

# Separators and Scrubbers



Horizontal and Vertical  
Oil & Gas Separators  
and Pipeline Scrubbers



## Why do BS&B separators pay out sooner?

Two quick answers:

1. Superior engineering.
2. Each BS&B separator is carefully selected from a wide range of catalog models or custom engineered to fit the job.

That's why a BS&B separator will last longer, with less downtime. Perform better. Pay for itself sooner.

Why buy a standard separator and hope for the best? A BS&B engineered separator delivers the best - without question.

Want proof? Here's the clincher -

**BS&B guarantees that you will enjoy less than 1/10th of a gallon liquid carryover per million cubic feet of gas, on all particles 10 microns and larger, with their DC<sup>®</sup> Separators.**

How can BS&B make this unique guarantee? Let's take a look at the inside answer.

## HOW DOES A SEPARATOR SEPARATE?

As you know, an oil and gas separator is basically simple. Nearly every competitive make operates in a similar way. But, stick around. It's the many little differences - the BS&B differences - that create the margin between profit and loss, between costly maintenance and trouble-free operation, between quick obsolescence and long service life.

Let's begin with the fundamentals. Then, go on from there.

A separator, from the outside, appears to be only a tank. Let's look at the inside:

The wellstream - a mixture of liquids and gases - enters at one end. The mixture abruptly slows down and settling begins. Natural separation takes place in a slowly moving stream because of gravity segregation. The heavier liquids settle to the bottom of the vessel where they are withdrawn. The lighter gas rises to the upper portion of the vessel and is removed through a suitable opening. The removal of oil and water from the bottom is controlled by liquid level controls that will keep the mixture in the vessel long enough for complete separation of the phases. Now, let's discuss each of these steps in greater detail.

**PROBLEM:**

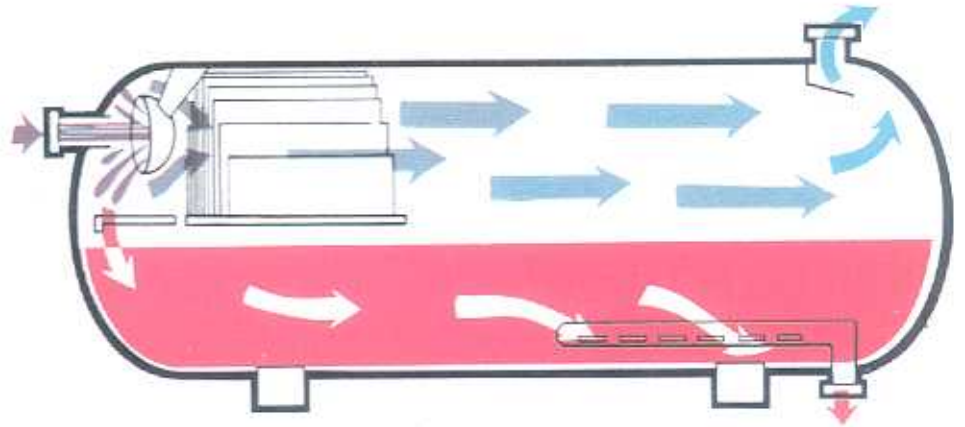
Two-phase, primary separation of light crude production.

**CONDITIONS:**

100: 1 GOR, 50 psi W. P.,  
90° F, 10,000 SCFD,  
Oil Gravity: 40° API,  
Gas Gravity: 0.8

**RECOMMENDED ELEMENTS:**

Dish Deflector, Straightening  
Vane Section, Anti-Vortex  
Liquid Withdrawal.



**PROBLEM:**

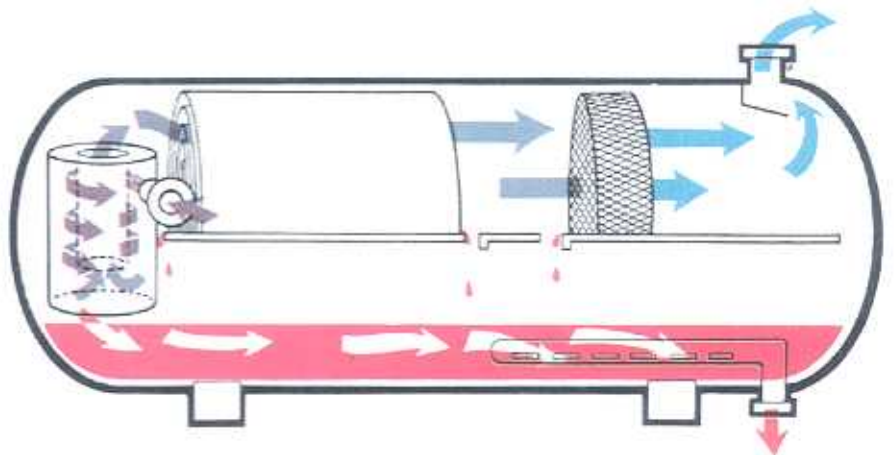
Two phase, primary crude separation.

**CONDITIONS:**

1000: 1 GOR, 100 psi W.P.,  
100° F, 10 MMSCFD,  
10,000 BOPD, Oil Gravity:  
30° API, Gas Gravity: 0.75

**RECOMMENDED ELEMENTS:**

Cyclone Inlet, Mist Extractor  
Section, Half Diameter Arch  
Plates, Anti-Vortex Liquid Withdrawal.



**PROBLEM:**

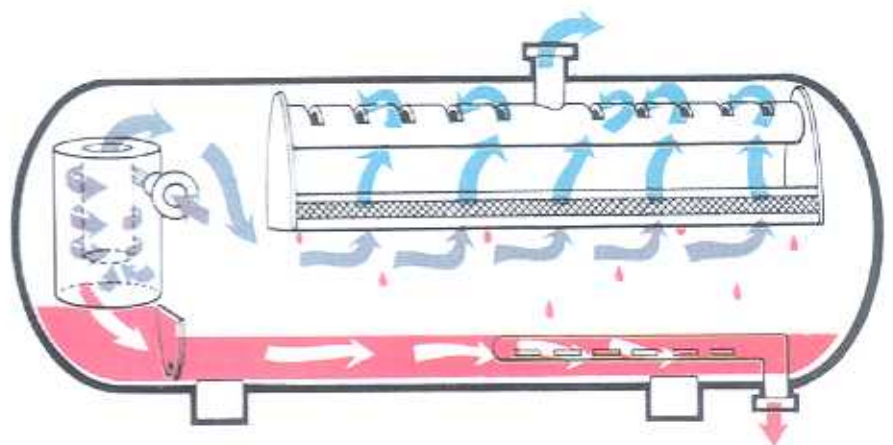
Separating liquid mist and  
liquid slugs in a gas stream.

**CONDITIONS:**

1000 psi W.P., 900 F,  
100.0 MMSCFPD,  
Oil: in mist and slug form.  
Gas Gravity: 0.75

**RECOMMENDED ELEMENTS:**

Cyclone Inlet, Mist Extractor  
Section (Modified for Greater  
Area), Anti-Vortex Liquid Withdrawal.



## How to order BS&B Separation equipment

Please Submit The Following Information  
When Making Inquiry on Separators:

- Oil flow rate and gravity
- Gas flow rate and gravity
- Water flow rate and gravity
- Operating pressure
- Operating temperature
- Two or three phase operation
- Corrosion allowance
- Design pressure
- Quantity of oil to be processed

With this data, we can recommend the  
proper equipment with a minimum of delay.

