

Gstarsoft



GstarCAD Mechanical 2015

GstarCAD Mechanical 2015 Introduction

GstarCAD Mechanical 2015 drafting/design software, covers all fields of mechanical design. It supplies the latest standard parts library, symbols, and dimensioning tools in line with standards in different countries being compatible with AutoCAD Mechanical drawings. The standardized and intelligent mechanical design greatly enhances the efficiency of designers and helps them complete accurate product ideas.

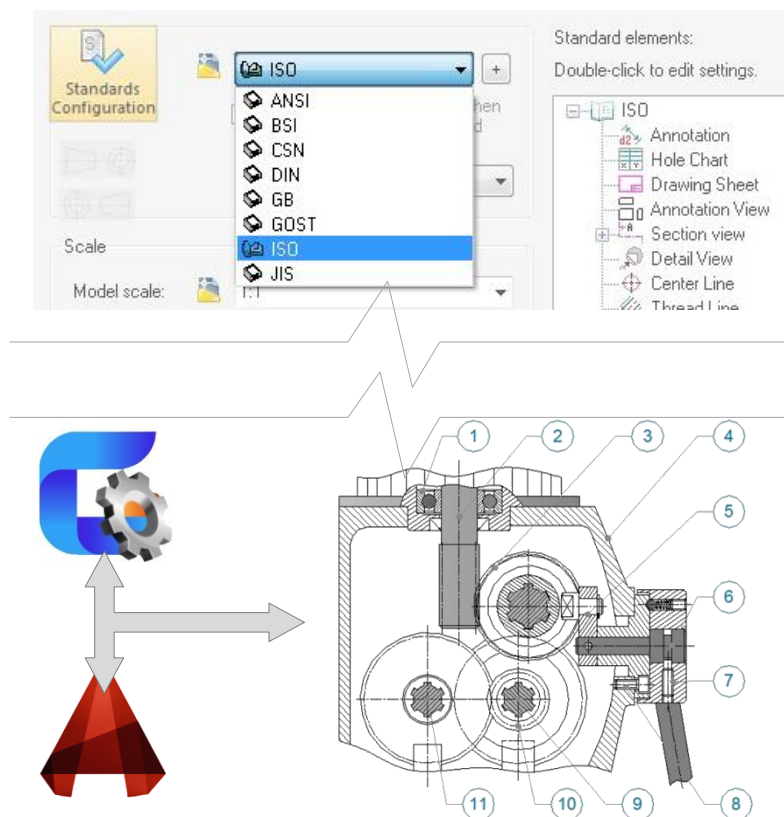
International Drafting Standards and Compatibility with AutoCAD Mechanical Drawings

Standards-Based

GstarCAD Mechanical 2015 supplies international drafting standards like ANSI/BSI/CSN/DIN/GB/GOST/ISO/JIS that are easily customizable, helping engineers to meet design requirements by simplifying mechanical design process in the global marketplace consistently.

Seamlessly Data Displaying

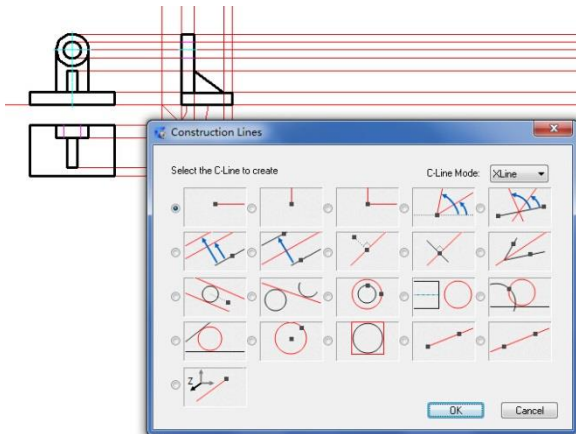
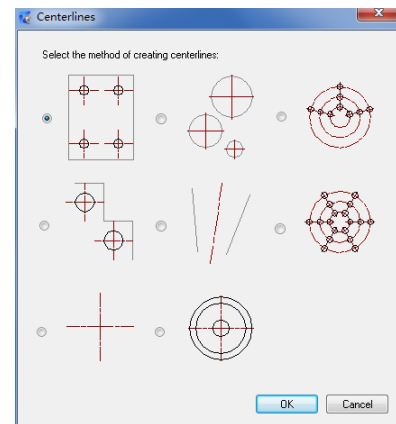
GstarCAD Mechanical 2015 could accurately read and display the complete underlying data of AutoCAD Mechanical drawings and vice versa. Seamlessly data display including title blocks, balloons, part list, BOM, surface texture, feature control frame, welding symbols and so on.



Professional Tools to Simplify 2D Mechanical Design

Center Line

GstarCAD Mechanical 2015 enriches functionalities of drawing tools based on GstarCAD platform in accordance with special requirements of mechanical design. The center line function could help users accurately and quickly create centerlines on standard layers according to requirements of different mechanisms.

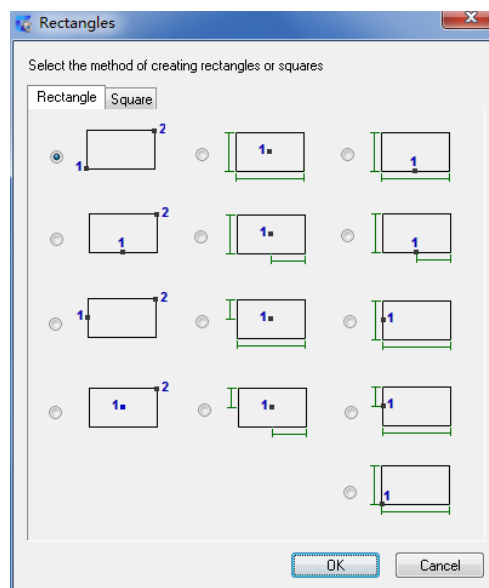


Construction Line

When creating an aligning view for geometry, the construction line helps improve design efficiency. For better distinction and management, the construction line automatically locates in proper layer. It will be invisible when printing.

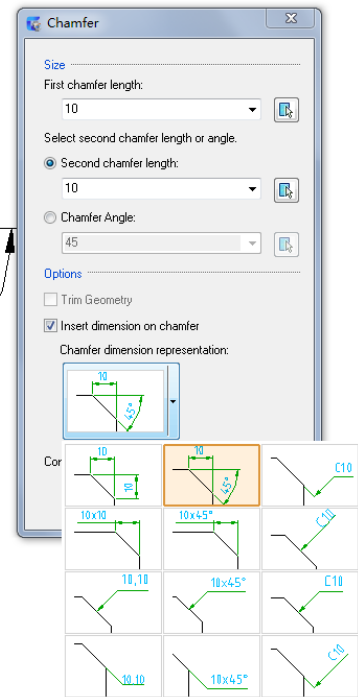
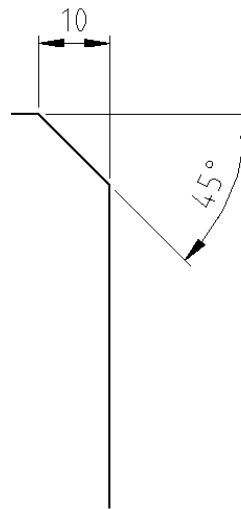
Rectangle

The rectangle command could create various kinds of rectangles and squares and help users conveniently and flexibly place a rectangle at a specified position without further modification and repetitive work.



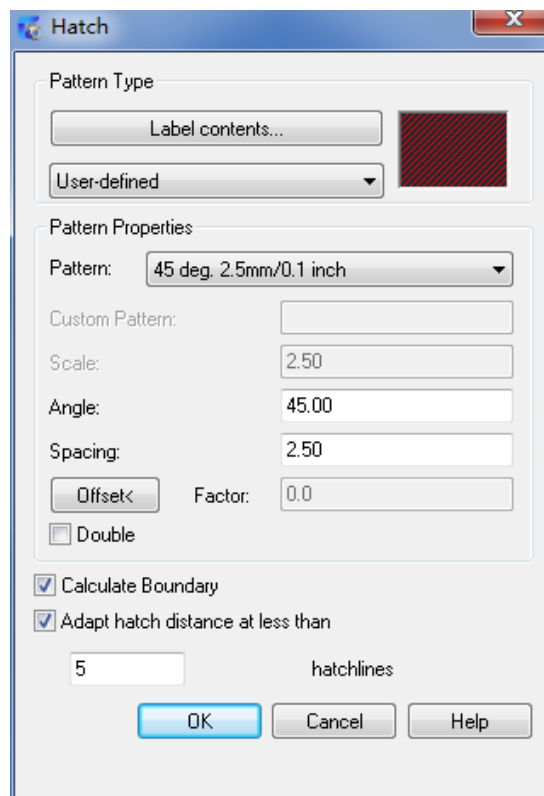
Associate Detailing Tool (Chamfer)

Update drawings quickly with powerful tools that enable users to edit previous operations, saving valuable design time. Easily re-edit features without having to remove and re-create the original feature. For example, resize a chamfer using the original dialog parameters by simply double-clicking the chamfer.



Associate Detailing Tool (Hatch)

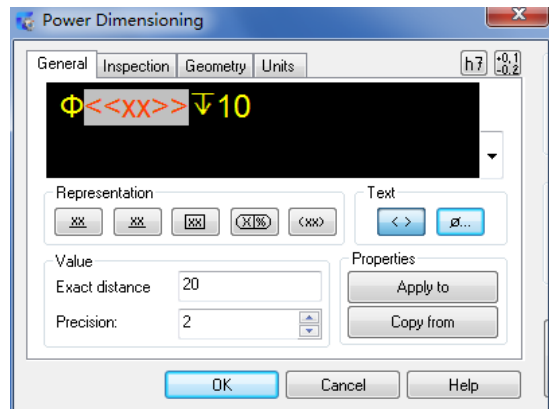
You can easier distinguish parts of a section and detail view by hatch patterns. GstarCAD Mechanical 2015 contains user-defined hatch, associative hatch and predefined hatch.



Easier Mechanical Documentation with Dimensioning Tools and Symbols Annotation

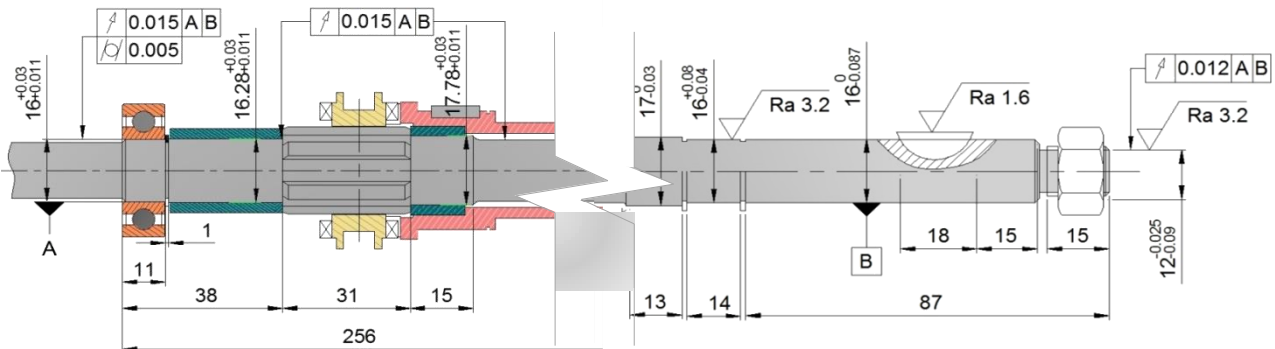
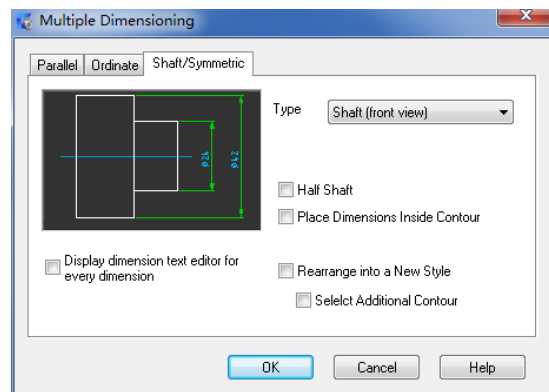
Power Dimensioning Tool

GstarCAD Mechanical power dimensions function greatly reduces the dimensioning work of engineering drawing. Help users create multiple types of dimensions by one command, flexibly define dimension style and content, add tolerance and fitting to dimension, modify representing method to display dimension properties, add inspection content for fully dimension effect.



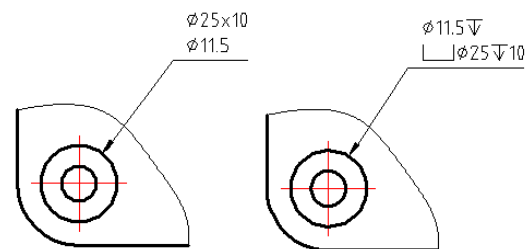
Multiple Dimensioning Tool

Multiple dimensioning function could batch create multiple parallel dimensions, coordinate dimensions, axis dimensions and symmetric dimensions and intelligently recognize the space of dimensions and place them on corresponding layers. Greatly simplify the task of creating and editing dimensions.



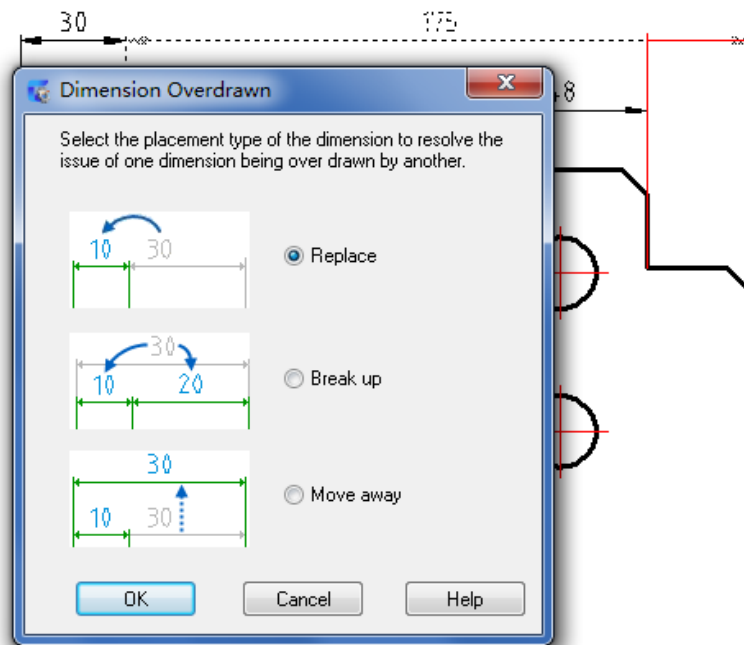
Leader Note Tool

The Leader Note function could create annotation for graphics and add multiple feature information to display real features of specified mechanism. The balloon is linked with selected graphic object, when the object moves, the annotation will change its position accordingly.



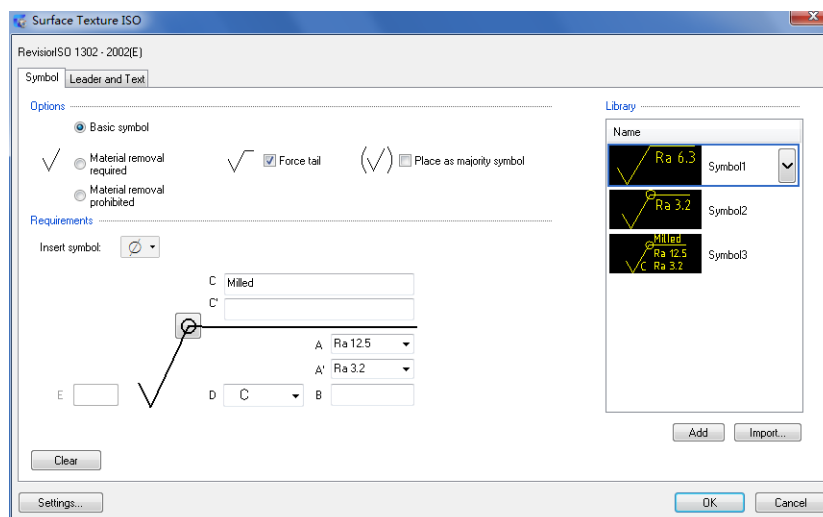
Dimension Edit Tool

The dimension edit tool could quickly stretch, add or combine dimensions and inspect dimensions, as well help users edit dimensions accurately.



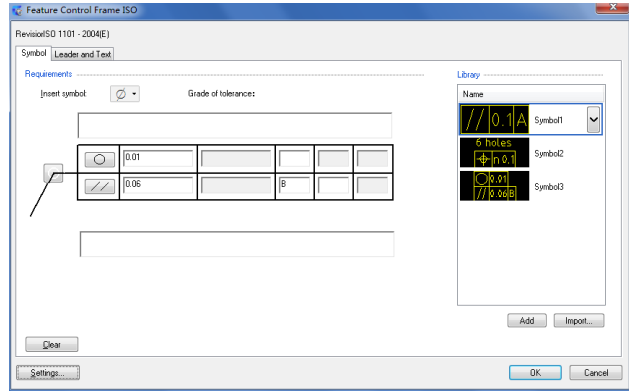
Surface Texture Tool

GstarCAD Mechanical supplies more than 11 kinds of symbol annotations, including Surface texture symbol, feature control frame, welding symbol, datum identifier symbol, datum target, taper&slope,edge symbol and so on. Those symbols could be attached on target objects or dimensions. They could automatically adapt to drawings by moving or scaling and make engineering dimensioning standard. The surface texture symbol is one kind of most popular annotation tool for mechanical design; it meets different requirements of surface treatment annotation during design process.



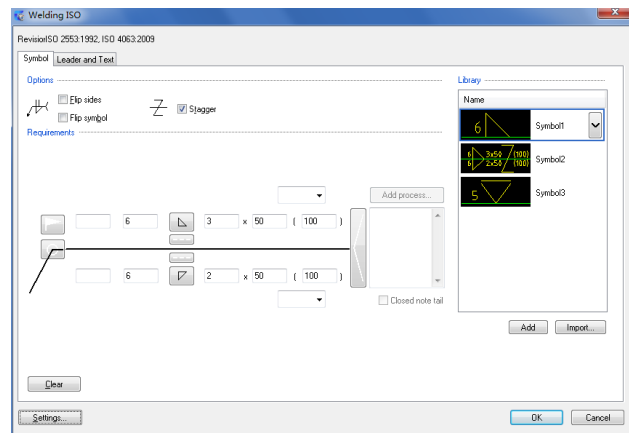
Feature Control Frame Tool

According to the grade of tolerance and standard annotation symbols, feature control frame could be added at any points, lines or planes on a mechanism in a drawing. The tolerance is an error between the ideal element and actual element after machining.



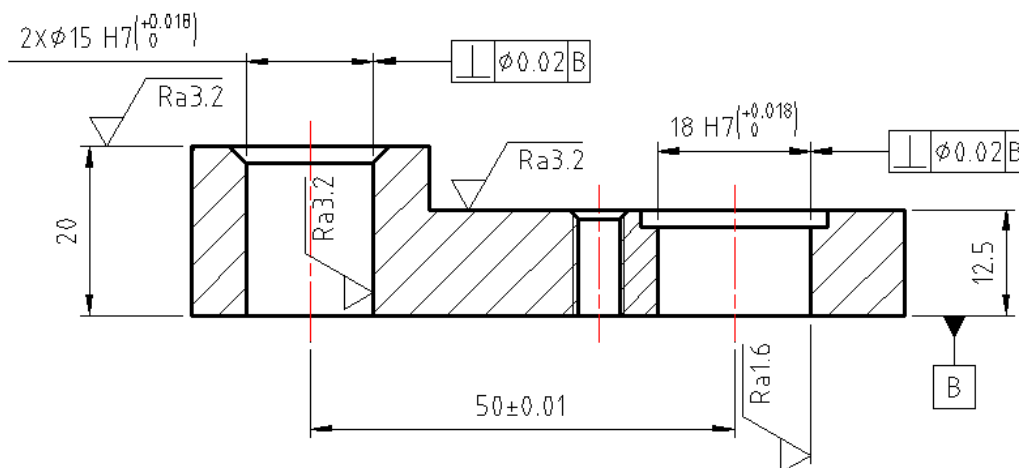
Welding Symbol Tool

The welding symbol annotation function could add welding features to geometry to display comprehensive welding information. It could contain all dimension styles under current drawing standards.



Import to Library and Attachment

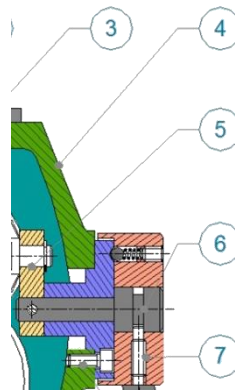
Users could add any new created symbol annotation to the symbol library. Insert common symbols to a drawing and save large of time on dimensioning. Be different from drawing standard, the symbol library is saved in drawing format. The symbol is attached on geometry, when the geometry moves, the symbol moves accordingly.



Accurate Data Management and Reports

Balloon and Part List

According to manual dimensioning, GstarCAD Mechanical 2015 is much simpler and effective. The balloon and part list could be intelligently associated with mechanical parts and keep update when detected parts information changing. Reduce cost of some mistaken information caused by recording, recognition and sorting, as well help users reduce workload and ensure data accurate.



Item	Description	Part Number	Qty	Material	Dimensions
11	Hypoid Gear 1	HG1-007-5	2	Mild Steel	P120 x 60 x 5
10	Hypoid Gear 2	HG2-007-6	1	Mild Steel	P40 x 20 x 2
9	Transversal Shaft Geared	TSG-007-4	3	Mild Steel	Ø75 x 150mm
8	Hex Bolt	HBT-007-11	6	Steel Carbon	M26 x 70 x 22,5
7	Outer Cap	OTC-007-10	1	Alloy Cast Iron	Ø200 x 80mm
6	Pin Cap Stuck	PCS-007-8	6	Commercial Steel	Ø60 x 120mm
5	Pin Fastener Radial	PFR-007-9	1	Commercial Steel	Ø40 x 50mm
4	Gear Box Case	GBC-007-1	1	Alloy Cast Iron	1398 x 1270 x 980mm
3	Hypoid Gear 3	HG3-007-7	2	Mild Steel	P80 x 40 x 3
2	Vertical SD Shaft	VSDS-007-2	2	Mild Steel	Ø90 x 950mm
1	Bearing	BRVS-007-3	2	UHMWPE	Int. Ø85 x ext. Ø120 x 16mm

PART LIST

BOM Data Extraction

The BOM could display component parts features comprehensively. It coordinates all data information of component parts and control changes of global. GstarCAD Mechanical 2015 supports extraction BOM data from DWG files for better reuse, promoting more efficient and accurate exchange of design data and facilitates earlier collaboration between design and manufacturing workgroups.

	A	B	C	D	E	F	G	H	I
	BOMKEY	ITEM	NAME	PARTNUMBER	QTY	MATERIAL	DIM	BOM_UNITS	NOTE
2	71B3	1	Bearing	BRVS-007-3	2	UHMWPE	Int.Ø85xext.Ø120x16	2	00000
3	71C3	2	Vertical SD Shaft	VSDS-007-2	2	Mild Steel	Ø90 x 950mm	2	00001
4	71E4	3	Hypoid Gear3	HG3-007-7	2	Mild Steel	P80x40x3	2	00002
5	71C4	4	Gear Box Case	GBC-007-1	1	Alloy Cast Iron	1398x1270x980mm	1	00003
6	71C9	5	Pin Fastener Radial	PFR-007-9	1	Commercial Steel	Ø40x50mi	1	00004
7	71CD	6	Pin Cap Stuck	PCS-007-8	6	Commercial Steel	Ø60x120ma	6	00005
8	71D0	7	Outer Cap	OTC-007-10	1	Alloy Cast Iron	Ø200x80mm	1	00006
9	71D3	8	Hex Bolt	HBT-007-11	6	Steel Carbon	M26x70x2.5	6	00007
10	71D9	9	Transversal Shaft Geared	TSG-007-4	3	Mild Steel	Ø75x750me	3	00008
11	71D6	10	Hypoid Gear 2	HG2-007-6	1	Mild Steel	P40x20x2	1	00009
13	71E0	12	Hypoid Gear 1	HG1-007-5	2	Mild Steel	P120x60x5	2	00010

Associative Hole Charts

GstarCAD Mechanical supplies associative hole charts. Accurately create links between model and tables, support for real-time adding or removing holes, as well sort holes according to specified rules. It reduces some mistakes caused by manual operations. The filter function in tables could help users list different holes in different hole charts for optimizing manufacturing process.

Hole Chart (GMHOLECHART)
Creates coordinate dimensions for holes in a work piece, dimensions the size of those holes, and generates a hole chart for that work piece.

1.6	52	62	Ø6	Clearance	ISO273-M10 H13
1.5	52	41	Ø2.55	Thread Blind Hole	ISO26-M10x1.25x30 / 35
1.4	52	29	Ø2.55	Thread Blind Hole	ISO26-M10x1.25x30 / 35
1.3	52	8	Ø6	Clearance	ISO273-M10 H13
1.2	36	62	Ø2.55	Thread Blind Hole	ISO26-M10x1.25x30 / 35
1.1	36	8	Ø2.55	Thread Blind Hole	ISO26-M10x1.25x30 / 35
Hole	X	Y	Ø	Description	Standard
LIST OF COORDINATES					

B	Ø6	62	2
A	Ø2.55	8	4
Hole	Ø	Y	Qty
HOLE TABLE			

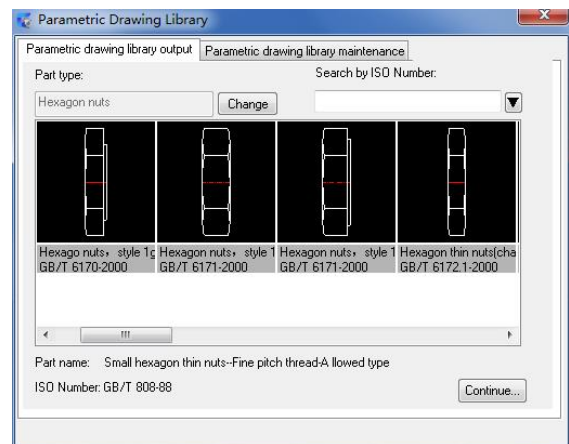
Form Tools

In the daily work of design engineers, they need to process a lot of forms, such as summary form design and processing, processing technology form definition and filling, processing card management and so on. The GstarCAD Mechanical supplies a powerful and practical form function. Users could create various kinds of forms during the product design. It simplifies design process and shortens design stages.

Standard Part and Symbol Libraries

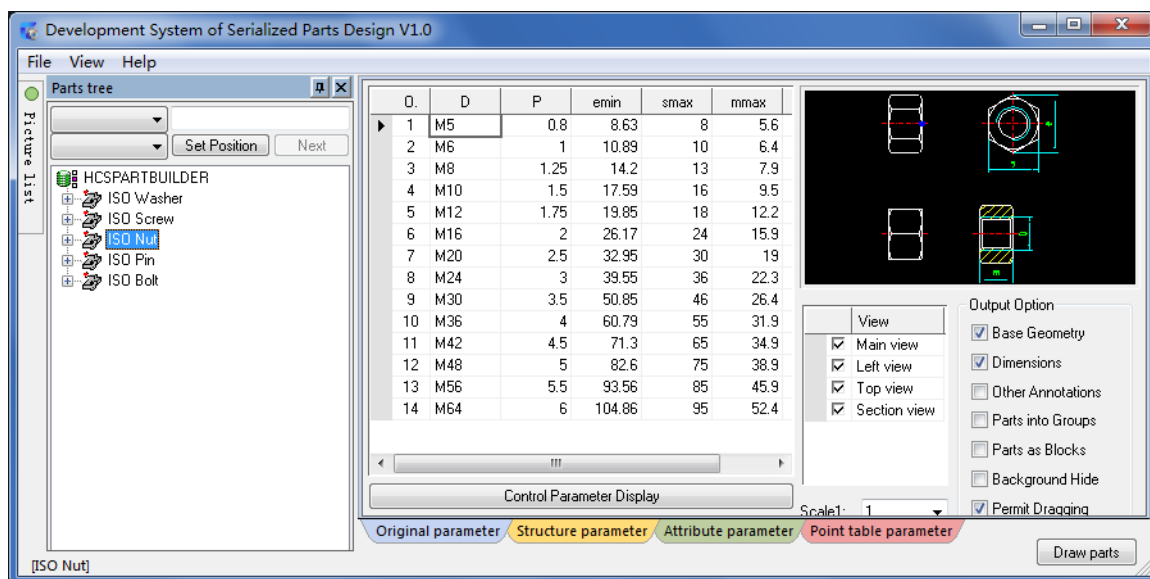
Parametric Graphic Library

In the past the parametric graphic library could only be established by programming and it is difficult to maintain and update. Now GstarCAD Mechanical 2015 supplies an open parametric graphic library. Users could invoke and manage parametric parts as many times as necessary, they could also find a part by part type or query standard number.



Serialization Part Design System

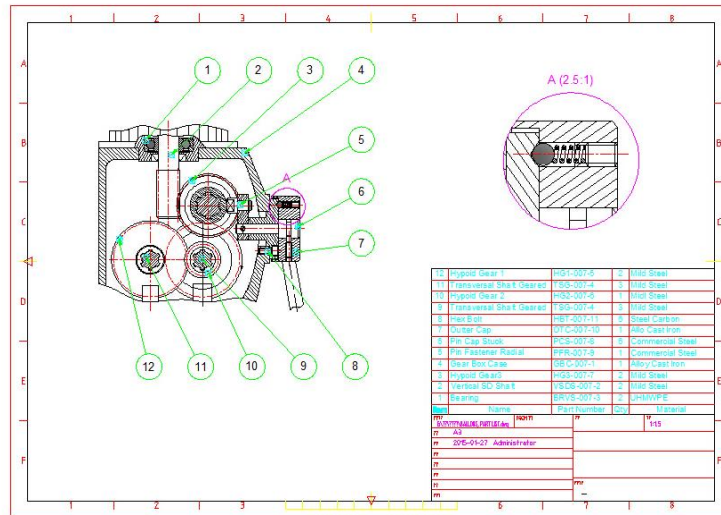
According to requirements of different professions in manufacturing industry, GstarCAD Mechanical 2015 supplies serials of national standard parts libraries and they are open to manage, maintain and customize. Users could easily create, retrieve, modify and expand the company's own serialization standard graphic library.



Plotting Faster by Intelligent Mapsheet, Detail and Scaling Tool

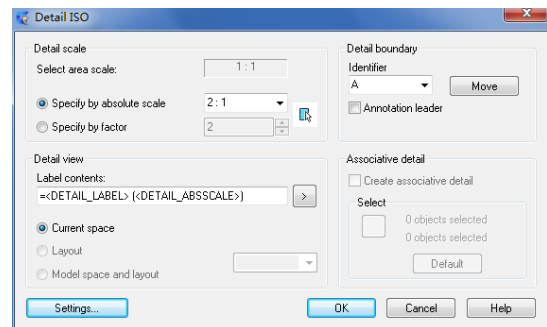
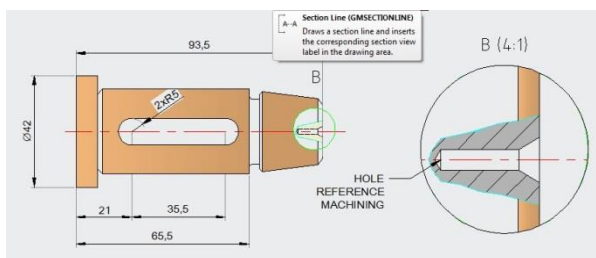
Title Boarder and Revision Block

GstarCAD Mechanical 2015 contains a set of predefined titles and boards in line with standards in different countries. It could quickly create a drawing with standard title block and board. Double-clicking the board could modify its size, change the title block style and adjust its scale and other information. Users could customize the tile and board according to their own enterprise standard, as well insert revision table to any position of a drawing including the title.



Detail View

GstarCAD Mechanical supplies intelligent detail view design tools, the drawing will be automatically updated as design changing. It could magnify the partial region by box selection in the drawing and easily create linked partial views with different scales.



Scale Area

In the model space, the drawing could contain different scale area with different scale factors. In the layout, users could create a viewport with a proper length ratio or a proper text ratio for printing.