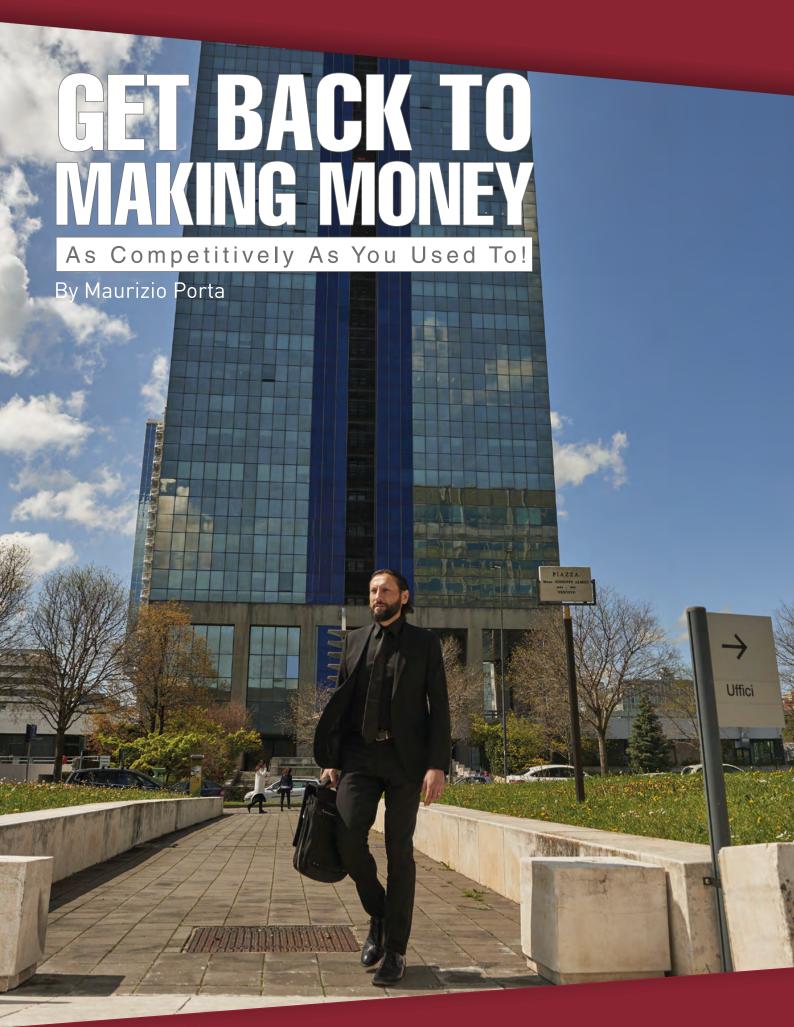
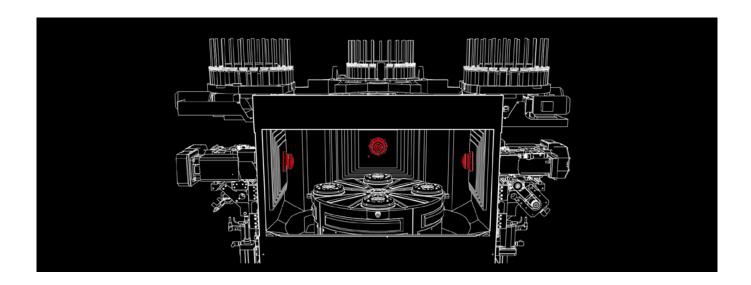
**MAY / JUNE 2020** 



## **FLEXIBLE OPERATION**



Have you ever heard of "flexible operation"?

Have you ever thought about applying and implementing this concept within your production department?

Reading the next few lines, you will have the opportunity to get to know the "flexible operation" more closely, a topic on which you really should not be in the dark.

The ability of a system, in this specific case a production system, to change and adapt itself according to changes of circumstances, market needs, customers' requests, etc. is a very important, if not essential, feature nowadays to be competitive and to stand up to an ever more hardened competition.

Our customer, **Giacomini S.p.A.**, knows something about that since they bought their third **PORTACENTER**, a machine tool

"The ability of a system to change and adapt itself to customers' requests is an essential feature in today's market." with 3 independent spindles and 1 single manufacturing process, by which they are able to face a market that constantly poses new and increasingly complex challenges.

Investing in technological innovation, keeping the operator always in the middle of the entire production process.

This is the founder's philosophy, that can be summarized in one sentence, as follows:

"IT IS THE MAN
WHO MAKES THE
COMPANY".

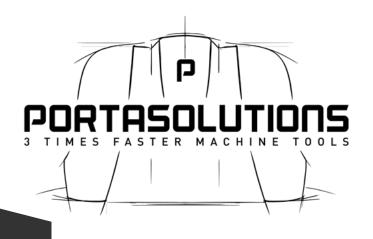




The company. The industrial history of Giacomini S.p.A. began in San Maurizio d'Opaglio (in the province of Novara) in 1951, when the founder, Mr. Alberto, started producing small brass components using a lathe. Within a few years, the relocation into a new and larger factory, always in the same small town, kicked off a progressive growth path, accompanied by the development of innovative products and systems that allowed the company to become one of the major points of reference in the world in the production of components and systems for the distribution of heating, air conditioning, water and sanitary system, intended for the residential, industrial and commercial sectors.

With more than 900 employees, today Giacomini is able to develop a turnover of around 200 million euros, of which over 80% comes from foreign markets, through the manufacturing of more than 70 tons of brass a day, within three Italian production plants, following the most restrictive international standards and guaranteeing a high quality level.

A future of research and innovation, especially in the field of energy saving, in respect of the environment and based on circular economy, which will further intensify with the launch of new products and the investment in flexible and modular production plants, also thanks to important collaborations with prestigious centers of international fame such as the Polytechnic Institute in Milan, the Fraunhofer Institute in Munich (Germany), the PSI in Zurich (Switzerland), and the Polytechnic Institute in Turin.



#### Innovation and Production.

«I must say that innovation is part of our DNA, being a leader in several sectors, from underfloor heating to ceiling cooling, from fire prevention service to the creation of valves for thermoregulation. In addition, for several years, we have also entered the complex energy fields that led us to have high mix with increasingly complex pieces to work, and advanced systems to run difficult processes in a single operation said Mr. Vincenzo Crocco, Head of Turning Department of Giacomini - Processes that are carried out internally, in the headquarters in San Maurizio d'Opaglio, where there are also the general management, sales, marketing and purchases departments, research and technical laboratories, and where forged and bar mechanical processes are performed, as well as the assembly of the pieces».

In another warehouse, always located in San Maurizio d'Opaglio, plastic fittings, technopolymer components and extruded pipes are molded while, in the plant located in Castelnuovo del Garda, in the province of Verona, we carry out the pressing of the brass. The whole thing also thanks to a fleet of machines that exceeds one hundred units and consists of several dozens of lathes for bar machining and transfer machining centers of different sizes, 12 of which bear the mark of Porta Solutions, that is a sign of close collaboration between our company and Giacomini since the 1990s.













Porta Solutions S.p.A. was born in 1958 in Villa Carcina (Brescia, Italy). At first, it focused on the production of traditional transfer machines, following the trends of a market which, at that time, asked for high production systems. However, over the decades, the productivity-based model gave way to the flexibility-based model, also by virtue of the introduction, in the industrial field, of the Lean Manufacturing production method by Toyota, so that, today, Porta Solutions has become one of the most important companies specialized in the construction and assembly of flexible machining centers, with its top model, the PORTACENTER, which is the first machine with 3 independent spindles and 1 single manufacturing process, built in series, in order to get the most competitive price in this category and guarantee 60-day delivery from the order.

### The right solution.

«Flexibility was one of the reasons that led us to look for solutions that could protect the workflow that characterizes our production so, thanks to the fruitful thirty-year collaboration with Porta, we turned to this company - he continued - We purchased the first PORTACENTER in April 2018, since we were looking for a machine to make complex products in a single load, with medium / small lots (from a few hundred to a few thousand of pieces), mainly meant for the energy market.»

In fact, as Mr. Crocco explained, the classic transfer machine is very productive but not very flexible, so the processes with strict tolerances and complex procedures were performed in several loads while, according to Giacomini's needs, these had to be processed in a single step, with no handling.

# That's why the PORTACENTER seemed the perfect solution.

And it has proven to be as such, to the point that, later, in July of the same year, the Novara company decided to buy the second machine and, today, is waiting for the third one, to cope with a growing market demand.

«Compared to the standard Porta proposal of these plants, we just asked for extra capacity for tools and a vice with an additional rotation to complete parts in one load but, for the rest, the machine was already very complete in itself, therefore, there was no need to add anything more than what was offered - pointed out Mr. Crocco - the PORTACENTER is able to work diameters up to 11/4 of an inch and is equipped with an automation system (installed by our integrator who already collaborated with Porta) which brought the operating autonomy to about two and a half hours, without technical intervention. Furthermore.



"With the purchase of the third PORTACENTER, Giacomini is able to face a market that constantly poses new challenges." it is equipped with tool breakage control, which we requested, in order to have greater reliability throughout the production process».

The machine is used for the processing of CW 617 brass parts and, for some time now, also alloys low in lead, in response to the new regulations that will come into force in the coming years, aimed at eliminating lead from brass alloys. The reduction of lead makes the processing of these materials even more complex because, in addition to the need to have much more powerful and higher performance systems, it becomes essential to optimize the shape and the sharpness of the tool, in order to reach the desired qualitative level of finish, a know-how that Giacomini has historically nurtured internally.

«In the end, I want to underline the fact that, by our choice, we preferred to build the operators who directly manage the Fanuc CNC on the machine, with the help of the technical department that provides them with all necessary information, being very complex pieces, above all with regard to the rotation of the axles.

Moreover, the choice not to develop programs in the office, but directly on the machine, allows you to be able to work even when the offices are closed, qualifying the operator who, otherwise, would not have full control of the PORTACENTER and, therefore, a complete understanding of its operation and the resolution of any critical issues of the process - he added - We are very satisfied with the new systems supplied by Porta Solutions, which gave us what we expected, or rather, perhaps something more, especially since purchasing the third machine, we are thinking about the possibility of bringing home a fourth one.

Of course, Porta has made a brave, but right, choice, specializing in this product that is good for the implementation of any type of manufacturing, by virtue of its highly flexible operation».

Mr. Crocco expressed great satisfaction also for the after-sales service that we offer and guarantee, aimed at granting and managing every request for assistance on all plants, even those purchased in past decades that are still fully operational.

After reading this detailed and generous testimonial of our customer, did you manage to focus on the great importance of "flexible operation" and, above all, its concrete application in production departments?

Do you want to go deep and understand how to turn "flexible operation" into reality, implementing it also in your production system?



## Contact us **NOW** and ask for a **FREE** consultation with one of our **TECHNICAL TUTORS**.

Visit <u>www.flexibleproductionassistance.com</u> to get more information.

Or contact us at these references
Phone: +39 030-800673

Email: porta@flexible-production.com

If you want to go deeper on the topics of Flexible Production and Competitive Production

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My book dedicated to users of Machine Tools who want to make the leap in quality is waiting for you!!!



To your results,

Maurizio Porta

Master Trainer PORTA PRODUCTION METHOD