

Title: Partition wall**Description**

The invention relates to a partition wall according to the generic part of patent claim 1.

5 Glass partition walls are known from the brochure "DORMA Universal" (Edition 12/93), where a glass component, a so-called overpanel, that is disposed above a passageway and between lateral panels disposed on both sides thereof, is attached by means of metal fittings. These visible fittings
10 counteract the general effort of creating dematerialized products. Mounting such fittings is both expensive and time consuming, because, by virtue of the fragility of the material glass, the fitting members have to be mounted exactly and tension-free with regard to each other, and
15 they have to be aligned. Another disadvantage is that the fittings complicate the cleaning process of the glass surfaces.

Therefore, it is an object of the present invention to provide a partition wall, whereby the glass components thereof can
20 be attached without fittings at lateral panels and/or at a ceiling construction.

This problem is solved with the characteristics specified in patent claim 1. Advantageous embodiments of the partition wall result from the dependent claims.

A partition wall according to patent claim 1 allows for a simple and inexpensive attachment of a glass component, for example a so-called overpanel, at lateral panels of a glass partition wall and at a ceiling construction, thus
5 forming a passageway. Expensive installation and aligning of fittings are no longer required. A visually advantageous partition wall is achieved, which represents an almost completely dematerialized glass surface. Cleaning is considerably simplified, as the soiling edges of the fittings
10 are eliminated and a continuous plane glass surface is created. Such partition wall is constructed using frameless glass panes, such that the expense for framing work is likewise eliminated.

Attaching the overpanel is realized by means of a
15 permanently elastic substance, which positively connects the longitudinal abutting edges of the overpanel to the respective peripheral parts, namely the lateral panels and the ceiling construction. The substance is permanently elastic in order to guarantee the attachment's resistance to
20 operation-dependent vibrations. Acrylics and silicones are preferably suited for this purpose, particularly, as sufficient knowledge is available about the workability procedures thereof.

As an additional protective measure against vibrations and
25 for stiffening the glass panes, stiffening elements in the

shape of glass blades may be attached onto the surface of the lateral panels, while protruding vertically therefrom and extending horizontally. In addition, the glass blades preferably stand upright on the floor and are likewise
5 attached by means of the permanently elastic substance. Using glass for this purpose as well allows for creating a uniform and aesthetically pleasing front.

The attachment of both the overpanel and the lateral panels on the floor and at the ceiling is accomplished
10 through profiles disposed on the floor and at the ceiling, the permanent elastic substance being likewise used in this case. The profiles are preferably executed in a U-shape.

In a preferred execution of the partition wall, a leaf can be disposed in the passageway, thus created below the
15 overpanel and between the lateral panels. In this case, the leaf is rotatably supported by means of fittings.

The attachment of the overpanel by means of the permanently elastic substance allows for realizing different partition wall layouts. The simplest disposition is a
20 completely straight layout. Furthermore, depending on the amount of lateral panels and overpanels used, a plurality of angled layouts can be realized. Thus, such system offers a variety of utilizations from a simple partition wall to a complex partition wall landscape.

Further details, characteristics and advantages of the invention will become apparent from the following description of preferred embodiments, reference being made to the figures, in which

5 Figure 1: shows a frontal view of a partition wall.

Figure 2: shows a cross section of the partition wall according to line A-A in Figure 1.

Figure 3: shows a frontal view of a partition wall with an integral leaf.

10 Figure 4: shows a cross section of the partition wall according to line B-B in Figure 3.

Figure 5: shows a layout of a partition wall in a diagrammatical top view.

15 Figure 6: shows another layout of a partition wall in a diagrammatical top view.

Figure 7: shows another layout of a partition wall in a diagrammatical top view.

Figures 1 and 2 illustrate a first embodiment of an inventive partition wall 1, the partition wall 1 extending between a ceiling construction 7 and a floor 8. The partition wall 1
20 consists of different frameless glass components, which, on the one hand, are formed as lateral panels 2 and 3, and, on the other hand, as an overpanel 4 disposed between

the lateral panels 2 and 3. Such overpanel 4 only extends in the upper region of a partition wall 1, such as to create a passageway 15 below the overpanel 4 and between the lateral panels 2 and 3. A continuous, preferably U-shaped
5 profile 5 extends at the ceiling construction 7, whereas two U-shaped profiles 6 extend on the floor 8.

At the longitudinal abutting edges thereof, the overpanel 4 is positively connected to the respective longitudinal abutting edge of the lateral panels 2 and 3 by means of a
10 permanently elastic substance 9. Moreover, the overpanel 4, with the horizontal upper abutting edge, is positively retained in the profile 5 at the ceiling by means of the permanently elastic substance 9. The two lateral panels 2 and 3 are attached in the corresponding profiles 5, 6 on the
15 floor and at the ceiling likewise by means of the permanently elastic substance 9.

Another embodiment example of the invention is illustrated in Figures 3 and 4. The basic disposition of the partition wall 1 is different from the above described embodiment
20 example in that a leaf 10 is additionally disposed in the passageway 15, created below the overpanel 4 and between the two lateral panels 2 and 3. The leaf 10 likewise consists of glass and, at the top side thereof, is rotatably supported at the overpanel 4 and, at the bottom
25 side, in the floor 8. Appropriate fittings 12, 13 and 14 are

used for the attachment and the support of the leaf 10. Optionally, a non-illustrated door closer, being integrated into the underside support of the leaf 10, is concealed within the floor 8, such that the leaf 10 closes automatically
5 after a manual opening.

Moreover, stiffening elements 11, protruding vertically and extending horizontally, are mounted onto both lateral panels 2 and 3 and are attached by means of the permanently elastic substance 9. The stiffening elements
10 11 are formed as glass blades and stand upright on the floor.

Possible installation variants of a partition wall 1, depicting the scope of the inventive idea, are illustrated diagrammatically in Figures 5 to 7. A completely straight
15 layout is illustrated in Figure 5, whereby a lateral panel 2, an overpanel 4 and another lateral panel 3 are disposed straight with regard to each other and attached to each other. In Figure 6, pointing into opposite directions, the lateral panels 2 and 3 are disposed and attached slightly
20 angled in relation to the overpanel 4. In opposition thereto, Figure 7 however, represents a straight layout between a lateral panel 2 and an overpanel 4, a lateral panel 3 being connected thereto at an angle of 90°.

The above description of embodiment examples serves
25 illustrative purposes only and is not intended to limit the

invention. Various changes and modifications are possible within the range of the invention without leaving the scope of the invention or the equivalents thereof.

References

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| | 1 | partition wall |
| | 2 | lateral panel |
| | 3 | lateral panel |
| 5 | 4 | glass component, overpanel |
| | 5 | profile |
| | 6 | profile |
| | 7 | ceiling construction |
| | 8 | floor |
| 10 | 9 | permanently elastic substance |
| | 10 | leaf |
| | 11 | stiffening element, glass blade |
| | 12 | fitting |
| | 13 | fitting |
| 15 | 14 | fitting |
| | 15 | passageway |

Patent claims

1. A partition wall made from glass consisting of at least two frameless lateral panels (2, 3), which are retained on the floor (8) and at a ceiling construction (7), and of at least one frameless glass component (4), which is retained at both lateral panels (2, 3) and at the ceiling construction (7), characterized in that the glass component (4) is positively attached at the lateral panels (2, 3) and at the ceiling construction (7) exclusively by means of a permanently elastic substance (9).
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2. A partition wall according to patent claim 1, characterized in that the permanently elastic substance (9) consists of silicone and/or of acrylic.
10 15
3. A partition wall according to any of the preceding patent claims, characterized in that the lateral panels (2, 3) and the glass component (4) are connected to each other at the longitudinal abutting edges.
20
4. A partition wall according to any of the preceding patent claims, characterized in that a profile (5) is disposed at the ceiling construction (7), with which

the glass component (4) and the lateral panels (2, 3) engage.

5. A partition wall according to any of the preceding patent claims, characterized in that profiles (5, 6) are disposed on the floor and/or at the ceiling, in which each lateral panels (2, 3) is attached with the permanently elastic substance (9).
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6. A partition wall according to any of the preceding patent claims, characterized in that, vertically oriented stiffening elements (11) protruding perpendicularly in an angle of 90°, are disposed at the lateral panels (2, 3).
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7. A partition wall according to any of the preceding patent claims, characterized in that the stiffening elements (11) are attached by means of a permanently elastic substance (9).
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8. A partition wall according to any of the preceding patent claims, characterized in that a leaf (10) is disposed below the glass component (4) and between the lateral panels (2, 3) in a passageway (15).
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9. A partition wall according to any of the preceding patent claims, characterized in that the lateral panels (2, 3) and the glass component (4) of the

partition wall (1) are disposed straight to each other.

10. A partition wall according to any of the preceding patent claims, characterized in that the lateral
5 panels (2, 3) and the glass component (4) of the partition wall (1) are disposed in an angle with regard to each other.