



# Mobile / Onsite EMC Testing

## TÜV brings EMC testing to you

For industrial system manufacturers or manufacturers of any type of large electrical equipment, medical systems or machinery, EMC testing for CE compliance with the EMC Directive 2014/30/EU can be a difficult task.

As part of the CE marking process, EMC testing of the product is performed in order to ensure that the European standards limits for electrical noise emissions are met and to make sure that the product is not susceptible to electrical interference (immunity). However, these large systems are typically built in place making it nearly impossible to transport to an EMC lab for testing. In fact, it's much easier to bring the EMC testing to the manufacturer's facility.

The CE marking process is required for the EU and involves assessment of the product to the applicable directives, including the EMC directive 2014/30/EU, preparation of a technical file, and DOC (declaration of conformity) before the CE mark can be applied by the manufacturer. The EMC requirements applicable for other countries like Australia and Korea can be easily included in the CE EMC testing process.



### ONSITE EMC TESTING MADE SIMPLE

TUV Rheinland's custom onsite EMC testing service makes EMC testing of large systems simple and easy. Mobile or onsite EMC testing can be accomplished in just a few days at your own facility, substantially saving time, effort and cost typically associated with trying to ship large machinery to a testing facility. How does it work? The process is quite simple.

- Custom designed and dedicated mobile EMC equipment is shipped to your site
- Experienced EMC experts perform the tests in just a few days, working with your engineering staff to mitigate any compliance issues along the way.

We also offer 1 day preliminary EMC design reviews of your system to help make sure that the EMC testing process runs smoothly. These reviews discuss EMC testing logistics, the applicable EMC standards, and includes an EMC design review of your system. Preliminary design review can help prevent failures during testing by allowing customers to address any potential EMC issues before testing begins.

### APPLICABLE DIRECTIVE AND STANDARDS

Directive EMC 2014/30/EU

- |                |                       |                    |
|----------------|-----------------------|--------------------|
| ▪ EN 55011     | ▪ EN 61000-6-4        | ▪ KN 61000-6-2     |
| ▪ CISPR 11     | ▪ EN 61326-1          | ▪ AS/NZS 61000-6-2 |
| ▪ EN 61000-6-2 | ▪ KN11 / KN 61000-6-4 | ▪ AS/NZS 61000-6-4 |

### BENEFITS OF TUV RHEINLAND ONSITE EMC TESTING

#### ▪ **Dedicated and experienced mobile EMC experts**

- Our mobile EMC staff are dedicated to off-site testing and are not subject to lab schedules.
- They are senior EMC experts with over 50 years of combined experience, and trained on 3 phase power systems and industrial systems EMC requirements.
- Our experienced engineers are ready to work with your engineering staff to mitigate any EMC issues found during testing.

#### ▪ **Our custom EMC testing equipment is designed with safety and efficiency in mind**

All power connections to the equipment under test are made with connectors so the testing process is plug & play.

- #### ▪ **Our integrated rack mounted test systems eliminate the need to unpack / pack individual pieces of test equipment.**
- We are ready to test within 30 minutes of our arrival.

**TUV Rheinland is one of the largest service providers for industrial system EMC testing. Our experts are on the road every month and have the experience needed to make sure your EMC testing is simple and easy.**

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#### HOW TO PREPARE FOR IN-SITU EMC TESTING

- Our EMC test equipment will arrive by freight. There are 3 cabinets in total.
- When we arrive for the testing, we will move the equipment to where your product is to do the testing. We will require a pallet jack to move our equipment.
- Our equipment requires one 120v 20A circuit near the test area. We have 50' cords for these connections.
- The product's AC power will need to be connected to our test equipment. We have cables and connectors to do this but will need electrical support to make these connections.
- The product will need to run continuously for up to 3.5 hours at a time. There will be many power up/down cycles so please make sure we have operational support to start the product up and keep it running during the testing.
- The testing will take approximately 2-4 days on average. And additional day is needed for documentation/setup/takedown. Test time is dependent on product complexity and size, as well as proper support and assumes a compliant product.
- During the emissions testing, we will need to place our antenna approximately 15 feet from the product so we will need a clear area of at least 2-3 locations around the product. It is best to move all unnecessary equipment away from the test area.



TÜV RHEINLAND'S CUSTOM DESIGNED  
MOBILE EMC EQUIPMENT



TÜV RHEINLAND MOBILE EMC TESTING EQUIPMENT  
READY TO SHIP TO YOUR FACILITY.

- If there is a similar product located near the product we are testing it may need to be shutdown during the emissions testing. This test takes about 2 hours and we can coordinate doing this early or late in the day to minimize the impact of any shutdowns.
- If the facility has newer LED lights or RF type ballasts for the fluorescent lights, we may need to shut these off during emissions testing.
- System under test should be operating normally. Simulated dry cycle operation is generally acceptable.

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 **TÜVRheinland®**  
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