



Reagent Manifolds

Standardised Chemical Dosing Panel Solutions at your fingertips.

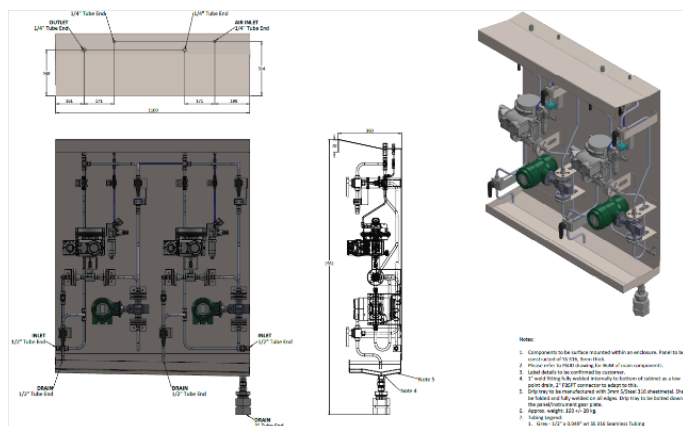
Reagent manifolds in a flotation cell is a key control mechanism of the chemical dosing system, designed to uniformly distribute flotation reagents (collectors, frothers, modifiers) into the pulp, either at the feed box or directly into the cell.



These manifolds are critical for ensuring precise, consistent chemical dosing across the entire volume of the flotation cell, optimising ore recovery and grade.

Design Support For Your Reagent Manifolds

Swagelok's Engineering Team can assist you with product selection & design advice, helping you leverage our global experience with Reagent Manifold systems.



Key Aspects of Reagent Manifolds in Flotation Cells

Purpose - They ensure reagents are properly dispersed throughout the slurry to maximise interaction between air bubbles and hydrophobic particles while reducing chemical wastage.

Placement - In column flotation cells, manifolds often distribute aerated fluidisation water uniformly across the cross-section of the cell to promote bubble-particles contact and reduce drop-back.

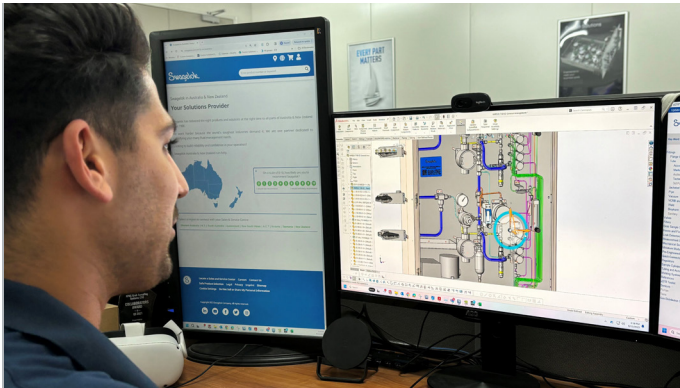
Reagent Control - Manifolds are a part of a broader, often automated, control system. In large concentrators, these systems work with control loop feedback between flowmeter and control valve to adjust reagent dosing rates for optimal performance.

Additional Flotation Sub-System - Some flotation cells incorporate a "novel air sparger system" that uses a manifold to recirculate slurry from the tank bottom, mixing it with air for enhanced dispersion, often using durable, specialised nozzles.

Operational Impact - Proper manifold design and operation helps maintain consistent chemical concentration, avoiding wastage or low recovery associated with improper dosing.

Swagelok's fabrication team can help you design the right system for your specific needs, build it and supply it with the Swagelok Limited Lifetime Warranty.

CONTACT SWAGELOK



SWAGELOK FABRICATION PROCESS

Concept Phase

Field Engineers support evaluation of your existing or planned new systems

- On-site system evaluations, looking to improve design
- Review technical specifications & standards
- Fully scope delivery expectations and needs

Design Phase

Application Engineers support product selection & design

- Regulator & Relief valve flow calculations
- Product selection advise
- Includes all P&ID and 3D CAD models

Build Phase

Experienced fabrication team assemble your system

- Scheduled sourcing (reducing lead times)
- Assembled by certified installers
- Highest quality components

Testing & Delivery Phase

Versatile testing capabilities and quality packaging

- A wide range of testing options (including FAT)
- Secure packaging ensures safe arrival to your facility
- Field Engineers support on-site commissioning

Quality Assurance

All Swagelok fabrications are covered by;

- ISO 9001:2015 Quality Standards
- SQS Swagelok Quality System
- Swagelok Limited Lifetime Warranty

System Integrity:

Evaluating Your Control Systems

Swagelok delivers the expertise necessary to feel confident in the performance of your reagent manifold assets throughout their full life-cycle.



Swagelok Field Service engineers and applications engineers are readily available to assist with component selection and system design to help ensure you achieve the performance, productivity, reliability and safety improvements while helping reduce costs and risks.

Swagelok offer a wide range of Field Services, these include;

- Fluid System Evaluation
- Compressed Gas Leak Detection
- Hose Advisory Service
- Analytical Instrumentation Sample System Survey
- Grab Sampling Evaluation

After an evaluation of your current or proposed reagent manifold system, Swagelok engineers will provide you with detailed recommendations on enhancements and installation best practices to help improve system integrity, safety and reliability.

Rely on Swagelok to help optimise your control systems, reducing emissions and increasing safety and productivity.

Contact Us today to discuss how we can help.

Contact Swagelok

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