

New sensor design for capacitance tomography

Introduction

Any two adjacent conductors can be considered as a capacitor, and different dielectric properties between the conductors will create different capacitor values. An ECT system is able to obtain information about the contents of vessels, based on measuring variations in the dielectric properties of the flowing material inside the vessel. ECT can be used with vessels of any cross-section, but most work to date has used circular geometries (Malcolm Byars, 2001).