

# LEAN PRODUCTION

## SOLUTIONS FROM STEIN

### WHY IT IS OBVIOUS FOR STEIN LEAN PRODUCTION

„If you are looking for economical and time-efficient production methods that allow flexibility and ensure process quality at the same time, you will quickly find what you are looking for with our workpiece carrier transport systems anyway. We also have good solutions for the many customers who are specifically interested in lean production. And without having to rely on the proven STEIN LOGISTICS for order and logistics control must be dispensed with.“

Jürgen Noailles, Managing Director



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OF QUALITY



# LEAN PRODUCTION WITH STEIN

## WHAT CAN LEAN PRODUCTION DO?

The method known as “STEIN LEAN“ is used where material is to be continuously processed from the beginning of a production process to the end in a single flow, to the extent possible. This also makes it possible to react flexibly, in the event of errors, and to interrupt the production process quickly so that no further bad parts are produced. Other advantages of STEIN LEAN include, for example:

- no buffer quantities
- shorter through-put time
- higher flexibility, constant quality control possible
- greater space productivity
- less waste due to material transport

We are proud that STEIN not only has experience with STEIN LEAN, but has also contributed to its success: Already in 2009 one of our customers won the Automotive LEAN PRODUCTION Award in the category „International Medium-Sized Businesses“.

## THE RIGHT MODULES

Of course, all components of the proven STEIN 300 can be used in a STEIN LEAN version of the system. The most common components, which meet the basic needs of STEIN LEAN include the following:

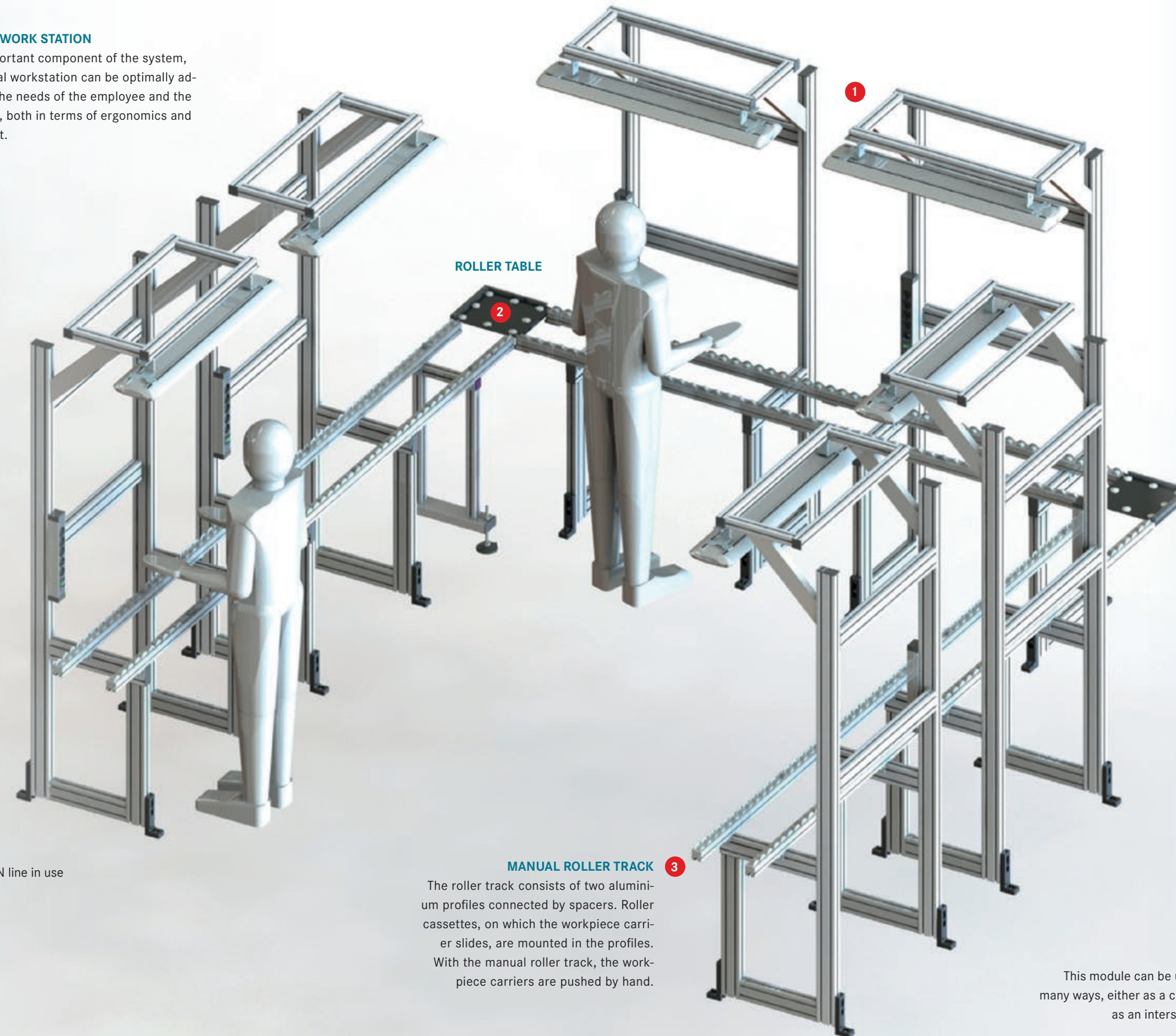
- manual roller track or driven belt section
- manual work station
- roller table
- centring unit

These components are also installed in the adjacent system.

Different interlinking concepts are available so that the ideal process can be implemented with maximum economic efficiency based on your situation.

### 1 MANUAL WORK STATION

As an important component of the system, the manual workstation can be optimally adapted to the needs of the employee and the work step, both in terms of ergonomics and equipment.



ROLLER TABLE

### 3 MANUAL ROLLER TRACK

The roller track consists of two aluminum profiles connected by spacers. Roller cassettes, on which the workpiece carrier slides, are mounted in the profiles. With the manual roller track, the workpiece carriers are pushed by hand.

This module can be used in many ways, either as a curve or as an intersection.

## STEIN LEAN IN ACTION

As with all STEIN systems, the STEIN LEAN version of the system also takes the customer's needs into account – with the modular adaptability that characterizes the components of the STEIN 300. In the case of the system presented here, it was important for the customer to maintain the flexibility of STEIN LEAN without having to forgo elements of an automated process.

### THE STEIN CONTROL SYSTEM

The higher-level control system enables the perfect symbiosis of manual work with an automatic system. This allows employees to take advantage of the control system logic that enables order management and traceability (optional).



„Thanks to the high flexibility of the STEIN modular design, a combination of manual and automated belt elements has been accomplished. This interaction of the individual systems is the basis for production according to the LEAN principle!“

Roland Kaimbacher (Engineer), MAHLE Filtersysteme Austria GmbH