

Summary of Baseline Standard Practices and Energy Efficient Designs - Wastewater Sector

Operation Process	Standard Practice	Typical Energy Efficiency Measures
Influent Pumping	On/Off Level Control and EPAct Motors	VFD with Control Loop; Premium Efficiency Motors
Primary Treatment	EPAct Motors; Timers on Sludge Draw-off	Premium Efficiency Motors; VFDs on Sludge Draw-off
Secondary Treatment	EPAct Motors	Premium Efficiency Motors
Fixed Film	EPAct Motors	Premium Efficiency Motors; Flow Control/VFDs on Recycle
Mechanical Aeration	EPAct Motors	Premium Efficiency Motors; Level Control on Effluent Weir
Diffuser System	Coarse or Medium Bubble Aeration	Fine Bubble Diffusers; Fine Bubble Diffusers with Mixers
Aeration Blowers	Multi-Stage Centrifugal Blowers with EPAct Motors	Premium Efficiency Motors; Inlet Flow Control
Aeration Blowers	Positive Displacement Blowers with EPAct Motors	Premium Efficiency Motors; VFDs
DO Control	Manual handheld DO Monitoring with Manual Adjustment	VFD with DO Control Loop; Start/Stop Blowers; Control Air Output
WAS/RAS Pumps	Timed Operation and EPAct Motors	VFD with Control Loop; Premium Efficiency Motors
Tertiary Treatment	Flow Control Valves and EPAct Motors	VFD with Control Loop; Premium Efficiency Motors
Sludge Processing	EPAct Motors and case-by-case VFD designs	Premium Efficiency Motors
UV Disinfection	Medium Pressure UV Lamps	Low Pressure High Output Lamp Technology
Effluent Pumping	Flow Control Valves and EPAct Motors	VFD with Control Loop; Premium Efficiency Motors
Plant Water System	Constant Speed Pumps; System wide Pressure	VFD with Pressure Control; Booster Pumps at Specific Processes
Building Systems	Building Energy Code Compliant	Lighting, HVAC, etc. More Efficient than Building Energy Code