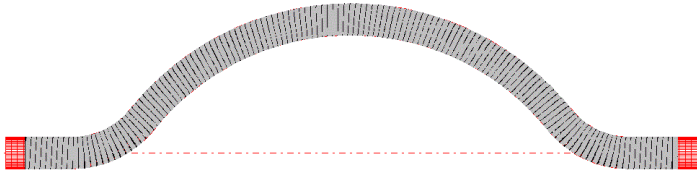
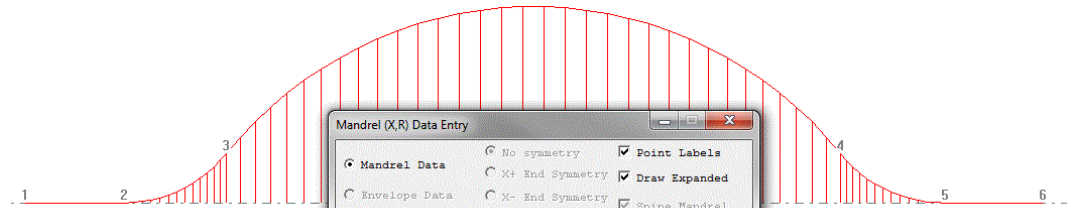


CADFIL- Elbow and Complex Bends

The CADFIL® Elbow winding software can be purchased as an add on to a package such as Cadfil-Axsym / Cadfil-Lite or as a stand-alone module. All the advanced graphics features of the Cadfil package are available for analysis of machine motion, clash detection and standard viewing options. This parametric package can be used for standard elbow/bend winding, as well as for creating Complex Multi-bend ducts with a two dimensional spine. All Cadfil software operates on a standard Windows PC.



- The Mandrel Geometry and winding machine clearance envelope can be quickly entered and modified from a single easy to use dialogue box. The graphics and text windows are automatically updated.
- Convex and concave arcs can be fitted between data positions and edited as required.
- Works for helical or hoop winding over total length or in local zones
- Mandrel can be defined through mandrel editor or through IGES



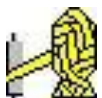
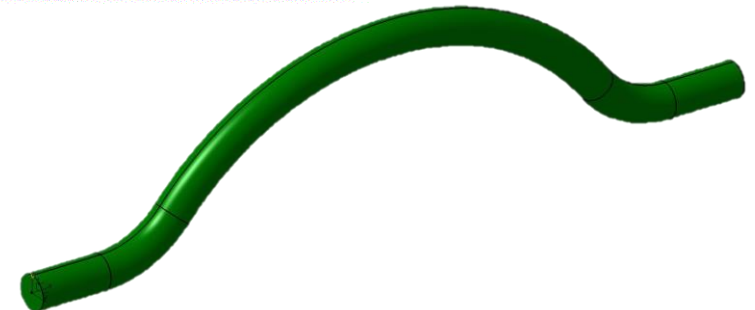
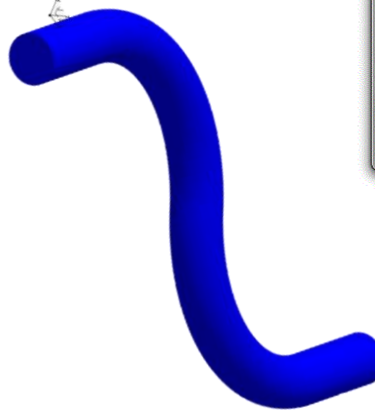
Mandrel (X,R) Data Entry

Mandrel Data No symmetry Point Labels
 Envelope Data X+ End Symmetry Draw Expanded
 X- End Symmetry Spine Mandrel

N	X	R	POINTS	RADIUS
1	0.000	0.000	10	0.000
2	150.000	0.000	12	-200.000
3	306.000	75.000	32	600.000
4	1240.000	75.000	12	-200.000
5	1400.000	0.000	10	0.000
6	1549.000	0.000	0	0.000

Click on line of data to edit

OK Add Data Delete Data Help



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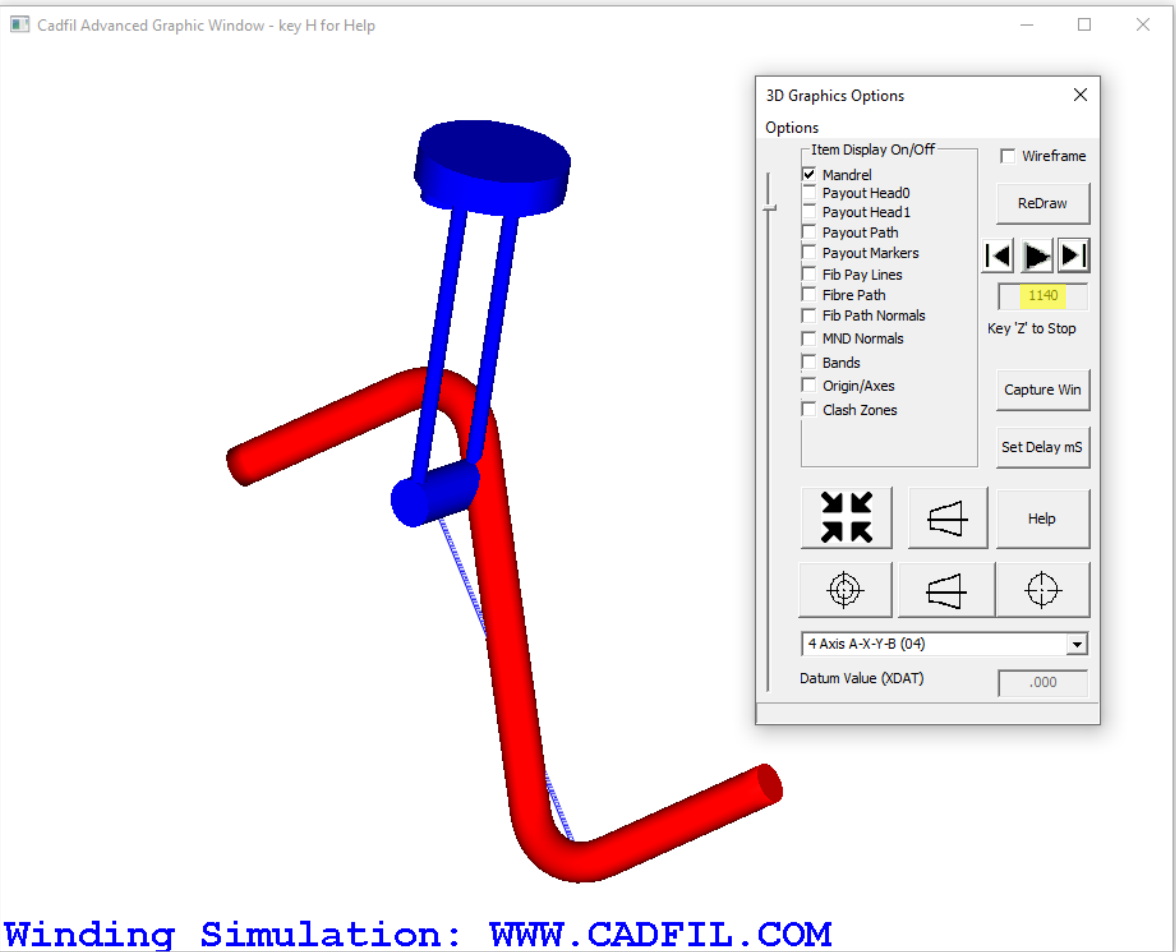
Email: sales@cadfil.com

Web: <https://www.cadfil.com>

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head	clash	points	list		
236	1138	1140	1636	1786	
2074	2076	2282	2778	3274	
3680	3682	4176	4616	4824	
5320	5876	6222	6224	7158	
7366	7862	8358	8762	8764	
8914	9410	9698	10198	10404	
11304	11306	11952	12240	12298	
12448	12738	12740	13442	13846	
13848	13998	14342	14344	14494	
14840	14990	15280	15486	16388	
16884	16886	17036	17532	17822	
18028					



- Cadfil calculates head clash points within the program, where the payout head collides with the mandrel.
- For complex bend the band self intersection with other parts of the mandrel can also be detected and analysed.
- These points can be seen in more detail in the 3d graphics viewing window by finding the relevant point of the program.

Winding Simulation: WWW.CADFIL.COM



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QuickCad : Elbow / Multi-Bend Ducts (MBD)

\$MBD_GMAN	Existing mbd mandrel file name	d200_90_01.mnd	Cancel
\$MBD_WIND_ANG	Wind angle - degrees (0-90)	88.86028703	
\$MBD_FRIC_COEF	Friction coeff used in turning zones	0.15	Read Param's
\$MBD_BANDWIDTH	Band width used for circuit calc and visualisation	50	Write Param's
\$MBD_ANGLE_STEP	Point spacing parameter - degrees	6.0	
\$MBD_START_ORIEN	Start orientation angle degrees	0.0	
\$MBD_POS_START	Start position along spine length, mandrel pt no 1 at 0.0	25	CALCULATE
\$MBD_POS_END	Finish position along spine length	730.0463	
\$MBD_END1_DWELL	Dwell in degrees at start posn (in addition to any pattern dwell)	497.80735	Help
\$MBD_END2_DWELL	Dwell in degrees at end posn (in addition to any pattern dwell)	497.80735	
\$MBD_BPAT_CALC	Band pattern calc: 1=repeatable circuits, 0 = one way hoop	0	
\$MBD_MANDREL_DIR	Mandrel rotation direction +1/-1	1	
\$MBD_CLEARANCE_TYP	Clearance type, 0 = free length, 3 = circ yaw winder	0	
\$MBD_YAW_RADIUS	Yaw Radius, only used for MBD_CLEARANCE_TYP=3		
\$MBD_YAW_CROSS_DFST	Yaw wind axis offset only for MBD_CLEARANCE_TYP=3		
\$MBD_FIBRE_LENGTH	Fibre Length, only used for MBD_CLEARANCE_TYP=0	250	
\$MBD_RETURN_PATH	Create Hoop Return Pass 1=Yes, 0=No	1	

All Cadfil software is complete with USB datakey and a comprehensive online or offline help. Telephone support and software upgrades for the first 12 months are also included in the purchase price. For more information on this topic see the Cadfil [help pages](#).

For further information on CADFIL-Elbow or other filament winding software contact:

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