



50 ltr Stirred Autoclave

Model	A3403	A3413	A3405	A3415
Design pressure	50 bar	100 bar	50 bar	100 bar
Design temperature	300°C		500°C	
Material of Construction	SS316, SS316L, Hastelloy B/C, Monel, Nickel, Titanium, Zirconium etc.			
Vessel ID	355 mm	343 mm	355 mm	343 mm
Vessel internal height	558 mm	600 mm	558 mm	600 mm
Minimum Stirrable volume	6 L			
Head mounting style	Removable head and vessel design			
Heating ¹	External electrical ceramic band heater with cladding & insulation. ¹			
Motor & drive	1 hp ex-proof gas group IIB motor (zone 1) with 500 RPM			
Shaft sealing	Zero leakage Magnetic drive coupling, (M-120, Torque Capacity: 120 kg-cm) Material of Bush- carbon filled PTFE (CFT)			
Stirrer	2 Stage Solid Shaft with 6-bladed pitch blade turbine stirrer			
External Standard fittings	<ul style="list-style-type: none"> Pressure gauge with vacuum protection Safety rupture disc (Inconel) with vacuum protection Gas inlet-valve & liquid sampling valve mounted on common dip tube Vent needle valve 1" ball valve for powder / liquid inlet with funnel, Flush bottom valve 25mm Note: All needle valves shall be ¼" NPT end connections			
Internal Standard fittings	<ul style="list-style-type: none"> Helical Cooling coil Thermowell (with RTD PT100 temperature sensor) Dip tube Removable Baffles 			
Gasket	PTFE Gasket		Spiral wound Grafoil Gasket	
Magnetic Drive Cooling System	Water Pump and 10Ltr. Tank with tubing for circulating water to cool the magnetic drive			
Auto Cooling System	Auto-cooling system with water pump, for forced cooling SS tank & hose pipes for exothermic reaction & faster cooling.			
Control Panel	SS Control panel with, <ul style="list-style-type: none"> Programmable P.I.D temperature controller with high temperature alarm Variable frequency drive for motor speed control 			
Power Supply	1φ, 220VAC 50 Hz			
Mounting	SS Trolley			

Note:

1- Cascade temperature controller shall be provided for 500°C



Enquiry guide for customized 50 ltr models

Enquiry code model is **Standard Model no-A-B-C-D1-D2-E-F-G-H-I-J** where A, B, C, D1, D2, E, F, G, H, I, J options can be selected from the below tables. The below options will be in place of standard supply.

Options

A		Material of Construction		
SS 316 L	316L	Inconel 625	IN5	
Hastelloy C276	HC6	Nickel 200	NK2	
Hastelloy C 22	HC2	Titanium Gr. 2	TI2	
Hastelloy B	HB	Zirconium 702	ZR7	
Monel 400	MN4	Tantalum lined	TNL	
Inconel 600	IN6			

B		Head Mounting Style	
Fixed head with hydraulic vessel raising lowering		H	
Fixed head with pneumatic vessel raising lowering & tilting		HT	

C		Heating Style	
Electrical Ex-Proof, IIB + H ₂ certified		EA	
Welded SS 304 jacket with insulation		JS	

D1		RPM	
Up to 3000 rpm		RT	
Gear box up to 440 rpm		R4	

D2		Motor Type	
¼ hp Ex-Proof gas group IIC (Zone 1)		XC	
¼ hp Ex-Proof CE ATEX certified II 2G Ex de IIC T4		AZ	
¼ hp Ex-Proof CE ATEX certified Class 1 Div 2 group A, B, C, D		CD	

F		Stirrer Options*	
Hollow shaft with gas induction impeller		SH	
Anchor (Serpentine cooling coil, max 100 rpm)		SA	
Spiral (No cooling coil, max 100 rpm)		SS	

G		Valves & Fittings**	
Serpentine cooling coil		SCC	

H		Control Panel	
Ex-Proof gas group IIC zone 1 certified		F2C	
Touch Screen		TSP	

I				Mounting & Overall Dimensions (W x D x H)			
Mounting	Reactor size (mm)	Panel size (mm)	Code				
Floor Stand	675 x 675 x 2350	400 x 380 x 340	FS				

J		Certifications***	
Design approval as per ASME code by notified body		DAC	
CE-PED 2014 / 68 / EU		PED	
ASME U stamp coded		ASU	
ATEX certified reactor 2014 / 34 / EU		ASA	
CE marked panel & electrical parts		ECE	
UL / CSA marked panel & electrical parts		USC	

Note:

- Customer is advised to select best suited options for most optimized price & delivery.
- All above options may not be available / possible with all models.
- Customization of volume, material, pressure, temperature etc. may be possible on request
- Different power supply options may be possible on request.
- Overall dimensions are indicative, they may change depending on the optional accessories or specific design modifications opted.

*Stirrer options can be in place of standard or additional multiple interchangeable.

**All option specified in G are add-ons multiple / all of them can be availed at the same time.

***Country specific certification like CRN for Canada, AS1210 for Australia & DOSH for Malaysia can be offered on request