

Reflux Reaction Unit

This is a versatile unit and can be used as Reaction Distillation Unit, Fractional Distillation Unit or a combination of both. All features of Reaction Distillation Unit and Fractional Distillation Unit are incorporated. This has a flexibility of working at atmospheric pressure as well as under vacuum.

The typical unit has a reaction vessel fitted with a metal heating/cooling bath having a facility for heating and cooling bath by means of heating/cooling fluids as a media. The Standard system is equipped with stirrer heating mechanical seal, a packed column, reflux divider, coil type condenser and receiver system having a product cooler, vent, drain and vacuum valves. Option of speed variable can be provided.

Reaction Distillation unit features

- Zero Hold Up flush bottom valve
- Reactor capacity up to 500 lts.
- All contact parts – Borosilicate glass and PTFE
- Process visibility due to all glass design
- Digital display of process parameters
- Control of parameters through control panel
- Ex / Flameproof Stirring assembly with variable drive

General specifications

Vessel capacity	:	1 ltr to 500 ltr
Vessel type	:	Single wall (upto 500 L), Double wall or triple wall (upto 100 L)
Operating pressure	:	Full vacuum to atmospheric pressure
Operating jacket pressure	:	Up to +0.5 barG (0.05 MPa)
Operating temperature	:	-90 °C to +230 °C
ΔT - Thermal shock resistance	:	110 °C (double wall), 60 °C (triple wall)

Examples of application areas for MiniPilots

- Vacuum distillation
- Evaporation to any desired consistency
- Multi-component reactions
- Gas introduction into liquid phase
- Extraction of multi-phase mixture
- Refluxing
- Low temperature chemistry

Safety accessories :

1. Rupture Disc
2. Spring loaded Pressure Safety valve
3. Pressure Control valve

