

DRAG REDUCING AGENTS IMPROVE PIPELINE PROFITABILITY

Drag Reducing Agents Optimize the Potential of your Pipelines

Increase Pipeline Capacity

- The use of a drag reducing agent (DRA) reduces the frictional resistance in turbulent flow
- DRAs reduce the energy required to move fluids
- Flow rates are increased with drag reduction

Reduce Pipeline Pressures

- The reduction of turbulence in a pipeline results in lower pressures

No Effect on Refineries

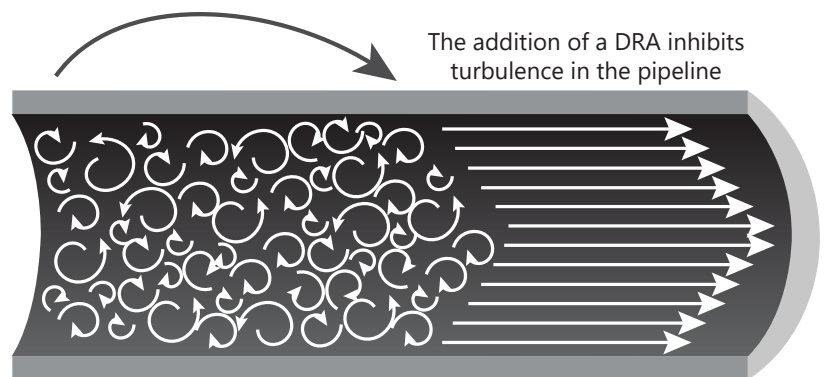
- The active component is an ultra-high molecular weight hydrocarbon polymer which dissolves into the hydrocarbon stream and does not deposit on the pipeline walls
- The polymer is a hydrocarbon similar to major components in crude oil and shear degrades as it travels downstream, becoming indistinguishable from the components in the pipeline flow stream

Recent Success Case

- PureChem has used a drag reducing agent in a sales oil pipeline for a customer in SE Saskatchewan
- DR-804 was injected at 8 lbs per hour or approximately 30 ppm
- This application increased pipeline capacity from 115 m³ per hour to 130 m³ per hour at 600 psig

DRAs are injected using high pressure positive displacement pumps after pump stations.

DRAs can result in a 70-80% reduction in drag with 20-30 ppm of added polymer.



**Working smarter to
deliver added value to
our PureChem customers**