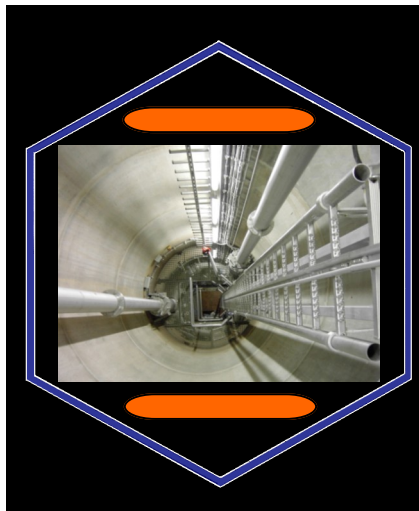




Who We Are

Brechtel Radial Collector Wells, LLC is a water supply contractor serving the municipal, industrial, and power markets. The company specializes in the design, construction, and rehabilitation of high-capacity water supply systems from both groundwater and surface water sources. Such systems include radial collector wells, surface water intakes, infiltration galleries, and seawater as well as riverbank collection systems.

Brechtel employs a diverse staff of technical and construction professionals recognized by many as leaders in their respective fields. Their core personnel have over 100 years of collective experience in water resource development, both throughout the United States as well as internationally.

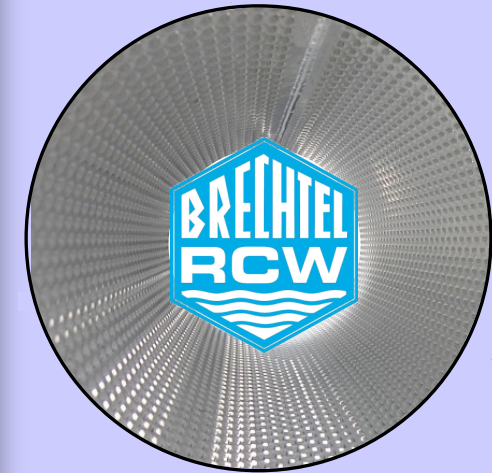


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Brechtel Radial Collector Wells, LLC



**Constructing Water
Supply Solutions
for Your World**



Brechtel Radial Collector Wells, LLC



Why Radial Collector Wells?

Radial collector wells are designed to efficiently extract large volumes of water from unconsolidated, water-bearing sediments. Collectors consist of a central concrete shaft or caisson equipped with horizontal screens radiating out like spokes on a wheel into the surrounding aquifer materials. Water is drawn into the central caisson through these horizontal screens or laterals where it collects and is pumped to the ground surface.

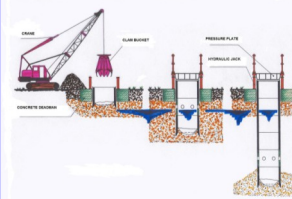
Some of the advantages of a collector well system include:

- Greater screen length, screen surface, and capacity per well
- Lower entrance and approach velocities leading to less maintenance
- Concentration of operations requires minimal land acquisition
- Relatively low drawdown and use of efficient, high capacity pumps results in long-term savings in energy consumption
- Less road construction, electrical and mechanical controls, and associated pipeline.

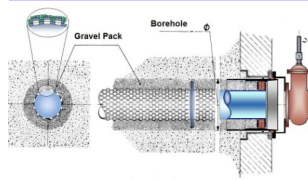
Phases of Collector Well Construction

PHASE 1—CAISSON CONSTRUCTION

The collector caisson is cast in place or brought to the site in pre-cast sections. Each section is subsequently “pulled-down” or jacked into the ground using a series of hydraulic jacks. Unconsolidated materials are excavated from inside the caisson utilizing a clam bucket, and another section is added at grade. Upon reaching the required depth, the bottom of the caisson is plugged with concrete and dewatered.



PHASE 2—LATERAL INSTALLATION

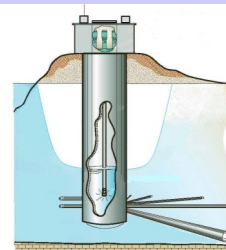


Steel casing is projected horizontally from the central caisson into the surrounding aquifer materials. Stainless steel screens are inserted into the steel casing and a select filter pack media is

introduced into the annular space between the screen and the casing. The steel casing is subsequently extracted, thereby exposing the screen to the aquifer. Lateral screens may then be developed by over-pumping or by various surge techniques.

PHASE 3—PERFORMANCE TESTING AND COMPLETION

Upon installation of the caisson and laterals, high capacity pumps are installed within the well and a pumping test is performed. Long-term yield of the well is projected and the above-grade structures are completed.



Additional Services

Brechtel Radial Collector Wells, LLC is a recognized leader in the fields of water supply development and groundwater construction. Our expertise extends into specialty geotechnical construction, as well as water treatment and wellfield management. Our range of services include:

Water Supply Construction

- Surface water intake construction
- Infiltration gallery construction
- Well rehabilitation and maintenance
- Well inspections and service
- Hydrogeologic investigations
- Pumping efficiency evaluations
- Wellfield design and management

Geotechnical Construction

- Caisson and shaft construction
- Sheet piling and shoring
- Dewatering well construction
- Microtunnelling engineering
- Effluent outfall diffuser installation

Environmental Management

- Groundwater monitoring
- Remediation systems

