



Horizontal Well Artificial Lift Project

Small Scale Downhole Separator

This facility operates with air and water to understand the primary separation mechanism in a downhole separator.

Key Specifications

Fluids

Gas: Air

Water: Tap Water

Operating Conditions

Pressure: Ambient
 Temperature: Ambient
 Gas Flow Rate: 0.01 SCFD (100 ml/min)
 Water Flow Rate: 0 to 350 BPD
 Liquid inside Separator downward velocity: 0 to 1.5 ft/s

Test Section

Material: Acrylic
 Inlet Area: 3.6 in²
 Outlet Area: 2.1 in²
 Test Section: 8 ft
 Inclination Angles: 0 to 10 degrees

Instrumentation and Flow Characteristics

Instrumentation	Measured Parameters
High Speed Camera	<ul style="list-style-type: none"> • Bubble Tracking • Bubble Size • Bubble Velocity • Separation Efficiency



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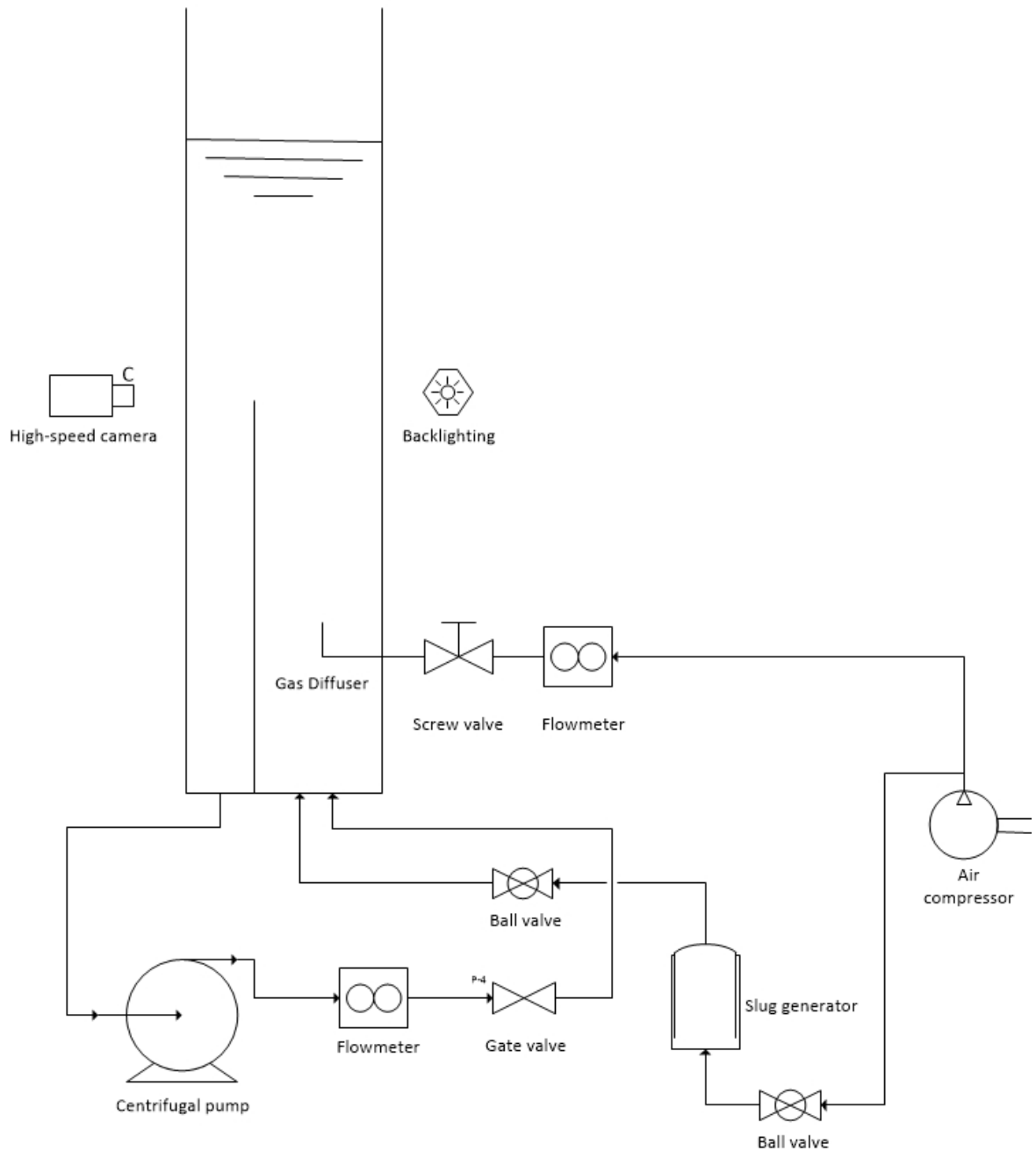


Figure 1: Schematic of Small Scale Separator Facility