

2D and 3D Tools You Need—Right Out of the Box

Take advantage of all that Autodesk Inventor® software has to offer, and get the best of both worlds with 2D and 3D design tools in one package. The Autodesk Inventor product line provides a comprehensive and integrated set of design tools. It includes Autodesk Inventor® Series software for 3D design and documentation, Autodesk Inventor Professional products for creating routed systems and validating designs, AutoCAD® Mechanical for 2D drawing and detailing, and Autodesk Vault® software for data management. Autodesk Inventor also delivers a new ground-breaking modeling paradigm, Functional Design. Functional Design allows designers to move beyond geometric modeling and into an environment where they can focus on the problem they are trying to solve rather than spending time solely on the 3D geometry required to build the design. Create better products, manage your design process, and share data with your extended design team with Autodesk Inventor—the best choice for AutoCAD users.

Autodesk

Top 10 Reasons to Move from AutoCAD to Autodesk Inventor

1. Automatic Drawing Views

Dramatically reduce drafting time by automatically creating front, side, ISO, detail, section and auxiliary views of parts and assemblies from the model. Quickly annotate drawings by retrieving the dimension information directly from the design. Generate item numbers and part lists automatically and complete the drawing using a robust set of dimension, annotation, and 2D symbols with full support for technical drawing standards including GB, JIS, BSI, ISO, DIN, ANSI, and GOST.



2. Automatic Drawing Updates

Change it once, change it everywhere. Autodesk Inventor associates drawing views to the original components so a change made to any part or assembly is automatically reflected in all associated drawing sheets. For example, with the intuitive 3D Grips functionality you can quickly make changes to your model and all related drawing views will automatically update.

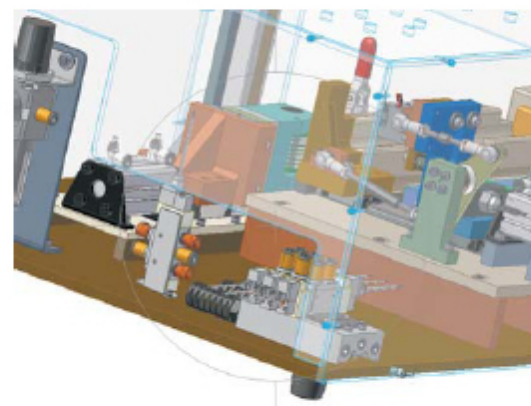
3. Bill of Materials

Manage the Bill of Materials (BOM) as you develop the design. With Autodesk Inventor, the BOM is an integral part of the assembly model that allows you to include purchased and non-purchased components including virtual items such as grease, paint, and glue. Autodesk Inventor automatically synchronizes BOM items with the parts lists and balloons in your drawings making it easier than ever to keep the drawings in sync with changes to the 3D model. By managing parts lists and quantity information in the Autodesk Inventor BOM you can easily provide accurate and up-to-date parts lists for purchasing and manufacturing.

Item	Part Number	Material	Structure	Unit	Qty	Description	ACP
3	214853	Aluminum 6061	Standard	Inch	3	Rear Housing	A
4	220238	Brass, 360 Tin	Standard	Inch	3	Thrust Washer	A
5	226245	Cast Bronze	Standard	Inch	3	Large Cap	A
6	214850	2148501.001	Standard	Inch	1		A
10	214274	Aluminum	Standard	Inch	1		A
9	214265	PEEK	Standard	Inch	1		A
7	214260	Phenolic	Standard	Inch	1	Clearance	A
8	208478	Polycarbonate, Clear	Standard	Inch	1		A
5	214836	Polycarbonate, Smoke	Standard	Inch	1	Topcover	A
2	200204	Nonferrous	Standard	Inch	1	Small Cap	A
3	217488	Steel, High Tens	Standard	Inch	1	Plan shaft	A

4. Virtual Prototyping

Building physical prototypes is expensive and time consuming. By creating a 3D model with Autodesk Inventor you can create and test a complete virtual prototype ensuring all parts fit correctly before you commit to manufacturing. Autodesk Inventor also includes tools to detect interference and other design errors reducing or eliminating the need for physical prototypes while delivering better products at a reduced cost.



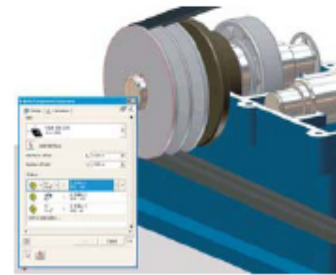
5. DWG Interoperability

As the creators of AutoCAD® software, Autodesk understands your design process and created the Autodesk Inventor product line to make the move from 2D to 3D as easy as possible, preserving your investment in AutoCAD while simplifying your transition to 3D. If you're like thousands of companies across the world, you trust AutoCAD to create and revise production drawings. With Autodesk Inventor you can reuse existing AutoCAD geometry by simply copying and pasting your AutoCAD geometry directly into Inventor to begin creating a new 3D model.

Every copy of Autodesk Inventor includes AutoCAD Mechanical—the industry's leading 2D mechanical design solution so you will always have a real version of AutoCAD to edit your valuable DWG design data. AutoCAD Mechanical and Autodesk Inventor have been carefully integrated to support parallel 2D and 3D workflows, allowing you to open native Autodesk Inventor parts and assembly files in AutoCAD Mechanical and create drawings of your Autodesk Inventor design in a familiar AutoCAD environment. Best of all, when the design changes in Autodesk Inventor, the AutoCAD Mechanical drawing updates automatically.

6. Component Generators

Save time with Autodesk Inventor Component Generators. Create parts and assemblies from real-world design parameters such as speed, power, and material properties allowing you to focus on design rather than geometric modeling. Autodesk Inventor includes component generators for bolted connections, shafts and hubs, o-rings, gears, belt and chain drives, and power screws and springs. The AutoDrop feature of Autodesk Inventor is fast, easy and accurate. It automatically adjusts the bolt diameter as you move the mouse over the hole and it lets you adjust the length based on the bolt sizes in the library.



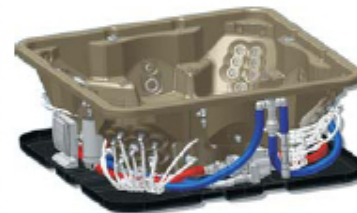
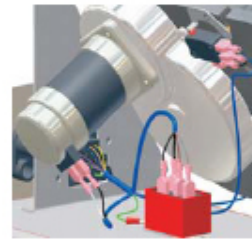
7. Technical Documentation



With drawing views you can quickly create assembly drawings and exploded assembly views for use in training manuals and manufacturing instructions. With the Autodesk Inventor presentation environment you can easily create compelling animated sequences for use in training videos, assembly instructions, and sales presentations, helping you visually communicate your design intent.

8. Pipe and Cable Routing

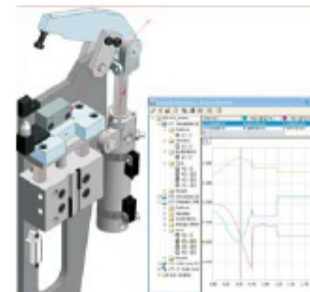
Autodesk Inventor Professional gives you the power to quickly and accurately add routed systems, tube and pipe runs, or cables and wiring harnesses to your 3D designs. Routed designs automatically comply with user-defined design rules to reduce errors and save time. And just like with all Autodesk Inventor files the assembly drawings automatically update whenever the routing model is modified.



9. Stress Analysis and Simulation

Create better quality parts and avoid field failures by using the Finite Element Analysis (FEA) functionality in Autodesk Inventor Professional to determine the stresses and deflections under load. Use FEA to optimize part strength and reduce material costs without compromising performance.

The Dynamic Simulation functionality in Autodesk Inventor Professional extends the benefit of your 3D prototype enabling you to predict the forces and accelerations experienced by each part in the assembly under real world conditions with time-varying loads, friction characteristics and dynamic components such as springs and dampers.



10. State of the Art Rendering and Animation

Autodesk Inventor Studio provides state-of-art rendering and animation tools within the Autodesk Inventor design environment. Use Autodesk Inventor Studio to quickly and easily create high-quality photo-realistic renderings and animations that improve communication with customers and other decision makers.



Contact Applied Engineering Technology to learn more about Autodesk Inventor.


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