



Project Proposal

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Offer No: YC-20210214-002

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Hello Carlo,

Thanks for your inquiry, please check the below solution for you according to your requirements.

Model and Name	Brief Descriptions
YC-JY1200 (semi-auto control) Vacuum only Impregnation System	Tank size: inner diameter x depth 1200x2500mm. This equipment works only under vacuum condition, and controlled semi-automatically.



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**YC-JY1200 (Semi-auto Control) Vacuum only
Impregnation System**

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1. Brief description and characteristics



Description

This kind of equipment is mainly used for insulation treatment to electrical products, such as low/medium voltage motor, wind turbines, H-grade dry transformer, power capacitor and cable insulation materials, etc.

It also applies in material industry for modifying material and improving structure to achieve raising material performance. For example, through vacuum impregnation, increase compactness of graphite so to raise strength and resistance characteristic of graphite products.

Technology Advantages

- Easily evaporate moisture and air
- Residual water rate less than 10ppm, good insulation performance
- Good humidity resistance
- High dielectric property
- Impregnation can be reused to reduce environmental pollution
- Short impregnation time, good result

Working Principle

Firstly, load workpieces into a basket, lift the basket into the vacuum pressure tank by crane, evacuate the moisture and air from workpieces under vacuum condition. Then fill impregnation liquid into vacuum tank by pressure difference or pump.

Then take out workpieces, put into a special bake oven which is electric heated, automatic intelligent control.

Finally take out workpieces from drying oven, and the complete process is finished.

2. 【Equipment Components】



2.1	Vacuum impregnation tank	1 set
2.2	Varnish storage tank	1 set
2.3	Vacuum system	1 set
2.4	Hydraulic power unit	1 set
2.5	Varnish transferring and recycling system	1 set
2.6	Control system	1 set

3. 【Technical Specifications】

3.1. Vacuum impregnation tank



3.1.1. Basic configuration

- inner dimensions of the vacuum impregnation tank: $\Phi 1200 \times 2500$ mm, inner diameter * height on straight wall (cylindrical part)
- Effective depth (max. resin level in the tank): 2200mm
- tank is overall made of Q345-R material, and the tank brim flange is made of

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integral forming solid steel plate;



3.1.2. Structure: (vertical)

- The tank cover is opened/closed by hydraulic power unit with button control;
- Varnish transferring and recycling: from the bottom;
- Flange seal: corrosion resistance labiates seal ring (rubber), and spare parts are provided;
- Installed with liquid level indicator, which clearly displays the liquid level in the tank.
- Sight glass with illumination is installed, and user can closely watch the whole process of impregnation.

3.1.3. Technical specs:

- Working vacuum degree: **-0.098Mpa**
- 1~2 sets of iron baskets for loading workpieces

3.2. Varnish storage tank



3.2.1. Basic configuration

- Inner dimensions: $\phi 1200 \times 2500$ mm(diameter*height).

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- made of Q235A steel plate of national standard;

3.2.2. Structure

- Manholes are designed on the tank cover for easy cleaning;
- Liquid level controller is installed on the tank to display varnish level in the tank;
- Varnish sampling opening is designed in it for easy getting varnish sample

3.2.3. Technical spec

- Working vacuum degree: -0.095Mpa



3.3. Vacuum pump



3.3.1. Basic configuration

- Composed of VSV-200 Rotary Vane Pump, vacuum pipelines, control valve and etc;
- There's a vacuum buffer in front of the vacuum pump in size of $\phi 280 \times 500$ mm. Air is vacuum buffered in pipelines and auxiliary valves, so that solvent will not go into the vacuum pump. And the service life of the pump can be guaranteed;



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3.3.2. Technical spec

- power of VSV-200 rotary pump



MODEL			VSV-200
Displacement speed		m³/h	200
Ultimate pressure	Without gas ballast	mbar	$\leq 8 \times 10^{-2}$
Ultimate total pressure	With gas ballast I	mbar	≤ 0.5
	With gas ballast II	mbar	≤ 1.5
Water vapor tolerance	With gas ballast I	mbar	30
	With gas ballast II	mbar	50
Noise level (Lw)		dB	≤ 70
Power supply			3-Phase
Power rating		KW	4
Motor speed (50/60Hz)		rpm	1440/1720
Ambient temperature		°C	10-40
Oil capacity		L	5~7
level of protection			IP54
Intake and exhaust			G2"
Net weight		Kg	143
Dimension (L*W*H)		mm	930×533×436



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3.4. Hydraulic power unit

3.4.1 Basic configuration

- It's composed of hydraulic station, oil tank, reversing valve, no-touch approach switch and meters;
- It controls the opening, closing operation of the vacuum tank cover

3.4.2 Technical spec

- Power of hydraulic station: 0.75KW;
- Max. pressure 16Mpa, working pressure 10Mpa

3.5. Varnish transferring and recycling system

- Varnish loading and returning between impregnation tank and storage tank is realized through pressure differential method;
- There is a filter of $\phi 380 \times 500$ mm on varnish pipelines between impregnation tank and varnish storage tank. Impurities can be filtered in the process to guarantee the quality

3.6. Control system

- Electrical control cabinet is designed to control the whole system;
- Tank cover opening/closing and vacuum pump on/off are controlled with buttons.
- Vacuum degree is detected by high precision vacuum sensor, and the values are displayed on the digital vacuum meter;
- Major valves are manually controlled;



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Major part list

No.	Name	Qty	Origin
1	Vacuum impregnation tank	1 set	Yicheng
2	Varnish storage tank	1 set	Yicheng
3	Vacuum pumps	1 set	Value pump, Zhejiang, China
4	Valve system	15 sets	Yongyi, China
5	Hydraulic power unit	1 set	Jiangyin, China
6	Control cabinet	1 set	Yicheng
7	Vacuum sensor	1 set	Youding, Shanghai, China
8	Electrical components	1 set	Schneider

Summary of specifications

Items	Specifications
Vacuum dipping tank size	Diameter * depth 1200*2500mm
Resin storage tank	Diameter * depth 1200*2500mm
Vacuum degree for dipping tank	-0.098Mpa
Vacuum system power	4 KW
Hydraulic station power	0.75 KW
Power supply	3-Phase, 380-400V, 50Hz
Total installed power	5 KW

Commercial terms

Name	Model	Qty.	Price (USD)
Semi-auto control Vacuum only Impregnation System	YC-JY1200 (1200*2500mm)	1 set	\$ 15,500
Packing cost			included
Inland shipping cost from factory to Shanghai port			included
Shipping freight from Shanghai to Italy			Not included
Total amount (FOB Shanghai)			USD \$15,500

Production lead time	25 working days since the date of receiving deposit
Payment terms	30% deposit by T/T, 70% by T/T before delivery and after pre-acceptance
Warranty period	13 months since date of bill of lading, life-long service
Packing	With standard sea worthy exportable packing
Commissioning & installation	VI system normally doesn't require on-site service from seller. Buyer can finish installation and commissioning work by themselves with seller's instructions.



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Our Major customers

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 <p>USA</p>	 <p>USA</p>	 <p>Germany</p>
 <p>Germany</p>	 <p>Austria</p>	 <p>UK</p>
 <p>Norway</p>	 <p>Slovenia</p>	 <p>Portugal</p>
 <p>Singapore</p>	 <p>Turkey</p>	 <p>Turkey</p>
 <p>Turkey</p>	 <p>Turkey</p>	 <p>Turkey</p>
 <p>Russia</p>	 <p>Russia</p>	 <p>Ukraine</p>
 <p>Guatemala</p>	 <p>Trinidad and Tobago</p>	 <p>Algeria</p>
 <p>Thailand</p>	 <p>Saudi Arabia</p>	 <p>UAE</p>

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 <p>China</p> <p>(CNR Group, China North Locomotive and Rolling Stock Industry (Group) Corporation)</p>	 <p>China</p> <p>NIO (Weilai) Electric car company. No 1 electric car maker in China</p>	 <p>China</p> <p>(AVIC Beijing Institute of Aeronautical Materials, established in 1956)</p>
 <p>China</p> <p>(Beijing railway engineering electromechanical technology research institute)</p>	 <p>China</p> <p>(GUANGTAI Group is one of the leading Ground-based Support Equipment manufacturers in the world)</p>	 <p>China</p> <p>(China Youngman Automobile Group Co., Ltd.)</p>
 <p>China</p> <p>(ECRIEE-TAMURA Group, a Sino-Japanese joint venture)</p>	 <p>China</p> <p>(Beijing Institute of Technology. A world-class university)</p>	 <p>China</p> <p>(No 1 Maritime university in China)</p>

Thank you for your inquiry and we would be pleased to receive your order soon.

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