

Tiger Loop Info

The Tiger Loop is a lifting and de aerating device that improves performance and provides convenience to diesel (oil) boiler installations.

The Riello Burners in the Firebird diesel boilers have suction, and the boiler is often installed with a single fuel line from the fuel tank to the burner (incorporating a filter and fire stop valve)

However if there is a height difference between the tank and the boiler (the tank being lower) or a long distance between the tank and the boiler, a Tiger Loop is used. The Tiger Loop is able to draw the fuel a certain distance in vertical height and at the same time it provides de aeration for better fuel combustion. It also enables convenient bleeding should the fuel tank ever run dry.

The Tiger Loop is installed next to the boiler and still has a single fuel line from the fuel tank to the Tiger Loop incorporating a filter and fire stop valve. Then, from the Tiger Loop to the boiler burner there are two fuel lines. The Tiger Loop works by the oil pump in the burner creating suction to the Tiger Loop. This suction spins the internal disc in the Tiger Loop and this creates suction on the fuel line to the fuel tank. The second fuel line from the boiler burner to the Tiger Loop is the return line for relieving pressure of the fuel delivered to the burner but not used.

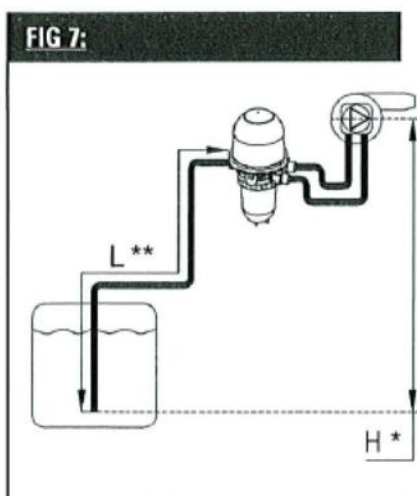
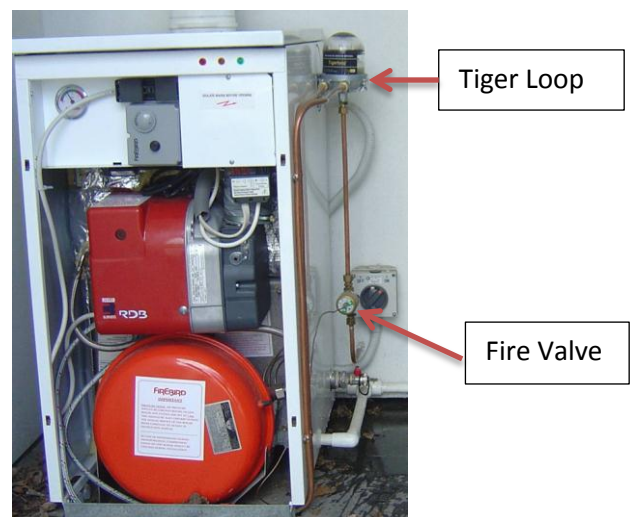
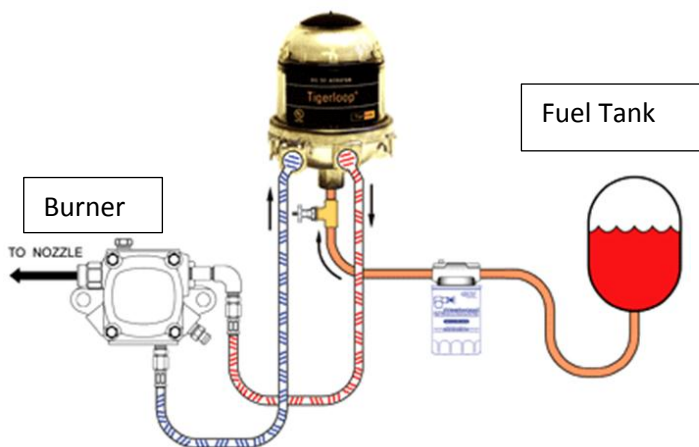


FIG 7: Tank below the burner

FIG 8: standard fuel oil

	Ø4	Ø5	Ø4	Ø5	Ø6	Ø5	Ø6	Ø6	Ø8
*	***	***	***	***	***	***	***	***	***
	**	**	**	**	**	**	**	**	**
0,0	52	100	26	63	100	32	66	22	70
-0,5	46	100	23	56	100	28	58	19	61
-1,0	40	97	20	48	100	24	50	16	53
-1,5	33	81	17	41	84	20	42	14	45
-2,0	27	66	14	33	69	17	34	11	36
-2,5	21	51	10	26	53	13	27	8	28
-3,0	15	36	7	18	37	9	19	6	19
-3,5	9	21	4	11	22	5	11	3	11
-4,0	2	6	1	3	6	1	3	1	6
	2,5 kg/h		5,0 kg/h			10 kg/h		20 kg/h	

FIG 8: This table for tank below the burner is valid for standard fuel oil with a viscosity of 6,0 mm²/s (cSt) (DIN 51603-1).

* Height H in m ** Max. pipe length in m *** Inner mm