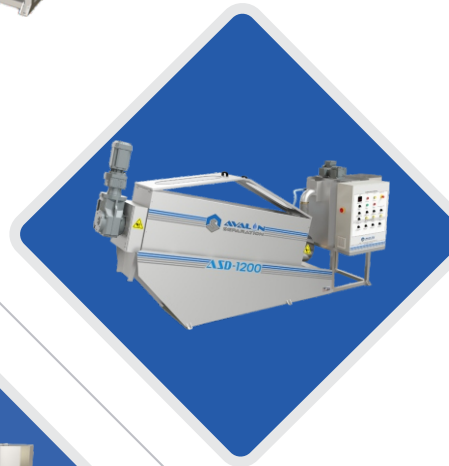
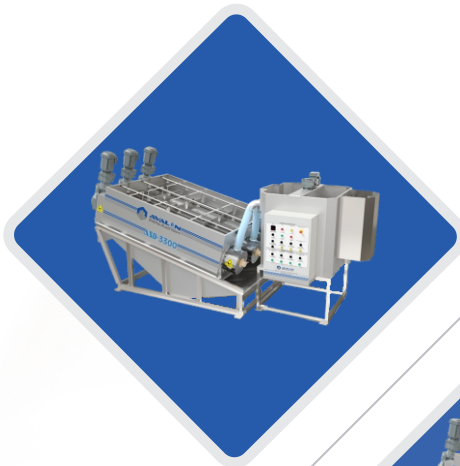


AVALON
SEPARATION

Screw Sludge Dewatering Machine



MSME
MICRO, SMALL & MEDIUM ENTERPRISES
संरक्षण, उत्थान, विकास, प्रवर्धन



www.avalonseparation.com

WHO WE ARE

Welcome To Avalon Separation

Avalon Separation was founded in 2015, and we have accomplished so much over the years. To create a world where Avalon Separation is a leading growing company in solid-liquid separation of industrial & municipal wastewater. Also service provider for cleaning of the lake, sump, river etc. Avalon Separation is always eager to provide customers with professional consulting services, cost-effective solutions and products of top quality and high performance as well as for customization.

Our leading products are sludge de-watering screw dehydrator, poly preparation and dosing system, sludge thickener, and mobile sludge dewatering unit. This can be widely used in several industries such as pharmaceuticals, food & beverages, oil and gas, dairy, textile, printing and dyeing, biogas, livestock and so more.

We are implementing a strict quality control program based on the iso9001:2008 quality control system and customer satisfaction. We are continuously focusing on innovation. We have an expert r&d team. So far we have brands and a variety of upcoming technologies which makes the product superior. We always consider environmental and economical benefits for the customers.

AVALON SEPARATION

Avalon Screw Dehydrator (Model ASD)

Avalon Screw Dehydrator belongs to the screw press, it's clog-free and can reduce the sedimentation tank and sludge thickening tank, saving the cost of sewage plant construction. ADS using screw and the moving rings to clean itself as clogfree structure, and controlled by the PLC automatically, it's a new technology that can replace the traditional filter press like belt press and frame press, the screw speed is very low, so it cost low power and water consumption in contrast to the centrifuge, it is a cutting edge sludge dewatering machine.

The Sludge Dewatering Press is an enclosed high performance sludge dewatering system. It utilizes a central screw auger and a slowly oscillating multi-disk filter to gradually increase pressure on flocculated sludge to produce an exceptionally dry sludge cake. With electrical, water and polymer usage, and high capture rates the system is very cost effective.

The Sludge Dewatering Press can be provided with all equipment required for dewatering included and factory mounted, piped and wired on a single stainless steel skid. This equipment includes the sludge pump, wash water pump, polymer dosing system and control panel.

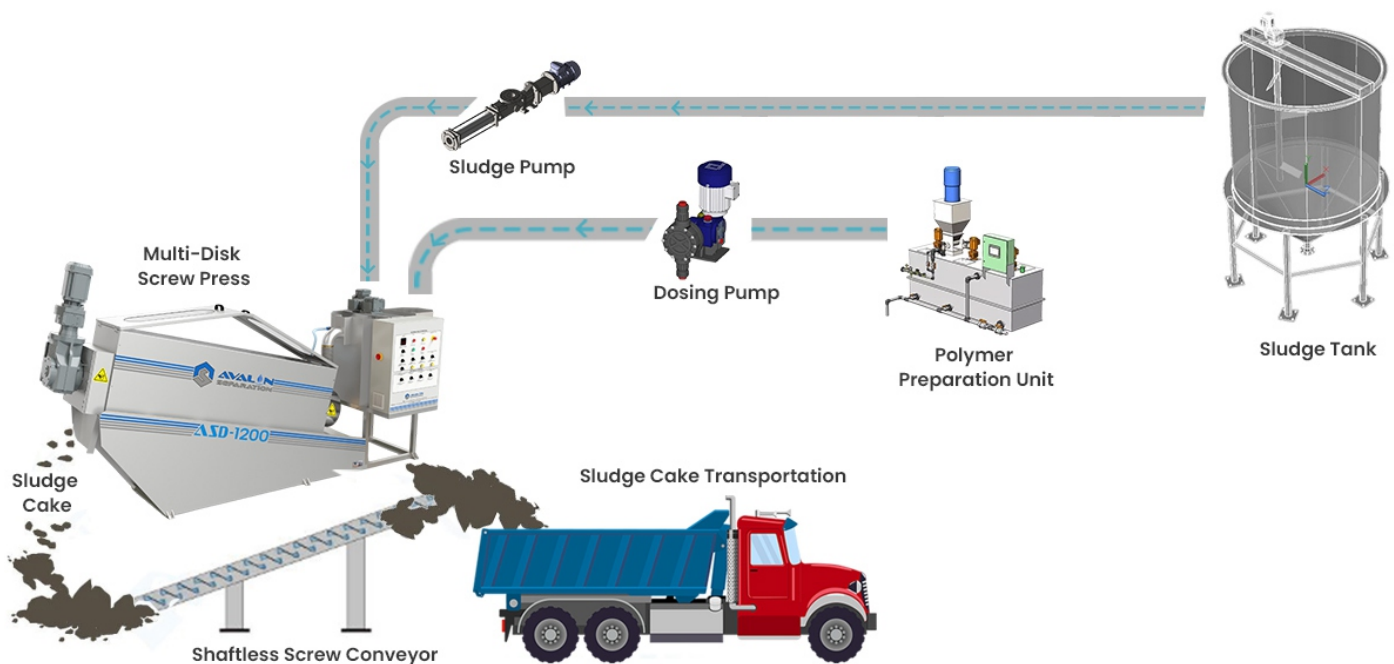
ADVANTAGES

- Low Power Consumption
- Widely Use
- Contactless, Wear Free Structure Design
- No skill Worker Required
- No fresh water cleaning required
- Clog-free
- Decrease Capital Investment
- Reduction of investment costs for thickening and storage equipment
- Fully Automatic Control
- High Resistance to Oily Sludge
- No Fresh Water Cleaning Required
- Low Maintenance Required
- Save Running Cost
- Small Footprint

AUTOMATION & INTEGRATION

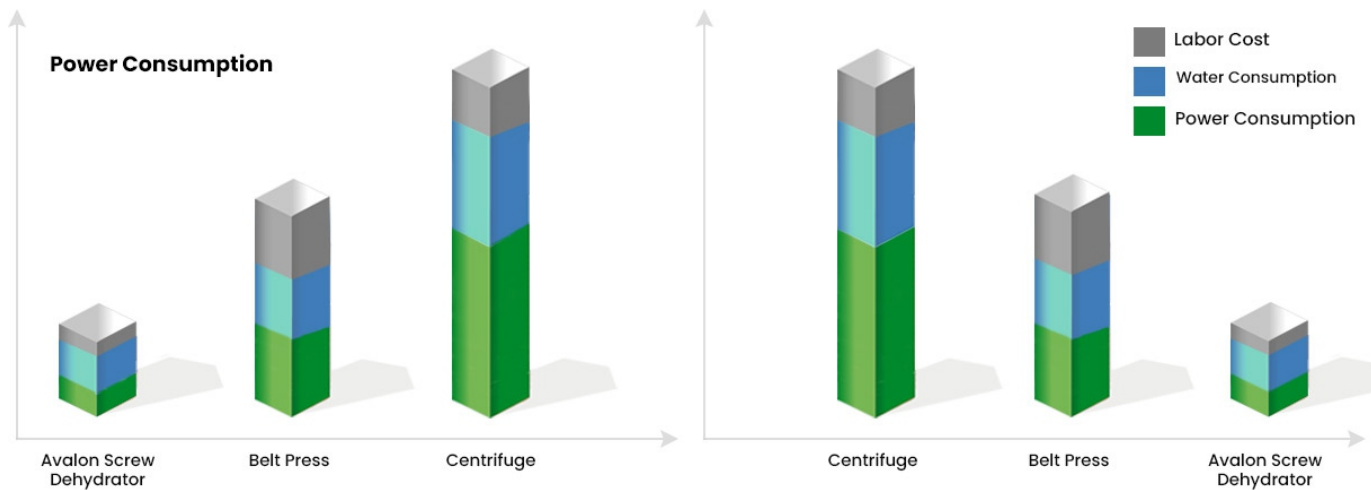
The ability to integrate the AVALON SCREW DEHYDRATOR in the plant process is critical for the operator and easily achieved. Polymer dosing and feeding system, sludge feed pumps, DAFs and conveyors can be automated and systematically incorporated into the process. Automation packages with operator interface are available to manage the entire process, provide unit operating and alarm outputs and connection to plant PLC & SCADA, for real time diagnostics. The automation includes start up, regular operation, redundancy and interruption events, and shutdown via on-site and remote access. The ability to integrate the AVALON SCREW DEHYDRATOR in the plant process is critical for the operator and easily achieved. Polymer dosing and feeding system, sludge feed pumps, DAFs and conveyors can be automated and systematically incorporated into the process. Automation packages with operator interface are available to manage the entire process, provide unit operating and alarm outputs and connection to plant PLC & SCADA, for real time diagnostics. The automation includes start up, regular operation, redundancy and interruption events, and shutdown via on-site and remote access.

WORKING PROCESS



SAVE RUNNING COST

AVALON SCREW DEHYDRATOR works by the machine's internal pressure and needs no large scale integrations like rollers. It saves energy and water and has very minimal noise because of low running speed (2-4 r/min). The average unit power consumption is only 0.1-0.01kwh/kg-DS (1/8 of Belt Press and 1/20 of Centrifuge), and can greatly reduce the running cost of wastewater treatment system.



DIRECT DEWATERING FROM OXIDATION DITCH

In the past times, sludge was commonly thickened before dewatering, but when AVALON SCREW DEHYDRATOR Dewatering Press was introduced to the world, it's a cutting-edge technology, ASD is consisted of a filtering drum with both thickening and dewatering zone, changed this notion. Due to the unique structure, AVALON SCREW DEHYDRATOR Dewatering Press can handle low concentrated sludge at 0.4% directly without any pre-thickening stage for dewatering sludge directly.



CLOG-FREE

Due to rotation of helical axis, the moving rings begin detaching from the fixed rings while continuously starting the self-cleaning process. As a result, the Present clogging is avoided. Therefore, it can handle oily sludge without any trouble while separating the water from the sludge easily. In addition, there is no need to add large quantity of flushing water and there is no smell and no secondary pollution during the dewatering process.









FULLY AUTOMATIC CONTROL

There are no easily blocked pieces such as belt and filtration pore in AVALON SCREW DEHYDRATOR. Combining with the auto control system, the machine runs very safely and simply and can be programmed according to the requirement of the users. It can operate automatically for 24 hours, unmanned.



SMALL FOOTPRINT

AVALON SCREW DEHYDRATOR dewatering press can be installed in places where placement would not be possible with other technologies. This makes ASD suitable to customers who are considering the replacement of existing dewatering equipment.

Items	Avalon Screw Dehydrator	Frame Filter Press	Belt Press	Centrifuge
Dewatering of Low & High Concentrated sludge	✓	✗	✗	✗
No Need Thickner	✓	✗	✗	✗
24-hour Automatic Operation	✓	✗	✗	✗
Occupied Space	▲	▲▲▲	▲▲▲	▲▲
Energy Consumption 	▲	▲▲▲	▲▲▲	▲▲▲▲
Labor Intensity 	▲	▲▲▲	▲▲	▲
Noise & Vibration 	▲	▲▲▲	▲▲	▲▲▲▲
Maintenance Cost 	▲	▲▲	▲▲▲	▲▲▲
Running Cost 	▲	▲▲▲	▲▲▲	▲▲▲▲
Wash Water Consumption 	▲	▲▲▲	▲▲▲	▲▲

APPLICATIONS

Avalon Separation

The AVALON SCREW DEHYDRATOR is a reliable and versatile dewatering technology that allows treatment of many sludge types and it is suitable for a variety of applications. High oil and fat materials for instance tend to easily plug up belt press filters, which drastically increases their maintenance requirements and operating costs. Centrifuges on the other hand require immense power to work effectively. With the new Screw Dehydrator technology customers finally have an efficient solution that addresses their operational needs:

- Sludge from processed flow-back water from oil and gas operations
- DAF sludge from livestock waste or meat processing operations
- Municipal sewage and wastewater treatment processes
- Food and beverage processing waste treatment
- Sewage sludge from remote camp operations
- Sludge from biological treatment processes
- Oil sludge from machining operations
- Sludge from the chemical industry
- Wastes from the textile industry
- And many more



Model	Sludge Concentration(TS)			Cylinder Specifications	Power Required
	(10,000 mg/L) Tss 1%	(20,000 mg/L) Tss 2%	(30,000 mg/L) Tss 3%		
ASD-1100	0.5 m ³ /h	0.3 m ³ /h	0.2 m ³ /h	100×1	0.24 kw/h
ASD-1150	1 m ³ /h	0.6 m ³ /h	0.4 m ³ /h	150×1	0.37 kw/h
ASD-1200	3 m ³ /h	1.8 m ³ /h	1.3 m ³ /h	200×1	0.49 kw/h
ASD-2200	6 m ³ /h	3.5 m ³ /h	2.6 m ³ /h	200×2	0.86 kw/h
ASD-1300	5 m ³ /h	3 m ³ /h	2.1 m ³ /h	300×1	1 kw/h
ASD-2300	10 m ³ /h	6 m ³ /h	4.2 m ³ /h	300×2	2 kw/h
ASD-1400	10 m ³ /h	6 m ³ /h	4.2 m ³ /h	400×1	1.47 kw/h
ASD-2400	20 m ³ /h	12 m ³ /h	8.5 m ³ /h	400×2	2.57 kw/h
ASD-3400	30 m ³ /h	18 m ³ /h	13 m ³ /h	400×3	3.67 kw/h
ASD-4400	40 m ³ /h	24 m ³ /h	16 m ³ /h	400×4	5.14 kw/h
ASD-1450	15 m ³ /h	9 m ³ /h	6.5 m ³ /h	450×1	1.87 kw/h
ASD-2450	30 m ³ /h	18 m ³ /h	13 m ³ /h	450×2	3.37 kw/h
ASD-3450	45 m ³ /h	27 m ³ /h	20 m ³ /h	450×3	5.24 kw/h
ASD-4450	60 m ³ /h	36 m ³ /h	25 m ³ /h	450×4	6.74 kw/h

- ▶ Throughput above is calculated as approximate and may vary depending on sludge condition. For model selection, Enquiry Now.
- ▶ Throughput of each model is based on sludge cake with 20+ 5% solids content.
- ▶ There is no certain upper limitation on inlet sludge concentration, however, the target sludge must be flowable.
- ▶ Throughput of DAF Sludge is based on sludge containing much fat, oil, and grease such as meat processing applications etc.
- ▶ Throughput of Mixed Sludge (Primary Sludge and Waste Activated Sludge) and Aerobically Digested Sludge is based on sludge containing 30% fiber (75 micron mesh clearance) against Total Solids.

Our Valuable Customers



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