1. A volume control device comprising:

a. a housing having an inlet passage, an outlet passage, and an internal chamber communicating with the inlet and outlet passages;

b. an accumulator movably positioned within the internal chamber and substantially conforming with walls of the internal chamber where the accumulator includes an internal passage allowing fluid flow therethrough;

c. an one-way valve positioned in the internal passage of the accumulator where the valve is biased in a closed position;

d. an adjustable seat positioned within the housing internal chamber between the accumulator and the housing outlet passage, wherein (i) a first position of the adjustable seat holds the accumulator against a lower portion of the housing internal chamber, and (ii) a second position of the adjustable seat allows the accumulator to traverse a first distance within the housing internal chamber;

e. a positioning mechanism engaging the housing and adjustable seat whereby the position of the adjustable seat within the housing internal chamber may be adjustably fixed.

2. The volume control device of claim 1, wherein the accumulator seals against a lower portion of the internal chamber and the internal passage of the accumulator is substantially aligned with the inlet passage of the housing.

3. The volume control device of claim 1, wherein the valve within the accumulator is a poppet type with a spring biasing it in the closed position.

~~4. The volume control device of claim 1, wherein a first position of the adjustable seat holds the accumulator against a lower portion of the housing internal chamber.~~

~~5. The volume control device of claim 4, wherein a second position of the adjustable seat allows the accumulator to traverse a first distance within the housing internal chamber.~~

4~~6~~. The volume control device of claim 5, wherein a third position of the adjustable seat allows the accumulator to traverse a second, greater distance within the housing internal chamber.

5~~7~~. The volume control device of claim 1, wherein the positioning mechanism comprises at least one cam member rotating within the housing internal chamber.

68. The volume control device of claim 6, wherein the accumulator is free to travel the first or second distance subject only to seal friction between the accumulator and wall of the housing internal chamber.

~~9. The volume control device of claim 7, wherein the positioning mechanism comprises two cam members engaging cam pins on the adjustable seat.~~

~~10. The volume control device of claim 1, further comprising a first seal positioned between the accumulator and a wall of the housing internal chamber and a second seal positioned between the adjustable seat and the wall of the housing internal chamber.~~

711. The volume control device of claim 1, wherein the positioning mechanism includes a control surface external to the housing.

~~12. The volume control device of claim 11, wherein the positioning mechanism includes a bolt member and the control surface is a gripping surface on one end of the bolt member.~~

813. The volume control device of claim 1, wherein the one way valve allows flow in the direction of the inlet passage toward the outlet passage.

914. The volume control device of claim 1, wherein the positioning mechanism comprises mating threaded surfaces on a portion of the wall of the housing internal chamber and on the adjustable seat.

~~15. The volume control device of claim 14, wherein the adjustable seat includes a threaded stem in-line with the inlet passage.~~

~~16. The volume control device of claim 1, wherein the accumulator has a larger first end and a smaller second end, and said smaller second end slides into an aperture in the adjustable seat.~~

~~17. The volume control device of claim 16, wherein the second end slides freely within the adjustable seat.~~

~~18. The volume control device of claim 1, wherein components positioned within the housing consist essentially of the accumulator, the adjustable seat, and the positioning mechanism.~~

~~19. The volume control device of claim 1, wherein the positioning mechanism comprises a means for altering the position of the adjustable seat within the housing in order to allow a different degree of travel within the housing by the accumulator.~~

1020. A reciprocating pump system with adjustable volume control, the system comprising:

a. a reciprocating pump having a fluid inlet allowing fluid to enter the pump during an intake cycle and a fluid outlet allowing fluid to exit the pump during a discharge cycle; and

b. a volume control device in fluid communication with the pump outlet, the control device comprising:

i. a housing having an inlet passage communicating with the pump outlet, an outlet passage, and an internal chamber communicating with the inlet and outlet passages;

ii. an accumulator movably positioned within the internal chamber and have at least one surface substantially conforming with walls of the internal chamber where the accumulator includes an internal passage allowing fluid flow therethrough;

iii. a valve positioned in the internal passage of the accumulator where the valve is biased in a closed position;

iv. an adjustable seat positioned within the housing internal chamber;

v. a positioning mechanism engaging the housing and adjustable seat, the positioning mechanism comprising a means for altering the position of the adjustable seat within the housing in order to allow a different degree of travel within the housing by the accumulator ~~whereby the position of the adjustable seat within the housing internal chamber may be adjustably fixed~~.

11~~21~~. A volume control device comprising:

a. a housing having an inlet passage, an outlet passage, and an internal chamber communicating with the inlet and outlet passages;

b. a volume control means for controlling a volume of fluid within the internal chamber, the volume control means further including an internal passage allowing fluid flow therethrough;

c. a flow direction control means for allowing one-way fluid flow, the flow direction control means being positioned in the internal passage of the volume control means and being biased in a closed position;

d. a seating means for adjustably positioning the volume control means within the housing internal chamber, the seating means being between the volume control means and the housing outlet passage;

e. a positioning means for adjustably fixing the position of the seating means within the housing internal chamber.

12~~22~~. A volume control device comprising:

a. an inlet passage and an outlet passage;

b. an accumulator positioned in an accumulator chamber wherein the accumulator chamber is in fluid communication with the inlet passage;

c. a positioning mechanism whereby the position of the accumulator in the accumulator chamber may be adjustably fixed;

d. an one-way valve positioned in an one-way valve chamber wherein the one-way valve chamber is in fluid communication with the inlet passage; and

e. wherein the one-way valve chamber is in fluid communication with the outlet passage and the one-way valve is biased in a position closing off the inlet passage from the outlet passage.

~~23. The volume control device of claim 22, wherein an accumulator passage provides a fluid connection between the outlet passage and the accumulator chamber.~~

~~24. The volume control device of claim 22, wherein an adjustable seat holds the accumulator against one end of the accumulator chamber.~~

~~25. The volume control device of claim 24, wherein a first position of the adjustable seat allows the accumulator to traverse a first distance within the accumulator chamber and second position of the adjustable seat allows the accumulator to traverse a second distance within the accumulator chamber.~~

~~26. The volume control device of claim 22, wherein the one-way valve is a poppet type with a spring biasing it in the closed position.~~

~~27. The volume control device of claim 22, further comprising a first seal positioned between the accumulator and a wall of the accumulator chamber.~~

~~28. The volume control device of claim 22, wherein the one-way valve allows flow in the direction of the inlet passage toward the outlet passage.~~

~~29. The volume control device of claim 24, wherein the positioning mechanism comprises mating threaded surfaces on a portion of the wall of the accumulator chamber and on the adjustable seat.~~

13~~30~~. The volume control device of claim 12~~22~~, wherein the accumulator chamber, the one-way valve chamber, the inlet passage, and the outlet passage are formed in a single unitary housing.

14~~31~~. The volume control device of claim 12~~22~~, wherein the accumulator chamber and the one-way valve chamber are formed in separate bodies and external conduits connect the inlet passage and the outlet passage to the accumulator chamber and the one-way valve chamber.

~~32. The volume control device of claim 1, wherein the accumulator substantially conforming with walls of the internal chamber includes a seal positioned between the walls and the accumulator.~~

15~~33~~. A volume control device comprising:

a. a housing having an inlet passage;

b. an accumulator positioned in an accumulator chamber wherein the accumulator chamber is in fluid communication with the inlet passage; and

c. a positioning mechanism whereby the travel of the accumulator in the accumulator chamber may be adjusted.

16~~34~~. The volume control device of claim 15~~33~~, wherein the positioning mechanism includes a stop surface configured to engage the accumulator.

17~~35~~. The volume control device of claim 16~~34~~, wherein the positioning mechanism includes a threaded stem attached to the stop surface and allowing adjustment of the stop surface toward and away from the accumulator.

18~~36~~. The volume control device of claim 16~~34~~, wherein a biasing mechanism is positioned between the accumulator and the stop surface.

19~~37~~. The volume control device of claim 15~~33~~, wherein the inlet passage communicates with a fluid reservoir containing a drive fluid.

20~~38~~. The volume control device of claim 19~~37~~, wherein a plunger communicates with the reservoir and pressurizes drive fluid in the inlet passage.

21~~39~~. The volume control device of claim 20~~38~~, wherein the plunger includes an internal passage oriented in an lengthwise direction and a side outlet communicating with the internal passage.

22~~40~~. The volume control device of claim 21~~39~~, wherein the operating stroke of the plunger moves the side outlet from within the reservoir to within the inlet passage.

23~~41~~. The volume control device of claim 19~~37~~, wherein a bypass fluid path extends from the accumulator chamber to the fluid reservoir.

24~~42~~. The volume control device of claim 20~~38~~, wherein a diaphragm pump communicates with the inlet passage and operation of the plunger increases pressure on the drive fluid acting against a diaphragm in the pump.

2543. The volume control device of claim 2442, wherein the diaphragm pump includes a strainer plate.

2644. The volume control device of claim 2038, wherein the accumulator moves along a first axis and the plunger moves along a second axis substantially perpendicular to the first axis.

~~45. The volume control device of claim 33, wherein the accumulator chamber is in the housing.~~

~~46. The volume control device of claim 33, wherein an one-way valve positioned in an one-way valve chamber wherein the one-way valve chamber is in fluid communication with the inlet passage.~~

~~47. The volume control device of claim 46, wherein the one-way valve chamber is in fluid communication with an outlet passage in the housing and the one-way valve is biased in a position closing off the inlet passage from the outlet passage.~~

~~48. The volume control device of claim 47, wherein an accumulator passage provides a fluid connection between the outlet passage and the accumulator chamber.~~

~~49. The volume control device of claim 47, wherein an adjustable seat holds the accumulator against one end of the accumulator chamber.~~

~~50. The volume control device of claim 49, wherein a first position of the adjustable seat allows the accumulator to traverse a first distance within the accumulator chamber and second position of the adjustable seat allows the accumulator to traverse a second distance within the accumulator chamber.~~

~~51. The volume control device of claim 47, wherein the one-way valve is a poppet type with a spring biasing it in the closed position.~~

~~52. The volume control device of claim 47, further comprising a first seal positioned between the accumulator and a wall of the accumulator chamber.~~

~~53. The volume control device of claim 47, wherein the one-way valve allows flow in the direction of the inlet passage toward the outlet passage.~~

~~54. The volume control device of claim 49, wherein the positioning mechanism comprises mating threaded surfaces on a portion of the wall of the accumulator chamber and on the adjustable seat.~~

~~55. The volume control device of claim 47, wherein the accumulator chamber, the one-way valve chamber, the inlet passage, and the outlet passage are formed in a single unitary housing.~~

~~56. The volume control device of claim 47, wherein the accumulator chamber and the one-way valve chamber are formed in separate bodies and external conduits connect the inlet passage and the outlet passage to the accumulator chamber and the one-way valve chamber.~~

27~~57~~. A diaphragm pump system comprising:

a. a diaphragm pump;

b. a volume control device comprising:

i. a housing having an inlet passage, the housing being fluidly connect to the diaphragm pump;

ii. an accumulator positioned in an accumulator chamber wherein the accumulator chamber is in fluid communication with the inlet passage; and

ii. a positioning mechanism whereby the travel of the accumulator in the accumulator chamber may be adjusted.

~~58. The volume control device of claim 57, wherein the positioning mechanism includes a stop surface configured to engage the accumulator.~~

~~59. The volume control device of claim 58, wherein the positioning mechanism includes a threaded stem attached to the stop surface and allowing adjustment of the stop surface toward and away from the accumulator.~~

~~60. The volume control device of claim 58, wherein a biasing mechanism is positioned between the accumulator and the stop surface.~~

28~~61~~. The volume control device of claim 27~~57~~, wherein the inlet passage communicates with a fluid reservoir containing a drive fluid.

29~~62~~. The volume control device of claim 28~~61~~, wherein a plunger communicates with the reservoir and pressurizes drive fluid in the inlet passage.

30~~63~~. The volume control device of claim 29~~62~~, wherein the plunger includes an internal passage oriented in an lengthwise direction and a side outlet communicating with the internal passage.

31~~64~~. The volume control device of claim 30~~63~~, wherein a discharge stroke of the plunger moves the side outlet from within the reservoir to within the inlet passage.

~~65. The volume control device of claim 61, wherein a bypass fluid path extends from the accumulator chamber to the fluid reservoir.~~

~~66. The volume control device of claim 62, wherein operation of the plunger increases pressure on the drive fluid acting against a diaphragm in the pump.~~

~~67. The volume control device of claim 57, wherein the diaphragm pump includes a strainer plate.~~

~~68. The volume control device of claim 62, wherein the accumulator moves along a first axis and the plunger moves along a second axis substantially perpendicular to the first axis.~~

~~69. The volume control device of claim 61, wherein the diaphragm pump forms a first separable section, the accumulator cavity is formed in a second separable section, and the fluid reservoir forms a third separable section.~~

~~70. The volume control device of claim 69, wherein the inlet passage is formed through the second and third separable sections.~~

32~~71~~. A method of adjusting the flow of fluid delivered by a pump comprising the steps of:

a. connecting a drive fluid inlet of the pump to an outlet of a volume control device, where the volume control device includes;

i. a housing having an inlet passage, the housing being fluidly connect to the inlet of the pump;

ii. an accumulator positioned in an accumulator chamber wherein the accumulator chamber is in fluid communication with the inlet passage; and

ii. a positioning mechanism whereby the travel of the accumulator in the accumulator chamber may be adjusted;

b. advancing a plunger within the inlet passage, thereby increasing fluid pressure at the accumulator and the drive fluid inlet of the pump.

~~72. The method of adjusting fluid of claim 71, wherein the positioning mechanism includes a stop surface configured to engage the accumulator.~~

~~73. The method of adjusting fluid of claim 72, wherein a biasing mechanism is positioned between the accumulator and the stop surface.~~

~~74. The method of adjusting fluid of claim 72, wherein the inlet passage communicates with a fluid reservoir containing a drive fluid.~~

33~~75~~. The method of adjusting fluid of claim 32~~71~~, wherein the plunger includes an internal passage oriented in an lengthwise direction and a side outlet communicating with the internal passage.

~~76. The method of adjusting fluid of claim 75, wherein a discharge stroke of the plunger moves the side outlet from within the reservoir to within the inlet passage.~~

~~77. The method of adjusting fluid of claim 76, wherein a bypass fluid path extends from the accumulator chamber to the fluid reservoir.~~

34~~78~~. The method of adjusting fluid of claim 32~~71~~, wherein operation of the plunger increases pressure on the drive fluid acting against a diaphragm in the pump.

~~79. The method of adjusting fluid of claim 71, wherein the accumulator moves along a first axis and the plunger moves along a second axis substantially perpendicular to the first axis.~~

~~80. The method of adjusting fluid of claim 74, wherein a one-way valve communicates between the reservoir and a diaphragm of the pump, the check valve being oriented to allow flow from the reservoir, past the diaphragm, and toward the inlet passage of the volume control device.~~

35~~81~~. The method of adjusting fluid of claim 32~~71~~, wherein the accumulator moves along a first axis and the plunger moves along a second axis substantially perpendicular to the first axis.