



Fire Protection Water Tanks

HT-1129

HighDRO[®] Fire Protection Tanks (HD-FPT) are atmospheric water storage tanks specifically designed for use in a residential, commercial or institutional building's fire protection system. A properly sized HD-FPT will make a valuable contribution during firefighting emergencies, especially when firefighting demands more water than the building's domestic water feed line can supply. All components comply with the relevant standards to ensure that the system will provide years of reliable service.

Specifically, HD-FPT are designed, fabricated, tested, inspected and installed in accordance with the National Fire Protection Association NFPA Standard No. 22, "Water Tanks for Private Fire Protection."

Pre-engineered components such as Victaulic[®] fittings, external water stops, tank sumps, pump station mounts and anti-vortex devices are usually supplied with the tank.

NSF or AWWA compliant protective coatings are factory applied and form a hard, inert barrier for both the interior and exterior surfaces of the tank to prevent corrosion.

HD-FPT are often required by local fire codes to provide a dedicated source of firefighting water for rural, suburban and urban communities.

Water distribution system requirements from local municipalities can be unattainable or prohibitive due to extensive development. In this case, water must be stored and available in sufficient quantity to satisfy the fire sprinkler pump demand.

It is more common for HD-FPT to be required by fire codes as secondary water supply for use with a building's sprinkler systems for fire suppression.

Fabrication Options

Orientation:

Vertical or Horizontal

Installation:

- Aboveground or Underground

Volumes:

- 185 to 60,000 gallons; multiple HighDRO® Tanks may be interconnected to increase storage volume above 60,000 gallons

Diameter:

- 3'-2" to 14'-0"

Length:

- Up to 90'-0"

Material:

- Carbon Steel or Stainless Steel

Head Design:

- Flat are standard
- Flanged and dished, or cone (vertical only) also available

Penetrations:

- Threaded full couplings - up to 4" diameter
- Flanged fittings - 1/2" and up
- Manways - 24" minimum, 30", 36" diameter and custom rectangular manways

Surface Preparation for coating:

- SSPC SP-6, SP-10, SP-5

Internal Linings:

- Epoxy Phenolic
- High-solids Epoxy
- High-solids Polyurethane
- Zinc-Epoxy
- Vinyl Ester
- Rubber, PVC and other sheet linings

External Coatings:

- Primer Paint
- High-solids Epoxy/Polyurethane Finish Paint

External Corrosion Protection System:

- HighGuard-10

Testing:

- 5-psi factory air test and seam inspection

Tank Support Systems:

- Horizontal - UL Saddles
- Vertical - Ring Bases & Angle Legs

Tank Accessories:

- Interior ladders
- Waterstops
- Vents
- Exterior ladders w/ OSHA cages & guard-rails; stairs, walkways, catwalks
- All necessary appurtenances per AWWA D100 and NFPA 22
- Water/wastewater pumps and controls
- Gauges



Our Highguard-10 corrosion protection system ensures maximum longevity and optimum use for underground water tanks. Aboveground tanks can be protected with a wide selection of primers and topcoats, even those complying with ANSI/AWWA D102, "Coating Steel Water-Storage Tanks."



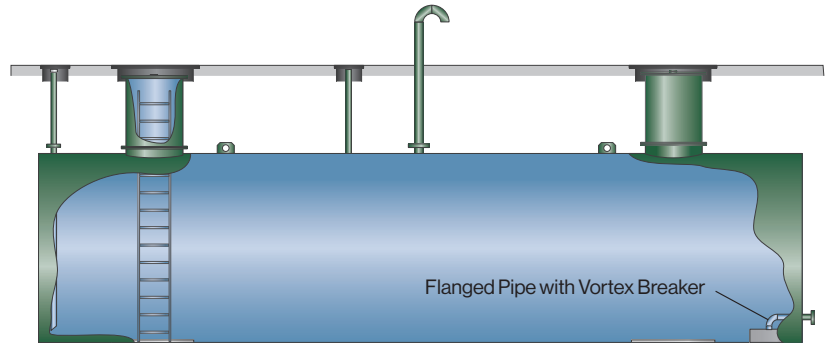
Highland Tank®

Underground Design Options

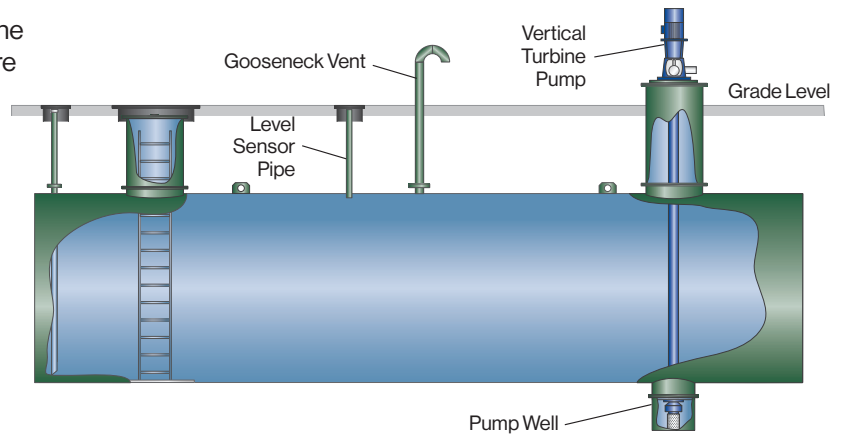
These pre-engineered models satisfy the requirements most often specified by engineers. Our ability to custom fabricate tanks for many applications is second to none.

Highland's underground fire protection tanks are the perfect solution for developers and municipalities when you want your fire-fighting water containment out of sight and out of mind.

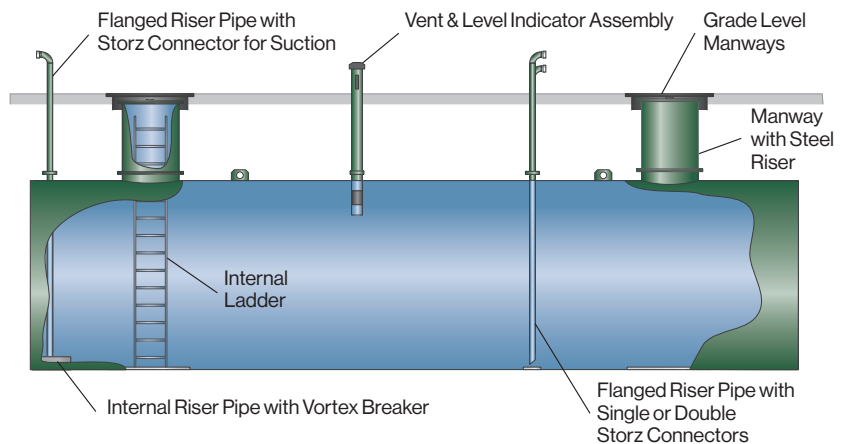
Model HD-FPT-BD - With a bottom drain connection for either a vertical pump wet well or fire pump suction. This FPT maintains a secure dedicated water supply for a building's overhead fire sprinkler or fire hoses.



Model HD-FPT-PW - With a pump well for a vertical turbine fire pump. With this type of FPT, the fire pump impellers are fully immersed in the water, maintaining prime at all times.

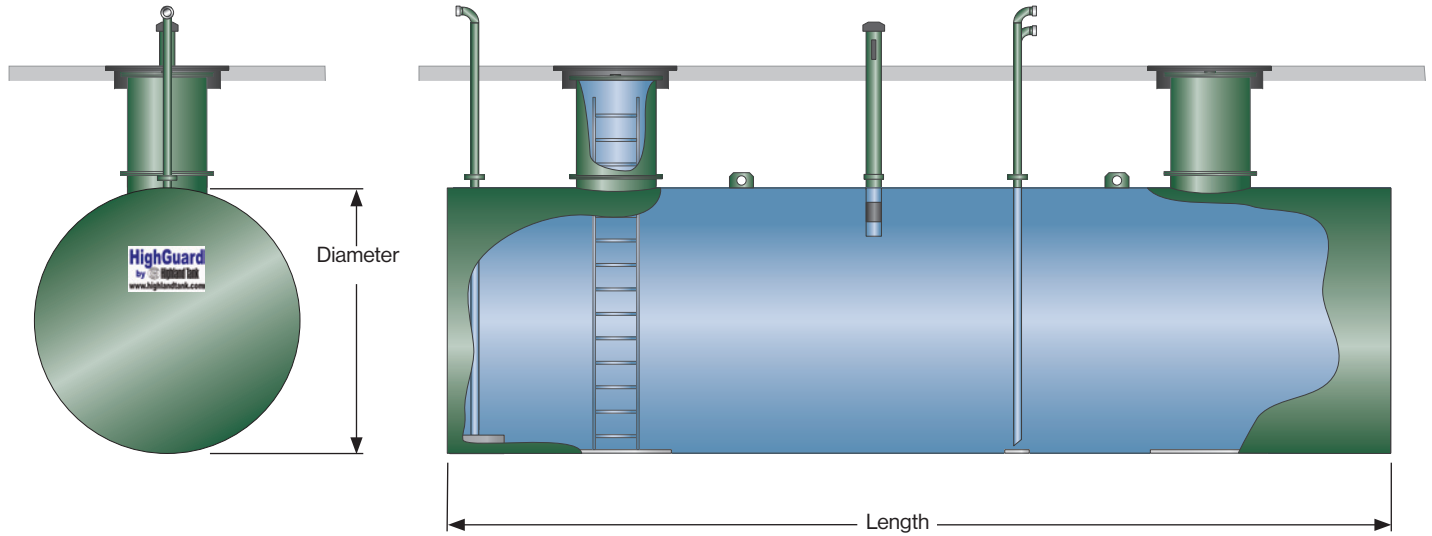


Model HD-FPT-VS - With a vertical suction pipe for use as an underground cistern to supply fire flow for fire department apparatus in a rural area.



Please contact us for assistance with your special fit or function fire protection storage needs.

Underground Tank Sizing Details



Volume Gallons	Nominal Dimensions	
	Diameter	Height
5,000	6'-0"	23'-10"
5,000	8'-0"	13'-4"
10,000	10'-0"	17'-0"
10,000	8'-0"	26'-8"
15,000	10'-0"	25'-6"
15,000	8'-0"	40'-0"
20,000	10'-0"	34'-0"
20,000	10'-6"	31'-0"
25,000	10'-0"	42'-6"
25,000	10'-6"	38'-9"
30,000	10'-0"	51'-2"
30,000	10'-6"	46'-6"
40,000	12'-0"	47'-6"
50,000	12'-0"	59'-6"
50,000	12'-6"	54'-6"
60,000	12'-0"	71'-0"
60,000	12'-6"	65'-5"
60,000	13'-0"	60'-6"

Custom sizes and configurations are available to suite you site needs.

HD-FPT are often required by local fire codes to provide a dedicated source of firefighting water for rural, suburban and urban communities.

Water distribution system requirements from local municipalities can be unattainable or prohibitive due to extensive development. In this case, water must be stored and available in sufficient quantity to satisfy the fire sprinkler pump demand. It is more common for HD-FPT to be required by fire codes as secondary water supply for use with a building's sprinkler systems for fire suppression.

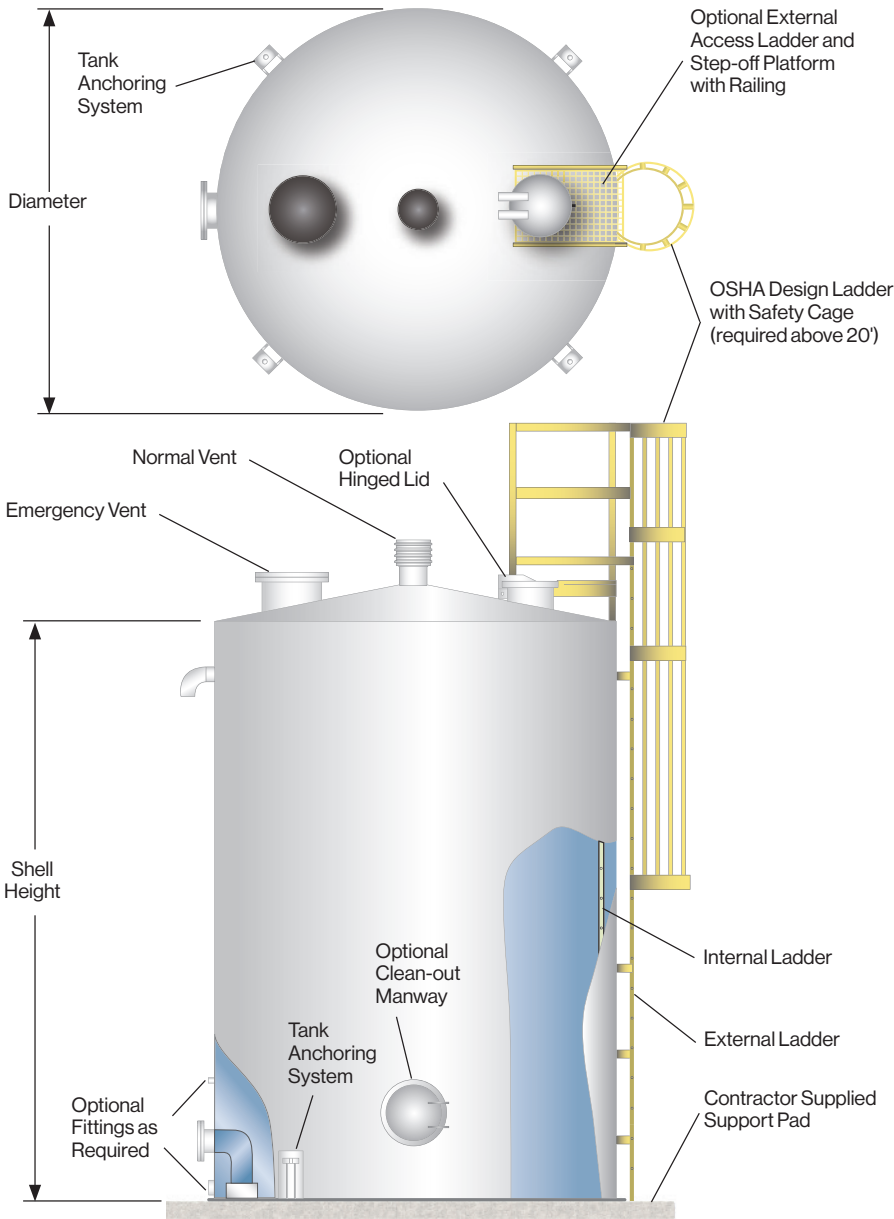
When installed underground, these NFPA-22 compliant tanks store an emergency supply of water being available in the event of fire.

They provide an unseen protection for the residents, save valuable space, reduce visual obstruction and are easily accessible for fire and municipal vehicles.

Building and fire codes may require a secondary, on-site water supply for high-rise buildings. Compliance may result in a secondary water supply equal to the hydraulically calculated sprinkler and hose stream design demand with a required duration time up to 30 minutes.

All Highland Tank HighDRO® Fire Protection drawings are available for viewing or downloading in PDF or AutoCAD DXF format at highlandtank.com

Aboveground Vertical Tank Sizing Details



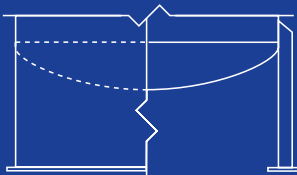
Volume Gallons	Nominal Dimensions	
	Diameter	Height
5,000	8'-0"	13'-4"
6,000	8'-0"	16'-8"
8,000	10'-0"	14'-0"
10,000	10'-0"	17'-0"
12,000	10'-0"	20'-6"
15,000	10'-0"	25'-6"
20,000	10'-0"	34'-0"
20,000	10'-6"	31'-0"
25,000	12'-0"	29'-8"
30,000	12'-0"	35'-6"
30,000	12'-6"	32'-9"
40,000	12'-0"	47'-6"
40,000	12'-6"	43'-8"
40,000	13'-0"	40'-4"
50,000	13'-0"	50'-6"



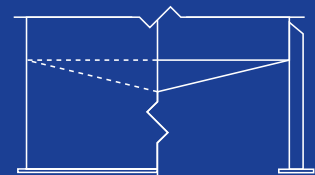
Vertical Tank Bottom Configurations



Flat - the most commonly used tanks in the industry; requires a flat surface to give full support.



Dish with Ring Base or Angle Legs - offers near complete drainage; used when head pressure is required at the output.

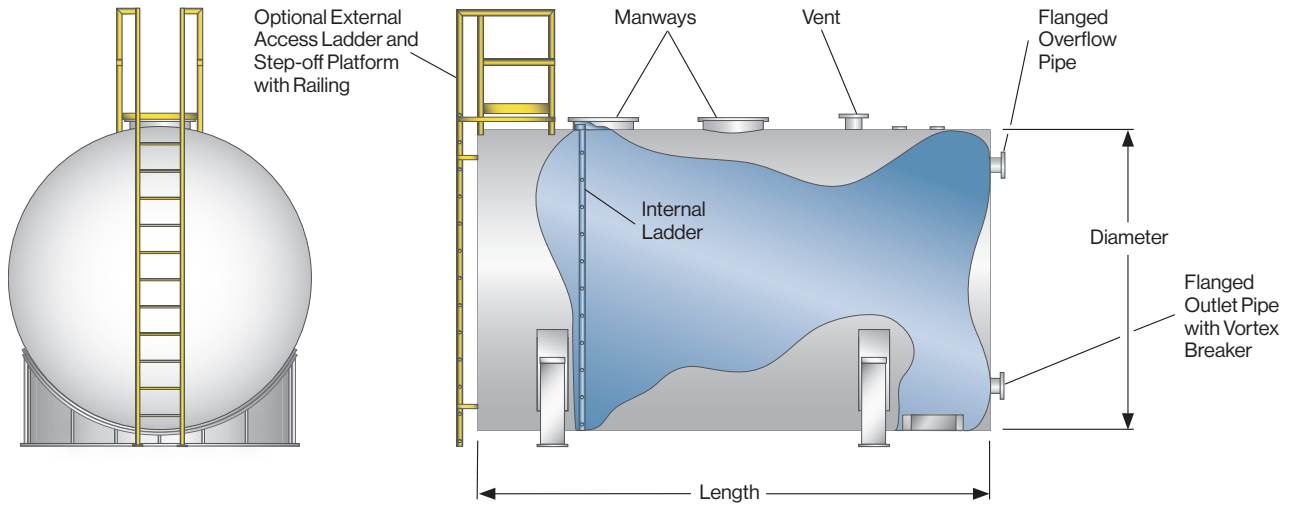


Cone with Ring Base or Angle Legs offers complete drainage.



Highland Tank®

Aboveground Horizontal Tank Sizing Details



Volume Gallons	Nominal Dimensions	
	Diameter	Height
5,000	6'-0"	23'-10"
5,000	8'-0"	13'-4"
10,000	10'-0"	17'-0"
10,000	8'-0"	26'-8"
15,000	10'-0"	25'-6"
15,000	8'-0"	40'-0"
20,000	10'-0"	34'-0"
20,000	10'-6"	31'-0"
25,000	10'-0"	42'-6"
25,000	10'-6"	38'-9"
30,000	10'-0"	51'-2"
30,000	10'-6"	46'-6"
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50,000	12'-0"	59'-6"
50,000	12'-6"	54'-6"
60,000	12'-0"	71'-0"
60,000	12'-6"	65'-5"
60,000	13'-0"	60'-6"



Custom sizes and configurations are available to suite your site needs.



Stoystown, PA
One Highland Rd.
Stoystown, PA 15563
(814) 893-5701

Manheim, PA
4535 Elizabethtown Rd.
Manheim, PA 17545
(717) 664-0600

Watervliet, NY
958 19th St.
Watervliet, NY 12189
(518) 273-0801

Greensboro, NC
2700 Patterson St.
Greensboro, NC 27407
(336) 218-0801

Friedens, PA
1510 Stoystown Rd.
Friedens, PA 15541
(814) 443-6800

Clarkston, MI
4701 White Lake Rd.
Clarkston, MI 48346
(248) 625-8700

Mancelona, MI
9517 Lake St.
Mancelona, MI 49659
(231) 587-8412

