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Conductix-Wampfler Cables – You sure get the best cable for your application!

Conductix-Wampfler has been developing and selling Conductix-Wampfler branded cables for many years. This very extensive portfolio offers many advantages both in terms of competitiveness and performance.

These cables have been developed and optimized with our partners to fit customers' applications and guarantee the best performance.

Cable Testing

Festoons cables are fully tested in our Weil am Rhein Center of Excellence. Our dedicated test bench simulates the operation of festoon systems and allows us to validate cables through accelerated life time tests.

Reeling cables are fully tested in our Belley CoE on several specific test installations, for spring reel cables and for motor driven reel cables.

These five test benches allow us to precisely replicate all cable reels applications and to validate all of our Conductix-Wampfler branded cables.

We are able to perform two different types of in-house test. Test "level 1" consists in an in-depth cable material and construction analysis and Test "level 3" consists in an electrical & mechanical test in extreme conditions. The last test type is the „level 2" which is a long term field test. In agreement with a suitable customer, the cable is put on their already running application.

Standard test procedures

Our evaluations and results are established through comparative testing with reference cables.

We use a proven cable on the market to define a benchmark that other cables would need to reach.

The different cable brands are tested with the exact same parameters and the results are compared, allowing us to define if a cable is going to fit a specific application.

The tests performed on the cables are mechanical and electrical. Cables are subjected to the type of stress they will face during normal operation and key parameters are constantly measured. In order to keep the test durations within acceptable limits, the stress levels are drastically increased to artificially reduce the cable lifetime and obtain representative results within weeks.

A key criteria is the number of cycles that is reached. But the test team and PMs are also analysing the behaviour of the cable during the complete test and the type of failure causing the test to stop.

One challenge is to define the right test values for new cables. If the test parameters are too soft, the test duration is unnecessarily high (could be several months). On the other hand, if the test parameters are too hard, the cables are killed very quickly (sometimes in a matter of hours) and the test is not representative. The test team aims to reach at least 10.000 cycles for a reference cable.

When a test campaign is completed, the test results of the cables are compared and Product Management decides which cables are validated.

Test „level 1“

Checks...

- Compliance with the technical specifications
- Condition of the outer sheath: Surface roughness, hardness, thickness and roundness
- Marking
- Concentricity of the conductors in the sheath
- Bending resistance
- Cable manufacturing details and quality

Test „level 3“

- Mechanical lifetime test of the cable
- continuous insulation fault checking
- During the test, at regular intervals, measures are made on several points:
    1. Diameter
    2. Roundness
    3. Twist
    4. Extension
    5. General condition
- After test completion, any failure is analyzed to define root causes

Quality Management & Partnership

In parallel of these strict testing and validation processes, we are also following up our cable suppliers with regular site visits and evaluations. This monitoring helps us to keep track of what is happening at our suppliers and guaranties a constant quality level.

Because of our partnerships and preferential relationship, our Conductix-Wampfler cables usually have lower lead-time than the other cables.