



**Hydropillar®**

ELEVATED WATER STORAGE

[www.cbi.com](http://www.cbi.com)







*Multi-purpose treatment laboratory and office facility  
STI/SPFA Tank of the Year*



*Interior lunch room inside a pillar*



*Largest single pedestal elevated tank in  
the United States – 4,100,000 gallons*



*Attractive graphics enhance community identity*

## Why choose a Hydropillar elevated tank?

CB&I invented the original Hydropillar tank design in 1962 and has been improving the concept ever since. We have built more fluted column elevated tanks than any other company, including the tallest and largest capacity tanks in service. Our unique dome roof design eliminates ponding, which improves paint durability and reduces streaking on the side of the tank. The self-supporting dome roof also minimizes interior structural supports in the vapor area of the tank where condensation occurs. Since this is the most corrosion-prone area in the tank, future maintenance requirements are reduced.

The Hydropillar tank design offers a high degree of customization and flexibility. The space inside the pillar can be used in a wide variety of innovative ways, or it can be reserved for future expansion. Many sizes, options and features are available, and storage capacities range from 200,000 gallons to more than 4,000,000 gallons. In smaller capacities an optional wineglass style offers additional attractive and creative applications.

Hydropillar tanks are all-steel, all-welded structures that have proven reliability, serving municipalities and industries for decades. The vertical steel flutes accentuate the clean, modern design. The large diameter steel pillar also offers excellent stiffness to earthquake loads, superior suitability for low load-bearing soil, and unobstructed access for exterior inspection and maintenance. Properly maintained and operated, steel tanks offer an extremely long life, with some structures exceeding 100 years of service.

## Taking the Lead with QHSES

CB&I is committed to setting a leading example in all areas of Quality, Health, Safety, Environment and Security, and encourages our partners, subcontractors and clients to join us in the pursuit of outstanding QHSES performance. Taking the Lead is a company-wide initiative that brings a single, united QHSES culture to our diverse workforce and organization, a culture where setting the right example in QHSES attitude and behavior is simply 'In our DNA.'



*Dual storage –  
620,000 gallons upper tank and  
1,130,000 gallons lower tank;  
(STI/SPFA Tank of the Year)*



*Multi-purpose fire station*



*Custom paint graphics*

## Selecting a Hydropillar elevated tank

We provide sample specifications and detail drawings for engineers and owners who are planning Hydropillar tank projects. Contact our regional sales force to receive guidance on specifying your tank or visit [www.mcdermott.com/water](http://www.mcdermott.com/water) to view our standard specifications and drawings.

### Multi-purpose interior space

- Dual use as offices, meeting rooms, pump station, fire station, equipment and machinery storage, etc.
- Steel fluted column (i.e., pillar)
  - Easily integrates with interior structural steel for multiple floors
  - Allows exterior windows
- Offset riser pipe maximizes available interior space

### Economics

- Especially economical in larger capacities
- All-steel construction permits cost-effective, year-round construction
- Large diameter fluted column is particularly advantageous in high earthquake zones or on soil with low load bearing capacity
- Effective cost is reduced when the value of the interior space is considered
- Turnkey supply of foundation and painting offers cost and schedule savings
- Height can be modified if pressure requirements change after installation
- At end of life cycle, tank can be demolished at minimal cost

### Aesthetics

- Clean, modern appearance
- Vertical architectural lines blend well with surrounding structures and landscapes
- Capitalizes on high visibility locations
  - Optional lettering and logos enhance community identity and pride

### Safety and security

- Solid, flush threshold steel door with deadbolt lock restricts unauthorized entry
- Optional overhead door
  - Quick entry and exit for trucks and large equipment
  - Easy access for larger storage items
- Enclosed interior access ladders
  - Minimizes vandalism and unsightly graffiti
  - Minimizes unauthorized tank access
  - Facilitates climbing during inclement weather

### Maintenance

- Interior dry surfaces are weather-protected and seldom need repainting
- Maintenance access to all exterior surfaces is unhindered

### Optimum head range

- Standard design provides efficient head range
  - Minimizes pumping costs
  - Minimizes variation in water pressure
- Optional head ranges available

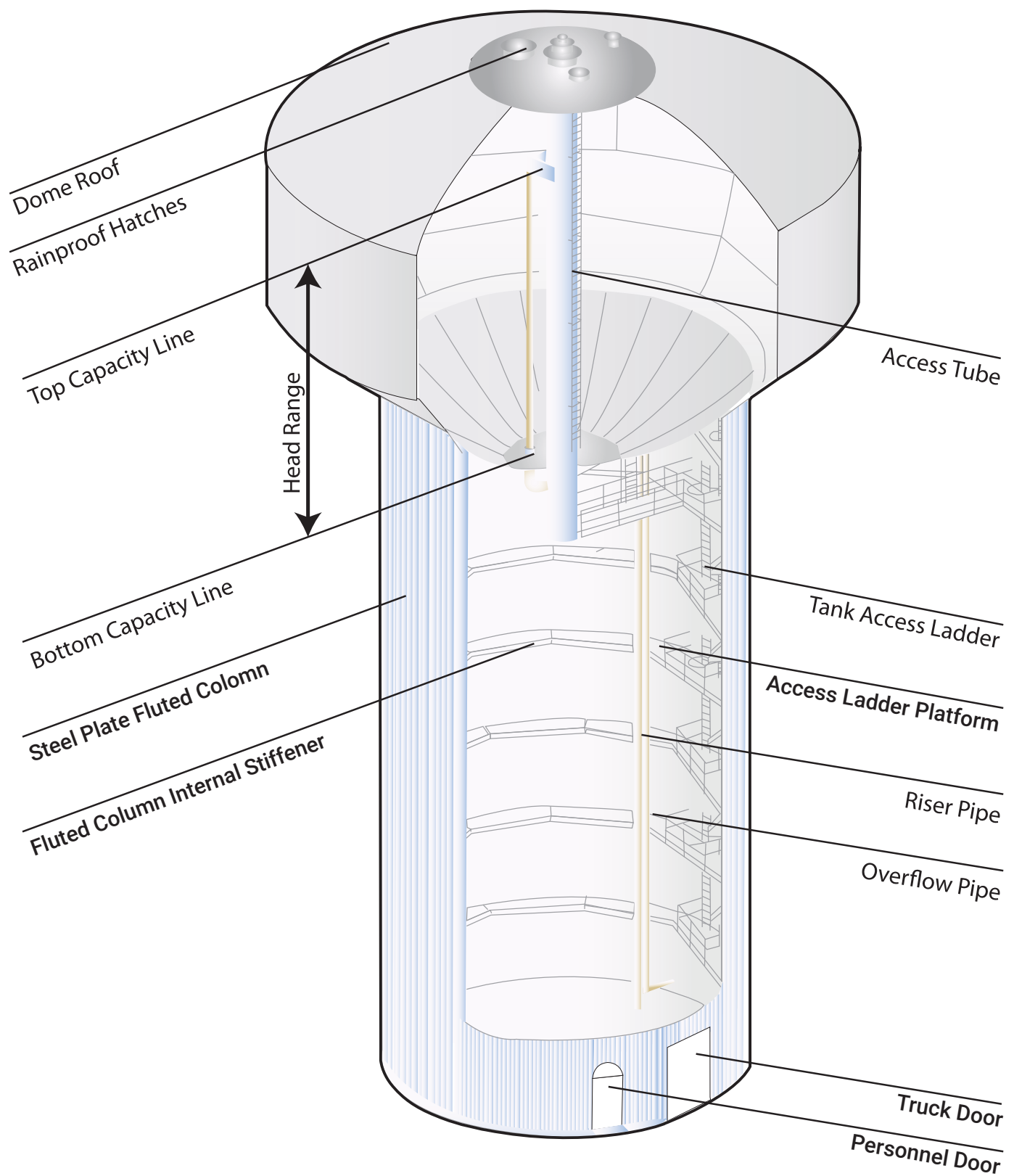
### Dual water storage compartment capability

- Can serve two different pressure systems
- Can provide dual owners with separate water storage

### Dome roofs

- Improves appearance
- No ponding, minimizes ice and snow accumulation
- Reduces corrosion and streaking on side of tank

## Standard features and options





## Standard features

- One 36 in. wide by 80 in. high steel personnel door with flush threshold
- Concrete floor inside base
- Offset steel riser pipe
- Steel overflow pipe to grade with splash block
- Support structure vents
- Offset ladders inside support structure, with rest platforms at 24 ft maximum intervals
- Safety devices on ladders as required by state and federal regulations
- Walkway with handrails from top of support structure to access tube
- Erection rods under tank bottom for construction and maintenance scaffolding
- One 48 in. diameter access tube
- Ladder in access tube
- Painter's rings at top of support structure
- One 24 in. diameter painter's ring hatch
- One 30 in. tank bottom manway with access ladder to walkway
- Two 30 in. diameter roof hatches
- Minimum 1/4" thick steel roof plates
- Seal welding underside of roof
- Fail-safe roof vent
- Painter's lugs or coupling near tank center inside bottom and roof
- Interior lighting in support structure and access tube

## Options

- Lettering, logos and decorative graphics
- Alternative styles as waterspheroid tank or composite elevated tank
- Dual compartment water storage
- FreshMix™ circulation system
- Structural framing, multiple floors and ceilings inside the support structure
- Additional openings in support structure (e.g. windows)
- Double personnel door
- Overhead doors
- Valve vault inside base
- Control room in support structure
- Dual risers
- Stainless steel riser
- Stainless steel overflow
- Riser insulation and heat tracing
- Alternative ladder arrangements inside support structure
- Fabric or steel condensate ceiling with drain
- Closure plates between flutes and stiffener plates
- Upsized 60 in. diameter or 72 in. diameter access tube
- Tank drain
- Internal tank ladder on access tube
- Roof handrail
- External security or decorative lighting
- FAA lighting
- Instrumentation
- Telemetry
- Cathodic protection
- Lightning protection
- Antenna penetrations and supports

## Standard capacities and dimensions

| Capacity U.S. Gallons | Tank Diameter ft-in. | Head Range* ft-in. | Fluted Column Diameter ft-in. |
|-----------------------|----------------------|--------------------|-------------------------------|
| 200,000               | 42 - 0               | 25 - 0             | 24 - 0                        |
| 250,000               | 42 - 0               | 30 - 0             | 24 - 0                        |
| 300,000               | 47 - 0               | 30 - 0             | 24 - 0                        |
| 400,000               | 50 - 0               | 30 - 0             | 24 - 0                        |
| 500,000               | 57 - 0               | 32 - 0             | 30 - 0                        |
| 500,000               | 49 - 6               | 38 - 0             | 30 - 0                        |
| 750,000               | 64 - 0               | 40 - 0             | 42 - 0                        |
| 750,000               | 62 - 0               | 40 - 0             | 36 - 0                        |
| 1,000,000             | 74 - 2               | 40 - 0             | 52 - 0                        |
| 1,000,000             | 74 - 2               | 40 - 0             | 44 - 0                        |
| 1,250,000             | 80 - 0               | 40 - 0             | 52 - 0                        |
| 1,500,000             | 86 - 0               | 40 - 0             | 60 - 0                        |
| 1,500,000             | 90 - 0               | 40 - 0             | 52 - 0                        |
| 2,000,000             | 100 - 0              | 40 - 0             | 78 - 0                        |
| 2,000,000             | 100 - 0              | 40 - 0             | 66 - 0                        |
| 2,500,000             | 108 - 0              | 44 - 0             | 78 - 0                        |
| 3,000,000             | 120 - 0              | 42 - 0             | 90 - 0                        |
| 3,500,000             | 125 - 0              | 45 - 0             | 90 - 0                        |
| 4,000,000             | 135 - 0              | 45 - 0             | 90 - 0                        |

\* CB&I has other head ranges and support structure diameters available for each capacity tank. Please contact us if you need assistance.







Niceville, FL – 500,000 gallons



Clermont Co., OH – 2,000,000 gallons



Shenandoah, TX – 750,000 gallons



Lexington, SC – 1,000,000 gallons

CB&I is the world's leading designer and builder of storage facilities, tanks and terminals. With more than 59,000 structures completed throughout our 130-year history, CB&I has the global expertise and strategically located operations to provide our customers world-class storage solutions for even the most complex energy infrastructure projects.

## **Headquarters**

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