



VOLUTE®

AMCON NA, Inc.

VOLUTE

Dewatering Press

Nov.21.2007 ver.1.1

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1. Company Information 1

AMCON Inc.

Founded in 1974 in Japan, AMCON Inc. started out as a provider of repair services for water treatment devices and maintenance services for wastewater equipment used in large-scale housing complexes. In 1982, Masayoshi Sasaki, founder of AMCON Inc., developed its first wastewater treatment equipment, cloth filter thickener. In 1992, Sasaki developed new system, which eventually became the first model of the Volute Dewatering Press.

With the world in mind, AMCON patented its technology in Japan, US, and Europe, started its foreign operation in 2000. Today, Volute Division is the largest department in our company.

Company Profile

Company Name : AMCON Inc.

President : Shoichi Sasaki

Founded : November 22, 1974

Capital : 80 million yen

Business : Fabrication, Sales, Export and Maintenance of sludge treatment equipment
(Volute Dewatering Press / Volute Thickener).

Website : <http://www.amcon.co.jp>

Address : 1926, Nippa-Cho, Kohoku-ku,
Yokohama, Kanagawa,
223-0057 JAPAN

Phone : + 81 45 540 8580

1. Company Information 2

AMCON NA Inc.

In 2000, AMCON Inc. started its overseas operations. Though company had no experience of export and sales in overseas, its foreign operations grow fast. AMCON signed contract with American and Canadian firm in 2003 to enlarge its sales in North America.

AMCON NA was incorporated in 2006 to begin providing U.S. based distribution and maintenance services for our distributors in North America.

Company Profile

Company Name : AMCON NA Inc.

President : Seiji Kikuchi

Founded : October 12, 2006

Capital : 60 million yen

**Business : Import, Sales and Maintenance of sludge treatment equipment
(Volute Dewatering Press/Volute Thickener).**

Website : <http://www.amcon-na.com>

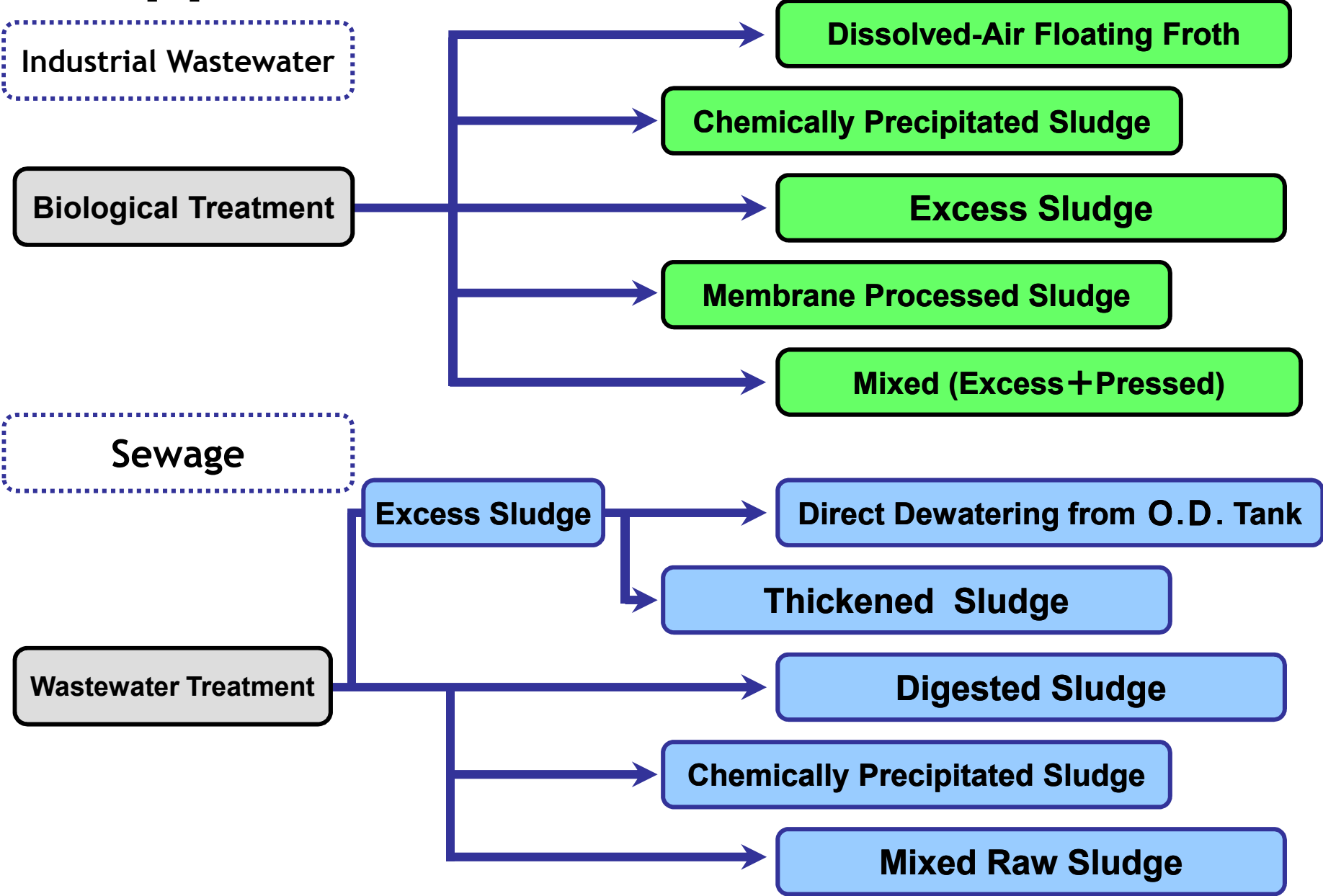
**Address : 24418 S. Main Street, #404
Carson, CA, 90745
USA**

Phone : +1 310 835 2280

2. Units Sold



3. Application

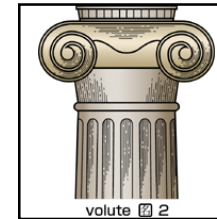


4. Overview of the VOLUTE Dewatering Press 1

What is VOLUTE?

Volute = Spiral

= An adornment on pillars of an Ionic order or a Corinthian order.



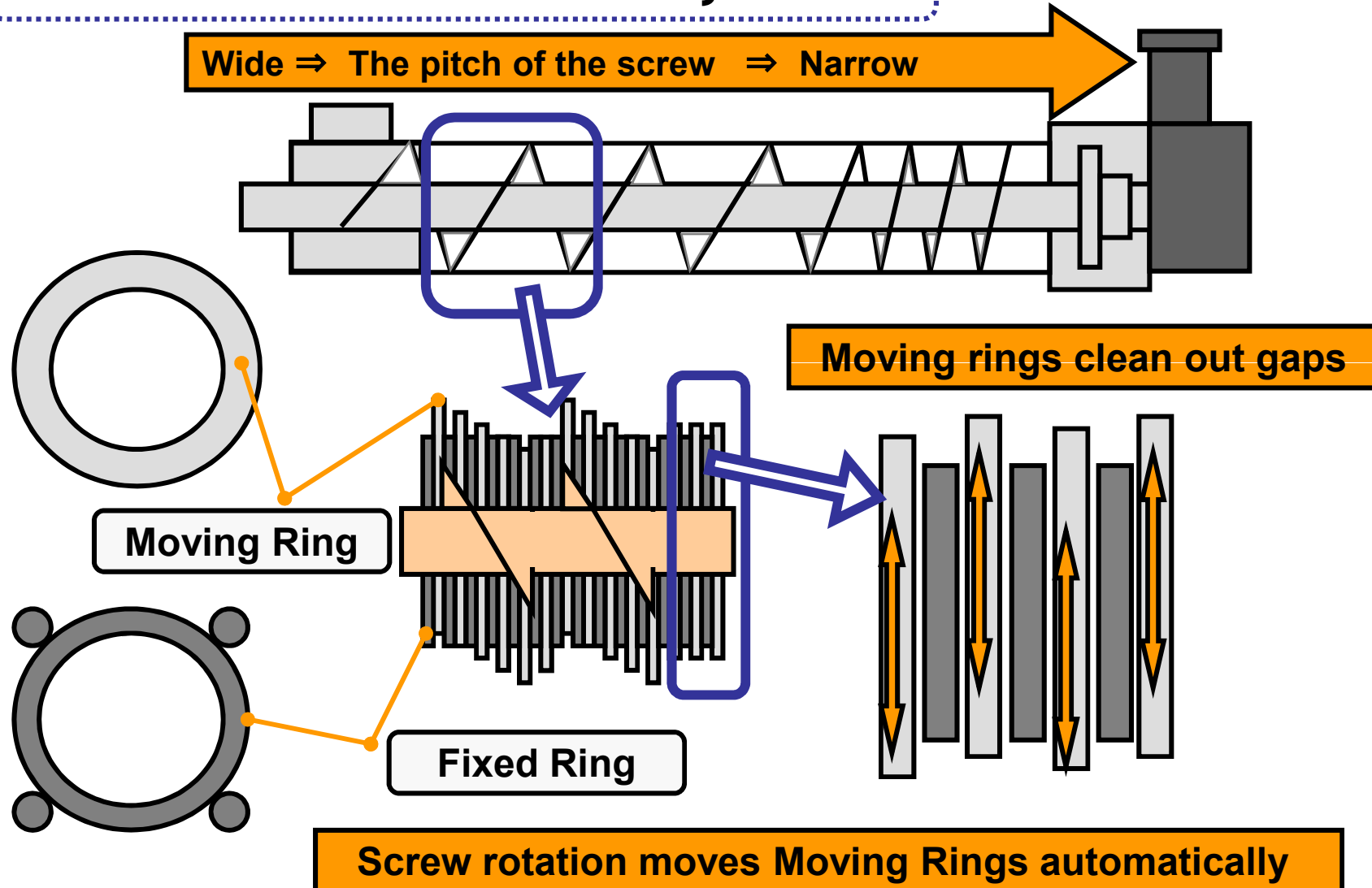
What is the **VOLUTE**® Dewatering Press?

The VOLUTE Dewatering Press:

is the innovative layered multi-disc sludge dewatering press. It is the first and only sludge dewatering press which is capable of dewatering low concentrated sludge direct from the oxidation ditch.

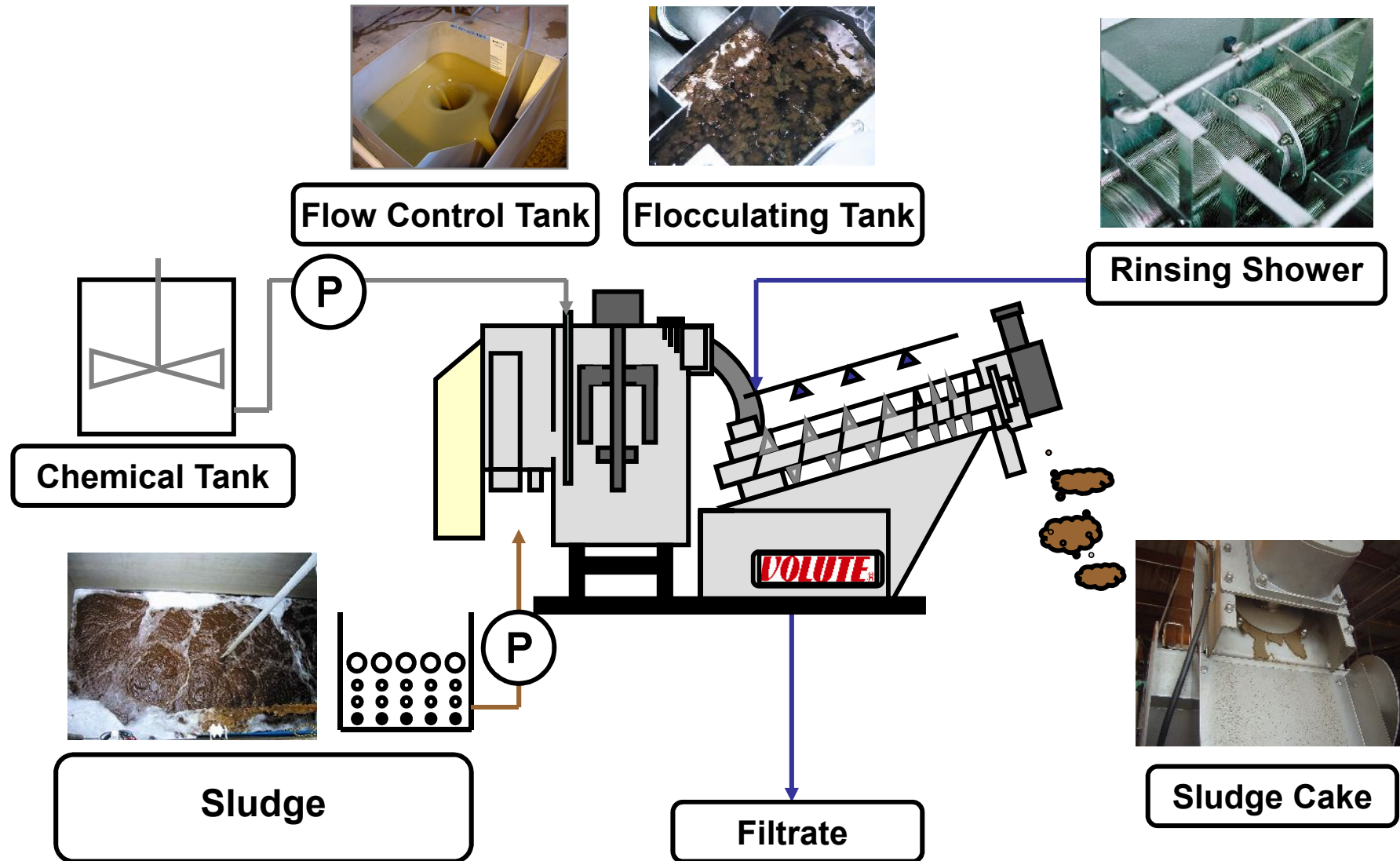
4. Overview of the VOLUTE Dewatering Press 2

Structure of the VOLUTE cylinder



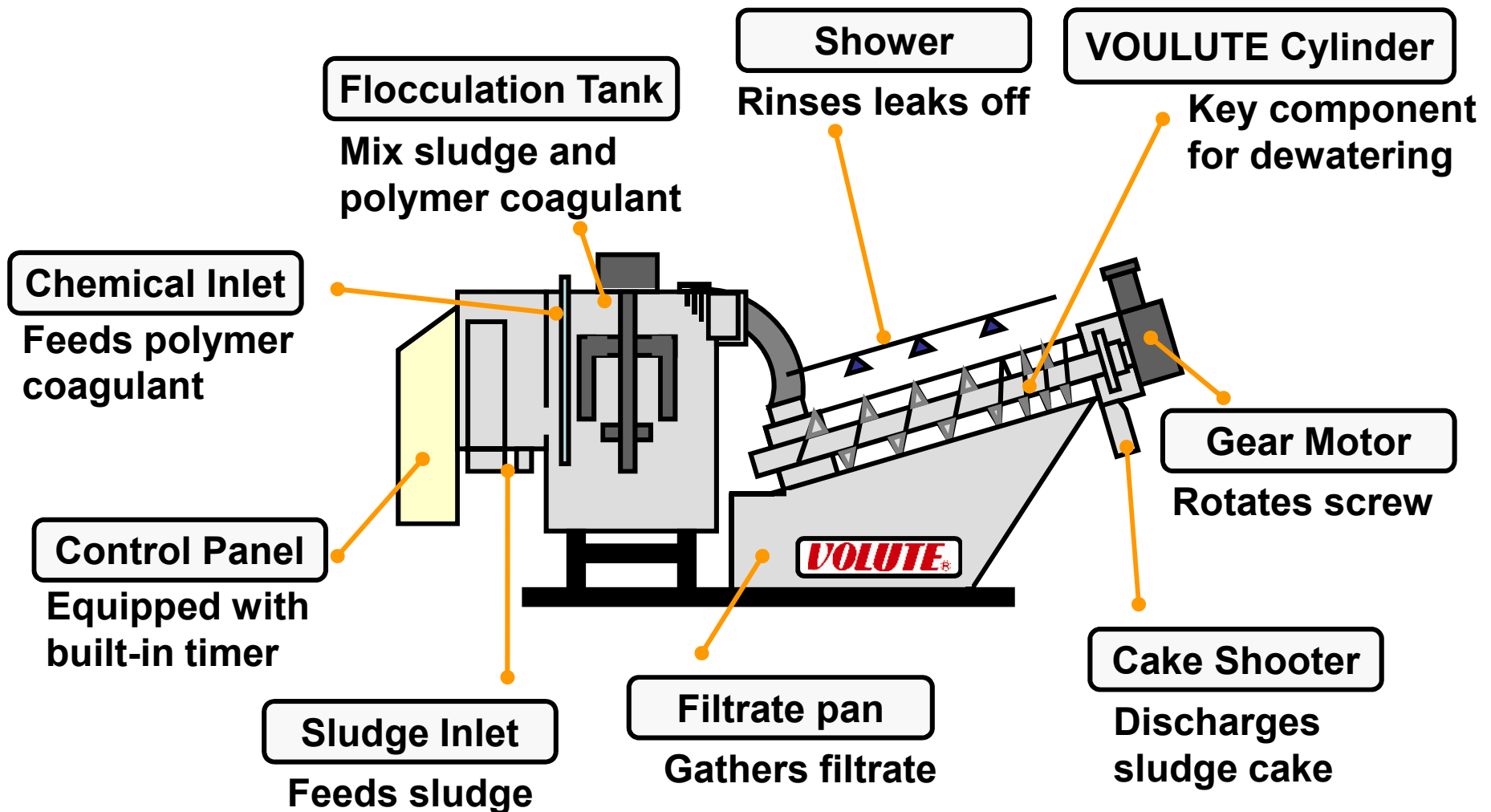
4. Overview of the VOLUTE Dewatering Press 3

Processing Flow



4. Overview of the VOLUTE Dewatering Press 4

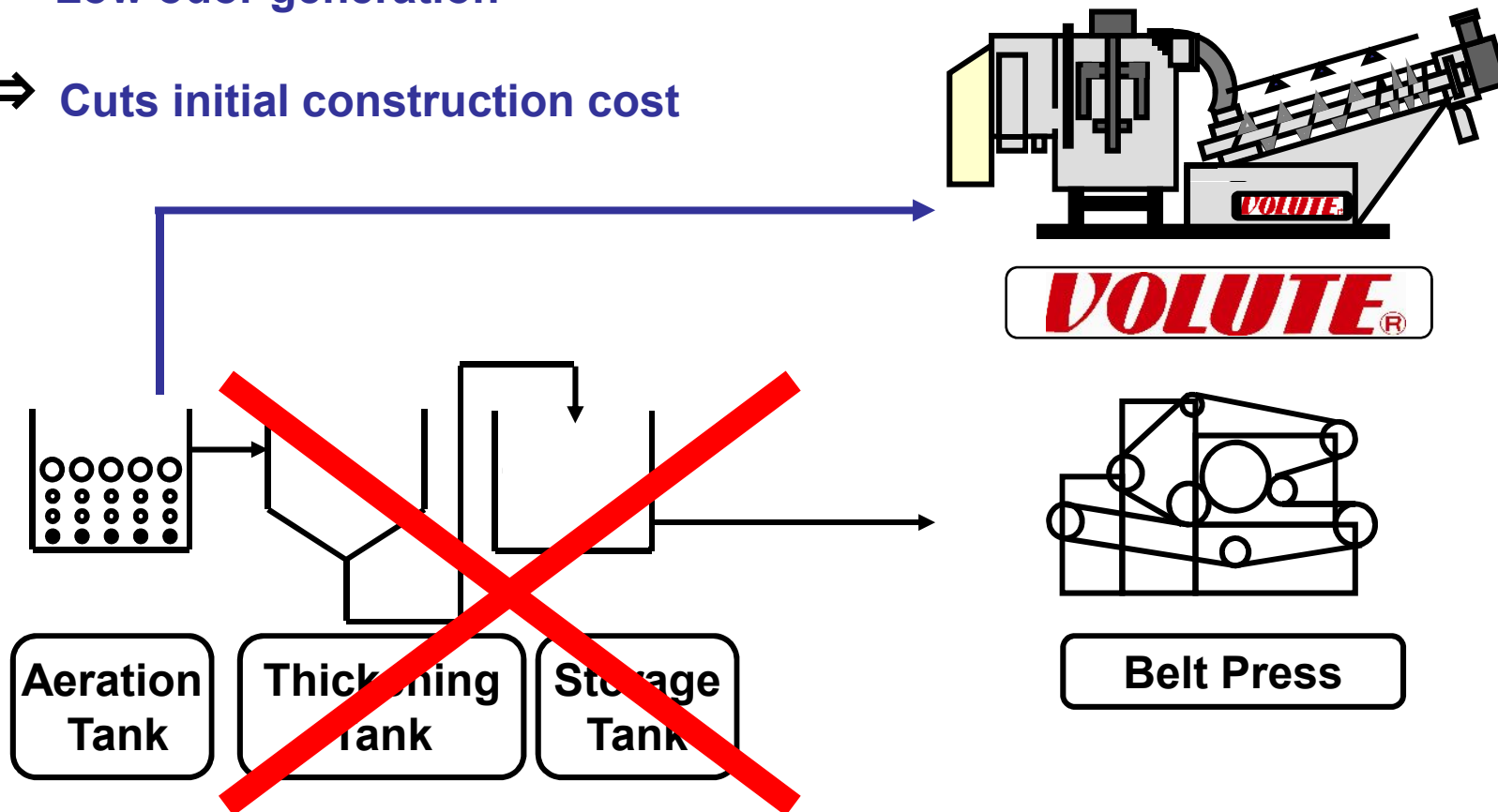
Parts and Functions



5. Advantages of the Volute Dewatering Press 1

Dewatering low concentrated sludge

- ⇒ Thickening and storage tanks are no longer necessary
- ⇒ Low odor generation
- ⇒ Cuts initial construction cost

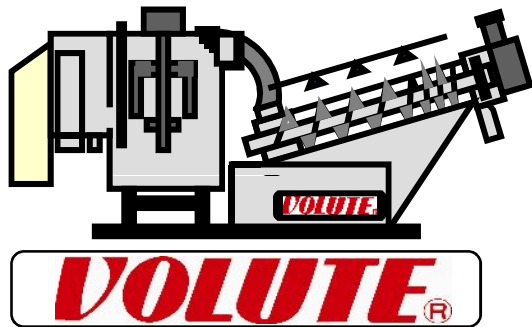


5. Advantages of the Volute Dewatering Press 2

Clog-free construction

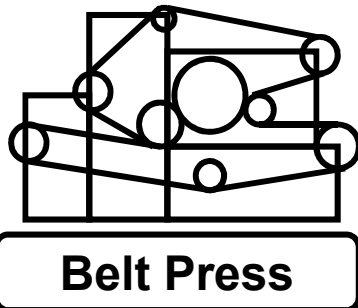
- ⇒ Low rinsing water consumption
- ⇒ Handles oily sludge

Great Savings!!



0.03m³/h

Rinsing water consumption



Belt Press

6m³/h

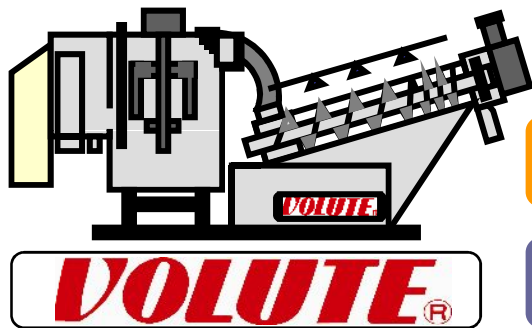
※ Compared with the belt press in similar size (30kg-DS/h throughput)

5. Advantages of the Volute Dewatering Press 3

Energy saving design

Great Savings!!

- ⇒ Low electricity consumption
- ⇒ Low noise and vibration generation

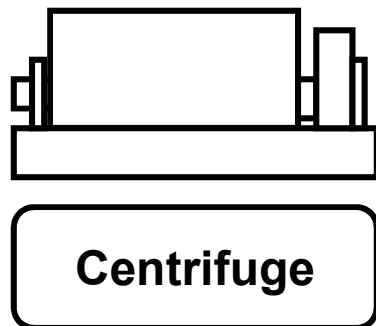


1kw

Electricity

65db

Noise



11kw

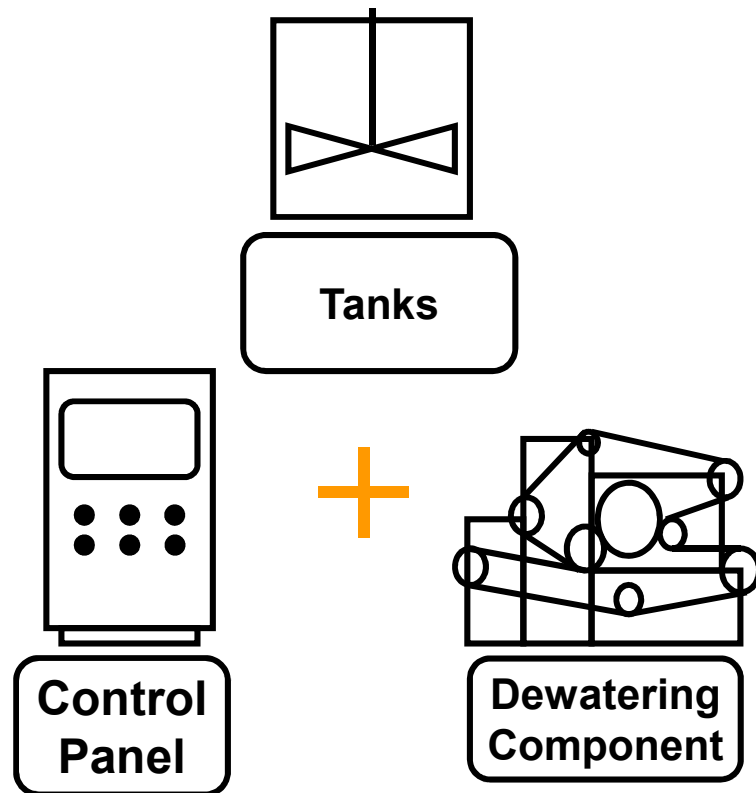
90db

※ Compared with the 20kg-DS/h throughput equipment

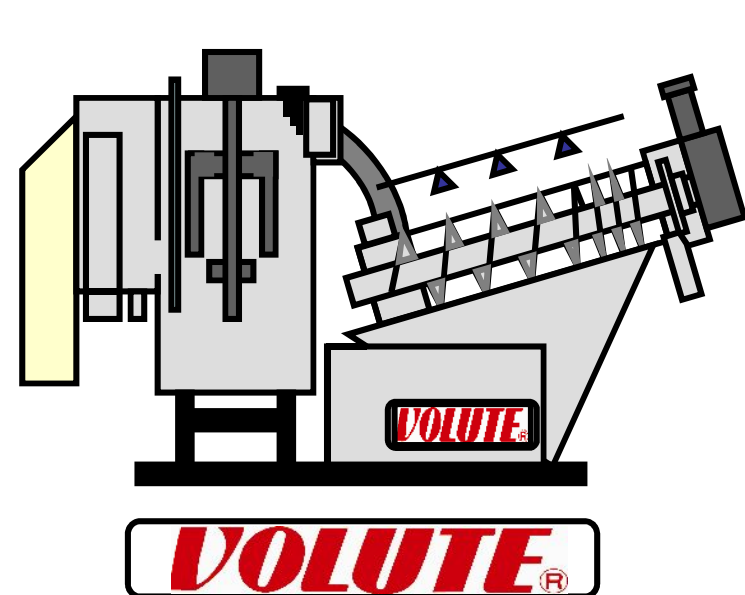
5. Advantages of the Volute Dewatering Press 4

All-In-One Design

- ⇒ Less auxiliary equipments
- ⇒ Easy Maintenance
- ⇒ Fits in small facility



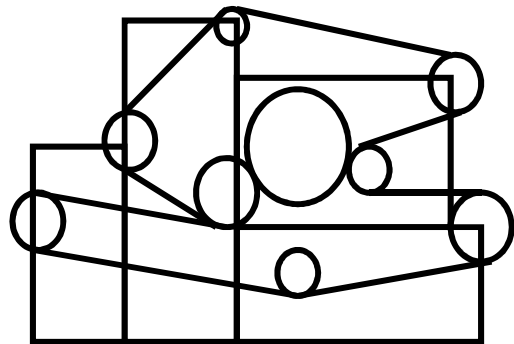
All-In-One!!



5. Advantages of the Volute Dewatering Press 5

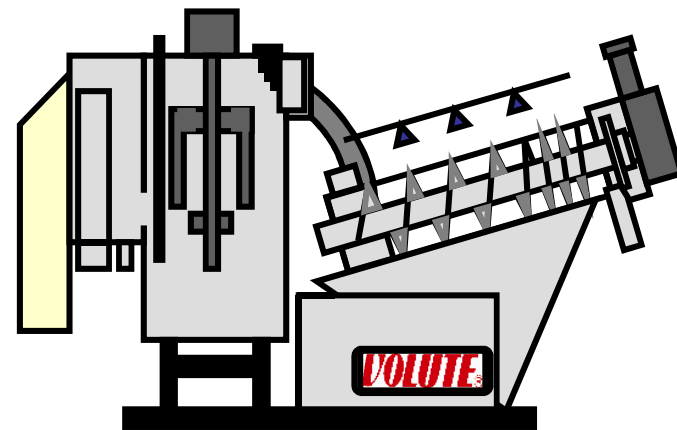
24 Hour Fully-Automatic Operation

- ⇒ Less operator presence
- ⇒ Cuts labor expenses
- ⇒ Longer operating hours



Belt Press

Great Savings!!

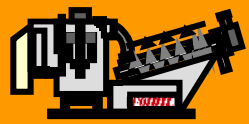
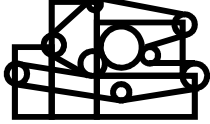
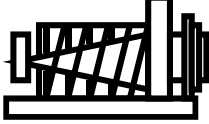
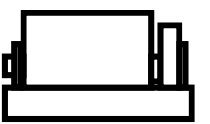
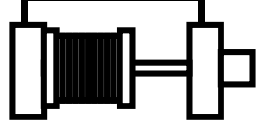


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※ Operation and Maintenance Time = 10 min / day

5. Advantages of the Volute Dewatering Press 6

Comparing with other dehydrators

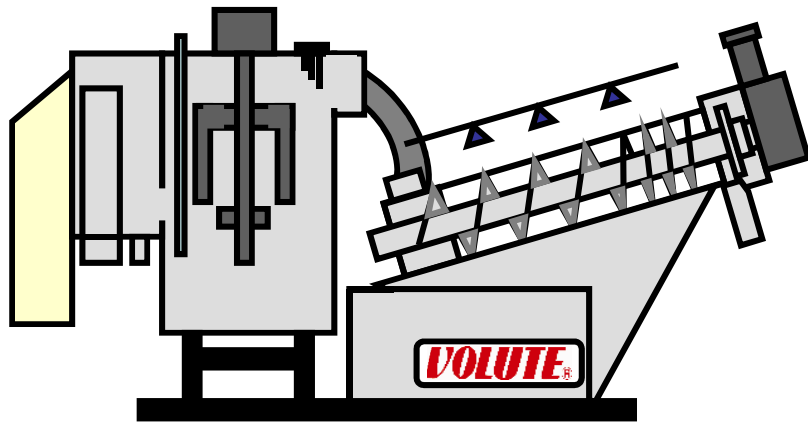
					
Unit	VOLUTE	Belt Press	Screw Press	Centrifugal	Filter Press
Low Concentrated Sludge	◎	△	△	○	×
Oily Sludge	◎	×	×	△	×
Rinsing Water	Minimum	High	Medium	Low	Medium
Electricity	Minimum	Medium	Medium	High	High
24 hour Operation	◎	×	△	×	×
Maintenance	Easy	Difficult	Difficult	Difficult	Difficult
Installation Space	Small	Large	Large	Medium	Medium

6. Product Lineup

Standard Models

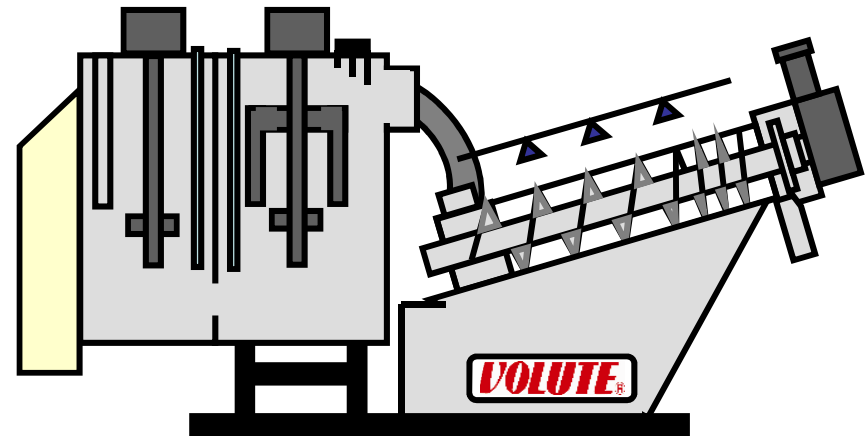
Single Tank Model

⇒ Uses 1 chemical



Twin Tank Model

⇒ Uses 1 or 2 chemicals



6. Product Lineup

Single Tank Model

	Throughput (lbs-DS/h)		Dimensions (inches)			Electricity (kw)	Dry Weight (lbs)
	Excess Sludge	DAF Froth	L	W	H		
ES-101ST	~6.6	~11.0	69.5	29.8	41.1	0.2	419
ES-131ST	~11.0	~19.8	75.6	29.8	41.1	0.2	452
ES-132ST	~22.0	~39.7	79.5	35.8	41.1	0.3	606
ES-202ST	~39.7	~66.1	98.4	36.8	50.2	0.8	1,036
ES-301ST	~66.1	~110.2	126.2	38.8	59.1	0.8	2,161
ES-302ST	~132.2	~220.5	134.1	48.4	59.1	1.2	3,241
ES-303ST	~198.4	~330.7	140.0	62.6	59.8	1.95	4,387

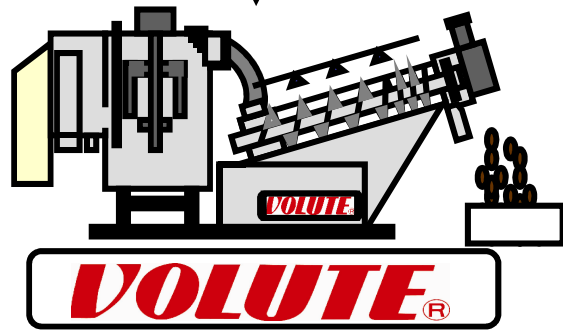
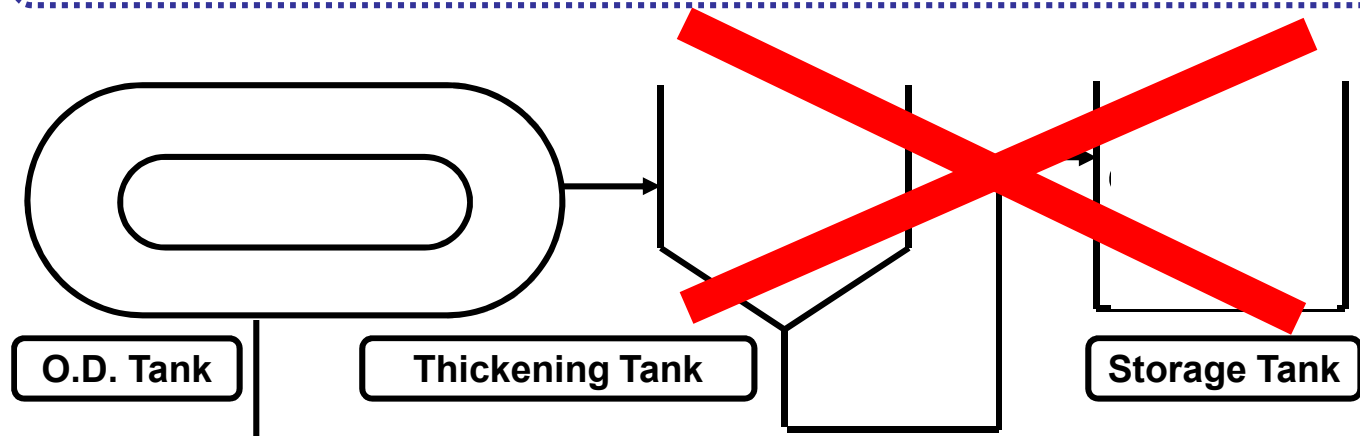
6. Product Lineup

Twin Tank Model

	Throughput (lbs-DS/h)		Dimensions (inches)			Electricity (kw)	Dry Weight (lbs)
	Excess Sludge	DAF Froth	L	W	H		
ES-101TT	~6.6	~11.0	78.7	24.3	41.1	0.3	485
ES-131TT	~11.0	~19.8	84.3	24.3	41.1	0.3	485
ES-132TT	~22.0	~39.7	92.1	26.6	41.1	0.4	706
ES-202TT	~39.7	~66.1	113.4	38.4	50.2	1.0	1,587
ES-301TT	~66.1	~110.2	133.9	37.0	63.0	1.0	2,094
ES-302TT	~132.2	~220.5	143.7	48.8	63.0	1.4	3,351
ES-303TT	~198.4	~330.7	152.6	62.6	63.0	2.15	4,519

7. Client Reference

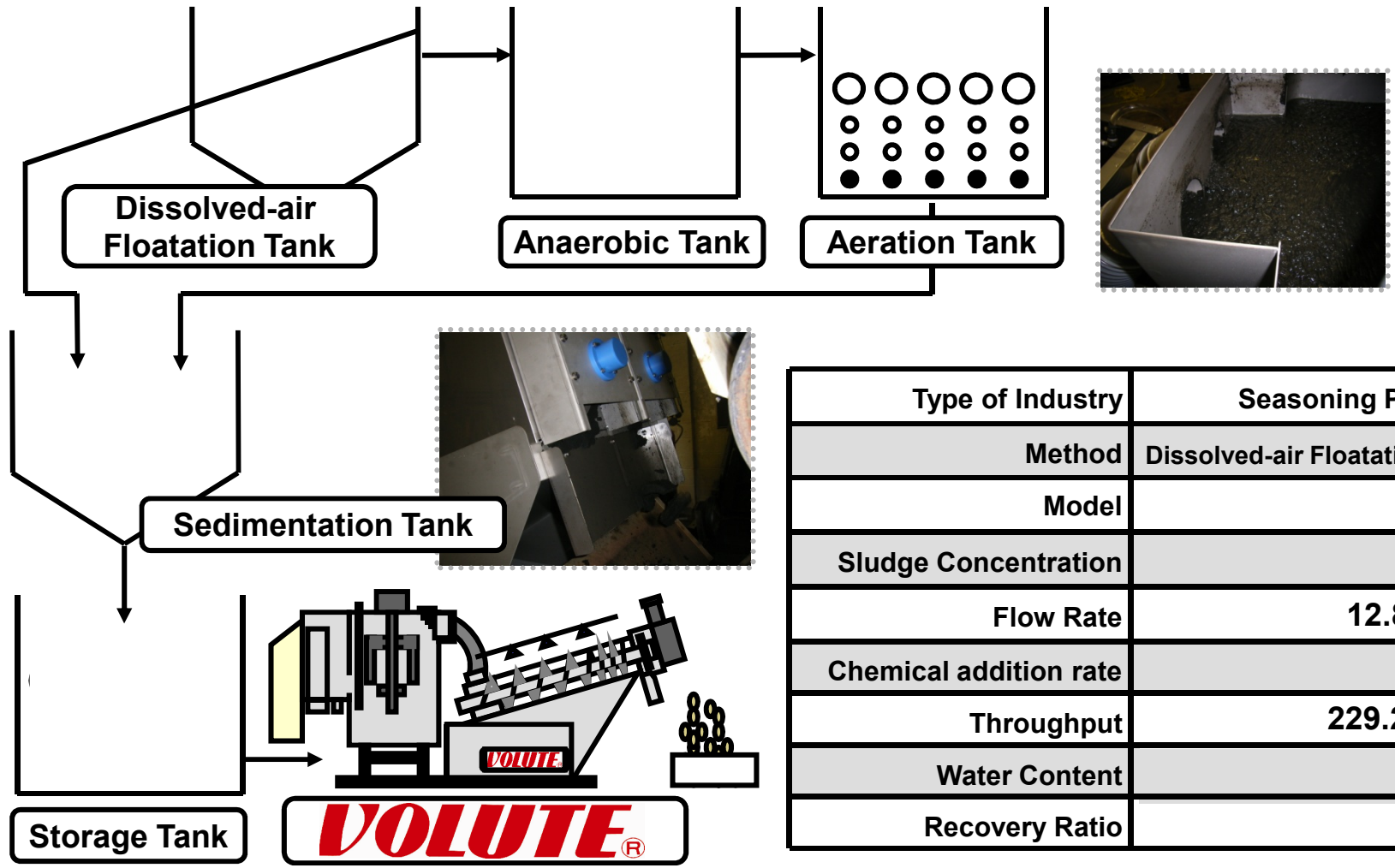
Wastewater Treatment Plant (Direct Dewatering from O.D.)



Type of Industry	Wastewater Treatment Plant
Method	Oxidation Ditch
Model	ES-201
Sludge Concentration	0.41 %
Flow Rate	9.25 gal. / Min
Chemical addition rate	1.5 %
Throughput	18.7 lbs-DS / h
Water Content	19.6 %
Recovery Ratio	92.5 %

7. Client Reference

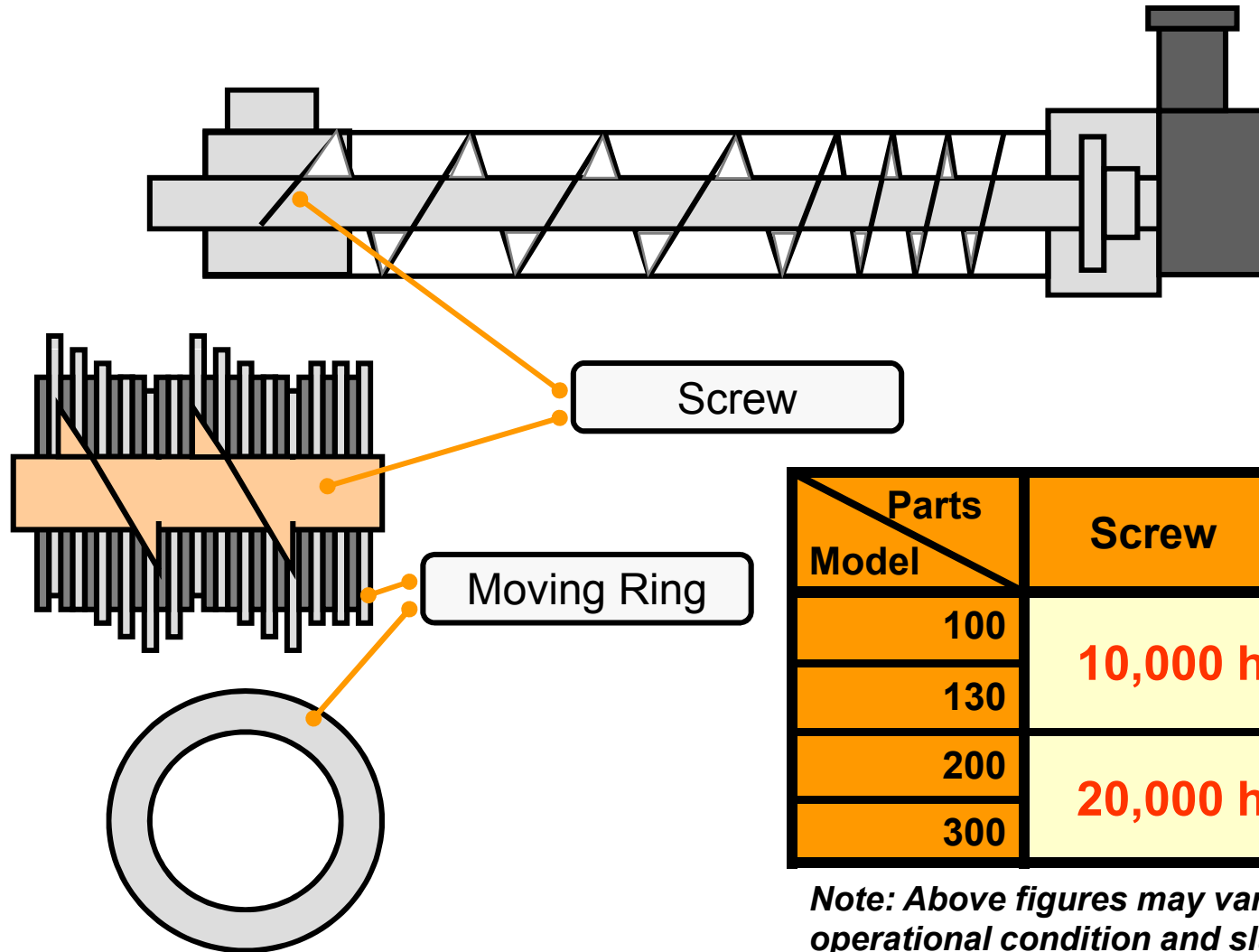
Seasoning Product Plant (Dissolved-air Floatation & Aeration)



Type of Industry	Seasoning Product Plant
Method	Dissolved-air Floatation & Aeration
Model	ES-302
Sludge Concentration	3.5 %
Flow Rate	12.8 gal. / Min
Chemical addition rate	0.4 %
Throughput	229.2 lbs-DS / h
Water Content	21.1 %
Recovery Ratio	98.3 %

8. Spare Parts

Spare Parts



Parts Model	Screw	Moving Ring
100	10,000 h	5,000 h
130		
200	20,000 h	10,000 h
300		

Note: Above figures may vary depending on operational condition and sludge

9. Liability

Liability of AMCON NA Inc.

AMCON NA product liability includes and is limited to the processes detailed within the blue dotted line.

