

Moebius *Soft*

Design of concrete reinforcement.

The screenshot displays the Moebius Soft software interface for designing concrete reinforcement. It features three rows of bar designs, each with a corresponding summary table on the right. A yellow pencil is positioned over the bottom row.

Row	Bar Diameter	Bar Length	Bar Spacing	Bar Count	Bar Length	Total Length
1	$\phi 6$	520	500	26	520	10.4
2	$\phi 16$	525	500	26	536	21.44
3	$\phi 6$	16	15	46	131	2.4

Moebius Soft was designed to generate rapidly a job document which makes it possible to place bars within slabs, beams, columns, walls and foundations, where the bar cutting, bending and placing in the structural element are represented in the same scheme.

Learning of drafting commands is unnecessary, you simply select the different types of reinforcing bar and cross section schemes to generate the reinforcing bar schedule.

General description

- Moebius Soft works with Microsoft Excel® versions from 2000 to 2003.
- Bar cutting, bending and placing in the structural element are represented in the same scheme.
- Each Moebius Soft bar schedule consists in five sheets: Title Page, References, Quantities, Steel /Concrete ratios and Job Form.

References

REFERENCES	
1. Parameters and materials.	
File C:\Program Files\Moebius\Par\SIA282_C30-37_B450C_Moebius	Concrete: C30/37 Steel: B450C
2. Covers	
● Belongs to the scheme which appears next to the section ○ Belongs to other schemes	
3. Lengths and bending diameters	
d1: Bars bending diameters d2: Hooks bending diameters d3: Stirrups bending diameters	
$L = L1 + L2 + L3 + L4 + L5 - BA$ $BA = a + b - c + e$	
3. End hooks	
Moebius Soft	

Quantities

REINFORCING BAR QUANTITIES										Steel: B450C
6	8	10	12	14	16	18	20	22	26	Diameters in mm.
10	34	0	0	0	16	0	0	0	0	Total in meters 60 m ¹ *
2	13	0	0	0	25	0	0	0	0	Total kilograms 40 Kg *
Bar lengths [m]										
* Includes 0% waste										
CONCRETE QUANTITIES										Concrete: C30/37
Slab	Beam	Col	Wall	Col-F	Base					Concrete:
0.0	0.5	0.0	0.0	0.0	0.0					Total [m ³] 0.5 m ³ *
* Includes 0% waste										
FORM QUANTITIES										Forms
Slab	Beam	Col	Wall	Col-F	Base					Total [m ²]
0	6	0	0	0	0					6 m ² *
* Includes 0% waste										
Moebius Soft										

- The geometry of the structural elements is indicated under *headings* whose borders are represented by bold lines.
- The *reinforcing bar schemes* represent the bending, the partial and total bar lengths.

Methods of edition

- Editing those cells in the bar schedule which have a red mark on the upper right corner. Automatically related values are updated.
- Erasing or deleting *headings* and/or *reinforcing bar schemes*.
- Editing those cells in the bar schedule which have a red mark on the upper right corner. Automatically related values are updated.

Parameters of a reinforcing bar schedule

- With parameters files the user can predetermine the data that will be utilized in the reinforcing bar schedules for the calculation of bending diameters, spacing, quantities, partial lengths, etc.
- Structural elements: Slabs, Beams, Columns, Walls, Rectangular columns on single bases, Single bases.
- Editable list of bar diameters.

Codes

- Sia 262, EC2, DIN1045.

Reinforcing bar schedule in XLS format

- With the *File\Generate a file in XLS format* menu, the user generates a bar schedule in Excel format (XLS). This file reproduce the original file, you may view and print it, but cannot be modified. A backup of the original bar schedule can be obtained and mail it, while you keep a copy of the original file.

Adjustment of the bars cutting length for bending

- When this option is enabled, all the cutting lengths are adjusted according to the scheme which appears on the "Reference" sheet. The cutting length will be the sum of the partial lengths minus the adjustment for bending. If it is disenabled the length will be just the sum of the partial lengths..

System requirements

Hardware:

- PC Pentium III 1Ghz (recommended minimum)
- 256 Mb RAM (minimum) depending on the operating system. 512 Mb (recommended)
- 150MB Hard disk free space (minimum).CD drive for installation only
- Screen resolution: 800x600 (or greater)
- Mouse, Printer

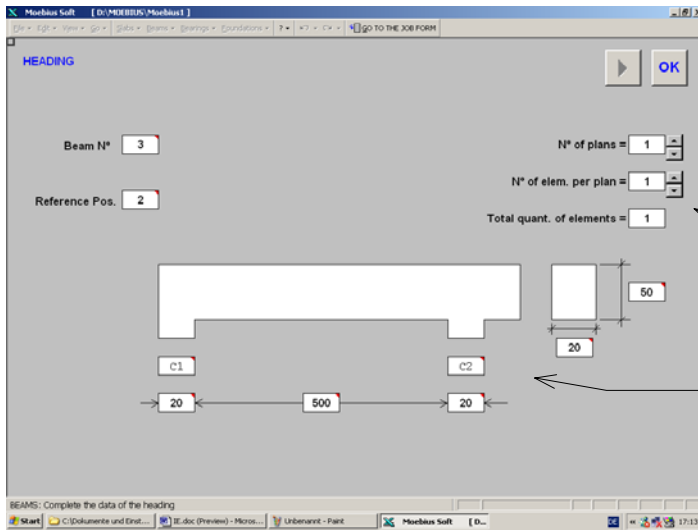
Software

- Windows 98SE, 2000, XP, Vista
- Microsoft Excel 2000, XP, 2003.

Windows and Excel are registered marks of Microsoft Corporation.

Sequence to generate a reinforcing bar schedule for a beam

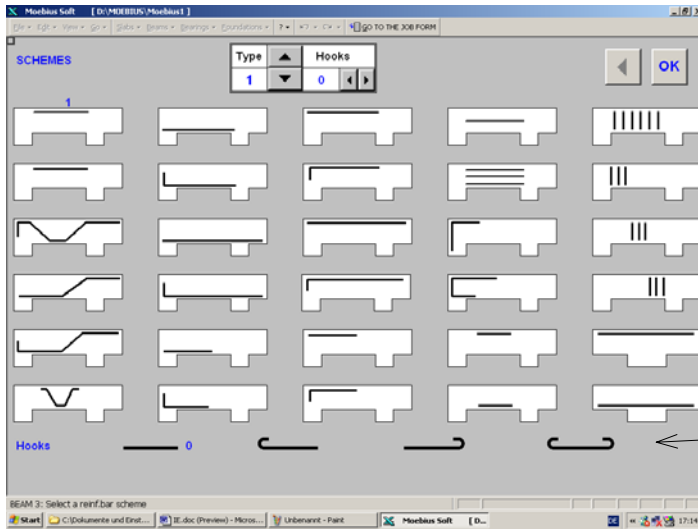
1. Introducing a heading.



Number of stories.
Number of beams per story.

Beam dimensions.
Support width and designation.

2. Selecting a reinforcement schema.

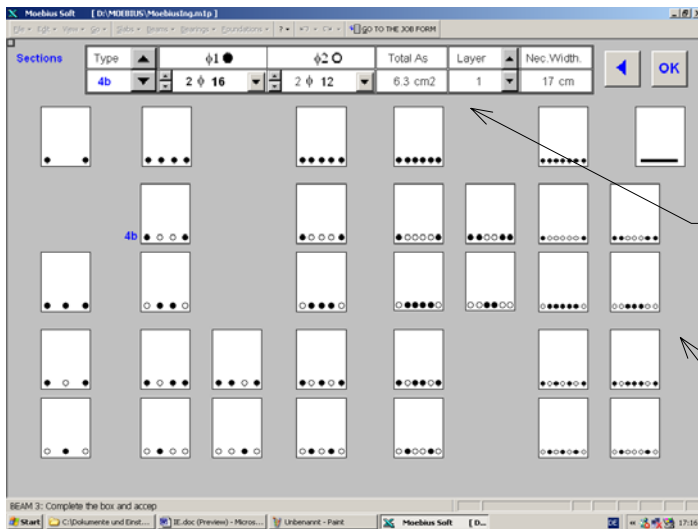


OK : Go to the sections scheme.
◀ : Back to the heading.

Reinforcing bar schemes.

End hooks.

3. Selecting and introducing the reinforcement schema and cross section.



OK : Introduce scheme and section.
◀ : Back to reinforcing bar scheme.

Bar diameters.
Total section reinforcing bar area.
Layer Number.
Necessary beam width.

Sections.

Output of the Job Form

Moebius Soft	A&B Engineering
Job: Building 1 Job Form: E1 Plan: G. 121/07 Parameters: EC2_C20-25_S420_A&B Engineering	Concrete: C20/25 Steel: S420 Date: 11-06-2007

Beam	1	Dimensions	20	50	Qt. Fl= 1 ElxFl= 1 Qt. El= 1
RefPos	0				50 Maximum Stirrup ϕ 8

Beam	1	Dimensions	20	50	Quant: 2 x Qt. El: 1 Total= 2
Pos	1				Layer: 1 2.8 Length 520 cm
	ϕ 6	10 10 500 20 20			Total Length 10.4 m

Beam	1	Dimensions	20	50	Quant: 3 x Qt. El: 1 Total= 3
Pos	2				Layer: 1 2.8 Length 539 cm
	ϕ 16	5 10 19 525 20 20			Total Length 16.17 m
	d2= 6.4				

Beam	1	Dimensions	20	50	Quant: 26 x Qt. El: 1 Total= 26
Pos	3				9 46 16 2 Length 132 cm
	ϕ 8	5 5 Spc. = 20 500 20 20			Total Length 34.32 m
	d3= 3.2				