



## Vertical Tank Stabilization Options

HT-1158

Highland Tank offers multiple methods to stabilize and secure aboveground vertical tanks. Connections to a concrete support foundation employ properly sized anchor bolts. Support pad and anchor bolts should be designed by a licensed engineer. Anchor bolts are customer supplied and installed.

### Steel Hold-Down Anchor Chairs

Anchor chairs provide secure hold-down for vertical flat-bottom tanks. Anchor chairs are welded to the tank during fabrication and will connect the tank to the support foundation with anchor bolts.

### Steel Support Legs

Tank support legs are fabricated from properly sized steel beam, angle or pipe as determined by design calculations. Support legs provide clearance space beneath a vertical tank for inspection and to accommodate coned or dished bottoms that may have connected piping. Support legs may also provide elevation for the tank in gravity flow processes.

### Steel Skirt with Ring Base

Tank skirts provide clearance and elevation for a vertical tank with a coned or dished bottom. The skirt can be fitted with open or bolted access openings to allow for inspection or maintenance of the tank bottom.

The bottom of the skirt includes a ring base which rests on the concrete foundation. The ring base can be provided with anchor bolt holes, or can work in conjunction with anchor chairs when necessary. Anchor bolts secure the tank to the foundation.

**Optional design calculations are available to help determine the size and type of stabilizer best suited for a particular application.**



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#### Manheim, PA

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#### 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  
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#### Clarkston, MI

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Clarkston, MI 48346  
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#### Mancelona, MI

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