



RGS REBAR

QUICK REFERENCE



PREFACE

This material is intended to be a Quick Reference for the users of RGS Rebar. This is not a user manual. This material guides the user based on the Detailing tasks. The user is advised to refer User Manual for much detailed assistance.

RGS Rebar is developed by RGS Construction Technologies Pvt. Ltd. Our Corporate office is located at Chennai, India.



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BASIC TERMINOLOGIES





Rebar

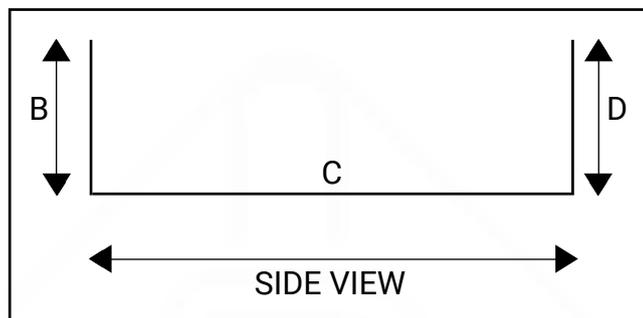
Reinforcement Steel used in RCC structures is called Rebar. Required Shape of the Rebar can be drawn using RGS Rebar through “Draw Bar” option. These Shapes can be either Standard Bend Shapes as defined in the Code or it can be Special Bend Shapes required to suit the construction Requirement.



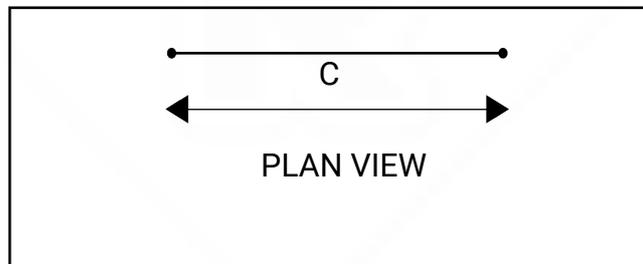
Bar Views

Each Bar being drawn using RGS Rebar can be in any one of the following views.

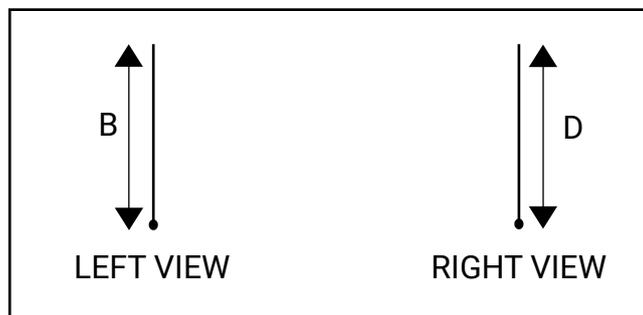
1. **Side View** : The View of the Bend in which all the Legs are seen is defined as Side view. For Example a Bend with three legs is given below where B, C and D are the Leg Names.



2. **Plan View** : The View of the Bend as seen from the top of Side View is defined as Plan view. . For Example, Plan view of the Bend shown above will be as given below.



3. **Left View** : The View of the Bend as seen from the left of Side View is defined as Left view

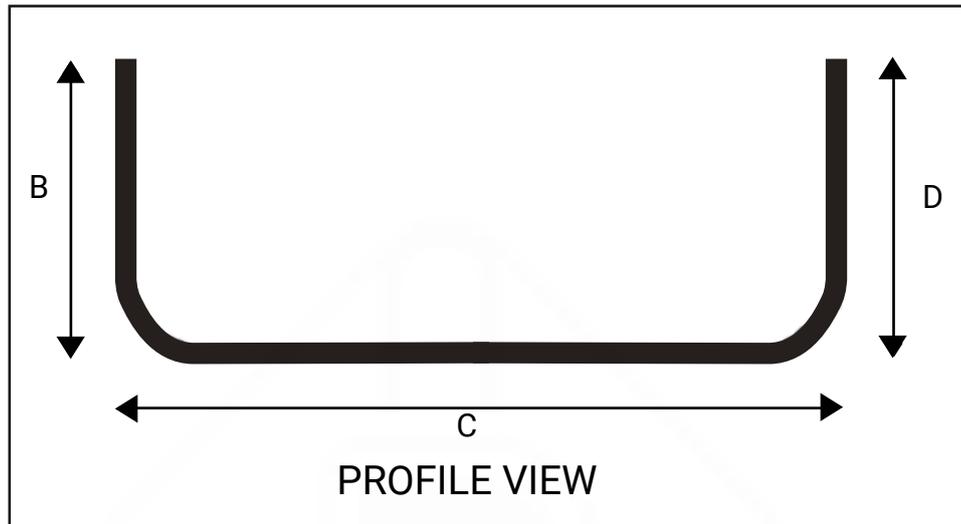


4. **Right View** : The View of the Bend as seen from the right of Side View is defined as Right view. For Example, Left and Right view of the Bend shown in Side View will be as given below.



Bar Views

5. **Profile View** : The Side View of the Bend drawn for the thickness of Bar diameter is defined as Profile view. For Example, Profile view of the Bend shown in Side View will be as given below.

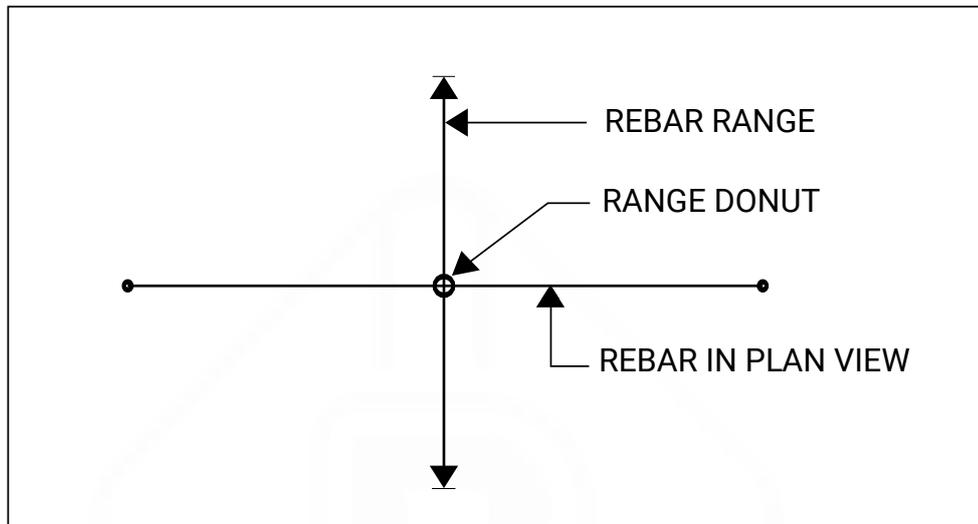




Range and **Range Donut**

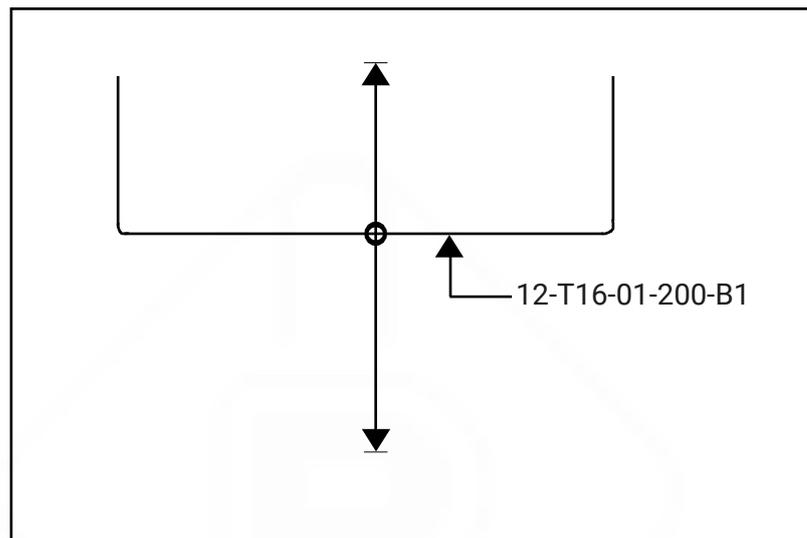
Range indicates the extent in which the Rebar has to be placed.

Range Donut is the Donut placed at the intersection of Range and Rebar.



Callout

Callout is the Identifier to the bar and shows the properties of Rebar (Bar Type and Size) and the Placing Details (Quantity, Spacing, Layers etc.,) Callout can be placed only once for the bar and it will be used to identify the Bar in the Placing Drawing and to place the steel on site.



12-T16-01-200-B1 indicates the Callout in which

12 represents the Quantity

T represents the Bar Type

16 represents the Bar size

01 represents the Bar Mark

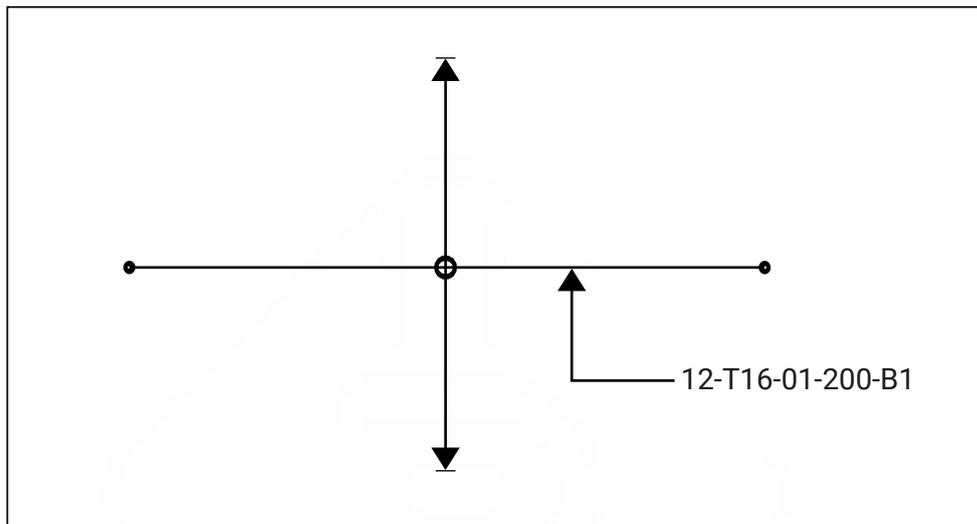
200 represents the Bar Spacing

B1 represents the Remarks.



Label

Label is the Reference to the Callout of the bar or Bar View and also shows the properties of Rebar. Label can be placed any number of times in the drawing from the bar or Callout. Format of Label can be same as Callout or it may be different.



T16-01-200-B1 indicates the Label in which

T represents the Bar Type

16 represents the Bar size

01 represents the Bar Mark

200 represents the Bar Spacing

B1 represents the Remarks



SETTING UP JOB DETAILS



Setting up **Job Properties**

Detailing Code using which the job to be detailed, Job Details, Location for Takeoff Folder, Bid Items, Bar defaults and Title Block to be used for the job can be set using Job Properties Menu.

1. Select the Detailing Code to be used for the job. Once the Detailing Code is selected, the default settings of that code will be loaded.
2. Enter the details relevant to the job on the appropriate fields.
3. Specify the folder location, where the Takeoff file has to be created.
4. Set the Client's job title block and map the attributes for job details and Drawing Details to the respective fields. This title block can be placed in the drawing, select, if the title block to be placed.
5. Add the Bid Items of the project using Bid Items button, if it is known.
6. Set the Rebar properties like Grade, Coating, End Preparation etc., using Bar Defaults.
7. While matching the properties of the bar, Leg dimension can also be increased or decreased for the selected leg using Add / Sub Leg Value option.
8. If the required setting is created already for the same job or for another job, load the details using Load Job button after selecting the Detailing Code.
9. Click OK to save the settings. If Place Title Block option is selected, then Drawing Properties screen will get loaded automatically from which the details of Drawing can be entered.
10. Click Cancel to exit the Job Properties without saving the details.





SETTING UP DRAWING DETAILS



Setting Up **Drawing Properties**

Details of Placing drawing like, Drawing No, Drawing Title, Revision, Area for which the detailing belongs to, Detailer Name can be set using Drawing Properties menu.

1. If the Title block is set in Job Properties, then Drawing Properties screen will load while selecting the Drawing Properties menu. Name of the job will come automatically as given on the Job Properties screen.
2. Enter the detail for Drawing No, Drawing Title, Revision No, Area detail, and the name of the Detailer in the respective fields.
3. Click Ok to place the Title block in the drawing. This is the Title block, which is set in the Job Properties screen.
4. .Click Cancel to exit the Drawing Properties screen without adding any drawing sheet.
5. After placing one Title block, if you want to add another sheet (another Title Block), click Add Sheet button. Keep existing data of first sheet or enter new data for second sheet and click OK to place the second Title Block. You can also copy the existing Title Block and paste it as new Title Block.
6. To edit the details of Title Block, double click the Title Block and change the details as required.



DRAW BAR, RANGE, LEADER & DONUT



Draw Bar

How to draw (add) Rebar objects like Bar, Range, Leader, Donut is described in this chapter.

1. Selecting Draw Bar menu will display the Rebar Entry screen. Enter details relevant to the bar in Rebar Entry screen. Details like, Drawing No., Revision No of Bar, Area / Pour and the Bid Item to which the bar belongs to can be set in this screen.
2. Enter the Element Mark name, No. Of Members, No. Of Layers.
3. Enter the Quantity and Spacing of the bar. If you want to draw Range and Leader also along with the bar at the same time, select Draw Range and Draw Leader check boxes in the screen. If you want to add Range and Leader for the bar separately at the later stage, don't select these check boxes.
4. Select the Bar size, Bend Shape and the Bar View to be drawn (Side, Plan, Left, Right or Section views). Enter the Remarks if required. Bar mark can also be entered if the Bar marking system is set to "Manual" in Job Preferences screen. Otherwise, entry for Bar mark cannot be done. User can also draw the bar using Auto option for Bend Shape.
5. If Auto is set for Bend shape, then the drawn lines will be identified automatically for the corresponding Bend Shapes. If the drawn shape is not available, then user will be prompted and upon confirmation Special bend will be created automatically. Refer Chapter 9 for more details about Special Bend Creation.
6. Select the CAD layer, in which the bar to be drawn. Callout visibility factor will display the data as set in Job preferences. If the factor required is other than the one being displayed, it can be edited in this screen.
7. Select the option to draw the Bar & Callout, Bar Only or Callout only. Based on the selection, bar will be drawn.
8. Select the view of the bar in "Selected view" or Side view " option. Based on the selection, bend view will be displayed. Leg names (A to R) and its values will be displayed. Legs valid for the selected bend type will be differentiated from others. Total length of the Bend also displayed here. Other Dimensions if used for the Bend (V1 to V5) for any calculation.

Draw **Bar**

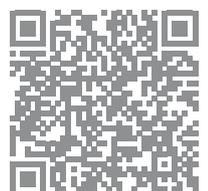
9. If the Bend picture and the Dimension fields on the right of the screen are not required, then it can be turned off by selecting Hide Picture and Hide Dimension respectively.
10. If the required Bend Shape is not available in the list, then the bar can be drawn as undefined Special Bend. If this Undefined Special Bend option is selected, Bend shape, Leg Values and Total Length has to be entered. By default Callout Only option will be selected and Bar & Callout and Bar Only options will be disabled. So, for the undefined special bends, we can place only Callout for the bar and it cannot be drawn.
11. Select Bar Defaults button, if you want to change the details like the Grade, Notation, Coating, End Preparations, Alpha Code etc., for the bar. Any changes will affect only that particular bar being drawn and other bars will be drawn as per the settings in Job Properties.
12. Select Callout Format button, if you want to change the Callout Format for the bar.
13. Select Draw Bar button to draw the bar, after the bar is drawn, Rebar Entry screen will appear again. Enter the details for next bar and draw it and proceed continuously.
14. Click Close button to exit the Rebar Entry screen.

[Single Bar](#)

[Alternate Bar](#)

[Multi Bar](#)

[Varying Bar](#)



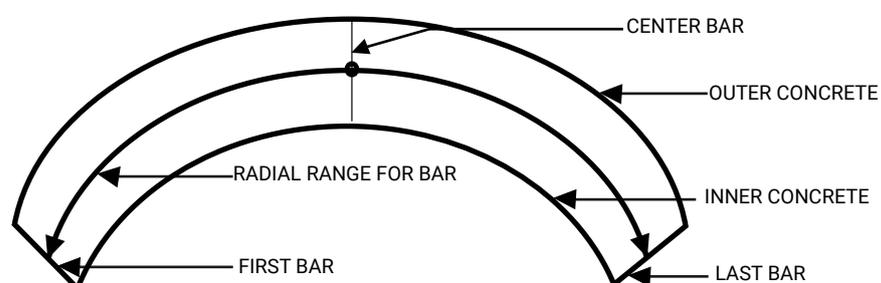
Plines to **Bar**

1. Selecting Pline to Bar menu will display the Convert Plines to Bar screen.
2. Set the Default properties for the Rebar, select the Plines and convert them as Rebar.



Draw Range

1. Selecting Draw Range Menu will display the Draw Range screen.
2. Straight or Radial Range can be drawn for the bar as required.
3. Single Range or Multi Range type can be drawn for the Straight Range.
4. Single Range can be drawn for Single bar, Alternate bars or Multi Bar Multi Spacing as required. If you want to draw Range for the Single bar with given spacing, then select Single Bar option. If you want to draw Range for the two bars with same spacing, then select Alternate bar option. If you want to draw Range for multiple bars with different spacing, then select Multi Bar Multi Spacing.
5. Instead of single range for the bar, if multiple ranges are required for single bar, then select Multi Range option. Multi Range can be drawn only for Single bar at present and for Alternate Bars and Multi Bar Multi Spacing, option will be given later.
6. On Show Bar options, select All, First & Last, First, Center & Last, Center and Custom, based on the requirement. For Example, if you want to show all the bars in a range, then select All option.
7. If the concrete profile is slope and if range is required for the sloped profile (Example - Ramp) then the length of the Range on the Plan will be shorter than the actual length along the slope. In such cases select Sloped Range option. Enter the Angle of the slope or Start & End Elevation. Based on this information, actual length will be calculated for the drawn range and quantities will be calculated accordingly.

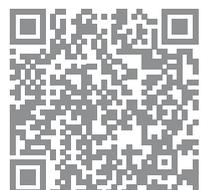




Draw Range

8. On the Range details select Show Range Dimension if dimension to be shown for the Range, and select the Cover details from the list if required. Cover details entered by clicking Cover Settings button will be listed here. If this is selected, then range start and end will have an offset by the distance of selected cover from the point of selection. For example, if range to be drawn for the bottom bar of Pile cap which is 1000mm long. Then while drawing the range, select the Side cover (which is set as 50mm) on Range Details and picked the pile cap start and end point for the range start and End. Range will start at 50mm from the pile cap start and it will end before 50mm from the Pile cap end. So Range length will be $1000 - 2*50 = 900\text{mm}$.
9. Rounding method for the quantity being calculated based on Range length can be set using Quantity Rounding Method . Length of the range to be drawn can also be set for Actual Length or for the Rounded Quantity Length.
10. Select Radial Tab to draw the Radial Range. Radius will be different for the range at Bar start and at Bar end (Inner concrete & Outer Concrete) . Select the option based on which the quantity has to be calculated. For example, if you want the quantity based on inner radius then select "Inner" or else select "Outer" for the Select Spacing Field. Selection of Concrete for Inner and Outer radius can be an Object or Point.
11. Select Single option to draw the radial range for single bar and select Alternate option to draw the radial range for two bars with same spacing.

Straight	Single Range	1.Single Bars, 2.Alternate Bars, 3.Multi Bar Multi Spacing.
Straight	Multi Range	1.Single Bars, 2.Alternate Bars, 3.Multi Bar Multi Spacing.
Circumferential	Single Range	1.Single Bars, 2.Alternate Bars, 3.Multi Bar Multi Spacing.



Draw **Leader/ Predefined**

1. Select Predefined Leader option and select the bar to place the Leader.
2. Draw Leader dialog box will be displayed. Select the Leader type and Leader Head details as required.
3. Click Ok to draw the leader and select the start point of the leader on the bar. Leader will be drawn from Bar to the Callout.
4. Click Cancel to exit the Draw Leader menu.



Draw **Leader/ Custom**

1. Difference between Predefined Leader and Custom Leader is, Custom leader can be of any shape where as the Shape for the Predefined Leader is fixed as 45 , 90 deg or straight one.
2. Select Custom Leader option and select the type of the Leader Head.
3. Select the bar for which the Leader is required and the start point and other points of the leader. Custom leader will be drawn based on the selected points.

Closed Filled

Dot

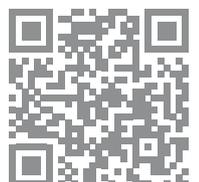
Dot Blank

Without Header



Draw **Donut**

1. Select Draw Donut menu.
2. Select the Bar and Range for which the Donut has to be placed.
3. Donut will be placed at the intersection of selected Bar & Range.
4. Donut cannot be placed for the Bar and Range, if it exists already.





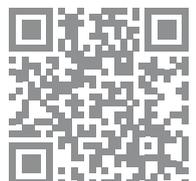
ADDING VIEW FOR BAR, VIEW & RANGE

A large, faint, light gray version of the RGS REBAR logo is centered in the background of the page.

Add View for **Bar, View & Range**

How to Add view for the Bar, View and Range and converting View as Bar is described in this chapter.

1. Select Add View / Bar menu to add the View for the Bar, callout or Bar view.
2. Any number of views can be added for the Bar, Callout and Bar view.
3. Select Add View / Range menu to add the View of the Range for the Bar or Bar View.
4. View for the Bar, Callout, Bar view and Range can also be added by simply Copying the object using Copy command of AutoCAD. While copying, Copy Objects Dialog box will appear.
5. Select New Bar option, if you want to copy the object as new one. Select Bar View option if you want to add View for the selected object.
6. Bar View can be added from the Bar, Callout or View
7. Range View can be added by copying the Bar and Range or by selecting the Bar, View or Callout that does not have the Range or Range View.
8. New Bar or New Range can be drawn from the Bar View and Range View by copying it as Bar View.
9. Select Add View / Convert View to Bar menu to convert the Bar view as Bar. So the Bar of that selected Bar view will get converted as Bar view automatically.





COPYING BAR, RANGE, LEADER, DONUT & VIEW



Copy **Bar, Range, Leader, Donut & View**

1. Copy command of AutoCAD can be used to copy the Rebar objects like Bar, Callout, Label, Range, View, Leader and Donut. But without copying the Bar or Bar View, Its Range, Leader or Donut cannot be copied.
2. Select the Objects and specify the Base Point for copying.
3. Copy Objects Dialog box will appear. stage, don't select these check boxes.
4. Select New Bar option, if you want to copy the object as new one. Select Bar View option if you want to add View for the selected object.



DELETING BAR, RANGE, LEADER, DONUT & VIEW



Deleting **Bar, Range, Leader, Donut & View**

1. Erase command of AutoCAD can be used to delete the Rebar objects like Bar, Callout, Label, Range, View, Leader and Donut.
2. Select the Objects that are to be deleted.
3. Delete Objects Dialog box will appear.
4. Select Bar Set option, if you want to delete the selected object and all its views .If you select the Bar set option for deleting the Bar, then along with the bar, its Callout, Range, Donut, Leader, Bar views, Range views everything will be deleted..
5. Select Bar View option if you want to delete only the selected object. If you select the Bar View option for deleting the Bar, then only the selected bar will be deleted and the Callout, Range, Donut, Leader, Bar views, Range views of the selected bar will not be deleted.



MODIFY BAR RANGE & VIEW



Modify **Bar**

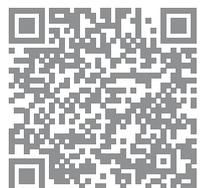
How to Edit / Modify the Bar, View and Range is described in this chapter.

1. Double Clicking the Bar or Bar View will display the Rebar Entry Screen.
2. Change the Properties of the Bar as required. Any detail related to the bar like Drawing No, Revision, Bid Item, Element Mark, No. of Places, Quantity, Spacing, Bar Size, Bend Type, Remarks, Bar View and Leg Dimensions can be modified .
3. Click Update Bar button to update the Bar with modified properties.
4. Select Callout Format / Label Format button to change the format of the Callout / Label.
5. Select Bar Defaults button to change the material data of the Bar.
6. If you want to modify only the Leg dimensions, then use Stretch command of AutoCAD. Simply stretch the leg, which has to be modified to the required length.
7. Changes made in a Bar or Bar View will update all the objects related to it. For example if you change the Bar Size or stretch the Bar, then its Bar View, Callout, Label everything will get updated for the changes.
8. If Retain Bar Mark option is selected in Job Preferences and if any bar is edited, then user will be prompted that "All the Bars in the drawing associated with this Bar Mark will be updated". Select Yes to make changes on all the bars and retain the Bar Mark or No to make changes only for the selected bar and the Bar Mark can not be retained.

[Cut Bars for Openings](#)

[Delete ACAD Entities](#)

[Delete Bars](#)



Range Length / **Rounding Methods**

1. Double Clicking the Range or Range View will display the Edit Range Screen.
2. Enter the New Range Length and select the option to move the End Point , Start Point or Both the points of the range for the New Range length. If it is Sloped Range, then enter the New Projected Length.
3. Method of Rounding for calculating the quantity based on Range length can also be modified using Quantity Rounding Method.
4. Click Modify button to accept the changes or Cancel to exit the Edit Range Screen.
5. Range Length can also be changed by using Stretch command of AutoCAD. Simply stretch the range to the required length.

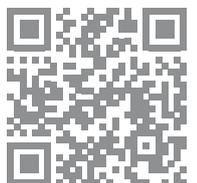
Range **Elevation**

1. For Sloped Range, double Clicking the Range or Range View will display the Edit Range Screen.
2. Enter the required details for Start Elevation or End Elevation or the New Range Angle as required.
3. Click Modify button to accept the changes or Cancel to exit the Edit Range Screen.
4. Click Modify button to accept the changes or Cancel to exit the Edit Range Screen.
5. Range Length can also be changed by using Stretch command of AutoCAD. Simply stretch the range to the required length.



Combine **Range**

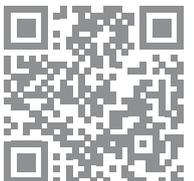
1. Select Combine Range Menu to combine the ranges of the bars having same properties.
2. Ranges cannot be combined, if the bars of the selected Ranges have different properties.
3. Ranges to be combined must exist on same line.





Split **Range**

1. Select Split Range Menu and select the Line or Poly line based on which the range has to be split.
2. Based on the position of the selected Line, Range will be split into two.





Converting Multi Range **As Single Range**

1. Select Convert to Single Range Menu and select the Callout of Multi Range bar.
2. Ranges linked as Multi range will be converted as Single Range



Converting Single Range **As Multi Range**

1. Select Convert to Multi Range Menu and select the ranges to be converted as Multi Range set.
2. Enter the Spacing for each Range.
3. Select the Bar to place the Multi Range Callout. Callout for the Multi Range will be placed for the selected bar.
4. Bars of other ranges can be made visible or Invisible as per our choice. This can be achieved using Show All bars in Multi Range option.
5. Quantity for each range will be given next to those ranges.
6. Bars of the Ranges to be combined as Multi Range should have same Bar Properties, but can have different spacing.





MATCHING PROPERTIES



Matching **Properties Of Bar**

How to Match the properties of one bar to others is explained in this chapter.

1. Select Match Properties menu and select the Bar or Callout from which the property has to be matched.
2. Then the Match Properties screen will be displayed.
3. All the properties like Bar Details, Bar Defaults, Bend Details and Leg values of the selected Bar or Callout will be displayed. Select the properties, which you want to match and select the bars to be modified with the new properties.
4. Bars to be modified can be selected by using Select Filter or Select Fence or Select Objects.
5. If Fence is selected, then objects inside the Fence will be selected.
6. If Filter is selected, then objects that pass through the Filter selection will be selected.
7. Click Ok to start the process or Cancel to exit the Match Properties menu.
8. While matching the properties of the bar, Leg dimension can also be increased or decreased for the selected leg using Add / Sub Leg Value option.
9. Callout and Label Format and the Visibility factor can also be matched.





TRANSPOSE BEND SHAPES



Transposing **Bend Shapes**

This option is used to

- a) Change the current Detailing Code to new one.*
- b) Current Detailing Settings to new Detailing Settings of the same Detailing Code*
- c) One Bend Shape to Other Bend Shape of the same Bend File or Other Bend file of the same Detailing code or other Detailing Codes irrespective of the Bar properties.*

1. Selecting this menu will display Bend Type Change with Transpose Leg Values Screen.
2. Detailing Code option displays the current Detailing Code. To set the different Code, select Different option and select the required Code. This option will be applicable only if, different Detailing Codes exist for the same Country.
3. Detailing Settings option displays the current Detailing Settings. To set the different Settings, select Different option and select the required Detailing Settings.
4. Special Bend File option displays the current Special Bend file set in the drawing. To set the different file, select Different option and select the required Special Bend File. If Different File is not required and you want to only transpose the bend shapes within the same file, then select the Existing Bend shape, which you wanted to change in the drawing.
5. Select the New Bend shape to which you wanted to change the bend.
6. For Example, you wanted to change the Bend shape "00" of BS 8666-2005 to New bend shape "992" which is the special bend and has two legs A & B. Select name of the New Special Bend file .Then select "00" in Existing Bend Shape field and select "992" as New Bend Shape. Then on the right side for "Map Old Leg Names" , select the name of the old legs from the list for the new leg name. If Old leg is not matching for the New leg, then give User Input for the value.
7. Select Add a Row button to add the data to the grid, Delete a Row button to delete the selected data from the grid and Clear Grid button to delete all the rows from the grid.
8. Select Retain Old Bar Mark option to keep the same Bar Mark while changing the bend shape. If all the bars of the particular Bar Mark is selected for transpose, then Bar Mark will be retained. Otherwise Bar Mark will not be retained.

Transpose **Bend Shapes**

9. After adding the data to the grid, click Select button to select the bars to be transposed. Bars can be selected using Select by Filter or Select by Fence option also.
10. Click Transpose button to transpose the bend shapes.
11. If you want to transpose Bend Shape from one Bend File to another Bend File, then Select button will not be enabled. In such cases, change all the existing bend Shapes to the corresponding Bend shapes of the New Bend File and Click Transpose button to transpose the bend shapes.
12. Click Close button to exit the Transpose Bend Type menu.





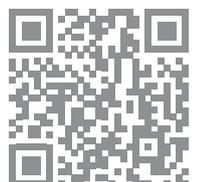
SCALE AREA



Scale **Area** (Editing)

How to create or Modify the Scale Area is explained in this Chapter.

1. Selecting Create Scale Area Menu will move the control to the Layout (Paper Space) of the Drawing and select the Start Point and End point for the Scale Area window. Then, you will be prompted to select the Scale for the Scale Area.
2. After Selecting the Scale for the Scale Area, Control will move to the Model Space of the Drawing and pick the insertion point for the scale area in Model Space. Then on Model Space, the scale area, similar to the one created on Paper space will be inserted.
3. Now you can draw the bars directly inside the Scale Area, or if the bars are drawn already without the Scale Area, they can be moved in to it.
4. If you want to change the scale of the Scale Area, simply double click the Scale area and select the new Scale.
5. In Model Space, Scale Area cannot be resized using Grip Stretch. To change the extent of Scale Area, select Resize Scale Area menu and select the Scale Area to be changed. But in Paper Space, Grip Stretch can be used to modify the Scale Area.
6. Pick point will point the corner opposite to the insertion point of the scale area. Select this point and resize the Scale area as required.
7. Any changes in scale area in Model Space will reflect in Paper Space also.
8. Select Copy Scale Area menu to copy the existing Scale Area in Model Space or Paper Space and select the Insertion Point for New Scale Area.





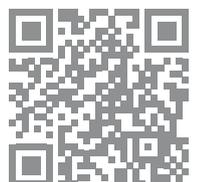
ENSURING THE DETAILING QUALITY



Redraw **Entities**

This Chapter explains, how to ensure the quality of work after completing the Detailing.

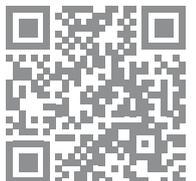
1. Select Redraw Entities menu to Redraw the Bars, Callouts, Labels, Views, Ranges and Leaders as per settings. While redrawing, layer for Callouts, Labels and Ranges will be checked.
2. Bar Donuts can be redrawn either based on Bar size or for Presentation. If Bar Donut size for Bar Size option is selected, then size of the donuts will differ for different Bar Sizes. If Bar Donut size for Presentation option is selected, then size of the donuts will be same as given in text box irrespective of the bar sizes.





Reassign Bar **Marks**

1. Selecting Reassign Bar marks will compact the Bar marks used in the drawing and there will not be jumping in the sequence of Bar marks.
2. Also if Bar mark format is changed in Job Preferences after doing the detailing, then using this option will Reassign all the Bar Marks based on the new format.
3. If Retain Bar Mark option is set in Job Preferences, then Reassign Bar Marks cannot be done.





Clash **Detection**

1. Selecting Clash Detection menu will check the Drawing and report if any Callout, Bar or Range exist one over the other. Just by seeing, we cannot find out this error and the quantity detailed will be excess of actual quantity.
2. Color of those Bars, Callouts and Ranges will be changed to identify them in the drawing.



Audit **Drawing**

1. Selecting Audit Drawing menu will display the Audit Drawing dialog box, which has got options to check the Bars, Callouts, Quantities, Views, Bar Marks, Max. length of Bar, BBS and RC Data base.
2. Select the options you wanted to check in the drawing. Based on the selection, drawing will be checked and the errors if any will be reported.
3. Color of the Objects, which has got errors, will be changed, to identify them on the drawing.





BAR BENDING SCHEDULE



Place BBS

How to create the BBS using different options is explained in this Chapter.

1. Selecting this Menu will display the Bar Bending Schedule Screen. Select the Report format in which the BBS to be placed.
2. BBS can be placed for Straight Bars and Bend Bars separately or Combined together, as per the settings of Reports in Job Preferences.
3. Enter the details relevant to the Header and Footer of BBS.
4. BBS can be placed based on Alpha code, or Member Name based on the option selected. This is only optional.
5. Length of the BBS to be placed on the drawing can be controlled based on the selected option, Page based or No. of Rows or Container based. If the actual number of rows of the BBS created, exceed the selected choice, then the second sheet of BBS can be placed automatically, if Automatic Point selection is selected. Enter the Offset Distance between the sheets to place the second sheet.
6. If None option is selected, then the entire BBS will be placed as single table.
7. BBS can be for Selected Bars / Callouts using Select Objects, or for the Bars inside the Selected Fence or for the Bars selected using Filter, or for All Bars by selecting Place Report directly.
8. While Placing the BBS, Quantity and Bar Mark audit will be done and BBS cannot be placed twice for the bars.

Place BBS For Control Code

1. This is another method of placing BBS for the selected Objects based on Control Code.
2. Control Code will be created while Take off or while exporting the list to Spread Sheet.
3. Objects that are taken off or exported using the particular Control Code will be remembered by the system and BBS can be placed based on this Control Code.



Export to Spread Sheet

1. This Menu is used to export the BBS to Spread sheet. Selecting this menu will display the Export to Spread Sheet screen.
2. Select the Report format in which the BBS to be exported.
3. BBS can be exported for Straight Bars and Bend Bars separately or Combined together, as per the settings of Reports in Job Preferences.
4. Check the path of the Spread Sheet Template. If any changes required, click Browse button and set all the details regarding the Template in which the BBS is going to be exported and
5. Enter the details relevant to the Header of BBS.
6. Select the Bars or Callouts for which the BBS has to be created by Use Select Bars & callouts option or Select the Element Marks for which the BBS has to be created by Select Element Mark option. Details like, Description, Created By, Drawing Number and Revision will be filled in automatically in the appropriate fields.
7. Enter details for Control Code and Checked by also.
8. Select the Color to which the bars should be changed to, after creating the BBS.
9. Select Use Existing Control Code option to recreate the BBS file, which is created already. By this option, the bars already stored in the file will be appended or removed with the new selection of bars based on the Add Entities or Remove Entities options respectively.
10. Select Include Bar Labels in Selection and Include Bar Views in Selection option to include the labels and Bar views in selection, if Bar or Callout is not included in the selection. For example, Plan and section of the wall-1 is detailed in sheet1 and Wall-2 is detailed in Sheet 2 which has got label references to wall –1 dowels. If Wall-2 is poured first, then BBS for Wall-2 has to be given first. So we will select all the details of Wall-2. In this selection, label and Bar view of connecting Wall-1 is also included. Since the Include Bar Labels in Selection option is selected, the bars related to this label will be included in the BBS. If these bars are not included, then while pouring the Wall-2, it will not have the connection bars to Wall-1.
11. Click Go button to create the BBS on the Takeoff path as given in Job Properties.
12. Click Cancel button to cancel the BBS creation.





Update BBS

1. This menu is used to Update the BBS placed for All bars existing already in the drawing. If any bars are added or deleted after placing the BBS , it can be updated automatically for the changes by using Update BBS menu.
2. If the BBS is placed for Selected Callouts or Fence, then BBS cannot be updated using Update BBS menu.



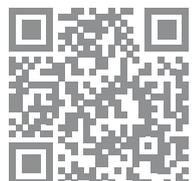


PLACING LIST



Place List

1. Selecting this Menu will display the Placing List Screen. Select the Report format in which the List to be placed.
2. Placing List can be placed for Straight Bars and Bend Bars separately or Combined together, as per the settings of Reports in Job Preferences.
3. Enter the details relevant to the Header and Footer of Placing List.
4. Placing List can be placed based on Alpha code, or Member Name based on the option selected. This is only optional.
5. Length of the List to be placed on the drawing can be controlled based on the selected option, Page based or No. of Rows or Container based. If the actual number of rows of the List created , exceed the selected choice, then the second sheet of List will be placed automatically, if Automatic Point selection is selected. Enter the Offset Distance between the sheets to place the second sheet.
6. If None option is selected, then the entire Placing List will be placed as single table.
7. Placing List can be placed for Selected Bars / Callouts using Select Objects , or for the Bars inside the Selected Fence or for the Bars selected using Filter or for All Bars by selecting Place Report directly.
8. While Placing, Quantity and Bar Mark audit will be done and Placing List cannot be placed twice for the bars.



Place List For **Control Code**

1. This is another method of placing the List for the selected Objects based on Control Code.
2. Control Code will be created while Take off or while exporting the List to Spread Sheet.
3. Objects that are taken off or exported using the particular Control Code will be remembered by the system and the List can be placed based on this Control Code.



Export to Spread Sheet

1. This Menu is used to export the Placing List to Spread sheet. Selecting this menu will display the Export to Spread Sheet screen.
2. Select the Report format in which the Placing List to be exported.
3. Placing List can be exported for Straight Bars and Bend Bars separately or Combined together, as per the settings of Reports in Job Preferences.
4. Check the path of the Spread Sheet Template. If any changes required, click Browse button and set all the details regarding the Template in which the Placing List is going to be exported and Save the settings.
5. Enter the details relevant to the Header of Placing List.
6. Select the Bars or Callouts for which the Placing List has to be created by Use Select Bars & callouts option or Select the Element Marks for which the List has to be created by Select Element Mark option. Details like, Description, Created By, Drawing Number and Revision will be filled in automatically in the appropriate fields.
7. Enter details for Control Code and Checked by also.
8. Select the Color to which the bars should be changed to, after placing the List.
9. Select Use Existing Control Code option to recreate the Placing List file, which is created already. By this option, the bars already stored in the file will be appended or removed with the new selection of bars based on the Add Entities or Remove Entities options respectively.

Export to Spread Sheet

- 10.** Select Include Bar Labels in Selection and Include Bar Views in Selection option to include the labels and Bar views in selection, if Bar or Callout is not included in the selection. For example, Plan and section of the wall-1 is detailed in sheet1 and Wall-2 is detailed in Sheet 2 which has got label references to wall –1 dowels. If Wall-2 is poured first, then Placing List for Wall-2 has to be given first. So we will select all the details of Wall-2. In this selection, label and Bar view of connecting Wall-1 is also included. Since the Include Bar Labels in Selection option is selected, the bars related to this label will be included in the Placing List. If these bars are not included, then while pouring the Wall-2, it will not have the connection bars to Wall-1.
- 11.** Click Go button to create the Placing List on the Takeoff path as given in Job Properties.
- 12.** Click Cancel button to cancel the BBS creation.





Update BBS

1. This menu is used to Update the BBS placed for All bars existing already in the drawing. If any bars are added or deleted after placing the BBS , it can be updated automatically for the changes by using Update BBS menu in placing list.
2. If the BBS is placed for Selected Callouts or Fence, then BBS cannot be updated using Update BBS menu.





TAKEOFF, UN-TAKEOFF BAR LIST



Take Off

Takeoff is the Process by which the Bar list files will be created. Each country or Detailing Code has got different Industry formats and Bar list files can be created to suit the client's requirement. Bars which are Taken off cannot be edited. In case if editing has to be done, then Un Takeoff the bars and edit them.

How to do Takeoff and Un Takeoff is explained in this Chapter.

1. Selecting Takeoff menu will display the Takeoff Screen. Select the Format for Takeoff or Bar list file.
2. By Select Bars & callouts option select the bars for which the Bar list has to be created or by Select Element Marks option select the Element Marks for which the Bar list has to be created. Details like, Description, Created By, Drawing Number and Revision will be filled in automatically in the appropriate fields if Bars & Callouts are selected. By Select Element Marks option, Bar list can be created only for the selected Element Marks. For example, if Pile cap PC1, exist in 10 places, we can create the Bar list for 4 places alone as required.
3. Enter details like Control Code and Checked by also.
4. Select the Color to which the bars should be changed to, after creating the Bar list.
5. Select Use Existing Control Code option to reuse the Bar list file which is created already. By this option, the bars already stored in the file will be appended or removed with the new selection of bars based on the Add Entities or Remove Entities options respectively.
6. Select Include Bar Labels in Selection and Include Bar Views in Selection option to include the labels and Bar views in selection, if Bar or Callout is not included in the selection. For example, Elevation and section of the Beam -1 is detailed in sheet1 and Beam -2 is detailed in Sheet2, which has got label references to Beam -1 dowels. If Beam -2 is poured first, then Bar list for Beam -2 has to be given first. So we will select all the details of Beam -2. In this selection, label and Bar view of connecting Beam -1 is also included. Since the Include Bar Labels in Selection option is selected, the bars related to this label will be included in the Bar list. If these bars are not included, then while pouring the Beam -2, it will not have the connection bars to Beam -1.
7. Click Go button to create the Bar list on the Takeoff path as given in Job Properties.
8. Click Cancel button to cancel the Bar list creation.

Untake **Off**

1. Un Takeoff can be done for Bars or for Element Marks or based on Control Code.
2. If Bar List is created based on Element Marks, then Un Takeoff can be done for Element Marks. Select the Element Marks, either based on Control code, or by selecting the Fence or by using Filter.
3. If Bar list is created based on the selection of bars, then Un Takeoff can be done for the bars. Select the Bars, either based on Control code, or by selecting the Fence or by using Filter.



OTHERS PART- 1





Place Callout/ **Single Bar**

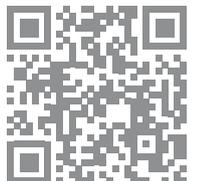
This menu is used to place the Callout for the Bars or Views, which do not have the Callout.





Place Callout/ **Varying Bar Table**

This menu is used to Place the table for the Varying bars, if the option is selected in Job Preferences.





Place **Label**

This menu is used to place the Label for the bars or Views.





Place Element Mark

This menu is used to place the existing Element Marks in the drawing Based on the number of Element Marks placed, Number of Members will be changed automatically. For Example, Column C1 is detailed with the No. of members as "1" in Rebar Entry Screen. After detailing once, place the Element Mark "Column C1" on the Plan wherever required. Then depending on the number of places, where this Element Mark is placed, No. of Members of the bars of Column C1 will be modified.

This saves lot of time in counting the number of members.

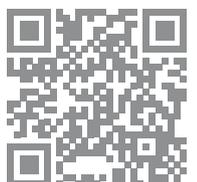
While Placing the Element Mark, Element Location detail can also be added by selecting the option.





Show/ Hide Element Location

After Placing the Element Marks with Element Location, this menu is used to show or hide the Element location placed along with the Element Marks

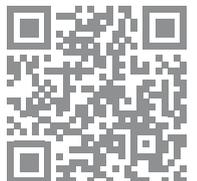




Place **Elevation**

This menu is used to place the Elevation in the drawing. First place the Base Elevation by picking the point and entering the Elevation value. Next place the Relative Elevation by selecting the reference Base elevation and the point for next elevation. Then the elevation value for the second point will be calculated based on the Base Elevation value.

You can also Copy the Elevation using Copy Command of AutoCAD. Copy Elevation Dialog box will appear. Elevation can be copied as Base Elevation or Relative elevation as required.





OTHERS PART- 2





Change Bar **View**

This option is used to change the Bar view of selected bars using Single or Multiple option. Single option is used to change the view of one bar by toggling the views. Multiple option can be used to change the current view of the selected bars to the selected view.





Change Alpha **Code**

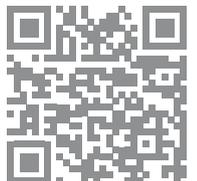
This menu is used to change the Alpha Code of the Selected or All bars, if it is used in the Job Preferences.





Find **Callout**

This menu is used to find out the existence of specific detail in the Callout. For example if you want to find the Callout which has got the Bar Mark as 30, then enter the string - 30 - in the field and click Search button. It will find the existence of callout and you can Zoom to that Callout.





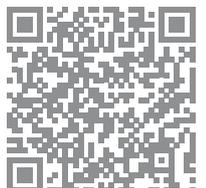
Align **Callouts**

After Detailing, this menu is used to align the Callouts as required. Callouts can be aligned based on X or Y axis or rotation of the selected callout or based on the selected Pline.

Based on XY Axis

Based on Rotation

Based on Line





Place Bend **Shapes**

This menu will place all the bend shapes used in the drawing.





Takeoff **Colour**

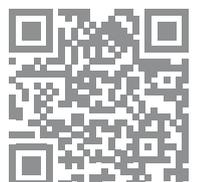
This menu is used to ON or OFF the color of the bars Taken off. If ON is selected, then color of the Bars Taken off will be different from the Bars not Taken off. If OFF is selected, then color of the Bars Taken off will be same as that of the Bars not Taken off.





Bar **Status**

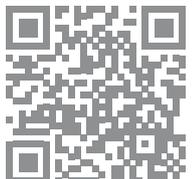
This menu is used to find out the details of the callouts based on Take Off, Un Take Off and Partial Take off (Take off based on Element Mark).





Drawing **Weight**

This menu displays the Weight Report of the drawing. Weight Block can be placed either for all the bars in the drawing or for the selected bars. Grade wise and Bar size wise weight report can also be placed.





Create Error **Report File**

If any error occurs in the drawing while detailing, this menu can be used to pack all the files related to the current working drawing into one zip file. This file can be sent to the Support team for getting a support for the error.





DETAILS LIBRARY



Create and Insert **Library**

This is the library which has got the Elements detailed and stored for each Detailing Code. Repeating Elements like Pile Caps, Beams, Columns etc., can be detailed and stored in the Library and can be recalled and reused for any number of times.

How to Create or Insert the Detail from the library is explained in this Chapter.

1. Detail the Element, which you wanted to add into the Library. Select Details Library / Create Library Menu.
2. Enter the name for the Template and select the type to which the Template belongs to. Enter the template ID also.
3. Select the path in which the template to be saved.
4. Select the Objects to be saved as Template and specify the base point. Click Save button to save the Selected Objects in Library under the given Template name.
5. Please remember, No. of Members must be always "1" for the objects being saved as template.
6. Select Details Library / Insert Library Menu to insert the Template. Insert Template Screen will appear. Select the Folder and the Template to be inserted. Now the properties of the Inserted Template will get changed to the current settings of the drawing. So after inserting, we don't need to do any changes for Presentation. Using Settings option in Insert Template Screen, Cad Layers, Callout and Label Formats can be controlled.
7. After insertion, modify the details as required by stretching the concrete dimensions, Range and Bar. Bar sizes and bar spacing can be edited by double clicking the bar etc.,
8. By this way we can save lot of time by avoiding the detailing of same type of elements every time.
Detail, which is created in one Detailing Code, cannot be inserted in the drawing of another
9. Detailing Code. Because, only the templates that are matching with the current Detailing Code will be listed.





AUTO DETAILER



Rebar **Spread**

1. Selecting the Rebar Spread Menu will display the Rebar Spread Screen.
2. Enter the Drawing Number, Revision Number, Bid Items and Area (if required).
3. Enter the Details for Element Mark, No. of Places, and Layers.
4. Enter the details for Bar Size, Bar Spacing, Lap Value, Remarks, Rebar Layer in which the bar to be drawn, Support Zone % (% of zone in which the bars to be lapped from the support line).
5. Click the Load Bar Properties button to load the bar details from the selected Bar / Callout / Label / View.
6. Click the Bar Defaults button and check the bar properties.
7. Select the General Settings for detailing, from the list, if it exists already. If not, click Create button to create the new one. Settings for Rebar Spread screen will appear.
8. Select the Bend Type Settings for detailing, from the list, if it exists already. If not, click Create button to create the new one. Bend Type Settings for Rebar Spread screen will appear.
9. After selecting the required settings file, click Rebar Area button and select the closed poly line (If Object option is selected) or select the points defining the boundary (If Points option is selected) in which the rebar to be detailed. It is not the concrete outer line. Offset the Concrete outer line by a required cover distance and select it as rebar area. In simple, bars will be drawn inside the selected Rebar Area.
10. Click Openings button and select the closed poly line for the openings. Then while detailing, bars will be cut for the selected opening line.

Rebar **Spread**

- 11.** Click Conditional Supports button and select the open Poly line for splicing the bars at the selected line. Splicing location will be based on the Support Zone % entered.
- 12.** Click Supports button and select the open Poly line for splicing the bar, based on the Support zone %. Considering this % and optimization, bars will be spliced near to the selected Poly line or to the next poly line selected as supports. Difference between Supports and Conditional Supports is that the bar may skip the Support Line, if it can be drawn to the next support line (i.e. Total length is within Maximum Detailing Length even if it is drawn to the next Support Line) where as Bar will be spliced at Conditional Support based on Support zone % and it will not be skipped.
- 13.** Click Folds button and select two Open Poly line for the folds. Enter the value for Fold Height.
- 14.** Click Drop Panel button and select the Closed Poly line for the drop panel.
- 15.** Click Draw Horizontal button to draw the bars in a horizontal direction.
- 16.** Click Draw Vertical button to draw the bars in a vertical direction.
- 17.** Click Close button to exit the Rebar Spread screen.
- 18.** Please note that, bars will be drawn based on the selected poly lines only. So user has to prepare the poly lines for the extent of rebar, for openings, for Drop panel and for Folds. Auto Detailer will not deduct any cover values from the selected poly lines.



Settings for **Rebar Spread**

1. On Load Settings File field enter the Name of the File in which the settings has to be saved.
2. Select the option for Detailing Method, Draw Normal or Draw Reverse or Stagger Alternate Bars. If Stagger Alternate Bars is selected, then details related to Staggering will be displayed. Select the Staggering value, Separate or Combined option to show the Range for the bars, and the spacing between Bars and the Ranges for Presentation.
3. Enter the Bar Length details based on which the detailing has to be done.
4. For Presentation enter the data for position of Bar and Range, Space between Lap Bars.
5. Select the options to Show Bar Mark at Start & End of Range, to Show Rebar Ends, to Show Lap dimension and enter the Offset Distance to show the Lap dimensions as required.
6. Select option Group Varying Bars , if you want to group the varying bars. If this option is selected, then Grouping of Varying Bars grid will be displayed. All the bar sizes of the current Detailing Code will be displayed here. For each Bar size enter the details for Maximum Number of Bars in a set (Each Bar mark in a varying set will have a given number of bars. This data should be given based on the cutting machines for Fabrication. For Example, for 20mm bar, Maximum No. of bars in a set is given as 10. Then while detailing, the varying Bar Set having 35 Nos. Then the callout will be 35-H20-01(A-D). Where 35 is the total qty of a Varying set, H20 is the Bar Type and Size, 01 is the Bar mark which has got 4 set of bars 01A of 10 nos., 01B of 10 Nos, 01C of 10 Nos., and 01D of 5 Nos. This 10 Nos. for 01A, 01B and 01C is fixed based on the settings in Grouping of Varying Bars grid), Step up Value and Step Down Value.

Settings for **Rebar Spread**

7. Click Save & Apply button to save the settings and set it as current one.
8. Click New button to create the New settings file.
9. Click Delete button to delete the existing settings file.
10. Click Cancel button to cancel the created settings without saving it.
11. Click Close button to exit the Settings for Rebar Spread screen.

Bend Type Settings for **Rebar Spread**

1. On Load Settings File field enter the Name of the File in which the settings has to be saved.
2. Select the option Horizontal Bar or Vertical Bar, based on which the settings are being created.
3. From the Select Edge list box, select the edge conditions for which the bend type is set. For example, to set the Bend details of the bar between Concrete to Concrete edge, Select Concrete – Concrete. For the bar between concrete edge to the Opening , select Concrete Opening. Like this for each condition we need to set the bend details.
4. For the selected Edge condition, select the Bend Type. Based on the selected Bend type, related leg names will be highlighted in red color and the Rotated Images will be displayed (Based on 0, 90, 180, 270 degree rotations). Select the rotation type as required.
5. Then select the Bend View, which has to be drawn after detailing.
6. Select the Varying Leg (Leg of the Bend which needs to be calculated based on the Concrete profile while doing the detailing automatically). This selected leg name will be changed to blue color and this field will be disabled. For other legs, enter the value.
7. If you want to mirror the selected image, then select yes for Mirror.
8. If you want to match the Fold Height to any of the leg of the selected bend type, select the check box of Match Fold Height.
9. While drawing the bar after auto detailing, bend will be placed based on the insertion point marked as red donut in the image. If you want to move the insertion point, then select X or Y check box of the leg based on the movement required. If you want to move the insertion point horizontally for the leg, then select the check box of X of the corresponding leg. If you want to move the insertion point vertically for the leg, then select the check box of Y of the corresponding leg. Also select Add /Sub leg values for the selected X or Y. Based on this selection, insertion point will be added by leg length or subtracted by leg length from the original insertion point.

Bend Type Settings for **Rebar Spread**

- 10.** After entering all these details, click Add a Row button, to add the data to the grid. So for each edge conditions of the project, Bend type has to be set and add to the grid.
- 11.** To edit any data in the grid, select the row and click Edit a Row button. After editing click Save a Row button to save the changes.
- 12.** To delete any row from the grid, select the row and click Delete a Row button.
- 13.** Click Save button to save the settings.
- 14.** Click New button to create the new settings.
- 15.** Click Cancel button to cancel the settings done.
- 16.** Click Delete button to delete the selected settings.
- 17.** Click Clear Grid button to clear all the data in the grid.
- 18.** Click Close button to exit the Bend Type Settings of Rear Spread screen.



SPECIAL BEND



Special Bend Creation & **Modification**

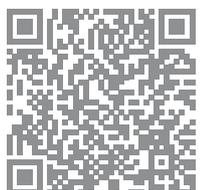
When the bar is drawn using Bend Shape as "Auto" and if the drawn shape does not match with the existing ones, then user will be prompted for creating the New Special Bend.

How to create or Modify the Special Bend is explained in this Chapter.

1. If the Bar is drawn using Auto Bend Shape, and if the drawn Bend type does not exist , then User will be prompted to create the Special Bend. If User select Yes, then Special bend will be created. If No is selected, then Special Bend will not be created.
2. After creating the Special Bend, Bend Type will be assigned automatically and user has to confirm the Bend type. This Bend Type cannot be edited later.
3. After creating the Bend, if user wants to edit the Leg names, Supporting Legs, Leg Properties, Cut Length , Theoretical Length and Truck width Formula, Leg Value Formula, and Leg validations , and the Plan, Left and Right views, it can be done using Special Bend Editor option.
4. After creating and editing, Bends can be exported using Export Bends option, to the place from where it can be imported for other users.
5. Other Users can import the newly created bends using Import Bends option.

[Special Bend Creation and Editing](#)

[Import and Export Bends](#)





CUSTOMIZING JOB PREFERENCES



Customizing Job **Details**

Properties required for detailing the job like Detailing Code, Special Bend File, Reports for BBS and Placing List, Bar Mark, Callout, Label, Title block, and CAD Standards etc can be set using Job Preferences.

1. Select the Detailing Settings File that matches with the job requirement from the List. All the Settings File relevant to the selected Detailing Code will be displayed in the combo. This file will have all the details regarding the Bar Type, Notations, Hook Values, Bar Diameters, Unit Weights, Pin Diameter used for Bending etc.,
2. Select the Special Bend Definition File required for the job, from the list.
3. Select the Job Settings File, from the list, if it is created already. This file will have all the settings regarding the Output of the Drawing like Reports, Callout & Label Formats, Bar Marks, Cad Standards, Validations etc. Name of the selected file will be displayed as job Settings File Name. If the required setting is not available, then create the one using "New" option.
4. Select the Report tab and set the Data for BBS and Placing List. Click New to create the New Report. Enter the name for the Report Format. Click Settings button and set the details for Spread Sheet. Click Header Footer Settings button, to set the data for Header and Footer of the Report being placed in the drawing. Select Bend bars only or Straight Bars Only or Bend Bars and Straight Bars option for which the Report is being prepared. Enter the data using Create Field Settings . BBS sorting order can also be set here. Enter the height for Title Row and Data Row of the report as required in Drawing.
5. Select the Bar Mark tab and select the option for Bar Mark Generation, whether Auto, Manual or New York IBM. Based on the selection, further options will be displayed. Set the details for Bar Mark Syntax, Bar Mark Affecting Factors (Factors based on which the new Bar mark will be generated), and Settings for Varying Bars, option to Retain Bar mark while editing, option to Assign Bar mark for Straight Bars and Bend Alias details. If Bar mark has to be assigned based on the Element Mark, then select the option and set the details .

Customizing Job **Details**

6. Select the Callout tab and set the format for Callout of Straight bars, Bend bars and Alternate bars (Callout to have Double spacing or actual Spacing & ALT remark), Positioning of callout from the insertion point, clouding rebar objects for the revisions.
7. Select the Label tab and set the format for Label of Straight bars and Bend bars and the Label position from the insertion point.
8. Select the Cad Standards tab and set the drawing file to be used as Cad Standard file using Browse button.. This is the file, which is created as explained in Chapter 20. Set the layers and styles for Rebar, View, Range, Leader, Callout, Label, Element Mark, Elevation Block and Reports. Layers, Dimension styles, Text Styles and blocks created in Cad Standards file will be listed in the Combos. Select the appropriate data and set it for use. Based on these settings only, objects will be created in the drawing.
9. Select the Presentation Settings tab and set the details for Visibility Factor for model space for the various objects, Paper space settings for presentation and the details for Bar Donut. Based on the settings on Model space Visibility Factor, objects will appear on the Model Space. It is only for visibility in Model Space and not for presentation on Paper space. On Paper space, objects will appear as per Paper Space settings for Presentation. Bar Donuts will appear as per the selected option. If Bar Donut for Bar Size is selected, then donut sizes will be as per the bar size and if Bar Donut for Presentation is selected, then Donuts will appear as per the entered size, irrespective of the Bar sizes.
10. Select Others tab and set the details for Takeoff, Bar lengths (Stock Length, Shipping Length, Mill length) for various bar sizes, Leg rounding factor and Rounding Methods, Minimum Leg values, Length Validations, Transporting Truck specifications, Weight Settings (Rounding Factor and Rounding method) etc.,
11. Click Save button to save the settings in Job Settings file. This file can be recalled and reused later. User will be prompted to enter the password details.
12. Select the option to draw the Bar & Callout, Bar Only or Callout only. Based on the selection, bar will be drawn.

Customizing Job **Details**

- 13.** Click Save as button to save the settings as new Job Settings file.
- 14.** Click Save in Drawing button to save the settings in Drawing. Though the settings are saved in Job SettingsF file, they have to be saved in drawing also. Later if any changes required, they can be saved either in drawing alone or in Job Settings file also as per the requirement.
- 15.** To save the settings as Default one, Click Set as Default button. Then, on Job Properties, if Detailing Code is selected, this Default settings will be loaded.
- 16.** Click Change Password button to change the Password details.
- 17.** Settings are password protected and everyone cannot change the settings. Only authorized person, who knows the password details can modify the settings.
- 18.** Click Close button to exit the Job Preferences screen.



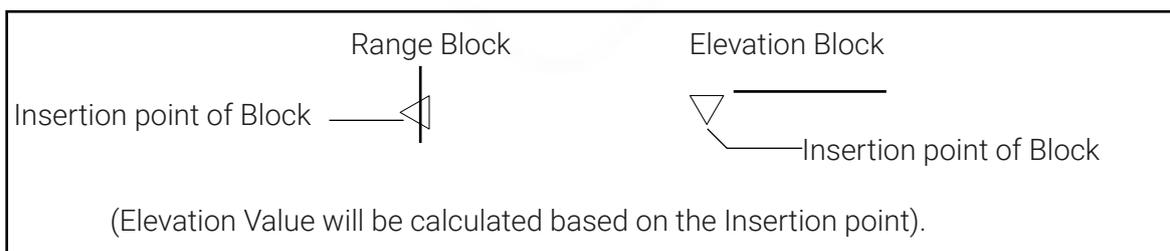
SETTING UP CAD FILE



Setting Up CAD **Standard File**

Default CAD Standards file for each Detailing Code will be provided along with RGS Rebar. If user wanted to change or create the new standards, then it can be done as explained in this chapter. This drawing file should have the Layers, Blocks, Text Styles and Dimension Styles etc., that are going to be used in the Placing drawing.

1. Create the CAD Standards drawing file using Plain AutoCAD. Do not use RGS Rebar to create this file.
2. This CAD Standards Drawing file will be used in the Job Preferences in RGS Rebar.
3. Create the Cad Layers required for Rebar, View, Range, Range Cover, Leader, Callout, Label, BBS etc., using Layer Manager in the CAD Standards drawing file.
4. Create the Dimension Styles required for Range cover and others that are to be used in the Placing Drawing. Create separate text style for Dimensions and the Dimension text height should be set as required in Paper space. Based on this setting, dimensions will be scaled exactly.
5. Create the text styles required for Callout, Label, Element mark & Reports. Set the text height as required in Paper space. For example if you want 3mm as text height in Paper space, then set the height as "3" for the text style.
6. Create the blocks required for Range start & End, Revision Block and Elevation Blocks. These blocks are mandatory and will be used in the Job settings. Also create the blocks for Header & Footer of Reports being placed in the drawing.



7. Save & Close the CAD Standards drawing file and exit AutoCAD, before opening RGS Rebar.
8. While working in RGS Rebar, do not open the CAD Standards drawing file, being used in the Job Preferences settings of the current drawing.



FILE FORMATS



Job Files (.jdf)

1. This file contains all the information regarding the detailing settings, job settings, job details etc used for the specific job.
2. This file will be stored under the job Name given in job properties. For example if the job Name entered in job properties is Hobby Centre, then the job file will be created as Hobby Centre.JDF.
3. This file will be stored in the path "RGS-Rebar 3.0\Settings Files\Job Setting Files".

Job Setting Files (.jsf)

1. This file contains all the information regarding the settings of Reports, Bar Mark, Callout, Label, CAD standard, Presentation settings and other validations set for the specific job.
2. This file will be stored under the name given for job settings file in job preferences. For example if the job settings file is given as Hobby Centre, then the file will be created as Hobby Centre.JSF
3. This file will be stored in the path "RGS-Rebar 3.0\Settings Files\<<Detailing Code>".

Spread Sheet Templates (.xls)

1. If new spread sheet template is set for the job in reports tab of job preferences, then it has to be distributed for other users also.
2. This template file will be stored in the path "RGS-Rebar 3.0\Settings Files\Spread Sheet Templates".





Title Blocks (.dwg)

1. If new title block is set for the job in job properties, then it has to be distributed for other users also.
2. This title block file will be stored in the path "RGS-Rebar 3.0\Settings Files\ Sample Title Blocks".





Bar Number Files (**.bno**)

1. This is the file created to assign the bar marks based on element marks, when the option is selected in job preferences.
2. This file will be stored in the path selected by the user.





Layer Transfer Files (.lft)

1. This is the file created for layer transfer while inserting the library. If the option is set in "Insert Library", then layers will get transferred to the current drawing as per the settings. Layer transfer file will contain information regarding the layers of template and current drawing.
2. This file will be stored in the path selected by the user.





General Settings Files Of Rebar Spread(.rss)

1. This file contains the information regarding the general settings to be used for detailing in rebar spread.
2. When the user save the settings, the file will be stored in the path "RGS-Rebar 3.0\ Settings Files\`<Detailing Code>`" with the given name.



Bend Type Settings Of Rebar Spread (**.vdf**)

1. This file contains the information regarding the bend type settings to be used for detailing in rebar spread.
2. When the user save the settings, the file will be stored in the path "RGS-Rebar 3.0\ Settings Files\<<Detailing Code>" with the given name.



Shortcut	Command
JP	Job Properties
DP	Drawing Properties
NBM	Draw Bar Man
NR	Draw Range
SPR	Split Range
CR	Combine Range
CNS	Convert to Single
CNM	Convert to Multi
ABA	Add Bars
RBA	Remove Bars
RDIM	Place Range Dimension
NVB	Add Bar View
NVR	Add Range View
C2B	Convert View
DA	Add Donut
DLP	Pre Leader
L1	Leader 1
L2	Leader 2
L3	Leader 3
L4	Leader 4
CA	Place Callout
PTA	Place Varying Table
LB	Place Label
EM	Place Element Mark
HLO	Hide Location
SLO	Show Location
BEL	Base Elevation
REL	Relative Elevation
RSP	Rebar Spread
CVTO	Change View Toggle
CRL	Create Library

Shortcut	Command
INL	Insert Library
MP	Match Properties
TBS	Transpose Bendshape
CBV	Change Bar View
ALC	Change Alphacode
FC	Find Callout
AXY	Align XY
ARO	Align Rotated
A2L	Align to Line
RES	Redraw Entities
RAS	Reassign Barmarks
CLS	Clash Detection
ADWG	Audit Drawing
ESP	Edit Bends
IMB	Import Bends
EXB	Export Bends
BBS	Place BBS
CCBBS	Place BBS Control Code
PLIST	Place List
CCPL	Place List Control Code
EPL	Export Placing List
UPL	Update Placing List
TF	Takeoff
UTCC	Untakeoff Control Code
UTB	Untakeoff Bars
UTFE	Untakeoff Fence
UTFI	Untakeoff Filter
UTEM	Untakeoff EMark
UTEF	Untakeoff EFence
UTEFI	Untakeoff EFilter
TCN	Takeoff Color On



Shortcut	Command
TCF	Takeoff Color Off
PBE	Place Bend Shapes
BST	Bar Status
DW	Drawing Weight Report
CERR	Create Error Log File
CSC	Create Scale Area
RSC	Resize Scale Area
COSC	Copy Scale Area
RNO	Release Notes
QUR	Quick Reference
CMD	Command Reference
FAQ	FAQ
CHA	Bend Chart
RGS	About us
NB	Draw Bar
DSR	Single Range
DMR	Multi Range
SLP	Single Line Split
DLP	Double Line Split
CNR	Convert Range
SB	Show Bars
ARB	Add Remove Bars
NV	Add View
DL	Add Leader
ELO	Element Location
PEL	Place Elevation
DLI	Details Library
ACALL	Change Alpha Code All
ACSE	Alpha Code Select
ACFE	Alpha Code Fence
ACFI	Alpha Code Filter

Shortcut	Command
ACA	Align Callouts
RDR	Redraw Select
UT	Untakeoff
TCO	Takeoff Color
PWE	Place weight
SCA	Scale Area
CVS	Change to Side
CVP	Change to Plan
CVL	Change to Left
CVSE	Change to Section
CVPR	Change to Profile
RDB	Redraw Bars
RDR	Redraw Ranges
RDL	Redraw Leaders
SSTS	Single ST Single
SSTA	Single ST Alter
SSTM	Single ST Multi
RRS	Radial Single
RRA	Radial Alter
RRM	Radial Multi
PWA	Place Weight All
PWS	Place Weight Summary
PWSE	Place Weight Selection
PWF	Place Weight Fence
PWFI	Place Weight Filter
PWEL	Place Weight Element
EBBS	Export BBS
UBBS	Update BBS