Autodesk[®] MEP Engineering Solution



AutoCAD MEP software helps to enhance drafting productivity and allows you to more smoothly integrate discipline-specific design and documentation tools.

One of the major benefits of AutoCAD MEP was the improved coordination with the architectural and structural designs. By using DWG files from the extended design team, we could better coordinate our design and significantly reduce the number of design interferences.

—Iim Paul, PE Project Principal on Southshore Medical Center Kharafi National

Benefit from greater drafting productivity, better accuracy, and design coordination opportunities. MEP designers and drafters are spending too much time on repetitive tasks. Autodesk offers a broad suite of solutions to help MEP professionals stay ahead of the competition and remain competitive. With AutoCAD MEP, production of construction documents is automated, helping to save time and allowing for the creation of single-line and doubleline systems in addition to schematics. Whether you are working on a building project led by an architect or partnering with professionals from other Since most projects require collaboration with disciplines such as structural and civil engineering for the design of water/wastewater facilities, AutoCAD MEP allows you to work in the familiar AutoCAD environment while implementing new systems and documentation tools at your own pace.

Better Design Accuracy

With constant requests to accommodate last minute changes, MEP professionals need to efficiently create and edit designs. Using AutoCAD MEP, you can more easily assess designs, sizing, and system balances with integrated calculators that help ensure accuracy. Errors are minimized with automated drafting tasks and built in calculators.

Coordinate Design Information

With continuous pressure to reduce costs, you can help reduce requests for information (RFIs) and costly design changes in the field with more accurate and consistent construction documents produced with AutoCAD MEP. Design systems using real-world parts and equipment, which can be used throughout the fabrication and construction of the building helping to save time and money.

Collaborate More Effectively

professionals from other disciplines, take advantage of architectural and structural plans developed using AutoCAD-based software applications to better coordinate with your extended team. AutoCAD MEP software helps you to minimize interferences prior to construction, allowing greater coordination and collaboration.



AutoCAD MEP helps to provide increased drafting productivity, better accuracy and design coordination opportunities for MEP designers and drafters

Fast. Faster. Fastest workflow

Help improve design accuracy by automating repetitive drafting tasks, reviewing and checking your designs, and simulating sizing and system balances.

Familiar AutoCAD Environment

AutoCAD MEP is built on AutoCAD[®], providing you with access to all of the commands you expect. Protect your investment in training whilst accessing discipline specific tools at your own pace.

Industry-Based or Task-Based Workspaces

If you work in a multidisciplinary firm and perform several different design tasks, such as the design of HVAC and piping systems, workspaces are particularly useful. You can use them to save user interface configurations that are tailored to specific tasks. Once the workspaces are created, you can quickly switch between them as needed.



Schematic Design

More easily create riser diagrams and schematic plans with enhanced schematic tool palettes that logically group commonly used tools. The Properties palette provides easier schematic object configurations. Convert existing AutoCAD blocks to schematic symbols for quick use in schematic design.



Fabrication for MEP Contractors

With smoother integration of fabrication partner tools into AutoCAD MEP software, MEP designers, drafters and contractors can leverage their AutoCAD MEP design for the fabrication of sheet metal, plumbing, and piping making it easier to create shop drawings.

Single/Double-Line Design

Automate your worflow by creating construction documents more efficiently with single line for design development and convert automatically to double line for construction documents. Lay out mechanical systems in single line with unsized parts early in the design process, and then use duct-sizing tools and convert the layout to double line. Enhanced sizing tools help to increase drafting productivity when moving from design development to construction documentation.



Single-line duct design

Double-line duct design

Smart Annotation of Objects

Annotate once for all scales. Annotative text and symbols automatically change for each view based on the scale. You can annotate objects with labels that consist of text or block definitions. The information in the label comes from object properties, such as connection size.



Design, decide and draw the system

Assess your vision and enhance your efficiency with purpose-built software for MEP designers and drafters.

Engineering Display Themes

Typically, manual properties of an object—such as a duct's friction loss or velocity—are not visible in a drawing. Display themes let you incorporate such nongraphical data by using colors, fills, or hatches to highlight objects that meet criteria you establish in a display theme style. For example, check your HVAC design calculations based on friction loss or velocity to assess performance for a particular area or room. Also use the display theme By Pressure Class to visually show the high, medium, and low pressure per piping class to more easily identify potential design flaws.

Synchronized Schedules

Designers and drafters can schedule engineering system data, calculate values, and use new table styles to lay out room and analysis schedules. Schedules are automatically updated as the design changes, assisting in the reduction of errors. Create schedules as you lay out your design, and see the schedule populate automatically, helping to save time. You can create schedules with varying levels of detail by defining and attaching sets of properties to object styles or to individual objects and then extracting and displaying the data in a schedule table.



Seamless Sections and Elevations

No longer wait until the end of your design process to create sections and elevations, instead, quickly create them at any time. You can control the size and shape of the section you generate and assign materials to the section for an optimal visual representation of the sectioned objects.

Drawing Management

The Drawing Management feature formalizes and automates the processes related to building system design and documentation. The feature provides automated tools that aid in the management, viewing, and construction of your building systems. When your project files are managed with this feature, you have greater consistency in all aspects of the project, and everyone on the design team has a centralized project environment for accessing the most current documents. Powerful linking features help enable that source files can be distributed over many different locations on your computer or on a network, enabling different people to work simultaneously on the same project.



Using AutoCAD MEP with its powerful visual design coordination capabilities, we were able to lay out these extremely complex mechanical rooms easily—knowing ahead of time whether there was an interference.

—Jean Abi Aad Corporate Engineering Manager Kharafi National

Choose your Gear

AutoCAD MEP software is an essential element in a complementary, comprehensive Autodesk engineering solution for MEP professionals.

Design and Documentation AutoCAD MEP

AutoCAD[®] MEP software is the AutoCAD[®] software for mechanical, electrical, and plumbing designers and drafters. Creation and coordination of construction documents is more efficient with AutoCAD MEP's more intuitive systems drawing and design tools.



AutoCAD P&ID

Create, modify, and manage piping and instrumentation diagrams with AutoCAD P&ID software. Built on the latest AutoCAD® platform, AutoCAD P&ID software is easy to use and familiar to designers and engineers, so design teams can start immediately with minimal training. Common tasks performed every day are streamlined and automated to boost productivity, while component and line information is easily accessed by designers as they work.



AutoCAD

Drive your projects from concept to completion with the powerful AutoCAD-based documentation tools. Work more efficiently with automation, management, and editing tools that minimize repetitive tasks and speed your time to completion. AutoCAD® software is interoperable with AutoCAD MEP software.

Collaboration

Autodesk Navisworks Manage

Autodesk[®] Navisworks[®] software solutions help enable project design and building professionals to unite their contributions into a single, synchronized building information model. By helping enable team members to more reliably share, combine, review, and correct detailed 3D design models of any size or format, Autodesk Navisworks solutions are at the heart of your design workflow.



Autodesk Design Review

Accelerate your reviews with Autodesk® Design Review software, the free*, integrated, all-digital way to view, print, mark up, and compare versions of drawings, maps, and models—without the original design-creation software. For everyone in the review chain, sharing and collaborating on designs has never been this easy.

Autodesk Seek

Powerful, dynamic Autodesk[®] Seek web service replaces bulky paper catalogs and static online directories. Connect architects and engineers with building product manufacturers. Enhance design efficiency. Streamline project workflows by reducing the hassle of time-consuming searches or the need to design a product or component for each new project.



Autodesk Buzzsaw

The Autodesk[®] Buzzsaw[®] on-demand collaborative project management solution helps your organization centralize building design and constructionrelated documents, simplify communication, and make collaboration smoother so you can execute projects more successfully based on more accurate information and timely decisions. With AutoCAD MEP we're able to make changes much faster, helping to minimize the financial impact, and we can make those changes in almost real time."

-Tony Bouchard

Senior Vice President and Operations Manager Consoer Townsend Envirodyne Engineers

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