Patent claims:

1. A stuffing screw (2) having a housing (7) and at least one conveying screw (5), which is mounted in a rotatable manner within the housing (7), wherein a conveying space is formed between an inner side of the housing (7) and the conveying screw (5), characterized in that at least one portion of the inner side of the housing (7) is provided with one or more depressions designed in the form of at least one helical groove (13).

2. The stuffing screw (2) as claimed in claim 1, characterized in that at least two portions of the inner side of the housing (7) which are spaced apart from one another in the direction of the longitudinal axis of the conveying screw (5) are provided with a helical groove (13) .

3. The stuffing screw (2) as claimed in claim 2, characterized in that the conveying screw (5) has at least one helically running thread (14), and in that the direction of pitch of the thread (14) is counter to the direction of pitch of the helical groove (13).

4. The stuffing screw (2) as claimed in claim 3, characterized in that the helical groove (13) and the thread (14) enclose an angle (α) of from 70° to 110° as seen in the direction of the longitudinal axis (15) of the conveying screw (5).

5. The stuffing screw (2) as claimed in claim 2, characterized in that the conveying screw (5) has at least one helically running thread (14), and in that the direction of pitch of the thread (14) and the direction of pitch of the helical groove (13) are identical.

6. The stuffing screw (2) as claimed in one of claims 2 to 5, characterized in that the pitch of the helical groove (13) is non-uniform.

7. The stuffing screw (2) as claimed in one of claims 2 to 6, characterized by a plurality of helical grooves (13) with different directions of pitch, pitches and/or numbers of windings.

8. The stuffing screw (2) as claimed in one of the preceding claims, characterized by a degassing outlet.

9. An extruder system having an extruder (1) and a stuffing screw (2) as claimed in one of the preceding claims.

10. Use of a stuffing screw (2) as claimed in claim 8 for degassing viscoelastic material, in particular an elastomer, conveyed in an extruder (1).

11. A method of degassing viscoelastic material, in particular an elastomer, conveyed in an extruder, characterized in that the degassing takes place in an extruder system as claimed in claim 9.