WCS Environmental Engineering
MARLOWE Environmental Services

Volute DUO Screw Press

TECHNICAL DATASHEET

The Volute Duo screw press design enables complete mechanical dewatering of even the most challenging sludges, particularly those with high oil and fat content, high moisture content, low solid concentration, high viscosity, and the presence of toxic substances.

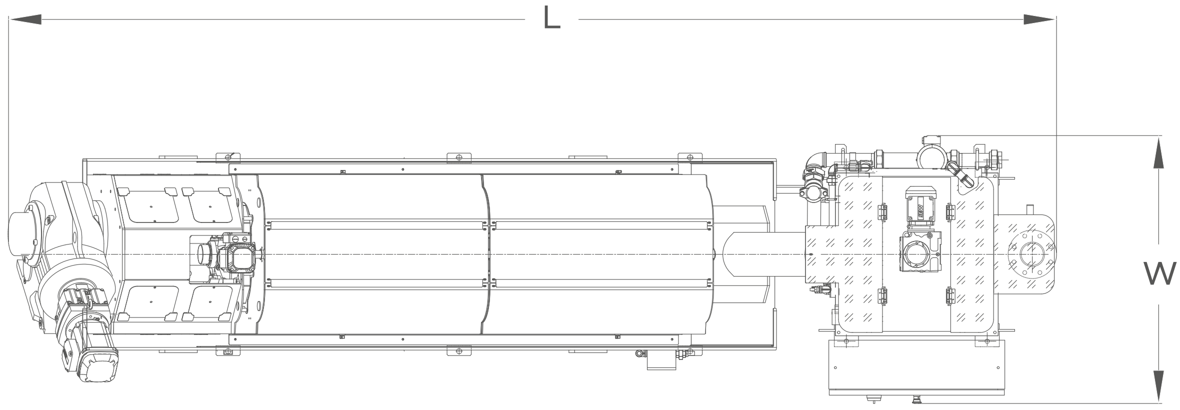
Dewatering with a screw press solution offers clients a low-energy, low-maintenance way to cut their carbon footprint and join the circular economy. The screw press cuts out the need to transport large volumes of unprocessed waste.

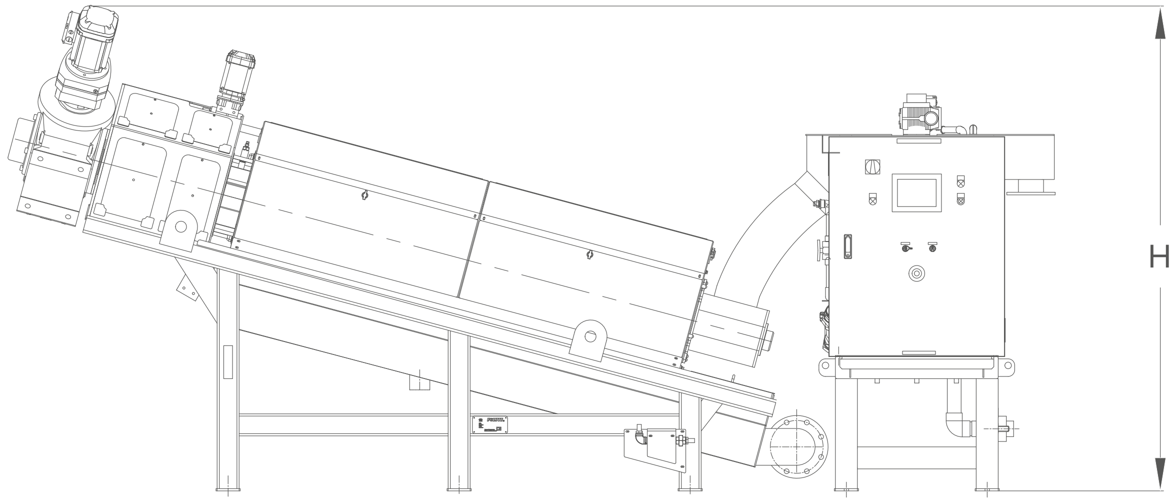
KEY FEATURES:

- Reduces power consumption of dry solids by up to 90% compared to a centrifuge
- Handles sludge as dilute to 0.5% TS
- No pre-thickening required
- Uses up to 95% less rinsing water compared to a belt press and a centrifuge
- Reduces the cost of sludge dewatering by over 50%.
- Very low maintenance - no moving rings contact within the Duo
- Ideal for sites with highly fibrous and dry solids content

Please see following pages for technical drawings and information tables.

TECHNICAL DRAWINGS:





Please see following page for technical information tables.

TECHNICAL TABLE:

Model	Throughput Min. – Max.	Dimensions [mm]			Power [kW]	Weight [kg]	
		L	W	H		Empty	Operation
RVP-241	8~50 kg-DS/h	2116	895	1360	0.5	390	450
RVP-381	20~115 kg-DS/h	3268	994	1550	1.2	1150	1550
RVP-501	40~230 kg-DS/h	4408	1297	2284	1.95	1800	2300
RVP-601	80~460 kg-DS/h	4918	1200	2612	3.05	2825	3625
RVP-701	130~680 kg-DS/h	5356	1350	2587	3.75	3800	4900
RVP-702	260–1360 kg-DS/h	5462	2530	2746	6.34	7330	9280

Sludge type		Raw wastewater, chemical precipitated			DAF sludges		Primary sludges, mixed primary & WAS
Model / Sludge Concentration Total Solids (TS)		0.5%	0.8%	1%	2%	5%	3%
RVP-241	kg-DS/h	7	10	12	20	40	50
	m3/h	1.4	1.2	1.2	1	0.8	1.7
RVP-381	kg-DS/h	22	30	36	60	120	155
	m3/h	4.4	3.7	3.6	3	2.4	5.1
RVP-501	kg-DS/h	36	48	60	100	200	260
	m3/h	7.2	6.0	6.0	5.0	4.0	8.7
RVP-601	kg-DS/h	72	96	120	200	400	520
	m3/h	14.4	12.0	12.0	10.0	8.0	17.3
RVP-701	kg-DS/h	108	144	180	300	600	770
	m3/h	21.6	18.0	18.0	15.0	12.0	25.7
RVP-702	kg-DS/h	216	288	360	600	1200	1540
	m3/h	43.2	36	36.0	30	24	51.4

Updated September 2025