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Bossard News

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EDITORIAL



Dear readers,

2020 will continue as seamlessly as 2019 ended. Economic forecasts, on the other hand, are quite contradictory as to how the year may turn out. The PMIs of the European countries are mostly just under 50, but they tend to be slightly better than in the fall. We can see that certain segments are actually bursting with potential, while reduced working hours are the order of the day in other industries.

Please read in our Company News column that the Bossard Group has made another big step forward in the aviation segment. By acquiring the company Boyesen, Bossard has definitely arrived in the aviation industry and has become a well-known player in this very exciting segment. In addition, we entered into a joint venture with the company SES Imagotag. Please read to see why the new company PDi Digital makes a lot of sense for both companies.

The Bossard Academy recently opened. This brand new infrastructure gives us the ideal opportunity to offer seminars in practice and theory. Please read to find out which seminars could be of interest to you.

In the Assembly Technology Experts column, we will explain the Expert Walk service for you. Together with the customer, we inspect the production facility systematically and look for hidden potential for savings and optimization. Read the practical report; it has information about the method used, and shows the value of the Expert Walk.

We present our new digital supplier management to you in the Smart Factory Logistics column. You can expect seamless supply and maximum transparency.

BigHead is a very smart application that has excellent properties, especially when it comes to applications with composite materials.

As a PEM® distribution partner, Bossard has had a strong brand in its portfolio for many years, which continuously launches new solutions with its innovations.

Yes! We also do designed components. We actually enjoy it and are very good at it. If you didn't know this yet, please read the report about it.

Read the interview with Ludger Vogelsang, Stephan von Arb and Jens Feuerlein to see how the Bossard Last Mile Management is being enthusiastically welcomed at the company Komax.

I hope you, dear customers, enjoy reading these exciting Bossard reports.

PETER KAMMÜLLER

General Manager, Bossard Switzerland

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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

DUAL EXPANSION OF EXPERTISE

Two pioneering partnerships.



Bossard is cooperating with SES-imagotag and also acquiring expertise in the aviation sector

PDi Digital

PDi Digital – That’s what the company jointly founded by the Bossard Group and SES-imagotag is called. SES-imagotag has been a reliable partner of the retail industry for 25 years when it comes to digital in-store technology. The leading global provider of digital price labels, so-called “electronic shelf labels,” and price automation in the retail trade is also offering its customers an in-house developed IoT and digital platform with comprehensive services for retail. The company has already outfitted 20,000 retail stores worldwide (many also here in Switzerland) with over 200 million electronic price labels.

Merging of knowledge

Some time ago SES-imagotag began initial efforts to market its technology outside of the original group of customers in the retail segment. Since Bossard

had also made some efforts in recent years to position their unique services in the “Smart Factory Logistics” field outside of the industrial sectors as well, the idea for the merger was born. Both partners bring their many years of knowledge into the cooperation: Bossard with its high level of expertise in the field of automated logistics solutions in industry and SES-imagotag with their specialized technical knowledge of electronic shelf label technologies in the retail trade. The goal: to become a market-determining player in the field of industrial and logistics IoT solutions with the combined knowledge in various economic sectors.

Added value for both parties

Both partners expect additional growth fields from the cooperation. To achieve this goal, Bossard will incorporate the business activities of the subsidiary Effilio into the joint venture, thereby providing PDi Digital with in-depth knowledge of intelligent operating systems, especially the ARIMS platform. On the partner side, PDi Digital will have access to all of the technologies developed by SES-imagotag.



Flying parts

In recent years, the Bossard Group has expanded its activities and expertise in the aerospace sector. After acquiring the US company Aero-Space Southwest Inc. and purchasing the official aviation certifications in several markets, the next step came last summer: Bossard acquired the distribution division Boysen from the German AQUAERO Group. Founded in 1967 and with its headquarters in Munich, the distribution company Boysen has made a name for itself with high-quality joining solutions and is characterized by a large group of international customers. So Bossard is significantly expanding its presence in the technologically demanding aerospace sector.

Event calendar

Trade Fairs

SMM Kongress

Convention and technical exhibition, Lucerne
[March 18, 2020](#)

Sindex

Bern specialized trade fair
[September 22 - 24, 2020](#)

Specialized seminars at the Bossard Academy, Zug

Design of screw connections

[March 25 and September 16, 2020](#)

Calculation of screw connections according to VDI directive 2230

[March 26 and September 17, 2020](#)

Corrosion / corrosion protection and adhesive systems in joining technology

[April 1 & October 21, 2020](#)

Assembly technology of screw connections

[May 5, 2020](#)

[June 30, 2020](#)

[August 25, 2020](#)

[October 27, 2020](#)

[December 1, 2020](#)

Technical screw expertise

[June 9 and September 2, 2020](#)

Multifunctional and thread-forming joining technology

[June 23, 2020 & September 9, 2020](#)

SCAN ME



A hand in a light blue striped shirt holds a glowing, multi-layered geometric shape (a hexagon-like form) in the center of the frame. The shape is composed of several overlapping lines in shades of blue and orange, creating a 3D effect. The background is a blurred industrial factory floor with blue structural beams and workers in the distance.

ASSEMBLY
TECHNOLOGY
EXPERT

ENGINEERING

Assembly Technology Expert

YOUR ASSEMBLY LINE UNDER THE MICROSCOPE

Expert Walk: Holistic inspection



Usually only the end product is assessed while the production process is rarely taken into account. We at Bossard, however, know that the perfect product starts with an optimal manufacturing process, which is why we take a closer look at it. With our analysis of the workcells and assembly lines, we help you to optimize your assembly processes and fully exploit hidden potential.

Holistic inspection

On the following pages, we will introduce you to another component of our Assembly Technology Expert Services with the Expert Walk. Its six services are aimed at supporting our customers in developing new products and providing the most intelligent solutions for joining technology challenges.

How the Expert Walk works

The Expert Walk always follows a set structure. Our engineers analyze the fasteners and tools you use and determine how you can make your processes leaner and more intelligent. But what are the steps of a complete Expert Walk?

The first step includes a systematic analysis of the entire assembly line on site. The assembly technology is inspected, which not only includes the fasteners, but also the assembly processes and the tools used. The inspection is completed by a value analysis with the goal of obtaining an assessment of the cost savings based on the TCO principle.

Once the analysis is complete, the review is carried out. This focuses on possible technical improve

ments. In this second phase, suggestions are prepared that can be created based on new as well as proven solutions. All observations are recorded in an extensive technical report before the suggestions, including the results of the Expert walk, are presented as a report and presentation. This phase is completed when the physical samples are provided.

Your product will become even more competitive when you find the suitable joining solutions.

The focus of the third and final phase is implementation. A detailed design description and documentation of the new assembly solution are the main parts of the implementation plan. We then support the development team during the entire realization before the implemented measures are evaluated in the last step. The implementation evaluation occurs in the form of a training and takes place right at the customer's location in order to guarantee maximum output.

EUR 60,063 per year saved

The hidden potential that we can uncover for you with an Expert Walk is best shown using an example. For one customer – a global technology leader in the field of fluid automation – we were able to implement an Expert walk in addition to other Assembly Technology Expert services.

In the process, we were able to take a close look at a total of five workcells. Despite the fact that the customer is one of the global technology leaders in their industry, our experts were able to present a total of 14 different suggestions for optimization after the inspection was complete.

For example it was possible to reduce the stock of individual parts by 42% from 24 to 14 items, saving EUR 5,830 per year. This cost reduction is very easy to explain: A decreasing number of items at the same time also means much less handling effort for numerous players in your company. The biggest saving potential, however, is in the optimization of actual production lines. By defining the optimal assembly technology, including fasteners, assembly processes and tools, in this example we were able to save another EUR 54,233 per year. These savings, however, are rarely made up of lower material costs, but rather other factors. The cost savings are primarily from the reduced preparation and installa-

Analysis



Consultation

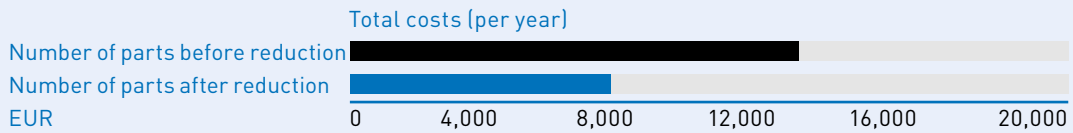


Kick-off

Expert Walk

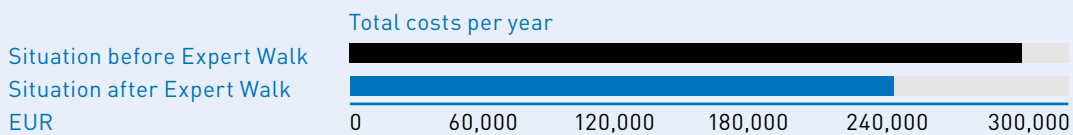
Cost savings based on the TCO principle:

Cost calculation for parts management



Cost savings of **EUR 5,830** per year

Cost calculation for assembly services

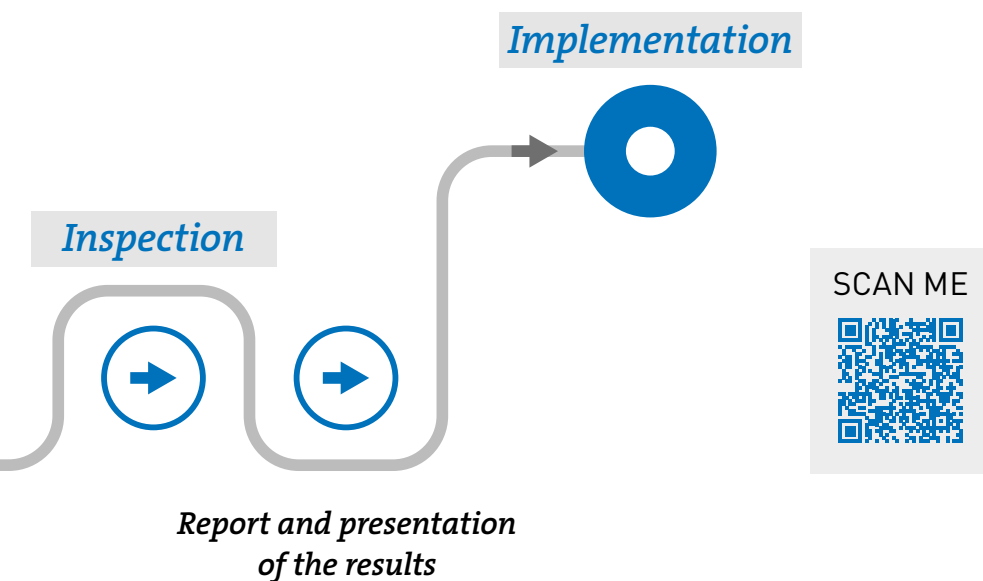


Cost savings of **EUR 54,233** per year

Total cost savings of EUR 60,063 per year

tion times of the fasteners as well as the reduced process times and costs. So the hidden potential does not always seem to be so insignificant. With our Expert Walk, we were able to help our customer save a total of EUR 60,063 annually.

Have we piqued your curiosity? Are you asking yourself where there is still undiscovered potential in your manufacturing processes? Take advantage of our Expert Walk service and visit our website to learn more: www.bossard.com





**SUPPLIER
CONSOLIDATION
SOLUTION**

**Smart Factory
Logistics**

SUPPLIER MANAGEMENT – THE COMPREHENSIVE LOGISTICS SERVICE

Seamless supply and maximum transparency.

Managing a large number of B and C-part suppliers presents major challenges to many of our customers these days. Additional administrative work and higher process costs are incurred, for example. Bossard's supplier management is the ideal solution when it comes to optimizing processes from the planning to the production level.

How does it work? With our service, we take care of the entire management of your B- and C-parts. Three different service levels offer individually tailored solutions, depending on the requirement – from automated ordering to the comprehensively caring for your existing supplier base. This way you benefit from a seamless supply and maximum transparency of your supply chain.

Bossard's supplier management can easily be integrated into any existing Smart Factory Logistics solution.







Regardless of whether you are using Smart Factory Logistics to generate the order proposal or as a comprehensive supplier management: Bossard is your reliable partner with many years of experience.

While you focus on your core competencies, Bossard takes care of the entire logistics of your B- and C-parts.

Your benefits

- Highest supply guarantee
- Leaner processes, more efficient procurement
- Reduction of administrative work
- Higher delivery performance and reliability
- Reduced stock level
- Increase in efficiency
- Reduction of overall costs
- More time for core tasks

FEATURES

	Integration of all suppliers
	Rationalization of the supplier base
	Coordination of the flow of information
	Coordination of the material flow
	ARIMS Analytics
	One partner

Supplier management with Bossard

- 1) Semi and fully automated intelligent systems are used for purchase requisitions and order release.
- 2) Our interactive supply chain platform ARIMS sends refill orders directly to your suppliers or sends an order proposal to your ERP.
- 3) The suppliers provide the material according to the refill order and label it with the storage location of the item.
- 4) Depending on the service level, the shipment is consolidated and the material is delivered directly to the dock or directly to the workcell.

Looking for the optimal handling of your supplier base?

Visit our website to learn more:
www.bossard.com

SCAN ME





PRODUCTS

Product Solutions

FASTENERS FOR COMPOSITE MATERIALS

bigHead® fasteners – flexible, strong and efficient.



bigHead® adhered to the surface



bigHead® embedded in composite material

bigHead® fasteners convince as universal tear-off and tear-out-proof connections with their simple assembly while meeting high standards. bigHead® is the ideal solution in the field of composite materials in particular. bigHead® is a subtle, almost invisible fastening solution for applications requiring high aesthetic appeal.

What is a bigHead®?

A traditional bigHead® consists of a head and fastening element. The special bigHead® welding technology provides for a tear-off and tear-out-proof connection that meets high standards. Choose from over 156 core products. Available in small, medium and large dimensions, either in galvanized steel or stainless steel. If you cannot solve your application problem with a core product, you will find many other product solutions in the extended bigHead® product range. bigHead® will develop your custom product solution for special application problems.

Why bigHead®?

bigHead® is often used when traditional joining technology cannot be used for various reasons. This is the case for example if it is not possible to drill through the carrier material due to the material properties. In the area of composite materials in particular, this plays a major role, since drilling would lead to the cutting of the fiber reinforcement and therefore to a weakening of the material due to the interrupted flow of force.

How is a bigHead® used?

One processing version is the direct adhesion of bigHead® to the substrate surface with structural adhesive. In addition to this subsequent attachment of the fastener, it is possible to embed it directly in the manufacturing process of the material. bigHead® offers special process solutions for optimal use both for the bonding as well as embedding of fasteners. bigHead® carried out an extensive test study for its core products. The results will simplify and accelerate your design-in.

SCAN ME



Interested in bigHead®?

Talk to us! Your local contact partner looks forward to hearing from you.



PEM® PRESS-IN FASTENER

Practical principle and optimal hold, even with the thinnest of components.

PEM® press-in fasteners can be used in a number of different materials.

Developed in 1942, the PEM® press-in fastener still successfully meets market requirements today for secure and economic joining solutions. PEM® press-in fasteners especially show off their strengths when it comes to very thin and lightweight workpieces, such as those used in countless areas of modern industry. They provide an absolutely secure hold, are easy to install and save time and costs.

Press-in fasteners are self-clamping fasteners that are pressed into a receiving hole in the workpiece. The material is displaced in the hole area whereby through cold deformation it flows into a recess in the shank area of the fastener. A toothing or a special head shape prevents the component from twisting – the press-in fastener becomes a fixed component of the workpiece.

Process reliable result with consistent quality

PEM® press-in fasteners guarantee strong fastening points and high torsional and tear-out forces without damaging the component or causing bulging at the edges. They are flush with the back of the material. The melted thermoplastic element is either integrated directly into the fastener or the workpiece.

The assembly process is also simplified by the self-clamping fasteners. Additional fasteners, such as washers, lock washers or loose nuts, are not required. This reduces the number of parts as well as the assembly steps and reduces both the total assembly time as well as the installation costs.

Sophisticated product range with a wide range of possible applications

The core products of the comprehensive product portfolio include the following fasteners:

- Self-clinching nuts
- Press-in bolt
- Self-clinching standoffs
- Pins
- Captive screws
- Rectangular fasteners
- Snap-top spacer fastener
- SpotFast

The base materials range from steel, aluminum and stainless steel to copper to plastic. It is even possible to press into already coated surfaces. PEM® press-in fasteners are primarily used in very thin sheets where high removal and extraction torques are required and no other procedure can guarantee a similarly secure fastening. The extensive application possibilities also open up application areas in various industries such as the aerospace industry, electronics and automotive industry as well as in mechanical engineering and medical technology.



The PEM® standard product range has solutions for almost any application

System concept: Fasteners, supply technology and processing technology from a single source

As a system supplier, in addition to PEM® fasteners Bossard also supplies a range of machines tailored to all requirements for the optimal insertion of parts. The press-in systems from Haeger® and PEM-SERTER® offer various possibilities from the manual entry-level model to the semi-automated version to the high-tech machine. Another bonus besides a process reliable result: Bossard takes care of the machine maintenance.

Eight advantages for your production

- 1) Diverse application possibilities in different base materials
- 2) Extreme load capacity even in thin sheets from 0.5 mm
- 3) No special machining of the hole required
- 4) No re-cutting of the thread
- 5) Also ideal for coated surfaces
- 6) High positional accuracy
- 7) Reduction of loose fasteners
- 8) Automated supply and processing with self-clinching machines possible



The Haeger® 824 OneTouch 4e self-clinching system with 4-way automatic feed system

SCAN ME



PROVEN PRODUCTIVITY

Komax invests in the last mile.



Left: Stephan von Arb / Right: Ludger Vogelsang

The interview with Ludger Vogelsang, Stephan von Arb and Jens Feuerlein demonstrated their enthusiasm for the Last Mile Management from Bossard.

The system has been in use at the headquarters in Dierikon for one year and is now indispensable. In August 2019, the system was expanded from 250 to over 1,800 SmartLabels at the work stations.

Thank you very much for your willingness to share with our readers your experiences with the “Last Mile Management.”

Please briefly introduce yourselves:

LUDGER VOGELSANG: Director of Lean Management

JENS FEUERLEIN: Vice President of Operations

STEPHAN VON ARB: Team leader of Crimp-Module Assembly

The term “last mile” is known in various industries. In telecommunications, for example, this refers to the connection between the local exchange and the household of the telephone or Internet subscriber. Where does the last mile begin and end at Komax in the supply chain?

LUDGER VOGELSANG:

“Our last mile begins in the central warehouse and leads directly to the cyclic assembly line. The parts are supplied twice monthly exclusively by a logistics employee, while the fitters focus completely on the assembly of the modules.



Before



After

We use the “SmartLabel” system on the line to trigger the internal orders. We use manage 1,800 bins with the Last Mile Management from Bossard with the goal of expanding to about 11,000 SmartLabels.”

In designing components, they say the last thousandth is the most expensive. What percentage of costs/value in the entire procurement chain would you assign to the last mile? What are the direct effects if something doesn't work there?

STEPHAN VON ARB:

“The entire process always has to work flawlessly. Every item and every link in the supply chain is of equal importance. A supply bottleneck with a single component inevitably stops the entire production.”

What are the biggest advantages of your new last mile concept and the Bossard systems compared to your previous working method?

LUDGER VOGELSANG:

“A huge positive of this digital system is the visualization thanks to the SmartLabel. The fitter is always informed of the order status of every part in real time. This provides security, transparency and saves queries.”

STEPHAN VON ARB:

“We were able to significantly reduce the error rates. The Last Mile Management system supports us in a guided defined process, both during setup as well as when distributing the components. In addition, my employees appreciate the uniform color coding of the bins and that everything looks tidy.”

A new working method always means having to say goodbye to old habits. How did you “sell” the value or the need to switch to those people who were affected and how were they trained?

LUDGER VOGELSANG:

“It wasn’t just the assembly employees or logisticians who were involved. IT was also required to create the digital prerequisites. This required all of us to rethink things. We trained the employees according to the “train the trainer” principle.”

STEPHAN VON ARB:

“We had to develop clear guidelines and ensure that all employees comply with these. The fitters had to start trusting that the order process works digitally, i.e. invisibly. The logisticians were also intensively trained on the ARIMS app for the Last Mile Management so that the setup processes and the route planning could be optimally implemented. Overall it was successful change management “project.”

With such a conversion, the “afterwards” should be better than the “before.” Are you satisfied with the result so far?

JENS FEUERLEIN:

“We now have a guided overall process for the C-parts for the first time and have greatly reduced non-value adding activities, such as paper orders. Employee acceptance for the system is tremendous. There is certainly still potential, such as in the digital supplier base consolidation. The project and its implementation with Bossard were very professional in a true partnership. The concept will now also be transferred to other assembly areas of Komax. We want to pass on our enthusiasm for and experience with Last Mile Management internally.”

About Komax

Since 1975 Komax has developed from a 3-man operation to a group with around 40 companies and over 2,100 employees. As a pioneer and market leader of automated wire processing, Komax supplies its customers with innovative, high quality solutions that optimize processes and at the same time increase productivity.

Komax produces series machines and customized systems for all degrees of automation and customization for various industries. By far the most important market segment is the automotive industry. Komax also focuses on the market segments of aerospace, data/telecommunications and industry. With its headquarters in Dierikon (LU), Komax develops and produces on several continents and uses its comprehensive sales and service network to support customers locally in over 60 countries.

GLOBAL - LOCAL: BOSSARD SWITZERLAND

Customer proximity is a key value for long-term and lasting partnerships in a global market environment. That's why we are wherever you are.



Switzerland

BOSSARD ACADEMY

The Bossard Academy was successfully inaugurated with the specialist seminar for retail joining technology.



The basic technical knowledge about screw connections is explained compactly and understandably.



Theory and practice are combined at the Bossard Academy.

Vito Sampogna, you were able to inaugurate the Bossard Academy in November with the specialist seminar for joining technology in retail. What is your first impression of the Bossard Academy?

VITO SAMPOGNA

It is fun to hold our specialist seminars and workshops in a modern and excellently-equipped training room. We are glad that the Bossard Academy was done on time. The result can clearly be seen.

What added value does the Bossard Academy offer?

VITO SAMPOGNA

The Bossard Academy is a state-of-the-art training room equipped with a large touchscreen monitor, workbenches and the appropriate tools. We now have the opportunity to demonstrate practical applications simply and directly on site and of course have the participants try them out. The optimal combination of theory and practice is well received!

What's next at the Bossard Academy?


VITO SAMPOGNA

The Bossard Academy is a platform for conveying knowledge where innovation, inspiration and joining technology meet. Standards are changing, and methods and standards are being supplemented or revised. We keep our customers up to date at the Bossard Academy.

www.bossard.com/seminare

CREATE ADDED VALUE

You get real added value by procuring designed components from Bossard:



I reduced my suppliers.

Bossard guarantees me security of supply.

My capital is no longer tied up in inventory.

The Bossard logistics solutions give me complete transparency.

I can rely on consistent quality.

My orders are placed as needed.

Reduced costs and optimized processes

“I didn’t know that Bossard is also a strong partner in the procurement of designed components. The holistic services create an unexpectedly high added value for us.”

Benjamin Maurer, CEO

TRANSPARENCY FROM THE SHOP FLOOR TO THE TOP FLOOR

Smart Factory Logistics data directly to your ERP

Data from ARIMS is extremely valuable for statistics and analyses. The demand for precisely this data in your own ERP system is therefore always increasing. The advantage is obvious: all of your data is mapped transparently in one system.

Your benefits

- Increased data transparency: Your inventories from the shop floor can be determined with SmartBin and loaded directly into the ERP. This means not theoretical, but rather actual values are in your ERP.
- Inventory lists at the touch of a button: the complex manual inventory-taking is a thing of the past with SmartBin. Inventory can always be taken directly in the system with the data from SmartBin.
- Delivery notes are automatically posted. There is no more manual input in the system.

ARIMS

ARIMS Analytics offers you a comprehensive overview of your inventories, locations, items, orders and deliveries without ERP integration. This gives you complete control of your material flow and leads to improved predictability and more efficiency in your supply chain.

Product categories

No two components are alike – Bossard procures workpieces for you according to design, supplies you with ready-to-use assemblies, puts sets together for you, finishes surfaces or adapts a standard part to meet your needs. Added value from one source.



Swivel arm

Quantity: 2,000
Dimensions:
L = 60/31 mm
H = 12 mm
Material: INOX 1.4301
Surface: blank



Gearbox housing

Quantity: 250
Dimensions:
L = 150/150 mm
H = 90 mm
Material: Aluminum
Surface: anodized, red



Grid bolt

Quantity: 2,000
Dimensions:
Diameter = 24 mm
L = 40 mm
Material: Brass
Surface: blank

Extruded, punched and bent parts

“Consistent quality at low cost.”



Spacer screw

Quantity: 100,000
Dimensions: M4 x 24
Material: INOX A2,
with blue sliding layer



Shoulder screw

Quantity: 20,000
Dimensions: M6 x 22/12
Material: Steel,
case-hardened
Surface: galvanized,
with sliding layer



Riser

Quantity: 3,500
Dimensions:
D = 8 mm
L = 121 mm
Material: INOX

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