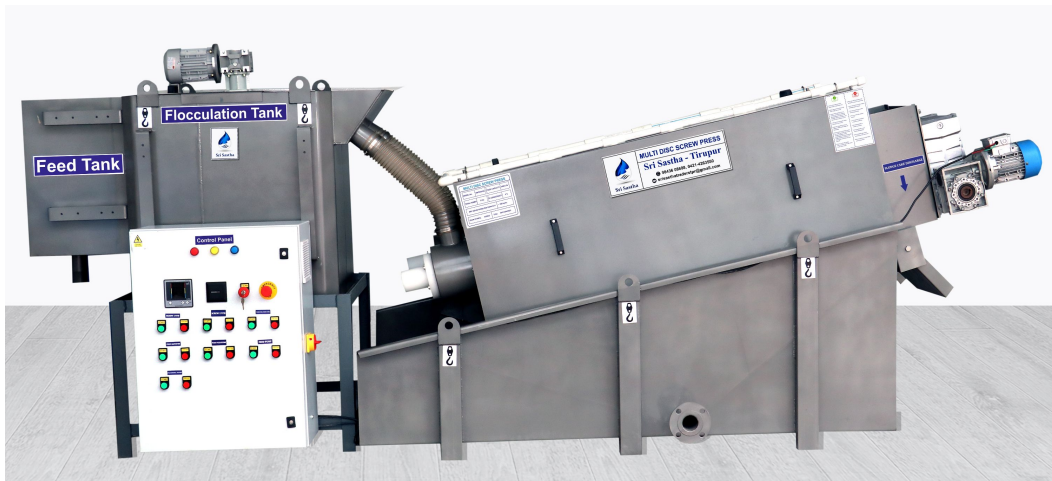




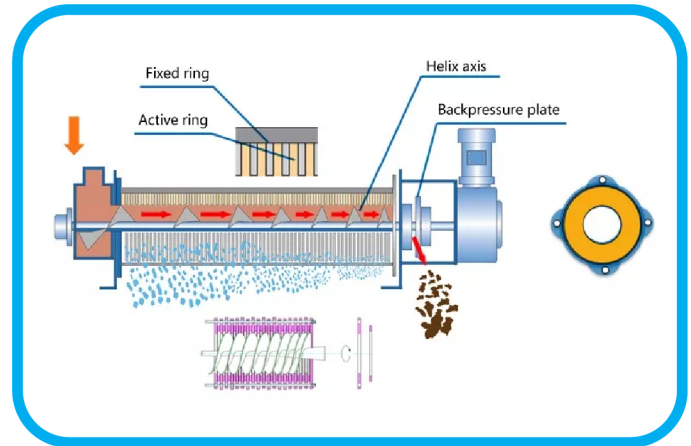
Sastha
—Water Technologies—



Multi Disc Screw Press

Multi Disc Screw Press

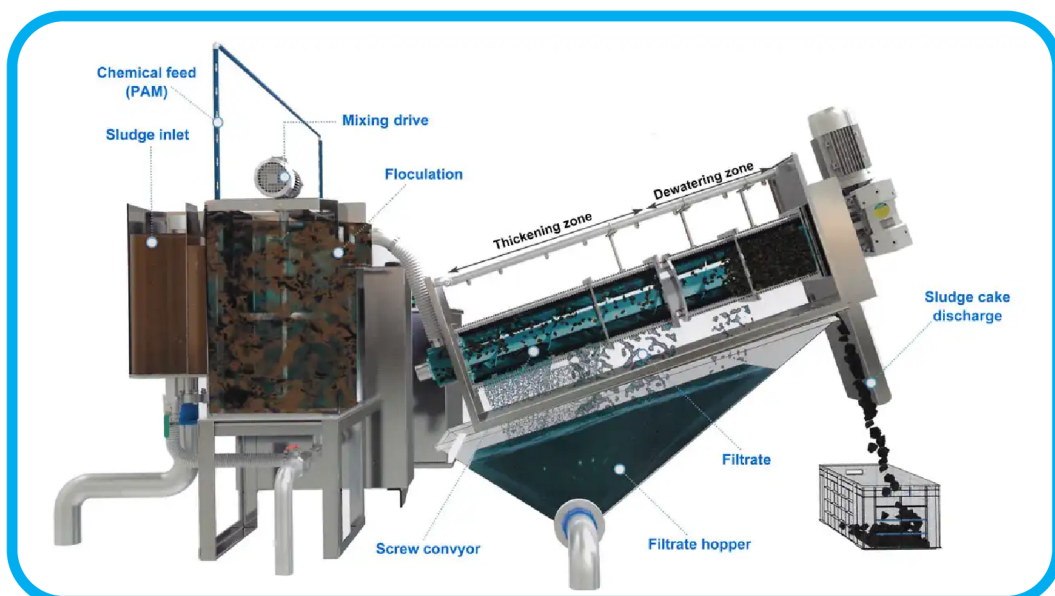
This screw press is used for sludge dewatering, using stainless steel as the filtration method. Sludge is thickened and dewatered progressively inside the screw body with the movement of the moving rings, and ending by the fixed plate. The filtrate is drained from the gaps between fixed and moving rings and dewatered cake is discharged at the end plate, achieving a minimum solid content of 20%. Low speed rotation and special filtration design of the screw press make the machine a low consumption Energy with high yield automation unit, suitable for the most projects and saving maintenance cost. The screw press also accepts a wide range of chemical and biological sludge industries including Municipal, Food & Beverage, Papermaking, Dyeing, Printing and etc.



Multi Disc Screw Press Working Description

Liquid sludge is pumped to the Dewatering Screw Press via an external feed pump. The sludge enters the Inlet Chamber, which is fitted with an overflow. Any overflow is directed back to the sludge source tank or process. The Inlet Chamber serves to optimize flow to the other parts of the Machine.

Liquid sludge is discharged from the Inlet Chamber via a V-notch weir into the Flocculation Chamber. Polymer is added into the Flocculation Chamber to aggregate/flocculate sludge solids into flocs. Flocculation occurs where the sludge and polymer are mixed slowly by a vertical paddle mixer. The sludge flocs then flow via an overflow from the Flocculation Chamber into the screw, which is the basic mechanism of the dewatering press.



A screw with a variable pitch helix operates within a cylinder of fixed and moving rings that make up the dewatering drum. The fixed rings form a static structure whereas the moving rings ensure continuous self-cleaning while the screw is in motion. The gap between the fixed and moving rings varies from 0.5 to 0.1 mm

However, when the screw is in operation, the size of the gaps changes continuously, thus giving a smooth dewatering process. The filtrate that results from the dewatering process as the flocculated sludge is compressed, flows through these gaps into a collection tray located under the machine. The filtrate can be collected in a tray located under the machine. The filtrate can gravitate from this tray to the head of works or any other suitable location.



**Thickening and
Dewatering**



Screw Conveyor



Control Panel

Benefits of Dewatering Screw Press:

- Feed sludge directly taken from the aeration tank.
- Dewatering screw press is generally applicable to concentration as 2000 mg/l to 50000 mg/l
- High recovery rate >95% bio sludge and 50% to 60% for chemical sludge
- Consistent in maintaining moisture between 70% to 80% for
- Simple installation and small footprint
- Simple automatic (or manual) operation
- Odourless process
- Low energy consumption
- Low wash water consumption
- Simple and low maintenance
- Low noise and vibration levels
- Suitable for a wide range of applications
- High quality workmanship

Applications

- Dyeing and printing ETP
- Domestic and municipal STP
- Paper and pulp industries
- Food Industries
- Chemical Industries
- Oil Industries
- Etc

DEWATERING SCREW PRESS MACHINE TECHNICAL PARAMETER (FOR CONFIGURATION)

Model	DS Standard Capacity	Capacity for Sludge with Different Concentration					
	(Absolute Dry Sludge)	2000mg/L	10000mg/L	20000mg/L	30000mg/L	40000mg/L	50000mg/L
SSDW 150	4~14 kg/h	~2m³/h	~0.6m³/h	~0.5m³/h	~0.4m³/h	~0.3m³/h	~0.28m³/h
SSDW 201	8~20 kg/h	~4m³/h	~1.2m³/h	~0.75m³/h	~0.6m³/h	~0.5m³/h	~0.4m³/h
SSDW 202	16~40 kg/h	~8m³/h	~2.4m³/h	~1.5m³/h	~1.2m³/h	~1m³/h	~0.8m³/h
SSDW 301	40~70 kg/h	~10m³/h	~3m³/h	~2.5m³/h	~2m³/h	~1.5m³/h	~1.4m³/h
SSDW 302	40~140 kg/h	~20m³/h	~6m³/h	~5m³/h	~4m³/h	~3m³/h	~2.8m³/h
SSDW 303	60~210 kg/h	~30m³/h	~9m³/h	~7.5m³/h	~6m³/h	~4.5m³/h	~4.2m³/h
SSDW 401	67.5~160 kg/h	~33.7m³/h	~10m³/h	~6.5m³/h	~5m³/h	~4m³/h	~3.2m³/h
SSDW 402	135~320 kg/h	~67.5m³/h	~20m³/h	~13m³/h	~10m³/h	~8m³/h	~6.4m³/h
SSDW 403	200~480 kg/h	~100m³/h	~30m³/h	~19.5m³/h	~15m³/h	~12m³/h	~9.6m³/h
SSDW 404	266~640 kg/h	~133m³/h	~40m³/h	~26m³/h	~20m³/h	~16m³/h	~12.8m³/h

The above specification and parameters for reference only.



DEWATERING SCREW PRESS MACHINE TECHNICAL PARAMETER (FOR CAPACITY)

Model	Screw Diameter	Screw Qty	Screw Power	Agitator Power	Total Power	Flushing Pressure	Flushing Water (L/H)	Weight (KG)
SSDW 150	150mm	1	0.2KW	0.2KW	0.4KW	0.1 Mpa- 0.2Mpa(N o high pressure flushing device is required)	20	205
SSDW 201	200mm	1	0.37KW	0.2KW	0.57KW		30	290
SSDW 202		2	0.74KW	0.2KW	0.94KW		30	470
SSDW 301		1	0.55KW	0.4KW	0.95KW		40	820
SSDW 302		2	1.1KW	0.55KW	1.65KW		80	1350
SSDW 303	300mm	3	1.65KW	0.55KW	2.2KW		120	1820
SSDW 401		1	1.1KW	0.55KW	1.65KW		70	1990
SSDW 402		2	3KW	0.75KW	3.75KW		140	3310
SSDW 403		3	4.5KW	1.1KW	5.6KW		210	4380
SSDW 404	400mm	4	6KW	0.75KW*2	7.5KW		280	6170

The above specification and parameters for reference only.

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