DLUBAL RSTAB 8 ESSENTIAL TRAINING – STEEL STRUCTURES

Objectives:

After completing this training, you will be able to:

- ✓ Create a 3D structural model
- ✓ Define loads and load combination
- ✓ Calculate the internal forces, deformations and support reactions
- ✓ Analyse the member stresses
- ✓ Design steel structures according to Standard Code
- ✓ Display results using graphic window and table
- ✓ Checking results according to Standard Code
- ✓ Optimize Cross-Section
- ✓ Generate printout report
- ✓ Import/Export AutoCAD with Dlubal RSTAB

Modules:

RSTAB 8 Main Module

Add on Modules:

STEEL – General stress analysis of members

STEEL EC3 – Member design according to Eurocode 3

TRAINING PROGRAMME DAY 1

Chapter 1: Introduction to Dlubal RSTAB 8

1.1 Graphical User Interface

1.2 Project Management

Chapter 2: Entering the Model Data

2.1 Creating a New Project

2.2 Creating a New Model

2.3 Moving, Zooming, Rotating

2.4 Adjust Work Window and Grid

2.5 Defining Members

2.6 Creating Members

2.7 Placing the Horizontal Beam

2.8 Showing Numbering

2.9 Dividing a Member

2.10 Defining Tapered Members

2.11 Connecting Members Eccentrically

2.12 Placing Ceiling Joist as Continuous Members

2.13 Connecting Members

2.14 Defining Nodal Supports

2.15 Defining Member End Releases

2.16 Changing the Numbering

2.17 Checking the Input

Chapter 3: Assigning Load

3.1 Load Case 1: Self-Weight

3.2 Load Case 2: Snow

3.3 Load Case 3: Wind lateral on Columns

3.4 Load Case 4: Wind Lifting

3.5 Load Case 5 to 7: Imposed Load

3.6 Load Case 8: Imperfections

Chapter 4: Combination of Actions

4.1 Defining Load Combinations

4.2 Defining Result Combinations

Chapter 5: Calculation

5.1 Checking Input Data

5.2 Starting Calculation

Chapter 6: Results

6.1 Available Results

6.2 Deformations, Internal Forces, Support Forces

6.3 Results Display

6.4 Result Diagrams on Members

6.5 Multiple Windows View

6.6 Filter Results

6.7 Animation of Deformations

TRAINING PROGRAMME DAY 2

Add-on Modules: STEEL

Chapter 7: Input Data

7.1 General Data

7.2 Materials

7.3 Cross-Sections

Chapter 8: Calculations

8.1 Detail Settings

8.2 Stresses and Ratio

8.3 Start Calculation

Chapter 9: Results

9.1 Stresses by Cross-Section, Set of Members, Member, x-Location, at Every Stress Point

9.2 Governing Internal Forces by set of Members

9.3 Part List by Member and Set of Members

9.4 Cross Section Optimization

Chapter 10: Results Evaluation

10.1 Selection of Stresses

10.2 Results on Cross-section

10.3 Results in RSTAB Model

10.4 Result Diagrams

10.5 Filter for Results

Add-on Modules: STEEL EC3

Chapter 10: Input Data

10.1 ULS, SLS, Fire Resistance, National Annex

10.2 Materials

10.3 Cross-Sections

10.4 Intermediate Lateral Restraints

10.5 Effective Lengths

10.6 Nodal Supports

10.7 Member Hinges

10.8 Serviceability Data

10.9 Fire Resistance

10.10 Parameters

Chapter 11: Calculation

11.1 Detail Settings

11.2 Ultimate Limit State

11.3 Stability

11.4 Serviceability

11.5 Fire Resistance

11.6 Other

11.7 Start Calculation

TRAINING PROGRAMME DAY 2

Chapter 12: Results

12.1 Design by Load Case, Cross-Section, Set of Members, Member, x-location

12.2 Governing Internal Forces by set of Members and Set of Members

12.3 Member Slenderness

12.4 Parts List by Member and Set of Members

12.5 Cross Section Optimization

Chapter 13: Results Evaluation

13.1 Results on RSTAB Model

13.2 Result Diagrams

13.3 Filter Results

Chapter 14: Printout

14.1 Printout Report

14.2 Graphic Printout

Chapter 15: General Functions

15.1 Design Cases

15.2 Import/Export of Materials

15.3 Units and Decimal Places

15.4 Export Results

15.5 Data Transfer AutoCAD-RSTAB