

Newsletter

Offline 3D Press Brake Simulation Effective Offline Programming

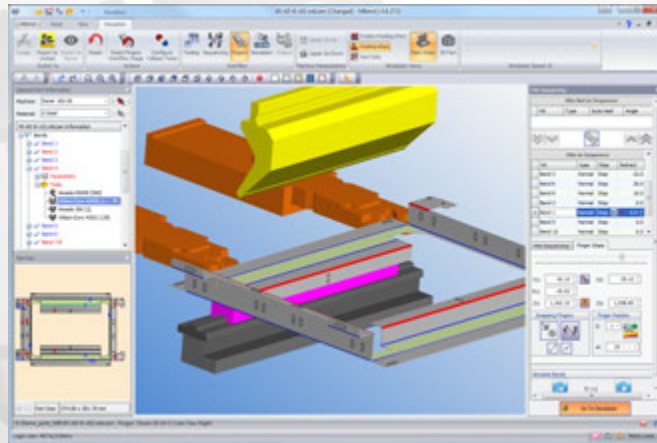
DBend is a user-oriented application for offline press brake simulation and programming:

Collision detection ensures minimal stock wastage.

Offline programming maximises machine bending time

Easy to use tool library for flexible tooling

Graphic control over all program features

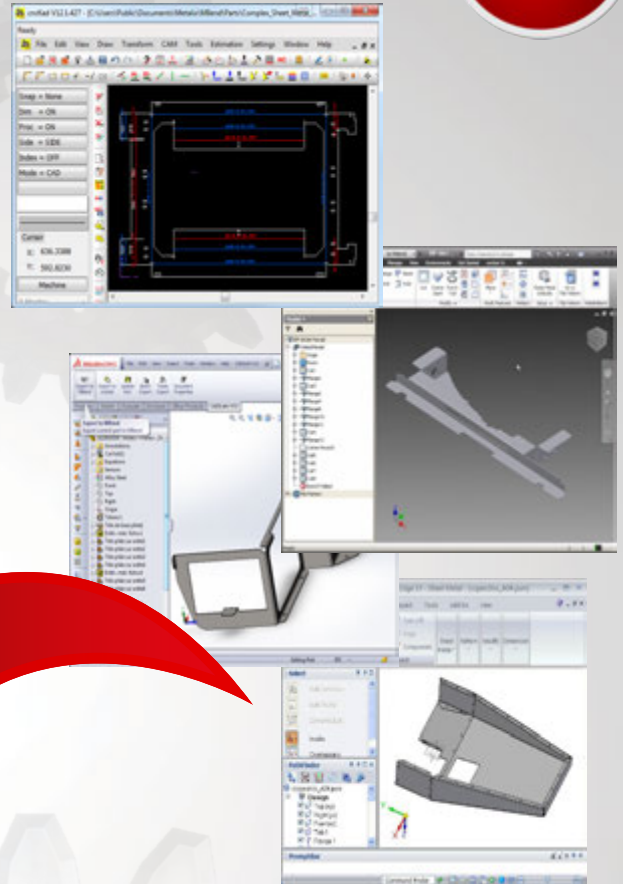


Features

- Direct part transfer from 3D CAD packages and importing for industry-standard exchange formats
- Part profile creation
- Automatic tooling, bend sequencing and finger positioning
- Graphic control for all automatic selections
- 3D simulation with collision detection
- Native NC code generation for machine controls
- Production-oriented Setup Reports
- Flat part export for ensuring correct cutting dimensions
- Direct export of the flat to cncKad for cutting blanks

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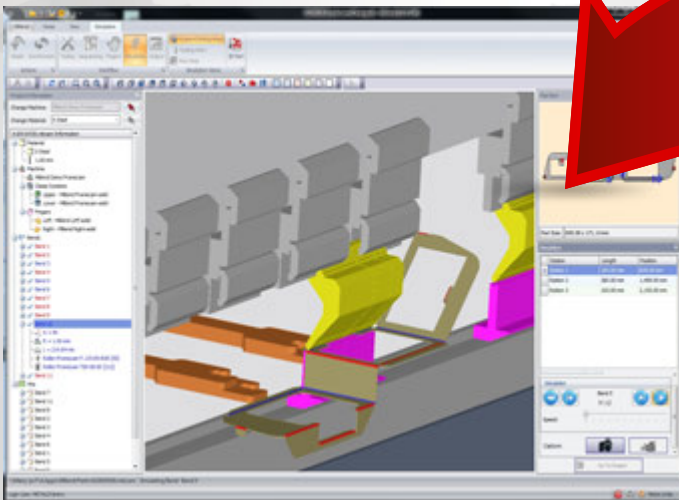
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Simple Part Import

Easily import parts into DBend:

- Transfer models directly from 3D CAD design programs
- Import IGES and STEP formats 3D geometries
- Flat DXF import
- Transfer parts directly from cncKad



Efficient Tool Selection

Automatic tool selection based on:

- Availability of tool geometry and segments
- Bend radius
- Maximum force
- Collision avoidance
- Full support for hemming:
 - Specify default hemming tools for automatic selection
 - Default and editable Pre-bend angle

All standard hemming configurations:

- Spring-loaded dies
- Flat tooling
- Two stage tooling



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Bend Sequence Selection

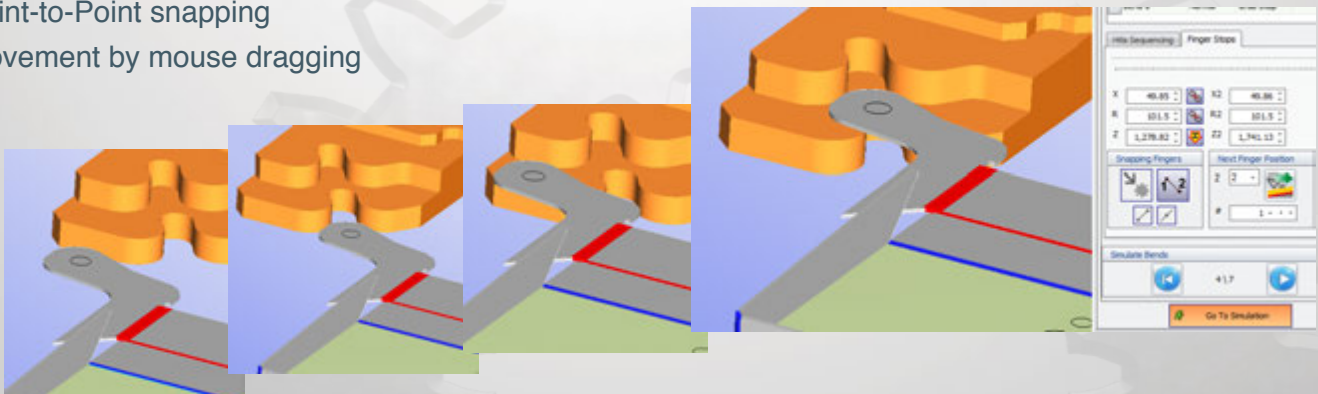
DBend automatically calculates multiple bend sequences based on:

- Collision avoidance
- Minimum operator handling
- Easy comparison between the calculated sequences
- Full manual control:
 - Split bends into partial bends for collision avoidance
 - Drag-and-drop sequence changes for single and multiple bends

Fingerstops Positioning

DBend provides options for automatic and manual control over the backgauge:

- Automatic stop selection
- Automatic Crab Claw gauging
- Automatic retraction calculated for each bend
- Graphical and numerical control over all backgauge axes
- Point-to-Point snapping
- Movement by mouse dragging



3D Simulation and Collision Detection

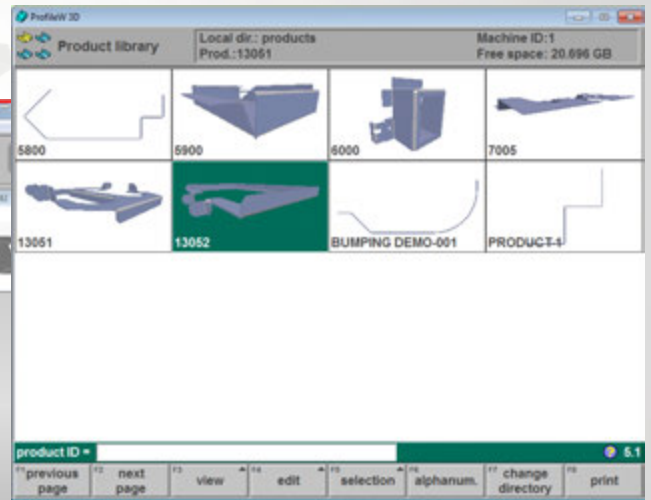
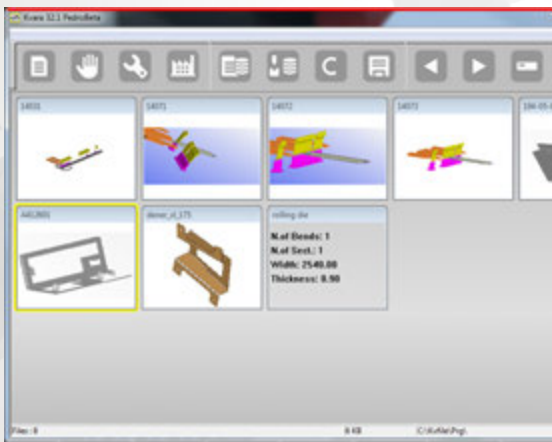
Automatic simulation and collision detection:

- Detection of collisions with all moving elements
- Simulate the bending sequence with the full machine configuration in 3D – Fingers, Tools, Part and Machine
- Realistic visualisation of bending (overbend, springback)
- Operator part handling

NC Program Generation

Native NC program generation:

- Durma
- Cybelec
- Delem



Setup Reports

Comprehensive Setup Reports include:

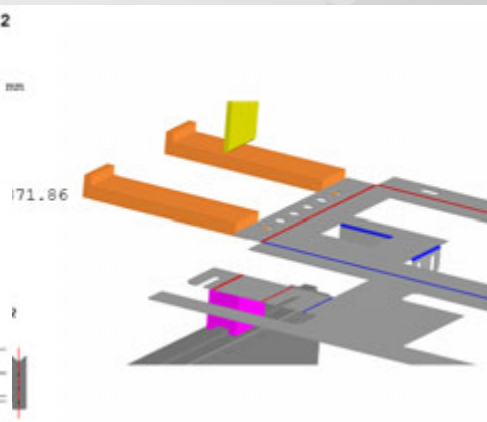
- Bend sequence instructions
- Tool setup details
- Product handling
- Bend-by-bend graphics

Tooling information:

Values in mm

St.	Name	Reel	Rot.	Length	Position	Segments
Punch	1	40802	No	495	-2215.35	415 40 40
Punch	2	40802	No	60	-1121.83	40 20
Die	1	42007 V2	Yes	500	-2215.36	300 200
Die	2	42007 V2	No	60	-1121.83	40 20
Holder		43023	Yes	830.07	-2269.51	415 415
		300	Yes	830	-2269.51	415 415
		43023	No	415.04	-1345.52	415
		300	No	415	-1343.17	415

Hit 6 Station 2
 Angle -90 °
 Length 64 mm
 Fingers
 X 61.31
 R 128.50



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Additional Features

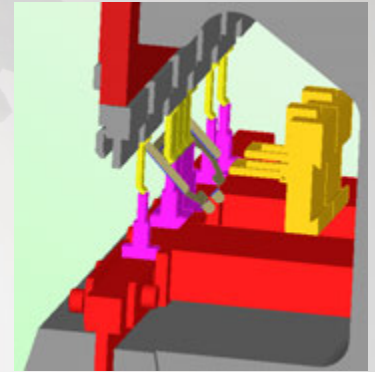
DBend also provides:

Part design from profiles

Export the unfolded part directly to cncKad

Export the unfolded part to flat DXF for cutting/punching

Make video captures of the simulation run

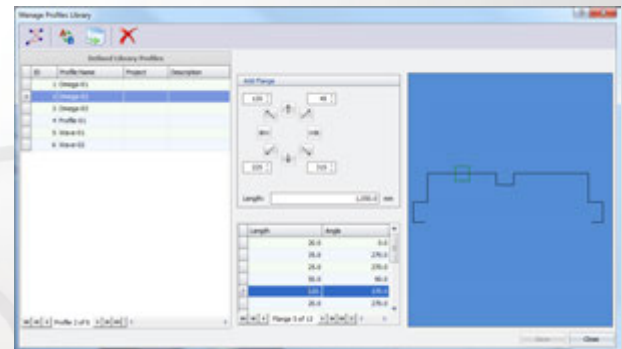
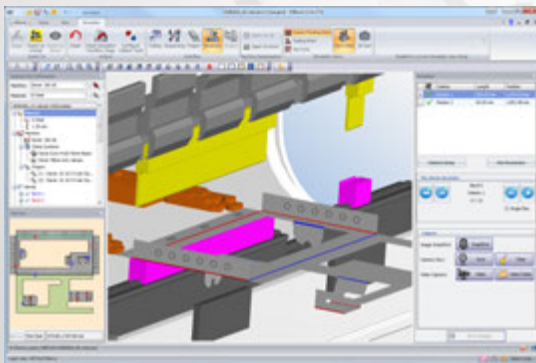


Part Profile Creation

Simple part creation using profile extrusion:

Select an existing profile from the Profiles Library

Create a new profile



Improved Productivity

DBend enables better use of your resources:

Fast design-to-production with direct transfer from 3D CAD to Simulation

Offline programming means minimal machine down-time for programming on the control

Minimise stock wastage with collision detection

Faster machine setup with detailed operator job reports

Production-ready bend sequences with fewer experts required on hand

Accelerated employee training without consuming materials and machine resources

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Easy-to-use tool library

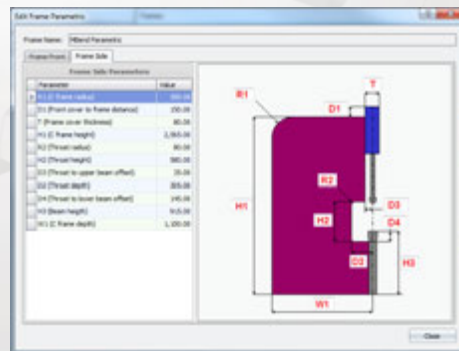
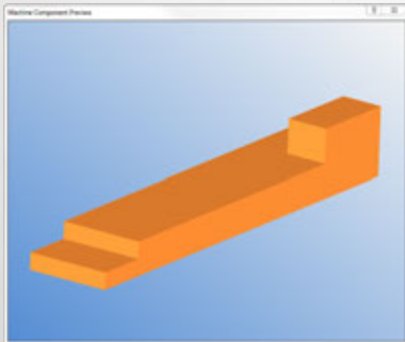
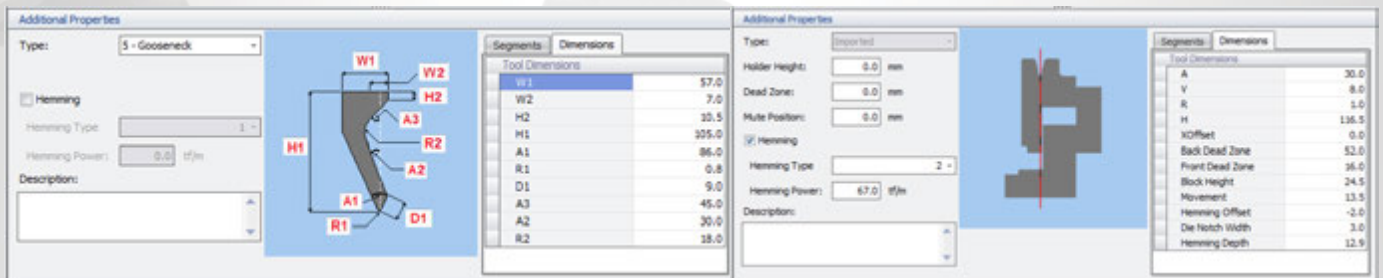
DBend's Tool Library is designed for ease of use:

Create tools parametrically via the user interface

Part Creation flat DXFs tool profiles for custom tools

Easily select only those tools currently available for use

Sort tools according to property – tonnage, height, etc.



D-Bend Benefits

DBend helps your overall fabrication abilities:

Collision detection ensures smooth production startup for new parts

Offline programming minimises machine down time

Easily switch between... machine configurations for shop-floor production optimisation

Production-ready bend sequences with fewer experts required on hand