



100 ltr Stirred Autoclave

Model	A3503	A3513	A3505	A3515
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	456 mm	440 mm	456 mm	440 mm
Vessel internal height	699 mm	735 mm	699 mm	735 mm
Minimum Stirrable volume	12 L			
Head mounting style	Removable head and vessel design			
Heating¹	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	- 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	- 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, - 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 100 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 hydraulic 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	780 x 780 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:

1) Customer is advised to select best suited options for most optimized price & delivery.

2) All above options may not be available / possible with all models.

3) Customization of volume, material, pressure, temperature etc. may be possible on request

4) Different power supply options may be possible on request.

5) 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