



Introduction

Lantek Flex3d Unfolding is a specific application from the **Lantek Flex3d** family of products for 3D part design and automatic unfolding. The result is the unfolded part in 2D.

Lantek Flex3d Unfolding is a stand-alone application and no additional software is needed to work with it.



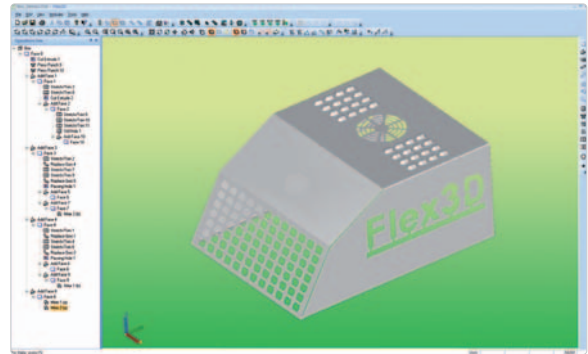
Easy, flexible design

With **Lantek Flex3d Unfolding**, the design of any part in 3D is made simple. Starting from a solid base, the different faces are added to form the complete part. Once the part has been designed, the unfolding is immediate and automatic.

The application has a powerful help system with detailed explanations of each one of the options, so that the user may resolve any doubts quickly and simply.

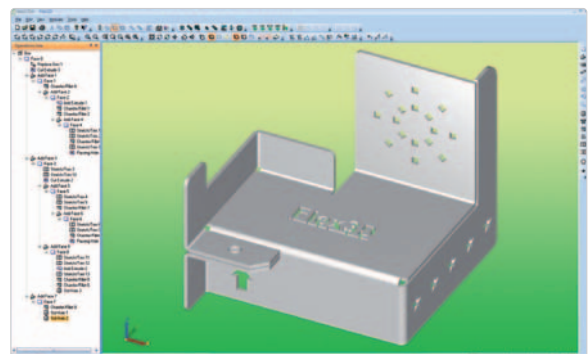
Technical characteristics

- Dynamic coordinate system specific for boxes.
- Real viewing of the part.
- Powerful 2D design module.
- Automatic unfolding 3D to 2D and transfer in DXF format or directly to the database of **Lantek Expert** for nesting and machining (cutting or punching).
- Creation of the base face from 2D geometry or parameters introduced by the user.



- Parametric addition of any type of face to the base face:
 - Individual offsets at each end.
 - Individual chamfers.
 - Corner radius for each face.
 - Different angle input for each face.
 - Multiple options for dimensioning the faces.
 - Automatic rectangular or semi-circular notches.
- Creation of faces at 0° and 180°.
- Creation of multiple faces from one profile.

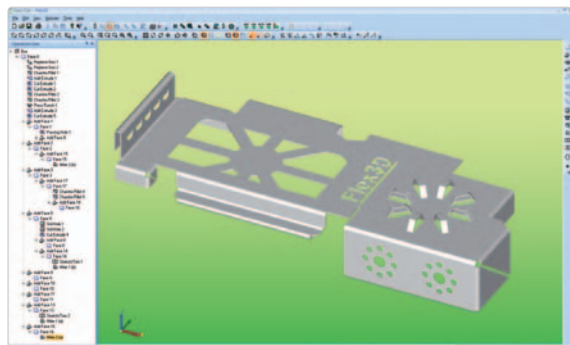
Construction options



- Creation of different extrusions.
- Creation of faces from 2D geometry.



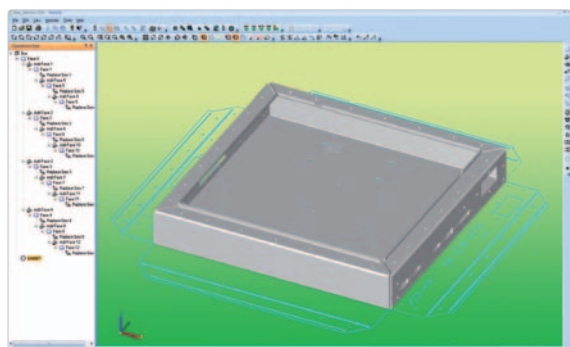
- Standard form holes library or design of their geometry in 2D. Creation of dies for holes.
- Standard form tool library, with the ability to create additional dies.



- Rounding (filleting) of the parts in 3D.
- Automatic mitering (diagonal, 90°, 2D geometry) on two superimposed faces. This utility allows two superimposed faces to be separated.
- Lengthening and shortening of 2 faces:
 - At a set value.
 - To a parallel plane.
 - To a non parallel plane, with and without reference.
 - To vertex.
 - Lengthening and shortening of 2 faces until they meet.

• Unfolding options

- Automatic unfolding of the part based on its own unfolding rules, which depends on:
 - The K factor.
 - A technology table which can be configured by the user, in accordance with thickness, radius, and the machine.



- The unfolding provided by **Lantek Flex3d Unfolding** is totally configurable.
- There are different output formats:
 - Export to SAT format. Communication between 3D design systems.
 - Unfolding of geometry to DXF format file, completely user-configurable from the program (type of line, colour).
 - Direct unfolding to **Lantek Expert's** database. No need to create intermediate files. The system allows the 2D geometry obtained to be directly transferred to the CAM cutting or punching system.

