

Those who consider suitable test strategies and concepts during the development phase, save later costly adjustments in production. Zühlke provides you with interdisciplinary teams and a broad know-how in test engineering for a successful conversion of tasks.



Consulting **Development** Integration

## Test Engineering

### Saving by Testing

The demand for ever better, more complex and more economical products as well as stricter product liability laws force the manufacturers to perform ever more comprehensive tests of its products. So that the tests can take place optimally and efficiently, testing must be integrated into the development process from the outset. The development of a test environment runs parallel to product development and production planning. In modern, iterative development processes, test engineering is an important component. In each case, the crucial questions should be asked in advance, in order to avoid subsequent high costs in production.

### Test Strategy

Working out and implementing test cases with suitable test strategies are some of the strengths of our engineers. They systematically specify the requirements and functions for the tests with the customer and determine a suitable test strategy.

During this time all questions relating to size of the tests, test conditions, specimen identification, degree of automation, inspection documentation, interfaces, data management, “make or buy” concept etc. are clarified and documented. Subsequently, Zühlke develops all the hardware and software for the test equipment. Interdisciplinary teams with broadly varied know-how guarantee a successful project and build the test equipment on the customer site.

### Your Benefit

Zühlke's systematic procedures with test engineering ensures that your requirements for test concepts are captured as early as during the development phase and that the requirements for the production environment are taken into consideration. In doing this, we ensure that the project can be implemented successfully and with fewer risks. We reduce your time spent communicating with external partners by delivering a complete testing environment from one source.

### Examples of Successful Product Tests

- For a manufacturer of revolution sensors Zühlke builds a test station which supplements the existing station. As far as possible, existing hardware is used.
- In the area of medical technology, Zühlke develops a final test system for the production of breast pumps. Validation according to GMP guidelines is also part of the project.

Are short development times and comprehensive solutions for test engineering crucial to you? Then contact us and convince yourself of the possibilities.



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