Solid Edge XpresRoute

Streamlined tubing and piping

Benefits
- Increase productivity through automated, structured workflows
- Quickly investigate alternate routing options
- Create complete virtual mockups faster
- Improve accuracy and manufacturability
- Reduce costs from detailed purchasing and manufacturing reports
- Maintain company standards
- Quickly locate standard parts for use in new designs

Features
- Automated workflow for routing paths
- Fully associative pipes and tubes
- Automatic updates when related parts change
- Ability to automatically produce bend tables, reports and cut lists
- Optional piping library available

Summary
Solid Edge® XpresRoute software eases the design of mechanical routed systems. A comprehensive set of industry-specific design tools helps designers quickly route and model piping and tubing in Solid Edge assemblies. Fully integrated with Solid Edge, XpresRoute utilizes process-specific workflows that match industry best practices and work the way that you want to work. With XpresRoute, you not only accelerate your design process for mechanical routed systems, you also enjoy improved BOM accuracy and lower costs through standardization.

Streamlined routing path creation

Routing begins with the creation of a fully associative path for the routed components to follow. Solid Edge XpresRoute helps designers specify these paths by quickly defining 3D variational sketches using specialized modeling aids.

- Solid Edge PathXpres enables designers to rapidly define a 3D tube or piping path without drawing the individual lines of the path. Solid Edge PathXpres automatically generates an optimum path between two points.
- Solid Edge OrientXpres is an interactive design aid that assists in drawing 3D lines defining the path. As designers draw line or arc segments, Solid Edge OrientXpres locks the orientation of the line parallel to an axis or plane. 3D curves can also be used for tube creation, allowing designers to easily represent flexible tubes and hoses.

Path segments can be associated with assembly geometry and/or other path segments using standard Solid Edge relationships such as parallel, perpendicular and colinear relationships.
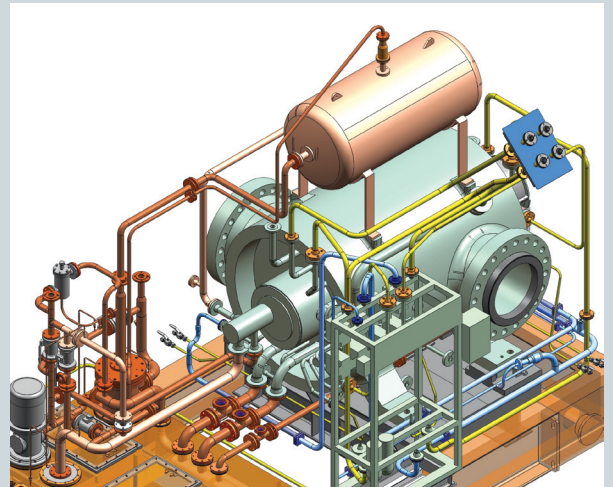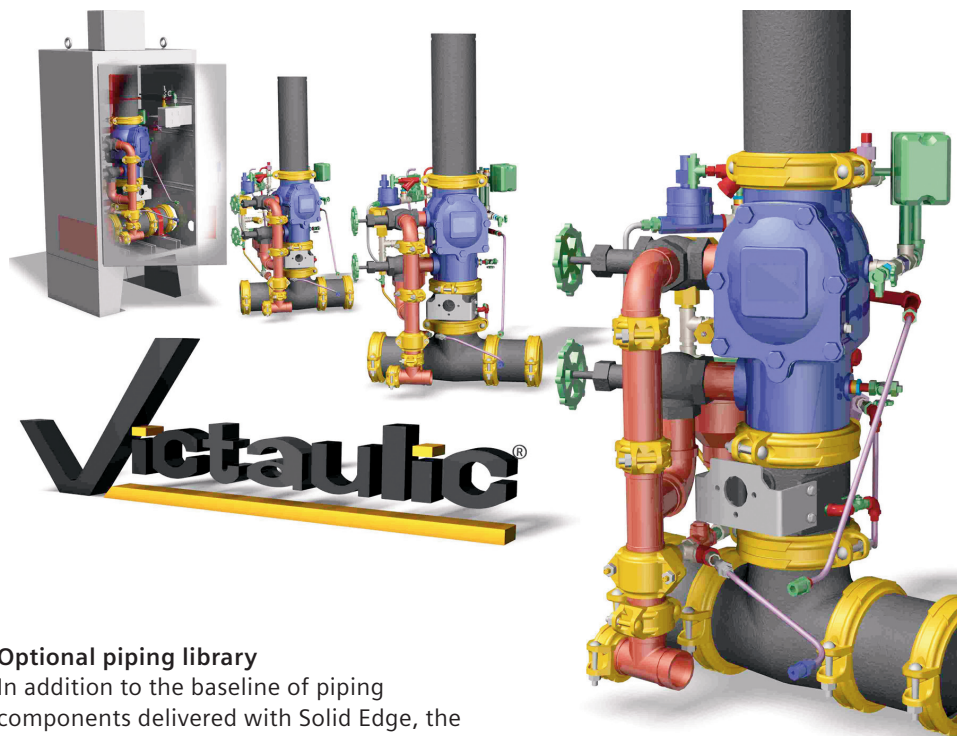
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Automatic 3D components

Once the path is defined, a solid model of the system of tubes or pipes is established along the path segment, creating an accurate virtual mockup. Designers can specify attributes such as size, extents and end treatments via simple dialog boxes. For piping systems, 3D pipes, fittings and components are automatically positioned and correctly oriented upon population. All components are fully associative and update with the parts to which they are connected. When the assembly model is modified, pipes and tubes automatically adapt to design changes.
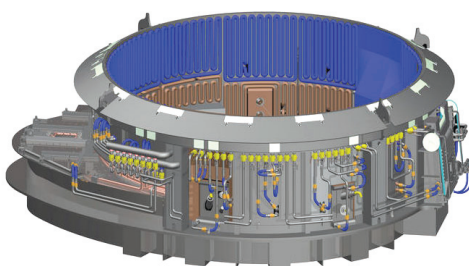
Accurate reporting

Solid Edge XpresRoute continues to boost productivity and reduce costs even after the design is complete, automatically creating detailed reports, BOMs and other valuable purchasing and manufacturing information. Solid Edge XpresRoute automatically produces bend tables that can be used directly by tube bending machines, and all components modeled with Solid Edge XpresRoute are fully supported by Solid Edge drafting functions including dimensioning for pipe and tube lengths and radii, and angular dimensioning between path segments. Accurate cut lists and component BOMs can be created for piping systems, either directly from the assembly or on a Solid Edge drawing.

Optional piping library

In addition to the baseline of piping components delivered with Solid Edge, the Solid Edge piping library is available; it contains an extensive selection of standard fittings, including elbows, bends, returns, Ys, tees and reducers, as well as a large collection of essential components such as flanges, unions and seals. Fittings are available in a variety of relevant end treatments, such as threaded, welded, flanged and slip-on treatments.