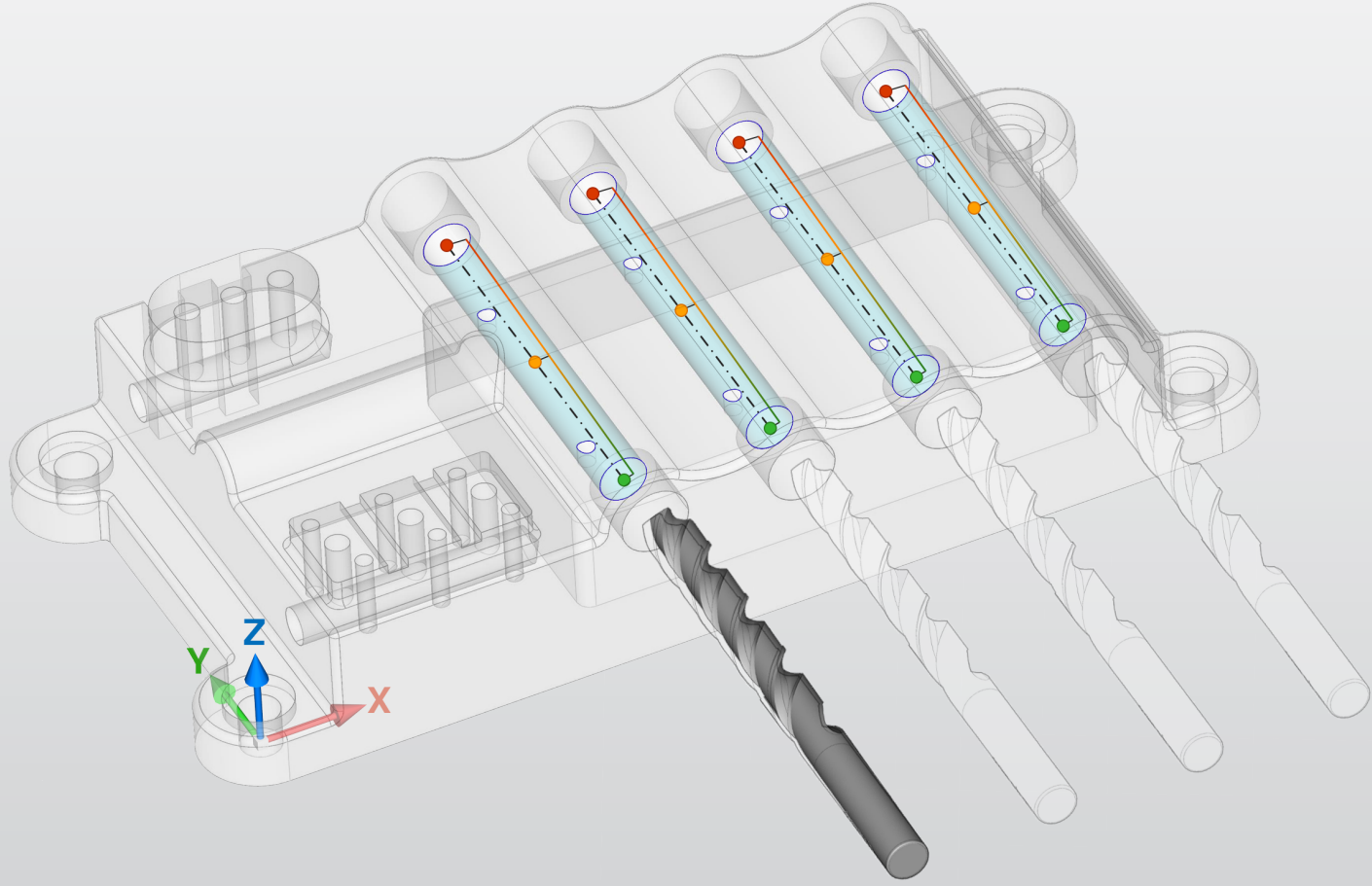




EVOLVE Manufacturing

Part of the EVOLVE Model-Based Software Suite





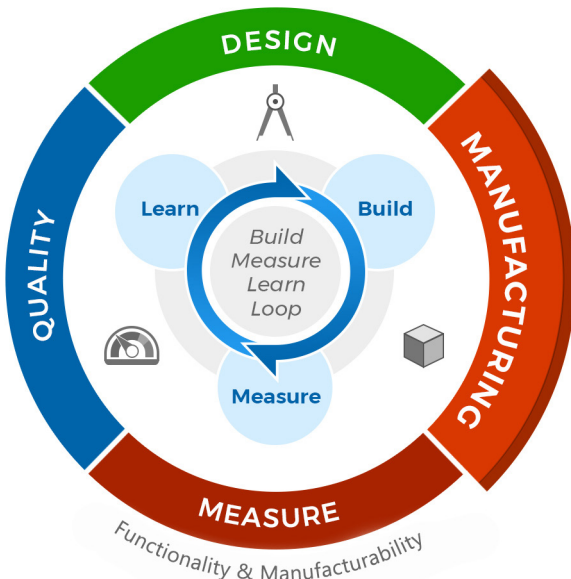
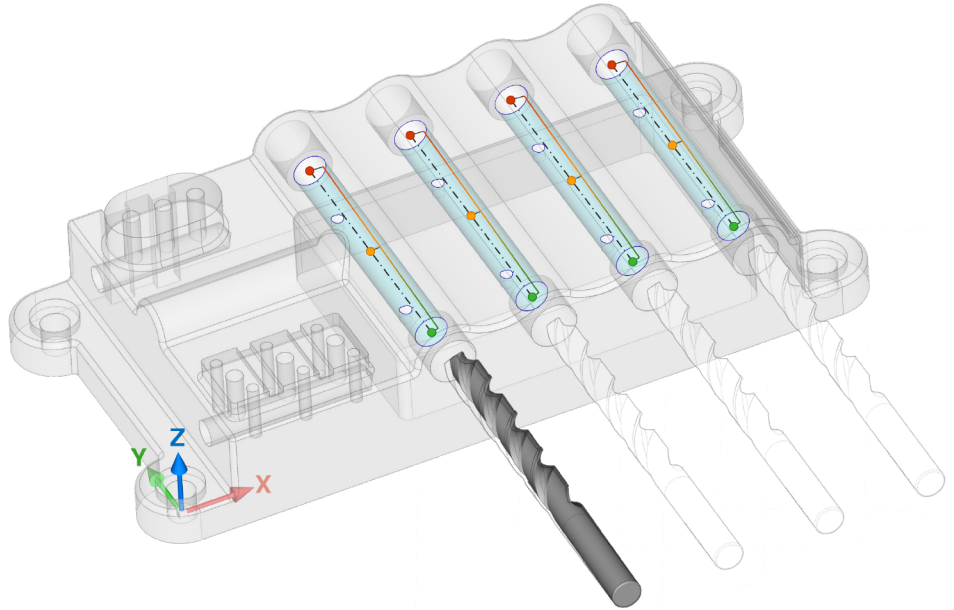
EVOLVE Manufacturing

Part of the EVOLVE Software Suite

EVOLVE Suite

The EVOLVE software suite from OGP optimizes design, production and inspection processes enabling manufacturers to shorten product design & development time, improve quality, and reduce costs through improved efficiency.

EVOLVE uses a part's three dimensional CAD model as the basis for all tolerance evaluations, statistics and manufacturing data.



EVOLVE Manufacturing

EVOLVE Manufacturing graphically **compares measurement results** relative to design or manufacturing datums, **identifies error characteristics** and **simulates how they impact GD&T tolerances** based on changes. Understand why a part failed during inspection and which corrective actions can correct and **keep your manufacturing processes under control**.

EVOLVE Manufacturing is a powerful 2D/3D tool which uses the same measurement point cloud data as the GD&T evaluation to **monitor** and **improve manufacturing operations**. This allows correlation of the GD&T results between design and manufacturing coordinate systems.



EVOLVE **Design** helps designers correctly apply GD&T (GPS) specifications by proofing the callouts in the CAD Model and providing guidance directly from the standards.



EVOLVE **SmartProfile** combines measurement data with the CAD model and automatically runs GD&T evaluations to ASME or ISO standards.



EVOLVE **SPC** is a full statistical process control software solution usable as a standalone product with existing measuring systems or integrated into the EVOLVE Suite.



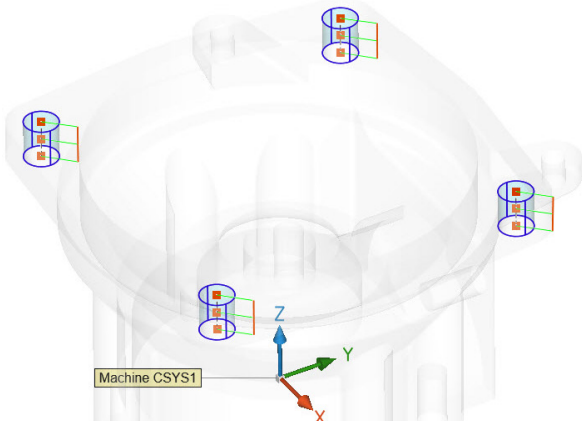
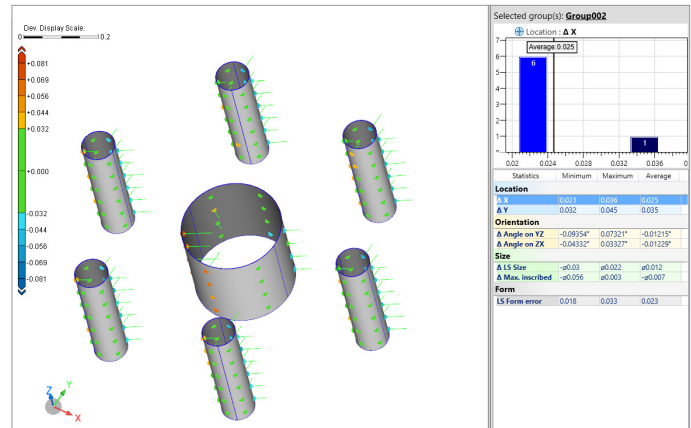
EVOLVE Suite Model-Based Family of Software

The Manufacturing Process

1 Grouping

EVOLVE Manufacturing groups part features to help **identify possible manufacturing issues**.

The groups are determined by different manufacturing steps such as operations, tools, alignments, or are imported from CAM.



2 Alignments

Manufacturing alignments simulate part fixturing during machining operations.

Features and groups of features are evaluated in their manufacturing alignments.

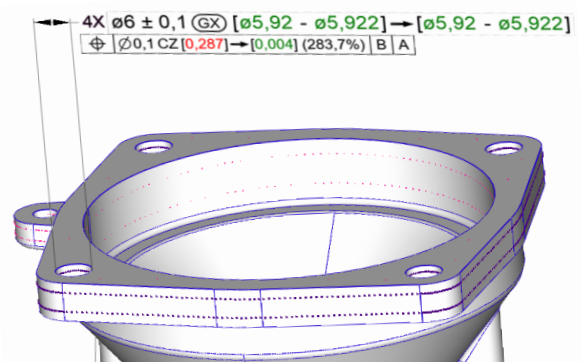
3 Error Characteristics

Point deviations from nominal are separated into 4 error categories:

Location, Orientation, Size and Form.

These categories can be used in **analysis** individually, as groups, or all at once.

Characteristics							
Filtered by [Machine CSYS1] Alignment [Machine CSYS1] Display CSys							
OP1 (Datum C Cylinders) Group(s)							
Search	Show:	Toleranced	Violations	Advanced			
Name	Results	Nominal	Actual	USL	LSL	Type	
Set Values for selected rows:							
Cylinder004 PTOL	<div><div></div></div>	0	0,283	0,1	-	⊕	
Cylinder001 PTOL	<div><div></div></div>	0	0,284	0,1	-	⊕	
Cylinder002 FORM	<div><div></div></div>	0	0,021	0,1	-	⊕	
Cylinder002 DIAM	<div><div></div></div>	ø6	ø5,941	0,1	-0,1	⊕	
Cylinder002 PTOL	<div><div></div></div>	0	0,285	0,1	-	⊕	
Cylinder001 DIAM	<div><div></div></div>	ø6	ø5,939	0,1	-0,1	⊕	
Cylinder003 DIAM	<div><div></div></div>	ø6	ø5,941	0,1	-0,1	⊕	
Cylinder003 PTOL	<div><div></div></div>	0	0,283	0,1	-	⊕	



4 Corrective Action Analysis

Powerful **“What-if” simulations** based on observed deviations allow prediction of the effects of applied corrective actions on the GD&T results.

OGP – Confidence. When Results Matter

The EVOLVE software suite from OGP is developed by KOTEM®, who is the worldwide leading developer of software for dimensional analysis. The EVOLVE suite of advanced GD&T and fitting software helps manufacturers integrate quality inspection data with their manufacturing and design workflows. KOTEM and OGP are Quality Vision International companies.

QVI® (Quality Vision International) is the world's largest vision metrology company. Founded in 1945, QVI is the world leader in the application of optical, electronic and software technologies into vision and multisensor measuring systems for manufacturing quality control.

To learn more about the EVOLVE suite of software solutions, go to:

www.ogpnet.com/evolve

EVOLVE is fully compliant with all internationally accepted GD&T Standards:



ISO 1101



ASME Y14.5M-1 994



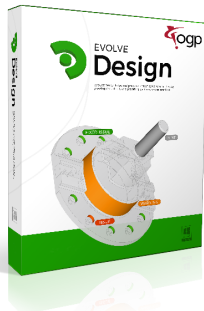
ASME Y14.5-2009



ASME Y14.5-2018

EVOLVE Suite

Check out the other members of our model based family of software:



EVOLVE Design helps designers correctly apply GD&T (GPS) specifications by proofing the callouts in the CAD Model and providing guidance directly from the standards.



EVOLVE SmartProfile combines measurement data with the CAD model and automatically runs GD&T evaluations to ASME or ISO standards.



EVOLVE SPC is a full statistical process control software solution usable as a standalone product with existing measuring systems or integrated into the EVOLVE Suite.



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World Headquarters: Rochester, NY, USA • 585.544.0400 • www.ogpnet.com

OGP Shanghai Co, Ltd: Shanghai, China

86.21.5045.8383/8989 • www.smartscope.com.cn

OGP Messtechnik GmbH: Hofheim-Wallau, Germany

49.6122.9968.0 • www.ogpmesstechnik.de

Optical Gaging (S) Pte Ltd: Singapore • 65.6741.8880 • www.smartscope.com.sg