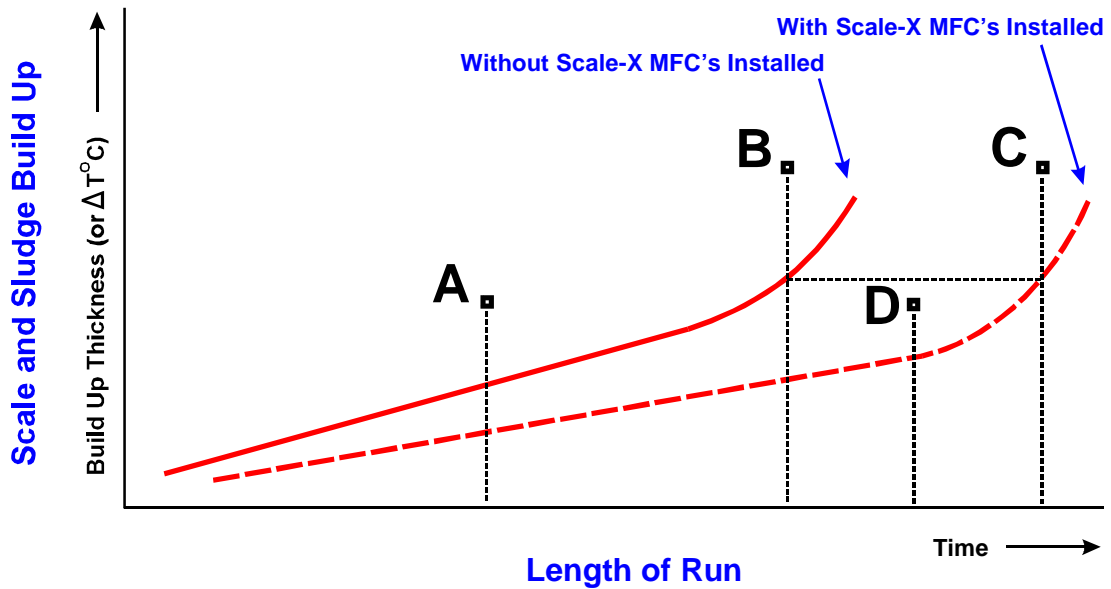


Magnetic Treatment of Fluids

Benefits of Magnetic Treatment of Milk Depend on Policy of Operation of Evaporator And on Severity of Scaling Problem



NOTE: The scale problem can be measured in terms of scale and sludge build up thickness or in the increase in temperature differential ($\Delta T^{\circ}\text{C}$) across the calandria or heat exchanger tube walls.

	POLICY OF OPERATION	ANALYSIS OF BENEFITS
A	Length of runs restricted due to bacteria build up or limited availability of milk	Scale and sludge cleanliness benefits after CIP with MFC's installed may not be significant, however, if tarnish is a problem, cleanliness benefits may be very significant. Chemical usage may be reduced marginally. Rate of build up of bacteria may be reduced and length of runs increased.
B	Full length runs up to the point where, without MFC's installed, the evaporator has began to scale at an increased rate	Cleanliness benefits after CIP with MFC's installed may be significant. Chemical usage may be reduced significantly. Length of CIP may be reduced significantly or any combination of the above three to optimise overall benefits.
C	Same conditions being reached in the run as for B above but with MFC's installed	Increase in run length over policy B may be significant. Some cleaning benefits over policy B.
D	Run the evaporator to the point where, with MFC's installed, the evaporator is about to begin to scale at an increased rate	A combination of the following benefits may be achieved: - significantly increased length of run over policy B and/or - significantly reduced cleaning chemicals required and/or - significantly reduced CIP time