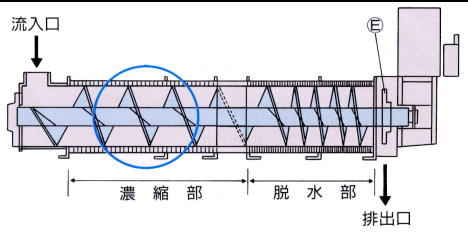
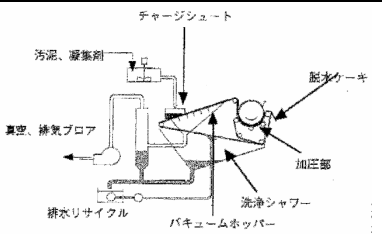
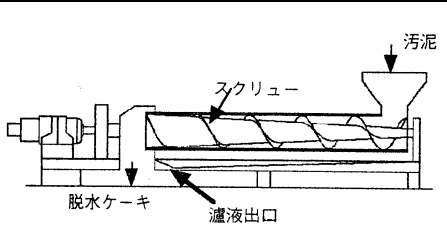
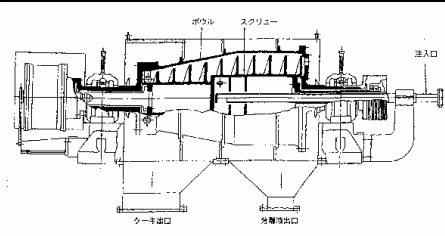
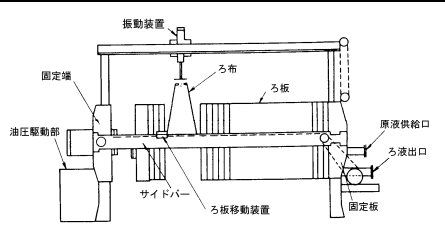


Comparison Table

		VOLUTE Dewatering Press / Dehydrator	Belt Press	Screw Press	Centrifugal Separator	Filter Press
Overview						
Dewatering principle	System	Layered ring screw press	Belt	Screw	Centrifugal Force	Pressure
	Principle	<ul style="list-style-type: none"> ➤ Layers of spacers, fixed and moving rings construct cylinder. Moving rings, which are slightly smaller than the outer diameter of the screw and slightly narrower than the spacers, are located between the fixed rings and are moved by the screw. ➤ Moving rings continuously cleans sludge out of the gaps and prevents clogging. 	<ul style="list-style-type: none"> ➤ Applies mechanical pressure to chemically conditioned sludge, which is sandwiched between two tensioned belts, by passing those belts through a serpentine of decreasing diameter rolls. ➤ The machine can actually be divided into three zones. gravity zone, where filtrate is drained by gravity through a belt; wedge zone, where the solids are prepared for pressure application; and dewatering zone, where medium, then high pressure is applied to the conditioned sludge. 	<ul style="list-style-type: none"> ➤ The main body is the punching metal or wedge wire and screw. ➤ The punching metal or wedge wire act as filter. As chemically conditioned sludge passes through cylinder, filtrate is drained by gravity 	<ul style="list-style-type: none"> ➤ The screw is built in the closure body. ➤ It separates by the specific gravity difference of liquid and solid. ➤ The sludge is introduced into a bowl rotating at high speed. Centrifugal force causes liquid-solid separation. 	<ul style="list-style-type: none"> ➤ A filter press consists of a number of filter plates, each covered with paper, felt medium or synthetic woven material. ➤ The sludge passes through the filter cloths; filtrate is discharged through the system. The filter medium retains suspended solid particulate. ➤ Solids content and remaining water build a cake on the surface of the filter.
Performance	Advantages	<ul style="list-style-type: none"> ○No need for thickeners and sludge storage. ○Low power and wash water consumption ○Can deal with low concentration sludge ○Low noise and odor generation 	○Lowest initial cost		○Capable of handling inorganic sludge	○Capable of handling inorganic sludge
	Disadvantages	<ul style="list-style-type: none"> ➤ Some types of inorganic sludge are not recommended for VOLUTE. 	<ul style="list-style-type: none"> * Frequently clogs * High power and wash water consumption * Incapable of handling oily sludge * 24hour un-attended operation is not capable * Maintenance is difficult 	<ul style="list-style-type: none"> * Frequently clogs * Inorganic sludge dewatering is not recommended * Maintenance is difficult 	<ul style="list-style-type: none"> * High noise generation * High power consumption * High operating cost * Maintenance is difficult 	<ul style="list-style-type: none"> * Frequently clogs * Incapable of handling oily sludge * The high-pressure pump is required * 24hour un-attended operation is difficult
Coagulant	Required	Required	Required	Required	Required	Required(Depends on Unit)
Water Content	15% or more (85% or less)	15% or more (85% or less)	15% or more (85% or less)	15% or more (85% or less)	15% or more (85% or less)	25% or more (75% or less)
Rinsing water consumption	Extremely low (Simple showering only)	High (High-pressure washing water is necessary)	High (High-pressure washing water is necessary)	Medium (High-pressure washing water is necessary)	Low	Medium (High-pressure washing water is necessary)
SS recovery	95% or more	90~95%	90~95%	90~95%	90~95%	85~95%
Electric Power Consumption	Low	High	High	High	Extremely High	High
24H operation	Yes	Not recommended	Yes	Yes	Yes	No
Maintenance	Easy	Difficult	Difficult	Difficult	Difficult	Difficult
Equipment Size	Small	Large	Large	Large	Medium	Medium
Noise, Vibration	Extremely low	High	High	High	Extremely high	High
Thickening tank	Unnecessary (Direct dewatering from Oxidation Ditch)	Required	Required	Required	Required	Required

Information provided on this documents are provided "as is" without warranty of any kind. AMCON inc. periodically adds, changes, improves, or updates the information on this documents without notice. AMCON inc. assumes no liability or responsibility for any errors or damages. Your use of this document is at your own risk. Under no circumstances and under no legal theory shall AMCON inc. in creating, producing, or delivering this documents be liable to you or any other person for any indirect, direct, special, incidental, or consequential damages arising from your use of document.