Dlubal - Product Overview

RSTAB

1.1 RSTAB Basis

1.2 Steel

STEEL
General stress design

STEEL EC3
Design acc. to Eurocode 3

STEEL AISC
Design acc. to U.S. standard ANSI/AISC 360-05

STEEL SIA
Design acc. to Swiss standard SIA 263

STEEL IS
Design acc. to Indian standard IS 800

KAPPA
Flexural buckling design acc. to DIN 18800-2 (equiv. member method)

LTB
Lateral torsional buckling acc. to DIN 18800-2 (equiv. member method)

FE-LTB
Flexural and lateral torsional buckling design acc. to FE method

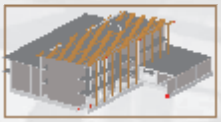
EL-PL
Ultimate limit state design elastic-plastic

C-TO-T
Design of limit (c/t) for cross-sections parts acc. to DIN 18800

PLATE-BUCKLING
Buckling analysis of stiffened plates acc. to DIN 18800

BRACING
Design of Wind Bracing for Roofs with Stabilizing Load According to DIN 18800

CRANEWAY
Crane girder analysis acc. to DIN 4132 and DIN 18800



1.3 Concrete

CONCRETE
Concrete design acc. to DIN 1045-88, DIN 1045-1, EC 2*), ÖNORM B 4700*)

CONCRETE Columns
Concrete design with model column method acc. to DIN 1045-1 and EC 2*)

FOUNDATION
Single, bucket and plate foundations acc. to DIN 1045-88 and DIN 1045-1

*) optional

1.4 Timber

TIMBER Pro
Design acc. to DIN 1052:2008-12, EC 5 and SIA 265:2003

1.5 Composite

COMPOSITE-BEAM
Composite beams acc. to DIN V ENV 1994-1-1

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RFEM

2.1 RFEM Basis

2.2 Steel

RF-STEEL
General stress design for members and surfaces

RF-STEEL EC3
Member design acc. to Eurocode 3

RF-STEEL AISC
Member design acc. to ANSI/AISC 360-05

RF-STEEL SIA
Member design acc. to Swiss standard SIA 263

RF-STEEL IS
Member design acc. to Indian standard IS 800

RF-KAPPA
Flexural buckling design acc. to DIN 18800-2

RF-LTB
Lateral torsional buckling acc. to DIN 18800-2

RF-FE-LTB
Flexural and lateral torsional buckling for members acc. to FE method

RF-EL-PL
Ultimate limit state design elastic-plastic for members

RF-C-TO-T
Design of limit (c/t) for cross-section parts acc. to DIN 18800

RF-PLATE-BUCKLING
Buckling analysis of stiffened plates acc. to DIN 18800

1.6 Dynamics

DYNAM Basic
Analysis of eigenvibrations and natural frequencies

DYNAM Add. I
Modal analysis, time step method, response spectra and harmonic excitation

DYNAM Add. II
Equivalent seismic loads for earthquakes

1.7 Other

DEFORM
Deformation and deflection analysis

RSMOVE
Load case generation from moving loads

RSIMP
Automatic generation of imperfections

RSBUCK
Buckling shapes, effective lengths, critical load factors

RSCOMBI
Load case combinations acc. to DIN 1055-100, EN 1990, SIA 260 etc.

SUPER-LC
Superimposing results of construction phases

TOWER Structure
Generation of lattice towers structures

TOWER Equipment
Equipment for communication towers

TOWER Loading
Generation of wind, ice, and variable loads for lattice towers

Cross-Sections

3.1 Thin-walled

SHAPE-THIN
Cross-section properties and stress analysis

3.2 Massive

SHAPE-MASSIVE
Cross-section properties, stress analysis and reinforced concrete design

2.3 Concrete

RF-CONCRETE
Reinforced concrete design for plates, walls, shells and members acc. to DIN 1045-88, DIN 1045-1, EC 2*), ÖNORM B 4700*)

RF-CONCRETE Columns
Concrete design with model column method acc. to DIN 1045-1 and EC 2*)

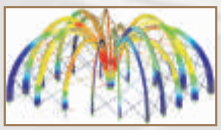
RF-PUNCH
Punching shear design acc. to DIN 1045-88, DIN 1045-1 and EC 2*)

RF-FOUNDATION
Single, bucket and plate foundations acc. to DIN 1045-88 and DIN 1045-1

*) optional

2.4 Timber

RF-TIMBER Pro
Member design acc. to DIN 1052:2008-12, EC 5 and SIA 265:2003



2.5 Dynamics

RF-DYNAM Basic
Eigenfrequencies and eigenvibrations

RF-DYNAM Add. I
Modal analysis, time step method, response spectra and harmonic excitation

RF-DYNAM Add. II
Equivalent seismic loads for earthquakes

2.6 Glass

RF-GLASS
Design of glass surfaces

Connections

4.1 Steel

RF-/FRAME-JOINT
Design of frame joints acc. to DIN 18800 and EC 3

RF-/END-PLATE
Flexurally rigid end plate connections

RF-/CONNECT
Shear connections with end plates, web and seating cleats

RF-/DSTV
Typified connections in steel constructions acc. to DSTV guidelines

RF-/HSS
Hollow section connections acc. to EN 1993-1-8:2005

4.2 Timber

DOWEL
Dowel connections with slotted sheets acc. to DIN 1052-2008, SIA 265, EC 5, ÖNORM B 4100/2

2.7 Other

RF-DEFORM
Deformation and deflection analysis for members and sets of members

RF-MOVE
Load case generation from moving loads on members

RF-IMP
Automatic application of imperfections to surfaces and members

RF-STABILITY
Critical load factors and buckling modes

RF-SOILIN
Analysis of soil-structure interaction for foundation surfaces

RF-COMBI
Load case combination acc. to DIN 1055-100, EN 1990, SIA 260 etc.

RF-MAT NL
Taking into account nonlinear material behavior

RF-STAGES
Considering different structural stages

RF-LAMINATE
Design of laminate surfaces

RF-TOWER Structure
Generation of lattice towers structures

RF-TOWER Equipment
Generation of lattice towers structures

RF-TOWER Loading
Generation of wind, ice, and variable loads for lattice towers

Stand-alone

5.1 Steel

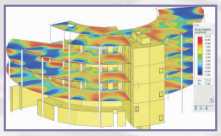
CRANEWAY
Crane girder analysis acc. to DIN 4132 and DIN 18800

PLATE-BUCKLING
Buckling analysis of stiffened plates acc. to DIN 18800

BRACING
Design of Wind Bracing for Roofs with Stabilizing Load According to DIN 18800

5.2 Composite

COMPOSITE-BEAM
Composite beams acc. to DIN V ENV 1994-1-1



5.3 Timber

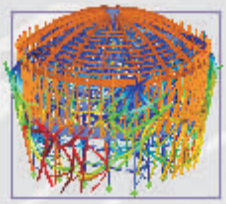
RX-TIMBER Glued-Laminated Beam
Fish bellied girders, duo-pitch and general roof beams acc. to DIN 1052:2008-12 and EC 5

RX-TIMBER Continuous Beam
Hinged girder systems, continuous and single-span beams acc. to DIN 1052:2008-12 and EC 5

RX-TIMBER Column
Timber columns acc. to DIN 1052:2008-12 and EC 5

RX-TIMBER Purlin
Coupled purlins and continuous beams acc. to DIN 1052:2008-12 and EC 5

RX-TIMBER Frame
Timber frames acc. to DIN 1052:2008-12 and EC 5



Interfaces

6.1

RS-COM
Programmable COM interface for RSTAB

RF-COM
Programmable COM-interface for RFEM

RX-LINK
Import of Step, IGES and ACIS files to RFEM

6.2 Integrated

Tekla Structures <-> RSTAB / RFEM
Bidirectional interface for Tekla Structures

Autodesk Revit Structure <-> RSTAB / RFEM
Bidirectional interface for Revit Structure

Autocad Structural Detailing

Formats for frameworks (.stp)
German DSTV product interface
Bentley ProStructure
Tekla Structures
Intergraph Frameworks
Advance Steel
Bocad
Cadwork

Formats for spreadsheet programs
MS Excel (.xls)
OpenOffice.org Calc (.ods)
text format (.csv)

General CAD formats
Drawing Interchange Format (.dxf)
IFC format (.ifc)
Structural Analysis View (IFC 2x3)
Coordination View
SDNF format (.dat)

CAD reinforcement programs
GLASER -isb cad- (.geo)
Strakon (.cfe)
Nemetschek Allplan (.asf)
CADKON (.esf)

Calculation programs
ANSYS APDL (.ans)
SCIA Engineer (.xml)
SoFistik (.ifc)
InfoGraph (.ifc)
Frilo ESK/RS (.stp)

Dlubal Software and its Modular Structure

Dlubal software is based on a modular system. There are two main program families: RSTAB and RFEM. Each family is made up of the main program and its add-on modules. These modules either are integrated in the main program or, in a few cases, run as stand-alone programs. Integrated modules, however, only run with the corresponding main program.

In addition, the separate program family RX-TIMBER includes special modules for typical engineering tasks in timber construction.

The modular approach allows you to combine the main programs individually with the modules required for your structural projects. Upgrades at a later date are always possible. This brochure describes the modules in detail. Finally, almost each module can be tested as a demo version provided with your Dlubal program DVD.

Ingenieur-Software
Dlubal
Software for Structural & Analysis Design