

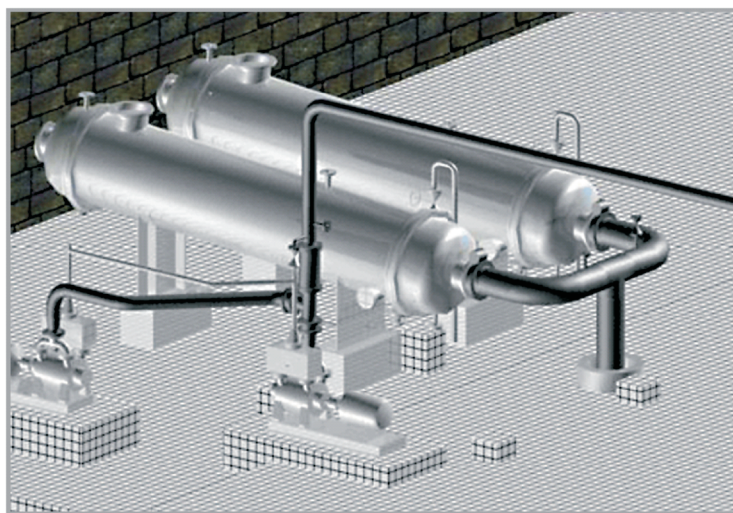


CADISON® ROHR2-Interface

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Stress Calculations in Pipelines

In the project engineering phase the integrated planning systems with components tailored to specific engineering disciplines play a central role. ROHR2, the CAE-System for component verification, design plus static and dynamic structure analysis of complex pipeline systems is available as such a "Specialist".



Stringent regulatory requirements in plant engineering require more and more documentation efforts. Documentation of so-called stress calculations plays a very dominant role in this case. Since the project running times are getting shorter while competition is getting harder, the companies are forced more than before to continuously optimize and reduce the planning periods. The plant planning staff has an enormous advantage in competition if it is able to perform the "stress calculations" in its system itself or to perform at least the complete efficient data transmission.

Integration of work stages and the required data is the purpose of the combination of CADISON® with ROHR2. ROHR2 has been the software for pipeline calculations in plant engineering for almost 40 years. Many reputed national and international plant manufacturers and operators from power, chemical and petrochemical

engineering have confidence in the quality of ROHR2.

Stress Analysis with ROHR2

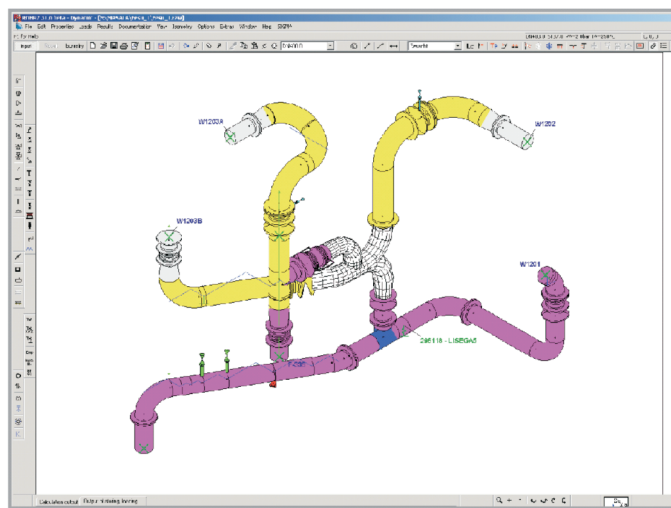
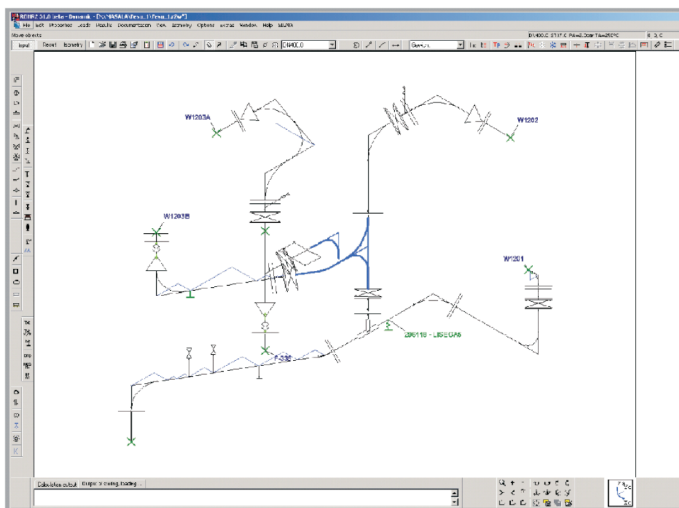
The ROHR2 program system can be used for stress analysis of pipe components on the basis of a great number of codes and standards like ANSI, ASME, KTA, EN 13480, FDBR, AGFW, BS 7159 and ISO 14692. ROHR2 compares the existing and admissible stresses and documents the results in lists and graphic charts.

Automatic Generation of Calculation Data

CADISON® ROHR2-Interface transmits all pipelines designed with CADISON® 3D-Designer to ROHR2. The NTR file (neutral interface file) is automatically generated and contains all necessary information. The file created in this way is read-in with ROHR2win and the calculations are carried out.

Different Plant Types

Static and dynamic pipeline calculations are applicable to plants of any kind, such as power stations, distance-heating



networks, chemical plants, pump stations, refineries, ships, bridges, cranes, machines and equipment and many other branches of industrial construction

All loads may be imposed even as dynamic loads with harmonic excitation. The dynamic analysis furthermore comprises the calculation of intrinsic values and natural modes plus their processing in different modal response methods for examination, such as examination of pressure surges. Earthquake analyses are based on the time-history method.

A highly efficient superimposition model stands for versatile selection and combination between static and dynamic results plus generation of extreme values for stressing of bearings, components and pipe nozzles.

Results and Check-Up

ROHR2 is operated via the integrated graphic user interface ROHR2win. Comprehensive control functions are available for simple check-up of input data; results can be displayed and counter-checked – and at the end you have the automatic report generation. The documentation of calculation results is displayed graphically and in tables. Apart from statements on stresses and loading of bearings and connection points, ROHR2 will supply you with additional results like spring dimensioning, compensator proof and internal pressure layout.

Business Benefits

- Premature and “concurrent” stress calculation
- Automatic data transmission without any noteworthy re-work in case of ROHR2
- Close integration of interface – No erroneous data input through “manual input”
- Reduction in analysis time – Low costs
- Very rapid analysis and calculation for assessment of pipeline system

Key Features

- Direct and complete data transmission of pipeline systems and components for calculation
- Freely configurable transmission of attributes from CADISON®
- Clear transmission of marking for valves, components, pipelines, fittings and fasteners
- Automatic transmission of fixing points
- Transmission of data on exact location of weld seams



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