CLAIMS

1. A line protective guide for lines like for example cables or hoses, for a clean room application, comprising an elongate flexible encasement (100) which is displaceable reciprocatingly, and wherein the flexible encasement is closable at the ends by a respective clamping device (130) against an escape of particles, wherein the encasement (100) includes at least one encasing unit (101,…1001) which forms at least one tubular receiving means (102, …1002) for guiding at least one line (6), wherein each receiving means (102, …1002) extends channel-like in a longitudinal direction (L) from a first end to a second end; and

wherein the encasement (100) has a plurality of said tubular receiving means (102, …1002) which extend parallel to each other to separately guide at least one line (6),

characterised in that

the encasing unit (101, …1001) at at least one receiving means (102,..1002) has at least one functional region (110,..1010) which extends in the longitudinal direction (L) and which includes two closure profiles (111, 112,..1011, 1012) of a closure, wherein one of the closure profiles (111,..1011) co-operates with the other closure profile (112,..1012) for dust-tightly closing an opened state in which a line (6) can be introduced or removed transversely relative to the longitudinal direction (L).

2. A line protective guide according to claim 1 characterised in that the encasing unit (101,...1601) comprises soft elastic plastic or flexurally elastic plastic.

3. A line protective guide according to claim 2 characterised in that the encasing unit (101, …, 1601) is made in one piece.

4. A line protective guide according to one of claims 1 to 3 characterised in that the encasement (100) includes a multiplicity of

separate encasing units (101, 1401, 1601) and each encasing unit ((101, 1401, 1601) has two fixing strips (122, 1422, 1622) which are in opposite relationship on both sides and which are in one piece with the encasing units (101, 1401, 1601), adjacent encasing units (101, 1401, 1601) being connected together in parallel relationship by the fixing strips.

5. A line protective guide according to one of claims 1 to 3 characterised in that the encasement (400) includes a plurality of separate encasing units (101; 1401; 1601), and each encasing unit (101; 1401; 1601) forms precisely one tubular receiving means (102; 1202; 1602) for separately guiding at least one line (6) respectively.

6. A line protective guide according to one of claims 1 to 3 characterised in that the encasement (400) includes a one-piece encasing unit (401, 601, 1001, 1101) with subdivision means which forms a plurality of parallel receiving means (402, 602, 1002, 1102) and has at least two closure profiles (411, 412, 611, 612, 1011, 1012) in one piece with the encasing unit (401, 601, 1001, 1101).

7. A line protective guide according to claim 6 characterised in that provided for each receiving means (402, 1002) is a pair of co-operating closure profiles (411, 412, 1011, 1012) in one piece with the encasing unit (401,...1001).

8. A line protective guide according to one of the preceding claims characterised in that each encasing unit (101,...1601) is of a cross-section which remains the same in the longitudinal direction (L).

9. A line protective guide according to one of the preceding claims characterised in that the functional region (410,..1210) has two closure profiles (411, 412,..1211, 1212) of plastic which are in interengaging conjugate relationship and which co-operate as a closure for closing the at least one receiving means (402, 1202).

10. A line protective guide according to claim 9 characterised in that the interengaging closure profiles include a hook profile (1011) and a claw profile (1012) which co-operate in particular with a barb function and/or each closure profile includes two profile elements.

11. A line protective guide according to one of the preceding claims characterised in that there are provided two laterally oppositely disposed functional regions (110, 120) which each have a respective fixing profile (122), wherein the fixing profiles (122) are of mutually matching relationship for a releasable connection by positively locking and/or force-locking relationship and which preferably each have a closure profile (111, 112), in particular between receiving means (102) and fixing profile (122).

12. A line protective guide according to one of the preceding claims characterised in that the receiving means (102) are connected together in parallel relationship by strip-shaped intermediate regions which predetermine a neutral fibre (H).

13. A line protective guide according to one of the preceding claims characterised in that it comprises two support chains, each support chain being accomodated in a tubular encasement.

14. A line protective guide according to claim 13 characterised in that each support chain comprises individual chain links and/or each support chain is encased in a tubular encasement that has a larger cross-section than the tubular receiving means for receiving lines.

15. A line protective guide according to one of the preceding claims characterised by two end clamping devices (130; 1330) which fix the elongate flexible encasement (100) at the ends in the axial direction.

16. An encasing unit (101,...1601) of plastic for an elongate flexible encasement (100) of a line protective guide, in particular according to the classifying portion of claim 1, wherein the encasing unit (101,...1601) comprises a plurality of tubular receiving means (102,..1602) for separate guidance of respectively at least one line, wherein each tubular receiving means extends channel-like in a longitudinal direction (L) from a first end to a second end;

characterised in that

the respective tubular receiving means (102; … 1602) includes two co-operating closure profiles (111, 112,..1611, 1612) which extend in the longitudinal direction (L) from the first to the second end for dust-tightly closing an opened state in which a line can be introduced into or removed from the respective tubular receiving means (102,..1602) transversely to the longitudinal direction (L).

17. An encasing unit (101,...1601) according to claim 16 characterised in that the closure profiles (111, 112,..1611, 1612) are of a cross-section which is the same throughout in the longitudinal direction (L) and respectively co-operate in interengaging relationship.

18. An encasing unit according to claim 17, characterised in that the interengaging closure profiles include two profile elements that co-operate as a press closure or toothless sliding zip closure.

19. An encasing unit according to claim 17 or 18 characterised in that the encasing unit is made of flexuraly elastic plastic and wherein the encasing unit is closable at the ends by a respective clamping device against the escape from the flexible encasing unit of particles generated due to wear of lines.

20. An encasing unit according to one of the claims 17 to 19, characterised in that the encasing unit is a one-piece encasing unit (401, 601, 1001, 1101) with subdivision means and the encasing unit forms a

plurality of parallel tubular receiving means (402, 602, 1002, 1102) for receiving the least one line and the encasing unit for each tubular receiving means has a pair of co-operating closure profiles (411, 412, 611, 612, 1011, 1012) in one piece with the encasing unit (401, 601, 1001, 1101).

21. An encasing unit according to one of the claims 17 to 20, characterised in that each encasing unit (101,...1601) is of a cross-section which remains the same in the longitudinal direction (L).

22. An encasing unit according to one of the claims 17 to 21, characterised in that the tubular receiving means are connected together in parallel relationship by strip-shaped intermediate regions which predetermine a neutral fibre (H).

23. An encasing unit (401, 1101) according to one of the claims 17 to 22, characterised in that the encasing unit (401,1101) at one longitudinal side has a first fixing profile (421,…1121) and at the other longitudinal side a second fixing profile (422, ..1122) and the fixing profiles (421, 422,…1121, 1122) are of a mutually matching configuration for a releasable connection by positively locking and/or force-locking connection relative to each other in order to fix a plurality of structurally identical encasing units (401,...1101) releasably to each other.