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S-100 31 Stockholm 21(SE)(54) **Web cleaner.**

(57) A web cleaner, which out of contact cleans running webs from dust particles and consists of a first sponge with a slot directed towards the web, an air blower head with a slot directed towards the web and a second sponge with a slot directed towards the web, all these means being placed transversely to the running web and after each other in the direction of the web, whereby at least at one of the sponges there is arranged an antistatic means for discharging of static charges from the web by means of a surge diverter which is out of contact of the web. In order to improve the dielectrifying of the web so that 90-95% of dust, which is not mechanically adhered, will be released from the web and can be sucked away, a further antistatic means (9) is placed between the slot of the air blower head (2) and the slot of the sponge (3). The antistatic means is of known construction and includes a surge diverter which is out of contact of the web.

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Web Cleaner

This invention concerns a web cleaner, which out of contact cleans running webs from dust particles and consists of a first sponge with a slot directed towards the web, an air blower head with a slot directed towards the web and a second sponge with a slot directed towards the web, all these means being placed transversely to the running web and after each other in the direction of the web, whereby at least at one of the sponges there is arranged an antistatic means for discharging of static charges from the web by means of a surge diverter which is out of contact of the web.

There are known methods for cleaning webs or sheets, which are running, from dust, fibres and loose particles. It is, however, also known that static electricity will be formed and this binds dust and particles. The known methods and means are, however, not satisfactory when it comes to dielectrifying the webs. Therefore the dust particles will adhere strongly to the web and will not be released therefrom, which means that the webs will not be satisfactorily cleaned. An object of the invention is therefore to improve the dielectrifying by means of an antistatic means known per se but which is so placed that 90-95% of dust which is not mechanically adhered will be released from the web and can be sucked away.

The invention will be described in the following with reference to the accompanying drawing.

The Figure is a longitudinal cross-section through the web and the main parts of the web cleaner. The drawing is schematic.

As known the invention includes a sponge 1, an air blower head 2 and a second sponge 3. The web is running in the direction shown by the arrow, i.e. in the direction in which the heads 1, 2 and 3 are placed. The heads have slots 4, 5 and 6 which are directed towards the web. Dust particles are sucked up through the slot 4 and air is blown out of the slot 5 and released particles are sucked up through the slot 6. Most of the dust particles disappear through the sponge 1 while the particles are charged at the air blower head 2 by blowing the air and because of the running web underneath. This cannot be avoided and must be accepted. As known an antistatic means 7 is placed just before the sponge 1, which antistatic means includes a surge diverter (not shown) which is out of contact of the web. A second antistatic means is also placed after the sponge 3 and includes also a surge diverter. An apparatus now described can take away 70% of the dust particles and fibres or other loose particles as a maximum. The formation of static electricity at the air blower head 2 pre-

vents the cleaning effect to be better than what is mentioned above.

According to the invention a third antistatic means 9 is therefore arranged. It is placed between the air blower head 2 and the sponge 3. The antistatic means is of known construction and is e.g. such a construction which includes a surge diverter which is out of contact of the web. In the drawing only one web cleaner is shown which is placed above the running web, but normally there is a second apparatus placed under the web. The invention is therefore not restricted to a web cleaner placed above the web but includes also web cleaners arranged on both sides of the web.

Claims

Web cleaner, which out of contact cleans running webs from dust particles and consists of a first sponge with a slot directed towards the web, an air blower head with a slot directed towards the web and a second sponge with a slot directed towards the web, all these means being placed transversely to the running web and after each other in the direction of the web, whereby at least at one of the sponges, there is arranged an antistatic means for discharging of static charges from the web by means of a surge diverter which is out of contact of the web, characterized in that a further antistatic means (6), including a surge diverter out of contact of the web, is placed above the web in the area between the slot of the air blower head (2) and the second sponge (3).

