

13. The pump system of Claim 11 or 12, wherein the transient blockage condition comprises at least one of a kink in the flow path and an occlusion in the flow path.

14. The pump system of any of Claims 11 to 13, wherein the maximum rate of change comprises about 110%, about 120%, about 130%, about 140%, or about 150% of the threshold rate.

15. The pump system of any of Claims 11 to 13, wherein the maximum rate of change comprises between about 105% and about 155% of the threshold rate of change.

16. The pump system of any of Claims 11 to 15, wherein the controller is further configured to provide an indication of a transient blockage condition in response to determining that the calculated first rate of pressure change equals or exceeds the maximum rate of change.

17. The pump system of any of Claims 1 to 16 wherein the controller is further configured to sample a pressure within the fluid flow path during one or more time intervals.

18. The pump system of Claim 17, wherein the controller is further configured to sample the pressure at least twice during each of the one or more time intervals.

19. The pump system of Claim 17 or 18, wherein the controller is further configured to average the pressure samples during each of the one or more time intervals.

20. An apparatus as shown in the figures and described in the application.