



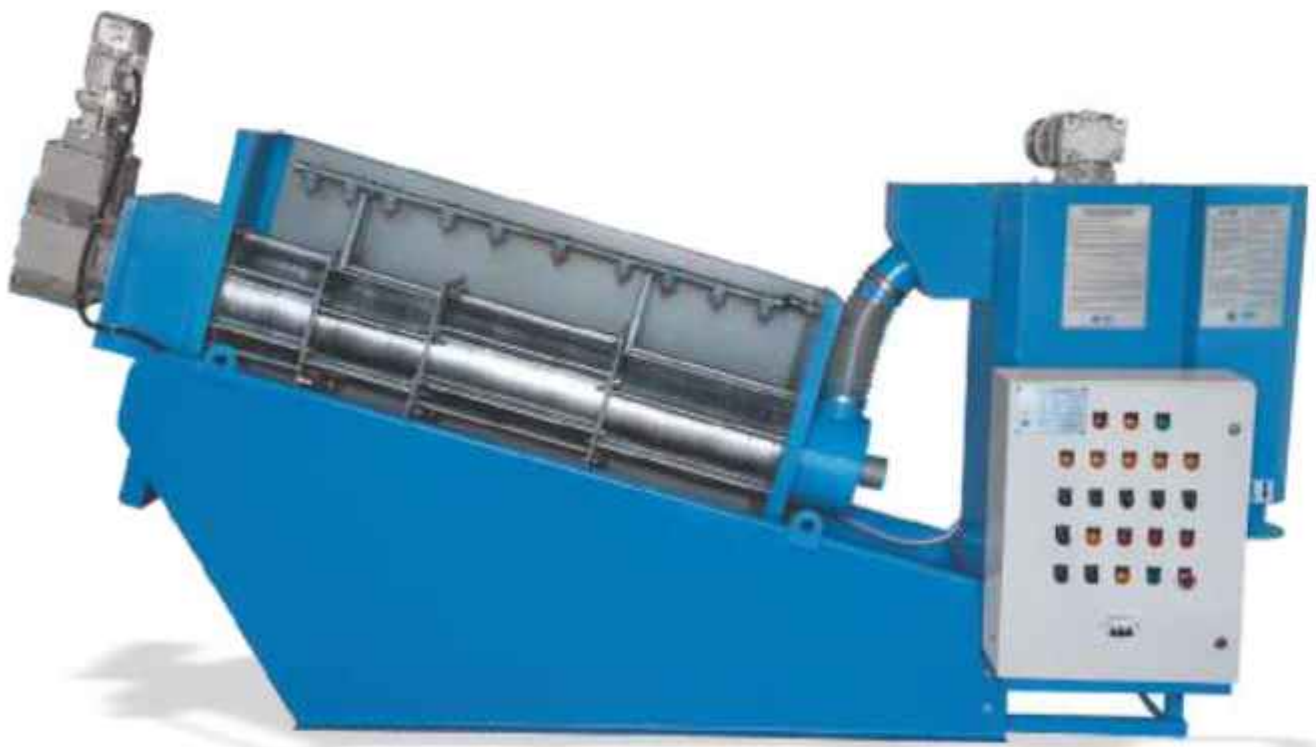
An ISO 9001-2015 Company



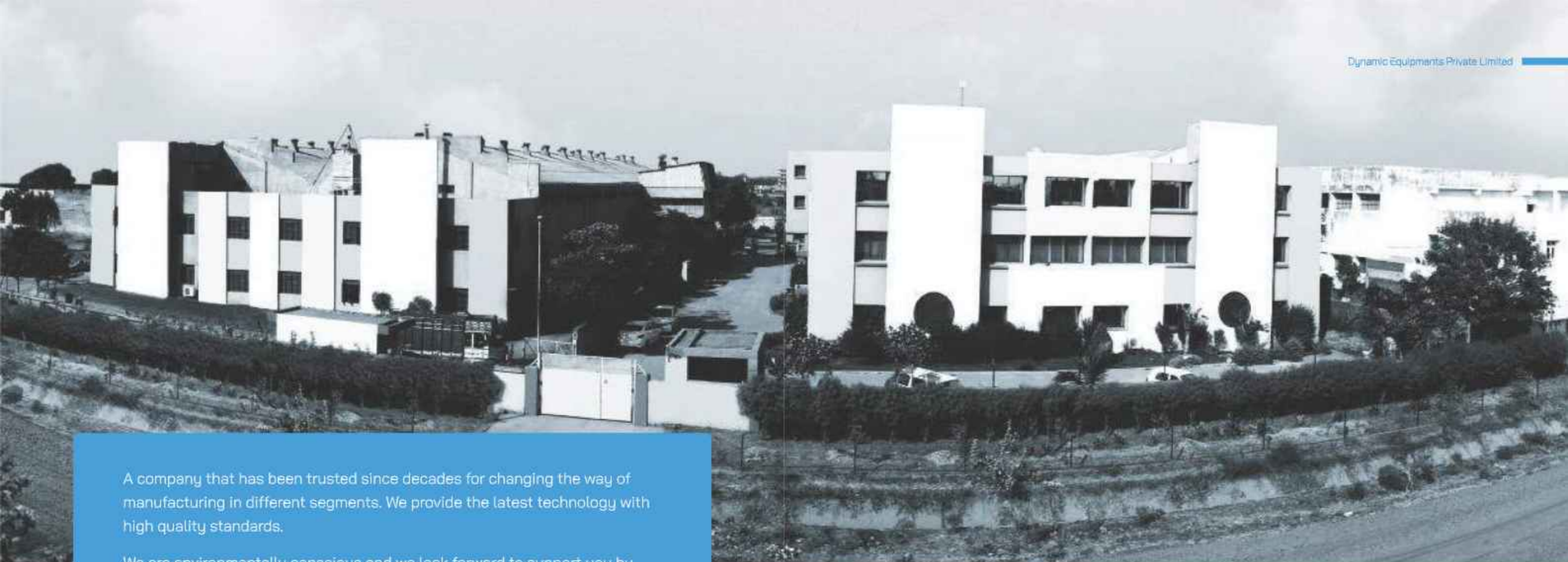
**Dynamic
Equipments
Private Limited**

Environmentally Conscious

MULTI-DISC SCREW PRESS FOR SOLID-LIQUID SEPARATION



Professional Sludge Treatment Equipment Manufacturer, High Level, High Standard



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 Group.

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 5% 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 150000 equipment, 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 industrial segments.

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

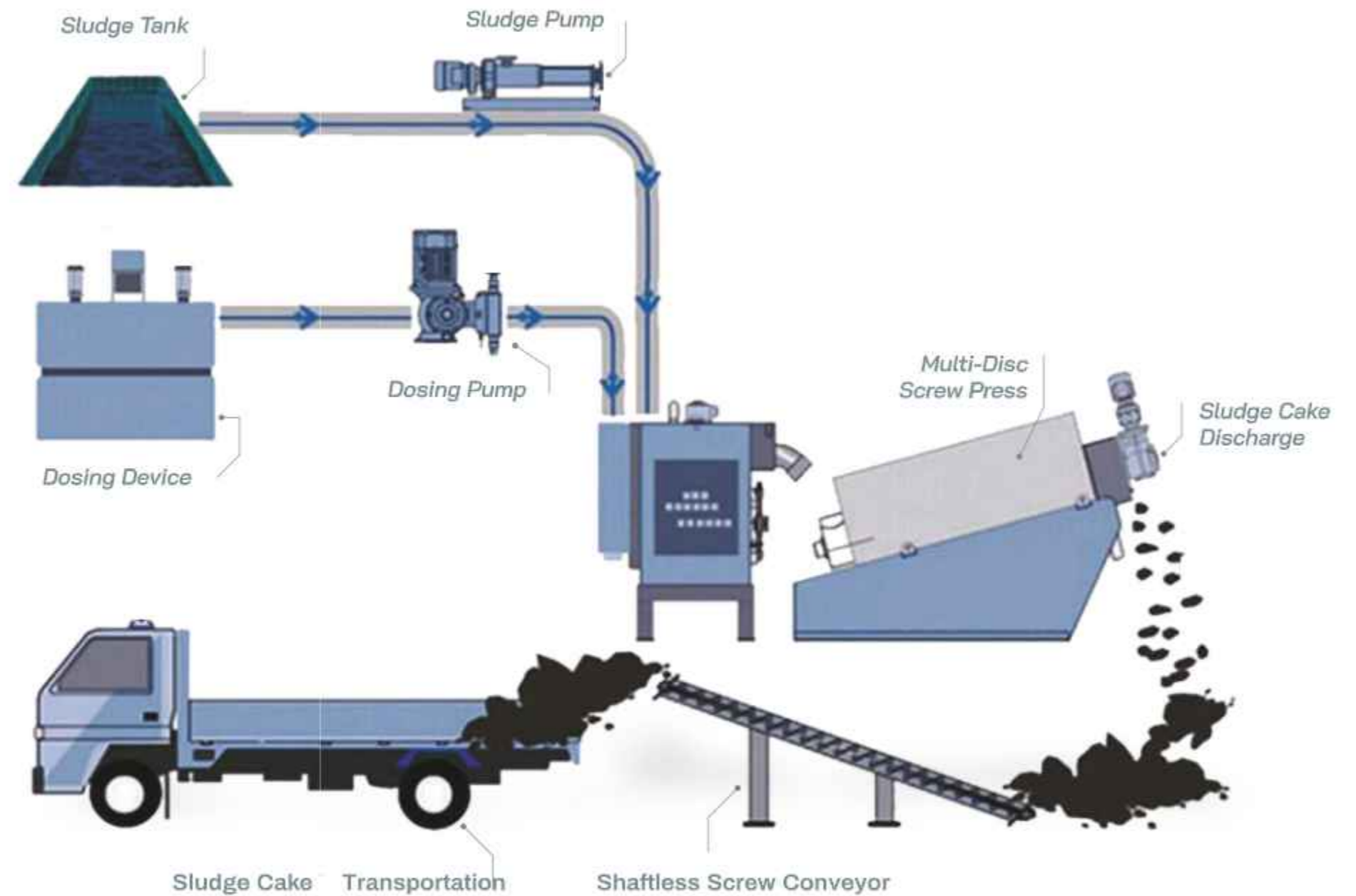
We have our own in house facilities such as Design Department, Fabrication Workshop, CNC Laser Cutting Division, CNC Bending, CNC Turning and Vertical Milling Division and Strong team of Sales and service support.



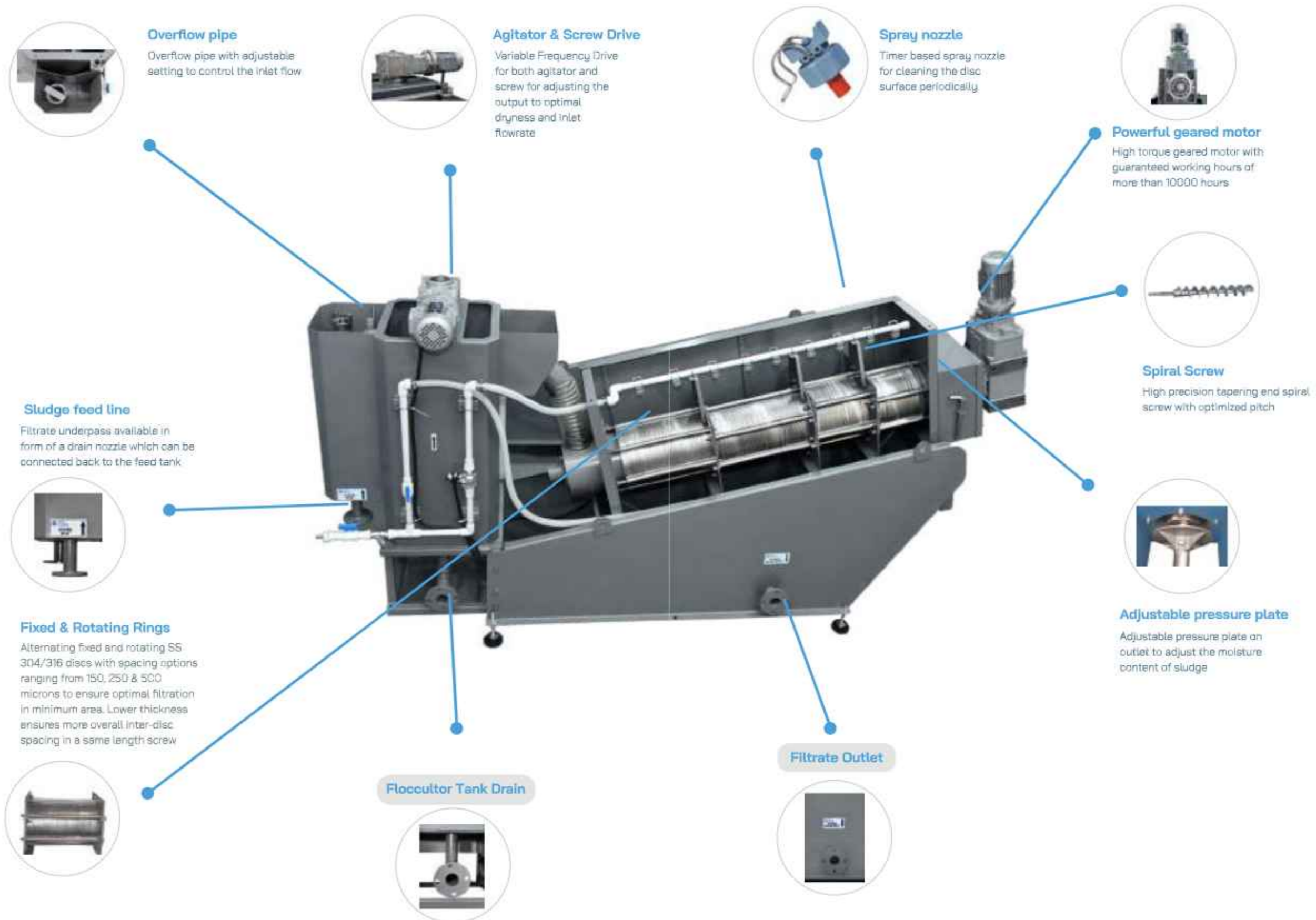
Multi Disc Screw Press Technology – A New Age Solid Liquid Separation

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.

Typical Sludge Dewatering Process From Generation To Disposal



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

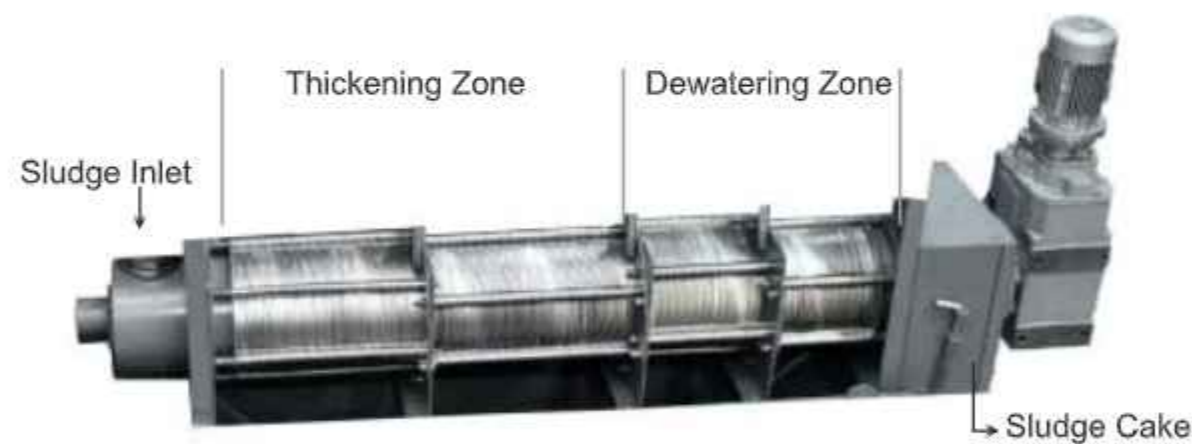


Thickening:

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

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 around 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 ** |
| Solid Content of Sludge Dewatered | 20-25%w/w (75-80% moisture) | 18-20%w/w (80-82% moisture) *** | 20-25%w/w (75-80% moisture) * |
| 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 ***** |



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

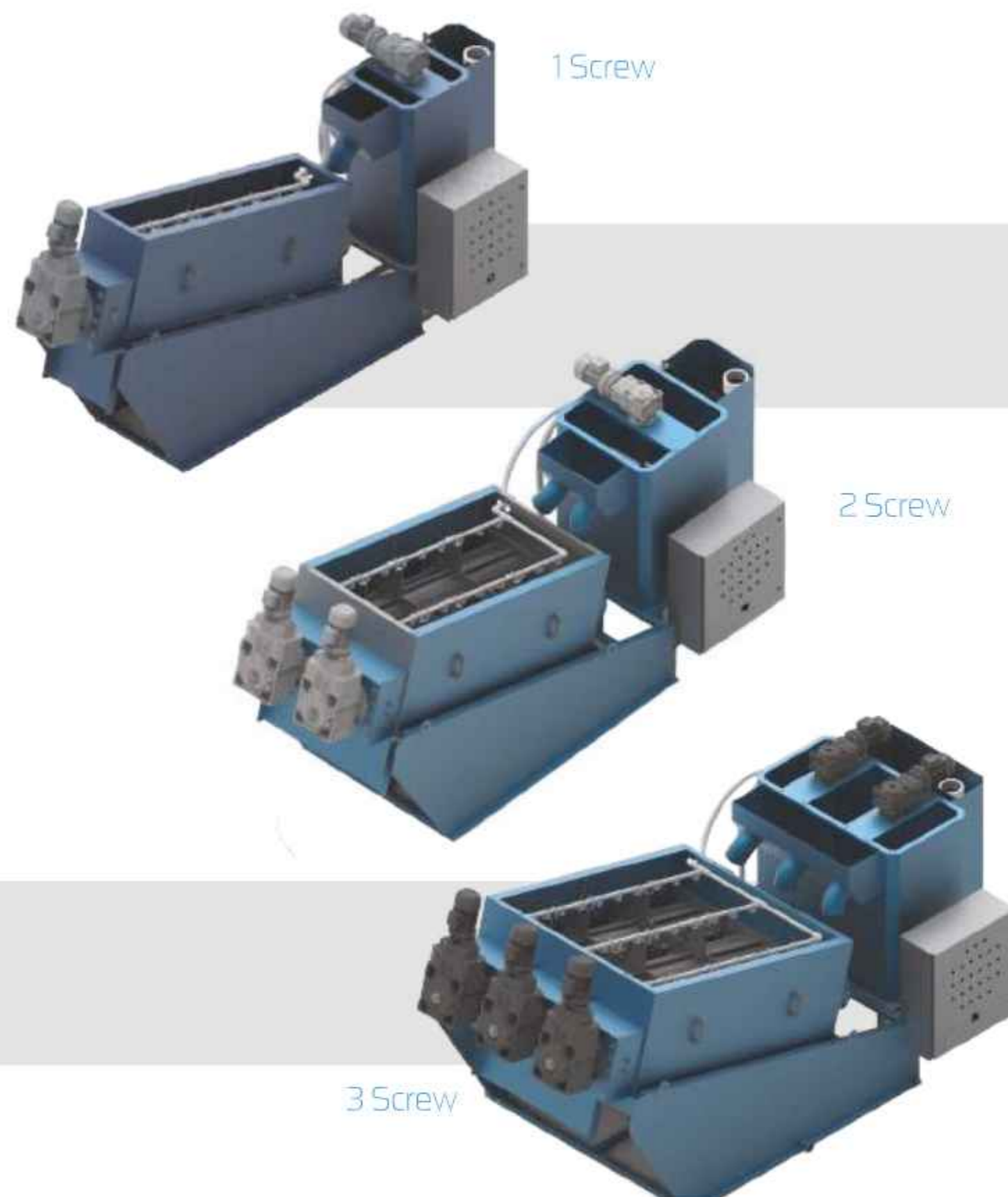
The filtrate is then recycled to the collection tank by gravity or by pumping

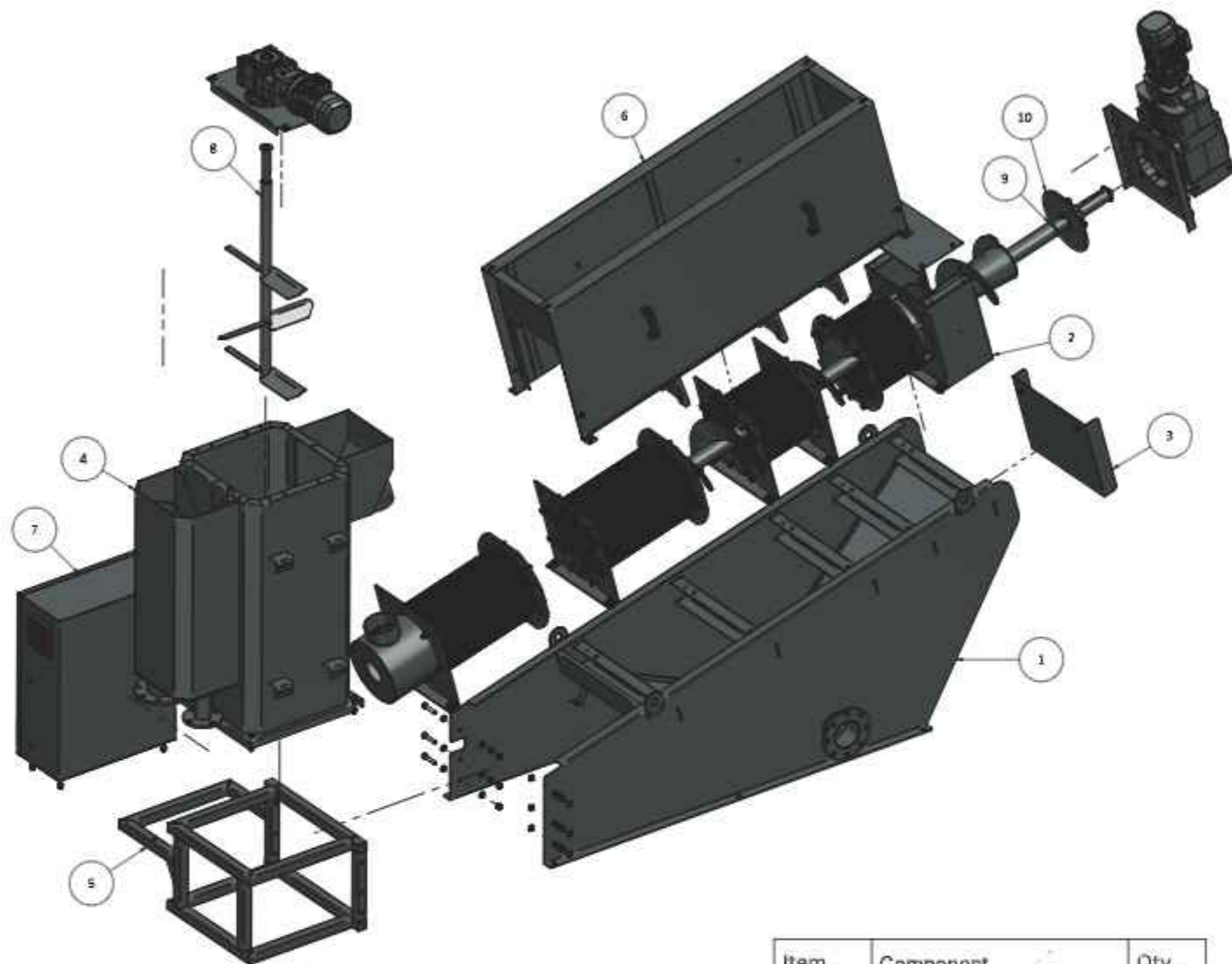
Model Selection

| SR. | NAME | SCREW DIMENSION | No of screw |
|-----|--------------|-----------------|-------------|
| 1 | MEERA 01 ECO | Φ100 X 1235MM | 1 |
| 2 | MEERA 01 | Φ100 X 1660MM | 1 |
| 3 | MEERA 51 | Φ150 X 1660MM | 1 |
| 4 | MEERA 52 | Φ150 X 1660MM | 2 |
| 5 | PRUTHVI 01 | Φ200 X 2250MM | 1 |
| 6 | PRUTHVI 02 | Φ200 X 2250MM | 2 |
| 7 | PRUTHVI 51 | Φ250 X 2310MM | 1 |
| 8 | PRUTHVI 52 | Φ250 X 2310MM | 2 |
| 9 | PRUTHVI 53 | Φ250 X 2310MM | 3 |
| 10 | VAYU 01 | Φ300 X 2310MM | 1 |
| 11 | VAYU 02 | Φ300 X 2310MM | 2 |
| 12 | VAYU 51 | Φ350 X 2310MM | 1 |
| 13 | VAYU 52 | Φ350 X 2310MM | 2 |
| 14 | AGNI 01 | Φ400 X 2880MM | 1 |
| 15 | AGNI 02 | Φ400 X 2880MM | 2 |
| 16 | AGNI 03 | Φ400 X 2880MM | 3 |

Machine USP Chart

| SR. | MATERIAL | BRAND |
|-----|--|---|
| 1 | STAINLESS STEEL 304/316 | JINDAL STAINLESS LIMITED (JSL) |
| 2 | MACHINE BODY PAINT (PRIMER- UNIVERSAL) | 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/ROTO MOTIVE / NORD EQUIVQLENT |
| 11 | HOSE | DUPLON |
| 12 | BALL VALVE | AUDCO (L & T) / U-FLOW/EQUIVALENT |
| 13 | SOLENOID VALVE | U-FLOW/ROTEX/ EQUIVALENT |





| Item No. | Component | Qty. |
|----------|--------------------------|------|
| 1 | Structure | 1 |
| 2 | Screw Body Assembly | 1 |
| 3 | Sludge Cake Outlet Plate | 1 |
| 4 | Mixing Tank | 1 |
| 5 | Mixing Tank Stand | 1 |
| 6 | Cover set | 1 |
| 7 | Control Panel | 1 |
| 8 | Agitator Shaft | 1 |
| 9 | Screw | 1 |
| 10 | Pressure Plate | 1 |



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

OUR ESTEEMED CLIENTS



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