

# Timed Reversal v High Current Set-point v *Real Time* Reversal

Reversing a pump and rotating the impeller in the opposite direction is a known way to dislodge rags and other materials from a pump. But there are different ways for triggering a reversal.

	Timed Reversal	High Current Set-point Reversal	DERAGGER+ <i>Real Time</i> Reversal
What triggers the reversal?	Pump Run-time.	A pre-determined high current point is reached.	First rag to catch on impeller is sensed in <i>real time</i> through change in power signature.
State of impeller / clog at point of reversal?	Unknown. Happens at timed intervals. Could lead to unnecessary reversals.	Likely very clogged. High current usually only reached when pump heavily ragged.	One or two rags caught on impeller, but still free to move.
Could it damage my pump?	Yes. By time of reversal pump could be heavily ragged, & with no feedback whether clog has been removed could lead to the rags binding tighter.	Yes. By time of reversal pump could be heavily clog and reversal could lead to snapped motor shafts or spinning impellers off.	No, pump is reversed with only a couple of rags caught, so it is completely safe. In addition, the DERAGGER built in motor protection, protects the pump throughout this process, tripping the pump if required.
Does it pass a rag ball down the system to clog elsewhere?	If a clog is freed, it could be a large rag ball that is sent onwards through the system.	If a clog is freed, it could be a large rag ball that is sent onwards through the system.	No, rags are passed through individually rather than in rag balls so much less likely to cause issues later on.
Can I manually run a pump reversal?	Yes, but you will not know the severity of clog when you do.	Yes, but you will not know the severity of clog when you do.	Yes, but you won't need to because it is monitoring, responding & reversing in <i>Real Time</i> .
Could it start reversing when not required?	Yes, reversal is purely dependant on run time.	Unlikely, unless there is another reason for high current to be reached.	No, the technology only reverses the pumps when it has detected the first rags are getting caught.