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(54) Title: COOLING AND PELLETIZING PROCESS FOR SEMI-CRYSTALLINE POLYMERS

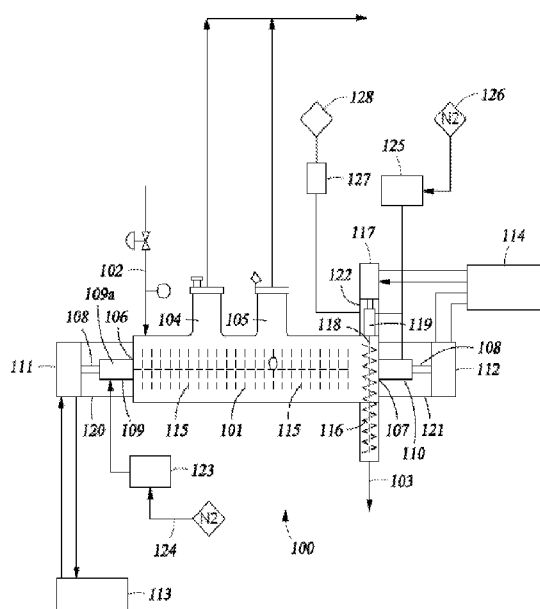


Fig. 1

(57) Abstract: Methods and systems for pelletizing low molecular weight semi-crystalline polymers are provided herein. Polymer compositions comprising the semi-crystalline polymer and a solvent are provided to a devolatilizing device, where the solvent is at least partially evaporated under vacuum conditions, resulting in removal of heat from the polymer by evaporative cooling and crystallization of the polymer. Once the polymer has reached the desired temperature, the polymer exits the devolatilizer and is pelletized. Semi-crystalline polymers that may be used in the present invention include propylene-based copolymers, such as propylene-ethylene and propylene-hexene copolymers having a heat of fusion, H_f , from about 5 to about 75 J/g and a weight average molecular weight, M_w , from about 10,000 to about 200,000 g/mol.



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