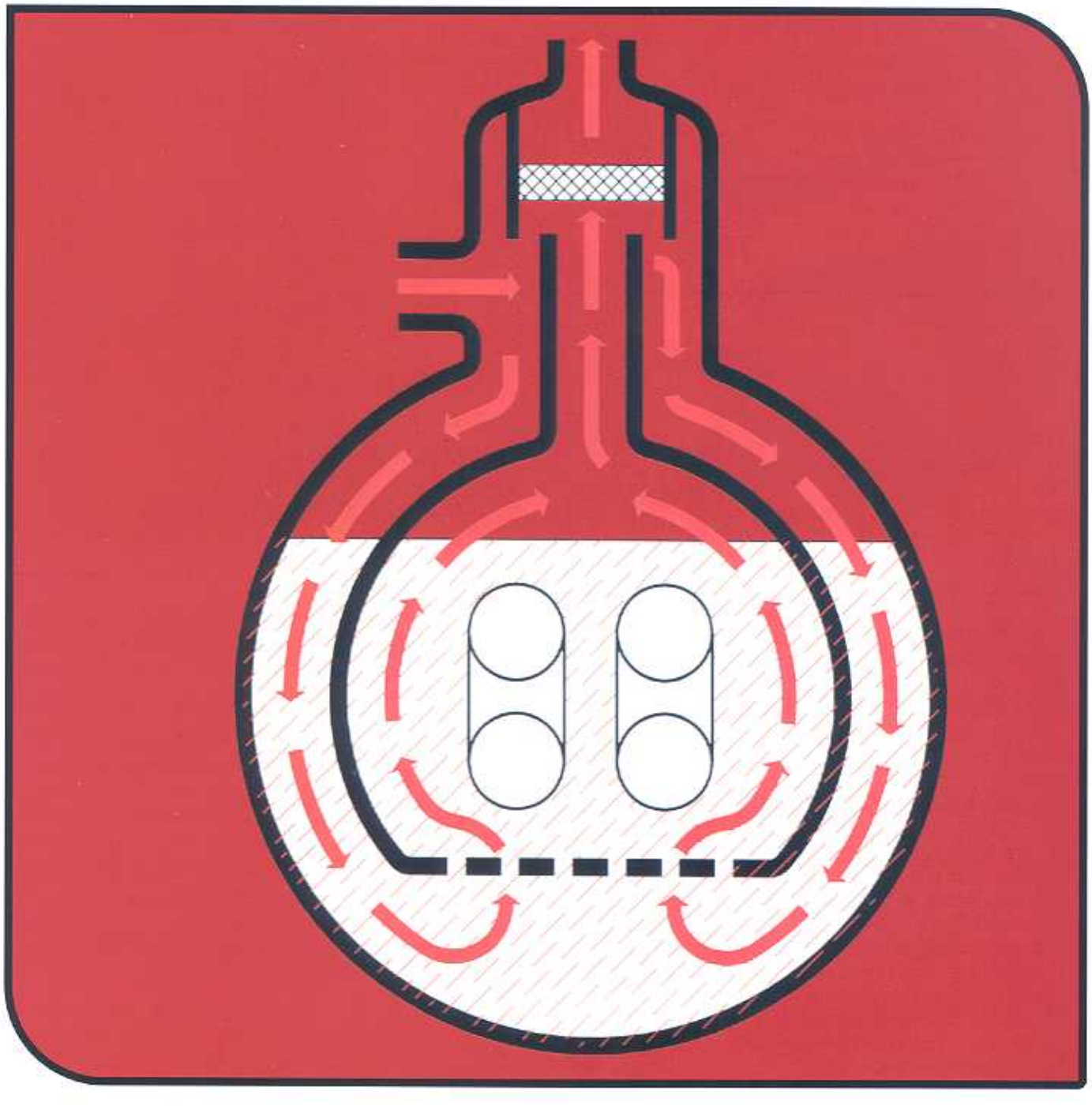
Horizontal Treaters

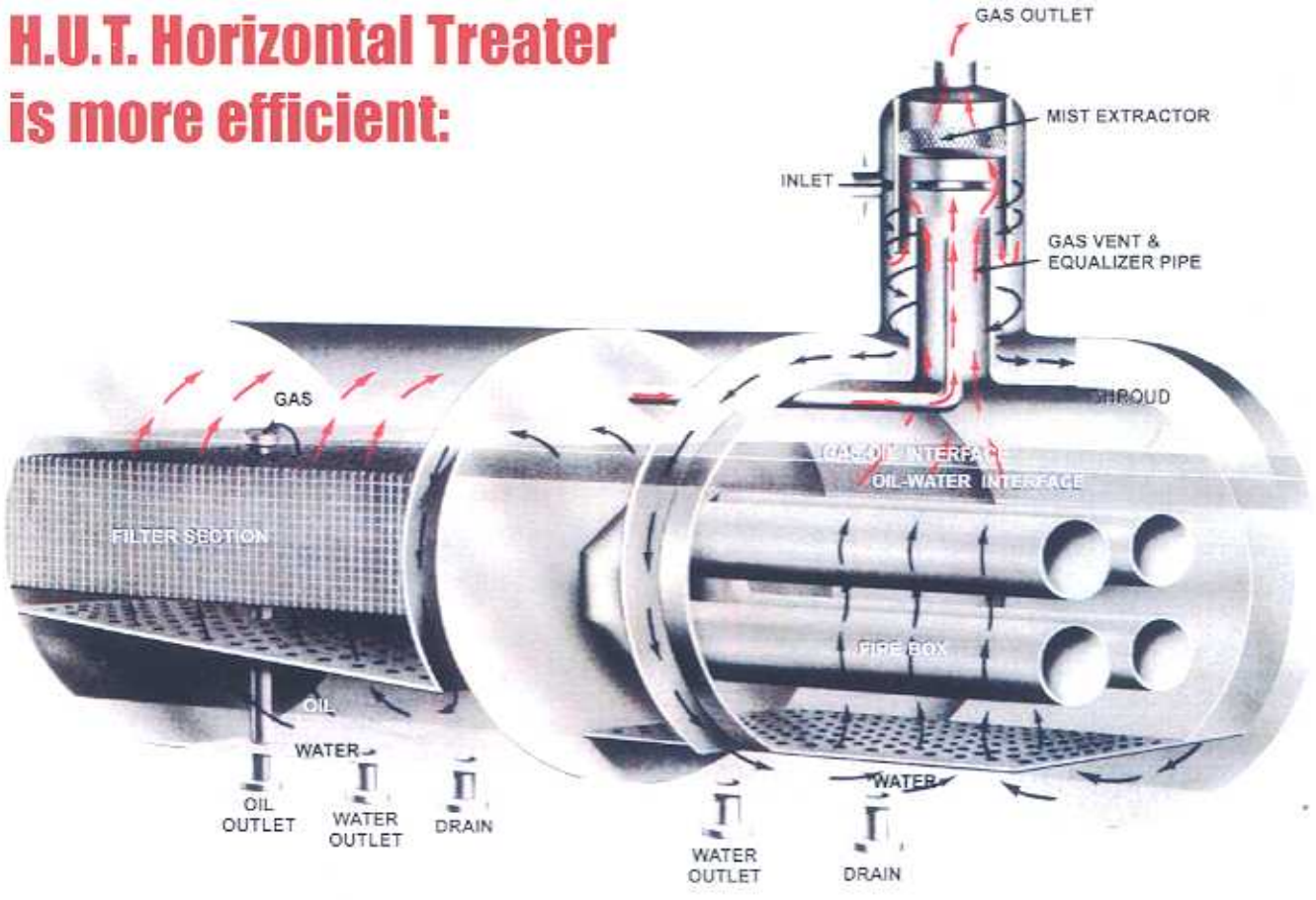


Featuring the H.U.T. Treater with up-flow in both the firebox section and the filter section for greater efficiency, longer firebox life, less maintenance.

BS&B®

PROCESS SYSTEMS

Here's why BS&Bs H.U.T. Horizontal Treater is more efficient:



The BS&B H.U.T. Treater borrows the best features of the dependable vertical treater, and combines them with the high capacities of the horizontal treater.

The big feature of the H.U.T. is up-flow of oil and emulsion around the large firebox section and broad filter section. Flow is upward to take full advantage of separation by gravity. Each section has its own water settling section. Actually, flow through the treater changes direction three times. This contributes even greater water-oil separation.

But this is just one feature of this great new treater. Here is a capsule summary of others ...

1. Primary separation takes place in the Agas separation dome. No free gas enters the oil treating section. Incoming fluid is diverted tangentially. This produces a cyclone effect-for extremely efficient separation.

2. Gas breaking out in the heated oil and filter sections is removed through the vent and equalizer pipe to the gas separation dome.

3. All gas leaving the treater is cooled counter-currently by the incoming fluid before being discharged through the mist extractor in the dome.

4. ncoming oil, water, and emulsion is preheated as it passes downward through the annular space between the treater shell and the shroud which encloses the firebox section.

5. Free water is separated in the bottom of the treater as it leaves the shroud annulus. This water is discharged from the treater without passing through the firebox section and, thus, unnecessarily using up heat.

6. Oil and emulsion are distributed evenly beneath the firetubes. They flow upward through the water bath section in which the firetubes are immersed.

7. The laege area above the firebox provides an excellent quieting and settling section for the heated oil before it flows over the weir and into the filter section. Further oil water separation occurs as the oil flows downward, and reverses its flow into the filter section.

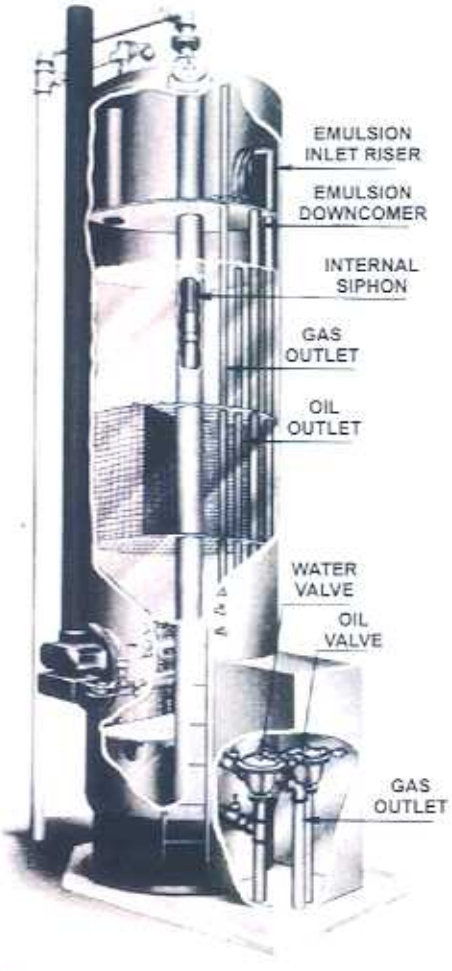
8. As the oil is distributed through the filter section, the coalesced water, which is removed at this point, settles to the bottom of the treater. It is then discharged by the interface controlled water valve.

9. The clean oil, which has passed through the filter section, is discharged from the settling section above the filter through an overflow type outlet.

Additional features of the H.U.T. Treater:

- Up flow design assures longer firetube life-especially where water with high salt concentration is encountered.
- Highly efficient BS&B U-Tube firebox. From one to four fireboxes are installed, depending on treater diameter.
- Firebox is equipped with the BS&B "Full Octave Tuned Firing System." This patented system produces uniform heat throughout the firetube length. Flame impingement and hot spots on the firetube wall are eliminated. This also extends the firebox life.
- The incoming fluid enters the treater through the gas separator dome well above the liquid levels in the treating section. So, there is always enough liquid head available to efficiently move the oil. through the treater without danger of flooding. This is also the coolest point in the treater. Result-greatly improved liquid separation and condensation of valuable light ends.
- All gas is discharged through the mist extractor in the top section of the gas separation dome. This is also well above any liquid levels in the treater.
- These treaters are designed and manufactured in strict accordance with the ASWE Code for pressures of 50 PSI. Higher pressures are available if required.

Vertical Treaters



BS&B also makes this vertical treater for cold weather applications. It has a standard filter section.

Features of the BS&B Vertical Treater:

- Full diameter gas separation uses full cross sectional area to separate entrained and solution gas from the liquid.
- The gas cycle conserves API gravity, producing stable oil of higher API gravity.
- Large, full diameter free water knockout section.
- Efficient perforated tray oil spreader eliminates rolling of the water and assures even dispersion of the crude.
- Removable immersion firebox is efficient, trouble-free.
- Dependable, trouble-free burner and temperature control equipment.
- Large full diameter filter section removes last small quantity of water from oil.
- Large settling section.
- Adjustable outside water siphon.
- Mist eliminator in gas separation section assures dry outlet gas.

H.U.T. TREATER SPECIFICATIONS

MODEL NO. (50 PSI W.P.)	SIZE DIAMETER X LENGTH	HEATING CAPACITY BTU/HR	OIL, WATER & GAS VALVE SIZE	NOMINAL CAPACITIES			WEIGHT LBS
				GAS MMSCFD	OIL BBLS/DAY*	WATER BBLS/DAY*	
HUT-412	4' x 12'6"	400,000	2"	.7	950	950	6,100
HUT-615	6' x 15'	750,000	2"	1.5	1800	1800	10,200
HUT-620	6' x 20'	1,000,000	2"	1.5	2400	2400	11,800
HUT-820	8' x 20'	2,000,000	3"	3.0	3600	3500	19,300
HUT-830	8' x 30'	2,700,000	3"	3.0	5500	5200	24,500
HUT-1030	10' x 30'	3,175,000	4"	4.5	7200	6700	35,600
HUT-1230	12' x 30'	3,900,000	4"	7.0	9000	7800	43,200

*Based on 35° API oil, fresh water.

Oil treating capacities depend on emulsion characteristics, amount of water produced, oil gravity, oil viscosity, and treating temperatures required.

Fluid capacities depend on amount of free water, difference in specific gravities of oil and water, viscosity and inlet temperature.

Treaters with additional length and higher heating capacity are available as required for various flow conditions and abnormal treating problems. Treaters with W.P. of 75 PSI are also available.

H.U.T. TREATER STANDARD ACCESSORIES:

1 - Pressure gauge with isolating valve.
1 - Thermometer.
3 - Liquid level gauge glasses.
2 - Interfacial level controller assemblies.
2 - Water dump valves.
1 - Lever operated oil valve.
1 - Lever type gas valve.
1 - Low level shut-down controller.
1 - Relief valve.
1 - Set of burners, pilot light, stack, temperature controller assembly, strainer, shut off cock.
1 - Filter section with filter media installed.
2 - Access manways for filter section (3 for 30' treaters).
1 - Cleanout manway below firebox section.

How to order BS&B Horizontal Treaters

Please submit the following information when making inquiry about horizontal treaters:

1. QUANTITY OF OIL, BBLS / DAY
2. QUANTITY OF WATER, BBLS / DAY
3. SPECIFIC GRAVITY OF OIL
4. SPECIFIC GRAVITY OF WATER
5. INLET TEMPERATURE
6. GAS-OIL RATIO
7. OPERATING PRESSURE OF TREATER

BS&B PROCESS SYSTEMS

www.bsb.ab.ca