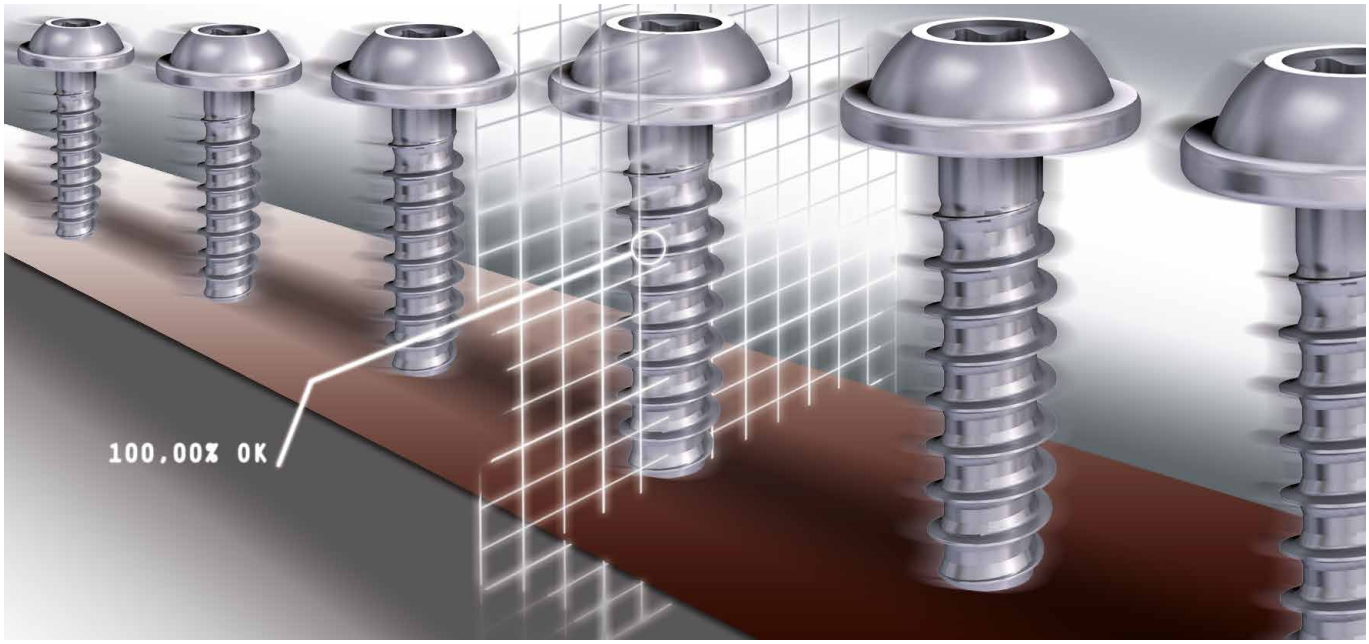
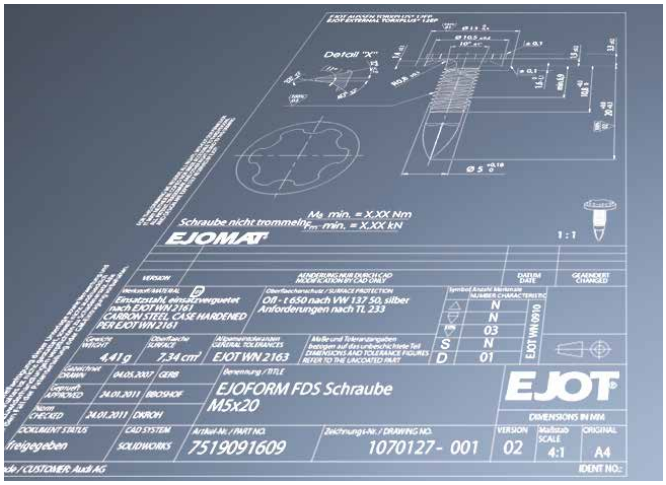
EJOMAT®

Engineering for automated fastening



EJOMAT® - for reliable automated assembly

The screw joint plays an important role during assembly. To fully guarantee the fastener element meets this important role, EJOT, as a system supplier, assists the individual customer on the way to a "zero defect" strategy with technical know-how and high-quality fastening technology.



Quality right from the start

Our EJOMAT® quality begins early with cooperation between design engineers and our customer's assembly experts. In the beginning of the design stage, with certain geometrical features of the fasteners, the tracks are laid for a minimisation of down-times.

Clearly defined objective

EJOMAT® ensures high grade purity, trouble-free assembly processes and better results in automated screw installation to achieve maximum economic efficiency.

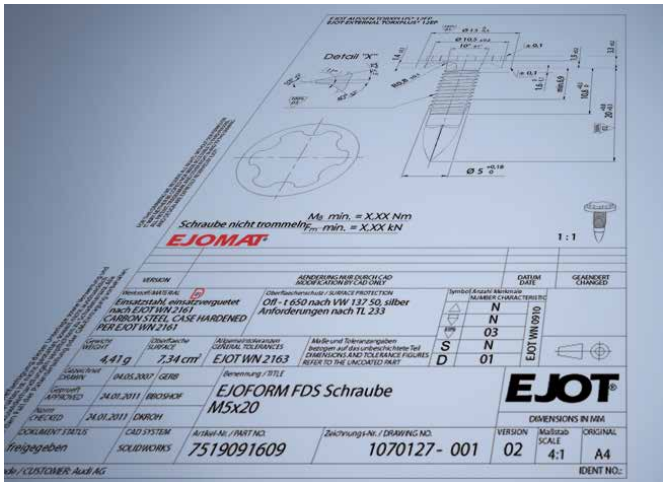
EJOT. Bringing it together.

EIFI - authorised association representing the European fastener industry

"Zero Defect" Strategy

"Zero Defect" Strategy is a common (manufacturer and customer) goal. It does not mean that ppm* = 0 can be achieved.

Even the most modern sorting technologies and machines are not able to inspect / sort all dimensions or features of the product. For this reason the EIFI guidelines "MECHANICAL FASTENERS QUALITY OF TECHNICAL CHARACTERISTICS" and the DSV guidelines "Technical Delivery Quality of Mechanical Fasteners" recommend that ppm agreements can only be stipulated for one or multiple criteria.



Technical drawing of an EJOMAT® screw

State-of-the-art technology for attainable ppm values in relation to a single characteristic of cold-formed products**:	
Unsorted:	max. 200 ppm
Manually sorted:	max. 100 ppm
Automatically sorted:	max. 10 ppm

** According to EIFI and DSV guidelines

EJOMAT® - not just a sorting technology

Relevant features are identified and then monitored and registered during production, according to the quality control plan. This prevents most systematic errors.

The specified sorting criteria are fully tested with machines and the screws are then shrink-wrapped. This prevents contamination during transport or upon delivery at the customer. The realised purity grade is mainly influenced by the sorting process.

10 ppm, sorted for 3 - 4 criteria, photo-optical

Sources:
- *EIFI guidelines "MECHANICAL FASTENERS QUALITY OF TECHNICAL CHARACTERISTICS"*
- *DSV guidelines "Technical Delivery Quality of Mechanical Fasteners"*
- *DIN EN ISO 16426:2003-06*

** parts per million - acceptable number of defective parts per 1.000.000 parts.*

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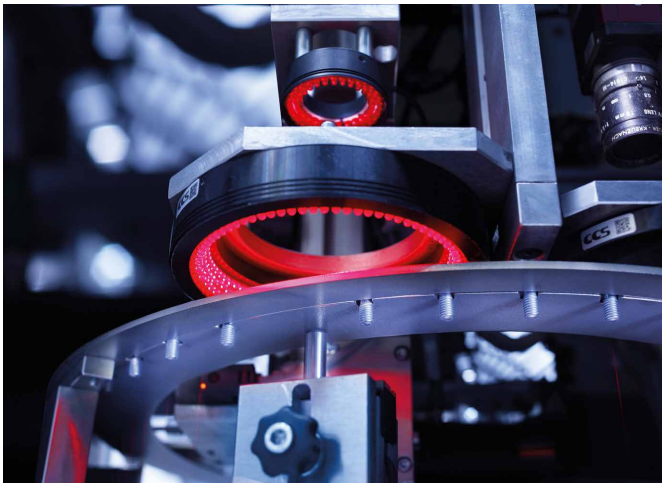
EJOMAT® - grades

EJOMAT® sorting is possible in various purity grades. According to the required degree of purity, based on the complete batch, one of the following grades can be selected:

EJOMAT® grades
EJOMAT® 10 ppm
EJOMAT® 30 ppm
EJOMAT® + purity grade per customer request

These purity grades are based on the complete batch. The higher the demands on purity, the higher the complexity of the sorting criteria.
Since the EJOMAT® sorting is based on automated, machine sorting, every criterion can reach a maximum of 10 ppm.



10 ppm, sorted for 3 - 4 criteria, photo-optical

EJOCLEAN® - technical cleanliness*

With the innovative EJOCLEAN® programme EJOT has been offering individual customer solutions to use "clean" fasteners in the assembly line. EJOT employs state of the art equipment and analysis technology to achieve and monitor cleanliness objectives.

EJOCLEAN® Grade 1 and 2

	Grade 1	Grade 2
Largest acceptable particle**	800 µm	400 µm
Recommended drawing specification	X = 800 µm according to VDA 19 / ISO 16232	CCC = A (I-K00) according to VDA 19 / ISO 16232 or X = 400 µm according to VDA 19 / ISO 16232

Note: In individual cases deviations from these values are possible and not all surface coatings are available with an EJOCLEAN® grade. Different specifications have to be agreed upon separately. Also see EJOT company standard WN 0960 and VDA 19.
** The particle definition corresponds to VDA 19, fibres have to be considered separately.

Packaging of the EJOMAT® parts in polyethylene bags

EJOCLEAN® Center

** EJOCLEAN® can only be supplied with EJOMAT® sorted goods.*

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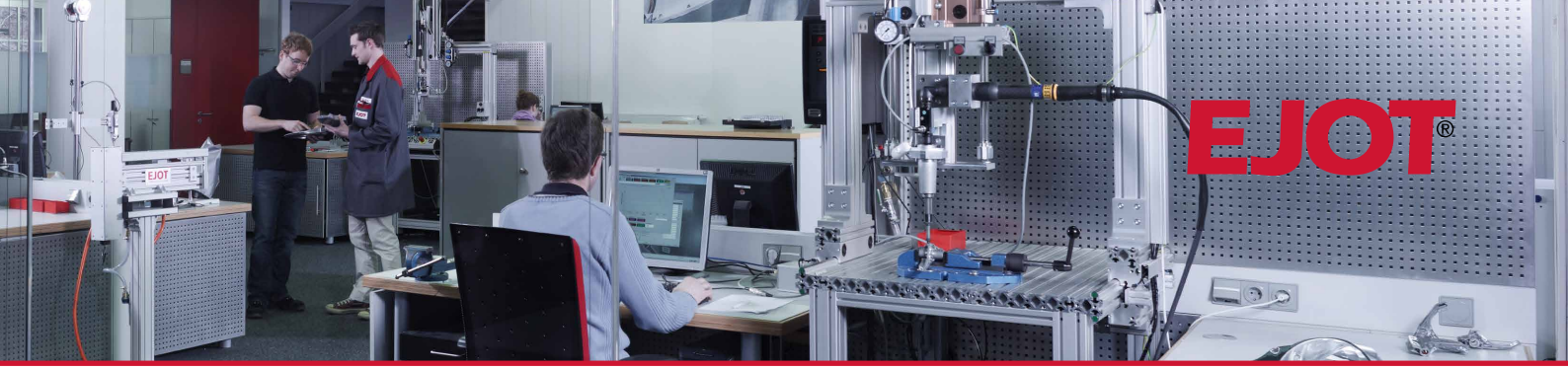

EJOT Service

EJOT screws suitable for automated fastening, not only include the production process and the delivery, but also professional application engineering advice with regards to the right fastener.

This applies to:

> Selection of suitable threads
> Determination of installation parameters
> Sorting
> Material recommendations
> Design engineering, also for drives and screw locking

Your benefit in focus

You benefit from an individual approach that focuses on your application.

Online Service area at www.ejot.com

In our service area we provide you with many online services. In addition to various downloads of CAD data and product information you will have access to product configurations and videos, use of the prognosis programs as well as product sample ordering.

EJOT® APPLITEC

Your individual component and its optimum design engineering are the focus in our APPLITEC test laboratory. Comprehensive joint analysis using the latest screw technology and analysis methods facilitate the development of an ideal fastening technology solution.

EJOT® Rapid Parts

For urgently needed product samples the EJOT prototype management is your first contact. Within two to four weeks you will receive individual samples. Product samples are also available with original EJOT threads.

Prognosis programs

Using the EVO CALC®, DELTA CALC® and ALtra CALC® prognosis programs for pre-dimensioning of thermoplastic and light metal joints, saves effort for component testing as well as time and costs. Our application engineers on site or the technical help line will be glad to help you.

Technical helpline

For questions specific to your application you will receive fast and expert advice from our technical helpline. Our team of advisors will also provide you with drawings as well as calculations from our prognosis programs.

More information at www.ejot.com/industry or please contact the EJOT Hotline: phone: +49 2751 529-123, e-mail: hotline@ejot.com

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08.25 | Subject to technical changes.