



FJELL TMD SLUDGE DRYER

SLUDGE DRYER SOLUTIONS THAT WORKS!
SCALABLE FROM 100-100.000 TONS OF SLUDGE PER YEAR

FJELL TECHNOLOGY GROUP

IDRETSVEGEN 103, 5353 STRAUME

FJELL FRS TMD SLUDGE DRYER

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HOW IT WORKS

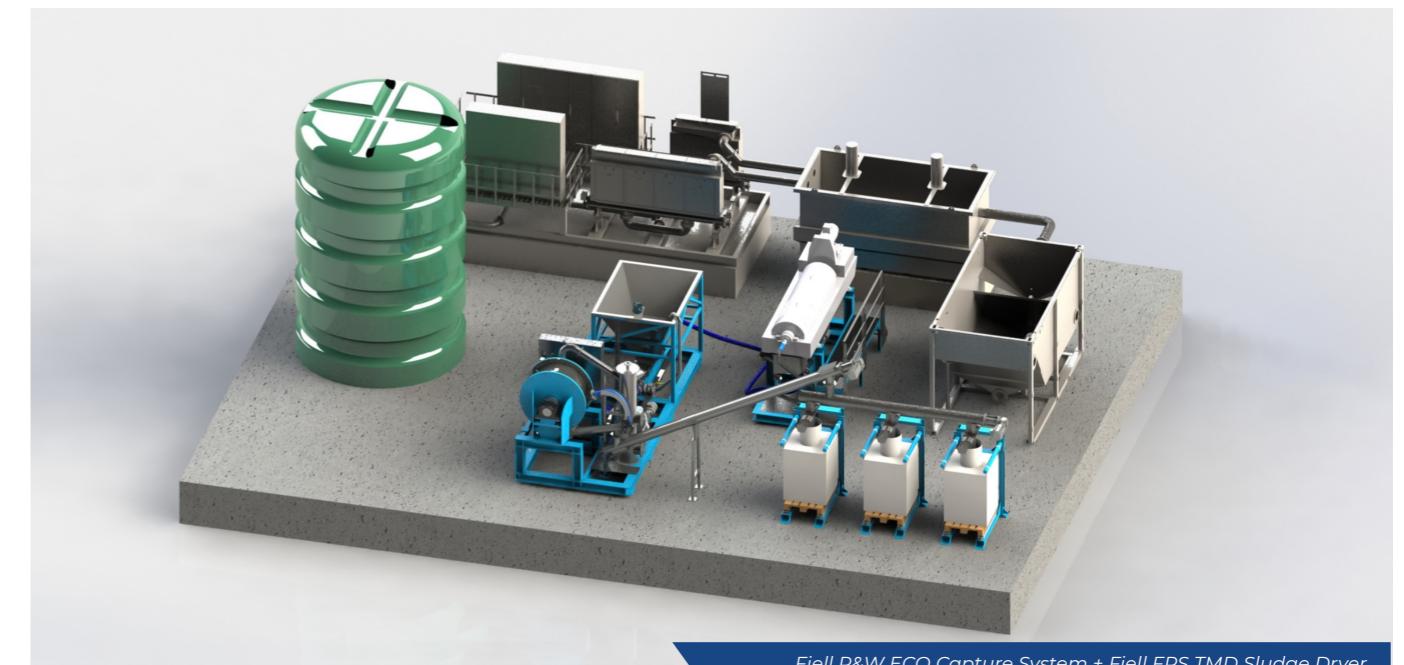
- Hammer mill tailor made for fish sludge
- The Thermo Mechanical Dryer (TMD) dries the sludge by friction. The rotor runs at typically 10-12 revolutions per second (600-720 rpm.)
- PLC regulated heat control secures that temperature keeps in the range 105-120°C.
- The heat transfer and mixing rate in the friction dryer is so effective that at least 99% of the material inside the dryer is in practice pre-dried powdered sludge (particle size of 100 micron).
- Hygienized and stabilized sludge with dry matter content 92-95% as the end product



Fjell FRS TMD Sludge Dryer at Norwegian smolt farm.

BENEFITS

- The FRS TMD Drying System has no challenges related to varying sludge quality (fatty acid composition), load or the demanding glue phase of the sludge.
- Requires minimal supervision and maintenance.
- Small footprint: 6 x 2,5 x 3,4 meters (L x W x H)
- Hygienizes and stabilizes the sludge, which soon becomes a requirement



ECONOMY

- 3000 tons of 20% Dry matter content (DM) sludge = 632 tons 95% DM Sludge.
- Typical handling cost 20% DM Sludge = 1500 – 2000 NOK per ton.
- Typical handling cost 95 % DM Sludge = 300 – 600 NOK per ton.
- Difference in disposal cost = 4.120.000 – 5.810.000 NOK per year (p/y).
- Estimated savings with energy costs deducted: 3000.000 – 4.600.000 NOK p/y.
- Rapid Return of Investment.



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RELIABLE - INNOVATIVE - RESPONSIBLE