WHAT IS CLAIMED IS:

1. An autoclavable bucketless cleaning system comprising:

an autoclavable vessel with an inside for storing fluid under pressure, the vessel including a first connection point and a second connection point disposed at an outside of the vessel;

an autoclavable outlet regulator assembly for dispensing fluid from the vessel, the outlet regulator assembly being removably connected to the vessel at the first connection point so as to be in fluid communication with the inside of the vessel, the outlet regulator assembly comprising an outlet connector with ~~a~~ first internal check-type valve configured to be in a closed position when not connected; ~~and~~

an outlet autoclave stem configured to mate with the outlet connector to open the first check-type valve when connected to the outlet connector;

an autoclavable inlet regulator assembly for pressurizing the vessel, the inlet regulator assembly being removably connected to the vessel at the second connection point to be in fluid communication with the inside of the vessel, the inlet regulator assembly comprising an inlet connector with ~~a~~ second internal check-type valve configured to be in a closed position when not connected~~.~~; and

an inlet autoclave stem configured to mate with the inlet connector to open the second check-type valve when connected to the inlet connector.

2. The cleaning system of Claim 1, wherein the vessel includes a relief valve attached at the outside of the vessel and in direct fluid communication with the inside of the vessel.

3. The cleaning system of claim 1, wherein the vessel includes a purge valve attached at the outside of the vessel and in direct fluid communication with the inside of the vessel.

4. The cleaning system of Claim 3, wherein a pressure gauge is disposed between the purge valve and the vessel and in fluid communication with both the purge valve and the vessel.

5. The cleaning system of Claim 1, wherein the vessel includes a pressure gauge attached at the outside of the vessel and in direct fluid communication with the inside of the vessel.

6. The cleaning system of Claim 1, wherein the outlet regulator includes an autoclavable metering valve that may be opened and closed by adjusting a flow control element such that each incremental adjustment of the flow control element produces a substantially proportional change of the mass flow rate through the metering valve.

7. The cleaning system of Claim 6, wherein the outlet regulator includes an autoclavable pressure gauge for measuring and displaying the pressure within the outlet regulator assembly on a side of the metering valve that is opposite to a side at which the outlet regulator is installed on the vessel.

8. The cleaning system of Claim 1, wherein the inlet regulator includes an autoclavable regulator valve that remains open while pressurizing the vessel until a pressure inside the vessel reaches a predetermined value, at which point the regulator valve automatically closes to prevent more pressure from entering the vessel.

~~9. The cleaning system of Claim 1, wherein each of the outlet regulator assembly and the inlet regulator assembly includes an autoclave stem for installing~~

~~in an end thereof before autoclaving so that steam may pass through each of the outlet regulator assembly and the inlet regulator assembly during autoclaving.~~

~~109~~. A method of performing a cleaning operation with an autoclavable bucketless cleaning system, the method comprising:

placing a cleaning solution in an inside of an autoclavable vessel, the vessel including a first connection point and a second connection point disposed at an outside of the vessel;

removably connecting an autoclavable outlet regulator assembly on the vessel at the first connection point so the outlet regulator assembly is in fluid communication with the inside of the vessel, the outlet regulator assembly comprising an outlet connector with ~~an~~ first internal check-type valve configured to be in the closed position when not connected;

removably connecting an autoclavable inlet regulator assembly on the vessel at the second connection point so the inlet regulator assembly is in fluid communication with the inside of the vessel, the inlet regulator assembly comprising an inlet connector with ~~an~~ second internal check-type valve configured to be in the closed position when not connected;

pressurizing the inside of the vessel via the inlet regulator assembly;

dispensing cleaning solution from the inside of the vessel via the outlet regulator assembly to clean a designated area;

removing any pressurized gas that remains inside the vessel after the designated area is cleaned;

removing any cleaning solution that remains inside the vessel after the designated area is cleaned; ~~and~~

removing a lid from the vessel and opening a drain valve at the bottom of the vessel so that steam may pass through the vessel;

installing an outlet autoclave stem in the outlet regulator assembly so that steam may pass through the outlet regulator assembly;

installing an inlet autoclave stem in the inlet regulator so that steam may pass through the inlet regulator assembly; and

autoclaving each of the vessel, the outlet regulator assembly, and the inlet regulator assembly.

~~11~~10. The method of Claim ~~10~~9, wherein the step of pressurizing the inside of the vessel includes connecting a charging device to the inlet regulator assembly such that an autoclavable regulator valve in the inlet regulator assembly automatically closes to prevent more pressure from entering the vessel when a pressure in the vessel reaches a predetermined value.

~~12. The method of Claim 10, wherein the step of pressurizing the inside of the vessel is not performed via the inlet regulator assembly and an autoclavable relief valve disposed in direct fluid communication with the inside of the vessel remains closed until a pressure inside the vessel exceeds a predetermined value, at which point the relief valve automatically opens to allow at least some pressure inside the vessel to escape until the pressure remaining inside the vessel is at or below the predetermined value.~~

~~13~~11. The method of Claim ~~10~~9, wherein the step of dispensing cleaning solution includes opening an autoclavable metering valve in the outlet regulator assembly by adjusting a flow control element such that each incremental adjustment of the flow control element produces a substantially proportional change of the mass flow rate through the metering valve.

~~14~~12. The method of Claim ~~10~~9, wherein the step of dispensing cleaning solution includes interchangeably connecting an autoclavable sprayer, sponge mop, or fogger to the outlet regulator assembly for dispensing cleaning solution therethrough.

~~15~~13. The method of Claim ~~10~~9, wherein the step of removing any pressurized gas that remains inside the vessel includes opening an autoclavable purge valve

that is attached at the outside of the vessel and in direct fluid communication with the inside of the vessel.

~~16~~14. The method of Claim ~~18~~13, wherein the step of removing any pressurized gas that remains inside the vessel includes leaving the purge valve open until a pressure gauge disposed between and in fluid communication with the purge valve and the vessel measures and displays zero (0) psi.

~~17~~15. The method of Claim ~~10~~9, wherein the step of removing any cleaning solution that remains inside the vessel includes opening an autoclavable drain valve that is disposed at the bottom of the vessel and in direct fluid communication with the inside of the vessel.

~~18~~16. The method of any one of Claim ~~10~~9, wherein ~~the step of autoclaving includes,~~

~~removing a lid from the vessel and opening a drain valve at the bottom of the vessel so that steam may pass through the vessel;~~

~~installing an autoclave stem in the outlet regulator assembly so that the steam may pass through the outlet regulator assembly; and~~

~~installing an autoclave stem in the inlet regulator so that steam may pass through the inlet regulator assembly;~~

~~wherein~~ the outlet regulator assembly remains installed at the first connection point of the vessel and the inlet regulator assembly remains installed at the second connection point of the vessel during autoclaving.

~~19~~17. The method of Claims ~~10~~9, wherein the step of autoclaving further includes,

~~removing a lid from the vessel and opening a drain valve at the bottom of the vessel so that the steam may pass through the vessel;~~

installing an autoclave stem in the first connection point so that steam may pass through the first connection point; and

installing an autoclave stem in the second connection point so that steam may pass through the second connection point;

~~installing an autoclave stem in the outlet regulator assembly so that steam may pass through the outlet regulator assembly; and~~

~~installing an autoclave stem in the inlet regulator so that steam may pass through the inlet regulator assembly;~~

wherein the outlet regulator assembly is removed from the vessel and the inlet regulator assembly is removed from the vessel during autoclaving.