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Increased sustainability: TRUMPF and Brose keep lasers in service for longer

Brose Vehicle Parts and TRUMPF have developed the health check for lasers – a service that ensures the safe and sustainable reuse of lasers.

When Oliver Meusel talks about lasers, it quickly becomes apparent that he is well versed in both theory and practice. He has been working at Brose Vehicle Parts for over 30 years, and is currently a welding technology specialist. He works with his team to develop technologies, design processes and validate products. And because Meusel knows what matters in production, he often comes up with suggestions for products and services that make everyday life even easier for customers. His ideas usually stem directly from practical challenges that he has had to overcome.

This was the case with the health check for lasers. "At Brose, we weigh up every product development. Do we buy a new system for it? Or can we reuse an existing machine?", Meusel explains. "The latter is particularly attractive in the case of lasers, as no new investment is required, the system has already been depreciated, and the whole enterprise is sustainable." But who can really tell if a laser is still fit for a new project after years of use?

Turning an idea into a product

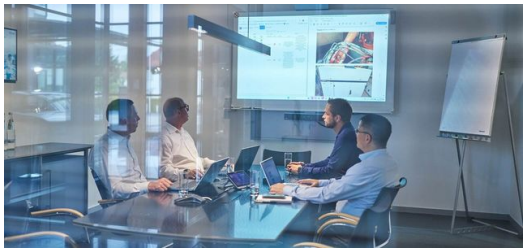
He posed this question to his partners at TRUMPF. How about developing a thorough check that gives decision-makers a transparent, objective and comprehensible overall assessment of the investment – like a kind of used car appraisal? By combining the evaluation of existing laser data with a full on-site assessment by a service engineer, it was possible to weigh up all the advantages and disadvantages of a new purchase versus reuse. So what does each decision actually mean in terms

of cost, risk and sustainability? TRUMPF experts quickly recognised the advantages that such an assessment could provide customers, and worked with Oliver Meusel to develop a health check for lasers. Meusel worked internally to coordinate requirements, brought together colleagues from different plants, sought feedback – and TRUMPF listened.

Condition Monitoring: How are you today, dear laser?

Analysing laser data is part and parcel of Brose's work. The company has relied on Condition Monitoring from TRUMPF for many years. All lasers used worldwide – over 200 of them – are connected to the system. It proactively monitors anomalies and faults using algorithms and TRUMPF service experts, helping to prevent idle states. "Condition Monitoring is an extremely powerful tool, and I recommend it to every one of our plants," says Meusel. However, this is not enough for him to decide whether a used laser can be incorporated into a new project. Condition Monitoring shows the current state, but the health check should also take a look at the past and enable a forecast of the future.

New acquisition or re-use? The health check combines laser data and an on-site inspection to provide clear answers.



TRUMPF and Oliver Meusel developed the health check for lasers.

The health check enables decision-makers to make a transparent, objective and comprehensible overall assessment of the system.

Health check: Dear laser, how have you been so far?

The health check for lasers also considers additional questions: What was the condition of the device during its previous operating period? How often were repairs and maintenance carried out? What about service and spare parts availability? Is it worth overhauling? Is it possible to retrofit the system with smart services, such as TRUMPF's Quality Data Storage data backup, or independent monitoring with Smart View? These questions played a role not only for the decision-makers in Coburg, but also worldwide at Brose's 68 locations.

Health at a glance

TRUMPF experts perform the following services during the laser health check directly at the customer's site: <ul> General visual inspection Checking the condition of the beam source Checking the beam guidance, the laser light cable and the optics Cooling system, laser light cables and optics Evaluation of abnormalities from the Condition Check   More information about the health check for your laser can be found here.

Planning security instead of surprises

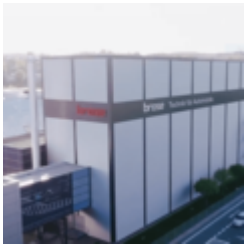
The service for which Brose was a pilot customer is now in use. Meusel recommends that all his colleagues in EU plants schedule a check for every new intended use of lasers. A worldwide rollout is already planned. "The colleagues from the plants are very satisfied. The health check provides security and a solid basis for decision-making for all parties involved when relocating systems," Meusel sums up. And even if the added value of the service cannot really be expressed in euros and cents: "I see the health check as insurance. We avoid project delays, keep an eye on wear part costs, know the spare parts supply situation – and simply know what we are getting into when we continue to use a functional but 'aged' laser."

Everything checked – beam source, beam guidance, laser light cable, optics, cooling system and laser data. For Meusel, the health check is an insurance policy and a solid basis for decision-making.

All data at a glance: What was the condition of the device during its previous operating period? How often were repairs and maintenance carried out? What about service and spare parts availability?

Used lasers are often a "black box". This is why Oliver Meusel wanted a thorough check – and would recommend it to anyone responsible for production systems.

By adopting this approach, Brose is also contributing to the company's sustainability goals. "Instead of automatically purchasing a new device, we now check what the existing laser still can do – including energy consumption and CO□ footprint." He particularly emphasises the collaboration with TRUMPF in developing the health check: "Working with them is always professional, open, and solution-oriented – even when things get a little heated." Meusel would recommend the service to anyone responsible for production systems: "It helps with decision-making and ensures that goals – whether economic or ecological – can be achieved reliably and safely."



All about Brose

Brose is one of the world's largest family-run automotive suppliers. Every third new car contains at least one product from the mechatronics specialist. The company develops and manufactures systems for doors, flaps, seats and electric drives – for example for steering, cooling units and e-scooters. Brose employs some 31,000 people at 68 locations across 24 countries. The head office is in Coburg.

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