



Equipment Data Sheet: CD 500 XV SL VFD (UL)

The CD 500 XV SL VFD is a Variable Frequency Drive Centrifuge with an increased process capacity (XV; Extra Volume) and a Slim Line design

Dimensions

Overall Dimensions & Weight	
Weight	4,446 kg (9,802 lbs)
Length X	3,797 mm (149.49 in.)
Height Y	1,788 mm (70.39 in.)
Width Z	1,250 mm (49.12 in.)

Performances

G-Force & Feed Rate	
Max Design Speed	3,200 rpm
Max Operating Speed	3,000 rpm
Max G-Force	2,334 G @ 3,000 rpm
Max Sigma Value	4,049 m ² (43,583 ft ²) @ 3,000 rpm
Hydraulic Capacity	103.1 m ³ /h (454 GPM)
Max Solids Discharge Rate	12.0 m ³ /h (53 GPM)

Physical Data

Rotating Assembly	
Bowl Diameter (Internal)	472 mm (18.58 in.)
Bowl Length (Internal)	1,715 mm (67.52 in.)
Pond Setting	76 (R160) – 66 (R170) – 56 (R180) mm (3.00 – 2.60 – 2.20 in.)
Bowl Material	Stainless Steel Duplex A890
Bushings Protection	Tungsten Carbide Solids Discharge Nozzle
Scroll Type	Single Lead – Quasi Axial Flow
Scroll Pitch	130 mm (5.12 in.)
Scroll Angle	6°
Scroll Material	Stainless Steel Duplex A890 - AISI 304
Flights Protection	Scroll Fitted with Tungsten Carbide Ti Ies
Pillow Block	Split Pi I low Block
Pillow Block Bearings	Grease Lubricated - Manual
Internal Bearings	Grease Lubricated - Manual
Feed Tube	Open Ended (Axial Outlet Flow)

Physical Data

Gearbox	
Type	Planetary Gearbox, Ratio 80:1
Max Output Torque	8,500 Nm (6,269 ft·lb)
Operating Differential	1 – 40 rpm
Drive & Operating System	
Voltage	440/480 Volt, 60 Hz, 3 Phase
Main Drive Motor	45 kW (60 HP)
Back Drive Motor	15 kW (20 HP)
Control System	PLC (Programmable Logic Controller)
Drive System	VFD (Variable Frequency Drive)
Safety Features	
Safety Devices	Torque Limiter to Protect Sun-wheel Shaft, Micro-switch on Vessel & Guards to Avoid Start-up While Servicing.
Display (Settings)	Bowl Speed, Differential Value, Feed Rate, Current Adsorbed, Vibration, Bearings Temperatures.
Automatic Safety System	Continuous Monitoring & Self Shutdown on All Critical Parameters, Automatic Control to Avoid Pack-off & Automatic Unplugging Procedure.
Certification	
Certification	Class I, Division I Hazardous Areas for USA & Canada
Operating Temperature	0 +40°C (+32 +104 °F)
Storage Temperature	-20 +40°C (-4 +104 °F)
Process Fluid Temperature	Drilling Fluid: < 85°C (185°F)

Nozzle Schedule

Connection	
Feed Pipe	2" ANSI B 16.5 Welding Neck
Liquid Discharge	8 in. Victaulic
Solids Discharge	810 x 450 mm (31.89 x 17.72 in.)