(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 550 224 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
**09.10.2019 Bulletin 2019/41**

(51) Int Cl.:
***F25B 43/00*** *(2006.01)*

(21) Application number: **19167395.3**

(22) Date of filing: **04.04.2019**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
Designated Extension States:
**BA ME**
Designated Validation States:
**KH MA MD TN**

(30) Priority: **06.04.2018 JP 2018074091**

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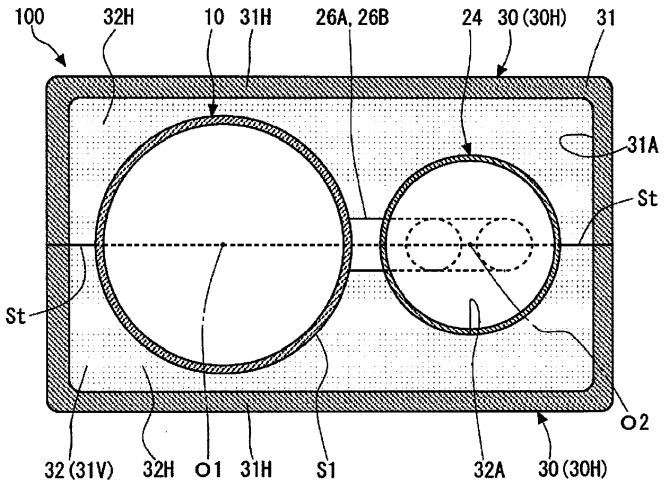
(54) **COMPRESSOR SYSTEM**

(57) A compressor system (100) includes an accumulator (24) that is configured to separate a refrigerant into a liquid-phase component and a gas-phase component, suction pipes (26A) and (26B), one end of which is connected to the accumulator (24) so as to circulate the gas-phase component therethrough, a compressor (10) that is connected to the other end of the suction pipes (26A) and (26B) so as to compress the gas-phase component, and an insulation member (32) that covers an entity of at least one of the accumulator (24) and the compressor (10) from an outside. The insulation member (32) has at least a pair of separable bodies (32H) coming into contact with each other via a contact surface (St).

FIG. 2

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## Description

### Technical Field

**[0001]** The present invention relates to a compressor system.

### Background Art

**[0002]** For example, as an apparatus used for compressing a refrigerant in an air conditioner, an apparatus including an accumulator and a compressor is known. The accumulator separates the refrigerant into gas and liquid before the refrigerant is introduced into the compressor. The compressor compresses only a gas-phase refrigerant supplied from the accumulator, and generates a high pressure gas-phase refrigerant.

**[0003]** The high pressure gas-phase refrigerant generated in the compressor has a higher temperature than the refrigerant circulating in the accumulator. Accordingly, there is a temperature difference between the compressor and the accumulator. In particular, in recent years, the refrigerant having a high saturation temperature have mainly been used. As a result, the temperature difference between the compressor and the accumulator tends to further increase. If there is the temperature difference between the compressor and the accumulator, heat may be transferred from the compressor having a high temperature to the accumulator having a low temperature. The transferred heat may heat up an uncompressed refrigerant accumulated inside the accumulator, thereby causing a possibility that the efficiency of the compressor may be reduced.

**[0004]** Therefore, for example, as a compressor system, PTL 1 discloses a refrigeration apparatus as follows. The refrigeration apparatus includes a covering insulation member for covering the compressor and the accumulator from the outside, an insulation material for filling a space among the compressor, the accumulator, and the covering insulation member, and a partition insulation member for partitioning the compressor and the accumulator from each other. Amorphous materials such as glass wool and rock wool are used as the insulation material. According to the refrigeration apparatus, the compressor and the accumulator are thermally insulated by the insulation material and the partition insulation member.

### Citation List

### Patent Literature

**[0005]** [PTL 1] Japanese Unexamined Patent Application Publication No. 2008-175413

### Summary of Invention

### Technical Problem

**[0006]** However, according to the configuration disclosed in PTL 1, for example, in a case where maintenance work is carried out for the compressor or the accumulator, it is necessary to remove the insulation material after the covering insulation material is detached. Furthermore, after the maintenance work is completely carried out, the following steps are required. Surroundings of the compressor and the accumulator are respectively covered again with the insulation material, and thereafter, the covering insulation material is attached thereto. In this way, according to the configuration disclosed in PTL 1, workability is impaired when the maintenance work is carried out for the apparatus. In addition, the glass wool or the rock wool is used as the insulation material. Consequently, when the work is carried out, a large amount of fine particles is generated from the glass wool or the rock wool, thereby causing a possibility that a working environment may be contaminated.

**[0007]** The present invention provides a compressor system which can be easily and safely assembled while insulation properties are ensured.

### Solution to Problem

**[0008]** According to a first aspect of the present invention, there is provided a compressor system including an accumulator that is configured to separate a refrigerant into a liquid-phase component and a gas-phase component, a suction pipe, one end of which is connected to the accumulator so as to circulate the gas-phase component therethrough, a compressor that is connected to the other end of the suction pipe so as to compress the gas-phase component, and an insulation member that covers an entity of at least one of the accumulator and the compressor from an outside. The insulation member has at least a pair of separable bodies coming into contact with each other via a contact surface.

**[0009]** According to this configuration, the insulation member reduces heat exchange between the compressor and the accumulator and overheating loss caused by the heat exchange. Furthermore, when maintenance work is carried out for the compressor and the accumulator, the separable bodies are separated using the contact surface, thereby enabling a user to easily reach the compressor and the accumulator. Furthermore, after the maintenance work is completely carried out, the separable bodies are brought into contact with each other via the contact surface, thereby enabling the compressor and the accumulator to return to a state of being covered with the insulation member.

**[0010]** According to a second aspect of the present invention, an inner surface of the insulation member may have a shape extending along at least one outer surface of the accumulator and the compressor.

**[0011]** According to this configuration, when the insulation member is attached to the accumulator and the compressor, the insulation member can be easily positioned by guiding the shape of the inner surface of the insulation member.

**[0012]** According to a third aspect of the present invention, an inner surface of the insulation member may be in contact with at least one outer surface of the accumulator and the compressor.

**[0013]** According to this configuration, the heat generated by the compressor can be more efficiently absorbed by the insulation member, and the heat exchange between the accumulator and the compressor can be further reduced.

**[0014]** According to a fourth aspect of the present invention, the insulation member may cover both the accumulator and the compressor.

**[0015]** According to a fifth aspect of the present invention, the insulation member may cover only the accumulator.

**[0016]** According to a sixth aspect of the present invention, the insulation member may cover only the compressor.

**[0017]** According to this configuration, compared to a case where both the accumulator and the compressor are covered with the insulation member, the dimensional size of the apparatus can be minimized.

**[0018]** According to a seventh aspect of the present invention, the insulation member may be formed of a material capable of holding a fixed shape.

**[0019]** According to this configuration, even in a case where the insulation member is detached from the accumulator and the compressor, the insulation member maintains a state having a fixed shape. Therefore, for example, compared to a case where the insulation member is formed of an amorphous material, workability can be improved when the insulation member is attached again to the accumulator and the compressor.

**[0020]** According to an eighth aspect of the present invention, the contact surface may be a plane including an extending direction of the suction pipe.

**[0021]** According to this configuration, the contact surface of the separable bodies is the plane including the extending direction of the suction pipe. Therefore, the separable bodies can be smoothly detached from or attached to each other without interference from the suction pipe.

## Advantageous Effects of Invention

**[0022]** According to the present invention, maintenance work can be easily and safely carried out while insulation properties are ensured.

## Brief Description of Drawings

**[0023]**

FIG. 1 is a longitudinal sectional view showing a configuration of a compressor system according to a first embodiment of the present invention.

FIG. 2 is a cross-sectional view showing the configuration of the compressor system according to the first embodiment of the present invention.

FIG. 3 is a longitudinal sectional view showing a configuration of a compressor system according to a second embodiment of the present invention.

FIG. 4 is a cross-sectional view showing the configuration of the compressor system according to the second embodiment of the present invention.

FIG. 5 is a longitudinal sectional view showing a configuration of a compressor system according to a third embodiment of the present invention.

FIG. 6 is a cross-sectional view showing the configuration of the compressor system according to the third embodiment of the present invention.

FIG. 7 is a longitudinal sectional view showing a modification example of a compressor system according to the respective embodiments of the present invention.

## Description of Embodiments

### [First Embodiment]

**[0024]** A first embodiment according to the present invention will be described with reference to FIGS. 1 and 2. As shown in FIG. 1, a compressor system 100 according to the present embodiment includes an accumulator 24, suction pipes 26A and 26B (first suction pipe 26A and second suction pipe 26B), a compressor 10, and an insulation container 30. The compressor 10 according to the present embodiment is a two-cylinder type rotary compressor. The compressor 10 includes a motor 18 driven by an external power source, a compression mechanism unit 10A driven by the motor 18 so as to compress a refrigerant, and a housing 11 for covering the motor 18 and the compression mechanism unit 10A.

**[0025]** The compression mechanism unit 10A includes a crankshaft 16 rotated by the motor 18, piston rotors 13A and 13B (first piston rotor 13A and second piston rotor 13B) eccentrically rotated in accordance with rotation of the crankshaft 16, and cylinders 12A and 12B (first cylinder 12A and second cylinder 12B) which internally have compression chambers for respectively accommodating the piston rotors 13A and 13B.

**[0026]** In the compression mechanism unit 10A, the first cylinder 12A and the second cylinder 12B which have a disk shape are disposed in two upper and lower stages inside the housing 11 having a cylindrical shape. The housing 11 surrounds the first cylinder 12A and the second cylinder 12B so as to form a discharge space V to which a compressed refrigerant is discharged. The cylindrical first piston rotor 13A and the cylindrical second piston rotor 13B which have a smaller outer shape than an inner side of an inner wall surface thereof are respec-

tively arranged inside the first cylinder 12A and the second cylinder 12B. The first piston rotor 13A and the second piston rotor 13B are respectively inserted into and fixed to eccentric shaft portions 14A and 14B (to be described later).

**[0027]** The first piston rotor 13A of the upper stage cylinder and the second piston rotor 13 B of the lower stage cylinder have phases which are different from each other as much as 180°. A disk-shaped partition plate 15 is disposed between the first cylinder 12A and the second cylinder 12B on the upper and lower stages. A space R inside the first cylinder 12A on the upper stage side and a space R inside the second cylinder 12B on the lower stage side is not allowed to communicate with each other by the partition plate 15, and are partitioned into a compression chamber R1 and a compression chamber R2.

**[0028]** The crankshaft 16 is supported so as to be rotatable around an axis O by an upper bearing portion 17A fixed to the first cylinder 12A and a lower bearing portion 17B fixed to the second cylinder 12B. The crankshaft 16 has the eccentric shaft portions 14A and 14B offset in a direction orthogonal to a first axis O1 serving as a center line of the crankshaft 16. The eccentric shaft portions 14A and 14B pivot about a center axis of the crankshaft 16. In this manner, following pivoting movement thereof, the first piston rotor 13A and the second piston rotor 13B on the upper and lower stages are respectively and eccentrically rotated inside the first cylinder 12A and the second cylinder 12B.

**[0029]** The crankshaft 16 protrudes upward (that is, a direction in which the motor 18 is located when viewed from the compression mechanism unit 10A) from the upper bearing portion 17A. A rotor 19A of the motor 18 for rotationally driving the crankshaft 16 is integrally disposed in a portion of the crankshaft 16 which protrudes upward from the upper bearing portion 17A. A stator 19B is disposed by being fixed to an inner peripheral surface of the housing 11 so as to face an outer peripheral portion of the rotor 19A.

**[0030]** In the compressor 10, the accumulator 24 for separating the refrigerant into gas and liquid before the refrigerant is supplied to the compressor 10 is fixed to the housing 11 via a stay 25. The accumulator 24 stores an uncompressed refrigerant. A first suction pipe 26A and a second suction pipe 26B for suctioning the refrigerant stored in the accumulator 24 into the compressor 10 are disposed between the accumulator 24 and the compressor 10. One end of the first suction pipe 26A and the second suction pipe 26B is connected to a lower portion of the accumulator 24. The other end of the first suction pipe 26A and the second suction pipe 26B passes through openings 22A and 22B (first opening 22A and second opening 22B) formed in the housing 11, and is connected to suction ports 23A and 23B (first suction port 23A and second suction port 23B) respectively formed in the first cylinder 12A and the second cylinder 12B. Although details will be described later, central axes of the first suction pipe 26A and the second suction pipe 26B extend along mutually the same virtual plane. Specifically, the first suction pipe 26A and the second suction pipe 26B extend on the virtual plane including the first axis O1 of the compressor 10 and a second axis O2 of the accumulator 24.

**[0031]** The compressor 10 fetches the refrigerant into the accumulator 24 from a suction port 24a of the accumulator 24. Specifically, inside the accumulator 24, the compressor 10 separates the refrigerant into a liquid-phase component and a gas-phase component. The separated gas-phase component is supplied from the first suction pipe 26A and the second suction pipe 26B via the first suction port 23A and the second suction port 23B to the compression chambers R1 and R2 serving as an internal space of the first cylinder 12A and the second cylinder 12B.

**[0032]** The first piston rotor 13A and the second piston rotor 13B are eccentrically rotated. In this manner, each volume of the compression chambers R1 and R2 gradually decreases, and the refrigerant is compressed. The refrigerant passes through surroundings of the motor 18, and is then discharged to a pipe 27 configuring a refrigeration cycle by way of a discharge port disposed in an upper portion.

**[0033]** In this way, the refrigerant (gas-phase component) compressed to have a high temperature and a high pressure circulates in the compressor 10. In this manner, the compressor 10 has a higher temperature than the accumulator 24. Here, the compressor 10 and the accumulator 24 are close to each other. Accordingly, heat may be exchanged between the compressor 10 and the accumulator 24. Specifically, there is a possibility that the heat may be transferred from the compressor 10 having the high temperature to the accumulator 24 having the low temperature. In this case, the uncompressed refrigerant stored inside the accumulator 24 is heated, thereby causing a possibility that the efficiency of the compressor 10 may be reduced.

**[0034]** Therefore, the compressor system 100 according to the present embodiment includes an insulation container 30 for covering at least one entity of the accumulator 24 and the compressor 10 from an outside. According to the present embodiment, the insulation container 30 covers both the accumulator 24 and the compressor 10. The insulation container 30 has a container main body 31, an insulation member 32, and a base plate 35.

**[0035]** The container main body 31 has a rectangular parallelepiped shape for covering both the accumulator 24 and the compressor 10 from the outside. The container main body 31 is located on the base plate 35 fixed to a floor surface. A space inside the container main body 31 is set to be an internal space 31V. That is, the internal space 31V is a space between an inner surface (container inner surface 31A) of the container main body 31 and an outer surface (apparatus outer surface S1) of the accumulator 24, the first suction pipe 26A, the second suction pipe 26B, and the compressor 10. The apparatus

outer surface S1 described herein indicates the whole surface exposed outward in the accumulator 24, the first suction pipe 26A, the second suction pipe 26B, and the compressor 10. The insulation container 30 has through-holes H1 and H2 into which the pipe 27 and the suction port 24a are inserted. Inside the insulation container 30, the compressor 10 is fixed to the base plate 35 via a fixing member 30F.

**[0036]** The internal space 31V is buried without any gap by the insulation member 32. The insulation member 32 is formed of a porous material, for example, such as a urethane resin and a styrene foam resin, which can hold a fixed shape and which has higher insulation properties than a metal material. A "fixed shape can be held" described herein indicates that a shape can be stably held against an external force even if the external force is applied thereto, unlike a material which is easily deformed as in glass wool or rock wool.

**[0037]** As shown in FIG. 2, according to the present embodiment, an inner surface (insulation member inner surface 32A) of the insulation member 32 has a shape extending along the apparatus outer surface S1. Furthermore, the insulation member inner surface 32A and the apparatus outer surface S1 are in contact with each other without any gap. The insulation member 32 spreads so as to partition the compressor 10 and the accumulator 24 from each other.

**[0038]** The insulation container 30 is separated into two members on a contact surface St serving as a boundary. More specifically, the insulation container 30 has a pair of insulation container half bodies 30H coming into contact with each other via the contact surface St. Each of the insulation container half bodies 30H has a container main body separable body 31H and an insulation member separable body 32H (separable body). The insulation member separable body 32H is fixed to an inner surface (container inner surface 31A) of the container main body separable body 31H so as not to be detachable therefrom.

**[0039]** The contact surface St is a plane including an extending direction of the first suction pipe 26A and the second suction pipe 26B. As described above, the contact surface St is a plane including the first axis O1 of the compressor 10 and the second axis O2 of the accumulator 24.

**[0040]** Next, an operation of the compressor system 100 according to the present embodiment will be described. If the compressor system 100 is operated, the compressor 10 emits the heat due to the compressed refrigerant as described above. Here, the accumulator 24 is located close to the compressor 10. Accordingly, there is a possibility that the heat generated by the compressor 10 may be transferred to the accumulator 24. However, according to the present embodiment, the compressor 10 and the accumulator 24 are thermally insulated by the insulation member 32. Therefore, the insulation member 32 reduces the heat exchange between the compressor 10 and the accumulator 24 and over-heating loss caused by the heat exchange. As a result, the efficiency of the compressor 10 can be prevented from being reduced. Furthermore, when the compressor system 100 is operated, driving sound (radiation sound) is generated due to the driven motor 18. However, the porous material as described above is used as the insulation member 32. Therefore, the driving sound can be attenuated in the insulation member 32 without causing the driving sound to reach the outside.

**[0041]** Moreover, according to the above-described configuration, the insulation member 32 is configured to include the pair of insulation member separable bodies 32H. Therefore, for example, when maintenance work is carried out for the compressor 10 and the accumulator 24, a user can easily reach the compressor 10 and the accumulator 24 by separating the insulation member separable bodies 32H on the contact surface St. Furthermore, after the maintenance work is completely carried out, the insulation member separable bodies 32H are brought into contact with each other via the contact surface St. In this manner, the compressor 10 and the accumulator 24 can easily return to a state of being covered with the insulation member 32. In this way, according to the above-described configuration, the maintenance work can be easily and safely carried out for the compressor system 100 while the insulation properties are ensured.

**[0042]** In addition, according to the above-described configuration, the insulation member inner surface 32A is in contact with the outer surface (apparatus outer surface S1) of the accumulator 24 and the compressor 10 without any gap. Therefore, the heat generated by the compressor 10 can be more efficiently absorbed by the insulation member 32, and the heat exchange between the accumulator 24 and the compressor 10 can be further reduced.

**[0043]** In addition, according to the above-described configuration, the inner surface (insulation member inner surface 32A) of the insulation member 32 has a shape extending along the outer surface (apparatus outer surface S1) of the accumulator 24 and the compressor 10. Therefore, when the insulation member 32 is attached to the accumulator 24 and the compressor 10, the insulation member 32 can be easily positioned by guiding the insulation member inner surface 32A.

**[0044]** Furthermore, according to the above-described configuration, the insulation member 32 is formed of a material which can hold a fixed shape. Accordingly, even in a case where the insulation member 32 is detached from the accumulator 24 and the compressor 10, the insulation member 32 is in a state of holding the fixed shape. Therefore, compared to a case where the insulation member 32 is formed of an amorphous material such as glass wool and rock wool, workability can be improved when the insulation member 32 is attached again to the accumulator 24 and the compressor 10.

**[0045]** In addition, according to the above-described configuration, the contact surface St of the insulation

member separable body 32H (insulation container half body 30H) is a plane including the extending direction of the first suction pipe 26A and the second suction pipe 26B. Accordingly, the insulation container half body 30H can be smoothly detached or attached without being interfered with the first suction pipe 26A and the second suction pipe 26B.

**[0046]** Hitherto, the first embodiment according to the present invention has been described. Various modifications and improvements can be made to the above-described configurations without departing from the gist of the present invention. For example, in the above-described embodiment, an example has been described in which the container main body 31 is formed in the rectangular parallelepiped shape. However, a shape of the container main body 31 is not limited to the above-described example. As another example, the container main body 31 may have an outer shell shape extending along the apparatus outer surface S1. According to this configuration, a dimensional size of the compressor system 100 can be further minimized.

[Second Embodiment]

**[0047]** Next, a second embodiment according to the present invention will be described with reference to FIGS. 3 and 4. The same reference numerals will be given to configurations which are the same as those according to the first embodiment, and detailed description thereof will be omitted. According to the present embodiment, an insulation container 230 covers only the accumulator 24 from the outside. The insulation container 230 has a container main body 231 and an insulation member 232.

**[0048]** The container main body 231 has a rectangular parallelepiped shape for covering the accumulator 24 from the outside. A space inside the container main body 231 is set to be an internal space 231V. That is, the internal space 231V spreads between an inner surface (container inner surface 231A) of the container main body 231 and an outer surface (apparatus outer surface S2) of the accumulator 24. The apparatus outer surface S2 described herein indicates the entire surface exposed outward in only the accumulator 24. The insulation container 230 has a through-hole H3 into which the suction port 24a is inserted.

**[0049]** The internal space 231V is buried without any gap by the insulation member 232. The insulation member 232 is formed of a porous material, for example, such as a urethane resin and a styrene foam resin, which can hold a fixed shape and which has higher insulation properties than a metal material.

**[0050]** According to the present embodiment, an inner surface (insulation member inner surface 232A) of the insulation member 232 has a shape extending along the apparatus outer surface S2. Furthermore, the insulation member inner surface 232A and the apparatus outer surface S2 are in contact with each other without any gap.

**[0051]** The insulation container 230 is separated into two members on the contact surface St serving as a boundary. More specifically, the insulation container 230 has a pair of insulation container half bodies 230H coming into contact with each other via the contact surface St. Each of the insulation container half bodies 230H has a container main body separable body 231H and an insulation member separable body 232H (separable body). The insulation member separable body 232H is fixed to an inner surface (container inner surface 231A) of the container main body separable body 231H so as not to be detachable therefrom. The contact surface St is a plane including the extending direction of the first suction pipe 26A and the second suction pipe 26B and the second axis O2 of the accumulator 24.

**[0052]** According to the above-described configuration, the accumulator 24 is covered with the insulation container 230 (insulation member 232). In this manner, propagation of the heat generated by the compressor 10 to the accumulator 24 can be reduced. Furthermore, the insulation member 232 covers only the accumulator 24. Accordingly, compared to a case where both the accumulator 24 and the compressor 10 are covered with the insulation member 232, the dimensional size of the apparatus can be minimized.

[Third Embodiment]

**[0053]** Subsequently, a third embodiment according to the present invention will be described with reference to FIGS. 5 and 6. The same reference numerals will be given to configurations which are the same as those according to the above-described embodiments, and detailed description thereof will be omitted. According to the present embodiment, an insulation container 330 covers only the compressor 10 from the outside. The insulation container 330 has a container main body 331 and an insulation member 332.

**[0054]** The container main body 331 has a rectangular parallelepiped shape for covering the compressor 10 from the outside. A space inside the container main body 331 is set to be an internal space 331V. That is, the internal space 331V spreads between an inner surface (container inner surface 331A) of the container main body 331 and an outer surface (apparatus outer surface S3) of the compressor 10. The apparatus outer surface S3 described herein indicates the entire surface exposed outward in only the compressor 10. The insulation container 330 has a through-hole H4 into which the pipe 27 is inserted.

**[0055]** The internal space 331V is filled with the insulation member 332 without any gap. The insulation member 332 is formed of a porous material, for example, such as a urethane resin and a styrene foam resin, which can hold a fixed shape and which has higher insulation properties than a metal material.

**[0056]** According to the present embodiment, an inner surface (insulation member inner surface 332A) of the

insulation member 332 has a shape extending along the apparatus outer surface S3. Furthermore, the insulation member inner surface 332A and the apparatus outer surface S3 are in contact with each other without any gap therebetween.

**[0057]** The insulation container 330 is separated into two members on the contact surface St serving as a boundary. More specifically, the insulation container 330 has a pair of insulation container half bodies 330H coming into contact with each other via the contact surface St. Each of the insulation container half bodies 330H has a container main body separable body 331H and an insulation member separable body 332H (separable body). The insulation member separable body 332H is fixed to an inner surface (container inner surface 331A) of the container main body separable body 331H so as not to be detachable therefrom. The contact surface St is a plane including the extending direction of the first suction pipe 26A and the second suction pipe 26B and the first axis O1 of the compressor 10.

**[0058]** According to the above-described configuration, the compressor 10 is covered with the insulation container 330 (insulation member 332). In this manner, propagation of the heat generated by the compressor 10 to the accumulator 24 can be reduced. Furthermore, the insulation member 332 covers only the compressor 10. Accordingly, compared to a case where both the accumulator 24 and the compressor 10 are covered with the insulation member 332, the dimensional size of the apparatus can be minimized.

[Other Modification Example of Embodiment]

**[0059]** While preferred embodiments of the invention have been described and shown above, it should be understood that these are exemplary examples of the invention and are not to be considered as limiting. Additions, omissions, substitutions, and other modifications can be made without departing from the spirit or scope of the present invention. Accordingly, the invention is not to be considered as being limited by the foregoing description, and is only limited by the scope of the appended claims.

**[0060]** For example, as a modification example common to the respective embodiments, it is also possible to adopt a configuration shown in FIG. 7. In the shown example, a gap G is formed between the insulation member inner surface 32A and the apparatus outer surface S1. According to this configuration, since the gap G is formed therebetween, even in a case where an error or a tolerance occurs in the shape of the apparatus outer surface S1, the error or the tolerance is allowable. That is, the versatility of the insulation container 30 can be improved.

**[0061]** According to the present invention, maintenance work can be easily and safely carried out while insulation properties are ensured.

Industrial Applicability

**[0062]** According to the present invention, maintenance work can be easily and safely carried out while insulation properties are ensured.

Reference Signs List

**[0063]**

100: compressor system
10: compressor
10A: compression mechanism unit
11: housing
12A: first cylinder (cylinder)
12B: second cylinder (cylinder)
R1, R2: compression chamber
13A: first piston rotor (piston rotor)
13B: second piston rotor (piston rotor)
14A, 14B: eccentric shaft portion
16: crankshaft
17A: upper bearing portion
17B: lower bearing portion
18: motor
19A: rotor
19B: stator
22A: first opening (opening)
22B: second opening (opening)
23A: first suction port (suction port)
23B: second suction port (suction port)
24: accumulator
24a: suction port
25: stay
26A: first suction pipe (suction pipe)
26B: second suction pipe (suction pipe)
27: pipe
30, 230, 330: insulation container
30F: fixing member
30H, 230H, 330H: insulation container half body
31, 231, 331: container main body
31A, 231A, 331A: container inner surface
31H, 231H, 331H: container main body separable body
31V, 231V, 331V: internal space
32, 232, 332: insulation member
32A, 232A, 332A: insulation member inner surface
32H, 232H, 332H: insulation member separable body
35: base plate
O1: first axis
O2: second axis
S1, S2, S3: apparatus outer surface
St: contact surface
V: discharge space

## Claims

1. A compressor system (100) comprising:

   an accumulator (24) that is configured to separate a refrigerant into a liquid-phase component and a gas-phase component;
   a suction pipe (26A, 26B), one end of which is connected to the accumulator (24) so as to circulate the gas-phase component therethrough;
   a compressor (10) that is connected to the other end of the suction pipe so as to compress the gas-phase component; and
   an insulation member (32, 232, 332) that covers an entity of at least one of the accumulator (24) and the compressor (10) from an outside,
   wherein the insulation member has at least a pair of separable bodies (32H) configured to come into contact with each other via a contact surface (St).

2. The compressor system (100) according to Claim 1, wherein an inner surface (32A) of the insulation member has a shape extending along at least one outer surface of the accumulator (24) and the compressor (10).

3. The compressor system (100) according to Claim 1 or 2,
   wherein an inner surface (32A) of the insulation member is in contact with at least one outer surface of the accumulator (24) and the compressor (10).

4. The compressor system (100) according to any one of Claims 1 to 3,
   wherein the insulation member (32) covers both the accumulator (24) and the compressor (10).

5. The compressor system (100) according to any one of Claims 1 to 3,
   wherein the insulation member (32) covers only the accumulator (24).

6. The compressor system (100) according to any one of Claims 1 to 3,
   wherein the insulation member (32) covers only the compressor (10).

7. The compressor system (100) according to any one of Claims 1 to 6,
   wherein the insulation member (32) is formed of a material capable of holding a fixed shape.

8. The compressor system (100) according to any one of Claims 1 to 7,
   wherein the contact surface (St) is a plane including an extending direction of the suction pipe (26A, 26B).

FIG. 1

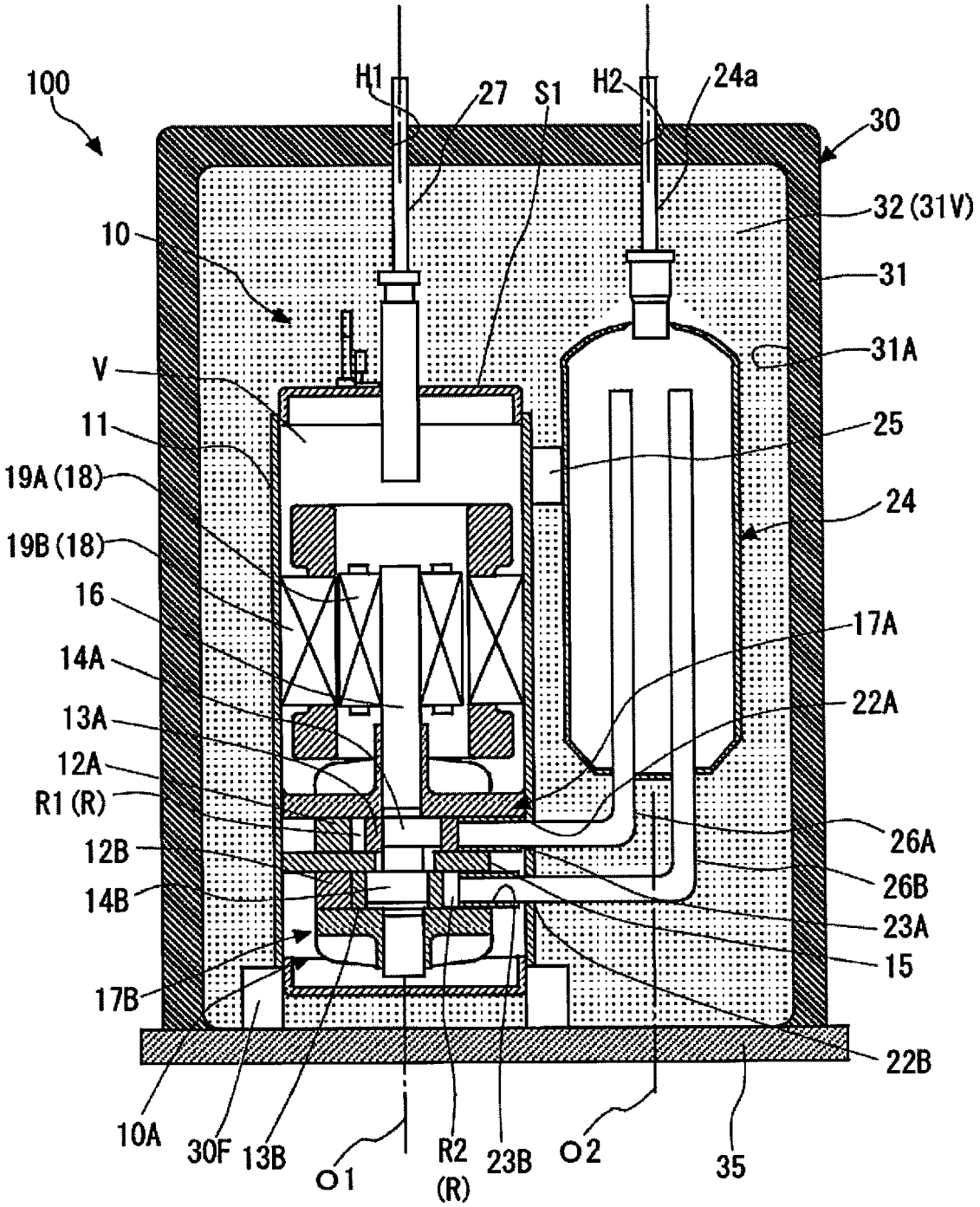

100
H1
27
S1
H2
24a
30
32 (31V)
10
31
31A
V
11
25
19A (18)
24
19B (18)
16
17A
14A
22A
13A
12A
R1 (R)
26A
12B
26B
14B
23A
15
17B
22B
10A
30F
13B
O1
R2
(R)
23B
O2
35

FIG. 2

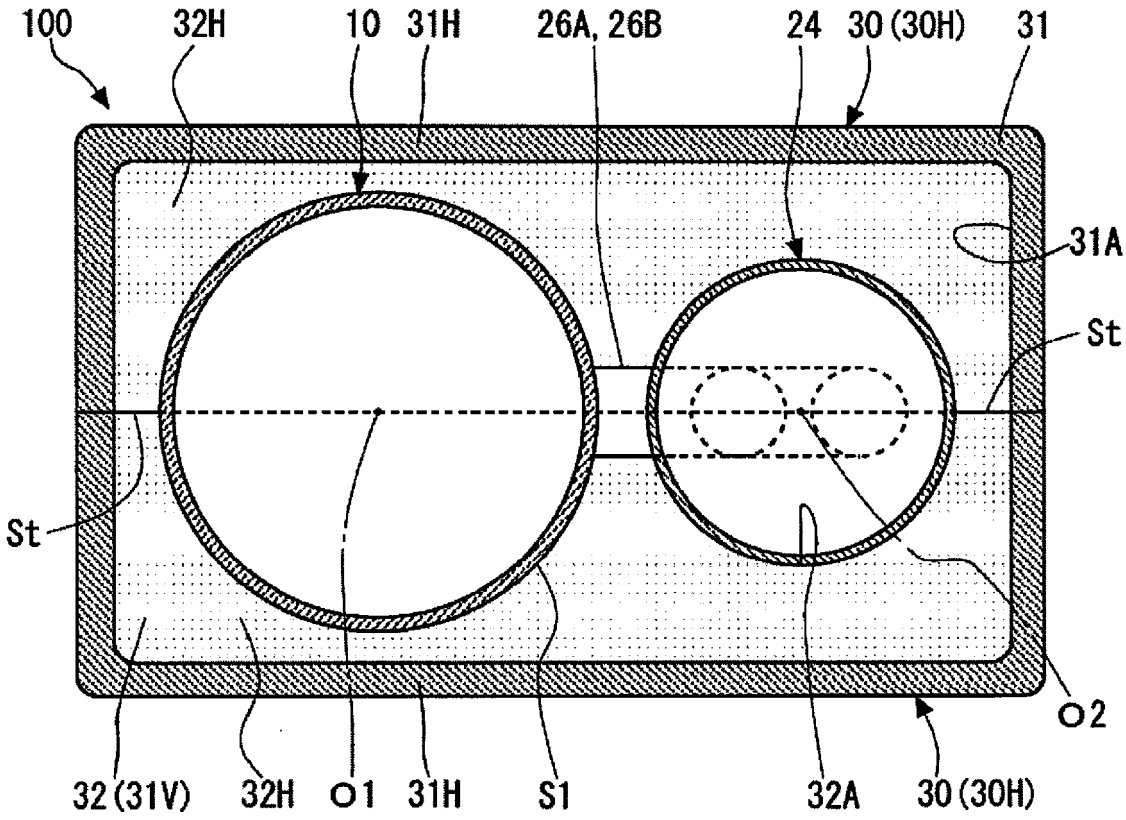

100
32H
10
31H
26A, 26B
24
30 (30H)
31
31A
St
St
32 (31V)
32H
O1
31H
S1
32A
30 (30H)
O2

FIG. 3

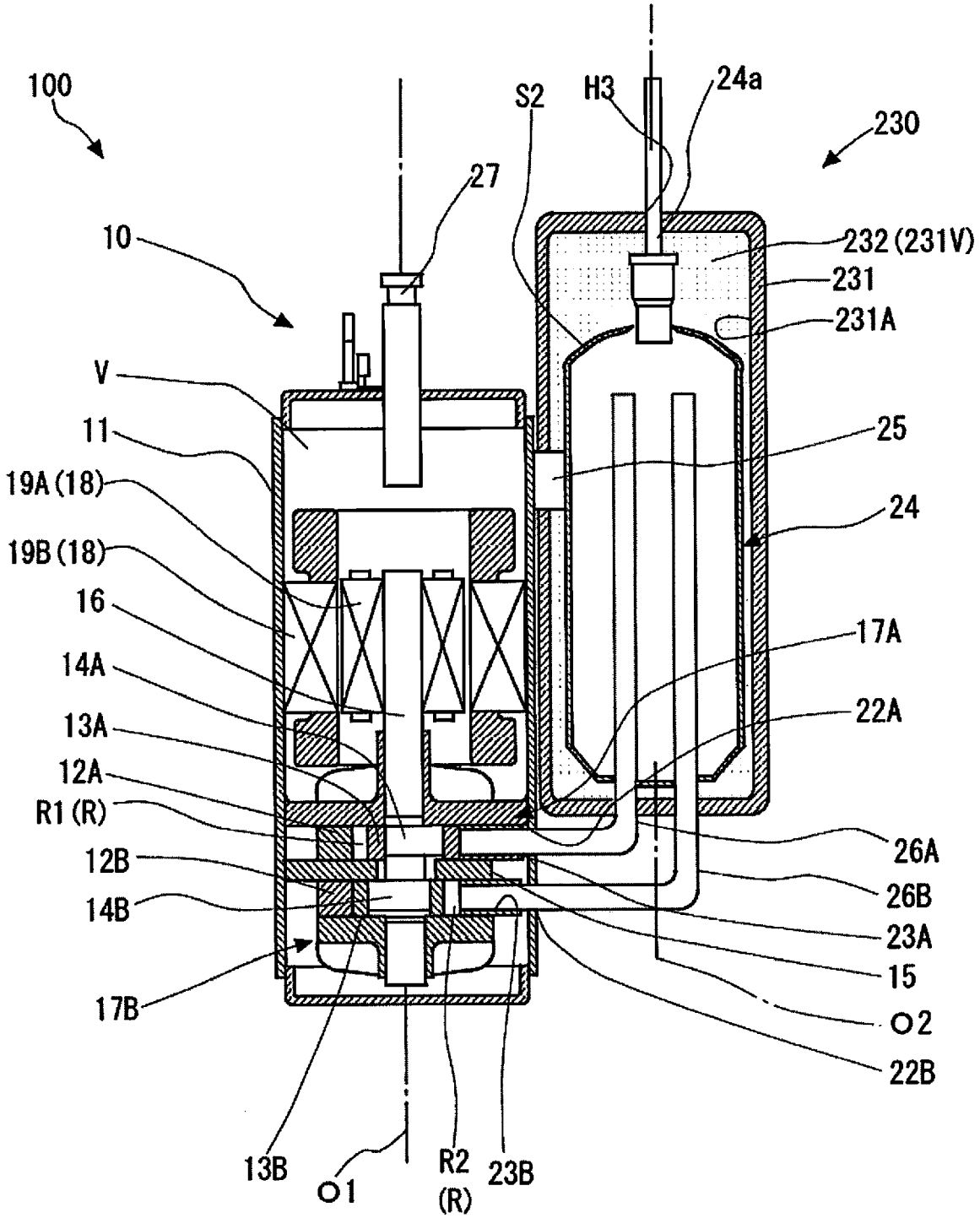

100
10
27
S2
H3
24a
230
232 (231V)
231
231A
V
11
19A (18)
19B (18)
16
14A
13A
12A
R1 (R)
12B
14B
17B
25
24
17A
22A
26A
26B
23A
15
O2
22B
13B
O1
R2 (R)
23B

FIG. 4

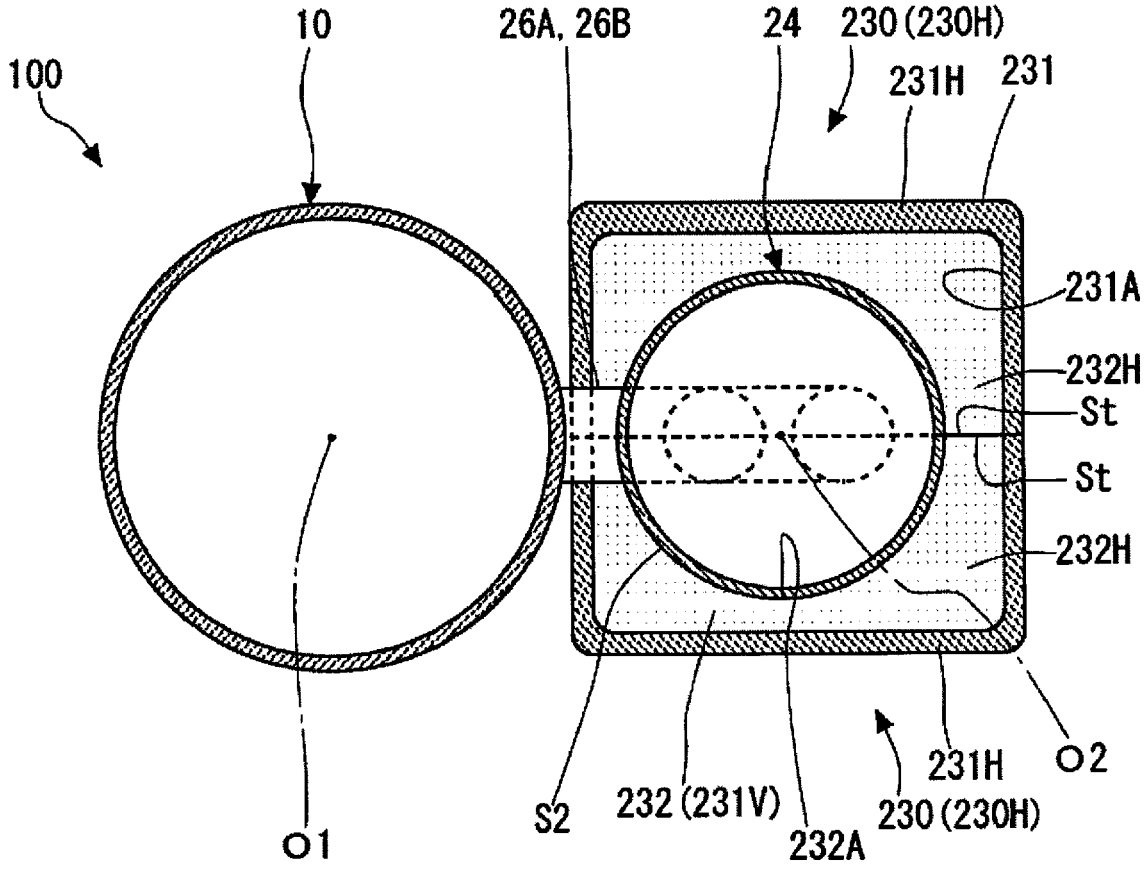

100
10
26A, 26B
24
230 (230H)
231H
231
231A
232H
St
St
232H
O1
S2
232 (231V)
232A
230 (230H)
231H
O2

FIG. 5

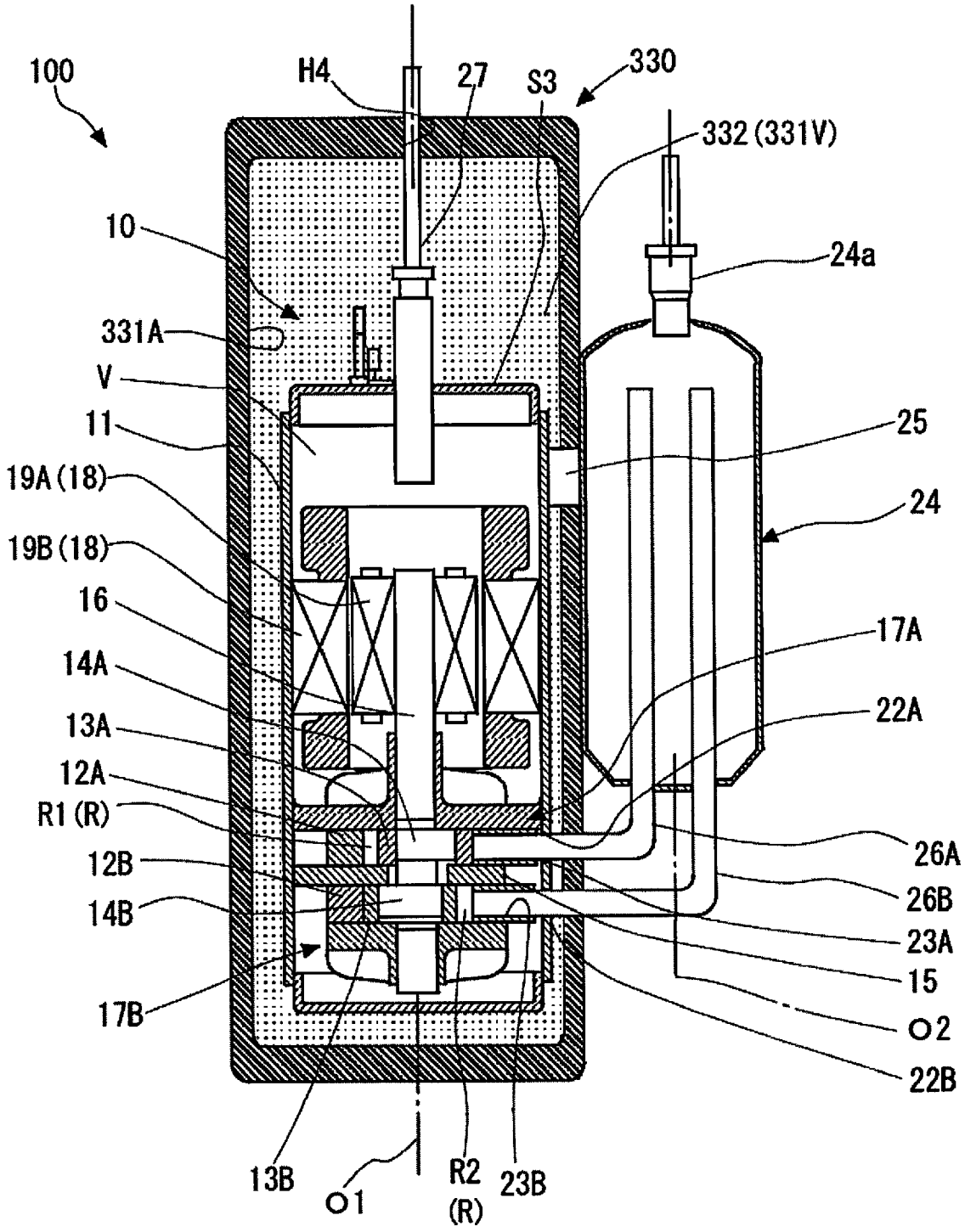

100
H4
27
S3
330
332 (331V)
10
24a
331A
V
11
25
19A (18)
24
19B (18)
16
17A
14A
22A
13A
12A
R1 (R)
26A
12B
26B
14B
23A
15
17B
O2
22B
13B
O1
R2
(R)
23B

FIG. 6

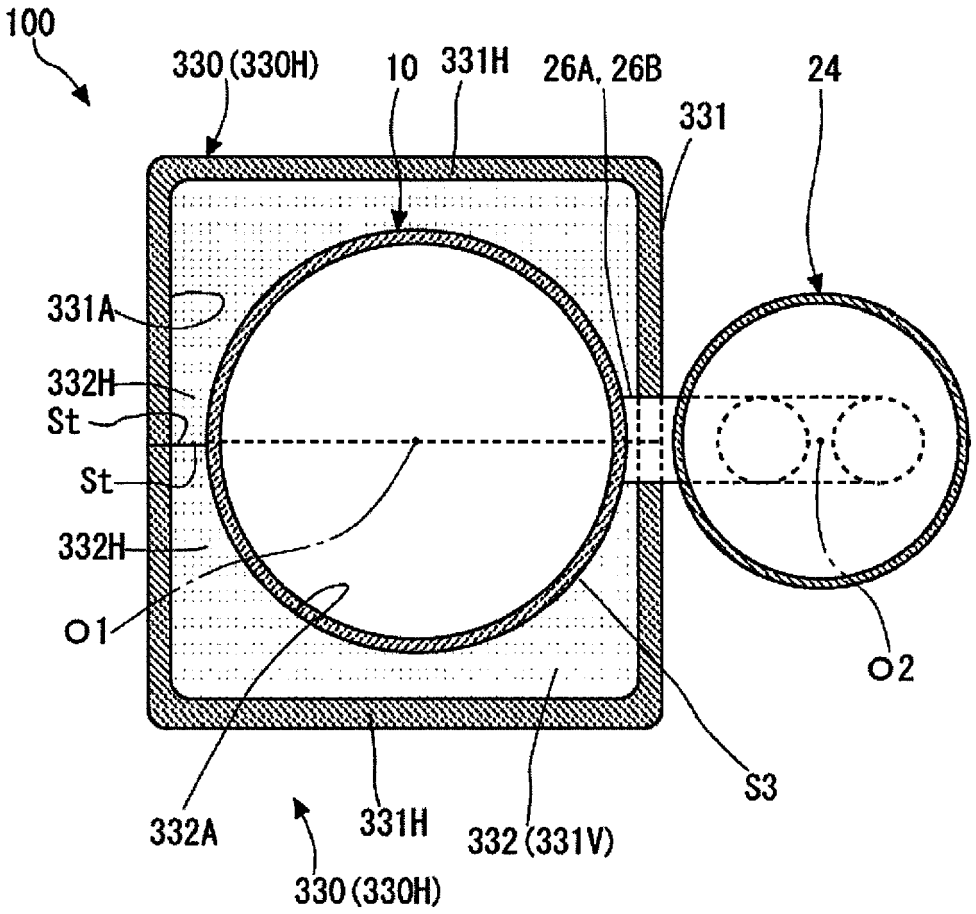
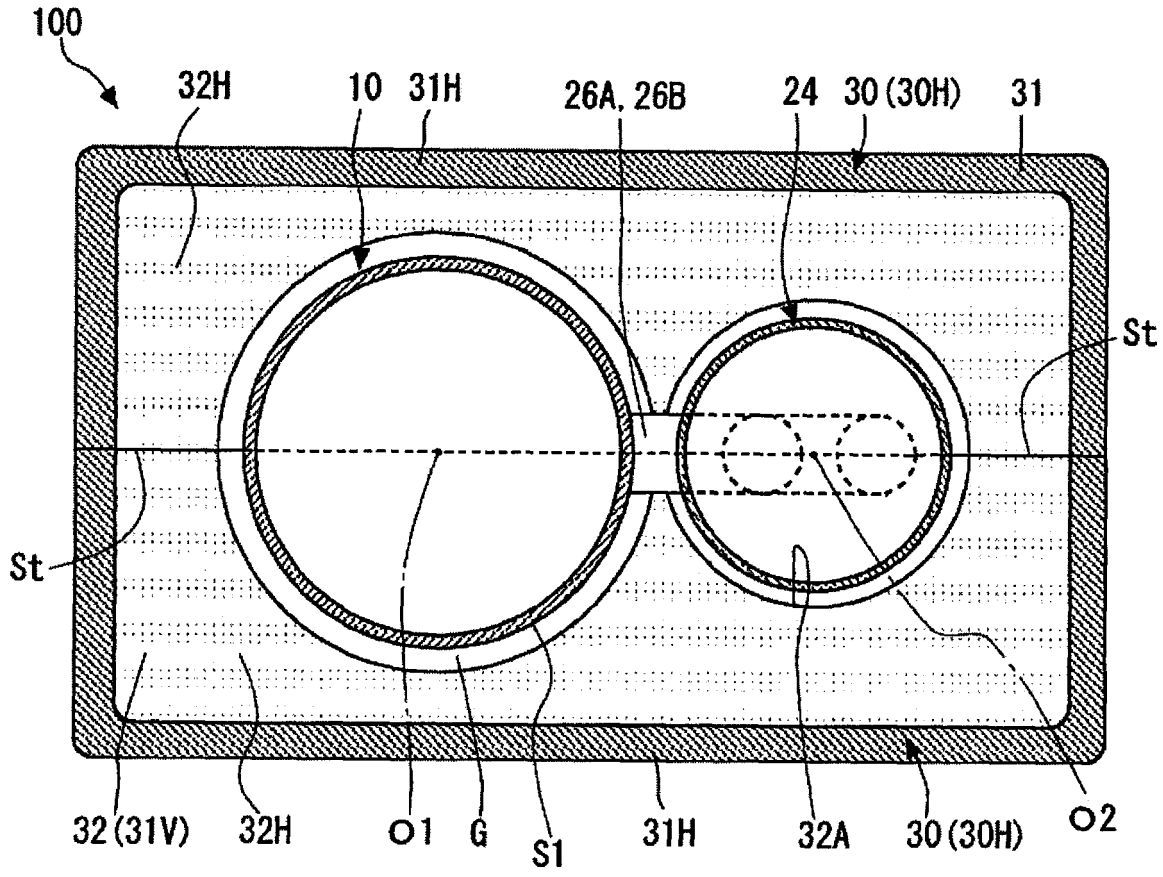

100
330(330H)
10
331H
26A, 26B
331
24
331A
332H
St
St
332H
O1
O2
S3
332A
331H
332(331V)
330(330H)

FIG. 7


100
32H
10
31H
26A, 26B
24
30 (30H)
31
St
St
32 (31V)
32H
O1
G
S1
31H
32A
30 (30H)
O2

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Application Number
EP 19 16 7395

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