



## Metal construction combined with artistry

If you visit the production of Arnold AG in Friedrichsdorf in the Taunus area, you are sure to encounter a treasure here and there: notable international artists rely on the expertise and flair of the metalworkers with the knack for constructing elaborate metal sculptures and objects. This is only one of three areas in which the company with its 350 employees has specialized. As well as sheet metal processing, component assembly and services for the industry, parts for special projects such as stainless steel elements for yachts run through the the 6,000-square-meter production facility. Arnold uses the indoor tracking system Track&Trace so that they do not lose the overview with the several of hundreds of orders, including rush jobs with lot size 1.



### Arnold AG

[www.arnold.de](http://www.arnold.de)

Arnold AG was founded in 1994 and is an internationally active sheet metal processing company. The portfolio includes classic sheet metal processing, component assembly and a wide range of services for industrial clients as well as products made of and with metal for manufacturers of luxury yachts. The company has a particular focus on art. With its established engineering expertise and technical know-how, Arnold implements the ideas of well-known artists.

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**INDUSTRY**  
Industrial  
products, yacht  
fittings, art

**NUMBER OF EMPLOYEES**  
350

**SITE**  
Friedrichsdorf  
(Germany)

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## APPLICATIONS

- Sheet metal processing
- Component assembly
- OEM production

## Challenges

At Arnold, the responsible parties predominantly plan with the departments in mind, not individual machines. This means that they do not assign an order to a machine, but to a technology department, for example bending. This means that the employees can work more flexibly: if an order file shows that a part must be sent to a bending machine, the responsible employee decides for themselves which of the five machines is best suited. Hundreds of orders like this run through the production. Rush jobs in lot size 1 have to be considered as well. It was a great challenge to keep the overview and prevent search times. Arnold wanted transparency – throughout the entire production process.



"The system is an elementary building block of our digital strategy. And another step in our development to a Smart Factory and a paperless production."



**JAQUES SCHNEIDER**

PROJECT LEADER FOR TRACK&TRACE AT ARNOLD AG



## Solutions

The location of orders, load carriers, tools and transport equipment can be determined with precision at any time with the indoor locating system Track&Trace. On the one hand, the system consists of so-called satellites which are fitted at different points in the production hall. On the other hand, it has so-called markers with transmitter chips. These palm-sized markers accompany the orders throughout production. They send signals to the satellites via Ultra Wide Band technology (UWB), which in turn transmit the signals to an industrial PC. Using this data, the computer calculates the position of the markers. The location of a marked part can be determined precisely, down to a few centimeters, and can be shown on an unlimited number of terminals, even mobile ones, using Track&Trace software.

## Implementation

Arnold has been a test customer for Track&Trace since 2018. 50 satellites and around 1,000 markers are now in use. These days, Track&Trace is used not only to find instead of search, but also forms the basis for more overall transparency in the production. Jaques Schneider, project leader for Track&Trace at Arnold AG, explains, "The system is an elementary building block of our digital strategy. And another step in our development to becoming a Smart Factory and a paper-free production." Around three years after introducing Track&Trace, its positive effect on the company culture can be felt. "We now have a significantly more positive response to digitalization topics," says Christoph Ebert, Board Member at Arnold AG. "A Smart Factory just wasn't tangible for many. Track&Trace shows the great advantage of transparency and traceability."



## Forecast

For Arnold, Track&Trace is not complete just with its installation at the Friedrichsdorf site. Arnold would like to extend the system and connect the second production site in Thuringia with the system as well. "We are often looking for items in Friedrichsdorf which are already in Thuringia even though they shouldn't be there yet." This is where Track&Trace will shed some light – transparency from loading the truck in Friedrichsdorf to receiving the goods in the Thuringian town of Steinbach-Hallenberg.

