



Vacuum Pressure Pouring Equipment Vacuum Resin Casting Machine VPI System

Our Product Introduction

for more products please visit us on jc-transformer.com

Basic Information

- Place of Origin: China
- Brand Name: JC
- Certification: SGS CE,UL
- Model Number: KCY-590
- Minimum Order Quantity: 1 pcs
- Price: consult
- Packaging Details: Export standard packaging
- Delivery Time: 5 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 100pcs/month



Product Specification

- Name: Vacuum Pressure Casting Equipment
- Item No.: KCY-500-3000
- Suitable For: Vacuum Casting Of Two-component Premixed Filler Epoxy Resin.
- Process: Casting
- Specification: Pressure Increasing
- Color: Green
- Capacity: 1000kg/h
- Control System: PLC
- Cooling Method: Air/Water
- Design Pressure: Customized
- Design Temperature: Customized
- Heating Method: Steam
- Heating Source: Steam/Electricity/Gas/Oil
- Insulation: Rock Wool/Glass Wool



More Images



Our Product

Product Description

Vacuum pressure pouring equipment with Casting Process for Electric Insulation Transformers
TECHNICAL SCHEME OF VACUUM CASTING EQUIPMENT



According to the user's production needs and the company's years of accumulated experience in manufacturing pouring equipment and design specifications, the following technical scheme is determined for further discussion and negotiation between both parties.

The proposed equipment is suitable for vacuum casting of transformer with two component premixed epoxy resin.

1. GENERAL PROVISIONS

This proposal proposes the technical requirements of the design, structure, final assembly, test and operation of the equipment.

This proposal sets out the minimum technical requirements, and the supplier shall provide high-quality products not lower than this specification.

After the Contract takes effect, the Supplier shall provide the Demander with a production schedule that meets the requirements of the contract delivery date.

The equipment layout drawing, basic condition drawing, electrical drawing and main component structure drawing provided by the supplier shall not be put into operation until confirmed by the demander. The supplier shall unconditionally modify the problems that do not meet the requirements of this technical specification in the drawings.

The equipment specification shall include the working principle, structure, installation instructions, operation methods and precautions, common faults and solutions, suppliers, models and specifications and other relevant technical data of the whole equipment and all important systems.

The Supplier shall be responsible for the performance and operational reliability of the equipment, as well as the design, manufacturing, transportation, installation, commissioning and trial production of the equipment. Implementation of the turnkey project.

The Supplier guarantees to provide applicable, mature and proven technology for pouring equipment.

The spare parts and spare parts which can operate normally within one year will be given free of charge.

2. THE DESIGN OF THIS SET OF EQUIPMENT ADOPTS THE FOLLOWING RELEVANT STANDARDS, MANUALS AND STANDARDS.

This technical specification for Vacuum Pouring Equipment

GB9115.1-2000 "Vacuum Flange"

JB/T6533-97 Rotary Vane Vacuum Pump

Roots Vacuum Pump JB/T7674-95

GB/T6709-96 "Vacuum Pipe and Accessories"

JB1090-1092 "Rubber Seal Type and Size for Vacuum"

GB191 "Graphic Symbol of Packaging, Storage and Transportation"

Vacuum Design Manual, Lanzhou Institute of Physics

Vacuum System Design Manual, Northeastern University

GB/T5226.1-1996 "Industrial Machinery and Electrical Equipment Part I: General Technical conditions";

3. EQUIPMENT CHARACTERISTICS

The vacuum pouring equipment in this scheme is applicable to the vacuum pouring treatment of pouring transformers and reactors.

This scheme reflects the requirements of energy saving and environmental protection. The life of the specially manufactured electric heating plate is more than 3 times that of the imported German heating plate, and the heating power is 75% of the imported German heating plate. Is the real sense of energy saving, environmental protection products.

Unique filtration system, can effectively prevent resin steam into the vacuum pump.

4. TECHNICAL PROPOSAL

EQUIPMENT COMPOSITION

NO.	NAME	QUANTITY	REMARK
1.1	200L VACUUM FINAL MIXING GAS TANK SYSTEM	TWO SETS	
1.2	VACUUM POURING TANK SYSTEM	ONE SET	
1.3	HEATING SYSTEM	TWO SETS	
1.4	VACUUM SYSTEM	TWO SETS	
1.5	COOLING WATER PIPING SYSTEM	ONE SET	
1.6	PNEUMATIC AND PIPING SYSTEMS	ONE SET	
1.7	CONTROL SYSTEM	ONE SET	TOUCH SCREEN
1.8	STEEL FRAME PLATFORM	ONE SET	OFFERED BY PART A

TECHNICAL INDICATORS AND PARAMETERS OF EQUIPMENT:

Vacuum pouring pot size $\Phi 2000 \times L2400$

The pumping speed of the main pumping pump of the vacuum system is 300L/S

Working temperature of pouring tank is 70 ~ 85

Ultimate vacuum degree of pouring tank (cold state, no load) $\leq 50\text{Pa}$

Pouring tank leakage rate $\leq 50\text{Pa} \cdot \text{L/S}$

The working vacuum of pouring tank is 50 ~ 100Pa

The equipment adopts manual metering and dynamic mixing of materials.

The equipment adopts vacuum casting process.

The mixing tank adopts electric heating, heat conduction oil as heat transfer medium and automatic temperature control. The

pouring tank is directly heated by electric heating element. All heating parts are insulated with thermal insulation materials, and the pouring tank is armored with stainless steel plate (SUS430); The mixing tank is armored with thin steel plate and coated on the surface. The surface temperature of the insulation layer is not higher than 20 °C room temperature.

EQUIPMENT POWER, WATER, AIR SOURCE AND BASIC CONDITION

REQUIREMENTS, (USER EQUIPPED WITH: POWER SUPPLY, AIR COMPRESSOR):

Rated power: 80kw, 380V, 50Hz, three-phase five-wire special distribution cabinet, power connected to the electric control cabinet.

Water source: pressure ≥ 0.2 Mpa, maximum consumption 3m³/h, water temperature ≤ 25 °C.

Compressed air: 0.4 ~ 0.6Mpa, maximum consumption of 0.3m³/min

Make foundation, steel frame and outer track of embedded tank according to our design drawings.

TECHNICAL CONDITIONS OF EACH SYSTEM

A SET OF 400L VACUUM MIXING DEGASSING TANK

Technical specification and application of tank

The effective volume is 400L

Heat conduction oil 10KW

Ultimate vacuum: 50Pa (no load, cold state)

No load leakage rate: 50Pa.L/S

Operating temperature: 60 ~ 80 °C

Tank surface temperature Ambient temperature +20 °C

Equipped with frequency control device, can adjust the stirring lifting speed according to the viscosity of the material;

Rock wool insulation, stainless steel plate (SUS430, 1.5mm thick) armored, surface coating

This tank is used for mixing epoxy resin and curing agent mixture and vacuum degassing.

The mixing tank is installed on the pouring master side of the vacuum pouring tank to increase production.

TANK BODY ACCESSORIES:

NO.	NAME	QTY
1	STAINLESS STEEL LINER BODY	1 SET
2	STAINLESS STEEL TAPERED STAMPED HEAD BASE	1 SET
3	REDUCER SEAT	1 SET
4	BEARING, DYNAMIC SEAL, ETC	1 SET
5	STAINLESS STEEL ANCHOR AGITATOR	1 PC
6	BUILT-IN FILM DEGASSING DEVICE	1 SET
7	MANUAL VACUUM SUCTION VALVE DN25	2 SETS
8	ILLUMINATION OBSERVATION DEVICE	1 SET
9	TEMPERATURE CONTROL SENSOR	1 SET
10	CAN LID SEAL RING	1 PIECE
11	PNEUMATIC DISCHARGE VALVE (STAINLESS STEEL DN50)	1 SET
12	STIRRING REDUCER	1 PC
13	VARIABLE FREQUENCY SPEED REGULATING DEVICE	1 PC
14	HEATING MEDIUM LEVEL DISPLAY DEVICE	1 SET
15	ELECTRIC HEATING ELEMENT	2 SETS
16	BIMETAL THERMOMETER	1 SET
17	SPARE FEED PORT (DN100)	1 SET
18	ACCELERATOR CHARGING PORT AND VALVE	1 SET

400L MIXING TANK:

VACUUM CASTING EQUIPMENT



4.2 A SET OF VACUUM POURING TANK (ATMOSPHERIC PRESSURE) SYSTEM Vacuum tank technical specifications and uses:

Horizontal tank inner wall size: $\Phi 2000\text{mm} \times 2400\text{mm}$

Ultimate vacuum: 50Pa (no load, cold state)

No load leakage rate: 50Pa.L/S

Operating temperature: 70 ~ 85 °C

Tank surface temperature: ambient temperature +20 °C

The casting supervisor adopts pneumatic ball valve for feeding, and can adjust the vacuum casting valve actually needed according to the number of products. The spare flange interface of the casting pipe is reserved for future upgrading.

The pouring tank is horizontal, the door of the tank is swung open on the side, and the tank body is of vacuum pouring tank structure. After the door is closed in place, the tank is clamped.

The vacuum casting process can optimize the casting process, increase the permeability of the material, and finally achieve the effect of reducing the release index of the product.

Lock the can card manually after the can door is closed in place.

The tank body is installed on the ground, and light rail and working trolley (reinforced) are provided in the tank.

The outer surface of the tank is heated by electric heating plate.

The height of the track inside the tank is flush with the track of the transfer trolley outside the tank (self-made by the user of the transfer trolley outside the tank), so as to facilitate the access of the trolley;

Rock wool insulation, stainless steel plate (SUS430) armored processing.

The tank body is provided with other interfaces to meet the technological requirements.

TANK ATTACHMENT

NO.	NAME	QTY
1	ILLUMINATION OBSERVATION DEVICE	6 SETS
2	FLANGE CONNECTION VACUUM POURING PORT ROW (DN16)	12
3	TEMPERATURE SENSOR	2PCS

4	SPECIAL-SHAPED SEAL RING FOR TANK DOOR	1 SET
5	MANUAL ROTATING CAN DOOR OPENING AND CLOSING MECHANISM	1 SET
6	TANK BEARING TROLLEY (6 TONS)	1 SET
7	BIMETAL THERMOMETER	1 SET
8	VACUUM POURING MAIN PIPE (DN50 WITH 12 SETS OF DN16 PIPES)	1 SET

VACUUM CASTING EQUIPMENT



CASTING TANK VACUUM UNIT



MIXING TANK VACUUM UNIT+

4.3 TWO SETS OF HEATING SYSTEM

4.3.1 Each unit of the equipment is controlled by an independent temperature control system, which is convenient for each unit to adjust the temperature. The mixing tank adopts heat transfer mode of heat conduction oil. The pouring tank is directly heated by Wuxi electric heating plate, automatic temperature control, overtemperature alarm, 63KW power, the highest heating temperature of 130 . The heating temperature of all the mixing tank heating system can be adjusted between normal temperature and 80 .

SYSTEM CONFIGURATION:

HEATING SYSTEM FOR 400L FINAL MIXING TANK:

NO.	NAME	QUANTITY
1	TUBULAR ELECTRIC HEATING ELEMENT (5KW)	2 SETS
2	DIGITAL DISPLAY TEMPERATURE CONTROLLER	1 SET
3	TEMPERATURE SENSOR	1 SET
4	WIRE AND CABLE	1 SET

HEATING SYSTEM FOR VACUUM POURING TANK:

NO	NAME	QUANTITY
1	ELECTRIC HEATING PLATE (0.5KW)	108 SETS
2	HIGH TEMPERATURE CONDUCTOR	600 METERS
3	TEMPERATURE CONTROL SWITCH	6
4	DIGITAL TEMPERATURE CONTROLLER	1 SET
5	PRESSURE PLATE	108 SETS
6	FIXED STUDS FOR RESISTANCE WELDING	216 SETS

4.4 TWO SETS OF VACUUM SYSTEM (A TOTAL OF 3 VACUUM PUMPS):

4.4.1. The maximum pumping speed of a rotary sheet Roots unit to the pouring tank vacuum unit is 300L/S. The working vacuum of the system can be controlled between 50-200Pa; Reduce the possibility of material being pumped into the vacuum system due to high vacuum degree; The system is equipped with 2 sets of special filters to prevent impurities in the pumped gas to the maximum extent and capture condensing condensable gas to protect the vacuum pump.

CONFIGURATION ATTACHMENT:

NO.	NAME	QUANTITY
1	VSV-300 ROTARY VANE VACUUM PUMP	1 SET
2	ZJP-300 ROOTS VACUUM PUMP	1 SET
3	PNEUMATIC VACUUM MAIN VALVE (DN150)	1 SET
4	ELECTROMAGNETIC CHARGING VALVE	1 SET
5	MANUAL CHARGING VALVE	1 SET
6	BELLOWS	1 SET
7	CONDENSING FILTER	1 SET
8	VACUUM FILTER	1 SET
9	DISC VACUUM GAUGE (Z-100)	1 SET
10	SEAMLESS TUBE VACUUM PIPE (DN150)	1 SET

SYSTEM CONFIGURATION ATTACHMENT:

NO.	NAME	QUANTITY
1	VSV-100 ROTARY VANE VACUUM PUMP	1 SET

2	PNEUMATIC VACUUM MAIN VALVE (DN50)	2 SETS
3	ELECTROMAGNETIC CHARGING VALVE	2 SETS
4	MANUAL CHARGING VALVE	2 SETS
5	BELLOWS	1 SET
6	CONDENSING FILTER	1 SET
7	VACUUM FILTER	2 SETS

8	DISC VACUUM GAUGE	2 SETS
9	SEAMLESS TUBE VACUUM PIPE	2 SETS

VACUUM UNIT:

CASTING TANK VACUUM UNIT MIXING TANK VACUUM UNIT

4.5. A SET OF AUTOMATIC CLEANING SYSTEM

4.5.1 The system includes: diaphragm pump, solvent tank, flow tank, pipeline, valve, vacuum meter, etc.

4.5.2 The system transmits the solvent to the mixing tank through the special solvent pumping pump;

4.5.3 Complete the automatic cleaning process by pouring pipeline and valve back to the solvent tank through the flow tank, valve and pipeline;

4.5.4 The solvent can is provided with discharge valve to discharge sediment regularly.

4.6. A SET OF COOLING WATER PIPING SYSTEM

The system includes cooling water pipes, valves, pressure gauges and other water points within the scope of the equipment.

The user shall connect the water supply and return water points within 5 meters of the equipment site.

NO.	NAME	QUANTITY
1	GALVANIZED WATER PIPE	1 SET
2	COPPER BALL VALVE	SOME PIECES
3	ELECTRIC CONTACT PRESSURE GAUGE	1 SET
4	SWITCH STOP VALVE	2 SETS

4.7. A SET OF PNEUMATIC PIPING SYSTEM

4.7.1. Used to provide power for pneumatic valves and cylinders. The user provides the air source within 5 meters of the equipment site. The supplier shall provide:

NO.	NAME	QUANTITY
1	TRIPLET	1 SET
2	TWO-POSITION FIVE-WAY VALVE	8 SETS
3	PIPING ACCESSORIES	1 SET

400L MIXING TANK:



4.8 A SET OF ELECTRONIC CONTROL SYSTEM (TOUCH SCREEN)

Function:

The control system is applicable to the ambient temperature of 0 ~ 40 , wiring, wiring, bridge layout in accordance with the international implementation.

Casting tank temperature, vacuum degree detection and digital display.

Touch screen control process, display the working state of each equipment unit.

Realize stirring motor control, pneumatic valve, solenoid valve control. ● Realize the interlock and interlock between the pump and valve of the vacuum unit.

The realization of air pressure, water pressure insufficient alarm device.

Mixing tank feeding by manual preparation, manual input into the mixing tank. ● It can be controlled by manual knob and touch screen.

4.9 OTHER TECHNICAL REQUIREMENTS

4.9.1. Rust removal, rust prevention and coating treatment on the surface of system components.

The external surface of each component of the heating system (except armored parts and purchased components) shall be warm red.

The outer surface of the electric control cabinet is sky blue

The outer surface of other parts (except armored parts and outsourced parts) and the equipment working platform are all industrial gray.

4.10 A SET OF STEEL FRAME PLATFORM FOR EQUIPMENT INSTALLATION (MATERIALS PROVIDED BY PARTY A AND MADE BY PARTY B)

The steel frame platform is used to install this set of equipment, and the steel frame is of 2-layer structure. The mixing tank is placed on the two-story steel platform. We provide the drawing and material list of the steel frame and its fabrication.

5. LIST OF ACCESSORIES AND SPARE PARTS

NO.	NAME	SPECIFICATION	QUANTITY
1	THE VACUUM PUMP COMES WITH ACCESSORIES	VSV-100	1 SET
2	TANK DOOR SEAL RING	VSV-300	1 SET
3	SEAL RING FOR VACUUM AND MATERIAL PIPELINE	ZJP-300	1 SET

4	MIXING TANK LID SEAL RING	Φ2400 (AVAILABLE IN 1 YEAR)	1 PIECE
5	ELECTRIC HEATING ELEMENT	VARIOUS GAUGES	1 SET
6	TEMPERATURE RESISTANCE	400L	1 ROOT
7	ILLUMINATION OBSERVATION LAMP		2 STICKS
8	OBSERVATION WINDOW		2 STICKS



Wuxi Jiachen Power Electronics Equipment Co., Ltd.



tangliang@jc-cores.com



jc-transformer.com

No. 68, Zhounan Road, Wanshi Town, Yixing City, Jiangsu Province, China