



DECANTER CENTRIFUGE

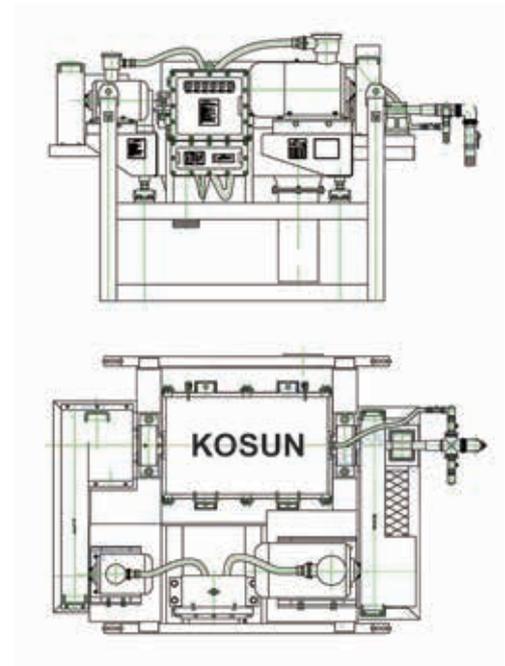


XI'AN KOSUN MACHINERY CO.,LTD

— Since 1992

Decanter centrifuge makes full use of centrifugal sedimentation principle to achieve effective separation of infinitesimal particles and solid particles. It is primarily applied in industries like oil drilling chemical engineering, petroleum, food, medicine, ore dressing, coal, water treatment, shipbuilding, etc.

- Innovative design includes longer bowl for increased retention time, resulting in drier solids and finer cut points
- Big bowl Big Volume, high G force available
- Stainless steel bowl, scroll, compartment and cover resist corrosion and provide long service life.
- Tungsten carbide scroll points with wide spacing flights at tapered end create a finer layer of conveyed solids for consistent, uniform separation and maximum solids control efficiency.
- German FAG or Sweden SKF brand bearings
- Electrical Components: SIEMENS/Schneider ATEX or IEC Ex for option.
- Screw pump & centrifugal pump feeding pump option available to meet different requirements.



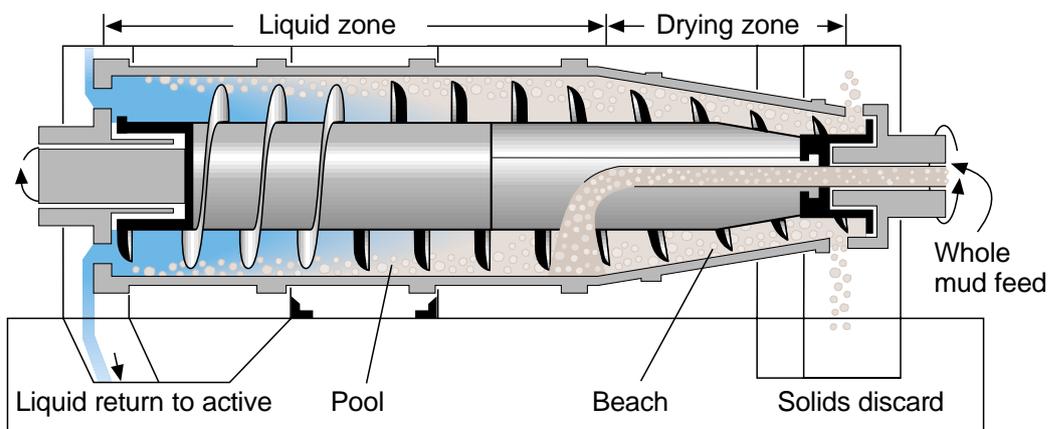
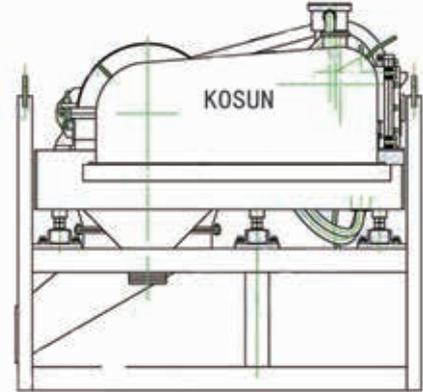
KOSUN decanter centrifuge can meet with different requirements of mud treatment under various drilling conditions, which separates particles over 2 μ m. After treatment, the mud can achieve ideal viscosity and proportion, results in better recycling, high efficiency, material saving and environment protection.

The series of centrifuge by our company has been developed for many years with the continuous improvement and optimization design, which possesses the characteristics of good result of separation and settlement, as well as large quantity, reliable work, longer life, lower energy consumption, easy maintenance, smooth operation, lower noises, etc

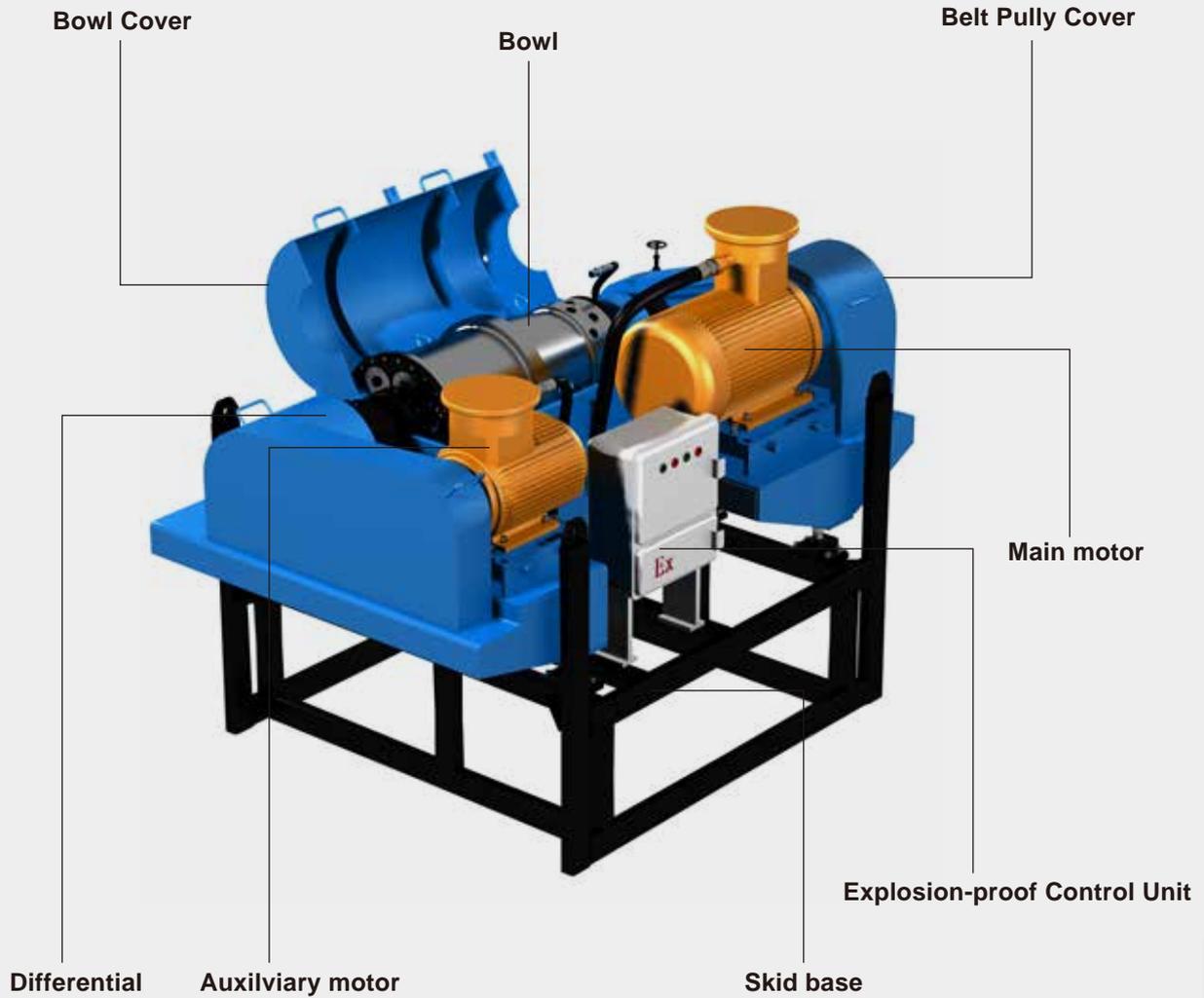
To ensure effective treatment result and long service life, the important parts adopt high quality stainless steel, forging material, strengthen heat treatment and strict control processing. Each easily-worn part is sprayed with wear-resisting layer and mosaic of hard alloy, etc. The overflow of the main drum mouth uses adjustable poling board, and it can be adjusted anytime according to different sludge treatment.

To meet the requirements of the development of modern drilling engineering, KOSUN developed and equipped with the explosion-proof variable frequency control system which could adjust separation factor and drum rotational speed. This new technology makes centrifuge adapt to mud process change during operation, which perfects the treatment and ensures more effectiveness.

A VFD (Variable Frequency Drive) Explosion-proof Control Unit monitors and controls both the main and back electric drives. The operator can manage bowl and scroll speeds via a touchscreen that also displays input from the various sensors, including temperature, current, rotational speed and vibration.



DECANTER CENTRIFUGE



Model	DC450S(Fixed) DC450S(VFD)	DC450L (Fixed Speed)	DC355(Fixed) DC355(VFD)	DC600 (Fixed Speed)
Bowl Diameter mm/in	450/17.7	450/17.7	355/14	600/23.6
Bowl Length mm/in	842/33.1	1000/39.4	1257/49.5	1000/39.4
Max Capacity m ³ /h/GPM	40/176	40/176	30/132	60/264
Working Speed(Fixed) RPM	1800/2200	1800/2200	2000/2200/3000	1500
Bowl speed(Max)	3300	3600	3900	2600
Bowl Speed(VFD) RPM	0-3300	0-3600	0-3900	0-2600
G-Force	820/1215	820/1215	794/960/2160	755
Separation point μm	≥5	≥5	≥3	≥5
Main Drive Kw/HP	22/30	30/40	22/30 / 30/40	45/60
Back Drive Kw/HP	5.5/7.5	7.5/10	5.5/7.5 / 7.5/10	7.5/10
Remarks	For fixed speed centrifuge, KOSUN have other speed available for your option by using different pulley.			

■ Master and Auxiliary Electric Motor



It effectively guarantees the power supply for equipment running on the well site to purchase domestic well-known explosion-proof motors.

■ Differential Mechanism

It is a gear reducing structure, the shell connects with the drum, the input shaft connects with the auxiliary motor by belt pulley, and the rotational speed jointly output from them connects to the spiral propeller by spline shaft. The differential is a critical component of centrifuge, which can provide a high torque and a constant differential speed. It has such three transmission structures as planetary gear, cycloidal pin gear and hydraulic.



■ Bowl



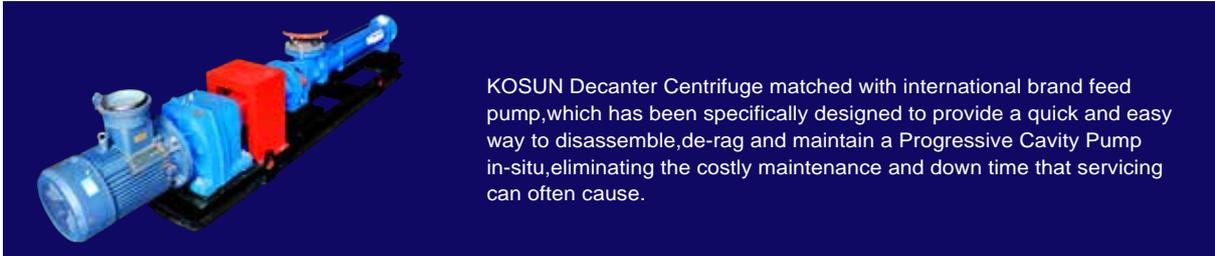
It mainly consists of stainless steel materials, such as 304, 321, 316L, 316, etc. There is a spiral propeller in the drum, and the spiral blade on the propeller is coated with wear-resistant tungsten carbide (or is inlaid with hard alloy tips) that can effectively prolong the service life of propeller. The inner wall of drum is welded with wear-resistant anti-slip strips that protect the drum and greatly increase the dreg-propelling efficiency. The dreg outlet at the small end of drum is made from highly wear-resistant materials of tungsten or cobalt, and the big end face of drum is equipped with replaceable and wear-resistant liquid level rings, which is convenient to adjust the depth of liquid level.

■ Explosion-proof Control cabinet

The shell is the explosion-proof type and adopts the welded structure of steel plate, and it consists of wiring chamber and control chamber. The main motor adopts the star delta starting and contains electric protectors, such as AC contactor and thermal relay, which can furthest protect the motor and other equipment. Moreover, our company can also provide the explosion-proof variable frequency control cabinet.

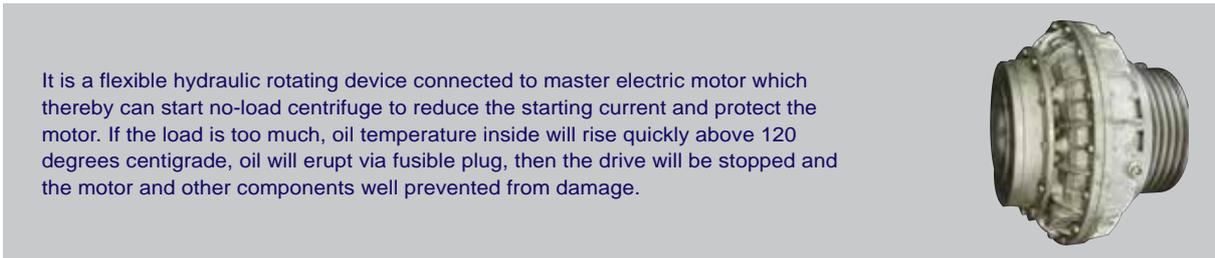


■ Screw Pump or Progressive Cavity Pump



KOSUN Decanter Centrifuge matched with international brand feed pump, which has been specifically designed to provide a quick and easy way to disassemble, de-rag and maintain a Progressive Cavity Pump in-situ, eliminating the costly maintenance and down time that servicing can often cause.

■ Coupler



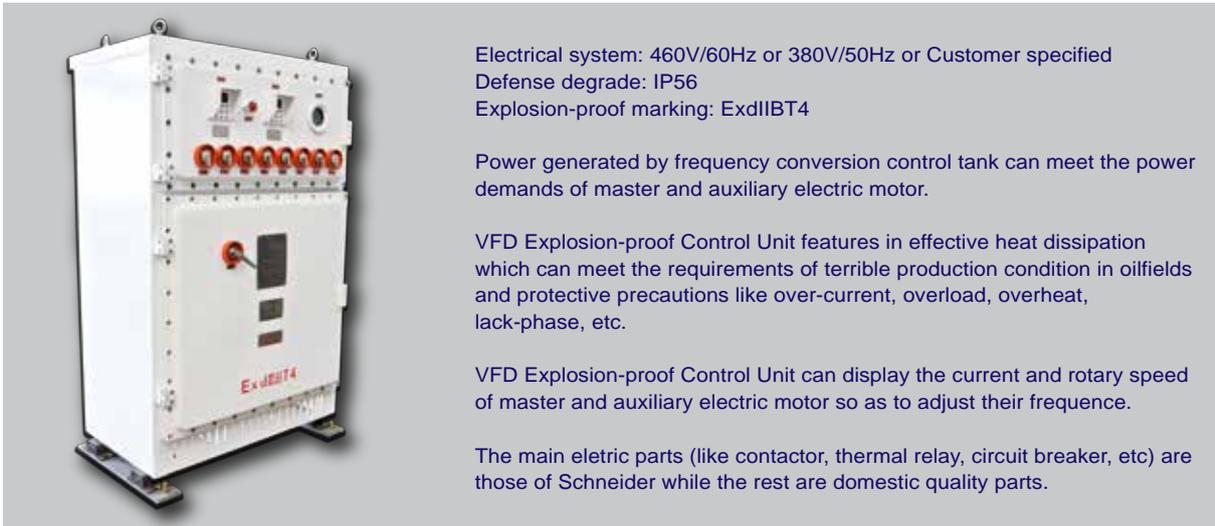
It is a flexible hydraulic rotating device connected to master electric motor which thereby can start no-load centrifuge to reduce the starting current and protect the motor. If the load is too much, oil temperature inside will rise quickly above 120 degrees centigrade, oil will erupt via fusible plug, then the drive will be stopped and the motor and other components well prevented from damage.

■ Spiral Propeller



Corrosion-proof and wear-resisting spiral propeller is welded with a layer of wearable tungsten carbide on the residue discharge surface, which is polished to smoothness.

■ VFD Control Unit



Electrical system: 460V/60Hz or 380V/50Hz or Customer specified
Defense degrade: IP56
Explosion-proof marking: ExdIIBT4

Power generated by frequency conversion control tank can meet the power demands of master and auxiliary electric motor.

VFD Explosion-proof Control Unit features in effective heat dissipation which can meet the requirements of terrible production condition in oilfields and protective precautions like over-current, overload, overheat, lack-phase, etc.

VFD Explosion-proof Control Unit can display the current and rotary speed of master and auxiliary electric motor so as to adjust their frequency.

The main electric parts (like contactor, thermal relay, circuit breaker, etc) are those of Schneider while the rest are domestic quality parts.



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