CLAIMS

1. An exhaust handling system comprising

   an exhaust pipe having an exhaust outlet, said exhaust outlet having a nozzle arranged to vent exhaust gas;

   at least one acceleration jet arranged to project an air flow at a velocity head greater than that of the vented exhaust gas;

   said at least one acceleration jet being positioned around the exhaust pipe;

   wherein the at least one acceleration jet and exhaust outlet are positioned to project the air flow having an air flow path defined by the longitudinal axis of the at least one accelerator jet so as to impinge on said vented exhaust gas having an exhaust gas path defined by the longitudinal axis of the exhaust pipe, and consequently transfer velocity head to the vented exhaust gas.

2. The exhaust handling system according to claim 1, wherein there are two acceleration jets positioned on diametrically opposed sides of the exhaust outlet.

3. The exhaust handling system according to claim 1 or 2, wherein the air flow path is parallel to the exhaust gas path with impingement of said exhaust gas as a result of an expansion plume of said air flow and exhaust gas.

4. The exhaust handling system according to claim 1 or 2, wherein the air flow path intersects the flow path of said exhaust gas.

5. The exhaust handling system according to claim 1, wherein there is a plurality of acceleration jets positioned on circumferentially about the exhaust outlet.

6. The exhaust handling system according to claim 5, wherein there is four acceleration jets positioned circumferentially about the exhaust outlet.

7. The exhaust handling system according to any one of claims 1 to 6, wherein longitudinal axes of said acceleration jets are inclined to the flow path of said vented exhaust gas.

8. The exhaust handling system according to any one of claims 1 to 7, wherein the at least one acceleration jet includes an inlet cone at an intake portion, said inlet cone arranged to reduce turbulent flow at said intake portion.

9. The exhaust handling system according to any one of claims 1 to 8, wherein the acceleration jet includes a protective member at the intake, said protective member arranged to block the entry of foreign objects into the acceleration jet.

10. The exhaust handling system according to claim 9, wherein said protective member includes a heating element to maintain the temperature of said acceleration jet.

11. The exhaust handling system according to any one of claims 1 to 10, wherein said acceleration jets include a sound attenuation device.

12. The exhaust handling system according to any one of claims 1 to 11, wherein said acceleration jets include a vibration isolating device.

13. The exhaust handling system according to claim 12, wherein said vibration isolating device is positioned at a centre of the acceleration jet and engine exhaust pipe and arranged to isolate the exhaust handling system from sources of vibration.

14. The exhaust handling system according to any one of claims 1 to 13, wherein the exhaust outlet includes vanes to control the flow path of the exhaust gas.

15. The exhaust handling system according to any one of claims 1 to 14, wherein the acceleration jets include vanes to control the flow path of the accelerated air flow.

16. The exhaust handling system according to any one of claims 1 to 15, wherein the nozzle of the exhaust pipe is circular.

17. A method of handling engine exhaust gases comprising the steps of:

    venting exhaust gas by an exhaust pipe;

    projecting an air flow at a selective velocity head by at least one acceleration jet; said at least one acceleration jet being positioned around the exhaust pipe;

positioning a flow path of said air flow defined by the longitudinal axis of the at least one accelerator jet so as to allow the air flow to impinge on the vented exhaust gas along a path of said vented exhaust gas defined by the longitudinal axis of the exhaust pipe; and

transferring velocity head to the vented exhaust gas.

18. The method according to claim 17, wherein the air flow path is parallel to the exhaust gas path with impingement of said exhaust gas as a result of an expansion plume of said air flow and exhaust gas.

19. The flow method according to any one of claims 17 or 18, wherein the air flow path intersects the flow path of said exhaust gas.

20. The flow method path is according to any one of claims axis of 17 to 19, wherein a longitudinal axis of said air flow path is inclined to a longitudinal axis of said vented exhaust gas path.