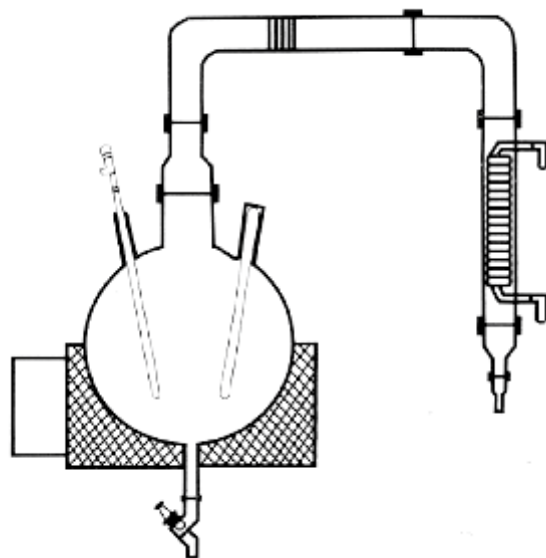


SIMPLE DISTILLATION UNITS

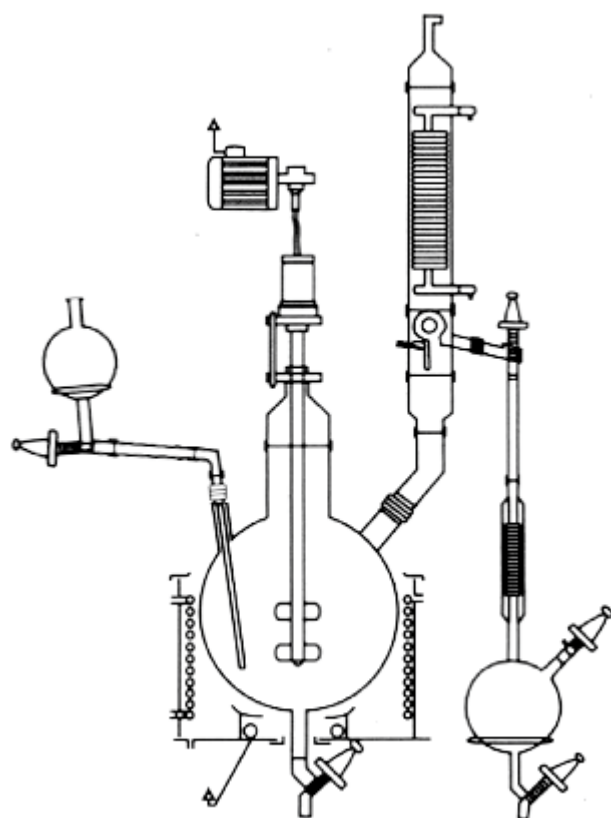


Unit Cat. Ref	Reactor Capacity	Bath KW	Vapour Line	Condenser M ²
BSDU20	20 L	4.5	80 DN	0.35
BSDU50	50 L	6.0	100 DN	0.50
BSDU100	100 L	9.0	150 DN	1.50
BSDU200	200 L	12.0	200 DN	1.50
BSDU300	300 L	16.0	225 DN	2.50

This consists of a vessel mounted in a heating bath and fitted with a condenser for condensing the vapours. A receiver with drain valve can be added for receiving the condensate.

The units are available in vessel sizes of 20, 50, 100, 200 & 300 L and is suitable for operation under atmospheric pressure and full vacuum.

REACTION UNIT



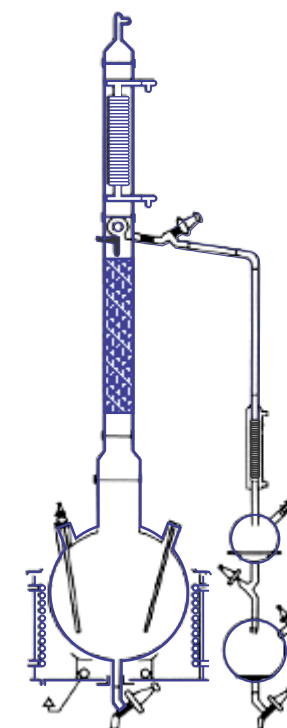
Unit Cat. Ref	Reactor Capacity	Bath KW	Addition Vessel	Vapour Line	Condenser HTAM ²	Cooler HTAM ²	Receiver Size
BRDU20	20 L	4.5	2 L	80 DN	0.35	0.10	5 L
BRDU50	50 L	6.0	5 L	100 DN	0.50	0.20	10 L
BRDU100	100 L	9.0	10 L	150 DN	1.50	0.35	20 L
BRDU200	200 L	12.0	20 L	150 DN	1.50	0.35	20 L
BRDU300	300 L	16.0	20 L	225 DN	2.50	0.50	20 L

This unit is used for carrying out reactions under stirred condition & with provision for simple reflux distillation.

The reaction vessel is mounted in heating bath and fitted with addition vessel, motor-driven stirrer and provision for condensation with refluxing. The product is sub-cooled & collected in a receiver.

The units are available in vessel sizes of 20, 50, 100 & 200 L and is suitable for operation under atmospheric pressure and full vacuum.

FRACTIONAL DISTILLATION UNIT



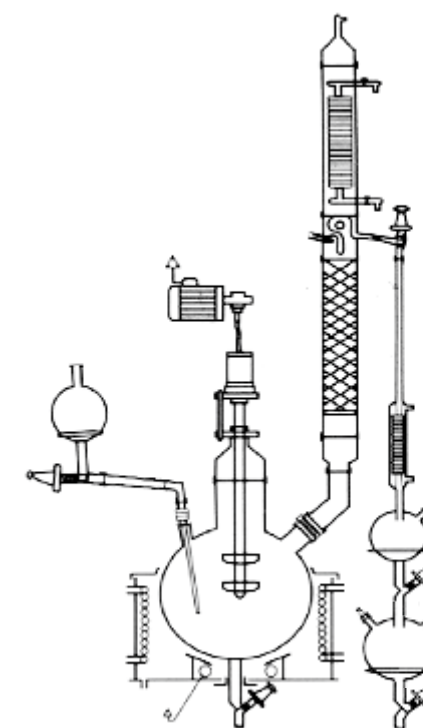
Unit Cat. Ref	Reactor Capacity	Bath KW	Addition Vessel	Vapour Line	Condenser HTAM ²	Cooler HTAM ²	Receiver Size
BFDU20	20 L	4.5	2 L	80 DN	0.35	0.10	5 L
BFDU50	50 L	6.0	5 L	100 DN	0.50	0.20	10 L
BFDU100	100 L	9.0	10 L	150 DN	1.50	0.35	20 L
BFDU200	200 L	12.0	20 L	150 DN	1.50	0.35	20 L
BFDU300	300 L	16.0	20 L	225 DN	2.50	0.50	20 L

This is essentially a compact batch-type fractional distillation unit in which the reboiler consists of a vessel mounted in a heating bath and with a packed column above. The vapours from top is condensed and can be refluxed as per requirement.

The top product is sub-cooled and collected in receivers. The bottom product is finally drained from the reboiler through a drain valve.

The units are available in vessel sizes of 20, 50, 100 & 200 L and is suitable for operation under atmospheric pressure & full vacuum.

REACTION DISTILLATION UNIT



Unit Cat. Ref	Reactor Capacity	Bath KW	Addition Vessel	Vapour Line	Condenser HTAM ²	Cooler HTAM ²	Receiver Size
BFRU20	20 L	4.5	2 L	80 DN	0.35	0.10	2 L, 5 L
BFRU50	50 L	6.0	5 L	100 DN	0.50	0.20	5 L, 10 L
BFRU100	100 L	9.0	10 L	150 DN	1.50	0.35	10 L, 20 L
BFRU200	200 L	12.0	20 L	150 DN	1.50	0.35	10 L, 20 L
BFRU300	300 L	16.0	20 L	225 DN	2.50	0.50	20 L, 20 L

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 & Fractional Distillation Unit are incorporated.

The units are available in vessel sizes of 20, 50, 100 & 200 L and is suitable for operation under atmospheric pressure and full vacuum.