

# ROTARY FILM EVAPORATOR

2 TO 50 LITERS



## INTRODUCTION

Rotary Film Evaporator is essentially a thin film evaporator. The rotating flask continuously covers a large surface area with a thin film which is ideal for rapid heat transfer. Fortuitously, the thin film also ensures uniform heat distribution without local heating. The facility to work the unit under full vacuum further facilitates evaporation at as low temperature as possible. That is to say, both boiling point and residence time are significantly reduced. These features combined, renders rotary film evaporator to be ideally suited for evaporation of heat sensitive material. It is equally successful for evaporation of suspension in crystallization processes, drying of powder/granules etc.

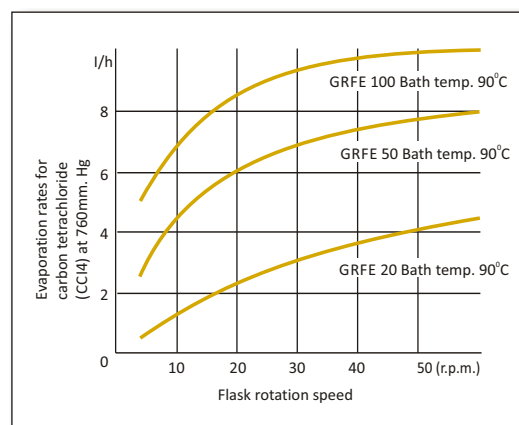
Rota Evaporator finds wide use from small scale laboratory set-ups to industrial operation. Goel Rotary Film Evaporator (GRFE) is preferred by both research and production facilities and has been used by laboratory and chemical, pharmaceutical and biotechnological industries.

# ROTARY FILM EVAPORATOR

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### SALIENT FEATURES

1. Universal corrosion resistance.
2. Auto controlled digital display of rotational speed and bath temperature.
3. Digital display of process time.
4. Automatic bath lifting.
5. Automatic bath lowering in case of power failure.
6. RS-232 Interface (Optional).
7. Withstands full vacuum.
8. Ideally suited for heat sensitive material.
9. Maintenance free working - Operational reliability.
10. Available in large sizes upto 400 Litre.



### CONSTRUCTION

Goel Rotary Film Evaporators are completely self contained units consisting mainly of :

- An electrically heated SS heating bath with facility for raising and lowering the height.
- Rotating flask of corrosion resistant borosilicate glass which is connected to drive by a coupling.
- The drive is a hollow glass shaft which also acts as vapour off-take pipe. The drive shaft is sealed on condenser/receiver with teflon seal. Power is transmitted to the shaft by a motor driven gear with provision for varying speed.
- Condenser/receiver arrangements are of standard design depending on the model/size.

### PERFORMANCE DATA

The performance of rota-evaporator depends on various parameters such as temperature differential between bath and contents of flask, RPM, flask capacity and working pressure. An indicative comparison of boil-up of CCl<sub>4</sub> rates for 20L, 50L and 100L is given in adjacent figure.

Technical informations related to various models are furnished below :

Model	Rotating Flask Cap. (Ltrs.)	Rotating Speed (rpm)	Electric Motor Rating	Condenser Cooling Area	Receiver Flask Cap. (Ltrs.)	Power Supply (Volt/Hz)	Bath Rating
GRFE 2	2	0-80	40 Watt	0.15	1	230 V, 50 Hz	2
GRFE 3	3	0-80	40 Watt	0.15	1	230 V, 50 Hz	2
GRFE 5	5	0-80	40 Watt	0.15	2	230 V, 50 Hz	2
GRFE 10	10	0-80	0.25 HP	0.20	5	230 V, 50 Hz	4
GRFE 20	20	0-80	0.25 HP	0.30	10	230 V, 50 Hz	4
GRFE 50	50	0-80	0.25 HP	0.50	20	230 V, 50 Hz	6

GOEL brand is associated with quality & reliability and as a company is trend-setter in this business in India.

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## 2, 3, 5 Ltrs.

### Salient Features

- \* Attractive Vertical Orientation for Industrial & Robust Use
- \* 2 Ltr Pear Shaped evaporation flask, 1 Ltr receiver
- \* Glass Coil Condensor with 0.10 sq. mtr HTA
- \* Digital RPM indicator & VFD based speed control, 0.25 Hp Motor, 0-80 RPM
- \* Digital Temperature Indicator & controller
- \* Digital vapor temperature indicator
- \* Manual UP & Down of Bath
- \* Jacketed Bath with electrical heaters, 2 KW with Overflow nozzle & drain valves
- \* Durable gearbox, with Motor Encased into the mechanical Assembly
- \* Fully PU Coated
- \* The whole unit is base mounted.
- \* Fully tested & ready to use !!

### Optional

- \* Chiller Unit
  - \* Vacuum Pump with Setup
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## 10, 20, 50 Ltrs.

### Salient Features :

- \* Attractive Vertical Orientation
- \* Digital RPM indicator & VFD based speed control
- \* Digital Temperature Indicator & Controller
- \* Digital Process Time Indication
- \* Digital vapor temperature indicator
- \* Motorized VFD based UP & down of bath
- \* S.S. bath with Jacket & electrical heaters with overflow nozzle & drain valves
- \* Durable S.S. gearbox, with motor encased into the Mechanical Assembly
- \* Complete glass assembly as per the specs in the table
- \* Anti splashing hood
- \* PU coated
- \* The whole unit is mounted on lockable wheels.
- \* Dimensions : 1100 x 600 x 1500 approx (with glass assembly)
- \* Fully tested & ready to use !!

### Optional :

- \* UPS back up for auto lowering bath
- \* Chiller unit
- \* Vacuum pump with setup