

SOLIDWORKS INSPECTION

*AUTOMATED CREATION OF BALLOON DRAWINGS
AND REPORTS FOR QUALITY INSPECTION*



SIMPLIFY DOCUMENT CREATION TO HELP STREAMLINE PART INSPECTION AND IMPROVE QUALITY

Your commitment to quality should not negatively impact your business. You could waste hours every day manually creating documentation for quality inspection. SOLIDWORKS® Inspection helps simplify the process of creating inspection documents and performing in-process or receiving inspection.

Intuitive and easy to use, SOLIDWORKS Inspection helps streamline the creation of documents with balloon callouts and specifications by leveraging existing 2D legacy data regardless of file type—SOLIDWORKS files, PDFs, or TIFFs—and automating a manual and tedious process. Measured inspection values can be entered directly, either manually or automatically, using a digital measuring instrument (such as a USB caliper). SOLIDWORKS Inspection helps designers and quality inspectors virtually eliminate errors, improve time-to-market, and ensure parts are within specifications for improved quality and optimized fit and function.

STREAMLINE YOUR QUALITY INSPECTION PROCESSES

Company quality departments are tasked with carrying out the quality inspection process. This often involves the creation of documents such as drawings with balloon callouts, reports for use during inspection, or additional deliverables required with parts.

This time consuming burden is usually the responsibility of designers, engineers, and quality inspectors who can spend hours every day manually creating all these documents. Hundreds of characteristics, dimensions, tolerances, and notes have to be manually entered into a Microsoft® Excel® spreadsheet.

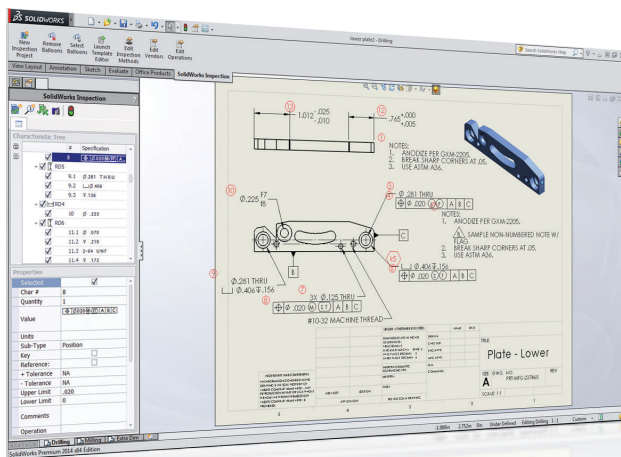
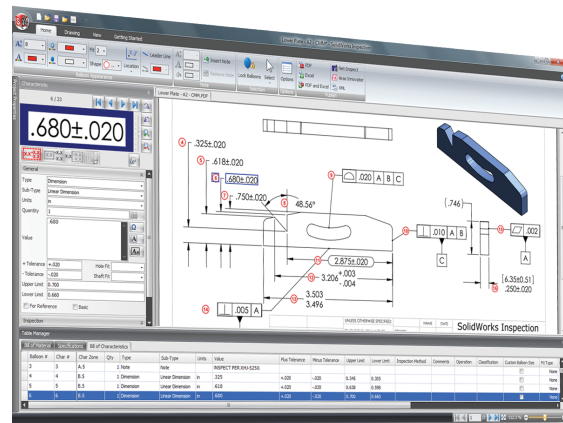
In addition, this redundant process is prone to human transcription error that can be costly over time or even jeopardize your quality commitments and certifications. Any changes to the model by an engineer or customer can cause drawing revisions that require quality inspectors to redo the work and input all the characteristics again.

SOLIDWORKS Inspection streamlines your inspection processes by automating the creation of balloons on engineering drawings, and the creation of inspection data sheets and reports. Sequentially numbered balloons are applied automatically to help you keep track of the dimensions and characteristics to inspect. Accurate bubbled prints and inspection sheets are generated in just minutes. With SOLIDWORKS Inspection, companies have reduced the time to create First Article Inspection packages by up to 90 percent.

OPTICAL CHARACTER RECOGNITION (OCR)

In many companies, engineering drawings arrive in PDF or TIFF formats. SOLIDWORKS Inspection uses optical character recognition (OCR) to read and identify the nominal dimension, plus and minus tolerances, and the type of dimension (such as diametric or linear), helping to virtually eliminate manual input and reduce errors. It works with horizontal and vertical dimensions, split dimensions, notes, hole callouts, finish symbols, and geometric dimensioning and tolerancing (GD&T) symbols.

In addition, with the standalone SOLIDWORKS Inspection application, you can create your inspection documents regardless of your existing CAD system.



First Article Inspection Report
Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

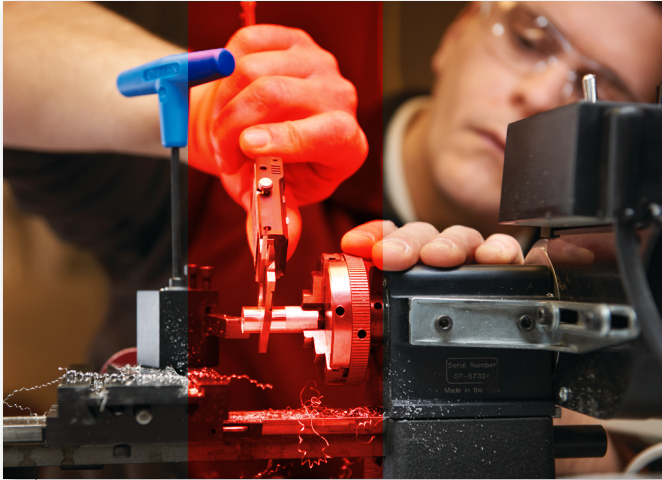
1. Part Number		2. Part Name		3. Results		4. Dev. Tooling	
PRT-MFG-237465		PLATE - LOWER					
5. Char. No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9a. UoM	9b. Upper Limit	9c. Lower Limit	
1	Lower Plate - A2 -	Note	ANODIZE BLUE PER XYZ-50.				
2	Lower Plate - A2 -	Note	BREAK ALL SHARP EDGES TO .05				
3	Lower Plate - A2 -	Note	INSPECT PER X04-S250.				
4	Lower Plate - A2 -	LINEAR	3.25	in	0.345	0.305	0.320
5	Lower Plate - A2 -	LINEAR	618	in	0.638	0.598	0.601
6	Lower Plate - A2 -	LINEAR	850	in	0.700	0.660	0.702
7	Lower Plate - A2 -	LINEAR	750	in	0.770	0.730	0.755
8	Lower Plate - A2 -	ANGULAR	48.56	deg	48.60	48.40	48.60
9	Lower Plate - A2 -	PERPENDICULARITY	PERPENDICULARITY	in	0.000	-0.010	0.010
10	Lower Plate - A2 -	PERPENDICULARITY	PERPENDICULARITY	in	0.000		0.010
11	Lower Plate - A2 -	LINEAR	2.875	in	3.895	2.855	2.899
12	Lower Plate - A2 -	LINEAR	3.206	in	3.209	3.202	3.215
13	Lower Plate - A2 -	LINEAR	3.503 / 3.499	in	3.503	3.499	3.501
14	Lower Plate - A2 -	PERPENDICULARITY	PERPENDICULARITY	in	0.005		0.005
15	Lower Plate - A2 -	PERPENDICULARITY	PERPENDICULARITY	in	0.000		0.002
16	Lower Plate - A2 -	LINEAR	250	in	0.270	0.230	0.265
17	Lower Plate - A2 -	DIAMETRIC	2.81	in	0.261	0.261	0.260
17.2	Lower Plate - A2 -	POSITION	POSITION	in	0.002		0.004
18.1	Lower Plate - A2 -	DIAMETRIC	406	in	0.425	0.386	0.425
18.2	Lower Plate - A2 -	DIAMETRIC	156	in	0.176	0.136	0.176
18.3	Lower Plate - A2 -	POSITION	POSITION	in	0.020		0.020
19.1	Lower Plate - A2 -	DIAMETRIC	125	in	0.145	0.105	0.146
19.2	Lower Plate - A2 -	POSITION	POSITION	in	0.020		0.020

The signature indicates that all characteristics are accounted for, meet drawing requirements or are properly documented for disposition.

12. Prepared By:

“With SOLIDWORKS Inspection at the most it would take us five minutes to create an inspection sheet. Without the software, it would have taken a technician a day to create that same inspection sheet.”

— PBC Linear



SOLIDWORKS Inspection lets quality engineers and inspectors directly type in measured values, use a digital caliper, or import results from a coordinate measuring machine (CMM).

REDUCE TIME-TO-MARKET

SOLIDWORKS Inspection helps drastically reduce the time needed to generate inspection reports. In just a few clicks, you can create industry-compliant inspection reports (such as AS9102, PPAP, ISO 13485) or use the powerful template editor to develop a report that matches your company’s needs.

In addition, SOLIDWORKS Inspection helps avoid errors and inconsistencies traditionally associated with manual data input.

You can save time, lower costs, and win more business by eliminating the bottlenecks in quality inspection and increasing throughput in manufacturing.

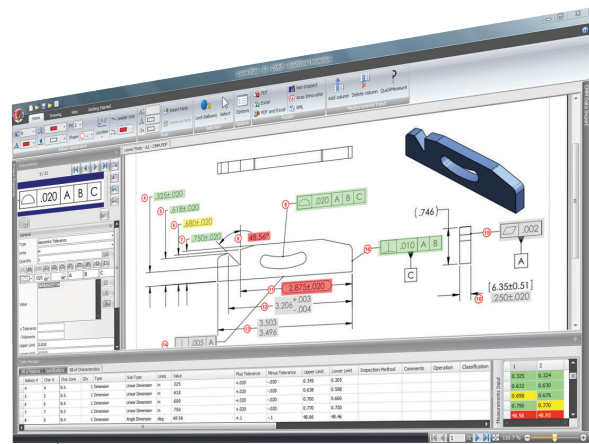
HELP IMPROVE PRODUCT QUALITY AND SAVE MONEY

Inspection documents can help your company significantly improve its manufacturing processes, reduce scrap, cut time-to-market, and improve product quality and reliability.

Because SOLIDWORKS Inspection is easy to use, integrated with SOLIDWORKS CAD, and available as a standalone application to work with your existing CAD system, you can easily deploy it, train your quality department, and start to optimize your inspection and quality processes.

Production Part Approval
DIMENSIONAL TEST RESULTS

Item	Dimension/Specification	Specification Limits	Test Date	Qty. Tested	Organization Measurements Results (Data)	OK	Not OK
1.1	NOTES:						
1.2	1. ANODIZE BLUE PER XYZ-30.						
1.3	2. BREAK ALL SHARP EDGES TO .05						
1.4	3. INSPECT PER XHJ-5250						
2	Ø .002	in 0.002 : 0				X	
3	0.25	in 0.27 : 0.23					X
4	(.746)	in REF : REF				X	
5	Ø .020 A	in 0.02 : 0				X	
6	Ø .010 A	in 0.01 : 0				X	
7	2.875	in 2.895 : 2.855					X
8	3.206	in 3.209 : 3.202					X
9	3.503	in 3.496 : 3.509					X
10	Ø .005 A	in 0.005 : 0				X	
11	0.75	in 0.77 : 0.73					X
12	0.68	in 0.7 : 0.66					X
13	0.618	in 0.638 : 0.598					X
14	0.325	in 0.345 : 0.305					X
15	48.56°	deg 49.56 : 47.56					X
16	Ø .281 T H	in 0.286 : 0.276					X
17	Ø .020	in 0.02 : 0				X	
18.1	Ø .406	in 0.411 : 0.401					X
18.2	Ø .156	in 0.161 : 0.151					X
19	Ø .020	in 0.02 : 0				X	
20.1	Ø .125 T H	in 0.13 : 0.12					X
20.2	Ø .125 T H	in 0.13 : 0.12					X
20.3	Ø .125 T H	in 0.13 : 0.12					X
21	Ø .020	in 0.02 : 0				X	
22	0.75	in Basic : Basic				X	



Characteristics are automatically highlighted in green, red, or yellow to instantly show which are in tolerance, out of tolerance, or marginally within tolerance.

SOLIDWORKS PRODUCT DEVELOPMENT SOLUTIONS

SOLIDWORKS software provides users with an intuitive **3DEXPERIENCE** development environment that maximizes the productivity of your design and engineering resources to create better products faster, and more cost-effectively. See the full range of SOLIDWORKS solutions for design, simulation, technical communication, and data management at www.solidworks.com/products2014.

LEARN MORE

Visit www.solidworks.com/inspection or contact your local authorized SOLIDWORKS reseller to learn more.

SYSTEM REQUIREMENTS

- Windows® 7 (32- or 64-bit) or Windows 8 (64-bit)
- 2 GB RAM (minimum)
- 125 MB disk space free (minimum)
- Video board (certified recommended)
- Intel® or AMD® processor
- DVD or broadband Internet connection
- Microsoft Excel 2007 or later

For additional details, visit www.solidworks.com/systemrequirements.

Our 3DEXPERIENCE platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

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