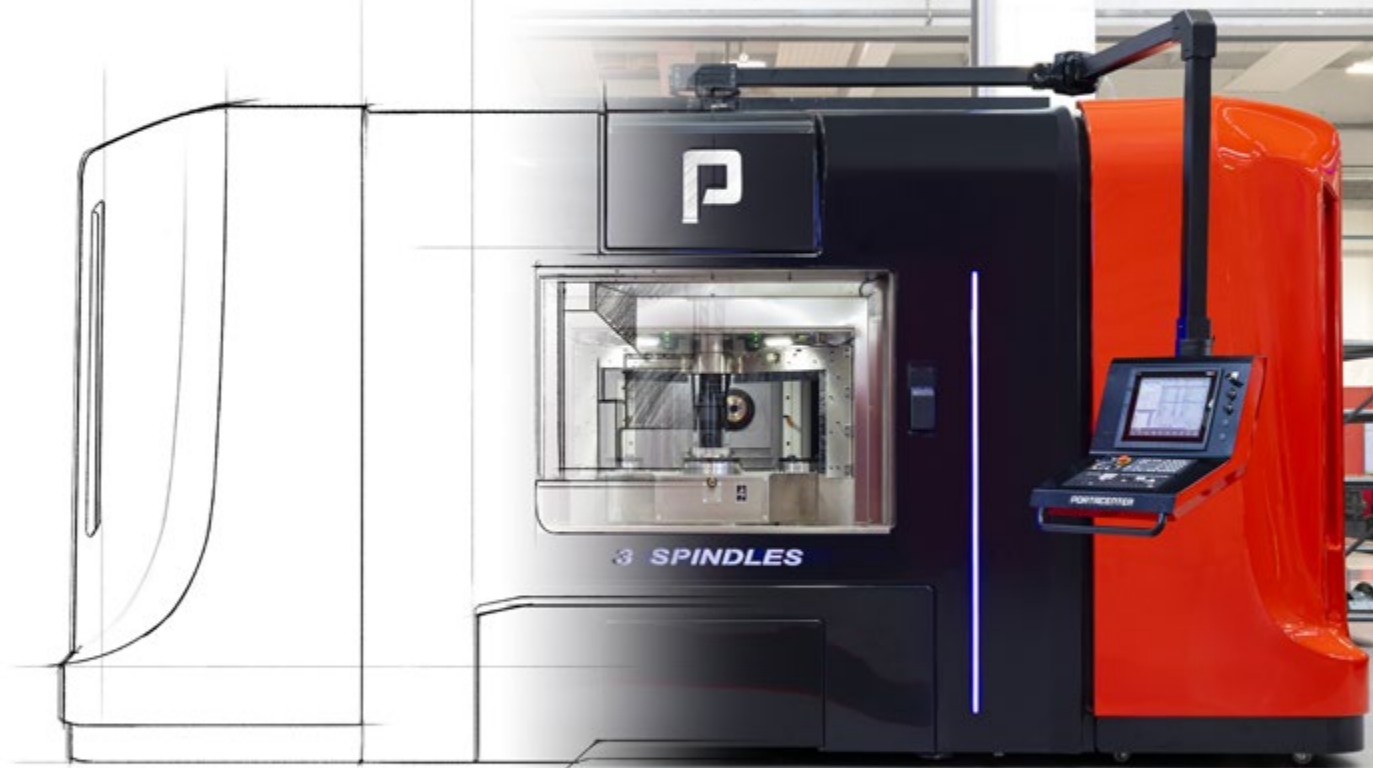


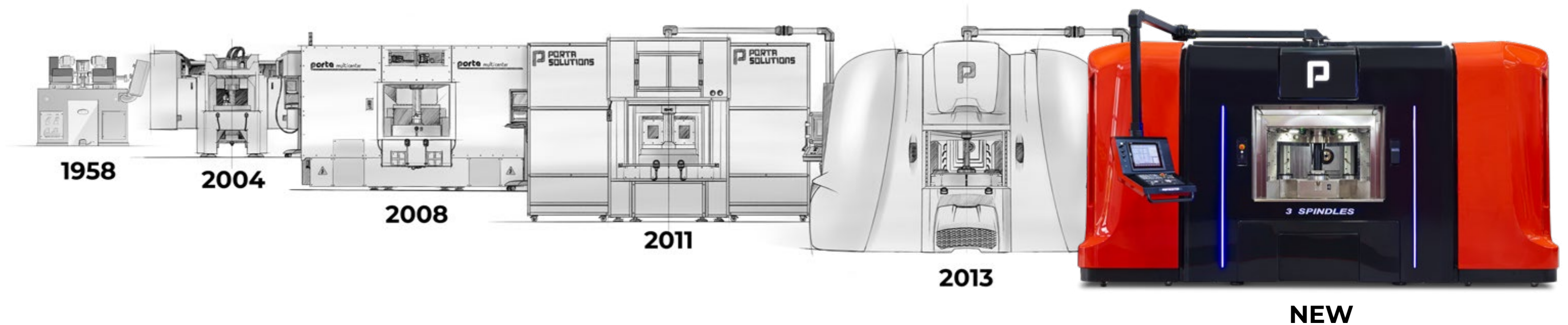
PORTACENTER

1 PROCESS, 3 TIMES FASTER



Made in Italy

PORTACENTER



The only builder with

DECADES OF EXPERIENCE

in the construction of Machining Centers
with 3 fully independent spindles

WHAT IS THE PORTACENTER

Portacenter is a machining center with 3 fully independent spindles, designed to work 3 times faster in a single process, by loading and unloading performed simultaneous to the machining process.



Years of satisfied customers

Scan to read testimonials from
our customers!

SECTORS

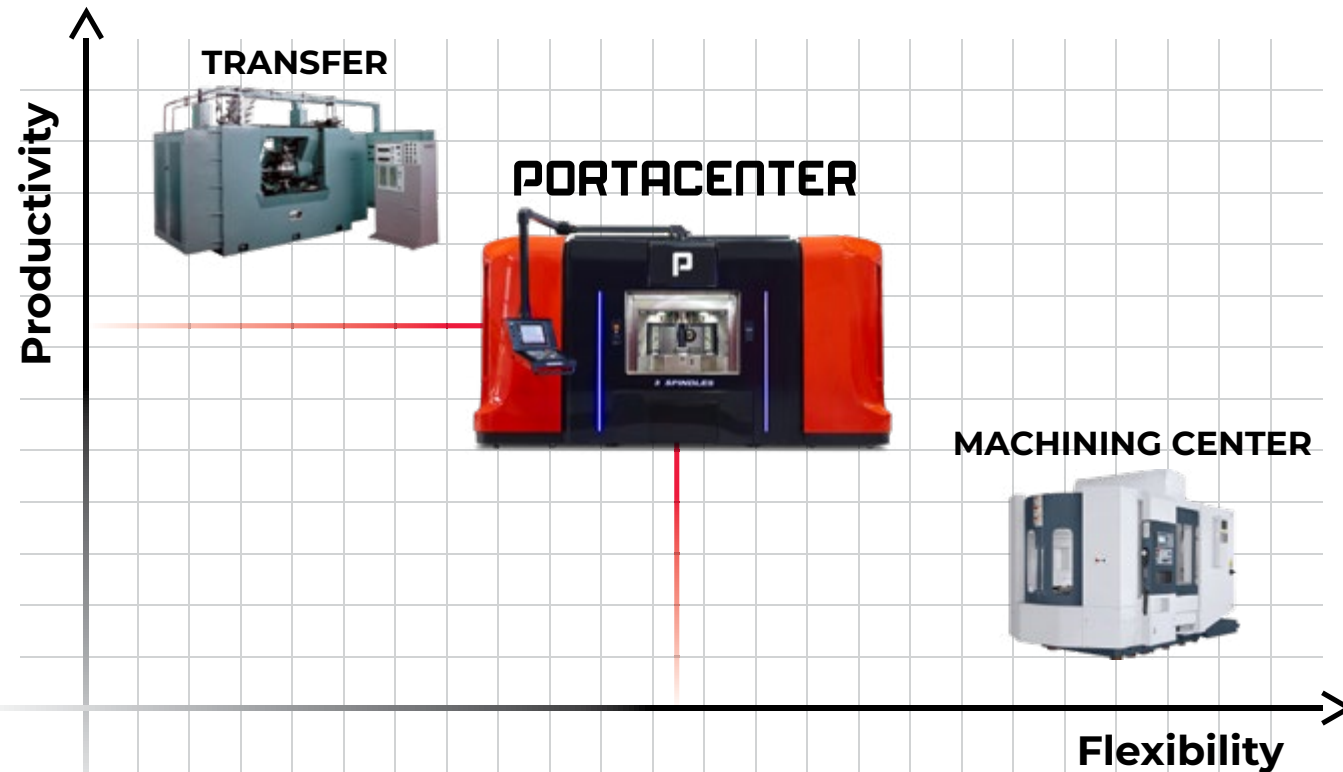
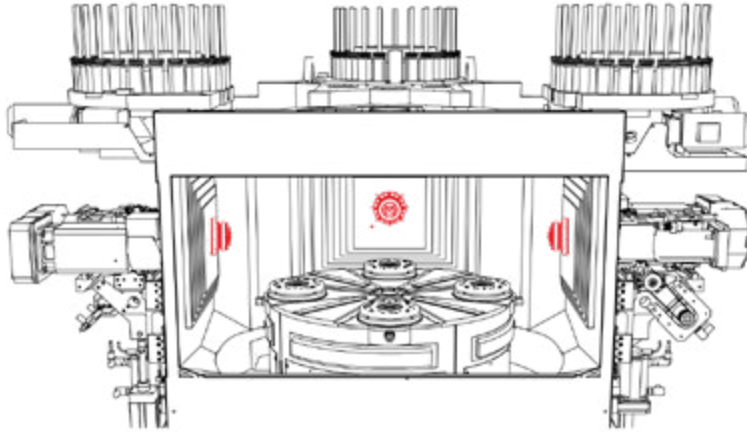
Automotive
Fittings

Petrolchemical
Oil & Gas

Power
Military

Transport
Medical

MACHINING CENTER WITH 3 FULLY INDEPENDENT SPINDLES



1 PROCESS, 3 TIMES FASTER



BENEFITS OF THE PORTACENTER

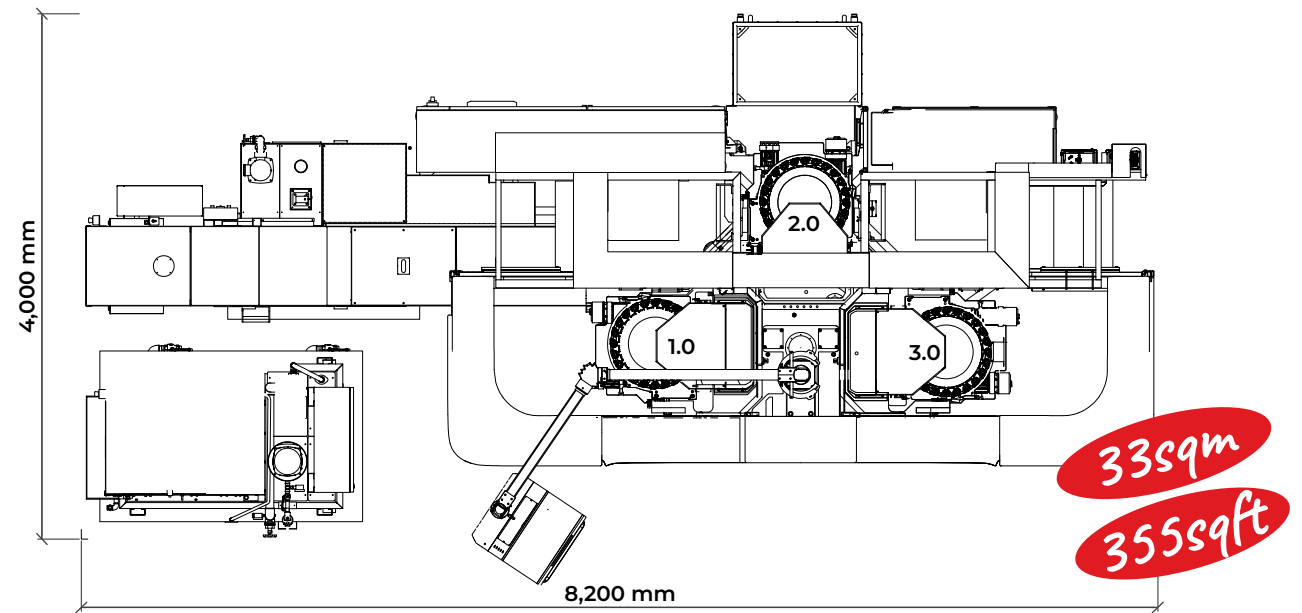
- | | |
|---|--|
|  OCCUPIED FLOORSPACE -63% |  TURNKEY PROJECTS |
|  ENERGY CONSUMPTION -58% |  TEST DRIVE BEFORE THE PURCHASE |
|  SKILLED LABOR -66% |  DELIVERY IN 60/90 DAYS |

Percentage data taken from real case study

PARTS PRODUCED

WITH PORTACENTER





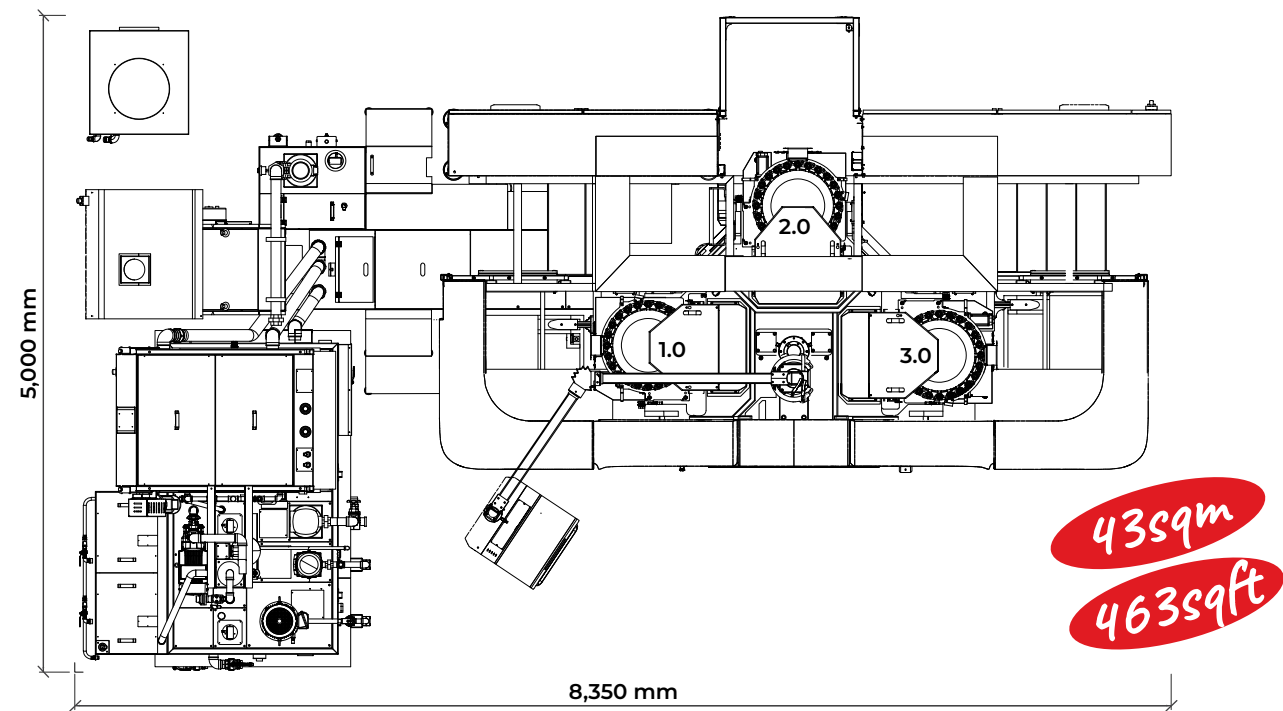
PORTACENTER // *Pro 200*

CUBE 200mm



TOOL CHANGER			X,Y and Z-axis		
	Metric	Imperial		Metric	Imperial
capacity	24	24	travels	200*/325/200** mm	8*/13/8** in
max tool weight	8 kg	18 lbs	rapids	24/24/20 m/min	945/945/787 ipm
max tool length	250 mm	10 in	acceleration	5/5/5 m/s²	16/16/16 ft/s²
max tool diameter	80 mm	3 in	4th axis	360°	360°
max tool diameter			positioning system	encoder	encoder
with free position	120 mm	5 in			
tool-to-tool	2,4 sec	2.4 sec			
taper	ISO40	ISO40			
CONTROL			SPINDLES		
Human Machine Interface		touch-screen	taper		ISO40
teleservice		included	max speed		6,000 rpm (option 8,000)
programming language		ISO code	max rating		up to 7.5 kW
NC		Mitsubishi	max torque		84 Nm
COOLANT FILTRATION					
				Metric	Imperial
			high pressure	20 bar	290 psi
			low pressure	2 bar	29 psi

* X-axis: option 250mm (10 in) | ** Z-axis: option 220mm (9 in)
The information present in the catalogue is approximate and is not binding.
Porta Solutions S.p.A. reserves the right of modifying them at any time without prior notice.



PORTACENTER//*Evo 300*

CUBE 300mm



TOOL CHANGER

	Metric	Imperial
capacity	24/40	24/40
max tool weight	8 kg	18 lbs
max tool length	250 mm	10 in
max tool diameter	80 mm	3 in
max tool diameter with free position	120 mm	5 in
tool-to-tool	1,2 sec	1.2 sec
taper	HSK63	HSK63

CONTROL

Human Machine Interface	touch-screen
teleservice	included
programming language	ISO code
NC	Fanuc / Siemens

X,Y and Z-axis

	Metric	Imperial
travels	300/325/220 mm	12/13/9 in
rapids	40/40/30 m/min	1,575/1,575/1,181 ipm
acceleration	7/7/7 m/s ²	23/23/23 ft/s ²
4th axis	360°	360°
positioning system	optical scale	optical scale

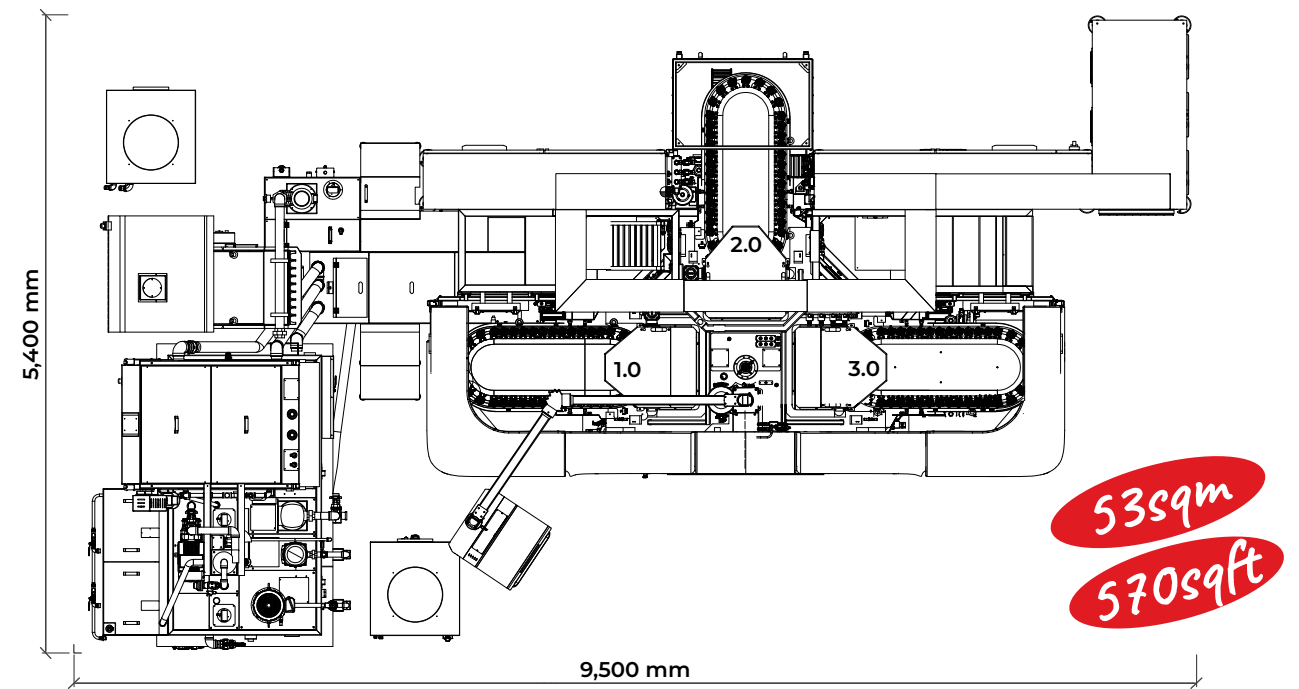
SPINDLES

taper	HSK63 / ISO40
max speed	8,000 rpm
max rating	up to 11 kW
max torque	118 Nm

COOLANT FILTRATION

	Metric	Imperial
high pressure	40 bar	580 psi
low pressure	2 bar	29 psi

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PORTACENTER//Hyper 400

CUBE 400mm



TOOL CHANGER

	Metric	Imperial
capacity	40	40
max tool weight	8 kg	18 lbs
max tool length	250 mm	10 in
max tool diameter	80 mm	3 in
max tool diameter with free position	120 mm	5 in
tool-to-tool	1,2 sec	1,2 sec
taper	HSK63	HSK63

CONTROL

Human Machine Interface	touch-screen
teleservice	included
programming language	ISO code
NC	Siemens

* Option 5th axis NC

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X,Y and Z-axis

	Metric	Imperial
travels	400/450/250 mm	16/18/10 in
rapids	50/50/45 m/min	1,969/1,969/1,772 ipm
acceleration	10/10/15 m/s ²	33/33/49 ft/s ²
4th axis	360°	360°
positioning system	optical scale	optical scale

SPINDLES

taper	HSK63
max speed	13,000 rpm
max rating	15/22 kW
max torque	61 Nm

COOLANT FILTRATION

	Metric	Imperial
high pressure	40 bar	580 psi
low pressure	2 bar	29 psi

PORTACENTER

Options	<i>Pro 200</i>	<i>Evo 300</i>	<i>Hyper 400</i>
0-90° Fixtures 5 sides machining in only one setup	✓	✓	✓
72 Tools Tool magazine upgrade	✓	✓	✓
120 Tools Expansion for maximum flexibility	✗	✓	✓
Optical Scales Max. precision of the movements	✗	✓	✓
Fast Tool Change 2-axis NC driven tool change	✗	✓	✓
13,000 RPM Electrospindle for high-speed milling	✗	✗	✓
5th Axis Full simultaneous 5-axis motion	✗	✗	✓

ONLY TURNKEY PROJECTS



FEASIBILITY STUDY

Feasibility study with 100% Porta Solutions responsibility



CYCLE TIME

Mathematical calculation to set hourly production



DESIGN OF FIXTURES

Project development with our Technical Department



ADVANCED TOOLS

Continuous co-design with reputable tool makers



CPK/CMK CERTIFICATION

Detailed report in Zeiss control room



INTEGRATED AUTOMATION

24/7 Production

Scan the QR code to watch the video!



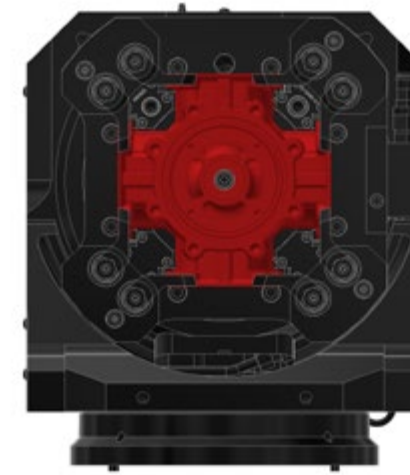
FIXTURES DESIGN

How we maximize this phase

- > COMPLETELY IN-HOUSE DESIGN
- > IN-HOUSE DESIGNERS = GREATER RESULTS
- > SINGLE CONTACT PERSON = SINGLE RESPONSIBILITY
- > 100% GUARANTEED RESULT

**The fixture design
is too important
to be delegated externally!**

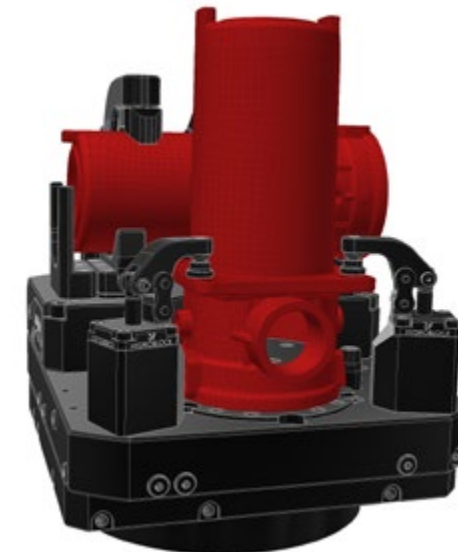
Sector: **OIL**



Material: **ALUMINUM**



Sector: **OLEODYNAMIC**



Material: **ALUMINUM**



Sector: **AUTOMOTIVE**



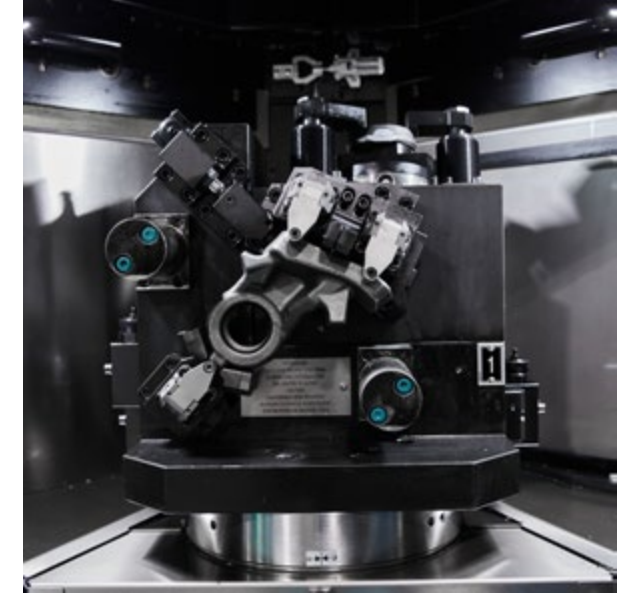
Material: **STEEL**



Sector: **AUTOMOTIVE**



Material: **STEEL**



Sector: **ENERGY**



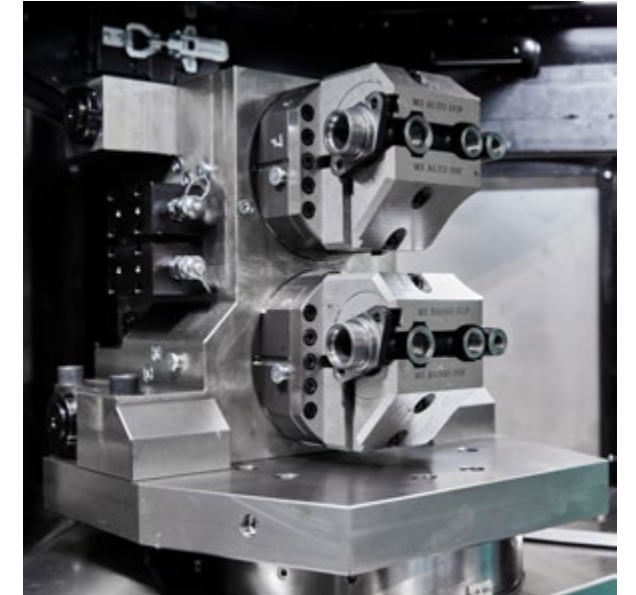
Material: **ALUMINUM**



Sector: **AUTOMOTIVE**



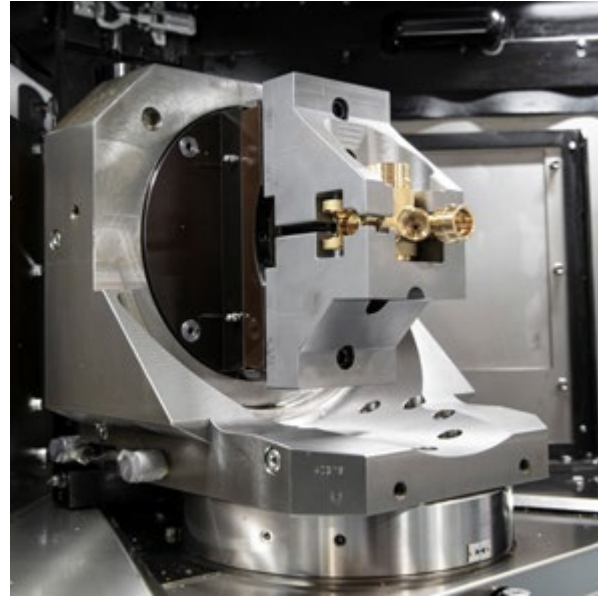
Material: **CAST IRON**



Sector: **MEDICAL**



Material: **BRASS**



Sector: **AUTOMOTIVE**



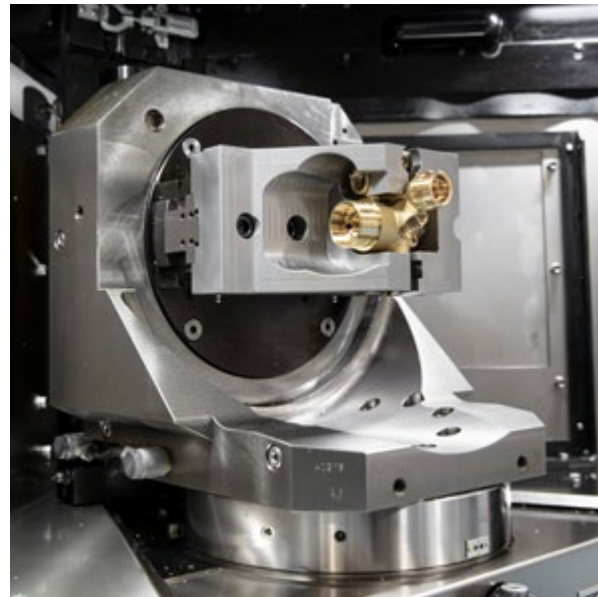
Material: **BRASS**



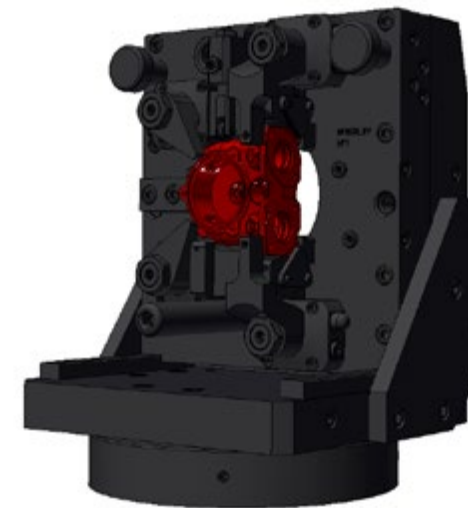
Sector: **MEDICAL**



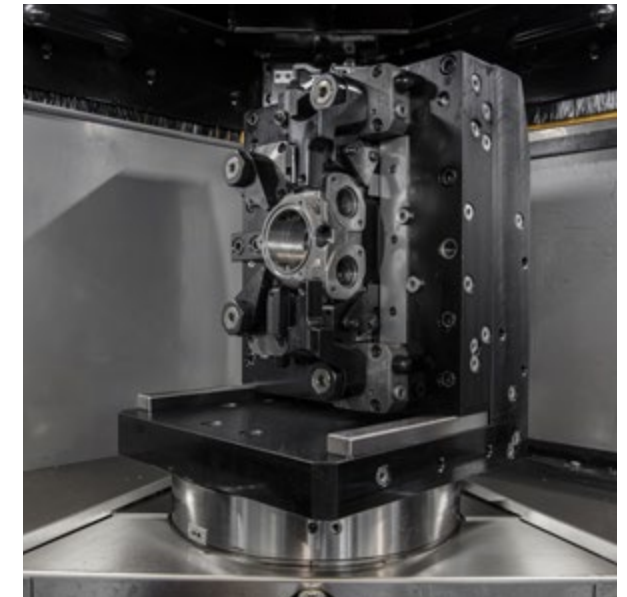
Material: **BRASS**

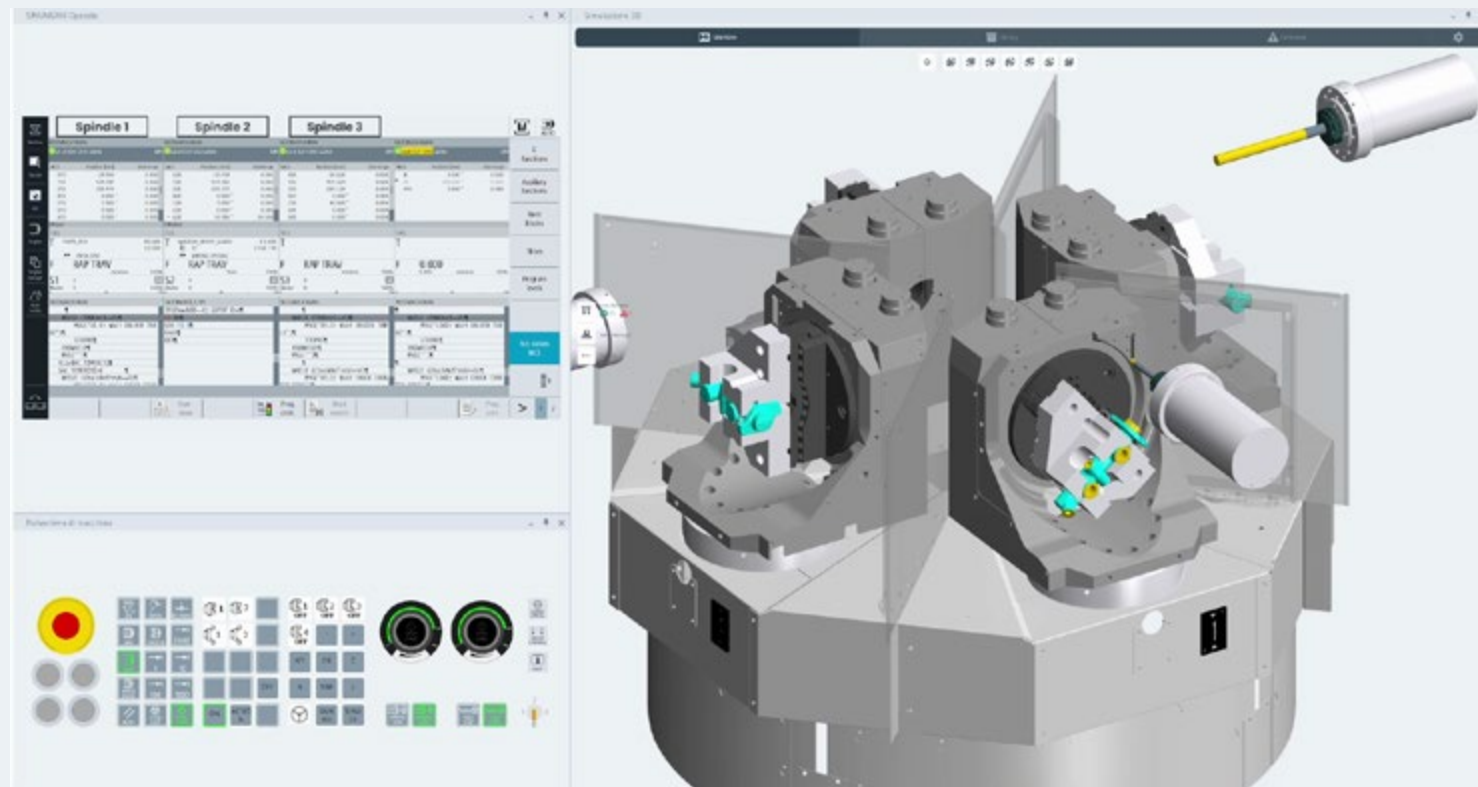


Sector: **OIL**



Material: **CAST IRON**





3D CYCLE SIMULATION

For the best precision, power and efficiency

The integrated system ensures total safety thanks to advanced 3D simulation, with automatic collision check and full compliance with machine's operating limits, eliminating the risk of damage.

CNC Power: unlimited axis handling and offline programming directly in your CNC's native language, for a perfect and constraint-free integration.

Maximum efficiency is guaranteed by precise cycle time calculation, allowing accurate quoting and reduced setup times, optimizing both productivity and operating costs.



COST PER PART CALCULATION

A scientific method

This type of cost calculation considers the cycle time and adds the input of other costs as labor, occupied area, fixture cost, tooling cost, energy cost, preventive maintenance. Basically, all of the variables that go into determining the correct part cost.

Being aware and knowing the cost in a scientific way means eliminating risks, and getting a higher control on the strategic choices; for example, in the choice of machines most suitable to reach the target.

3 Machining Centers

 **TOO MUCH SPACE**
240 mq / 2,580 sqft

1 Machining Center 3 Spindles

 **ONLY 87 mq / 935 sqft**
-63.8%

Machine	3 Machining Centers	PORTACENTER	
Cycle Time [sec]	97	97	
Estimated parts/year	165,000	165,000	
Expected efficiency	85%	85%	
Scheduled daily shifts	3	3	
Annual machined hours	5,230	5,230	
Investment cost	€ 660,000	€ 715,000	
Fixture cost	€ 180,000	€ 99,200	
Automation cost	€ 450,000	€ 150,000	
Total cost of machine/system	€ 1,290,000	€ 964,200	
Ratio operator/machine	2	1	
Operator cost/hour	25	25	
Cost for personnel	261,520	130,760	
Driving force/hour	28.06	11.73	
Total produced parts/hour	32	32	
Investment cost	€ 1,290,000	€ 964,200	-25.3%
Occupied space [sqm]	240	87	-63.8%
Cost of energy	€ 146,765	€ 61,353	-58.2%
Cost of labor	€ 261,520	€ 130,760	-50.0%
Part cost	€ 3.33	€ 1.85	-44.5%

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“ZERO RISK” TEST DRIVE

**Test the PORTACENTER by machining your parts
BEFORE signing the contract**

The four main advantages of the Test Drive are:

1. Verify the CYCLE TIME presented in the study.
2. Test the FIXTURES.
3. Having the opportunity to make potential improvements to the process, before buying the machine.
4. Check the changeover time from one product to another.

All of this to reduce the risk of an incorrect investment to zero.

Scan the QR code to watch the video!





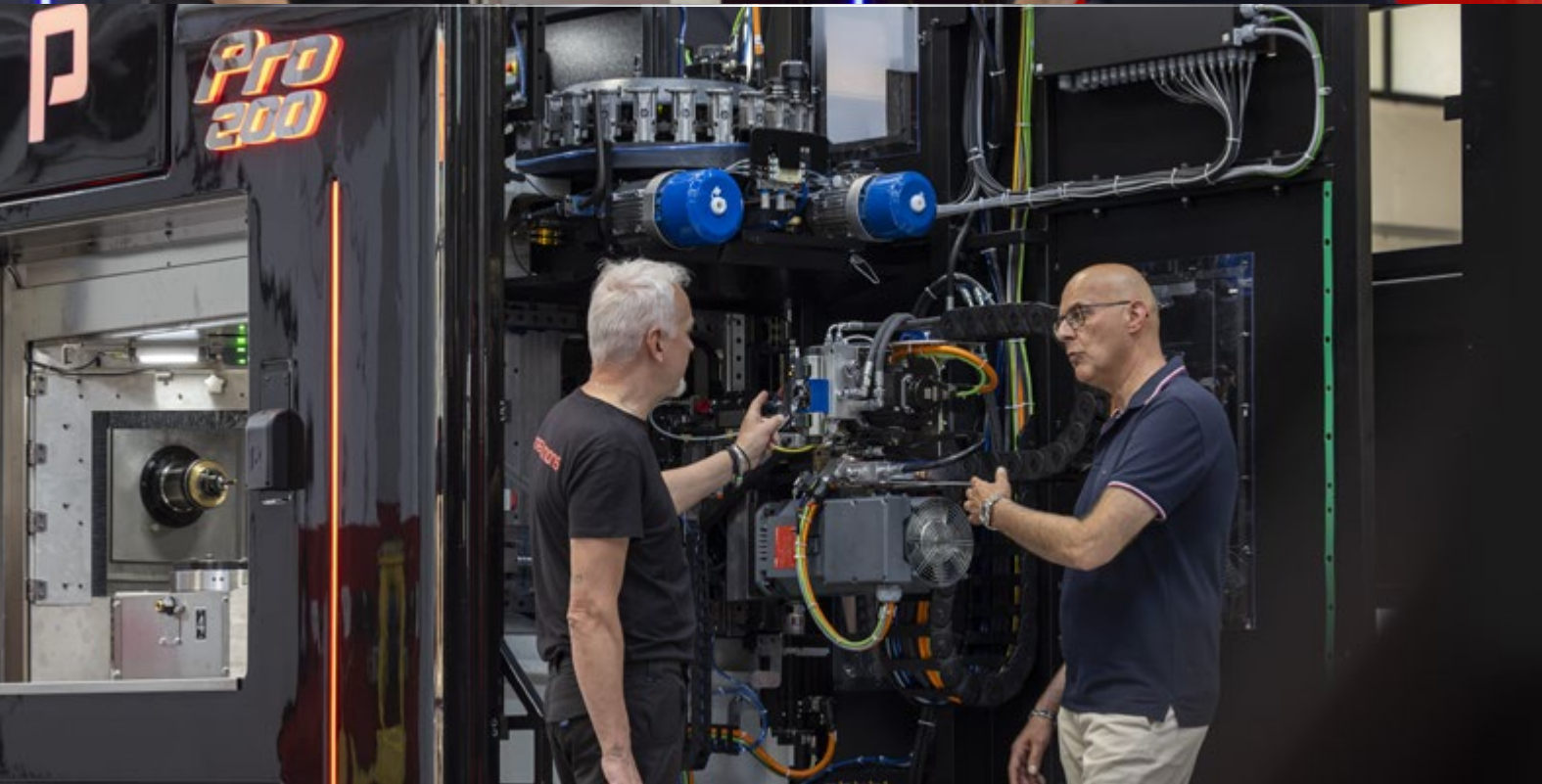
TRAINING

Operator Training

Structured to provide your operators with full autonomy in managing the PORTACENTER on a day-to-day basis.

The program includes:

- > Use of the user interface (menus, submenus, icons, linked cycles)
- > Management of movements (axes, satellite tables, main table)
- > Tool change and functioning
- > Main pallet reset, satellite tables
- > Machine alarm management
- > Program loading and saving



Maintenance Operator Training

Structured across three levels - basic, intermediate and advanced - the maintenance training is customizable, allowing you to become progressively more autonomous in maintenance activities.

The program includes:

- > Machine maintenance and adjustment points
- > Axis zeroing procedure
- > Replacement of wearable components
- > Machine alignment
- > Chip conveyor maintenance

All participants are provided with training materials in both paper and electronic format, along with a detailed checklist of the topics covered, as a guarantee of the competencies acquired.

NEW PRODUCT DEVELOPMENT SERVICE

This service is reserved exclusively for PORTACENTER customers

It consists in entrusting us completely with the development of new products, with the advantage of leaving your PORTACENTER in production while we develop everything by using a duplicate machine installed in PORTA SOLUTIONS.

Here are the phases of the service:

- > Drawing up of the best working process.
- > Study of tooling.
- > Part clamping study.
- > Cycle time calculation.
- > Set-up of PORTACENTER Demo machine.
- > Checking part quality with CMM.
- > Sampling and calculating CPK/CMK.
- > Shipping to customer of the kit (fixtures, tools, part program).



Scan the QR code to watch the video!



PLATFORM Be4

Digital solution for predictive maintenance



The platform is built on three fundamental pillars:

Process Integration

Be4 connects PORTACENTER machines to a unified digital ecosystem, enabling real-time remote monitoring and integrated data management. Information is always accessible, wherever you are.

Automation and Proactivity

The platform does more than just collect data - it interprets it and transforms it into actionable insights. Automatic alerts notify both the customer and the Porta Solutions team, enabling timely interventions and reducing machine downtime.

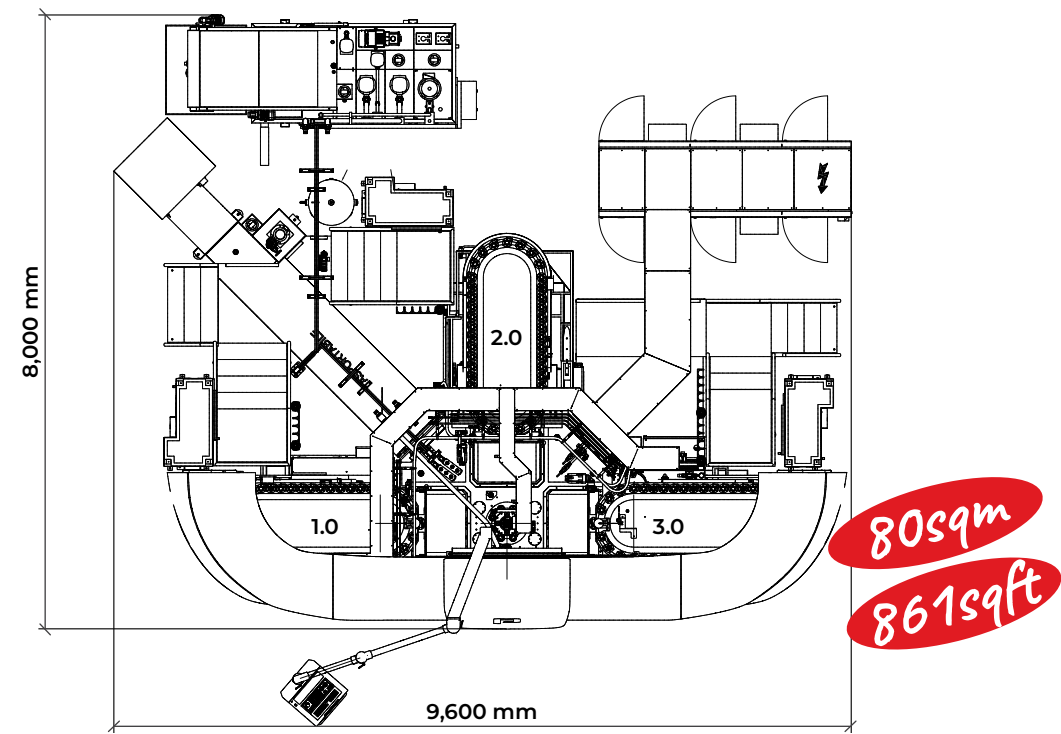
Strategic Collaboration

By sharing data and analysis, the platform transforms the supplier-customer relationship into a true partnership, where information exchange leads to more informed decisions and shared growth.

The digital transformation driven by Be4 has two key objectives:

Increase productivity - Optimize processes, reduce machine downtime, and maximize operational efficiency.

Reduce environmental impact - Monitor energy consumption and machine performance to ensure more sustainable and responsible production.



PORTACENTER 500

CUBE 500mm



TOOL CHANGER

	Metric	Imperial
capacity	from 36 to 120	from 36 to 120
max tool weight	20 kg	44 lbs
max tool length	400 mm	16 in
max tool diameter	125 mm	5 in
max tool diameter with free position	200 mm	8 in
tool-to-tool	3,5 sec	3.5 sec
taper	ISO50 / HSK100	ISO50 / HSK100

CONTROL

Human Machine Interface	touch-screen
teleservice	included
programming language	ISO code
NC	Fanuc / Siemens

* Option 33kW
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X,Y and Z-axis

	Metric	Imperial
travels	500/500/500 mm	20/20/20 in
rapids	30/30/30 m/min	1,181/1,181/1,181 ipm
acceleration	1,5/1,5/2 m/s²	5/5/7 ft/s²
4th axis	360°	360°
positioning system	encoder	encoder

SPINDLES

taper	HSK100 / ISO50
max speed	5,000 rpm
max rating	22 kW*
max torque	223 Nm

COOLANT FILTRATION

	Metric	Imperial
high pressure	20/40 bar	290/580 psi
low pressure	2 bar	29 psi

PARTS PRODUCED

WITH PORTACENTER 500



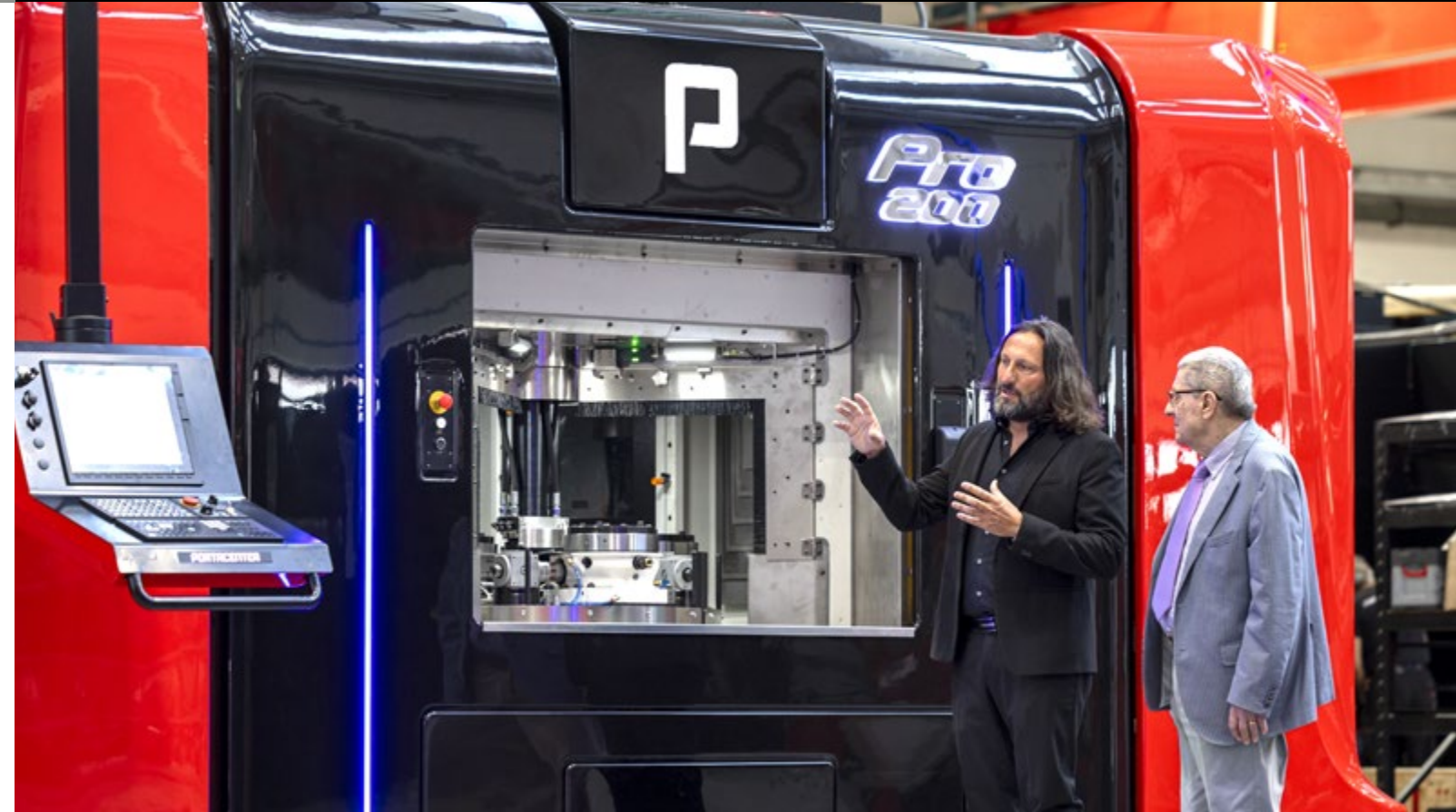
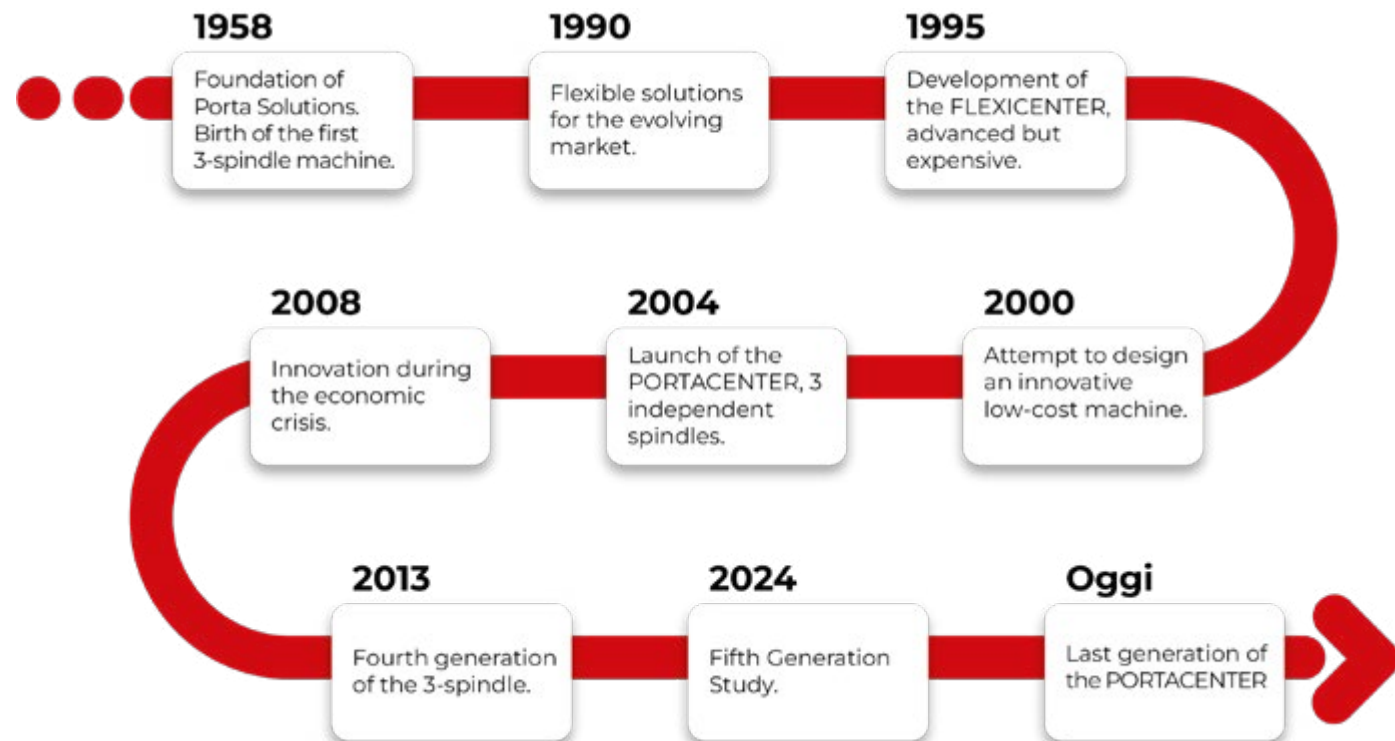


For almost 70 years, we have been putting passion and commitment into supporting Companies to improve their productivity and efficiency.

Thanks to **several hundred PORTACENTERS installed** worldwide, we have consolidated deep experience in industries such as Automotive, Aerospace, Oil & Gas and Medical. For many of our customers, we are more than suppliers: we are trusted partners ready to walk alongside them on their growth journey.

Our commitment does not end with delivery: **a team of 24 people dedicated to after-sales service** is always at your side to ensure that your machine operates to the best of its ability.

At Porta Solutions, our goal is simple: turn your ideas into reality and accompany you on a path of continuous improvement.





www.porta-solutions.com

PORTASOLUTIONS

3 TIMES FASTER MACHINING CENTERS

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