



Dynamic Equipments Pvt. Ltd.
Environmentally Conscious

An ISO 9001-2015 Company

MULTI-DISK SCREW PRESS FOR SOLID-LIQUID SEPARATION



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Dynamic Equipments Pvt. Ltd.
Environmentally Conscious

Professional Sludge Treatment Equipment Manufacturer, High Level, High Standard

dynamicequipments.co.in



A company that has been trusted since decades for changing the way of manufacturing in different segments. We provide the latest technology with high quality standards.

We are environmentally conscious and we look forward to support you by providing unique machine for your waste water management. We believe that cost is no long forgotten and only the quality is remembered forever. This the mantra that we follow at DEPL

“Our Quality and service are our success tools”

Company Overview

Dynamic Equipments Private Limited (DEPL) which was founded in the year 1993 as a textile power-looms manufacturing company based out of Ahmedabad. DEPL is one of the affiliate of Dynamic Autolooms India Pvt. Ltd. The group has diversified Dynamic Equipments Private Limited, into wastewater & sludge treatment equipment by launch of its first series of Multi Disc Screw Press for solid liquid separation application in sanitary and industrial sectors.

Currently, DEPL offers solid liquid separation solution for more than 24 models and capacities ranging from 0.3 cum to 78 cum/hr for upto 3% w/w solids concentration. With a dedicated design engineering and product development division our products have an application of intensive cutting-edge research and development. Moreover, with an experience of making 10000 auto looms, Dynamic group has extensive experience in precision manufacturing which reflects in the quality, workmanship and built of its Multi Disc Screw Press

Our Vision

“To be Environmentally Conscious”

As stated above we assist our customer to save the environment by providing latest technology of machines for Solid & Liquid Waste Management. We manufacture wide range of advance technology of machinery which shall fulfil the requirement of small, medium and large

Our Motto

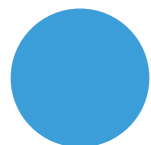
To be available globally for rendering service by providing quality machinery to save environment from solid & liquid waste. And bring revolution & awareness to be environmentally conscious.

Values



Customer First

Our first and foremost priority is customer with respect to providing time to time upgraded machinery, spare parts, training and other service which falls in to our purview and scope of work.



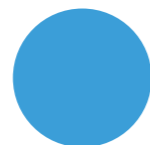
Commitment

we are committed to provide best quality of product and after sales service support. We value of return of investment of our customers.



Clarity

we always keep clarity with our customer for their satisfaction. We provide to our clients as well as from our vendors regardless of circumstances. We do ethical business and expect same values from our vendors and customers.



Up-gradation of Technology

Our team is doing continuous research and development to bring latest technology. Inventions and innovations are eternal part of our organization.

Quality Policy

DEPL is committed to provide latest technology and superior products with high quality of services to achieve total customer's satisfaction. We are committed to quality, integrity and excellence in all areas of business. We pledge to monitor our performance as on going activity and strive for continuous improvement in existing product & technology.

With a group of highly skilled and well trained managers & engineers, we built up a total management systems and systematic quality control ranging from the top management to field work. We ensure consistent quality at every stage of manufacturing process and for this we have implemented a quality management systems through technical assistance, inspection of each machinery part, functional test of assembled products and its final performance.

DEPL gives an exceptional and wise investment opportunity to clients. We believe that quality and customer's satisfaction are our inspiration to build organization's future growth.

Infrastructure

Dynamic equipments have it's manufacturing facilities at Ahmedabad

spread over

60,000
Sq Ft. land

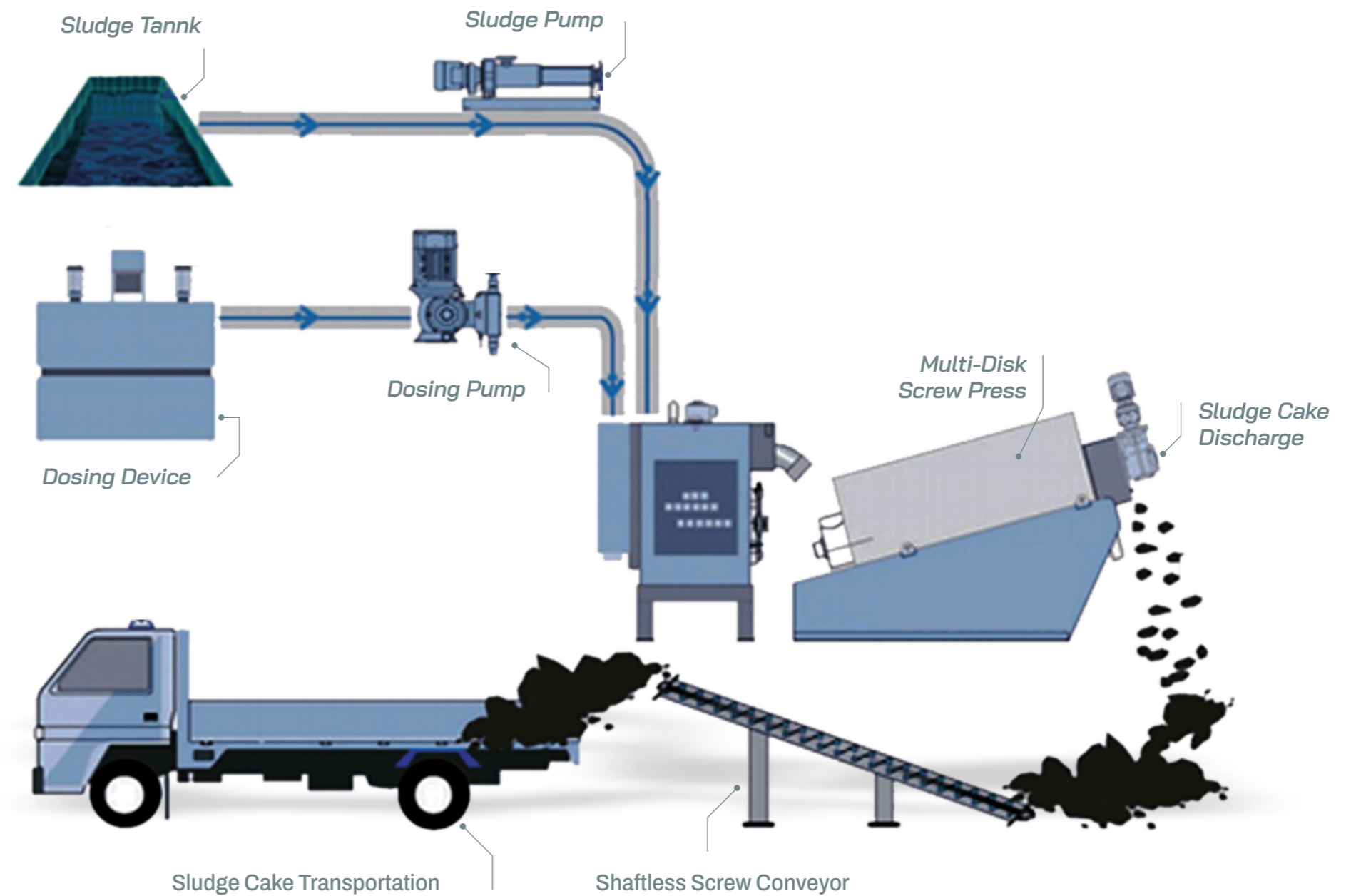
and in it have factory dome of

45,000
Sq Ft.

We have our own in house facilities such as Design Department, Fabrication Workshop, CNC Laser Cutting Division, CNC Bending, CNC Turning and Vertical Milling Division and Strong team of Sales and service support.



Typical Sludge Dewatering Process From Generation To Disposal

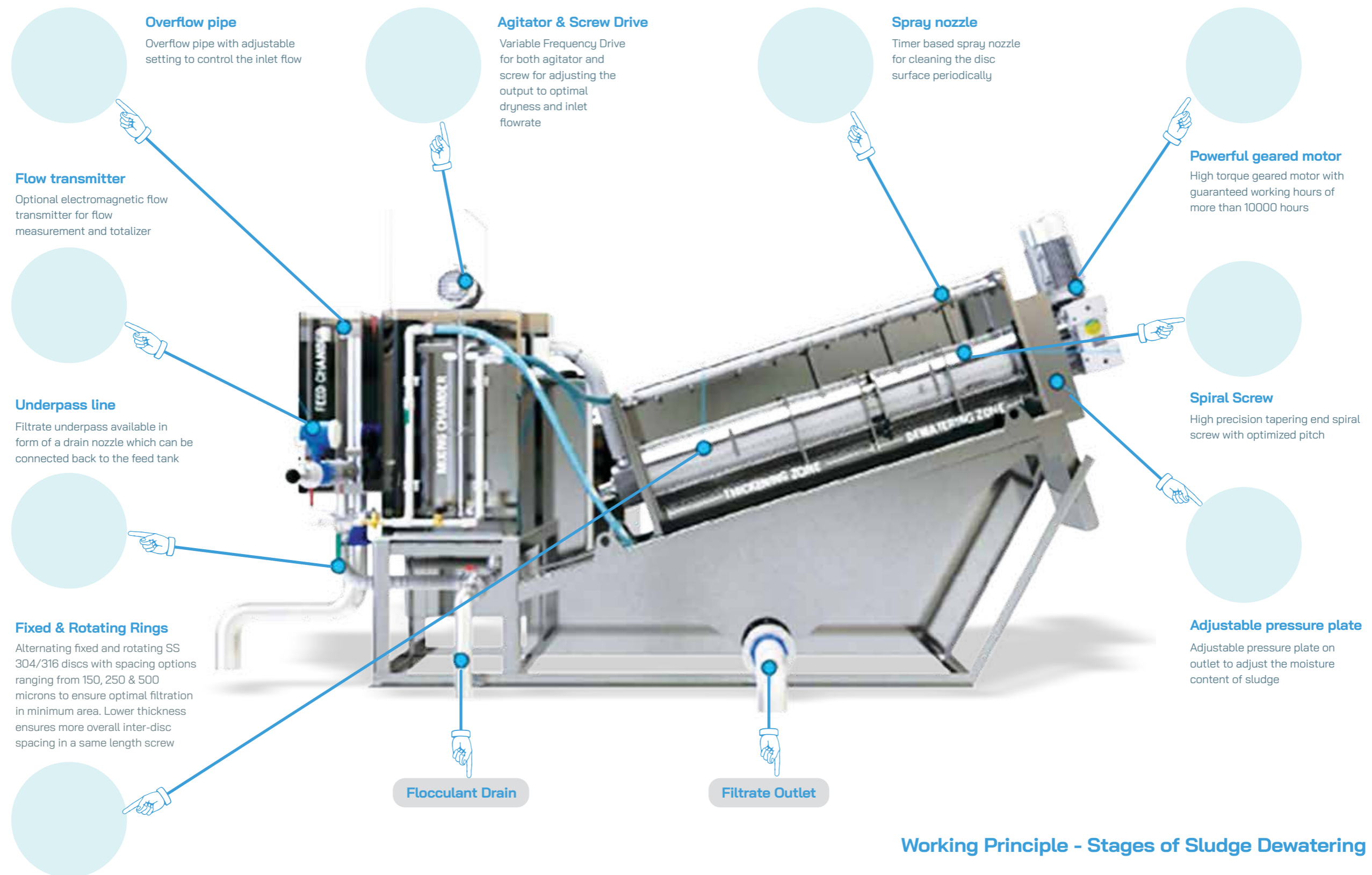


Multi Disc Screw Press Technology – A New Age Solid Liquid Separation

Originally developed by Volute™ Japan, the technology evolved into the mainstream since the first decade of 2000. The multi disc screw press uses the torque and force accumulated by the gear box transmitting to a centrally driven tapering screw surrounded by alternating fixed and moving discs spaced 200 micron apart. This squeezing action along with addition of flocculant in case of sludge, provides a straining action for the solid and liquid. Moreover, the discs are self cleaning and with each rotation of the screw, all moving discs are displaced from its location again moving back to the same position after each rotation.



Key Parts and Features



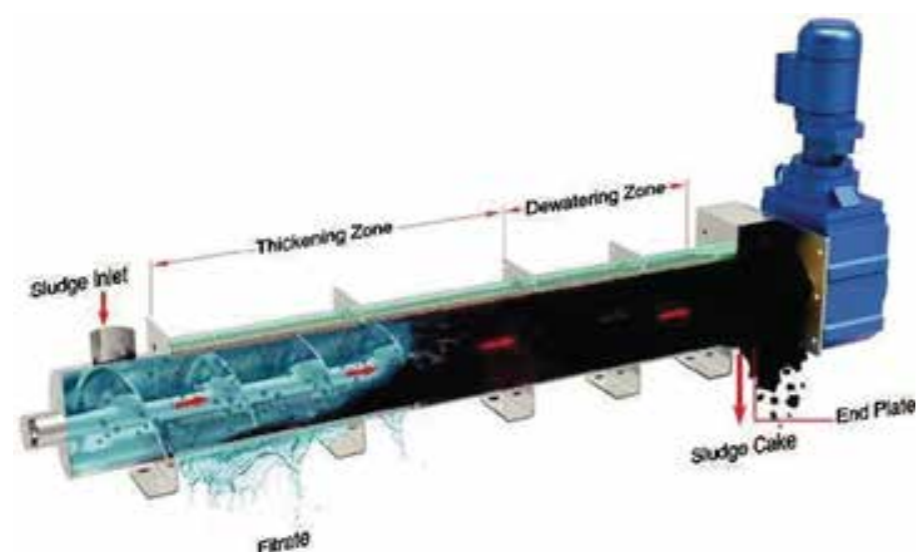
Working Principle - Stages of Sludge Dewatering

Flocculation

Floc formation is carried out by surface charge stabilization with the help of polyelectrolyte as per sludge characteristics by trial with different polyelectrolytes. This operation takes place in the flocculation tank of the screw press supported by the paddle type agitator at 4-8 RPM

Thickening:

After flocs are formed the affinity of solids with the water reduces and a significant portion of water is separated through the gap between discs by draining action. This operation takes place in the thickening zone i.e. the initial 50% of the screw length



Dewatering

The thickened sludge is now displaced gradually toward the tapering end of the screw, which pushes the thickened sludge towards the pressure plate to squeeze out the remaining moisture so that the cake dropped is of >20-21% w/w consistency

Filtrate Recycling

The filtrate is then recycled to the collection tank by gravity or by pumping

Multi Disc Screw Press vs Centrifuge vs Filter Press-A typical case of 10 cum/hr feed flow @ 2% solids w/w

Parameter	Multi Disc Screw Press	Centrifuge Decanter	PP Filter Press
Power Consumption	1kW *	20kW *****	5kW ***
Maintenance-Mechanical	Operated at only 4 RPM with almost zero wear & tear; Complete built is in SS 304/316 *	Operated at only 4000 RPM with high chances of major wear & tear; Only water contact parts are in SS and rest is in MSEP *****	Replacement of cloth due to clogging. Build is generally MSEP thus high corrosion potential **
Moisture Content of Sludge Dewatered	20-25%w/w *	18-20%w/w ***	20-25%w/w *
CAPEX	10% higher than owning a centrifuge or filter press ***	Highest cost in the category *****	Lowest cost **
Recurring CAPEX	Almost zero *	Very High due to vibrations and bearing replacement *****	Medium mostly requires replacement of filter cloth ***
Chemical Cost	50% of that from centrifuge when processing biological sludge **	Highest requirement of polyelectrolyte *****	Almost same as the Screw Press **
Noise & Vibrations	No noise and vibrations as all moving parts are at low RPM *	Very high noise level *****	No Noise as no moving parts except the feed pump *
Labor Cost	No labor cost of manual handling of sludge as it is in continuous application *	No labor cost of manual handling of sludge as it is in continuous application *	Very high labor intensive due to cleaning of cloth and changing the cloth *****

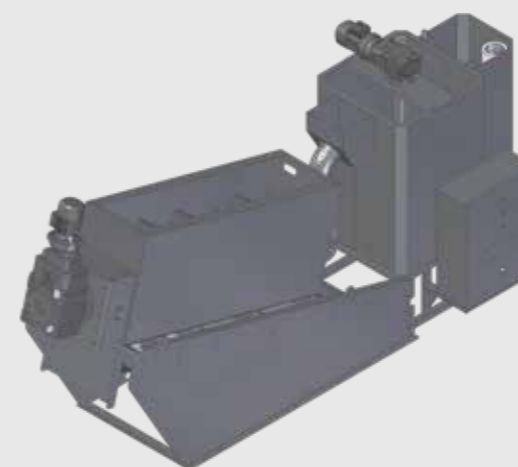
Model Selection

SR.	NAME	INLET DUTY POINT @ 3% W/W SOLIDS *	NO	NAME	INLET DUTY POINT @ 3% W/W SOLIDS *
1	MEERA 01	0.30 - 0.35	13	VAYU 51	5.80 - 6.80
2	MEERA 31	0.40 - 0.47	14	VAYU 52	10.40 - 12.20
3	MEERA 32	0.72 - 0.84	15	VAYU 53	15.70 - 18.40
4	AKASH 01	0.60 - 0.70	16	VAYU 54	20.90 - 24.40
5	AKASH 02	1.10 - 1.30	17	JAL 01	10.40 - 12.20
6	AKASH 03	1.60 - 1.90	18	JAL 02	18.70 - 21.90
7	AKASH 51	1.80 - 2.10	19	JAL 03	28.00 - 32.80
8	AKASH 52	3.20 - 3.80	20	JAL 04	37.40 - 43.70
9	VAYU 01	3.20 - 3.80	21	PRUTHVI 01	18.70 - 21.90
10	VAYU 02	5.80 - 6.80	22	PRUTHVI 02	33.60 - 39.30
11	VAYU 03	8.60 - 10.0	23	PRUTHVI 03	50.50 - 59.00
12	VAYU 04	11.5 - 13.50	24	PRUTHVI 04	67.30 - 78.70

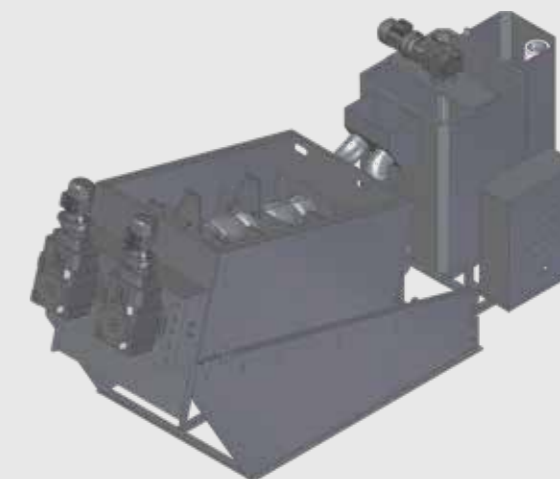
Machine USP Chart

SR.	MATERIAL	BRAND
1	STAINLESS STEEL 304/316	JINDAL STAINLESS LIMITED (JSL)
2	MACHINE BODY PAINT (RAL 5012- BLUE)	JOTUN (NETHERLANDS)
3	BODY INNER SIDE PAINT (PRIMER- UNIVERSAL)	JOTUN (NETHERLANDS)
4	ELECTRICAL PANNEL PAINT (RAL 9010- WHITE)	POWDER COATING
5	ELECTRICAL PANNEL CABLES	RR KABEL
6	PANNEL SWITCH GEAR	SCHNEIDER/MITSHUBISHI
7	PUSH BUTTON	ACTUATOR
8	CONTROL CARD	DYNAMIC EQUIPMENT PVT LTD (DEPL)
9	AC DRIVES	DANFOSS/MITSHUBISHI
10	GEAR BOX & MOTOR FOR SCREW & MIXING AGITATOR	BONFIGLIOLI/ROTOMOTIVE/ MOTOVARIO/NORD
11	HOSE	DUTRON POLYMERS LTD
12	BALL VALVE	AUDCO (L & T) / VENTIL/EQUIVALENT
13	SOLENOID VALVE	U-FLOW/ROTEX/ROUND STAR/ EQUIVALENT

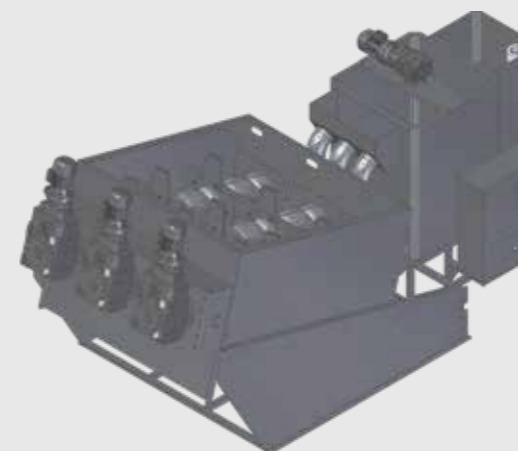
Screw 1



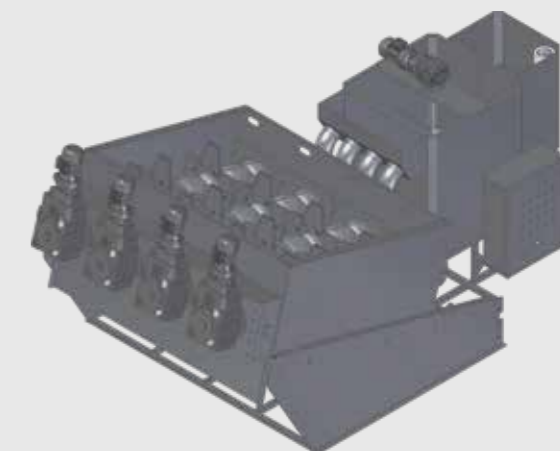
Screw 2



Screw 3



Screw 4





Why Us?

- 1** Rigorous design & engineering with best quality sludge due to lower space between discs for more filtration and high solid content upto 25%
- 2** Robust design as a result of superior machining and workmanship
- 3** Skid if modularized for easy assembly and dissembling
- 4** Completely automated PLC controlled automation is available
- 5** Free service and remote support for 3 years instead of the standard 1 year
- 6** Transparent model selection and performance guarantee
- 7** Discs are machined in laser cutting and not stamped