

OVERVIEW/Description

Senco Jacketed Reactors are first choice reactors in any scale up lab due to flexibility, compact size and ease of operation. The Reactor setup is complete with Skid mounted reactor setup with overhead stirrer, reflux condenser, drip system. Various options like Distillation, Separation Receiving, Rectification receiving, Jacket pressure release device, System pressure release device, reactor baffles are available to choose from. Size ranges right from 10L, 20L, 30L, 50L, 100L and 150L. Known for its best in class heat transfer rates, Senco glass reactors can be installed and configured within minutes and fit easily in most walk in fume hoods.

Senco Glass reactors are developed by sticking to the basics, keeping in mind safety of the user and focusing on giving desired results. They enable to achieve desired results affordably and are backed by trustworthy service. The Cap Style reactor is simple yet accurate, basic yet precise, up to the mark on performance and friendly on budget.

These Jacketed Reactors are used for a variety of applications including:

- Common Chemical Reactions Liquid/Liquid, Liquid/Solid
- Distillations
- Reflux Boiling
- Azeotropic Distillation (Phase Separation)
- Evaporation to any desired consistency
- Multi-component Reactions
- Gas dispersion below liquid surface
- Crystallization
- Mixing
- And many more....

Features/Benefits

Necks on Flask Cap

Charging Neck F40– Pure charge process without gel pollution.

Thermometer Neck F40– Digital Thermometer for direct temperature measurement.

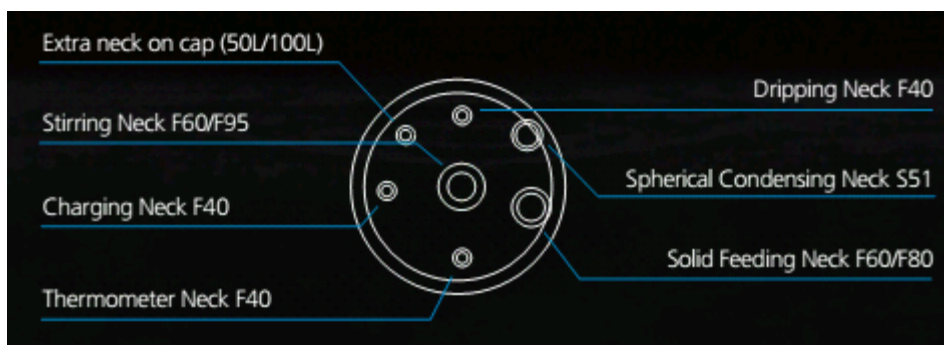
Condenser Neck S51– Ball joint connection, easy to assemble with less vibration.

Drip System Neck F40 – Dripping system for adding solvents.

Solid Feeding Neck F60/F80 – For addition of any solids during reaction

Stirring Neck F60/F95 – For stirring

Spare Neck F40 – For any other user desired function.



Vacuum Sealing system

Specially designed and precisely manufactured Anti-corrosion and Wearable Sealing Systems in these Jacketed reactors enables to reach ultimate vacuum rates of less than 3 Torr. High quality material leads to longer seal life and hence about 90% of the users did not replace the seal in one year.

PTFE Charging Valve

To offer pure, clean charging process and durable use experience, new structure and PTFE material is used in the charging valve.



Mirror Polished Flange Processing Technique

SENCO glass flanges applies fine cold polish technique, which guarantees pressure tightness in static joint connections.



Flange Quick Press Ring

One-piece quick clip design eliminates dead seizures in glass joints. Offer new experience on easy, reliable and high sealing connection for flanges (no tools required).

PTFE Bottom Side Discharge Valve

No dead angle, air isolated discharge. Preload discharge valve is able to decrease flask crack risk due to improper over-screwing of discharge valve. Zero dead volume, No-sample accumulation in valve during

operation and discharge. Maximum drift diameter is $\varnothing 22\text{mm}$ for 10L and 20L reactor and $\varnothing 32\text{mm}$ for 50L reactor.



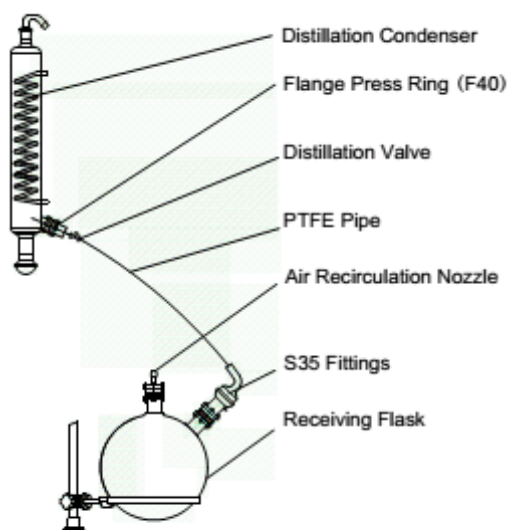
Ex-Proof Modification (Optional)

Offer Ex-Proof upgrade on Motor, Control Boxes of rotation and heating, Wiring and Safety measures as per user needs. Ex level reaches ExdIIBT4.



Distillation – Receiving System (Optional)

Additional configuration for receiving distillation product in a separate receiving flask kept under same vacuum pressure as that of the reaction flask. Open distillation valve for distillation and Close the distillation valve for Reflux.



Distillation-Receiving System
(optional function)

TECHNICAL SPECIFICATIONS

Parameters

| | |
|-------------------------------------|-----------------------|
| Model | FC2003 |
| Reaction Flask (L) | 20L, Bottom Discharge |
| No. of Necks on Cap | 7 |
| Flush Diameter (mm) | Ø22 |
| Rotation (rpm) | 60-560 |
| Max Torque (Ncm) | 160 |
| Diameter of Stirring Rod(mm) | Ø12 |
| Power | 220V |
| Dimensions (cm) | 55x48x190H |

Functional Configurations

| | |
|--|-----------------------|
| Charging Valve | PTFE |
| Seal Assembly | PTFE |
| Glass Joints | Flange |
| Speed Control | Frequency Conversion |
| Digital Display | Temp., Rotation Speed |
| Vacuum Meter | ✓ |
| Flush Discharge | ✓ |
| Side Discharge | ✓ |
| Thermometer Tube | ✓ |
| Solid Feeding Neck | ✓ |
| Reflux Condensing | ✓ |
| Distillation Receiving | Optional (5L) |
| Rectification-Receiving | Optional |
| Liquid Separation | Optional |
| Drip System (L) | 0.5L |
| Tangent Style Jacket inlet/outlet | F40-Ø12 |
| Reaction vessel Baffle | Optional |
| SUS Stand | ✓ |
| Lockable Wheels | Optional |

Safety Features

| | |
|---------------------------------------|----------|
| Jacket Pressure Release Device | Optional |
| System Pressure Release Device | Optional |
| Ex-Proof | Optional |