Claims

1. A device for reducing the microbiological contaminants of container products (11), which are mainly made from plastic material, in which a plastic granulate is supplied to an extruder device (19), which melts the granulate, which granulate is subsequently transferred to a blow molding, filling and sealing production machine (1) for obtaining the respective container product (11), with a guide device (35) for targeted guiding of the plasticized plastic material from the extruder device (19) to said production machine (1), at least one guide device (35) has at least one flow guide or channel guide (41, 55) for the molten plastic material in such a way that microbiological contaminants are mainly guided to the interior wall (71) of the polymer hose, which is surrounded by less contaminated plastic material regions (72), characterized in that the guide device (35) has, in addition to or alternatively to the respective mixer device (31) of the extruder device (19), a hose head with an oval-like cross section (oval sleeve 67) for the plastic material discharge to the molding tools (7) of the production machine (1), which is formed in the manner of a slit and initiates a linear shell outlet (51) starting from a central discharge point (47), which is supplied by the outlet (49) of the extruder device (19).

2. The device according to Claim 1, characterized in that the extruder device (19) is equipped with a mixer device (31) at the outlet side towards the direction of the production machine (1).

3. The device according to Claim 1 or 2, characterized in that the mixer device (31) is a statically designed melt mixer with a flow guide or channel guide (41), which distributes microbiological contaminants in a non-homogeneous manner in the plastic strand (43).

4. The device according to one of the preceding claims, characterized in that the hose head (33) has a housing (53), in which two guide tracks (55) are arranged as part of the guide device (35), each of which has, starting from a highest feed point (59) for the plastic melt, two supply lines (56) lying in a plane descending outwards in this plane.

5. The device according to claim 4, characterized in that the two supply lines (56) with involvement of the feed point (59) supply to all sides starting from this plane the slit-like discharge cross section (45) in the hose head housing (53).

6. The device according to claim 4 or claim 5, characterized in that the respective two guide

tracks (55) taper in the direction of the production machine (1) initially with a constant discharge cross section in the manner of a crack in the direction of the production machine (1) such that, on the side of the shell outlet (51) a constant discharge speed is obtained with respect to this shell outlet (51).

7. The device according to one of claims 4 to 6, characterized in that the two guide tracks (55) are arranged extending symmetrically (Fig. 3b) in a longitudinal axis (57) of the hose head (33) parallel to the discharge direction of the extruder device (19).

8. The device according to one of claims 4 to 7, characterized in that the two guide tracks (55) in the hose head (33) delimit at the external circumference receptacles (69), which can be penetrated by filling pins of the production machine (1).

9. The device according to one of claims 4 to 8, characterized in that the two guide tracks (55) in the hose head (33) are delimited at the external circumference in the housing (53).

10. The device according to one of the preceding claims, characterized in that, by means of the extruder device (19) a co-extrusion method is realized, which leads to a multilayer construction of the wall of the closed and filled container product (11) and, in that only the polymer forming the inner surface of the thus co-extruded container (11) is subjected to the reduction of microbiological contaminants.

11. A hose head, in particular for use in a device according to one of the preceding claims, characterized in that the hose head (33) has a housing (53), in which two guide tracks (55) are arranged as part of the guide device (35), which each have, starting from a highest feed point (59) for the plastic melt and lying in a plane, two supply lines (56) descending outwards in this plane which, with the involvement of the feed point (59) to all sides starting from this plane, supply the slit-like discharge cross section (67) in the hose head housing (53) for the purpose of discharge of a closed plastic shell for the subsequent container production.