



RH95 SIMPLY ROLL DESIGN.Ink

KOLEV Engineering Inc is authorized distributor of **RH 95 SIMPLY ROLL DESIGN** software.

PRICE: \$3,950.00 US

RH 95 SIMPLY ROLL DESIGN review

Bend types:

The screenshot shows a help window titled "RH Help File" with a menu bar (File, Edit, Bookmark, Help) and navigation buttons (Contents, Search, Back, History, <<, >>). The main content area displays four diagrams illustrating different bend types in a U-shaped roll:

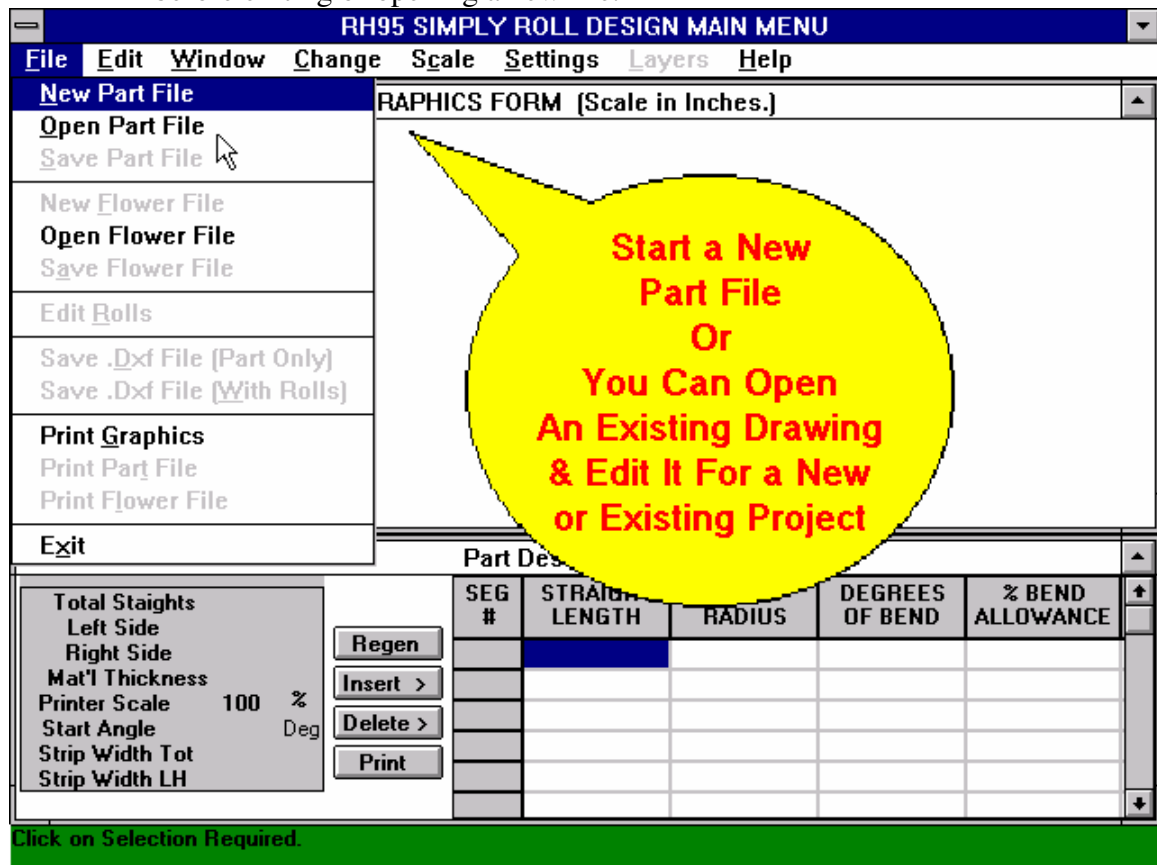
- Bend Type Equil (EQ):** Labeled "Both Lengths Change". The diagram shows material being formed equally from the straight segments on each side of the bend. Description: "Material is formed equally from the straight segments on each side of the bend."
- Bend Type Inside (IN):** Labeled "No Length Change". The diagram shows bends formed from material in the straight segments on the inside of the bend only (side nearest the pass line). Description: "Bends are formed from material in the straight segments on the inside of the bend only. [side nearest the pass line]"
- Bend Type Constant Arc (Arc):** Labeled "No Length Change". The diagram shows bends formed by maintaining a constant bend arc length. No change in length of either straight segment is allowed. Only the inside radius is reduced. Description: "Bends are formed by maintaining a constant bend arc length. No change in length of either straight segment is allowed. Only the inside radius is reduced."
- Bend Type Outside (OUT):** Labeled "No Length Change". The diagram shows bends formed from material in the straight segments on the outside of the bend only (side away from the pass line). The outside segments are labeled "Short" and "Longer". Description: "Bends are formed from material in the straight segments on the outside of the bend only. [side away from the pass line]"

Overview demo will show you step by step how to design your Roll Tooling

1. Start a new part file or open an existing one

Tip:

- Create a folder in your RH working directory for a certain job and keep both Part file and Flower file in the same folder
- When finish drawing your Part File or Flower File always save your work before exiting or opening a new file.



2. Draw your part

Tips:

- Draw first your part in your CAD program
- Figure out your Pass Line
- Figure out the center of your part
- Figure out all segments – straights and arcs for the Left side and for the Right side from your chosen center line
- Start entering the data for Straight length, Inside Radius and Degrees of Bend

- At the end segments (L1) where you have no arc – enter 0 for Degrees of Bend

Note: Each segment is consist of straight line and arc (Inside Radius and Degrees of Bend)

- For your convenience start entering data for the segments from the centerline out.
- You can always insert or delete a segment

RH95 SIMPLY ROLL DESIGN MAIN MENU

File Edit Window Change Scale Settings Layers Help

GRAPHICS FORM (Scale in Inches.)

Part Design Form

SEG #	STRAIGHT LENGTH	INSIDE RADIUS	DEGREES OF BEND	% BEND ALLOWANCE
L1	.75	.125	0	34
L2	.5	.125	105	34
L3	.75	.125	-105	34
L4	0	2	0	50
R5	0	2	0	50
R6	.75	.125	105	34

Total Straights 8
 Left Side 4
 Right Side 4
 Mat'l Thickness .125
 Printer Scale 100 %
 Start Angle 180 Deg
 Strip Width Tot 5.2278
 Strip Width LH 2.6139

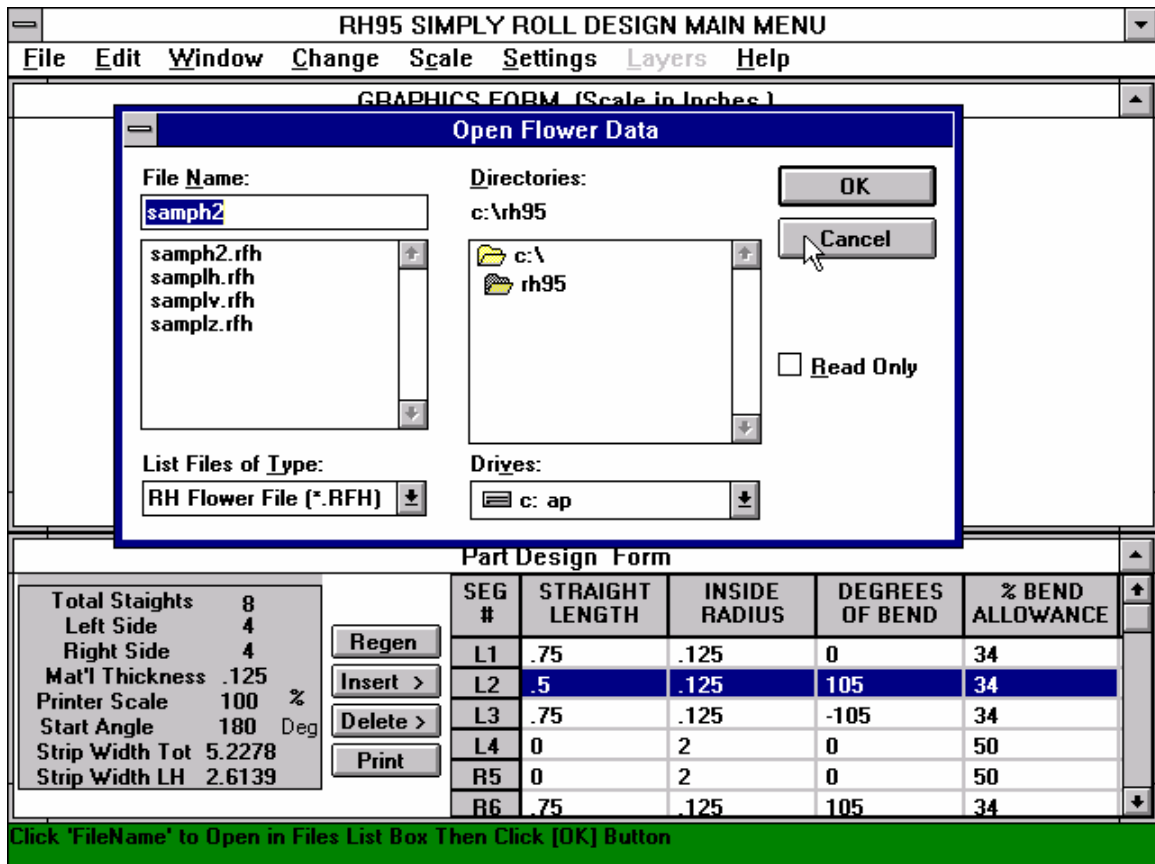
Regen
 Insert >
 Delete >
 Print

Enter Straight Length in Inches. Max. Six Decimal Places

3 Develop the flower

Tips:

- Open a new flower file – the flower will be developed based on our Part file drawing



- Fill out your Flower Properties Form

Flower Properties

Cancel Print Form OK

Customer Name	Your Customers Name
* Horiz. Center Dist.	12.000
* Top Roll Fin. Dia.	5.000
* Bottom Roll Fin. Dia.	5.000
* Mill Roll Space	10.000
* Centre Line To Inside	5.
Bot to Top Ratio :1	1
Top Roll Step Dia.	-.015
Bottom Roll Step Dia.	-.015
Date?	04/28/95
Strip Width	5.084
Material Type	C.R.S.
Bore Diameter	2.000
Keyway	3/8
Customer Drawing #	Sample 1
Job Number	HlpPt1234
* Number of Passes	4
Design Company Name	Your Company Name
Material Thickness	.125
Default Bend Type	

- Fill out your Flower Design Form starting with the Last pass and smoothly unfolding the part from pass to pass to the First.
- A highlight feature on the screen will guide you which arc are you bending and which pass. The **Total** degrees of bending are shown in the table and the remaining **Balance** after working out each pass. Try to keep the **Bend Angle** (shown on the bottom left) between 1 and 2 degrees (1.5 average). If you decide to go higher than 2 degrees you may have to calculate how much you can stretch the material (if the material is still in the allowable elongation zone) based on its mechanical properties.

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GRAPHICS FORM (Scale in Inches.)

Flower Design Form

Strip Width 0		TOTAL=	0	105	-105	0	0	1
Bend Angle	Change Part	BALANCE=	0	35	-20	0	0	
Current Pass	Regen	BEND #	LH 1	LH 2	LH 3	LH 4	RH 5	R
At Bend 2.185	Insert	PASS 5	0	0	0	-15	15	
At Edge 2.185	Rotate	B.A./TYPE	34/EQ.	34/EQ.	34/EQ.	50/OUT	50/OUT	50
Next Pass	Delete	PASS 4	0	0	-30	15	-15	
At Bend NONE	<input checked="" type="radio"/> Top-Down	B.A./TYPE	34/EQ.	34/EQ.	34/ARC	50/EQ.	50/EQ.	50
At Edge NONE	<input type="radio"/> Bottom-Up							

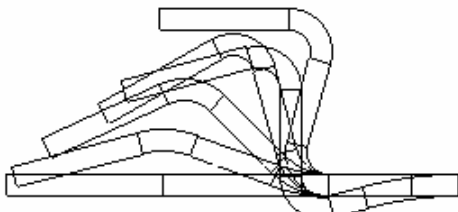
Enter Amount To Form Each Bend. [Enter] to Update Graphics. Inside Rad.
 [Alt] To Toggle (PASS #) or (B.A./TYPE)

- You can modify the Pass Line Diameters and align them

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GRAPHICS FORM (Scale in Inches.)



To Align The Height of Each Pass To A Specific Segment, Simply Click On The Segment Number And The [Key All] Button, & Regen to See The Results.

PASS LINE DIAMETERS

PASS NUM.	Y DIM. OFFSET	TOP DIA.	BOTTOM DIA.	CENTER DIST.
0	0	3.925	3.925	4.05
1	0	3.94	3.94	4.065
2	0	3.955	3.955	4.08
3	0	3.97	3.97	4.095
4	0	3.985	3.985	4.11
5	0	4	4	4.125

PASS / BEND	LINE Y START	LINE Y END	RAD. Y END	F	C
0 / 1	0	0	0		
0 / 2	0	0	0		
0 / 3	0	0	0		
0 / 4	0	0	0		
0 / 5	0	0	0		

Accept
Key All
O-All
 Repeat
Y Dims
Top Dia
Bot Dia

OK
Regen
Undo

Enter the Amount Each Pass is to be Vertically Offset in 'Y DIM. OFFSET' Column of the Left Hand Grid.

4. Edit Rolls

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New Part File
 Open Part File
 Save Part File

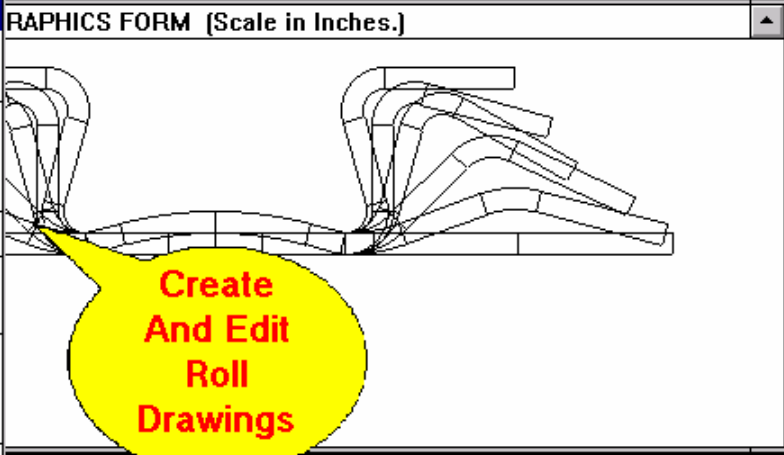
New Flower File
 Open Flower File
 Save Flower File

Edit Rolls
 Save .Dxf File (Part Only)
 Save .Dxf File (With Rolls)

Print Graphics
 Print Part File
 Print Flower File

Exit

GRAPHICS FORM (Scale in Inches.)



Strip Width
5.2644

Bend Angle
 Current Pass
 At Bend .78
 At Edge .314
 Next Pass
 At Bend .326
 At Edge 1.189

Change Part
 Regen Insert
 Rotate Delete
 Top-Down
 Bottom-Up

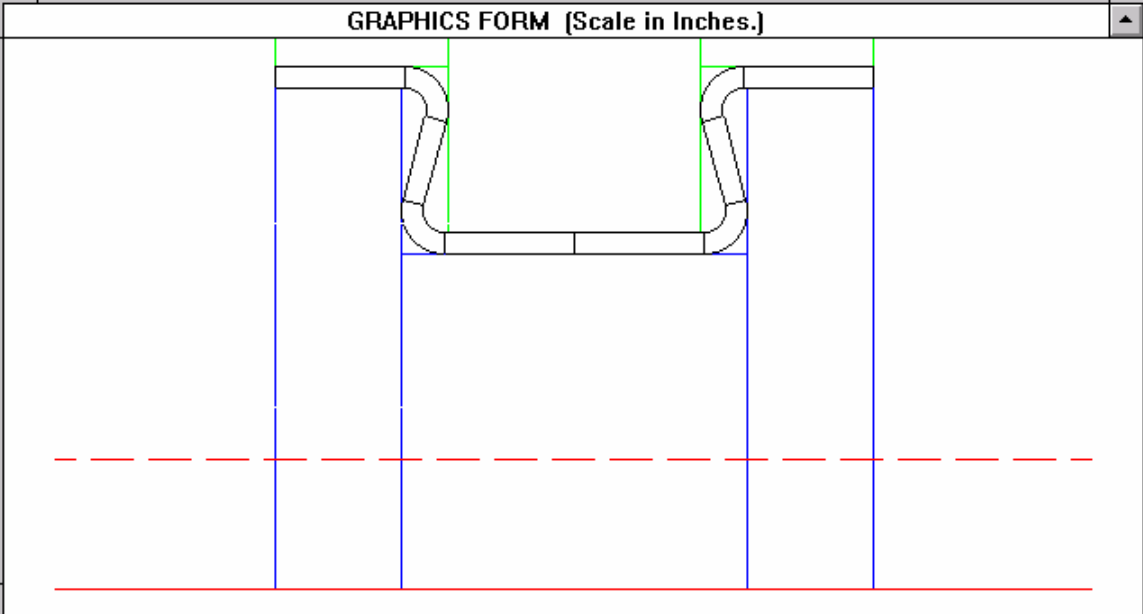
TOTAL=	0	105	-105	0	0	1
BALANCE=	0	0	0	0	0	
BEND #	LH 1	LH 2	LH 3	LH 4	RH 5	R
PASS 2	0	35	-25	0	0	
B.A./TYPE	34/EQ.	34/ARC	34/ARC	50/EQ.	50/EQ.	50
PASS 1	0	35	-20	0	0	
B.A./TYPE	34/EQ.	34/EQ.	34/EQ.	50/EQ.	50/EQ.	50

Click on Selection Required. Inside Rad. = .83688
 Heading = 160 Deg.

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GRAPHICS FORM (Scale in Inches.)



Rolls

View/Edit Rolls

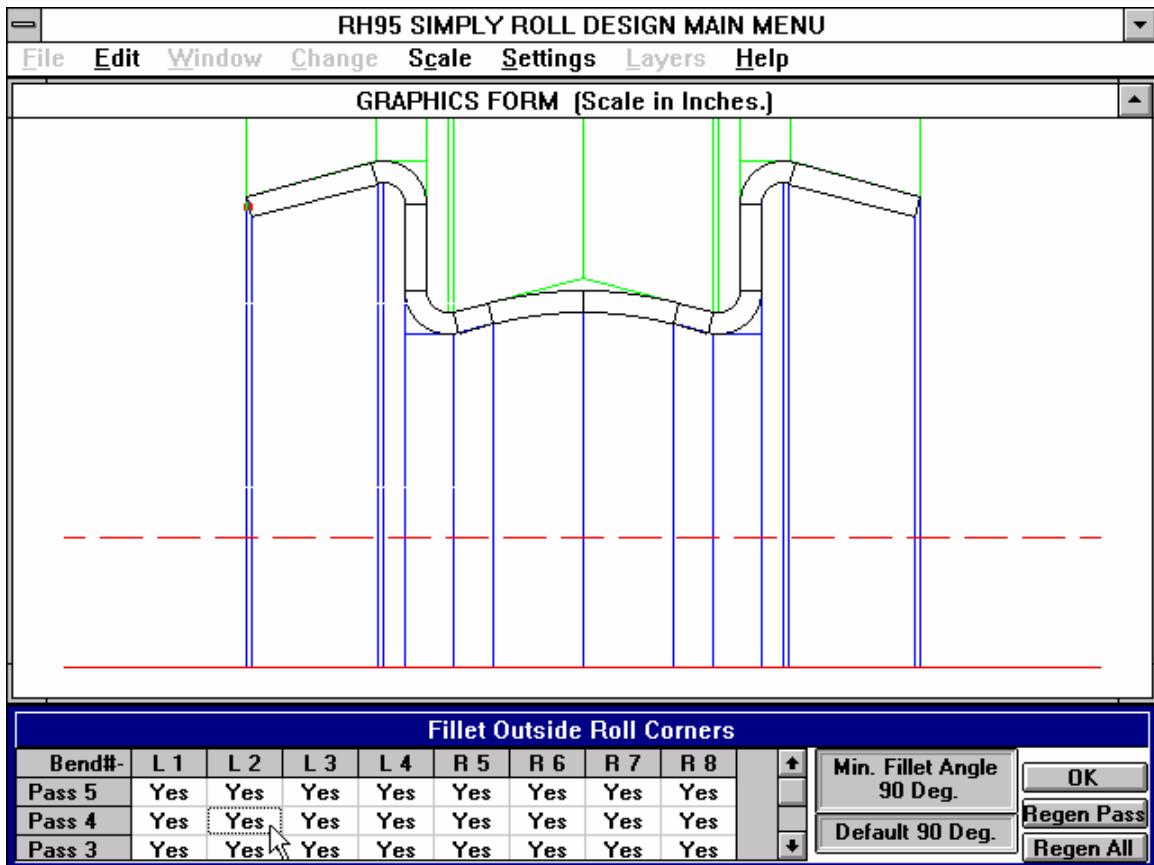
Current Pass 5
 Total Passes 5

Next Pass
 Prev. Pass
 Last Pass

Fillet Rads OK
 Regen All

Tips:

- Before proceeding with DXF files you can modify the rolls - Fillet Outside Corners

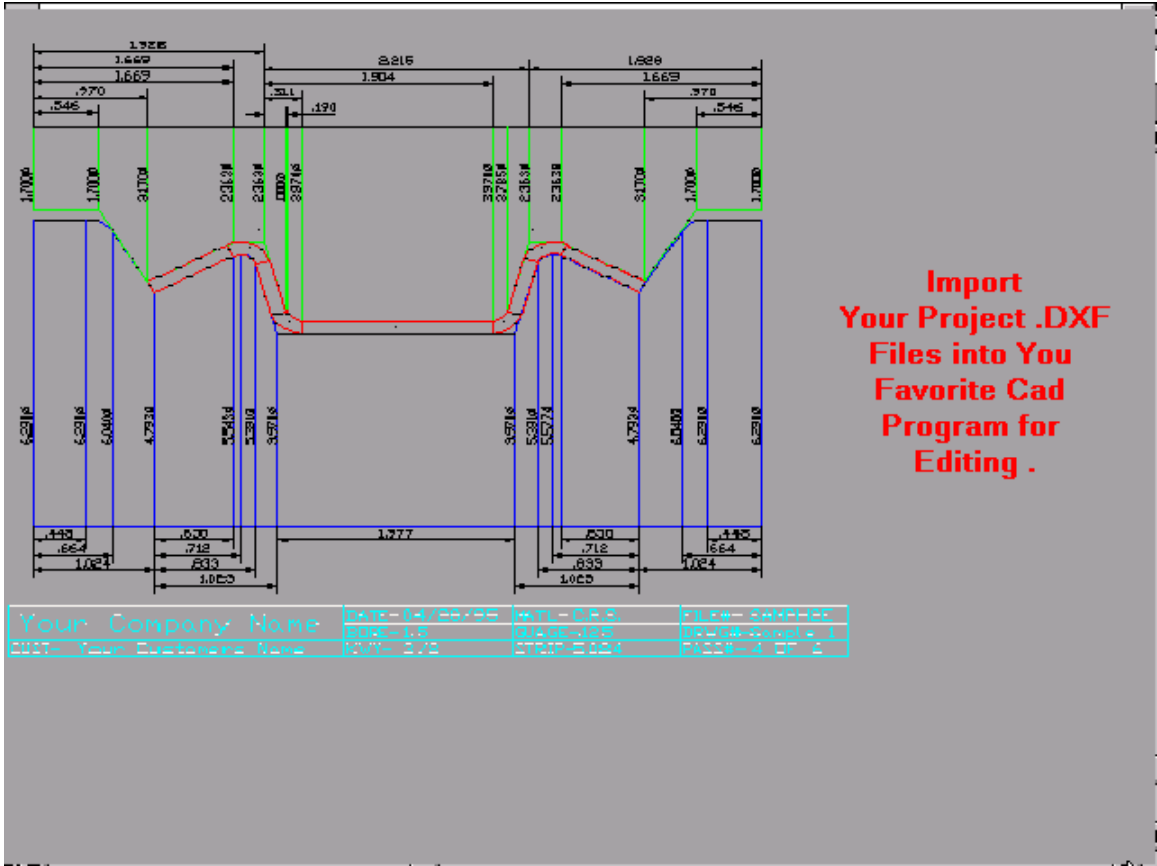


- Change the part
- Additional features as zoom in an out, turn layers on and off, settings, full featured help system etc.

5. Create DXF files and Import them into your CAD Program for editing

Tips:

- From your file menu window click on Save dxf files (with part)
- Store the files in your working directory or in a directory of your CAD Program.
- Insert individually all dxf files and save them under names of Pass1, 2, etc.
- Create proper traps for holding the part through each pass
- Create shoulders at both ends based on your Roll Space.
- Keep the gap between Top and Bottom Rolls at both ends equals to material thickness for alignment and set up purposes
- Split Top and Bottom Rolls in slices so that they can best service your CNC machining and mark them: T1, T2, T3 etc and B1, B2,B3 etc.



**Import
Your Project .DXF
Files into You
Favorite Cad
Program for
Editing .**