

HP® Series Liquid Phase Adsorption Systems (ASME code)

Applications

The HP® Series Adsorption Systems are designed to remove dissolved organic contaminants from water. These systems are cost effectively used in applications including:

- Groundwater remediation
- Wastewater filtration
- Tank rinse water treatment
- Pilot testing
- Underground storage tank clean up
- Leachate treatment
- Dechlorination
- Spill cleanup
- Food grade
- Drinking water

Installation, Startup and Operation

The HP® 810, HP® 1020 and HP® 1220 systems are shipped as separate components—two adsorbers and a piping skid module. The piping module allows the adsorbers to operate in series or parallel configurations. The systems require minimal field assembly and site connections.

Siemens can provide a total service package that includes utilizing OSHA trained personnel providing



on-site carbon changeouts, packaging and transportation of spent carbon for recycling at our RCRA permitted reactivation facilities, where the contaminants are thermally destroyed.

We can provide instructions on sampling the spent carbon and completion of our spent carbon profile form. Spent carbon acceptance testing can be performed at our certified laboratory.

When requested, a certificate of reactivation will be issued.

Benefits and Design Features:

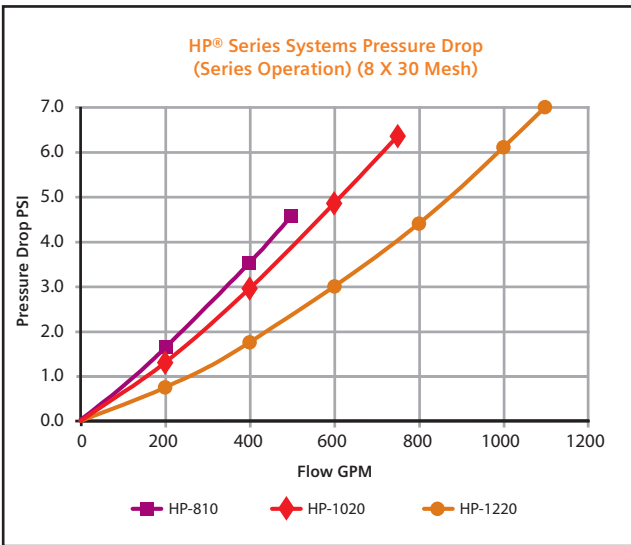
- ASME code section VIII (stamped), carbon steel vessel.
- SSPC-SP5 surface preparation, NSF approved Plasite vinyl ester lining; rust preventative epoxy/urethane exterior.
- Uniform, continuous internal lining flange to flange (HP® 1020/1220 Systems).
- Proprietary vertical 316 stainless steel externally removable septa nozzles (HP® 1020/1220 Systems) allows maintenance of underdrain without vessel entry.
- Modular design for easy handling and installation.
- Internal spray nozzle ensures complete removal of all spent carbon.
- Schedule 40 carbon steel pipe, supplied with cast iron gear/wheel operated butterfly valves with EPDM seats.
- Carbon slurry piping made from schedule 10 304 stainless steel.
- In-bed water sample collection ports —25-50-75% bed depths.
- Top and side manway allows for easy internal inspection.

Specifications/Typical Properties

	HP® 810SYS	HP® 1020SYS	HP® 1220SYS
Dimensions (each adsorber - dia. x sidewall height)	96" x 84"	120" x 96"	144" x 60"
Overall Height	15' 2"	17' 10"	15' 10"
System Length	22' 8"	26'	28' 10"
System Width	10'	12'	13' 2"
Process Piping	6"	8"	8"
Flanged Inlet/Outlet (150# ANSI)	6"	8"	8"
Carbon Fill/Discharge	4"	4"	4"
Flanged Backwash/Vent	6"	8"	8"
Manway (dia., side shell location)	20"	20"	20"
Manway (top)	14" x 18"	14" x 18"	14" x 18"
Utility Water/Air (hose connection) ¹	2"	2"	2"
Interior Coating	Vinyl Ester	Vinyl Ester	Vinyl Ester
Exterior Coating	Urethane	Urethane	Urethane
Empty System Weight (lbs.)	15,500	38,500	42,000
Carbon Weight/Vessel (lbs.)	10,000	20,000	20,000
Operating Weight (lbs.)	85,000	170,000	185,000
Design Pressure (PSIG) @ 140°F	125	125	125
Max. Flow (GPM) Series/Parallel	500/1,000	750/1,500	1,100/2,200
Backwash Rate (GPM) (8 x 30 mesh @ 55°F)	450	710	1,000

¹ Kamlock type

For detailed specifications or dimensional information or drawings, contact your local Siemens sales representative.



Safety Note: Wet activated carbon readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen depleted areas.

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