

Title (en)

Method and device for treating the surface of a textile fabric

Title (de)

Verfahren und Vorrichtung zur Oberflächenbehandlung einer Textilbahn

Title (fr)

Procédé et dispositif pour le traitement de la surface d'une étoffe textile

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Application

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Abstract (en)

To process the surfaces of fabric piecegoods, the fabric (1) is spread out and moved through a processing zone filled with loose material (3) of regular and/or irregular structure (3a). The loose material acts directly on at least one part of the moving fabric, to give it an irregular surface structure. The loose material (3) is held in a container (2) at a variable height level (H). The fabric (1) is moved upwards through the loose material (3) from the entry slit (4) at the bottom of the container, so that the loose material (3) acts on both sides of the fabric to give irregular surface structures. The fabric (1) can also be supported on a flat surface while moving through the container, so that only one surface is roughened by the loose material (3). The loose material (3) is composed of spherical and/or pebble materials (3a) of metal, ceramic, glass and/or other solid materials in a round and/or polygonal shape. A supported base at the container can be given movements in a controlled frequency, which are transmitted to the loose material (3) in the container. The loose material filling (3) can also be supported by a powered rotating roller at the base of the container. The fabric (1) is fully spread out by a spreader roller (8), before it enters the container (2) filled with loose material (3), to be moved through the loose filling (3) at a variable speed, continuously or intermittently. A fluid and preferably water or wetting agent is sprayed in the zone over the loose filling (3). Only part of the fabric surface is in contact with the loose filling (3) when a striped pattern effect is required. The fabric surface processing is a stand-alone operation or it is used in combination with other fabric finishing processes. An independent claim is included for an apparatus with a movement system (7) to carry fully-spread textile piecegoods (1) upwards through a container (2) filled with loose material (3,3a) from an entry gap (4) at the base of the container (2). Preferred Features: The fabric (1) is drawn upwards at a variable speed by a powered roller (7) over the container (2), and a lower guide roller leads the fabric (1) upwards and over the spreader roller (8) into the entry gap (4) into the container (2) of loose materials (3,3a). The loose material container (2) has a funnel shape, and the base can be moved at a controlled frequency. The container base movement can be through the powered rotation of a carrier roller, forming at least part of the container base, which has a length of the container width and supports the loose material (3,3a) in the container (2) at least partially. The fabric (1) can move into the container over the carrier roller, while the other fabric surface is exposed to the loose material (3,3a). The entry gap (4) into the container (2) can be formed by two rotating rollers, powered to rotate against each other, forming a gap between them which is larger than the fabric thickness, but smaller than the components (3a) of the loose material (3). The exit (5) for the fabric (1), is over the level (H) of the loose material (3,3a) in the container (2). The level (H) of the loose material (3,3a) in the container is adjustable, to set the effects on the fabric (1) surfaces. The carrier rollers at the container entry are rotated at variable speeds. The carrier rollers have a rubber-type mantle cladding. A spray unit (10) is at least at the upper end of the container (2), to spray the fabric (1) and/or the loose filling (3).

Abstract (de)

Die Erfindung befaßt sich mit der Oberflächenbehandlung einer Textilbahn, die durch wenigstens eine Behandlungszone hindurchtransportiert wird. Um einen zuverlässig reproduzierbaren Oberflächeneffekt auf der Textilbahn bei verhältnismäßig einfacher Handhabung und mit relativ niedrigem baulichen Aufwand erzielen zu können, bildet die Behandlungszone eine Oberflächen-Strukturierzone, in der die Textilbahn im ausgebreiteten Zustand durch wenigstens eine lose Schüttgutschüttung hindurchtransportiert wird, das direkt auf wenigstens einen Teil der Textilbahn-Oberfläche einwirkt und dabei eine unregelmäßige Oberflächenstruktur erzeugt. <IMAGE>

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