

# 13/15 Battery Handling Equipment

# **Battery Watering Devices**

Facilities using lead-acid batteries to power their forklifts must perform battery watering as a necessary part of regular maintenance, and to maintain electrolyte levels requires precision. Over-watering runs the risk of damaging boil-overs during the charging process. Neglecting to



BHS provides custom battery handling equipment to meet any challenge.

Contact BHS at bhs@bhs1.com to learn more about fully customized solutions for the battery room and beyond.



**∰ BH51.com** 

# **Watering Carts**

# 10 Gallon Mobile Bladder Tank

Conveniently supply water to forklift batteries anywhere in your facility with the 10 Gallon Mobile Bladder Tank (BTM-10). The BTM-10 stores water at the same pressure that it entered the tank. By using the water pressure of your building and not requiring any electrical power, the BTM offers a cost-effective water delivery method. The large handle and wheels make it easy to maneuver the unit around to fill battery cells as needed.

### **FEATURES & BENEFITS**

- Sturdy 10 gal (37.8 L) steel tank
- Enjoy an unlimited range of mobility since AC power is not needed for operation
- Utilizes building's water pressure with "pressure memory" to deliver water to batteries, eliminating need for pumps
- Internal air bladder provides pressure necessary for water flow
- 9' (2.7 m) input hose to receive water and 10' (3.05 m) output hose to deliver water
- Quick-connect fitting connects input hose to water source to efficiently fill the tank
- Capacity gauge displays fullness of the tank
- Achieve the 10 gal (37.8 L) maximum capacity when the tank is pressurized to 80 psi (5.5 Bar)

## **SPECIFICATIONS (IMPERIAL / METRIC)**

Capacity	Overall Height	Overall Width	Overall Depth	Empty Weight	Wheel Size
10 gal / 37.8 L	41" / 1041 mm	17" / 432 mm	19"/ 483 mm	60 lb / 27.2 kg	8" / 203 mm ball bearing

Note: Very low facility/building water pressure may require a booster pump.



BTM-10

# 10 Gallon Dc-Powered Watering Cart

The 10 Gallon DC-Powered Watering Cart (WC-HYDRO-DC-KIT) is a great solution for providing water to industrial forklift batteries when mobility is a must. This compact tank can be pulled by hand and is powered from a built-in, rechargeable battery. The large, capped opening makes filling the tank easy, and the water gun is adjustable for precise watering.

#### **FEATURES & BENEFITS**

- Sturdy 10 gal (37.8 L) polypropylene tank
- 9' (2.7 m) output hose connects to included water gun (WG-X) for watering batteries
- Pump turns on and off by squeezing and releasing the trigger of the water gun
- Enjoy an unlimited range of mobility since AC power is not needed for operation
- DC powered from built-in, sealed cell 12 V rechargeable battery
- Battery charger plugs into any 110/120 V ac wall outlet and shuts off when full charge is achieved
- Handle and wheels make unit easy to transport

Capacity	Overall Height	Overall Width	Overall Depth	Empty Weight	Wheel Size	Flow Rate
10 gal / 37.8 L	37" / 940 mm	17" / 432 mm	17" / 432 mm	30 lb / 13.6 kg	6" / 152 mm Plastic/Rubber	0.5 gal/min / 1.9 L/min



shown without Water Gun

# 10 Gallon Ac-Powered Watering Cart

The 10 Gallon AC-Powered Watering Cart (WC-HYDRO-10-KIT) is ideal for watering industrial forklift batteries in small to mid-size operations. The 13' (3.96 m) power cord plugs into any 110 V ac outlet to supply power to the unit. The 12' (3.66 m) output hose and water gun are used to provide water to battery cells. The combined length of the power cord and the output hose extend the service range for battery maintenance.

#### **FEATURES & BENEFITS**

- Sturdy 10 gal (37.8 L) polypropylene tank plugs into any 110 V ac outlet
- 12' (3.66 m) output hose connects to the included water gun (WG-X)
- Handle and wheels make unit easy to transport
- Submersible pump mounted inside the tank delivers pressure and volume needed
- 13' (3.96 m) power cord plugs into 110 V ac outlet
- Can be used to supply water to single point watering systems; flow indicator on the Instant Valve Pro signals when the injectors have shut off and it is time to disconnect



WC-HYDRO-10-KIT shown without Water Gun

## **SPECIFICATIONS (IMPERIAL / METRIC)**

Capacity	Overall Height	Overall Width	Overall Depth	Empty Weight	Power	Wheel Size	Horse Power
10 gal / 37.8 L	35" / 889 mm	15" / 381 mm	17" / 432 mm	31 lb / 14.1 kg	110 V ac / 8.5 A	6" / 152 mm Plastic/Rubber	3/4 HP

# 20 Gallon Ac-Powered Watering Cart

Complete the crucial maintenance task of watering lead-acid forklift batteries with the 20 Gallon AC-Powered Watering Cart (WC-HYDRO-20-KIT), which is perfect for mid to large size applications. Easily transport up to 20 gallons of water in this large tank from the water source to the batteries, and use the water gun to fill cells with precision. When not in use, the power cord is retractable into the rear-mounted reel, and the hose can be wrapped around the hooks to prevent damage.

#### **FEATURES & BENEFITS**

- Sturdy 20 gal (75.7 L) polypropylene tank plugs into any 110 V ac outlet
- On/off switch and power indicator located on front of unit
- 30' (9.14 m) total reach with 15' (4.6 m) power cord plus 15' (4.6 m) output hose
- Submersible pump mounted inside the tank delivers pressure and volume needed
- Water Gun (WG-X) included
- Can be used to supply water to single point watering systems; flow indicator on the Instant Valve Pro signals when the injectors have shut off and it is time to disconnect



WC-HYDRO-20-KIT shown without Water Gun

Capacity	Overall Height	Overall Width	Overall Depth	Empty Weight	Power	Wheel Size	Horse Power
20 gal / 75.7 L	40.6" / 1031 mm	19.7" / 500 mm	19.5" / 495 mm	59 lb / 26.8 kg	110 V ac / 8.5 A	8" / 203 mm ball bearing	3/4 HP



The BE-WC-SS is designed to mount on the rear of all standard SL, DS, TS, QS and MT series Operator Aboard Battery Extractors (BE). The BE-WC-SS is designed for battery fleets with single point watering systems but can be used with the manual Water Gun (WG-X) if needed.

### **FEATURES & BENEFITS**

- Sturdy 26 gal (98.4 L) stainless steel tank
- All internal components are corrosion and rust resistant materials
- Slim line design adds less than 13" (330 mm) to overall length of BE
- Powered by AC supplied from BE
- 15' (4. 57 m) output hose
- Light indication on switch enclosure allows operator to monitor status during the watering process (Green: pump is on, Yellow: add water, Orange: low water cut out)
- Includes a water overfill indicator on the top of the unit for convenience when refilling
- Low water cut out prevents pump from running when water level is too low
- Easy fill port with built in screen strainer to help keep unwanted debris from
  tank
- Internal baffles minimize water motion and leak potential

 Modular pump and level switch mounting for easy removal when service is required

**BE-WC-SS** 

- Drain port for cleaning and/or service when required
- Easy field installation on existing BHS BEs in service (consult factory for compatibility with BE's manufactured prior to January 2010)

#### **Pump Construction**

- Fully submersible, pressure rated, multi-impeller design pump runs quietly and efficiently
- Double ball bearing shaft
- Stainless steel shaft, inlet screen and motor housing
- Ceramic shaft sleeve seals
- Built-in overload protection
- Environmentally safe oil-free design

Overall Dimensions¹ (W x H x D)	Capacity	Empty Weight	Voltage	Current Draw	Horse Power	Power	Pressure <sup>2</sup>	Flow Rate <sup>3</sup>
27.75" x 40.5" x 13.44" 705 mm x 1029 mm x 341 mm	26 gal with 4.2 gal low water reserve	136 lb / 61.7 kg	120 V / 1 ph / 60 Hz	8.2 A	0.75 HP	900 W	52 psi Max*	0 to 25 gal/min

<sup>&</sup>lt;sup>1</sup> Depth when mounted on BE is 12.625" (321 mm)

<sup>&</sup>lt;sup>2</sup> Pressure reducing regulators available if required

<sup>&</sup>lt;sup>3</sup> Flow is variable as demand requires

# Battery Watering & Filling System Tank

The BHS Battery Watering and Filling System Tank is a mobile water supply for watering forklift batteries in a decentralized manner. This pallet-mounted, 300-gallon mobile water supply travels to industrial batteries wherever they are located, making it ideal for watering cells in park-and-charge systems. The BHS Battery Watering and Filling System Tank is lightweight plastic protected by a metal cage. Fork pockets in the base allow users to transport the loaded water tank with a pallet jack or forklift. These units are fully compatible with all BHS watering accessories.

#### **FEATURES & BENEFITS**

- Designed for forklift battery watering, especially in park-and-charge applications
- Sturdy metal cage protects the lightweight plastic tank
- Integrated fork pockets improve mobility
- Frame-mounted pump makes watering forklift batteries easy
- Store additional hardware on the frame
- Compatible with all BHS watering equipment



## **SPECIFICATIONS (IMPERIAL / METRIC)**

Capacity	Overall Height	Overall Width	Overall Depth	Empty Weight	Full Weight	Power	System Exposure Temperature
330 gal / 1249 L	62" / 1575 mm	40" / 1016 mm	48" / 1219 mm	2350 lb / 104 kg	3,000 lb / 1361 kg	DC-powered by pallet truck 24-volt battery	35°F to 160°F / 2°C to 71°C



## PAIR WITH BHS' WDS-1

The FST-330 holds up to 330 gallons of purified or deionized water. Users should never fill forklift battery cells with unrefined tap water, which contains impurities that negatively affect performance. Use a Water Deionizing System (WDS-1) or similar purification device to fill the FST-330 for facility-wide use.

Note: Pallet Jack not included.

# Watering Accessories

# Water Deionizing System

The Water Deionizing System (WDS-1) purifies water straight from the tap to remove minerals and pollutants that can damage battery performance. The WDS-1 is more than just a filter. The cartridge contains cationic and anionic resins, and as water flows through, dissolved impurities are removed electrostatically. Very pure water is produced that will maximize forklift battery performance. A purity light monitors the system's status, and cartridges are easy to replace. A water gun (not included) can be connected to the output hose to water batteries directly, or the hose can be used to fill a water cart.

#### **FEATURES & BENEFITS**

- Prevents poor battery performance from impurities in hard water
- Complete solution to begin purifying water from the tap, including mounting plate and hose hanger
- Operates at full-line pressure to dispense pure water directly from the deionizer
- A single cartridge can produce an average of 600 gal (2271 L) of purified water (amount varies with quality of incoming water)
- Quick cartridge replacement requires no tools and offers convenient disposal of non-toxic contents
- Cartridge takes full-line pressure up to 80 psi and can be used directly with Water Gun (WG-X)
- Battery operated purity light indicates when cartridge needs to be replaced, eliminating need for AC power
- Eliminates costly use of bottled water; purity level is comparable to distilled water



## **SPECIFICATIONS (IMPERIAL / METRIC)**

Flow Rate	0.5 gal/min / 1.9 L/min (with provided restrictor)				
Purity Light Power	2 D-cell batteries (included) with estimated 2 year life				
Purity Light Setting	50 ppm total dissolved solids				
Mounting Plate	44" x 6" / 1118 mm x 152 mm				
Disposable Cartridge	27" x 4.5" / 686 mm x 114 mm				
Hose	3/8" x 10' / 9.5 mm x 3.05 m input 3/8" x 20' / 9.5 mm x 6.1 m output, garden hose thread fittings				
Empty Weight 27 lb / 12.2 kg					

# Water Gun

Avoid the damaging effects from over-filling and under-watering forklift batteries by using a tool that helps accurately fill battery cells. The forklift battery Water Gun (WG-X) is compact, lightweight, and easy to use for watering batteries quickly. The WG-X features an automatic shutoff for added convenience and improved filling accuracy. Attain optimal electrolyte levels without the backache from bending over batteries while hand-watering. The ergonomic WG-X can connect to the Water Deionizer System, a battery watering cart, or a standard hose.

### **FEATURES & BENEFITS**

- Ergonomically designed with an easy to squeeze handle and 45 degree nozzle
- Fast 1.7 gal/min (6.4 L/min) fill speed, delivering a precise flow rate
- Non-electric, automatic shutoff mechanism
- Post shutoff drip eliminated
- Level control collar is pre-positioned to suit most forklift batteries, but can be adjusted with an allen wrench
- Flow diffuser converts the rapid flow to a gentle spray
- Built from durable engineered ABS plastic



Operating Pressure	<80 psi / <5.515 bar
Flow Rate	1.7 gal/min / 6.4 L/min
Dimensions (W x H x L)	2" x 7" x 17" / 51 mm x 178 mm x 432 mm
Weight	1.5 lb / 0.68 kg

# Integrated Watering System

The Integrated Watering System (IWS) streamlines battery maintenance and eliminates laborious manual watering. The IWS enables automatic delivery of water to each individual battery once a full charge has been achieved. The system works in conjunction with the battery charger end of cycle shutdown to initiate the watering of the battery. A module connects into the DC output of the charger for its power. Each module is matched to the battery voltage type being serviced. The IWS is designed to be turned on and off manually so over-watering is eliminated. A typical application would have the unit on for a 24 hour period every week dependent on environmental conditions that might cause more or less watering requirements.

#### **FEATURES & BENEFITS**

- Automatic watering of multiple batteries
- IWS is designed to mount on the charger cabinet, eliminating cumbersome water carts, watering hoses, etc.
- Quick easy connection to batteries when connecting to chargers
- Maximize battery life with precise and consistent watering
- Operates from any available water supply with a minimum of 25 psi (1.7 bar) and flow minimum of 5 gal/min (18.9 L/min) (dependent upon fleet size being serviced)
- Eliminates labor of a manual watering process
- Reduce overflow of water and electrolyte keeping battery acid levels consistent
- Reduces corrosion build up due to over-watering and acid spillage
- System can be adapted to most common watering strings



## IMPROVE YOUR BATTERY ROOM

BHS' full line of industry-leading equipment can help any facility maintain a productive battery room. From battery and charger stands, to cable management and safety accessories, BHS has the total solution to fit the needs of any size facility.





