CLAIMS

1. A jet fan (100, 210) for ventilating tunnels, ~~especially~~ in particular road tunnels, comprising

~~-~~ a fan unit (106) for generating an air stream,

~~-~~ a silencer (110, 130) arranged on the fan unit (106) with a proximal section (112) ~~-~~ and a distal section (116) adjacent to the proximal section (112), ~~wherein proximal section (112) extends in the proximal flow the direction (114) with a proximal extension and a distal section (116) extends in the distal flow direction (118) with a distal extension,~~

~~-~~ characterized in that an angle (120, 122) is set between the distal section (116) and the proximal section (112).

~~and the proximal section (112) wherein~~

~~-the ratio of distal extension to proximal extension is between 0.1 and 0.3, wherein~~

~~-the fan unit (106) and/or the silencer (110, 130 has or have a flow diameter and~~

~~- the ratio of distal extension to flow diameter is between 0.45 and 0.55, and/or~~

~~-the ratio of proximal extension to flow diameter is between 2 and 3, wherein~~

~~-the proximal section (112) defines a proximal flow direction (114) and a distal Section (116) defines a distal flow direction (118), in which the proximal flow direction forms with the distal flow direction a flow angle (120) between 2 degrees and 15 degrees, in particular between 4 degrees and 10 degrees, preferably between 6 degrees and 8 degrees.~~

2. The jet fan (100, 210) according to claim 1, wherein

~~-~~the distal section (116) is designed to guide an air stream

~~-~~ generated by the fan unit (106) from a radially outer section of the

~~-~~tunnel into a substantially center section of the tunnel and/or ~~to guide the air stream~~ from a substantially center section of the tunnel into the fan unit (106).

~~unit (106).~~

3. The jet fan (100, 210) according to ~~any~~ one of the preceding claims, wherein the proximal section (112) defines a proximal flow direction (114) and a distal section (116) defines a distal flow direction (118), wherein the proximal flow direction forms a flow angle (120) with the distal flow direction.

4. The jet fan (100, 210) according to ~~—~~one of the preceding claims, wherein a fan flow direction (108) of the fan unit (106) and the proximal flow direction (114) ~~—~~ are aligned substantially parallel to each other.

~~4. The jet fan (100, 210) according to any~~5. The jet fan (100, 210) according to one of the preceding claims, wherein the flow angle (120) is between 2° and 15°, in particular between 4° and 10°, preferably between 6° and 8°.

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6. The jet fan (100, 210) according to one of the preceding claims, wherein the proximal section (112) is arranged between the distal section (116) and the fan unit (106), ~~unit (106),~~

~~5.~~

7. The jet fan (100, 210) according to ~~any~~ one of the preceding claims, wherein ~~—~~the silencer (110, 130) is designed in two parts with a first silencer unit and a second silencer unit, ~~in which~~ the first silencer unit ~~has~~having the proximal section (112) and the ~~—~~second silencer unit ~~has~~having the distal section (116).

~~6.~~8. The jet fan (100, 210) according to ~~any~~ one of the preceding claims,

wherein

~~—~~the proximal section (112) extends in the proximal flow direction (114) with a proximal extension and the distal ~~extension is~~ section (116) extends in the distal flow direction (118) with a distal extension, the distal extension being smaller than the proximal extension.

~~7.~~9. The jet fan (100, 210) according to one of the preceding claims, wherein the ratio of distal extension to proximal extension is between 0.05 and 0.4, in particular between 0.1 and 0.3.

10. The jet fan (100, 210) according to one of the preceding claims, wherein

- the fan unit (106) and/or the silencer (110, 130) has or have a flow diameter and

- the ratio of the distal extension to the flow diameter is between 0.2 and 0.75, in particular between 0.45 and 0.55 and/or

- the ratio of the proximal extension to the flow diameter is between 1 and 4, in particular between 2 and 3.

11. The jet fan (100, 210) according to any one of the preceding claims, comprising a second silencer (110, 130), which preferably has the same features as the [sic; first] silencer (110, 130), wherein the [sic; first] silencer (110, 130) is arranged on a first end and the second silencer (110, 130) is arranged on a second end of the fan unit (106) ~~situated~~in the fan flow direction opposite the first end ~~in the fan flow direction.~~.

~~8.~~12. The jet fan (100, 210) according to ~~the~~ any one of the preceding claims, comprising a fastening unit (138), which is arranged and ~~designed~~formed

- to fasten the jet fan (100, 210) on a tunnel ceiling and/or tunnel wall so that a projection length is less than 1.3 times, in particular less than 1.1 times the flow diameter, and/or
- that the distal flow direction (118) on an outlet side of the jet fan is directed into a

substantially center section of the tunnel.

~~9.~~13. A jet fan system for ventilating tunnels, in particular road tunnels, comprising

- at least one jet fan (100, 210) according to one of the preceding claims,
- wherein the at least one jet fan (100, 210) has a supply cable that connects the jet fan (100, 210) to a power supply.

14. A method for manufacturing a jet fan (100, 210) for ventilating tunnels, in particular road tunnels, comprising the steps of:

- providing a fan unit (106) for generating an air stream,

- providing a silencer (110, 130) with a proximal section (112) and a distal section (116) adjacent to the proximal section (112), wherein an angle (120, 122) is set between the distal section (116) and the proximal section (112) and

- fastening the silencer (110, 130) to the fan unit (106), wherein the proximal section (112) faces the fan unit (106) and the distal section (116) faces away from the fan unit (106).