



New connection on: : 25-11-2020 : 20:40:50 - Last disconnection on: : 25-11-2020 : 20:40:47

V 4.0.0.44803(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201820)) (RPM D201820)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 20] (liquid 2d limit+) and sensor+ and motor and control

Results in EPODOC 13

[SS 21] ..li



1/13 © EPODOC / EPO

PN - [CN211133959U](#) U 20200731
PR - CN201921701254U 20191012
AP - [CN201921701254U](#) 20191012
DT - I
PA - QINYANG JICHEN CHEMICAL CO LTD
TI - Neutralization device for producing 1-naphthylamine-4-sodium sulfonate
AB - The utility model provides a neutralizing device for producing 1-naphthylamine-4-sodium sulfonate. The neutralizing device comprises an alkali liquor tank and a neutralizing tank, the alkali liquor pool comprises a first box body and a first stirring device; a first feeding hole and a water injection hole are formed in the top of the first box body, and a lowest liquid level meter, a highest liquid level meter and a first pH detector are arranged in the first box body; the neutralization tank comprises a second box body and a second stirring device; a height **limiting liquid** level meter and a second pH detector are arranged in the second box body, a second feeding hole is formed in the top of the second box body, and a discharging hole is formed in the bottom of the second box body; a watersuction pump is further arranged at the bottom of the first box body and connected to the second box body through a pipeline. A controller is further arranged on the outer side wall of the second boxbody, and the first **motor** and speed reducer all-in-one machine, the second **motor** and speed reducer all-in-one machine, the lowest liquid level meter, the highest liquid level meter, the height **limiting liquid** level meter, the first pH **sensor**, the second pH **sensor** and the water suction pump are all electrically connected to the controller. The device can visually and accurately **control** the neutralization reaction, and has the characteristics of convenience in operation and strong practicability.

2/13 © EPODOC / EPO

PN - [CN210605483U](#) U 20200522
PR - CN201921820946U 20191028
AP - [CN201921820946U](#) 20191028

DT - I

PA - ANHUI ANLI MATERIAL TECH CO LTD

TI - Trough liquid level controller device

AB - The utility model discloses a trough liquid level controller device, which comprises a graduated scale strip vertically fixed on the inner wall of a trough; the sliding block is slidably mounted on the graduated scale strip and is fixedly provided with a pointer; the distance setting reflection type photoelectric **sensor** is installed in the closed shell, and the closed shell is fixedly connected with the sliding block; one end of the mounting frame is fixedly connected to the upper end of the graduated scale strip, a stepping push rod **motor** is mounted on the portion, extending to the upper portion of the closed shell, of the mounting frame, and an output shaft of the stepping push rod **motor** is connected to the upper end of the closed shell; the material pump **control** relay comprises a first relay and a second relay, and contacts of the first relay and the second relay are connected into a material pump power line of the trough in series; the relay power supply respectively supplies power to coils of the first relay and the second relay through a controllable switch; and the controller is connected with the distance setting reflection type photoelectric **sensor** and the **control** end of the controllable switch. According to the utility model, the upper limit and the lower **limit** of the **liquid** level in the trough can be monitored, and the liquid level can be controlled.

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PN - [CN210045174U](#) U 20200211

PR - CN201920680713U 20190514

AP - [CN201920680713U](#) 20190514

DT - I

PA - GUILIN NORMAL COLLEGE

TI - Heat collection type magnetic stirrer with dry burning prevention function

AB - The utility model relates to the technical field of magnetic stirrers. The utility model discloses a magnetic stirrer, and discloses a heat collection type magnetic stirrer with a dry burning prevention function. The device comprises a base, supporting legs, a T-shaped groove, ventilation holes, a **motor**, a stirring magneton, a bath pan, an electric heating block, a temperature switch, a steel supporting net plate, a temperature **sensor**, a **liquid** level lower **limit sensor**, a **liquid** level upper **limit sensor**, a top cover, a water tank, a water pump, a water pipe, a water adding pipe and a PLC **control** device. A fixing block is fixedly connected to the top of the steel supporting net plate, a first groove is formed in the top of the fixing block, a rotating **motor** is fixedly connected into the first groove, a rotating block is fixed to the output end of the rotating **motor**, the bottom of the rotating block is rotationally connected with the top of the fixing block through a rolling bearing, and a second groove is formed in the top of the rotating block. According to the heating container, the mixing efficiency of a solution in the heating container can be effectively improved, dust can be effectively prevented from entering the base, and meanwhile, the dustproof net can be conveniently disassembled and assembled.

4/13 © EPODOC / EPO

PN - [CN108426007A](#) 20180821

PNFP - CN108426007B B 20200609

PR - CN201810227836 20180306

AP - [CN201810227836](#) 20180306

DT	- I
CT	- // STSE (A) JPH02225845 A 19900907 [A] (JAGUAR CARS) [A] 1-2 * 全文 *; CN1068178 A 19930120 [A] (LI SHIKAI [CN]) [A] 1-2 * 全文 *; JP2005042810 A 20050217 [A] (NAKANISHI KIKUJI) [A] 1-2 * 全文 *; KR101159835B B1 20120626 [A] [A] 1-2 * 全文 *; CN105114568 A 20151202 [A] (ZHANG YINGHUA) [A] 1-2 * 全文 *; CN106369132 A 20170201 [A] (ZHANG YINGHUA) [A] 1-2 * 全文 *
CI	- B60K20/02 (CN) - B60K26/02 (CN) - B60R25/04 (CN) - F16H3/76 (CN) - F16H57/023 (CN)
PA	- (A) ZHANG YINGHUA
TI	- (A) Planetary gear stepless variable-speed motor and control method
AB	- (A) The invention discloses a planetary gear stepless variable-speed motor and a control method. The planetary gear stepless variable-speed motor is composed of a planetary gearbox and a stepless gearbox. The planetary gearbox is composed of a planetary gear, a sun wheel, a gear ring, a driven gear, a driving gear and a gearbox shell. The stepless gearbox is composed of a reverse rotary shaft, a sun rotary shaft, a shell, an upper end cover, a lower end cover, a porous round plate, a friction conical bearing, a round inner brush strip and an outer brush strip. An air compressor, an air storage tank, a hydraulic oil tank, an engine oil tank, a compressed air tank, a hydraulic piston, a one-way valve, a solenoid air inlet valve, a solenoid exhaust valve, a three-position five-way solenoid reversing valve, an air storage tank pressure sensor, a hydraulic oil tank pressure sensor, an engine oil tank pressure sensor, a compressed air tank pressure sensor, a liquid level upper limit switch and a liquid level lower limit switch are arranged on the periphery of the stepless gearbox. The rotating speed of an output rotary shaft is adjusted by adjusting the friction force of the friction conical bearing and the number of circles of the inner brush strip and the outer brush strip buried by engine oil.

AP - [CN201710849194](#) 20170920

DT - I

CT - // STSE (A)
[JP2005333903](#) A 00000000 [A]
 [A] 1
 * 全文 *;
 CN205109469U U 00000000 [A]
 [A] 1
 * 全文 *;
 CN205143427U U 00000000 [X]
 [X] 1
 * 说明书第4-14段, 图1 *;
 CN205213984U U 00000000 [A]
 [A] 1
 * 全文 *;
 CN206101437U U 00000000 [A]
 [A] 1
 * 全文 *

PA - UNIV HENAN TECHNOLOGY

TI - Automatic **control** system of brine supply device

AB - The invention relates to an automatic **control** system of a brine supply device. The system comprises a PLC controller, a touch screen, an AD module, a DA module, a frequency converter, a flowmeter, a buffer pump **motor**, a mixed upper **limit liquid level sensor**, a mixed lower **limit liquid level sensor**, a buffer upper **limit liquid level sensor**, a buffer lower **limit liquid level sensor**, a stirrer **motor**, a hybrid pump **motor**, a water inlet electromagnetic valve, a mixed electromagnetic valve and a buffer electromagnetic valve. The PLC controller controls the operation of the brine supply device. In this way, the brine flow of the brine supply device, conveyed to a dough maker, reaches a preset brine flow which is preset in advance through the touch screen. As a result, the automatic supply of saline during the production process of fine dried noodles and instant noodles is realized. The system is simple and convenient to operate, and accurate in brine feeding **control**.

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PN - [CN206400333U](#) U 20170811

PR - CN20172019579U 20170109

AP - [CN20172019579U](#) 20170109

DT - I

PA - GUANGZHOU XUZHUANG BIOLOGICAL TECH CO LTD

TI - Vacuum emulsification controller able to programme

AB - The utility model discloses a vacuum emulsification controller able to programme, including the programmable device shell, the communication connection mouth, the output interface, power interface module, the mounting hole, the extension module interface, the input interface, the touch -sensitive screen, the password sets up the module, the clock module, input module, pressure **sensor**, flow **sensor**, temperature **sensor**, **limit** switch, the **liquid density sensor**, a touch screen, microprocessor, the memory, an output module, the heating pipe, the **motor**, a weighing **sensor** and a temperature **sensor**, and a limit switch, water -phase pan, oil -phase pan, the microprocesso, a memory, step **motor**, the cooling water **control** valve, a **motor**, the

additive discharge valve, the booster pump, emulsifying pot and enclosing cover. The utility model discloses a full -automatic function of emulsion machine has satisfied the demand of the unmanned on duty ization of vacuum emulsification process, has improved production efficiency, the cost is reduced, and the inside condition feedback that detects of accessible emulsifying pot is controlled water -phase pan and is added with the quantitative of oil -phase pan.

7/13 © EPODOC / EPO

PN - [CN205475472U](#) U 20160817
 PR - CN201620281099U 20160401
 AP - [CN201620281099U](#) 20160401
 DT - I
 PA - UNIV ANHUI SCI & TECHNOLOGY
 TI - Novel intelligence water tower
 AB - The utility model discloses a novel intelligence water tower, including water?storage?device, controlling means, water?storage?device is equipped with water tank and watering, controlling means is equipped with singlechip, water pump **motor**, infrared detector, infrared ray level **sensor**, reference test bar, **control** panel, hand switch, mains?supply, the whole circuit of hand switch **control** is opened and is closed, mains?supply pass through one two finding activate that hand switch even goes out for the electric machine **control** line another for power supply wire, infrared detector detects and sets for the waterline and will trigger singlechip computer **control motor** and stop and change, on infrared ray level **sensor** can transmit the liquid level to take the display **control** panel, the data that **control** panel can come according to the transmission and preset's the biggest or minimum **liquid** level **limit** value relatively, if show that numerical value exceeds the greatlyest or be less than that buzzer that the min. Value will trigger the singlechip is reported to the police and the **control motor** stops the operation and overhauls.

8/13 © EPODOC / EPO

PN - [CN103821706](#) A 20140528
 PR - CN20141064951 20140226
 AP - [CN20141064951](#) 20140226
 DT - I
 CT - // STSE (A)
 CN2360628Y Y 00000000 [A];
[CN101440796](#) A 00000000 [Y];
[CN87102727](#) A 00000000 [A];
[CN101440796](#) A 00000000 [];
[CN102865205](#) A 00000000 [Y];
[US4468219](#) A 00000000 [A];
[GB1499875](#) A 00000000 [A];
[CN102865205](#) A 00000000 []
 CTNP - // STSE (A)
 [] - 张兴会等, "热药灌注机及其智能控制系统设计与实现", 《计算机测量与控制》, (20081130), vol. 16, no. 11
 [Y] - 张兴会等, "热药灌注机及其智能控制系统设计与实现", 《计算机测量与控制》, (20081130), vol. 16, no. 11

PA - SUZHOU XUANTIAN ENVIRONMENT PROT TECHNOLOGY CO LTD

TI - Method for controlling flow of peristaltic pump accurately by means of gear **motor**

AB - The invention discloses a method for controlling the flow of a peristaltic pump accurately by means of a gear **motor**. The method for controlling the flow of the peristaltic pump accurately by means of the gear **motor** comprises the steps that a **sensor** is arranged at the position of a pump head of the peristaltic pump firstly, the **sensor** is connected with a controller, the output end of the controller is connected to a peristaltic pump driver, and the output flow of the peristaltic pump is measured by counting the number of times of rotation of the pump head. The method for controlling the flow of the peristaltic pump accurately by means of the gear **motor** has the advantages of being high in reliability, accurate in measurement, capable of adjusting the flow, convenient to use, high in adaptability and the like; meanwhile, the problem that **liquid is limited** to a certain degree when a traditional flow measurement and **control** method is adopted is solved, and the method can be widely applied to the field of liquid measurement and sewage detection.

9/13 © EPODOC / EPO

PN - [CN203276076U](#) U 20131106

PR - CN201320369365U 20130617

AP - [CN201320369365U](#) 20130617

DT - I

PA - HUANG CHANGHUA

TI - Automatic high-pressure oxygen **control** system of oxygen generating equipment

AB - The utility model discloses an automatic high-pressure oxygen **control** system of oxygen generating equipment. The automatic high-pressure oxygen **control** system comprises a **liquid** level indicator **limit** switch, an A/D (analog/digital) converter, a temperature **sensor**, a PLC (programmable logic controller), a frequency converter, a driver, a variable frequency **motor**, a stepping **motor**, a pneumatic butterfly valve and a liquid oxygen pump, wherein the temperature **sensor** is arranged on a pipeline of a high-pressure oxygen outlet heat exchanger and is connected with the A/D converter; the **liquid** level indicator **limit** switch is arranged on a liquid level indicator and is connected with the PLC; the A/D converter, the frequency converter and the driver are connected with the PLC; the variable frequency **motor** is connected with the liquid oxygen pump and the frequency converter; the stepping **motor** is connected with the driver and the pneumatic butterfly valve. The automatic high-pressure oxygen **control** system has the positive effects that the turns number of the variable frequency **motor** is adjusted automatically according to the state of the **liquid** level indicator **limit** switch, the state of the stepping **motor** is adjusted automatically according to the temperature sensed by the temperature **sensor**, and the opening degree of the pneumatic butterfly valve is adjusted by virtue of the state of the stepping **motor**, so that the liquid level and the temperature are controlled stably, the labor is saved and the working intensity is lowered; besides, the frequency converter can be also used for realizing **motor** soft-start and power factor compensation and has the functions such as over-current protection provided to the equipment.

10/13 © EPODOC / EPO

PN - [CN201387425Y](#) Y 20100120

PR - CN20092084849U 20090410

AP - [CN20092084849U](#) 20090410

DT - I

PA - UNIV CHINA GEOSCIENCES WUHAN

TI - Numerical **control** disc-type **liquid limit** device

AB - The utility model relates to a numerical **control** disc-type **liquid limit** device. In the numerical **control** disc-type **liquid limit** device, a numerical **control** part is added to a manual disc-type **liquid limit** device to realize the accurate **control** of **liquid limit** device hit. The numerical **control** disc-type **liquid limit** device comprises the manual disc-type **liquid limit** device, a cam of the manual disc-type **liquid limit** device is driven by a stepper **motor**, the stepper **motor** is connected with a singlechip, and the singlechip is connected with a display, a keyboard and a hit number testing circuit. The required number of hitting is input through the keyboard and is stored in the memory of the singlechip. The stepper **motor** is then started, and the stepper **motor** begins rotating and drives and hits the cam to rotate. Meanwhile, the **sensor** tests whether the cam reaches the highest point; and when the **sensor** tests the cam reaches the highest point once, one hitting is completed, and the times are recorded and dynamically displayed through the display. The singlechip extracts the set number from a memory and compares the set number with the recorded number. When the required number of hitting is not achieved, the stepper **motor** continues rotating. Until the required number is recorded, the singlechip controls the stepper **motor** to stop rotating.

11/13 © EPODOC / EPO

PN - [CN201263973Y](#) 20090701

PR - CN200820136152U 20081006

AP - [CN200820136152U](#) 20081006

DT - I

PA - LUOYANG LUANCHUAN MOLYBDENUM I [CN]

TI - Automatic controller for liquid level of agitating vessel

AB - The utility model discloses a liquid level automatic **control** device of an agitating vessel, which is provided with a controller connected with an electric **motor** (5) on a clinker slurry pump (4). The liquid level automatic **control** device is provided with an upper **limit liquid** level **sensor** (1) and a lower **limit liquid** level **sensor** (2) which are respectively arranged at the upper part and the lower part of the agitating vessel (3) and are respectively connected with the controller. The liquid level automatic **control** device controls the startup and the stop of the electric **motor** by signals outputted by the upper **limit liquid** level **sensor** and the lower **limit liquid** level **sensor**, enhances the sensitivity and the capacity of resisting disturbance, and has high corrosion resistance and abrasive resistance, long service life, one-time installation and convenient maintenance. The utility model can greatly reduce the loss for a machine and the labor intensity, and save the cost of production.

12/13 © EPODOC / EPO

PN - [CN201200887Y](#) 20090304

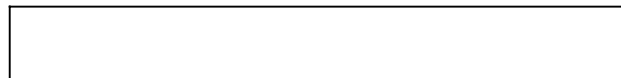
PR - CN200720199209U 20071213

AP - [CN200720199209U](#) 20071213

DT - I

PA - UNIV SHANGHAI SCIENCE & TECH
[CN]

TI - Constant pressure infusion



device

AB

- The utility model relates to a constant pressure liquid delivering device, which comprises a support, a liquid storage device, a propeller and a **control** circuit. The liquid delivering device is characterized in that the liquid storage device is fixed on the upper end at one side of the support; the propeller is arranged on the upper end at the other side of the support; array nozzles are arranged on the lower end of the liquid storage device and are communicated with the liquid storage device; a piston is arranged on the upper part of the liquid storage device; a minitype **sensor** is arranged on the bottom of the piston; the propeller consists of a screw rod, a propelling plate, a **liquid** level **limited** sheet and a step **motor**, wherein an output shaft of the step **motor** is connected with the screw rod; the propelling plate is screwed with the screw rod; the propelling plate is fixedly connected with the piston; the step **motor** drives the input end to be connected with the output end of the **control** circuit; and the signal output end of the minitype **sensor** is connected with the signal input end of the **control** circuit. The liquid delivering device can keep the pressure in the liquid storage device constant; is convenient for various nozzles to eject liquid with uniform flow rate, provides the advantages for producing smooth and round microcapsules with uniform size, and can also be applied in various fields of needing to be provided with uniform speed fluid.

PR - JP19900209002 19900807

AP - [JP19900209002](#) 19900807

DT - I

FI - B67D5/00; B67D99/00; F04B43/12; F04B43/12&T; F04C5/00&341N; F04C5/00&341Z

FT - 3E083/AA20; 3E083/AB30; 3E083/AD30; 3E083/AE01; 3H077/AA14; 3H077/CC04; 3H077/CC10; 3H077/DD02; 3H077/DD12; 3H077/EE06; 3H077/EE15; 3H077/FF01; 3H077/FF55

PA - MITSUBISHI MATERIALS CORP

TI - SLURRY TRANSFER DEVICE

AB - PURPOSE:To stabilize the state of slurry in a main tank by providing a pump, capable of discharging in either of normal or reverse directions, in a piping and by providing a means which gives commands to the pump for normal or reverse rotation. CONSTITUTION: A pair of liquid level **sensors** 18, 19 are provided to a main tank 10 for detection of the upper and the lower **limits** for the **liquid** level of ceramic slurry 11 in the tank. Detection signals from the liquid level **sensors** 18, 19 are inputted into a **control** device 20, which operates, based on the detection signals of the liquid level **sensors** 18, 19, a **motor** 15 of a tube pump 14 so that the **motor** is driven either in normal or reverse rotation. In a slurry transfer device constructed in such structure as mentioned above, the ceramic slurry 11 runs constantly through a piping 13 either from the main tank 10 to a slurry tank 12 or from the supply tank 12 to the main tank 10 by operation of the **motor** 15 of the tube pump 14 which is driven with the **control** device 20 either in the normal or the reverse rotation, based on the detection signals from the liquid level **sensors** 18, 19.