Solids Control Systems and Products: Centrifuges

CD 250 Centrifuge



The CD 250 centrifuge is the smallest centrifuge in the fleet characterized by an easy control system, a rugged design and a low installation/removal time. The unit recovers valuable fluids while reducing the total volume of waste.

In spite of the compact design, it delivers a high clarification capacity thanks to the high G-Force created.

To minimize the footprint and weight the unit is equipped with a single 20 Hp motor. An innovative system of belts and pulleys drives the sun-wheel shaft and provides the necessary torque therefore eliminating the need for a second motor. As the unit only requires a single motor the power consumption is kept to a minimum.

Features

Performance

- Smallest footprint
- Lowest weight
- Fixed bowl and differential speed
- High bowl speed
- Easy control system
- Split pillow blocks
- Hard facing on flights
- Adjustable pond dams and variable pump speed
- Stainless steel rotating assembly
- Perfectly balanced rotating assembly

Safety

- Vibration sensor
- Torque limiter
- Micro switches on vessel and guards

Benefits

Performance

- Portable and rugged design
- Minimal installation and removal time
- Bowl speed (4,000 rpm) and differential (26 rpm) are set to maximize LGS removal in HDD/ Mining projects
- High bowl speed assures a high G-Force, solids removal efficiency percentage and finest cut points
- Minimized equipment operator skill requirements
- Split pillow blocks for increased protection against contamination, extended material life and easier maintenance
- High flights wear resistance thereby reducing maintenance requirements
- Adjustable pond damns and variable pump speed allow for adjustment of the retention time and subsequent efficiency
- Highly corrosion resistant
- Minimal vibration and noise emissions

Technical specifications for the CD 250 Centrifuge

CD 250 Fixed Drive

All dimensions are expressed in inches (millimeters).

Specifications

Performance

- Hydraulic Capacity: 83 GPM (314 LPM)
- Operating Speed: 4,000 rpm
- G-Force: 2,191 G
- Sigma Value: 13,326 ft² (1,238 m²)
- Solids Discharge: 11 GPM (2.5 m³/h)

Rotating Assembly

- Bowl Diameter: 10.0 in. (253 mm)
- Bowl Length: 37.1 in. (941.5 mm)
- Pond Depth: 0.95, 1.14, 1.44 in. (24, 29, 36.5 mm)
- Scroll Type: Single Lead **Radial Flow**
- Scroll Pitch: 3.94 in. (100 mm)
- Main Bearings: Grease Lubricated
- Internal Bearings: Grease Lubricated
- Feed Tube: Slotted

Rotating Assembly Material

- Bowl: Stainless Steel Duplex A890
- Scroll: Stainless Steel AISI 304
- Scroll Flights: Castolin Eutalloy SF hard facing
- Discharge Bushings: Tungsten Carbide

Gearbox

- Type: Planetary [Model; ZG 2400/10]
- Gear Ratio: 60:1
- Torque, maximum: 1,475 ft-lb (2,000 Nm)
- Differential Range: 26 rpm
- Weight: 128 lbs (58 Kg)

Nozzle Schedule

- Liquid Discharge: 3.9 x 3.2 in.
 - (100 x 80 mm)
- Solids Discharge: 16.3 x 10.6 in.
 - (413 x 268 mm)
- Feed Tube: 1 in. [WN RF ANSI 150 lb]

Fixed Drive Type

- Power: 400/460 V 50/60 Hz, 3 Phase
- Main Drive Motor: 20 Hp (15 kW)

Certification

- CD 250 Fixed Drive:
 - CE Marked Only (Standard)
 - CE ATEX, Zone 1 (Optional)

Dimensions and Weights

- CD 250 Fixed Drive:
- CD 250 Fixed Drive Control Panel:

Χ	Υ	Z	Weight
81.8 in. (2,077 mm)	46.7 in. (1,187 mm)	31.5 in. (799 mm)	2,646 lbs (1,200 Kg)
45.3 in. (1.150 mm)	61.0 in. (1.550 mm)	20.1 in. (510 mm)	551 lbs (250 Ka)

