

MULTIDISC SCREW PRESS SLUDGE DEHYDRATION

Multi-Disc Screw Press, LDP, is a sludge dewatering machine, which can also realize the function of mechanical thickening.

The LDP is an equipment that integrates two distinct zones to optimize sludge dehydration. In the first zone, the filter discs are more spaced, allowing most of the water to be extracted. In the second zone, the spacing between the discs decreases and the pressure increases, promoting even more efficient extraction. This process increases the dry matter content of the dehydrated sludge, making the operation more efficient.

This particular characteristic allows LDP to dehydrate sludge from very low concentrations, as low as 2 g/L (0,2%).



MAIN ADVANTAGES

The main advantages of LDP, compared to other equipment used in sludge dewatering, are the following:

- ✓ Low energy consumption – approximately 10% of the electrical consumption of a centrifuge for the same capacity;
- ✓ Low maintenance costs – due to its low rotation and robust construction, the LDP does not require much maintenance, not requiring replacement of wear parts for a minimum period of 2 years. They only require cleaning care, and are prepared to operate 24 hours a day;
- ✓ Low water consumption at low pressure;
- ✓ Good performance in oily sludge – practically the only machine capable of dewatering, in continuous operation, sludge with high O&G content.
- ✓ Low noise level;
- ✓ Low emission of aerosols (odors);
- ✓ No foam formation in the filtrate;
- ✓ Allows dehydration directly from the biological reactor:
 - Reducing investment costs in thickening and storage equipment;
 - Reducing operating costs;
 - Reducing odor formation due to fresh aerobic sludge dewatering;
 - Increased phosphorus retention in dewatered sludge.

TECHNICAL SPECIFICATIONS*

Model	Processing Capacity (Kg-DS/h)	Specification Screw Press	Overall Dimensions (mm)			Total Power (kW)	Rising Water consumption (L/h)	Empty Weight (Kg)
			L	W	H			
LDP 30125	20~70	Φ300×1	3200	1003	1700	1.3	10	850
LDP 30225	40~140	Φ300×2	3300	1300	1700	2.05	20	1350
LDP 30325	60~210	Φ300×3	3500	1650	1700	3	30	1880
LDP 30425	80~280	Φ300×4	3650	2065	1700	3.75	40	2400
LDP 40125	70~160	Φ400×1	3700	1100	2200	1.65	60	2400
LDP 40225	135~320	Φ400×2	4200	1600	2000	2.75	120	3460
LDP 40325	200~480	Φ400×3	4325	2000	2000	4.4	180	5450
LDP 40425 (1) (2)	270~640	Φ400×4	4800	2850	2200	5.5	240	6500

*The company reserves the right to change the above specifications.