

Water Hammer Analysis Report

Project Information

Project ID: 1
Analysis Date: 2025-09-12 21:31:03
Execution ID: ac699442-55d1-45bc-a472-d95efc03697c

System Parameters

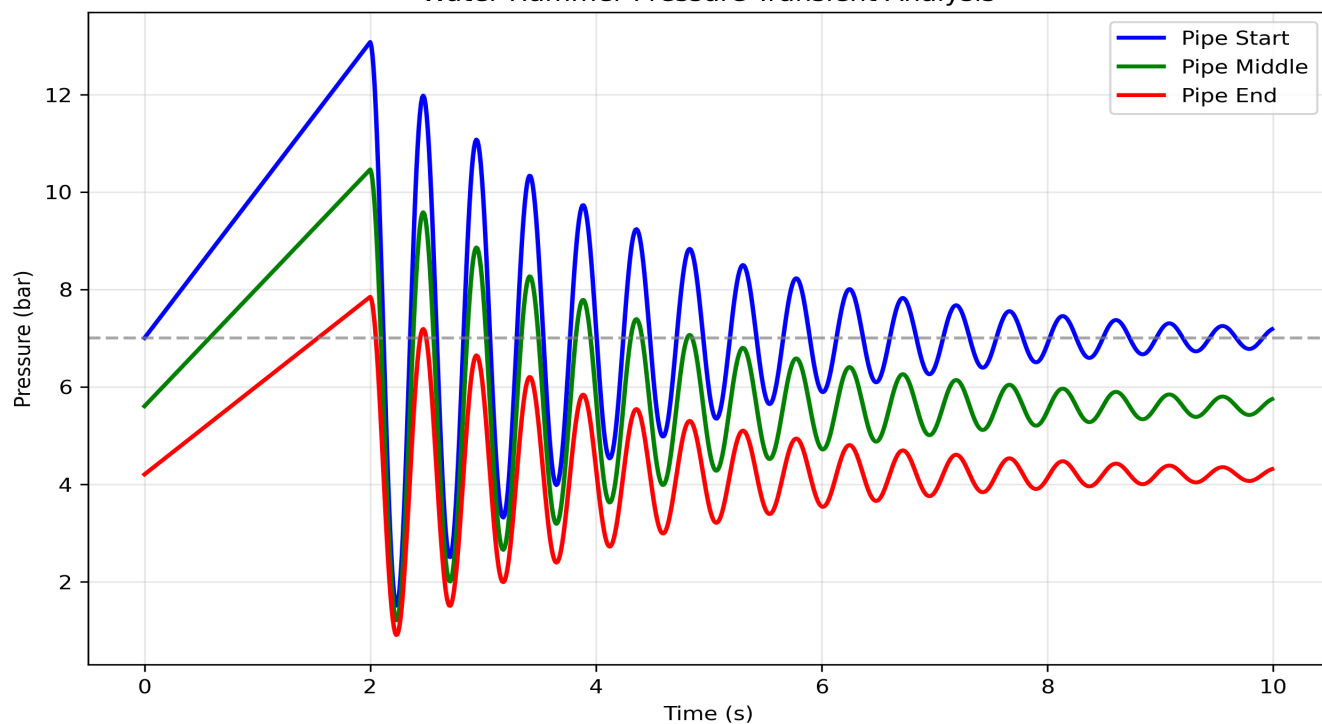
Parameter	Value	Unit
Pipe Length	300.0	m
Pipe Diameter	65.0	mm
Wall Thickness	3.0	mm
Flow Rate	22000	L/h
Pump Pressure	7.0	bar
Fluid Density	1100	kg/m³
Closure Time	2.0	s
Damper Enabled	No	

Analysis Results

Result	Value	Unit
Fluid Velocity	1.84	m/s
Wave Speed	1270.9	m/s
Critical Time	0.47	s
Joukowsky Surge	25.7	bar
Real Surge	6.1	bar
Total Reduction Factor	0.236	

Analysis Plots

Water Hammer Pressure Transient Analysis



Flow Rate During Valve Closure

