

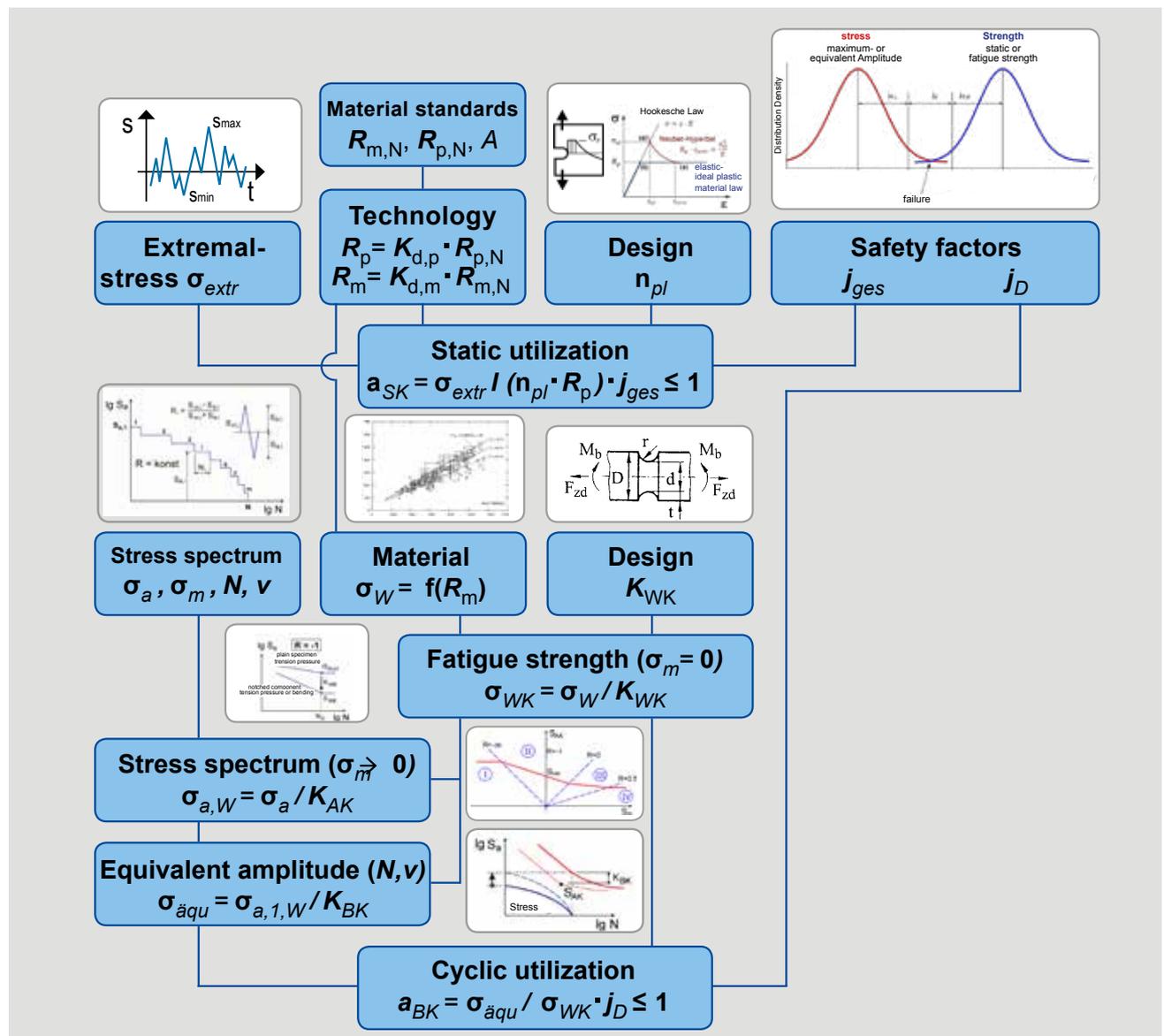
CALCULATED STRENGTH ASSESSMENT **WIAM® fatigue RIFEST – THEORY AND PRACTICE WITH THE FKM GUIDE LINE**

We are the partner you can contact when it comes to strength assessment and strength analyse.
Determine this by calculation with the WIAM® fatigue RIFEST Software according to the FKM guide line.

ANALYTICAL STRENGTH ASSESSMENT WITH FKM-GUIDELINE

The FKM-Guideline "Analytical strength assessment for components" has been published by the Forschungskuratorium Maschinenbau e.V. (FKM). The first issue of FKM-Guideline was published in 1994. IMA Materialforschung und Anwendungstechnik GmbH is significantly involved in the development of the guideline. The actual 6th issue was elaborated and published 2012.

The FKM-Guideline contains a calculation algorithm with a consistent structure for all cases of application. The algorithm consists of procedures, equations, tables and graphs.



SIMULATION AND COMPUTATION

- Development and elaboration of concepts for the analytical strength assessment for practical applications under consideration of our knowledge from several fields of industrial application
- Solution of urgent problems with component strength by methodical support, engineering services and constructive consultancy
- Analytical strength assessments on base of measured stresses, also in extraordinary problems
- Development and implementation of customer-specified software for analytical strength assessment and measurement data analysis
- Work on research and development projects to analytical and experimental strength assessments

TRAINING FKM-GUIDELINE



We train you to the FKM-Guideline on site or in our house. The training shall explain the methods and background information of the analytical strength assessment according to FKM-Guideline.

1. INTRODUCTION TO
FKM-GUIDELINE

2. NON-WELDED COMPONENTS

3. WELDED COMPONENTS

— 4. ACQUISITION OF INPUT VALUES
FOR STRENGTH ASSESSMENT

— 5. INDIVIDUAL POINTS OF INTEREST

— Visit for more information:
ima-dresden.de/Training

SOFTWARE WIAM® fatigue RIFEST

Our software is the solution for the construction process and component stress analysis. The software shows the guideline true strength assessment in accordance with FKM-Guideline issue 2012.

Engineers and constructors in several areas benefit of the theoretical knowledge and practical know-how of the methods and calculation algorithms:

- Block-shaped and shell-shaped non-welded components
- Welded components
- Strength assessment for selective present stresses basing on FEM calculations or strain gauge measurements



PROGRAMME CONTENTS

BASIC EDITION

- Fatigue strength assessment as assessment of the fatigue limit assessment or variable amplitudes fatigue strength assessment including required static strength assessment
- Strength assessment for several verification points on the basis of existing local elastic stresses (e.g. of FEM-calculation or strain gauges measurements)
- For block-shaped non-welded components (base material)
- Comprehensive database for non-welded machine components: rolled steel, iron casting materials, aluminium materials (incl. material characteristics)
- Normal and increased temperature
- Updates, support and maintenance
- German or English version

PREMIUM EDITION

The package Premium offers in addition:

- Shell-shaped welded components
- Comprehensive database for welded machine components
- Comprehensive presentation of the results in report form
- Two languages: German and English versions

BOOKABLE OPTIONS

- Floating license
- Updates, support and maintenance after the first year
- Competent IMA consulting for FKM guide line
- Buying or rental license

TRAINING WIAM® fatigue RIFEST

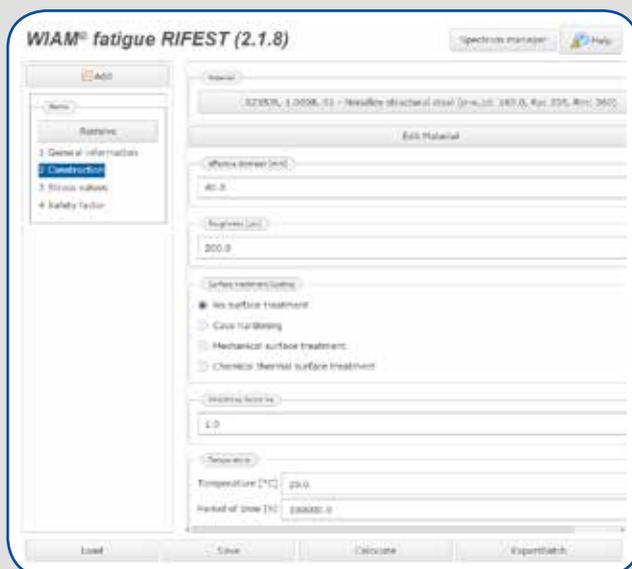
We provide trainings about the calculation programme and the FKM guide line. Please contact us and arrange a meeting—either at our facilities or directly at your site.

INDIVIDUAL SERVICES

- Possibility for customer specific enlargements /Add-Ons (such as documentation layouts)
- Integration of customer specific characteristics
- Customer specific connection to the FE environment (extension in FE-Pre/Postprocessors)
- Site license model
- Enterprise license model

TEST VERSION WIAM® fatigue RIFEST

You can test WIAM® fatigue RIFEST with the demo download:
<http://www.wiamnetwork.com/fatigueRIFEST/demo/de/wiamrifest>



SIGHT OF THE USER INTERFACE

PUTTING THE WORLD TO THE TEST

IMA Materialforschung und Anwendungstechnik GmbH (IMA Dresden) is an internationally operating company for engineering services and scientific-technical consulting around qualification, validation and monitoring of materials, components and products. Located between research and industry, we will accompany you, if desired, along the entire development of a product with comprehensive engineering competence. As we work in many sectors involving traffic engineering, plastics and metal industry and others, we can offer you a head-start with our comprehensive know-how.

We work according to German, international standards and we are certified according to DIN EN 9100 and ISO 14001. Nearly all relevant test laboratories are accredited according to DIN EN ISO/IEC 17025. The test labs have most modern test-, measure- and control technology over an area of more than 10,000 m² test field.



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