CLAIMS

1. A dispensing and pour control system for a regulated beverage comprising:

a bulk storage and distribution system for a pressurized beverage;

a metering mechanism in fluid communication with a beverage supply in operative connection with the bulk storage and distribution system, the metering system for providing a specific selected volumetric discharge in fluid communication with a tap or spigot in a manner that provides for the beverage to be discharged in a controlled and metered manner into a drinking container that is coordinated the beverage being discharged;

in which the metering mechanism operatively utilizes pressure from the bulk storage as a motive force while maintaining a system pressure within the storage and distribution system between dispensing cycles,

in which the metering mechanism comprises:

a chamber forming an internal volume and adapted to function as a line pressure powered bi-directional metering volume, the chamber providing a defined internal volume;

a piston contained within the internal volume, the piston being freely movable laterally, as urged, in a reciprocating manner about the internal volume, in which the piston comprises a pair of parallel face surfaces and circumscribed by a perimeter sealing surface in contact with an inside surface forming the internal volume;

a closeable ingress or egress portal engaged to each respective end of the chamber;

in which the metering system further provides for a both a fluid communication input from the bulk storage and distribution system and a fluid communication output with a metered discharge to the tap or spigot,

in which the fluid communication output in connection with the metered discharge and further comprises:

a first flow splitter that directs a flow conduit from each egress portal;

a second flow splitter that directs a flow conduit to each inlet portal;

three-way switching valving operatively connected between the input and outlet of the metering chamber for providing alternating and symmetric flow paths through the metering chamber.

2. A dispensing and pour control system according to Claim 1, in which the three-way switching valving is selected from the group consisting of: four 2-way valves; two 3-way valves; one 4-way valve; and a manifold in combination with a pressure redirecting mechanism.

3. A dispensing and pour control system according to Claim 1, further comprising an on/off valve between the metering mechanism and the tap or spigot for maintaining a line pressure after dispensing a volume.

4. A dispensing and pour control system according to Claim 1, in which the defined internal volume is approximately equal to the volume of a desired beverage pour.

5. A dispensing and pour control system according to Claim 1, in which the defined internal volume is approximately equal to a whole fraction of the volume of a desired beverage pour and in which further multiple metered volumes are provided for use in mixed or blended drinks.

6. A dispensing and pour control system according to Claim 1, in which:

the defined internal volume is a multiple of the volume of a desired beverage pour; and

the metered discharge is created by a measured movement of the piston within the chamber.

7. A dispensing and pour control system according to Claim 6, in which a position of the piston within the chamber is detected with a sensor for detecting proximity.

8. A dispensing and pour control system according to Claim 7, in which the sensor is selected from the group consisting of: RF sensors; magnets; halo effect sensors; and IR sensors.

9. A dispensing and pour control system according to Claim 8, in which the sensor is embedded within the chamber and a sensor target is formed in the piston.

10. A dispensing and pour control system according to Claim 1, in which the internal volume is selected from the group consisting of ½ fluid ounce increments.

11. A dispensing and pour control system for a beverage comprising a plurality of metering mechanisms according to Claim 1 provided in a modular block affixed to a mounting plate in a stacked arrangement that provides for multi-line flow metering within a compact form factor that is adapted for the systems particular use and within tight or limited quarters.

12. A dispensing and pour control system according to Claim 1, in which the system further comprising, in combination:

integrated temperature control;

pressure monitoring;

automated purging; and

integrated point of sale data acquisition for determining inventory usage statistics for each keg of wine dispensed.

13. A dispensing and pour control system according to Claim 12, in which the system further comprises a system to control the quality and quantity of servings delivered by the operator and comprising:

a system for precise measurement of each portion;

an error alarm system for warning an operator about beverage tank low level;

a mechanism for forcing the flashing of the poor quality beverage; and

a method and device for recording delivery process events in the log.

14. A method for dispensing and pouring beverages comprising:

a. pressurizing a bulk volume of a beverage;

b. distributing the pressurized beverage to a metering mechanism for providing a metered discharge in fluid communication with a tap or spigot in a manner that provides for a beverage specific controlled metered pour into a beverage container; and

c. coordinating the beverage container with the metering of the regulated beverage being discharged;

in which the metering mechanism further comprises a metering chamber adapted to function as a line pressure powered bi-directional dispenser, the chamber providing a defined internal volume that is approximately equal to a volume of a desired beverage pour, further comprising dispensing a plurality of pressurized beverage to a metering

mechanism for providing a plurality of individually metered discharges in fluid communication with the tap or spigot in a manner

in which the defined internal volume of each the metering chamber is each respectively equal to a fractional component of a volume of a desired component beverage pour for use in mixed or blended drinks.

15. A method according to Claim 14, in which the beverage specific controlled metered pour into a beverage container is discharged at a selected service temperature that is varied to optimize for a specific beverage type.

16. A method according to Claim 15, in which the beverage specific controlled metered pour is discharged by a system pressure caused an elevated pressure of a bulk storage distribution system without adding additional inline pressure.

17. A method according to Claim 15, in which a specific beverage type comprises a light dry white wines, a rosé wine, or a sparkling wines and the selected service temperature is between approximately 40°F to approximately 50° F.

18. A method according to Claim 17, in which:

the specific beverage type may be selected from between a group consisting of light dry white wines, rosé wines, and sparkling wines and the group consisting of full-bodied white wines and light, fruity red wines; and

the selected service temperature is between first service temperature selected to optimize delivery of a first beverage type and a second service temperature selected to optimize delivery of a second beverage type.

19. A method according to Claim 18, in which:

the first service temperature is between approximately 40°F to approximately 50°F.

20. A method according to Claim 19, in which:

the second service temperature is between approximately 50° to approximately 60° F.

21. A method for dispensing and controlling the pour for beverages comprising:

a. providing at least one beverage from a bulk storage distribution system and at an elevated pressure;

b. controlling a dispensed volume by filling a fixed volume chamber with the beverage, the beverage being urged to the fixed volume chamber by the elevated pressure;

c. urging the fixed volume of beverage in fluid communication with a tap or spigot by displacing the fixed volume chamber with subsequent beverage being urged to the fixed volume chamber by the elevated pressure, in which the fixed volume chamber further comprises a dual reciprocating piston that forms a continuous flow metering dispenser that is urged between a first position at a first end of the chamber to a second position at a second end of the chamber,

in which the controlling a dispensed volume and the urging the fixed volume chamber by the elevated pressure are controlled by a dispensing and pour control system, in which the dispensing and pour control system further comprises, in combination:

integrated temperature control;

pressure monitoring;

automated purging; and

integrated point of sale data acquisition for determining inventory usage statistics for each keg of wine dispensed.

22. A method according to Claim 21, in which the dispensing and pour control system further comprises a system to control the quality and quantity of servings delivered by the operator and comprising:

a system for precise measurement of each portion;

an error alarm system for warning an operator about beverage tank low level;

a mechanism for forcing the flashing of the poor quality beverage; and

a method and device for recording delivery process events in the log.