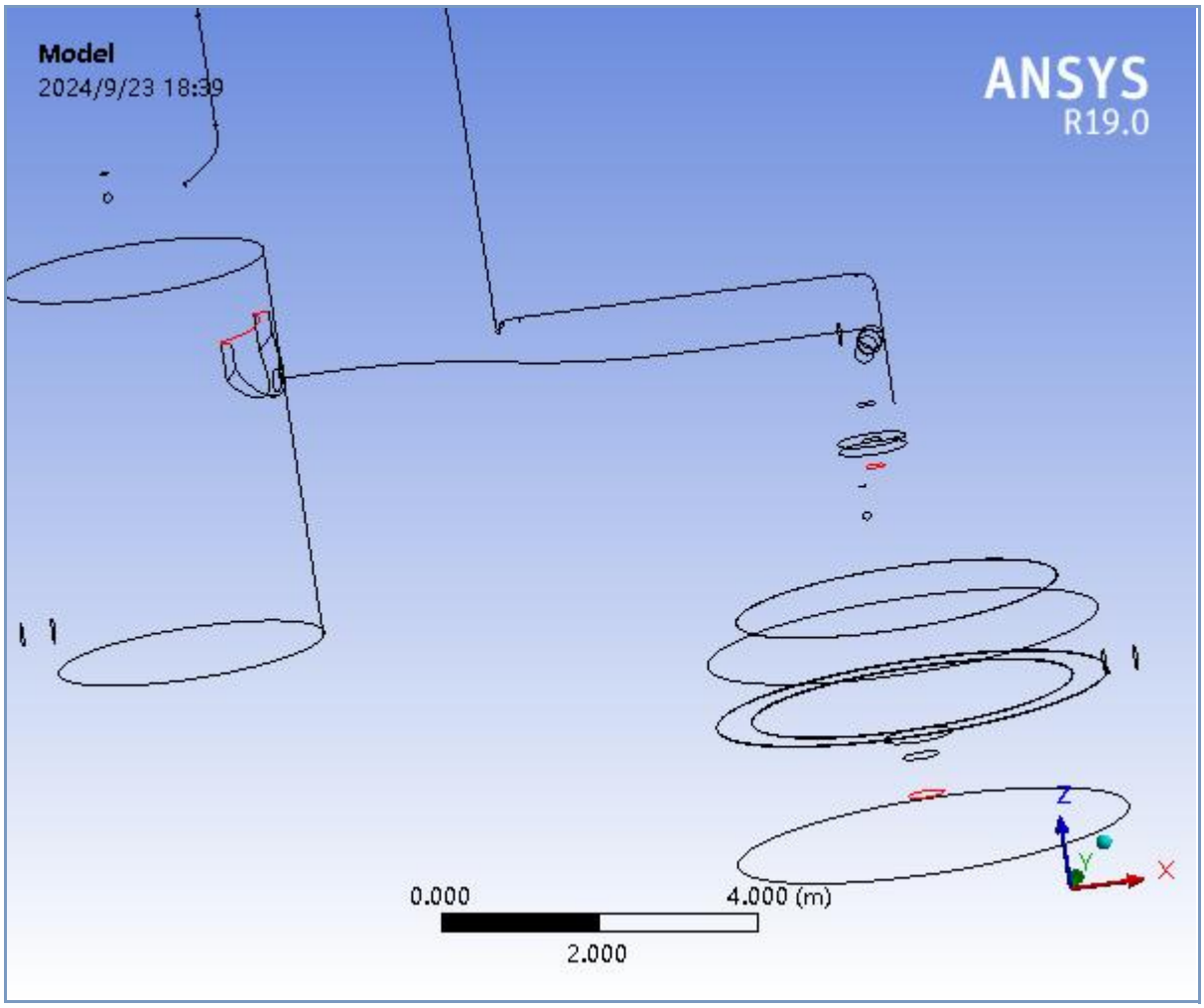
Project

First Saved	Friday, September 13, 2024
Last Saved	Friday, September 13, 2024
Product Version	19.0 Release
Save Project Before Solution	No
Save Project After Solution	No



Contents

- **Model (A3)**
  - Geometry
    - volume.31
  - Coordinate Systems
  - Connections
    - Contacts
  - Mesh
    - Mesh Controls
  - Named Selections

Units

TABLE 1

Unit System	Metric (m, kg, N, s, V, A) Degrees rad/s Celsius
Angle	Degrees
Rotational Velocity	rad/s
Temperature	Celsius

Model (A3)

Geometry

Object Name	*Geometry*
State	Fully Defined
Definition	
Source	E:\ANSYS_works\CPL_jiaqing_2024\CPL_jiangye_2024_a.1\CPL_jiaqing_2024\model_1.0.dbs
Type	GAMBIT
Length Unit	Millimeters
Bounding Box	
Length X	14. m
Length Y	5. m
Length Z	12.126 m
Properties	
Volume	150.39 m³
Scale Factor Value	1.
Statistics	
Bodies	1
Active Bodies	1

Nodes	305280
Elements	1614651
Mesh Metric	None
Basic Geometry Options	
Solid Bodies	Yes
Surface Bodies	Yes
Line Bodies	No
Parameters	Independent
Parameter Key	ANS;DS
Attributes	No
Named Selections	No
Material Properties	No
Advanced Geometry Options	
Use Associativity	Yes
Coordinate Systems	No
Reader Mode Saves Updated File	No
Use Instances	Yes
Smart CAD Update	Yes
Compare Parts On Update	No
Analysis Type	3-D
Mixed Import Resolution	None
Decompose Disjoint Geometry	Yes
Enclosure and Symmetry Processing	No

TABLE 2
Model (A3) > Geometry

TABLE 3
Model (A3) > Geometry > Parts

Object Name	*volume.31*
State	Meshed
Graphics Properties	
Visible	Yes
Transparency	1
Definition	
Suppressed	No
Coordinate System	Default Coordinate System
Behavior	None
Reference Frame	Lagrangian

Material	
Assignment	
Fluid/Solid	Defined By Geometry (Solid)
Bounding Box	
Length X	14. m
Length Y	5. m
Length Z	12.126 m
Properties	
Volume	150.39 m³
Centroid X	-4.0102 m
Centroid Y	5.6394e-003 m
Centroid Z	1.2879 m
Statistics	
Nodes	305280
Elements	1614651
Mesh Metric	None

Coordinate Systems

TABLE 4
Model (A3) > Coordinate Systems > Coordinate System

Object Name	*Global Coordinate System*
State	Fully Defined
Definition	
Type	Cartesian
Coordinate System ID	0.
Origin	
Origin X	0. m
Origin Y	0. m
Origin Z	0. m
Directional Vectors	
X Axis Data	[1. 0. 0.]
Y Axis Data	[0. 1. 0.]
Z Axis Data	[0. 0. 1.]

Connections

TABLE 5
Model (A3) > Connections

Object Name	*Connections*
State	Fully Defined
Auto Detection	
Generate Automatic Connection On Refresh	Yes

Transparency	
Enabled	Yes

TABLE 6
Model (A3) > Connections > Contacts

Object Name	*Contacts*
State	Fully Defined
Definition	
Connection Type	Contact
Scope	
Scoping Method	Geometry Selection
Geometry	All Bodies
Auto Detection	
Tolerance Type	Slider
Tolerance Slider	0.
Tolerance Value	4.7961e-002 m
Use Range	No
Face/Face	Yes
Face Overlap Tolerance	Off
Cylindrical Faces	Include
Face/Edge	No
Edge/Edge	No
Priority	Include All
Group By	Bodies
Search Across	Bodies
Statistics	
Connections	0
Active Connections	0

Mesh

TABLE 7
Model (A3) > Mesh

Object Name	*Mesh*
State	Solved
Display	
Display Style	Body Color
Defaults	
Physics Preference	CFD
Solver Preference	Fluent
Export Format	Standard
Export Preview Surface Mesh	No

Element Order	Linear
Sizing	
Size Function	Curvature
Max Face Size	Default (0.959220 m)
Mesh Defeaturing	Yes
Defeature Size	Default (4.7961e-003 m)
Growth Rate	Default (1.20)
Min Size	Default (9.5922e-003 m)
Max Tet Size	Default (1.91840 m)
Curvature Normal Angle	Default (18.0 °)
Bounding Box Diagonal	19.1840 m
Average Surface Area	4.88220 m²
Minimum Edge Length	3.8407e-002 m
Quality	
Check Mesh Quality	Yes, Errors
Target Skewness	Default (0.900000)
Smoothing	Medium
Mesh Metric	None
Inflation	
Use Automatic Inflation	None
Inflation Option	Smooth Transition
Transition Ratio	0.272
Maximum Layers	5
Growth Rate	1.2
Inflation Algorithm	Pre
View Advanced Options	No
Assembly Meshing	
Method	None
Advanced	
Number of CPUs for Parallel Part Meshing	Program Controlled
Straight Sided Elements	
Number of Retries	0
Rigid Body Behavior	Dimensionally Reduced
Triangle Surface Mesher	Program Controlled
Topology Checking	Yes
Pinch Tolerance	Default (8.633e-003 m)
Generate Pinch on Refresh	No
Statistics	
Nodes	305280
Elements	1614651

TABLE 8
Model (A3) > Mesh > Mesh Controls

Object Name	*Face Sizing*	*Face Sizing 2*	*Face Sizing 3*	*Face Sizing 4*	*Face Sizing 5*
State	Fully Defined				
Scope					
Scoping Method	Geometry Selection				
Geometry	19 Faces	4 Faces	3 Faces	1 Face	
Definition					
Suppressed	No				
Type	Element Size				
Element Size	2.e-002 m	1.e-002 m	5.e-002 m		
Advanced					
Defeature Size	Default (4.7961e-003 m)				
Size Function	Uniform				
Behavior	Soft				
Growth Rate	Default (1.2)				

Named Selections

TABLE 9
Model (A3) > Named Selections > Named Selections

Object Name	*daoliuyan*	*daoliutong*	*inlet*	*outlet*	*qi_out01*	*qi_out02*
State	Fully Defined					
Scope						
Scoping Method	Geometry Selection					
Geometry	5 Faces	3 Faces	1 Face			
Definition						
Send to Solver	Yes					
Protected	Program Controlled					
Visible	Yes					
Program Controlled Inflation	Exclude					
Statistics						
Type	Manual					
Total Selection	5 Faces	3 Faces	1 Face			

Surface Area	1.9174 m²	11.658 m²	7.0233e-002 m²	7.8036e-003 m²
Suppressed			0	
Used by Mesh Worksheet			No	