



Nr. 732 | DECEMBER

Bossard News

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06. Verschraubungsprüfstand P-VPS

EDITORIAL



Dear customers,

Christmas is just around the corner. A wonderful reflective time of year that we all want to use to recover somewhat from an extremely challenging year. In addition an economically booming industry, we have now been in an environment for almost two years in which everything is short term at best and that demands unprecedented flexibility of us.

The year will finish out economically strong. The PMIs of many countries are still well above the growth threshold. What is unique is that companies have to work reduced hours despite full order books, because they simply do not have certain components. Yes, the supply chain is out of hand. The first thoughts of globalization, or at least localization of certain supply chains, are happening. These are special times.

Smart Factory Assembly combined with smart tools: This is the silver bullet for you, dear customers, to maximize your process reliability in production. Please read what we have to say about this.

In the Assembly technology experts heading, we present the Expert Test service to you. For many years, we have been performing tests for our customers in our accredited laboratories. We are excellently positioned to perform tests for you and your technical application challenges as well. Tests that are as practical as they can be so that your products do what they promise.

Pick-by-light and Put-to-light: This paperless picking solution uses optical signals to guide your employees when picking and filling items to be picked, making the process extremely fast and simple. A very pragmatic, innovative addition to our "SmartBin Cloud" solutions.

In the practical example, we show you the cooperation with the SEMAT Groupe Zoeller, a manufacturer of trash trucks and cars for city cleaning and long-standing customer of Bossard France. We were able to provide many benefits to SEMAT by replacing a welding application with a Huck Rivets riveting method more suited to the needs. Read more in the report, it's fascinating.

Purity is an important criterion in the market segment of medical technology and life science. We are able to guarantee the appropriate level of product cleanliness for you. That's certainly an interesting aspect for some customers.

Dear ladies and gentlemen, the replenishment lead times are still extremely long and the supply chains seem volatile. The fact that the EU has now decided to impose anti-dumping duties on certain products from Asia significantly increases the level of complexity. We are truly doing everything in our power to give you maximum supply security. Unfortunately, however, we are also experiencing backlogs.

I wish you wonderful holidays and maximum relaxation and recovery.

Thank you very much for your appreciated trust and confidence

PETER KAMMÜLLER

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INHALT

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We are wherever you are.



Online

You can find the PDF edition of the Bossard News online at:
www.bossard.com

BOSSARD SMARTTOOLS

Guided assembly and data acquisition for consistent results

Using intelligent tools in assembly increases process reliability and productivity, which leads to a significant savings potential.

Battery-powered screwing and riveting tools that are equipped with sensors are an important step towards digitizing production. They make it possible to work regardless of the control system location. Tools like this receive information about the next work step via WLAN right from the system and return information about the last work status, such as the torque, angle of rotation, time, current, etc. They are also easy and user-friendly to configure.



Easy handling

All Bossard SmartTools are intuitive to operate. New users quickly and easily find their way and do not need a long time to familiarize themselves with the tools.



Direct status indication via colored LED

The assembly worker is always informed of the status of the tool by an LED display. The individual lights can be individually programmed and indicate, for example, whether the tool is ready for use.



Man-machine communication

All important information, such as the battery status, the set torque or the last processing step is shown on an OLED display. Settings for autonomous use of the tool can also be made in the tool menu.



Networked and smart

The integrated WLAN module ensures the wireless data transfer within the shop floor. The tools can be controlled via a central control software. An optional scanner can read information from 2D and barcodes, which is used to parameterize the device for the next work step.

Choosing the right tools is crucial for achieving the greatest possible process reliability. In the future, it will be increasingly important to document the screwing and riveting data in order to increase productivity.



Quality improvements

Continuous monitoring of the entire fastening process with all of the tool interactions ensures that the individual fasteners are correctly processed during production.



Maximum flexibility

Up to 99 different processes can be saved in the tool and called up in individual steps as a sequence or as a process.



Traceability

All process data is saved on a memory card. This ensures that the processing steps can always be tracked.



Improved productivity

The fitter can focus on production and is not distracted by settings on the tool. This leads to higher productivity.



Join Bossard on the path to Industry 4.0 and take advantage of the benefits of our SmartTools:
www.bossard.com/ch-en/smart-factory-assembly/

Event calendar

Annual general meeting
11. April 2022

Trade Fairs

JEC World
Leading composite fair, Paris
8. – 10. March 2022

Holz
Trade fair Basel
11. – 15. October 2022

Specialized seminars at the Bossard Academy, Zug

Technical screw expertise
8. March 2022
21. June 2022
6. September 2022
13. December 2022

Design of screw connections
9. March 2022
22. June 2022
7. September 2022
14. December 2022

Calculation of screw connections according to VDI directive 2230
22. March 2022
20. September 2022

Multifunctional and thread-forming fastening technology
24. March 2022
22. September 2022

Corrosion / corrosion protection and adhesive systems in fastening technology
23. March 2022
21. September 2022

Assembly technology of screw connections
10. March 2022
23. June 2022
8. September 2022
15. December 2022



ENGINEERING

Assembly Technology Expert

TECHNICAL TESTING LABORATORY FOR FASTENERS

Customized quality assurance with Expert Test Services



A reliable, independent and standard-compliant quality assurance forms the basis for a continuously high product quality. With our technical test laboratories, we help you to test the quality of your products and prototypes, to perform damage analyses and to reduce risks in a targeted manner.

With our certified measurement and testing facilities, testing procedures and far-reaching laboratory expertise, we help you to meet the technical and legal requirements of your components and products.

Our state-of-the-art testing laboratories meet the highest standards and are always at the cutting edge of technology.

Our experts also create professional test reports for you, which serve as the independent confirmation of the product quality and offer you a sound basis for making decisions.

Bossard is your competent partner for all technical testing requirements.

Accredited, certified, qualified – your advantages

We fine-tune our testing equipment to meet your exact needs and develop advanced testing methods in close collaboration with you.

See the advantages of the Bossard laboratory for materials testing for yourself:



Accredited testing laboratories

Strategic global test laboratory locations are accredited according to ISO/IE 17025 by the respective national accreditation bodies.



Long-term experience

Our qualified employees have many years of experience and extensive expertise in all relevant testing procedures.



Professional test reports

Our testing specialists create independent and meaningful test reports so you can make well-founded decisions.



The latest testing equipment

From vibration tests to spectral analyses, from hardness testing to corrosion testing – our technical equipment meets the highest requirements.



Quick implementation

We implement complex and time-critical testing tasks – in doing so, we give you a decisive competitive edge in product development.



The highest quality standards

With our testing procedures, we help you to produce competitive products of the highest quality.





**Bossard
helps you
to produce
competitive
products of
the highest
quality.**

**From materials testing to damage analysis
– our services**

Our modern testing laboratories are specifically designed for testing mechanical fasteners as well as mechanical and physical properties and leave nothing to be desired.

With our broad offering of testing options, we measure up our customers' diverse range of products in every respect. By continuously expanding our testing methods to include standardized procedures, we are always in tune with the latest developments and can offer you state-of-the-art technology.

The most common testing procedures are:

- Spectral analysis
- Friction coefficient test
- Torque analysis
- Loosening analysis
- Tensile and compression strength testing
- Corrosion analysis (Salt spray test, Kesternich test)
- Ultra-sonic preload measuring
- Hardness testing / hardness profile measurements
- Coating thickness measurement

Are you looking for a testing procedure outside of the standard methods? Just get in touch with us - we look forward to any challenge.

SCAN ME



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BOSSARD

Smart Factory Logistics

BOSSARD

PICK-BY-LIGHT AND PUT-TO-LIGHT

Intuitive – efficient – reliable

In internal logistics, a smooth and quick picking and replenishment process for the material is crucial. Bossard's paperless picking solution, 'pick-by-light' and 'pick-to-light', guides employees in a targeted manner to achieve maximum efficiency when removing and filling items to be picked.

Take the next step towards a Smart Factory with the Smart Cloud and SmartLabel Cloud systems with the integrated Pick-by-Light and Put-to-Light solution. In the process, the inventory workstations and workcells are equipped with LED light signals by these systems, which directly guide the employee to the correct box with the correct material when picking. In this way, the milk run in Last-Mile management can be particularly efficient and time-saving. The positions of all items are quickly and efficiently found, the search times are reduced and incorrect order picking is virtually eliminated.

Pick-by-light and Put-to-light with Last Mile Management

To bring B- and C-parts from the central warehouse location to the workcells efficiently while saving time, our tried-and-true intralogistics solution "Last-Mile management" supports any milk run activities with a digital picking and replenishment list. Item positions are found even faster and more efficiently thanks to the integration of pick-by-light and put-to-light in the order picking process.

Pick-by-light

For the milk run, Last-Mile management automatically generates a digital picking list in the ARIMS mobile app. As soon as the run is started, the material to be picked is shown in the app and the pick-to-light function is enabled. The milk run is guided to the correct item position via the LED light signal. The light indicators signal in sequence how the items are picked in the most efficient order.

As soon as the picked material is acknowledged, the light signal of the next item lights up.

This new technology creates an error-free and quick picking performance.

Put-to-light

After picking, the material is taken to the workcell. The put-to-light solution supports the milk run here.

The ARIMS mobile app shows the box to be filled and activates the put-to-light function. The LED light signal makes it easy to find item positions faster and less time is needed for replenishment of the box at the workcell.

Bossard's smart systems with pick-by-light and put-to-light connection

The SmartBin Cloud and SmartLabel Cloud systems have pick-by-light and put-to-light functionality. The intelligent and modular display solution SmartLabel Cloud can be installed anywhere in production, whether in the central warehouse or directly at the workcell. Both systems are connected to the Bossard software ARIMS via the cloud. Optimization of the material flow of B- and C-parts in internal logistics contributes to increasing the efficiency of the entire production and manufacturing process.



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You can learn more about our new Pick-by-light and Put-to-light solution in our video at www.bossard.com



PRODUCTS

Product Solutions

MEDICAL AND LIFE SCIENCES INDUSTRY SEGMENT

Products and services for a market with the highest demands

Medical progress has been in the focus of the media almost daily during these past years of the pandemic. But it is not just vaccine development that has been rapidly developing. Our industrial partners are also advancing in leaps and bounds in the medical engineering field. The topic of health is expected to remain one of the most promising global economic development fields for the foreseeable future.

Safety, product quality and compliance with ever-changing regulatory requirements are the key factors to success for current players in the market. At the same time, it takes continuous innovation and product development as well as a high quality design to continuously be a step ahead of the competition.

Regardless of whether it is medical devices, life sciences or laboratory devices: Bossard has a unique mix of proven standard fastening parts, innovative access and control elements, as well as many years of experience in the design and production of individual special parts. With our engineering services (Assembly Technology Expert), we are at your side from the design phase to the life cycle management. For the fully automated management of your B- and C-parts, we offer you the latest IoT technologies so that you can completely focus on your core competencies.

Our offer for customers from the medical and life sciences industries:



Know-how: We are already successfully working together with MedTech manufacturers from around the world. You will find a current reference in our new brochure (see the QR code below).



One-stop shop: At Bossard, you get over one million fastening solutions, electrical products and access solutions from inventory.



Special parts: Do you need special parts? From small modifications to our standard products to a complete redevelopment – we have the right solution for you.



Do you need support with your product development? Our **Expert Design Service** will help you to choose the right materials and fasteners. We also supply you with prototypes and small series.



With our **Expert Assortment Analysis**, we find options for streamlining your fasteners. An optimized bill of materials is crucial to reducing the total cost of ownership.



Test laboratories: With our own testing laboratories we ensure the product quality of our international suppliers worldwide. We are also happy to test your products and applications!



Ready for **series production**? With 80 Bossard branches around the world, **short response and delivery times are guaranteed.**



Smart Factory Logistics: We optimize your B- and C-parts management with a fully automated logistics system and make it more transparent.

Please find our extensive offering of products and services for the industry segment of medical and life sciences products in our new separate brochure:

SCAN ME



TECHNICAL CLEANLINESS IN FASTENING TECHNOLOGY

The right cleanliness level for any requirement

Technical systems and dependencies are becoming increasingly complex. While maintenance cycles are getting longer and tolerances in the micrometer range need to be complied with, sensitivity to foreign particles has also increased. The technical cleanliness in assembly is therefore playing a key role in many industrial sectors.

Technical cleanliness can also be expressed as the absence of impurities. Typical impurities, for example, include metallic and non-metallic residue as well as fibers. In the area of fastening technology, technical impurities can result during machining production, further processing, (hardening, coating, etc.) as well as during transport and handling.

Unlike optical cleanliness, which is about aesthetic aspects, technical cleanliness is always about the function of components, assemblies and systems. Technical impurities, also called residual contamination, can lead to a number of problems:

- Blocking of hydraulic and pneumatic lines and valves
- Scratching, jamming and shrinking of bearings, sliding surfaces and guides
- Causing short circuits in electronic components
- Clogging of injectors, nozzles and filters
- Impurities in the pharmaceutical and food industries

In complex assemblies in particular, the most particle-sensitive component, i.e. the weakest link in the chain, defines the permissible limit values for the whole system.

The concept of technical cleanliness originates from the automotive industry, after an accumulation of problems with anti-lock braking systems and diesel direct injection systems in the early 1990s due to residual contamination. This need for a general standardization of technical component cleanliness resulted in the regulation "VDA 19 - Inspection of technical cleanliness. Particulate contamination of functionally-relevant automotive components" from the VDA [German Association of the Automotive Industry] as well as the corresponding international standard ISO 16232.

Even if the term of technical cleanliness was shaped by the automotive industry, the procedures for testing cleanliness as VDA 19 are now also used in other industries with sensitive and complex products. For example, medical engineering, the optical industry, hydraulics and mechanical engineering.

At Bossard, you get fasteners that meet all your requirements. Speak with your competent Bossard contact and determine the appropriate cleanliness level for your requirements.

Customer-specific requirements

- Degree of cleanliness per customer specification
- Defined standard reference in the automotive technology sector (VDA 19, ISO 16323), in the semiconductor industry, medical industry ...
- Test procedures per customer specification
- Packaging per customer requirements

High requirements

- Degree of cleanliness: Free of oil, grease, chips, abrasion and stains to achieve low particle levels
- Test process: Visual check
- Packaging: Plastic bag in Bossard standard unit boxes, where necessary with corrosion protection (VCI film strips)
- Optional: Random sampling procedure with residual contamination analysis as per standard VDA 19 (particle residue weight and size distribution), including report and/or surface tension ink test (min. 38 mN/m).

Increased requirements

- Degree of cleanliness: Oil and grease-free, no loose chips or particles from the production process
- Test process: Visual check
 - Where necessary, with dry corrosion protection, invisible, not oily
 - Packaging: Bossard standard unit box

Standard requirements

- Catalog products or drawing parts
- Surface condition with coating as corrosion protection
- Delivery state according to the manufacturing and coating process

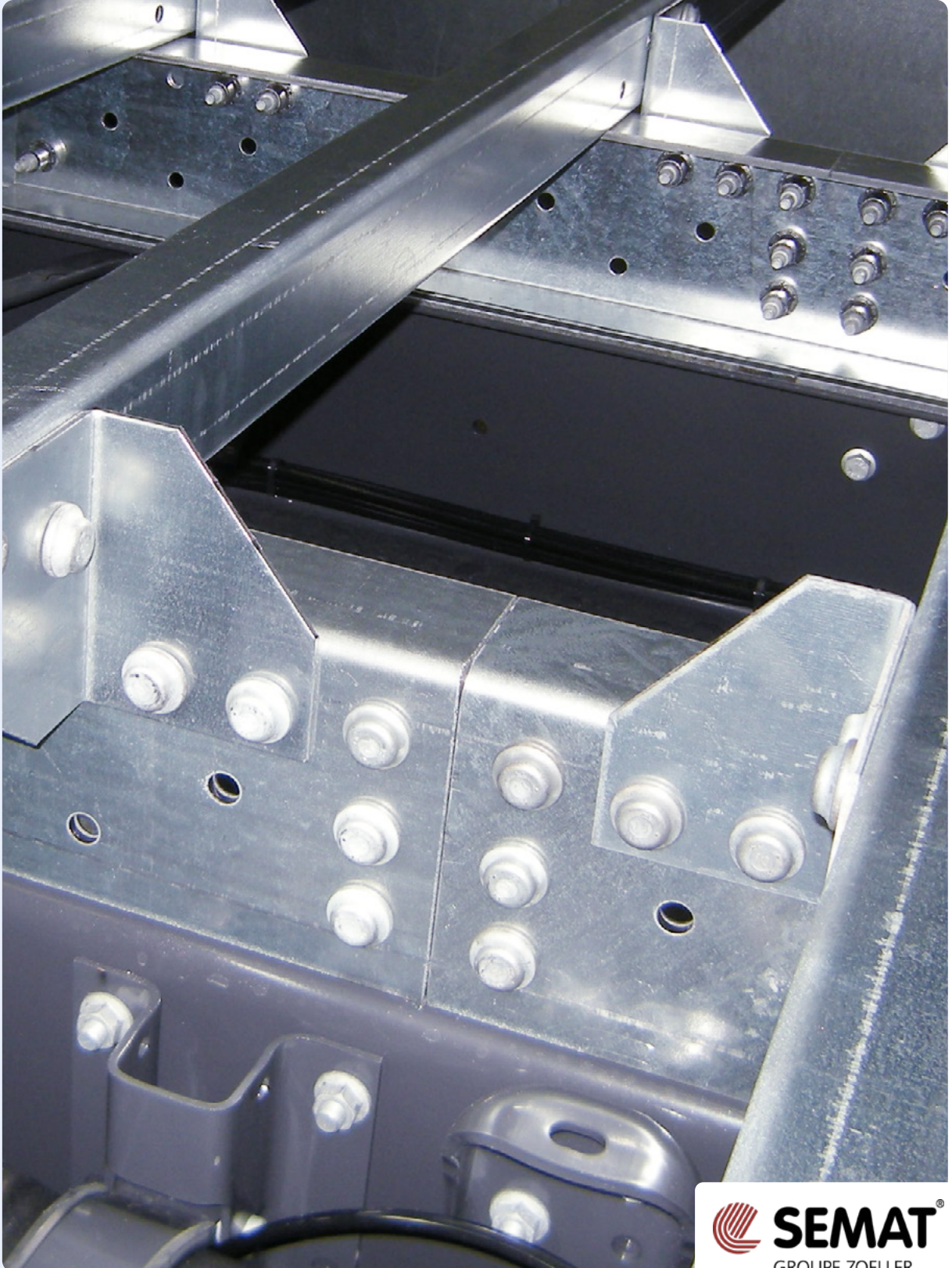
No special requirements

- Catalog products with a low technical risk
- Surface condition blank / black tempered and oiled, not coated
- Product cleanliness not specifically defined
- Delivery state according to the manufacturing process

Do not delay. Contact us at www.bossard.com for questions about cleanliness levels.

SEMAT ZOELLER GROUP

Structural Riveting in the World of Trucks



 **SEMAT**[®]
GROUPE ZOELLER



SEMAT, a historic manufacturer of trash trucks and vehicles for city cleaning, as well as a long-time partner of BOSSARD France SAS, has questioned certain fundamental design principles of its products in response to the ever-greater challenges of our time, such as flexibility and productivity.

Welding: a demanding process that offers more than just benefits

The structural elements of the bases of trash trucks that were previously always assembled by welding required a know-how that is becoming increasingly rare and was subject to many constraints that slowed down improving the pace of industrial manufacturing. Bossard has suggested a solution through riveting in order to achieve greater flexibility in the organization and to simplify the processes, thereby achieving an optimal assembly performance.

HUCK (HOWMET) structural riveting

The structural Huck riveting solution that we are proposing is quick, repeatable and extremely durable in the toughest of environments, such as against shocks or corrosion. This solution also meets the requirement of ease of use that our customer expects. In fact, it is easy to attach the rivets, even when you are dealing with hard-to-reach places under the truck's chassis and the training time for workers is very short, unlike that of a welder, which takes years to learn.

After briefly learning how to use the tool, employees working in production can quickly work on their own riveting and self-checking their work.



After reading the customer's specifications, we proposed the Huck BobTail® - rivet bar/ring method. Their very high resistance to shearing and the simple design make them the best-suited method for the application. The Bossard team's excellent product knowledge was decisive for choosing the correct technical solution, suited to our customer's professional constraints, the rules of their environment, as well as the problems of hard-to-reach places.

We then accompanied SEMAT in implementing prototype assemblies to validate the accessibility by the machines, the suitability of the equipment for the industrial environment of production sites and to subject the assemblies to the required performance tests.

The excellent product-knowledge of the Bossard team was decisive for choosing the suitable technical solution.



Ring rivet Huck BobTail®



To demonstrate the increased flexibility that riveting offers compared to welding, the project will now be implemented faster to respond better to the current delivery difficulties resulting from the raw material shortage.

That is why we are now relying on the quick implementation of this solution to allow SEMAT to choose the most favorable organization for production between welding and riveting in the current supply context.

If you are also looking for a custom solution for your project too, please get in touch with us:

www.bossard.com

SCAN ME



BOSSARD WORLD

The Bossard World presents three high-quality customer products perfected for their use - all Made in Switzerland



We live in a fascinating world - surrounded by great products. To assemble them, it takes thousands of small parts, such as screws and nuts. In our showroom - Bossard World - we illustrate the diverse application areas of Bossard items and services with first-class customer exhibits.



Zuriga AG: Espresso enjoyment - Made in Zurich

The start-up Zuriga AG has shown that making a good espresso at home does not necessarily have to come from capsules. Since September, we have been able to present the compact espresso makers from the young company at Bossard World. Zuriga builds espresso makers for the home and office and only uses durable materials. The design is reduced to the essentials - there is no pressure display or touch display. In addition to various innovative fastening solutions, Bossard SmartLabels are used for the material management of B and C parts. The intelligent and modular label solution makes it possible to easily trigger orders right at the assembly workplace at the push of a button.



Aebi - versatile, reliable and safe

The popular red Aebi machines still known on the market as CC are single-axis device carriers, technically speaking. Thanks to extensive attachments, they are extremely versatile in use, entirely in line with the motto "one idea, many possibilities." Whether mowing, making hay, mulching, sowing, tilling, sweeping, blowing leaves or clearing snow - the CC models stand for quality and versatility. One of these models is currently on display at Bossard World, demonstrating the product diversity of Bossard as well.

Bossard supplies the plant in Burgdorf belonging to the Aebi Schmidt Group with the entire fastening technology product range. A state-of-the-art logistics system with workplace delivery as well as engineering services and training courses complete this customer relationship.



Signode Switzerland GmbH: for safe and efficient packaging solutions

Ergonomic, battery-powered hand-held devices for strapping shipping material are in particular sought after where shipping products do not have the standard shapes. Therefore, the devices need to offer the highest level of safety and be manageable to use. The intelligent, innovative solution for the mobile strapping process can currently be admired at Bossard World.

With TufLok®-coated screws, Bossard ensures integrated safety in the OR-T series. In addition, the supply reliability of B and C parts has been guaranteed since the first series devices thanks to Smart-Bin Flex right at the assembly workplace.

PRODUCT MANAGEMENT AT BOSSARD

Bossard Switzerland is increasing its focus on product management with the introduction of the new “Product” main department


























Product Management at Bossard

The core of KVT Fastening was the sale of brand-name items and the devices that go with them. This was driven by a competent sales and product management team. These contact partners are now at your side at Bossard: The previous contact partners from sales at KVT Fastening complete the sales areas of Bossard Switzerland, the contact partners from Product Management together with the existing PM Electrical Engineering form the new main department “Products.”

Devices: Sales and repair service

Since November 1st 2021, Bossard has been selling devices such as rivet pliers or Haeger presses. The repair service will be offered in the usual quality by employees of the former KVT Tool Service. They are part of the newly founded company KDT AG (bonding and metering technology).

KDT AG will continue to operate with existing office and field staff at the existing location in Dietikon and will focus on bonding and metering technology.

	PM Electrical Engineering	PM2	PM3
Team	Previous Bossard Teams	Takeover of KVT Fastening	Takeover of KVT Fastening
Product Categories	Electric (Cable glands, cable fasteners, cable ties, cable labels, contact parts, industrial housing, heat shrink tubes)	Rivets Thread inserts Clip fasteners Securing and anti-loosening elements	Press-in fasteners, welding, closures, sealing technology, direct screw connections
Brands	   	    <small>FILKO</small>        <small>BLIND RIVET NUTS</small>	          <small>AVBANK</small>



Modern Workplace

As part of the integration, we thought about what is the essence of what we should and must do to be able to respond quickly to changing market conditions. We want to design open and modern office spaces where individuals and teams can successfully and efficiently achieve goals with motivation and where they can solve challenges.

This idea of the modern workplace is not completely new at Bossard. Rather, we want to now gain additional experience and courageously, but deliberately continue this journey. Desk sharing, zoning of offices into different activity areas, such as meeting points, lounges, concentration rooms and retreat options will promote innovation and the transfer of knowledge. The approach believes in continued development, appreciation and autonomy. We are convinced that people will then get even more enjoyment out of their work – not because of build-in “fun factors,” but rather because of the positive feeling of advancing, of working effectively and efficiently.

A lot will be new. What remains are our values and the conviction that: we are stronger together than we are alone.



www.bossard.com