

BILFINGER

now!

we can

Strong technology:
Exoskeletons make light
work of heavy jobs

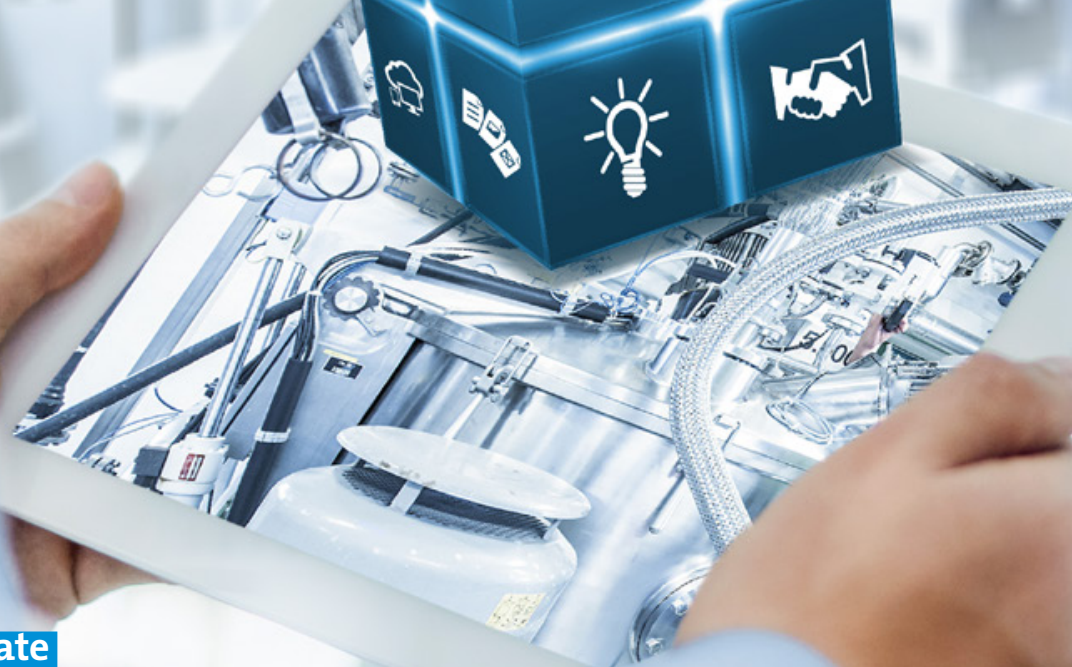
we care

Strong appearance:
Bilfinger at the
Achema 2018

we create

FITTING COMBINATIONS

How our maintenance modules ensure greater
efficiency and lower costs



BILFINGER



BILFINGER MAINTENANCE CONCEPT

PIT STOP FOR PLANTS

Productivity up, costs down: Thanks to uniform standards, the modular BMC service package helps you achieve your goals faster

The evolution of a necessity: Within just a few decades, the pit stop has become a key strategic component in the world of motorsport – a component that can sometimes mean

the difference between winning and losing. Today, pit stops are intricately planned in advance and carried out by specialized “pit crews”. The situation is similar for the maintenance of industrial plants which is also becoming increasingly forward-looking and predictable. Bilfinger is the perfect pit crew for the process industry. With our Bilfinger Maintenance Concept (BMC), we provide the same first-class maintenance standards throughout our core regions. And our customers are the ones who benefit – after all, successful Formula One teams also always work with the same pit crew.

BROAD EXPERTISE

Bilfinger has compiled its entire range of expertise from many decades of experience and more than 400 maintenance analyses in the BMC. The concept is divided into 16 different modules and can be customized to fit the needs and requirements of customers – from occupational safety to employees as well as

knowledge management and innovation. We are pursuing two objectives: Increasing the reliability of plants while simultaneously optimizing maintenance costs. With the BMC, the potential for reducing annual maintenance costs is up to 40 percent while plant productivity can be increased by up to 10 percent under certain conditions – each over a period of five years.

RECOGNIZING POTENTIAL

A status check in the form of a Bilfinger Maintenance Analysis (BMA) is carried out at the beginning of a BMC partnership. This is our most important tool for identifying improvement potentials. They also subsequently serve as documentation to show that potential was actually realized. And Bilfinger finds opportunities for optimization in every plant. What's more: We also look after the subsequent execution. Because the engineers, technicians and specialists at Bilfinger understand maintenance as an integrated component of the value chain. Flexibility is a key success factor: If

Photos: Bilfinger, colourbox, Siegfried (cover)

BRIEF INTRODUCTION

SUCCESS STORY BMC

Bilfinger's collected expertise individually packaged



MAINTENANCE RADAR®

START CHECK HERE!



Keeping an eye on optimization: the Bilfinger Maintenance Radar shows potential savings. A quick online check of your maintenance.

IN 20 MINUTES

FAST ANALYSIS

There is potential for improvement in all industrial plants. With the Bilfinger Maintenance Radar, you can quickly recognize the available potential. The Radar is available online and highlights your maintenance and the associated processes in a fast-track procedure. The check takes about twenty minutes and is free of charge. You will be surprised how much potential is lying dormant in your maintenance. The value add for you can be easily measured – and we look after the execution.



16

modules available



40%

lower costs possible



10%

higher plant productivity

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there happens to be less maintenance and repair work to be done, we assign our employees to other projects, making fixed costs variable. At the same time, we are in a position to identify potential disruptions in advance, to evaluate them from a risk perspective and to proactively initiate relevant measures. That saves time and money. And success has proven us right. For customers such as Siegfried, Borealis and Yara, Bilfinger is now taking care of maintenance at locations throughout Europe – true to the motto: “Never change a winning team.”

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PHARMACEUTICAL INDUSTRY

READY AT ANY TIME – DAY AND NIGHT

Bilfinger is on duty around the clock for Swiss pharmaceutical producer Siegfried

Bilfinger has been responsible for maintenance and engineering at Siegfried's main plant in Zofingen, Switzerland since 2010. The demands are high: The pharmaceutical industry is subject to a strict set of conditions in production. Cost optimization and high plant availability are essential for the industry. Work has to be closely coordinated between service provider and customer and carried out quickly, pragmatically and effectively. For Siegfried, a 24/7/365 service concept was developed on the basis of the BMC.

OPEN EXCHANGE

"Bilfinger often goes the extra mile here in order to ensure that our plants run without interruption", says Dr. Reinhard Racker, who is responsible for Siegfried's plant operations in Switzerland and France. Bilfinger and Siegfried work hand in hand to reach these goals. Be it in the operation of the plants, the optimization of the production processes or all questions related to maintenance: Bilfinger has deep insight. "We talk to each other a lot", says Racker. "I really appreciate

that, with Bilfinger, I have a partner who I can talk to about new models for the cooperation." Experts in electrical engineering, automation, mechanical engineering, piping construction and administration are on the job at Siegfried. Primary goal: Bundle as much expertise as possible on the premises so that work on the technology can be carried out directly. Maintenance services are executed around the clock.

Since the beginning of the cooperation, Bilfinger has been able to reduce annual maintenance costs by more than 30 percent. The collaboration between Siegfried and Bilfinger was expanded in 2017. There are now about 200 Bilfinger employees working for Siegfried at a total of four locations in Switzerland, Germany and France. The advantage of the outsourcing strategy for the Swiss company is that it now has the ability to react flexibly to capacity fluctuations in the maintenance area and thus more efficiently organize its costs.

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Always pressure in the boiler: High plant availability is a top priority at Siegfried.



Mr. Pilotto, what makes the BMC unique?

We bundle all of Bilfinger's expert knowledge and make it accessible for the customer, regardless of where they are located – in consistently high quality and adapted to individual requirements. Specifically: With the BMC, we increase the reliability of plants, optimize the maintenance costs – all while observing the strictest safety standards. Our uniform and digitalized processes and methods lighten the load for employees and ensure the necessary transparency. Also important: Our concept has proven itself in practice, we have well-known references. Our service concept offers a real added value.

Can the concept be transferred internationally?

Definitely. We offer the BMC in all four Bilfinger core

Gerald Pilotto is Executive President Maintenance, Modifications & Operations for the region Continental Europe.

regions – meaning everywhere in Europe, North America and the Middle East. The concept has been well-established in Europe for some time. In 2017, we expanded our collaboration with the Swiss pharmaceutical company Siegfried to include further activities in Germany, France and Switzerland. But there is also demand in the USA, where we were recently able to sign a new BMC contract.

The concept sounds very promising in theory, but is it also practical?

Our methods and tools have been developed from practice for practice: We focus on operational as well as management aspects that are applicable globally and implement the concept with digital applications. Let's take as an example the repair of compressors that we offer for our customers internationally. You need experienced employees and at Bilfinger these are stored in a database with their respective qualifications. We put together the best-suited team, precisely targeted for the application, and get down to the implementation quickly.

JOIN US ON A TOUR OF DISCOVERY

After three years, it's that time again: The Achema opens its doors from June 11-15 in Frankfurt. Bilfinger is also present at the leading international trade fair for the process industry. Go on a tour of discovery through the offerings of the digital Bilfinger world.

In a newly-designed and interactive trade fair tunnel, we present our offerings for industries that you are a part of – for example pharmaceuticals & biopharma, oil & gas, chemicals & petrochemicals or cement.

We will take you on a tour through digital worlds and provide insights into our Digitalization & Innovation Lab. There you can look at Industry 4.0 applications that are put to use in a testing facility under real-life conditions. Discover our Bioreactor 4.0 including its control unit and our cloud-based platform BCAP, which intelligently links data from industrial plants. Or take a look at our 3D scanning tool and our holo-lenses.

We also offer you a broad range exciting topics related to maintenance services. You can, for example, experience live how our Maintenance Radar works and directly discover possible savings potentials for your maintenance needs. Anyone who would like to go into greater detail is welcome to join one of our specialist presentations.

Bilfinger at the ACHEMA: Hall 9.1, Stand B22

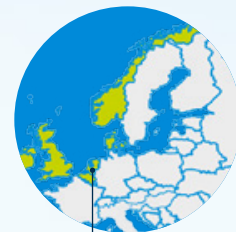


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MAINTENANCE, MODIFICATIONS & OPERATIONS

WITH THE POWER OF A SPRING

The health of its employees is absolutely vital for Bilfinger. Of interest in this regard is the use of exoskeletons that make the work employees do noticeably easier. They reduce stress on the musculoskeletal system and protect against wear and tear. In the Netherlands, Bilfinger is involved in a relevant pilot project together with the start-up SkelEx. The exoskeleton being used there takes energy from springs and is deployed for work that requires intensive use of the arms. Arm strength is significantly increased while symptoms of fatigue are substantially reduced.

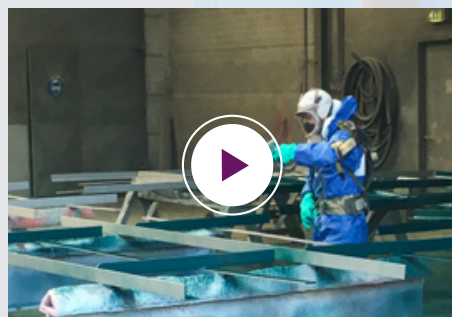


NETHERLANDS | NORTHWEST EUROPE

After testing in a painting workshop, the exoskeleton is now also being used in a pilot project at a logistics center.

BRIEF INTRODUCTION TAKE IT EASY

Behind the scenes at the exoskeleton development



SAUDI ARABIA | MIDDLE EAST



MMO E&T

REPOSITIONING IN SAUDI-ARABIA

We are bundling our strengths to create added value for the customer. For this reason, Bilfinger engineering and maintenance teams have now moved into a shared location in Dammam on the east coast of Saudi Arabia. Some of the largest oil companies in the world are also located here. With the move, we shift closer to our customers and increase our flexibility.

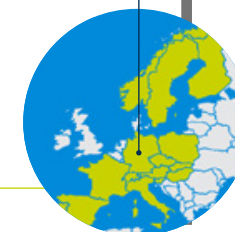
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ENGINEERING & TECHNOLOGIES

Plant documentation is still very often found on paper – and is therefore not up-to-date. PIDGraph offers a solution. The program digitalizes documentation and reduces costs as compared to previous solutions by

50%

GERMANY | CONTINENTAL EUROPE



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MAINTENANCE, MODIFICATIONS & OPERATIONS

H.B. FULLER COUNTS ON BMC

With the Bilfinger Maintenance Concept (BMC) we are bringing greater efficiency across the Atlantic to North America. A BMC contract has been signed with H.B. Fuller, a producer of industrial adhesives. Our colleagues in the USA are now responsible for maintenance of the entire process equipment at the H.B. Fuller adhesive production plant in Grand Rapids, Michigan – one of the largest plants of its kind in the country.

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USA | NORTH AMERICA



GERMANY | CONTINENTAL EUROPE



ENGINEERING & TECHNOLOGIES

YOUTUBE FOR INDUSTRY

Preserving knowledge and passing it on to future generations – that is what Industrial Tube is all about. The automatically generated videos document and secure valuable specialist knowledge. Employees with data glasses or smartphones make video recordings of how they complete tasks in specified steps. Following a defined approval process, the videos are automatically edited and made available through a web portal or app. Artificial intelligence transforms the spoken word into subtitles, extracts key terms and allows for a translation into any language.

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→ HALL 9.1 STAND B22

ACHEMA2018

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