

GUNBARRELS

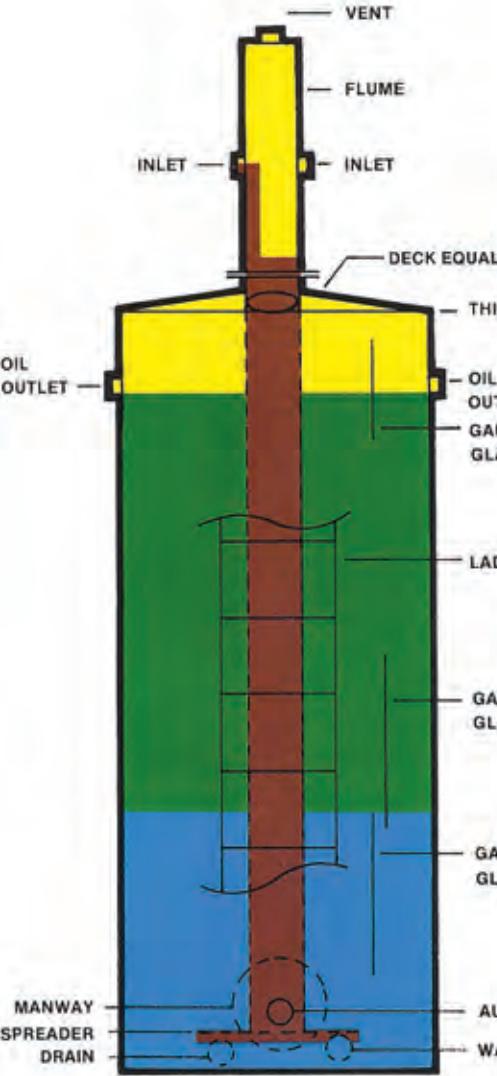


The gunbarrel is an economical and low maintenance method to treat oil when properly applied.

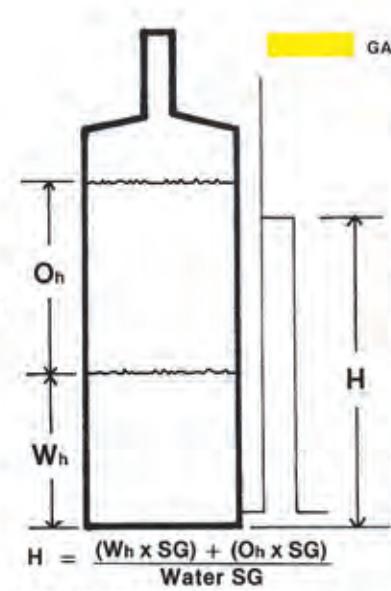
Production enters the inlet flume section at the top of the tank. Solution gas is vented from the top of the flume or equalized to storage. The oil and water travels downward through a down comer pipe and is dispersed by a spreader plate. Free water remains in the lower section and the oil travels upward. Adequate oil retention time will allow entrained water to settle out and be discharged through the drain or siphon. Clean oil at the top spills over the oil outlet and flows to storage.

The gunbarrel is applicable only where chemical and retention time alone will treat the oil. Also, consider that there is no gas pressure to dump the oil and water. The vessel must be tall enough for the oil to gravity flow to storage. If considerable gas is present and/or gas is to be sold, a separator will be required ahead of the gunbarrel.

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The diagram illustrates a vertical cylindrical gunbarrel tank. It features a central vertical pipe assembly. At the top, there is a vent with a flume, two inlet ports, and a deck equalizer. A thief hatch is located near the top. An oil outlet is positioned on the left side. On the right side, there are three gauge glass ports. A ladder is attached to the right side of the tank. Near the bottom, there is a manway access, a spreader drain, and an auxiliary outlet. A water outlet is also shown at the very bottom.



A schematic diagram of a gunbarrel tank cross-section. It shows a central vertical pipe. The tank is divided into three horizontal layers: Gas (top), Water (middle), and Oil (bottom). The height of each layer is labeled: O_h for oil, W_h for water, and H for total height. The formula $H = (W_h \times SG) + (O_h \times SG)$ is provided to calculate the total height based on the water specific gravity (SG).

**Table 4-A.P.I.
-SP, Gravity**

*API	Sp. Gr.	*API	Sp. Gr.
7	1.02	49	.784
8	1.014	50	.779
9	1.007	51	.775
10	1.00	52	.771
11	.993	53	.767
12	.986	54	.763
13	.979	55	.759
14	.973	56	.755
15	.966	57	.75
16	.959	58	.747
17	.953	59	.743
18	.946	60	.739
19	.94	61	.735
20	.934	62	.731
21	.928	63	.728
22	.922	64	.724
23	.916	65	.72
24	.910	66	.716
25	.904	67	.713
26	.898	68	.709
27	.898	69	.706
28	.887	70	.702
29	.882	71	.699
30	.876	72	.695
31	.871	73	.692
32	.865	74	.689
33	.860	75	.685
34	.855	76	.682
35	.85	77	.679
36	.845	78	.675
37	.840	79	.672
38	.835	80	.669
39	.83	81	.666
40	.825	82	.663
41	.82	83	.659
42	.816	84	.656
43	.811	85	.654
44	.806	86	.65
45	.802	87	.647
46	.797	88	.645
47	.793	89	.642
48	.788	90	.639

STANDARD ACCESSORIES:

- 1-Internal flume w/ spreader plate
- 1-8" Pressure vacuum thief
(Note thief hatch is extra price on 4' and 6')
- 1-Outside ladder - uncaged
- 3-Sets 48" gauge glass assy.
- 1-Concrete base on 4' and 6' dia.-
larger sizes are set on tank pad
w/ tarpaper furnished
- 1-Painted primer and aluminum

OPTIONAL ITEMS:

- 1-Interior coatings
- 1-Flanges or grooved fittings
- 1-Thief hatch on 4' and 6'
- 1-Caged ladder w/ platform
- 1-Walkway and stairway in lieu of ladder
- 1-Outside flume
- 1-Power oil specifications
- 1-Firebox for heated GB

SIZE	TOTAL LIQUID VOLUME (bbl.)	OIL VOLUME W/ 6' WATER LEVEL (bbl.)	HEIGHT FROM BOTTOM TO OIL OUTLET	STANDARD CONNECTION SIZE					
				INLET	VENT	EQUIL.	OIL & WATER OUTLETS	DRAIN	MANWAY
4' x 20'	40	27	18'	2"	2"	2"	3"	3"	16" Dia.
6' x 20'	91	60	18'	3"	3"	2"	3"	3"	16" Dia.
8' x 20'	161	108	18'	3"	2"	2"	3"	3"	16" Dia.
10' x 20'	252	168	18'6"	3"	2"	2"	3"	3"	24" x 36"
10' x 24'	315	231	22'6"	3"	3"	3"	4"	3"	24" x 36"
12' x 20'	373	252	18'6"	4"	4"	4"	4"	4"	24" x 36"
12' x 24'	454	333	22'6"	4"	4"	4"	4"	4"	24" x 36"
15'6" x 24'	757	555	22'6"	4"	4"	4"	4"	4"	24" x 36"
15'6" x 30'	1,009	807	28'6"	6"	4"	4"	6"	4"	24" x 36"