



LBBC BASKERVILLE

*Corrosion testing made easy*

## Corrosion Testing Autoclave Range

LBBC Baskerville's corrosion testing autoclaves have been designed and manufactured, primarily for the oil and gas industry. The equipment can also be used in a number of other industries to simulate high pressure, high temperature (HPHT) environments such as nuclear, geothermal, carbon capture and storage, energy, defence, pharmaceutical and many more industries. The system has been designed to suit both industry and academic environments.

The autoclave's primary use is to evaluate material, coating or inhibitor performance, corrosion failure analysis in the form of weight loss coupons or electrochemical studies in aggressive high pressure (HP) and high temperature (HT) environments representative of the conditions found in the field throughout the oil and gas industry.



### Key benefits:

- High levels of built in safety: impossible to open autoclave whilst pressurised
- Ease of use and handling: one bolt fast release open/closure and lifting/lowering system
- Modular in design: vessel stand (suitable for fume cupboards), vessel design and optional features
- Enhanced process control: minimise heat-up time and pre-corrosion
- Corrosion monitoring system available: built-in electrochemistry and potentiostat
- Corrosion expertise: ongoing technical support throughout the product life

*All of LBBC Baskerville's pressure vessels are designed in accordance to the ASME Section VIII Division 1 standard. PED, CE, certificates are standard and the China Special Equipment Manufacture Licence certificate is available upon request.*

# Corrosion Testing Autoclave Range

## Key features:



### Port 1 ½" NPT Centre Port

- Weight loss coupons or working electrode configurations
- Multiple/single electrode *Conax* fitting
- In-line magnetic agitation (coupon holder mounted on underside of vessel cover)

### Port 2 ¼" NPT

- Ag/AgCl reference electrode
- Cooling coil/spare port

### Port 3 ¼" NPT

- Platinum counter electrode
- Cooling coil/spare port

### Port 4 ¼" NPT

- Spare/secondary manual vent valve

### Port 5 ¼" NPT

- Gas (CO<sub>2</sub>/N<sub>2</sub>/H<sub>2</sub>S) inlet valve and dip tube

### Port 6 ¼" NPT

- Autoclave vent valve and pressure relief valve

### Port 7 ¼" NPT

- PT100 temperature probe and thermowell

### Port 8 ¼" NPT

- pH probe
- Spare port

### Port 9 ¼" NPT

- Pressure system (inc. pressure gauge, transducer and rupture disc assembly)

Model	Volume	Working pressure	Working temperature	Material	Relevant Applications/ Corrosion Mechanisms	Typical Testing Standards
CTA-01	1-5L	100 bar 1450 psi	200°C/ 392°F	316L Stainless Steel (UNS S31603)	CO <sub>2</sub> corrosion, inhibitor evaluation, pitting corrosion	ASTM G31, G11, G46, G48, G170
CTA-02	1-5L	200 bar 2901 psi	400°C/ 752°F	C276 Hastelloy (UNS N10276)	H <sub>2</sub> S corrosion, sulfide stress corrosion cracking	NACE TM0177, TM0316, MR0175/ISO 15156; EFC 16, 17
CTA-03	1-5L	100 bar 1450psi	200°C/ 392°F	316L Stainless Steel + Tantalum	Deep well acidizing, intergranular corrosion	ASTM A262, G28



### LBBC Baskerville

Beechwood Street, Stanningley, Leeds, LS28 6PT, UK  
Tel: +44 (0)113 205 7423 Email: [sales@lbbcbaskerville.co.uk](mailto:sales@lbbcbaskerville.co.uk)  
<https://lbbcbaskerville.com>

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@corrosionLBBC



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