



## SPECIAL FUNCTIONALITY IN E<sup>3</sup>.fluid

- Integrated fluid and electrical design
- Standalone fluid design
- Support for hoses, tubes and piping
- Automatic quick connectors
- Intelligent sheet formats
- Standard pneumatic/hydraulic library
- Device ID allocation
- Duplicate ID prevention
- Correct hose and tube sizing
- Multi-view functionality

## E<sup>3</sup>.fluid - Documentation and design of fluid systems

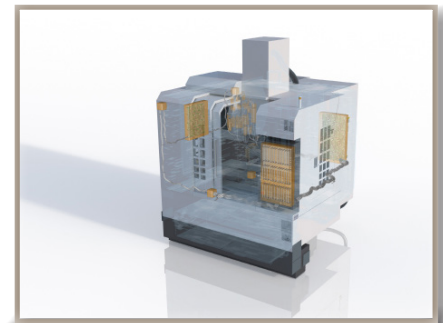
### Introduction

Zuken's E<sup>3</sup>.series is used for documenting and detailing electrical and fluid design projects. Its flexibility supports the entire process from definition and design, through manufacturing and maintenance. Its unique object-oriented architecture ensures all stages of the design are fully synchronized.

E<sup>3</sup>.fluid enables fluid engineers to detail and document their hydraulic, pneumatic, cooling and lubrication schematic designs. Built on the E<sup>3</sup>.series platform, fluid designs can be developed independently or fully integrated with electrical control systems. E<sup>3</sup>.fluid enables multi-view functionality for devices found in more than one document.

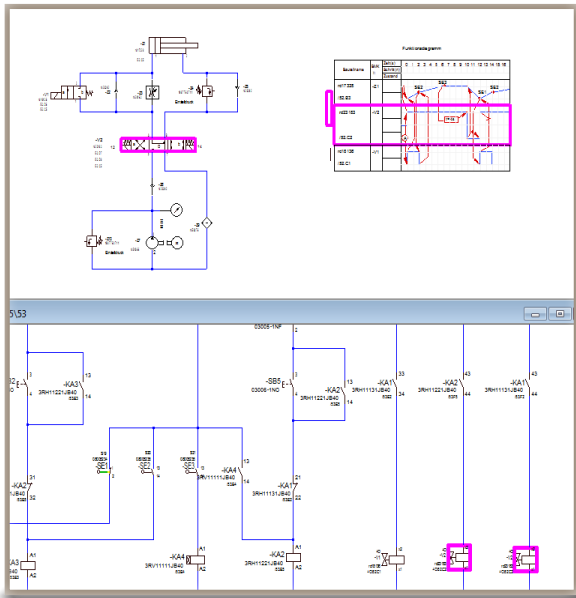
### Supported industries

E<sup>3</sup>.fluid is ideally suited for machinery, plant, and off-highway and special purpose vehicle industries.



## Standalone fluid design environment

E<sup>3</sup>.fluid has an optimized GUI specific to fluid engineering. Connections contain hose and tube properties and the symbol library comprises around 2,000 ISO symbols.



Unified electric and fluid schematics

## Integrated fluid and electrical design

E<sup>3</sup>.series facilitates combined electrical and fluid design. For example, a directional valve pulled from the library will contain both the mechanical and electrical representations. Intelligent sheet formats ensure the electrical symbols appear only on the electrical sheet and the mechanical only on the fluid sheet. Users can navigate easily between electrical and fluid elements and the BOM will only show a single instance of the valve.

## Multi-view functionality

E<sup>3</sup>.fluid comes with multi-view functionality, meaning the same device can be represented in multiple locations, such as the pneumatic schematics, installation diagrams and manifold layouts. Cross references in the design enable navigation between views, and any changes to device properties are immediately reflected across all locations.

## Design rule checking

E<sup>3</sup>.fluid contains built-in design rule checks specific to fluid engineering, including duplicate device ID prevention, automatic quick connector allocation, and hose and tube size validation.

## Additional E<sup>3</sup>.series options

### E<sup>3</sup>.schematic

The core module of the E<sup>3</sup>.series suite enables the creation of schematic diagrams for electrical control systems.

### E<sup>3</sup>.cable

Provides enhanced functionality for designing cables and cable harnesses. Different views of the design enable specific documents to be created for production, start-up and service.

### E<sup>3</sup>.formboard

Creates build-to-print detailed 1:1 harness designs; linked dynamically to E<sup>3</sup>.cable drawings.

### E<sup>3</sup>.Revision Management

Document all physical and graphical changes between design iterations. Automatically produce engineering change order documentation.

### E<sup>3</sup>.3D Routing Bridge

Transfer wire, cable and cable harness information to 3D MCAD systems. After routing, the individual wire lengths can be transferred back to E<sup>3</sup>.series.

### E<sup>3</sup>.topology

Evaluate system harnesses early in the design flow for factors such as length, weight and cost. Enables tradeoff analysis of harnesses and sub-harnesses to optimize manufacturing performance and cost.

### E<sup>3</sup>.redliner

Markup documents in a protected read-only copy of the design. Playback and jump to all recommended changes in the master design.

### E<sup>3</sup>.view

View all E<sup>3</sup>.series projects and special viewer files with this free-of-charge viewer.