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Jung(10) **Pub. No.: US 2008/0219863 A1**(43) **Pub. Date: Sep. 11, 2008**(54) **CONNECTOR FOR HERMETIC
COMPRESSOR AND SUCTION DEVICE OF
WORKING FLUID USING THE SAME****Publication Classification**(51) **Int. Cl.**
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(52) **U.S. Cl.** **417/312**(57) **ABSTRACT**(75) **Inventor:** **Min Kyu Jung**, Changwon City
(KR)

Correspondence Address:

KED & ASSOCIATES, LLP**P.O. Box 221200****Chantilly, VA 20153-1200 (US)**(73) **Assignee:** **LG Electronics Inc.**(21) **Appl. No.:** **11/714,243**(22) **Filed:** **Mar. 6, 2007**

A connector for a hermetic compressor and a working fluid suction device using such a connector are provided. The compressor includes a suction pipe coupled to a casing so as to transfer working fluids into a silencer housed in the casing to attenuate noise. The connector includes a connector pipe extending between the suction pipe and the silencer and coupled to a communication pipe provided on an outer surface of the silencer, an enlarged-diameter part extending from the connector pipe toward the suction pipe at a predetermined angle; and a contact skirt provided at a leading edge of the enlarged-diameter part. The contact skirt comes into close contact with an inner circumferential surface of the casing, allowing working fluids to flow into the silencer without leakage, thus improving fluid flow into the compressor.

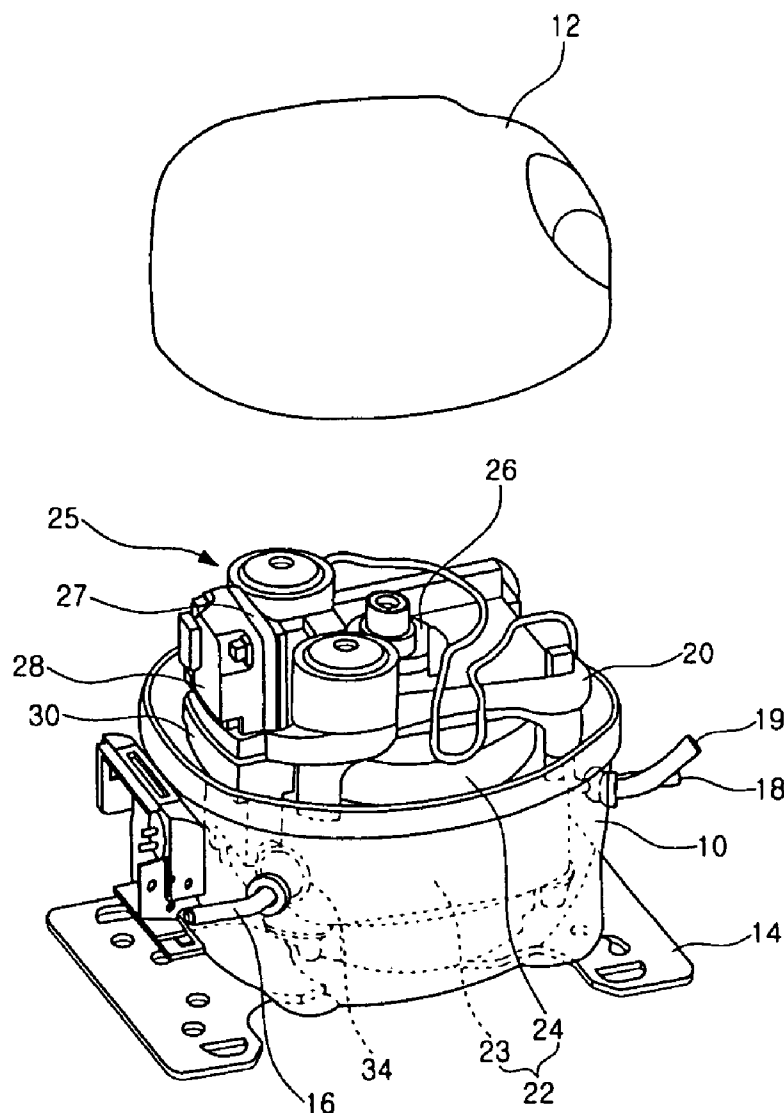


FIG. 1

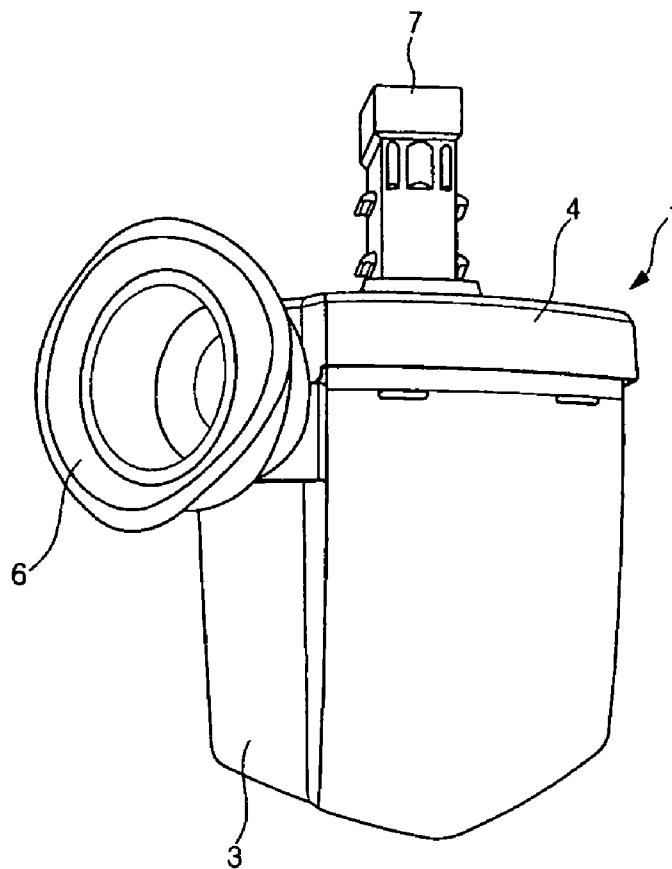


FIG. 2

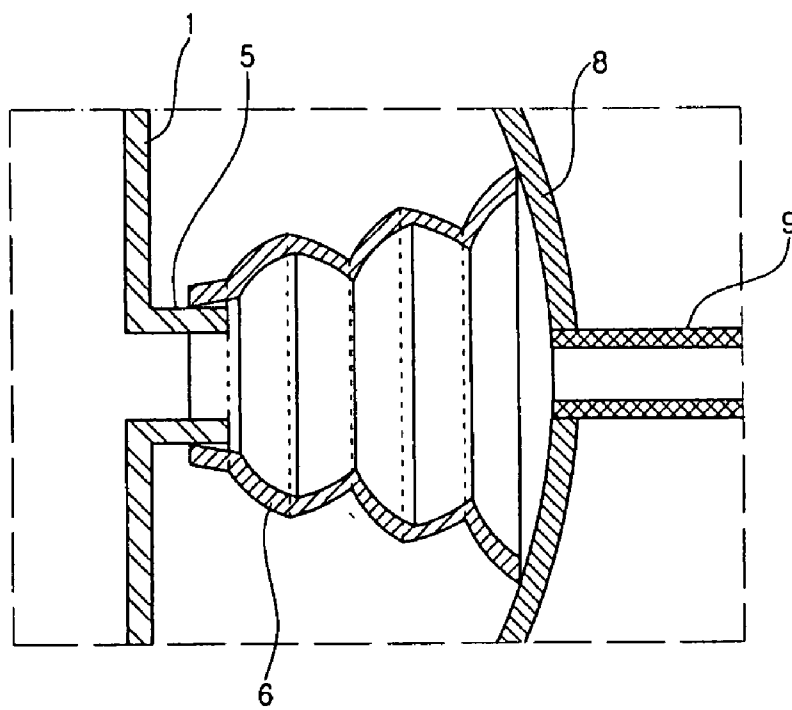


FIG. 3

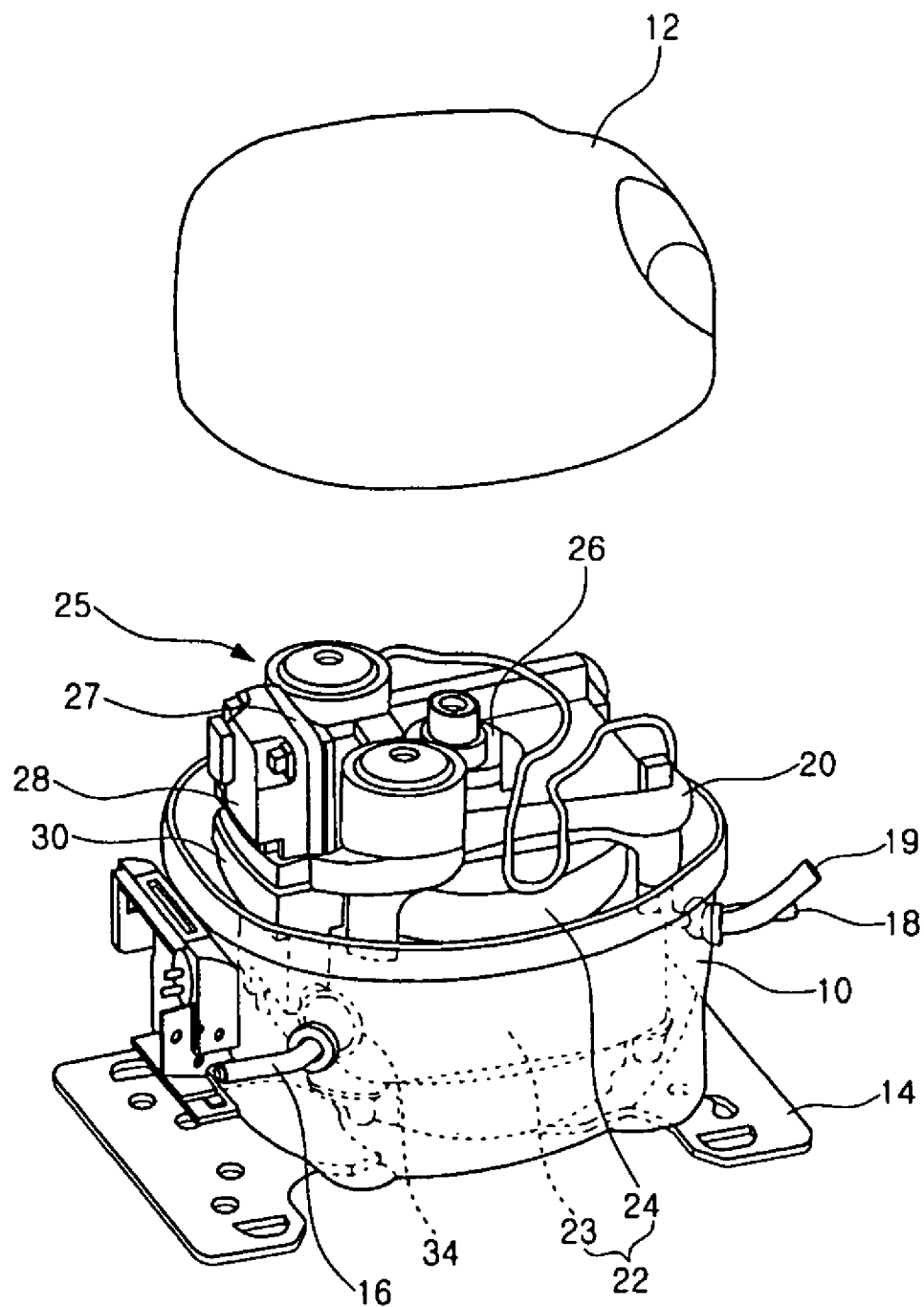


FIG. 4

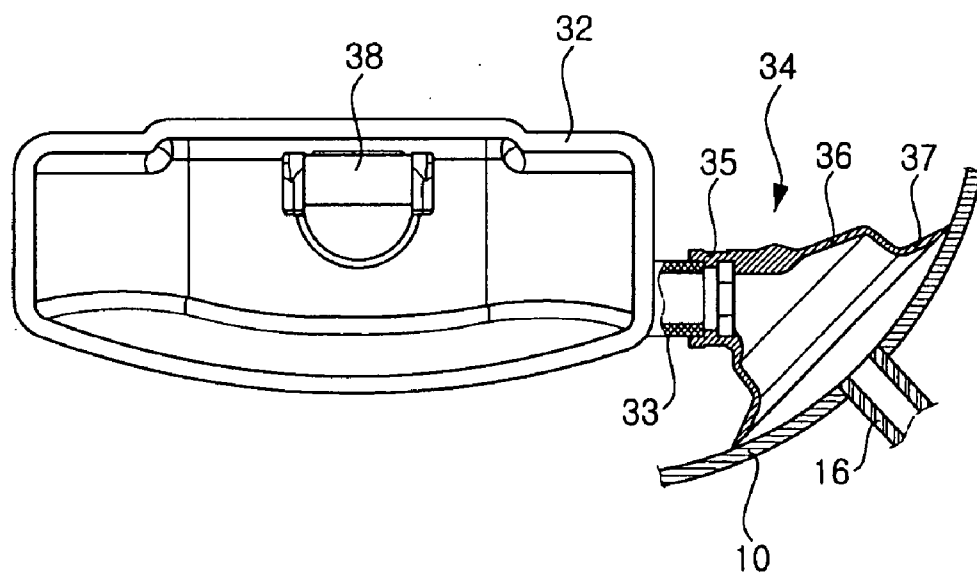
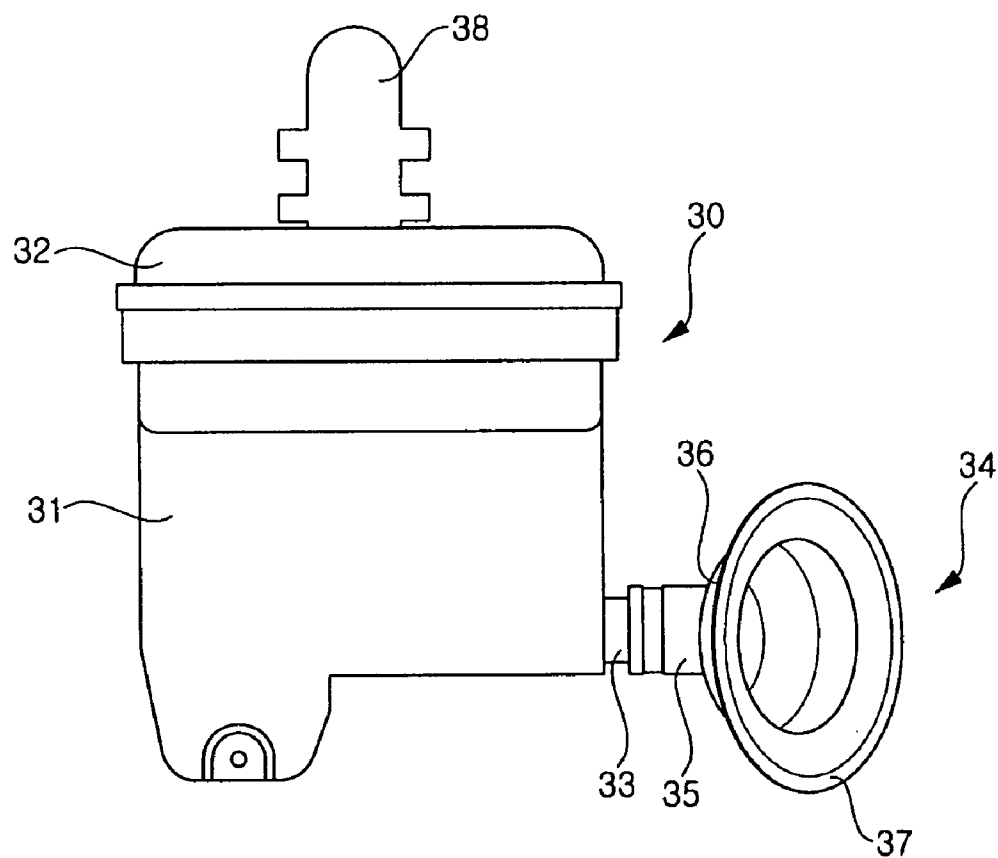


FIG. 5



CONNECTOR FOR HERMETIC COMPRESSOR AND SUCTION DEVICE OF WORKING FLUID USING THE SAME

BACKGROUND

[0001] 1. Field

[0002] This relates to a hermetic compressor, and more particularly to a connector for a hermetic compressor which optimizes working fluid that flows into the compressor, enters a compression chamber thereof, and is sucked into a suction silencer for removing noises generated from the compression chamber, and a suction device of working fluid using the same.

[0003] 2. Background

[0004] Hermetic compressors may employ suction silencers to attenuate noise generated during operation of the compressor. However, leakage of working fluids and interrupted flow of working fluids in the compressor can degrade compressor performance.

SUMMARY

[0005] Accordingly, the embodiments broadly described herein solve the above-mentioned problems. An object is to provide a connector for a hermetic compressor which allows working fluids transferred from the outside of the compressor to the inside to smoothly flow in a suction silencer without leakage.

[0006] Another object is to provide a connector for a hermetic compressor to guide working fluids into a suction silencer which is disposed on the side of a suction silencer, thereby efficiently utilizing the inner space of a hermetic vessel.

[0007] In order to accomplish these objects, there is provided a connector for a hermetic compressor comprising a suction pipe connected to a hermetic vessel to transfer working fluids into the hermetic vessel; and a suction silencer optimizing the working fluids introduced through the suction pipe, transferring the working fluids toward a compression chamber, and removing noises, the connector comprising a connector pipe communicating with the suction pipe and the suction silencer to transfer the working fluids through the suction silencer, and connected with a communication pipe formed on one face of the suction silencer, an enlarged-diameter part having an enlarged diameter and extending from the connector pipe toward the suction pipe, a center line thereof intersecting a center line of the connector pipe at a certain angle, and a contact skirt sharply enlarging from a leading end of the enlarged-diameter part, an inner edge thereof coming into close contact with an inner face of the hermetic vessel.

[0008] The communication pipe may be provided on the lower side of the suction silencer, and the enlarged-diameter part enlarging on the rear side of the communication pipe and extending corresponding to the curved face of the hermetic vessel.

[0009] An inner diameter face of the connector pipe may come into close contact with an outer diameter face of the communication pipe of the suction silencer.

[0010] The connector pipe, the enlarged-diameter part, and the contact skirt may be formed in one piece by an elastic material.

[0011] In accordance with another embodiment as broadly described herein, there is provided a working fluid suction device for a hermetic compressor, the device comprising a

suction pipe connected to a hermetic vessel to transfer working fluids into the hermetic vessel; a suction silencer receiving, through a communication pipe provided on its one side, the working fluids introduced through the suction pipe, optimizing the working fluids, transferring the working fluids toward a compression chamber, and removing noises, and a connector installed in the communication pipe of the suction silencer, a leading end thereof coming into close contact with an inner face of the hermetic vessel to transfer the working fluids between the suction pipe and the suction silencer, the connector including a connector pipe connected with the communication pipe, an enlarged-diameter part enlarging from the connector pipe, a center line thereof intersecting a center line of the connector pipe at a certain angle, and a contact skirt extending from a leading end of the enlarged-diameter part, an inner face thereof coming into close contact with the inner face of the hermetic vessel.

[0012] The communication pipe may be installed so as to thread the lower side of the suction pipe.

[0013] The enlarged-diameter part may have an enlarged diameter and extend from the leading end of the connector pipe toward the suction pipe positioned on the inner face of the hermetic vessel corresponding to the rear side of the suction silencer.

[0014] The connector may be made of an elastic material.

[0015] In accordance with still another embodiment as broadly described herein, there is provided a working fluid suction device for a hermetic compressor, the device comprising a suction pipe connected to a hermetic vessel to transfer working fluids into the hermetic vessel; a suction silencer receiving the working fluids introduced through the suction pipe, optimizing the working fluids, transferring the working fluids toward a compression chamber, and removing noises, and a connector made of an elastic material and connected between the suction silencer and the suction pipe to transfer the working fluids therebetween, the connector including a connector pipe communicating with the inside and outside of the suction silencer, and an enlarged-diameter part enlarging from a leading end of the connector pipe toward the suction pipe and inclined at a certain angle with respect to an extending direction of the connector pipe.

[0016] The enlarged-diameter part may have an enlarged diameter and extend from the leading end of the connector pipe provided on the side of the suction silencer toward the suction pipe positioned in an inner face of the hermetic vessel corresponding to the rear side of the suction silencer.

[0017] The connector may further include a contact skirt that has a sharply increasing diameter and extends from a leading end of the enlarged-diameter part, an inner face thereof coming into close contact with the inner face of the hermetic vessel.

[0018] In the connector for the hermetic compressor and the working fluid suction device using the same having the above described constructions, the working fluids smoothly flow in the suction silencer without leakage, fluidity of the working fluids in the connector is improved, and the suction device does not occupy much of the inner space of the hermetic vessel.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The above and other objects, features and advantages of the embodiments as broadly described herein will be more apparent from the following detailed description taken in conjunction with the accompanying drawings, in which:

[0020] FIG. 1 is a perspective view showing an appearance of an exemplary suction silencer;

[0021] FIG. 2 is a sectional view of an exemplary suction device of working fluid;

[0022] FIG. 3 is an exploded perspective view of a hermetic compressor employing a suction device of working fluids according to an embodiment as broadly described herein;

[0023] FIG. 4 is a partial sectional view of the construction of the embodiment shown in FIG. 3; and

[0024] FIG. 5 is a perspective view showing a suction silencer and a connector in accordance with embodiments as broadly described herein.

DETAILED DESCRIPTION

[0025] Hereinafter, embodiments will be described with reference to the accompanying drawings. In the following description and drawings, the same reference numerals are used to designate the same or similar components, and so repetition of the description on the same or similar components will be omitted.

[0026] FIG. 1 shows an appearance of a suction silencer, and FIG. 2 shows a suction device of working fluid. In these FIGS. 1 and 2, the suction silencer 1 includes an upper body 4 and a lower body 3 in which space is provided where working fluid flows and noises are removed.

[0027] Disposed on one side of the upper body 4 or the lower body 3, is a communication pipe 5 communicating with the inside and outside of the body, to which pipe a connector 6 is installed. The connector 6 serves to guide the working fluids flowing in the compressor into the internal space of the suction silencer 1. Particularly, the connector 6 is made in a bellows type and is able to be deformed to some extent, and as shown in FIG. 2, comes into contact with an inner face of a hermetic vessel 8. The connector 6 is provided such that an inlet portion thereof is relatively wide and the other portion communicating with the communication pipe 5 is relatively narrow. Thus, even when the suction silencer 1 moves to some extent, the connector allows working fluids to flow inside through the communication pipe 5.

[0028] On the suction silencer 1, an ejection port 7 is provided that selectively communicates with the compression chamber through a valve assembly. The ejection port 7 is a portion for ejecting, to the compression chamber, working fluids having flowed through the suction silencer 1.

[0029] The suction silencer constructed as above is mounted in a cylinder together with the valve assembly, a head cover assembly and the like, and the connector 6 is installed so that a leading end thereof comes into close contact with the inner face of the hermetic vessel where a suction pipe 9 is connected.

[0030] However, although the bellows type connector 6 comes into close contact with the inner face of the hermetic vessel 8, much unevenness is formed on a passage in which working fluids flow, thereby deteriorating the fluidity of the working fluids. Further, the connector 6 is installed so as to protrude toward the inner face of the hermetic vessel 8 confronting the front face of the cylinder where the suction silencer 1 is mounted, that is, the connector 6 is installed in front of the suction silencer 1, so that the hermetic vessel 8 is elongated in that direction.

[0031] FIG. 3 is an exploded perspective view of a hermetic compressor employing a suction device of working fluids according to a preferred embodiment of the invention, FIG. 4 is a partial sectional view of the construction of the silencer

and connector, and FIG. 5 is a perspective view showing a suction silencer and a connector as embodied and broadly described herein.

[0032] Referring to these drawings, an appearance of the compressor consists of a lower vessel 10 and an upper vessel 12. The lower vessel 10 and the upper vessel 12 are coupled to each other to form therein a hermetic space. The vessels 10 and 12 each are formed in a substantially semi-spherical shape so that inner faces or outer faces thereof are curved. Inside the hermetic space, parts constituting the compressor are installed. Under the lower vessel 10, a mounting plate 14 is installed. The mounting plate 14 is fixed in a position where the compressor is installed.

[0033] Next, a pipe is installed on the lower vessel 10 to allow working fluids to flow between the inside and outside of the hermetic space. That is, a suction pipe 16 is installed through the lower vessel 10 to transfer working fluids into the hermetic space. An ejection pipe 18 is installed through the lower vessel 10 opposite to the suction pipe 16. A reference numeral 19 is a process pipe. The process pipe 19 is a passage for injecting oil or working fluids into the hermetic space, if needed.

[0034] Inside the hermetic space, a frame 20 is supported on the bottom face of the lower vessel 10 by an elastic member (not shown). The frame 20 is provided with various parts constituting a compressor. A motor 22 is provided in the frame 20. The motor 22 consists of a stator 23 and a rotor 24. The rotor 24 rotates in the stator 23 with electromagnetic interaction with the stator 23.

[0035] A compressing device 25 is installed on the frame 20. The compressing device 25 compresses working fluids using power of the motor 22 received via a crank shaft 26.

[0036] The compressing device 25 is provided with a valve assembly 27 for transferring working fluids between the inside and the outside of a compression chamber, and a head cover 28 forming a passage of working fluids flowing through the valve assembly 27. A suction silencer 30 is mounted on a cylinder block, together with the valve assembly 27 and the head cover 28. The suction silencer 30 transfers the working fluids transferred from outside of the compressor to the compression chamber, and removes noises of the valve assembly 27.

[0037] The suction silencer 30 is formed by coupling a lower body 31 and an upper body 32 with each other. Inside the suction silencer 30, a space is provided in which a certain passage is formed, so that working fluids enter the compression chamber with an optimized state, and noises generated from the compression chamber side, i.e., the valve assembly 27 and the like, are reversely transferred and reduced.

[0038] The suction silencer 30 is provided, on its one lower side, with a communication pipe 33. The communication pipe 33 communicates with the inside and outside of the lower body 31. A connector 34 is connected to the communication pipe 33. The connector 34 is made of an elastic material. The elastic material may be, for example, rubber.

[0039] The connector 34 is provided with a connector pipe 35 connected to the communication pipe 33. The connector pipe 35 is connected with the communication pipe 33 such that its inner diameter face comes into close contact with the outer diameter face of the communication pipe 33.

[0040] An enlarged-diameter part 36 is provided so as to be inclined at a certain angle with respect to the extending direction of the connector pipe 35. That is, the connector pipe 35 and the enlarged-diameter part 36 have center lines intersect-

ing with each other at a certain angle. Such inclination of the enlarged-diameter part 36 with respect to the connector pipe 35 is for making the connector 34 positioned on the side of the suction silencer 30. Since the enlarged-diameter part 36 is inclined to the connector pipe 35 at a certain angle, it is shaped corresponding to the curved shape of the lower vessel 10. The connector 34 shaped as above can come into close contact with an inner face of the lower vessel 10.

[0041] In the present embodiment, as shown in FIG. 4, the connector pipe 35 is connected to the communication pipe 33 provided on the lower side of the suction silencer 30, and the enlarged-diameter part 36 has an enlarged diameter and extends toward the rear side of the communication pipe 33. In addition, the enlarged-diameter part 36 extends corresponding to the curved face of the hermetic vessel.

[0042] With the structure of the connector 34, even when the suction pipe 16 passing through the lower vessel 10 is not in a coaxial line with the communication pipe 33, the connection therebetween is easily implemented. That is, the connector 34 makes it possible to connect the suction pipe 16 and the communication pipe 33 that are not on the same axial line.

[0043] The enlarged-diameter part 36 has an enlarged diameter and extends from a leading end of the connector pipe 35 toward the suction pipe 16. That is, a cross-section of the enlarged-diameter part 36 gradually increases toward the inner face of the lower vessel 10. Thus, the enlarged-diameter part 36 has a relatively small diameter at its portion connected to the connector pipe 35. The diameter thereof gradually increases as it extends away from the connector pipe 35. In this embodiment, the enlarged-diameter part 36 is provided such that the diameter thereof sharply increases at a portion connected to the connector pipe 35, and gradually increases after that portion.

[0044] The enlarged-diameter part 36 is provided with a contact skirt 37 at its leading end. The contact skirt 37 is a portion that comes into contact with the inner face of the lower vessel 10. The contact skirt 37 is shaped so as to sharply enlarge from the leading end of the enlarged-diameter part 36, so that its inner face comes into close contact with the inner face of the lower vessel 10. The contact skirt 37 allows working fluids entering inside the hermetic vessel through the suction pipe 16 to flow in the suction silencer 30 without leakage.

[0045] Meanwhile, an ejection portion 38 is provided in the middle of the upper face of the upper body 32. The ejection portion 38 serves to transfer working fluids having flowed through the suction silencer 30 to the compression chamber. Of course, through the ejection portion 38, noises generated from the valve assembly 27 and the like are transferred into the suction silencer 30. The ejection portion 38 is a portion for allowing the suction silencer 30 to be coupled with the valve assembly 27 side, and is mounted on the front face of the cylinder together with the valve assembly 27 by the head cover 28.

[0046] Description will now be made of the operations of the connector of the hermetic compressor and the suction device of working fluids using the same in accordance with embodiments as broadly described herein.

[0047] When the compressor is driven, power is supplied to the motor 22 to rotate the rotor 24 and then a crank shaft 26. When the crank shaft 26 is rotated, the compressing device 25 is driven to compress working fluids.

[0048] That is, when a piston is moved to a bottom dead point in the compression chamber, working fluids are sucked

from the suction silencer 30 to the compression chamber. Such suction force is motive power for sucking working fluids from the outside to the inside of the compressor.

[0049] Thus, the working fluids are sucked into the hermetic vessel through the suction pipe 16. The working fluids sucked into the hermetic vessel through the suction pipe 16 are not leaked through the connector 34 because the inner face of the contact skirt 37 of the connector 34 is in close contact with the inner face of the hermetic vessel so that they are transferred to the communication pipe 33 through the enlarged-diameter part 36 and the connector pipe 35. The working fluids transferred to the communication pipe 33 pass through the inside of the suction silencer 30 and escape outside through the ejection portion 38. That is, the working fluids flow in the compression chamber through the ejection portion 38.

[0050] Meanwhile, the connector 34 allows working fluids to smoothly flow without hindrance because there is no protrusion on the inner face thereof. The contact skirt 37 comes into close contact with the inner face of the hermetic vessel, so that the working fluids introduced through the suction pipe 16 can be transferred to the suction silencer 30 without leakage.

[0051] Further, even when the suction silencer 30 is agitated due to vibrations of the frame 20 upon operation of the compressor, working fluids can be securely transferred to the suction silencer 30. This is because the connector 34 itself is made of an elastic material, and particularly, the contact skirt 37 is variably adhered to the inner face of the hermetic vessel, thereby effectively preventing leakage of working fluids.

[0052] Furthermore, since the connector pipe 35 and the enlarged-diameter part 36 are inclined to each other at a certain angle, the connector 34 can come into close contact with the lower vessel 10, the inner face of which is curved. In addition, the connector 34 does not require much installation space. In this embodiment, the connector 34 may be positioned in the interspace between the side of the suction silencer 30 and the inner face of the lower vessel 10.

[0053] As set forth before, the connector of the hermetic compressor and the working fluid suction device using the same as embodied and broadly described herein have the following effects.

[0054] First, the connector communicating between the suction pipe and the suction silencer is made of an elastic material and has no protrusion therein, so that working fluids can flow smoothly. Particularly, the contact skirt is in close contact with the inner face of the hermetic vessel, thereby minimizing the leakage of working fluids. Thus, the working fluids introduced into the hermetic vessel are prevented from being leaked, and the working fluids are not affected by the internal space of the hermetic vessel, thereby increasing the compression efficiency of the compressor.

[0055] Moreover, the connector is connected between the communication pipe on the side of the suction silencer and the suction pipe passing through the hermetic vessel such that it communicates with the suction pipe in the state where the communication pipe and connector are installed at the side of the suction silencer, so that a gap between the suction silencer and the hermetic vessel can be minimized. Thus, the internal space of the hermetic vessel can be efficiently utilized, thereby providing an effect of making the size of the compressor smaller.

[0056] Although certain embodiments are described herein for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are

possible, without departing from the scope and spirit of the embodiments as disclosed in the accompanying claims.

[0057] For instance, while the embodiment has illustrated that the connector pipe **35** is coupled to the communication pipe **33** provided on one side of the suction silencer **30**, the connector **34** may be directly coupled to one side of the suction silencer **30** so as to allow the inside and outside of the suction silencer **30** to communicate with each other.

[0058] Any reference in this specification to “one embodiment,” “an embodiment,” “example embodiment,” etc., means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of such phrases in various places in the specification are not necessarily all referring to the same embodiment. Further, when a particular feature, structure, or characteristic is described in connection with any embodiment, it is submitted that it is within the purview of one skilled in the art to effect such feature, structure, or characteristic in connection with other ones of the embodiments.

[0059] Although embodiments have been described with reference to a number of illustrative embodiments thereof, it should be understood that numerous other modifications and embodiments can be devised by those skilled in the art that will fall within the spirit and scope of the principles of this disclosure. More particularly, various variations and modifications are possible in the component parts and/or arrangements of the subject combination arrangement within the scope of the disclosure, the drawings and the appended claims. In addition to variations and modifications in the component parts and/or arrangements, alternative uses will also be apparent to those skilled in the art.

What is claimed is:

1. A connector for a compressor, the compressor comprising a suction pipe coupled to a casing and configured to transfer working fluids into the casing, and a silencer configured to direct the working fluids toward a compression chamber of the compressor and to attenuate noise associated therewith, the connector comprising:

- a connector pipe extending between the suction pipe and the silencer, wherein the connector pipe is configured to direct working fluids into the silencer through a communication pipe provided on an exterior of the silencer;
- an enlarged-diameter part extending from the connector pipe toward the suction pipe, wherein a central axis of the enlarged-diameter part intersects a central axis of the connector pipe at a predetermined angle; and
- a contact skirt extending outward from a leading edge of the enlarged-diameter part, wherein an inner edge of the contact skirt is configured to come into close contact with an inner face of the casing.

2. The connector of claim 1, wherein the communication pipe is provided on a lower portion of the silencer, and the enlarged-diameter part extends outward towards a rear of the communication pipe in a direction corresponding to a curved inner surface of the casing.

3. The connector of claim 2, wherein an inner circumferential surface of the connector pipe comes into close contact with an outer circumferential surface of the communication pipe so as to couple the connector to the silencer.

4. The connector of claim 3, wherein the connector pipe, the enlarged-diameter part, and the contact skirt are formed as a single unit made of an elastic material.

5. The connector of claim 1, wherein the predetermined angle formed between the central axis of the enlarged diameter part and the central axis of the connector pipe is greater than 0° and less than 90°.

6. A hermetic compressor comprising the connector of claim 1.

7. A working fluid suction device for a compressor, the device comprising:

- a suction pipe coupled to a casing and configured to transfer working fluids into the casing;
- a suction silencer having a communication pipe configured to receive the working fluids introduced through the suction pipe, wherein the suction silencer is configured to attenuate noise as it guides the working fluids toward a compression chamber; and
- a connector coupled to the silencer, wherein a leading edge of the connector is configured to come into close contact with an inner circumferential surface of the casing, wherein the connector comprises:
 - a connector pipe coupled to the communication pipe;
 - an enlarged-diameter part extending from the connector pipe; and
 - a contact skirt extending along a leading edge of the enlarged-diameter part, wherein the contact skirt is configured to come into close contact with the inner circumferential surface of the casing.

8. The device of claim 7, wherein a diameter of the enlarged-diameter part increases as it extends toward the suction pipe.

9. The device of claim 8, wherein the connector is made of an elastic material.

10. The connector of claim 7, wherein the communication pipe extends outward from an outer circumference of the casing, and wherein an outer circumferential surface of the communication pipe is configured to be coupled to an inner circumferential surface of the connector pipe so as to couple the connector to the suction silencer.

11. The connector of claim 10, wherein a central axis of the enlarged diameter part intersects a central axis of the connector pipe at an angle which is greater than 0° and less than 90°.

12. The connector of claim 7, wherein the contact skirt is configured to conform to the inner circumferential surface of the casing so as to form a seal therebetween.

13. A hermetic compressor comprising the working fluid suction device of claim 7.

14. A working fluid suction device for a compressor, the device comprising:

- a suction pipe configured to direct working fluids into a casing;
- a silencer configured to receive working fluids from the suction pipe, and to attenuate noise as it guides working fluids toward a compression chamber; and
- a connector extending between the silencer and the suction pipe and configured to transfer working fluids therebetween, wherein the connector comprises:
 - a connector pipe having a first end coupled to the silencer; and
 - an enlarged-diameter part extending from a second end of the connector pipe toward the suction pipe and positioned at a predetermined angle with respect to a longitudinal axis of the connector pipe.

15. The device of claim 14, wherein a diameter of the enlarged-diameter part increases as it extends from the second end of the connector pipe toward the suction pipe.

16. The device of claim **15**, wherein the connector further comprises a contact skirt provided at a distal end of the enlarged-diameter part, wherein an inner face of the contact skirt is configured to come into close contact with an inner circumferential surface of the casing.

17. The device of claim **14**, wherein the connector is made of an elastic material.

18. The device of claim **14**, wherein the enlarged diameter part extends from the silencer toward an inner circumferential surface of the casing at a rear of the silencer such that an angle between the connector pipe and the enlarged-diameter part is greater than 0° and less than 90°.

19. The device of claim **14**, wherein a diameter of the enlarged diameter part is smallest at a first end thereof coupled to the connector pipe, and is largest at a second end thereof coupled to an inner surface of the casing.

20. The device of claim **14**, wherein a diameter of the enlarged diameter part increases or stays substantially the same as it progresses from a first end thereof coupled to the connector pipe towards a second end thereof coupled to an inner circumferential surface of the casing.

21. A hermetic compressor comprising the working fluid suction device of claim **14**.

22. A fluid suction device for a compressor, comprising:

a suction pipe configured to provide fluid to a casing;

a silencer provided in the casing;

a connector extending between the suction pipe and the silencer and configured to guide fluid from the suction pipe to the silencer, wherein the connector comprises:

a first section configured to be coupled to the suction pipe;

a second section configured to be coupled to an inner circumferential surface of the casing; and

a third section provided between the first and second sections, wherein the third section is positioned at an acute angle with respect to the first section.

23. The device of claim **22**, wherein the first section comprises a pipe of substantially constant diameter that is configured to be coupled to an inlet pipe of the silencer.

24. The device of claim **23**, wherein a proximal end of the second section is configured to be coupled to a distal end of the first section, and a distal end of the second section is configured to be coupled to a proximal end of the third section, wherein a diameter of the second section is greater at its distal end than at its proximal end.

25. The device of claim **24**, wherein a diameter of the second section increases or stays substantially the same as it progresses from its proximal to its distal end.

26. The device of claim **24**, wherein the distal end of the third section comprises a seal configured to conform to a corresponding inner circumferential surface of the casing.

27. The device of claim **22**, wherein the connector comprises a single unit made of a flexible material.

28. A hermetic compressor comprising the fluid suction device of claim **22**.

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