

A continuous stirred tank reactor (CSTR) is a type of chemical reactor that is widely used in industrial processes to produce chemicals, pharmaceuticals, and other products. The reactants are introduced into the tank through inlet ports, and the products are continuously removed through outlet ports. The CSTR consists of a large tank or vessel, typically made of stainless steel, which is equipped with a stirring mechanism, such as a mechanical stirrer or an agitator, that keeps the reactants in motion and ensures that they are well-mixed. CSTRs are particularly well-suited for reactions that require high conversion rates or produce intermediate products, as the continuous mixing ensures that the reaction proceeds to completion.