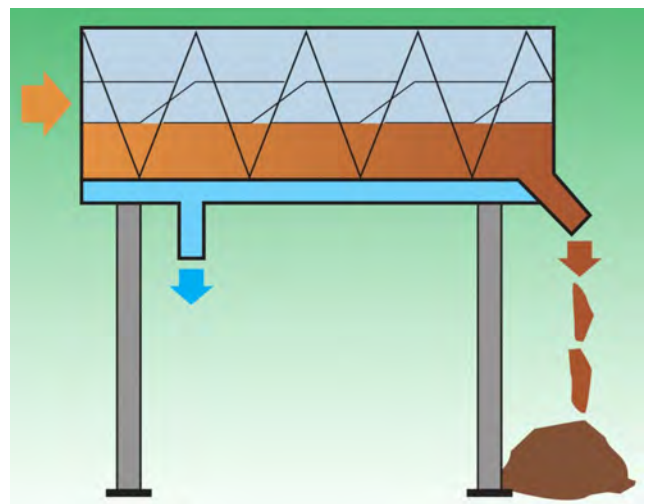
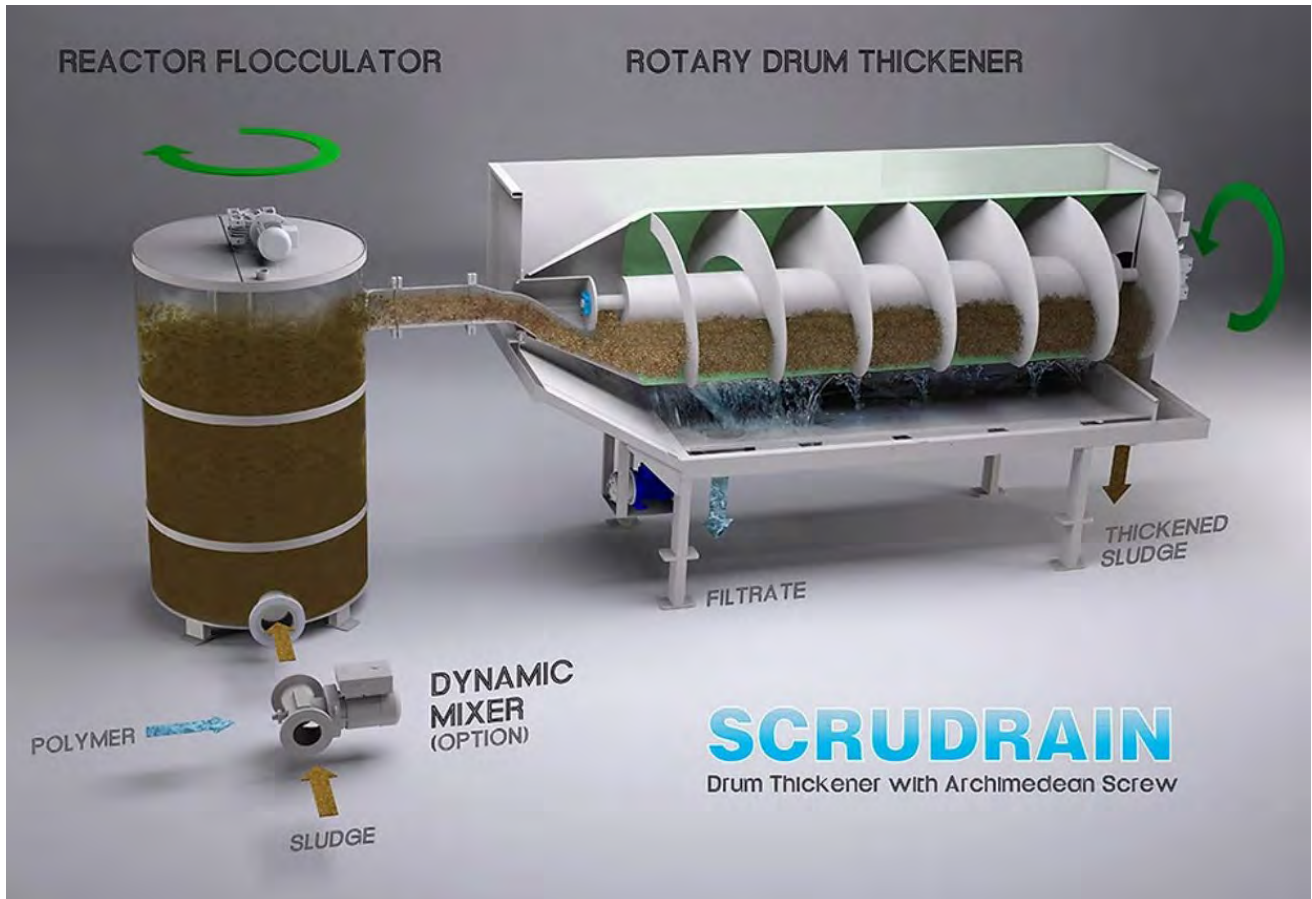


Data sheet:

Rotary drum thickener SCRUDRAIN AD04C



Description:

SCRUDRAIN thickeners are the modern and economical solution to sludge thickening. Sludge thickeners are widely used in many wastewater and water treatment plants. They are generally placed before filter presses, and centrifuges to achieve higher sludge concentration before final dewatering. Sludge thickeners are also used to increase the sludge concentration before biogas reactors, thus enabling the use of smaller biogas reactors.

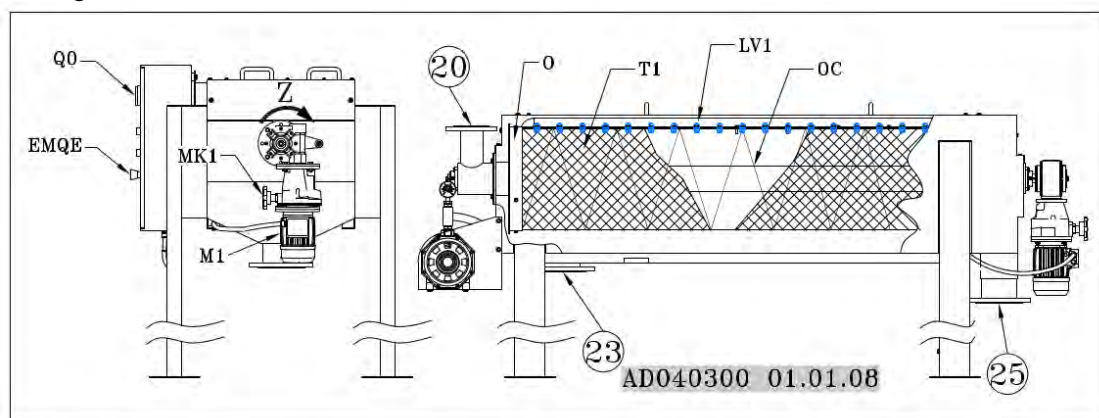
Other applications are to reduce the volume of sludge before being pumped into drying beds or being used in agriculture. This equipment can also be used to remove coarse material such as fibers in the textile industry. The principal and clear advantage of the SCRUDRAIN thickeners is the use of an Archimedean screw instead of only the conventional drum filter. The filter cloth made of polyester is fixed to the Archimedean screw, making a drum with a screw inside.

Flocculated sludge enters in the rotating filtering drum "O" through the inlet "20"; the liquid part of the sludge drains through the external filtering cloth "T1" while solid substances are coagulated and

transported towards the outlet by means of the internal Archimedean screw "OC". The thickened sludge is discharged from the "25" chute.

The rotating drum "O" is driven by means of the "M1" and rotates as indicated by the "Z" arrows.

"D" models have also a second rotating drum "OSX", that has independent sludge inlet and motor "M1.1" that rotates opposite than "M1" (see drawing at the beginning of chapter 4); The filtering cloth "T1" is continuously washed, by means of the washing manifold "LV1" (drum OSX is wrapped whit "TISX" filtering cloth washed by "LVISX", refer always to chapter 4 drawing).



20	SLUDGE INLET	MK1	"M1" SPEED REGULATION KNOB
23	FILTRATE OUTLET	O	ROTATING DRUM
25	THICKENED SLUDGE OUTLET	OC	SCREW CONVEYOR INSIDE "O"
LV1	WASHING MANIFOLD FOR "T1"	T1	FILTERING CLOTH OF "O"
M1	ROTATING DRUM "O" MOTOR	Z	ROTATION DIRECTION OF "M1"

Control:

The control panel (point 40) uses the digital unit “TKN” to drive the machine.

Should TKN detect an anomaly, the machine will be shut down, and the display will visualise a code to identify the alarm cause (more details in paragraph 6.6).

On the control panel door are available all the buttons to start / stop and reset the machine.

“AD10C” / “AD10D” have inverter “IA” to adjust the speed of the motors “M1” and “M1.1”.

On the terminal board are available the inlets and outlets to allow the connection to external devices.

Equipment data AD04C + RCT-250 + TRM-AD04C:

DIMENSIONS (AD)	
Length (mm)	2695
Height (mm)	1658
Width (mm)	1114
Weight (kg)	380
Weight full load (kg)	500

DIMENSIONS (AD + RCT)	
Length (mm)	3303
Height (mm)	2177
Width (mm)	1114
Weight (kg)	480
Weight full load (kg)	950

DIMENSIONS (AD + RCT + TRM)	
Length (mm)	3328
Height (mm)	2177
Width (mm)	1114
Weight (kg)	612
Weight full load (kg)	1300

THICKENER	
Archimedean screw drum	1 x Ø400 x 2000
Screw drum speed (rpm)	6 ÷ 30
Noise level (db(A))	< 70
Solid capture rate	> 98%
Solid retained Ø (mm)	> 0.34

FLOCCULATION REACTOR	
Stirrer speed (rpm)	6 ÷ 30
Noise level (db(A))	< 70

HOPPER PUMP	
Flow rate (m ³ /h)	4
Pump speed (rpm)	340

CONNECTIONS	
SLUDGE INLET (RCT)	
Type	Loose flange
Dimension	DN 65
Quantity	1
According standard	EN 1092-1/02 PN10
SLUDGE OUTLET (RCT) / SLUDGE INLET (AD)	
Type	Loose flange
Dimension	DN 80
Quantity	1
According standard	EN 1092-1/02 PN10
POLYELECTROLYTE INLET (RCT)	
Type	Loose flange
Dimension	1" 1/2 GF
Quantity	1
According standard	UNI ISO 228-1
WATER PUMP INLET (AD)	
Type	Threaded port
Dimension	1" 1/2 GF
Quantity	1
According standard	UNI ISO 228-1