

# Gasification

## Process Overview

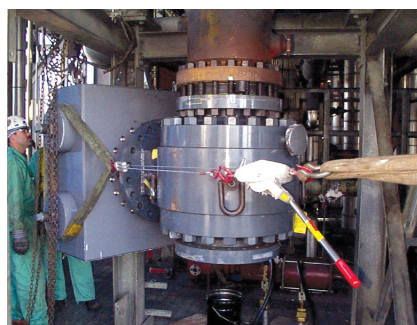
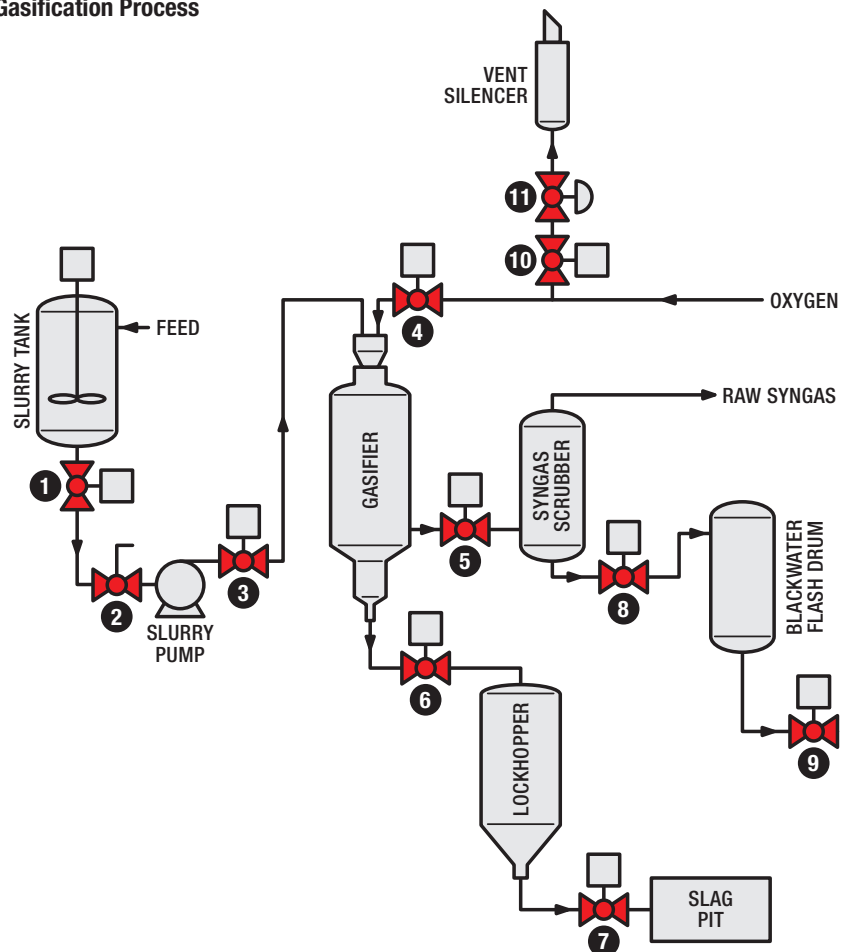
MOGAS has worked with the leading licensor of the gasification process globally to develop trim and coating technology to increase the operational reliability of critical isolation valves.

MOGAS' most recent achievement was to extend the lockhopper valve system for de-slagging operations. This achievement improved performance from six months to five years with over 50,000 cycles of operation without any related valve or actuator failures.

### Typical operating conditions are:

- High temperature (500 – 900 F / 260 – 480 C)
- Fine and coarse slag service
- High cycle
- Erosive conditions
- Temperature cycling
- Flashing water service
- Chloride corrosion
- High pressure oxygen service

### Gasification Process



*This 16-inch 600 ASME class valve was installed for 550 F at 1095 psig (290 C at 75 bar g) lockhopper isolation service. Several of these valves withstood over 50,000 cycles.*

### Valve Specification

Valve Number	Valve Description
1	Slurry Tank EBV
2	Feed Slurry Pump Isolation
3	Gasifier Isolation
4	Oxygen Feed Isolation
5	Course Slag Lockhopper Isolation
6	Lockhopper Drum Inlet
7	Lockhopper Drum Outlet
8	LCV Letdown Isolation
9	Blackwater Flash Drum Isolation
10	Oxygen Depressurizing Valve
11	Oxygen Depressurizing Isolation