# **Chemical Engineering Systems**

Educational Training Equipment for the 21st Century

Bulletin 625-3B

## H-6253

### **Table Top Chemical Reactors**

## **Purpose**

The Hampden **Model H-6253** Table Top Chemical Reactors Series consists of a self contained base unit which includes (2) 1.5 gal (5 ltr) supply tanks, (2) variable speed peristatic feed pumps, heaters, temperature and conductivity sensors, and control panel. This universal base is then supplied with any of Hampden's series of chemical reactors. All reactors are made from glass to give complete visibility of the process. This compact and versatile teaching demonstrator is capable of representing actual chemical reactions done in a completely safe environment.

#### **Models**

**H-6253-CSTR** Table Top Continuous Stirred Tank Reactor

- Adjustable volume of .1 .5 gal (.4-1.4 ltr)
- · Variable speed mixer

H-6253-BR Table Top Batch Reactor

- Volume .25 gal (1ltr)
- · Variable speed

H-6253-TR Table Top Tubular Reactor

- Volume .5 gal (1.5ltr)
- 65ft. (20m) long reactor coil

H-6253-PFR Table Top Plug Flow Reactor

- Volume .25 gal (1ltr)
- Tubular packed column
- Six (6) port injection valves

**H-6253-STR** Table Top Stirred Tank Reactors in Series

- Three (3) reactors in series .25gal (1ltr)
- Three (3) variable speed mixers



Model H-6253-BR-CDL Table Top Batch Reactor shown

#### **Options**

- -CW Cooling Water Module
- -CDL Computer Data Logging

The Computer Data Logging I/O Module Option consists of National Instruments interface components, power supply and converters to process conductivity, seven thermocouples and two 4-20mA inputs directly to the USB port of a PC laptop computer. Computer is supplied, minimum specifications are:

- Intel Core 3 Micro-processor
- 256MB DDR SDRAM
- · 250GB hard drive
- 15" Color Screen
- 10/100/1000 Ethernet Adapter
- 3 USB
- USB mouse
- Windows 7/8
- Fully FCC certified
- DVD / CD-R Drive

Labview Software and templates are included. Compatible with MatLab (not included).

-CDLC Computer Data Logging and Control

The Computer Data Logging and control I/O Module Option consists of National Instruments interface components, power supply, outputs to control temperature and flow, and converters to process conductivity, seven thermocouples and two 4-20mA inputs directly to the USB port of a PC laptop computer. Computer is supplied, minimum specifications are:

- Intel Core 3 Micro-processor
- 256MB DDR SDRAM
- · 250GB hard drive
- 15" Color Screen
- 10/100/1000 Ethernet Adapter
- 3 USB
- USB mouse
- Windows 7/8
- Fully FCC certified
- DVD / CD-R Drive

Labview Software and templates are included. Compatible with MatLab (not included).



All Hampden units are available for operation at any voltage or frequency



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