

# Optimize chemical injection systems with robust flow control



**TESCOM™ 56 Series Chemical Injection Flow Control Valve**  
Continuous and responsive control



# You are facing infrastructure failure and shutting down production will cost you \$1,000,000 a day

This is something you don't ever want to hear. Flow assurance is a critical component in the design and operation of offshore product facilities. With the expense of controlling hydrates, corrosion, scale, wax and asphaltenes exceeding 10% of production costs, it has never been more crucial for operators to maintain accurate control of injection rates while minimizing downtime.

“The prevention of hydrates requires substantial investments up to 10% of natural gas production cost.”

–Advances in Natural Gas Technology



“Operators typically over inject by 20% in order to reduce the risk of infrastructure failure.”

–Major E&P Company



“We employ an additional technician just to maintain chemical injection valves.”

–Gulf of Mexico Operator



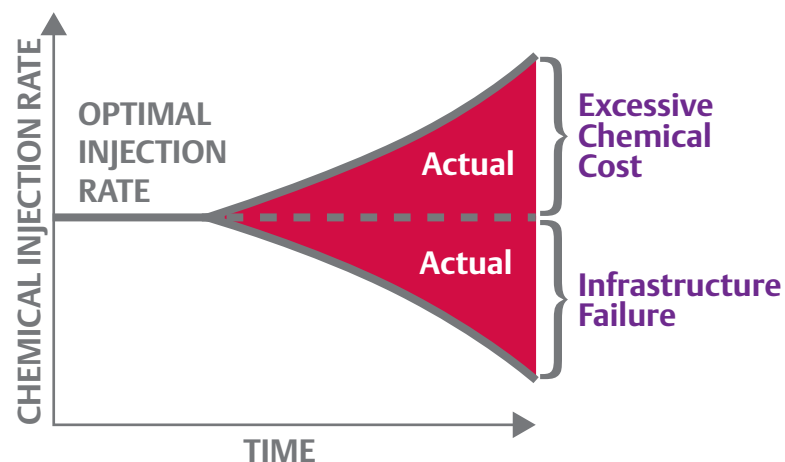


**Inconsistent and unresponsive chemical injection flow control can have major repercussions that put your production at risk.**

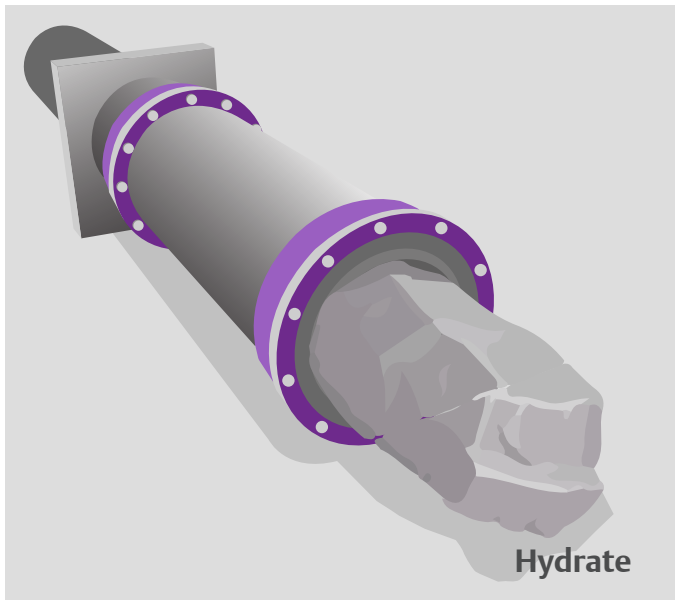


## Optimize chemical injection rates to ensure optimal production

In this environment it has never been more important to lower operational costs. To achieve this, you need precision chemical injection flow control that 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.

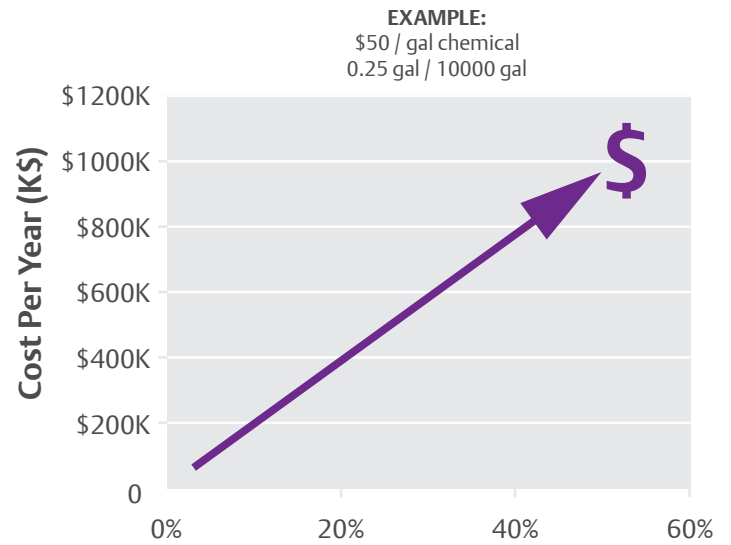


## Over and under injection of chemicals has costly consequences



**Infrastructure risks** - In critical ocean environments, wax accumulation along pipe walls and hydrate formation can easily lead to clogging and reduced flow. Stoppage points are difficult to locate, and not easily accessible. Even minor blockage can lead to **millions of dollars** in potential removal work.

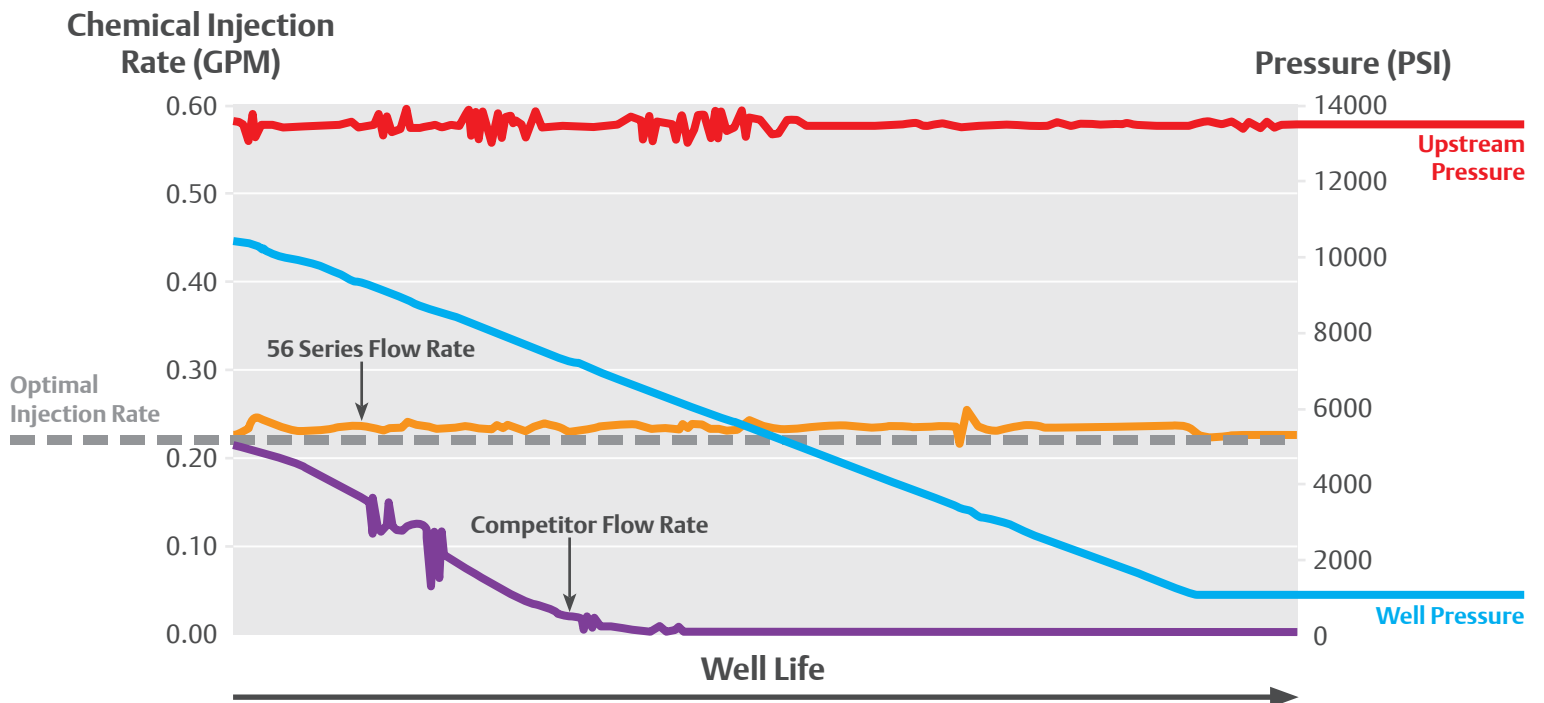
### Amount of Chemical Over Injection



**Costly standard practice** - Operators overdose upwards to 20% due to uncertainty in the chemical injection system costing an estimated **\$400,000 per year per chemical**.

## Save on chemical usage with proven results

### TESCOM 56 Series chemical injection flow control valve versus the Competition



**Responsive control** - TESCOM 56 Series chemical injection flow control valve **adapts to changes** in inlet and outlet pressure to maintain the optimal injection rate, reducing chemical costs and risk of infrastructure failure.



# TESCOM™ 56 Series chemical injection flow control valve accurately delivers the optimal injection rate

## Product overview

The TESCOM 56 Series chemical injection flow control valve utilizes an integrated microprocessor based PID controller that brings precise algorithmic control to chemical injection systems. This technology provides:

- Responsive control that allows the valve to adapt to an ever-changing system
- Accurate flow control that reduces operational costs
- Reduced downtime and maintenance associated with flow control valves

## Key applications

- Offshore chemical injection
- Process flow control

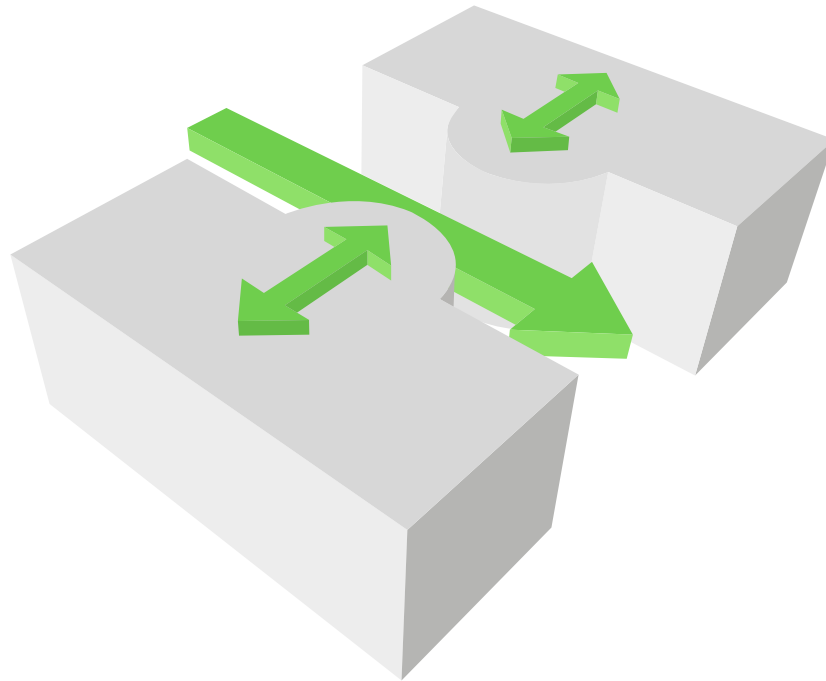
## Key specifications

- Flow rate range of .005 - 30.0 gpm / 113.56 l/m
- Inlet pressure up to 15,000 psig / 1034 bar
- Outlet pressure up to 15,000 psig / 1034 bar
- CSA, IECEx and ATEX Approvals
- Full stainless steel construction
- Kalrez® elastomers

Kalrez® is a mark owned by E.I. du Pont de Nemours and Co.



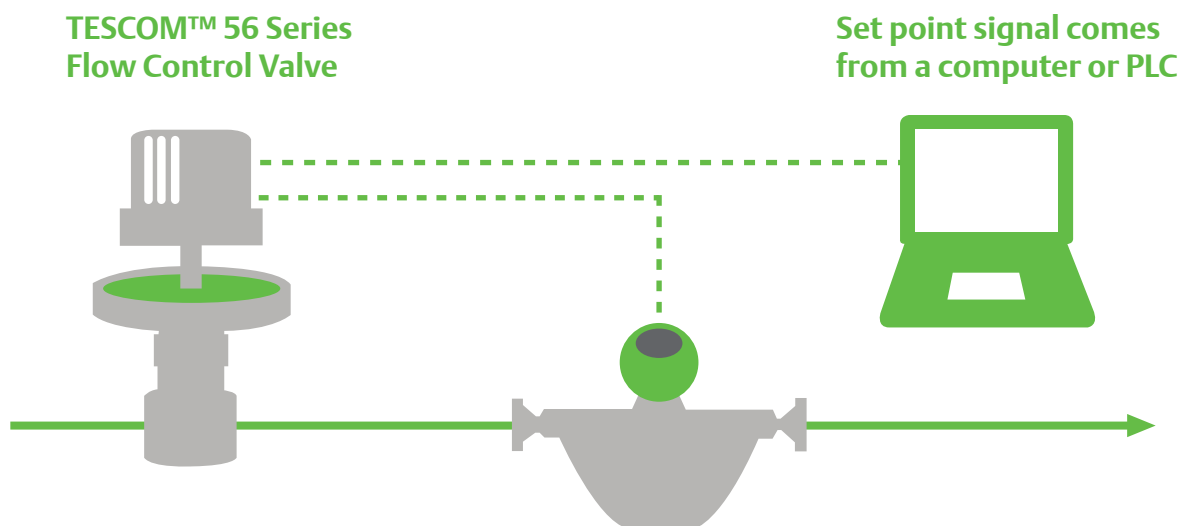
## Reduce clogging with variable orifice flow control technology



- Reduce headcount offshore with Variable Orifice Technology that offers unmatched reliability and virtually **eliminates downtime and maintenance** due to clogging.

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

## Automated flow control that seamlessly integrates with any chemical injection system



- PID algorithm can update every 25ms which results in **unparalleled accuracy and responsiveness**.
- Reduces complexity by replacing multi pump systems with single pump systems that **save space, weight and power**.

- 4-20ma signal for communication which allows the flow control valve to easily **connect to any flow meter (PD, Turbine, DP, Coriolis)**.

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