



WATERLINE

TANK TECHNOLOGIES



Patent Pending



THE TWISTER

Multi-Use Manway

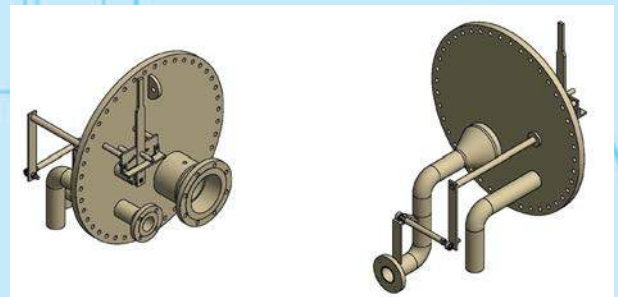
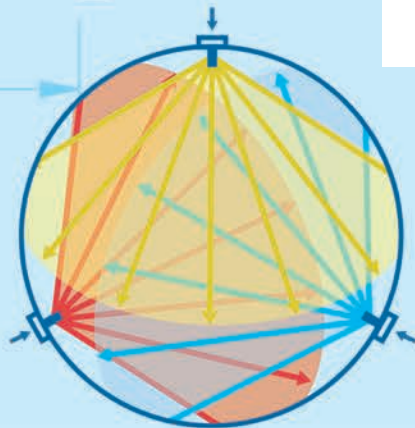
The Twister® Manually Adjustable

ENGINEERED FOR ANY MANWAY TO API 650 STANDARDS

Versatile Tool for Online or Offline Tank Cleaning and Maintenance

Crude oil, heavy fuel oils, catalyst fines, residuum and other black oils, as well as wastewater and stormwater tanks, are notorious for developing solids, sludge, or BS&W on the floor of the storage tank, where the sludge hardens and cannot be removed by normal pumping. The tank has to be then taken offline and cleaned, which is hazardous, expensive, time-consuming, and requires sludge disposal. Tank cleaning often involves personnel entry and potential exposure.

The Twister helps minimize the downtime needed for offline cleaning and/or tank entry. When permanently installed on the tank, Twisters also provides a method for online tank cleaning, so that the tank only needs to be opened for mandated inspection intervals. The Twister works by taking suction from the tank with a properly-sized recirculation pump, and pumping the product back into the tank through the manually adjustable Twister nozzle. The Twister's nozzle creates a powerful jet of the tank contents that is directed across the bottom of the tank, which dissolves and resuspends accumulated sludge. The 120° sweep of the Twister allows the tank to be thoroughly mixed. Multiple Twisters are usually installed on a given tank, depending on tank size, product contents, and customer intentions. Twisters replace the existing manway cover, and require no electrical or other power source other than the recirculation pump. The system allows use of product from the tank itself, or fluid from an outside source, such as cutter stock or water, to clean the tank. Please contact us to discuss your specific application.



Multi-Purpose Manway



TOP VIEW

MULTI-PURPOSE TOOL

Submerged Jet Mixer to Refluidize Tank Bottoms,
Reclaim Lost Product and Regain Storage Capacity

Replace Side Entry
Propeller Mixers for
Effective Tank Mixing

Inject Cutter Stock or
Chemicals, or Take
Suction

No Manned Entry Required
to Extend Tank Openings
Until Mandated Inspection
Intervals

Directional Nozzle
for Powerful Cleaning
to Remove Solids and
LEL Levels from Tank
When Opening for
Inspection or Repair

Sample the Tank
Without Opening
to Atmosphere

Water or Solvent Wash
for Detail Cleaning

FRONT VIEW

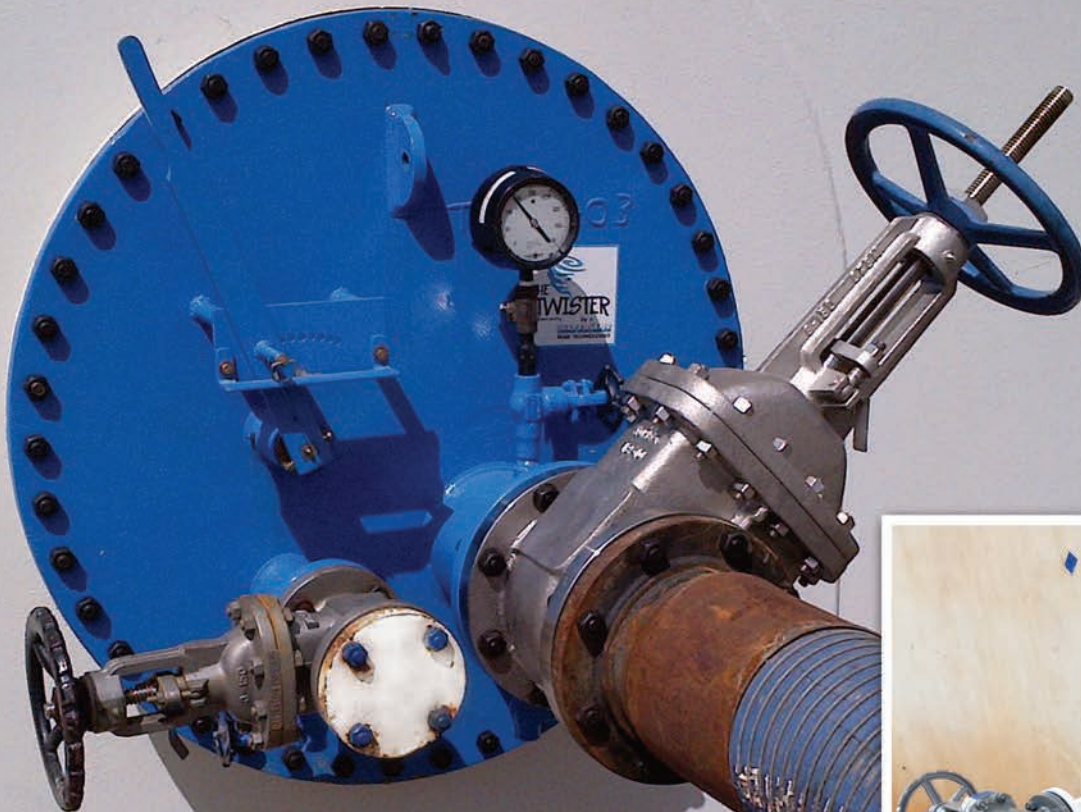
View animation of the Twister in operation at www.waterlinellc.com



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TANK TECHNOLOGIES

HOME OF
THE
TWISTER



About Waterline Tank Technologies, LLC

Waterline Tank Technologies builds on the history of innovation established by its sister companies Triton Industries (portable high performance vacuum systems) and Brahman Systems (cable and hose protection for industrial traffic). Waterline was formed specifically to provide the tank cleaning and maintenance market with the unique multi-purpose manway known as “The Twister”.