

Specification of Separator Modular System Model PDSD1500-B1103Z



Brief Introduction:

Model PDSD1500 separator modular is mainly used to remove water and mechanical impurities from diesel oil, lubricating oil and other mineral oil in marine diesel engine unit and land-used diesel generator unit of power station so as to reduce wear of the diesel engine and other machine, and prolong engine life. The model is also used to separate two unsolvable liquids with different specific gravity or remove small amount of solid particle from liquid.

The machine has the advantages of high efficiency, low oil consumption, convenient operation and economic maintenance cost.

The clear oil and dirty water are pumped out by centripetal pump, the sludge is discharged automatically and fully.

The machine is one kind of rotary machine with high speed, After accurate dynamic balancing, it can run for long time with low vibration, safety and security.

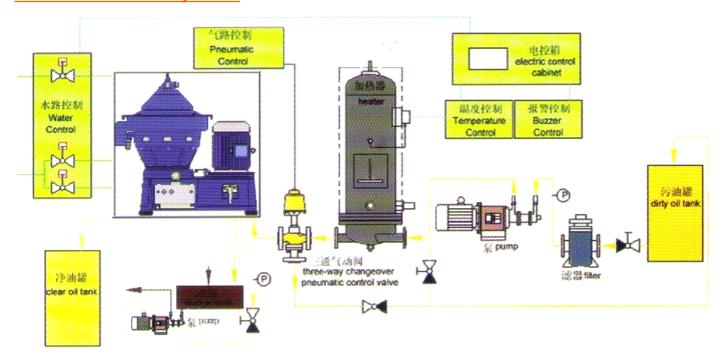
The design, product and acceptance are conformed to the standard of GB/T5745 "Marine Disc Separator".



Advantages:

- 1. The piston type slag removal and self cleaning automatically discharging
- 2. modular design
- 3. automatic operation

Automatic control system:



Water Control: Automatic control unlocking water, sealing water and water-seal/water switching.

Pneumatic Control: Filter and adjust compressed air, control three-way changeover pneumatic valve.

Temperature Control: Automatic control the temperature of the oil line, also control separately or with electric control cabinet at the same time.

Buzzer Control: Monitor oil temperature, pressure, over loading, non-discharging and leaking, and Offer a group of passive contactor stretching out to control panel.

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Condition for mineral oil separation and actual capacity (refer to the chart)

	Fuel oil				Lubrication oil		
Oil types	Fuel o	oil	Heavy fuel oil		SAE30、40	Detergence oil	Steam turbine oil
Kinematical viscosity (mm²/s)	1.9-5.5	5.5-24	120	180	100-120		61.2-74.8
	40 ℃		50℃		40℃		40 ℃
Density/ (kg/m3) (20°C)	<900		900-991		880-900		<900
Separating temperature $(^{\circ}C^{\circ})$	Normal temperature、 40-60best		90-98		80-95		
Recommended capacity (I/h)	1950	1500	1050-1125	675-750	750-900	375-450	1200-1275

Reserve the right to change specifications without prior notification.

Main Technical Specification:

Discharging type	Part discharging		
	Diesel recommended processing	1600	
Max capacity(L/h)	SAE30/40 Lubricating oil is recommended	800	
Operation type	Self-cleaning		
Standard collocation of control	High temperature, low pressure, auto temperature adjust,including the comprehensive alarm		
Size	LXWXH(mm)	1050x1000x1550	

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The whole unit consists of:

- 1. Separator
- 2. Screw pump
- 3. Electric control box
- 4. Steam heater
- 5. Temperature adjusting valve
- 6. Integral heat ball valve
- 7. Steam trap valve
- 8. temperature sensor
- 9. Pneumatic Three-way valve
- 10. Stop-check valve
- 11. oil filter
- 12. Vacuum gauge
- 13. Pressure gauge
- 14. Air pressure reducing valve
- 15. 3/2solenoid valve
- 16. Ball valve
- 17. Brass filter ball valve
- 18. Water pressure reducing valve
- 19. 2/2solenoid valve
- 20. Pressure switch
- 21. moisture sensor
- 22. Skid



Technical analysis:

Peony's Disc separator technology comparison with foreign companies

10	Belt	Super seamless ring belt	Super seamless ring belt	
9	Drum material	DSS, Special stainless steel	DSS, Special stainless steel	
8	Design of calculation method	Finite element analysis(Structure design and the internal flow field analysis of drum)	Finite element analysis(Structure design and the internal flow field analysis of drum)	
7	Moisture sensors	capacitance(the same as Westfalia)	capacitance	
6	Full automatic control level	Fulfill online detection, real-time monitoring, intelligent feedback control Meet the requirements of ship with unmanned engine room	Fulfill online detection, real-time monitoring, intelligent feedback control Meet the requirements of ship with unmanned engine room	
5	Drum structure	"No gravity ring"+ full hydraulic discharge mode	"No gravity ring"+ full hydraulic discharge mode	
4	The transmission system	High-speed flat belt + friction coupling	High-speed flat belt + friction coupling	
3	System integration	Standardized, modular	Standardized, modular	
2	Capacity	1500~8000L/h	1500~8000L/h	
1	The performance index of material	Viscidity(380 \sim 700 cSt/50 $^{\circ}$ C)density (1010kg/m3)	Viscidity (380 \sim 700 cSt/50 $^{\circ}$ C) density (1010kg/m3)	
No.	Technical Content	Peony's Marine Disc Separator	Oversea famous brand Disc Separator	

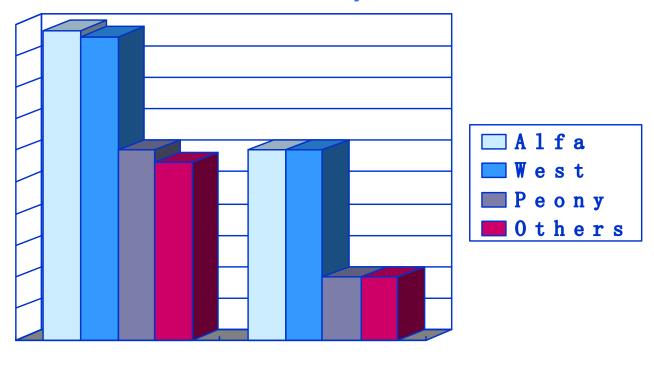


Value Analysis:

- 1. According to the requirements of each classification society, all modules are equipped with oil leak alarm and high temperature alarm.
- 2. Oil.hydraulic,pneumatic control part adopts the Brand Baode (Germany).
- 3. Heater adopts brand SWEP (Germany).
- 4. Pressure control adopts Korean products or WIKA products
- 5. Screw pump is used instead of gear pump.
- 6. All equipped with automatic temperature control device (Made by the RTK production in Germany or made in China)
- 7. The main electrical components of standard electrical control box are produced by Schneider company while PLC is produced by Siemens or Mitsubishi.
- 8. The complete sets referred above are all Peony's production of automatic Standard Controls and we certainly can modify the configuration list according to customers' specified requirements.

Cost Analysis:

Compared selling price and maintenance cost with Alfa Laval, Westfalia and other domestic manufacturers

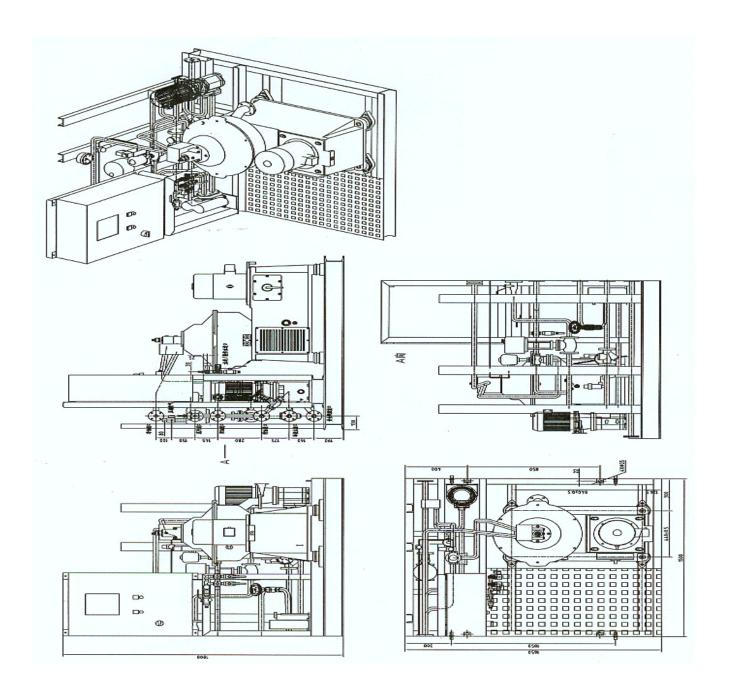


selling price

maintenance cost



Aspect of the unit:

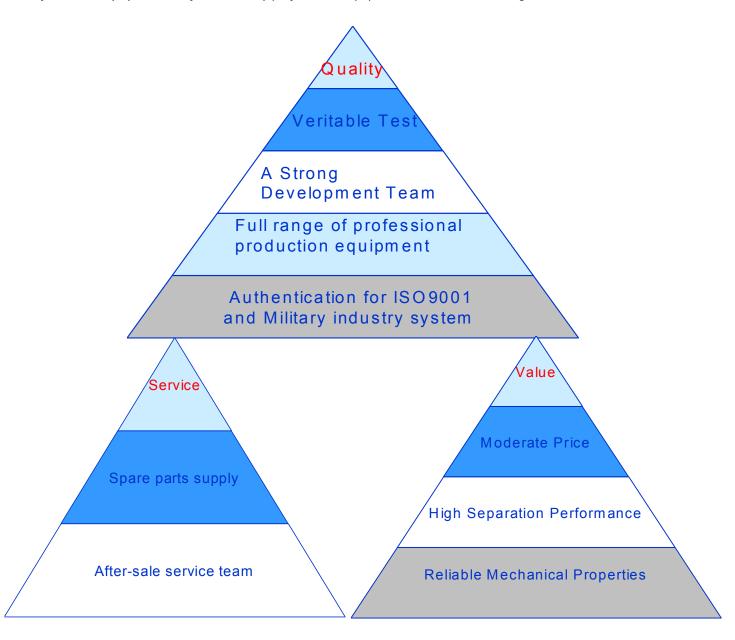


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Guarantee:

Peony has advantages in price, service and quality. We have Military Product Quality System Certification, CE certificate, Quality System Certification, many professional equipments and advanced designs.





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