Claims

1. Device for water abrasive suspension cutting including a high pressure pump and a nozzle head (1) for discharging a suspension which is under pressure and which consists of a fluid and abrasive agent, with at least one nozzle (8) comprising at least one exit opening (20) for the exit of the suspension,
characterised in that
the nozzle head (1) is designed for movement along a feed axis (S).
the nozzle head (1) comprises at least one first drive device (17'), by way of which the nozzle head can be rotated about a first axis (A1), which first axis (A1) runs parallel to the feed axis (S).

2. Device for water abrasive suspension cutting according to claim 1, characterised in that at least one flow guidance element is arranged upstream of the at least one nozzle (8), said flow guidance element comprising a spiral-shaped flow channel, through which the suspension to be discharged is conveyed and is thereby brought into rotation.

3. Device for water abrasive suspension cutting according to claim 1, characterised in that the first axis (A1) coincides with the feed axis (S).

4. Device for water abrasive suspension cutting according to claim 1, characterised in that the first axis (A1) is distanced to the feed axis (S).

5. Device for water abrasive suspension cutting according to one of the preceding claims, characterised in that the nozzle head (1) comprises a second drive device (17''), by way of which the nozzle head (1) can be additionally rotated about a second axis (A2) which is distanced to the first axis (A1).

6. Device for water abrasive suspension cutting according to one of the preceding claims, characterised in that the nozzle head (1) at least in a section comprising the at least one exit opening (20), is inclined to a feed axis by an angle (a).

7. Device for water abrasive suspension cutting according to one of the preceding claims, characterised in that the nozzle head (1) comprises a nozzle (8), in particular a centrally arranged nozzle (8).

8. Device for water abrasive suspension cutting according to one of the preceding claims, characterised in that the nozzle head (1) comprises a plurality of exit openings (20), of which at least some are arranged such that the jets (22) which are released by them are angled to one another.

9. Device for water abrasive suspension cutting according to claim 5, characterised in that the first and/or the second drive device (17', 17") comprises a motor.

10. Device for water abrasive suspension cutting according to claim 9, characterised in that the first and/or the second drive device (17', 17") comprises a hydraulic motor, such as a turbine.

11. Device for water abrasive suspension cutting according to one of the claims 1 to 9, characterised in that at least one channel (5) is provided in the nozzle head (1), via which channel fluid essentially without solid particles can be branched off from the suspension.

12. Device for water abrasive suspension cutting according to claim 10 and 11, characterised in that the at least one channel (5) is connected to the hydraulic motor.

13. Device for water abrasive suspension cutting according to one of the claims 1 to 12, characterised in that the nozzle head (1) is arranged on a device for water-jet cutting or water-jet drilling.