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(54) Title: DUAL-STAGE FLUIDICS SYSTEM WITH REDUCED PULSATION

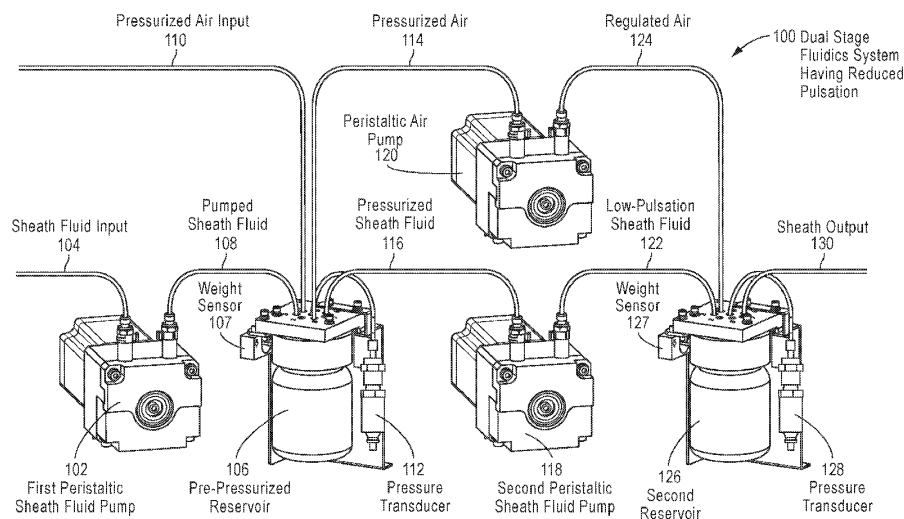


FIG. 1

(57) Abstract: A system for generating a low-pulsatility fluid flow comprises: a first pressurized reservoir (106); a second pressurized reservoir (126); a fluid sensor (128) that generates a quantity signal in response to an amount of the fluid in the second pressurized reservoir (126); a peristaltic fluid pump (118) for pumping fluid from the first pressurized reservoir (106) to the second pressurized reservoir (126); and a peristaltic air pump for pumping air between the first pressurized reservoir (106) and the second pressurized reservoir (126). The system is configured to modulate the operation of the peristaltic fluid pump (118) in response to the fluid quantity signal generated by the fluid sensor (128) so as to maintain a predetermined amount of fluid in the second pressurized reservoir (126), and configured to pump air between the first pressurized reservoir (106) and the second pressurized reservoir (126) so as to maintain both pressurized reservoirs (106, 126) at a substantially even pressure so that fluid pulsations are reduced. The corresponding method

[Continued on next page]

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