

Rotary expansible chamber (REC) devices having one or more working-fluid ports that are adjustable, for example, in size or location. In some embodiments, the variable port mechanisms can be used to control any one or more of a plurality of operating parameters of a REC device independently of one or more others of the operating parameters. In some embodiments, the REC devices can have a plurality of fluid volumes that change in size during rotation of the REC device, and that transition to a zero volume condition during the rotation of the REC device. Systems are also provided that can include one or more REC devices. Methods for controlling various aspects of REC devices, including methods of controlling one or more operating parameters, are also provided.