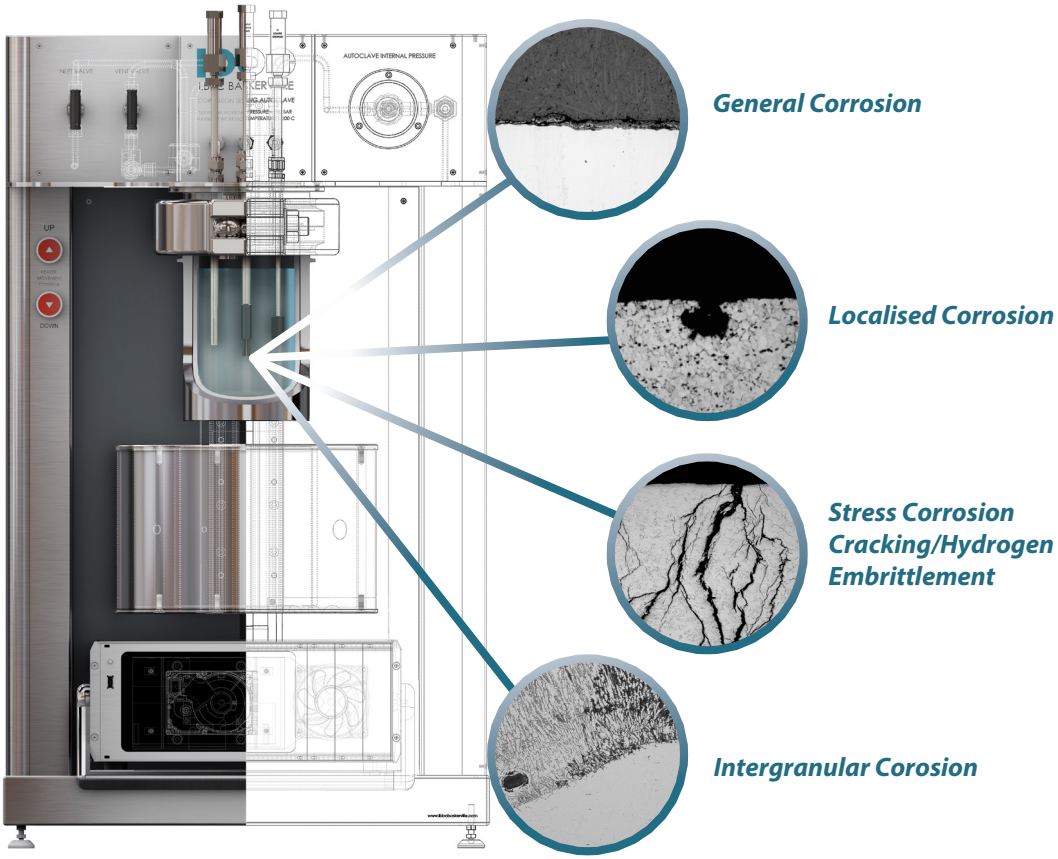
LBBC BASKERVILLE

Corrosion Testing Autoclaves

Standard Autoclaves Technical Specification

An **LBBC Baskerville Autoclave** will enable you to simulate a number of applications with ease of use, maximum safety and increased reliability.



Autoclave Corrosion Testing Made Easy

The Smaller Range - Easy, Fast and Affordable

Ideal for really easy and fast testing when budgets can be an issue.

Model: CTA-S1000

Key Features:

- Suitable for a bench-top hotplate or a compact stand
- High levels of built-in safety features
- Fast-action open/closure split-clamp
- Compact and lightweight bench-top operation
- Autoclave controller available for precise PID control
- Bench-top hot plate/stirrer available for basic control
- Static and agitated (stirrer) versions available
- Electrochemical probes integration available
- Weight loss coupon holders available

Example:

1Litre 316SS Benchtop Electrochemical Autoclave

Technical Specification – CTA Standard Autoclaves – CTA-S Range				
Model	CTA-S600	CTA-S800	CTA-S1000	CTA-S1200
Wetted Part Materials*	316 Stainless Steel (UNS S31600), C276 Hastelloy (UNS N10276), 316 Stainless Steel + Tantalum Treatment			
Applicable Standards	NACE MR0175/ISO 15156 + Various ASTM Standards			
Applications/Corrosion Mechanisms	CO_2 corrosion (General & Localised Corrosion), H_2S corrosion (SCC/SSCC), Deep well acidizing, (Intergranular corrosion)			
Static/Stirred**	✓	✓	✓	✓
Maximum Operating Parameters - Split-clamp (6 bolts)				
Max. Operating Temperature & Pressure	350°C & 200 bar			
Maximum Operating Parameters - Fast Release Clamp (1 holding bolt)				
Max. Operating Temperature & Pressure	220°C / 280°C & 150 Bar (2000 psi)			
Autoclave Physical Properties				
Vessel Internal Volume (with PTFE Liner*)**	600 ml (300 ml)	800 ml (500 ml)	1000 ml (700 ml)	1200 ml (1000 ml)
Vessel Internal Diameter	80 mm		90 mm	
Autoclave Assembly Weight	~ 9.5 kg	~ 10.2 kg	~ 11 kg	~ 11.7 kg
Vessel Cover Port Arrangements (same for each vessel size)				
7 Ports consisting of:	Pressure Gauge & Sensor, Inlet/Outlet Valves, Pressure Relief Valve, Rupture Disc, Electric feed-through probe, pT100 probe, valve interlock (spares for electrochemical probes, pH/O_2 probes)			
Other				
Heating	Heating via Hot Plate or Bench Top Heater			
Control System	Smart Bench top Control System with Touchscreen interface and data logger			
Mounting	Internally mounted PTFE Coupon holders			
Additional Features				
Electrochemical Probes	High Pressure, High Temperature Reference (Ag/AgCl), Counter (Pt) and Working (user dependant) Electrodes			
Coupon Holders	Internally mounted PTFE Coupon holders			

* Other materials are available on request including: Alloy 400, Duplex 2507, Titanium

** Stirring/Vessel Agitation available on request via hot plate or magnetic couple and rotating shaft in the vessel cover. Note: Corrosion coupons can be fitted to the rotating shaft for flow assessment.

*** PTFE liners max. temperature use is 220 °C.

The Medium Range - Easy, Safe and Reliable

Our most popular range, a full system designed to be easy and efficient to set-up, safe to use, and reliable to trust your data.

Model: CTA-M2000

Key Features:

- High levels of built-in safety features and protective enclosures
- Modular stand to suit your exact requirements (compact and lightweight)
- Suitable for a bench-top, floor or fume cupboard mounting
- Fast-action open/closure split-clamp (6 fast closure bolts)
- Autoclave controller for precise PID control, logging and remote viewing
- Static and agitated (stirrer) versions available
- Electrochemical probes integration available
- Weight loss coupon holders available
- Brine sampling or chemical injection available (discuss this with us when you tell us about your requirements)

Technical Specification – CTA Standard Autoclaves – CTA-M Range				
Model	CTA-M2000	CTA-M3000	CTA-M4000	CTA-M5000
Wetted Part Materials*	316 Stainless Steel (UNS S31600), C276 Hastelloy (UNS N10276), 316 Stainless Steel + Tantalum layer			
Applicable Standards	NACE MR0175/ISO 15156 + Various ASTM Standards			
Applications/Corrosion Mechanisms	CO_2 corrosion (General & Localised Corrosion), H_2S corrosion (SCC/SSCC), Deep well acidizing, (Intergranular corrosion)			
Static/Stirred**	✓	✓	✓	✓
Maximum Operating Parameters - Split-clamp (6 bolts)				
Max. Operating Temperature & Pressure	350 °C & 200 bar			
Maximum Operating Parameters - Fast Release Clamp (1 holding bolt)				
Max. Operating Temperature & Pressure	220°C / 280°C & 150 Bar (2000 psi)			
Autoclave Physical Properties				
Vessel Internal Volume (with PTFE Liner*)**	2000 ml (1700 ml)	3000 ml (2700 ml)	4000 ml (3700 ml)	5000 ml (4700ml)
Vessel Internal Diameter	110 mm		120 mm	
Autoclave Assembly Weight	~ 13.2 kg	~ 15 kg	~ 19.6 kg	~ 22.7 kg
Vessel Cover Port Arrangements (same for each vessel size)				
9 Ports consisting of:	Pressure Gauge & Sensor, Inlet/Outlet Valves, Pressure Relief Valve, Rupture Disc, Electric feed-through probe, pT100 probe, valve interlock (spares for electrochemical probes, pH/O_2 probes)			
Other				
Heating	Heating via Hot Plate or Bench Top Heater			
Control System	Smart Bench top Control System with Touchscreen interface and data logger			
Mounting	Bench top mounted stand, floor mounted stand or moveable trolly stand			
Additional Features				
Electrochemical Probes	High Pressure, High Temperature Reference (Ag/AgCl), Counter (Pt) and Working (user dependant) Electrodes			
Coupon Holders	Internally mounted PTFE Coupon holders			
Sampling System	Liquid sampling for analysis			
Injection System	Chemical Injection via High Pressure precisely controlled syringe pump			
Dual System	Two-identical autoclaves to transfer heated brine (to avoid heat-up time exposure to coupons)			

* Other materials are available on request including: Alloy 400, Duplex 2507, Titanium

** Stirring/Vessel Agitation available on request via hot plate or magnetic couple and rotating shaft in the vessel cover. Note: Corrosion coupons can be fitted to the rotating shaft for flow assessment.

*** PTFE liners max. temperature use is 220 °C.

The Larger Range - Easy, Safe and Efficient

Larger autoclaves designed to be easy and efficient to set-up and use when you need to perform batch corrosion tests.

Model: CTA-L10000

Key Features:

- High levels of built-in safety features and protective enclosures
- Modular stand to suit your exact requirements
- Suitable for a floor or large fume cupboard mounting
- Fast-action open/closure split-clamp (8-10fast closure bolts)
- Autoclave controller for precise PID control, logging and remote viewing
- Lifting actuator to avoid heavy lifting
- Static and agitated (stirrer) versions available
- Electrochemical probes integration available
- Weight loss coupon holders available
- Brine sampling or chemical injection available (discuss this with us when you tell us about your requirements)

Technical Specification - CTA Standard Autoclaves – CTA-L Range			
Model	CTA-L10000	CTA-L15000	CTA-L20000
Wetted Part Materials*	316 Stainless Steel (UNS S31600), C276 Hastelloy (UNS N10276), 316 Stainless Steel + Tantalum layer		
Applicable Standards	NACE MR0175/ISO 15156 + Various ASTM Standards		
Applications/Corrosion Mechanisms	CO_2 corrosion (General & Localised Corrosion), H_2S corrosion (SCC/SSCC), Deep well acidizing, (Intergranular corrosion)		
Static/Stirred**	✓	✓	✓
Maximum Operating Parameters - Split-clamp (8 bolts)			
Max. Operating Temperature & Pressure	350°C & 200 bar		
Autoclave Physical Properties			
Vessel Internal Volume (with PTFE Liner*)**	10000 ml (19200ml)	15000 ml (14200ml)	200000 ml (192000ml)
Vessel Internal Diameter	200 mm	220 mm	250mm
Vessel Cover Port Arrangements (same for each vessel size)			
9 Ports consisting of:	Pressure Gauge & Sensor, Inlet/Outlet Valves, Pressure Relief Valve, Rupture Disc, Electric feed-through probe, pT100 probe, valve interlock (spares for electrochemical probes, pH/O_2 probes)		
Other			
Heating	Heating via Hot Plate or Bench Top Heater		
Control System	Smart Bench top Control System with Touchscreen interface and data logger		
Mounting	Floor mounted stand or moveable trolly stand		
Additional Features			
Electrochemical Probes	High Pressure, High Temperature Reference (Ag/AgCl), Counter (Pt) and Working (user dependant) Electrodes		
Coupon Holders	Internally mounted PTFE Coupon holders		
Sampling System	Liquid sampling for analysis		
Injection System	Chemical Injection via High Pressure precisely controlled syringe pump		

* Other materials are available on request including: Alloy 400, Duplex 2507, Titanium

** Stirring/Vessel Agitation available on request via hot plate or magnetic couple and rotating shaft in the vessel cover. Note: Corrosion coupons can be fitted to the rotating shaft for flow assessment.

*** PTFE liners max. temperature use is 220 °C.

Contact us today and speak to one of our Autoclave Experts

Dr Danny Burkle
Principal engineer

+44 (0)113 205 7413
+44 (0)7734 830749

d.burkle@lbbcbaskerville.co.uk

LBBC BASKERVILLE

Stanningley, Leeds, LS28 6PT
lbbcbaskerville.com