

Approval of test rigs and test laboratories

Aim of this procedure

This procedure describes the workflow for an approval of test rigs and test laboratories with the aim of using the test results for an approval of lubricants. The process of lubricant approval requires submitting of several test results which are only accepted if the tests were done in qualified and approved laboratories.

In general, neutral laboratories as well as internally available test rigs of lubricant manufacturers can be approved for this purpose.

Information on the Flender lubricant approval process can be found here: <https://www.flender.com/lubricants>

Requirements for an approval

The following requirements have to be fulfilled to approve a laboratory / a test rig:

- 1) Standardisation of the test:
 - a. The test procedure and the corresponding test equipment are part of a national or international standard (e.g. FE-8 test)
 - or
 - b. The test procedure is well documented and enables an operator to perform the test comparable to other laboratories (e.g. static elastomer compatibility test, coating compatibility test)**An approval for such a test / test rig always needs consultation with Flender!**
- 2) Proof of qualification
 - a. Successful participation in official round robins for this test / test procedure
 - or
 - b. Benchmark tests (test definition by Flender)
- 3) Documentation
 - a. Illustrated documentation of the test rig and the procedure of an actual test execution
 - b. Information about the operating and evaluating staff as well as a certification of their qualification
 - c. List of the used measurement equipment and confirmation of the equipment's calibration
 - d. Information about data handling and probe storage
 - e. Usage of standardized protocols / results sheets for use in a Flender oil approval
- 4) Quality management
 - a. Proof that the laboratory / company works according to a quality management system which fulfils the requirements of ISO 9001:2015

Validity of an approval

A granted approval is valid for 5 (five) years provided that it is not withdrawn by the laboratory or by Flender (see section Reservation).

Specialities regarding inhouse-tests of lubricant manufacturers

To ensure quality and to avoid conflicts of interests, randomly chosen tests which were executed inhouse at a lubricant manufacturer have to be verified at a neutral laboratory. In such cases the applicant of the approval is contacted and an additional test – executed by a neutral laboratory – is requested. The results of this test shall be submitted directly to Flender by the laboratory. To avoid a long delay in the approval process due to waiting times at the laboratories, the submitted inhouse test results will be used for the approval process (assuming that the test of the neutral laboratory will not show a fail result).

Reservation

Flender reserves the right to decline an approval despite successful conformance to the requirements. Furthermore Flender reserves the right to withdraw a granted approval at any time in case there are hints on malpractice or that the requirements are no longer fulfilled.

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