

DECANTER CENTRIFUGE

Continuous separation and dewatering of municipal and industrial sludge.
Six models, 9" to 25" bowl diameter, 25 to 450 GPM.



Direct-drive
scroll motor



≈30% energy
recovery



No special
foundations



Call Us Today
1-855-650-2214



Email Us
info@aqualitec.com

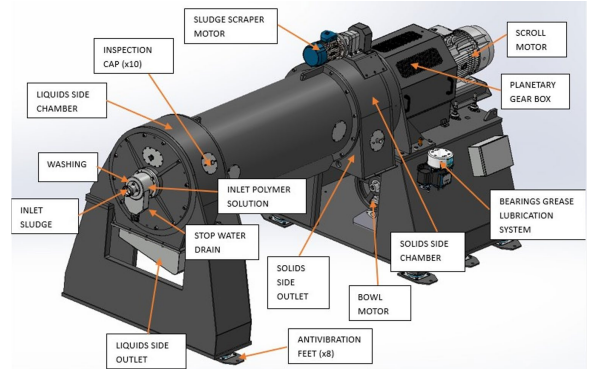


Aqualitec Corp. - 3415 S. Sepulveda Blvd,
Suite 1100, Los Angeles, CA 90034

OPERATING MODE

The AQUALITEC/VITONE decanter is built on a base frame that carries the bearings of the rotating assembly: a cylindrical-conical bowl, a scroll conveyor, and a planetary gearbox that sets the differential speed between them.

Two electric motors, each on its own VFD and managed by Vtronic® software, drive the bowl and the scroll. Differential speed is adjusted to suit the incoming feed and the measured torque, manually or automatically, which keeps cake solids consistent.



- 1 **Turbo mixer** — sludge and polymer are mixed by centrifugal force, which minimizes polymer consumption
- 2 **Accelerator** — the polymer-dosed sludge enters the bowl up to speed, for a clean centrate
- 3 **Tunnel body** — heavy-gauge tubular casing; the scroll pulls out without removing the bowl

FEATURES & BENEFITS



1 Two-motor drive with energy recovery

Both motors run on VFDs. Installed power is the sum of the two drives, but actual draw is essentially the bowl motor alone: the scroll motor acts as a generator, feeding energy back into the system for roughly 30% savings.

2 In-line scroll motor

There is no belt-and-pulley transmission: the scroll motor couples directly to a Vitone Eco planetary gearbox. That means less maintenance, less noise, and tighter control of differential speed. Gearboxes are built in-house and spare parts are stocked.



FEATURES & BENEFITS



3 Vtronic® control and remote diagnostics

The optional control panel carries a PLC and touchscreen HMI running Aqualitec's own program, which manages the decanter and the equipment around it — feed pumps, screw conveyors, polymer preparation — so the whole dewatering line runs to operator-defined setpoints. A remote connection for diagnostics is included, during and after the warranty period.

4 Continuous chamber cleaning

A sludge scraper mounted on top of the decanter keeps the solids discharge chamber clean while the machine runs. The discharge ports are lined with replaceable, ceramic-treated stainless steel bushings.

5 Stability without foundations

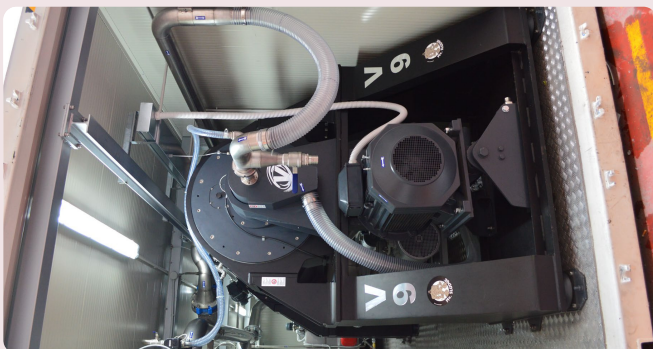
An oversized base frame, wide support surfaces, eight anti-vibration feet and pivoting motor bases hold vibration and bearing stress down. The supports are built into the machine, so no special foundations are required.

6 Maintenance access and monitoring

Ten inspection ports, plus access covers on the solids side, the liquid side and the main body. Built-in sensors track bearing temperature, bowl and scroll speed, and vibration. Manual and automatic internal bowl washing is standard.



INSTALLATIONS



Municipal and industrial

Supplied as a standalone decanter, as a dewatering skid with polymer station and pumps, or built into a container as a mobile unit for temporary and seasonal duty. Installed references cover municipal sludge, olive oil, bioethanol, lipid extraction, leather and juice plants in more than 50 countries.



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SPECIFICATIONS

Model	Dimensions (L x W x H)	Bowl diameter	Bowl length	Weight	Bowl motor	Flow (GPM)
V0	7'-2" x 1'-11" x 3'-3"	9"	3'-3"	1,435 lbs	15 HP	25
V2	10'-2" x 3'-9" x 5'-4"	1'-1"	4'-9"	5,500 lbs	30 HP	45
V4	11'-3" x 5'-1" x 6'-2"	1'-5"	5'-5"	6,600 lbs	60 HP	110
V5	13'-6" x 5'-1" x 6'-2"	1'-5"	6'-9"	7,700 lbs	75 HP	200
V7	15'-1" x 5'-9" x 7'-5"	1'-9"	7'-2"	16,500 lbs	100 HP	300
V9	18'-0" x 5'-9" x 7'-5"	2'-1"	8'-4"	20,900 lbs	120 HP	450

DESIGN GUIDELINES

MATERIALS

Bowl: Duplex 1.4362 / 1.4392 / 1.4470

Scroll: AISI 304 / 304L / 316

DRIVE

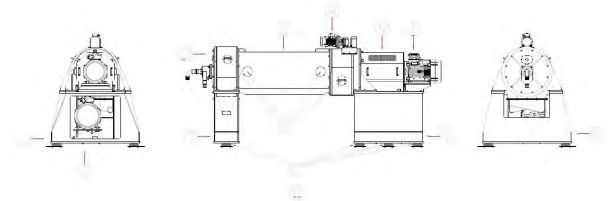
Bowl and scroll motors on VFDs

In-line scroll motor, planetary gearbox

SYSTEMS

Vtronic® automatic differential-speed control

ISO 9001:2015 certified manufacturing



General arrangement — side and end elevations



ALSO FROM AQUALITEC

Screening equipment

Screenotec, Raketec, Drumtec,
Spiraltec, Compactec, Washtec,
Grittec

Dewatering

Belt Filter Press, Gravity Belt
Thickeners, Screwpress

DAF units

Altec, Deltec, Gamtec, Sigtec



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