

Search query (3): [SP]: systems and methods for controlling a conveyor system during product changeovers a system is provided for controlling a line speed of a conveyor belt of a conveyor system during product changeovers in a wallboard production line. a central control module controls operation of a position sensor and a database. the position sensor is located on top of a conveyor table for providing positional information of a slurry head formed in front of a forming plate of the conveyor system. a position detection module receives a position signal from the position sensor, and determines whether the slurry head is located within a predetermined distance relative to the position sensor based on the position signal. a speed adjustment module regulates the line speed of the conveyor belt based on the position signal.

Results: 32

Search history

Search (pd=W02015/048611) (Results 0)

1:

Search (pn=W02015/048611) (Results 1)

2:

Search [SP]: systems and methods for controlling a conveyor system during product changeovers a system is provided for controlling a line speed of a conveyor belt of a conveyor system during product changeovers in a wallboard production line. a central control module controls operation of a position sensor and a database. the position sensor is located on top of a conveyor table for providing positional information of a slurry head formed in front of a forming plate of the conveyor system. a position detection module receives a position signal from the position sensor, and determines whether the slurry head is located within a predetermined distance relative to the position sensor based on the position signal. a speed adjustment module regulates the line speed of the conveyor belt based on the position signal. (Results 32)

Title: DRYING OF GYPSUM BOARD

Abstract: Source: US3043014A (Claim 1) 1. In a drier for drying gypsum wallboard comprising . an elongated tunnel-like housing through which heated air is circulated and a conveyor mounted and longitudinally disposed within said drier, said conveyor being adapted 40 for moving said sheets of gypsum wallboard in successive adjacency through the length of said drier so that the - leading edge of one of said sheets closely follows the trailing edge of another of said sheets, the improvement comprising spray means mounted transversely of the direction of travel of said sheets for applying a fluid coolant across the width of the drier conveyor, valve means controlling the supply of cooling fluid to said spray means, said valve means being such that the supply of cooling fluid flowing therethrough is interrupted after a preset time period following its initial operation, said preset time period being only a minor portion of the time of transversal of any one of said sheets past said spray means, and means connected to said valve means and operatively 55 positioned relative to said sheets of wallboard so that said control means is actuated by each end of each of said sheets to open said valve means to initiate its operating cycle, whereby because of the short operating time of the spray means, only the ends of each gypsum sheet are sprayed with coolant and the major portion of its surface is unsprayed.

Classifications:

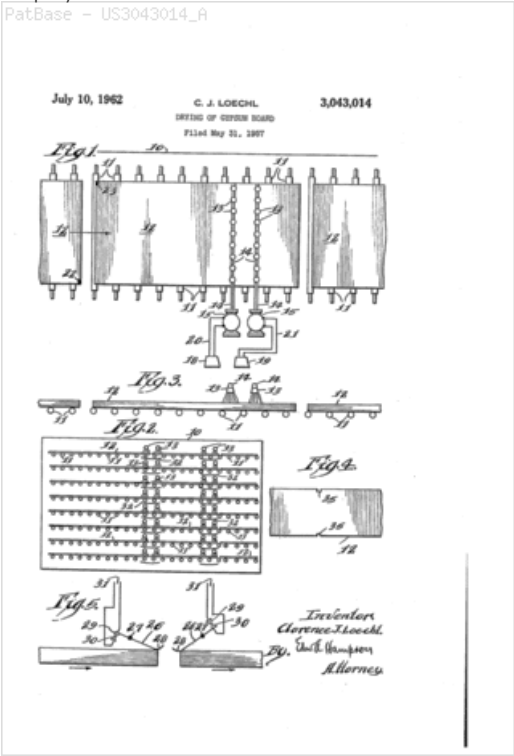
International (IPC 8-9): F26B15/12 F26B25/00 (Advanced/Invention); F26B15/00 F26B25/00 (Core/Invention)

International (IPC 1-7): F26B15/12 F26B21/06

CPC: F26B15/12 F26B25/004

European: F26B15/12 F26B25/00B3B

US: 118/64 118/679 34/205 34/524 427/374.1 427/384 427/424



Family:

Publication number	Publication date	Application number	Application date
US3043014 A	19620710	US19570662668	19570531

Priority:

US19570662668 19570531

Probable Assignee:

CELOTEX CORP

Assignee(s): (std):

CELOTEX CORP

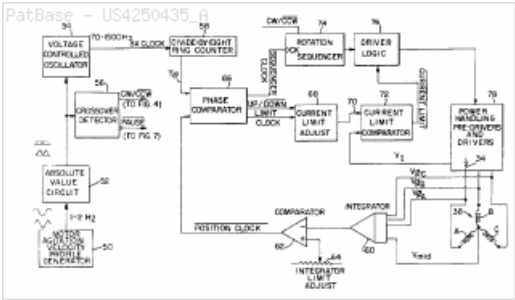
Inventor(s): (std):

LOECHL CLARENCE J

Title: Clock rate control of electronically commutated motor rotational velocity

Abstract: Source: US4250435A A speed control system for an electrically commutated motor which is readily adaptable to digital velocity control input and which provides highly efficient and accurate control in a relatively inexpensive manner. Desired motor rotational velocity is commanded by an input clock rate, which may be variable, rather than by a voltage or current signal. A sensor is provided for determining actual rotor position, and actual rotor position is periodically compared with instantaneous desired motor position as indicated by the time of occurrence of one of the input clock signals or pulses. Depending upon the results of this periodic comparison, a dynamically established active current limit is modified. Specifically, if motor rotor actual position leads desired position, the current limit is reduced. If, on the other hand, actual motor position is lagging, the current limit is increased. If the rotor is at the correct position, or within a predetermined deadband, the current limit is unchanged. This control action occurs simultaneously with conventional winding commutation taking place under the control of a, commutation sequencer periodically advanced in conventional fashion as the rotor reaches each of a plurality of predetermined positions.

Classifications:
International (IPC 8-9): H02P6/08 (Advanced/Invention);
H02P6/08 (Core/Invention)
International (IPC 1-7): H02P6/02
CPC: H02P6/08
European: H02P6/08
US: 318/138 318/254 318/400.03 318/439 318/696



Family:

Publication number	Publication date	Application number	Application date
US4250435 A	19810210	US19800109579	19800104

Priority:
US19800109579 19800104

Probable Assignee: GEN ELECTRIC
Assignee(s): (std): GEN ELECTRIC
Assignee(s): GENERAL ELECTRIC
Inventor(s): (std): ALLEY ROBERT P ; WEISCHEDEL RICHARD C

Title: FLUE HEAT RECOVERY SYSTEM

Abstract: Source: US4406402A A flue gas heat recovery system comprises an exhaust gas to air heat exchanger, a hot air to water heat exchanger, a fan, a circulating pump, and a control system which senses the temperature of the exiting air from the air heat exchanger and the temperature of the water leaving the water heat exchanger in combination with the thermostatic sensed temperature of the hot water heating system in order to operate the system in a desired manner. The system may also be used for space heating purposes. The control system in conjunction with the air heat exchanger provides a fail safe system which can be used with solid fueled stoves and fireplace inserts as well as furnaces and hot water boilers without danger of water overheating even during electrical power outages.

Classifications:

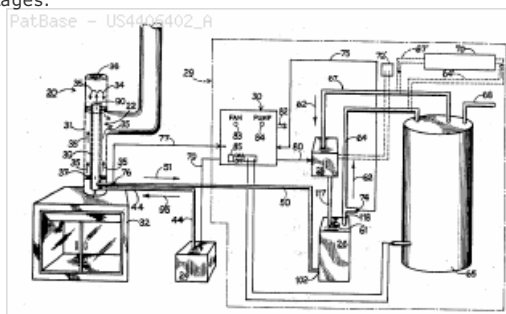
International (IPC 8-9): F24D12/02 F28D21/00 (Advanced/Invention);
F24D12/00 F28D21/00 (Core/Invention)

International (IPC 1-7): F24D3/08

CPC: Y10S165/909 F24D12/02 F24D2200/06 F24D2200/18
F28D21/0007 F28D21/0008 Y02B10/70 Y02B30/14

European: F24D12/02 F28D21/00A4B4 F28D21/00A4B6
R24D200/06 R24D200/18 Y02B10/70 Y02B30/14

US: 126/132 126/502 126/514 165/909 165/DIG.12 237/19
237/8.00R 237/8R



Family:

Publication number	Publication date	Application number	Application date
US4406402 A	19830927	US19810258437	19810428

Priority:

US19810258437 19810428

Probable Assignee:

HENRIQUES JOSEPH

Assignee(s): (std):

HENRIQUES JOSEPH

Inventor(s): (std):

HENRIQUES JOSEPH

Title: CONTROL SYSTEM AND METHOD FOR THE MANUFACTURE OF PLASTER BOARD.

Abstract: Source: EP0422833A2 To control the manufacture of plasterboard the supervisor enters required board parameters and production rate into a central processor. The processor senses the ratio of liquid raw materials to solid raw materials (AWAT) in a mixer and compares AWAT to a calculated setpoint value (SWAT). The set point value is adjusted in accordance with the difference between AWAT and SWAT. The height of a slurry dam behind an extruder on the boardline is then sensed and compared with a set point value (SDAM). If the sensed value (ADAM) differs from the set point value (SDAM) the setting belt speed (ABEL) is adjusted. The adjusted belt speed is then compared to the desired production rate (SBEL) and the raw materials feed rates varied to compensate for the difference.

Classifications:

International (IPC 8-9): B28B17/00 B28B19/00

B28B5/02 (Advanced/Invention);

B28B17/00 B28B19/00 B28B5/00 (Core/Invention)

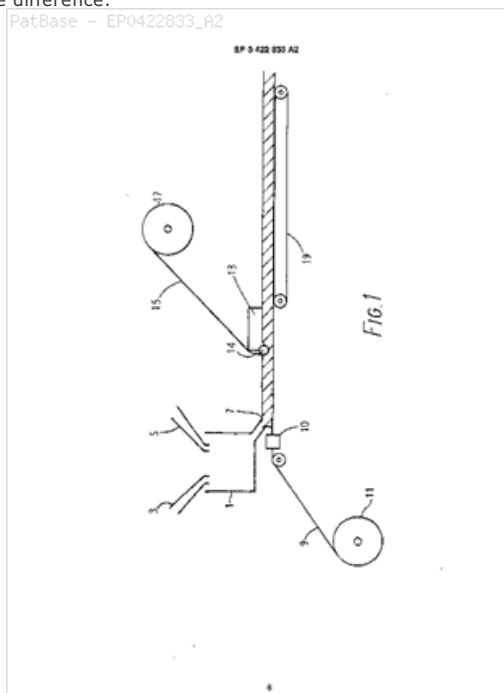
International (IPC 1-7): B28B13/02 B28B17/00 B28B5/02

G05D27/02

CPC: B28B17/0081 B28B5/027 B28B19/0092

European: B28B17/00H B28B19/00K B28B5/02C2

PatBase - EP0422833_R2



Family:

Publication number	Publication date	Application number	Application date
EP0422833 A2	19910417	EP19900310878	19901004
EP0422833 A3	19911204	EP19900310878	19901004
GB2236876 A1	19910417	GB19890023034	19891012
GB8923034 A0	19891129	GB19890023034	19891012

Priority:

GB19890023034 19891012

Probable Assignee: BPB IND PLC

Assignee(s): (std): BPB IND PLC ; BPB INDUSTRIES PLC

Assignee(s): BPB INDUSTRIES PUBLIC LIMITED COMPANY ; BPB IND PUBLIC CO LTD

Inventor(s): (std): CHILDS PETER ALBERT

Inventor(s): PETER ALBERT CHILDS

Designated states: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

Title: DEMAND RESPONSIVE, CONTINUOUS PREPARATION OF STARCH SLURRY FOR USE IN MANUFACTURING GYPSUM PRODUCTS

Abstract: Source: US5573333A A system for delivering a proper proportion of water and starch to form a slurry on a continuous basis responsive to the rate required for the production of gypsum board has a water input controller and a starch input controller to control the rate of water and starch input to a mix/hold tank and a starch slurry output controller to control the output of slurry from the mix/hold tank to the gypsum board production line. A programmable logic controller monitors the output rate and density of the delivered slurry, compares them to a target value and signals the input controllers and/or the output controller to adjust the input and output rates accordingly.

Classifications:

International (IPC 8-9): B01F15/00 B01F15/04 B28B13/02 B28B17/00 B28B19/00 B28C7/02 (Advanced/Invention);

B01F3/12 (Advanced/Non-invention);

B01F15/00 B01F15/04 B28B17/00 B28B19/00

B28C7/00 (Core/Invention);

B01F3/12 (Core/Non-invention)

International (IPC 1-7): B01F15/04 B28B13/02 B28C7/00 G05D11/06

CPC: B28B17/0081 B28C7/024 B01F15/00136 B01F15/00155

B01F15/00207 B01F15/00233 B01F15/00285 B01F15/0408

B01F2003/125 B28B19/0092 Y10T137/0335 Y10T137/2506

European: B01F15/00K1B B01F15/00K1D B01F15/00K3

B01F15/00K3H B01F15/00K40B B01F15/04D B28B17/00H

B28B19/00K B28C7/02B2 L01F3/12G

US: 137/4 137/92 366/132 366/141 366/152.1 366/153.1 366/160.1

PatBase - US5573333_R

U.S. Patent

Nov. 12, 1996

Sheet 1 of 3

5,573,333

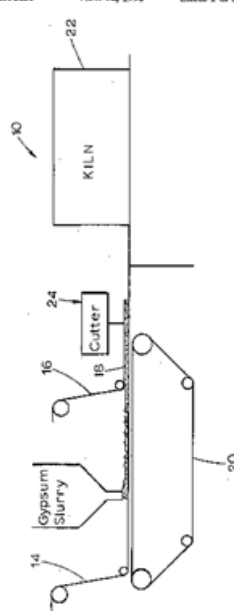


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
CA2156215 AA	19960223	CA19952156215	19950816
EP0698412 A2	19960228	EP19950305864	19950822
EP0698412 A3	19960417	EP19950305864	19950822
US5573333 A	19961112	US19940293445	19940822

Priority:

CA19952156215 19950816 US19940293445 19940822

Probable Assignee: NATIONAL GYPSUM PROPERTIES LLC

Assignee(s): (std): NAT GYPSUM CO

Assignee(s): NATIONAL GYPSUM CO ; NATIONAL GYPSUM COMPANY ; NATIONAL GYPSUM PROPERTIES LLC ; NATIONS BANK NA ; NATIONAL GYPSUM PROPERTIES LLC A CORP ; NATIONAL GYPSUM PROPERTIES LLC A OF DELAWARE CORP ; NATIONS BANK NA (CAROLINAS) ; NATIONS BANK NA CAROLINAS ; DAHLMAN DONALD P

Inventor(s): (std): DAHLMAN DONALD P ; DAHLMAN DONALD PAUL

Agent(s): OSLER HOSKIN AND HARCOURT LLP

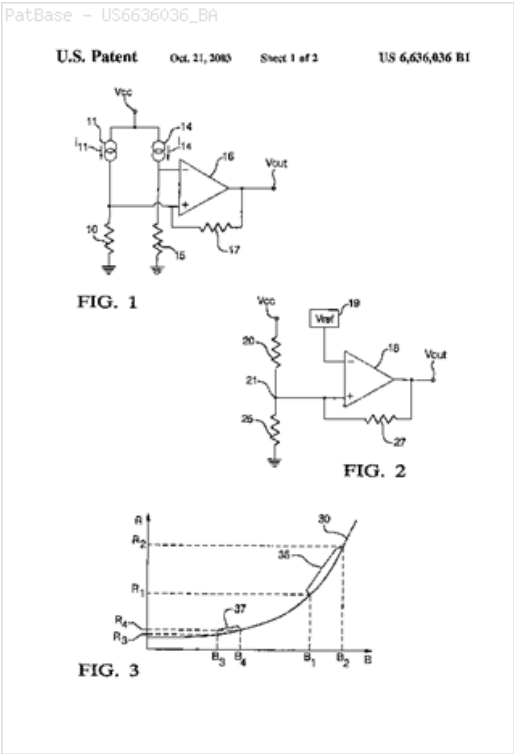
Designated states: DE FR GB

Title: Sensor with signal amplitude adaptive hysteresis

Abstract: Source: US6636036B In a magnetoresistive sensor employing a single stage comparator circuit for signal threshold detection, an hysteresis deadband is established substantially proportional to signal amplitude. The sensor includes a transducer comprising at least one magnetoresistive element and an hysteresis circuit also including the at least one magnetoresistive element.

Classifications:

International (IPC 8-9): G01D1/18 G01D5/14
G01D5/16 (Advanced/Invention);
G01D1/00 G01D5/12 (Core/Invention)
International (IPC 1-7): G01B7/00 G01D1/18 G01D5/16 G01R33/06
H01L43/08
CPC: G01D1/18 G01D5/147
European: G01D1/18 G01D5/14B2 G01D5/16B2
US: 324/207.12 324/207.21



Family:

Publication number	Publication date	Application number	Application date
EP0939300 A1	19990901	EP19990200232	19990127
US6636036 BA	20031021	US19980030144	19980225

Priority:

US19980030144 19980225

Probable Assignee: DELPHI TECHNOLOGIES INC
Assignee(s): (std): DELPHI TECH INC
Assignee(s): DELPHI TECHNOLOGIES INC ; GENERAL MOTORS CORP
Inventor(s): (std): HILE JOHN WESLEY ; SCHROEDER THADDEUS
Designated states: DE FR GB

Title: Dryer control system

Abstract: Source: US6418638B A control system and method for a dryer used to dry a line of gypsum boards. The control system automates control of the dryer by measuring the amount of water used at the mixer to produce board segments and determining a desired amount of water to be evaporated for each board segment based on the measured value. The desired amount of water to be evaporated for each board segment is tracked through the production line and the total evaporation load of each dryer zone is continuously calculated based on the board segments located in the dryer zone at a given time. The dryer zone differential temperature is adjusted according to the calculated evaporation load. When a board is rejected from the board line, the desired amounts of water to be evaporated of its corresponding board segments are set to zero, thus signifying a gap. The control system can be implemented using a distributed control concept, with PLC's controlling major process areas, and networked PC based supervisory operator interfaces located at key locations throughout the production line.

Classifications:

International (IPC 8-9): B28B11/24 F26B25/22 (Advanced/Invention); B28B11/00 F26B25/22 (Core/Invention)

International (IPC 1-7): B28B11/24 B32B13/00 C04B11/02 F26B15/12 F26B21/06 F26B23/00 F26B25/22 F26B3/00 H05B

CPC: B28B11/24

European: B28B11/24

US: 156/39 34/444 34/446 34/526 34/527 34/543 34/624

PatBase - US6418638_BA

U.S. Patent Jul. 16, 2002 Sheet 1 of 4 US 6,418,638 B1

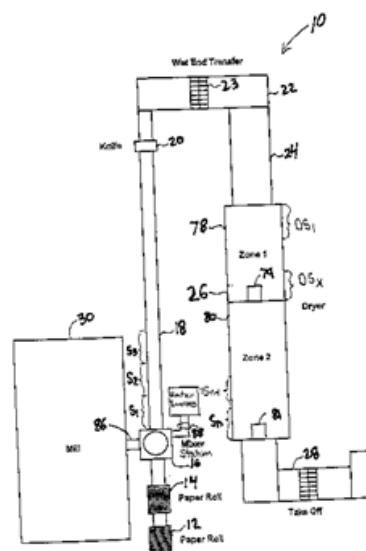


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AT255990 E	20031215	AT20000300338T	20000118
AU200012461 A1	20000720	AU20000012461	20000118
AU200012461 A5	20000720	AU20000012461D	20000118
AU771040 B2	20040311	AU20000012461	20000118
CA2259743 AA	20000718	CA19992259743	19990118
CA2259743 C	20060613	CA19992259743	19990118
DE60007006 D1	20040122	DE20006007006	20000118
DE60007006 T2	20040916	DE20006007006T	20000118
DE60007006 T3	20070516	DE20006007006T	20000118
DK1020267 T3	20040413	DK20000300338T	20000118
DK1020267 T4	20070129	DK20000300338T	20000118
EP1020267 A1	20000719	EP20000300338	20000118
EP1020267 B1	20031210	EP20000300338	20000118
EP1020267 B2	20061011	EP20000300338	20000118
ES2211447 T3	20040716	ES20000300338T	20000118
ES2211447 T5	20070501	ES20000300338T	20000118
NO20000252 A	20000719	NO20000000252	20000118
NO20000252 A0	20000118	NO20000000252	20000118
NO328337 B1	20100201	NO20000000252	20000118
PT1020267 T	20040430	PT20000300338T	20000118
US6418638 BA	20020716	US20000483789	20000114

Priority:

CA19992259743 19990118

Probable Assignee: WESTROC INC

Assignee(s): (std): BPB CANADA INC ; WESTROC INC

Assignee(s): BPB CANADA INC MISSISSAUGA ; DENNIS STEPHEN ; FORSTER JOHN ; MONGROLLE JEAN LOUIS

Inventor(s): (std): JOHN FORSTER ; LOUIS MONGROLLE ; STEPHEN DENNIS ; MONGROLLE LOUIS ; MONGROLLE JEAN LOUIS ; FORSTER JOHN ; DENNIS STEPHEN ; CARRAZ ROBERT

Inventor(s): JEAN LOUIS MONGROLLE

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; RIDOUT AND MAYBEE LLP

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: INSTALLATION TO CREATE CERAMIC PRODUCTS

Abstract: The installation is built up of technology packets (TP1-TP4), each has the same hard and software components. Packets are subdivided vertically (a,b,c,d) into master (a) for installation projection and servicing, in-situ servicing (c), control and regulation (d) and area for external control (b). Each technology packet has a programmable control (4, 14,23,33) connected directly or via bus (7)with sensors, actuators (9, 19) and drives (8,18) for the technology packet (TP1), kiln and (TP2) machine system. Drier (TP3) and cart tracing (TP4) have connection (25,35) for peripheral units. Each packet has personal computer (1,11,21,31) as server and packets (TP1,TP2) have client computer (2,12). Bus (10) or LAN connects the packets with each other. A central control unit (40) is connected to the bus (10), a remote control (42) connected over ISND connection (43) and lines (44,45) with server computer of selected technological packets and management of product data. Production planning and energy management unit (41) is connected to databus (10) and bus (7) and has direct access to data of programmable control units (4,14,23,33).

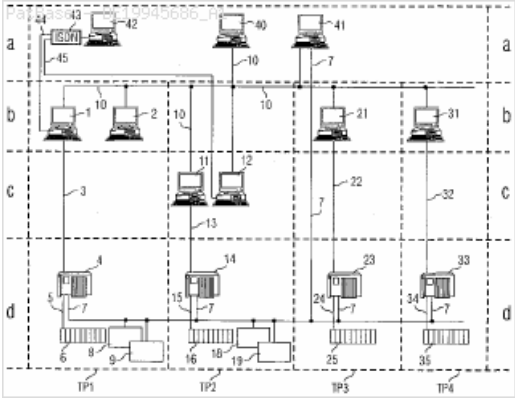
Classifications:

International (IPC 8-9): B28B11/24 F27D19/00 F27D3/00 G05B19/042 G05B19/05 (Advanced/Invention); B28B11/00 F27D19/00 F27D3/00 G05B19/04 G05B19/05 (Core/Invention)

International (IPC 1-7): B28B15/00 G05B19/05

CPC: F27D3/0021 B28B11/243 F27D19/00 G05B19/0426 G05B19/056 G05B2219/13144 G05B2219/23293 Y02P40/63 Y02P40/65

European: B28B11/24C F27D19/00 F27D3/00D G05B19/042P G05B19/05P S05B219/13144 S05B219/23293



Family:

Publication number	Publication date	Application number	Application date
DE19945686 A1	20010308	DE19991045686	19990923

Priority:

DE19991045686 19990923 DE19992014714U 19990823

Probable Assignee: SIEMENS AG

Assignee(s): (std): SIEMENS AG

Inventor(s): (std): BUCHART PETER ; GAST CHRISTIANE ; HERBER GERALD ; KREITMEIER ROLAND ; NACHTMANN GUENTHER ; OHNESORG WERNER ; WALTER DIETER

Title: PROCESS AND DEVICE FOR FORMING DENSE LAYERS IN A GYPSUM SLURRY

Abstract: Source: US2004134585A A process for manufacturing plasterboard and a plasterboard manufacturing unit are provided, the process including feeding hydratable calcium sulphate and water into a first mixer (2) and into a second mixer (3); feeding in a facing (5); preparing a first gypsum slurry in the first mixer (2); preparing a second gypsum slurry in the second mixer (3); applying the first slurry onto the facing and forming a crude surface layer; applying the second slurry onto the crude surface layer and forming a crude core layer with a density lower than that of the crude surface layer; forming a plasterboard; hydrating and drying the board. This process allows the formation of the different layers of gypsum to be controlled independently.

Classifications:

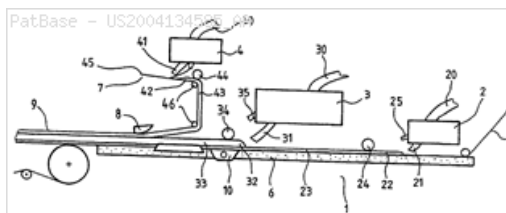
International (IPC 8-9): B01F15/02 B01F15/04 B28B1/16 B28B1/30 B28B13/02 B28B17/00 B28B17/02 B28B19/00 B28C5/16 B32B13/00 B32B37/24 C04B11/00 E04C2/04 (Advanced/Invention); B32B13/08 B32B13/14 (Advanced/Non-invention); B01F15/02 B01F15/04 B28B1/16 B28B1/30 B28B13/00 B28B17/00 B28B19/00 B28C5/00 B32B13/00 B32B37/14 (Core/Invention); B32B13/00 (Core/Non-invention)

International (IPC 1-7): B28B B28B1/16 B28B1/30 B28B13/02 B28B17/02 B28B19/00 B28C5/16 B32B13/00 B32B31/00 C04B11/00 C04B11/00 C04B11/40 C04B5/06 E04C2/04

CPC: B28B17/023 B28B19/0015 B28B19/0092

European: B28B17/02B B28B19/00B B28B19/00K

US: 156/346 156/39 156/43 156/44 366/10 366/15 366/20 366/38

**Family:**

Publication number	Publication date	Application number	Application date
AR033728 AA	20040107	AR2002P101726	20020510
AT358564 E	20070415	AT20020738232T	20020510
AU2002313044 AA	20021125	AU20020313044	20020510
AU2002313044 BB	20070322	AU20020313044	20020510
BRPI0209686 A	20040914	BR2002PI09686	20020510
CA2447561 AA	20031113	CA20022447561	20020510
CA2447561 C	20101102	CA20022447561	20020510
CL2002000977 A1	20030226	CL20020000977	20020513
CN1221367 C	20051005	CN20028009866	20020510
CN1509226 A	20040630	CN20028009866	20020510
DE60219302 D1	20070516	DE20026019302	20020510
EP1389157 A1	20040218	EP20020738232	20020510
EP1389157 B1	20070404	EP20020738232	20020510
FR2824552 A1	20021115	FR20010006381	20010514
FR2824552 B1	20040402	FR20010006381	20010514
IL158757 A0	20040512	IL20020158757	20020510
IN01414KN2003 A	20060602	IN2003KN01414	20031104
JP2004528204 T2	20040916	JP20020589228T	20020510
KR20040012830 A	20040211	KR20037014829	20020510
MXPA03010290 A1	20040505	MX2003PA10290	20020510
NO20035090 A0	20031114	NO20030005090	20031114
NZ529451 A	20051223	NZ20020529451	20020510
PL199451 B1	20080930	PL20020367072	20020510
PL367072 A1	20050221	PL20020367072	20020510
RU2003136094 A	20050527	RU20030136094	20020510
RU2265514 C2	20051210	RU20030136094	20020510
TH47054 B	20151120	TH20021001700	20020513
TH60283 A	20040109	TH20021001700	20020513
UA78703 C2	20070425	UA20031211541	20020510
US2004134585 AA	20040715	US20030703418	20031110
US7470338 BB	20081230	US20030703418	20031110
WO2002092307 A1	20021121	WO2002FR01587	20020510
ZA200308762 A	20040712	ZA20030008762	20031111

Priority:

FR20010006381 20010514 WO2002FR01587 20020510

Probable Assignee: CONTINENTAL BUILDING PRODUCTS OPERATING CO LLC F K A CONTINENTAL BUILDING PRODUCTS LLC

Assignee(s): (std): CALLAIS BRUNO ; JALLON PAUL ; LAFARGE PLATRES ; LAURENT JEAN LOUIS ; RIGAUDON MICHEL ; LAFARGE PLASTERS

Assignee(s): LAFARGE SA ; LAFARGE NORTH AMERICA INC ; CONTINENTAL BUILDING PRODUCTS LLC ; CONTINENTAL BUILDING PRODUCTS OPERATING CO LLC ; CONTINENTAL BUILDING PRODUCTS OPERATING CO LLC F K A CONTINENTAL BUILDING PRODUCTS LLC ; CREDIT SUISSE ADMINISTRATIVE AGENT AG AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH FIRST LIEN ADMINISTRATIVE AGENT AG AS ; CREDIT SUISSE CAYMAN ISLANDS BRANCH SECOND LIEN ADMINISTRATIVE AGENT AG AS

Inventor(s): (std): BRUNO CALLAIS ; CALLAIS B ; JALLOU P ; LAURENT J L ; RIGODON MISHEL ; ZHALLON POL ; RIGAUDON MICHEL ; PAUL JALLON ; P JALLOU ; MICHEL RIGAUDON ; LAURENT JEAN LOUIS ; KALLE BRJUNO ; JL LAURENT ; JEAN LOUIS LAURENT ; JALLON PAUL ; LORAN ZHAN LUI ; CALLAIS BRUNO ; B CALLAIS

Inventor(s): LAURENT JEAN LUIS ; J L LAURENT ; LORAN ZHAN-LUI ; RIGAUDONMICHEL ; RIGODON MISHEL' ; ZHALLON POL'

Agent(s): SPRUSON AND FERGUSON; OGILVY RENAULT LLP SENCRL SRL; ALESSANDRI; CABINET HIRSCH POCHART ET ASSOCIES; BUCHANAN INGERSOLL AND ROONEY PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ

LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD
SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: GLASS REINFORCED GYPSUM BOARD AND METHOD OF MANUFACTURE

Abstract: Source: US2002187296A A method of manufacture of multilayer gypsum board, and a multilayer gypsum board, having face sheets comprising randomly oriented inorganic or glass fibers completely impregnated with a gypsum slurry penetrating through the random interstices between the inorganic fibers and coating the board surfaces with gypsum slurry. Wet gypsum board passes through a board forming station having upper and lower forming plates, set at an angle relative to each other and being separated by a predetermined dimension substantially equal to the desired thickness of the manufactured gypsum board product. Additives in the gypsum, such as engineered polymers, provide for a better surface for coating. The gypsum board has a first layer of a mixture of set gypsum having an outer surface and the polymeric compound additive entrained therein and impregnated in a thin sheet of randomly aligned inorganic fibers to essentially encase the core gypsum within two facing layers. An edger bar assembly includes bases mounted on pneumatic arms at opposite lateral ends supporting an edger bar extending therebetween, and each base includes an attached flapper edge mechanism having an inboard surface abutting the gypsum board edge to retain unset slurry skimmed off the wet gypsum board surface by the edger bar from overflowing onto the conveyor belt. A microporous fluid bed mounted longitudinally across the board injects a fluid film under pressure by means of micropores into the interface between the bed surface and the top surface of the gypsum board to provide an ultrasmooth board surface.

Classifications:

International (IPC 8-9): B05D3/00 B05D5/00 B05D7/24 B23B13/04 B28B1/30 B28B1/50 B28B1/52 B28B11/08 B28B19/00 B28B23/00 B28B23/18 B28B5/02 B29D99/00 B32B1/04 B32B13/00 B32B13/02 B32B13/04 B32B13/06 B32B13/08 B32B13/12 B32B13/14 B32B15/08 B32B17/04 B32B17/06 B32B23/04 B32B25/02 B32B25/10 B32B27/04 B32B27/08 B32B27/10 B32B27/12 B32B27/14 B32B27/28 B32B27/30 B32B27/32 B32B27/34 B32B27/36 B32B3/00 B32B3/04 B32B3/06 B32B31/00 B32B5/02 B32B5/12 B32B5/14 B32B5/18 B32B5/22 B32B5/26 B32B5/28 B32B7/02 B32B7/04 B32B7/08 B32B7/10 C04B14/38 C04B14/42 C04B16/06 C04B24/00 C04B24/24 C04B28/14 C04B41/52 D04H3/08 D06N7/00 E04C2/04 E04C2/06 E04C2/26 E04F15/16 F16G5/00 (Advanced/Invention);

B32B13/14 C04B111/00 C04B111/27 C04B111/60 C04B28/14 (Advanced/Non-invention); B05D3/00 B05D7/24 B28B11/08 B28B19/00 B28B23/00 B32B1/00 B32B15/08 B32B25/00 B32B27/04 B32B27/14 B32B3/00 B32B3/06 B32B5/12 B32B7/02 D04H3/08 E04C2/00 E04C2/04 E04C2/26 F16G5/00 (Core/Invention); B28B B32B D04H F16G (Subclass/Invention)

International (IPC 1-7): B05D7/24 B23B13/04 B28B1/52 B28B11/04 B28B19/00 B28B23/04 B28B23/18 B28B23/22 B28B3/12 B28B5/02 B32B B32B1/04 B32B13/00 B32B13/02 B32B13/06 B32B13/14 B32B15/08 B32B25/02 B32B25/10 B32B27/04 B32B27/12 B32B27/14 B32B3/02 B32B3/06 B32B31/00 B32B5/02 B32B5/12 B44C1/26 B44C1/28 B44C3/12 D04H D04H3/08 E04C2/26 F16G F16G5/00 H01B13/10 H01B13/26

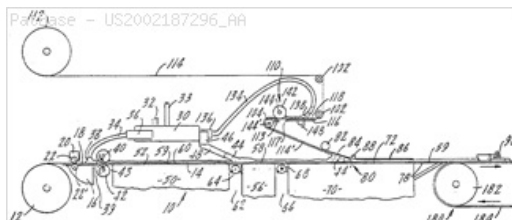
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European: B28B11/08C B28B19/00K B28B23/00A B28B3/12B B28B5/02 B28B5/02C B28B5/02C2 B28B7/00F5 B32B13/02 B32B13/04 B32B13/14 B32B27/12 B32B27/30C B32B3/04 B32B5/02A B32B5/18 B32B7/02 C04B28/14 E04C2/04C L32B255/02 L32B255/24 L32B255/26 L32B255/28 L32B262/10A L32B307/536 L32B307/720 L32B419/00 M04B111/00P34 M04B111/00T6

US: 1/1 118/123 118/123S 156/202 156/216 156/221 156/256 156/280 156/346 156/346S 156/348 156/39 156/39S 156/40 156/41 156/41P 156/45 156/52 264/129 264/255 264/256 264/261 264/295 264/339 425/101 425/104 425/110 425/115 425/123 425/130 425/220 425/224 425/346R 425/96 427/299 427/372.2 427/372.200S 428/141 428/141P 428/195.1 428/195.100S 428/201 428/201S 428/218 428/218P 428/306.6 428/306.600S 428/411.1 428/411.100S 428/432 428/432P 428/457 428/457S 428/480 428/480S 428/523 428/523S 428/532 428/532S 428/537.5 428/537.500S 428/67 428/68 428/7 428/70 428/703 428/703S 428/74 428/76 442/172 442/172S 442/2 442/20 442/20S 442/25 442/327 442/327S 442/331 442/331S 442/394 442/42 442/42P 442/59 442/59S 442/76 442/76S 524/2 524/2S

Family:

Publication number	Publication date	Application number	Application date
AU2002314925 AA	20021216	AU20020314925	20020605
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AU2005315249 AA	20060622	AU20050315249	20051013
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CA2449781 AA	20031204	CA20022449781	20020605
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WO02098646 C1	20030522	WO2002US17795	20020605
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WO06064377 A3	20060921	WO2005IB04064	20051013

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ZA200703969 A	20091125	ZA20070003969	20070101

Priority:

CA20132818143	20130605	EP20020741852	20020605	EP20090832416	20091204
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US20120491744	20120608	WO2012US21065	20120112	US20130941950	20130715
WO2002US17795	20020605	US20160044639	20160216		

Probable Assignee: CERTAINTED GYPSUM INC

Assignee(s): (std): BPB IND LTD ; BPB LTD ; HAUBER ROBERT J ; SANDERS CHRISTOPHER J ; HENNIS MARK E ; FAHEY MICHAEL P ; BPB PLC ; STUART TROY R ; BOYDSTON GERALD D ; BOYDSTON JERRY D ; CHOWNING MATTHEW J ; WASCOMB GREGORY L ; CERTAINTED GYPSUM INC ; BPB LTD A U K CORP ; SETEHTNID DZHIPSUM INK ; HAUBER ROBERT JOSEPH

Assignee(s): CHOWING MATTHEW J ; BPB ; BPB A U K CORP LTD ; BPB A UK BINLEY CORP LTD ; BPB A UK CORP LTD ; BPB PLC PARK HOUSE

Inventor(s): (std): COLLEGE JOHN ; FAHEY MICHAEL ; FAHEY MICHAEL P ; HAUBER ROBERT ; HAUBER ROBERT J ; HENNIS MARK ; HENNIS MARK E ; MICHAEL P FAHEY ; SANDERS CHRISTOPHER J ; BOYDSTON GERALD ; BOYDSTON GERALD D ; CHOWING MATTHEW J ; STUART TROY R ; WASCOMB GREGORY L ; ROBERT JHAUBER ; ROBERT J HAUBER ; MICHAEL P FAHEY ; MARK E HENNIS ; JERRY D BOYDSTON ; GERKEN ROBERT B ; FACH MIKE P ; CHRISTOPHER J SANDERS ; CHOWNING MATTHEW J ; BOYDSTON JERRY D ; SANDERS CHRISTOPHER ; HAUBER ROBERT JOSEPH ; KHOBER ROBERT DZH ; HENNIS MARK E FAHEY MICHAEL P ; BOYDSTON DZHERRI D

Inventor(s): TROY R STUART ; MATTHEW J CHOWNING ; GERALD D BOYDSTON ; CHOWING MATTHEW ; GERKEN ROBERT ; FAHEY MICHAEL P ST PETERSBURG ; HENNIS MARK E INDIAN ROCKS BEACH ; HAUBER ROBERT J LUTZ ; MIKE P FACH ; SANDERS CHRISTOPHER J SAFETY HARBOR ; CHOWNING MATTHEW ; BOYDSTON JERRY ; STUART TROY

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; CHRYSILIOU IP; TATLOCKS CHRYSILIOU IP; HALFORDS IP; GOWLING LAFLEUR HENDERSON LLP; RICHES MCKENZIE AND HERBERT LLP; RIDOUT AND MAYBEE LLP; ADOLF LUEKEN HOEFELICH SAWODNY RECHTS U PATENTANWAELTE; CHAPMAN HELGA CLAIRE; PUGSLEY VICTORIA ANTONIETTA; BOTELLA ANTONIO; ISERN JORGE; PATENT AND TRADEMARK DOCKET CLERK, RYNDAL AND SURI; PATENT AND TRADEMARK DOCKET CLERK RYNDAL AND SURI; VANGELIS ECONOMOU, C/O IPHORGAN LTD; VANGELIS ECONOMOU C O IPHORGAN LTD; VANGELIS ECONOMOU, C/O IPHORGAN LTD; GRAY ROBINSON ATTN STEFAN V STEIN IP DEPT; RYNDAL AND SURI; VANGELIS; RYNDAL AND SURI VANGELIS ECONOMOU; VANGELIS ECONOMOU IPHORGAN LTD; ECONOMOU IP LAW; GRAYROBINSON PA; MICHAEL J; COLITZ MICHAEL J; ECONOMOU VANGELIS; COLITZ MICHAEL J III

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SLURRY MIXER OUTLET

Abstract: Source: US2003117891A An apparatus configured for connection to a mixer for receiving a slurry and altering the flow characteristics of the slurry includes a conduit having a main inlet in slurry receiving communication with the mixer outlet and extending to a spout for discharging the slurry, at least one conduit restrictor associated with the conduit for creating back-pressure between the conduit restrictor and the mixer outlet for keeping the mixer full, and at least one pressure reducer associated with the discharge spout and configured for reducing the pressure of the slurry dispensed from the discharge spout. The apparatus is configured for maintaining a generally laminar flow from the mixer outlet to the discharge spout.

Classifications:

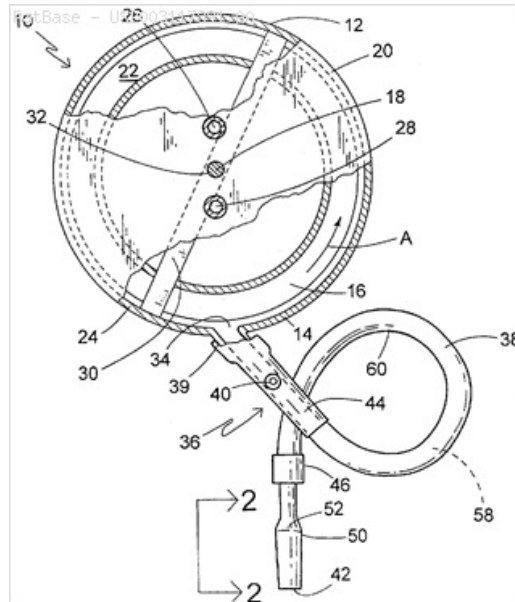
International (IPC 8-9): B01F15/02 B01F3/12 B01F7/16 B28B19/00
B28C5/00 B28C5/08 B28C5/12 B28C5/16 B28C5/38
B28C7/16 (Advanced/Invention);
B01F5/00 (Advanced/Non-invention);
B01F15/02 B01F3/12 B01F7/16 B28B19/00 B28C5/00
B28C7/00 (Core/Invention);
B01F5/00 (Core/Non-invention)

International (IPC 1-7): B01F15/02 B01F7/16 B28C5/00 B28C5/08
B28C5/12 B28C5/16

CPC: B01F15/0266 B01F3/1221 B01F7/163 B01F2005/0028
B01F2215/0047 B28B19/0092 B28C5/16 B28C5/386 B28C7/16

European: B01F15/02C B01F3/12C B01F7/16F2 B28B19/00K
B28C5/16 B28C5/38B4 B28C7/16 L01F215/00A56 L01F5/00A14

US: 366/192 366/192P 366/194 366/194S 366/315 366/315S



Family:

Publication number	Publication date	Application number	Application date
AU2002346070 AA	20030303	AU20020346070	20020703
AU2002346070 BB	20080110	AU20020346070	20020703
CA2446672 AA	20031105	CA20022446672	20020703
CA2446672 C	20110111	CA20022446672	20020703
DE60238259 D1	20101223	DE20026038259	20020703
EP1417081 A1	20040512	EP20020744828	20020703
EP1417081 B1	20101110	EP20020744828	20020703
MXPA03011139 A1	20040226	MX2003PA11139	20020703
NZ529470 A	20051028	NZ20020529470	20020703
US2003117891 AA	20030626	US20020318636	20021213
US6494609 BA	20021217	US20010905553	20010716
US6874930 BB	20050405	US20020318636	20021213
WO03008167 A1	20030130	WO2002US21263	20020703

Priority:

US20010905553 20010716 US20020318636 20021213 WO2002US21263 20020703

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): UNITED STATES GYPSUM CO

Assignee(s): UNITED STATES GYPSUM COMPANY ; WITTBOLD JAMES R ; DUVEDI AMIT P ; FLEMING WAYNE A ;
HEMPHILL MARK K ; MOORE KIRK S ; NELSON CHRISTOPHER ; PITTMAN WILFORD GARY

Inventor(s): (std): ELSON CHRISTOPHER ; LEMING WAYNE A ; SHAKE MICHAEL P ; WITTBOLD JAMES R ; WILFORD GARY
PITTMAN ; PITTMAN WILFORD GARY ; NELSON CHRISTOPHER ; MOORE KIRK S ; HEMPHILL MARK K ;
FLEMING WAYNE A ; DUVEDI AMIT P

Inventor(s): CHRISTOPHER NELSON ; AMIT P DUVEDI ; MARK K HEMPHILL ; KIRK S MOORE ; JAMES R WITTBOLD ; WAYNE A FLEMING

Agent(s): GRIFFITH HACK; MACRAE AND CO; MOFFAT AND CO; MUELLER BORE AND PARTNER
PATENTANWALTE; GREER BURNS AND CRAIN LTD; MICHAEL M; DAVID F

Designated states: AT AU BE BG CA CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC MX NL NZ PT SE SK TR

Title: SLURRY FEED APPARATUS FOR FIBER-REINFORCED STRUCTURAL CEMENTITIOUS PANEL PRODUCTION

Abstract: Source: US2005061237A A feed apparatus for use in depositing a slurry upon a moving web having a direction of travel includes a main metering roll, a companion roll disposed in closely spaced relation to the metering roll to form a nip therebetween. The nip is constructed and arranged to retain a supply of the slurry, and the rolls are driven so that slurry retained in the nip progresses over an upper outer peripheral surface of the metering roll to be deposited upon the web. Also preferably included is a thickness control roll disposed in operational relationship to the metering roll for controlling thickness of a layer of slurry drawn from the nip over the outer metering roll surface. Preferably, the metering roll, the companion roll and the thickness control roll are driven in the same direction.

Classifications:

International (IPC 8-9): B05C1/08 B28B1/52 B28B13/02

B28B5/02 (Advanced/Invention);

B05C1/08 (Advanced/Non-invention);

B05C1/08 B28B1/52 B28B13/00 B28B5/00 (Core/Invention);

B05C1/08 (Core/Non-invention);

B28B (Subclass/Invention)

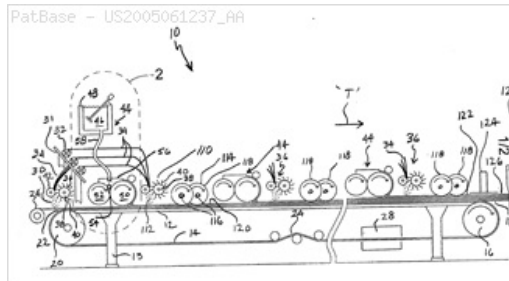
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CPC: B05C1/0834 B05C1/0865 B28B1/522 B28B5/027 B28B13/02

European: B05C1/08Y2 B28B1/52C B28B13/02 B28B5/02C2

L05C1/08P2 L05C1/08Y50B

US: 118/259 118/259S 118/262 118/304 156/346 156/346S



Family:

Publication number	Publication date	Application number	Application date
AR049763 AA	20060906	AR2004P103340	20040917
AT548171 E	20120315	AT20040782995T	20040902
BRPI0414529 A	20061107	BR2004PI14529	20040902
CA2535000 AA	20060207	CA20042535000	20040902
CL2004002350 A1	20050708	CL20040002350	20040915
CL43240 B	20071107	CL20040002350	20040915
CN100563965 C	20091202	CN200480026963	20040902
CN1852794 A	20061025	CN200480026963	20040902
DE602004036835 D1	20120503	DE200460036835T	20040902
EP1663597 A1	20060607	EP20040782995	20040902
EP1663597 B1	20120307	EP20040782995	20040902
EP2295217 A1	20110316	EP20100015328	20040902
HK1085968 A3	20060908	HK20060107457	20060703
IL173641 A0	20060705	IL20060173641	20060209
IL173641 A1	20110428	IL20040173641	20040902
JP2007505769 T2	20070315	JP20060526922T	20040902
MXPA06002471 A1	20060620	MX2006PA02471	20040902
RU2006112827 A	20071027	RU20060112827	20040902
RU2351466 C2	20090410	RU20060112827	20040902
TH71699 A	20051103	TH20041003590	20040916
US2005061237 AA	20050324	US20030664460	20030918
US6986812 BB	20060117	US20030664460	20030918
WO05032783 A1	20050414	WO2004US28609	20040902

Priority:

EP20040782995 20040902 US20030664460 20030918 WO2004US28609 20040902

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): DUBEY ASHISH ; JUNAJTED STEJTS DZHIPSUM KOMPA ; UNITED STATES GYPSUM CO ; PORTER MICHAEL J ; UNITED STATES GYPSUM COMPANY

Assignee(s): CHAMBERS JOE W ; MILLER DAVID PAUL ; LI ALFRED C ; JUNAJTED STEJTS DZHIPSUM KOMPANI ; GYPSUM CO ; GYPSUM CO UNITED STATES

Inventor(s): (std): DUBEY ASHISH PORTER MICHAEL J ; LI AL FRED SI ; LI ALFRED C ; ASHISH DUBEY ; CHAMBERS JOE W ; CHEMBERS DZHO VI ; DUBEJ ASHISH ; DUBEY ASHISH ; MILLER PAUL ; MILLER PAUL D ; PORTER MAJKL DZH ; PORTER MICHAEL ; PORTER MICHAEL J

Inventor(s): PORTER MICHAEL J HANOVER PARK ; MILLER PAUL LINDENHURST ; MILLER PAUL' ; DUBEY ASHISH GRAYSLAKE ; LI ALFRED C NAPERVILLE ; LI AL'FRED SI ; MICHAEL J PORTER ; MILLER DAVID PAUL

Agent(s): MACRAE AND CO; JOHANSSON; FINDLAY ALICE ROSEMARY; CARPMAEL ROBERT MAURICE CHARLES; REINHOLD COHN AND PARTNERS; GREER BURNS AND CRAIN; GREER BURNS AND CRAIN LTD; DAVID; MICHAEL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: APPARATUS FOR PROCESSING PRELIMINARY PRODUCTS IN THE GRAPHICS INDUSTRY

Abstract: Source: US2005090932A An apparatus for processing preliminary products in the graphics industry with the preliminary products at a standstill in a processing position, includes a conveyor by which the preliminary products can be transported in a transporting direction, along a transporting section, into the processing position, a drive that operates the conveyor, a detector that detects a respective preliminary product en route along the transporting section, and a controller that is linked up with the detector and the drive and by which the drive can be brought to a temporary standstill when the respective preliminary product reaches the processing position. On account of stops not being present, the preliminary products remain intact at least along their leading edges, as seen in the transporting direction, there are no marks on these edges, and the set-up times during a changeover of the format of the preliminary products are relatively short.

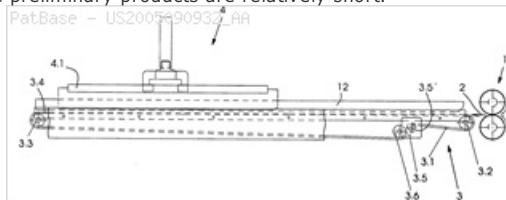
Classifications:

International (IPC 8-9): B65H29/24 B65H43/00 B65H45/12
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B65H9/10 (Advanced/Invention);
B65H29/24 B65H43/00 B65H45/12 B65H5/02 B65H5/22 B65H7/02
B65H9/10 (Core/Invention);
B65H (Subclass/Invention)

International (IPC 1-7): B65H43/00 B65H45/12 B65H45/14
B65H45/18 B65H5/02 B65H7/02 B65H7/14 F26B5/04 G06F7/00
CPC: B65H5/021 B65H9/105 B65H11/005 B65H11/007 B65H29/241
B65H45/18 B65H2404/24 B65H2404/251 B65H2511/51 B65H2513/10 B65H2513/512 B65H2701/1932 B65H5/224

European: B65H11/00B2 B65H11/00D B65H29/24B B65H45/18 B65H5/02B B65H5/22B2 B65H9/10B2 L65H404/24
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US: 700/230 700/230P



Family:

Publication number	Publication date	Application number	Application date
AT374722 E	20071015	AT20040104824T	20041001
CN100413767 C	20080827	CN200410087949	20041027
CN1611432 A	20050504	CN200410087949	20041027
DE102004045486 A1	20050525	DE200410045486	20040920
DE502004005118 D1	20071115	DE200450005118T	20041001
EP1528026 A1	20050504	EP20040104824	20041001
EP1528026 B1	20071003	EP20040104824	20041001
HK1074614 A1	20090227	HK20050106600	20050802
HK1074614 A3	20051118	HK20050106600	20050802
JP2005126233 A2	20050519	JP20040082659	20040322
PT1528026 T	20080111	PT20040104824T	20041001
US2005090932 AA	20050428	US20040974435	20041027

Priority:

DE20031050095 20031027 DE200410045486 20040920 US20040974435 20041027
US20030516154P 20031031

Probable Assignee: HEIDELBERGER DRUCKMASCHINEN AG

Assignee(s): (std): HEIDELBERGER DRUCKMASCH AG

Assignee(s): HEIDELBERGER DRUCKMASCHINEN ; HEIDELBERGER DRUCKMASCHINEN AG ; HEIDELBERGER DRUCKMASCHINEN AKTIENGESellschaft ; HEIDELBERGER DRUCKMASCHINENAKTIENGESellschaft ; HEIDELBERGER DRUCKMAS AG

Inventor(s): (std): BELMANN MARKUS ; BERND KERNSTOCK ; KERNSTOCK BERND ; KLAUS PETER SCHREIBER ; MARKUS BELMANN ; SCHREIBER KLAUS PETER

Agent(s): LERNER AND GREENBERG PA

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Title: Automatic non-supporting board manufacture and system of light batten

Abstract: Source: CN1644340A An automatic technology for producing light strip plates without pallet includes such steps as mixing raw materials, extruding out for shaping, conveying while cutting, dual-speed conveying for separating, outputting, stacking and curing. Its primary production line is composed of extruder, synchronous conveyer, non-power conveyer, dual-speed conveyer, output roller way, cutting machine and stacking machine.

Classifications:

International (IPC 8-9): B28B11/24 B28B13/00 B28B3/22 B28B3/26 (Advanced/Invention);

B28B11/00 B28B13/00 B28B3/20 B28B3/26 (Core/Invention)

International (IPC 1-7): B28B11/24 B28B13/00 B28B3/22 B28B3/26

Family:

Publication number	Publication date	Application number	Application date
CN1251850 C	20060419	CN200410080059	20040924
CN1644340 A	20050727	CN200410080059	20040924

Priority:

CN200410080059 20040924

Probable Assignee:

SI GUOQUAN

Assignee(s): (std):

SI GUOQUAN

Inventor(s): (std):

SI GUOQUAN

Inventor(s):

GUOQUAN SI

Title: METHOD AND APPARATUS FOR CONTINUOUS MOTION TIPPING OF TIP-ON PRODUCTS ONTO CONTINUOUSLY MOVING BASE PRODUCTS

Abstract: Source: US2009099687A A method and apparatus to facilitate accurately matching and placing non-uniformly spaced tip-on products from a friction feeder onto non-uniformly spaced base products that are traveling on a base conveyor while both the friction feeder and the base conveyor are continuously moving. Using encoders on the conveyor drive motors to track conveyor position and electronic sensors to detect the arrival on tip-on products and base products at predetermined points along their respective conveyors, a programmed microcontroller implements an algorithm for adjusting the speed of the sheet feeder's discharge conveyor so that the tip-on product and base product arrive at a matchpoint simultaneously.

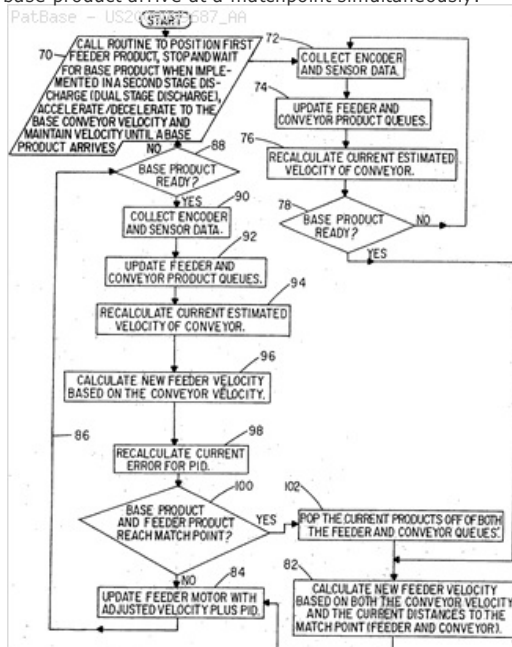
Classifications:

International (IPC 8-9): G06F17/00 G06F7/00 (Advanced/Invention);
G06F17/00 G06F7/00 (Core/Invention)

CPC: B65C1/02 B65C9/42

European: B65C1/02 B65C9/42

US: 700/230



Family:

Publication number	Publication date	Application number	Application date
CA2602971 AA	20070925	CA20062602971	20060328
EP1866739 A1	20071219	EP20060739830	20060328
US2009099687 AA	20090416	US20070904076	20070925
WO06105083 A1	20061005	WO2006US11274	20060328

Priority:

US20050665709P 20050328
WO2006US11274 20060328

US20050715282P 20050908

US20070904076 20070925

Probable Assignee: MULTIFEEDER TECHNOLOGY INC

Assignee(s): (std): HELGESON RYAN M ; MULTIFEEDER TECHNOLOGY INC ; NORDLING PETER M

Inventor(s): (std): HELGESON RYAN M ; NORDLING PETER M

Agent(s): RIDOUT AND MAYBEE LLP; NIKOLAI AND MERSEREAU PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: PROCESS AND APPARATUS FOR FEEDING CEMENTITIOUS SLURRY FOR FIBER-REINFORCED STRUCTURAL CEMENT PANELS

Abstract: Source: US2008099171A A head-box for depositing slurry upon a moving web including a main metering roll, a companion roll disposed in closely spaced relation to the metering roll and a vibrating gate which forms a nip between the metering roller and the gate. The nip is arranged to retain a supply of the slurry, and the rolls are driven so slurry retained in the nip progresses over an upper outer peripheral surface of the metering roll to be deposited upon the web. Also, preferably included is a doctor blade disposed in operational relationship to the metering roll for directing the slurry downwardly from the outer metering roll surface to a point above the surface of a carrier for a fiberglass layer upon which the slurry layer is deposited. The vibrating gate and doctor blade may be pivotally mounted to either side of the surfaces of the head-box.

Classifications:

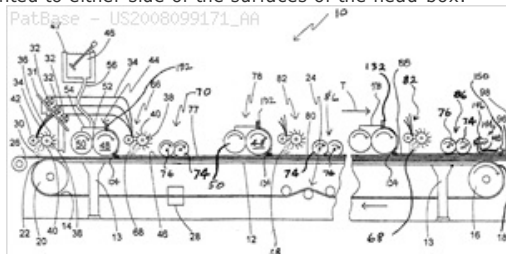
International (IPC 8-9): B28B1/52 B28B13/02 B28B19/00 B28B3/12 B28B5/02 B28B7/36 B28C5/36 B28C5/40 B32B13/00 B32B13/02 C03B37/00 C04B7/00 D21F1/08 D21F1/18 (Advanced/Invention); B32B13/02 (Advanced/Non-invention); B28B1/52 B28B13/00 B32B13/00 C03B37/00 C04B7/00 (Core/Invention)

International (IPC 1-7): B32B13/00 C04B7/00

CPC: B28B5/027 B28B7/364 B28B13/022 B28B19/0015 B28C5/365 B28C5/404

European: B28B13/02D2 B28B19/00B B28B5/02C2 B28B7/36C B28C5/36B B28C5/40C

US: 156/346 162/156 162/291 162/341 162/344 162/347 162/358.3



Family:

Publication number	Publication date	Application number	Application date
AU2007318082 A	20080515	AU20070318082	20071025
BRPI0717871 A2	20131029	BR2007PI17871	20071025
CA2668115 AA	20090430	CA20072668115	20071025
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CN101573225 A	20091104	CN200780049011	20071025
EP2091729 A2	20090826	EP20070861528	20071025
EP2091729 A4	20120104	EP20070861528	20071025
IN01468KN2009 A	20090529	IN2009KN01468	20090420
JP2010508178 T2	20100318	JP20090535281T	20071025
MX2009004600 A1	20090622	MX20090004600	20071025
NZ576390 A	20110729	NZ20070576390	20071025
RU2009120413 A	20101210	RU20090120413	20071025
US2008099171 AA	20080501	US20060555647	20061101
US7754052 BB	20100713	US20060555647	20061101
WO08057272 A2	20080515	WO2007US22692	20071025
WO08057272 A3	20080814	WO2007US22692	20071025

Priority:

US20060555647 20061101 WO2007US22692 20071025

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): FRANK WILLIAM A ; GEORGE LLOYD M ; STIVENDER EUGENE SCOTT ; UNITED STATES GYPSUM CO

Assignee(s): UNITED STATES GYPSUM COMPANY

Inventor(s): (std): FRANK WILLIAM A ; GEORGE LLOYD M ; SCOTT STIVENDER EUGENE ; STIVENDER EUGENE SCOTT

Inventor(s): WILLIAM A FRANK ; STIVENDER EUGENE ; LLOYD M GEORGE ; GEORGE LLOYD ; EUGENE SCOTT STIVENDER ; FRANK WILLIAM

Agent(s): GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; ALESANDRI AND COMPANIA; RIPAMONTI ENRICO; NOVAK DRUCE AND QUIGG LLP ANTHONY P VENTURINO; NOVAK DRUCE AND QUIGG LLP; VENTURINO ANTHONY P

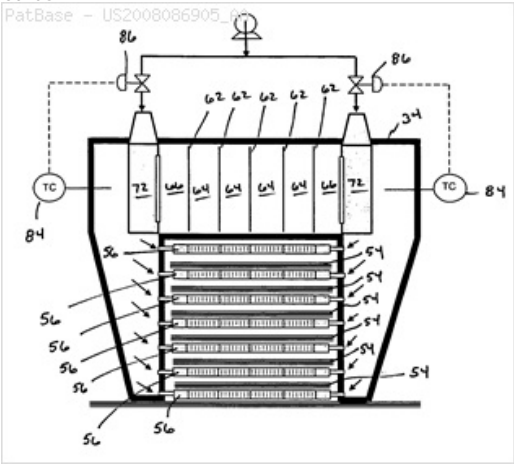
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Title: APPARATUS AND METHOD FOR THE UNIFORM DRYING OF BOARD MATERIALS

Abstract: Source: US2008086905A Disclosed is an apparatus and method for the uniform drying of boards, such as gypsum wallboards. The apparatus includes a dryer through which a series of boards are conveyed in a side-by-side relationship. While in the dryer, heated air is delivered over the boards via a series of separate air channels. A bypass duct delivers a portion of or a totality of unreheated air to the outermost channels where the cooler air displaces a volume of the warmer air. As a result, the air in the outermost channels is cooler than the air in the interior channels. Air from the outermost channels is then directed over the exposed longitudinal edges of the boards.

Classifications:

International (IPC 8-9): F26B25/06 F26B3/00 F27B9/00
F27B9/06 (Advanced/Invention);
F26B25/06 F26B3/00 F27B9/00 (Core/Invention)
CPC: F26B13/007 F26B15/12 F26B21/02 F26B21/10
European: F26B13/00H F26B15/12 F26B21/02 F26B21/10
US: 34/205 34/212 34/218 34/443 34/445 34/446 34/477 34/479 34/86



Family:

Publication number	Publication date	Application number	Application date
CA2668451 AA	20090504	CA20072668451	20071012
CA2668451 C	20150421	CA20072668451	20071012
US2008086905 AA	20080417	US20060580699	20061013
US7726040 BB	20100601	US20060580699	20061013
WO08048476 A2	20080424	WO2007US21774	20071012
WO08048476 A3	20080703	WO2007US21774	20071012

Priority:

US20060580699 20061013 WO2007US21774 20071012

Probable Assignee: CERTAINTEED GYPSUM INC

Assignee(s): (std) CERTAINTEED GYPSUM INC ; YANES FELIPE J

Inventor(s): (std) YANES FELIPE J

Agent(s): RIDOUT AND MAYBEE LLP; HOLLAND AND KNIGHT LLP ATTN STEFAN V STEIN IP DEPT; GRAYROBINSON PA; COLITZ MICHAEL J III ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR SMOOTHING CEMENTITIOUS SLURRY IN THE PRODUCTION OF STRUCTURAL CEMENTITIOUS PANELS

Abstract: Source: US2009004378A A vibrating smoothing device or plate transverse to a direction of travel of deposited gypsum-cementitious slurry and embedded chopped fibers. The plate is used to smooth the top surface of the slurry panel as it exits a first fiber embedment station and a second slurry depositing station before passing through a second fiber embedment station of a structural cementitious panel production line to remove grooves and other non-uniform surface imperfections to have the slurry cover the embedded fibers. The plate is designed to float over the surface of the formed slurry without tearing or otherwise damaging the surface of the heavily fiber reinforced surface layers of the formed slurry before it sets. The vibrating plate is pivotally mounted on the web production line so it can float over the panel surface during use, but be raised off the line when not in use.

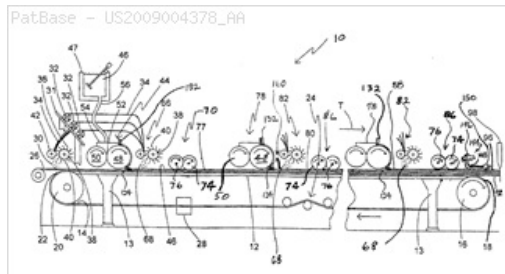
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International (IPC 8-9): B05C1/08 B05D1/00 B05D7/00 B28B1/093 B28B1/52 B28B13/02 B32B13/02 C04B28/14 (Advanced/Invention); B05C1/08 B05D1/00 B28B1/52 B28B13/00 B32B13/00 (Core/Invention)

CPC: Y02W30/92 Y02W30/94 B28B19/0092 B28B1/08 B28B1/29 B28B23/0006 C04B28/14 C04B2111/00612

European: B28B1/08 B28B1/29 B28B19/00K B28B23/00A C04B28/14 M04B111/00T6

US: 427/180 427/180P 427/403

**Family:**

Publication number	Publication date	Application number	Application date
CA2685810 AA	20091029	CA20082685810	20080620
CA2685810 C	20150407	CA20082685810	20080620
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JP2010532285 T2	20101007	JP20100515001T	20080620
JP5494976 B2	20140521	JP20100515001T	20080620
MX2009011779 A1	20091209	MX20090011779	20080620
US2009004378 AA	20090101	US20070771521	20070629
US8163352 BB	20120424	US20070771521	20070629
WO09006048 A2	20090108	WO2008US67731	20080620
WO09006048 A3	20090305	WO2008US67731	20080620

Priority:

US20070771521 20070629 WO2008US67731 20080620

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): JONES JOHN G ; UNITED STATES GYPSUM CO

Assignee(s): UNITED STATES GYPSUM COMPANY

Inventor(s): (std): JONES JOHN G

Inventor(s): JOHN G JONES

Agent(s): GOWLING LAFLEUR HENDERSON LLP; NOVAK DRUCE AND QUIGG LLP ANTHONY P VENTURINO; NOVAK DRUCE AND QUIGG LLP; DAVID F; PHILIP T; VENTURINO ANTHONY P

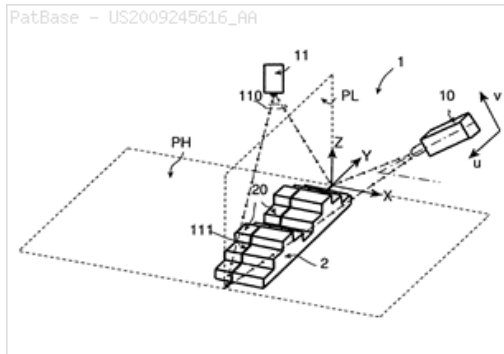
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Title: METHOD AND APPARATUS FOR VISIOMETRIC IN-LINE PRODUCT INSPECTION

Abstract: Source: US2009245616A A method and an apparatus for grouping individual products such as industrially baked products that travel past a visiometry station into lots for counting them. In a viewing zone of a conveyor belt, a laser triangulation visiometry system is used. The method and apparatus also uses a signal processor associated with the camera that deduces from the images acquired thereby at least one piece of information on the location of the products on the conveyor belt as well as height information thereon. This information is then used by the signal processor to automatically distinguish between the presence of a product and the presence of contaminating material (for example flour or chocolate particles) on the conveyor belt and to distinguish the presence of several partially or fully overlapping products from the presence of a single product on said conveyor belt. Preferably, two cameras are disposed symmetrically relative to a laser plane substantially perpendicular to the plane of the viewing zone.

Classifications:

International (IPC 8-9): A21C15/00 A21C9/08 A62B35/00 A62B37/00 B07C5/00 B07C5/10 B64D1/22 B66C1/34 B66C1/38 F16B45/02 G01B11/02 G01B11/24 G06K9/00 G06M7/00 G06T7/00 H04N13/02 (Advanced/Invention); G01N21/892 (Advanced/Non-invention); A21C15/00 A21C9/00 A62B35/00 B07C5/04 B64D1/00 B66C1/22 F16B45/00 G01B11/02 G01B11/24 G06K9/00 G06M7/00 G06T7/00 H04N13/02 (Core/Invention); G01N21/88 (Core/Non-invention)
CPC: F16B45/02 G01B11/0608 A21C9/08 A62B35/0081 G06T7/0004 G06T2207/30128
European: A21C9/08 A62B35/00D F16B45/02 G01B11/06B G06T7/00B1 S06T207/30128
US: 209/579 209/586 294/82.33 294/82.330P 294/82.34 356/602 356/606 382/141 382/141P

**Family:**

Publication number	Publication date	Application number	Application date
CA2659544 AA	20090926	CA20092659544	20090326
CA2659544 C	20160712	CA20092659544	20090326
DE602009015730 D1	20130711	DE200960015730T	20090326
EP2105699 A1	20090930	EP20090004365	20090326
EP2105699 B1	20170222	EP20090004365	20090326
EP2257343 A1	20101208	EP20090734604	20090326
EP2257343 B1	20130515	EP20090734604	20090326
ES2626132 T3	20170724	ES20090004365T	20090326
FR2929125 A1	20091002	FR20080001636	20080326
FR2929125 B1	20130315	FR20080001636	20080326
FR2929481 A1	20091002	FR20080001638	20080326
FR2929481 B1	20101224	FR20080001638	20080326
US2009245616 AA	20091001	US20090382933	20090326
US2011042984 AA	20110224	US20090934130	20090326
US8035052 BB	20111011	US20090382933	20090326
US8226138 BB	20120724	US20090934130	20090326
WO09130404 A1	20091029	WO2009FR00335	20090326

Priority:

EP20090734604 20090326 FR20080001636 20080326 FR20080001638 20080326
 WO2009FR00335 20090326

Probable Assignee: ZEDEL

Assignee(s): (std): BALLINA FRERES DE ; BALLINA FRERES DE SA ; BALLINA FRERES SA DE ; DE LA BALLINA FRERES ; PETZL PAUL ; ROCOURT JEAN LOUIS ; MAURICE ALAIN ; ROCOURT JEAN LOUIS PIERRE RENE ; PATTYN BAKERY DIV SAS ; ZEDEL

Assignee(s): PATTYN BAKERY DIVISION SAS ; DE LA BALLINA HELIOS ; DUMAS EMMANUEL ; JEAN LOUIS PIERRE RENE ROCOURT ; DE LA BALLINA FRERES SOC ANONYME ; DE LA BALLINA FRERES SOCIETE ANONYME

Inventor(s): (std): DE LA BALLINA HELIOS ; DUMAS EMMANUEL ; MAURICE ALAIN ; PETZL PAUL ; ROCOURT JEAN LOUIS ; ROCOURT JEAN LOUIS PIERRE RENE

Inventor(s): EMMANUEL DUMAS ; HELIOS DE LA BALLINA ; JEAN LOUIS PIERRE RENE ROCOURT

Agent(s): EQUINOX ; CABINET HECKE ; THIBON NORBERT ; HECKE GERARD ; AZNAREZ PABLO ; CABINET THIBON LITTAYE ; OLIFF AND BERRIDGE PLC ; HECKE GERARD ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: STORAGE AND RETRIEVAL SYSTEM

Abstract: Source: US2010316468A A storage and retrieval system including a vertical array of storage levels, each storage level having, picking aisles, storage locations, disposed within the picking aisles, and at least one transfer deck providing access to the picking aisles, a multilevel vertical conveyor system configured to transport the uncontained case units to and from the vertical array of storage levels, each storage level being configured to receive uncontained case units from the multilevel vertical conveyor system, at least one autonomous transport located on each storage level for transporting the uncontained case units between respective storage locations and the multilevel vertical conveyor system, and a controller configured to create a primary access path through the transfer decks and picking aisles to a predetermined one of the storage locations and at least one secondary access path to the predetermined one of the storage locations when the primary path is impassible.

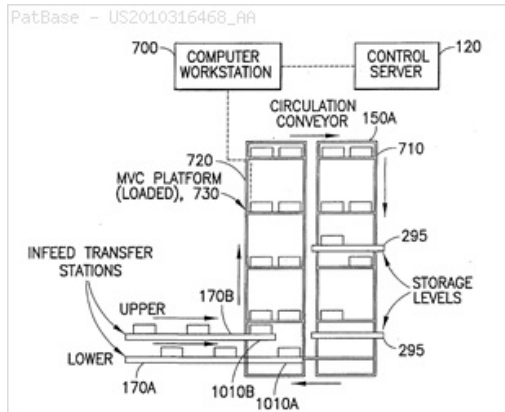
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International (IPC 8-9): B65G1/00 B65G1/02 B65G1/04 B65G1/06 B65G1/10 B65G1/12 B65G1/127 B65G1/137 B65G1/16 B65G43/08 B65G47/57 B65G57/00 G06F7/00 G06Q10/08 (Advanced/Invention); B65G1/137 B65G43/08 (Core/Non-invention)

CPC: B65G1/1373 Y10S901/01 B65G1/045 B65G1/065 B65G1/04 B65G1/137 B65G1/10 B65G1/0492 B65G1/1378 B65G1/127 B65G1/1371 B65G47/57

European: B65G1/04F B65G1/04R B65G1/06D B65G1/137D6

US: 1/1 198/797 198/797S 414/267 414/273 414/273P 414/277 414/277S 414/279 414/280 414/807 414/807S 700/213 700/214 700/215 700/216 700/217 700/218 700/221 901/1

**Family:**

Publication number	Publication date	Application number	Application date
CN102725213 A	20121010	CN201080025938	20100412
CN102725213 B	20160810	CN201080025938	20100412
CN106064734 A	20161102	CN201610395905	20100412
EP2417044 A1	20120215	EP20100762561	20100412
EP2417044 A4	20150826	EP20100762561	20100412
EP2436618 A2	20120404	EP20110190623	20100412
EP2436618 A3	20151223	EP20110190623	20100412
EP2436619 A2	20120404	EP20110190626	20100412
EP2436619 A3	20150826	EP20110190626	20100412
EP2436620 A2	20120404	EP20110190634	20100412
EP2436620 A3	20160427	EP20110190634	20100412
JP2012211019 A2	20121101	JP20120149819	20120703
JP2012211020 A2	20121101	JP20120149820	20120703
JP2012523358 T2	20121004	JP20120504913T	20100412
JP2015157712 A2	20150903	JP20150108702	20150528
JP2015166286 A2	20150924	JP20150108701	20150528
JP2016155690 A2	20160901	JP20160093224	20160506
JP5756062 B2	20150729	JP20120149820	20120703
JP5756086 B2	20150729	JP20120504913T	20100412
JP6232398 B2	20171115	JP20150108701	20150528
KR101790629 B1	20171120	KR20117026756	20100412
KR20120013979 A	20120215	KR20117026756	20100412
KR20170019497 A	20170221	KR20177004003	20100412
TW201102331 A	20110116	TW20100110972	20100409
TW201643089 A	20161216	TW20150144238	20100409
TWI525025 B	20160311	TW20100110972	20100409
US2010316468 AA	20101216	US20100757220	20100409
US2010316469 AA	20101216	US20100757312	20100409
US2010316470 AA	20101216	US20100757337	20100409
US2010322746 AA	20101223	US20100757354	20100409
US2010322747 AA	20101223	US20100757381	20100409
US2014088758 AA	20140327	US20130089434	20131125
US2014271063 AA	20140918	US20140293556	20140602
US2015266672 AA	20150924	US20150733341	20150608
US2016185526 AA	20160630	US20150816804	20150803
US8425173 BB	20130423	US20100757312	20100409
US8594835 BB	20131126	US20100757337	20100409
US8740538 BB	20140603	US20100757381	20100409
US9051120 BB	20150609	US20130089434	20131125
US9096375 BB	20150804	US20100757220	20100409
US9694975 BB	20170704	US20100757354	20100409
US9725239 BB	20170808	US20140293556	20140602
US9771217 BB	20170926	US20150733341	20150608
WO10118412 A1	20101014	WO2010US30669	20100412

Priority:

CN201080025938	20100412	EP20100762561	20100412	JP20120504913	20100412
JP20120149820	20100412	JP20120504913T	20100412	JP20120149819	20100412
US20100757337	20100409	US20100757220	20100409	US20090168349P	20090410

US20100757354	20100409	US20100757312	20100409	JP20150108702	20150528
JP20150108701	20150528	JP20160093224	20160506	US20100757381	20100409
WO2010US30669	20100412	US20130089434	20131125	US20140293556	20140602
US20150733341	20150608	US20150816804	20150803		

Probable Assignee: SYMBOTIC LLC

Assignee(s): (std): CASEPICK SYSTEMS LLC ; HINSHAW FOSTER D ; LERT JOHN ; SULLIVAN ROBERT ; TOEBES STEPHEN ; SYMBOTIC LLC ; ULRICH NATHAN ; PETERS ERIC ; TOEBES STEPHEN C

Inventor(s): (std): LERT JOHN ; PETERS ERIC ; ROBERT SULLIVAN ; STEPHEN TOEBES ; SULLIVAN ROBERT ; TOEBES STEPHEN ; TOEBES STEPHEN C ; ULRICH NATHAN ; HINSHAW FOSTER ; HINSHAW FOSTER D ; JOHN LERT

Agent(s): MAUPILIER DIDIER; IPSIDE; LEXT PC; PERMAN AND GREEN LLP; MARCOVICI JANIK

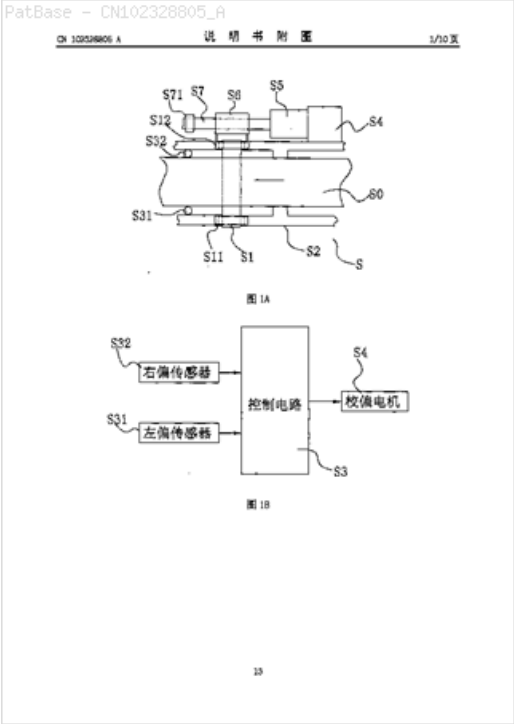
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONVEYING BELT DEFLECTION MECHANISM, CONVEYING BELT GYPSUM PRODUCT MOLDING DEVICE AND PRODUCTION LINE

Abstract: Source: CN102328805A The invention discloses a conveying belt deflection mechanism, which comprises a deflection roller, a control circuit, a left deviation sensor, a right deviation sensor, wherein the deflection roller is used for tensioning a conveying belt; the deflection motor is connected with a speed reducing component; one end of the deflection roller is provided with a fixed spherical bearing which is fixed with a frame, and the other end of the deflection roller is provided with a movable spherical bearing which is connected with the frame in a sliding way; the movable spherical bearing is connected with a nut seat; the nut seat is in threaded connection with a screw rod; and the screw rod is connected with the output end of the speed reducing component. The invention further discloses a conveying belt gypsum product molding device and a molding production line. The conveying belt deflection mechanism has the characteristics of simple structure and easiness for implementing; the conveying belt gypsum product molding device has the characteristic of high production efficiency; and the conveying belt gypsum product molding production line has the characteristics of realization of continuous production and processing, low labor intensity, high production efficiency, saving in raw materials, reduction in labor cost and improvements on the quality and appearance effect of gypsum products.

Classifications:

International (IPC 8-9): B28B17/00 B28B5/02
B65G15/64 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN102328805 A	20120125	CN201010226868	20100714
CN102328805 B	20130619	CN201010226868	20100714
CN201769269 U	20110323	CN201020258699U	20100714

Priority:

CN201010226868 20100714 CN201020258699U 20100714

Probable Assignee: WANG HENGLU

Assignee(s): (std): HENGLU WANG ; WANG HENGLU

Inventor(s): (std): HENGLU WANG ; WANG HENGLU

Title: CONTROL DEVICE AND METHOD FOR CONTROLLING THE SPEED OF A CONVEYOR

Abstract: Source: US2013060376A An object of the present invention is to propose a computerized control device and a computer-implemented method for speed regulation during delivery of printed products to stacking devices which do not have at least some of the disadvantages of the known systems. It is in particular an object of the present invention to propose a computerized control device and a computer-implemented method for regulating the speed of a conveyor for delivering printed products to stacking devices which enable flexible production of stacks of different sizes.

Classifications:

International (IPC 8-9): B42C19/08 B65G57/00 B65H29/04

B65H29/28 B65H29/60 B65H29/68 B65H31/24 B65H39/10

B65H43/00 B65H5/08 B65H5/26 B65H5/34 B65H7/00 B65H7/20

G06F17/00 G06F7/00 (Advanced/Invention)

CPC: B65H2220/02 B65H5/34 B65H5/085 B65H5/26 B65H29/042

B65H29/28 B65H29/60 B65H31/24 B65H2301/323 B65H2301/4433

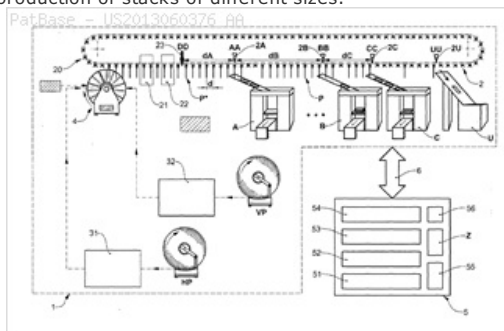
B65H2301/44712 B65H2513/10

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B65H5/08B B65H5/26 B65H5/34 L65H301/323 L65H301/4433

L65H301/44712 L65H513/100

US: 271/305 700/218 700/223 700/230



Family:

Publication number	Publication date	Application number	Application date
AU2011226721 AA	20110915	AU20110226721	20110222
AU2011226721 BB	20151029	AU20110226721	20110222
CA2792377 AA	20110915	CA20112792377	20110222
CA2792377 C	20161011	CA20112792377	20110222
CH702716 A2	20110915	CH20100000340	20100311
EP2544980 A1	20130116	EP20110706463	20110222
EP2544980 B1	20171129	EP20110706463	20110222
US2013060376 AA	20130307	US20110583599	20110222
US9008834 BB	20150414	US20110583599	20110222
WO11109916 A1	20110915	WO2011CH00031	20110222

Priority:

CH20100000340 20100311 CH20100034010 20100311 WO2011CH00031 20110222

Probable Assignee: FERAG AG

Assignee(s): (std): FERAG AG ; FORSTER STEFAN

Inventor(s): (std): FORSTER CHRISTIAN ; FORSTER STEFAN

Agent(s): ALLENS PATENT AND TRADE MARK ATTORNEYS; SMART AND BIGGAR; Rentsch Partner AG; RENTSCH PARTNER AG; KNOBBE MARTENS OLSON AND BEAR LLP; RENTSCH AND PARTNER

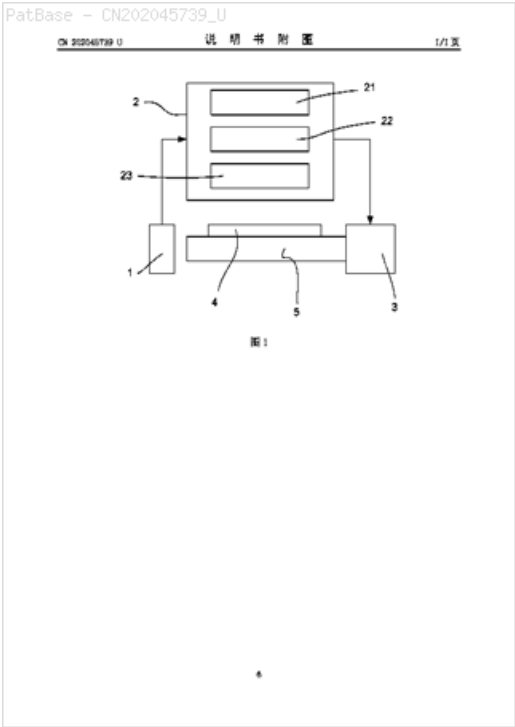
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Hydraulic control deviation rectifier for plaster board production line

Abstract: Source: CN202045739U The utility model provides a hydraulic control deviation rectifier for a plaster board production line, which comprises a medium position sensor, a controller and a hydraulic mechanism, wherein the medium position sensor is close to mediums and is used for detecting the position information of the mediums and sending the position information to the controller; the controller is respectively connected with the medium position sensor and the hydraulic mechanism in a communication way; the controller receives the position information sent by the medium position sensor for carrying out analytic calculation so as to make a judgment and then sends a control instruction to the hydraulic mechanism; the hydraulic mechanism is connected with a traveling device of the plaster board production line; and the hydraulic mechanism receives the control instruction sent by the controller and moves according to the control instruction. In the hydraulic control deviation rectifier, the medium position sensor is adopted for detecting the position information of the mediums in real time, the controller is adopted for carrying out the analytic calculation and making a judgment on the position information and sends the control instruction to the hydraulic mechanism; and the hydraulic mechanism can accurately move according to the control instruction to pull the traveling device to move, so that the medium position is adjusted.

Classifications:

International (IPC 8-9): B28B15/00 B28B17/00 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN202045739 U	20111123	CN201120154102U	20110516

Priority:

CN201120154102U 20110516

Probable Assignee: BEIJING NEW BUILDING MATERIAL

Assignee(s): (std): BEIJING NEW BUILDING MATERIAL ; BEIJING NEW BUILDING MATERIALS PLC

Assignee(s): BEIJING NEW BUILDING MATERIAL CO

Inventor(s): (std): XIAODONG YANG

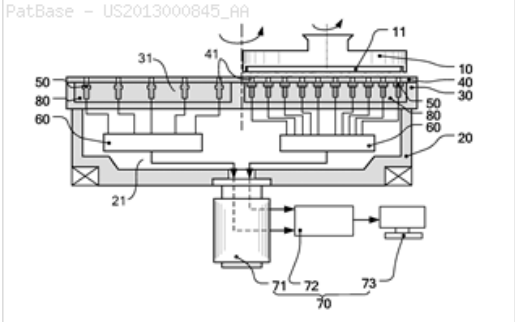
Inventor(s): YANG XIAODONG

Title: DEVICE AND METHOD FOR MEASURING THICKNESS OF SLURRY AND CHEMICAL MECHANICAL POLISHING APPARATUS COMPRISING THE DEVICE

Abstract: Source: US2013000845A A device for measuring a thickness of a slurry used in a chemical mechanical polishing apparatus and a method using the same are provided. The chemical mechanical polishing apparatus comprises a polishing head (10), a rotary table (20), a polishing platen (30) and a polishing pad (40). The device for measuring the thickness of the slurry comprises: a distance sensor (50) disposed in the polishing platen (30) for measuring a distance between the distance sensor (50) and a wafer (11) in the polishing head (10); a processing unit (70) (60) disposed in the rotary table (20) and connected to the distance sensor (50) for converting a measuring signal from the distance sensor (50) into standard electrical signal; a processing unit (70) connected to distance converters (60) for acquiring the standard electrical signal to obtain a thickness of the slurry between the polishing head (10) and the polishing pad (40). A chemical mechanical polishing apparatus comprising the device for measuring the thickness of the slurry is also provided.

Classifications:

International (IPC 8-9): B24B29/00 B24B37/00 B24B37/02
B24B49/00 B44C1/22 G01B21/08 G01B7/06 H01L21/00 H01L21/304
H01L21/66 (Advanced/Invention)
CPC: G01B21/08 G01B7/10
US: 156/345.13 324/229



Family:

Publication number	Publication date	Application number	Application date
CN102278967 A	20111214	CN201110058422	20110310
TW201236814 A	20120916	TW20110128835	20110812
US2013000845 AA	20130103	US20110387964	20110607
WO12119355 A1	20120913	WO2011CN75423	20110607

Priority:

CN201110058422 20110310 WO2011CN075423 20110607

Probable Assignee: HWATSING TECHNOLOGY CO LTD

Assignee(s): (std): LU XINCHUN ; LUO JIANBIN ; HE YONGYONG ; ZHAO DEWEN ; UNIV TSINGHUA

Assignee(s): HWATSING TECHNOLOGY CO LTD ; TSINGHUA UNIV ; TSINGHUA UNIVERSITY

Inventor(s): (std): HE YONGYONG ; LU XINCHUN ; LUO JIANBIN ; ZHAO DEWEN ; ZHAO DE WEN ; LUO JIAN BIN ; LU XIN CHUN ; HE YONG YONG

Agent(s): TSINGYIHUA INTELLECTUAL PROPERTY LLC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONVEYOR CONTROLLERS

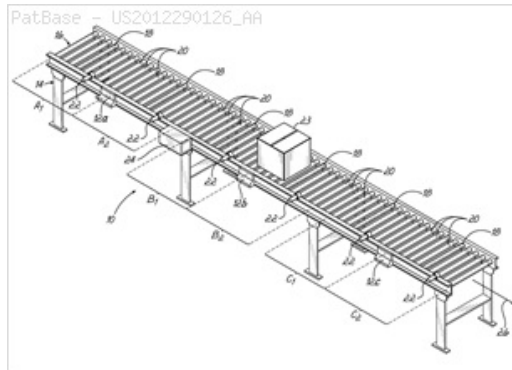
Abstract: Source: US2012290126A Various methods, apparatuses, and program products that are used to control at least a portion of a conveyor, determine information about an article conveyed by the conveyor, or otherwise operate a conveyor are provided. One method includes detecting whether a second conveyor controller is connected to the first conveyor controller and, in response to detecting that there is a second conveyor controller connected to the first conveyor controller, identifying whether the second conveyor controller is connected to a predetermined network interface of the first conveyor controller. The method further includes configuring the first conveyor controller to rotate a motorized roller in a first predetermined direction if a second conveyor controller is connected to the predetermined network interface and configuring the first conveyor controller to rotate the motorized roller in a second predetermined direction if a second conveyor controller is not connected to the predetermined network interface.

Classifications:

International (IPC 8-9): B65G13/02 B65G13/06 B65G23/08
B65G43/00 B65G43/10 G05B19/418 G06F17/00
G06F7/00 (Advanced/Invention)

CPC: G05B19/4189 G05B2219/25081 Y02P90/18 Y02P90/28
B65G13/02 B65G23/08 B65G43/10 B65G43/00

US: 198/349 198/575 198/781.01 198/788 700/228 700/230

**Family:**

Publication number	Publication date	Application number	Application date
EP2707316 A1	20140319	EP20120782413	20120507
EP2707316 A4	20150812	EP20120782413	20120507
JP2014516895 T2	20140717	JP20140510392T	20120507
JP2017171506 A2	20170928	JP20170130919	20170704
JP6174010 B2	20170802	JP20140510392T	20120507
US2012290126 AA	20121115	US20110103705	20110509
US2014244030 AA	20140828	US20140270590	20140506
US2017137230 AA	20170518	US20170417588	20170127
US8757363 BB	20140624	US20110103705	20110509
US9555977 BB	20170131	US20140270590	20140506
WO12154650 A1	20121115	WO2012US36745	20120507

Priority:

JP20140510392T 20120507 US20110103705 20110509 WO2012US36745 20120507
US20140270590 20140506 US20170417588 20170127

Probable Assignee: INSIGHT AUTOMATION INC

Assignee(s): (std): BARNES TIMOTHY A ; COMBS CHARLES R ; INSIGHT AUTOMATION INC ; KNAPE JAMES P ; KNAPE JAMES P ; PETROV DIMITAR I ; PETROV DIMITAR IVANOV ; SELLERS DAVID W

Inventor(s): (std): BARNES TIMOTHY A ; COMBS CHARLES R ; KNAPE JAMES P ; KNAPE JAMES P ; PETROV DIMITAR IVANOV ; SELLERS DAVID W ; PETROV DIMITAR I

Agent(s): FINDLAY ALICE ROSEMARY; WOOD HERRON AND EVANS LLP; LUNN GREGORY J ET AL

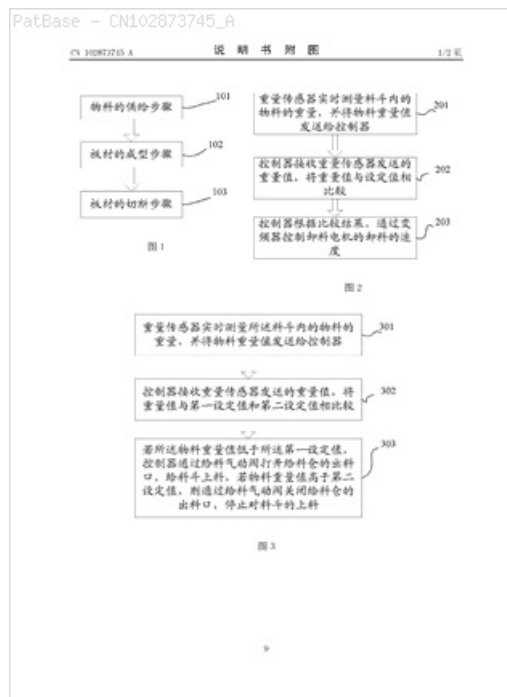
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HIGH-SPEED PRODUCING AND CONTROLLING METHOD FOR PLASTER PLATES

Abstract: Source: CN102873745A The invention discloses a high-speed producing and controlling method for plaster plates. The high-speed producing and controlling method comprises a feeding and discharging step, a forming step and a plate cutting-off step. The feeding and discharging step comprises the following substeps of: monitoring the weight of materials in a hopper in real time; comparing a monitored result with a set value; controlling discharging speed according to a comparison result; comparing the monitored result with a first set value and a second set value; and beginning to feed materials to the hopper from a feed bin or stopping feeding the materials to the hopper from the feed bin according to the comparison result. The forming step comprises a plate defect monitoring step. The plate defect monitoring step comprises the following substeps of: monitoring defects of plate products in a plate forming process in real time; comparing a monitored result with a preset controlling index; and adjusting production programs according to a comparison result. The plate cutting-off step comprises the following substep of: controlling a dual-servo motor to respectively drive an upper cutter and a lower cutter to simultaneously cut off plates on a production line according to the conveying speed of the plates on the production line. The high-speed producing and controlling method can meet requirements on large-scale and high-speed production of the plaster plates.

Classifications:

International (IPC 8-9): B28B11/14 B28B13/02 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN102873745 A	20130116	CN201210383202	20121010
CN102873745 B	20140813	CN201210383202	20121010

Priority:

CN201210383202 20121010

Probable Assignee: BEIJING NEW BUILDING MATERIAL

Assignee(s): (std): BEIJING NEW BUILDING MATERIAL ; BEIJING NEW BUILDING MATERIALS PLC

Assignee(s): BEIJING NEW BUILDING MATERIAL CO ; BEIJING NEW BUILDING MATERIAL CO LTD

Inventor(s): (std): JIANG TAO ; LU YONG ; WANG BING ; WEI FUQIANG ; YANG XIAODONG ; ZHANG YUFEI ; ZHOU JIANZHONG

Title: FLUID JETTING WITH DELAYS

Abstract: Source: US2013063511A Please replace the abstract at page 29 with the following amended abstract: Among other things, the disclosure features a system for use in fluid jetting. The system comprises a first print module comprising a first row of nozzles, a second print module comprising a second row of nozzles, and a controller to receive a first data packet from a remote device at a first moment and a second data packet from the remote device at a second moment after the first moment. Upon receipt of the first data packet, the controller is configured to cause at least some nozzles in the first row, at a third moment, to eject fluid droplets onto a line on a substrate. Upon receipt of the second data packet, the controller is configured to cause at least some nozzles in the second row, at a fourth moment separated from the third moment by a time delay, to eject fluid droplets onto the line on the substrate.

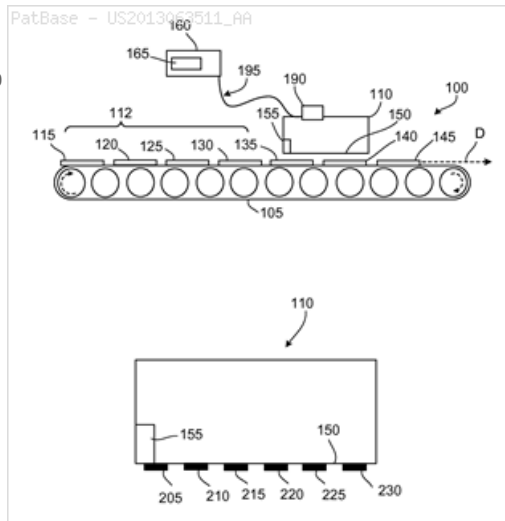
Classifications:

International (IPC 8-9): B41J2/01 B41J2/045 B41J2/07 B41J2/155 B41J29/38 (Advanced/Invention)

CPC: B41J2/04573 B41J2/04581 B41J2/155 B41J2/2146 B41J2202/20 G06K15/102 G06K15/1809 G06K15/1894 H04N2201/04786

H04N1/047 H04N1/1934

US: 347/12 347/13 347/14 347/9

**Family:**

Publication number	Publication date	Application number	Application date
CN103974831 A	20140806	CN201280055705	20120911
CN103974831 B	20160302	CN201280055705	20120911
EP2755824 A2	20140723	EP20120832464	20120911
EP2755824 A4	20161207	EP20120832464	20120911
JP2014530124 T2	20141117	JP20140530727T	20120911
JP5974097 B2	20160823	JP20140530727T	20120911
KR20140091524 A	20140721	KR20147009730	20120911
US2013063511 AA	20130314	US20110231599	20110913
US8403447 BA	20130326	US20110231599	20110913
WO13039865 A2	20130321	WO2012US54579	20120911
WO13039865 A3	20130510	WO2012US54579	20120911

Priority:

US20110231599 20110913 WO2012US54579 20120911

Probable Assignee: FUJIFILM DIMATIX INC

Assignee(s): (std): FUJIFILM DIMATIX INC ; GARDNER DEANE A ; HSEUH YULIN PHILIP

Inventor(s): (std): GARDNER DEANE A ; HSEUH YULIN PHILIP

Agent(s): SCHLEY JAN MALTE; FISH AND RICHARDSON P C; FISH AND RICHARDSON PC; MO YINA ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SORTING MECHANISM WITH DYNAMIC DISCHARGE

Abstract: Source: US2014288697A The invention provides a sorting mechanism arranged to empty or discharge a container for carrying a load, e.g. totes in a luggage handling system. The sorting mechanism has a plurality of tilting elements T1-T11 for receiving and transporting the container in a transport direction. The tilting elements T1-T11 are arranged neighbouring each other, and they are individually tiltable by controllable tilting actuators, e.g. servo motors. The tilting elements T1-T11 are controlled in response to at least one position signal such that a group of at least two tilting elements T1-T11 perform a coordinated tilting motion, when the container passes the sorting mechanism. Each tilting element T1-T11 has a length of 30-50 percent of the container. The tilting elements T1-T11 are stationary, and the container is driven forward by belts on each of the tilting elements T1-T11.

Classifications:

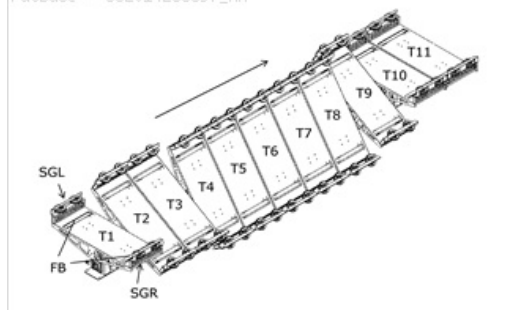
International (IPC 8-9): B65G17/16 B65G43/00 B65G43/08

B65G47/40 B65G47/94 (Advanced/Invention)

CPC: B65G43/08 B65G47/945 B65G2201/0264

US: 700/218

PatBase - US2014288697_AA



Family:

Publication number	Publication date	Application number	Application date
CN104093651 A	20141008	CN201180076273	20111121
CN104093651 B	20161221	CN201180076273	20111121
DE602011029902 D1	20161013	DE201160029902T	20111121
EP2782855 A1	20141001	EP20110788026	20111121
EP2782855 B1	20160831	EP20110788026	20111121
ES2597629 T3	20170119	ES20110788026T	20111121
JP2015501770 T2	20150119	JP20140542715T	20111121
JP5879443 B2	20160308	JP20140542715T	20111121
US2014288697 AA	20140925	US20110357999	20111121
WO13075714 A1	20130530	WO2011DK50442	20111121

Priority:

EP20110788026 20111121 WO2011DK50442 20111121

Probable Assignee: CRISPLANT A S

Assignee(s): (std): BEUMER GROUP AS ; CHRISTENSEN JAN ; SORENSEN BRIAN LYNGE ; SOERENSEN BRIAN LYNGE ; CRISPLANT AS

Assignee(s): CRISPLANT A S ; BEUMER GROUP A S

Inventor(s): (std): CHRISTENSEN JAN ; SOERENSEN BRIAN LYNGE ; SORENSEN BRIAN LYNGE

Agent(s): PLOUGMANN AND VINGTOFT A S; PLOUGMANN VINGTOFT A S; ISERN JORGE; AOKI ATSUSHI; SHIMADA TETSURO; PLOUGMANN AND VINGTOFT A/S

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ZONE CONTROLLER FOR MODULAR CONVEYOR SYSTEM

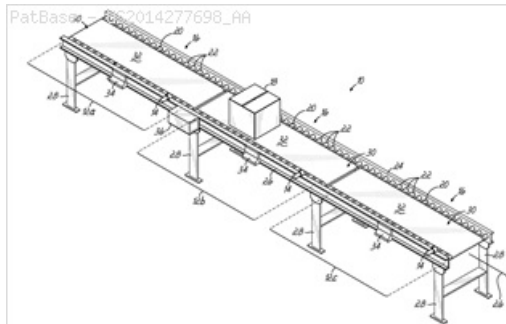
Abstract: Source: US2014277698A Method and apparatus for controlling a conveyor system including a conveyor zone having a plurality of conveyor regions. A zone controller is configured to track the position of one or more articles within a controlled zone. The zone controller may be operatively coupled to controllers of adjacent zones, and may receive and transmit data relating to the position of articles in the controlled zone and whether the zone is accepting articles from the other controllers. Articles are moved within the controlled zone by selectively activating the zone based on determined positions of articles within the controlled zone, the positions of articles within adjacent zones, and/or the operating mode of the zone. The zone controller may thereby operate cooperatively with adjacent zones to manage spacing between articles by selectively positioning multiple articles within the zone, and may accumulate or discharge articles from the conveyor system in a desired arrangement.

Classifications:

International (IPC 8-9): B65G43/08 B65G43/10 G05B19/418
G06F7/00 (Advanced/Invention)

CPC: B65G43/10 G05B2219/31078 Y02P90/083 Y02P90/28
Y02P90/08 G05B19/4189

US: 198/460.1 700/230

**Family:**

Publication number	Publication date	Application number	Application date
EP2969863 A1	20160120	EP20140772891	20140207
EP2969863 A4	20161214	EP20140772891	20140207
JP2016512189 T2	20160425	JP20160500217T	20140207
US2014277698 AA	20140918	US20130803233	20130314
US8983651 BB	20150317	US20130803233	20130314
WO14158368 A1	20141002	WO2014US15309	20140207

Priority:

US20130803233 20130314 WO2014US15309 20140207

Probable Assignee: INSIGHT AUTOMATION INC

Assignee(s): (std): INSIGHT AUTOMATION INC

Inventor(s): (std): COMBS CHARLES R ; ICHIEDA KAZUYA ; KNAPE JAMES P ; MIYAZAKI TOSHIHIRO ; PETROV DIMITAR ; PETROV DIMITAR IVANOV ; SOTIROV IVAYLO N

Agent(s): FINDLAY ALICE ROSEMARY; WOOD HERRON AND EVANS LLP; GAINES W SCOTT ET AL

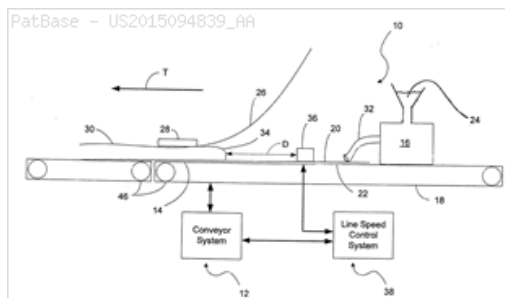
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEMS AND METHODS FOR CONTROLLING A CONVEYOR SYSTEM DURING PRODUCT CHANGEOVERS

Abstract: Source: US2015094839A A system is provided for controlling a line speed of a conveyor belt of a conveyor system during product changeovers in a wallboard production line. A central control module controls operation of a position sensor and a database. The position sensor is located on top of a conveyor table for providing positional information of a slurry head formed in front of a forming plate of the conveyor system. A position detection module receives a position signal from the position sensor, and determines whether the slurry head is located within a predetermined distance relative to the position sensor based on the position signal. A speed adjustment module regulates the line speed of the conveyor belt based on the position signal.

Classifications:

International (IPC 8-9): B28B11/24 B28B17/00 B28B19/00
B65G43/00 F26B15/12 G05B19/418 G05D7/00 (Advanced/Invention)
CPC: G05B19/4189 G05B2219/2621 B28B11/24 B28B17/0081
B28B19/0092 Y02P80/40 Y02P90/28 F26B15/12 Y02P80/30
US: 700/112



Family:

Publication number	Publication date	Application number	Application date
AU2014324629 AA	20150402	AU20140324629	20140929
CA2924607 AA	20160316	CA20142924607	20140929
CL2016000708 A1	20161014	CL20160000708	20160324
CN105873734 A	20160817	CN201480063202	20140929
CO16088266 A2	20161021	CO20160088266	20160408
EP3052284 A2	20160810	EP20140783749	20140929
ID201709471 A	20170901	ID2016P0002421	20140929
IN201617012715 A	20160831	IN201617012715	20160411
JP2016539882 T2	20161222	JP20160545260T	20140929
KR20160064129 A	20160607	KR20167009370	20140929
MX2016004001 A1	20160615	MX20160004001	20140929
PE06182016 A1	20160623	PE20160000411	20140929
RU2016113994 A	20171113	RU20160113994	20140929
US2015094839 AA	20150402	US20140481358	20140909
WO15048611 A2	20150402	WO2014US57956	20140929
WO15048611 A3	20150702	WO2014US57956	20140929

Priority:

US20130884618P 20130930 US20140481358 20140909 WO2014US57956 20140929

Probable Assignee: UNITED STATES GYPSUM CO

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Assignee(s): WYKOFF ROBERT ; DELLANGELO SCOTT M

Inventor(s): (std): DELLANGELO SCOTT M ; WYKOFF ROBERT

Inventor(s): ROBERT WYKOFF ; SCOTT M DELLANGELO

Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; JAMES AND WELLS INTELLECTUAL PROPERTY; MOFFAT AND CO; JOHANSSON AND LANGLOIS LTDA; DANILO ROMERO RAAD; SSB INTELLECTUAL PROPERTY LAW; BUDI RAHMAT SH; CRAIN LAWRENCE ET AL

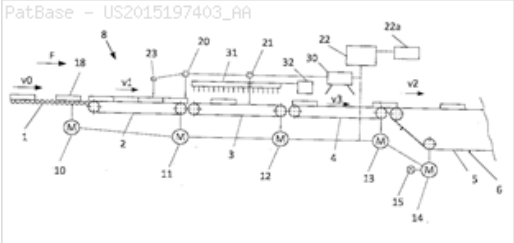
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Title: METHOD AND DEVICE FOR CLOCKING IN BOOK BLOCKS

Abstract: Source: US2015197403A An apparatus for supplying book blocks includes a feed conveyor to successively transport the book blocks with optional spacing. A buffer conveyor, arranged downstream of the feed conveyor and connected to a control unit, receives a plurality of the book blocks from the feed conveyor and transports them at a first speed, fitting against each other without a gap. A downstream clocking-in conveyor, coupled to the control unit, respectively receives a single book block from the buffer conveyor at the first speed, accelerates and transports the single book block from the first speed to a second speed. A downstream despatch conveyor includes a plurality of spaced apart pushers defining respective gaps between successive pushers. Each book is transported at the second speed toward the despatch conveyor and is inserted into one of the gaps between two successive pushers on the despatch conveyor.

Classifications:

International (IPC 8-9): B65G37/00 B65G43/08 B65G47/31 B65H31/30 B65H5/00 B65H7/00 (Advanced/Invention)
CPC: B65H5/006 B65H7/00 B65G47/31 B65H31/3054 B65H2301/4452 B65H2301/4461 B65H2301/4473 B65H2301/4476 B65H2404/2691 B65H2513/10 B65H2513/21 B65H2701/1829 B42C19/08
US: 1/1 198/464.4 198/469.1



Family:

Publication number	Publication date	Application number	Application date
DE502014001590 D1	20161110	DE201450001590T	20141211
EP2883820 A1	20150617	EP20140197357	20141211
EP2883820 B1	20160928	EP20140197357	20141211
US2015197403 AA	20150716	US20140571780	20141216
US9340380 BB	20160517	US20140571780	20141216

Priority:

CH20130002082 20131216 EP20140197357 20141211

Probable Assignee: MUELLER MARTINI HOLDING AG

Assignee(s): (std): MUELLER MARTINI HOLDING AG

Inventor(s): (std): DUSS HANSPETER ; HOERLER BEAT ; MOESLI URS

Agent(s): FISHERBROYLES LLP; ROBERT

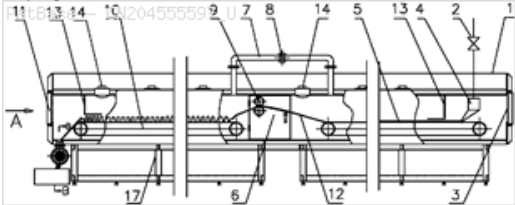
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Title: DEVICE FOR CONTINUOUS VACUUM LOW TEMPERATURE MICROWAVE DRYING

Abstract: Source: CN204555597U The utility model discloses a device for continuous vacuum low temperature microwave drying, including microwave drying stove (1), feed mechanism, discharge mechanism, transmission device and vacuum mechanism, feed mechanism is including feed valve (2) of stretching out the furnace body, discharge mechanism includes bleeder valve (15) and sets up extruder (16) in the furnace body below, transmission device includes in the furnace chamber by preceding quick feed area (5) that set gradually after to, involves round (9) and low tape (10), said vacuum mechanism includes and vacuum tube (7) is equipped with vacuum tube interface (8) on vacuum tube (7), connects the vacuum pump through vacuum tube interface (8) the utility model discloses a mode that vacuum drying and microwave drying combined together, drying efficiency is high, and the water content is less than 0.5 percent, the material be not higher than evaporation to dryness moisture under the 70 degrees centigrade temperature, has avoided crossing in dry run the thermal denaturation, the through-put extruder is extruded in succession, and drying rate is fast

Classifications:

International (IPC 8-9): F26B15/18 F26B25/00 F26B25/12 F26B5/04 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN104833190 A	20150812	CN201510162128	20150407
CN104833190 B	20170118	CN201510162128	20150407
CN204555597 U	20150812	CN201520208119U	20150407

Priority:

CN201510162128 20150407 CN201520208119U 20150407

Probable Assignee: XUZHOU TIANNUO MINING EQUIPMENT CO LTD

Assignee(s): (std): XUZHOU TIANNUO MINING EQUIPMENT CO LTD

Assignee(s): XUZHOU MINING EQUIPMENT CO SENTINEL ; XUZHOU TIANNUO MINING EQUIPMENT CO

Inventor(s): (std): CHENG SHUO ; LIU YU ; ZHAO YONG