

PARALLEL SYNTHESIZER

For high throughput screening with automation



- **Volume:** 100 mL to 2 L
- Combination of 4 or 6 reactors in parallel or series of either same or different specifications
- **Pressure:** Up to 350 bar for each reactor
- **Temperature:** Up to 500°C for each reactor
- **Material:** SS-316, Hastelloy, Inconel, Monel, Titanium, Tantalum lined.
- **Certifications:** PED / ASME U-Stamp, CE / CSA, Ex-proof / ATEX
- **Automation:** Programmable touch screen panel with SCADA software for data logging & wireless remote control.

PRESSURE and FLOW Reactors



MODELS

VOLUME	100 bar		200 bar		350 bar	
	300 °C	500 °C	300 °C	500 °C	300 °C	500 °C
100 mL	A1313	A1315	A1323	A1325	-	-
250 mL	A1413	A1415	A1423	A1425	A1433	A1435
500 mL	A2113	A2115	A2123	A2125	-	-
750 mL	A2213	A2215	A2223	A2225	A2233	A2235
1 L	A2313	A2315	-	-	-	-
2 L	A2413	A2415	A2423	A2425	A2433	A2435

Note: Prefix the above model nos. with M4 or M6 for 4 nos. or 6 nos. reactors

TECHNICAL SPECIFICATIONS

Description	Specification
Head Mounting Style	Removable head and vessel design (for each reactor) Optional: Fixed head with manual / pneumatic / hydraulic raising & lowering / tilting of the vessel
Heating Type	Electrical ceramic band heater with insulation & cladding (for each reactor) Optional: Ex-proof aluminium cast heater / SS 304 Jacket
Motor	TEFC AC motor (for each reactor) Optional: Ex-proof motor / ATEX motor
Shaft Sealing	Zero leakage magnetic drive coupling (for each reactor)
Stirrer	Pitched blade turbine stirrer (for each reactor) Optional: Hollow shaft with gas induction impeller / Anchor / Helical impeller
Standard Nozzles, Valves & Fittings	External Valves & Fittings: (for each reactor) Pressure gauge, safety rupture disc, gas inlet and liquid sampling needle valve on common dip tube, vent needle valve, solenoid valve at the inlet of cooling coil, ball valve for powder / liquid inlet with funnel (for 500mL-2L), flush bottom valve (for 500mL-2L) Internal Fittings: (for each reactor) Internal cooling coil, dip tube, thermowell with RTD PT100 temperature sensor
Gasket	PTFE up to 300°C and grafoil gasket up to 500°C (for each reactor)
Closure Type	Split clamp with clamp bolts (for each reactor)
Auto-cooling System	Water pump for forced cooling, SS tank & hose pipes for temperature control (common for all).
Water Pump & 10ltr Tank	With tubing to cool the magnetic drive, pressure sensor etc. by water re-circulation (common for all).
Control Panel	Common touch panel with 10" HMI & SCADA for data logging & wireless remote control of temperature, pressure & motor speed control of all the reactors.
Mounting	SS trolley

OPTIONAL ACCESSORIES

- Gas pressure regulator
- Digital pressure indicator / controller
- Mass flow controllers
- Thermostats
- Metering pumps
- Catalyst filter
- Pressure charging pot
- Condenser
- Gas booster
- Catch pot
- Control valves
- Back pressure regulator
- Pressure relief valves
- Torque sensors
- Level transmitters
- Sampling pots

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