8. The apparatus as claimed in claim 6 or 7, wherein the pump has a rating of less than 100W.

9. The apparatus as claimed in any preceding claim, wherein the venturi gas-liquid mixer generates a mixed hydrogen gas/water output stream with a speed of between 0.5-1.5m/s and a flow rate of between 1.5-2.5L/min.

10. The apparatus as claimed in any preceding claim, where the hydrogen gas source is a gas bottle containing Hydrogen gas and a regulator.

11. The apparatus as claimed in claim 10, wherein the apparatus further comprises a housing and the gas bottle, pump if present, venturi gas-liquid mixer and nano bubble generating apparatus are contained in the housing, and the housing has dimensions of 400mm x 450mm x 200mm or less.

12. The apparatus as claimed in claim 10, wherein the apparatus further comprises a housing and the pump if present, venturi gas-liquid mixer and nano bubble generating apparatus are contained in the housing, and the gas bottle is external to the housing and supplies regulated hydrogen gas to the apparatus via a regulated connection.

13. The apparatus as claimed in any one of claims 1 to 9, where the hydrogen gas source is a hydrogen gas generating apparatus comprising an electrolysis based device with a reservoir and pump which generates and supplies hydrogen gas.

14. The apparatus as claimed in any preceding claim, further comprising a temperature control apparatus located prior to the venturi gas-liquid mixer to reduce or increase the temperature of the water provided to the venturi gas-liquid mixer.

15. The apparatus as claimed in any preceding claim, wherein the plurality of radially projecting air-foil shaped projecting members are arranged in a predetermined manner on the outer circumferential surface of the longitudinal shaft such that there is a slight gap between adjacent projecting members to create the multiple flow paths.

16. The apparatus as claimed in claim 15, wherein a diameter of the longitudinal shaft and projecting members is slightly less than an inner diameter of the cylindrical housing.

17. A method for generating water comprising nano bubbles of molecular hydrogen comprising:
receiving an input flow of water with a pressure of at least one bar;
receiving an input flow of Hydrogen gas;

mixing the input flow of water with the input flow of Hydrogen gas in a venturi gas-liquid mixer to generates a mixed hydrogen gas/water output stream;

generating Hydrogen nano bubbles using a cavitation mechanism in a nano bubble generating apparatus which receives the mixed hydrogen gas/water stream and comprises a longitudinal shaft comprising a first end portion and a second end portion each formed as conical-shaped guides, and a plurality of radially projecting air-foil shaped projecting members, and the longitudinal shaft is housed within a cylindrical housing, and generates Hydrogen nano bubbles due to cavitation as the hydrogen gas/water stream flows through multiple flow passages created by the plurality of radially projecting air-foil shaped projecting members, and which produces an output hydrogen water steam comprising Hydrogen nano bubbles with diameters of less than 200nm at an output concentration of between 0.8 and 1.2ppm wherein the concentration remains within 85% of the output concentration for at least 12 hours.

18. The method as claimed in claim 17, wherein the concentration remains within 85% of the output concentration for at least 15 hours.

19. The method as claimed in claim 17 or 18, wherein the concentration remains within 63% of the output concentration for at least 18 hours.

20. The method as claimed in claim 17, 18, or 19, wherein the concentration remains within 50% of the output concentration for at least 20 hours.

21. The method as claimed in claim 17, 18, 19 or 20, wherein the concentration remains within 37% of the output concentration for at least 24 hours.

22. The method as claimed in any one of claims 17 to 21, wherein input water has a pressure of between one and three bar and is provided by a pump connected to a water supply.

23. The method as claimed in any one of claims 17 to 22, wherein the venturi gas-liquid mixer generates a mixed hydrogen gas/water output stream with a speed of between 0.5-1.5m/s and a flow rate of between 1.5-2.5L/min.

24. The method as claimed in any one of claims 17 to 23, wherein the plurality of radially projecting air-foil shaped projecting members are arranged in a predetermined manner on the outer circumferential surface of the longitudinal shaft such that there is a slight gap between adjacent projecting members to create the multiple flow paths.

25. The method as claimed in claim 24, wherein a diameter of the projecting members is slightly less than the inner diameter of the cylindrical housing.