



New connection on: : 17-10-2017 : 17:41:10 - Last disconnection on: : 17-10-2017 : 15:31:20

V 4.0.0.43847(LP,U,linux) (Rev:41675 2016-01-15 13:33:59 +0100#(D201710)) (RPM D201710)

Welcome to EPOQUE Rebuild under the Production Environment

[PATENW: SS 2] ..fi epoque

Unknown database/cluster. Use the command ..FI (CL) in order to check the name of the databases/clusters available. *ERROR(-50416)*

[SS 2] ..fi epodoc

 Database: EPODOC

[EPODOC: SS 1] mixer or beater or whisk

Results in EPODOC **152.809**

[SS 2] ..lim SS 1

The next queries will be limited to the results of SS 1 *INFO(150)*

[SS 2-Lim SS 1] PD<2015-06-01

Results in EPODOC **133.394**

[SS 3-Lim SS 1] * and (blade+ or arm+)

Results in EPODOC **8.877**

[SS 4-Lim SS 1] * and (motor or rotor)

Results in EPODOC **2.246**

[SS 5-Lim SS 1] * and (mass or dough)

Results in EPODOC **99**

[SS 6-Lim SS 1] ..v

[EPODOC: SS 6-Lim SS 1] ..li 89-99



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PN - [EP0761724](#) A2 19970312

PNFP - EP0761724 A3 19970604

- EP0761724 B1 20000726

PR - JP19950245574
19950830; JP19950245575
19950830

AP - EP19960306308 19960830

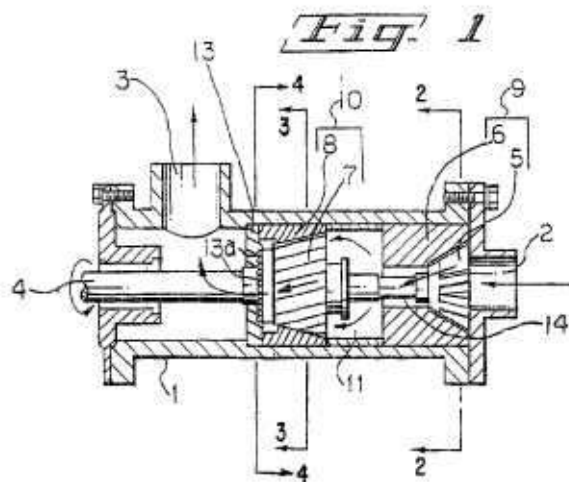
DT - *; Rep

CT - || STSE (A3)
[US5563189](#) A 19961008
[DE] (HOSOKAWA HIDEHIKO [JP],
et al)
[DE] 1-9
* abstract *
* column 2, line 28 - column 3,
line 14 *
* column 5, line 13 - column 5,
line 59 *;

[US4814376](#) A 19890321
[A] (TANAKA MASAKI [JP], et al)
[A] 1
* abstract *
* column 2, line 58 - column 3,
line 22 *;
[XP002028313](#) A[A];
[EP0227430](#) A1 19870701
[A] (KOPPERS AUSTRALIA [AU], et
al)

[A] 1,2
* abstract *;
[EP0479718](#) A1 19920408
[DA] (BUSS AG [CH])
[DA]
* the whole document *;
[JPS56109227](#) A 00000000 [DA]

CTNP - || STSE (A3)
[A] - KOHLER & COENEN, "A new
generation of Supraton
machines", TECHNISCHE
MITTEILUNGEN KRUPP, (198806),
no. 1, pages 53 - 59,
XP002028313



[A]

* the whole document *

[DA] - PATENT ABSTRACTS OF
JAPAN, (19811121), vol. 005, no.
184, Database accession no. (C -
080),

[DA]

* abstract *

- CCI - [B01F3/0807](#) ; [B01F3/0853](#) ;
[C08J3/03](#)
- CCA - [B01F7/00](#) ; [C08J2383/04](#)
- PA - (A2 A3 B1)
DOW CORNING TORAY SILICONE
[JP]
- TI - (A2 A3 B1)
Method for the continuous
preparation of
organopolysiloxane emulsions
- AB - (A2)
A method capable of the
continuous **mass**-production of
organopolysiloxane emulsions
includes procedures (I) and (II).
Procedure (I) is the continuous
supply of (a) organopolysiloxane
fluid or gum, (b) emulsifying
agent, and (c) water to a mixer
having a first-stage SSM with a
stator (6) and a turbine-
type **rotor** (5) having **blades** (5a)
that are slanted obliquely from
the radial direction when viewed
from the axial direction, and a
second-stage SSM with a stator
and a turbine-type **rotor** (7)
having **blades** (7a) that define
spiral curves with respect to the
axial direction, and the
discharge of an
organopolysiloxane-in-water
emulsion with an
organopolysiloxane content of
10 to 99 weight%. Procedure (II)
is the introduction of dilution
water and the emulsion of
process (I) into a mixer as
described for process (I). A gas
can also be injected in process

(I). <IMAGE>

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PN - [EA200200129](#) A1 20020627

PNFP - EA003243 B1 20030227

PR - EP20000109611
20000505; WO2001EP04656
20010425

AP - EA20020000129 20010425

DT - I

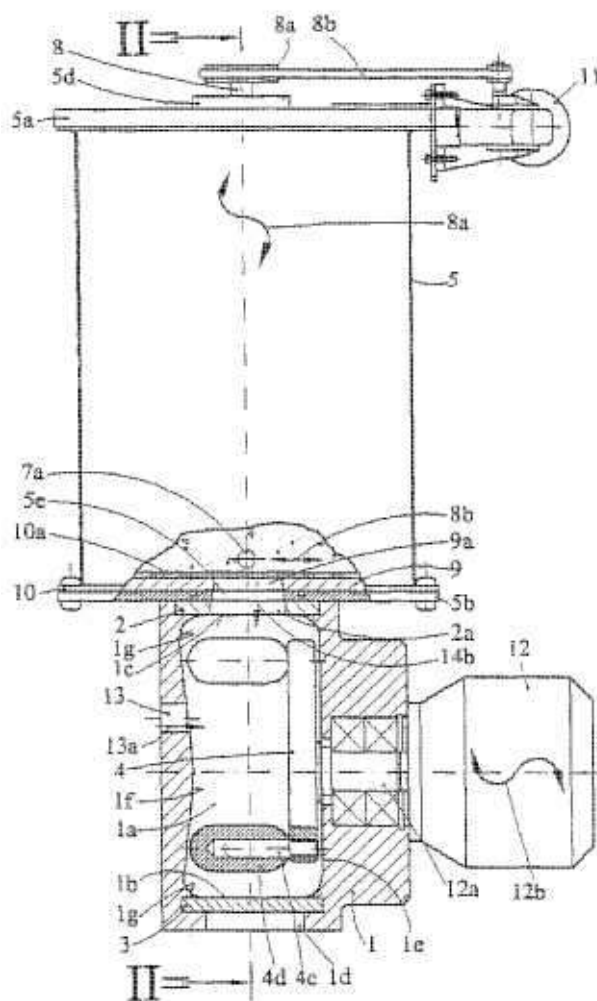
CCI - [A21C1/06](#) ; [A21C1/142](#) ;
[A21C1/1425](#) ; [A21C1/144](#) ;
[A21C9/04](#) ; [A21C9/083](#) ;
[A21C11/006](#) ; [B01F7/145](#) ;
[B01F15/00792](#) ; [B01F15/0219](#)

CCA - [B01F15/00876](#)

PA - (B1)
ATROS S A [LU]

TI - (B1)
KNEADING MACHINE WITH
DOSING DEVICE

AB - (B1)
1. A **dough** mixer for the production of **dough** for baked goods that is equipped with a metering device for flour-like ingredients, of the kind with closed housing with horizontal axis in which a kneading element operates with rotational axis that is coaxial or parallel to the housing axis, characterized in that chambers of the **dough** mixer inside a housing (1) having two inner, essentially circular, juxtaposed, coaxial and separated surfaces (1e, 1f) between which two casing surface sections (1a) extend which run in an arc along the same casing line and change in the upper and lower region into a flat surface section (1b, 1c), of which each is at least partially formed by the surface of a sliding (2c, 3c) **blade** (2,3) in its closed position; that along the



perimeter on both circular surfaces (1e, 1f) a cross piece (1g) with large rounding-off radius is provided to the casing surface sections (1a) and to the level surface sections (1c, 1b), and that the circular surface (1f) which is across from the flat circular surface (1e) from which the drive shaft (12a) extends for the kneading element (4, 4c, 4d) has a slight conical or domed form that projects out into the inner chamber, coaxially to the rotational axis of the kneading element (4, 4c, 4d). 2. The **dough** mixer with metering device according to Claim 1, characterized in that the circular surface (1f) in the chamber of the **dough** mixer, which from the circular surface (1e) from which the drive shaft (12a) extends for the kneading element (4, 4c, 4d), has a distinctive conical, nose cone-shaped, or cylindrical form with hemispherical end that is coaxial or parallel to the rotational axis of the kneading element (4, 4c, 4d). 3. The **dough** mixer with metering device according to Claim 1, characterized in that the circular surface (1f) which from the circular surface (1e) from which the drive shaft (12a) extends for the kneading element (4, 4c, 4d) has one or more holes (13) for the supply of liquid ingredients and that the hole or holes (13) are provided in a central region of the circular surface (1f), which is within the circular track of the ends of the kneading element (4, 4c, 4d). 4. The **dough** mixer with metering device according to Claims 1 through 3, characterized in that the chambers of the **dough** mixer

together with the kneading element (4, 4c, 4d) are occasionally subjected to moving hot air which is introduced through a separate hole or nozzle or via one or more holes (13) used to charge liquid ingredients and which exits through a discharging opening (3a, 1d), and that this air is generated by the drive **motor** (12) of the **dough** mixer or from a pneumatic system and is heated prior to entry in order to sterilize the chamber and the kneading element, and loosens any bits of **dough** or leftover ingredients, and transports them by means of the exiting stream of air. 5.

The **dough** mixer with metering device according to Claim 1, characterized in that the kneading element of the **dough** mixer comprises an **arm** (4), which extends radially from the end of the drive shaft (12a) and from the free end of which **arm** is attached a fixed pin (4c) with an axis running parallel to the rotational axis of the **arm**, on which is placed a cylindrical sleeve (4d) by means of an axial recessed hole and that both terminal regions of the sleeve (4d) are rounded-off, round-ended, or nose coneshaped. 6.

The **dough** mixer with metering device according to Claim 1 and partially according to Claim 2, characterised in that the kneading element comprises two or more **arms** (4) which radially are at some distance from the end of the drive shaft (12a), possibly at various angles to each other and on each end of which is attached a fixed pin (4c) with a longitudinal axis running parallel to the rotational axis of

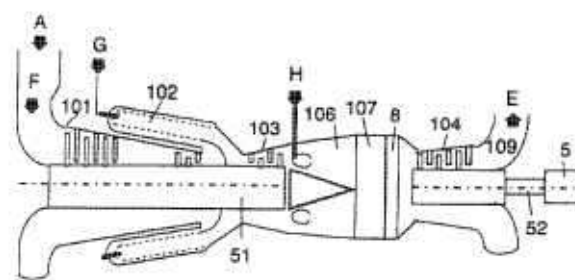
the **arms** (4) on which sleeves are placed of possibly different outside diameter and/or different forms, and that the axes of the individual pins (4c) on each of the **arms** (4) are not equidistant to the common rotational axis. 7. The **dough** mixer with metering device according to the Claims from 1 to 6, characterised in that the wall with its front side circular surface (1f) of the chamber of the **dough** mixer, which stands opposite to the circular surface (1e) from which the drive shaft (12a) for the kneading element (4, 4c, 4d) extends, is replaceable with walls that are suitable for changing the distance between both of the front side surfaces (1e, 1f) and that depending on this change the sleeves (4d) can also be substituted. 8. The **dough** mixture with metering device according to the protective Claim 1, characterized in that the metering device mounted on the **dough** mixer with vertical axis contains a dust region for the flour (14) in the upper region, and a metering mechanism within the same cylindrical container (5, 5a, 5b) in the lower region, and the stirring elements (7b) for the dust region of the flour, together with the stirring elements (7a) of the metering mechanism are activated by a shaft (8) that is shared coaxially with the container axis and that this shaft, in addition, is connected with a distribution cone (7) for the flour for the metering region and with a metering disk (9) with metering holes (9a) on the rim that are equidistant both from one

another and to the rotational axis. 9. The **dough** mixer with metering device according to Claims 1 and 8, characterized in that in the container of the metering device, which the dust region for the flour (14) relating to the metering region is horizontally subdivided by an annular, funnel-like partition (6) through which the central opening of the upper part of the distribution cone (7) extends in order to form an annular duct (6c) for the flour (14), and that at least one stirring element (7b) operates which extends radially from the distribution cone (7) near the upper surface of the partition (6). 10. The **dough** mixer with metering device according to Claims 1, 8 and 9, characterized in that the metering mechanism in the metering device, which comprises a metering disk (9) with continuous metering holes (9a) driven (8a) by the same shaft (8) that drives the distribution cone (7) and the stirring elements (7a, 7b), that this rotatable metering disk is positioned between the fixed, level bottom plate (5b) of the container of the metering device and an annular, fixed sieve (10), and that the bottom plate (5b) forms the lower level and the sieve (10) covers the upper ring region of the metering disk (9) free of the distribution cone (7) and that the bottom plate (5b), in the region of the track of the metering holes (9a) of the metering disk (9), has a continuous outflow opening (5e). 11. The **dough** mixer with metering device according to Claims 1, 8, 9, 10, characterized

in that the sieve (10) within the metering device, which covers the metering disk (9) at least in the track region, in the outflow region which is defined by the outflow hole (5e) on the bottom plate (5b), has no ducts (10a) for the flour, and that at least one stirring element at some distance from the distribution cone (7), while its rotation (8a) passes close to the surface of the sieve. 12. The **dough** mixer and metering device according to the Claims 1 through 11, characterized in that both of the devices can also function independently of each other, and the **dough** mixer with a known metering device or the metering device can be coupled with a known kneading device.

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PN - [EA199800392](#) A1 19981224
 PNFP - EA001417 B1 20010226
 PR - BE19950000879
 19951020; WO1996BE00112
 19961021
 AP - EA19199800392 19961021
 DT - I
 CCI - [C01B3/363](#) ; [F01K21/047](#) ;
[F02C3/305](#) ; [F02C3/32](#) ;
[F02C6/003](#) ; [F23R3/40](#)
 CCA - [Y02T50/671](#) ; [Y02T50/67](#) ;
[Y02E20/14](#) ; [C01B2203/0244](#) ;
[C01B2203/0261](#) ;
[C01B2203/1023](#) ;
[C01B2203/1058](#) ;
[C01B2203/107](#) ;
[C01B2203/1082](#) ;
[C01B2203/148](#) ; [C01B2203/84](#) ;
[F23R2900/00002](#) ;
[F23R2900/03342](#) ; [Y02P20/129](#)
 PA - (B1)
 OXIPAR SPRL [BE]
 TI - (B1)



METHOD FOR POWER
GENERATION, COMBINED GAS
TURBINE POWER SYSTEM
THEREFOR, GAS TURBINE AND
METHOD FOR ADAPTING GAS
TURBINES TO OPERATION USING
CATALYTIC PARTIAL FUEL
OXIDATION

AB

- (B1)

1. A process for generating energy according to which gas is fed into a catalytic reactor (107) in which the gas is subjected to a reaction of partial oxidation in the presence of gas, comprising oxygen and steam, and oxidized gas effluent from the catalytic reactor drives a power turbine, characterized in that the reaction of the partial oxidation is carried out in the presence of the gas, comprising oxygen in a hypostoichiometric amount and the steam in the presence of a predetermined amount of hydrogen as an agent, initiating said reaction. 2. A process of claim 1, characterized in that the hydrogen is added in an amount, determined by three molar ratios, defined by the following expressions: $R1=O_2/C$; $R2=H_2O/C$; $R3=H_2/C$ in which molar ratios have predetermined values, selected in intervals 0,55-0,75; 0,8-1,4 and 0,03-0,15 accordingly. 3. A process of claim 2, characterized in that the molar ratio according to expression H_2O/C downstream said reactor (107) is selected in an interval 1,5-2, preferably close to 2. 4. A process of claim 2 or 3, characterized in that the hydrogen is supplied from the system by a recycling part of the effluent from the reactor (107) and the combustible mixture is preliminary mixed with steam. 5.

A process of claims 2, 3 or 4, characterized in that the hydrogen is supplied from a combination of said gas turbine of the partial oxidation and the reactor (107), which provides indirect heat exchange with the effluent gases (109) of the power turbine (104). 6. A process of any preceding claim, characterized in that the reaction of the partial oxidation is carried out in the presence of multi-layer catalytic **mass**, comprising at least a first inactive layer and a second active layer. 7. A process of claim 6, characterized in that the active layer consists of sub-layers, comprising materials of different nature and/or different and/or different concentration. 8. A process of claim 6, characterized in that the active layer is arranged on a support from heat-proof material. 9. A process of any preceding claim, characterized in that the substances being used in the reaction are preliminary heated to a temperature between 400 degree C and 500 degree C. 10. A system for generating energy of any preceding claim, comprising a gas compressor (101), a catalytic reactor (107) for production of high-temperature combustible gas by the partial oxidation of gaseous fuel, using gas, compressed in said gas compressor, in the presence of steam and an expansion turbine driven by said combustible gas, characterized in that said catalytic reactor comprises multi-layer catalytic **mass** (170), comprising at least one inactive (171) and one active (170) layers. 11. The system of claim 10, characterized in that the

active layer consists of sub-layers, comprising materials of different nature and/or different and/or different concentration.

12. The system of claim 10 or 11, characterized in that a catalytic coating is applied on the **blades** of the expansion turbine (103).

13. The system of claim 10 or 11, characterized in that said catalyst is provided with a support (175).

14. The system of claim 13, characterized in that said support has a cellular structure.

15. The system of claim 13 or 14, characterized in that said catalyst comprises active materials, consisting of platinum and zirconium oxide, assisting the reaction, including the partial oxidation of the combustible fuel by steam, and air or gases ejecting from the high-pressure gas turbine, adjacent to said partial oxidation reactor.

16. The system of claim 13 or 14, characterized in that said catalyst comprises an active material, which is nickel on the support from activated alumina.

17. The system of claim 13 or 14, characterized in that said catalyst comprises an active material, which is an alloy of platinum and rhodium in the form of successive grills.

18. The system of claim 13 or 14, characterized in that heat-resisting metals are used as a material for the support.

19. The system of claim 18,

characterized in that a nickel-chrome alloy is used as a heat-resisting material.

20. The system of claims 16 to 19, characterized in that said supports consists of a material with an addition of metal oxides.

21. The system of claim 16 or 17, characterized in that said support of the catalyst is made based on inorganic polymers with an active material, deposited on Pt-ZrO₂. 22. The system of claim 21, characterized in that catalytic module consisting of a catalyst or catalysts (171, 172) and said support is substantially cylindrical and has a cellular structure. 23. The system of claims 10 to 22, characterized in that said reactor comprises a filter (8) upstream the catalyst. 24. The system of claim 23, characterized in that said filter is removable. 25. The system of claim 24, characterized in that comprises an ejecto-suppressors (106, 206, 306), provided in corresponding cases with a gas distributor in said inactive layer (171) with a fixed support, wherein the second layer (172) consists of the partial oxidation catalyst. 26. The system of claim 25, characterized in that said ejecto-suppressor mixer (106) is biconic. 27. The system of claim 26, characterized in that said partial oxidation reactor (107) is embedded into a gas turbine of an aviation type, suitable for carrying out the partial oxidation. 28. The system of claim 27, characterized in that said reactor (107) is substantially cylindrical, arranged horizontally and comprises metal grills, preferably made of platinum. 29. The system of claims 10 to 26, characterized in that said reactor (107) is substantially cylindrical, arranged horizontally and comprises a section of greater diameter,

comprising a free partial oxidation catalyst, maintained by the grills. 30. The system of claims 10 to 24, characterized in that said reactor (207) is applied in an industrial gas turbine, in which said reactor (207) is substantially cylindrical and arranged along the periphery of the gas turbine. 31. The system of claim 30, characterized in that said reactor, adapted to the turbine, is designed in the form of a silo, on the top surface of which an ejecto-suppressor is mounted, and in the cylindrical silo a catalyst is housed. 32. The system of claim 31, characterized in that a perpendicular silo is cylindrical and provided with a burner (220) arranged over the layer of the partial oxidation catalysts. 33. The system of claims 10 to 26, characterized in that said partial oxidation reactor (307) is adapted to a specially designed gas turbines, operating under high-pressure conditions. 34. The system of claim 33, characterized in that said ejecto-suppressor has a radial form and comprises an annular injector of the combustible gas. 35. The system of claim 34, characterized in that said ejecto-suppressor in its longitudinal section is rounded in a narrowing zone. 36. The system of claims 25 to 34, characterized in that said ejecto-suppressor consists of the module, type Venturi tube, with a substantially radial profile of the peripheral surface and with feed via said toroidal injector (15). 37. The system of claims 10 to 36, characterized in that there is a reactor initiator at the inlet

of said catalytic reactor (107, 207, 307). 38. The system of claim 37, characterized in that said initiator is hydrogen in a predetermined amount. 39. The system of claims 10 to 38, characterized in that comprises means for regulation of different flowing agents, namely air, fuel and steam, wherein said agents can register the temperature and pressure parameters in a real scale time and enable to adapt in a continuous mode to the thermodynamic characteristics of reactions of the partial oxidation and function in accordance of the reactor mathematical model, thus providing regulation of the different flowing agents under any operation conditions based on the modeling in a real scale time. 40. The system of claims 10 to 39, characterized in that comprises: an air compressor (310), having at least two stages (311, 312) with intermediate cooling (315) by reaction water (W) injection, wherein the compressor is designed to supply pressurized air (3-6 MPa), a partial oxidation catalytic reactor (307) designed to feed into it said air, steam and fuel to form combustible gas at a regulated high temperature, a turbine (303), adapted for providing expansion and burning the combustible gas, comprising: a stator and a **rotor**, the **blades** of which (131, 314) are designed with an inner cooling by injecting said air, inner ducts (340, 360) and outer ducts (380) supplying the cooling air from said air compressor to the **blades** of said stator and **rotor** accordingly

with further feeding the cooling air into the turbine (303) to form combustible gas for burning in a regime close to isometric. 41. A process for adapting gas turbines of the aviation type, in particular in the system of claim 27, characterized in that comprises the partial oxidation reactor (107) followed downstream the high-pressure turbine (103), said reactor (107) comprises the ejecto-suppressor (106) and the catalyst (170), to which pressurized gas fuel is fed, gas from the turbine (103), arranged upstream said reactor, and the steam thus forming combustible gas, which is fed into the power turbine (104), wherein the effluent gas from high-temperature power turbine serves for burning at a secondary thermal utilization. 42. A process for adapting industrial gas turbines of any type for the operation in the regime of the partial oxidation, characterized in that a partial oxidation reactor (207) is used instead of combustion chambers, wherein the reactor comprises the ejecto-suppressor (206) and a catalyst (270), to which pressurized steam and fuel are fed, as well as air from the compressor (201). 43. A process of claim 41, characterized in that the active gas from the reactor (107) is fed into the expansion turbine, which generates power needed to drive

PN - [DE19753198](#) A1 19990610

PR - DE1997153198 19971201

AP - DE1997153198 19971201

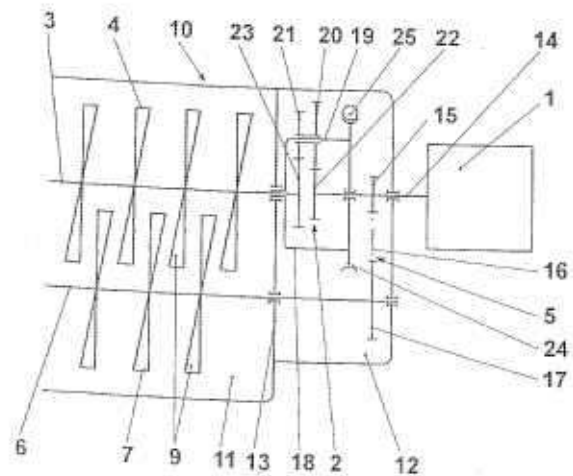
DT - *

CCI - [B01F15/00435](#) ; [B01F7/042](#) ;
[B01F7/043](#)

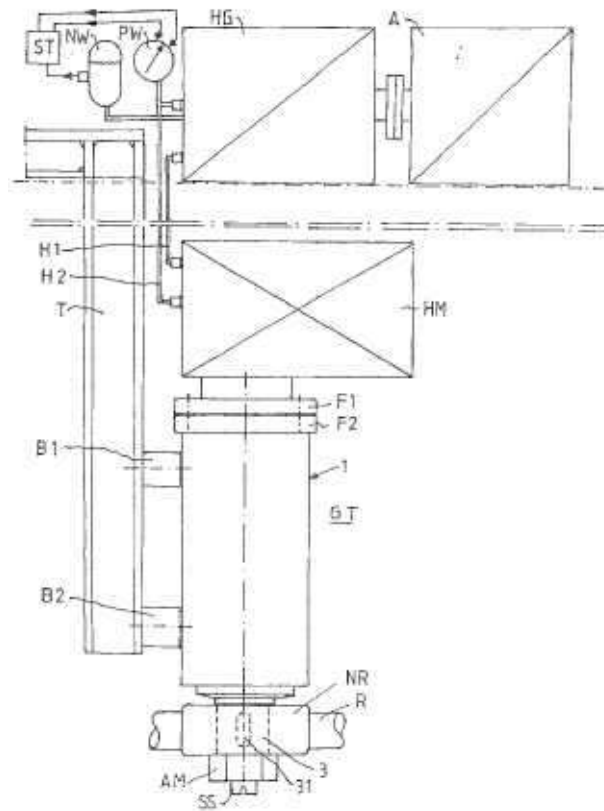
PA - PETZOLDTHEIDENAUER
MASCHINEN [DE]

TI - Mixing and kneading assembly
for highly viscous **mass** moves
the relative

AB - An assembly mixes and kneads a
viscous **mass** of paste, and has
two parallel shafts (3, 6) rotating
in the same direction and fitted
with mixer **blades** set at a pitch
angle alpha. The position of one
of the shafts (3, 6) may be
adjusted with respect to the
circumference of the other by a
spur gear (2). One shaft (3) lies
on the same axis as that (14) of
the drive **motor** (1).



- PN - [DE10315553](#) B3 20041216
- PR - DE2003115553
20030405; DE2002101811
20020118
- AP - DE2003115553 20030405
- DT - *; Rep
- CT - || STSE (B3)
[EP0078660](#) B1 19870325 []
- CCI - [B01F7/00033](#) ; [B01F7/00733](#)
- CCA - [B01F7/00016](#) ; [B01F15/00545](#)
- PA - FRANKE HUBERT [DE]
- TI - Mixer for use with fermenting semi-liquid or liquid biomass is driven by submerged hydraulic **motor** with spindle and hub having detachable mixer **blades**
- AB - The liquid or semi-liquid contents of a fermentation vat are mixed as required by horizontal mixer. The mixer has a vertical hub with **arms** rotating with a spindle powered by a hydraulic **motor**. The mixer paddles (R) are detachable from the hub (NR) for replacement. The liquid or semi-liquid contents of a fermentation vat are mixed as required by horizontal mixer. The mixer has a vertical hub with **arms** rotating with a spindle powered by a hydraulic **motor**. The mixer paddles (R) are detachable from the hub (NR) for replacement. The hub has a central core with a series of **blade** roots. The mixer **blades** are attached to the roots by studs. The mixer **blades** are made of a material that is appropriate to the fermenting **mass**.



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- PN - [DE4341569](#) A1 19950608
- PNFP - DE4341569 C2 19951207
- PR - DE19934341569 19931207

- AP - DE19934341569 19931207
- DT - *; Rep
- CT - || STSE (A1)
[DE1218265](#) B 19660602 [] (WISSEROTH DR KARL, et al)
[DE3829774](#) A1 19890316 [] (MURATA HIROSHI [JP], et al)
[DE1457141](#) A1 19681219 [] (SCHOEFFEL LUDWIG, et al)
[FR2123637](#) A5 19720915 []
- CTNP - || STSE (A1)
[] DE-Z.: "Fleischerei-Technik" 1992, Nr. 3, S. 381
- CCI - [A22C5/00](#) ; [B01F7/043](#) ; [B01F7/088](#)
- PA - (A1)
THUERINGER FLEISCHEREIMASCHNIN [DE]
- (C2)
THUERINGER FLEISCHEREIMASCHINE [DE]
- TI - (A1)
Mixer-blender with contra-rotating **blades** and knives
- AB - (A1)
Mixer and kneader for organic masses or **dough**, consists of a cylindrical housing (1) containing single, or pairs of mixing **blades** and knives, rotated by a **motor** at the base. It is open at the top, or access may be gained from a lid on the other side. The inner **blade(s)** (23,24) or propeller shaped beater knives (20) are e.g. concentric with the outer mixing **blade(s)** (18,19). They are contra-rotating, the outer **blades** lifting, the inner **blades** pulling the charge down. The outer **blades** (18,19) are spiral, extending along the inner length of the cylindrical mixer wall; they may have plastic lips to perform their function: to glide along the wall, stripping the charge from it. The **blades** may alternatively be of a type resembling the screw conveyors.
- 95/99 © EPODOC / EPO
- PN - [DE2655586](#) A1 19780615
- PR - DE19762655586 19761208
- AP - DE19762655586 19761208
- DT - *; Rep
- CCI - [B02C11/04](#) ; [B02C13/26](#) ; [B02C23/00](#)
- PA - ENGELBRECHT & LEMMERBROCK
- TI - Grain crusher with automatic cut-out to drive **motor** - has housing with swivelling grain admission slide operating cut-out switch when in closed position
- AB - The crusher consists of housing (1) built around **rotor** (5) mounted on shaft end (3) of **motor** (4). The **rotor** is fitted with swinging beater elements working together with impact strips (6) distributed evenly over the housing circumference. The admission of the grain takes place from hopper (7), chute (8) through an opening in the housing skin (2). The crushed grain leaves the crusher through sieve (9) into the outlet (10). The admission opening in the housing is fitted with slide (15) on **arm** (14) pivoting on axle (11). **Arm** (16) rigidly connected with **arm** (14) is provided with counterweight arranged with tendency to close the opening in the housing. During normal operation the admission opening is kept open by the impact of the circulating grain **mass** against the

carrier lug (13). When grain admission stops, the counterweight becomes effective, the slide (15) closes and counterweight (17) comes to rest against the button of a cutout switch.

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- PN - [DE2625206](#) A1 19771222
- PNFP - DE2625206 C2 19861016
- PR - DE19762625206 19760604
- AP - DE19762625206 19760604
- DT - *; Rep
- CT - || STSE (A1)
[DE2304298](#) A1 19740808 [] (LOEDIGE)
- CCI - [B01F7/022](#)
- CCA - [B01F7/0025](#)
- PA - (A1)
LOEDIGE WILHELM; LOEDIGE FRITZ; LUECKE JOSEF DIPL ING
- TI - (A1)
Continuous rotary mixer esp. for chipboard prodn. - has glue feed nozzles discharging against chips movement to improve mixing
- AB - (A1)
A continuously operating ring mixer is used for introducing liq. into a **mass** of powdery, fibrous and/or chip-like material, in particular for introducing glue into sawdust, fibres, and/or chips for making fibre-board or chipboard. The appts. comprises a mixing **rotor**, revolving in a generally cylindrical housing, the solid mixt. being introduced at one end and the liq. (glue) being introduced through a series of nozzles along the length of the housing, penetrating between the mixing **blades**. The final mixt. is discharged at the opposite end. The outlet of ≥ 1 of the liq. introduction nozzles is open in a direction opposite to the flow direction of the mixt. as it is stirred. In one pref. arrangement, there is a slit parallel to the axis at the end of the tube. In another arrangement (as shown) there is an oblique outlet terminating at about the centre of the end of the nozzle. In yet another arrangement the end of the nozzle is curved over in the region of the slit. As the granular, fibrous or similar material tends to pile up under the action of the mixer **blades**, on the upstream side of the nozzle, it encounters the discharged liq. and the two substances thus become thoroughly mixed together. By contrast, there is very little discharge of the liq. glue on the rear face of the nozzle, at which it might not become mixed with solid material and could consequently fall onto the inside of the drum, thus causing an adhering coating.

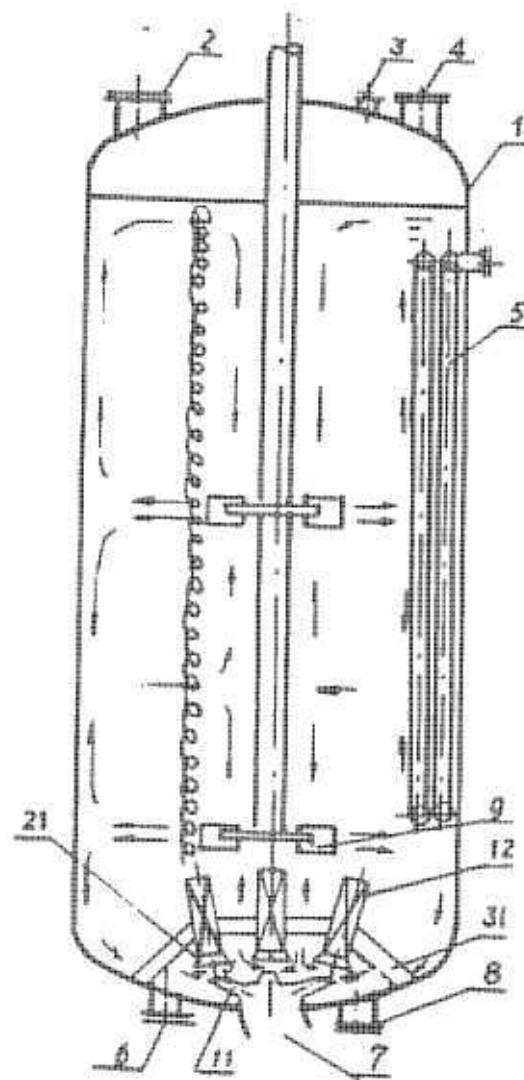
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- PN - [CN201086368Y](#) Y 20080716
- PR - CN2007272706U 20070720
- AP - CN2007272706U 20070720
- DT - I
- PA - SHANGHAI KINGFA SCI & TECH CO [CN]
- TI - High-mix machine with antistatic function

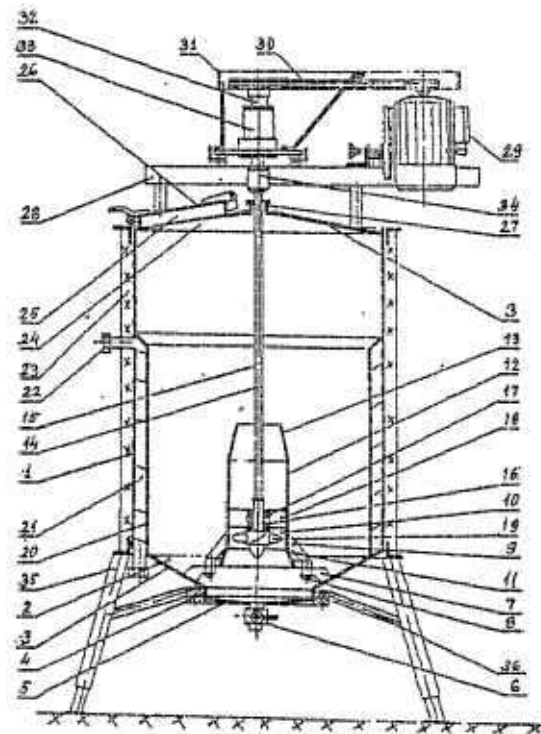
AB

- The utility model relates to a high-speed mixing device for evenly mixing plastic raw material, in particular to a high-speed mixer. The utility model discloses the high-speed mixer with static-free function, which comprises a power distributing cabinet, a **motor**, a lead, a **rotor blade**, a breather hole, a charging barrel, a feeding hole and a discharging hole. The utility model is characterized in that an electrostatic elimination device for eliminating the static electricity on mixed materials in the charging barrel is arranged on the charging barrel. The utility model has the electrostatic elimination device that a lead hole is arranged on an inner wall of the charging barrel; one end of the lead is connected to the lead hole on the inner wall, and the other end is connected to ground; and/or the lead hole is arranged on a revolving spindle of the **rotor blade** at the center of the charging barrel bottom; one end of the lead is connected to the lead hole on the revolving spindle, and the other end is connected to the ground. Because the electrostatic elimination device for eliminating the static electricity on mixed materials in the charging barrel is arranged on the charging barrel, the high-speed mixer with static-free function can effectively eliminate a **mass** of static electricity generated during the mixing process, thereby not only ensuring the personnel safety of operating workers, but also increasing the exterior quality and the intrinsic performance of the products.

PN - [WO9620041](#) A1 19960704
 PR - CN1994114060 19941228
 AP - WO1995CN00101 19951226
 DT - *; Rep
 CT - |CN| ISR (A1)
 [US4155657](#) A 19790522
 [Y] (KING GORDON H [US], et al);
 [US5176447](#) A 19930105
 [A] (BATA JANOS [HU], et al);
 [JPS6331562](#) A 19880210
 [Y] (SHINAGAWA REFRACTORIES
 CO);
 [JPS6242729](#) A 19870224
 [A] (TANKEN SEIKO KK);
 [JPS6211539](#) A 19870120
 [A] (LION CORP)
 CCI - [B01F7/18](#) ; [B01J19/006](#) ;
 [B01J19/0066](#) ; [B01J19/18](#) ;
 [B01J19/1868](#) ; [B01F13/1033](#) ;
 [B01J4/002](#)
 CCA - [B01J2219/00081](#) ;
 [B01J2219/00094](#) ;
 [B01J2219/00777](#)
 PA - HUANG WEIMIN [CN]
 TI - AN AGITATED REACTOR
 AB - An agitated reactor comprises a
 body, a **motor**, a **blade**-paddle
 mechanical stirrer, process lines
 and one or more static mixer(s)
 or turbulator(s). There is a
 collector for collecting flow at
 the inlet of said mixer or
 turbulator, or a nozzle in front of
 said inlet. Said collector may be
 directed against flow of gas or
 circulating liquid, or against the
 direction of absolute rate of flow
 from said stirrer. It is possible to
 increase mixing effect,
 coefficients of **mass**-transfer and
 heat-transfer by means of the
 function of said stirrer, collector
 or nozzle and mixer.



PN - [BG99181](#) A 19960531
 PNFP - BG61556B B1 19971230
 PR - BG19940099181 19941115
 AP - BG19940099181 19941115
 DT - I
 CCI - [B01F7/22](#) ; [B01F15/00448](#) ;
[B01F15/065](#) ; [C12G1/005](#)
 CCA - [B01F7/00591](#)
 PA - (A)
 MAREV [BG]; KRACHANOV [BG];
 HAJLSHER [DE]
 - (B1)
 MAREV KIRIL S [BG]; KRACHANOV
 KHRISTO G [BG]; XAEIYEP KAPI
 [DE]
 TI - (A B1)
 MIXER OF HETEROGENOUS
 LIQUID PRODUCTS
 AB - (B1)
 The mixer is used in **mass-**
 exchange processes in the food,
 chemical and pharmaceutical
 industries. It reduces electric
 powercosts and increases the
 yield of the extracted
 substances. Itconsits of an
 external cylindrical vessel (1) in
 which an internalcylindrical
 vessel (20) is fitted, and a heat-
 exchange chamber(21) being
 fomed betwen them. The bottom
 (2) consists of an
 uppertruncated cone (3)
 coaxially connected to a lower
 truncated cone(5) by means of a
 formed lower cylindrical body
 (4). A housing(10) is fitted above
 bottom (2) in the internal
 cylinder (20) thelower end of
 which is in the form of an intake
 funnel (11) gettingacross
 cylindrical body (12), which in
 its upper side ends by
 aconvergence nozzle (13). The
 lower end of a driving shaft (15)
 isfitted in housing (10) which
 shaft (15) is resting and is



engaged concentrically by a diffuser grid (17) formed by fixed **blades** (18) under which a propeller (19) is fitted on the driving shaft (15). The upper end of the driving shaft (15) is engaged by a seal of the central hole (27) of the lid (24) and, by a connector (35) and a shaft of the transmission (32), is connected to a **motor** (29).

[SS 6-Lim SS 1]