



50 ltr Pressure Vessel

| Model | P3403 | P3413 | P3405 | P3415 |
|--------------------------|--|---------|----------------|---------|
| Design pressure | 50 bar | 100 bar | 50 bar | 100 bar |
| Design temperature | 300°C | | 500°C | |
| Material of Construction | SS316, SS316L, Hastelloy B/C, Inconel, Monel, Nickel, Titanium, Zirconium | | | |
| Vessel ID | 355 mm | 343 mm | 355 mm | 343 mm |
| Vessel internal height | 558 mm | 600 mm | 558 mm | 600 mm |
| Head mounting style | Removable head and vessel design | | | |
| Heating ¹ | External electrical ceramic band heater with cladding & insulation. ¹ | | | |
| External fittings | <ul style="list-style-type: none"> • Pressure gauge with vacuum protection • Safety rupture disc (Inconel) with vacuum protection • Gas inlet & liquid sampling valve mounted on common dip tube • Vent needle valve • 1" ball valve for powder / liquid inlet with funnel, • Flush bottom valve 25mm dia. Note: All needle valves shall be ½" NPT end connections | | | |
| Internal fittings | <ul style="list-style-type: none"> • Helical Cooling coil • Thermowell (with RTD PT100 temperature sensor) • Dip tube | | | |
| Gasket | PTFE Gasket | | Grafoil Gasket | |
| Closure Type | Split clamp with clamp bolts | | | |
| Control Panel | SS Control panel with programmable P.I.D temperature controller & high temperature alarm | | | |
| Power Supply | 3φ, 415VAC 50 Hz | | | |
| Mounting | SS Trolley | | | |
| Auto Cooling System | Auto cooling system with water pump, for forced cooling SS tank & hose pipes for exothermic reactions & faster cooling. | | | |

Note:

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



Enquiry guide for customized 50ltr models

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

Options

| B Material of Construction | | | |
|----------------------------|----|----------------|----|
| Hastelloy C276 | H6 | Inconel 625 | I6 |
| Hastelloy C 22 | H2 | Nickel 200 | N2 |
| Hastelloy B | HB | Titanium Gr. 2 | T2 |
| Monel 400 | M4 | Zirconium 702 | ZI |
| Inconel 600 | I0 | Tantalum lined | TN |

| C Head Mounting Style | |
|---|----|
| Fixed head with hydraulic vessel raising lowering | H |
| Fixed head with hydraulic vessel raising lowering & tilting | HT |

| D Heating Style | |
|---|----|
| Electrical Ex-Proof, IIB + H ₂ certified | EA |
| Welded SS 304 jacket with insulation | JS |
| Electric Ceramic band heater | EC |

| F Valves & Fittings | |
|-------------------------|-----|
| Serpentine Cooling Coil | SCC |
| Pressure Safety Valve | PSV |

| H Body & Head Sealing | |
|-------------------------|-----|
| Split clamp bolt design | BVP |

| I Control Panel | |
|--|-----|
| SS Control panel with programmable PID temperature controller & high temperature alarm | STD |
| Ex-Proof gas group IIC zone 1 certified | F2C |
| Touch Screen | TSP |

| K Certifications** | |
|---|------------|
| CE-PED 2014 / 68 / EU for pressure vessels or ASME U stamp for Pressure Vessels | PED ASU |
| CE marked panel & electric parts or UL / CSA marked panel & electrical parts | ECE USC |
| ATEX certified electricals | ATP |
| ATEX certified system as per 2014 / 34 / EU | ATM |

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.

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