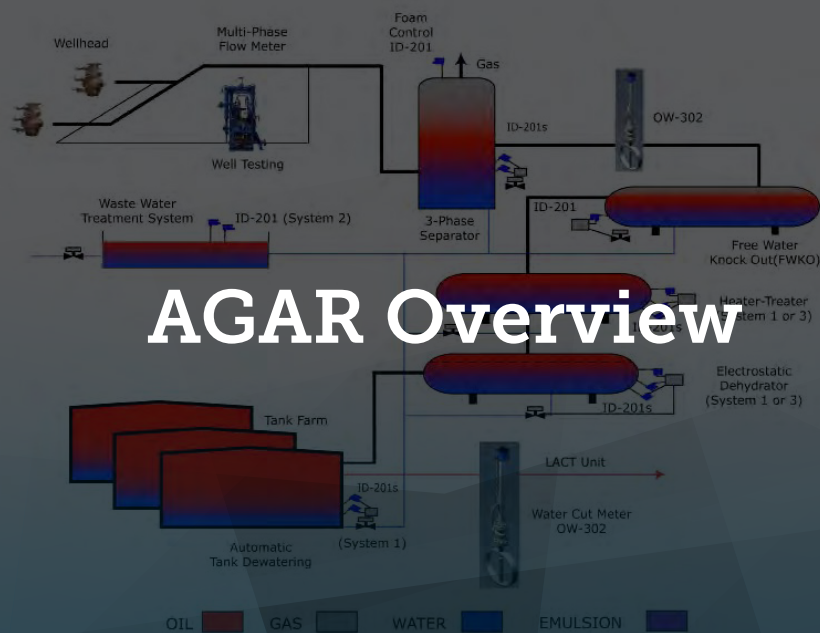


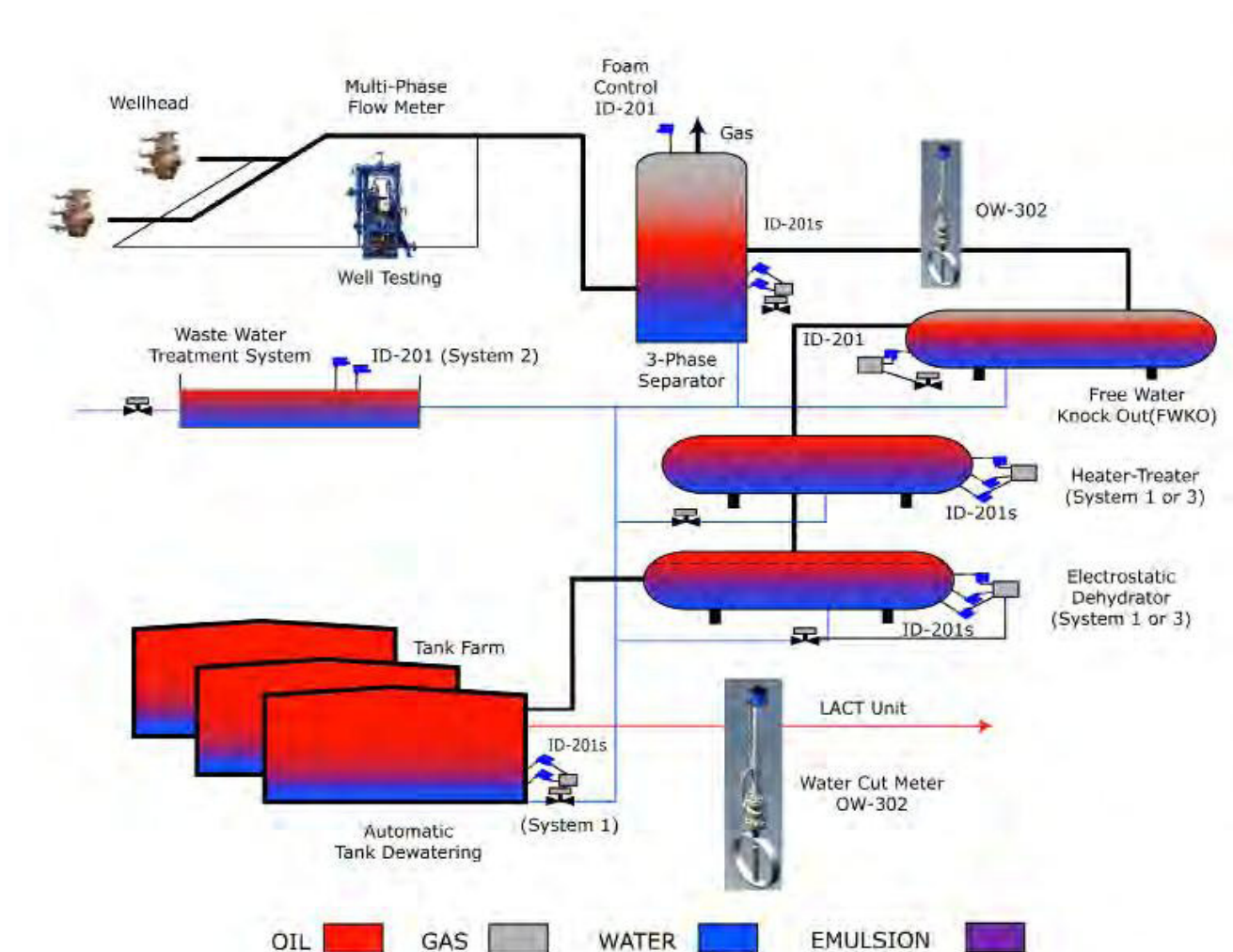
# HMA

## INSTRUMENTATION



## UPSTREAM APPLICATIONS

- Multiphase Flow Meter Well Testing
- Two-Phase Test Separators - Watercut Meters
- Production Separator
- Foam Detection & Control
- Amine Contactors, Glycol Dehydration
- Free Water Knockout
- Heater Treaters, Dehydrators
- Automatic Tank Dewatering
- Waste Water Treatment
- BS & W Monitor
- Hydrate Detection

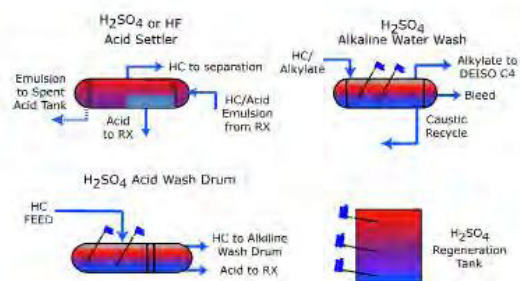


## REFINERY/CHEMICAL PLANT APPLICATIONS

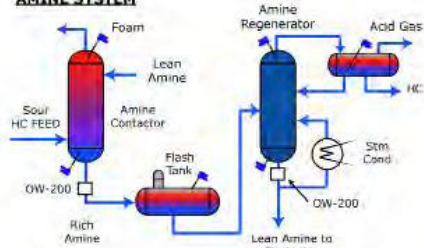
- Automatic Tank Dewatering
- Desalters
- Slop Oil
- Foam Detection
- Amine Contactors & Flash Tank
- Alkylation
- Merox / Caustic Treaters
- Wash Tank
- Ethylene Quench Tower Separator
- Sour Water Tanks
- Coker Blow Down Drum



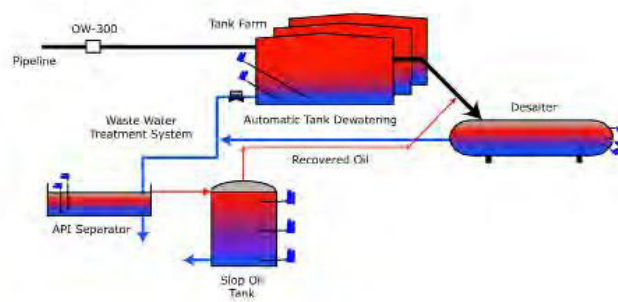
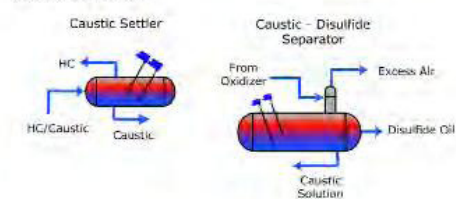
### ALKYLATION



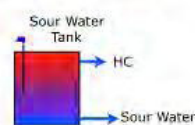
### AMINE SYSTEM



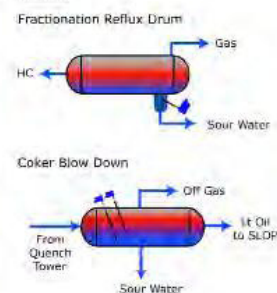
### CAUSTIC WASH



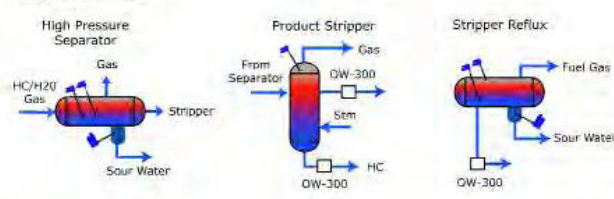
### SOUR WATER STRIPPER



### COKER



### HYDROTREATER



ID 201s OIL GAS WATER EMULSION



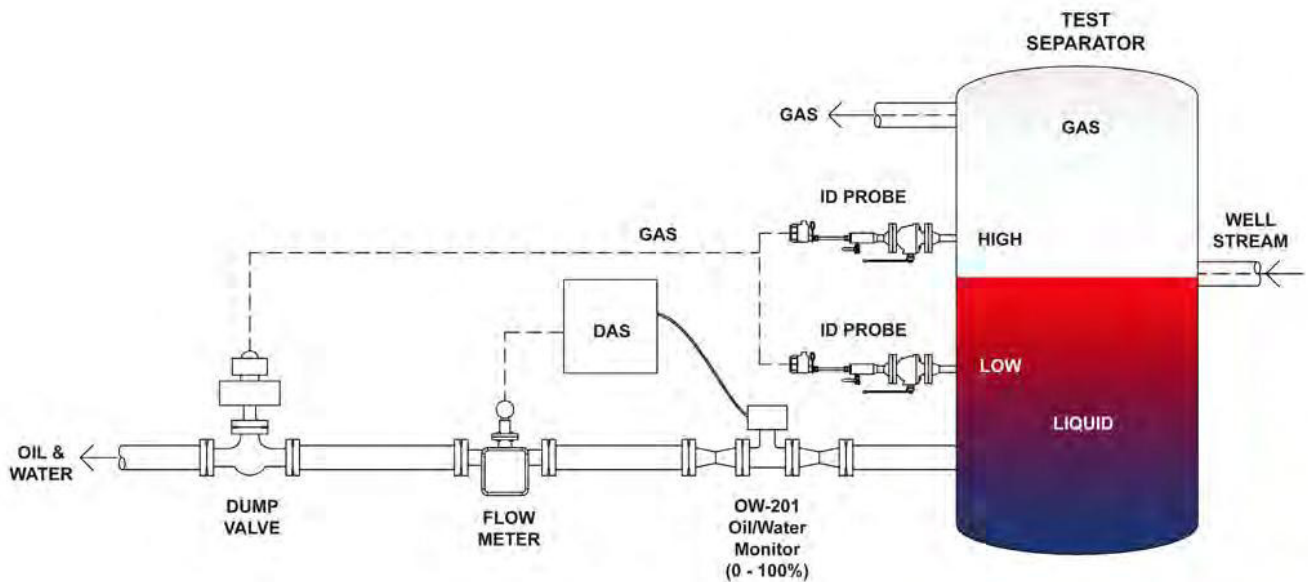
## OIL / WATER MONITOR

### OW-200 Series

- 0 - 100% Watercut Range
- Well Testing
- Measures Hydrocarbon in Waste Water

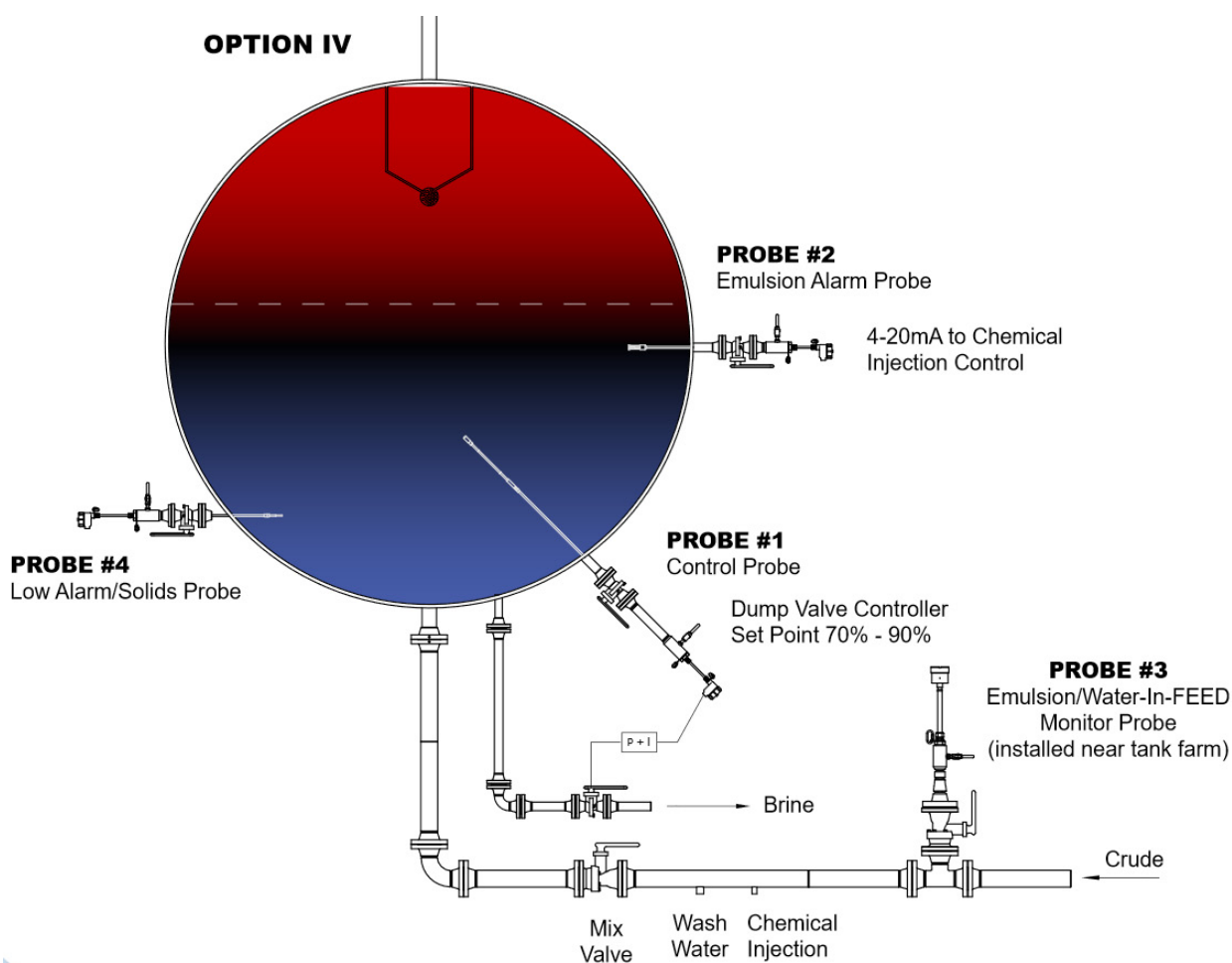
### OW-300 Series

- 0 - 40% Watercut Range
- BS&W / LACT Units
- Custody Transfer
- Pipeline Monitoring



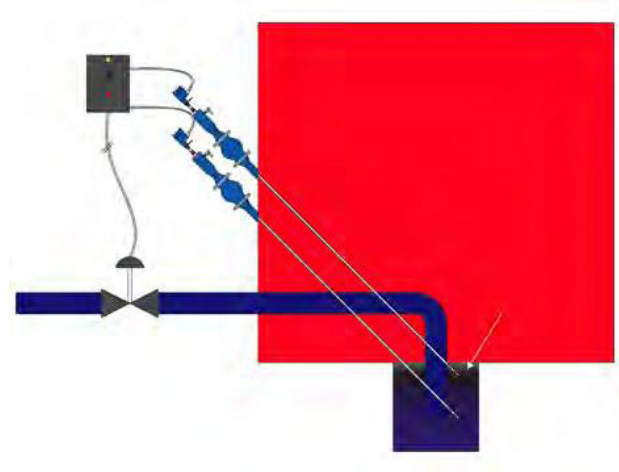
## DESALTING SYSTEM - AGAR SYSTEM 3

- Continuous Brine Valve Control
- Directional Control of Emulsion Growth
- Elimination of Routine Free Oil Undercarry
- Advance Warning of Emulsion Growth Below the Grids
- Advance Warning of Oil/Solids Contamination of Water Phase
- Advance Warning of Water "Slugging" in the Feed from the Tank Farm
- Potential to Automate Upset Responses
- Optimization of Chemical Usage and Other Operating Parameters



## AUTOMATIC TANK DEWATERING & API SEPARATOR CONTROL - AGAR SYSTEM 1 AND 2

- Utilizes Agar's ID 200 Series (201, 202, 205)
- 80% reduction in hydrocarbon discharged to sewer (waste water treatment system)
- Measures actual water content at differing elevations
- Provides automatic control of the water draw-off valve
- Adjustable probe positions to allow optimum control
- Delivers an excellent Return on Investment
- Integrated into many worldwide environmental projects



## HYDRATE DETECTORS - 101 & 102 SERIES

- Hydrate Detection
- LDHI / Methanol Injection Optimization