

CONSTANT TEMPERATURE PROCESS VESSELS

IMTEC has set the global standard for both static and recirculating heated process vessels. Our complete line of ACCUBATH® systems deliver unsurpassed process performance, reliability, and safety in wet-systems throughout the world.

IMTEC has been supplying constant temperature chemical vessels and accessories since 1982. Our commitment to engineering excellence has consistently given IMTEC's customers exceptionally dependable and advanced process equipment. The ACCUBATH® combines the highest quality materials and engineering designs to create vessels that enhance your process.

Our dedication to manufacturing process control, exemplified by our long standing ISO-9001 registration, assures our customers of repetitive high-quality products in a timely manner. The ACCUBATH® is the only equipment of its type recognized and approved by Underwriters Laboratory **UL** for electrical and personnel safety, meeting all SEMI S3 requirements.

KEY PRODUCT-LINE FEATURES

FOR OUTSTANDING PRODUCT SAFETY

- FM approved plastic housings available
- **UL** registered and **CE** marked
- Redundant over-temperature thermocouples and "over-limit" thermostatic switch
- Leak detection systems built into every vessel
- Uniform, low watt-density Inconel heaters
- Alumina Silicate blanket insulation

FOR EXCEPTIONAL PRODUCT RELIABILITY

- Highest purity molded or GE124 Quartz plate
- High-strength stem quartz inlet and outlet ports
- High-efficiency, low-mass Inconel heating elements
- Unique "one piece" T-support flange providing stress isolation of quartz vessel
- Patented AquaSeal® extends the life of the ACCUBATH®
- Processing vessel with integral condensing collar

FOR EXCELLENT PRODUCT PERFORMANCE

- For use up to 190°C
- High-purity GE124 quartz or ultrapure molded vessels
- Patented AquaSeal® warrants vessel life for 30 months
- Patented, raised 360° weir with 45° knife-edge scalloped overflow for effective particle removal
- Unsurpassed process temperature stability of ±0.2°C for Nitride Etch Systems

PATENTED AQUASEAL® TECHNOLOGY PROTECTS AGAINST THE LEADING CAUSE OF VESSEL FAILURE

- Incorporates a dual sealing feature. The standard RTV seal plus a DI water barrier
- Cools the RTV seal area while forming a barrier against any chemical fumes

- Improves production throughput by reducing unscheduled downtime
- Reduces vessel spares inventory and related costs
- Dramatically improves reliability
- Improves cost of ownership

CONFIGURATIONS

Vessel Styles

Static
Recirculating

Standard Sizes

Single & dual 100 to 300mm
Standard & cassetteless
Custom sizes available

Vessel Materials

High purity Quartz
RA10 316L Stainless Steel
PFA coated Stainless Steel

Condensing Collars

Integrated with vessel
Separate (non integrated)

Lids

Automated
Manual

Controllers

Microprocessor PID controller
RS232 Interface

Options

Dispersion Plates
(gaseous & liquid)
Leak Detection monitor/alarm
Resistant Temp Detector (RTD)
Thermocouples
Magnetic Stir system



Ultrapure Quartz Nitride Etch



Quartz Recirculating



Ultrapure Quartz Static



Stainless Steel PFA Coated
Stainless Steel

QUARTZ NITRIDE ETCH REFLUX SYSTEMS

A closed system featuring unique boil-point control for optimum performance

- **Complete turnkey system** – Incorporates IMTEC's dedicated controller, vessel, condensing collar, assured-seal membrane lid, and associated process flow controls and plumbing
- **More Precise control** – IMTEC's unique boil-point control, maintains ±0.2°C for optimum process performance, to ensure predictable etch rates and process uniformity with no stagnation or stratification
- **Safer Operation** - System provides the most effective, reliable, and safe method for Si₃N₄ etch
- **Flexibility** – Static or recirculating systems; special quartz grades and custom sizes available

QUARTZ RECIRCULATING VESSELS

Extended vessel life, better control, lowest CoO

- **Highest purity materials** – All IMTEC vessels utilize ultra-pure molded quartz and or GE124 quartz plate
- **Smaller footprint** – Vertically built saving approximately 3 inches of wet-system linear deck space per vessel
- **Higher particle removal efficiency** – Patented raised 360° weir with scalloped 45° knife edge rim
- **Better performance** – Patented sump designed to reduce low liquid level heater problems and to prevent recirculating pump air ingestion
- **Longer Life** – Patented AquaSeal®, high-strength welded quartz inlet and outlet ports and patented raised weir design insures superior vessel life

QUARTZ STATIC VESSELS

Higher temperature, excellent performance, better reliability

- **High operating temperatures** - Operates up to 190°C and can be used with any quartz compatible chemistries
- **Excellent performance** – Unsurpassed process stability and reliability
- **Flexibility** – Variety of standard and custom sizes available. Multiple drain configurations and a complete line of accessories allow for easy integration
- **Highest purity materials** – All IMTEC static vessels utilize ultra-pure molded quartz and or GE124 quartz plate

STAINLESS STEEL AND PFA COATED STAINLESS STEEL VESSELS

Versatility, performance, and safety

- **Highest purity materials** – RA10 finished, electro-polished 316LSSN or PFA coated 316LSS seamless vessels
- **Versatility** - Available in static or recirculating models. Accommodates special chemistries including KOH, HF, solvents, and others
- **Extended lifetime** – Non-porous PFA coating protected from delamination by a proprietary "interface module". Standard on all vessels
- **Safer Operation** – High-freeboard vessels, with or without condensing collars and lids for VOC's are available

