

# Wellcom™ Multiphase Boosting

## Increasing Multiphase Production and Well Sustainability

### APPLICATIONS

Improve multiphase, gas and wet gas production in low pressure fields

Minimise LP well back-out

### FEATURES

No moving parts, minimal maintenance and control

Uses available energy sources, such as high pressure multiphase wells, or high pressure gas or liquid

### BENEFITS

Increase production typically 10%-40%

Extend the operating life of low pressure wells

Increase recoverable reserves

Fast deployment, 'quick wins'



- Increase production: typical production increase is 10%-40%; using available energy sources, such as high pressure multiphase wells, or high pressure gas.
- Restore struggling or dead wells to production. Lower back pressure on liquid-loaded or struggling wells to help keep them producing.
- Prevent high pressure wells backing out low pressure wells: the high pressure multiphase source can be harnessed to increase production from low pressure wells.

The Wellcom™ system uses a Caltec I-SEP and jet pump, to harness high pressure multiphase or wet gas energy, to boost low pressure fluid.

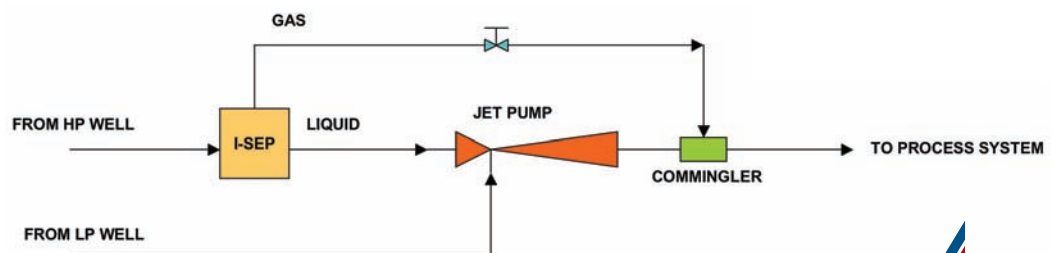
Caltec is a world leader in the use of jet pumps and compact separators in the oil and gas industry, with a 100% success rate track record world-wide.

The high pressure source gas and liquid are separated and one component is then used to power the jet pump, where other (low pressure) fluids can be drawn in and mixed; the entire flow is then re-combined and discharged at an intermediate pressure. Thus high pressure multiphase fluid can lower the back pressure on another well, and increase its production and delivery pressure.

The core components of the Wellcom system are passive devices, with no moving parts, so it needs very little maintenance or active control, yet it is very effective at harnessing existing energy sources.

Wellcom systems are available for rapid deployment, and should have immediate impact, typically increasing production by 10%-40%; Caltec will also make the units available on a short-term basis, as appropriate, and will custom-design units for specific applications.

The Wellcom system is an excellent 'quick win' option when high pressure wells or gas is available; helping make more efficient use of existing facilities to maintain, sustain and increase production.



## Caltec Wellcom Skid Specification Data Sheet

Equipment Name	6" Wellcom Oil Skid	6" Wellcom Gas Skid
	Wo-6	Wg-6
<b>Model Number</b>	CAL6W02XXXR	CAL6WG2XXXR
<b>Mechanical Design</b>		
Piping Design Code	ASME B31.3	ASME B31.3
Skid Design Code	DNV 2.7-1	DNV 2.7-1
Pressure Rating	ANSI 1500#	ANSI 1500#
Design Pressure	241.1 barg	241.1 barg
Maximum Operating Pressure	217 barg	217 barg
Design Temperature	-46 to +75 °C	-46 to +75 °C
Maximum Operating Temperature	70 °C	70 °C
Material	LTCS (NACE)	LTCS (NACE)
Corrosion Allowance	2 mm	2 mm
Paint Spec	Offshore paint spec	Offshore paint spec
PED	CE Marking	CE Marking
<b>Skid Dimensions</b>		
Connections:		
Motive (HP) Inlet	4" RTJ, Sch 160	4" RTJ, Sch 160
Suction (LP) Inlet	4" RTJ, Sch 160	4" RTJ, Sch 160
Discharge	6" RTJ, Sch 160	6" RTJ, Sch 160
Dimensions (mm)	3040 x 1000 x 1700	3040 x 1000 x 1700
Weight (kg)	2600	2600
Orientation	Horizontal	Horizontal
<b>Flow Ranges</b>		
Pressure:		
Motive (HP) Inlet	20-217 bara*	20-140 bara*
Suction (LP) Inlet	2-40 bara*	2-40 bara*
Discharge	(up to 300% of LP pressure)*	(up to 300% of LP pressure)*
<b>Flowrate:</b>		
Motive (HP) Inlet	Up to 5000 bbl/d, Up to 6 MMscfd*	Up to 40 MMscfd*
Suction (LP) Inlet	Up to 2500 bbl/d, Up to 3 MMscfd*	Up to 10 MMscfd*
Discharge	(HP + LP flowrate)*	(HP + LP flowrate)*
Gas Volume Fraction (GVF) (HP)	0 - 90%*	> 90%*
Gas Volume Fraction (GVF) (LP)	0 - 100%*	> 98%*
Temperature	0 - 70 °C	0 - 70 °C
Molecular Weight	16 - 35	16 - 35
Cp/Cv Value	1.1 - 1.7	1.1 - 1.7
Liquid Density	600 - 1100 kg/m3	600 - 1100 kg/m3
Liquid Viscosity	1 - 20 cP (at 30 °C)	1 - 20 cP (at 30 °C)
Solid Content	≤ 0.1 lb per MMscfd	≤ 0.1 lb per MMscfd
	≤ 10 lb per 1000 bbls	≤ 10 lb per 1000 bbls
Particle Sizes Range	< 500 micron	< 500 micron
* Typical range. Please contact Caltec with project specific data		Rev 1B