1. Data parameters

⑴Design and manufacturing standards

The equipment design and manufacture are implemented in accordance with the national standards of the People's Republic of China and relevant laws and regulations; the machine complies with the product standard requirements of JB/T447-2004 "Piston Push Centrifuge".

(2) Equipment structure

The bipolar piston filter centrifuge is mainly composed of base parts, drum parts, shaft and bearing parts, control parts, hydraulic parts and casing parts

Body parts

It uses an integral HT cast base. The upper part is equipped with transmission components such as the bearing box and motor, and the lower part is equipped with a heavy base and welded structural parts. They are made of high-quality carbon steel plates and subjected to vibration aging treatment. The bottom is equipped with anchor bolts. Customers only need to provide a flat and reliable working platform. can. It is mainly composed of a motor, a motor pulley, a motor guide rail, and an adjusting bolt. The bottom of the base is large to ensure the stability of the machine.

Drum parts

The drum is made of 316L. The drum has undergone strict dynamic balance, with a dynamic balance accuracy of 2.5 grades (the entire motorized balance accuracy is 6.3 grades).

Shaft and bearing parts

The spindle material is 42CrMo. The machining requirements of the spindle are radial and axial runout ≤0.04mm. The contact point of the mating surface of the main shaft and the drum should be more than 90%. After the drum is matched with the bearing box, perform a dynamic balance test, and the radial and axial runout of the drum is ≤ 0.10mm. The spindle seal adopts a labyrinth seal. Bearings: All bearings on the main shaft adopt FAG bearings.

Control unit

It is composed of pressure oil cylinder, pushing piston, left piston ring, right piston ring reversing valve rod, slide valve, guide rod, etc. This component is both a control component that controls forward and backward movement and a hydraulic pushing mechanism. The pushing piston, the left and right piston rings, the slide valve used to change the direction, and the reversing valve stem are all installed in the oil cylinder, and the pressure oil cylinder is the pulley that drives the rotor. The pressure oil that makes the pushing mechanism operate is provided through the center of the machine seat, bearing seat, hollow shaft and the pushing shaft. The return mechanism works automatically without external force.

Hydraulic components

It consists of oil pump seat, screw pump, overflow valve, stop valve, pressure gauge, bimetal thermometer, air filter and oil cooler. The oil cooler is installed in the oil tank. The screw pump adopts Far East SNE series three screw pump.

Chassis parts

The casing is made of 316L stainless steel, with a thickness of 5 mm. The surface is polished to be smooth and free of scratches. All welds are trimmed and smooth; the thickest part of the casing is clearly marked in the equipment outline drawing and has been thickened to 20 mm to increase the stability of the equipment Sex and strength. There is a DN65 drain port on the shell.

Features

The material of the drum, shell and other parts in contact with the material is 316L stainless steel, and the bearing seat and machine seat are Q235-A. The centrifuge is equipped with an electric control cabinet: The main and auxiliary motors can be interlocked to ensure that the bearings run in the presence of oil; according to the user's material characteristics and process requirements, the structure of the interior of the drum, the cloth cone, and the drip tray is optimized. Use FAG original bearings imported from Sweden to reduce equipment failures and prolong service life. The centrifuge occupies a small space and is simple to install and debug; the whole machine is fully sealed in operation, safe and sanitary, and has a good use environment.

2. Technical parameters

Model： **HR400**

Centrifuge structure parameters performance appearance size, weight

●Length： 2460mm
●Width： 1286mm
●Height：1030mm
●Weight：2480kg

Drum

●Inner diameter of first stage drum： 400mm
●Inner diameter of secondary drum： 337mm
●Length of filter area (large/small)： 145/155mm
●Maximum speed： 2200r/min
●Factor：503-1083
●Length of Pusher： 40mm
●Frequency of Pusher：30-80 1/min（It can be adjusted according to the separation situation to maintain a better separation state）
●The moisture content of material after separation： 3.5-5%
●Output： 1-8T/H

Manufacturing Material：

●Drum：316L
●Screen：316L
●Main case：316L
●Dip pipe：316L
●Cleaning pipe：316L
●Engine base：Q235
●Non-metallic seals: oil-resistant rubber main motor and oil pump motor characteristics

Main motor

●Power： 7.5-15KW

Oil pump motor

●Power： 4-5.5KW

Oil pump model

● Oil pump:
●Oil cooler:Equip　　Temperature gauge：Equip

●Level indicator：Equip

Transmission mode:
Belt lubrication mode:
● thin oil lubrication
Noise standard: 1m 95dB (no-load) vibration at rated speed: three-phase vibration ≤7.1mm/s

3. Operation and control
A. The rotating drum of the centrifuge is driven and controlled by a frequency converter.
B. The braking method adopts frequency converter energy consumption braking.
C. Main motor 15KW, 380V; Oil pump motor: 4/5.5KW.
D. Choose Wannan motor, the insulation class of the motor is F insulation, and the work system is S1; the motor nameplate is clearly visible, and the motor rotation direction is clearly marked on the nameplate. The grounding of the motor is reliable to ensure the safety of electricity.
E. The connection between the centrifuge and the power source is carried out according to the wiring diagram in the accompanying document. The model and specifications of the electrical equipment are according to the parameters of the motor power, rated current and other parameters, and are configured according to the relevant electrical control standards to prevent electrical overload and can effectively achieve Overload protection.
F. The control cabinet is installed independently, not installed together with the equipment body, and the front door is opened. Inverter adopts Ingis brand products. Delixi is selected for contactor and air switch.

4. Scope of supply

NO.	Constitute the whole host, the name of the attachment	Qty
1	Main engine (including main and secondary motors)	1 set
2	Main engine (including main and secondary motors)	1 set
3	Base plate, with weight box	1 set
4	Random installation of accessories and spare parts (including anchor bolts and pads)	1 set
5	Technical documents (instruction manual, certificate of conformity, etc.)	1 set
6	packing list	1 set