from the cooling system inlet and into the second porous medium via the second porous medium inlet; and

a second porous medium outlet coupled to the cooling system outlet, the second porous medium outlet configured to allow coolant to flow from the second porous medium and out of the cooling system outlet via the second porous medium outlet.

7. The cooling system of claim **6**, wherein the porous medium inlet and the second porous medium inlet are coupled to the cooling system inlet via a first pipe.

8. The cooling system of claim **7**, wherein the porous medium outlet and the second porous medium outlet are coupled to the cooling system outlet via a second pipe.

9. A method for cooling in an injection molding device, comprising:

securely coupling a first mold component and a second mold component to form a mold cavity between the first mold component and the second mold component;

injecting liquid plastic at a first temperature into the mold cavity;

pumping coolant into a porous medium within at least one of the first mold component and the second mold component via a porous medium inlet extending into the porous medium through a boundary between the porous medium and a porous medium outlet, the porous medium thermally coupled to the mold cavity such that thermal energy is transferred from the injected liquid plastic to the coolant via the porous medium; and

responsive to a determination that the temperature of the injected liquid plastic has fallen below a pre-determined second temperature lower than the first temperature, decoupling the mold components.

10. The method of claim **9**, wherein pumping coolant into the porous medium comprises:

operating a pump coupled to the porous medium in response to the injection of liquid plastic into the mold cavity, the pump coupled to the porous medium via the porous medium inlet.

11. The method of claim **10**, wherein the pump is coupled to a coolant supply tank configured to provide coolant to the pump for pumping into the porous medium, the coolant supply tank coupled to the porous medium outlet and configured to receive coolant pumped into the porous medium and out of the porous medium outlet.

12. The method of claim **9**, wherein the coolant supply tank is configured to maintain coolant stored within the coolant supply tank at a third temperature lower than the second temperature.

13. A cooling system for an injection molding device, comprising:

a cooling system inlet configured to receive coolant pumped into the cooling system inlet;

a cooling system outlet configured to provide coolant pumped out of the cooling system outlet;

an injection molding device component protrusion comprising a porous medium enclosed at least in part by an impermeable protrusion surface, the porous medium thermally coupled to a mold cavity configured to receive injected liquid plastic via the impermeable protrusion surface;

a porous medium inlet coupled to the cooling system inlet and the porous medium, the porous medium inlet configured to allow coolant to flow from the cooling system inlet and into the porous medium via the porous medium inlet; and

a porous medium outlet coupled to the cooling system outlet, the porous medium outlet configured to allow coolant to flow from the porous medium and out of the cooling system outlet via the porous medium outlet, the porous medium inlet extending into the porous medium through a boundary between the porous medium outlet and the porous medium.

14. The cooling system of claim **13**, further comprising:

a coolant supply tank configured to maintain coolant within the coolant supply tank at or below a pre-determined threshold temperature, the coolant supply tank coupled to the cooling system outlet; and

a pump coupled to the coolant supply tank and the cooling system inlet and configured to pump coolant from the coolant supply tank into the cooling system inlet.

15. The cooling system of claim **14**, further comprising:

a controller communicatively coupled to the pump and configured to cause the pump to pump coolant from coolant supply tank and into the cooling system inlet in response to the injection of liquid plastic into the mold cavity and until the temperature of the injected liquid plastic falls below a solidifying threshold.

16. The cooling system of claim **15**, further comprising:

one or more temperature sensors thermally coupled to the impermeable protrusion surface and to the controller, and configured to provide the temperature of liquid plastic injected within the mold cavity to the controller.

17. The cooling system of claim **13**, wherein the porous medium inlet is disposed within the porous medium such that the porous medium inlet is not directly coupled to the impermeable protrusion surface.

18. The cooling system of claim **13**, further comprising:

a second injection molding device component protrusion comprising a second porous medium enclosed at least in part by a second impermeable protrusion surface, the second porous medium thermally coupled to a second mold cavity configured to receive injected liquid plastic via the second impermeable protrusion surface;

a second porous medium inlet coupled to the cooling system inlet and the second porous medium, the second porous medium inlet configured to allow coolant to flow from the cooling system inlet and into the second porous medium via the second porous medium inlet; and

a second porous medium outlet coupled to the cooling system outlet, the second porous medium outlet configured to allow coolant to flow from the second porous medium and out of the cooling system outlet via the second porous medium outlet.

19. The cooling system of claim **18**, wherein the porous medium inlet and the second porous medium inlet are coupled to the cooling system inlet via a first pipe.

20. The cooling system of claim **19**, wherein the porous medium outlet and the second porous medium outlet are coupled to the cooling system outlet via a second pipe.

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