



**IDEC**



OBM Drilling Waste Management

**QHSE**  
  
**IDEC**



# OBM Waste Treatment

- **Introduction**

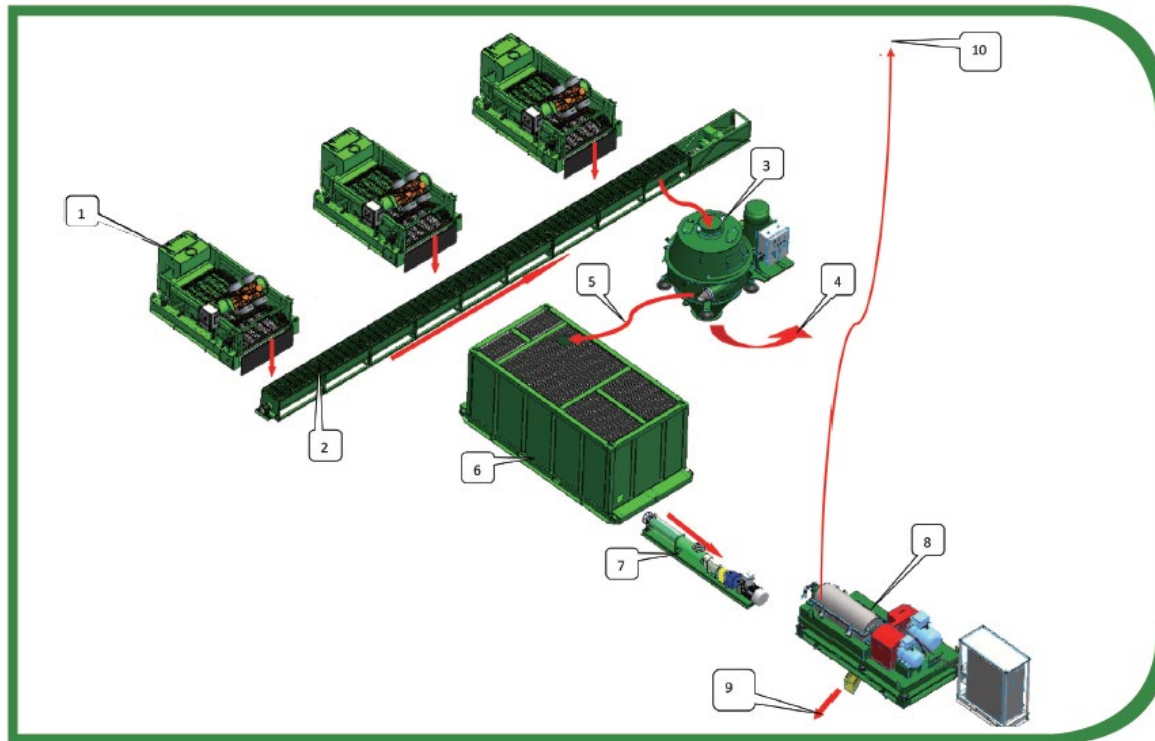
With the increasing difficulty of oil drilling development more and more oil-based muds are being used in drilling. In this process, oil-containing drilling cuttings will be generated, which will cause great harm to the environment. And most countries around the world have strict restrictions on the emission standards of oily cuttings. Depending on different region and country, the oil content requirements for drill cuttings disposal are different, generally less than 5%, and many developed countries and regions require OOC oil content to be less than 1%. IDEC cutting dryer can usually reduce the cuttings oil content to 3-5%

- **Main Equipment**

1. Drilling Cutting Dryer
2. Decanter Centrifuge



# OBM Waste Treatment



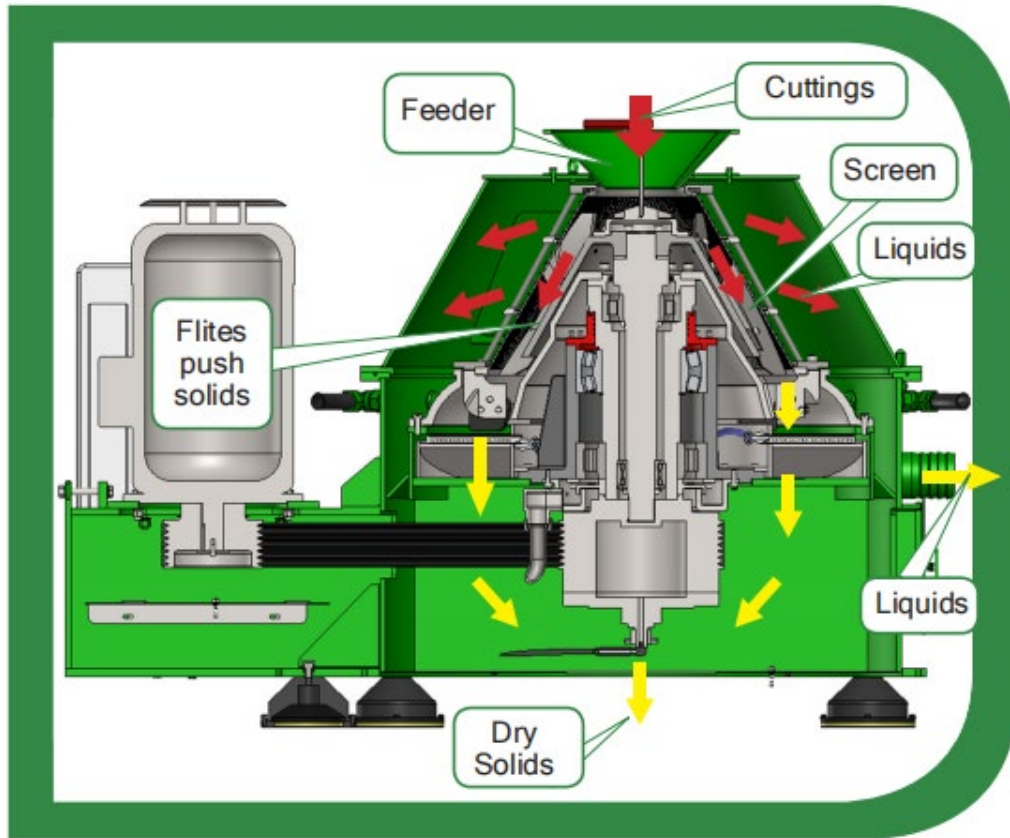
Working for OBM and SBM

## Cutting Dryer System

### Working Process

- Screw conveyors(2) will convey the drilling cuttings(solids) discharged out from shale shaker(1) and mud cleaner(2) after treatment to the vertical cutting dryer(3).
- The dryer will take oil or water from the drilling cuttings, leading to the direct disposal of dried enough cuttings(4); while the liquid(5) flows into a catching tank(6) for storage where it will be pumped into a decanter centrifuge(8) by a screw pump(7) for further treatment to make more clean liquid return to the whole active drilling mud system(10).

# Vertical Cutting Dryer



## Working Principle

The IDEC Vertical Cuttings Dryer uses centrifugal force to dry drilled solids in oil or synthetic base fluids. A stainless-steel screen bowl traps “wet” solids and accelerates them up to 900 RPM with G force to 420 G. Liquid is forced through the screen bowl openings, while “dry” solids are extracted by the angled flights attached to the cone, which rotate slightly slower than the bowl. Tungsten carbide protects the flights from abrasive solids and ensures long operational life. This aids in maintaining a constant gap between the scroll and screen bowl, which is crucial for proper operation.

# Vertical Cutting Dryer

## Specification

Model	IDEC CD930E
Capacity(Ton/h)	30 ~ 50Ton/h
Drying Efficiency	OOC≤ 5%
Screen Max Diameter	930mm
Screen Opening	0.25 ~ 0.5mm
Rotation Speed	900RPM
G Force	420G
Oil Tank Capacity	48L
Air Knife Input Pressure	0.41Mpa
Air Knife Input Capacity	4.8m3/min
Flushing Pump	1 pc
Main Motor	55Kw(75HP)
Oil Pump Motor	0.55Kw(0.75HP)
Flushing Pump Size	4Kw(5.5HP)
EX Proof Standard	ExdIIBt4/IECEX/A-TEX
Electric Cabinet Type	Standard
Weight	4200kg
Dimension	2634×1672×1728mm



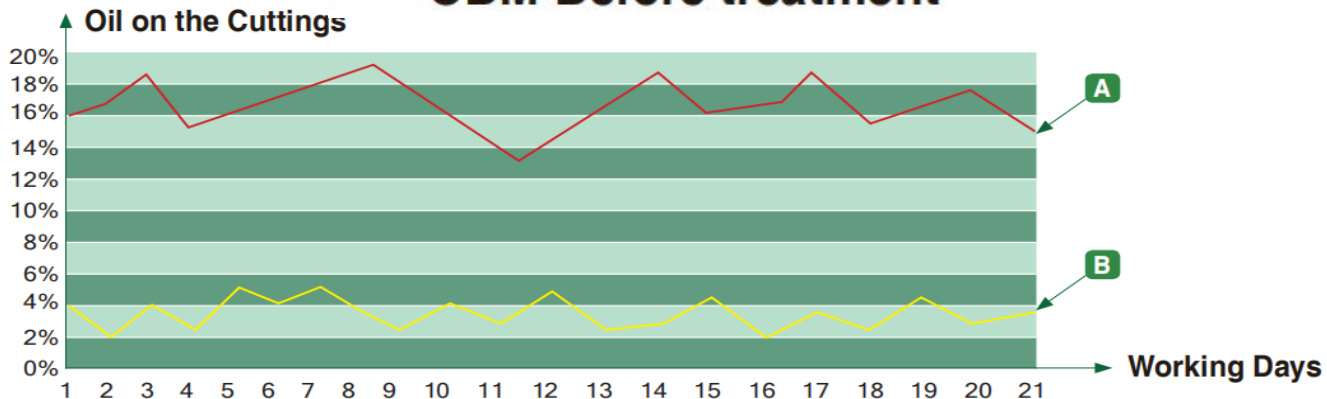
# Vertical Cutting Dryer

## OBM Waste Treatment



### Operation Record

● OBM Before treatment



A Oil on the cuttings before treatment.

B Oil on the cuttings for the drilling cuttings discharged from GN Vertical Cuttings Dryer.

● After treatment, Oil on the Cutting: 2.9%



# OBM Waste Treatment

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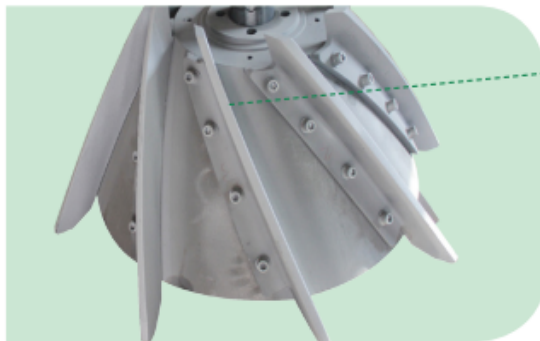
## Site Layout



# Vertical Cutting Dryer

## Futures

More Application	IDEC Vertical Cuttings Dryer specially designed for treating cutting discharged from oil based Mud (OBM) and synthetic based Mud (SBM)
High G Force	IDEC normal vertical cutting dryer speed is 900 RPM with G force up to 420 G, the VFD drive is available for adjusting the rotation speed to maximize the performance of the VCD
Bearing	FAG Brand premium bearing



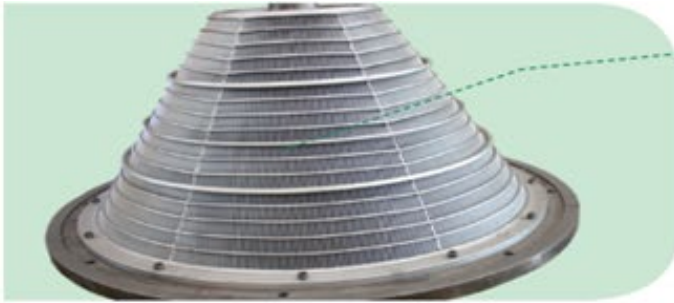
- The Flights on the rotor is hard facing to HRC 65, longer life than our competitors.

The flights and the rotor assembly is individually balanced for future replacement.



# Vertical Cutting Dryer

## Futures



- Specially designed highly precise stainless steel screen to ensure your better separation, longer life and easy replacement.  
The screen itself is individually balanced for future replacement. And the screen is separated from the frame which allows you to change the screen only, not need to change the frame inside.



- Special high pressure air knife design to clean the basket screen automatically to avoid the screen blinding especially for high viscosity mud and water based mud.
- All around flushing system through specially designed nozzle to avoid the block of the liquid discharge channel.



- Individual oil lubrication system with automatic alarm for pressure limit. The main motor and oil pump motor is interlocked with each other for avoiding the start of the main motor prior to the start of the oil pump motor .

# IDEC



# Thank You

