

Cold Isostatic Press &HIP



□ Feature

- Our Cold Isostatic press is designed for pressure of up to 60,000psig. As an option, 120,000psig pressure is also available.
- As for size, from 10 Liter to 20 Liter is standard, and when larger than 20 Liter is required, it will be designed for option.
- The pressure of Air Operated Pump is available for compressing up to 65,000psig. Air pressure at this time shall be 30~150psig.
- Pressures needed for Valve, Fitting and Tubing shall be 60,000psig

□ Installation

The system should be securely mounted to a suitable level and flat surface. Four 7/16 diameter holes are provided on the bottom of the cabinet for this purpose. For cold isostatic presses, the pressure vessel and pumping system have been secured to a baseplate.

Refer to the drawing for mounting provisions of the baseplate.

If the system is not supplied with a pressure vessel, a 3/8 HP high pressure outlet connection on the side of the cabinet is ready for piping to your pressure need.

The remaining connection is the air supply line. The 1/2NPT connection is located in the back of the cabinet and is directly into the supplied air filter. Pressure of the air supply should be between 70 and 100psi, depending on the desired output pressure.

The reservoir is mounted in the cabinet and should be filled with a suitable fluid before operation. Most any low viscosity petroleum base hydraulic oil may be used. Water and water soluble oil may also be used. Water only may be used on occasion if it becomes necessary, however, water will decrease the packing life of the pump and should not be used if avoidable.

□ Specification

Model CIP_62242

CIP Pressure Vessel

Design Pressure: 65,000psig (60,000psig maximum working)

Internal Dimension: 4" I.D. x 10" I.L.

Materials of Construction

: 4340 alloy steel forging (ultrasonically tested)

Construction: Mono-wall vessel

Seal: Buna N or other elastomeric "O" ring with back up ring

labkorea

Cold Isostatic Press &HIP

Closure: Treaded single main nut closure in the top only. The seal ring and the back-up ring would be fixed to the cover, and would be removed with it to prevent damage.

Connections:

3/8" HP in cover for an air vent.

3/8" HP in the center of the bottom for draining and filling

CIP Pumping System:

Air operated, intensifying type pump capable of reaching 60,000psig with approximately 100psig air pressure. The maximum output pressure to be controlled by panel. The pump fluid is oil or water and water soluble.

Filling/Pressurizing:

The vessel would be filled by operating the pump. Air in the vessel would be vented through the manual air vent valve would be closed. The pump is then started by opening the air inlet valve then shut off when the desired preset pressure is reached.

Vent/Draining:

The unit would be vented by opening the vent valve, which vents the fluid back into the reservoir. The vessel would then gravity feed the remaining fluid back into the reservoir.

□ Operation

1. Set air regulator at 0 psig
2. Open inlet valve
3. Close vent valve
4. Open air valve
5. Slowly increase air pressure using the air regulator.

At this point you should hear the pump starting. Fill

and vent the air from the item being pressurized. For cold pressure, a vent valve is supplied for bleeding air from the system. Clear tubing can be attached to the valve to visualize when the vessel is full.

6. Increase the air pressure until the desired outlet pressure is reached. If the system is large in volume be careful not to over set the air pressure to compensate for slow rising pressure. Until you become familiar with the air pressure required to reach your desired set pressure allow the pump to stall as you approach the desired pressure.

7. To stop the pump either close the air inlet valve or reduce the air pressure to zero.

8. Once pressure is built up to the set pressure limit dictated by the air pressure the pump will automatically stop. Should there be any pressure loss due to temperature, compaction of the materials being pressurized, or leakage in the system, the pump will automatically start up and compensate for the pressure loss.

9. When the pressurization is complete, shut off the air inlet valve and open the vent valve. All of the pressurized fluid will return to the reservoir.



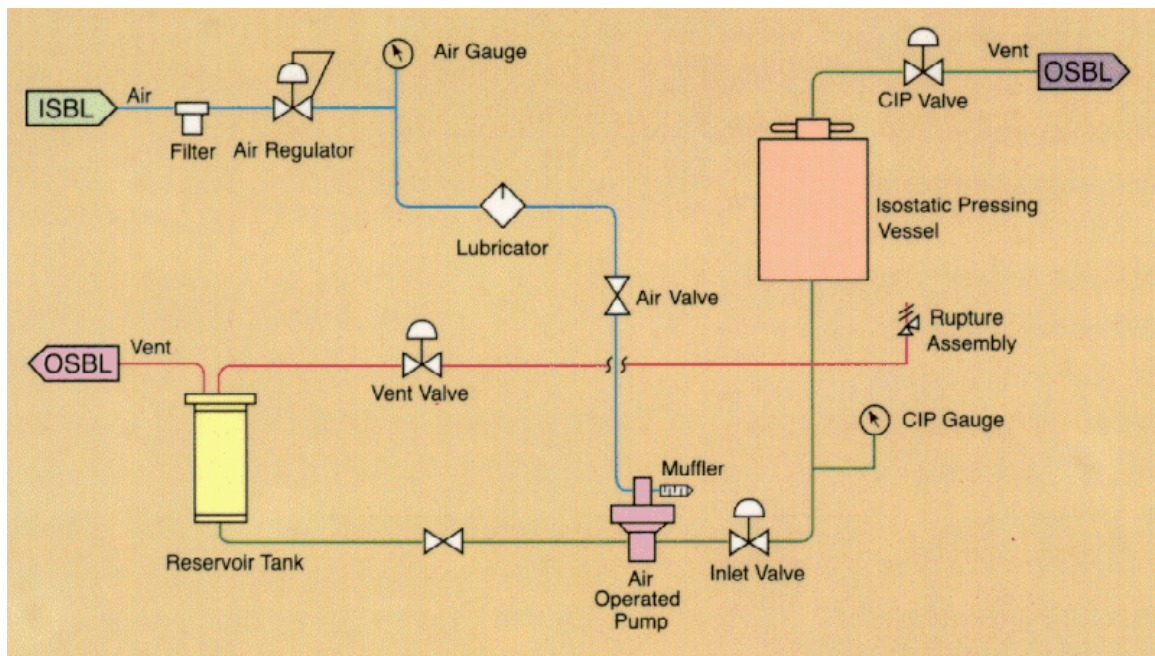
labkorea

Cold Isostatic Press &HIP

□ R-201 Series Reactor System

- Capacity of this R-201 Series Stirred Reactor is from 300ml up to 10 Liter, and designed for using in 300~5000 psig at 500 °C
- This R-201 Series Stirred Reactor is designed also to have choice of purchasing only Glass Vessel(R-211) for much more economic performance of the system.
- Glass Vessel can be used in maximum pressure of 200psig at 250 °C
- This R-201 Series Stirred Reactor is designed to be compatible in its capacity: you can use 500ml and/or 2000ml Vessel for 1000ml Reactor.

□ Cold Isostatic Press



□ Ordering Information

CIP	A	B	C	D	E	F
Series	Pressure	Dim(I.D.)	Dim(I.L.)	Pump Pressure	Control System	Temp
1:CIP	1. 10,000psig	1: 3"	1: 8"	1: 18,000psig	1: Gauge	1: 500 °C
2:HIP	2. 20,000psig	2: 4"	2: 10"	2: 30,000psig	2: PT & PI	2: 1,000 °C
	3. 30,000psig	3: 5"	3: 12"	3: 42,000psig	3: Other	3: 1,500 °C
	4. 40,000psig	4: 6"	4: 14"	4: 65,000psig		4: 2,000 °C
	5. 50,000psig	5: 7"	5: 16"	5: 79,000psig		5: 2,500 °C
	6. 60,000psig	6: 8"	6: 20"	6: Other		6: Other
	7. Other	7: Other	7: Other			

labkorea