

**Application Example – VLT AQUA Drive  
Parameter set-up for Constant Torque Blower**



Oxygen demand varies throughout the day as the flow of waste water varies. The correct oxygen level is critical to the process.

The following parameter set-up example is for a constant torque blower connected to a 2950 rpm at 50 Hz. motor. The minimum speed to produce air flow is 2250 rpm. The dissolved oxygen sensor is 0-10 ppm, range 4-20 mA. The desired set point is 2.5 ppm.

ID	Name	Setup 1
0-02	Motor Speed Unit	RPM
1-00	Configuration Mode	Closed Loop
1-03	Torque Characteristics	AEO CT

ID	Name	Setup 1
3-02	Maximum Reference	0
3-03	Maximum Reference	10
3-15	Reference 1 Source	No Function

ID	Name	Setup 1
4-11	Motor Speed Low Limit (RPM)	2250
4-13	Motor Speed High Limit (RPM)	3000
4-53	Warning Speed High (RPM)	3000
5-10	Terminal 18 Digital Input	Start
5-12	Terminal 27 Digital Input	Safety Interlock

ID	Name	Setup 1
622	Terminal 54 Low Current	4 mA
623	Terminal 54 High Current	20 mA
624	Terminal 54 Low Ref./Feedb. Value	0
625	Terminal 54 High Ref./Feedb. Value	10

ID	Name	Setup 1
2000	Feedback 1 Source	Analog input 54
20-12	Reference/Feedback Unit	PPM
20-21	Setpoint 1	2.5 PPM
20-81	PID Normal/ Inverse Control	normal
20-93	PID Proportional Gain	0.5
20-94	PID Integral Time	30 seconds

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Typical Wiring Diagram

