

CRYOPUMP ICP 200



The ICP 200 from Genesis Vacuum Technologies is a CE and SEMI compliant high performance cryopump for demanding semiconductor production, medical diagnostics, surface analysis, and high vacuum research applications. A variable speed motor allows the customer to regenerate the pump much faster for reduced downtime, and a lower base pressure delivers better process results.



Customers interested in upgrading their existing cryopump system with a Genesis Vacuum Technologies cryopump or compressor should contact Genesis for specific interfacing requirements.

The ICP 200 is available two designs which can both be furnished with ConFlat, ANSI-6, or ISO-200 flanges. The ICP 200 is an upright configuration, and the ICP 200L is a low profile configuration. The ICP 200 can be fitted with a baffle for most applications or with a fixed throttle plate for sputtering applications, while the reduced height in the ICP 200L eases installation and minimizes the space required for the cryopump. For added flexibility, the expander in the ICP 200L pump can be oriented right, left, or in line with the pump body.

Smaller Size, Better Results

The pump may be ordered as either a High Vacuum (HV) pump or an Ultra-High Vacuum (UHV) pump. All UHV pumps use metal seals and are tested to 2×10^{-9} Torr. The ICP 200 and ICP 200L pumps can be ordered with a quick regeneration option that includes all the auxiliary hardware required to perform automatic and quick regeneration, including heaters on the first and second stages, a roughing valve, a purge valve, and a pressure sensor.

All Genesis cryopumps require the following components:

- Compressor: Either a Genesis 2.1 single-pump compressor or HC 70 multi-pump compressor
- Helium Hoses: Available in pairs, in lengths of up to 60'
- Electrical Cables: An expander power cable, and pump I/O cable when the Gen2 is utilized for quick regeneration

The Genesis 2.1 Compressor is a low form factor compressor designed for single-pump applications, while the powerful Genesis HC 70 can drive up to three ICP 200 cryopumps. The following options are useful for multiple pump operation, automatic regeneration, roughing arbitration (to insure only one pump is regenerated at a time during group regeneration), and network hook-up:

- Gen2 Controller: Required when automatic and quick regeneration is desired for each pump
- Cryoboss Network Controller: Links up to 24 pumps together via RS-485 bus connections

The ICP 200 and ICP 200L pump capacity allows longer intervals between regenerations, and the smaller size makes the ICP 200 pumps easier to handle, install and maintain.

ICP 200 CRYOPUMP

TECHNICAL DATA

MODEL		ICP 200	ICP 200L
Weight	Kg	22	21
Space Envelope	inches (mm): W x D x H	9.96" x 13.24" x 22.32" (253mm x 337mm x 567mm)	20.74" x 13.24" x 9.02" (527mm x 337mm x 229mm)
Pumping Speed (Liters/sec)	Nitrogen Hydrogen Argon Water	1500 2200 1200 4000	1500 2200 1200 4000
Reachable Pressure	Torr	<10 ⁻⁹	
Maximum Flow Rate for Argon	Torr L/sec	10	
Pumping Capacity (Std Liters)	Argon Hydrogen	1100 30	1500 10
Crossover	Torr L	300	
Standard Cooldown Time	min.	85	60
Standard Regeneration Time	Full Regeneration (minutes)	115	90
	Quick Regeneration (minutes)	45	
Flange Options		SI ASA, ANSI ASA Rotatable, ISO Clamp, ISO Bolted, ConFlat, ConFlat Rotatable	



ORDERING INFORMATION *Please specify the following:*

DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
ICP 200 High Vacuum with ConFlat flange	623-1201	ICP 200 High Vacuum with ANSI-6 flange	623-1101
ICP 200 High Vacuum with Quick Regen & ANSI-6 flange	623-1102	ICP 200 High Vacuum with Quick Regen & ISO-200 flange	623-1302
ICP 200 Ultra High Vacuum with ConFlat flange	623-2201	ICP 200 Ultra High Fixed Sputter with Quick Regen & ConFlat flange	623-4202
ICP 200 Fixed Sputter with Quick Regen & ConFlat flange	623-3202	ICP 200 High Vacuum with Quick Regen & ISO-200 flange	623-1321
ICP 200 Low Profile, High Vacuum with Quick Regen, Expander Right, ConFlat flange	623-1206	ICP 200 Low Profile, Ultra High with Quick Regen, Expander Right, ConFlat flange	623-2206
ICP 200 Low Profile, Ultra High Vacuum with Quick Regen, Expander in-line, ConFlat flange	623-2207	ICP 200 Low Profile, High Vacuum with Quick Regen, Expander in-line, ConFlat flange	623-1207
ICP 200 Low Profile, Ultra High Vacuum with Quick Regen, Expander left, ConFlat flange	623-2208	ICP 200 Low Profile, High Vacuum with Quick Regen, Expander left, ConFlat flange	623-1208
ICP 200 Low Profile, High Vacuum with ConFlat Flange	623-1203	ICP 200 Low Profile Ultra High Vacuum with Quick Regen, Expander left, ConFlat flange	623-2222

ACCESSORIES	PART NUMBER	NOTES
Helium Compressor 2.1: Single Cryopump HC 70: Up to 3 Cryopumps	631-1300 634-2800	The 2.1 is a small form factor, single pump compressor. The HC 70 compressor can power up to 3-ICP 200 pumps.
Gen 2 Controller (for up to three Cryopumps)	642-1010	For each additional pump add "1" to next to last digit of part number.
Cryoboss Network Controller	645-3000	Standalone "half rack" or available as module for Gen 2 Controller
Helium Hoses, Set	Contact Genesis	For multiple pumps on the same compressor, add manifold
Helium Manifold Set	565-003 565-004	2:1, 3/4", set: for 2 cryopumps 4:1, 3/4", set: for up to 4 cryopumps
Pump I/O Cable	Contact Genesis	One per pump required. Lengths up to 100'
Expander Power Cable	Contact Genesis	One per pump required. Lengths up to 100'
Communication Cable	Contact Genesis	To connect modules within Gen 2 and between Gen 2 and Cryoboss