CLAIMS

1. Device (7) for dispensing solid particles for a storage container filling system (1) ~~for a container for storing solid particles, comprising a distribution device (5) for solid particles for receiving and selectively distributing the solid particles towards a dispensing device (7), and comprising at least one divider element (11) dividing streams of solid particles, the dispensing device (7)~~ comprising at least one scattering element (13) for homogeneously filling the container with solid particles, each scattering element (13) comprising at least one rotating plate (15) provided with fins (16) making it possible to eject, by centrifugal force, the solid particles in a homogeneous distribution, **characterized in that** the ~~divider element (11) is rotatably mounted about an axis substantially parallel to the direction of flow of the stream~~fins (16) comprise, at their periphery, brushes (19) comprising series of flexible bristles extending along a projection surface in the form of an inverted T so that the brushes (19) deform elastically as the solid particles pass in order to protect the solid particles between them and then restore this absorbed energy in order to direct the final ejection toward the container of solid particles ~~in the distribution device (5) in order to allocate any defect in the flow of the solid particles in the distribution device (5).~~.
2. ~~Filling system (1)~~ Dispensing device (7) according to the preceding claim, wherein ~~the divider element (11) is mounted idle on a fixed ring (21)~~each brush (19) comprises a first substantially vertical upper series of bristles which joins a second lower series of substantially horizontal bristles at the median level of the ~~distribution device (5).~~latter.
3. ~~Filling system (1)~~ Dispensing device (7) according to ~~claim 1, wherein the divider element (11) is secured to a ring (31) mounted idle on a fixed structure of the distribution device (5).~~
4.~~3.~~ ~~Filling system (1) according to any~~ the preceding claim, wherein the ~~divider element (11) is coupled to a drive mechanism so as to be selectively displaced~~second lower series of bristles extends, from the end of each fin (16), in an oblique direction with respect to the horizontal axis.
5.~~4.~~ ~~Filling system (1)~~ Dispensing device (7) according to the preceding claim, wherein the ~~drive mechanism is coupled to the dispensing device (7) in order to make the displacement of the divider element (11) proportional to that of the scattering element (13~~second series extends upward relative to the horizontal axis, from the end of each fin (16), so that at least the free ends of the second

series of bristles are located in the path of the solid particles emerging between two fins (16).

~~6. Filling system (1) according to one of claims 1 to 3, wherein the distribution device (5) comprises at least one drive element which is intended to cooperate with the flow of solid particles in order to displace the divider element (11).~~

5. ~~Filling system (1~~Dispensing device (7) according to one of the preceding claims, comprising between two and five scattering elements (13).

~~7.~~6. Dispensing device (7) according to one of the preceding claims, wherein the ~~scattering element (13) comprises at least one rotating plate (15) provided with fins (16) of~~fins (16) have varying lengths so that the periphery of the plate (15) extends substantially in the form of at least one spiral so as to fill the container in the form of a homogeneous rain of solid particles.

7. Dispensing device (7) according to the preceding claim, wherein the bristles of the brushes (19) have varying lengths similar to those of the fins (16).

8. Dispensing device (7) according to one of the preceding claims, wherein each channel (17) formed between two fins (16) has a slope (18) in order to modify the substantially axial flow of the solid particles arriving on the dispensing device (7) in a substantially radial stream toward the ends of the fins (16).

9. Filling system (1) for a container intended to store solid particles comprising a device (5) for distributing the solid particles intended to receive and selectively distribute the solid particles toward a dispensing device (7) in order to fill the container with the solid particles homogeneously, **characterized in that** the dispensing device (7) is according to one of the preceding claims.

~~8.~~10. Filling system (1) according to the preceding claim, wherein the distribution device (5) further comprises at least one divider element (11) for dividing the stream of solid particles.