



Making Dewatering a Piece of Cake

Webinar
June 18, 2019

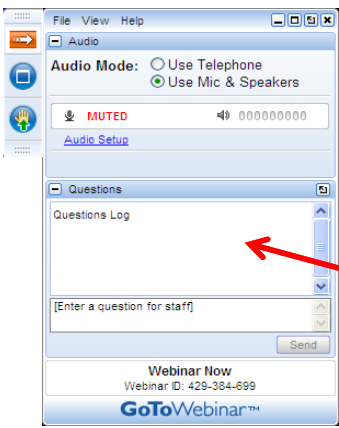


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How to Participate Today



- **Audio Modes**
 - Listen using Mic & Speakers
 - Or, select “Use Telephone” and dial the conference (please remember long distance phone charges apply).
- **Submit your questions using the Questions pane.**
- **A recording will be available for replay shortly after this webcast.**



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Webinar Overview

- Dewatering Overview
- Technology Overview
- Rotary Press Breakdown
- Applications
- Specifications
- Evoqua Quality Assurance
- Questions



Mike Jager
Product Manager

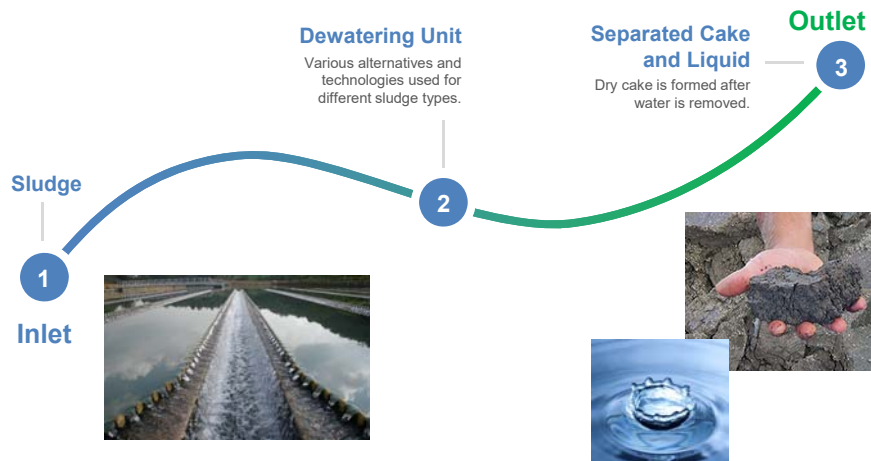


Carrie Gabrielse
Laboratory Manager








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Dewatering Overview



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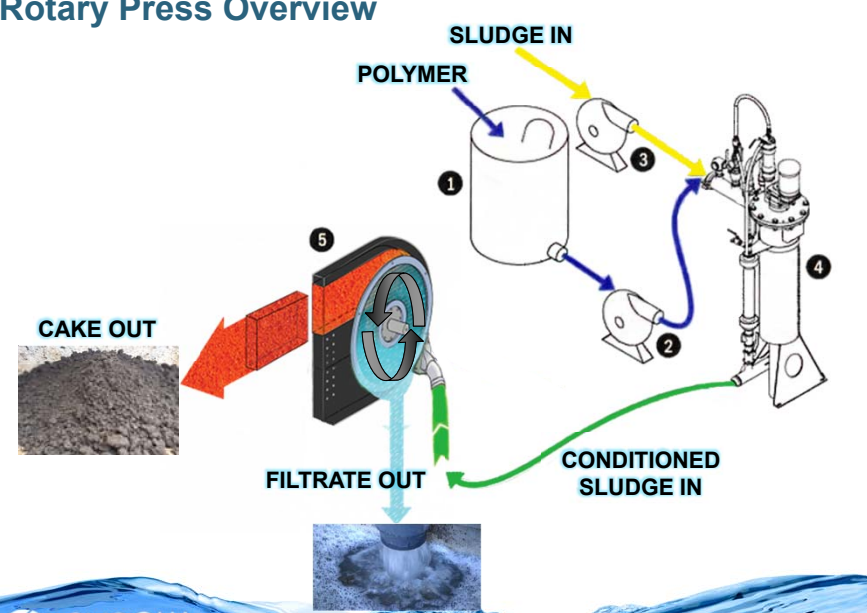
Technology Overview

-  Belt Press
-  Centrifuge
-  Filter Press
-  Screw Press
-  Rotary Press

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Rotary Press Overview

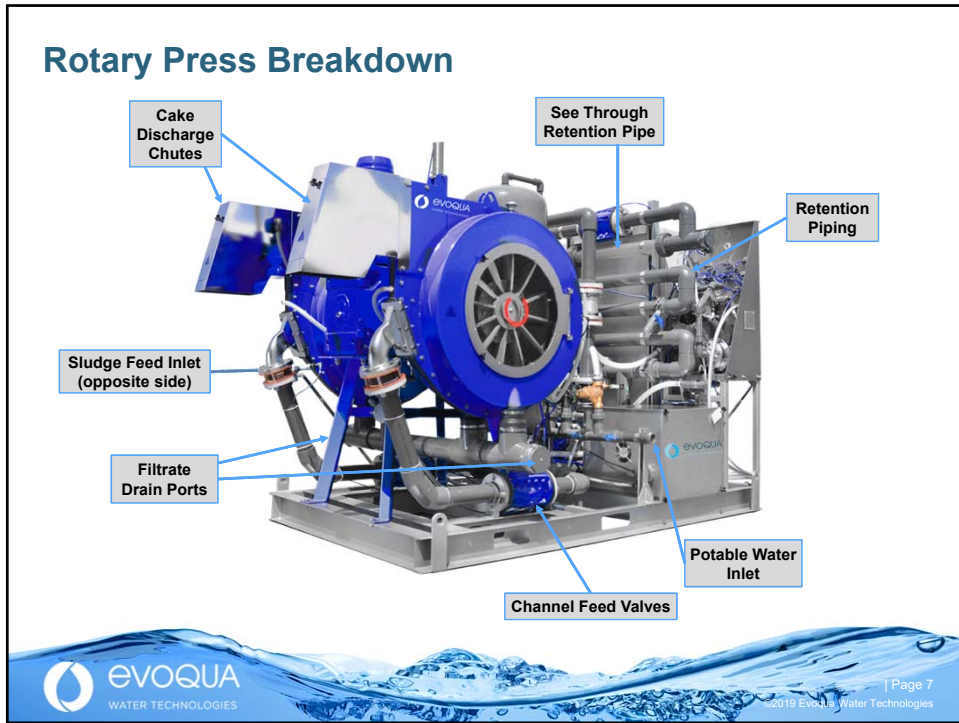


The diagram illustrates the rotary press process with the following components and flow:

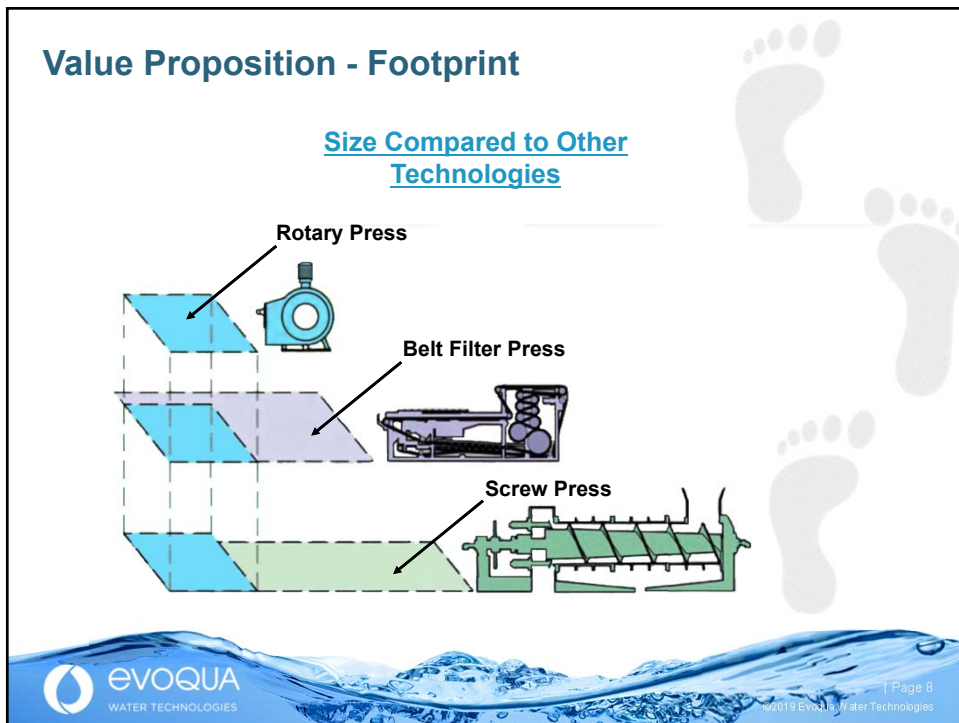
- SLUDGE IN:** Yellow arrow pointing to the inlet of the conditioning tank (1).
- POLYMER:** Blue arrow pointing to the polymer addition point (2) on the conditioning tank.
- CONDITIONED SLUDGE IN:** Green arrow pointing from the conditioning tank (1) to the rotary press (4).
- FILTRATE OUT:** Green arrow pointing from the rotary press (4) to the collection area below.
- CAKE OUT:** Red arrow pointing from the rotary press (4) to the collection area on the left, which includes a photograph of the resulting sludge cake.
- Numbered Components:** 1. Conditioning tank, 2. Polymer addition point, 3. Sludge inlet to conditioning tank, 4. Rotary press, 5. Filtrate collection area.

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Value Proposition – Operation & Maintenance Labor

Automation	Automated start up
	Automated shutdown
	Ability to detect faults and relay to mobile device
	Ability to program
	Programmable CIP System

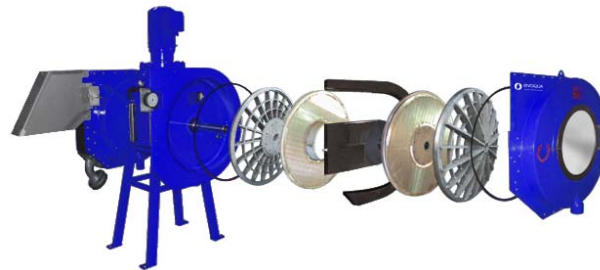


Digital Water Management:

- 24/7/365 remote monitoring with system alerts
- Rapid response from local service team
- Proactive management of water system operations and maintenance
- Real-time data analytics of water quality, water use, system status, and predictive maintenance.

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Value Proposition – Maintenance Cost & Part Replacement



- Minimal parts
- Low rotational speed
- Reduced wear and tear on parts
- No internal bearings
- No need for complete machine rebuilds
- Internal housing is easily accessible by side door

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Value Proposition – Approximate Operational Cost

Cost of Operation	Rotary Press	Belt Press	Centrifuge
Electrical Consumption	0.75 – 13 hp	15 hp	75 – 130 hp
Water Consumption	6 – 8 gpm	50 gpm	15 gpm
Polymer Consumption	Medium	Low	High

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Applications



Municipal



Food & Beverage Processing



Brewery & Winery



Pulp & Paper Industry



Key Applications Within Largest Markets:


- Biosolids Dewatering
- DAF Sludge Dewatering
- Animal Waste Dewatering
- Primary Waste
- Waste Activated Sludge
- Municipal Water & Wastewater Treatment
- Industrial Wastewater Treatment
- Food & Meat Processing
- Fruit & Vegetable Juices
- Potato Products & Starch Recovery

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Performance

Typical Application	Average Feed (%TS)	Average Polymer (lb./ton D.S)	Average Capture (%TSS)	Average Cake (%TS)
Primary 100%	2 – 6	4 - 8	95 - 98	28 - 38
Anaerobic Digested	1 – 4	8.8 – 15.4	95 - 98	18 - 26
Aerobic Digested	1 – 3	8.8 -13.2	95 - 98	15 - 22
Primary/Secondary Mix	1 – 4	6.6-11	95 - 98	20 - 32
Waste Activated Sludge	1 - 3	11 – 17.6	95 - 98	15 - 22
Septage	3 - 7	6.6 – 15.4	95 - 98	28 - 38
Alum Treated WAS Sludge	1 - 3	13 - 22	95 - 96	12 - 16
Brewery	1 - 3	5 – 15	95	13 - 17
Pulp and Paper	3 - 5	1 - 8	95	31 - 50
Swine	1 - 4	6.6 – 8.8	95 - 97	18 - 24


The listed results are sludge/process/chemistry dependent and typical of applications tested and results may vary from what is listed.


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Skid Mounted Polymer System Feed Pump, Static Mixer, and Press

- Plug and play, pre-assembled system for easy installation
- Expandable
- Compact footprint
- Easy operation
- Enclosed system

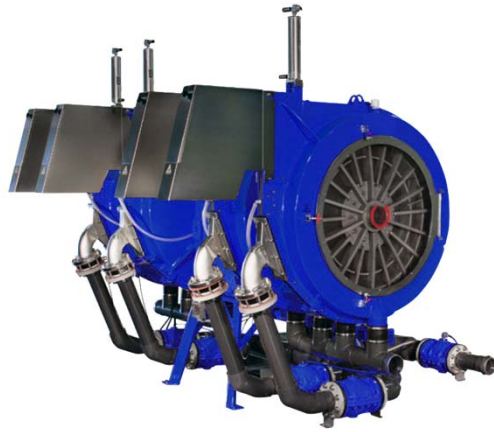


Channel Number	Screen Diameter (cm)	Filtration Area (cm ²)	Hydraulic Flow (Gpm)
1	61	27.6	5 – 15
2	61	55.2	10 – 30
1	91.4	66.5	20 – 35
2	91.4	133.2	40 – 70
3	91.4	199.7	60 – 105
4	91.4	266.3	80 – 140
1	121.9	121.4	35 – 65
2	121.9	242.8	70 – 130
3	121.9	364.3	105 – 195
4	121.9	485.7	140 – 260


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Stand Alone Press



- Expandable
- Easy integration into new or existing infrastructure
- Small footprint
- Integrate controls with customers SCADA system
- Fully enclosed
- Low operational speed
- Ability to operate continuously with little manpower required

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Platforms, Conveyers, Sludge Dumpsters & Accessories



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Evoqua Quality Assurance

Our aftermarket support includes:

- Factory-based customer service support
- Expert technical consulting and training
- Same-day shipment on many service and spare parts
- Repair and preventative maintenance services
- Emergency support services
- Equipment retrofits, upgrades and refurbishments



Field testing options:

- Factory-based testing available on bench top unit
- Only 1 gallon of material required for feasibility jar testing



QUESTIONS?

Interested in learning more about the Rotary Press?

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