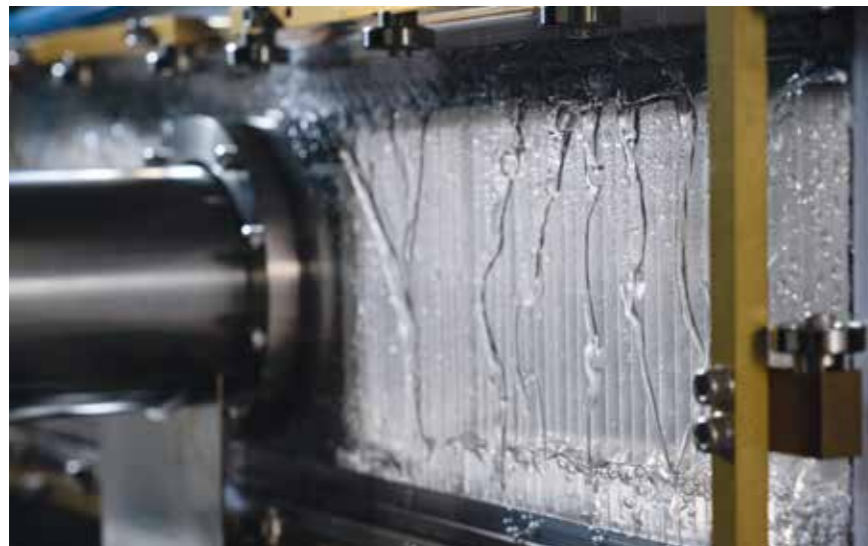
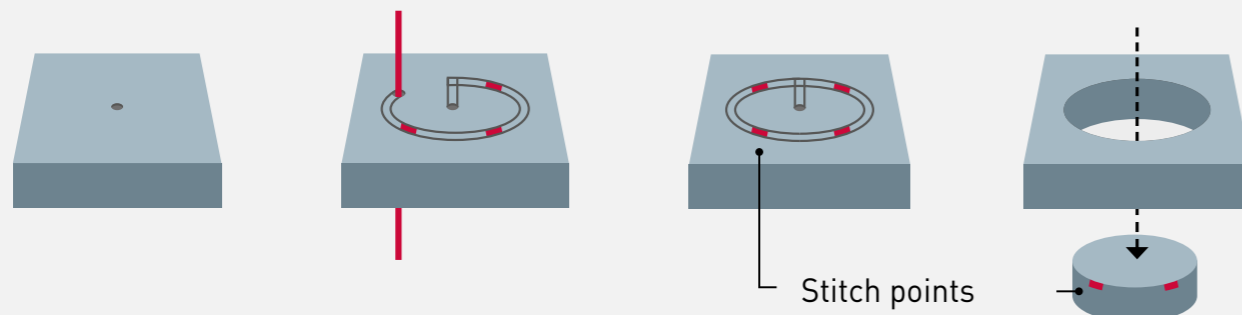


Two servomotors maintain the wire tension. Made possible by FANUC's digital servo technology, FANUC's twin servo wire tension control ensures consistent cutting by suppressing variations in wire tension. Additional benefits are fewer wire breaks and reduced parts wear.



### CORE STITCH function for continuous unmanned operation

The core braze function prevents cores from dropping out and damaging the machine. Easy to setup and operate on the CNC screen, it allows you to improve your planning and extend unmanned machining hours. Stitch points are set on the machine's CNC without the need for pre-programming. Used in combination with the re-threading in the wire path function, CORE STITCH is the ideal solution for long lasting unmanned machining and multi-workpiece cutting processes. When the job is done you simply knock out the cores manually. It is also possible to remotely program stitch points using intuitive ROBOCUT CAMi software via your desktop.



### Pre-seal work tank mechanism for high reliability

A pressurised clean water tank prevents sludge from adhering to the seal plates and reducing cutting accuracy. The two split transparent seal plates are easy to check for dirt, disassemble and keep clean.

### Remote monitoring with ROBOCUT-LINKi

Equipped with a new graphic interface, ROBOCUT-LINKi is an updated production and quality information management tool that allows you to monitor the status of up to 32 ROBOCUT machines in real time from remote PCs or smart devices. Specific information is available for each cutting job, and event driven push notifications can be sent to different devices. The extremely user-friendly and intuitive interface gives you access to preventive maintenance functions, estimated consumables levels, and recently occurred alarms list. It also allows you to transfer NC programs and run quality checks by comparing standard data to current cutting statuses.

- status monitor
- layout monitoring
- device detail monitoring operation results
- group operation results
- machining results diagnosis
- alarm history
- program history



## Cutting-edge CNC

The centrepiece of every FANUC ROBOCUT is the most reliable CNC in the world. Designed for maximum precision, FANUC CNCs are extremely easy-to-use and program and offer unrivalled functionality. To achieve exacting results on more demanding cutting operations, the FANUC 31i-WB High-Performance Control supports up to 7 simultaneously controlled axes and, by monitoring them constantly, ensures continuous protection against collisions. Programming the 31i-WB is simple, with the control's power save mode and energy recovery features making ROBOCUT especially cheap to run.

**New PANEL iH Pro**  
High performance display unit of FANUC

- 15" colour touchscreen display
- intuitive iHMI home screen
- quick and easy data input
- improved interface to robot operation screen

- easy-to-use, lightweight pendant control

- fast auto diagnosis
- accurate auto correction
- precise predictive maintenance
- easy auto programming
- easy-to-use control screen
- supports multiple languages

- easy-to-clean membrane keyboard
- fibre optic cable for maximum reliability
- energy saving switching electronics
- mouse and keyboard interface
- predefined shortcuts
- keyboard and touchscreen

- Ethernet interface
- USB interfaces



### No more downtime: simple maintenance – early detection

The intuitive visual maintenance interface on FANUC's 31i-WB CNC facilitates faster recoveries after servicing. The FANUC iH Pro can highlight impending issues prior to failure, even providing an image outlining the inhouse rectification process to minimise downtime.



### Smart time-saving functions

Thanks to a whole range of useful features, ROBOCUT makes work easy, supports fast set-ups, intuitive operation, and convenient daily maintenance.

#### Taper adjustment function

New function includes an operation screen and a jig for high-precision taper cutting.

#### Simple adjustment function

Using this intuitive function, EDM parameters can be set easily in 10% increments on a scale from 50% and 120%. The cutting gap and dimensions of the workpiece remain unchanged. With the option to leave them unaltered available, internal and external corners can also be cut deeper by a maximum of 5 increments. Likewise, contours can be shaped in single steps of up to 5 increments.

#### Faster set up

- **Set up Guidance function** explains the set-up procedure.
- **Searching EDM screen** provides the right EDM technologies for each application.
- **Smart Programming function** for easy keyway cutting.
- **3D Coordinate Rotation Function** compensates the wire vertical position by moving U/V axes relative to workpiece tilt.

#### Support of user needs

- **Custom PMC function** ladder programs for peripheral devices can be created on the screen.
- **Custom screen function** install and operate your own programs on ROBOCUT

#### Support for daily maintenance

- **Consumables management** for monitoring parts wear
- **Illustrated maintenance guidance.**
- **Parts list** and ordering information.

## Simple robot integration via ROBOCUT robot package

ROBOCUT has been designed for easy automation and comes with an ergonomically designed work area as well as easy robot access for loading heavier workpieces and hassle-free machine tending.

The optional ROBOCUT robot package feature helps with fast, uncomplicated automation and covers FANUC robots, robot interface, robot stand, safety fence, robot sample program etc.

FANUC's comprehensive network of dedicated European partners possesses the technical know-how to provide a solution that is tailored to your specific automation needs. All FANUC products speak the same language and share a common servo and control platform – something that makes learning to use them and operating them extremely easy. Additionally, third party automation systems are seamlessly connectable to FANUC machines via the new robot interface

## NC programming made easy with ROBOCUT-CAM*i*

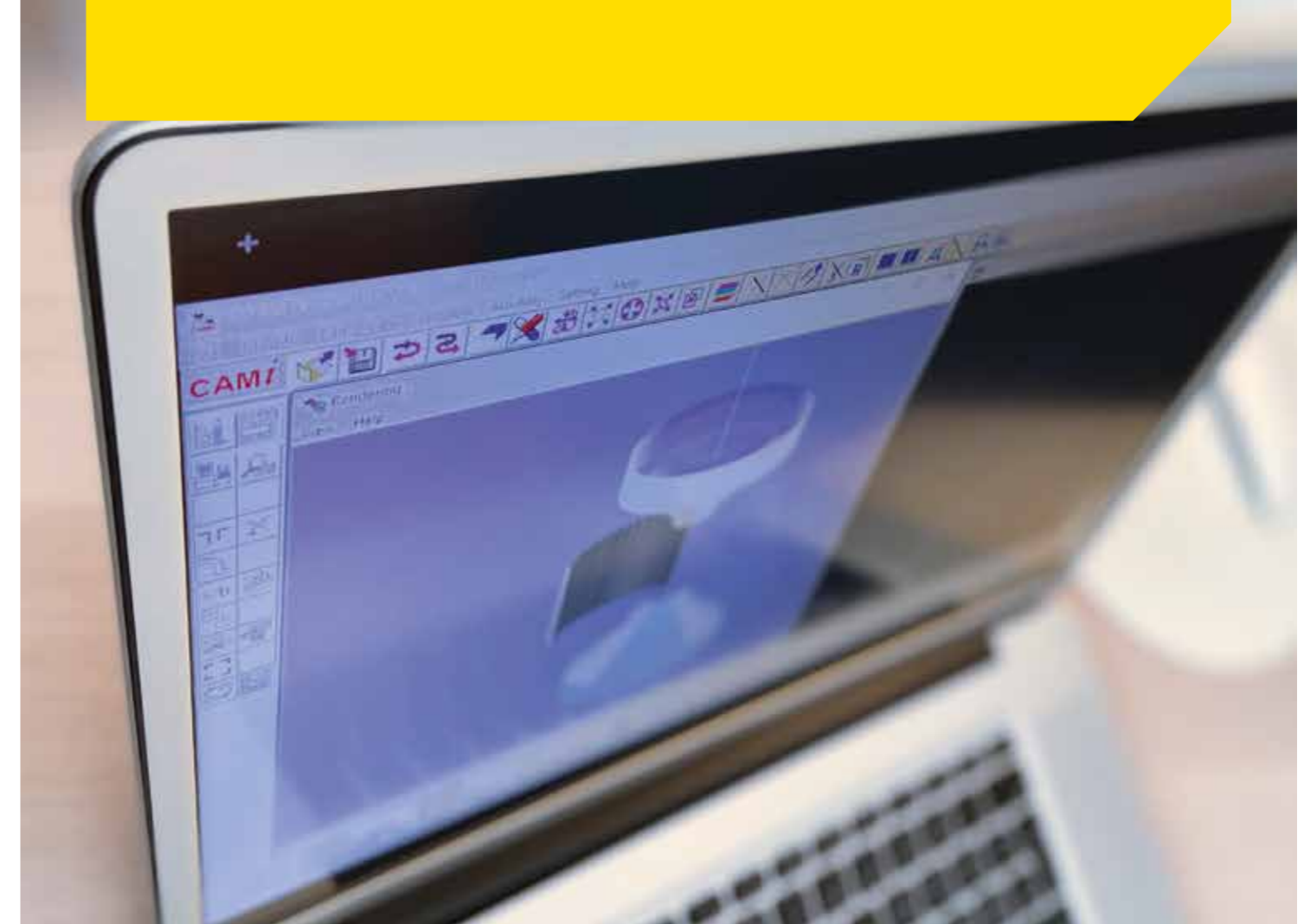


Programming made easy with ROBOCUT-CAM*i*

The FANUC ROBOCUT-CAM*i* system makes programming cylindrical, conical and 4-axis machining routines easy. You can mirror ROBOCUT-CAM*i* software directly to the CNC screen by using the remote desktop function. ROBOCUT-CAM*i* also offers multiple languages and a number of 2D or 3D data import options such as DXF, IGES and STEP files.

**Your advantages with ROBOCUT-CAM*i***

- ROBOCUT-CAM*i* software can be mirrored to the CNC screen
- huge range of post-processing options
- simple program transfer via Ethernet interface
- automatic default settings reduce set up times
- simple programming of involute gearing, top and bottom shapes, coreless cutting
- flexible programming of CORE STITCH function





# Customise your ROBOCUT

Designed to enhance the productivity of your ROBOCUT across an enormous range of applications, FANUC's range of dedicated software and hardware accessories give you the freedom to tailor your machining processes to your needs precisely. Like all FANUC products, FANUC accessories exhibit world-beating reliability, are simple to use and have been designed to help you get the most out of your ROBOCUT. Using them will allow you to increase output and maintain exacting quality standards regardless of how challenging your machining processes might be.



## 0.05 mm and 0.07 mm thin wire option

Finer than standard 0.1 mm wire, this is available as an option on  $\alpha$ -C400iC only to produce very small and thin parts.



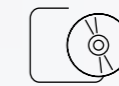
## AI thermal displacement compensation with 7 sensors

Thermal displacement compensation is also available with 7 sensors for ultimate thermal stability.



## Extended Z axis stroke

This option allows you to machine larger and thicker workpieces.  
ROBOCUT  $\alpha$ -C600iC → Z400  
ROBOCUT  $\alpha$ -C800iC → Z500



## ProfDia GTR programming software

For rotary and fixed cutting tools.



## 6- or 7-axis retrofit kits

For indexing or simultaneous motion control.



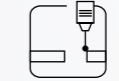
## Auto grease lubrication system

Lubricates according to specification, reducing the need for manual maintenance (factory option).



## Linear scales

Linear scales ensure higher absolute positioning accuracy and, thus, enable tighter geometrical tolerances to be achieved.



## Touch probe function

Automatic sliding or fixed type available for precise automatic workpiece positioning and alignment.



## 30 kg wire auto loader

Retrofittable for up to 140 hours of extended unmanned operation.



## Automatic 3D rotation function

To ensure faster error-free set up, FANUC Auto 3D software measures inclination and rotation on the workpiece compensating for the program plane and each axis movement – without the need for an additional 3D measuring machine and server (PC).



## MF2 function

FANUC's MF2 micro finish generator not only enables you to achieve extremely fine surfaces but also ensures maximum accuracy and efficient cutting.



## Wire cutter

For long hours of unmanned cutting.



## 45 degrees taper kit

Extend the maximum achievable taper cutting angle up to 45 degrees.



## Automatic front door

Time saving option that dispenses with the need to completely drain the water.



## Option warning light

Three-stage LED light with buzzer to inform about operating status of machine.



## Work light

LED light within machine for better visibility.

# Designed to save energy

ROBOCUT's FANUC-made CNCs, motors, amplifiers, generators and pumps are engineered to deliver the lowest possible energy consumption through the use of intelligent energy management. Every component has been chosen to provide the highest possible performance for the least possible energy. Additional smart features to reduce energy consumption further include power monitoring, sleep mode, LED lighting, inverter-driven pumps and cooling and power regeneration. The energy consumption can be precisely controlled according to various parameters, allowing energy efficiency to be flexibly adjusted, transparently verified, and compared with that of other wire EDM machines.



## Energy saving function

The energy saving function makes it possible to track precisely the amount of energy being consumed during machining or on standby. Power saving interventions such as switching off flushing or filter pumps can also be set, with features such as screen savers, sleep mode, auto start-up by timer and auto power off, all contributing to additional savings.

- lower energy consumption and costs
- reduce machine running costs
- increase the lifetime of the machine



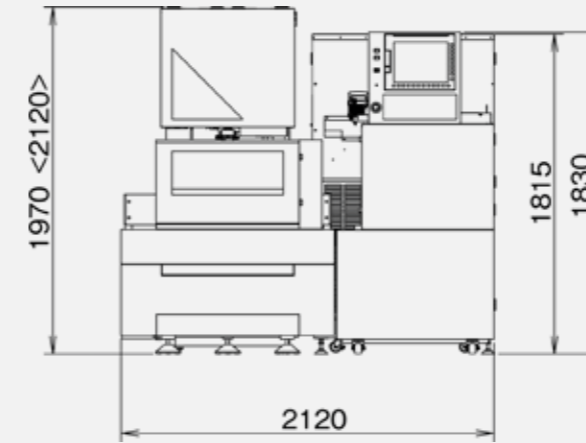
Optimised energy usage – intelligent energy management



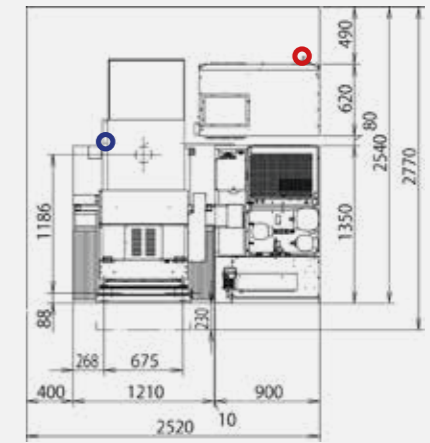
# Technical Data

Standard	$\alpha$ -C400iC	$\alpha$ -C600iC	$\alpha$ -C800iC
Maximum workpiece dimensions [mm]	730 x 630 x 250	1050 x 820 x 300	1250 x 975 x 300
Maximum workpiece weight [kg]	500	1000	3000
XY axis table travel [mm]	400 x 300	600 x 400	800 x 600
Z axis travel [mm]	255	310	310
UV axis travel [mm]	$\pm 60 \times \pm 60$	$\pm 100 \times \pm 100$	$\pm 100 \times \pm 100$
Maximum taper angle [°/mm]	$\pm 30/80$	$\pm 30/150$	$\pm 30/150$
Minimum step increment of the drives [mm]	0,0001	0,0001	0,0001
Wire diameter [mm]	$\varnothing 0.10 \sim \varnothing 0.30$	$\varnothing 0.10 \sim \varnothing 0.30$	$\varnothing 0.10 \sim \varnothing 0.30$
Maximum wire weight [kg]	16	16	16
Machine weight (approx.) [kg]	About 2200	About 3600	About 5600
Controller	FANUC 31i-WB	FANUC 31i-WB	FANUC 31i-WB
Part program storage size [MB]	8	8	8
<b>Acoustic noise level</b>			
LPA [dB]	64	64	64
LPCpeak [dB]	81	81	81
<b>Optional</b>			
<b>Thin wire (only for <math>\alpha</math>-C400iC)</b>			
Wire diameter [mm]	$\varnothing 0.05 \sim \varnothing 0.07$		
<b>Z axis 400 (only for <math>\alpha</math>-C600iC)</b>			
Z axis travel [mm]		410	
Maximum workpiece dimensions without automatic door, option Z axis travel [mm]		1050 x 820 x 400	
<b>Z axis 500 (only for <math>\alpha</math>-C800iC)</b>			
Z axis travel [mm]			510
Maximum workpiece dimensions without automatic door, option Z axis travel [mm]			1250 x 975 x 500
<b>Automatic front door</b>			
Maximum workpiece dimensions with automatic door, Z axis travel [mm]	730 x 585 x 250	1050 x 775 x 300	1250 x 975 x 300
<b>45° die guide</b>			
Maximum taper angle [°/mm]	$\pm 45/40$	$\pm 45/70$	$\pm 45/70$
<b>30 kg wire feed unit</b>			
Maximum wire weight [kg]	30	30	30

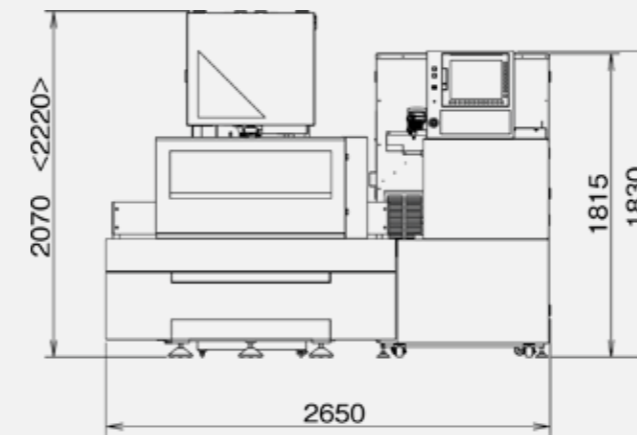
## ROBOCUT $\alpha$ -C400iC



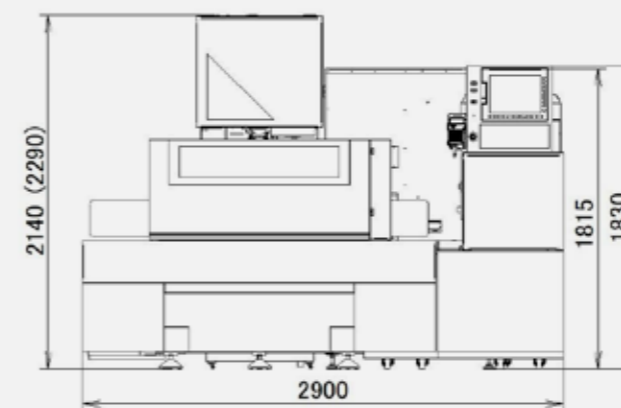
- Compressed air input position  
\* The values in parentheses < > are when the safety cover is open.
- Power input position



## ROBOCUT $\alpha$ -C600iC



## ROBOCUT $\alpha$ -C800iC



\*] The above floor plan is that of a standard type machine. Contact FANUC if you wish to order options such as Z axis travel 410 mm, 510 mm and 30 kg wire loader options.

## Overview features ROBOCUT $\alpha$ -CiC series

Features	$\alpha$ -C400iC	$\alpha$ -C600iC	$\alpha$ -C800iC
Europe safety standard	●	●	●
15 inch LCD touch panel (PANEL iH Pro)	●	●	●
Display swivel unit	●	●	●
Hardened table	●	●	●
Z stroke 255 mm	●	-	-
Z stroke 310 mm	-	●	●
Z stroke 410 mm	-	○	-
Z stroke 510 mm	-	-	○
Work tank door lock	●	●	-
Work tank automatic door	○	○	●
Cooling unit	●	●	●
Long size (450 mm) filter x1set	●	●	●
Ion exchanger resin x10L,	●	●	●
Work light (inside AWF cover mount)	●	●	●
Work light (work pan mount)	○	●	●
Electrode pin x 2sets	●	●	●
0.01 $\mu$ m Linear scale	○	○	○
High precision pitch error compensation function	●	●	●
AWF3 (auto wire feeding)	●	●	●
$\phi$ 0.25 mm Die guide + $\phi$ 0.25 mm brass wire	●	●	●
$\phi$ 0.20 mm Die guide + $\phi$ 0.20 mm brass wire	○	○	○
$\phi$ 0.10 mm Die guide + $\phi$ 0.10 mm brass wire	○	○	○
$\phi$ 0.30 mm Die guide + $\phi$ 0.30 mm brass wire	○	○	○
Vertical adjustment jig	●	●	●
Taper angle compensation jig 2	●	●	●
45 degree taper kit	○	○	○
45 degree taper angle adjustment jig	○	○	○
Thin wire option 0.05 mm	○	-	-
M-code (fin type)	○	○	○
MF 2 Generator	○	○	○
ROBOCUT CCR rotary axis	○	○	○
6/7 axis	○	○	○
PCD Generator	○	○	○
Touch Probe manual type	○	○	○
Touch Probe automatic type	○	○	○
AI Thermal displacement compensation (3ch sensor)	●	●	-
AI Thermal displacement compensation (6ch sensor)	-	-	●
AI Thermal displacement compensation (7ch sensor)	○	○	-
Smart programming function (Key way cutting)	●	●	●
3D Coordinate system rotation function (only software)	●	●	●
Z-axis pitch error compensation	●	●	●
Custom PMC function (only software)	●	●	●
Warning light	○	○	○
Removable table (sub table)	○	-	-
Automatic grease lubrication	○	○	○
Maximum spool weight 16 kg	●	●	●
Wire loader 20-30 kg	○	○	○
Flow meter unit	○	○	○
Flushing gun	●	●	●
Transformer	○	○	○
Wire cutter (not for 0.05 wire option)	○	○	○
Soft wire option	○	○	○
ROBOCUT-LINKi (CD)	●	●	●
ROBOT I/F OPTION	○	○	○
ROBOCUT-CAMi (CD + USB Dongle)	○	○	○

○ - not available

○ on request

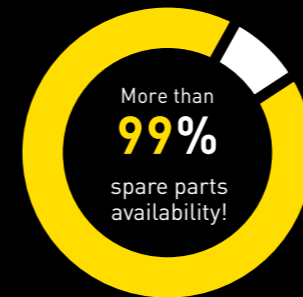
● standard

Contact FANUC if you wish to order other options.



## Efficient FANUC service worldwide

Wherever you need us, our comprehensive FANUC network provides sales, support and customer service all around the world. That way, you can be sure you have always got a local contact that speaks your language.



### Efficient training: FANUC Academy

The FANUC Academy offers everything you need to upskill your teams and increase productivity – from introductory programs for beginners through to courses tailored to the needs of expert users and specific applications. Fast and effective learning, on-site training or cross machine training, make up the extensive educational offering.

[WWW.FANUC.EU/SERVICE](http://WWW.FANUC.EU/SERVICE)

### Efficient long time productivity: FANUC Maintenance Services

To minimise impact on production and get the most out of your machine, we offer maintenance services designed to lower your machine's TCO. Whatever your production scenario, FANUC solutions keep your machine running via dedicated preventive, predictive and reactive maintenance procedures that maximise uptime and keep downtime to a bare minimum.

### Efficient supply: Lifetime OEM spare parts

As long as your machine is in service we will provide you with original spare parts. With more than 20 parts centres all over Europe, dedicated service engineers and direct online access to FANUC stores, availability checks and ordering, we keep you running whatever happens.

**24/7**  
support <sup>1)</sup>

1) Service is available as a contractual option for selected markets.



# One common servo and control platform – Infinite opportunities THAT'S FANUC!



## **FA**

CNCs,  
Servo Motors  
and Lasers

## **ROBOTS**

Industrial Robots,  
Accessories  
and Software

## **ROBOCUT**

CNC Wire-Cut  
Electric Discharge  
Machines

## **ROBODRILL**

Compact  
CNC Machining  
Centres

## **ROBOSHOT**

Electric CNC  
Injection Moulding  
Machines

## **IoT**

Industry 4.0  
solutions