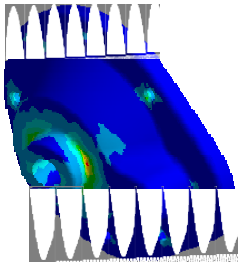
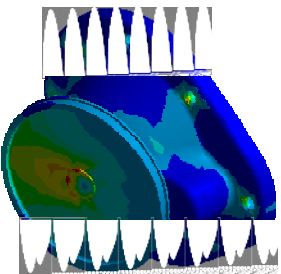


The Top 10 Reasons to Upgrade to ANSYS® DesignSpace

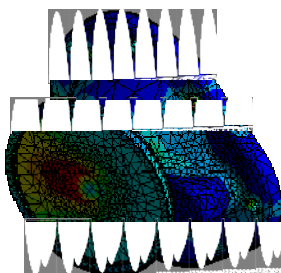
Single Part



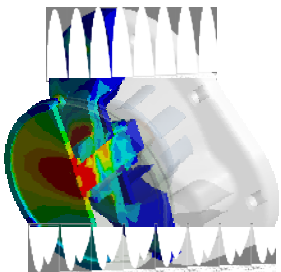
Assembly with Contact



Mesh Refinement



Post-Processing



1. Assemblies, Contact, Multi Body Parts

DesignSpace allows you to analyze your assemblies by providing a variety of contact capabilities at mating interfaces between parts or bodies. Structural loads and heat flows are defined across these contact boundaries. Contact controls are available to broaden the range of contact simulations.

2. Loading

DesignSpace provides optimal loading options to create precise simulation conditions for almost every design scenario. Advanced loading options include Bearing, Bolt Pretension, Remote Force, and Inertial Reaction.

3. Constraints

DesignSpace provides a variety of global boundary conditions or supports for both parts and assemblies. Advanced options include Compression Only Support, Given Displacement, Remote Displacement, and Cylindrical Support.

4. Meshing Tool

DesignSpace offers tools to customize the mesh in order to refine the analysis results. Optional controls include Assembly/Part Refinement, Sizing, Element Order, Element Type, Local Refinements, Mesh Sweeping, and Contact Sizing.

5. Wizard

DesignSpace provides a list of tasks or steps that help assist and interpret the simulation process. This tool is an interactive checklist for accomplishing a specific goal. The Wizard offers new users a step by step guidance for performing analysis tasks.

6. Convergence

Control convergence to a predefined level of error for selected results. In the calculation of stresses, displacements, mode shapes, temperatures, and heat fluxes, the application employs an adaptive solver engine to identify and refine the model in areas that benefit from adaptive refinement.

7. Thermal

DesignSpace provides thermodynamic analysis options to calculate the stresses related to temperature and heat flow. Thermal loading includes Convection, Given Temperature, Internal Heat Generation, Heat Flux, Heat Flow and Perfectly Insulated.

8. Modal

DesignSpace provides a free vibration analysis to obtain the natural frequencies and mode shapes of a structure. Free vibration analysis does not consider the response of the structure under dynamic loads but solves for the natural frequencies to set-up the system for the more complicated harmonic analysis.

9. Solution Options

DesignSpace offers several solution options to assist in the design, modification, or focus of a part or assembly. These include Set Parameters, Shape Results, Scope Results, and Solution Information.

10. Post-Processing

DesignSpace provides several post-processing options to manipulate the visual presentation of the analysis results. These include Displacement Scaling, Slice Planes, Probe Tool, Animation, Legend Manipulation, Exporting Results, Error Estimation, and Report Generation.

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