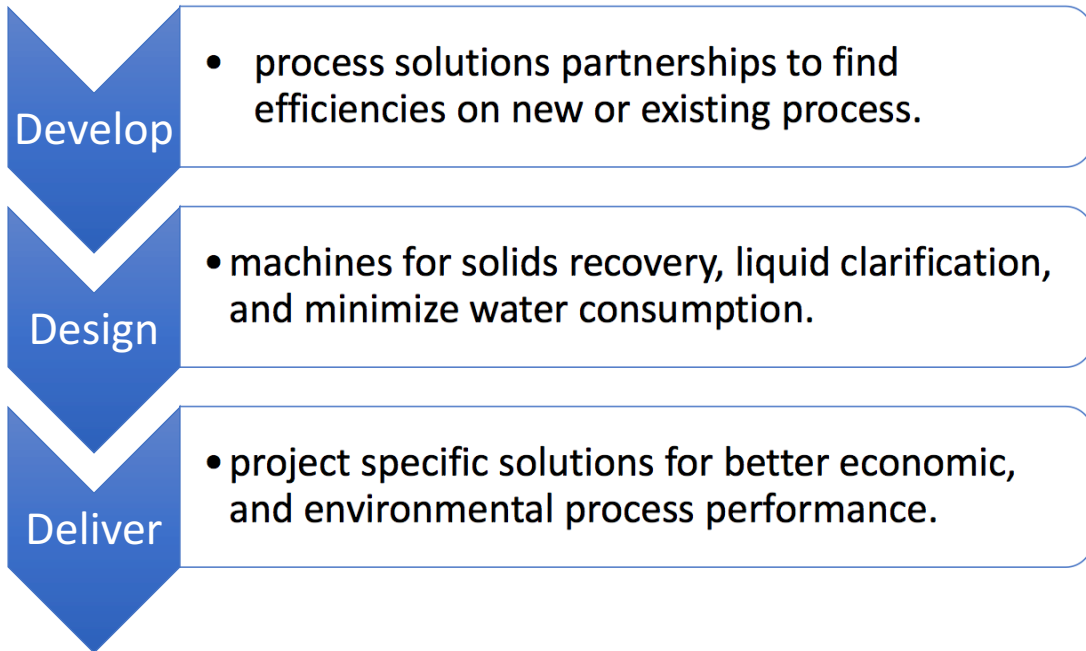


Industrial and Municipal Process Equipment Packages



Winery



Dairy



Municipal Wastewater





SCREW PRESS

DSP – Mechanical Dewatering

Drum up to $\phi 47''$ $\phi 1200\text{mm}$

MANUFACTURE

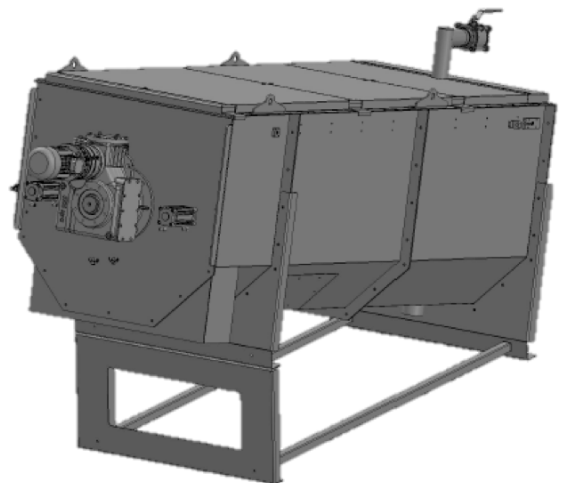
DRYCAKE's technical department is able to develop all the required design activities from feasibility to as-built. Process Validation can be validated using our lab or on-site pilot services.

Our equipment is manufactured in high quality Stainless Steel, and is fully customizable according to project requirements and needs.

The production team is composed by assemblers and certified welders, experts in TIG (Tungsten Inert Gas) welding, a process of arc welding with consumable electrode (Tungsten), under protection of inert gas. After the welding processes, the Stainless Steel is passivated by our operators.

Quality control during the entire design process guarantees the compliance with Customer's technical requirements, good manufacturing practices and compliance with UL and CSA, ASMI, ANSI Standards and certifications.

All equipment is subject to 3rd party witnessed factory acceptance test prior to shipment.



OPERATION

The **DRYCAKE SCREW PRESS (DSP)** provides a unique, cost effective solution for dewatering of municipal and industrial sludge. The equipment is designed to dewater the Primary Sludge and/or Secondary Sludge dewater sludge from a dry content of 0.8-4% to 15-20%.

The sludge is fed to the machine via pump or inlet hopper into a cylindrical 250 microns wedgewire drum. A VFD controlled variable speed shafted auger transports the solids towards the drum discharge. The auger shaft is tapered with a smaller diameter on the inlet side and a larger diameter on the discharge side. Consequently, the space between the shaft and drum reduces as the solids reach the discharge side. The counter-pressure of the cone maximizes the DRYCAKE effect. Typically polymer addition is required for flocculation of the sludge and for best capture rate and DRYCAKE.

The cleaning system of the drum is provided by a motorized water washing system under pressure with brushes installed on the external surface of the screw conveyor. The cleaning system of the drum is provided by brushes installed on the external surface of the screw conveyor and a motorized washing system covering 70% of the drum surface without need for high water consumption.

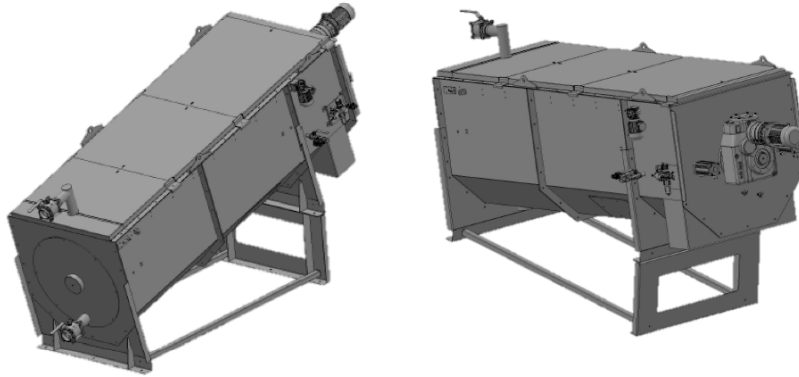
FEATURES

- ✓ Automatic operation
- ✓ High quality and Reliability
- ✓ Continuous functioning
- ✓ Quick and easy installation
- ✓ Low energy consumption
- ✓ Innovative washing System
- ✓ Dewatering and discharge in one equipment
- ✓ Manufactured in Stainless Steel AISI 304 and 316(L)
- ✓ Welding pickled and passivated
- ✓ Easy removable covers for hygienic inspection
- ✓ Odour and Insects containing covers
- ✓ Low and easy maintenance

With over 100 worldwide references, the **DRYCAKE Screw Press** is a proven solution for your dewatering needs

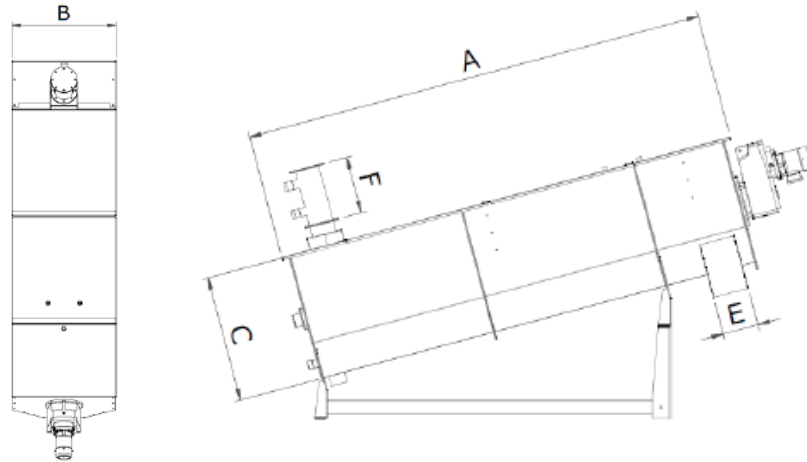


MODEL & DIMENSION



Model	Weight lbs. (kg)	Power installed HP (kW)	Inlet Capacity @1%DS GPM (m3/h)	Inlet Capacity @3%DS GPM (m3/h)
DSP200	550 (250)	1/2 (.37)	4.4 (1)	3.1 (0.7)
DSP400	860 (390)	3/4 (0.55)	8.8 (2)	6 (1.4)
DSP400L	1170 (530)	3/4 (0.55)	12 (2.7)	8 (1.8)
DSP700	1650 (750)	1.5 (1.1)	21 (4.8)	15 (3.4)
DSP900	2225 (1010)	2 (1.5)	26 (5.9)	21 (4.8)

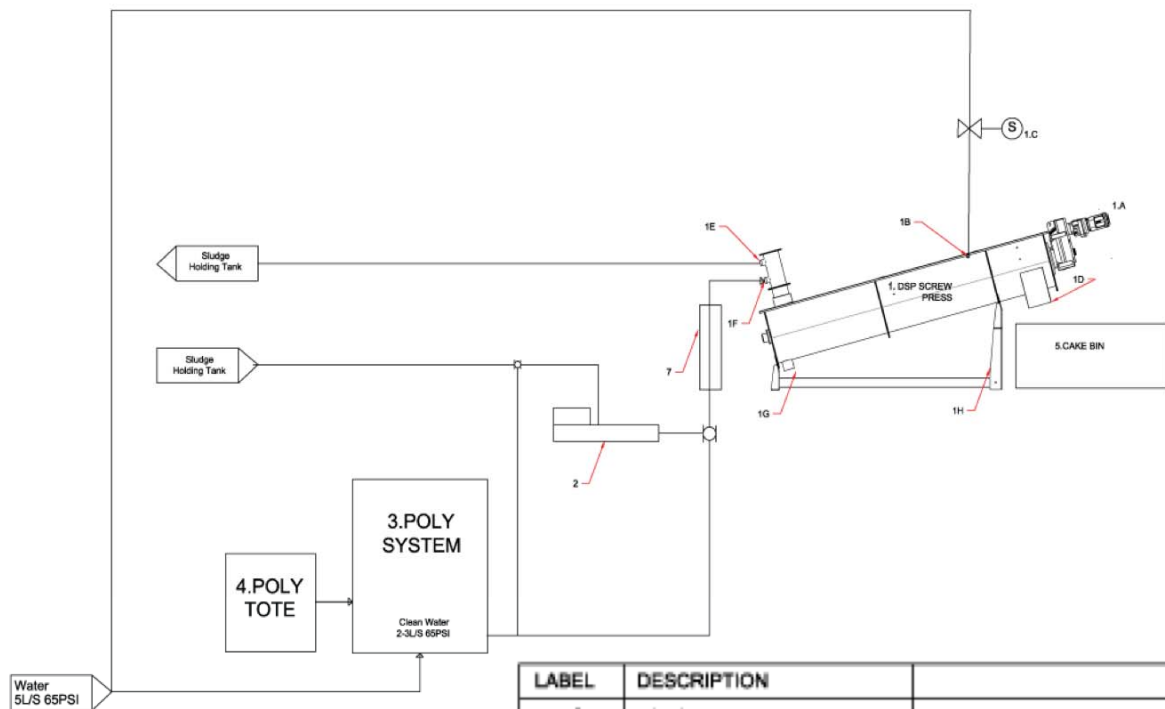
- Capacity change according to the type of sludge and the concentration of solids
- Information on larger models available on request.



Dimensions Inch (mm)	DSP200	DSP400	DSP400L	DSP700	DSP900
A	91 (2310)	110 (2800)	138 (3500)	169 (4290)	201 (5100)
B	19.7" 500	26 (650)	26 (650)	33 (850)	43 (1100)
C	24 (610)	25 (640)	25 (640)	33 (840)	39 (1000)
D	15°	15°	15°	15°	15°
E	9 (230)	9 (230)	9 (230)	17 (430)	17 (430)
F	16 (400)	16 (400)	16 (400)	9 (230)	9 (230)

PROCESS & INSTRUMENTATION

The DSP DRYCAKE Screw Press is offered as a skid system complete with pumps, flow meters, discharge conveyors, and polymer system.



LABEL	DESCRIPTION	
1	DSP Screw Press	DSP 400 1.3m ³ /h @ 1.6%DS
1A	Screw Motor	0.75kW 480V 3 Phase 60Hz 1.8RPM
1B	Motorized Washing System	.08kW 480V 2L/s 65PSI 1" Connection
1C	Solenoid Valve	ABCO 82103004 1" NC 110VAC
1D	Cake Discharge	
1E	Overflow	2" NPT Gravity Return
1F	Inlet	2" NPT
1G	Drain	114mm
1H	Support	
2	Sludge Feed Pump	DN2L1 1.1kW 480V 3 Phase 60 Hz
3	Polymer System	SP MINI
4	Polymer Tote	Not part of Drycake's scope.
5	Cake Bin	Not part of Drycake's scope.
6	Control Panel	NEMA4
7	Static Mixer 2" Inlet/Outlet	AISI 304

EQUIPMENT RANGE

Mechanical Dewatering

- Decanter Centrifuge
- High Speed Centrifuge
- Gravity Belt Press Thickener
- Belt Press
- Scrudrain: Screw Thickener
- Screw Press
- DRAIMAD Dewatering bag skid

Thermal Systems

- Sludge Dryers
- Evaporators

Screening

- Multi-Rake Bar Screens
- Perforated Plate Screens
- Internally Fed Drum Screens

Grit and FOG Removal Systems

Solid Waste

- Material Sorting & Screening

Polymer Preparation

- Dry & Liquid polymer systems

Materials Handling Systems

- Shaftless Screw Conveyors
- Belt Conveyors
- Live Bottoms
- Silos
- Sorting Lines
- Shredders

Pumping

- PC Pumps

APPLICATION FIELD

By PROCESS

- Aggregates conveying
- Biomass drying
- Biomass gasification
- wastewater treatment
- Biosolids reduction
- Biosolids stabilization (Class A)
- BOD reduction
- Cogeneration
- Dewatering:
 - Aerobic sludge
 - Anaerobic sludge
 - Lime & Alum sludge
 - Mixed industry sludge
 - WAS sludge
- Evaporation
- Enzymatic Inactivation
- Fish processing

By INDUSTRY

- Flour enhancement
- Head works
- Heat treatment
- Kelp processing
- Bulk materials Handling
- Leachate treatment
- Oil separation
- Paper sludge de-inking
- Plastics separation
- Pump station screening
- Pulp Recovery
- Airports
- Biomass gasification
- Cement factory
- Dairy Industry
- Die Casting Industry
- Flour Mill
- Landfill
- Municipal WWTP
- Paint Factories
- Petro-chemical refinery
- Pulp & Paper industry
- Potato plant
- Rendering plant
- Slaughtering plant
- Tar Sands
- Quarries