






Active Chemical Injection Solutions



THE CHEMISTRY BEHIND CHEMICAL INJECTION

Optimized Flow Assurance & Asset Integrity in Upstream Operations

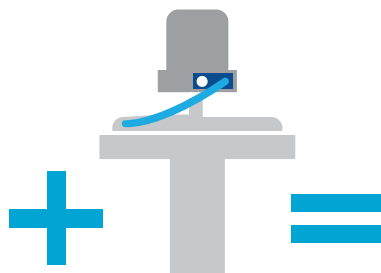
Today, upstream well operators...

-  OVER-INJECT chemicals based on legacy best practices rooted in poor accuracy & repeatability
-  MANUALLY ADJUST FLOW, clipboard in hand
-  ADD HEADCOUNT just to maintain chemical injection settings and equipment
-  STOCKPILE SPARES of meter parts "just in case"
-  DISRUPT PRODUCTION for calibration, maintenance, repair, replacement

EMERSON'S SOLUTION: A Balanced Equation for Flow Assurance & Cost Reduction



**MICRO MOTION
HPC015**
HIGH PRESSURE
CORIOLIS METER



**TESCOM
56 SERIES**
CHEMICAL INJECTION
FLOW CONTROL VALVE

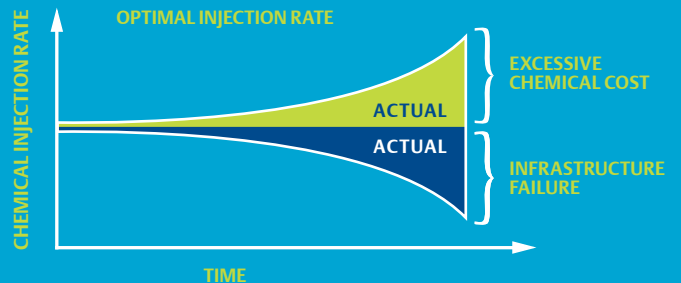
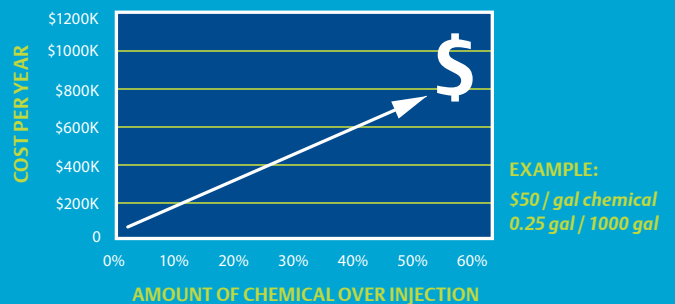
- real time automatic injection rate calculation
- precise injection rate control
- multi stream injection
- density measurement
- continuous monitoring of injection rate
- smart diagnostics and minimum maintenance

- REDUCE RISK
- REDUCE CAPEX
- REDUCE OPEX
- REDUCE MANUAL INTERVENTION
- REDUCE MAINTENANCE & DOWNTIME

"OPERATORS TYPICALLY OVER-INJECT BY 20%"

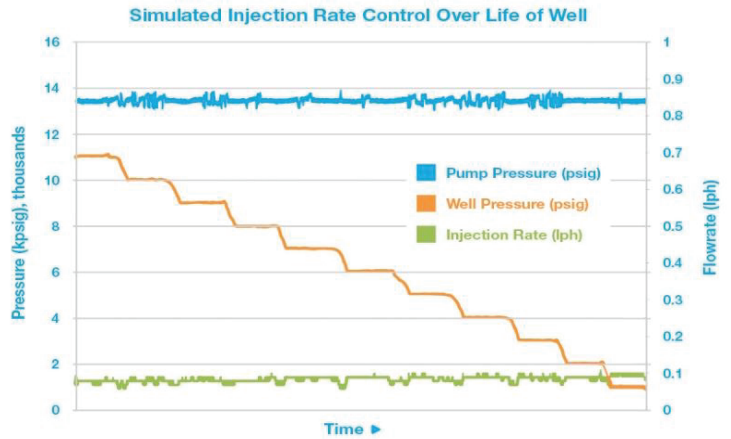
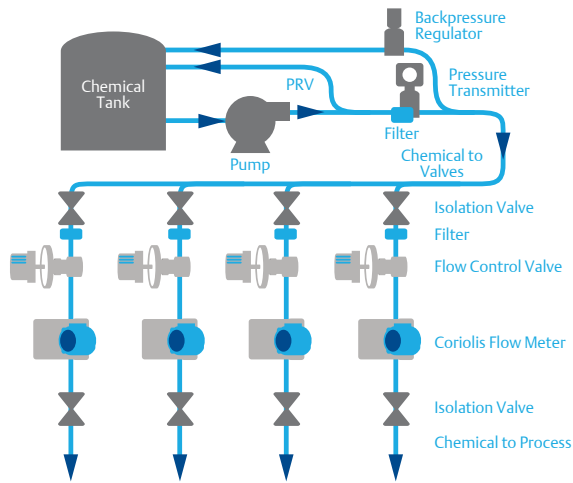
in order to reduce the risk of infrastructure failure."
- MAJOR E&P COMPANY

With the expense of controlling hydrates, corrosion, scale, wax and asphaltenes **EXCEEDING 10% OF PRODUCTION COSTS**, it is crucial to maintain accurate control of injection rates while minimizing downtime.



Chemical injection flow control retains consistency regardless of system fluctuations. Do not let over and under chemical injection rates waste valuable resources or worst yet risk a catastrophic infrastructure failure.

MEASUREMENT & CONTROL



FEATURES

Active control that compensate for changes in inlet pressure, outlet pressure, flow demand, temperature changes and provide accurate chemical flow rate control.

Reduces complexity by replacing multi pump systems with single pump systems that save space, weight and power.

Consistent flow of chemicals to your production infrastructure no matter how the conditions change.

Optimization of chemical usage to prevent problems associated with under-injection & waste associated with over injection.

Reduced operational and maintenance costs while increasing safety by extending the service life and being easy to maintain.

Robust high-quality components for longevity in offshore applications reduce maintenance costs and unplanned downtime.

You Don't Have to Be a Chemical Engineer to UNDERSTAND THE BUSINESS CASE

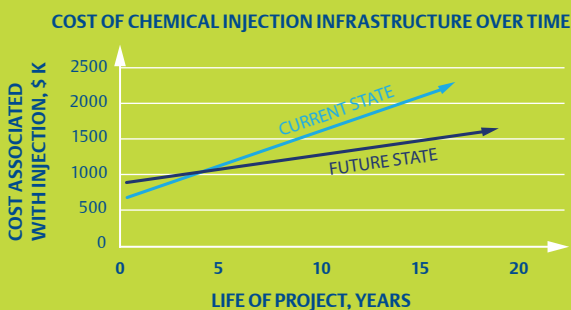
Switching from dedicated chemical tanks to a single chemical tank saves space, weight & capital outlay for the chemical injection system...

DEDICATED TANK SCENARIO
OPEX: \$\$\$\$\$

SINGLE TANK SCENARIO
OPEX: \$

X24 filters	X3 filters
X24 tanks	X3 tanks
X24 flowmeters	X24 flowmeters
X24 pumps	X3 pumps
X24 pulsation dampeners	X24 control valves

...and it quickly pays for itself—and then some.



HPC015

TAILORED FOR YOUR APPLICATION

Up to 0.1% mass/volume flow accuracy

Flow range of 25-504 kg/hr (0.9-18.5 lb/min)

0.001 g/cc density accuracy

0-1060 barg (0-15374 psig) operating pressure

CSA, IECEx and ATEX Approvals

Stainless steel, 5700, direct-connect, and 2-wire transmitters available to suit any the needs of any application



TESCOM VALVE

FOR YOUR APPLICATION

Flow rate range of 113.56 l/m / .005 - 30.0 gpm

Inlet pressure up to 1034 bar /15,000 psig

Outlet pressure up to 1034 bar /15,000 psig

CSA, IECEx and ATEX Approvals

Full stainless-steel construction

Kalrez® elastomers