# BHS 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 water or under-watering exposes plates to the air, causing dry cell and permanent loss of battery capacity.

Avoid these costly mistakes by training staff and supplying proper equipment for the job. BHS offers a complete line of battery watering devices to match the watering system to the fleet size and requirements. Whether watering forklift batteries by hand or with an automated system, BHS equipment helps staff efficiently deliver water with control and accuracy to help get the most out of your battery life span.



**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.



# Battery Water Carts & Tanks

Battery Water Carts and Tanks make the essential task of watering forklift batteries more manageable by providing a mobile source of water. Routing hoses through shelving and other impediments is inefficient. Even worse, this practice can subject staff to ergonomic hazards as they bend and stretch to reach far-off battery cells. Instead, invest in an easily maneuverable Battery Water Cart or Tank that allows full access to batteries, wherever they are located.

### Forklift Battery Water Carts and Tanks Simplify an Important Maintenance Task

Forklift Battery Water Carts and Tanks make the crucial task of precise battery watering easy. Overwatering and underwatering can both lead to permanently decreased battery life. That translates to less time for productive work and more time charging and changing batteries. Watering batteries without a dedicated tank and Water Gun is also an ergonomic risk. BHS battery watering equipment solves both of these problems for fleets of all sizes.

#### Learn More About BHS Battery Water Carts and Tanks

Ensure precision when you water batteries by investing in Forklift Battery Watering Devices from BHS. Contact our sales team at 1.800.BHS.9500 to learn more about which BHS Water Cart or Tank is right for your fleet.



## 10 Gallon DC-Powered Water Cart

The 10 Gallon DC-Powered Water 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<br>Plastic/Rubber | 0.5 gal/min / 1.9 L/min |



# 10 Gallon AC-Powered Water Cart

The 10 Gallon AC-Powered Water 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

#### **SPECIFICATIONS**

| 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<br>Plastic/Rubber | 3/4 HP      |

## 20 Gallon AC-Powered Water Cart

Complete the crucial maintenance task of watering lead-acid forklift batteries with the 20 Gallon AC-Powered Water 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

#### **SPECIFICATIONS**

| 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<br>bearing | 3/4 HP      |



WC-HYDRO-10-KIT shown without Water Gun

# **BE Mounted Water Tank**

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

60

**BHS** 

40

BHS

**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

## **SPECIFICATIONS**

| Overall Dimensions <sup>1</sup><br>(W x H x D)       | Capacity                                 | Empty Weight     | Voltage              | Current<br>Draw | Horse<br>Power | Power | Pressure <sup>2</sup> | Flow Rate <sup>3</sup> |
|--|--|------------------|----------------------|-----------------|----------------|-------|-----------------------|------------------------|
| 27.75" x 40.5" x 13.44"<br>705 mm x 1029 mm x 341 mm | 26 gal with 4.2 gal<br>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>1</sup> Depth when mounted on BE is 12.625" (321 mm)

<sup>2</sup> Pressure reducing regulators available if required

<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**

| Cap     | oacity     | Overall Height | Overall Width | Overall Depth | Empty Weight     | Full Weight        | Power   | System Exposure<br>Temperature |
|---------|------------|----------------|---------------|---------------|------------------|--------------------|---|--------------------------------|
| 330 gal | l / 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<br>24-volt battery | 35°F to 160°F /<br>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.

# 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**

| 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<br>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



## **SPECIFICATIONS**

| 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. Contact our sales team to learn more.





**NORTH AMERICA:** P.O. Box 28990, St. Louis, MO 63132 USA • 1.800.BHS.9500 • Fax: 314.423.6444 • sales@bhs1.com • BHS1.com **INTERNATIONAL:** P.O. Box 12429, St. Louis, MO 63132 USA • +1 314 423 2075 • Fax: +1 314 423 3034 • sales@bhs1global.com Specifications are subject to change without notice. ©2014–2021 BHS, Inc. St. Louis, MO. Data Sheet: PL-1300 12/21