ZS/FS Series Square Sieve
ZS/FS型振动筛

概 述 Description

本机是目前国内使用较为广泛的高效筛分设备，它采用振动原理实现物料大批量筛选，该机可广泛应用于冶金、化工、制药、粮食等行业。

This machine is high effective sieving equipment used wide in China now. It adapts the principle of vibration to realize the sieving of plenty of raw materials. It is wide used for metallurgy industry, chemical industry, pharmaceutical industry, grain industry and so on.

结构特征

本机由料斗、振荡室、联轴器、电机组成。振荡室内有偏心轮、橡胶软垫、主轴、轴承等组成。可调节的偏心重锤经马达驱动传达到主轴中心线，在不平衡状态下，产生离心力，使物料强度改变在筛内形成轨道旋涡。重锤调节器的振幅大小可根据不同物料和筛网进行调整。

整机结构紧密、体积小、不扬尘、噪音低、质量高、能耗低、移动、维修方便。

Structural features

Themachineconsistsofhopper,vibrationchamberandcouplingandmotor. Thereareeccentricwheel,rubbersoftparts,mainshaftbearingandsoon.The adjustableeccentricweightcandrivetothecentrallineofmainshaftthrough motor.Undertheunstablestate,itproducescentrifugalforcethatmakesraw materialformvortexinthesieve.Thesizeofamplitudeofeccentricweightcan beregulatedinaccordancewiththedifferentrawmaterials. Thewholestructureofmachineiscompact,smallinvolume,nodust,lowin noise,lowinenergyconsurne,convenientinmovingand maintenance.

技术参数 Technical parameters

型号 Model	生产能力 Production capacity (kg/h)	过筛目数(目) (Mesh)	电动功率 Power of motor (kw)	主轴转速 Revolution of main shaft (r/min)	外形尺寸(毫米) Overall dimensions (mm)	净重 Net weight (kg)
ZS-365	60～500	12～200	0.55	1380	540×540×1060	100
ZS-515	100～1300	12～200	0.75	1370	710×710×1290	180
ZS-650	180～2000	12～200	1.50	1370	880×880×1350	250
ZS-800	250～3500	4～325	1.5	1370	900×900×1200	350
ZS-1000	300～4000	5～325	1.5	1370	1100×1100×1200	500
ZS-1500	350～4500	5～325	2	1370	1600×1600×1200	750

特 点 Features

本机上部采用快拆式手柄，把整机连成一个整体，上盖全密封、有效防止物料在过筛时由于振动而产生粉尘飞扬。筛体下部安装振动电机，有效保证了物料的结构紧凑，下部采用弹簧减振，使整机在平稳状态下工作。下面底座采用可调式，可调节正在过筛时的筛面倾斜角度，根据物料特性以取得最佳过筛效果。

It adapts quick disassembling handle at the upper part of this machine. The handle connects the machine as the all and the one. Its upper cover is seal fully. Therefore it prevent from the dust flying caused by vibration during the period of sieving. The vibration motor is installed under the sieve. Mean while it adapts spring to reduce vibration. So the machine will operate at stable state. The stand is adjustable, so the inclined angel of sieve that is sieving can be adjusted. The best sieving effect can be got..

技术参数 Technical parameters

型号规格 Model and specifications	功率 Power (kw)	筛面倾斜 Inclined angle of sieve surface	电压 Voltage (v)	筛面层数 Layers of sieve surface	过筛目数(目) (Mesh)	外形尺寸 Overall dimesion (mm)	重量 Weight (kg)	产量 Output (kg/h)
FS0.6×1.5	0.4×2	0° ~45° 可调 0° ~45° adjustable	380	1～4	6～120	1500×700×700	550	150～1500
FS0.65×2.0	0.4×2	0° ~45° 可调 0° ~45° adjustable	380	1～4	6～120	2100×750×780	650	160～2000

注 表中产量因物料比重目数差异其产量仅供参考。
Notes:The output listed in the table is for reference only because of the difference of the specific gravity and mesh.

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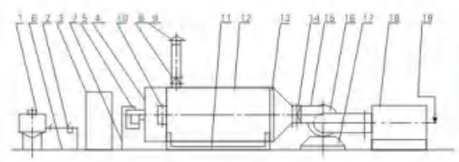
RLY Series Fuel Oil, Gas Hot Air Furnace
RLY 系列燃油、燃气热风炉

原 理 Principle

燃料通过燃烧器燃烧，产生高温燃气。并借助具有强化换热措施的热风炉将高温燃气的热量传导给被加热的空气，高温燃气经热量散发后温度降低至250℃后排到大气中。需加热的空气通过选配的鼓风机强送入热风炉，吸热后温度升至额定值从热风出口处送出，当热风温度达到额定温度上限时，燃烧器会自动停止燃烧或自动转为小火焰燃烧，当热风温度降低到额定下限温度时，燃烧器又会重新点燃运行或转为大火燃烧，升温的速度可以调节进风阀的开度来实现。

The fuel is burnt at firebox and the high temperature is produced. The quantity of heat will conduct to air to be heated through heat exchange device. Through heat exchange, the temperature of air is dropped to less than 250℃ and the air will be discharged. The air to be heated is sent to hot air furnace through distribution blow fan. After absorbed heat to the rated value, the air will be sent from the vent of hot air. When the temperature of hot air reaches the rated upper limit, the burner can stop or turn to small fire automatically. When the temperature of hot air drops to the rated low limit, the burner can burn or turn to big fire automatically.

流程图 Flow chart



1.储油槽 2.总视油器 3.控制箱 4.燃烧器 5.燃烧器座 6.油管 7.进油管 8.烟囱 9.雨帽 10.热风出口 11.机座 12.热交换器 13.进风盖 14.软接管 15.接管 16.送风机 17.风机减震座 18.空气过滤器 19.冷空气进入

(1)oil tank (2)oil filter of master valve (3)control panel (4)burner (5)seat of burner (6)oil pipe (7)pipe of oil inlet (8)chimney (9)rain cap (10)outlet of hot air (11)seat (12)heat exchanger (13)cover of air inlet (14)flexible pipe (15)joint pipe (16)fan (17)vibration absorbing seat of fan (18)air filter (19)inlet of cool air

应 用 Application

广泛应用于制药、化工、食品、纺织印染、粮食加工、木材加工、汽车等工业领域各种产品的干燥、固化、热定型等作业。

It is wide used for heating, damp removing of pharmaceutical industry, foodstuff, textile, printing and dyeing, food, grain processing, atuomobile and so on.

技术参数 Technical parameters

型号 Model	燃烧器的型号	燃油量 (kJ/h)	供热量 (m^3/h)	外型尺寸 LxWxH (mm)	热风 LxH (mm)	总重 (kg)
RLY1	QYC5	1.3-1.6	1	1000x1000x1600	Ø200	150
RLY4	QYC5	5-6.5	4	1700x1000x1600	140x160	1100
RLY10	Y1	13-16	10	2100x1300x1600	180x200	1970
RLY20	YL3	26-32	20	2800x1400x1700	200x250	2260
RLY30	YL3	39-48	30	3400x1500x1800	250x300	3160
RLY40	YL3	52-64	40	4020x1700x1900	300x400	4750
RLY60	YL7	78-96	60	4800x1900x2100	400x500	5650
RLY100	YL8	130-160	100	5400x2100x2300	550x650	6550
RLY200	YB10	260-320	200	6000x2500x2400	750x900	7980
RLY360	YB11	468-720	360	7200x2900x2600	900x1200	9860

注 油的热值以11000Kcal/Kg计算。

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JRF Series Coal Combustion Hot Air Furnace
JRF 系列燃煤热风炉

应 用

该炉为通用性热风装置，与各种物料的干燥设备配套使用。广泛用于粮食、种子、饲料、果品、脱水蔬菜、香菇、木耳、银耳、茶叶、烟叶等农产品、食品、医药品、化工原料、轻重工业产品的加热除湿，还可用于各种设施的加热以及库房除湿等。

Application

The furnace is the versatile hot air equipment.It is used with other equipment for drying various materials. The furnace is widely used for the heating and moisture removing for the grain, seed, feed, fruit , dewatering vegetable, mushroom,edible fungus, tremella, tea, tobacco leaf, other farming products, food, medicine,chemical raw material, light and heavy industry products.

特 点

采取了耐高温措施，使其寿命比列管式热风炉大大延长，并采用烟气纵向冲刷散热片和负压式排烟方式，换热部位不积灰尘，无须清理，热性能稳定。可用各种煤或柴作燃料，并配有二次进风装置燃烧完全，该炉的各项技术均达到了国内领先水平。

Features

The furnace uses the high temperature resistant method so that its life is much longer than the life of the pipe arrangement hot air furnace. The furnace uses the smoke and air longitudinal splashing heat radiation sheets and the negative pressure smoke elimination mode. There is no dust collected on the heat exchange position. There is no need to carry out the cleaning.The heat feature is stable. Various coal and wood can be used as the fuel.The furnace is equipped with the air leading device and the combustion is complete.All the technical and economic indexes of the furnace have reached the advanced level at home.

原 理

该炉集燃烧与换热为一体以炉体高温部位进行换热的最新间接加热技术，烟和空气各行其道，加热绝对无污染，热效率高达(60–75%)，升温快，体积小，安装方便，使用可靠，且价格低(与一吨锅炉相比，该加热系统只相当于锅炉加热系统价格的一半)。

Principle

The furnace combines the combustion with the heat exchange,using the latest indirect heating technology that the heat exchange is taken place at the positionof the high temperature in the furnace. The smoke and the air go into the different channels, without any pollution for the heating. The heat efficiency rate is high(up to 60–75%).The temperature increase is fast. The furn ace is small in size, easy in the installation,reliable in the operation and low in the price (making a comparison with one ton boiler, the price of this System is only half price of the heating system for the boiler.)

技术参数 Technical parameters

型号规格 type	技术参数 technical parameter heat output	输出热量 heat amount output ×10⁶kj/h	输出风量 air amount output (m³/h)	热风温度 hot air temperature(℃)	耗煤量 coal combustion capacity(kg/h)	烟气引风机型号 cocking blower for cocking
JRF4–2.5		1.045	1500–560	60–200	10–12	炊事用鼓风 80–100w
JRF4–4		1.672	3500–930	60–200	14–17	炊事用鼓风 200–300w
JRF4–8		3.344	5600–1480	60–200	18–24	Y5–47 No2.8C 1.1kw
JRF5–15		6.270	12000–2160	60–300	40–45	Y5–47 No4C 2.2kw
JRF5–30		12.54	25000–4330	60–300	80–85	Y5–47 No4C 3.0kw
JRF5–40		16.72	28000–5600	60–300	115–125	Y5–47 No4C 3.0kw
JRF5–60		25.08	45000–8600	60–300	160–170	Y5–47 No4C 3.0kw
JRF6–80		33.44	83000–12500	60–300	240–250	GY2–1 11kw
JRF6–160		66.88	134400–23000	60–300	480–490	GY4–1 18.5kw
JRF6–200		83.60	170000–28000	60–300	600–620	GY4–1 18.5kw

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Direct-Fired Hot Air Furnace
系列直燃式热风炉

特 点 Features

直燃式热风炉是直接利用烟道气的供热装置，它是以煤、柴、果壳等为燃料，通过将燃料推入一次燃烧室并迅速其燃燃烧。在负压作用下，旋转型二次燃烧室将一次燃烧室的火焰和燃气吸入，并沿其壁面急速旋转进一步强化燃烧。设置在二次燃烧室中的独特高温除尘装置使大部分尘埃从烟气中分离。通过夹层配入干净的空气稀释了热空气，并使气温度控制在需要值直接输出应用。

Direct-fired hot air furnace is directly use flue gas, it is a kind of heating arrangement which use coal, firewood and shell as it's flue, put the flue into primary zone to obtain heat. Spinning form secondary combustion chamber absorb the fire and gas from primary zone under the function of negative pressure and the gas will revolve at the surface of wall to strengthen combustion. The unique high-temperature dust removal device Installed In secondary combustion chamber separate the most of dust from exhaust gas. T he clean air from jacket will dilute the hot air and make the temperature at desired value to direct output and application.

Series Heat Conducting Oil Heating Device
系列导热油加热装置

概 述 Description

该装置是本公司针对水加热温度太低，且客户又不想用锅炉而需高温的情况下，自行设计的一套加热装置。经高温油泵循环加热，因此热利用率高且温度可设定控制，装拆、使用更方便，生产成本更低。

The machine is developed by our company, it is aim at the situation that temperature of hot water can't reach the target and customer doesn't want to use boiler to obtain high temperature. The machine has good heat utilization and could control, easy for assembling and disassembling, low in production cost.

特 点 Features

- 加热温度高(<300。C)，温度便于控制。
- 经济实用，热效率高，耗能低。
- 特殊的气体膨胀设计更趋安全。

- High heating temperature(<300), the temperature controllable.
- The machine is economic and practical, the thermal efficiency is high. Energy consumption is low.
- The special expansion of gas design hastens the security.

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SQR Series Heat Exchanger
SQR 系列散热器

原　理　Principle

SQR螺旋翅片式散热器，主要用于干燥系统中空气加热，是热风装置中的主要设备，散热器采用的热介质可以是蒸汽或热水，也可用导热油，蒸汽的工作压力一般不超过0.8MPa，热空气的温度则在150℃以下。

ModelSRZandSRLscrewwingradiatormanufacturedbyourfactory is mainly used for heating air in the system of dry and is main drying equipment in hot air device. The conducted heat medium adapted in radiator may be steam or hot water or heat conducting oil. In general, the working pressure of steam is not more than 0.8Mpa and the temperature of air will be below 150℃.

技术参数　Technical parameters

型　号 Type	换热器Hot Exchange Pipe 规格 Specification	长度 Length（mm）	数量Quantity（根piece）	换热面积 Area of hot exchange(m^2)	外型尺寸 Overall dimensions(mm)
SQR5×5D	Φ18×2	512	32	10	580×580×180
SQR6×6D	Φ18×2	612	41	15	680×680×180
SQR7×7D	Φ18×2	712	47	20	780×780×180
SQR10×5D	Φ18×2	1012	32	20	1080×580×180
SQR10×6D	Φ18×2	1012	41	25	1080×680×180
SQR12×6D	Φ18×2	1212	41	31	1280×680×180
SQR15×6D	Φ18×2	1512	41	38	1580×680×180
SQR10×7D	Φ18×2	1012	47	28	1080×780×180
SQR12×7D	Φ18×2	1212	47	36	1280×780×180
SQR15×7D	Φ18×2	1512	47	42	1580×780×180
SQR15×10D	Φ18×2	1512	68	62	1580×1080×180
SQR20×10D	Φ18×2	2012	68	85	2080×1080×180

Mechanical Transportation Equipment
机械输送设备

螺旋上料机，进料口和输送管均采用开口U型，螺旋可根据需要采用变径或等径变距，较小型号无缝钢管制作，增设破拱装置. 使物料均匀输送，设备检修方便。

The inlet of this machine and transportation pipe uses opening U shape. According to the requirement, the screw may use transition section or constant diameter variable pitch, may be fabricated by smaller seamless steel pipe. Being designed arch breaking device, material can be transported uniformly and the overhauling of equipment is convenient.

皮带输送机是一种连续运输机械，也是一种通用机械，它被广泛应用在港口、电厂、钢铁企业、水泥、粮食及轻工业的生产线。它可以运送散状物料，也可以运送成件物品。工作过程中噪音较小，结构简单，可实现水平或倾斜输送。

Belt conveyor is a kind of continuous transport machinery, also is a kind of general machinery, it is widely used in ports, power plants, steel mills, cement, food and light industry production line. It can transport material, also can be transported into items. Small noise in the working process, the structure is simple, can achieve horizontal or inclined conveyor.

螺旋上料机

皮带输送机

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ZSL-Ⅲ Serial Vacuum Feeder
ZSL-Ⅲ 系列真空上料机

概　述　Description

ZSL-Ⅲ系列真空上料机是我公司最新开发研制的第三代新型真空上料机，它具有上料速度快、使用周期长、操作方便、清洁卫生，符合GMP要求。

Model ZSL-Ⅲ vacuum feeder is a third-generation new-type vacuum feeder recently developed by our company, it has advantages of fast feeding, long service period, simple operation, clean and in conformity with GMP requirement.

应　用　Application

- 用于粉状,小颗粒状(Φ<5mm)及球状物料。
- 用于二维、三维、双锥、V型等各种密闭容器和设备的上料。

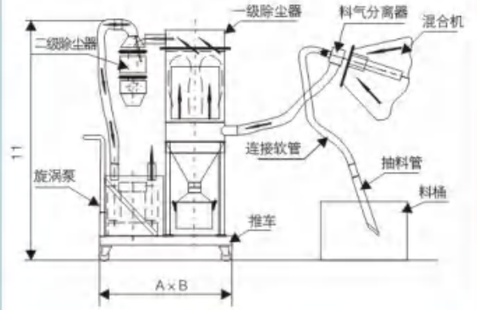
- Used for powder, small grain and ball materials with diameter less than 5mm.
- Used for materials feeding for various kinds of sealed containers and equipments such as two-dimension, three-dimension, double-cone, V-shaped etc.

特　点　Features

- 上料速度快。
- 连续工作时间长。
- 无泄漏现象，清洁卫生，适合于洁净厂房。
- 结构紧凑、移动方便、操作简单。
- 装有快装卡箍，便于拆装和清洗，符合要求。

- Fast feeding of materials.
- Long time for continuous working.
- No leakage, clean and healthy, suitable for clean workshop.
- Compact size, easy moving and simple operation.
- Equipped with fast-feeding clamping and facilitating assembling, disassembling and cleaning and in conformity with the requirement.

结构示意图
Schematic of structure



技术参数　Technical parameters

型号参数	ZSL-Ⅲ-2.2	ZSL-Ⅲ-3.0	ZSL-Ⅲ-4.0	ZSL-Ⅲ-5.5	ZSL-Ⅲ-7.5	ZSL-Ⅲ-11	ZSL-Ⅲ-15
工作压力（KPa）	<18	<20	<22	<28	<31	≤41	≤60
风景（m3/h）	210	300	330	370	480	580	780
功率（kw）	2.2	3.0	4.0	5.5	7.5	11	15
输送能力（Kg/h）	100-300	200-500	300-600	400-800	500-1000	800-1500	1000-2000

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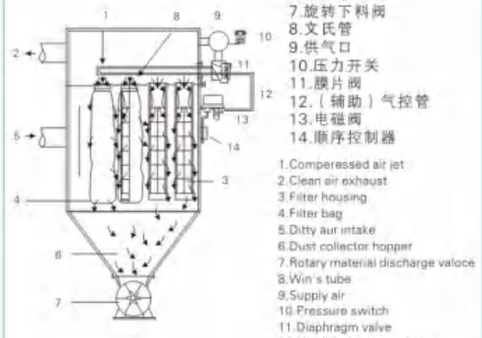
MC Series Pluse Filter With Hop-pocket
MC 系列脉冲布袋除尘器

原　理　Principle

含尘气流从进气口进入下箱体后，部分沉降，轻微粉尘浮动时被滤袋阻留，净化空气透过滤袋，经文氏管进入上箱体，从出气口排出。积附在滤袋外壁的粉尘不断增加，当阻力在限定(一般为80–120毫米水柱)的范围内，就要清除积附在滤袋外壁的粉尘，清灰是由控制仪定期顺序触发各控制阀，开启脉冲阀，使气包内的压缩空气通过喷吹管孔使布袋在一瞬间急剧膨胀，并伴随着气流的反向作用，被抖落的粉尘落入灰门经排灰阀排出机体。

The air stream containing dust passes through low box from air inlet. Parts of it deposit When light particle dust is floated. It is retarded in the bag. The purified air penetrates the filtrating bag and passes into the up box through venture and exhausts from outlet. ThNe accumulated powder dust on the outer wall of filtering bag.

结构示意图
Schematic of structure



1.压缩气口
2.清洁气体出口
3.滤网架
4.滤网袋
5.空气进口
6.粉尘收集桶
7.旋转下料阀
8.文氏管
9.供气口
10.压力开关
11.膜片阀
12.（辅助）气控管
13.电磁阀
14.顺序控制器

1.Comperessed air jet
2.Clean air exhaust
3.Filter housing
4.Filter bag
5.Ditty aur intake
6.Dust collector hopper
7.Rotary material discharge valoce
8.Win's tube
9.Supply air
10.Pressure switch
11.Diaphragm valve
12.(Auxiliary)air control pipe
13.Magnetic valve
14.Solid state sequential controller

应　用　Application

广泛应用于冶金、铸造、矿山、化工医药、饲料、建材、粮食加工等行业的通风除尘和粉尘回收。

The equipment is widely used for ventilation and degusting and recovering powder dust of metallurgy industry, casting industry, mine, chemical industry, and pharmaceutical industry, construction material industry, fed industry and grain processing industry and so on.

技术参数　Technical parameters

参数 Parameter / 型号Model		MC24	MC36	MC48	MC60	MC72	MC84	MC96	MC120
过滤面积area to be filtered(m²)		18	27	36	45	54	63	72	90
滤袋数量(只)Quantity of Filtering bag(piece)		24	36	48	60	72	54	98	120
过滤风速speed of filtering air(m/min)		2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4
过滤风量Filtering air volume(m³/h)		2160–4300	3250–6480	4320–8630	5400–10800	6450–12900	7550–15100	8650–17300	10800–20800
最大外形尺寸(mm) Max.overall dimension	长 L	1025	1425	1820	2225	2625	3025	3582	4385
	宽×高 W×H	1678×3660							
清灰装置 Dust remove	脉冲阀数量Pulse valve number(只)	4	6	8	10	12	14	16	20
	耗用压缩空气量 compressed air consumption(m³/min)	0.047–0.30	0.11–0.40	0.15–0.50	0.18–0.60	0.22–0.60	0.25–0.90	0.29–0.90	0.37–0.90
	压缩空气压力 compressed air pressure(MPa)	0.5–0.8							

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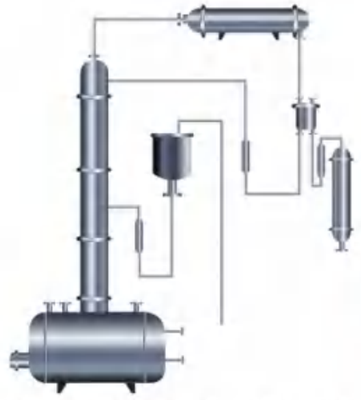
T、DT Series Ethanol Recovery Tower
T、DT系列酒精回收塔

原　理　Principle

乙醇精馏装置的主要设备是酒精回收塔，该设备是利用酒精沸点低于水及其溶液沸点的原理，用稍高于酒精沸点的温度，将需回收的酒精溶液进行加热蒸发，经塔体精馏后蒸发出高浓度酒精蒸汽。再经冷凝器冷却回收，获得符合浓度要求的酒精。

The main equipment of refined distillation device for ethanol is tower. The equipment uses the principle that the boiling point of ethanol is lower than that of water and their solution. It applies the temperature that is higher than the boiling point of ethanol slightly to heat and vaporize dilute solution to be recovered. The steam of high Concentrated ethanol is vaporized distillation tower and than cooled and recovered by condenser. In this way, ethanol that is in conformity with the requirement is got.



特　点　Features

装置主要部件采用不锈钢材料制成。防腐蚀性强，经久耐用，可以确保成品乙醇的质量。设备能连续操作，且操作简单、维修方便成品浓度稳定，可适用于不同浓度稀酒精回收使用。

The main parts of equipment are made from stainless steel. It is corrosion resistant and durable. The quality of ethanol can be guaranteed. The equipment can be operated continuous. The operation is very simple and easy maintenance. The concentration of finish product is constant. It is suitable for recovering dilute ethanol with different concentration.

应　用　Application

本装置适用于制药、食品、轻工化工等行业的稀酒精回收。也适用于甲醇等其它溶媒的蒸馏。本装置根据用户的要求，可将30%左右的稀酒精蒸馏至90–95° 度酒精、成品的酒精度要求很高，可加大回流比，但产量就相应降低。

The device is suitable for recovering dilute ethanol of pharmaceutical industry, foodstuff industry, light industry, chemical industry and so on. It is also suitable for distilling solvents such as methanol and so on. Using this device, about 30% of dilute ethanol can be distilled into 90–95° as request. If the finished product has higher requirement to alcohol content, the ratio of reflex should be increased. But the output will be decreased.

技术参数　Technical parameters

- 进料浓度：30%—80%
- 回流比：R=13(根据进出料浓度而定)
- 残液排放含醇浓度：DT型≤3%
- 生产能力(kg / h)：见下表

- Concentration of raw materials to be fed in: 30–80%
- Ratio of reflex: R=13(affirmed in accordance with the concentration of raw material to be fed in and taken out)
- Concentration of ethanol in residual liquid to be discharged: rnodel IT type≤3%
- Product capacity(kg/h): see the list of productive capacity.

项目Project / 型号Model	T 300	DT 200	DT 400	DT 500	DT 600	DT 800
塔径 Diameter of tower	Φ300	Φ200	Φ400	Φ500	Φ600	Φ800
塔容积Tower capacity(L)	1500	1000	2000	2500	2500	3000
塔身高度Tower height(mm)	7000	6000	7000	7000	7500	7500
高位罐容积High–order holder capacity(L)	1000	1000	2000	2000	2000	2500
冷凝面积Condensing area (m²)	9	5	11	18	25	45
冷却面积Cooling area (m²)	1.5	1	2.2	4	6	8
换热面积Heat exchange area(m²)	6.0	3.0	6.5	10	15	26
回收能力Regenerating capacity(kg/h)	900–100	45–50	180–200	190–310	430–450	750–780
回收浓度Regenerating concentration(%)	>90					
填料形式Packing form	不锈钢波纹，网孔填料 Stainless steel net wave filter					
设备重量Equipment weight(kg)	2200	1500	3500	4000	4500	6000

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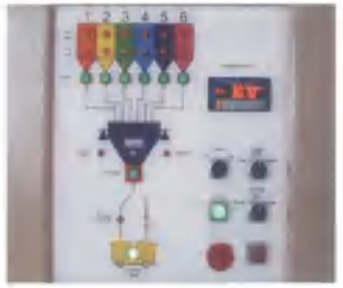
Powder Automatic Weighmatic and Batching System
粉末自动称重配料系统



系统组成 Constitutes of System

本控制系统是一个以称重加料、配方控制、放料等计算机生产过程控制和数据管理为一体的综合自动化系统，采用三菱Q系列PLC和研华工控微机组建高性能的控制平台。对于设计一套用于生产控制的自动化系统来说，必须达到具有稳定而可靠的运行、简单而实用操作、以及优越的性价比，这些都是十分至关重要的。本系统由五大部分组成：1、控制部分：上位机采用研华P4工业控制微机，以三菱Q系列PLC通讯模块以及开关量输入输出模块，以及手动——自动控制切换开关，手控按钮和指示灯等均装置在一体化的控制机柜中，方便操作。2、软件部分：根据配料系统的基本要求、用户的实际需求结合量身定制。3、称重部分：采用高精度称重模块，结合称重控制仪表制作。4、执行部分：采用气动阀控制、螺杆变频的方式进行投、放料控制。5、送料部分：采用螺杆送料方式负责送料。

The control system is a synthetic automated system which incorporates computerized processing control of weighing, materials feeding, control of batching, materials discharging as well as data management into a whole. It adopts Mitsubishi Q series PLC and Yanhua industrial control microcomputer to establish the control platform with top performance. For the set of automated system designed for production control, it should have stable and reliable running, convenient and practical operation as well as superior performance/price ratio and all of these are quite important. The system consists of five major parts as follows:

I.Control part: the upper computer adopts Yanhua P4 industrial control microcomputer. All Mitsubishi Q series PLC communication module, switch value input/output module, manual/automatic control switch, manual button and indication lamps are all equipped into the integrated control cabinet for easy operation.

2.Software part: it is customized according to basic requirement of batching system and actual requirement of customer.

3.Weighing part: it is made by adopting high precision weighing module in combination with weighing control meters.

4.Actuation part: adopt the style of pneumatic valve control and screw rod frequency variation to make control over materials feeding and discharging.

5.Supplying part: adopt the style of screw rod supplying to supply materials.

动作流程 Flow of Actions

1、称重槽装置了传感器，并以rs232方式连接输入到工控机。本系统设计停机时对每套称重槽进行人工检零，可监视称重槽的零位是否正常；在连续配料运行过程中进行自动检零，可修正称重槽的零位变动，确保计量精度。2、操作者点击配料运行过程开始后，PLC控制第一种原料加料的气动阀、螺杆开启，该种原料徐徐加入称重槽，计算机实时监测称重槽下计量传感器传送过来的信号，与配方设定的目标值进行比较，当达到设定的配方目标值后PLC控制输出被断开，第一种原料加料气动阀、螺杆关闭，待稳定后测得称重槽和已加入原料的总重，并以此值作为第二种原料加料前的零位。3、紧接着开始第二种原料的加料过程，如此反复至第二、第三、……，直至第6种原料加料完毕。4、加料过程结束并满足预先设定的全部放料条件，放料过程开始。放料气动阀开启，混合料在重力作用下自然流出。系统实时监测称重槽下计量传感器传送过来的信号，当检测到称重槽总重量恢复到初始零位时，放料阀关闭，放料过程结束。5、操作者可预先设定每次投料开启的顺序。6、系统可记录运行中的罐号，每一种原料的实际加料量，与配方设定目标值的偏差，加料起止时分和加料时间，以及放料起止时分和放料时间等运行数据。7、通过上位机应用程序，可查询和打印系统运行的原始数据和统计报表。

I.The sensor is mounted on the weighing groove and is connected into the industrial control computer in RS232 style. When the stop of the system is designed, each set of the weighing groove should have manual zero check to monitor if zero position of the weighing groove is normal. Automatic zero check is made in course of continuous batching operation to correct change of zero position of the weighing groove so as to ensure weighing precision. 2.After operator clicks the batching operation to start, PLC controls the pneumatic valve for the first material and open of screw rod. The said material is feed slowly into the weighing groove. The computer monitors the real time signal sent from the weighing sensor under the weighing groove, and compares it with target value set in the recipe. When the set target value of the recipe is obtained, the PLC controlled outputis switched off and the pneumatic valve and the screw rod for the first material are closed. Measure the total weight of the weighing groove and fed material when system is stable and regard it as the zero position of the second material before it is fed. 3.Then start the process to feed the second material and repeat again and again until the six materials are fed off. 4.After feeding of materials is completed and all preset conditions for materials discharge are met, start the materials discharge course. Open the pneumatic valve of discharge and mixed materials flow out by gravity.The system makes real time monitor signals sent by the weighing sensor under the weighing groove. When the total weight of the weighing groove is checked to recover to initial aero position, the pneumatic valve of discharge is closed and the course of materials discharge is completed.5.Operator can preset order of start for each batching. 6.The system can record operation data such as no. of can in operation, actual feeding volume of each material, deviation with set target value of the recipe, start and stop time and feeding time, start and stop time and discharge time and so on. 7.By means of application program of the upper computer, original data and statistic statements of operation of the system can be checked and printed.

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客户选型反馈表
Feedback Form of Customers for Model Selection

请您按表格详细填写，以便本公司提供慎重的选型推荐
Pleae fill the form in detail so that our company can provide discreet recommended model:

单位 Unit: _____ 客户姓名 Name of customer: _____ 职务 post: _____

地址 Add: _____ 联系电话 Tel: _____ 传真 Fax: _____

E-MAIL: _____ 联系时间 Date: _____

1. 物料名称: _____
Material name:

2. 干燥物料的形态: ☐ 微粉 Micro powder ☐ 粉料 Powder ☐ 颗粒 Granule ☐ 块状 Black ☐ 片状 Flake ☐ 纤维状 Fibric form
☐ 滤饼 Filter cake ☐ 糊状 Mushy ☐ 膏状 Paste ☐ 液体 Liquid

3. 干燥物料的初含水 _____ %; 产品终含水 _____ %; Ph值 _____ ,
Primary moisture of raw material to be dried Final moisture of finished product PH value

熔点 _____ ℃, 物料最高承受温度 _____ ℃, 物料松散程度 _____
MP Max.withstood T of raw material Bulk density of raw material

4. 湿份主要成份: _____
Main ingredient of damp powder:

5. 水份存在的形式: ☐ 表面水 Surface water ☐ 结晶水 Crystal water
Existed form of moisture:

6. 成品细度 _____ mm (目) 湿品堆比重 _____ Kg/m^3 产品堆比重 _____ Kg/m^3
Fineness of finished product Mesh Bulk specific gravity of damp product Bulk specific gravity of finished product

7. 物料有关其他特性:
Relative other characteristics of raw materials:

粘性 ☐ Viscosity 热敏性 ☐ Thermal sensitive 软化点 ☐ Softening point 相变点 ☐ Transition point 腐蚀性 (PH值) ☐ Causticity(PHVALUE) 异味 ☐ Peculiar smell 可燃性 ☐ Inflammability

易爆性 ☐ Explosion hazard 静电性 ☐ Electric static 透气性 ☐ Gas permeability 团聚性 ☐ Constipate 晶体或颗粒折匡粉碎性 ☐ Comminuted of crystal or granule

8. 干燥产量要求: 湿品 _____ Kg/h或干品 _____ Kg/h
Requirement of output: Damp product or dried finished product:

9. 颗粒产品能否破坏: 能 ☐ 不能 ☐
Whether the granule can ben damaged: Yes No

10. 物料过去的干燥方法或类似产品的干燥方法: _____
The original dry method of raw material or dry method of similar products:

11. 干燥方式要求: 连续干燥 ☐ 间隙干燥 ☐
Requirements of drying method: Continuous drying Drying in batch

12. 可供的热源: ☐ 电、 ☐ 蒸汽、 ☐ 热水、 ☐ 导热油、 ☐ 燃气炉、 ☐ 燃煤炉、 ☐ 燃油炉;
Heat source to de supplied Electricity Steam Hot water Heat conduction Gas fuel furnace Coal fuel furnace Oil fuel furnace

13. 选购设备要求制作材质: _____
Required material for manufacturing equipment when selection:

14. 环保要求及对物料回收率的要求: _____
Requirements of environmental protection and requirements of yield:

15. 可供安装场地: _____
Field to be installed:

16. 其他要求: _____
Other requirements: