

Reap the benefits with...



RK LEAN-Solution
assembly workstation systems

Preface



What is **LEAN** production?

LEAN production and Kaizen

are concepts encountered with increasing frequency when it comes to optimising production processes, reducing (and ideally eliminating) waste, and creating continuous improvement. These are issues on which companies will have to increasingly focus in future if they are to remain competitive.

RK Rose+Krieger

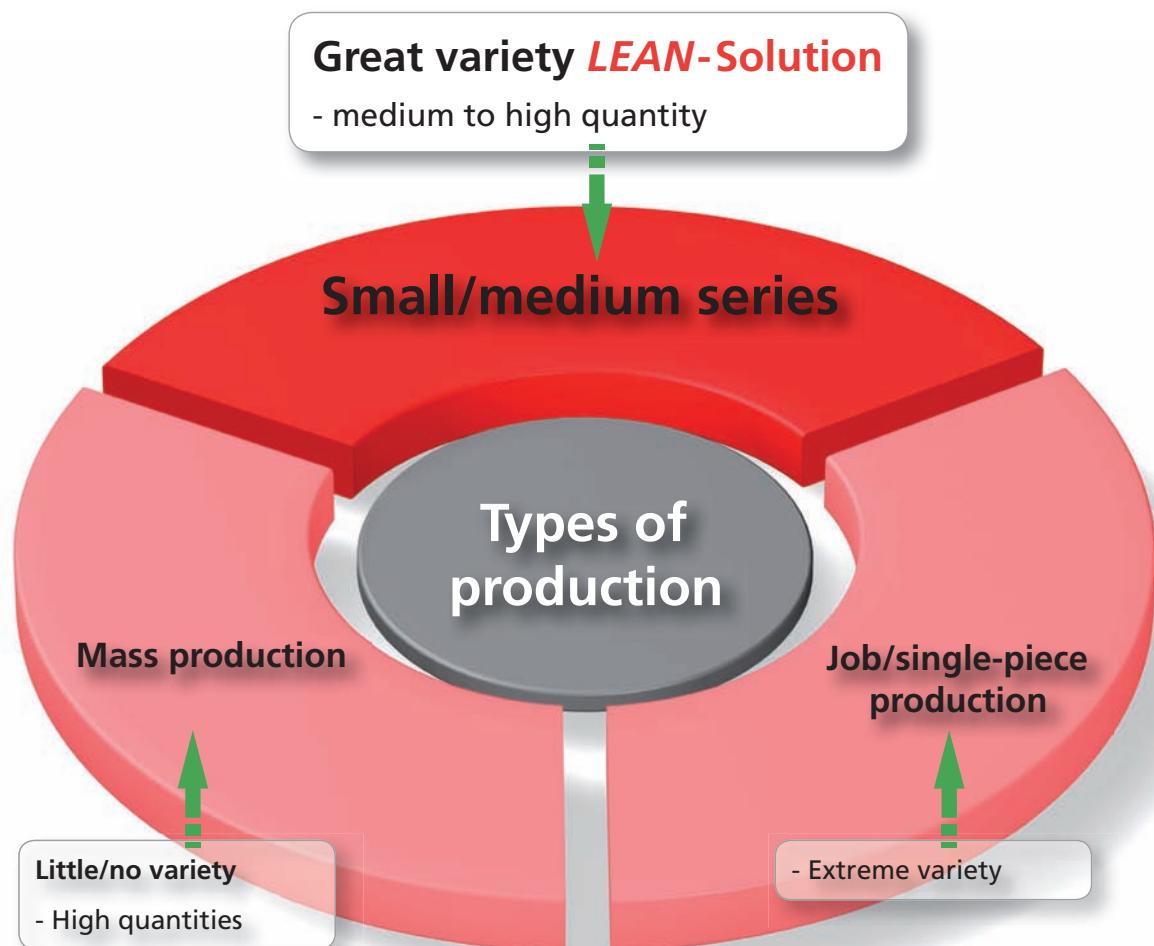
has engaged with **LEAN** management/production for a considerable time now and, thanks to our experience and the diversity of our products, we are able to offer a wide range of individual solutions which can be tailored flexibly to your requirements.

Our "**RK Easywork**" online selection tool enables you to configure a "standard workstation" very quickly on our website. It takes just a few steps to select a workstation that suits your needs and production structures.

In the subsequent request for quotation you can outline any particular wishes, which will be taken into consideration.

We will of course also assist you with the design of your individual workstation system in line with the principles of **LEAN** production. Our field sales personnel or our in-house technicians are on hand to advise and help.

*"One cannot do today's job with yesterday's methods and expect to be in business tomorrow!"
(Japanese proverb)*

**LINEAR TECHNOLOGY**

Moving and positioning

PROFILE TECHNOLOGY

Mix'n'match


**RK
offers**
CONNECTING TECHNOLOGY

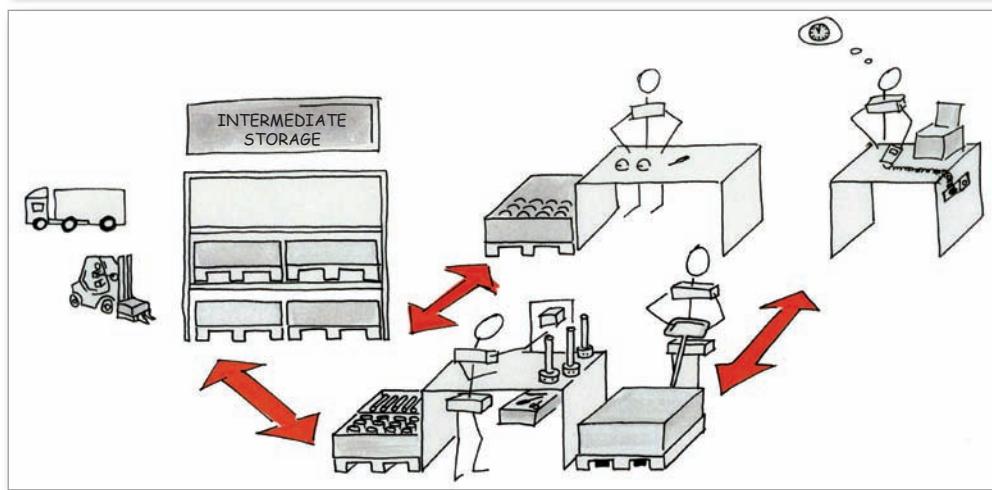
Clamp and release solutions

MODULE TECHNOLOGY

Consultancy services and optimisation

Production today

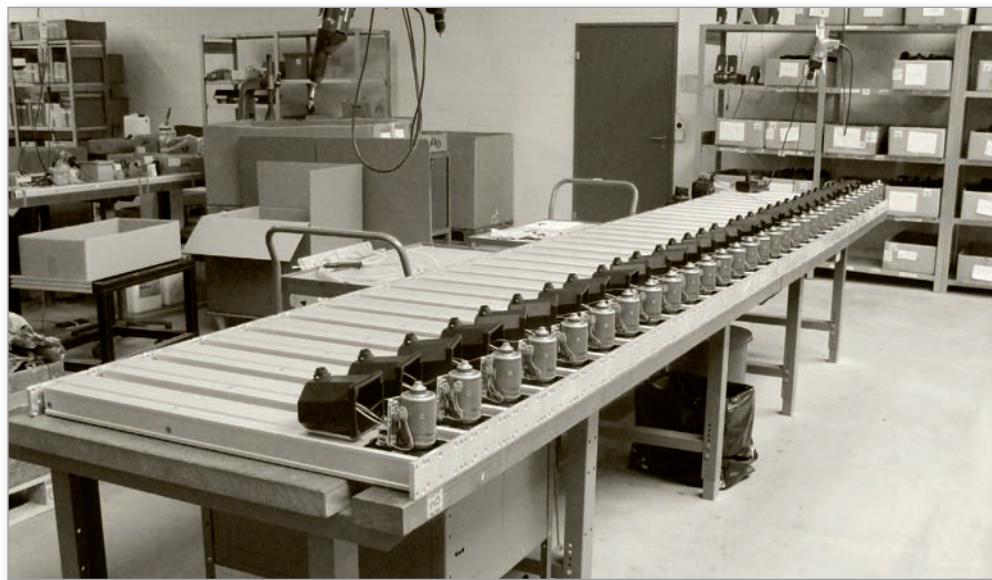
Conventional production



Waste

- ✓ Motion and transportation
- ✓ Inventory
- ✓ Space requirement
- ✓ Time
- ✓ Quality
- ✓ Costs

There is waste everywhere



What is waste?

Only approx. 10%-15% of a process involves value-adding work. Approx. 50% is waste and approx. 35%-40% support activities.

The 7 Mudas

...or the different types of waste.

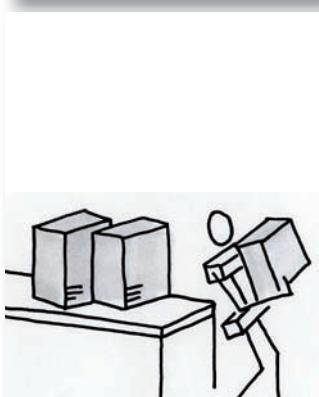
Defects and rework



1

If the parts produced do not come up to the required standard, they must be reworked or even scrapped. This ties up available capacity and causes extra costs.

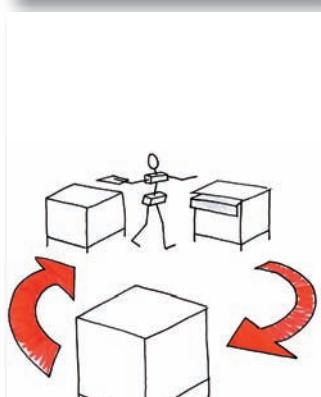
Transportation



2

Transportation does not increase the value of a product. This time could be used to carry out value-adding work.

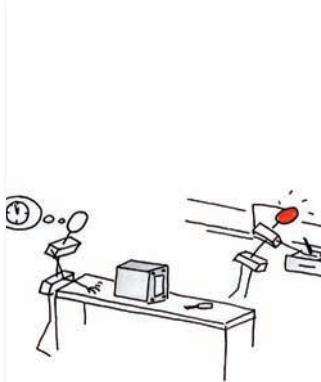
Motion and walking



3

If tools and materials are not located exactly where you need them, production times increase.

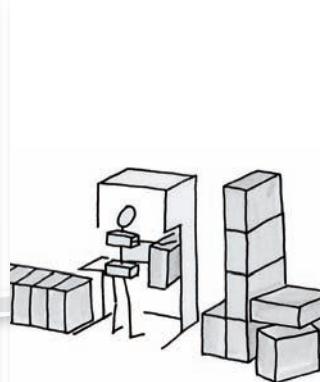
Waiting and searching



4

If you cannot carry on with your work or have to search for a tool or materials, valuable working time is lost.

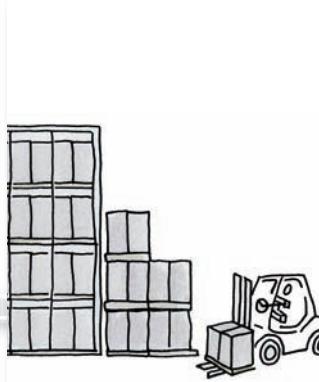
Inventories of all types



5

High stock levels and intermediate storage tie up capital.

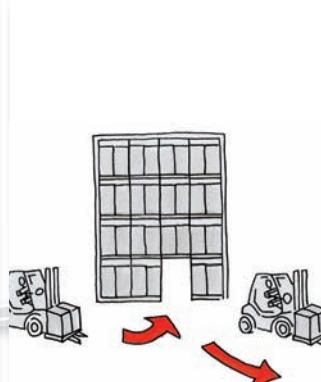
Overproduction



6

If more is produced than the customer needs, stock levels will increase along with waiting times, motion and transportation.

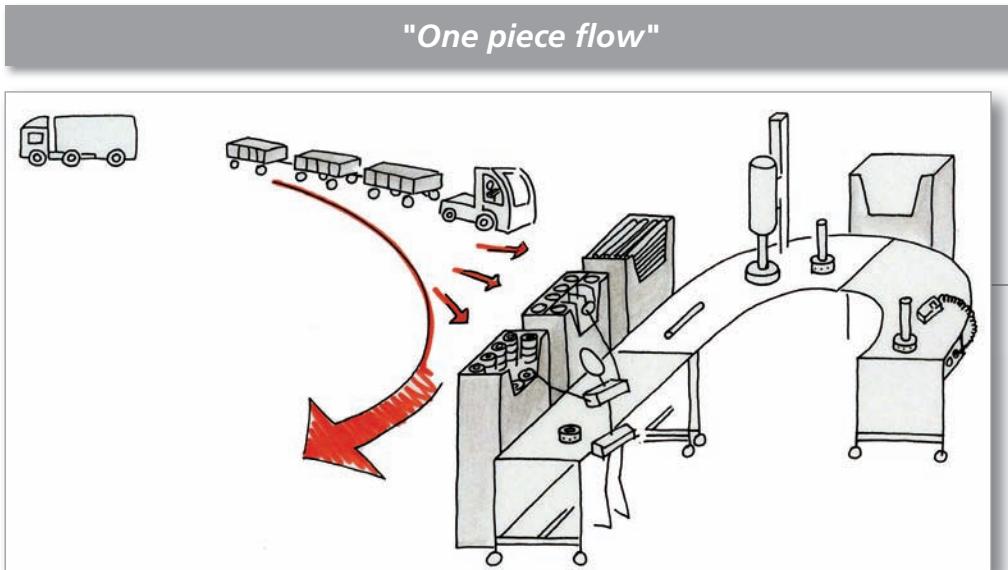
Ineffective processes



7

When more effort is invested than necessary to fulfil the requirements of the customer.

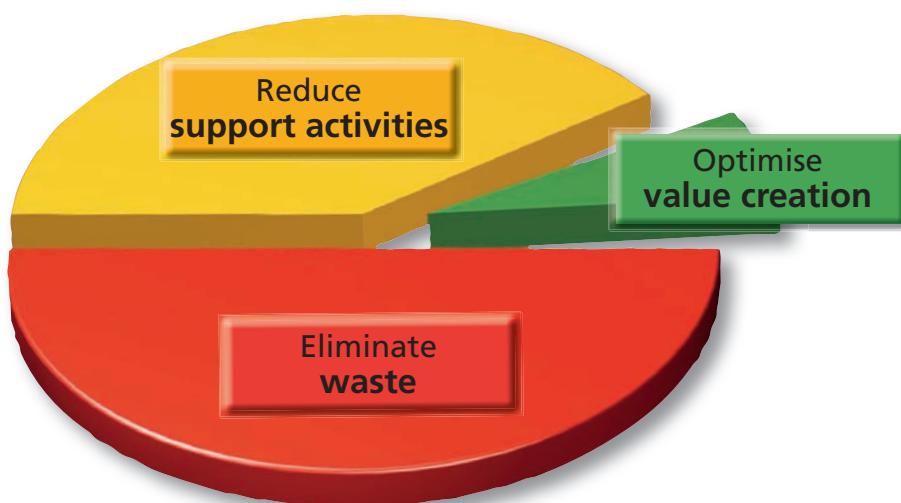
Production tomorrow



Advantages

- ✓ Motion and transportation
- ✓ Inventory
- ✓ Space requirement
- ✓ Time
- ✓ Quality
- ✓ Costs

To come up with the optimal solution, we take a holistic view of your application.



Equipment cart with pull-out drawers

RK LEAN Using BLOCAN® transport trolleys and transport shelves, components can be moved to the right location without the need for further equipment such as fork lift trucks or lifting carts. The flexible BLOCAN® profile system allows quick and uncomplicated conversion for new models or components.

**Flow rack for heavy components**

RK LEAN shelving systems support the supermarket principle. Ergonomic and optimal positioning of the parts box guarantees that the parts can be removed quickly and easily. The shelves are on castors and can therefore be moved to the right location for assembly at any time.

Production process

Sample workstation – basic



Static

Sample workstation – height-adjustable



Height-adjustable



Height-adjustable assembly workstations from RK Rose+Krieger

Working height needs to be optimally adapted to suit the height of the operator and the dimensions of the product.

Height-adjustable workstation systems enable ergonomic optimisation and thus minimise physical strain.



Individual

The basic set-up of a workstation system can be tailored to the requirements of the customer

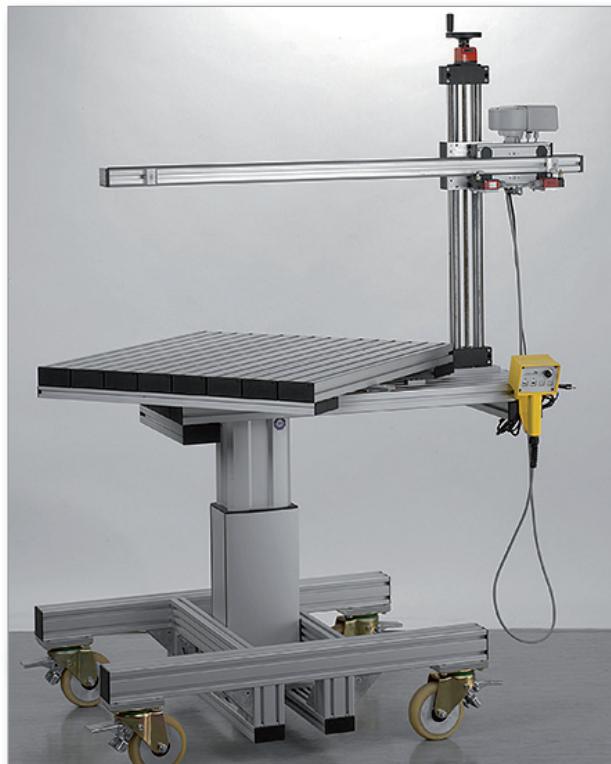
An optimally configured workstation should adapt to conditions and requirements, and not only from an ergonomic perspective – workflow should also be considered. With the RK modular system, almost any workstation design can be realised and subsequent extensions or modifications can be easily implemented.

Production process

Workstation lighting



Individual



Mobile

Ergonomic workplace

Being healthy and productive are two of the most valuable assets anyone can have. At the same time, staying healthy is the basis for being able to work.

Height-adjustable workstations promote health and productivity.

RK Rose+Krieger has many years of experience in the design of ergonomic workstations to draw on.

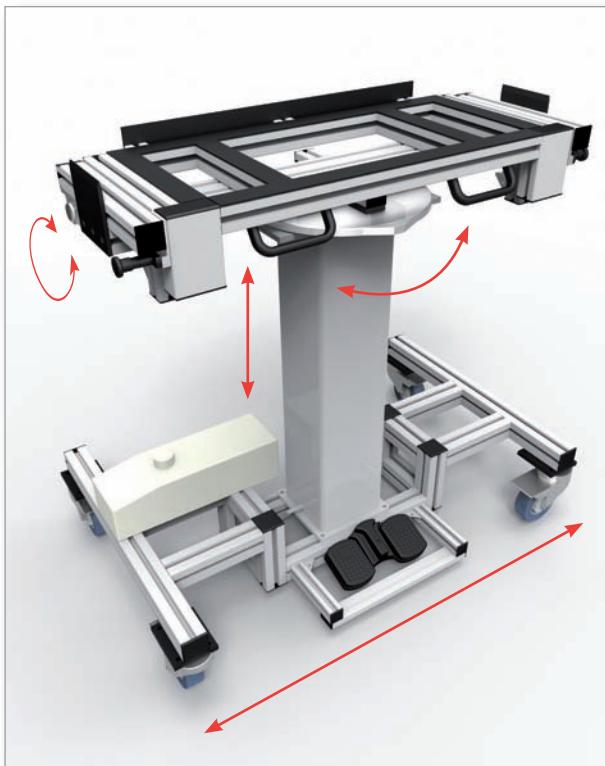
Mobile measuring table – flexibility is the key

Universally adjustable tables and equipment enable flexible use and ergonomic working.

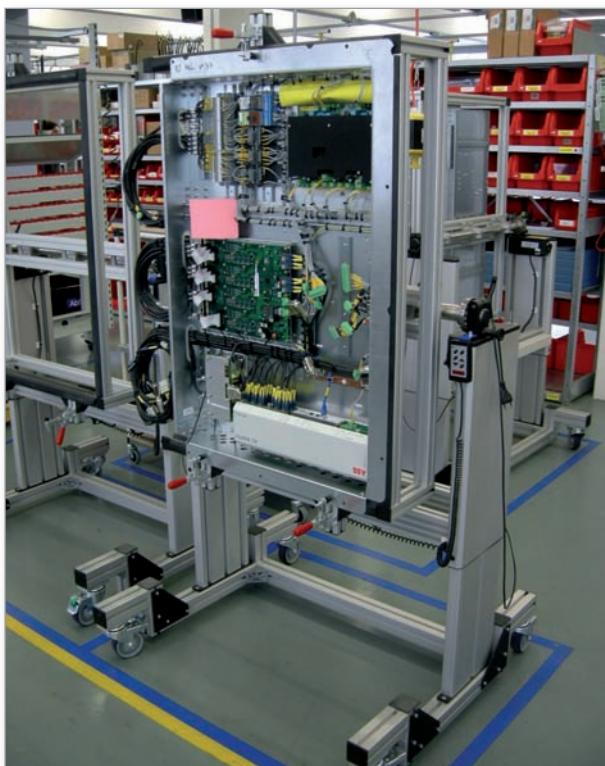
Workpieces with different dimensions are easy to process and inspect.

In addition to ready-to-install components, RK Rose+Krieger also offers complete systems tailored to your specifications and requirements.

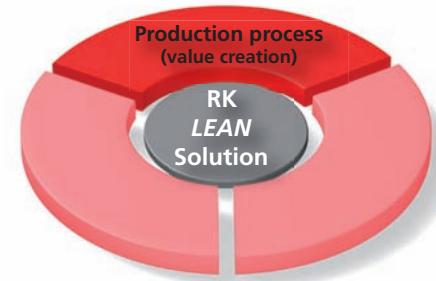
Sample workstations – individual and mobile



Individual



Individual



Individually rotating, swivelling and height-adjustable

Dynamic and fatigue-free working demands an optimally configured workstation. The quality of work increases, processing times are cut, absences due to illness are reduced.

Each workstation is configured exactly according to your specifications and requirements.

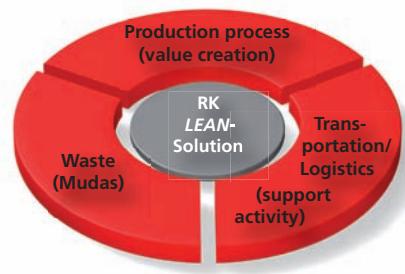
"one piece flow"

Production processes are arranged section by section in so-called islands. Where the operator changes frequently (e.g. in shift operation), individual adjustment of the working height makes good ergonomic sense and increases productivity.

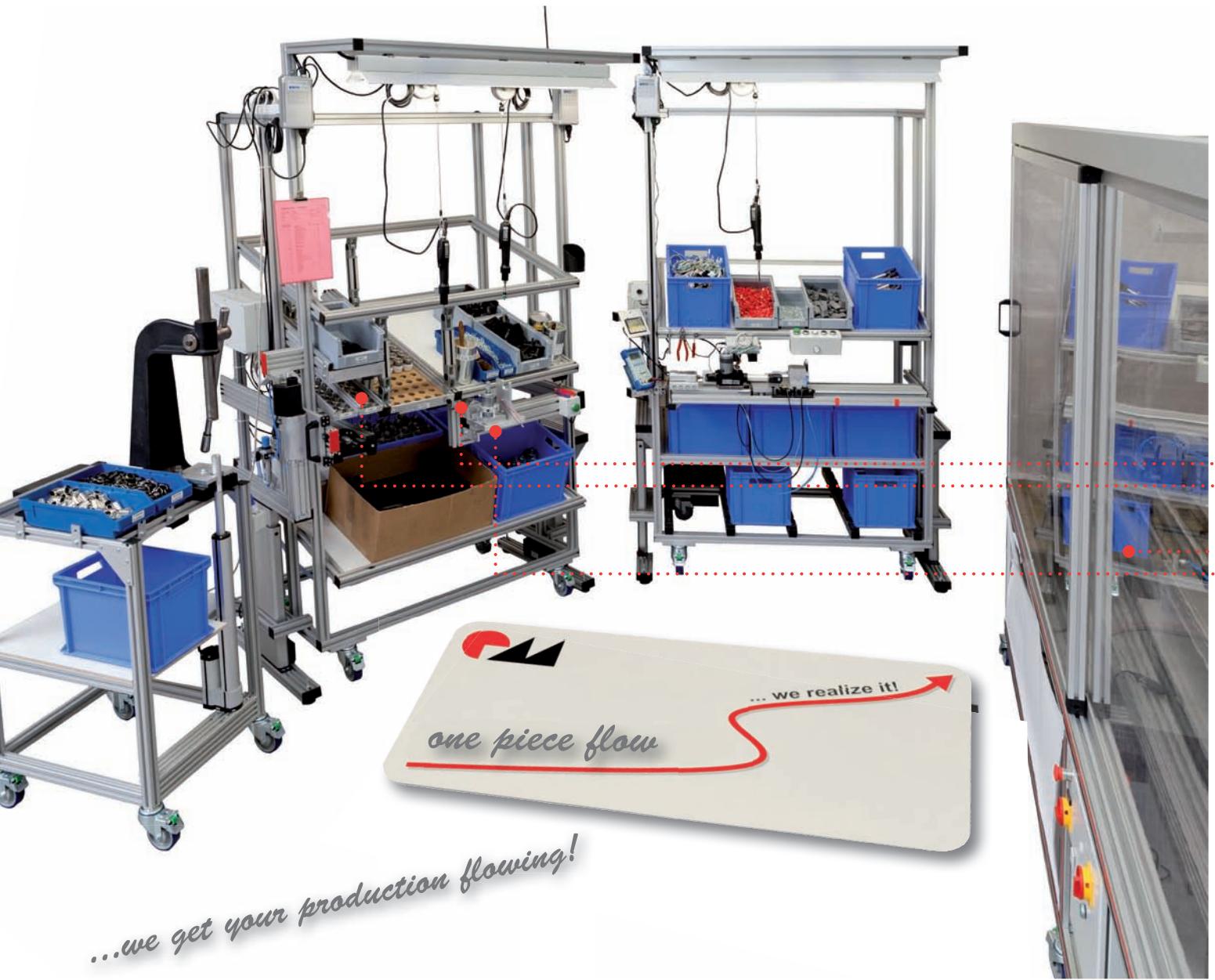
Production process

Optimised workplaces for maximum efficiency.

An optimised process begins with a safe, clean and well designed workplace. Tools and components are arranged so as to enable a harmonious workflow. Our tailor-made RK **LEAN** assembly workstation systems are created using high quality aluminium profiles manufactured by our subsidiary RK Rose + Krieger a system that we make available to our customers.



The RK **LEAN** assembly workstation system as a solution



INNOVATIVE PROCESS DESIGN – EFFICIENT PROCESSES

Our focus on value-added activities fosters efficient and conscientious use of resources. This means that transport distances can be reduced, workplaces optimised, processes accelerated and flexibility and responsiveness continually improved.

If high-quality processes can be reliably reproduced, this paves the way for faster process speeds and shorter lead times. This in turn means that inventories can be reduced, which reduces storage costs and results in smaller capacity and capital requirements and lower costs.

● ONE-PIECE-FLOW

Arranging successive operational steps in a U shape reduces travel and avoids the need for buffer inventories. If process steps are optimally synchronised, it is possible to achieve one-piece flow.



● BEST-POINT-TOOL LOCATION

Optimal inputting of components and «Best point» location of tools eliminates non-value-added activities.



● POKA YOKE

By using simple mistake-proofing (Poka-Yoke) mechanisms, errors can be eliminated from the work process.



● QUALITY TESTING

A combination of integrated quality tests and the one-piece flow process enables serial defects to be avoided.

Workstation lighting

Energy efficiency with light control

Workplace lighting is in flux. Not only must the strict statutory provisions on energy consumption be considered, but also the needs of users in the changing world of work. Only the consistent use of innovative technologies makes it possible to fulfil these requirements.

The most important tools for energy-efficient lighting are:

- ✓ High-performance optics for precise light steering
- ✓ User-friendly system solutions for a high degree of user acceptance
- ✓ Intelligent lighting electronics for light control and regulation

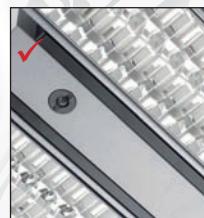
Energy efficiency and lighting quality are not a contradiction but go hand in hand.



Optical systems with a reduced cross-section deliver such high-performance lights with decorative appeal for top-quality lighting.

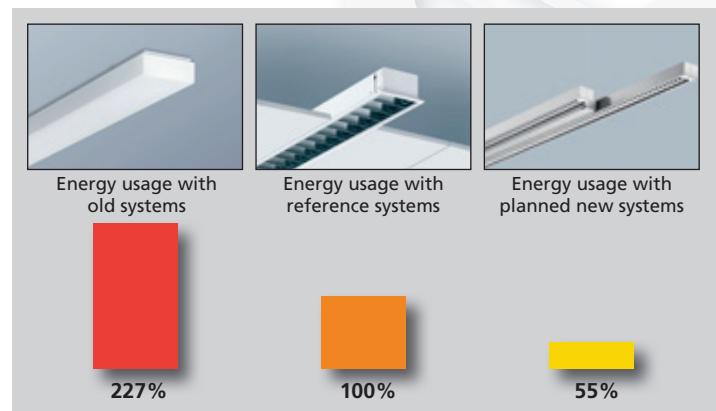


Integrated light management: Plug-and-play solutions range from intelligent single lights to groups of 50 lights.



Electronic light management for workstation lighting: Minimisation of energy usage, increase in comfort level, cost-saving.

Minimisation of energy usage for workstation lighting

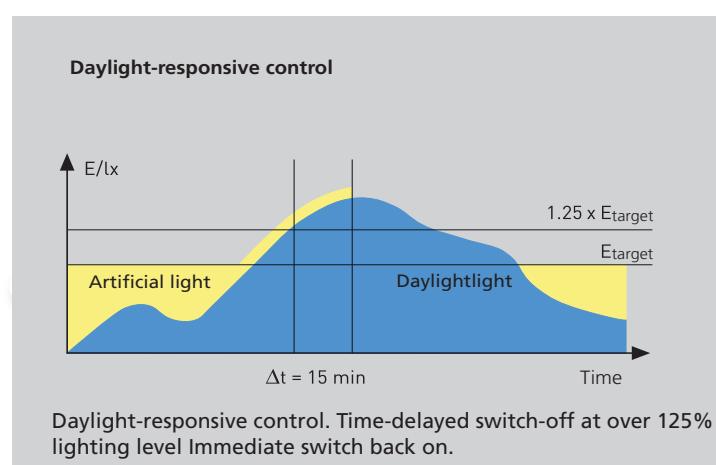


In many applications, if a modern lighting system is installed, additional savings can be made by using daylight and switching off the lights when nobody is there.

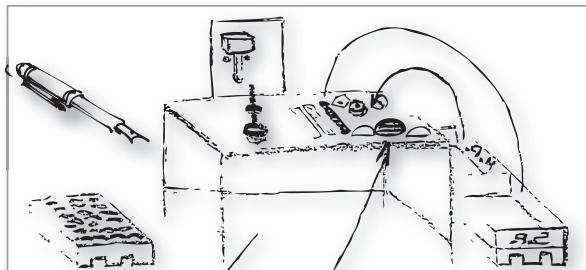
The examples give this saving potential compared with an identical lighting system without light management. The saving potential is often up to 55%.

With daylight-responsive control, artificial light is automatically provided only to the extent required to reach the desired lighting level, so artificial lighting is dimmed.

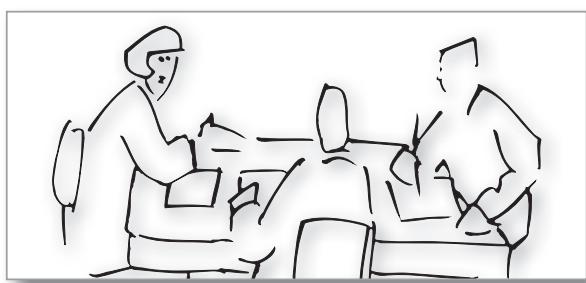
If daylight is continually sufficient, a light management system should switch off the artificial lighting.



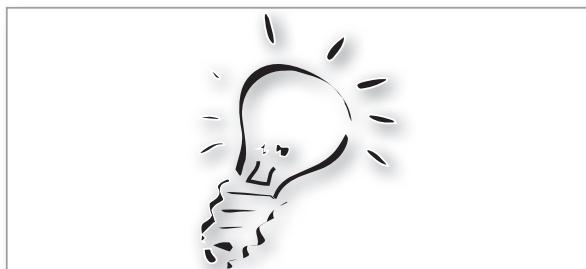
Success through continuous improvement



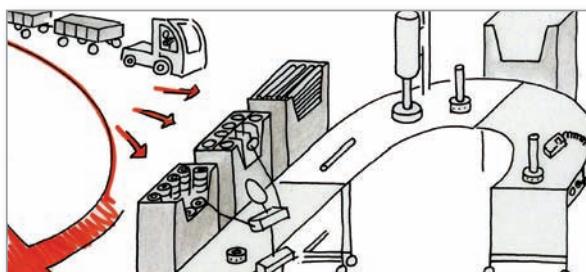
You make a sketch of your requirements.



Our Key Account managers and sales consultants are happy to visit you on site and help you work out your specific requirements.



Our product specialists will develop a solution for you.



We can deliver your turnkey solution or, if you so wish, assemble and commission it for you on site.

If you want to focus your resources on other tasks and are looking for an expert partner you can rely on?

Save yourself a long search – with us, you are in good hands.

R RENOWNED
KNOW-HOW

RK ROSE+KRIEGER
A Phoenix Mecano Company

**LINEAR-
PROFILE-
CONNECTING-
MODULE-
TECHNOLOGY**



FAX reply form

Yes, I would like to know more about
RK LEAN-Solution, please:

send me the RK Easywork Assembly
Workstation Systems brochure

send me details of your product range
in PDF format on a CD-ROM

contact me

Company: _____

Contact partner: _____

Department: _____

Address: _____

Tel. + Fax: _____

E-mail: _____

RK ROSE+KRIEGER

Connecting and positioning systems

RK Rose+Krieger GmbH
Postfach 15 64
32375 Minden, Germany
Telephone: +49 (0)571 93 35-0
Fax: +49 (0)571 93 35-119
E-mail: info@rk-online.de
Internet: www.rk-rose-krieger.com