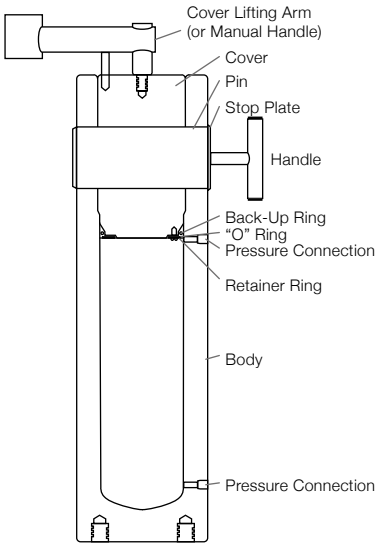
Quintus
TECHNOLOGIES

Quintus® Monoblock CIP Systems

Highest Performance and Easy to Use

Compact CIP Systems: Features and Benefits

Threadless Pin Closure



"Our company is an innovative start-up in the pharmaceutical field with an unusual technology. We were looking for a flexible and compact cold isostatic press for use in a pharmaceutical production in a high-class clean room. The machine needed to generate no particles of fumes, cleaning should be swift and reliable, and some special requirements were set on the aqueous pressure medium. Not many other equipments fulfilled the set of requirements necessary for our unusual application of an isostatic press. For our purposes Quintus produce a slightly modified machine which is now serving in our production of a pharmaceutical depot formulation for the treatment of prostate cancer. At Quintus our special needs were encountered with a problem solving attitude, and we were provided with a very suitable press."

Niklas Axén, LIDDS Pharma AB

The CIP Process

Cold Isostatic Pressing (CIP) is a compaction process that adds strength and durability to a variety of powder materials.

The powder is placed into an elastomeric mold, then placed in a pressure chamber, filled with a liquid medium, and high pressure is then applied uniformly from all sides. Quintus Technologies offers a full line of research-scale CIP and mid–range production CIPs. Each unit is pressure tested in accordance to ASME Code requirements, and cycle tested to ensure reliable operation.

Threadless Pin Closure

This user friendly design offers speed, performance, and safety advantages over conventional threaded, interrupted thread, or clamp type vessels. It cuts cycle time by reducing the opening and closing time of the vessel to just a few seconds. It eliminates time-consuming medium makeup, as well as the hazards of thread galling and uneven stress distribution. Its reliability has been proven in hundreds of pieces of equipment.

Research-Scale CIPs

These compact, self-contained units are fast, convenient, and inexpensive systems. They are used for basic research, feasibility, and prototyping studies of Cold Isostatic Pressing. More Quintus Technologies CIPs are used in industrial, government, and university laboratories than any other isostatic press. Many are also used in small-batch production operations.

Research CIPs include pressure vessel, pressurization system, fluid reservoir, and all instrumentation controls. They are delivered ready for connection to air and electricity. Most units are equipped with a convenient air-actuated cover lifting device.

The standard line includes six models with maximum operating pressures from 30,000 to 60,000 psi. Working chamber diameters range from 2" to 6", with lengths of 22" and 23".

Quintus Research-Scale CIP Systems

Model Number	Maximum Working Pressure	Working Chamber Size		Cover Lifting Mechanism		Approximate Unit Weight
		I.D.	Length	Pneumatic Actuator	Manual Lifting Handle	
LCIP32330	30,000 psi (2,070 bar)	3" (76 mm)	23" (584 mm)		*	700 lbs (318 kg)
LCIP4.52230	30,000 psi (2,070 bar)	4.5" (114 mm)	22" (559 mm)	*		1,100 lbs (500 kg)
LCIP62330	30,000 psi (2,070 bar)	6" (152 mm)	23" (584 mm)	*		1,600 lbs (725 kg)
LCIP22260	60,000 psi (4,140 bar)	2" (51 mm)	22" (559 mm)		*	700 lbs (318 kg)
LCIP32260	60,000 psi (4,140 bar)	3" (76 mm)	22" (559 mm)	*		1,100 lbs (500 kg)
LCIP42260	60,000 psi (4,140 bar)	4" (102 mm)	22" (559 mm)	*		1,700 lbs (770 kg)

Cold Isostatic Pressing with performance and productivity in focus

Pilot Plant and Production CIPs

For higher volume production applications, Quintus Technologies offers a full line of CIPs with totally automated vessel operation. A touch of a button activates the entry and removal of the cover and basket, threadless pin closure, water filling, draining, controlled pressurization and depressurization. This design provides the fastest available means for Isostatic Processing of production components.

Standard models are available up to 60,000 psi working pressure, with working chambers from 6” to 16” I.D. and lengths from 24” to 60”. Other sizes are available on special order. A variety of high-pressure pumps are available.

“We have been doing business with Quintus Technologies (formerly Avure Autoclave and ABB Autoclave Systems) for over 20 years now. We operate two high-pressure Cold Isostatic Presses that run special custom modifications for our process. The help we have received from Quintus in changing, training, operating, and maintaining our equipment over the years has been instrumental in the continued growth and ongoing success of our company. The sales people can get us the equipment we need, the parts people are knowledgeable and responsive, and their on-site service technicians are second to none. I would consider them a strategic ally that I will count on for many years to come.”

Jonathan Meeks, CEO/COO, AM2T, LLC.

Pilot Plant and Production CIP Systems

Model Number	Maximum Working Pressure	Working Chamber Size		Approximate Unit Weight
		I.D.	Length	
CP163818	18,000 PSI (1,241 bar)	16” (406 mm)	38” (955 mm)	16,000 lbs (7,300 kg)
CP143625	25,000 psi (1,723 bar)	14” (355 mm)	36” (914 mm)	16,000 lbs (7,300 kg)
CP92430	30,000 psi (2,070 bar)	9” (228 mm)	24” (610 mm)	9,000 lbs (4,100 kg)
CP123630	30,000 psi (2,070 bar)	12” (305 mm)	36” (914 mm)	16,000 lbs (7,300 kg)
CP62460	60,000 psi (4,140 bar)	6” (152 mm)	24” (610 mm)	9,000 lbs (4,100 kg)
CP83660	60,000 psi (4,140 bar)	8” (203 mm)	36” (914 mm)	16,000 lbs (7,300 kg)

Why You Should CIP

- Safer and more efficient production
- Fastest method for consolidation of ceramic powders to high density
- Lowest cost/kg

- Increased mechanical properties e.g. powder compacts of alumina and electrical insulators
- Reduced scatter of data for safest control of production
- Highest properties for minimal corrosion deterioration

- 60-95% of theoretical density
- Consolidation of ceramic powders
- “Green parts” for ceramics are ready for next process steps
- Elaborate designs of ceramics by CIM (Ceramic Injection Moulding)

Quintus Technologies is the global leader in high pressure technology

The company designs, manufactures, installs, and supports high pressure systems in three main areas: densification of advanced materials, sheet metal forming and high pressure processing covering food and beverage innovation, safety, and shelf life.

Quintus has delivered over 1,900 systems to customers within industries from energy, medical implants, space, aerospace, automotive and food processing. The company is headquartered in Västerås, Sweden, with a presence in 45 countries worldwide.

For more information please visit **www.quintustechnologies.com**

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