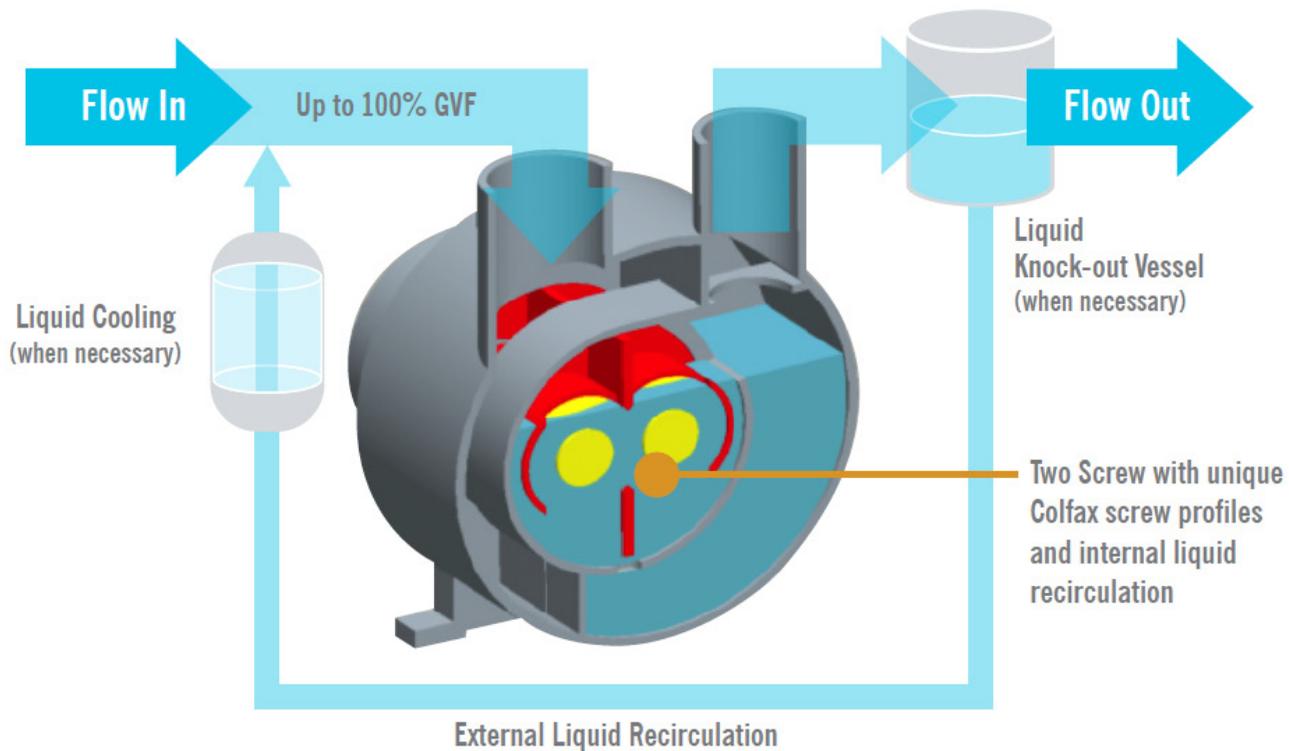


## HOW MULTIPHASE SYSTEMS WORK:



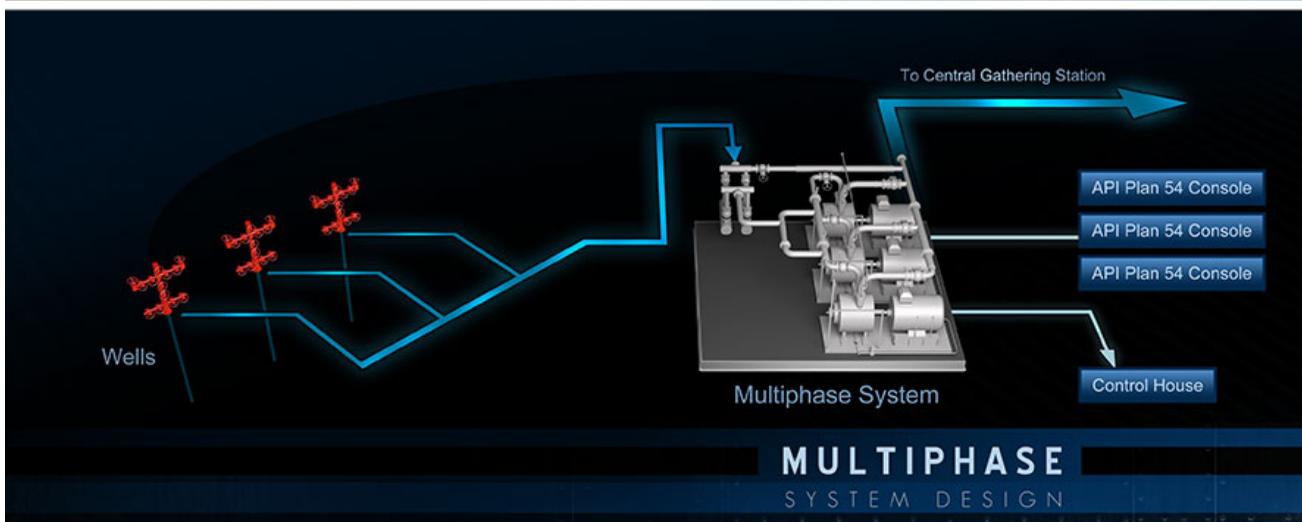
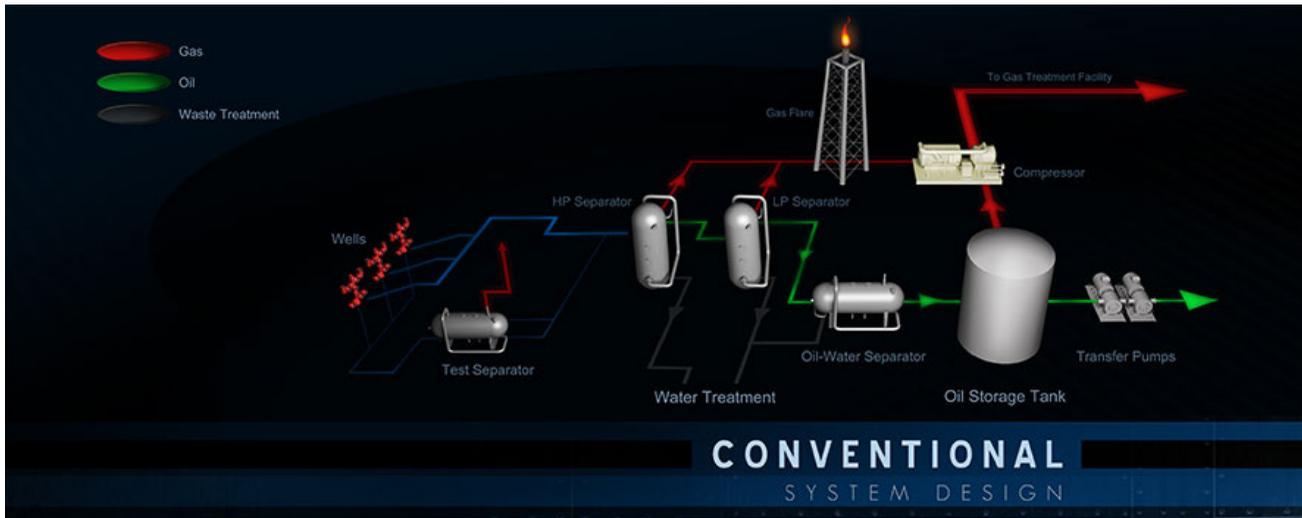
Our systems utilize positive displacement pump technology combined with industry leading internal (to pump) and external (to pump) recirculation systems to pump the multiphase fluids.

Primary pump components are two intermeshing, self-priming screws that isolate a volume of liquid and convey it from pump inlet to outlet. Properly timed, the screws overcome conventional pump challenges – running dry, sandy or high GVF flows – as the screws do not contact either each other or their housing. For fluids up to 97% GVF, the pump housing includes an embedded liquid reservoir that releases liquid into the screw mechanisms. This liquid maintains proper pump efficiency through optimal internal sealing of the pump elements and dissipates heat generated from compressing the gas portion of the flow.

A complete system, with fully automatable controls, encompasses the pump to ensure optimal operations in our constantly changing oil and gas conditions. Motors, strainers, knock-out vessels, balancing and recirculation lines, valves, lube systems and heat exchangers are some of the primary system components that work together to ensure consistent, efficient operations while extending the system's capabilities to 100% GVF flows.

## CRUDE PIPELINE BOOSTING AND GATHERING:

Simplify your infrastructure by pumping oil, gas, water, condensates and solids with ONE pump through ONE pipeline. These solutions are especially beneficial for offshore, flaring-sensitive and heavy oil production fields.



### BENEFITS:

- Reduce capital expenditures
- Eliminate field separation
- Eliminate redundant pipelines for water, oil and gas
- Eliminate flaring
- Gas accompanies hydrocarbons to central processing facility
- Simplify surface facility controls
- Remote automated controls
- Eliminate complex gas management systems

## MULTIPHASE PUMP SYSTEM SET-UP:

### FIELD SEPARATION



In field separation, the wellhead facility exerts a required pressure on the well to drive the production fluid through a local separation/ takeaway processing battery.

### CENTRAL PROCESSING



In central processing, the pressure transfers the production flow from a direct takeaway pipeline to a remote storage, transport, or processing facility.