FJELL TECHNOLOGY GROUP

FJELL DISC DRYER

Technology
for value circle

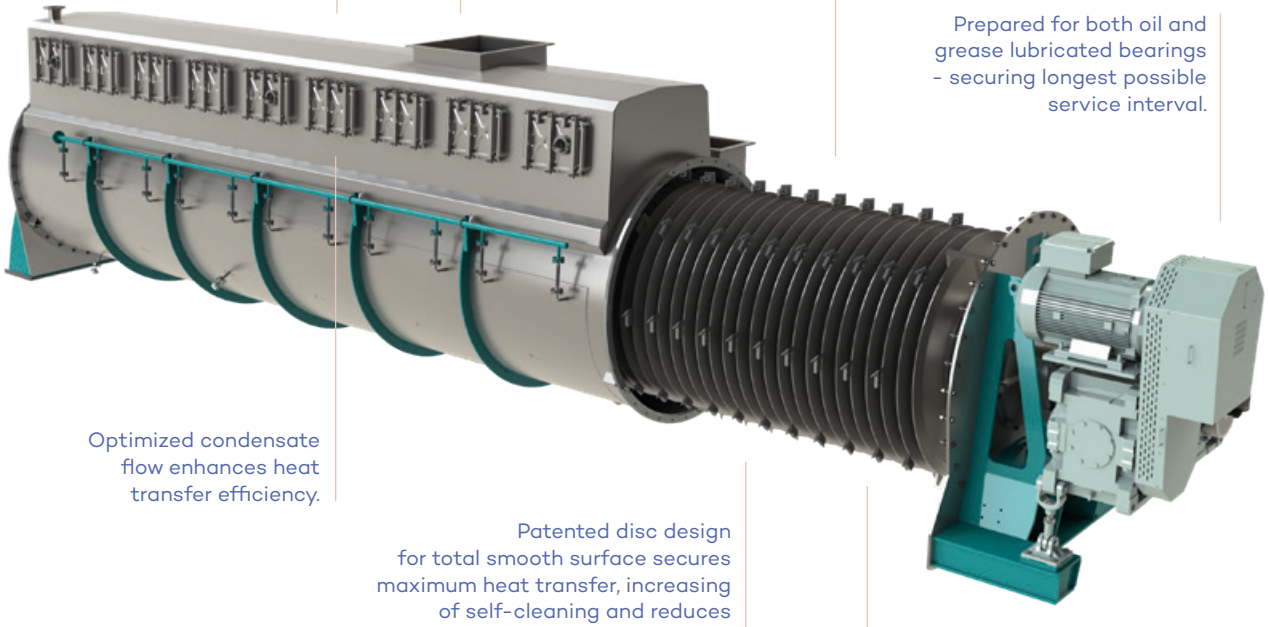
FJELL DISC DRYER

Dryer design to be fitted in any production facility.

Drying in vacuum (as an option) boosts yield of protein.

Inside load are controlled with paddles to ensure maximum heat transfer.

Prepared for both oil and grease lubricated bearings - securing longest possible service interval.



Optimized condensate flow enhances heat transfer efficiency.

Patented disc design for total smooth surface secures maximum heat transfer, increasing of self-cleaning and reduces fouling problems.

Achieving the lowest possible torque demand. 10-20% below the average, is made possible by the unique disc shape, which eliminates the need for surface welding.

Relevant applications

- Sludge from municipal wastewater treatment plants
- Biogas plant digestate
- Sludge from aquaculture and fish processing plants
- Fishmeal in both land-based and ship installed plants
- Ingredients in the food industry
- Spent grains from distilleries and breweries
- Animal and poultry by-products
- Industrial bio-sludge and mineral sludge
- Replacement rotors and units for old disc dryers
- Insect larvae
- Other organic residual raw material
- New marine raw material

FJELL TECHNOLOGY GROUP

The design

Fjell Turbo Disc (TD)

Fjell Turbo Disc (TD), stands out as a pinnacle of modern dryer technology, setting itself apart as the most advanced option currently available on the market.

Each disc is composed of two disc plates which, when connected, form an internal cavity for the steam. The internal feature of the rotor is an optimized solution for steam and condensate. As a result, heat transfer efficiency is enhanced.

The Fjell TD dryer uses special designed claws inside each disc to mount the two sides of the plates together. One advantage lies in the superior mechanical strength, departing from the conventional approach that relies on stay bolts to secure disc plates in position. The distinctive design effectively eliminates the potential for steam leaks originating from stay bolt welds.

An added advantage, due to the unique shape, is an optimal flow of raw material throughout the drying process. The patented design reduces torque up to 15% compared to other types of rotary disc dryers. The rotor design features a smooth disc surface, ensuring maximum heat transfer and minimizing fouling on the plate surface.

Drying in vacuum (optional) enables the possibility for drying at lower temperatures, which leads to a higher nutrition's property and integrity.

Fjell TD dryer can be designed for a life span of 25 years or more.

Model [1]	Discs [2] W x Ø (mm)	Heating Surface [3] (m^2)	Overall L x W x H (m)	Nominal weight [4] (tons)	Drive unit (kW)
TD150/1700	40 x 1700	150	9,5 x 2,1 x 2,6	34	75
TD200/1700	52 x 1700	200	11,2 x 2,1 x 2,8	40	90
TD300/1900	64 x 1900	300	13,1 x 2,4 x 3,1	54	132
TD400/2200	64 x 2200	400	13,3 x 2,7 x 3,5	69	160
TD500/2500	64 x 2500	500	14,0 x 3,1 x 4,1	85	187
TD600/2500	67 x 2600	600	15,5 x 3,1 x 4,1	95	200
TD700/2600	75 x 2600	700	15,0 x 3,25 x 4,3	112	250

[1] All dryers to be delivered for vacuum drying as an option
[2] The number of discs can be adjusted according to customer's requirements
[3] The Stator jacket can increase the heating surface with about 10%
[4] Nominal weight is estimated with 8mm disc thickness

Technology for value circle

fjelltg.no

FJELL TECHNOLOGY GROUP

Email post@fjelltg.com
Sales enquiries +47 4690 8056
Other enquiries +47 9962 0772

Follow us

Main office
Thormøhlensgate 49A
Marineholmen
5006 Bergen
Norway