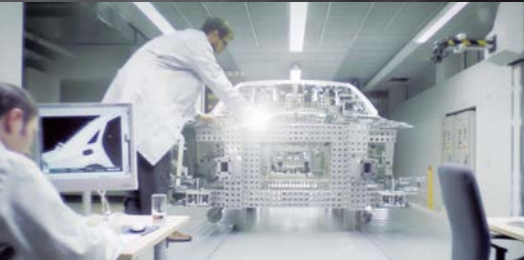
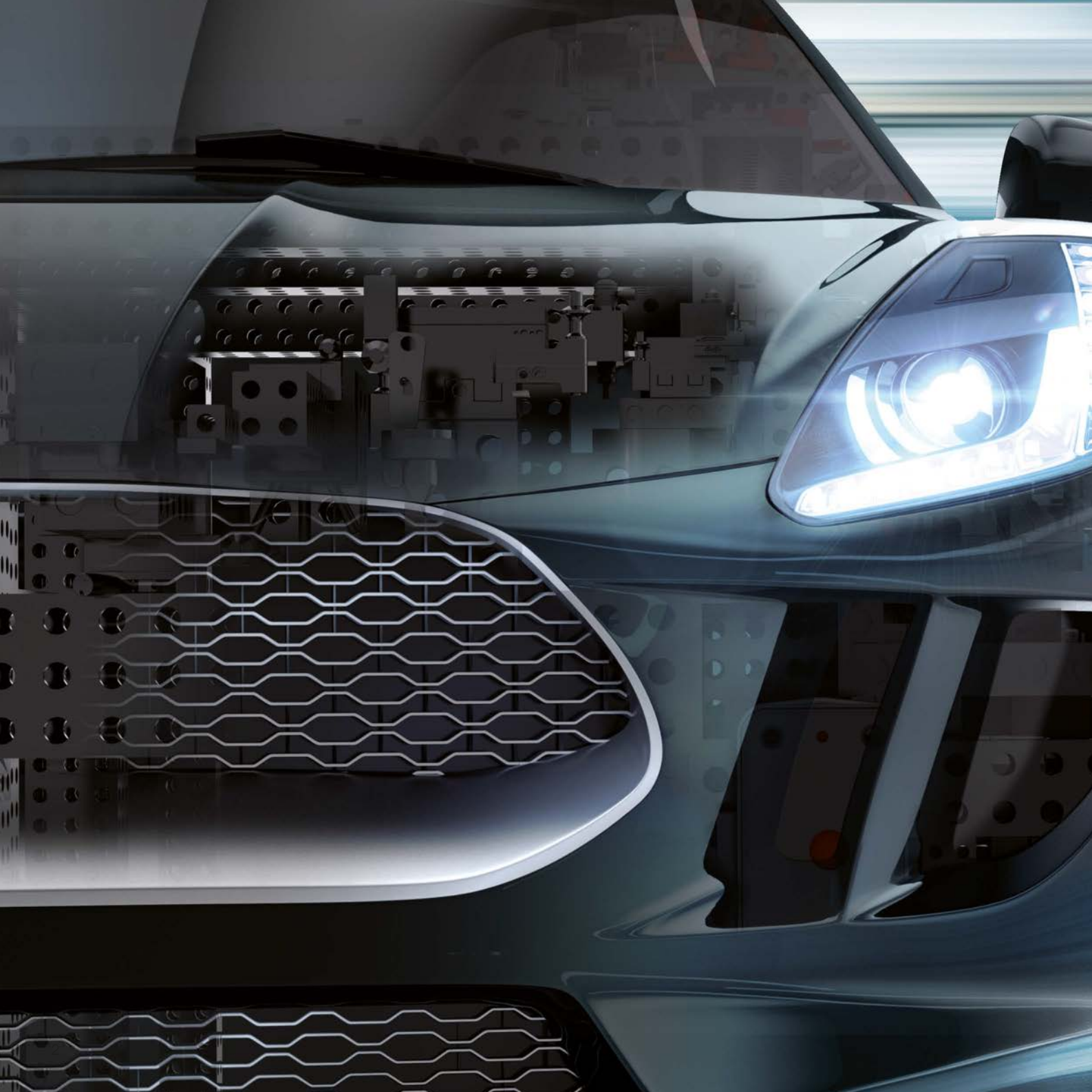


Modular fixturing systems
Innovative vacuum clamping systems
First-rate contract manufacturing

Ideas make things move



Fixed on precision





Designing.
Developing.
Assembling.
Positioning.
Checking.
Measuring.
Optimizing.



A product is born.
Perfect for series.

Alufix from WITTE. **Developed to define precision.**



The quality assurance of products and processes comes first and foremost, especially in the automotive and aircraft industries, yet the same applies to all other producing fields, too.

Once the final design has been established, the fitting accuracy and joinability of individual parts must be checked precisely. WITTE accompanies leading manufacturers worldwide on their way to technical excellence: with modular clamping and complex fixturing systems made of high tensile-strength aluminum.



Pre-loaded large workpiece on remote-controlled sandwich plate enables measurement without time loss.





The Alufix modular system offers room for any type of three-dimensional products that have to be held, checked and measured in any way.

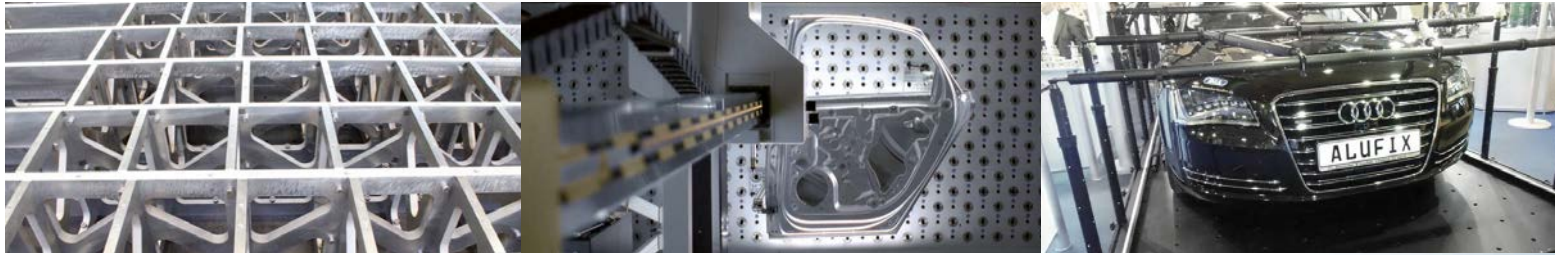
One cube,

over 10,000 systems sold.
For zero leeway in terms of
assembly jigs, gauges, the basis for cubings and I

Modular fixturing systems from WITTE are comprehensive, intelligent, problem-solving solutions. You can choose from a wide range of components – from fixtures and jigs to “meisterbock”/“fügemeisterbock” setups for vehicle parts measurement and evaluation, all the way to frames for design models and prototypes. The major advantage is their very low weight at a simultaneously high degree of stability and rigidity. We

provide versions of materials and operating features that can be combined with each other to meet many different demands.

With 3 basic components, 4 system sizes and 5 groups of elements, Alufix enables individualized solutions to match any task constellation. All system elements are combinable, downward compatible and repeatable due to the modular setup. Owing to



8 corners, 12 edges, 6 surfaces and a revolutionary application idea for fixturing technology: That's Alufix from WITTE. A universal assembly system arising from a cube shape for the widest variety of industries.

tolerance. Since 1987 it has been the leading modular fixturing system for building measuring fixtures, checking and lots more. Numerous system enhancements extend the unlimited possibilities for use, whether for tactile or optical measurement.


the high-grade qualities of materials, they are up to 100 % retooling-capable for new tasks. That reduces investment costs for both testing equipment and fixtures with each further project.

Complementing base and sandwich plates stand for maximum precision and rigidity in horizontal or vertical designs. The basic version as well as diverse customized types, e.g.

mounted on roller bearings in an XXL format, readily serve as an intelligent enhancement for coordinate measuring equipment and as transport between loading and measuring areas. For the increasingly optical processes in metrology, suitable system solutions are equally on hand with a high innovation potential for you.

The Alufix grid hole profile has long since become the standard for a high-

quality reference in 3D prototyping, actual prototype construction, design developments, and measurements accompanying production. Because we give you planning certainty, investment security, functional reliability and service assurance. Our CAD parts library, which you can use directly for construction design as a customer, is nothing less than pioneering.



Powerful
vacuum meets
demanding
workpiece.

**We hold it
together –**
in any shape
or form.

Clamping via thin air: at the press of a button
and accessible from all sides.

Innovative vacuum clamping systems



The fine art of clamping

begins with really big challenges.



When conventional mechanical clamping techniques reach their limits, that's where standard and customized vacuum solutions come into play: from WITTE. For the surface-friendly clamping of geometrically sophisticated or several square meters large workpieces.



Innovative vacuum clamping systems

Vacuum clamping portal with stamping system
for the aviation and aerospace industry.





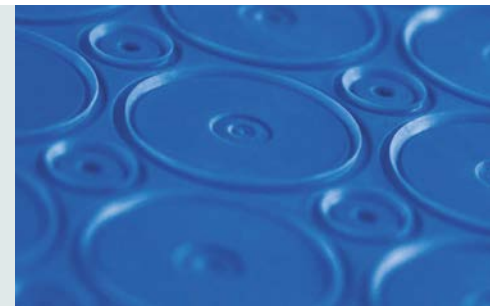
Patented
solutions.
Made in
Germany



Secure clamping,
repeatable positioning,
constant clamping
force: WITTE vacuum
technology for gripping
workpieces reliably.

Open-minded
for new challenges:
Full-scale solution
from vacuum supply to
maintenance concepts. for a
the sc
meet individual demands: from freeze and
special applications s

An intelligent solution for every
specification: e.g. WITTE FLIP-POD
Vacuum System for large workpieces,
VAC-MAT plastic mat, machine table
mounted with VAC-MAT and
microporous vacuum plate (from
above, left to right)



Innovative vacuum clamping systems

Experience and the power of innovation interact at WITTE. Precisely because new production and testing processes increasingly require individual solutions for the clamping task involved is why we offer an entire range. New materials get lighter, components more thin-walled and geometrically more sophisticated. These kinds of product features call for an innovative clamping technology to tackle projects economically: vacuum clamping technology from

WITTE for a wealth of benefits, including: reduced clamping times, 5-sided, vibration-free machining and trouble-free milling of breakthroughs. The widest variety of materials can be promptly positioned and fixed in place.

Other innovative developments include specialized clamping technologies such as freeze clamping (IceVice) for very small or geometrically indistinct workpieces along with mold clamping

technology for small-scale series. Microporous vacuum plates allow an absolutely flat clamping of foils and microstructures – outstanding even for fixing wafers and electronic foils in place. Grid-type vacuum chucks for heavy-duty metal-cutting work such as grinding, milling and turning along with the lineup of vacuum pumps and units excellently top off our range of products and services. It's a fact: Anything's possible with ideas from WITTE.

S


Clamping workpieces very quickly and gently assured CNC machining of critical parts: WITTE has the capacity to match with corresponding holding forces to mold clamping technology all the way to impressive systems such as heatable, coolable and translucent systems.





Inventing solutions.

Using the best an engineer can have:
passion.

WITTE Innovations and Milestones
Radius/ball turning tool 1974: Start of own product development with RKD-1
Slot vacuum chuck 1982: Market launch of vacuum clamping technology
Alufix 1987: Development and market launch Alufix CLASSIC
MKF/MKB 1988: Multi-edge milling cutter and drill
Sandwich plate 2002: Development of large, rigid structures for heavy loads
AGV Systems 2010: Further development of mobile and independent sandwich plates


As a company WITTE can look back proudly and with optimism to the future. More than 200 industrial property rights for developments and brand designations stand for outstanding innovative power with a worldwide reputation. Since 1969 pioneering, user-friendly products and know-how have shown that the future can be built. Horst Witte, the company's founder, took a small business and created today's enterprise with a staff of over 220 via an extensive portfolio with the claim to

leadership in technology. That's how WITTE has become a renowned and valued partner to the automotive, aviation & aerospace industries, as well as to medical engineering. We face your projects with a confidence that is lived and earned anew each day through achievement and fairness. Numerous competent partners support us in the process, because visions need people who drive them: a comprehensive responsibility we face up to. Because we invent solutions.

When ideas turn into success:
The high degree of innovation, highest quality, precision and state-of-the-art production methods are the key to a convincing, problem-solving solution.





Uncompromising.

Particularly in aviation,

**absolute standards
for quality**

apply. That calls for a partner
with the answer to your manufacturing
projects: For over 45 years
we've been THE specialists in XXL
aluminum machining.





Dependable.
On schedule.
Made in
Germany

Quality customized manufacturing,
at WITTE it's upsized:
up to 12 meters long and 3 meters
wide.

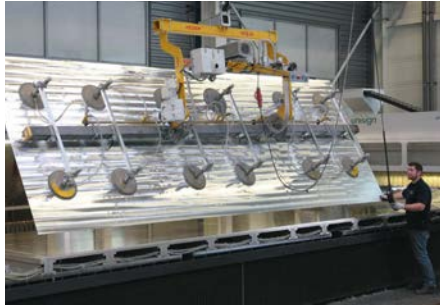
flexibility and adherence to delivery dates in the production of
is your partner to contact: with the

revo

Few suppliers master the machining of workpiece sizes and shapes in the dimensions required by the aviation and aerospace industry, as just one example. Large-surfaced, thin-walled components with thicknesses of less than 1 mm and profiles up to 12 m long are called for here. And safety is what counts, even more than in other industries. Clear-cut advantages for you: WITTE has decades of experience as a manufacturer of aircraft

parts using our equally extensive know-how, especially in vacuum clamping technology.

Our specialists are seasoned and experienced within the framework of a quality management system in compliance with the DIN EN ISO 9001 and EN 9100 standards. We manufacture for well-known clients within long-standing relationships. Let us be the ones to ensure your standards!



Quality at its highest: state-of-the-art machinery with approx. 50 CNC machining centers.



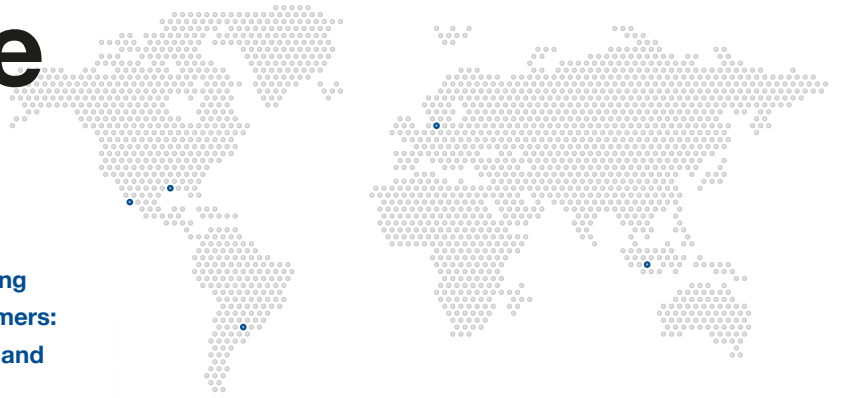
Welcome at the finish line: When everything lives around the accurate machining of high tensile-strength, lightweight metal alloys, around speed, of extremely large-surfaced workpieces, then WITTE expertise from decades of precision workmanship.



Production of customer-specific components, incl. measurement report

Decisive is the **confidence** placed in us.

We deliver far and
wide while remaining
close to our customers:
Located in Europe and
worldwide, with
companies and branch
offices in Asia and the
Americas.





Our customers' goals and wishes challenge us. Not only satisfying their demands but developing the best solution possible is what our work entails.

We think globally and act locally due to our broadly based network. Our nearness to customers without geographical or technical limits speaks for itself many times over: The list of our satisfied clients reads like the "Who's Who" of key industries and major brands.



With innovation into the future

At WITTE, everything revolves around you and your needs. This is our specialty.

We want to engineer progress and make our best ideas even better. With energy-efficient equipment toward protecting the environment. With products and solutions you need for your application.



Everything that drives us is what takes you forward. We don't speculate on the future, we co-shape it – in a dependable team. That's why special support is given to qualification from our own ranks. A lack of skilled technicians is no issue at WITTE: We train in-house, because passing on existing

knowledge is a lasting way to safeguard our lead in know-how. With an above-average proportion of female staff and an average job tenure of more than 12 years, one thing becomes clear: The climate's right at WITTE.

ure. : Challenges

Let us support, safeguard and/or continuously optimize your projects with our products and expertise in production-oriented solutions. What often evolves through the close cooperation of development departments are highly innovative solutions

due to cumulative know-how. Yet whatever the future has in store, no matter how intriguing – there's one thing we'll never give up: our quality standard. And as a consequence: WITTE will inspire you.

For us, there's no such thing as resting on technically achieved laurels. Both the staff and executive management know: Success is no coincidence.

General managers
Horst Witte,
Andreas Witte



**For innovative fixturing and clamping technology,
take advantage of our experience.**

Because we're all of that. And more.

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