Why Hounsfield Boilers do not need a deaerator / Tigerloop.

Background.

Tigerloops were introduced by Boulter Boilers Ltd. over 25 years ago primarily to remove the need for two pipe systems, i.e., a flow and a return fuel line to the oil tank. They also alleviate a technical issue with the fuel pump on Riello burners; the solenoid valve will not open with air present in the pump, a deaerator resolves this by circulating fuel until air is removed.

Why a deaerator / Tigerloop is unnecessary:

1. The solenoid valve on the Danfoss pump we specify opens immediately, passing air trapped in the fuel pump through the nozzle.

2. The pump has a design suction capacity of minus (-) 0.6 to minus (-) 0.8 bar. Minus 0.33bar is equal to a 4 metre Head.

3. "Physics dictates" that air begins to separate from kerosene when suction is greater than 0.33 bar, that's equal to a 4 mtr. head / lift height.

4. A "typical" wall mounted boiler installation would be lifting oil just 1 – 1.5 mtrs. (1-1.5 mtrs. head). Taking into considering point 3 above, there's little point installing a devise to remove air.

5. From experience we know boilers will function successfully when installed at heights in excess of 4 mtrs.. Of course we wouldn't recommend this from a service access perspective, but it proves a point.

6. Tigerloop's technical data shows fuel flow rates from 3 to 110 ltrs. per hr. A start point of three litres is at the top end of domestic appliance fuel flow rates, so perhaps it is a component more suited for commercial boiler applications.

This is why deaerators are unnecessary. Manufacturers of them recommend replacement every ten years. Domestic customers would also incurr associated service and maintenance costs for a component they do not require.

Hounsfield Boilers only use materials and components that will provide many years of trouble-free servicing thereby keeping whole-life running costs to a minimum. We are the only boiler manufacturer to provide a life-long flexible oil line which is a testament to this objective.

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