科技创新　智能可靠　值得信赖

Innovative　Intelligent　Reliable

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Vactec 厦门维克机械设备有限公司
XIAMEN VACTEC EQUIPMENT CO.,LTD

For MRI Coils

For Wind Power Blades

For Automobile Industry

For MV and HV Electric Insulators

For Metal Indentification and Sorting

专业智能装备制造商

Professional Intelligent Equipment Manufacturer

Company Brief Information

Xiamen Vactec Equipment Co., Ltd

mainly focus on tailor-making the special advanced intelligent equipments according to customer's wish.

- **Epoxy resin vacuum mixing and casting equipment**
- **Vacuum infusion equipment for wind power blades**
- **Intelligent metal identification and sorting equipment**

Our company

- was established in 2005, with more than 10 years' experience on the equipment design, manufacture and service.
- has own building, covers an area of about 10000m^2, and has about 100 employees, consists of departments for sales, after-sale service, project, R & D, quality control, production, finance, procurement, etc.
- has got many technical patents, qualification certifications and honors.
- has a high brand awareness in home and abroad
- has superior location and convenient traffic, located in Xiamen Jimei Industrial Zone, which is about 15KM far away from the Xiamen International airport, about 5KM far away from Xiamen High-speed Railway North Station and express-way entrance, about 25KM far away from the Xiamen sea-port.

Our Equipments:

- has high technical quality , good appearance, advanced technology and control software.
- can effectively improve products quality, production efficiency, and significantly reduce operating costs (reduce the electric power, manpower, raw materials consumption, maintenance cost, pollution discharge, etc.)
- many sets of high-quality equipments has been exported to Korea, Japan, Turkey, Vietnam, India, Malaysia, etc.

Company building

Workshop

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Application Industry

Electric Power

Automobile Industry

Low-voltage electronics

Medical device

Wind power blades

- Vacuum infusion
- Hand past mixing
- Structural adhensive coating

Metal identification

- Ores pre-separation
- Ores precise separation
- Metal recycling
- Recovery of metal resources

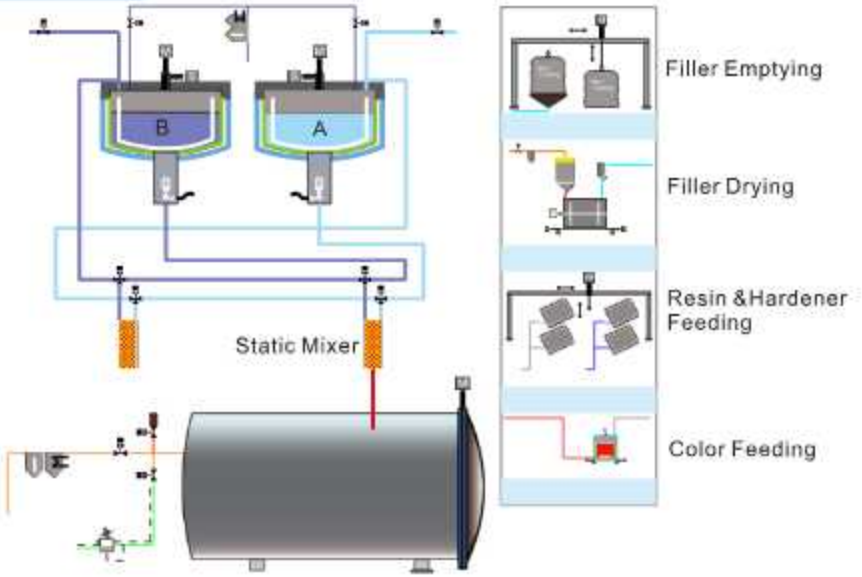
Others

- Aerospace
- Ship
- Laboratory
- Nuclear power
- Military industry
- Carbon fiber composite material

Vacuum Casting Equipment(Static Mixing)

Applications: 10-110KV dry-type transformers, reactors, etc.

Flow chart



Main design

Parts	Specification	Features
Raw material Filling	-Automatically filling by vacuum or feeder pumps, weight controlled by electronic balance or flow meter.	-Easy and dust free operation; -Use big bag filler emptying device, and filler vacuum drying.
Preparation mixers	-Mixer useful volume：100~600liters -Temperature: ~90°C -Vacuum：0.1mbar	-Batch mixer thin-film degassing; -On-line fast degassing and mixing: raw material continuous feeding, fast pre-mixing and also casting at the same time; -Mixer liquid level measuring.
Dosing pumps	-Ceramic piston type; -The casting speed 1~15kg/min; -Driven by servo motor, the mix ratio and the dosing speed can be set on screen; -Can use double sets of dosing pumps. to increase the casting speed or for two casting tanks.	-High quality precision ceramic dosing piston, with long service life (3 years or 1.5 million strokes); -On-line dosing accuracy supervision, to guarantee the right mixed resin cast into moulds.
Way of mixing	-Flow static mixing -Mix ratio: 100: 50~100	-Fast disassembly for maintenance; -Can be emptied fully.
Casting tank	-Inner dia.1800~3500mm,length 2000~5000mm; -Rectangular casting tank; -Temperature：-120°C -Ultimate vacuum：0.1mbar	-Tank door can be moved to the side or to the top; -Enough sight glasses for viewing all casting areas; -There are vacuum condensers and filters to protect the vacuum pumps.
Casting valves	-Use one casting valve, under it with 10~24 nozzles driven by servo motor for positions. -Manually or automatically casting.	-Easy maintenance; -Easy to adjust or increase the quantity from 1 to 50 valves; -Can be emptied fully.
Electric control	-All the process automatically controlling.	-Remote trouble shooting via internet. -ERP/MES system management.

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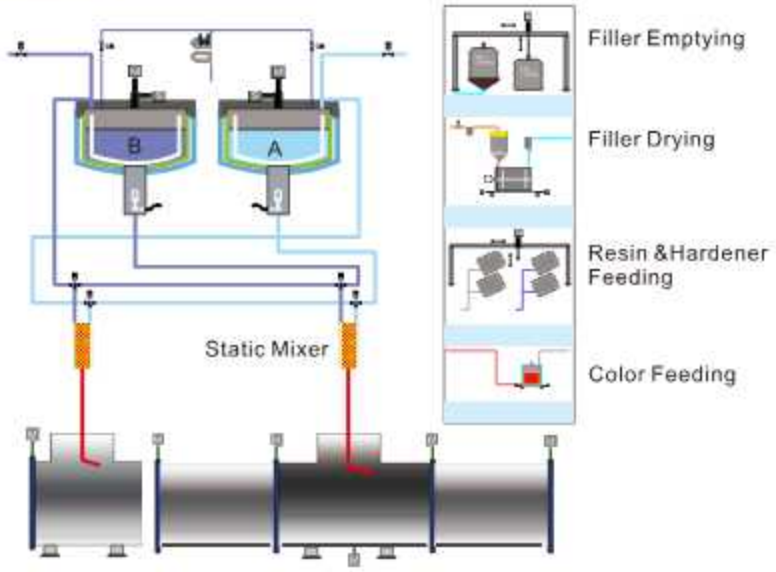
Vacuum Casting Equipment(Static Mixing)

Applications: 10-110KV CT/PT, MV insulators, etc.

Flow chart





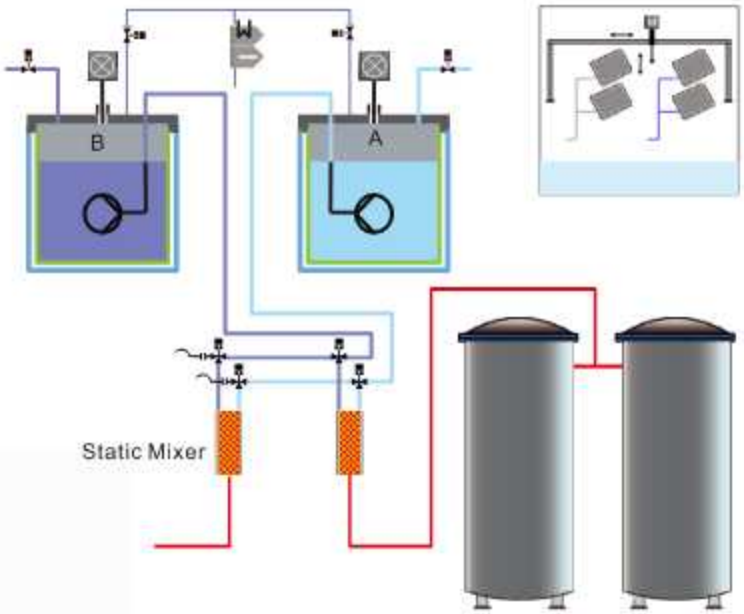

Main design

Parts	Specification	Features
Raw material Filling	-Automatically filling by vacuum or feeder pumps, weight controlled by electronic balance or flow meter.	-Easy and dust free operation; -Use big bag filler emptying device, and filler vacuum drying.
Preparation mixers	-Mixer useful volume：100~600liters -Temperature: ~90°C -Vacuum：0.1mbar	-Batch mixer thin-film degassing; -On-line fast degassing and mixing: raw material continuous feeding, fast pre-mixing and also casting at the same time. -Mixer liquid level measuring.
Dosing pumps	-Ceramic piston type; -The casting speed 1~15kg/min; -Driven by servo motor, the mix ratio and the dosing speed can be set on screen. -Can use double sets of dosing pumps to increase the casting speed or for two casting tanks.	-High quality precision ceramic dosing piston, with long service life (3 years or 1.5 million strokes); -On-line dosing accuracy supervision, to guarantee the right mixed resin cast into moulds.
Way of mixing	-Flow static mixing -Mix ratio: 100: 50~100	-Fast disassembly for maintenance; -Can be emptied fully.
Casting tank	-Use round type or rectangular casting tank, or 3-chambers; -Temperature：~120°C -Ultimate vacuum：0.1mbar	-Tank door can be moved to the side or to the top; -Enough sight glasses for viewing all casting areas; -There are vacuum condensers and filters to protect the vacuum pumps.
Casting valves	-Use one casting valve, driven by two servo motors and robot arms for positions. -Manually or automatically casting.	-Easy maintenance; -Can be emptied fully to prevent blocking.
Electric control	-All the process automatically controlling.	-Remote trouble shooting via internet, -ERP/MES system management.


Vacuum Casting Equipment (Static Mixing)

Applications: 110-1100KV dry type insulation bushings

Flow chart

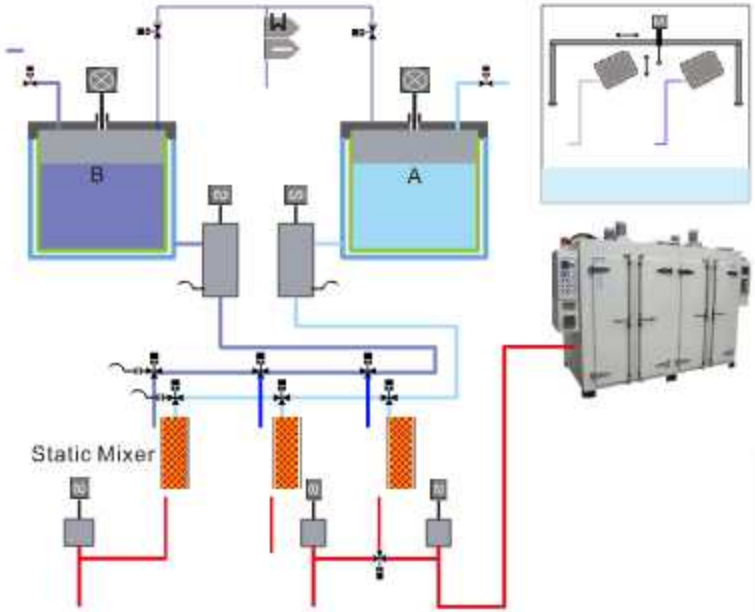


Resin &Hardener Feeding

Resin VPG injection equipment (static mixing)

Applications: 110-1100KV insulation operation bars

Flow chart



Resin &Hardener Feeding

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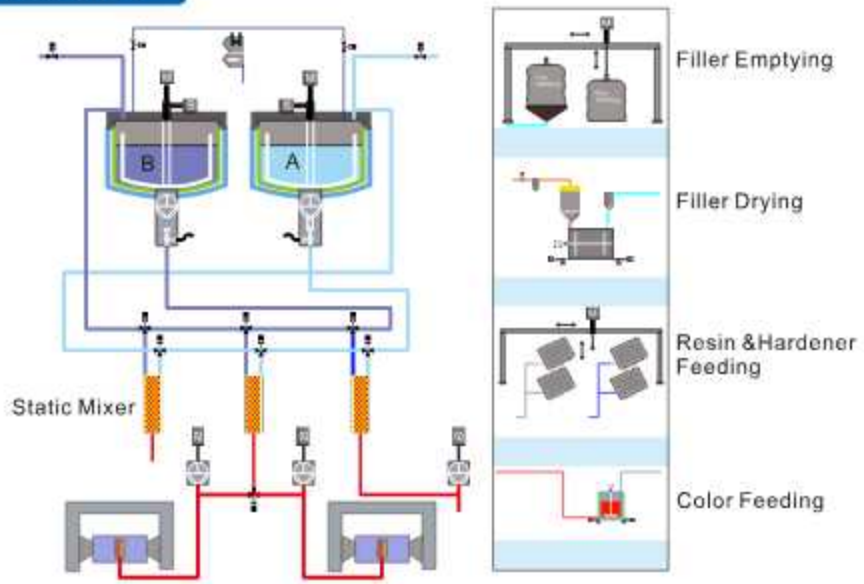
Automatic Pressure Gelation (APG) Vacuum Mixing And Dosing Equipment

Applications: 10-110KV embedded poles, insulators, transformers,cable joints accessories, etc.

Flow chart



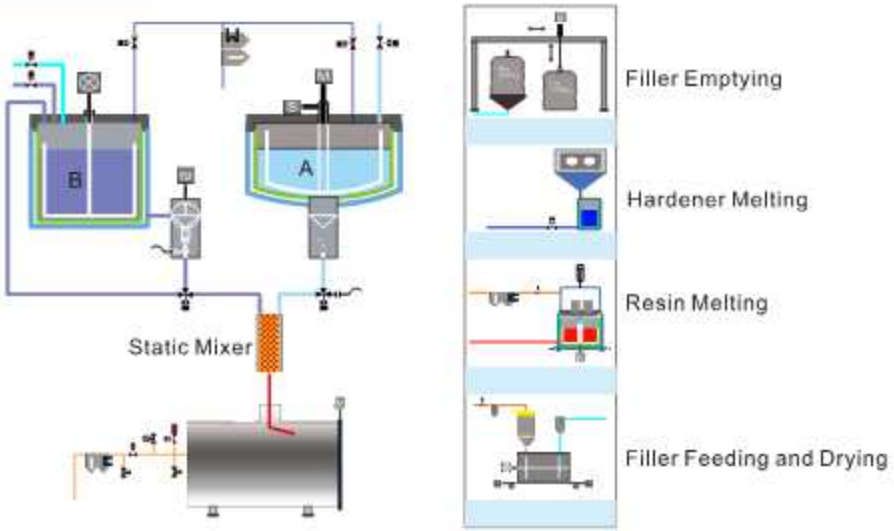
Main design

Parts	Specification	Features
Raw material Filling	-Automatically filling by vacuum or feeder pumps, weight controlled by electronic balance or flow meter.	-Easy and dust free operation; -Use big bag filler emptying device, and filler vacuum drying.
Preparation mixers	-Mixer useful volume：100~600liters -Temperature: ~90°C -Vacuum：0.1mbar	-Batch mixer thin-film degassing; -On-line fast degassing and mixing: raw material continuous feeding, fast pre-mixing and also casting at the same time; -Mixer liquid level measuring.
Dosing pumps	-Ceramic piston type; -The casting speed 1~15kg/min; -Driven by servo motor, the mix ratio and the dosing speed can be set on screen. -Can use double sets of dosing pumps to increase the casting speed or for two casting tanks.	-High quality precision ceramic dosing piston, with long service life (3 years or 1.5 million strokes); -On-line dosing accuracy supervision, to guarantee the right mixed resin cast into moulds.
Way of mixing	-Flow static mixing -Mix ratio: 100: 50~100	-Fast disassembly for maintenance; -Can be emptied fully to prevent blocking; -Can use more static mixers for several APG machines.
Injection	-Injection vessel: 1-60 liters; -Injection pressure: max. 10bar.	-APG moulds can can be injected at the same time; -Driven by servo motor, automatically controlling the injection speed, amount, pressure.
Electric control	-All the process automatically controlling.	-Remote trouble shooting via internet. -ERP/MES system management.

Solid Resin Vacuum Casting Equipment(Static Mixing)

Applications: 110-1100KV HV switchgear insulators, HV cable joint accessories, etc.

Flow chart



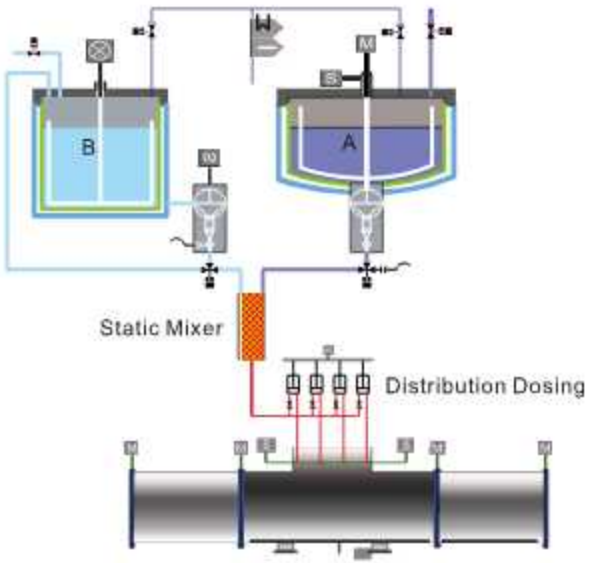
Main design

Parts	Specification	Features
Material filling and Preparation	-Resin melting vessel: 60~200L, 150° C, 1mbar; -Hardener melting vessel: 30~100L, 160°C; -Filler sack emptying and drying: 100~800L, 150°C, 1mbar; -Resin pre-mixer: 60~200L, 150°C, 1mbar;.	- Filter for each material, use magnetic filter for filler; - Batch mixer preparation; -On-line degassing and mixing; -Cooled condenser for protect the vacuum pumps.
Dosing pumps	-Resin use ceramic piston; -The casting speed 0.5~15kg/min; -Driven by servo motor; -Can use double sets of dosing pumps to increase the casting speed or for two casting tanks.	-High quality precision ceramic dosing piston, with long service life; -On-line dosing accuracy supervision, to guarantee the right mixed resin cast into moulds.
Way of mixing	-Flow static mixing -Mix ratio: 100: 30~50	-Fast disassembly for maintenance; -Can be emptied fully to prevent blocking.
Casting tank	-Can use one casting chamber, 2 chambers or 3 chambers continuous casting; -Temperature: ~150°C -Ultimate vacuum: 0.1mbar	-Tank door can be moved to the side or to the top; -Enough sight glasses for viewing all casting areas; -There are vacuum condensers and filters to protect the vacuum pumps.
Way of casting	- Use one casting valve; -Manually or automatically casting.	-Can choose nozzle driven by robot arm ; -Can choose rotary nozzle or moving nozzle and the cart driven by motor. -Can choose moulds automatic positioning and casting, controlling casting weight.
Electric control	-All the process automatically controlling.	-Remote trouble shooting via internet. -ERP/MES system management.

Vacuum Potting Equipment

Applications: ignition coils or FBTs,sensors, capacitors,etc.

Flow chart



Main design

Parts	Specification	Features
Preparation mixers	-Useful volume：30~300liters -Temperature: ~120°C -Vacuum：0.1mbar	-Batch mixer thin-film degassing; -On-line fast degassing and mixing; raw material continuous feeding, fast pre-mixing and also casting at the same time; -Mixer liquid level measuring.
Dosing pumps	-Resin use ceramic piston; -The casting speed 0.5~10kg/min; -Driven by servo motor.	- High quality precision ceramic dosing piston, with long service life; -On-line dosing accuracy supervision, to guarantee the right mixed resin cast into coils.
Way of mixing	-Flow static mixing.	- Easy to realize the automatically controlling of all the processing, from filling raw material until casting to the coils.
Distribution dosing cylinders	-Servo motor drive, exactly control the casting speed and amount. -Min. casting amount 1 gram.	-On-line mix ratio supervision, to guarantee the right mixed resin cast into coils; -Several nozzles casting at the same time.
Casting tank	-Design one chamber, or 3 chambers.	-Servo motor drive belt, the pallet move smoothly and precisely position. -Design with two pneumatic doors for automatically flow line casting.
Casting valves	-Electric-pneumatic controlled.	-Automatically adjust positioning on front/back and height, more coils can be put in pallet; -Easy design of pallet, saving cost.
Electric control	-All the process automatically controlling.	-Remote trouble shooting via internet. -ERP/MES system management.

Vacuum Infusion Equipment For Wind Power Blades

Integrated Vacuum Mixing and Infusion Equipment

No.	Content	Specification
1	Output	1 ~ 50kg / min
2	Filling	Automatic
3	Degassing	Instant infusing after high vacuum online degassing, the surface of the blade is smooth after curing, no need to repair .
4	Dosing	Servo motor-driven dosing pumps,synchronization and mix ratio supervision, if the dosing error is out of tolerance,it will alarm and stop infusing.
5	Temperature	Mixture temperature controlling range is 25 ~ 30°C
6	Mix ratio	Mix ratio error A: (B ± 1), range 100: 20 ~ 60
7	Mixing method	2 static mixers, no cleaning required after infusion.
8	Infusion method	Can save 5% of raw materials by means of buffer bag automatically controlling infusion speed and weight.
9	Electrical control	All the process automatically controlling,remote trouble shooting via internet.
10	Moving way	Equipped with integrated base and wheels, closed frame. the whole equipment can be towed by crane, forklift, trailer.




Structural Adhesive Coating Machine (or Bonding Machine)

No.	Content	Specification
1	Output	1 ~ 20kg / min
2	Filling	Use two A buckets and one B bucket
3	Dosing	Servo motor-driven dosing pumps,synchronization and mix ratio supervision, if the dosing error is out of tolerance,it will alarm and stop infusing.
4	Temperature	Mixture temperature controlling range is 20 ~ 30°C
5	Mix ratio	Mix ratio error A: (B ± 1), range 100: 40 ~ 60
6	Mixing method	1 static mixer, which can be fast disassembled to replace or use monocomponent resin to flush.
7	Discharge outlet	Can be automatically lifted and dropped,height of the outlet away from the ground is 3.5m ~ 4.2m
8	Electrical control	All the process automatically controlling.
9	Moving way	Equipped with integrated base and wheels, electric motor-driven traction. the whole equipment can be towed by crane, forklift, trailer.

Hand Paste Mixing Equipment

No.	Content	Specification
1	Output	1 ~ 10kg / min
2	Filling	Automatic
3	Storage tanks	A/B storage tanks are equipped with liquid level measuring,can be equipped with vacuum.
4	Dosing	Servo motor-driven dosing pumps,synchronization and mix ratio supervision, if the dosing error is out of tolerance,it will alarm and stop infusing.
5	Temperature	Mixture temperature controlling range is 20 ~ 30°C
6	Mix ratio	Mix ratio error A: (B ± 1), range 100: 20 ~ 50
7	Mixing method	1 static mixer, no cleaning required after infusion.
8	Coating method	Manually coating and soaking, or equipped with glass fabric feeding, cutting, conveying and receiving system, automatically coating.
9	Electrical control	All the process automatically controlling.
10	Moving way	Equipped with integrated base and wheels, the whole equipment can be towed by crane, forklift, trailer.


Intelligent Metal Identification And Sorting Equipment:X-ray Separator

Ores technology process

Ore sorting solution

- **Pre-separation**: ores can be separated into high-grade ores, low-grade ores and waste. more than 70% of waste can be abandoned , greatly reducing the production and operation costs on transportation, grinding, flotation and other processes, reducing tailings inventory and environmental pollution.
- **Utilization of lean ore or tailings slag**: lean ore or tailings slag recognition and separation, improving the ore grade and increasing the value of marginal ore body.
- **High-grade ore**: identification and precise selection of multi metals.

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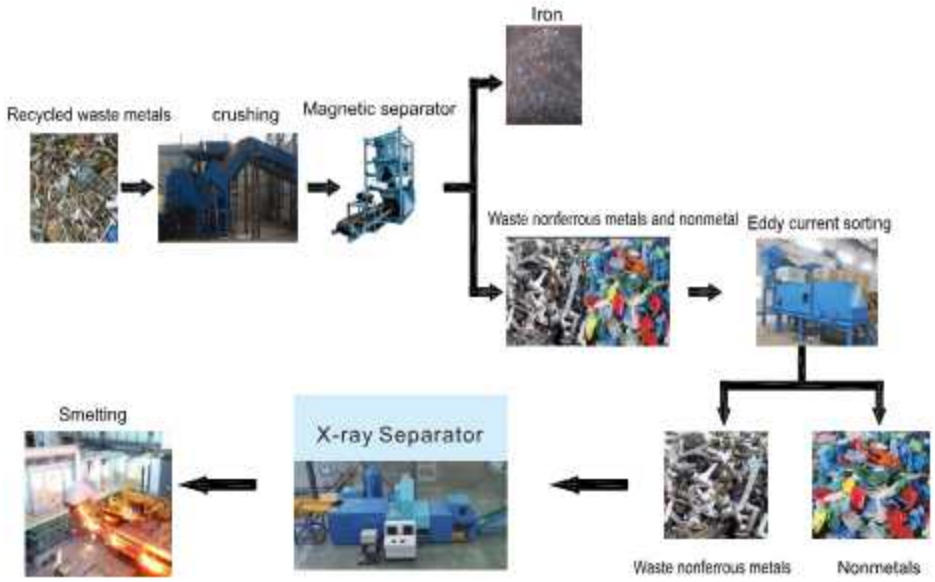
Technology process of metal recovery



Metal recovery solution

The recycled waste metals are supplied to magnetic separator after being crushed into pieces of a certain size, the iron are separated out.The remaining nonmetals and waste nonferrous metals are supplied to eddy current sorting equipment, the nonmetals are separated out, the waste nonferrous metals are supplied to X-ray separator ,they are separated into target product and waste, and target product are used for smelting into secondary metal .

Intelligent Metal Identification And Sorting Equipment:X-ray Separator

General description

X-ray Separator is developed and manufactured by Xiamen Vactec Equipment CO.,LTD. .Our company have completely Independent Intellectual Property Rights. X-ray Separator is widely used in the mining industry and recovery of metal resources industry.

X-ray Separator can be used for the pre-separation and refinement of various ores including lean ores or tailings, and for recycling of waste metals. It can improve production efficiency, greatly reduce operating costs,fully recycle limited resources,has high economic value and is good for environmental protection.

Equipment Features

--Dry sorting: no water, no chemical solvent emission pollution, environmental protection;
--Accurate recognition: positioning and analyzing by means of high-intensity X-rays, 3D industrial cameras, signal enhancement and so on , and making use of advanced AI algorithm to further improve the recognition accuracy, no need to sort again.
--High efficiency : system software integration improves identification accuracy and ejection efficiency.
--Wide range of application: It can be used for separating various ores or metals by adjusting process parameters.
--Economical: only power required, and the power consumption is about 10 kw / h.

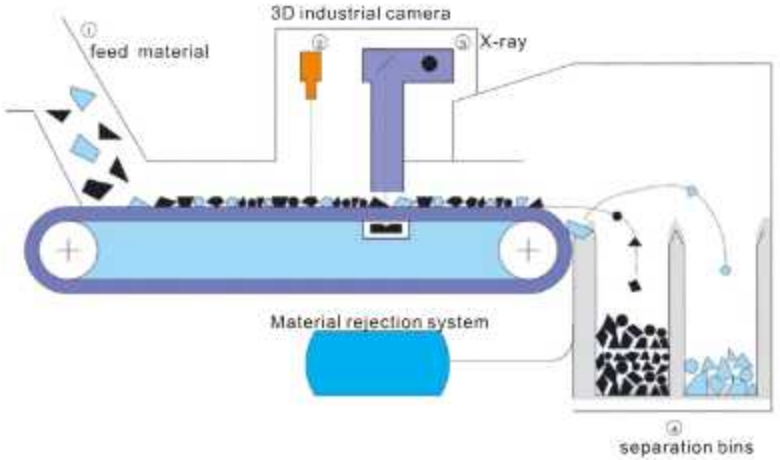
Equipment performance

- Capacity : 50 ~ 200 tons / h;
- Feed size: 20 ~ 200mm;
- Metal separation accuracy is 99%;
- Ores separation accuracy is 98%;
- Ore precise separation accuracy is 95%.

Working principle

The crushed feed meterial is supplied to the vibrating chute ,where individual rocks are separated before falling on the horizontal belt conveyor. at the end of belt they enter the X-ray analyzing unit.In this area,different rocks are analyzed and registered.

The rocks are measured by the X-ray analyzing system,which is operated by the control system on an industrial PC ,making use of an advanced AI algorithm and selected separation criteria,each partical can be automatically identified and registered .the separation is performed by material rejection system where different rocks can be ejected into the corresponding bins.



Applicable materials

- Ores: Copper, Lead, Zinc, Molybdenum, Tungsten, Tin, Nickel, Vanadium, Titanium, Gold, etc.
- Non-ferrous metals: Copper, Aluminum, Lead, Zinc, Magnesium, Molybdenum, Nickel, Titanium, Silver, etc.

Images of metal under X-Ray

Equipments For Laboratory And Carbon Fiber Composite Material

Equipments For LV Coils End-seal,Aerospace,Nuclear Power And Military Industry