

DOCTOR, DOCTOR... WHAT'S WRONG WITH MY PUMP?

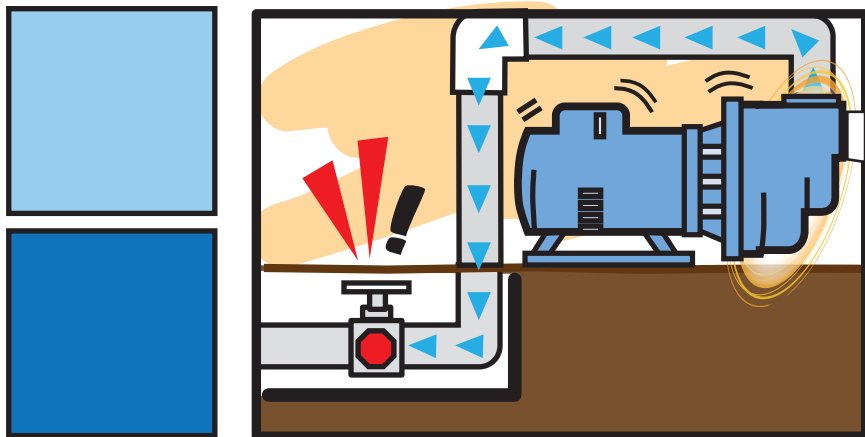
Understanding Causes & Consequences of **DEADHEAD**

SYMPTOMS: Pump case is unusually hot, due to internal friction caused by the spinning impeller. The pump runs continuously but the water is prevented from flowing to the system.

CONSEQUENCES: The super-heated case water leaves both the pump and pipework – including pipe lines, valves, and fittings – subject to expansion or failure. The superheated water destroys the pump seals, causing pump failure.

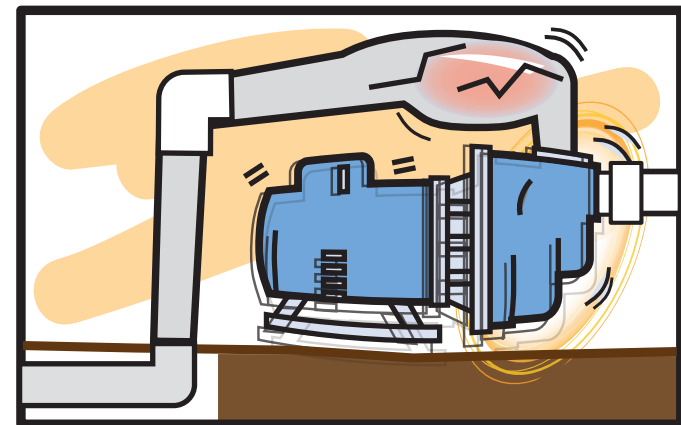
HOW DEADHEAD DESTROYS A PUMP

VALVE NOT OPEN. ZONE VALVE MECHANICAL FAILURE OR CONTROLLER PROGRAMMING ERROR; OR ISOLATION VALVE LEFT CLOSED



AND
THEN
QUICKLY

UH OH...
SUPERHEATED WATER FROM PUMP
CASE OVERHEATS PIPE AND PUMP
SEALS



BOOM