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Bossard News

Assembly Technology Expert | Tapping into hidden potential in products ... Smart Factory Logistics | Transparent communication for greater productivity ... Product Solutions | Frequent and secure opening with quarter-turn fasteners from Southco ...

EDITORIAL



Dear customers,

After an eventful few months, our summer vacations are upon us once more. Now that the turmoil and aftermath of the COVID-19 pandemic are slowly subsiding, we are faced with new challenges to overcome. Expectations concerning the future development of the global economy are more modest than they were at the beginning of 2023. Turbulence in the financial sector, high inflation and the ongoing impact of the war in Ukraine are all hampering economic growth. Inflation - driven primarily by higher energy costs - has pushed interest rates up even further, dampening the prospects for rapid economic recovery. Central banks face the challenge of restoring price stability and stopping the economy from sliding into a recession. Despite these negative factors, we are seeing good growth opportunities in the short to medium term in areas such as electromobility, rail vehicle construction, robotics, electronics and medical technology that we can focus on. In the spirit of "doing one thing without neglecting the other", we are confident that we will successfully navigate the choppy waters with you - our valued customers - and look forward to continuing to work with you in future.

Assembly Technology Expert – or "ATE" for short – is what we call our Bossard Engineering services. This includes our Expert Teardown service, where we dismantle, analyze and optimize – all for our clients' benefit. Find out just how well that works in this issue.

We are continuously developing our ARIMS platform. You can now use it to improve the monitoring and management of your cloud systems and procurement processes. More details are also available in this issue.

We cooperate with leading fastening technology manufacturers to create our Bossard Product Solutions. We'll be showcasing some of our superb solutions in this issue. And, who knows? Perhaps you'll come across something similar you could put to profitable use in your company while you're reading through this issue of Bossard News. "In my view, Smart Factory Assembly is very well suited to highly complex, completely traceable products that are subjected to documented testing and are made in high volumes." We are always thrilled to receive feedback like this from satisfied customers. Read the full story starting on page 18.

The Bossard Academy and our training courses are once more experiencing strong demand in this post-pandemic world. An initial block of specialist seminars was held in May. Our valued customers will have yet another opportunity to benefit from our experts' know-how in the fall. Why not seize this opportunity and get yourself signed up? It's definitely worth it.

"Industry 2025" is a national initiative that aims to promote the digital transformation in Swiss workplaces. Bossard is a partner of the scheme, and we showcased our digital Smart Factory Services at the event held in Windisch, a commune in the town of Brugg.

Last but not least, as fair sports enthusiasts we'd like to congratulate Geneva-Servette HC ice hockey club on their well-deserved victory in the 2022/23 Swiss National League season. We are already looking forward to the 2023/24 season and thrilling face-offs in the Bossard Arena against EV Zug, our local team!

Thank you for your interest and the trust you place in our company. I hope you have a superb summer and enjoy continued success!

PETER KAMMÜLLER General Manager, Bossard Switzerland

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The PDF edition of Bossard News is available online at: www.bossard.com

EMPOWERED PEOPLE Attractive employer



Dr. Daniel Bossard once answered the question of what sustainability means within the Bossard Group by saying, "We are not pursuing a sustainability strategy; we are pursuing a sustainable strategy." This is a trend-setting statement because it illustrates the fact that the company's philosophy extends far beyond the issues of the environment and energy. Rather, what really matters to us first and foremost is the customers, the everyday work, the products and solutions, and – last but not least – the employees.

Together We Create: Bossard as an employer

Staff development is a key focus at Bossard and something we promote as a principle – day in, day out. After all, our people are the ones who provide added value both in and for the organization. Our people are the ones who shape change. Both people and change develop together.



The Bossard Group's attractiveness as an employer is a key corporate strategy and a guiding principle that we follow at all levels every single day – not to mention a compelling argument in the competition for talented staff. "I believe it is also a promise to the Bossard team as a whole, showing that Senior Management truly takes our satisfaction and wellbeing very seriously," commented Chantal Hummel. The MM-Welding® Project Manager is one of 2,819 employees worldwide. Not only does she find a great deal of satisfaction in her exciting activities, she finds the international team spirit and the extensive internal network "diversely enriching" too.

The mix of employees from all walks of life is just one thing that sets Bossard apart and makes it powerful and innovative in the long run. Experience (709 employees are over 50) rubs shoulders with youth (465 staff members are under 30). Bossard attaches a great deal of importance to taking on talented young people (it employs 114 apprentices, trainees and interns), and the percentage of women (985) in the tech firm is constantly growing.



"I believe it is also a promise to the Bossard team as a whole, showing that Senior Management truly takes our satisfaction and wellbeing very seriously."

Chantal Hummel, MM-Welding® Project Manager

Bossard believes it is its people who make the company successful – both today and tomorrow. Both the culture and the strategy must be compatible if consistency between organizational development and all the employees on this entire journey is to be guaranteed: from recruitment and developing employees' strengths and skills, to the design of the working environment and promoting talented individuals fully in line with the corporate strategy.

Complex and dynamic working environment

Both Bossard and its employees must adapt to the unprecedented challenges arising from increasing globalization, digitalization and networking. Attracting truly talented individuals with a growth mindset is therefore absolutely critical to enabling the Group to better meet the future.

A sub-goal of Bossard's Strategy 200 is to unleash the full potential of all its employees around the world and to thereby become an inspiring company that is an absolute pleasure to work for.

With the primary objective of attracting passionate and focused experts to the Group and motivating existing employees to act as company ambassadors, Bossard formulated its employer branding vision as follows in 2022:

- Make Bossard the employer of choice
- Strengthen Bossard's brand recognition
- Promote Bossard's five guiding principles
- Position Bossard as a sustainable, inclusive, innovative and reliable employer
- Boost existing employees' identification with Bossard

The five guiding principles are far more than just nice-sounding statements: We collaborate. We experiment. We empower. We are genuine. We deliver value. – Combining these principles into a shared slogan ("Together We Create"), Bossard is thus ensuring that collaboration is the very best it possibly can be across regions, hierarchies and roles.

Corporate culture

Bossard's corporate culture is one of its greatest strengths – this has been confirmed several times over in both local and regional employee satisfaction surveys and in awards competitions for the likes of the Swiss Employer Award.

The role of employees was strengthened when the Group's business strategy was revised in 2021. Bossard is getting its employees even more involved its business development activities – not only by listening to their ideas and requests as part of various initiatives and projects, but by frequently putting them into practice too.



ENGINEERING Assembly Technology Expert

EXPERT TEARDOWN

Tapping into hidden potential in your products



Dismantling, analyzing, optimizing: we take a close look at your product with our Expert Teardown service and identify both potential for improvement and potential savings. The million-dollar question in this respect is: "Were the fasteners used the correct choice?"

Jürgen Eixler, Head of Engineering at Bossard Switzerland, is convinced that "the perfect fastening solution determines the price, competitiveness and quality of a product on the market." "When we perform an Expert Teardown, we uncover underestimated potential simply by taking a close look at the fasteners in a product. While C-parts often only account for one to two percent of the product costs, they are usually the main driver of assembly costs due to their high share of the production process," Mr. Eixler went on to explain.

Potential savings: over 490 hours of labor

We have chosen a manufacturer of ventilators for patients in intensive care as an example to show just how much potential might be lurking in a product. The customer wanted to find out if they could improve the quality, safety and efficiency of their product. And not only if – but also how. Bossard identified more than 20 potential improvements, annual time savings of more than 490 hours of labor and potential cost savings of CHF 32,000 – against a CHF 3,200 investment for the Expert Teardown.

"The perfect fastening solution determines the price, competitiveness and quality of a product on the market."

Jürgen Eixler, Head of Engineering at Bossard Switzerland

What is Bossard's specific approach to this service?

Each Expert Teardown focuses on three questions:

1. Are the right fasteners being used?

The only way to ensure product safety is to choose and use fasteners correctly. The specific requirements taken into account include mechanical strengths, load types, corrosion, ease of maintenance, recyclability and multifunctionality.

- 2. Can the number of parts be reduced? For the most part, yes. If fewer parts are used, this translates into lower storage costs, less effort being spent on purchasing, and so on.
- 3. Can the assembly process be sped up? Here, too, the answer is a resounding yes. Using fewer parts shortens the assembly time. In this respect, we always check that assembly is efficient, taking technical feasibility into account.

We perform systematic dismantling to begin with: "We carry out the teardown either in one of Bossard's test laboratories or directly on site. Depending on the customer's requirements, dismantling takes place in our accredited Swiss test laboratory," reported Mr. Eixler. By precisely analyzing the fasteners used and the potential assembly methods, we can make initial suggestions – not just for solutions, but improvements too. Next, the results are checked to ensure they are economical in terms of the total cost of ownership (TCO) and then presented. "All, or only selected, suggestions for improvement are then planned and implemented together with the customer," added Jürgen Eixler.

When is it worthwhile to perform an Expert Teardown?

The reasons why you might have Bossard systematically dismantle and analyze your product can be very diverse:

- To increase productivity
- To simplify assembly processes
- To eliminate sources of error
- To cut manufacturing costs
- To optimize the product weight
- To reduce the scrap rate
- To prevent product failures and follow-up costs



"We always keep your specific concerns and requirements in mind when dismantling your product and identifying potential for improvement."

Jürgen Eixler, Head of Engineering at Bossard Switzerland

Our efficient product optimization solutions and service packages

		BASIC	ADVANCED	SUPERIOR
ANALYSIS	Product analysis Your product is systematically dismantled into its individual parts and fasteners	~	~	~
	Value analysis The cost savings are estimated based on the TCO principle	~	~	~
REVIEW	Technical review The process, estimates and expected results are reviewed		~	~
	Best practice Recommended solutions are checked on site or in our labora- tory		~	~
	Proposal presentation The results of our investigation are published in a technical report, and the proposed improvement is presented. Physical samples are provided too.		~	~
IMPLEMENTATION	Implementation plan The design is described in detail and the new assembly solu- tion is documented			~
	Support during the production implementation pro- cess The R&D team is provided with both an assembly and user manual and support during the proposal implementation phase			~
	Implementation review Training is provided on site or in our laboratory			~

What potential is lurking in your products?

Are you planning a new product series, or would you like to optimize your existing product? We'd be delighted to offer you advice and support and provide a swift and expert consultation service. Please get in touch with us. SCAN ME



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Smart Factory Logistics

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ARIMS

Transparent communication for greater productivity and lower costs

Two exciting and helpful features that will help our customers to optimize their Smart Factory have been added to the ARIMS platform. They can be used to improve both monitoring and management of cloud systems and procurement processes. So they help to increase productivity and cut costs.

Find out how your cloud systems are doing with the Cloud Health Dashboard

How well are your systems connected, and how healthy are they? At Bossard, we now use the wellknown smiley and color system to answer these questions. Openness and transparency are critical to identifying if something isn't going well and intervention is needed – so you can quickly get back to achieving the best possible results with our cloud systems.

The new Health Dashboard enables our customers to constantly keep an eye on the health status of both their SmartBin and SmartLabel cloud systems.



The dashboard is available for each site in our cloud systems and is automatically displayed on the ARIMS platform.

Smart Ordering gives rise to new savings opportunities

Bossard has expanded the ARIMS system yet again – this time by introducing Smart Ordering. Smart Ordering is based on an algorithm that independently calculates and optimizes the procurement parameters for items in SmartBins. Results include increased C-parts availability, an up to 70% reduction in express deliveries and significant cost savings.

SmartOrdering	
Productivity improvement achieved	d.

Costs with SmartOrdering Costs with static configuration

717%

SmartBins form the foundation of a smooth procurement process. They continuously measure each component's current stock level using weight sensors. An order is automatically triggered for the customer through ARIMS as soon as a component's stock level falls below a defined order point. A predefined order volume is delivered after a few days.

Smart Ordering takes into account the cost of warehousing, ordering, replenishment and express ordering, not to mention the risk of the product being out of stock. The ideal order time and volume are calculated using logistical parameters.

The advantages of Smart Ordering are obvious: increased productivity and cut costs.

Conventional systems have to be manually adjusted to continuously fluctuating demand to add or remove items. **Smart Ordering** automates the process, reduces employees' workload and helps to save time by analyzing past consumption levels. Use our speedometer to help you see how much you could increase your productivity by – simply by using Smart Ordering.

It will show you at a glance the percentage productivity can be increased by through the automation of your procurement process.

Smart Ordering helps to optimize your processes and take your business efficiency to a whole new level.

SmartOrdering Diamond Street S

Unleash the full potential to increase productivity by activating SmartOrdering







PRODUCTS Product Solutions

DZUS® QUARTER-TURN FASTENERS

Reliable quick-release fasteners for frequent opening and closing



In 1930, William Dzus, a young American engineer, developed a fastening solution to secure skin panels on aircraft. The requirements were high because quick and easy assembly and removal of the skin panels was absolutely essential. Maximum reliability also had to be ensured at the same time to stop the joints from accidentally coming loose.

Like many ingenious ideas, the quarter-turn fastener invented by William Dzus has survived the test of time and is still around even today. But it has been continuously further developed and is now available in numerous versions for a multitude of applications.

How it works

A typical quarter-turn quick-release fastener consists of a seating stud, a retaining ring and a counterpiece. The seating stud has a groove, while the counterpiece has a matching wire hook. The stud is inserted through the plates to be joined and the retaining ring – with the tip of the stud gripping the counterpiece's wire hook. Turning the stud 90° rotates it in a tensioned state as far as an engaging point on the spiral groove. The secure, stable connection is established. Opening is performed in the opposite direction: turn the fastener a quarter-turn to the left, pull out the stud, and the connection is loosened.

Versions

When it comes to selecting the appropriate quarter-turn quick-release fastener, various design factors must be taken into account – including material thickness, the expected service life and tensile force, the application environment and accessibility to the plate. So there is a wide range of different materials, fastener types and drives with and without tools for the seating stud and the counterpiece.



Southco® D8 BN 24602 – chrome-plated steel BN 24603 – zinc-coated steel (black)

Typical areas of use

Quarter-turn quick-release fasteners are used in many safety-critical and high-maintenance products – especially in industry, the automotive sector and aviation. In other words, they are used wherever parts have to be quickly and frequently joined and separated and must not accidentally come loose when subjected to vibrations (in the likes of housings, door locks, toolboxes, assembly and disassembly equipment or machine covers).

The advantages at a glance

- Quick and easy to install and use
- No need for tools (depending on the version)
- No special knowledge needed for use
- Very robust and durable
- Suitable for heavy loads
- Very reliable, since no accidental loosening
- Large selection of materials, surfaces, drives and diameters



Talk to your Bossard contact to find the perfect quarter-turn quick-release fastener to suit your application! www.bossard.com



E-SHOP



THREADED LIFTING PINS FROM HALDER Safe, process-optimized lifting of loads

Locating bushings and threaded lifting pins are easy-to-use, robust lifting elements that can also be used to safely lift heavy loads. The well-known locating bushing has proven its worth in industrial use many times over. In contrast, the reusable threaded lifting pin is an innovation, since a suitable metric thread is all that's needed for fastening in the workpiece.

How the threaded lifting pin works

- 1) The lifting pin's movable shackle is folded back.
- 2) The lifting thread retracts at the touch of a button and can be inserted into the nut thread.
- 3) Releasing the button causes the support thread to anchor itself in the nut thread.
- 4) The threaded lifting pin is screwed in by hand as far as it will go
- 5) The load can be lifted even from different angles thanks to the movable shackle. The product is also available with a rotating shackle in addition to the variant with a movable shackle.



Safety first

- Both product safety and application safety were documented with the CE mark by TÜV Süd.
- An operating manual containing a EC Declaration of Conformity is enclosed with each individual threaded lifting pin.
- A safety bar prevents unintentional loosening.
- There are two corrosion-protected variants.
- Available with a movable or even with a rotating shackle.

Advantages

- Maximum bearing load: 840 kg for M16
- Only one suitable thread is required
- Easy to assemble at the touch of a button, without any need for screwing in
- Time savings of 85% achieved during assembly and dismantling when compared to using eyebolts
- Suitable for reuse without any problems
- Safe lifting from various positions/angles
- Safety certified by TÜV Süd (CE mark)

Modèles disponibles

	BN	Size	Material
P	13400	M10 – M16	Quenched and tempered steel, manganese- phosphated
	13401	M10 – M16	Stainless steel (1.4542), precipitation hardened
R	13402	M10 - M24	Quenched and tempered steel, manganese- phosphated
R	13403	M10 – M24	Stainless steel (1.4542), precipitation hardened

Bossard E-Shop





Sample application in our video:

WILD GROUP

Smart Factory Assembly is paving the way for the assembly workstation of the future

WILD is a technology partner operating in the production and development of opto-mechatronic components and complete high-tech equipment in the medical technology, optical technology and industrial technology sectors. Its list of fascinating products is long. Whether it's for new types of laboratory analysis equipment, surgical equipment, innovative lighting systems, prosthetics, therapy units or laser technologies, WILD is in demand wherever precision and reliability are must-haves and innovation is the order of the day. WILD manufactures and develops its products exclusively to customer order.

Dr. Christian Rabitsch (the Chief Executive Officer, who is also a qualified engineer) explains just how much potential for optimization was opened up by introducing Smart Factory Assembly.

The impressive range of technologies it uses – with comprehensive expertise acquired from technical optics, electronics, application software, plastics technology, mechatronics and precision mechanics – makes WILD a leading partner for large corporations, SMEs and start-ups when it comes to product development, industrialization and series production. The WILD Group employs over 500 staff at four sites in Carinthia, Vienna and Trnava (Slovakia).

Benefit from tomorrow's technology today WILD has been using Smart Factory Assembly – the digital and networked assembly solution – in medtech manufacturing for a year and a half now. But how? Traceability and documentation requirements are particularly high – especially in the medtech sector, which is subject to the most stringent safety standards and verification obligations.

Specifically, this involves the production of a swivel arm for a surgical microscope. Because this piece of equipment is mounted directly above the patient in the operating room, it has to meet rigorous safety regulations. With the help of Smart Factory Assembly, it can be proven at any time that all the screw joints have been made with the required torque. The final product delivers an impressive overall result, achieving maximum quality in both execution and workmanship.

For Dr. Rabitsch, the focus is on ensuring that predefined assembly processes are followed to the letter. The technical documentation and traceability requirements for all production steps, right through to assigning employees to specific tasks, are particularly high in the medtech sector. And, until now, the evidence of such has been extensive, filling file after file. With Smart Factory Assembly, digital quality controlling is performed automatically at every single step of the process, eliminating the need for paper documentation.

"Smart Factory Assembly is very well suited to highly complex, completely traceable products that are subjected to documented testing."

Dr. Christian Rabitsch, a qualified engineer and WILD's Chief Executive Officer



"Whenever we've experienced a problem or made a change request, KVT-Fastening has dealt with the situation promptly and in a cooperative manner."

Dr. Rabitsch (a qualified engineer) discussing the business relationship with KVT-Fastening Austria

"The products we make are highly complex and low volume. We were looking for a solution that would offer guaranteed process reliability with small batch numbers combined with reasonable cost-effectiveness – and that's when we came across KVT-Fastening," explained Dr. Rabitsch.

Smart Factory Assembly: expandable and customizable

Revision adjustments were made and release processes customized for the fast-growing tech firm based in Carinthia. WILD is required to document even the smallest change to a workflow. Smart Factory Assembly automatically tracks every single one.

The vision of the Völkermarkt-based high-tech specialist is to interlink worker management with the training platform in the long term, thus ensuring "in real time" that all the staff have the qualifications needed for specific work steps. And that's just how the assembly workstation of the future is being jointly developed, one step at a time.



Dr. Rabitsch is delighted with the business relationship with KVT-Fastening so far.

KVT-Fastening is working tirelessly to optimize Smart Factory Assembly. Customers are the biggest drivers of innovation here. When customer feedback is incorporated, Smart Factory Assembly can be further developed to offer the greatest possible potential for optimization and help customers around the world to remain competitive in fiercely contested markets.





GLOBAL - LOCAL: BOSSARD SWITZERLAND

On May 9, the Industry 4.0 community came together to celebrate a milestone event in Brugg's Windisch district.



10 years of "Industry Forum 2025" – Bossard AG attended as an exhibitor, showcasing its Proven Productivity expertise in Industry 4.0.

Together with around 300 participants from the manufacturing industry, the "Industry 2025" initiative welcomed this year's keynote speaker, Thomas Zurbuchen (Head of Science at NASA until the end of 2022), and 24 exhibitors to the expert expo. With the foresight gained from several space missions, he highlighted the lessons he'd learned on digitalization, data and innovation for industry.

Other experts – including Bossard – also presented digital and innovative solutions to current challenges in 13 presentations and dared to take a look ahead to the future.

Smart Factory Logistics and Smart Factory Assembly from Bossard AG – the advantages of both solutions in practice

Visitors learned how Bossard AG is giving factories an Industry 4.0 upgrade by incorporating innovative systems and customized solutions. Customers focus on their core competencies, while Bossard AG optimizes their B- and C-parts management and automates intralogistics

Industrie 2025

through last mile management. The Smart Factory Assembly demo illustrated how digital assistance systems can help with product assembly.

The use of IoT technologies and data analysis strengthens companies' position on the market, while Smart Factory solutions optimize production processes and guarantee the desired quality and flexibility thanks to transparency.

For more information about our Smart Factory solutions, visit: www.bossard.com

QUALITY HAS A NAME - THE BOSSARD ACADEMY

Review of a successful series of seminars for design engineers, assembly specialists and maintenance staff



The Bossard Academy's specialist seminars combine fastening technology theory and practice. By taking a holistic approach that is always focused on the application, we cover all aspects of modern screw joints – from the physical principles and the materials used, to their use in development, design and production in a wide range of industries.

We held a series of seminars in May on reliable screw joints, technical screwdriving expertise and multifunctional and thread-forming fastening technology – and received positive feedback from the 47 attendees. "We particularly appreciated how highly relevant the seminars were in practical terms, not to mention the efficient knowledge transfer. We will definitely incorporate the knowledge we have acquired into our future solution."





BOSSARD ACADEMY The screw joint ex-

perts

Screw joint failure is risky – dangerous, even – and often associated with high costs or reputational damage. That is why ideal training in screwdriving technology is becoming increasingly important.

The Bossard Academy is responding to the increased demand by holding its specialist seminars. Potential attendees can choose from the following dates in September:

September 26, 2023

The basics of screwdriving expertise for Purchasing, Production Planning and Quality Assurance

September 27, 2023

Reliable screw joints for Design and Planning, assembly specialists and maintenance staff

September 28, 2023

Designing and calculating screw joints according to the VDI 2230 guideline for Design, Technology, Development and Engineering

For further information you may contact **Dani Meier**, Application Engineer. Dani will also gladly receive your application(s).

SCAN ME





Your opinion matters to us

We would love to hear what you think to make sure we are meeting your needs with the Bossard News you are receiving in the mail today.

The survey is anonymous and will only take a few minutes of your precious time.







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