Multiple Batch Reactors

The Multiple Reactor System has been designed to provide an integrated system for running reactions simultaneously and applying the principles of high throughput experimentation to reactions conducted at elevated temperatures and pressures.

The system runs sets of 4 reactions in parallel; the photograph shows a series of 3 banks of four reactors. The system is very flexible, allowing the user to design experiments to:

- Run all reactions at the same temperature and pressure while varying catalyst loading.
- Run all reactors with identical loads varying pressures and a common temperature to study the effect of pressure on reaction rates.
- Run individual reactors with individual loading and temperature and pressure to screen multiple options for activity.

The internal thermocouple provides a means of detecting temperature disturbances related to exothermic reactions. Precise hydrogen dosing is provided on demand, the user set point temperature and pressure is maintained during the experiment and the hydrogen take us is monitored automatically. Material and internal options include Stainless Steel 316 and Hastelloy C276. The principle features of this system include

- Four reactors with powerful overhead stirring
- Operating pressures to 200 bar
- Operating temperatures to 250 °C
- Precise method for hydrogen dosing
- Individual temperature and pressure control
- Continuous pressure monitoring
- Computer control and data logging software

Cambridge Reactor Design | Unit D2 Brookfield Business Centre | Twentypence Road, Cottenham | CB24 8PS | Cambs, UK

T +44 (0) 1954 252522
F +44 (0) 1954 252566
E sales@crduk.com
W www.crduk.com

CRD CAMBRIDGE REACTOR DESIGN