

## Blackwater / Graywater Service

The MOGAS CA-1AS metal-seated ball valve helps maintain critical production through reliable isolation.

### Blackwater: Soot, Salt and Sulfides

Blackwater is the gasification blowdown water containing fine particulate matter, soot, salts and / or volatile, heavy-metal sulfides. These liquid effluents come from the unit's quench and lockhopper vessels and require special treatment processes. These processes optimize the effectiveness of the overall gasification operation.

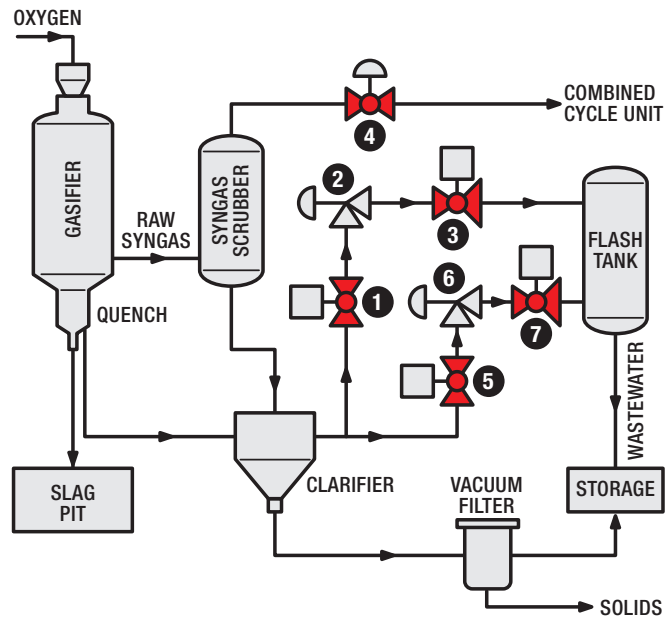
### High Pressures and High Temperatures

The valves used in this process must be capable of handling high pressure, high temperature entrained flow. Reliable isolation is critical to preventing shutdown to the flash tank drum. High-pressure blackwater blowdown valves experience flashing with entrained particulates. This severe service requires frequent maintenance, making proper isolation of these valves (and maintaining production as a result) very important.

### CA-1AS: Special Design and Performance

Simple and efficient by design, the MOGAS CA-1AS floating ball valve can endure extensive cycle counts and severe operating conditions to provide gasification units with up to five years of reliable, uninterrupted service. Special seat configuration, weld inlay and erosion-resistant coating options make the CA-1AS ball valve an ideal choice for rugged blackwater and graywater service.

### Blackwater Handling



*Proper blackwater treatment requires reliable valve performance under severe operating conditions.*

### Valve Specification

Valve Number	Valve Description
1	Blackwater Letdown Cv Upstream Block
2	Blackwater Letdown
3	Flash Tank Isolation
4	Raw Syngas Control
5	Blackwater Letdown Cv Upstream Block
6	Blackwater Letdown
7	Flash Tank Isolation