# RebarMate

Reinforced Concrete Detailing and Scheduling Software for Civil Engineers

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Civil Engineering Software

## Description

RebarMate for AutoCAD will provide you with application software for all your reinforced concrete detailing and scheduling needs. RebarMate has been designed to be compatible with AutoCAD and works *inside* AutoCAD.

RebarMate is a totally integrated application software product from Technocad, offering all of AutoCAD's powerful drafting features plus RebarMate's own unique reinforced concrete detailing and scheduling capabilities. You can produce fully detailed reinforced concrete drawings with a minimum of effort.

Drawings for any type of reinforced concrete structure may be produced as RebarMate is as, or more flexible, than any manual drawing system.

Extensive error checking, bar placing routines and automatic bar bending schedule production ensure that the finished results are both consistent and accurate. RebarMate makes no assumptions about detailing methods and *absolutely any type of structure may be detailed*. The detailer is offered unprecedented freedom to exercise his/her own skill, judgement and license.

Throughout the drawing process a wide variety of powerful facilities are available to the detailer. Bar geometry can be defined using any combination of on-screen measurement or direct input.

Images within user-friendly dialog boxes are available for the selection of standard bar shapes. All standard bobs, hooks and radii are automatically added. Bars can be instantly edited or can be left partly completed and correct data filled in at a later stage.

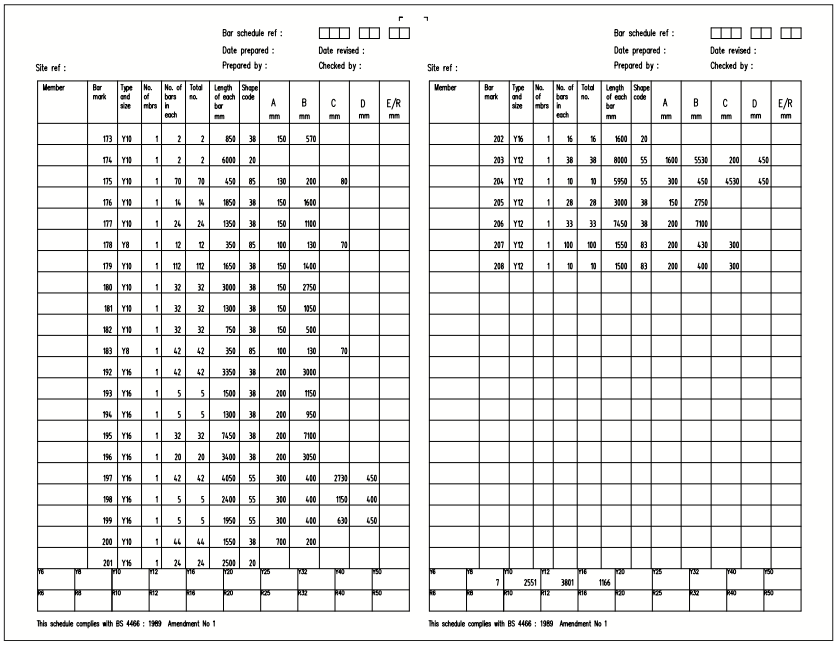
The system will continuously update the database during this process. Any bar in the database can be re-drawn automatically with all bends, radii, bar thickness and bending creep accounted for by simply entering the bar mark or selecting the bar call-off tag.

Alternatively, enter the bar Shape Code and leg dimensions and have RebarMate draw the bar for you.

Bar bending schedules may be generated at any stage in the process. Any updates, revisions or additions to the drawing will be picked up by RebarMate.

The scheduling option automatically creates a drawing schedule or a text schedule. Error checking is superb; RebarMate tells you where you have made errors and even points you to the place on your drawing!

RebarMate can cut your detailing costs by more than 50% - you'll be amazed at your productivity! Check out some of the features below.


Bar schedule ref :
Date prepared :
Date revised :
Prepared by :
Checked by :
Site ref :

| Member | Bar mark | Type and size | No. of mbrs | No. of bars in each | Total no. | Length of each bar mm | Shape code | A mm | B mm | C mm | D mm | E/R mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 173 | Y10 | 1 | 2 | 2 | 850 | 38 | 150 | 570 | | | |
| | 174 | Y10 | 1 | 2 | 2 | 6000 | 20 | | | | | |
| | 175 | Y10 | 1 | 70 | 70 | 450 | 85 | 130 | 200 | 80 | | |
| | 176 | Y10 | 1 | 14 | 14 | 1850 | 38 | 150 | 1600 | | | |
| | 177 | Y10 | 1 | 24 | 24 | 1350 | 38 | 150 | 1100 | | | |
| | 178 | Y8 | 1 | 12 | 12 | 350 | 85 | 100 | 130 | 70 | | |
| | 179 | Y10 | 1 | 112 | 112 | 1650 | 38 | 150 | 1400 | | | |
| | 180 | Y10 | 1 | 32 | 32 | 3000 | 38 | 150 | 2750 | | | |
| | 181 | Y10 | 1 | 32 | 32 | 1300 | 38 | 150 | 1050 | | | |
| | 182 | Y10 | 1 | 32 | 32 | 750 | 38 | 150 | 500 | | | |
| | 183 | Y8 | 1 | 42 | 42 | 350 | 85 | 100 | 130 | 70 | | |
| | 192 | Y16 | 1 | 42 | 42 | 3350 | 38 | 200 | 3000 | | | |
| | 193 | Y16 | 1 | 5 | 5 | 1500 | 38 | 200 | 1150 | | | |
| | 194 | Y16 | 1 | 5 | 5 | 1300 | 38 | 200 | 950 | | | |
| | 195 | Y16 | 1 | 32 | 32 | 7450 | 38 | 200 | 7100 | | | |
| | 196 | Y16 | 1 | 20 | 20 | 3400 | 38 | 200 | 3050 | | | |
| | 197 | Y16 | 1 | 42 | 42 | 4050 | 55 | 300 | 400 | 2730 | 450 | |
| | 198 | Y16 | 1 | 5 | 5 | 2400 | 55 | 300 | 400 | 1750 | 400 | |
| | 199 | Y16 | 1 | 5 | 5 | 1950 | 55 | 300 | 400 | 630 | 450 | |
| | 200 | Y10 | 1 | 44 | 44 | 1550 | 38 | 700 | 200 | | | |
| | 201 | Y16 | 1 | 24 | 24 | 2500 | 20 | | | | | |

Y6 Y8 Y10 Y12 Y16 Y20 Y25 Y32 Y40 Y50
R6 R8 R10 R12 R16 R20 R25 R32 R40 R50

This schedule complies with BS 4466 : 1989 Amendment No 1

Bar schedule ref :
Date prepared :
Date revised :
Prepared by :
Checked by :
Site ref :

| Member | Bar mark | Type and size | No. of mbrs | No. of bars in each | Total no. | Length of each bar mm | Shape code | A mm | B mm | C mm | D mm | E/R mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 202 | Y16 | 1 | 16 | 16 | 1600 | 20 | | | | | |
| | 203 | Y12 | 1 | 38 | 38 | 8000 | 55 | 1600 | 5530 | 200 | 450 | |
| | 204 | Y12 | 1 | 10 | 10 | 5950 | 55 | 300 | 450 | 4530 | 450 | |
| | 205 | Y12 | 1 | 28 | 28 | 3000 | 38 | 150 | 2750 | | | |
| | 206 | Y12 | 1 | 33 | 33 | 7450 | 38 | 200 | 7100 | | | |
| | 207 | Y12 | 1 | 100 | 100 | 1550 | 83 | 200 | 430 | 300 | | |
| | 208 | Y12 | 1 | 10 | 10 | 1500 | 83 | 200 | 400 | 300 | | |

Y6 Y8 Y10 Y12 Y16 Y20 Y25 Y32 Y40 Y50
R6 R8 R10 R12 R16 R20 R25 R32 R40 R50
7 2551 3801 1166

This schedule complies with BS 4466 : 1989 Amendment No 1

*Figure 1- Example of A4 Bar Bending Schedules*

## Bar Bending Schedules

Features:

- Automatic creation of bar bending schedules to BS8666-2005, BS4446 and SANS282:2011 standards.
- Scheduling to other codes of practice possible as you have complete unhindered access to cutting length formula
- Drawing schedules or text (ASCII) schedules can be produced at the touch of a button. Unlimited number of bars can be scheduled at lightning speed!
- Absolutely no manual input is required; all bars and bar details extracted directly from the drawing
- Create multiple layout formats for your bar bending schedules with a 'wizard' approach and then simply select which one you wish to use from a list-box. Ideal where you produce work for several clients, each requiring a different format bar schedule.
- No limitations on the format of the bar bending schedule; A4, A3, A2 etc.- you name it! You can even have multiple pages on one sheet, such as 2 x A4 on an A3 sheet.

## Reinforcement drawing and bar 'call-off' routines

- Absolutely no typing required - simply point and click at the placing details required from a user-friendly dialog box
- Automatic accumulation of all bars
- All leader lines, annotation, symbols, bar marks, numbers, spacing and placing descriptions are automatically inserted
- Prompts only for information that cannot be obtained from the drawing
- Automatic extraction of all reinforcing details
- Random bar entry permitted! Bars can be entered in any order as the scheduling routine automatically checks and sorts the bar marks in ascending order
- Duplicate bars will be summed irrespective of the position in the structure avoiding the necessity for the scheduler to keep track of the total number of bars in the structure
- Bars in groups (e.g. beams) - Point to the bar and position for leader

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- Bars in multiple mats - Point to the start of the first mat or a concrete face; identify the reinforcing bar; point to the end of the mat; successively point to the start and end of each mat.
- Options for mats with constant bar spacing and mats with variable bar spacing. Also, option for mats with varying length bars, as in retaining walls etc. Concrete faces can be straight or curved – even splined!
- Bars in multiple ribs - Point to a typical rib bar; insert number of bars per rib; successively point at all ribs
- Laps - automatically draw exact lap lengths; choose number of diameters and RebarMate draws the exact lap length. Draw laps on existing bars or create new bars
- Placement & call-off of radial bars

## Automatic Bar Mark counter and numbering

- Start at any bar mark you choose
- Reset the bar mark as required
- Continue from the highest bar mark in your drawing; simply ask RebarMate to scan the drawing for you!
- Repeat any bar mark number as often as required
- Select the number of units being detailed and totals for the entire project are accumulated for you
- Automatic calculation of the number of bars between two faces of a concrete mat
- Have bar mark prefixes and suffixes (e.g. A19 or 19E) to identify reinforcement for different parts of your project

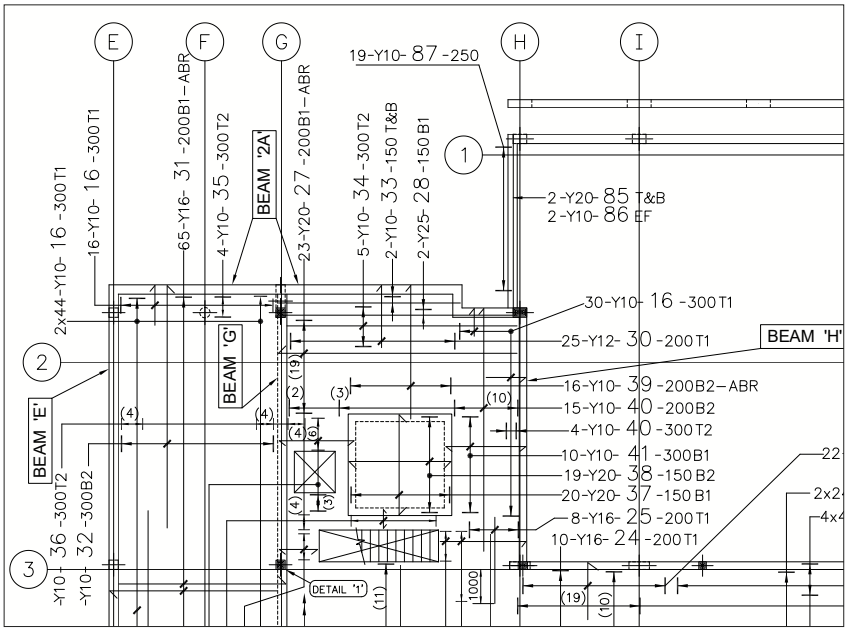



*Figure 2 -Example of detailing*

## Editing Reinforcing Bars

- Point at a reinforcing bar and a data base table instantly appears
- Point at a field in the table (Bar Mk., Shape Code, Diameter, Number Off etc.). Revise data to instantly update the reinforcement database.
- No need to remember Shape Code data; RebarMate always displays an image of the bar for the chosen shape code. Add your own Shape code 99 shape definitions with automatically created image.
- Have RebarMate tell you where you have gaps in your bar mark sequencing
- Use the bar mark re-organise feature to have RebarMate re-organise your bar marks for you if a drawing has been heavily edited and there are gaps in the bar mark sequencing (note, there is not a requirement that bar marks are sequential)

## Insert Bar Marks

- Bar annotation (call-off labels) is totally customisable by you! No need to adopt a different symbology from that you are using at present
- Bar mark annotation on the bar can be toggled on or off
- Every single automatically inserted item including all bar references, bar symbols, arrows, leaders, bar id's etc. are all easily customisable. You can even set up different styles for when detailing with different clients
- Bar mark annotation on the bar is dynamic to the call-off label

## Parametric and Drawing Aids

RebarMate has a range of built-in parametrics and a toolbox to assist you in producing your detail drawing even quicker; here's just a few:

- Beams with RebarMate's Auto-Annotate' feature
- Pad foundations; also with 'Auto-Annotate'
- Setting out grids; all fully dimensioned and annotated according to your criteria
- Stairs - sections and plans
- 'Quickline feature' - drawing lines (bars) never was this easy!
- Section properties - simply draw your cross section and have RebarMate show you the centroid and calculate the section properties about major and minor axes. Works for voided sections too!
- Construct cover lines with ease; also, reinforcement curtailment markers; bars that fit on the drawing will fit on the job!
- Construct cross sectional bar arrays with input by user friendly dialog box; built-in calculator too!
- Clean-up routines for double lines forming corners, T-junctions and X-intersections - great for ring-beam work!
- Draw centroidally placed squares and rectangles with ease

## As-Bent bars

- Select any bar from the bar schedule. RebarMate will automatically draw the selected bar exactly as bent
- Select any shape code, key in the requested leg dimensions and have RebarMate draw the bar exactly as bent – the "free-leg" dimension will exactly replicate the as-bent bar

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- Insert the bar in its relevant position; instantly check clearances and bending; rapidly create sections without having to manually draw the reinforcing bars

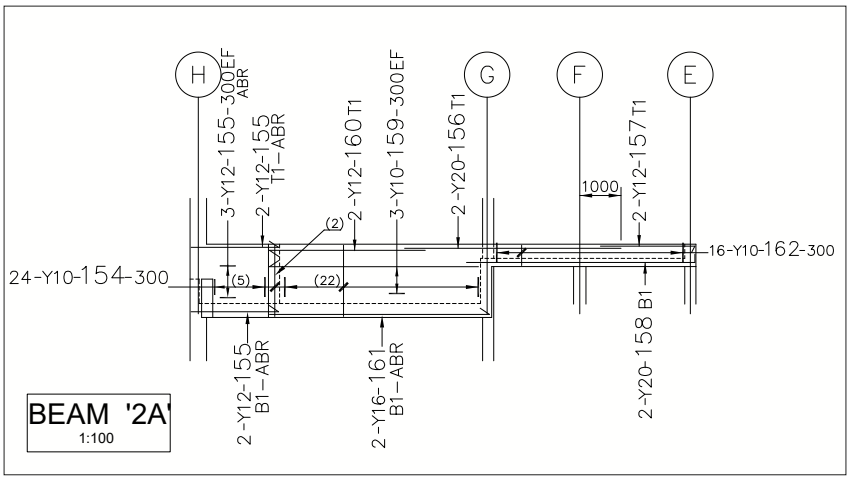


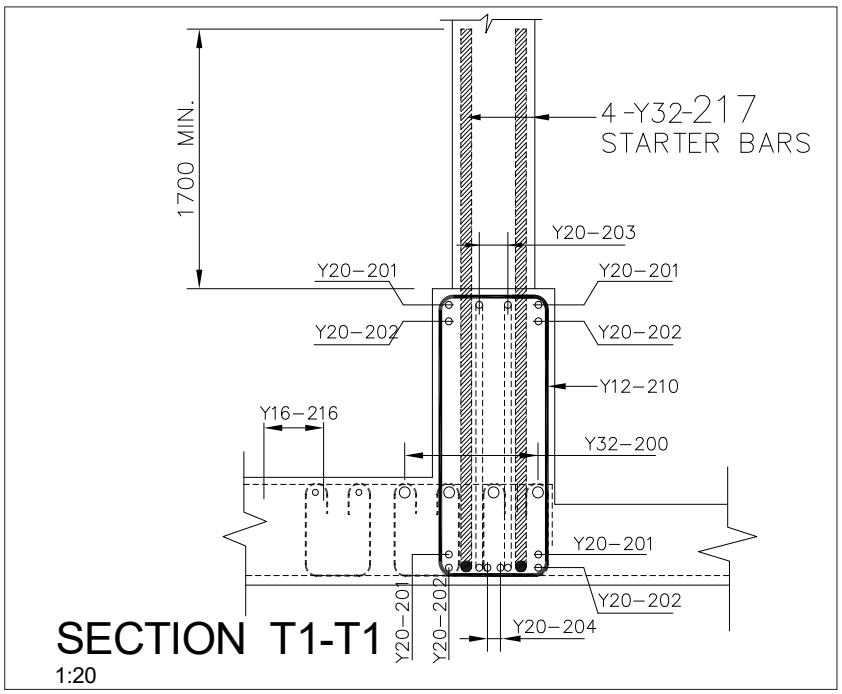

*Figure 3 - Stepped Beam Detail*

## Text Handling

- All text sizing is handled for you - simply tell RebarMate what size you want your plotted text and RebarMate does the rest!
- Read and insert any text file into your drawing - great for storing notes in word processor format
- Export text in your drawing to an external drawing file - works with AutoCAD Mtext too!
- Set your required text style and plotted text height in one go!

## Hide or Display Bar Annotation

- All call-off labels are added to the reinforcing database




- Hide labels if required; simply point at the label and the label disappears without affecting the bar database

## Versatility

- RebarMate's 'IntelliText' feature keeps your editing time to a minimum; when RebarMate places text for you, it skilfully positions that text to avoid interference with other drawing entities
- Draw any structure with any degree of complexity. If you can draw the bar, RebarMate can call it off!
- RebarMate places no limitations on the detailer
- Goodbye to manual scheduling forever!

## Save Time – Save Money!

- Lots of error checking done for you! RebarMate helps you find those elusive errors
- Cuts detailing and scheduling time by more than 50%. Pays for itself on your first project!
- Decreases costs incurred on site due to manual scheduling errors

## On-line help

RebarMate has a full-featured Windows help facility with indexing, search features and ability to store your favourites. Includes hypertext links. Written by engineers, this help file is *really* useful!

## Technical Support

Professional technical support is available with your subscription.

## Purchase Options

You can purchase a short-term or long-term subscription. The choice is yours – whatever suits your budget and project requirements!

- Network licensing (LAN) is also available

## Hardware Requirements

As per Autodesk recommendation for AutoCAD, AutoCAD Map or Autodesk Civil3D

## Software Requirements

- AutoCAD Release 2027, 2026, 2025 & 2024 supported. Also, Autodesk Map 2027, 2026, 2025 & 2024 and Autodesk Civil 3D 2027-2024
- Operating systems: Windows 10 64-bit and Windows 11 64-bit

## Contact Details

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