SYSTEM AND METHOD OF MAKING AND INSTALLING COUNTERTOPS

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ABSTRACT

With conventional countertops, installing stone countertops or other countertop materials can be cumbersome, difficult and expensive. Skilled labor as well as very precise measurements and cuts are required to make such installations. To reduce the overall cost and to reduce the skill required to install stone countertops, a method whereby cabinets are staggered in heights and prefabricated countertop sections having custom edges. The use of the staggered cabinet heights in conjunction with the prefabricated countertop sections allows less skilled laborers to install countertops in less time without the need for precise measurement and precise cutting while continuing to provide same general aesthetic feel without any future maintenance.
Fig. 1
Prior Art
Fig. 2
SYSTEM AND METHOD OF MAKING AND INSTALLING COUNTERTOPS

TECHNICAL FIELD

[0001] The invention relates generally to installation of materials in a building and, more particularly, to installation of stone countertops.

BACKGROUND

[0002] As a result of both construction and refinishing, property owners have increasingly desired better quality materials to be installed into their respective homes and commercial facilities. One of the materials that has become highly desirable stone, such as granite. Typically, granite and other stones are employed as countertops in retail facilities, kitchens, bathrooms, and so forth because of its durability and because of the general aesthetic look that the stone provides.

[0003] Conventional installations of stone, however, are particularly cumbersome. Cabinetry is usually installed prior to any action on the stone. Once in place, an installation crew is dispatched to take careful measurements so that specific pieces of stone can be “cut to fit.”

[0004] These cuts are typically very precise cuts. The reason being that it is important to minimize the number and sizes of the seams between the sections of stone. If the seams are too small or too large, then the seams can get dirty or erode away; in other words, the seams cannot be maintained for the life of the stone. Therefore, careful measurements are critical because inaccurate measurements can result in a piece of stone that is virtually useless.

[0005] Additionally, stone will periodically break during transport or installation. Therefore, replacement sections have to be specifically re-cut. These replacements can be difficult to obtain because stones, particularly natural stones, have a great deal of color variation, causing color matching difficulties. In some instances, an entire installation must be re-cut.

[0006] In all cases, though, there is a high degree of both skill and care required. A crew that installs stone countertops must know precisely how to measure, cut, move, set, and adhere the stone to the cabinetry. Thus, the labor costs are significantly higher with the installation of stone than with other countertop configurations that utilize more unskilled labor.

[0007] Therefore, because of the particular expense and care needed for installation of stone countertops and other similar countertop materials, there is a need for a method and/or system for installing stone and other countertop materials that at least addresses some of the problems associated with conventional installation techniques.

SUMMARY

[0008] An embodiment of the present invention provides a method of installing countertops. Accordingly, the method of the present invention comprises adhering a plurality of countertop sections to cabinetry having a non-uniform countertop height without pre-measuring the countertop sections.

[0009] In another preferred embodiment of the present invention, cabinetry having a top with non-uniform kitchen countertop height is provided. Additionally, a plurality of countertop sections are provided. These countertop sections are selected from a set of two or more sizes, and are adhered along the top of the cabinetry.

[0010] Another preferred embodiment of the present invention includes staggered countertop heights.

[0011] In yet another preferred embodiment, the method includes using at least two alternating countertop heights. These alternating countertop heights can also differ from one another by a distance of an average thickness of the plurality of countertop sections plus a clearance gap in another preferred embodiment of the present invention.

[0012] One other preferred embodiment of the present invention includes a plurality of countertop sections further comprised of granite, marble, quartz, slate, shale, gneiss, sandstone, basalt, or artificial stones.

[0013] Another preferred embodiment of the present invention utilizes a seamless configuration. Additionally, each countertop section is provided with custom edges and are overlapped such that the custom edges of the countertop sections aesthetically appear to be seamless.

[0014] In yet another preferred embodiment of the present invention, a plurality of countertop sections are provided. Each countertop section is one of a set of at least two standard sizes and has custom edges. Cabinetry having a top with two alternating countertop heights that differ from one another by a distance of an average thickness of the plurality of countertop sections plus a clearance gap, typically of about two inch is also provided, although other sizes of gap can also be used, depending on the arrangement. The countertop sections are then overlapped such that the custom edges of the countertop sections form the kitchen countertop to aesthetically appear to be seamless and adhered along the top of the cabinetry.

[0015] The foregoing has outlined rather broadly the features and technical advantages of the present invention in order that the detailed description of the invention that follows may be better understood. Additional features and advantages of the invention will be described hereinafter which form the subject of the claims of the invention. It should be appreciated by those skilled in the art that the conception and the specific embodiment disclosed may be readily utilized as a basis for modifying or designing other structures or carrying out the same purposes of the present invention. It should also be realized by those skilled in the art that such equivalent constructions do not depart from the spirit and scope of the invention as set forth in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] For a more complete understanding of the present invention, and the advantages thereof, reference is now made to the following descriptions taken in conjunction with the accompanying drawings, in which:

[0017] FIG. 1 is a side view of a conventional stone counter;

[0018] FIG. 2 is a side view of a stone countertop in accordance with a preferred embodiment of the present invention;
FIGS. 3A and 3B are side views of example custom edges in accordance with preferred embodiments of the invention; and

FIG. 4 is a plan view of the stone countertop of FIG. 2.

DETAILED DESCRIPTION

In the following discussion, numerous specific details are set forth to provide a thorough understanding of the present invention. However, it will be obvious to those skilled in the art that the present invention may be practiced without such specific details. In other instances, well-known elements have been illustrated in schematic or block diagram form in order not to obscure the present invention in unnecessary detail.

Referring to FIG. 1 of the drawings, the reference numeral 100 generally designates a conventional countertop assembly. As explained below, FIG. 1 depicts a conventional (prior art) stone countertop assembly 100. The countertop 100 comprises countertop sections 102 and 104 to the precise dimensions. The precut countertop sections, such as countertop sections 102 and 104, are then laid on site and adhered to the cabinet 108. In the process of installation, there is a variety of adhesives that are employed, such as contact cement, epoxy, and so forth.

Once measurements have been performed, an industrial operation is usually performed to precut the stone. Typically, Computer Numerical Control (CNC) machines are employed to cut the stone sections 102, 104 to the precise dimensions. When installing countertop 100, cabinet 108 is first installed. By having cabinet 108 in place, it allows for an installation crew to precisely measure and cut the stone to fit. Because the dimensions of kitchens and other rooms can vary, and can vary quite substantially from one another, careful measurement is required so as to exactly pre-cut countertop sections, such as countertop sections 102 and 104, to minimize the number of seams and ensure that the seams, such as seam 106, are correct.

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When installing countertop 100, cabinet 108 is first installed. By having cabinet 108 in place, it allows for an installation crew to precisely measure and cut the stone to fit. Because the dimensions of kitchens and other rooms can vary, and can vary quite substantially from one another, careful measurement is required so as to exactly pre-cut countertop sections, such as countertop sections 102 and 104, to minimize the number of seams and ensure that the seams, such as seam 106, are correct.

Simple overlap of countertop sections, however, is usually not sufficient. In general, people have become accustomed to the general aesthetic appearance of stone countertops with flush or near-flush seams, so maintaining this appearance is important. To preserve the general aesthetic feel, each of the countertop sections, such as the countertop sections 204, 206, and 208, have custom edges 214, meaning that some portion below the top surface extends beyond the top. For example, each of the countertop sections 204, 206, and 208 includes custom edges 214 (formed as half-bullnose edges). Therefore, overlapping stone countertop (or other countertop materials) sections in conjunction with the use of custom edges can preserve the aesthetic appearance of conventional stone countertops with precisely plotted seam locations, as can be seen in the plan view of FIG. 4.

It should also be noted that a countertop sections 204, 206, or 208 can border another device or unit where a seam may be need. For example, a countertop section 204, 206, or 208 can border a range top or a sink. However, it should be understood that the countertop sections 204, 206, and 208 can be employed in any situation where a seam may be needed.

In addition to having the half-bullnose configuration shown in FIG. 2, there are a variety of other configurations that can be utilized to generate the appearance of having a seam. For example, in FIG. 3A, a countertop section 300 employs a custom edge 302 that is a full-bullnose. Another example is shown in FIG. 3B, where countertop 350 employs a custom edge 352 that is beveled. It should be noted that the edge configurations described herein are for the purposes of illustration and are not intended to be an exclusive list of alternate custom edges.

Another feature of this preferred embodiment is that the countertop sections 204, 206, and 208 are of pre-selected sizes. Multiple standard-sized countertop sections are prefabricated. Preferably, at least two different standard-sized countertop sections are employed; however,
there can be greater or fewer standard-sized countertop sections. Therefore, the need for precutting stone countertop sections is virtually eliminated.

[0034] Thus, by employing the features of the improved countertops, such as the countertop 200, many of the problems associated with more conventional techniques can be overcome. Specifically, there is no need to make precise measurements. An installer can simply adhere standard-sized pieces of stone to the cabinetry. Therefore, the need for specially skilled labor is virtually eliminated, and the need for precision, custom cutting is eliminated. Moreover, because there is no need for the custom precision cutting, if there is a break in one of the countertop sections, an on-site replacement can be readily available without need for a trip to the factory to have a section recut. Hence, the overall cost of installation can be reduced.

[0035] Additionally, the simplicity of the techniques disclosed herein are simple enough to allow a “do-it-yourself” homeowner to install stone countertops without the need for professional installation. It also makes countertops made of stones including but not limited to granite, marble, quartz, slate, gneiss, sandstone, basalt, and artificial stones more available because of the reduced cost. The techniques disclosed herein also allow for a maintenance free countertops, which can be installed in a fraction of the time required for other installation techniques. Other materials can be employed instead of stone that traditionally have seams including but not limited to tile, laminate, and the like.

[0036] Having thus described the present invention by reference to certain of its preferred embodiments, it is noted that the embodiments disclosed are illustrative rather than limiting in nature and that a wide range of variations, modifications, changes, and substitutions are contemplated in the foregoing disclosure and, in some instances, some features of the present invention may be employed without a corresponding use of the other features. Many such variations and modifications may be considered attainable and desirable by those skilled in the art based upon a review of the foregoing description of preferred embodiments. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the invention.

I claim:

1. A method of installing a countertop, comprising adhering a plurality of countertop sections to cabinetry having a non-uniform countertop height without premeasuring the countertop sections.

2. The method of claim 1, wherein the method further comprises providing staggered countertop heights.

3. The method of claim 1, wherein the method further comprises providing two alternating countertop heights.

4. The method of claim 3, wherein the step of providing two alternating cabinet heights further comprises providing two countertop heights that differ from one another by a distance of an average thickness of the plurality of countertop sections plus a clearance gap.

5. The method of claim 4, wherein the clearance gap is selected from a range of approximately a few thousands of an inch to about 2 inches.

6. The method of claim 1, wherein the countertop sections comprise a material selected from the group consisting of granite, marble, quartz, slate, shale, gneiss, sandstone, basalt, and artificial stones.

7. The method of claim 1, wherein the method further comprises providing each countertop section with at least one custom edge to seamlessly form the countertop.

8. The method of claim 1, wherein the countertop sections comprise a plurality of selected sizes.

9. A method for installing a countertop, comprising adhering a plurality of countertop sections to cabinetry to seamlessly form the kitchen countertop.

10. The method of claim 9, wherein the method further comprises providing cabinetry having a first and a second height.

11. The method of claim 10, wherein the method further comprises:

   providing each countertop section with custom edges; and
   overlapping the countertop sections such that the custom edges of the countertop sections aesthetically appear to be seamless.

12. The method of claim 9, wherein the countertop sections comprise a plurality of selected sizes.

13. A method for installing a countertop, comprising:

   providing cabinetry having a top with a plurality of countertop heights;
   providing a plurality of countertop sections wherein each countertop section is one of a set of at least two standard sizes; and
   adhering the countertops sections along the top of the cabinetry.

14. The method of claim 13, wherein the step of providing cabinetry further comprises providing staggered countertop heights.

15. The method of claim 13, wherein the step of providing cabinetry further comprises providing two alternating countertop heights.

16. The method of claim 13, wherein the countertop sections comprise a material selected from the group consisting of granite, marble, quartz, slate, shale, gneiss, sandstone, basalt, and artificial stones.

17. The method of claim 13, wherein the method further comprises:

   providing each countertop section with custom edges; and
   overlapping the countertop sections such that the custom edges of the countertop sections aesthetically appears to be seamless.

18. The method of claim 13, wherein the countertop sections are selected from a set comprising two or more sizes.

19. A method for installing a countertop, comprising:

   providing a plurality of countertop sections wherein each countertop section is one of a set of at least two standard sizes, and wherein each countertop section has custom edges;
   providing cabinetry having a top with two alternating countertop heights that differ from one another by a distance of an average thickness of the plurality of countertop sections plus a clearance gap of two inches;
overlapping the countertop sections such that the custom edges of the countertop sections form the kitchen countertop to aesthetically appear to be seamless; and adhering the countertops sections along the top of the cabinetry.

20. An apparatus for forming a countertop comprising: a plurality of countertop sections adhered along the top of the cabinetry, wherein each section is selected from a set of at least two standard-sized countertop sections, and wherein each countertop section has at least one custom edge to make the countertop aesthetically appear to be seamless.

21. The apparatus of claim 20, wherein the cabinetry further comprises the two countertop heights are alternated with respect to one another.

22. The apparatus of claim 20, wherein each countertop section further comprises a material selected from the group consisting of granite, marble, quartz, slate, shale, gneiss, sandstone, basalt, and artificial stones.

23. The apparatus of claim 20, wherein the difference in the two heights is an average thickness of the plurality of countertop sections plus a clearance gap.

24. The apparatus of claim 21, wherein the clearance gap is selected from a range of approximately a few thousands of an inch to about 2 inches.

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