

**REINFORCEMENT**: reinforcement of all reinforced concrete elements

The software recognizes any geometry, applies the bar cover and adapts the shapes in order to quickly get to the executive drawing.

**GstarConcrete** can immediatly read and automatically re-draw the files coming from calculation programs, making them become interactive, smart, and subject to any change.

## **Main functions**

# **Shapes reinforcement**

- This function is useful for drawing bars, even starting from the items, available in the preselection list, such as: poligonal shapes, arc, and many others. Besides they are completed with an automatic numeration, and a "dialogue panel" with real and interactive preview. The bar is a smart, interactive, dynamic polyline, subject to any kind of modification.
- Another adantage of the program, for the user, is the automatic interactive link between the bars of the drawing and and their respective positions contained in the exploded view. It has also been projected to create bar covers (for a preview), making easier the reading of different shapes.
- The bars are listed by common belonging elements.
- •It includes options of real visualization of thickness and bending.
- It is possible to vary the length of the sides.
- It provides for several visualization tools that were projected to search for the position in the drawing.

# **Bars sections**

- It includes the generation and management of the bars according to single or multiple, aligned sections, with arc or circumference shape.
- It allows for the generation of series by defining diameter and distance.
- It enables to create the connection to a shape, that was previously inserted and
- Possibility of support of the series on the side of a bar
- Visualization of the real or symbolic diameter in relation to the current working

## Bars in plant and prospect view

- •The series of straight can be viewed, in plant or prospect (ex: stirrups of the beam).
- •The SW offers also the possibillity to generate series by defining diameter, distance, and number, possibly, also adding the bar cover, according to the building.
- •Thanks to the SW it is really easy and quick to to make a connection between an element of the drawing and its relative position inside the "exploded view".
- It is really easy and conforable working, starting from different possibilities of visualization: all bars, single bar or the first and the last one.

#### Callouts

 It provides for the generation and the management of position callouts with several different graphic options: linear, comb, cluster or fishbone shaped, in bands.

# Bars summary lists and tables

- It automatically generates a list of bars, with information about their bending, and calculation of total weight;
- It groups them by common elements
- It generates a summary list of bars, including elements with equal diameter,

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# **Special functions**

# **AUTOSHAPE Tecnology**

- GstarConcrete can automatically recognize any geometry, dividing them into elementary subareas or adding the bar cover: each item is automatically adapted to the geometry of the structural element. It provides for settings to add or remove new parts of each bar (as polygonal elements), such as an additional side, and for the possibility to divide a shape into two different overlapping elements.
- It is easy to change length of any side by inserting its measure in the panel control, or by stretching and dragging it.
- Editing filters: any fix property of the bars can be modified (for example applying certain diameters or distances)
- The elements can be copied in the same drawing or to a different one, and, consequently, all position numbers will be automatically assigned to. The correlation among shapes and positions is always

