

Free Water Knock Out

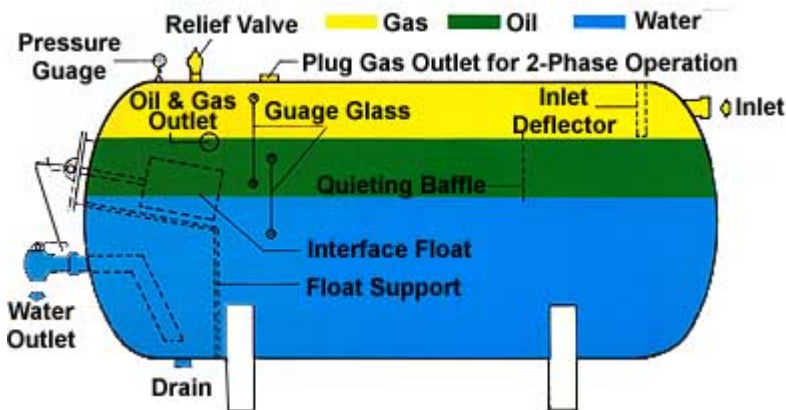
A - B & C Models



The free water Knockout is designed to economically separate a portion of the water in a wellstream from the oil. The vessel provides a low velocity flow with a large oil / water interface area which allows the maximum amount of free water to settle out.

Their primary application is to reduce the water load on a treating system where a large volume of water is present. This can greatly reduce fuel consumption, and in many cases reduce the size of the treating vessel. Free Water Knockouts also have an application where the treating system is atmospheric yet pressure is required to dump the water. Permian Tank makes three models as stock items. The vessels are the same with a variation in controls to meet specific conditions. Other designs can be furnished to meet customer applications

A Model Two Phase:



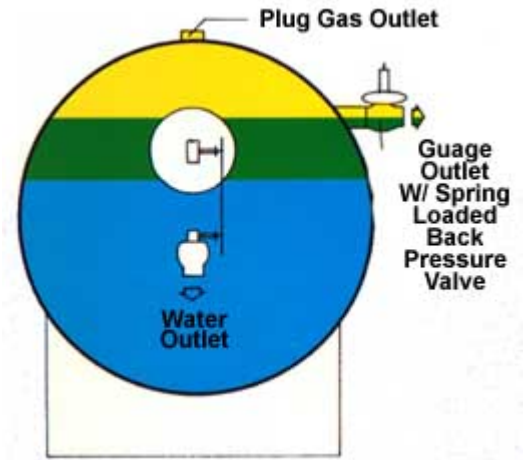
The most used is a straight two-phase operation. Water is dumped by the interface float and a lever operated water dump valve. Oil and gas both go out through the same connection to the treater. The pressure on the knockout rides at just the pressure required to force the gas into the treater.

This method is the least expensive, has fewer controls and places a minimum back pressure on the well.

B Model

Two Phase: With Back Pressure

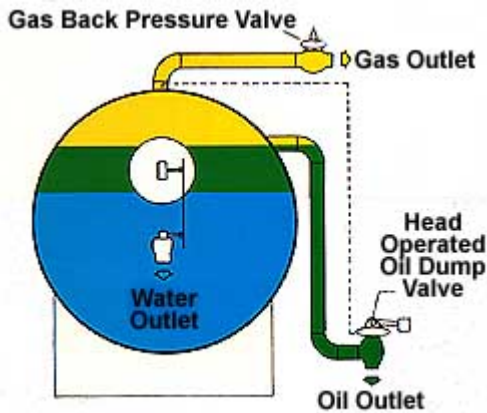
The Model "B" is the same except that a fluid / gas back pressure valve is placed in the oil and gas outlet. This is often used when an atmospheric treater or gunbarrel is used for treating and a higher pressure is required to dump the water.



C Model

Three Phase: (4' Diameter & Larger Vessels Only)

(4' Diameter & Larger Vessels Only)



The "C" is a three-phase hookup where the vessel pressure is controlled by a gas back pressure valve and vented separately. A standard treater type oil dump valve is used to dump emulsion only to the treater. Water is dumped as in the "A" & "B". The "C" hookup is generally used where gas volumes are large and / or it is not desirable to dump gas to the treating system. ***Note: The knockout is not designed to take the place of a separator. If high gas volumes are present, and clean sellable gas is required, an oil / gas separator is recommended ahead of the knockout.

Specifications:

Size	Test Pressure psig	Liquid Capacity bbl/d	Std. Valve
30" x 10'	75	100 - 750	2"
36" x 10'	75	500 - 1500	2"
48" x 10'	75	700 - 2600	2"
72" x 10'	75	1000 - 4000	3"
72" x 15	75	1300 - 6000	3"

Standard Accessories

A Model

- 2 - Sets gauge cocks and glasses
- 1 - Pressure gauge w/isolating valve
 - 2 - 16" manways
- 1 - Interface Float, Trunnion and linkage assy.
 - 1 - Relief valve
- 1 - Water dump valve (2" Kimray 212-SOA)
 - 2 - Concrete piers

C Model

- 1 - Gas back pressure valve 2" Kimray 212-SGT-BP
- 1 - Oil dump valve - 2" Kimray 26-SWA
(in addition to "A" accessories)

B Model

- 1 - Kimray 2" 205-BP
(in addition to "A" accessories)

Optional Items

- 1 - Special coatings
 - 1 - Safety head
 - 1 - Larger valves
- 1 - Pneumatic controls