

Vertical Centrifuge Type CDR for Pharmaceutical industry

Like the more standard pharma centrifuge the CDR type Pharma Centrifuge Dryers are manufactured to current cGMP specification. Bespoke designs and manufactured to meet both the process and clients specific separation isolation needs. Key components and auxiliaries including the main machine drive, product feed delivery, cake depth monitoring, final solids discharge, lid opening etc are via electro pneumatic control systems. What sets the CDR unit aside is that it is equipped with a vacuum drying facility for enhanced drying of the final cake solids.

Materials of construction;

- Stainless steel 316L
- Hastelloy C-22

Operating cycle of the Centrifuge Dryer;

- Filling the basket with feed suspension
- Solids dewatering from the mother liquor
- Solids washing with various wash fluids
- Dewatering of the wash fluid from the solids
- Solids discharged to the bottom of the basket
- Tumbling of solids in the basket
- Vacuum drying and heating of the solids
- Cooling of the solids
- Pneumatic or gravity discharge of final solids

Centrifuge cleaning;

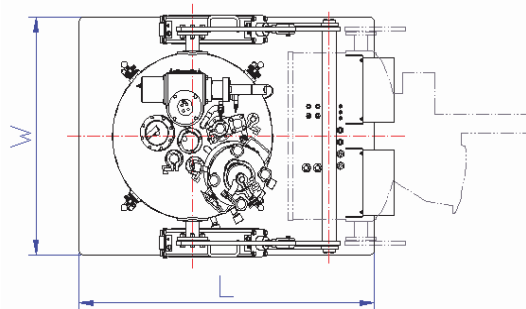
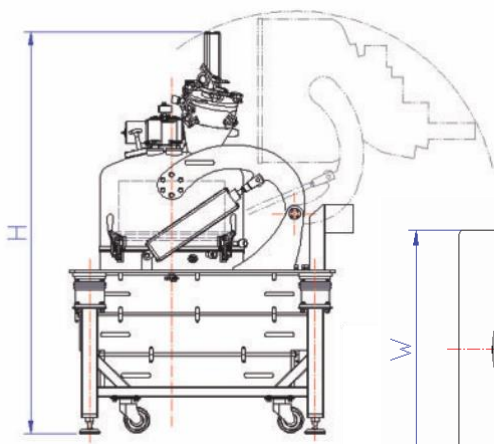
- CIP & SIP spray balls and nozzles
- Flooding the centrifuge with cleaning liquid

Various design options and auxiliary equipment

- Electric operating system and controls
- Heating and cooling systems
- Inert Gas Blanketing system (IGB)
- Vacuum drying system
- Special product vessel(s) for pneumatic solids discharge capture
- Valving and connection piping and hoses surrounding the centrifuge installation



Vertical Centrifuge Type CDR for Pharmaceutical industry



Centrifuge Dryer type		CDR 500/250	CDR 800/400	CDR 1000/500 (630)
Basket Diameter	mm	500	800	1000
Basket Height	mm	250	400	500 (630)
Basket Opening Diameter	mm	350	560	700
Filtration Area	m ²	0.393	1.005	1.571 (1.979)
Heated Surface Area of Basket	m ²	0.196	0.503	0.785
Basket Volume	m ³	0.025	0.103	0.200 (0.252)
Max. Basket Load	kg	30	123	240 (315)
Effective Solids Weight in Basket	kg	10.5	43.1	84 (110)
Max. Basket Speed	rpm	1900	1200	950
Centrifugal Force	x G	1009	644	504
Max. Out of Balance	kg/rpm	0.6 / 1250	2.5 / 800	5.0 (6.0) / 550
Min. Basket Speed for Drying	rpm	12	8	6
Max. Basket Speed for Drying	rpm	100	64	52
Min. Temperature in Solids Space	°C	-15	-15	-15
Max. Temperature in Solids Space	°C	100	100	100
Min. Pressure in Solids Space	MPa	-0.10	-0.10	-0.10
Max. Pressure in Solids Space	MPa	0.05	0.05	0.05
External Dimensions H x W x L	m	2000 x 1000 x 1300	2750 x 1600 x 2100	3000 x 2000 x 2600