

What is claimed is:

1. ~~— A fluid delivery apparatus, comprising:
— a fluid flow meter;
— an insulated box enclosing the fluid flow meter;
— an intake coupled to the insulated box, the intake providing a flown cooling gas flow to the fluid flow meter; and
— an exhaust coupled to the insulated box from which the forced cooling gas exits the insulated box.~~
2. ~~— The fluid delivery apparatus of claim 1, wherein the fluid flow meter is configured to supply a process gas to a vacuum deposition chamber.~~
3. ~~— A gas panel coupled to a process chamber, the gas panel comprising:
— at least one fluid delivery apparatus according to claim 1.~~
4. ~~— The fluid delivery apparatus of claim 1, further comprising:
— a cold side plate thermally coupled to the fluid flow meter;
— a cooler device thermally coupled to the cold side plate; and
— a hot side plate thermally coupled to the cooler device.~~
5. ~~— The fluid delivery apparatus of claim 4, further comprising:
— a heat exchange system thermally coupled to the hot side plate.~~
6. ~~— The fluid delivery apparatus of claim 5, wherein the heat exchange system comprises a fin-type radiator coupled to the hot side plate and a forced convection system forcing a gas over the fin-type radiator.~~
7. ~~— The fluid delivery apparatus of claim 4, wherein the cooler device is a thermoelectric cooler.~~
8. ~~— The fluid delivery apparatus of claim 9, wherein the thermoelectric cooler is a Peltier device.~~

~~9. — The fluid delivery apparatus of claim 4, wherein the cold side plate is comprised of a plurality of separate and modular units.~~

~~10. — A modular fluid delivery apparatus for incorporation into a precision gas panel, the modular fluid delivery apparatus comprising:~~

- ~~—— a first fluid flow meter for providing a first process fluid;~~
- ~~—— a second fluid flow meter for providing a second process fluid;~~
- ~~—— a cold side plate to which the first and second flow meters are thermally coupled to on a first side;~~
- ~~—— a thermoelectric device thermally coupled to the cold side plate on a second side opposite the first side;~~
- ~~—— a hot side plate thermally coupled to the thermoelectric device, the thermoelectric device disposed between the cold side plate and the hot side plate;~~
- ~~—— a heat exchange system coupled to the hot side plate and configured to exhaust heat from the modular fluid delivery apparatus; and~~
- ~~—— an insulated box enclosing the first and second fluid flow meters.~~

~~11. — The modular fluid delivery apparatus of claim 10, wherein the thermoelectric device is a Peltier device.~~

~~12. — The modular fluid delivery apparatus of claim 10, wherein the heat exchange system comprises a forced convection system including at least one fan.~~

~~13. — The modular fluid delivery apparatus of claim 10, wherein the heat exchange system comprises a fin-type radiator.~~

~~14. — A fluid delivery apparatus, comprising:~~

- ~~—— a plurality of fluid flow meters;~~
- ~~—— a first box enclosing the plurality of fluid flow meters;~~
- ~~—— an intake disposed on the first box through which a cooling gas enters the first box;~~

~~—— an exhaust disposed on the first box through which the cooling gas exits the first box;~~

~~—— a second box enclosing the first box and providing a circulation path through which the cooling gas from the exhaust returns to the intake;~~

~~—— a cold side plate thermally coupled to at least one side of the second box;~~

~~—— a thermoelectric device thermally coupled to the cold side plate;~~

~~—— a hot side plate thermally coupled to the thermoelectric device, the thermoelectric device positioned between the cold side plate and the hot side plate; and~~

~~—— a heat exchange system thermally coupled to the hot side plate and configured to exhaust heat withdrawn from the plurality of fluid flow meters.~~

15. The fluid delivery apparatus according of 16, further comprising:

~~—— a thermal insulating cover on the outside of the second box.~~

1. An invention not claimed in any divisional application.