WHAT IS CLAIMED IS:

1. A pump unit, comprising:

a casing including a suction flange and a discharge flange;

a first pump impeller within the casing;

a second pump impeller within the casing and provides a parallel hydraulic path to the first pump impeller;

wherein the first pump impeller is configured to concurrently rotate in opposite rotational direction to the second pump impeller.

2. The pump unit as claimed in claim 1, wherein the second pump impeller is radially inline with the first pump impeller.

3. The pump unit as claimed in claim 1, wherein the second pump impeller is horizontally inline with the first pump impeller.

4. The pump unit as claimed in claim 1, wherein the casing includes a first volute which houses the first pump impeller and a second volute which houses the second pump impeller.

5. The pump unit as claimed in claim 4:

wherein the casing includes a first suction bay hydraulically fed from the suction flange to the first volute and a second suction bay hydraulically fed from the suction flange to the second volute;

further comprising a first exterior flange at the first suction bay which has a first flattened surface; and

further comprising a second exterior flange at the second suction bay which has a second flattened surface.

6. The pump unit as claimed in claim 1, wherein the casing has a flattened bottom.

7. The pump unit as claimed in claim 1, further comprising a first variable speed motor within the casing to rotate the first pump impeller and a second variable speed motor within the casing to rotate the second pump impeller.

8. The pump unit as claimed in claim 7, further comprising at least one controller configured to control the first variable speed motor and the second variable speed motor.

9. The pump unit as claimed in claim 8, wherein control of the pump impellers are co-ordinated so that combined output achieves a setpoint.

10. The pump unit as claimed in claim 8, wherein the pump impellers are controlled to rotate at an equal speed.

11. The pump unit as claimed in claim 8, wherein the pump impellers are controlled to rotate at different speeds.

12. The pump unit as claimed in claim 8, wherein the pump impellers are controlled to rotate at less than maximum speed.

13. The pump unit as claimed in claim 8, further comprising at least one internal sensor of the pump unit for detecting one or more device variables of each variable speed motor, including a speed variable and a power variable;

wherein the at least one controller is configured to:

correlate, for each variable speed motor, the detected one or more device variables to one or more output variables, and

co-ordinate control of each of the variable speed motors to operate their respective pump impellers to co-ordinate one or more output variables for the combined output to achieve a setpoint.

14. The pump unit as claimed in claim 7, further comprising a first controller configured to control the first variable speed motor and a second controller configured to control the second variable speed motor.

15. The pump unit as claimed in claim 14, wherein the first controller is

configured to communicate with the second controller.

16. The pump unit as claimed in claim 14, further comprising a first touchscreen on the casing for interaction with the first controller and further comprising a second touchscreen on the casing for interaction with the second controller.

17. The pump unit as claimed in claim 14, wherein the first controller and the second controller are configured to control the respective pump impellers in any symmetrical or asymmetrical range of parallel flow operation of both pump impellers.

18. The pump unit as claimed in claim 14, wherein the first controller and the second controller are configured to control the respective pump impeller in a range of 0% to 100% of motor speed.

19. The pump unit as claimed in claim 1, further comprising a first touchscreen on the casing for input or output in association with the first pump impeller and further comprising a second touchscreen on the casing for input or output in association with the second pump impeller.

20. The pump unit as claimed in claim 19, wherein the first touchscreen and/or the second touchscreen is configured for commissioning or setup of the respective first and second variable speed motors.

21. The pump unit as claimed in claim 1, further comprising a valve device which includes at least one back pressure activated flow prevention flap to permit flow from operation of one or both pump impellers.

22. The pump unit as claimed in claim 1, wherein hydraulic characteristics of the casing and each pump impeller provide hydraulically identical net flow and head pressure upon identical speed rotation of each pump impeller.

23. The pump unit as claimed in claim 1, wherein hydraulic characteristics of the casing and each pump impeller provide hydraulically identical and opposite paths upon identical speed rotation of each pump impeller.

24. The pump unit as claimed in claim 1, wherein the casing is substantially symmetrical.

25. A method for operating a multiple pump unit, the pump unit including a casing including a suction flange and a discharge flange, a first pump impeller within the casing, and a second pump impeller within the casing and provides a parallel hydraulic path to the first pump impeller, the method comprising:

rotating the first pump impeller in a rotation direction to effect flow between the suction flange and the discharge flange; and

concurrently rotating the second pump impeller in a counter rotation direction to effect flow between the suction flange and the discharge flange.

26. The method as claimed in claim 25, wherein control of the pump impellers are co-ordinated so as to control respective one or more output variables so that combined output achieves a setpoint.

27. The method as claimed in claim 25, wherein the pump impellers are controlled to concurrently rotate at an equal speed.

28. The method as claimed in claim 25, wherein the pump impellers are controlled to concurrently rotate at different speeds.

29. The method as claimed in claim 25, wherein the pump impellers are controlled to concurrently rotate at less than maximum speed.

30. A non-transitory computer readable medium having instructions stored thereon executable by one or more processors for performing the method as claimed in any one of claims 25 to 29.