Claims:

1. An apparatus for distributing solid particles into a tube, comprising:

a center member; and

a plurality of damper members connected to the center member, wherein:

each damper member includes a loop extending away from the center member, ~~and~~

each loop is arranged on the center member extending from a first position on the center member to a second position on the center member different from the first position in a longitudinal direction of the center member, and each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member.

~~2. The apparatus according to claim 1, wherein each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member.~~

~~3~~2. The apparatus according to claim ~~2~~1, wherein each element includes:

a locking portion having a first lock opening and a second lock opening, and an elongated portion extending from the locking portion.

~~4~~3. The apparatus according to claim ~~3~~2, wherein the elongated portion of a first element extends through the first lock opening of the first element and into the second lock opening of a second element.

~~5~~4. The apparatus according to claim ~~4~~3, wherein the elongated portion of the first element extends from the locking portion and through the first lock opening to form an attachment loop around the center member.

~~6~~5. The apparatus according to claim ~~5~~4, wherein the orientation of each damper member can be rotationally adjusted relative to one another to provide a coverage area in the tube to reduce an average falling velocity of the solid particles in the tube to a desired magnitude.

~~7~~6. The apparatus according to claim 1, wherein each damper member is spaced apart from an adjacent damper member at a predetermined distance in the longitudinal direction of the center member.

~~8~~7. The apparatus according to claim 1, wherein each damper member is secured to the center member with an attachment loop.

~~9~~8. An apparatus for distributing solid particles into a tube, comprising:

a center member; and

a plurality of damper members connected to the center member, wherein:

each damper member includes a plurality of loops extending away from the center member, ~~and~~

each loop is arranged on the center member extending from a first position on the center member to a second position on the center member different from the first position in a longitudinal direction of the center member, and each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member.

~~10~~9. The apparatus according to claim ~~9~~8, wherein:

the plurality of loops includes a first loop and a second loop,

a lower segment of the first loop is attached to the center member at a same position in the longitudinal direction as an upper segment of the second loop.

~~11. The apparatus according to claim 9, wherein each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member.~~

~~12~~10. The apparatus according to claim ~~11~~8, wherein each element includes:

a locking portion having a first lock opening and a second lock opening, and an elongated portion extending from the locking portion.

~~13~~11. The apparatus according to claim ~~12~~10, wherein the elongated portion of a first element extends through the first lock opening of the first element and into the second lock opening of a second element.

~~14~~12. The apparatus according to claim ~~13~~11, wherein the elongated portion of the first element extends from the locking portion and through the first lock opening to form an attachment loop around the center member.

~~15~~13. The apparatus according to claim ~~14~~12, wherein the orientation of each damper member can be rotationally adjusted relative to one another to provide a coverage area in the tube to reduce an average falling velocity of the solid particles in the tube to a desired magnitude.

~~16~~15. The apparatus according to claim ~~15~~13, wherein each damper member is spaced apart from an adjacent damper member at a predetermined distance in the longitudinal direction of the center member.

~~17~~15. The apparatus according to claim ~~9~~8, wherein each damper member is secured to the center member with an attachment loop.

~~18~~16. A method for distributing solid particles into a tube, comprising:

configuring a loading tool to include a plurality of damper members connected to a center member, wherein each damper member includes at least one loop, and each loop is arranged on the center member extending from a first position on the center member to a second position on the center member different from the first position in a longitudinal direction of the center member;

positioning the loading tool in an interior of the tube;

filling the tube with the solid particles, wherein the solid particles contact the plurality of damper members; and

removing the loading tool from the tube as the solid particles fill the tube,

wherein each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member.

~~19~~17. The method according to claim ~~18~~16, wherein the orientation of each damper member is rotationally adjusted relative to one another to provide a coverage area in the tube to reduce an average falling velocity of the solid particles in the tube to a desired magnitude.

~~20~~18. The method according to claim ~~18~~16, wherein:

~~each damper member is formed from a number of separate elements equal to n + 1, where n is the number of loops in the damper member,~~

each element includes a locking portion having a first lock opening and a second lock opening, and an elongated portion, and

configuring the loading tool includes:

extending the elongated portion of a first element from the locking portion through the first lock opening to form an attachment loop around the center member, and

extending the elongated portion of the first element from the first lock opening and into the second lock opening of a second element to form a loop.