



CNC **Automation** Systems



TEZMAKSAN
ROBOTICS TECHNOLOGIES



Smart Factories Are **Smarter And Faster** With Cubebox System

The **CUBEBOX** system is a system that can operate machines without any downtime and inaccuracy for 24 hours. Cubebox system provides to increase efficiency by up to 50%, especially during night shifts.

It is 20% cheaper than a company-specific robot integration system due to the complete plug-and-play solution, it can be engaged in just 1 day. In addition, You can make part replacements without the need for robot programming knowledge with the Cubebox System.

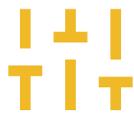
It is compatible with all CNC machines and control units and can be adapted to all brands of robots. In this system, which also has the pallet replacement feature, while the robot works with the machine, the operator can load-unload the workstation. With its flexible and compact structure, it can be easily transferred from machine to machine in the factory.



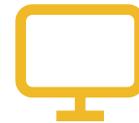
50% Efficiency Increase
In Night Shifts



24 Hours Operator-free
Operation



Tailor Made
Solutions



User Friendly
Easy and Fast Installation



Suitable For All Types Of
Cnc Lathes, Machining
Centers And Grinding
Machines



Fast Loading & Unloading
Of The Workpieces



TEZMAKSAN

SMART MANUFACTURING WITH SERIAL AND FLEXIBLE PRODUCTION SYSTEMS

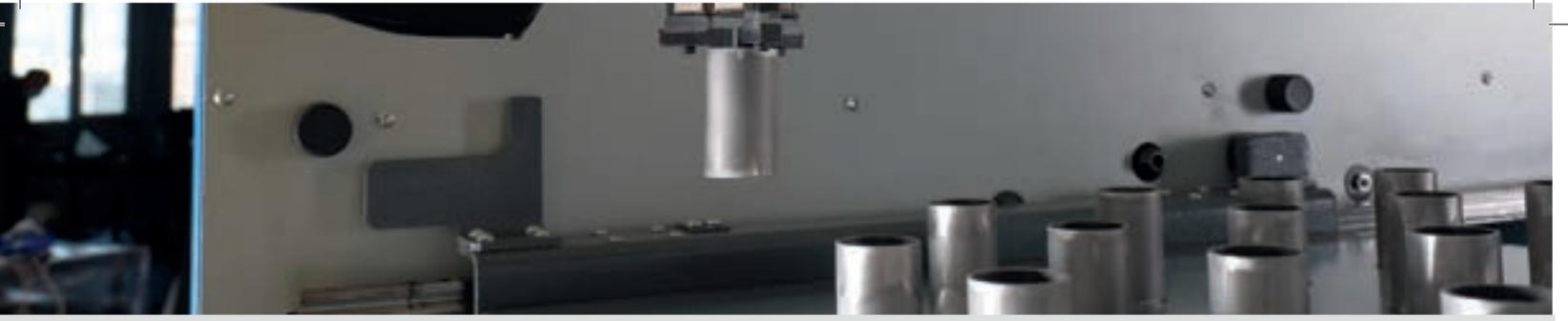
Lately, companies try to stand out with variable solutions as efficiency is the one of priorities of the manufacturing market due to the strong competition in the world. These solutions are the “Flexible Production Model” and the “Serial Production Model” and TezmaKSAN has been leading these subjects for 40 years.

In brief, Flexible and Serial production systems are aiming for production in low price-high quality. The system provides production quickly, reliably, fast, and economically with robotic automation and transmission mechanism.

In addition, the control mechanism is also automatic, so the faulty parts are separated more easily. By reducing downtime, it increases the quality of your manufacturing and your manufacturing flexibility continues despite automation.

In this way, customers' variable product demand can be met quickly and with high quality. Meeting Customer expectations and reducing variability contribute to total quality management

Procurement, raw materials, delivery time, production planning, machine operator, programming, quality, etc. are the components of the manufacturing process. "Flexible and Serial Production Systems" creates permanent systems solutions by including many components in its structure



SHORT-TERM INVESTMENT PAYMENT BACK PERIOD

A customer of Tezmaksan, who was engaged in machining, had a time and quality problem with loading and unloading on the machine, and requested that this issue be solved with an automation system instead of manpower. The real purpose was to produce small parts without manpower. The station, which is designed for a single machine, has become flexible so that it can be extended to other machines over time.

In addition to producing and using different information by including CAD and CAM data of the company in this process, it also contains information such as delivery dates, measurement information, etc. with integration into the ERP system.

"Flexible Production Systems" can meet the initial requirements in these processes, as well as be reconfigured according to needs, and the domain can also be expanded.

According to the calculations made by Tezmaksan, it is possible to reach a production time of 6,000 hours per machine in a single shift with the Flexible Production System technology, and it should be taken into consideration that improvement areas will always be available with the developing technology.





CUBEBOX BLUES



With the Cubebox Blues, you can enable your company to save costs and time.



Technical Specifications

Cubebox Blues DR

- ▶ 6 axis Industrial Robot with 12kg payload
- ▶ Portable Cell
- ▶ 5 – 8 Drawer Stacker with 600 mm. – 800 mm. size each
- ▶ Max. Workpiece height 135 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 – 550 mm.
- ▶ Easy and Quick set-up
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ Suitable for tending up to 2 CNC Machines
- ▶ CE Regulation

Cubebox Blues DR MAX

- ▶ 6 axis Industrial Robot with 35kg payload
- ▶ 5 – 8 Drawer Stacker with 1.200 mm. – 600 mm. size each
- ▶ Max. Workpiece height 135 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 – 750 mm.
- ▶ Easy and Quick set-up
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ Suitable for tending up to 3 CNC Machines
- ▶ CE Regulation

Cubebox Blues DR MINI

- ▶ 6 axis Industrial Robot with 7kg payload
- ▶ Portable Cell
- ▶ 5 – 8 Drawer Stacker with 400 mm. – 600 mm. size each
- ▶ Max. Workpiece height 135 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 – 350 mm.
- ▶ Easy and Quick set-up
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ Suitable for tending single CNC Machine
- ▶ CE Regulation



CUBEBOX BLUES RT



With the Cubebox Blues RT, you can create more stock space by stacking diameter parts on top of each other and can integrate long shaft parts into the automation system.



Technical Specifications

Cubebox Blues RT

- ▶ 6 Axis Robot 12 kg
- ▶ Portable Cell
- ▶ 1.100 mm Rotatory Table – Dual Pallet Stacker
- ▶ Max. Workpiece height 400 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 – 120 mm.
- ▶ Easy and Quick set-up
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ Suitable for tending up to 2 CNC Machines
- ▶ CE Regulation



CUBEBOX SOUL



With Cubebox Soul, you can integrate heavy cast bodies and materials with different surface forms into the automation system



Technical Specifications

Cubebox Soul S

- ▶ 6 Axis Industrial Robot 12 kg. Payload
- ▶ Portable Cell
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ 11 pieces of Metal Racks 800 mm. x 500 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 mm. – 100 mm.
- ▶ Suitable for tending up to 2 CNC Machines*
- ▶ Easy and Quick set-up
- ▶ CE Regulation

Cubebox Soul M

- ▶ 6 Axis Industrial Robot 25/35 kg. Payload
- ▶ Portable Cell
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ 11 pieces of Metal Racks 1.000 mm. x 600 mm.
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 mm. – 180 mm.
- ▶ Suitable for tending up to 2 CNC Machines
- ▶ Easy and Quick set-up
- ▶ CE Regulation

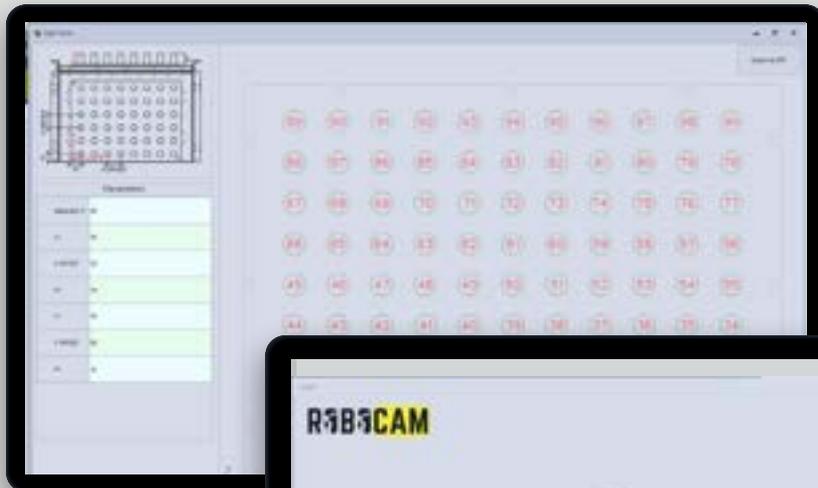
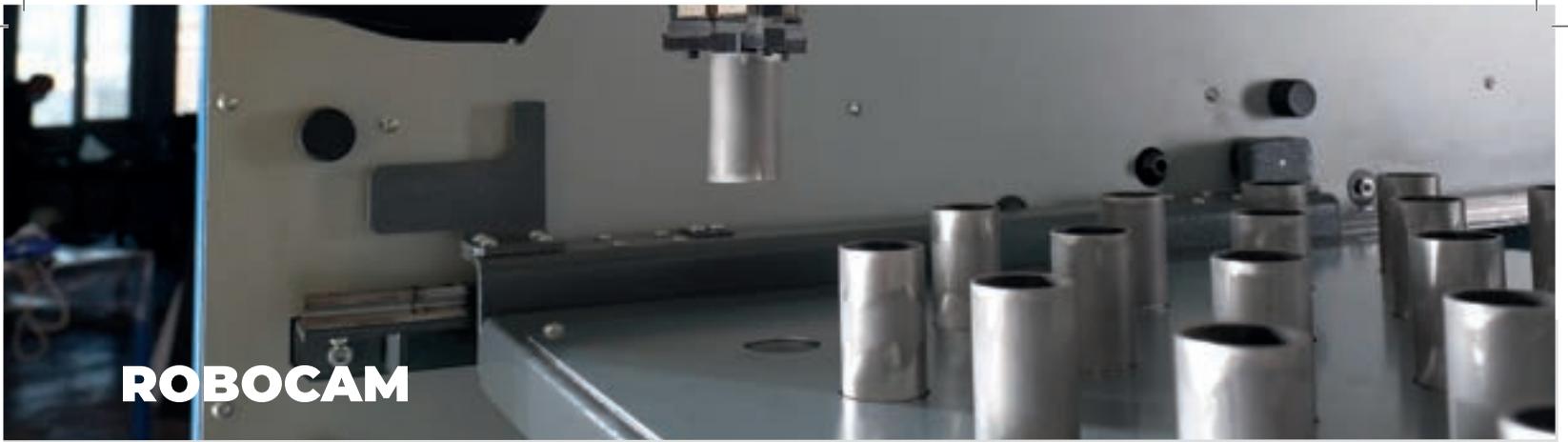
Cubebox Soul L

- ▶ 6 Axis Industrial Robot 35 kg. and more Payload
- ▶ RoboCAM Smart Automation Software
- ▶ Touch panel PC
- ▶ 11 pieces of Metal Racks of 1/2/3 Euro-pallet sized
- ▶ Steel Round Bar Workpiece Min. – Max. Diameter: 5 mm. – 1.300 mm
- ▶ Suitable for tending up to 3 CNC Machines
- ▶ Easy and Quick set-up
- ▶ CE Regulation



| **ROBOCAM**

Thanks to our innovative, compact robot cell **CUBEBOX** system such that up to 3 CNC machines can be operated without downtime during loading and unloading the workpieces from the machine(s) without any brand restriction. Our user-friendly software **ROBOCAM** converts 2D CAD drawings of the workpieces to CAM, so Robot programming and CAM knowledge are not needed anymore. The operator has only one thing to do, loading and unloading the Workstation. As an engineering company, we are focusing on Industry 4.0 with turnkey projects, automation integration, installation, and after-sales services.



		CUBEBOX SOUL S	CUBEBOX SOUL M
PROPERTIES	VERSION	COMPACT V01***	COMPACT V01***
	Min. Diameter of the Steel Workpiece**	5 mm.	5 mm.
	Max. Diameter of the Steel Workpiece**	100 mm.	180 mm.
	Min. Side Length of the Hexagonal Steel Workpiece**	10 mm.	10 mm.
	Max. Side Length of the Hexagonal Steel Workpiece**	100 mm.	180 mm.
	Max. Highth of the Steel Workpiece**	100 mm	100 mm.
	Cell Width	2.150 mm.	2.500 mm.
	Cell Length (Depth)	1.700 mm.	2.000 mm.
	Cell Highth / Fence Highth	2.150 mm.	2.200 mm.
	Cell Total Weigth	600 Kg.	1.000 Kg.
	Supply Voltage	Three-phase 380 V AC	Three-phase 380 V AC
	Air Consumption	<80 L/Min.	<80 L/Min.
PAYLOAD	7 Kg Payload		
	12 Kg Payload	•	
	20 Kg Payload		•
	35 Kg Payload		•
	Above 35 Kg. Payload		
STANDARD SPECIFICATIONS	Quick Set-up	•	•
	Automatic door for 1 CNC	•	•
	Safety Fence for 1 CNC	•	•
	2 Safety light barriers on the operator side	•	•
	Portable Cell	•	•
	Disassemblable / Disengageable Robot and Cell		
	Seperator Type Workpiece Stacking	•	•
	Suitable for Round Workpiece	•	•
	Suitable for Hexagonal Workpiece	•	•
	Suitable for Casted and Pressed Workpiece	•	•
	Suitable for Tending the Second Machine after OP1	•	•
	3-Colour Industrial Signal Tower	•	•
	Suitable For Single Gripper	•	•
	Suitable For Multiple Grippers	•	•
	RoboCAM Smart Automation Software and Industrial PC	•	•
	Cleaning with Air Blow Nozzle	•	•
	Residual Emulsion/Oil Collecting Area on Workpiece	•	•
Suitable for Tending One Machine	•	•	
Suitable for Tending Two Machines	o*	•	
OPTIONAL ACCESSORIES	CNC Door Automation	o	o
	Robot and CNC communication for more than one CNC	o	o
	Area Sensor Safety	o	o
	Fence and Light Barrier Safety	o	o
	Fence and Door Safety	o	o
	3rd safety light barrier on the operator side	o	o
	Air-flow Cleaning Station	o	o
	Manuel Measuring Station	o	o
	Automatic Measuring Station	o	o
	Deburring Station	o	o
	Gripper Force Control	o	o
	CNC Modbus Communication Protocol	o	o
	CNC Fanuc Communication Protocol	o	o
	Adjustable Gripper Force	o	o
	Adjustable Gripper Gap and Stroke	o	o
	Universal Tool Changer	o	o
	Workpiece Rotating Equipment	o	o
	Workpiece Orientation and Adjustment Equipment	o	o
7 Axis Slider Equipment For 3 and more CNC Machine Tending			

• Accessories included in the Price * Suitable for 8"-10" (Inch) CNC Horizontal Lathes



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References



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