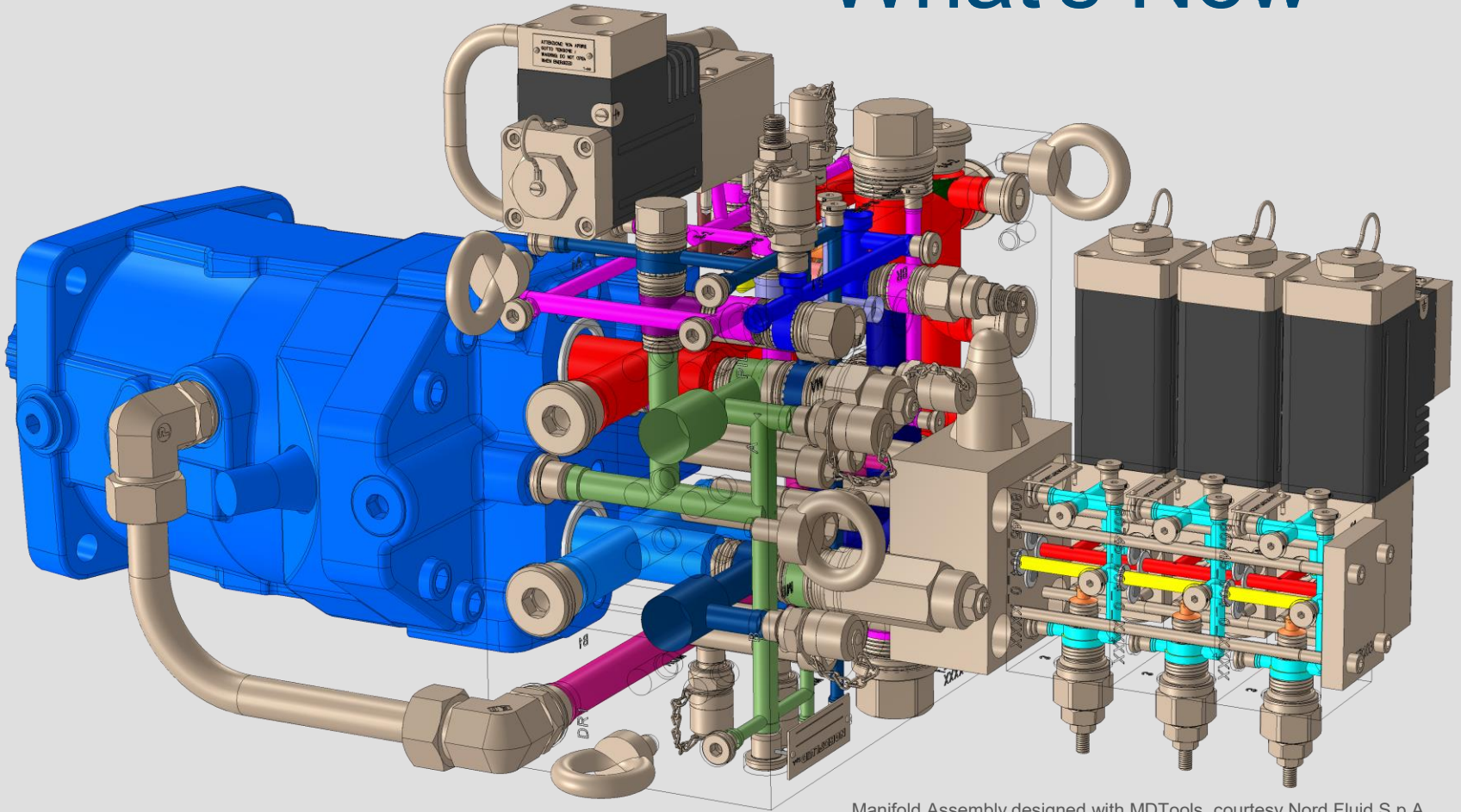


MDTools® 975

What's New



Manifold Assembly designed with MDTools, courtesy Nord Fluid S.p.A.

MDTools® 975 What's New

Part Performance Improved

Drawing Performance Improved

Improved Speed in Feature Mode

New Use of Solidworks Features

Single Hole Feature

Recommendation

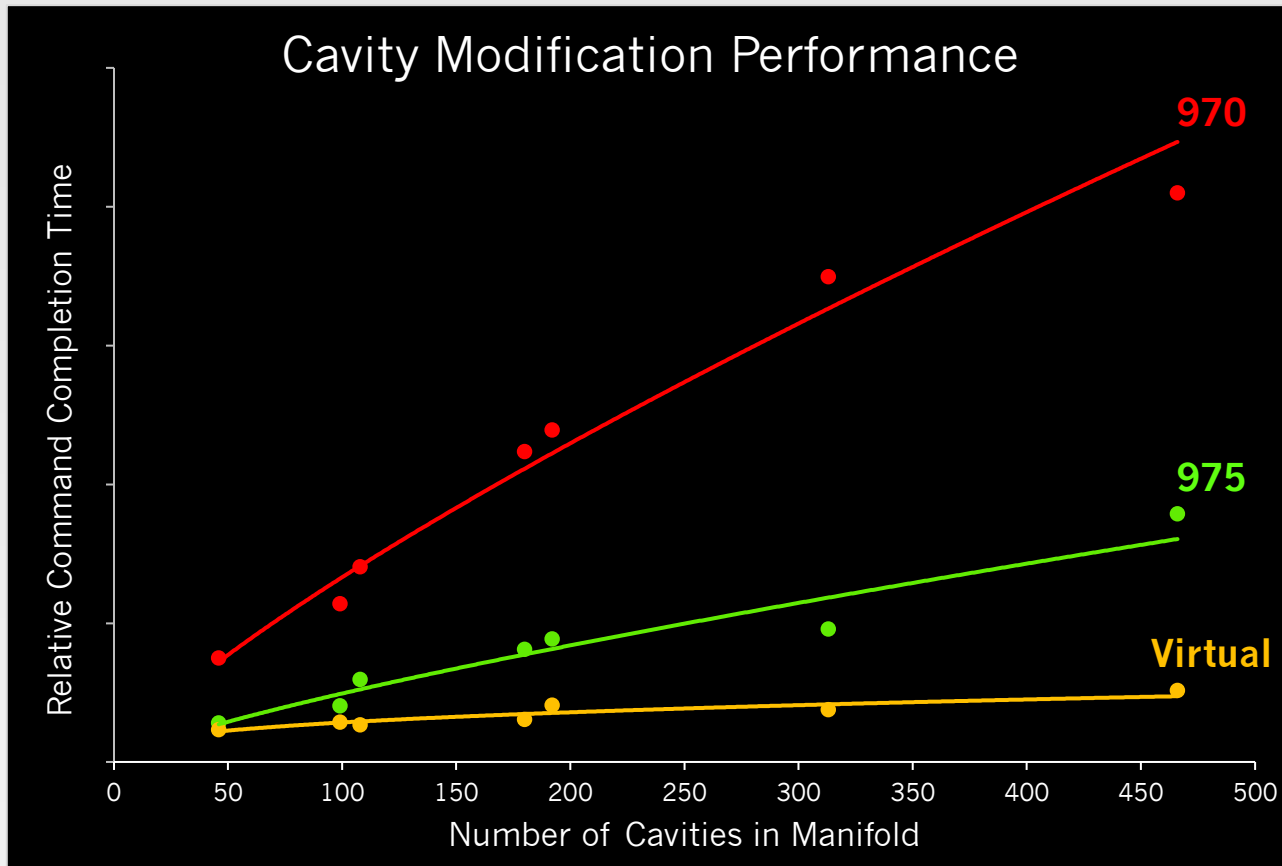
Appendix

Performance Test Specifications

Caution

Part Performance Improved

Performance in Part creation is improved by 2x to 3x on average

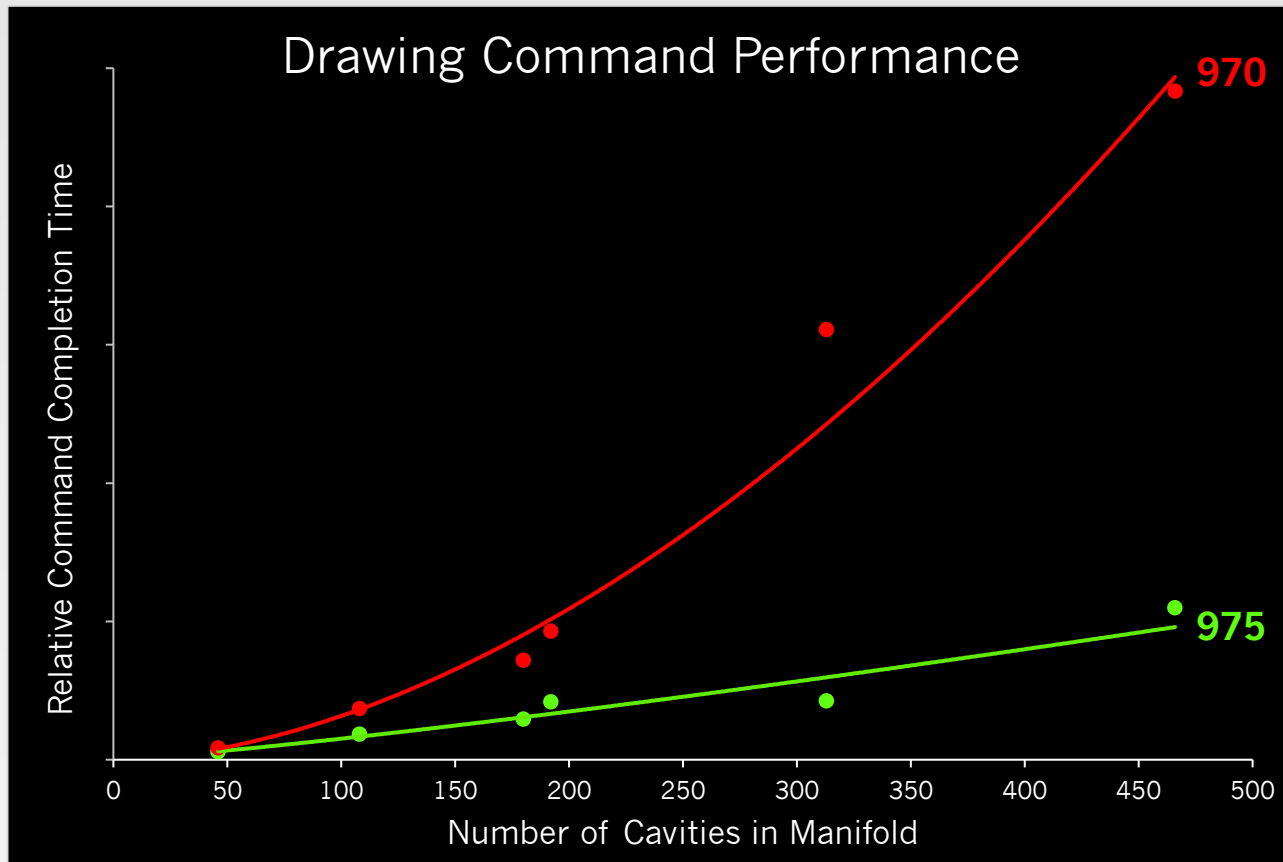


Note:

- Displays average time for Insert, Change Face, and Move Cavity commands.
- Includes Ports, Cavities, Flanges, and Valve Footprints. Command performance depends on feature complexity.

Drawing Performance Improved

Performance in the Drawing environment is improved ~1.5x for simpler manifolds, and greater as manifold complexity increases



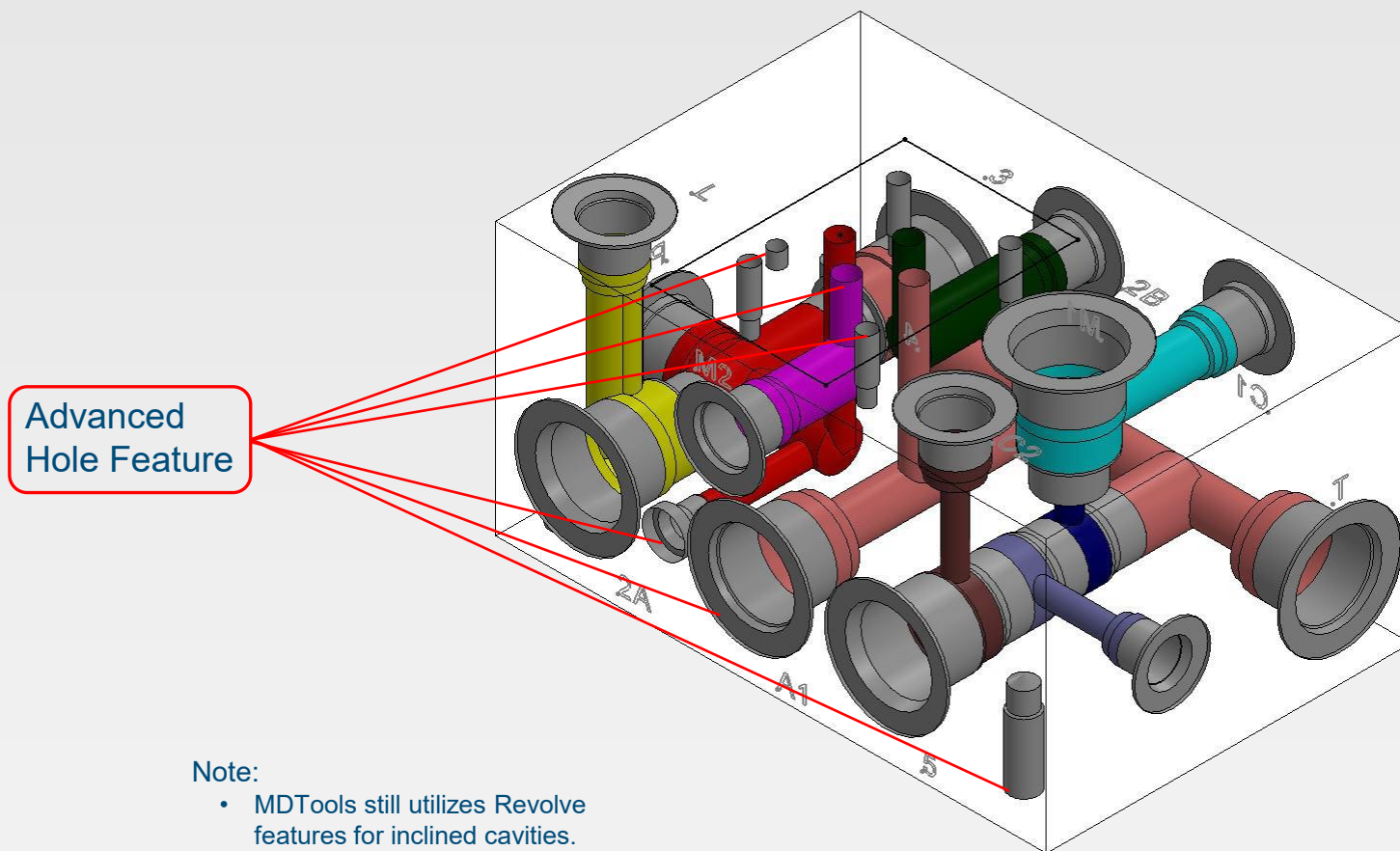
Note:
Displays average time for Auto Dimension, Machining Callout and Create Balloon commands.

Improved Speed in Feature Mode

All aspects of SolidWorks® and MDTools® are leveraged to achieve significant speed enhancement

New Use of SolidWorks® Features

SolidWorks Advanced Hole Feature is utilized to simplify the model and enhance the speed of commands

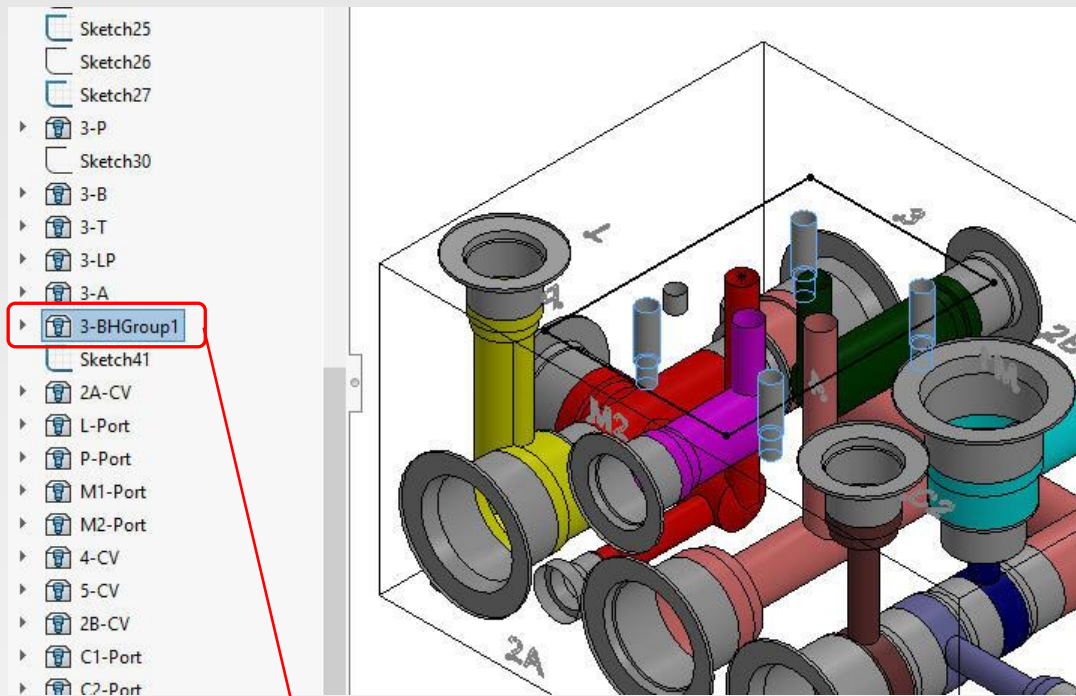


Note:

- MDTools still utilizes Revolve features for inclined cavities.

Single Hole Feature

Identical bolt holes in a footprint now use a single SolidWorks Advanced Hole Feature to simplify the model



All four bolt holes are modeled as a single grouped Hole Feature

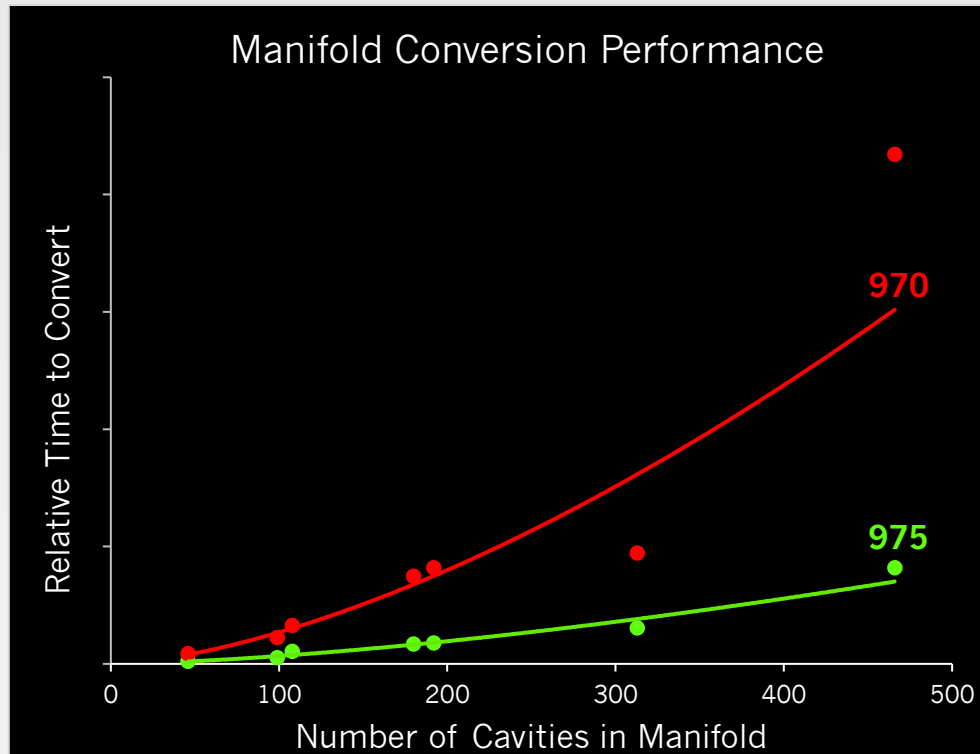
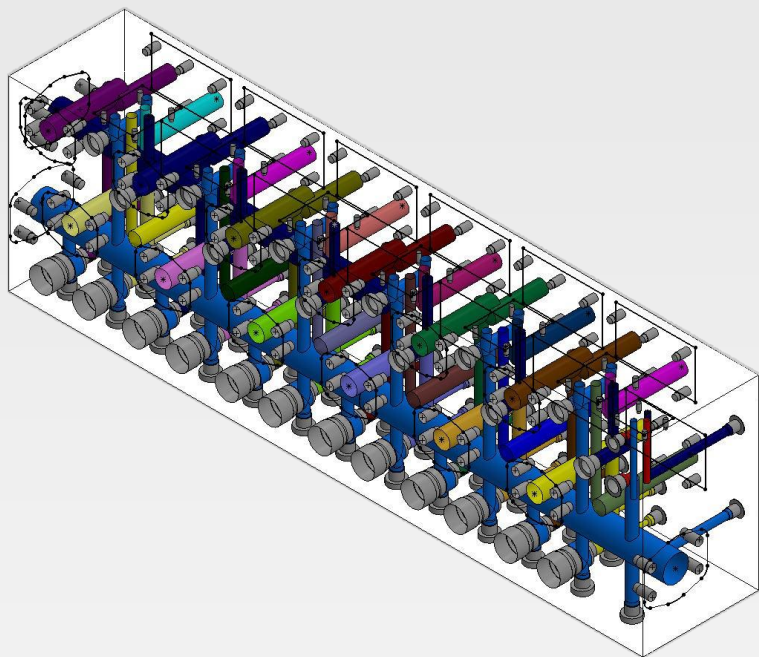
Note:

- Modifications made to any bolt hole also automatically applies to all related bolt holes, unless otherwise specified.

Recommendation

Designing large manifolds in Feature mode is now viable!

Virtual mode remains available for extremely large manifolds, and conversion time has been reduced significantly.



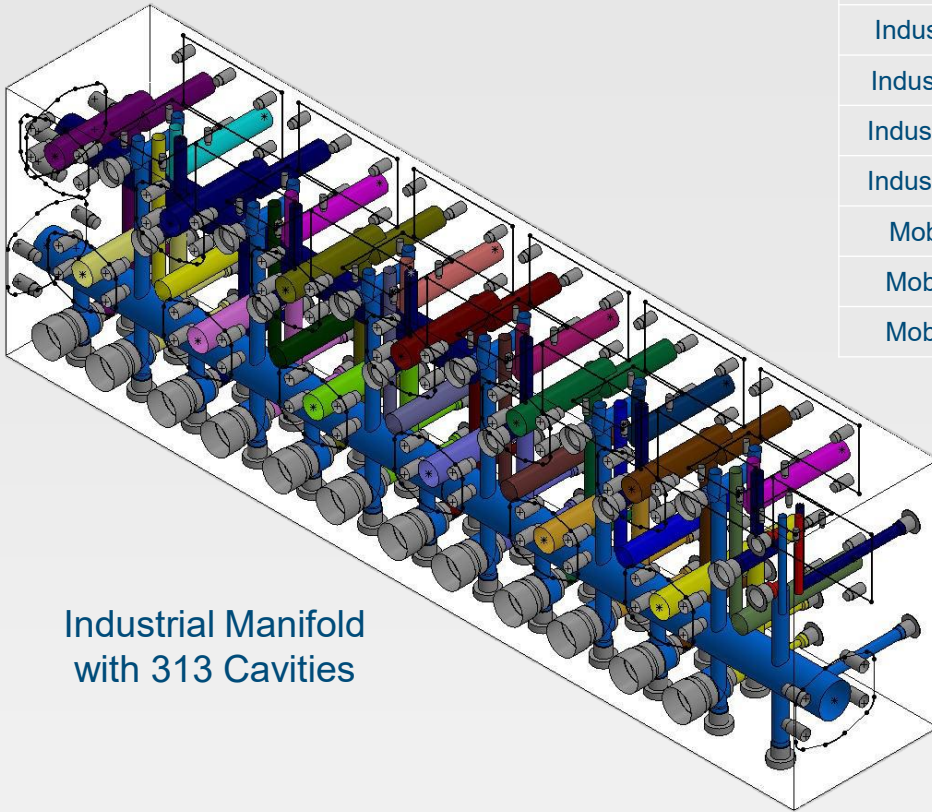
Appendix

Performance test specifications and a note of caution

Performance Test Specifications

Manifolds used

Sample Block	CVs	Ports	BHs	DHs	Total
Industrial Manifold - 99 Cavities	7	38	36	18	99
Industrial Manifold -192 Cavities	22	64	62	44	192
Industrial Manifold - 313 Cavities	12	64	164	73	313
Industrial Manifold - 466 Cavities	22	141	190	113	466
Mobile Manifold - 46 Cavities	14	30	2	-	46
Mobile Manifold -108 Cavities	25	65	4	14	108
Mobile Manifold -180 Cavities	11	137	17	15	180



Industrial Manifold with 313 Cavities

Commands used

- Insert #6 SAE, C10-2, 1/2" Flange & D03
- Change Face C10-2 & 1/2" Flange
- Move Port, CV cavity, Flange

System Specification

- SolidWorks® 2021
- Windows® 10 Pro 64-bit
- 16 GB RAM
- Intel® Core™ i5-9400 CPU @ 4.1GHz

Note:

- Tests are representative of how manifold complexity affects command performance.
- Manifold complexity is approximated in these tests by the number of cavities in the manifold, but different cavities contribute varying amounts of complexity.

Caution*

MDTools® 975 designed manifolds are not directly* compatible with any previous versions of MDTools.

*If needed, designs from MDTools 975 can be exported in the MBXML format which can then be imported into previous versions of MDTools.

MDTools® 975

premier 3D manifold design software

USA: +1 (248) 649-9550 sales@VESTusa.com

Europe: +39 328 695 7001 carlo.molon@VESTusa.com

