



THE FUTURE
OF LEVELLING
TECHNOLOGY?
NOW IT'S
BEGINNING AGAIN!

PEAK PERFORMER PG
PEAK PERFORMER GC

"ONLY THOSE WHO LOOK
FOR INNOVATIONS WILL
ACTUALLY FIND THEM."





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REVOLUTIONS OFTEN MARK THE BEGINNING OF GREAT CHANGES!

THE HISTORY OF TECHNICAL DEVELOPMENT SHOWS THAT CRUCIAL STEPS FORWARD HAVE ALWAYS BEEN QUANTUM LEAPS, I.E. SUDDEN CHANGES WHICH FIRST FUNDAMENTALLY CALLED INTO QUESTION AND THEN REPLACED WHAT HAD BEEN CONSIDERED VALID AND BEST PRACTICE UNTIL THEN. KOHLER'S PEAK PERFORMER TYPES PG AND GC DEMONSTRATE THIS HISTORICAL TENDENCY ANEW.

The development of the Peak Performer machines once again underlines the pioneering role KOHLER has occupied in levelling technology for many years now. It is not without reason that we are recognized as market leaders and problem solvers who build machines with an unmatched degree of individualization. "Nothing ready-made and everything in the interest of our customers" is one of our main principles. The Peak Performer PG and GC types are currently the best possible manifestation of this consistent focus on customer benefit. Both series of machines have a modular design concept that on the one hand scores points due to the resulting flexibility in price and potential applications, and on the other hand impresses with outstanding precision and cost effectiveness. Even the smaller and less expensive basic Peak Performer PG types are equipped with a control unit and the practical Expert Calculation System as a standard. All further details about the Peak Performer PG and GC are found on the next pages.

FLEXIBLE IN EVERY RESPECT:

WHY IS IT NOT ONLY MUCH EASIER TO THINK ECONOMICALLY WITH THE PEAK PERFORMER PG, BUT ALSO TO WORK ECONOMICALLY?

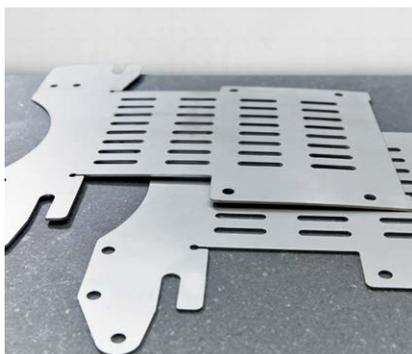
Because your Peak Performer PG is equipped with the technology that is precisely what you really need.



The Peak Performer PG: focusing on the essentials

In the development of the Peak Performer PG, the most important goal was to achieve an optimal combination of top precision and maximum cost effectiveness.

The motto: focusing on the essentials! It becomes particularly clear in the processing of thin sheet metal just how much what is technically possible can differ from what is actually necessary, as well as how important individual requirements can be. The latter are the reason why the Peak Performer PG has been designed with a flexible modular concept. A concept that offers maximum freedom for a selection of system components tailored to fit your requirements.



— Perfect levelling results



— Levelling training on a Peak Performer

THE PEAK PERFORMER PG.



The intelligent concept of the Peak Performer PG also forms the basis for achieving an optimal balance between costs and benefits. For example: because there is often no need for levelling gap control when levelling thin sheet metal, this possibility has not been included in the basic version of the machine. The same applies for overload protection. On the other hand, roller bending for removing edge and center waves can prove to be a competitive advantage. It can therefore easily be implemented. A control unit and our operator-friendly Expert Calculation System are always very helpful, and for this reason, these features are already on board starting with the smallest machines. The same is true for motorized roller adjustment and a particularly stiff roller frame.



— Quick-change device as standard

THE RELIABILITY OF A PIONEER

- KOHLER offers the consistency and reliability of a levelling technology pioneer.
- The extremely solid quality of KOHLER machines guarantees good investment protection.
- KOHLER guarantees maximum functionality of its levelling technology solutions and long-term availability of replacement parts.

THE FUTURE STARTS NOW: THE

WHY IS THERE NO QUESTION AS TO WHETHER THE PEAK PERFORMER GC WILL BE THE ONLY RIGHT ANSWER FOR INNOVATIVE INDUSTRIAL COMPANIES IN THE FUTURE?

Because productivity and efficiency will be even more important tomorrow than they already are today.



Revolutionary: the electromechanical levelling gap control unit

The Peak Performer GC opens the door to a new dimension of precision. The key to this door is GAP-Control, a revolutionary electromechanical levelling gap control unit developed by KOHLER which does not have a hydraulic system. It works with an extremely stable quadruple wedge system and energy-saving actuators. Without vibrations from pressure surges and making very little noise, this takes levelling quality to a new high thanks to precision position monitoring in the μm range. Even in the case of very technical parts which are made from high-strength metal and have varying cross-sections, this new quality standard is achieved.



— Go to the Peak Performer video



— Quality control after the levelling process

THE PEAK PERFORMER GC.



As well as quality, the new unit also increases productivity. This is for example due to the fact that there are no hydraulic components, resulting in greater efficiency in energy consumption and maintenance costs, as well as the clever cleaning and quick-change device. An intelligent overload protection device, which protects the machine from mechanical damage and the customer from extra costs, also contributes to the improvement in efficiency. And of course, the reversing device, which can be used to reverse the machine's infeed and outfeed settings within seconds, plays a role here too, as does the control unit with a calculation programme, over 200 tool storage spaces, and shutdown management. Basically, the Peak Performer GC takes a crucial step forward in every respect.



— A view of the stay bolts and roller frame

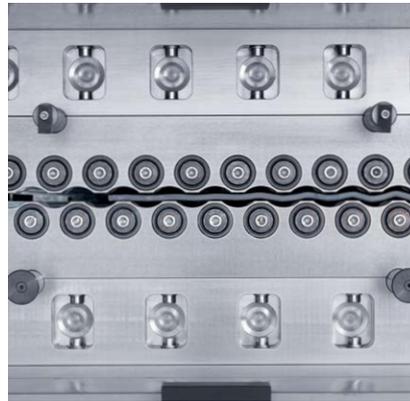
PERFECT LEVELLING TECHNOLOGY SOLUTIONS

- KOHLER is a specialist in levelling technology solutions for industrial sheet metal production processes.
- KOHLER perfects the entire levelling process – from individual sheet metal parts right through to fully automated solutions.

TECHNOLOGY WHICH SETS NE

THE REVOLUTIONARY TECHNOLOGY OF THE PEAK PERFORMER PG AND GC IS A FUTURE-FOCUSED SOLUTION INTENDED FOR INDUSTRIAL COMPANIES OF VARIOUS SECTORS.

Areas in which the machine would make a difference include aircraft, car manufacturing, shipbuilding, steel service centers, household and medical products, construction machinery, rail vehicles, furniture, aluminum processing, and the electrical industry, as well as many more.



Revolutionary GAP-Control

Quiet, energy-saving actuators control and keep the levelling gap constant via a friction-optimized quadruple wedge system. The system's stiffness and high force-stroke conversion rate provide incompressible and high-precision control. Another advantage of GAP-Control is the fact that it does not react to fluctuations in ambient temperature and therefore does not need a climate-controlled environment to run smoothly. GAP-Control is a standard feature starting with the machine type 50.



Efficient reversing device

The wedge system on the machine types with roller diameters from 50 to 100 mm can be used to reverse the machine's infeed and outfeed settings within a few seconds. The levelling rollers' direction of rotation changes automatically, allowing material to be inserted from both sides very quickly.

NO OPEN OILS

- The electromechanical levelling gap control unit is a piece of technology which works without hydraulics or open oils. The benefits: lower costs for environmental protection, maintenance, and operation.

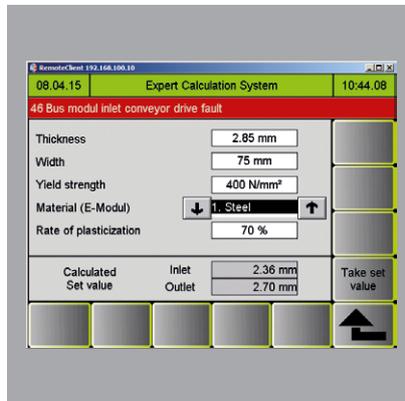


NEW STANDARDS!



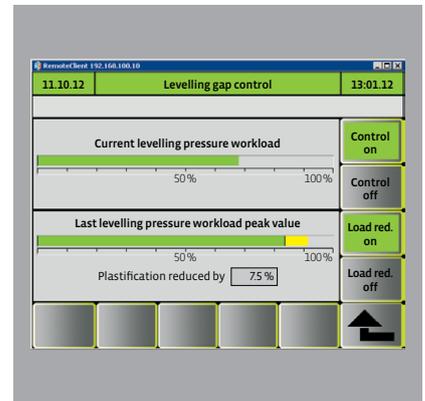
No markings left by intermediate rollers

The optional intermediate rollers are situated between the supporting and levelling rollers. They have spiral grooves and ensure that the pressure from the supporting rollers is not transferred to the material being levelled. The benefit: no markings are left, even on very sensitive materials such as aluminum.



Expert Calculation System

The Expert Calculation System is a very useful module for determining the perfect roller settings. It is the ideal solution when new material is to be levelled or the operating personnel does not have the necessary experience. The Expert Calculation System utilizes a large database containing the data collected from KOHLER's comprehensive experience. The optimal values for the respective application are displayed for the operator on the screen. The Expert Calculation System is integrated in all machine types as a standard.



Intelligent overload protection

To protect the levelling machine from mechanical damage, the overload protection device measures its load and responds within a fraction of a second. If the specified normal load is exceeded, the intelligent system reduces the degree of plastification, thus preventing rejects. If there is a threat of overload, the levelling machine automatically shuts down and the roller frame opens. This guarantees reliable and unaffected monitoring. The intelligent overload protection system is a standard feature starting with the machine type 50.



— Control technology from Kohler

THE LATEST CONTROL TECHNOLOGY

- Easy operation via touch panel and absolutely precise repeatability
- Thanks to the control system, flexible speeds from 3–15 m/min. are possible.
- With our system, you can store up to 200 different material or tool settings and call them up anytime with just the push of a button.

KOHLER IS A LEADER IN ROLLER BENDING.

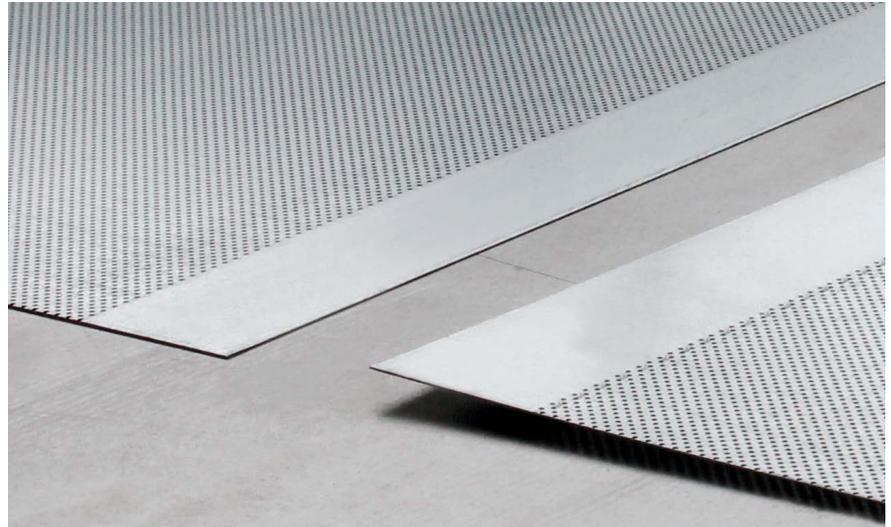
AS IN SO MANY AREAS OF THE LEVELLING PROCESS, KOHLER ALSO DEMONSTRATES THAT IT IS THE INNOVATION LEADER FOR ROLLER BENDING WITH THE PEAK PERFORMER RB.

For one, because KOHLER was the first manufacturer to integrate this technology in part levelling machines. For another, because it allows both edge and center waves to be removed in the optimal way.

The KOHLER roller bending principle is based on adjustable supporting rollers that are situated under the levelling roller. This variability makes it possible for the levelling roller to deflect the material and thus achieve the specific removal of edge and center waves.

Preset bending of the levelling rollers

With the help of the individual and overall adjustability of the lower roller supporting blocks, the levelling rollers can be lifted or lowered in varying degrees using an adjustable motorized wedge system. These adjustments serve to preset controlled bending of the levelling rollers.



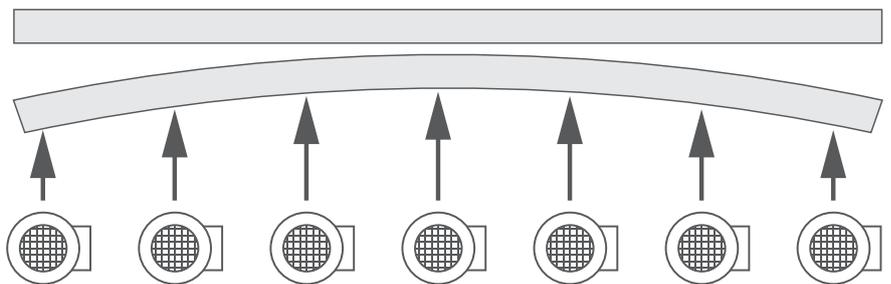
— Material before and after roller bending

Removal of edge waves

If the material quality is impaired by edge waves, the flexible supporting rollers are lifted in the middle. In this way, they cause a stretching effect in the material that eliminates the waves at the edge.

Removal of center waves

Center waves are levelled in a similar way. The difference: the supporting rollers are lifted at the outside edges. The stretching effect then occurs in the edge area of the material and removes the waves in the center.



YOUR BENEFITS

- Perfect levelling results, even with extreme inner tension in the material (such as perforated sheet metal) that cannot be levelled satisfactorily using "normal" levelling technology.



— The setting motors for roller bending

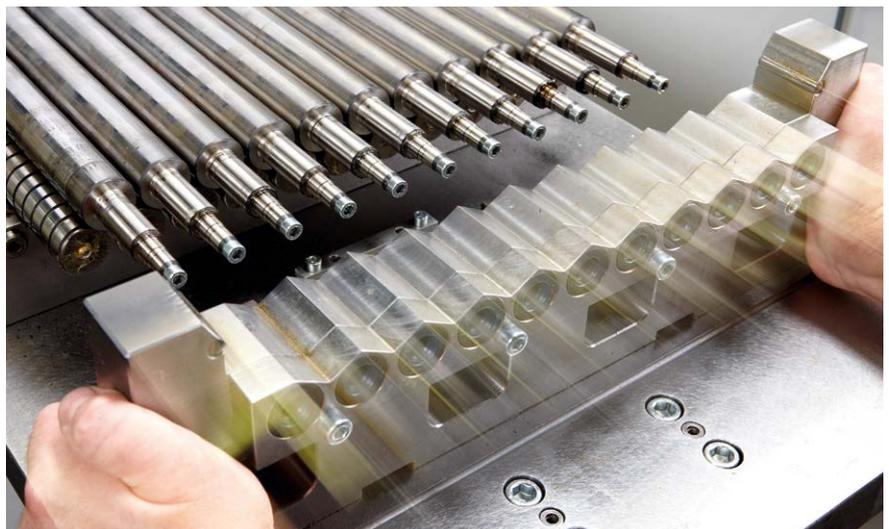
EASY MAINTENANCE THANKS TO THE QUICK-CHANGE DEVICE.

WHY DOES EVERYONE WANT THE MOTORIZED QUICK-CHANGE DEVICE?

Because the intelligent quick-change device developed by KOHLER offers significant benefits for the maintenance of levelling rollers and supporting rollers. Both are thus easy to access and can therefore be cleaned without removing them from the machine. This is possible because both the roller bearings and the roller supports are mounted on a guide rail that can slide out of the machine driven by an electric motor. After removing the front bearing rail, the rollers can be removed from their supports so that the rollers and supporting rollers can be replaced or cleaned outside the machine. This reduces effort required for maintenance and repair and thus also downtime. At the same time, added value is also increased.



— Optimal access to the roller frame



— The levelling rollers can easily be cleaned or replaced



— Checking the roller frame

YOUR BENEFITS

- Less effort for maintenance and repair
- High added value thanks to low downtime
- Direct access to the supporting rollers



PERFORMANCE DATA AT A GLANCE.

Type	Max. passing width mm Inch	Adjustable ¹⁾ material thickness	Quick-change device	Extended quick-change device	Motorized setting	GAP Control	Return-feed operation	Roller bending
18	400 15	0,15 - 3,5 mm	■	□	□	-	-	-
30	1250 49	0,15 - 3,0 mm	■	□	■	-	-	■
30P	400 15	0,20 - 6,0 mm	■	□	□	-	-	-
30P	600 24	0,20 - 6,0 mm	■	□	□	-	-	-
30P	900 36	0,20 - 6,0 mm	■	□	□	-	-	-
30P	1300 52	0,20 - 5,0 mm	■	□	□	-	-	-
40	1500 59	0,20 - 6,0 mm	■	□	■	-	-	■
40P	400 15	0,25 - 8,0 mm	■	□	□	-	-	-
40P	600 24	0,25 - 8,0 mm	■	□	□	-	-	-
40P	900 36	0,25 - 8,0 mm	■	□	□	-	-	-
40P	1300 52	0,25 - 8,0 mm	■	□	□	-	-	-
40P	1600 62	0,25 - 8,0 mm	■	□	□	-	-	-
50	1500 59	0,40 - 8,5 mm	■	□	■	■	□	■
50P	600 24	0,55 - 18 mm	■	□	■	■	□	-
50P	900 36	0,55 - 18 mm	■	□	■	■	□	-
50P	1300 52	0,55 - 18 mm	■	□	■	■	□	-
50P	1600 62	0,55 - 18 mm	■	□	■	■	□	-
50P	2000 78	0,55 - 15 mm	■	□	■	■	□	-
80	2500 98	0,8 - 15 mm	■	□	■	■	□	■
80P	1300 52	1,0 - 25 mm	■	□	■	■	□	-
80P	1600 62	1,0 - 25 mm	■	□	■	■	□	-
80P	2000 78	1,0 - 25 mm	■	□	■	■	□	-
80P	2500 98	1,0 - 25 mm	■	□	■	■	□	-
120P	1300 52	1,5 - 40 mm	■	□	■	■	□	-
120P	1600 62	1,5 - 40 mm	■	□	■	■	□	-
120P	2000 78	1,5 - 40 mm	■	□	■	■	□	-
120P	2500 98	1,5 - 40 mm	■	□	■	■	□	-
150P	1300 52	2,0 - 50 mm	■	□	■	■	□	-
150P	1600 62	2,0 - 50 mm	■	□	■	■	□	-
150P	2000 78	2,0 - 50 mm	■	□	■	■	□	-
150P	2500 98	2,0 - 50 mm	■	□	■	■	□	-
180P	1600 62	2,5 - 65 mm	■	□	■	■	□	-
180P	2000 78	2,5 - 65 mm	■	□	■	■	□	-
180P	2500 98	2,5 - 65 mm	■	□	■	■	□	-
180P	3000 118	2,5 - 65 mm	■	□	■	■	□	-
180P	3500 137	2,5 - 65 mm	■	□	■	■	□	-

¹⁾ = at a yield strength of 250^N/mm² ■ = Standard □ = Option - = not available
Further machine types upon request.

THE COMPETENCE CENTER LEVELLING CAN DO EVEN MORE!

"AIRCRAFT" FOR ALUMINUM PARTS

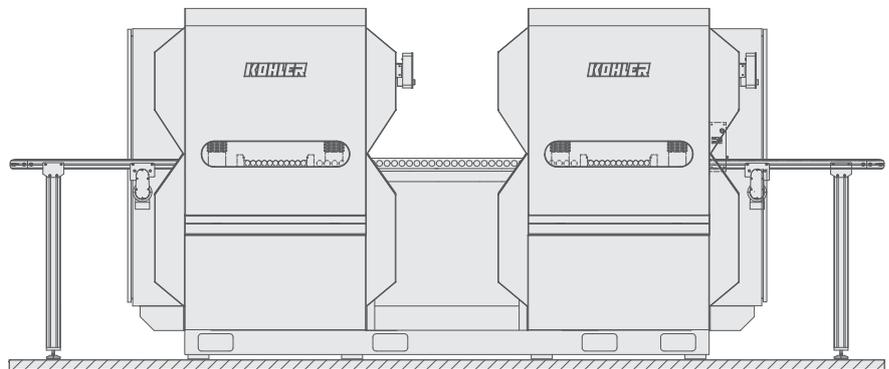
KOHLER fulfills the particularly high demands of the aircraft industry with its "Aircraft" option for aluminum parts. "Aircraft" means that all parts of the machine that come into direct or indirect contact with the material being levelled are made of corrosion-resistant material. Specifically, the levelling rollers are chrome-plated and the other blank metal parts are protected against corrosion.



— Roller frame with components made of stainless steel

"TANDEM" FOR ROUND PARTS

Levelling circular parts is done in two stages. First in the "normal" direction, and the second time after being rotated by 90°. This second stage prevents round parts from becoming ovally deformed. To achieve this, we place two Peak Performers in a row and connect them with the rotation station. The practical thing about it: KOHLER provides this tandem process as a complete production line.

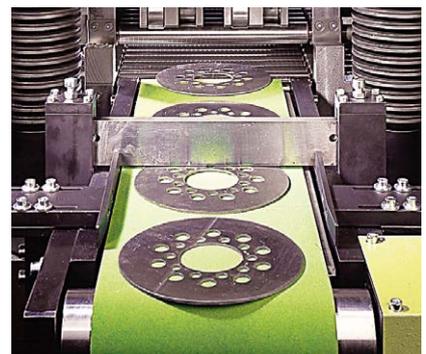


— Diagram of a tandem system

KOHLER MAKES CUSTOMERS MORE SUCCESSFUL

— Kohler ensures that its levelling technology solutions are always perfectly designed, and then fit in to enhance a production system seamlessly when actually constructed.

— KOHLER designs and constructs all the components of its levelling systems according to their specific use and optimizes them with regard to the customers' individual cost and performance targets.



— Levelled circular blanks from a tandem system

CUSTOMIZED CONTRACT LEVELLING AND LEVELLING TRIALS.

AS TECHNOLOGICAL MARKET LEADER, KOHLER STANDS FOR TOP-LEVEL RESULTS.

This of course also applies to the areas of contract levelling and levelling trials.



— Feeding of the material to be levelled



— Optical quality control

Contract levelling with three levels of service

Beyond the pure contract levelling process, KOHLER also offers additional, freely selectable service levels (Full Service, Expert Service, Self Service). They cover in particular the incoming delivery of the parts that are to be levelled, the outgoing transportation of the levelled parts, and the accompanying support of a highly specialized KOHLER staff member.

Levelling trials in the Competence Center

Become familiar with what professional levelling with the highest standards means. Find out what conditions are best for levelling, and just how good the results are that you can achieve when working together with leading experts.



— Even complex geometries are levelled perfectly

LEVELLING BY KOHLER

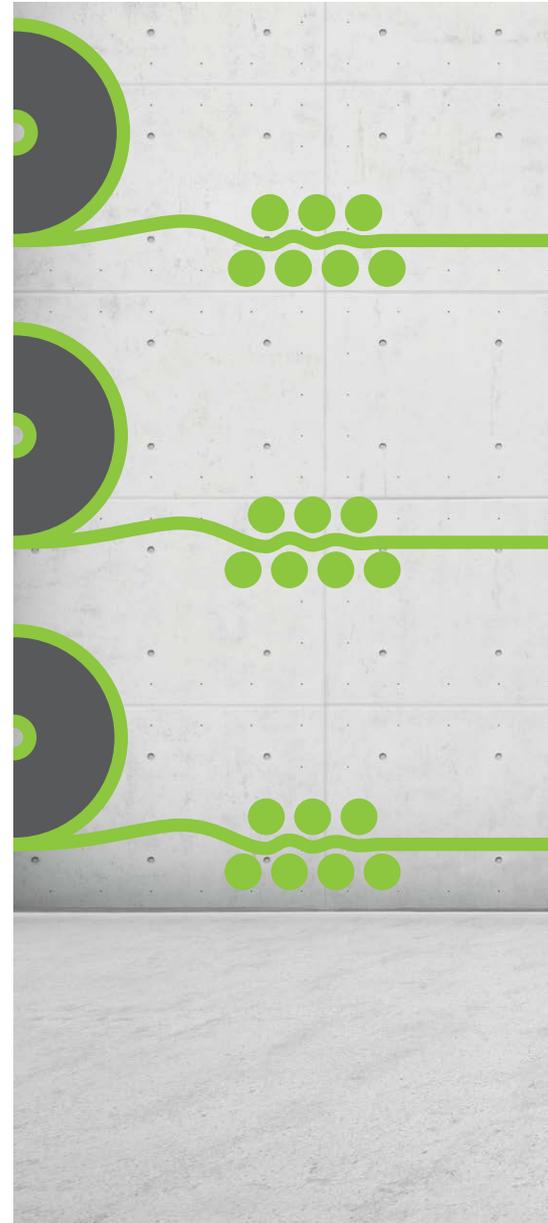
— At its Competence Center for Levelling Technology in Lahr, Germany, as well as its subsidiary in Shanghai, China, KOHLER provides optimal conditions for contract levelling and levelling trials.

WELCOME TO THE COMPETEN

KOHLER'S REPUTATION AS A PRODUCER OF EXCELLENT TAILOR-MADE LEVELLING TECHNOLOGY SOLUTIONS FOR INDUSTRIAL PRODUCTION PROCESSES EXTENDS WELL BEYOND THE BORDERS OF GERMANY. THE COMPANY IS ALSO WELL-KNOWN AS A CAMBER LEVELLING LINE SPECIALIST.

The best and most effective levelling technology solutions are always perfectly designed, and then fit in to enhance a production system seamlessly when they are actually constructed - and this is exactly what KOHLER's solutions do. Traditionally, we are not just successful in our core area of levelling technology, but also in the other important peripheral areas, i.e., handling, levelling, cutting, washing, and stacking. This universal competence, the high level of expertise of our staff and our engineering skills, which are typical of the Baden region in Germany, are also demonstrated in our complete automation solutions.

Our area of expertise, special machine construction, has proven to be a logical consequence of our focus on consultation services and solutions, as well as our wide product range and the experience we have accumulated through building over 6,000 levelling machines. Customers also turn to us when they want to modernize production lines, their own products, or products made by other manufacturers. These customers generally come from the top end of their industry, and we make our collaboration with them as simple as possible by employing the one-face-to-the-customer principle.



— The Competence Center Levelling in Lahr, Germany

CE CENTER LEVELLING!



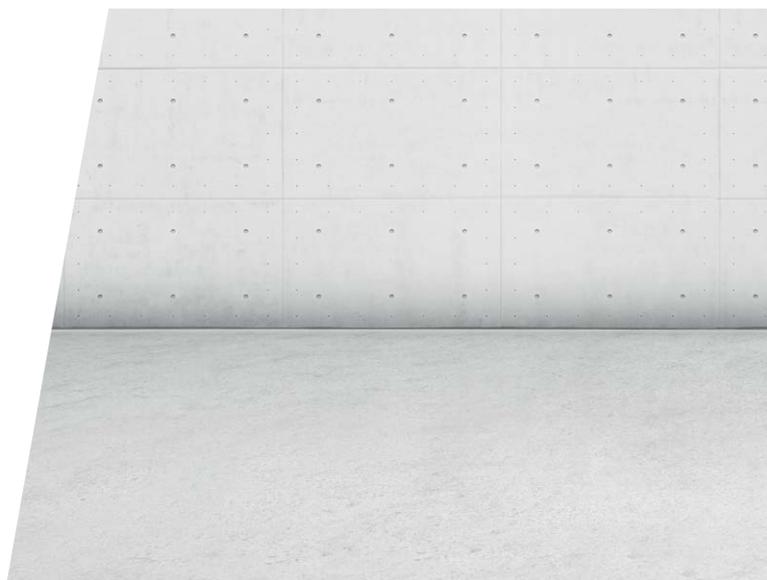
**KOHLER'S LEVELLING TECHNOLOGY IS ONE REASON
WHY MANY COMPANIES ARE IN SUCH GOOD SHAPE!**



— KOHLER showroom

COMPETITIVE ADVANTAGES

- KOHLER identifies and increases potential for improvement in levelling technology solutions, which makes customers more competitive.
- KOHLER solves every levelling technology challenge with enthusiasm.



Go to the Peak
Performer video



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