Autodesk® MEP Engineering Solutions

Creation through collaboration. Performance by design.

AutoCAD® Revit®

MEP Suite
Autodesk Revit MEP facilitated collaboration among all the teams on a single, fully coordinated parametric model, enabling us to deliver integrated solutions that bypassed the problems inherent in drawing-based technologies.

— Stanis Smith
Senior Vice President
Stantec

Mechanical, electrical, and plumbing engineering firms are continuously challenged to find innovative ways to meet clients' demands while increasing productivity and maintaining efficiency in the global market. Autodesk MEP Engineering Solutions can help you meet today's heightened demand for building information modeling (BIM), and sustainable design.

The core of Autodesk MEP Engineering solution includes Autodesk Revit MEP and AutoCAD MEP.

BIM for Mechanical, Electrical, and Plumbing Engineers
Building information modeling is an integrated process built on coordinated, reliable information about a project from design through construction and into operations. By adopting BIM, architects, engineers, contractors, and owners can easily create coordinated, digital design information and documentation, and then use that information to accurately visualize, simulate, and analyze performance, appearance, and cost. Ultimately, BIM helps firms reliably deliver the project faster, more economically, and with reduced environmental impact.

Sustainable Design and Analysis
Sustainability is a key component of all building design, construction, and management processes. Using the Autodesk MEP Engineering BIM Solution, professionals are enabled to better predict building performance and analyze energy usage based on building information models to support sustainable building design objectives and industry requirements. More accurately and precisely predict building performance with built-in analysis capabilities and partner applications for better decision making and to help users create designs for more cost-effective environmentally conscious buildings.

Design Collaboration
Today's complex buildings require leading-edge systems engineering with enhanced multidiscipline collaboration. Autodesk MEP Engineering Solutions help minimize design coordination errors between mechanical, electrical, and plumbing engineering design teams; architects; civil and structural engineers; and mechanical contractors; and help enable design alternatives to more quickly and easily be explored.
A Better, Faster AutoCAD Solution for MEP Designers and Drafters

AutoCAD MEP software offers intuitive systems design, layout, and drafting tools for enhanced productivity with the flexibility to make last-minute design changes more quickly and easily.

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AutoCAD MEP software is the discipline-specific version of AutoCAD software for mechanical, electrical, and plumbing designers and drafters. Sharing and collaborating with architects and structural engineers is made easier through the familiar AutoCAD-based environment.

Better Design Accuracy
More efficiently create and edit your designs. Review designs, sizing and system balances more easily with integrated calculators that support greater accuracy. Minimize errors by automating drafting tasks and using built-in manufacturers’ content.

Coordinate Design Information
Help reduce requests for information (RFIs) and costly design changes in the field with more accurate and consistent construction documents. Design systems using real-world parts and equipment, which can be used throughout the fabrication and construction of the building.

Collaborate More Effectively
Take advantage of architectural and structural plans developed using AutoCAD-based software applications to better coordinate with your extended team. Help reduce drafting time by working with tools designed specifically for mechanical, electrical, and plumbing engineers, designers, and drafters. AutoCAD MEP software is easier to adapt and customize to existing AutoCAD-based engineering workflows. Flexibly implement AutoCAD MEP to help improve the design and simplify your documentation process.

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.

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

Seamless Sections and Elevations
No longer wait until the end of your design process to manually create sections and elevations, instead, more 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.

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

Single/Double-Line Design
Automate your workflow 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.
Building Information Modeling for MEP Engineers

Autodesk Revit MEP software provides design and analysis tools both to help optimize building systems and enable MEP engineers to make better design decisions.
We’ve increased our productivity, thereby allowing us to investigate additional design alternatives and add value for our clients. Using AutoCAD® MEP has made design more efficient and allowed us to quickly realize ROI.

—Bob Bernas
CAD Manager
Consoer Townsend
Envirodyne Engineers

**Design and Documentation**

**Autodesk Revit MEP**

Purpose-built for building information modeling (BIM), Autodesk® Revit® MEP software provides design and analysis tools both to help optimize building systems and enable MEP engineers to make better design decisions.

**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**

Drive your projects from concept to completion with the powerful documentation tools in AutoCAD software. Work faster with automation, management, and editing tools that minimize repetitive tasks and help speed your time to completion.

**Sustainable Design and Analysis**

**Autodesk Ecotect Analysis**

Autodesk® Ecotect™ Analysis software is a comprehensive conceptual building performance analysis tool that covers a wide range of simulation and analysis functions, such as solar radiation, shading and daylighting. Its modeling, visualization, and analysis features help architects and designers to better understand how a building design will operate and perform.

**Autodesk Green Building Studio**

Autodesk® Green Building Studio® web service provides whole-building energy, water, and carbon-emission analysis for architects and designers.

**Collaboration**

**Autodesk Navisworks**

Autodesk® Navisworks® Manage software is a comprehensive real-time review solution for building information modeling. Aggregate existing design data to better visualize the whole project, simulate scheduling, and help identify interferences to help gain better insight and predictability while supporting productivity and quality.

**Autodesk Design Review**

Help accelerate reviews with Autodesk® Design Review software, the all-digital way to view, mark up and track changes to 2D and 3D CAD designs without the original creation software.

**Autodesk Buzzsaw**

Autodesk® Buzzsaw® collaborative software service helps architecture, engineering, and construction firms centralize and coordinate project-related documents and data at the outset of BIM.
Learn More or Purchase
Access specialists worldwide who can provide product expertise, a deep understanding of your industry, and value that extends beyond your software purchase. To purchase AutoCAD MEP or AutoCAD Revit MEP Suite software, contact an Autodesk Premier Solutions Provider or Autodesk Authorized Reseller. Locate a reseller near you at www.autodesk.com/reseller.

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For our clients using Revit® Architecture, our original goal was to produce 100 percent of our construction documents with Autodesk Revit MEP and we’ve already accomplished that. It really does help us run a much tighter project and put a better product into the field. The 3D models give the entire design team—from the project engineer on down—a dramatically improved understanding of the building. As a result, contractors can build our projects more easily and with far fewer questions.

—Robert Cronk
Principal
Design West Engineering