



# INNOVATIONS IN CUSTOMER COMMUNICATION

Technologies of the Future – Today

8:44

# AR

Augmented reality enhances the world around us like a window to another reality. AR is based on a technology that allows digital media to be placed over images or markers in the form of 3D content, video or text. This additional content then becomes visible on the screen of a mobile device such as a smartphone or tablet.

# MR

Mixed reality enhances AR technology without generating a completely separate environment. MR smartglasses show the real environment. But smartglasses like the Microsoft HoloLens make holograms visible that can react directly to the surroundings and mix the two realities with each other as a result.

# VR

Virtual reality creates a completely new, computer-generated and interactive environment into which the user becomes immersed by wearing VR glasses that occupy their entire field of vision. This means that the real world outside is completely covered by a simulated, artificial reality.

# XR

What's known as extended or cross reality is a collective term used to refer to all of the realities described above. At their foundation lies the fact that they connect digital and physical (or physically perceived) realities – either by introducing virtual content into the physical world or (in the case of VR) immersing the user as a physical object in a digital world.



# TOMORROW'S SOLUTIONS

**As an innovative chemical company, WACKER makes a vital contribution to improving people's quality of life around the world. We develop intelligent solutions for the needs of our customers. We open up new markets and technologies with product and process innovations for tomorrow's world.**

We are constantly looking ahead – with the goal of improving the quality of our products and our service. In the process, WACKER relies on direct contact with our customers and values personal relationships. In an era of digital technology, electronic media are a particular feature of this direct exchange and modern brand communications.

That's why it's these modern media that have an especially important role to play alongside our core business. This brochure is intended to introduce you to our developments and projects in the field of innovative digital media.

**The foundation for any future approach is always laid in the present. So what are the digital projects that WACKER is already implementing?**

Alongside the WACKER Square app and the dimension added by WACKER Square AR, our main focus is on HoloLens projects in the automotive and e-mobility sectors. A central advantage of these applications is the fact that they produce interactions and a platform for content to be actively consumed. At present, AR can be used more widely compared to mixed reality, for example. These days, most WACKER customers own a smartphone or tablet. Even though MR and VR content requires independent devices, their benefits are still undoubtedly huge.

Technologies should only be implemented out of a particular need. For WACKER, that is the need to implement dialogue marketing for product presentation – working interactively across different media. WACKER products are often not easily visible as they are the raw material for end products.

Cross media and extended reality allow us to explain this. The result is the blurring of the boundaries between the real and the digital worlds as different communication channels merge with each other.

This merging is also a feature of the brochure you have in your hand right now. At first glance, it might appear to be merely a print product but offers much more when expanded with multimedia and cross-media features. We therefore recommend that you download the WACKER Square app to be able to access the maximum amount of information possible from our brochure.

Allow yourself to be amazed by extraordinary content!



Download the  
WACKER Square App here



WHEN YOU CUT  
INTO THE PRESENT,  
THE FUTURE  
LEAKS OUT. ”

William S. Burroughs  
Writer and artist, 1914 - 1997





# THE WORLD OF WACKER IN A SINGLE APP

## Up to Date, Structured, Informative

The WACKER Square app delivers extensive and constantly updated information about WACKER, our products and industries to your mobile device's screen – or by pressing “MyOrders,” directly to your home. Alongside high-quality videos, images and press releases, the app offers comprehensive brochures that you can store in your own personalized “MySquare” media collection, use offline if desired or simply share.

WACKER Square AR is an enhanced version featuring augmented reality. Be amazed by previously unthinkable insights as reality, vision and information merge through augmented reality to provide informational added value.

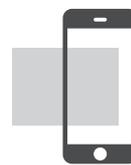
You can also enhance the integrated QR scanner by adding augmented reality functionality. AR technology enhances the app with completely new elements and, above all, offers one thing very clearly: it makes complex technical issues easy for the user to understand by allowing them to directly interact with the content stored.



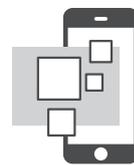
Open



Switch



Scan



Experience



# ESSENTIAL ELEMENTS OF e-MOBILITY

Whether in e-motors, power conversion, displays, cables, fuel cells, batteries or sensors – with their exceptional properties, our highly efficient silicones secure pole position in your specific market.

By protecting sensitive electronics and assisting in thermal management, our silicones allow the safe and economical implementation of electrification, autonomous driving and connectivity concepts.

And that is not all: for inductive charging and HVAC systems (e.g. PTC or sheath heaters), our silicones provide reliable results. Coating with flame-retardant silicones makes it possible to use lightweight laminates to separate individual compartments in the car, e.g. the battery from the passenger compartment.

## Silicones Support the Key Components in Alternative Drive Cars from Mild Hybrid to Electric and Fuel Cell Vehicles



- Drive unit
- Energy storage and
- Comfort and safety
- Other



# MULTIMEDIA ENHANCEMENT

## WACKER Square AR

Look Out for the WACKER AR Plus Icon **AR<sup>+</sup>**

Augmented reality content can appear on marked pages using WACKER Square AR image analysis. Unlike a QR code, the icon is not an element that has to be read; instead, it acts as a visual cue telling the viewer that additional information is stored behind an image on that page.

AR adds a new dimension to media such as WACKER's e-Mobility brochures. The image analysis function can read print material to act as a link between the printed version and related digital content. In the example on the left, a 3D model of the car depicted appears so that you can locate components and modules related to WACKER silicones. Simply click on one of the icons and the relevant component appears. With another click, you can discover related media directly in the WACKER Square app.

This provides you with a link between the brochure and additional information available digitally.



# CROSS-MEDIA INTER-CONNECTIVITY WITH IMAGE ANALYSIS

Bridging the Gap Between Different Worlds

As well as its aesthetic advantages over QR codes, image analysis has the benefit of being able to activate a number of functions at the same time. In the example of the WACKER calendar, you can see an animation referring to the images on that particular page and use links to access pre-selected additional information. You will either be directed to the relevant webpage on [www.wacker.com](http://www.wacker.com) or, in cases such as the e-Mobility brochure, you will reach a media collection in the WACKER Square app.

WACKER

CREATING TOMORROW'S SOLUTIONS

**Extraordinary Heat**  
 In Dashi-e Luf, temperatures have even surpassed 70.7 °C. ELASTOSIL® silicone rubber is a record-setter for materials, since it is thermally stable up to 200 °C. For more information, go to: [www.wacker.com/elastosil](http://www.wacker.com/elastosil)

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March	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
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# SILICONE MOLDED PARTS FOR SPARK PLUG BOOTS



Call up the AR content on this image. It perfectly illustrates the opportunities offered by object recognition. In reality, it is all down to image analysis technology.

# REAL OBJECTS DIGITALLY ENHANCED

## Object Recognition with Augmented Reality

**WACKER Square AR is capable of more than just image analysis. It can recognize and enhance specific objects positioned in a real space.**

WACKER Square AR makes both image analysis and object recognition possible. This allows a diverse range of multimedia content to be played automatically. Object recognition not only means web and app content or presentations, photo galleries and videos can be linked, but also enables impressive displays of complex 3D models.

The possibilities offered by AR-based object recognition provide an even more exciting and effective way for product presentations – supported by multimedia – to grab the attention of customers in a showroom or to enhance participation at a tradeshow, for example.



# MICROSOFT HOLOLENS AND MIXED REALITY

HoloLens brings holograms into the real world. Digital objects look and sound as if they were actually part of the real environment.



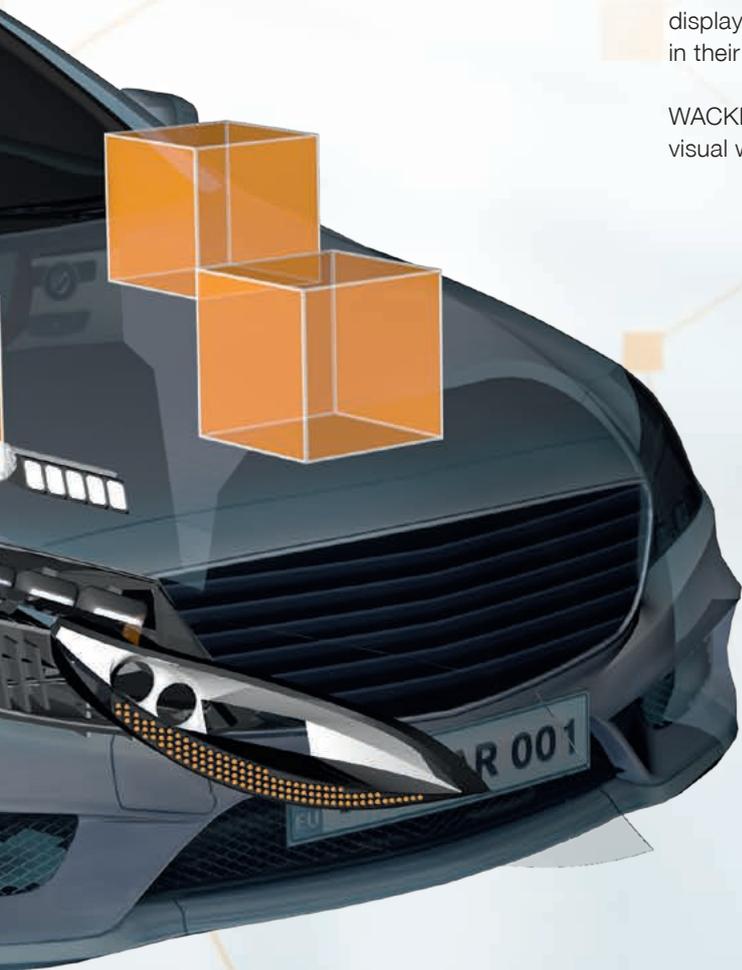


Microsoft HoloLens is the first self-contained, holographic computer. The MR smartglasses enable direct interaction with digital content in a real space.





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WACKER products and applications are often not immediately visible. HoloLens is able to make them recognizable and tangible. For example, in its first use of MR, WACKER is showcasing components for the automotive industry.

HoloLens spatial recognition provides the opportunity to arrange objects and sounds in space. It is precisely in dialogue marketing – for example presenting products at tradeshows – that this feature has such unrealized potential.

As the viewer, you remain in the real space, but you can see holograms which enhance that reality. These digital, three-dimensional objects are able to display things such as components directly in the context of their application – in their original size or altered to a specified scale.

WACKER can therefore explain complex, “invisible” scenarios in a tangible and visual way, clearly and directly displaying a product’s added value.



MR from conception to application – take a look at the development of our first HoloLens project here.



# VIRTUAL VIEWS TANGIBLE SOLUTIONS

**WACKER strives to create exciting applications with informational added value and uses technology to fully capitalize on opportunities for innovation and communication.**

But where do these opportunities lie? Our future will be shaped by extended reality content. Alongside augmented and mixed reality, which we are already using, it will be virtual reality in particular that revolutionizes the way we use media in the future to explain our solutions to customers. That's why WACKER is currently working on its first completely virtual application – no matter whether you need product demonstrations, tradeshow, employee training sessions or joint product developments. XR in general and VR in particular offer a huge range of benefits that WACKER has been leveraging from the start. Now, these benefits are being given their own space.

Bearing the motto “Connect, Communicate, Collaborate,” WACKER Square rooms offer our employees, trainees, customers and decision-makers a multi-functional space with access to everything necessary for presentation, communication, networking and collaboration. Needless to say, these rooms ensure a constant focus on digital products and extended reality applications in particular.

We are working to establish this service worldwide with the aim of finding individual solutions for market-specific requirements – in teams and together with our customers. Because it is this collaborative approach that reflects at its heart what digital media can offer both right now and in the future as regards ways of communicating. And ultimately, it's the people WACKER does this for who count. For us, it's all about providing solutions for tomorrow's challenges.



our award winning

contrast

measured infographics  
visual infographics

**WACKER**

**Wacker Chemie AG**  
Hanns-Seidel-Platz 4  
81737 München, Germany  
Tel. +49 89 6279-1741  
info@wacker.com

www.wacker.com

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