

bdp Mechanical Components Deutschland GmbH

German quality standard and global sourcing



Newsletter February 2022: Advices for in-depth supplier audits in China



We are ISO 9001:2015 certified, many of our producers are also IATF 16949 certified.

bdp Mechanical Components - Advices for in-depth supplier audits in China

There are three most common types of supplier audits in the manufacturing industry: system audits, process audits, and product audits. The focus of each of the three is different:

- system audits to assess the integrity and effectiveness of the basic requirements of the quality system,
- process audits to assess the quality of the production process,
- product audits to assess the quality characteristics of the product.

All three are closely related. Qualified products need to be supported by qualified processes, and qualified processes are based on professional systems.

bdp Mechanical Components (MC) has been working in China for many years. Regularly, the focus with our producers is product audit. In many cases, product audits are extended to process audits simultaneously.

Usually, at the producer's site, we first review the producer's inspection report for all dimensions and material performance of the final products. After confirming that there is no error in the reports, we randomly spot check the final products and inspect the parts based on:

- drawings,
- defect catalogs (if provided by customer),
- existing samples (if provided by customer),
- allowed deviations by the customer,
- relevant technical specifications.

The sample size and batch are determined based on:

- customer requirements,
- inspection specifications,
- previous customer complaints,
- key product characteristics, etc.

The parts, which are spot-checked, must be marked according to batches to avoid confusion with other parts. The inspection shall include product dimensions, appearance, marking, packaging, and functional testing.

During the inspection, several methods and techniques can be used, for example:

- For projects with multiple inspection methods, you can choose to implement the method not

- used in production to test so that you can find the misjudgment caused by improper testing.
- You should review the appearance of the part in a brightly lit environment. If the customer provided any sample in advance, it can be used as a benchmark for further comparison.
 - If a spot-checked part can still be used after inspection, it shall be cleaned and oiled, repackaged, returned to the original state before the inspection, and then put back in the original way according to delivery.

While inspecting the final products, we also check the producer's P-FMEA, control plan, process flow diagram, process documentation, etc.

bdp MC requires all producers to place all relevant process documentation and inspection specifications for the production process at the production site. These must be visible and within reach for all operators on site. Based on these specifications, we ask the operators about key characteristics, risks, and previous customer complaints, to find out if the production site is really performing according to the control plan, process documents, and other requirements. If there is no clear answer at first, it is necessary to ask more questions and ensure that the questions have been correctly understood.

The parts shall be checked during the production process in accordance with inspection specifications.

When any defect is found, we immediately communicate with producers and search for a solution together on site. The on-site inspection must be documented. The process capability Cpk must be determined. For example, customers in the automotive industry usually require $Cpk \geq 1.67$.

In addition, the maintenance of gauges and production equipment is essential. For gauges, we ask the producers to provide Gage Repeatability & Reproducibility (R & R) report and check whether the gauges used on site are within the validity period and are properly stored. For production equipment, we check the maintenance records of the equipment, etc.

In addition, handling of non-conforming parts, production batch and traceability management are also the focus of the audit. Non-conforming parts must be marked with different colors or with labels according to their categories, then recorded and isolated. We check the batch identification, audit batch records, and production inspection records of the parts on-site for the batch and traceability of products.

All strengths and weaknesses found during the audit process shall be documented. Sometimes it is also helpful to take photos. Finally, we communicate with the producer for the problems found in this audit, put forward the improvement report, and ask the producer to rectify it by the deadline.

Later, we will audit again after the producer completes the rectification. In this round after round process, bdp Mechanical Components and the producers work together to continuously improve product quality and enhance customer satisfaction.

Text



Ye Liu

Senior Supplier Quality Engineer (SQE) at bdp Mechanical Components China

Mr. Liu has over 20 years of working experience in large factories and foreign companies and 15 years of quality assurance experience. He has worked in quality control, supplier quality management, and technical support for production. Additionally, he is very familiar with the manufacturing processes of automobiles, solenoid valves, generators, etc. As Supplier Quality Engineer (SQE) at bdp MC, he is responsible for technical analysis, process analysis, and supplier quality control.

Translation:



Xiuguo Dong

Senior Technical Sales of bdp Mechanical Components Germany

Mr. Dong, Master of Industrial Engineering, was born and raised in Beijing (China) and has lived in Germany since 2002. Mr. Dong attended high school in Berlin and studied in Kaiserslautern. His tasks at bdp MC contain technical analysis, offering, sales, and project execution.

About bdp Mechanical Components

Founded in 1982, today's bdp Mechanical Components is headquartered in Berlin and has 14 other offices in Germany, China, Poland, Spain, Bulgaria, and Switzerland. bdp Mechanical Components is a specialized provider in the field of international sourcing of castings and forgings for customers who do not have a detailed overview of the most suitable suppliers for their products, especially in Asia (China), Turkey and Eastern Europe. And of course, also for customers who cannot accompany corresponding project start-ups closely on site with the suppliers and monitor the ongoing production.

For more professional advice, please follow us on WeChat: public number bdp-Group-1992, or scan the QR code below to follow us.



All rights to this text belong to bdp Mechanical Components Deutschland GmbH. Written permission from bdp MC is required for reproduction or distribution in public. Thank you for your cooperation.

Headquarter

Berlin
bdp Mechanical Components Deutschland GmbH
Danziger Straße 64
10435 Berlin
Postal code: 10435
Tel.: +49 (0) 30 4433 610
Fax: +49 (0) 30 4433 6154
info@bdp-mc.com
www.bdp-mc.com

Sourcing center

Shanghai

bdp Mechanical Components (Shanghai) Co., Ltd.

Room 759, Building 3, German Center, No. 88 Keyuan Rd. Pudong, Shanghai, China

Postal code: 201203

Tel.: +86 (0) 21 6878 0138

Fax: +86 (0) 21 6878 2638

info@bdp-mc.com

www.bdp-mc.com

Qingdao

bdp Mechanical Components (Shanghai) Co., Ltd., Qingdao Büro

Room 27A, 27th Floor, Building C. JINDU Garden. No.37 Donghai West Road, Qingdao, China

Postal code: 266071

Tel.: 86 (0) 532 - 6675 9663

info@bdp-mc.com

www.bdp-mc.com

Tianjin

bdp Mechanical Components (Shanghai) Co., Ltd., Tianjin Büro

Room K, 20th Floor, Teda Building No. 256 Jiefang South Road, Hexi District, Tianjin, China

Postal code: 300042

Tel.: +86 (0) 22 – 5995 9243

Fax: +86 (0) 22 – 5995 9243 805

info@bdp-mc.com

www.bdp-mc.com

Warshau

bdp Mechanical Components Warsaw

Ul. Klarysewska 50

02-926 Warszawa

Tel: +48 (0) 513 0305 06

info@bdp-mc.com

www.bdp-mc.com

Sofia

bdp Mechanical Components Bulgaria

Bratja Miladinovi Str. 16, Etage 2, Büro 3

1301 Sofia, Bulgaria

Tel: +35988 7318 134

info@bdp-mc.com

www.bdp-mc.com

Sales team

Hamburg

bdp Mechanical Components Hamburg

Haus am Hafen, Steinhöft 5-7

20459 Hamburg

Tel: +49 (0) 40 3099 360

Fax: +49 (0) 40 3099 3660

info@bdp-mc.com

www.bdp-mc.com

Frankfurt

bdp Mechanical Components Frankfurt

Frankfurter Landstraße 2-4

61440 Oberursel

Tel: +49 (0) 6171 5868 805

info@bdp-mc.com

www.bdp-mc.com

Marbella

Mechanical Components España bdp, S.L.

Urb. Marbella Hill Village, Casa 6 Sur

29602 Marbella/Málaga, España

Tel: +34 (0) 952 7663 00/01

Fax: +34 (0) 952 7663 02

info@bdp-mc.com

www.bdp-mc.com

Zürich

bdp Mechanical Components Switzerland

Stockerstraße 41

CH-8002 Zürich

Tel: +41 (0) 58 4007 070

info@bdp-mc.com

www.bdp-mc.com