

Lean Production requires rethinking

What is really behind the success of Lean Management? Is it just the right selection of the CNC machine with automation? Rolf Jauch of Newemag | Schneider mc and Beat Baumgartner from Triag International AG explain the associated rethinking at the 8th SMM Congress in Lucerne.

Triag International AG is based in Hünenberg (Switzerland) and, with its employees, manufactures workholding systems for machining production for the global market. Many companies would outsource the manufacturing of such a product abroad. This is not an option for the managing director and owner, Beat Baumgartner, because he cares deeply about the Swiss workplace. That is why he must continually produce in a more refined and productive way.

This includes faster machines, optimised

Many innovations in the 30-year success story of Triag International, e.g. the „Sputnik“ multiple self centering vise block.

processes, an increasing degree of automation and around-the-clock manufacturing. Beat Baumgartner has founded the sister company Tribur Invent GmbH. A few years ago, the in-house production company invested in a Matsuura MAM 72-35V, a vertical 5-axis high-performance machining centre from the Japanese company „Matsuura“. At that time, it replaced two three-axis machines and one four-axis machine, increasing the output as well as the degree of automation. Since then, this machining centre has been in operation around the clock, including unmanned shifts. An important argument with such an unmanned shift is the reliability of the machine. The Matsuura is not only known for its reliability, but also for its uncompromising compactness, stability and high machining performance – including 5-axis simultaneous milling. The machining centre is equipped with a pallet changer with 40 pallets, which is optimally aligned to the tight spatial conditions in the workshop due to its horizontal and space-saving design. In addition, this Matsuura has a tool changer for 240 tools. An optimal starting position for high productivity.

But lean doesn't just mean having a fast, automated machine. Lean means rethinking the entire production process. Tribur Invent produces workholding products for its sister company Triag International, which in combination with the machine lead to a considerable increase in performance: its own modular multiple workholding devices. In practice, a single part is still being clamped on many machines today. The potential of such a machining centre is not fully exploited in this way. The modular multiple workholding system results in a faster workpiece change.

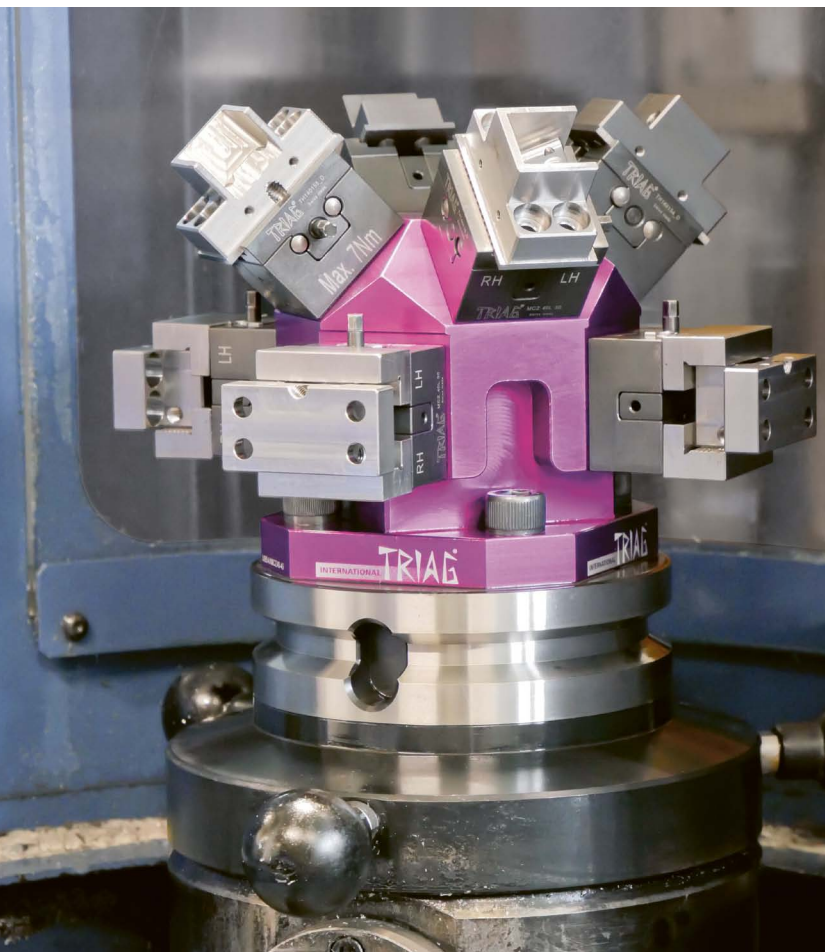


Photo: Triag International AG

In focus

Everyday examples from the combination of Matsuura MAM72- 35V and Triag International workholding:

Example 1: Night production 1 – unmanned from 5 p.m. to 6:30 a.m., two set-ups each for 1st OP and 2nd OP; new parts are run-in during the day.
Data: Number of different workpieces: 7, number of finished workpieces: 136



Photo: Triag International AG

Everyday example 1

Example 2: Night production 2 – unmanned from 5 p.m. to 6:30 a.m., two set-ups each for 1st OP and 2nd OP; new parts are run-in during the day.
Data: Number of different workpieces: 5, number of finished workpieces: 104



Photo: Triag International AG

Everyday example 2

of an order and the desired delivery time is getting shorter and shorter. Nowadays, this requires chaotic production with changing series. Those who wish to master chaotic production with flexibility will be more successful if they use modular multiple workholding systems.

The market needs lot size 1

In the era of Industry 4.0, the trend is towards lot size 1. With the pallet station, the large tool magazine and the user-optimised controller (Fanuc), the Matsuura MAM 72-35V is suitable for chaotic and flexible production from lot size 1 upwards.

Custom production can thus be realized at the cost of series production. Finished parts are delivered directly to the customer and not stored at Triag International as was the case in the past.

Longer un-
manned run-
ning times
and signifi-
cantly fewer
tool changes
increase pro-
ductivity enor-
mously.
The workhold-
ing team ex-
periences that
every day.
The time be-
tween receipt

Valuable production space is freed up for further value creation.

Newemag | Schneider as a sparring partner

For many companies, the entry into 5-axis machining is an unusual step. With a solution-oriented partner like Newemag | Schneider mc, such an entry is easy to implement. We are happy to provide our knowledge and accompany our customers along this path. Many can sell machines. But not many offer a company comprehensive consulting.

We regard ourselves as a sparring partner and ask the companies the right questions so that they can develop further for the future. To this end, it is very important to us to support our customers with our service even after the sale. Our trained technicians carry out all service, maintenance and repair work at the machine's location.

Modular Powerclamp workholding tower.



Photo: Triag International AG



Photo: Newemag AG