

NX Aerospace Sheet Metal

Design hydro-pressed or break-formed airframe sheet metal parts

fact sheet

Siemens PLM Software

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► Summary

NX® Aerospace Sheet Metal software provides a focused environment for modeling the most common types of sheet metal parts in airframes. Aerospace-specific features such as joggles and flanges built to associated mold line surfaces are provided. The focused modeling environment supports a streamlined workflow through easy access to all required features. Once a part is created, it can be automatically unformed to easily create flat patterns that follow aerospace drawing standards. Airframe parts can be modeled and modified in a fraction of the time previously necessary.

Benefits

Flange and joggle features reduce modeling time from days to hours for complex airframe parts

Flange association to mold line surfaces eliminates or greatly reduces rework due to global airframe design changes

Flattening based on aerospace standards enforces consistency and eliminates errors in flat patterns

Consistent and consolidated user interface reduces learning time and improves productivity

Features

Flanges built to associated aerospace mold line surfaces

Aerospace single and twin joggles

Flange and joggle flattening using aerospace compensation design rules

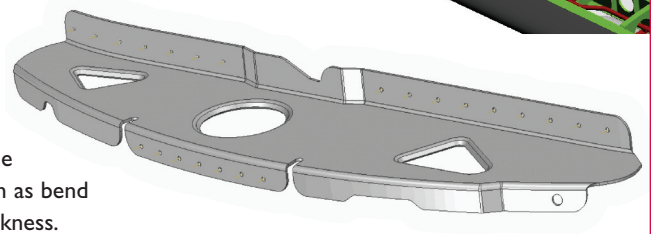
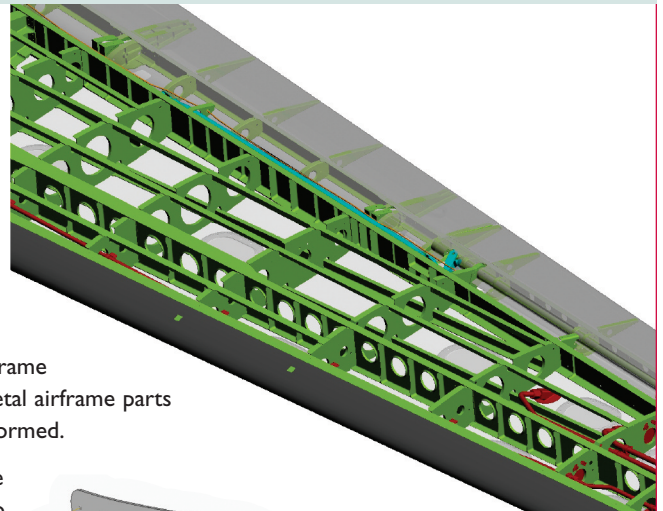
Consolidated modeling environment for designing the most common sheet metal airframe parts

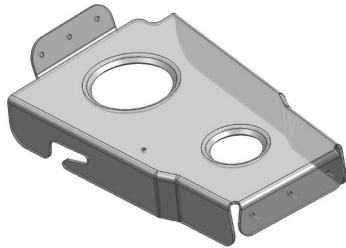
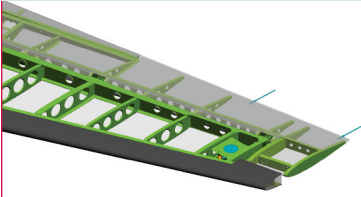
Consistent user interface following the best practices of NX Sheet Metal

NX Aerospace Sheet Metal is an NX modeling application that provides a focused user environment for designing the most common types of sheet metal parts found in an airframe. These parts include the support ribs and brackets that are attached to outer and inner mold line surfaces as well as other internal airframe structures. These nonlinear sheet metal airframe parts are usually hydro-pressed or break-formed.

NX Aerospace Sheet Metal takes the same approach as NX Sheet Metal to provide the user with an optimized environment for designing sheet metal parts. Default values based on company and industry standards define common sheet metal parameters such as bend radii, neutral factors and material thickness.

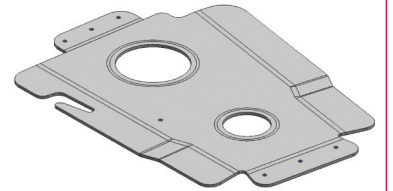
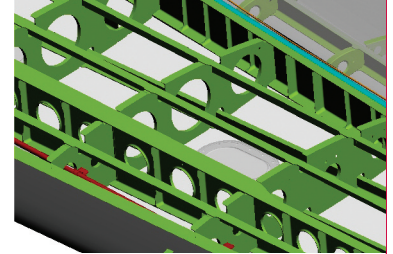
Given the large number of sheet metal parts in a typical airframe, NX Aerospace Sheet Metal helps companies realize significant cost savings and reduced design time.





NX Aerospace Sheet Metal extends the NX sheet metal design capabilities by also providing aerospace-specific features. Features included in the NX Aerospace Sheet Metal design environment are:

- Nonlinear aerospace flanges built to associated surfaces, planes or user-defined parameters
- Aerospace single or twin joggles to easily modify a flange for forming around adjacent structures
- Uniform and reform features that apply aerospace industry forming standards for nonlinear flanges and design handbook standards for compensations to joggle flat patterns
- A focused workflow that permits the streamlined creation of all features required to build sheet metal airframe parts including: lightening holes, flange reliefs, corner reliefs, bend reliefs, beads, cutouts, tooling holes, fastener holes and complex flange shaping
- Customer-defined values for thickness, bend radii and neutral factor, allowing the user to change fundamental part properties without redesign
- Intuitive user interface with onscreen handles for dynamic parameter entry and modeling previews to enable users to see what they are creating as they go
- The ability to view the part in its 3D formed state and the 2D flattened state



Packaging and availability

NX Aerospace Sheet Metal is available as an add-on to any NX Mach product.

► Contact

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