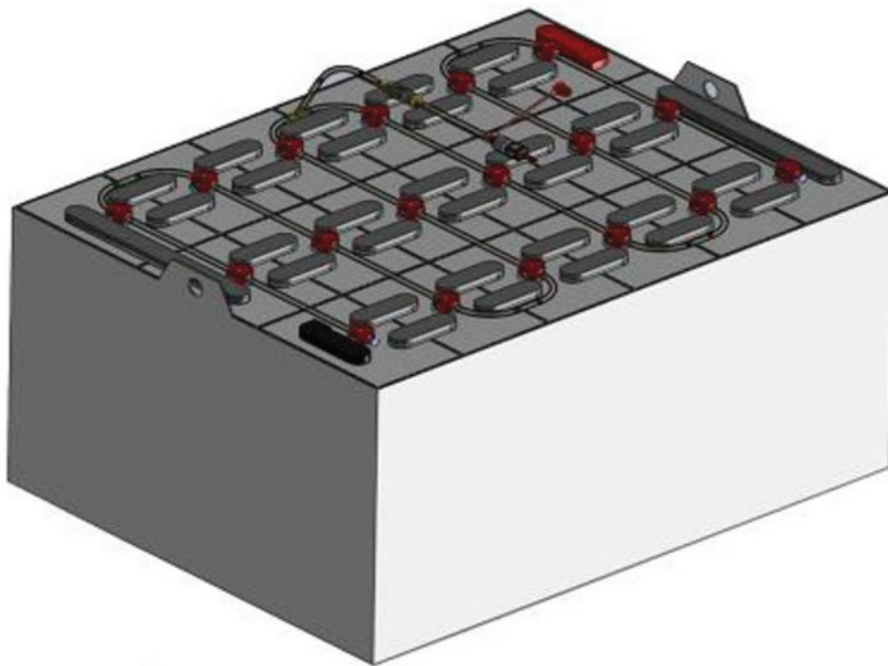


# FROETEK

**Complete Single Point Watering Systems**

**STORAGE BATTERY SYSTEMS PARTS CATALOG**



**Storage Battery Systems LLC**  
N56 W16665 Ridgewood Drive  
Menomonee Falls, WI 53051

[www.sbsbattery.com](http://www.sbsbattery.com)

800-554-2243

[sbs@sbsbattery.com](mailto:sbs@sbsbattery.com)

## AQUA LOW PROFILE WATERING SYSTEM

To determine the Item Number for the FROTEK AQUA LOW PROFILE BATTERY WATERING SYSTEM please use the following example

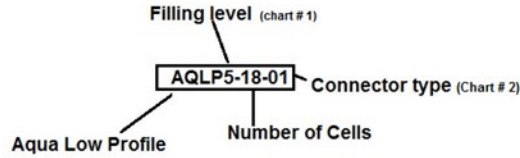
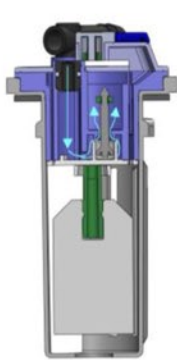
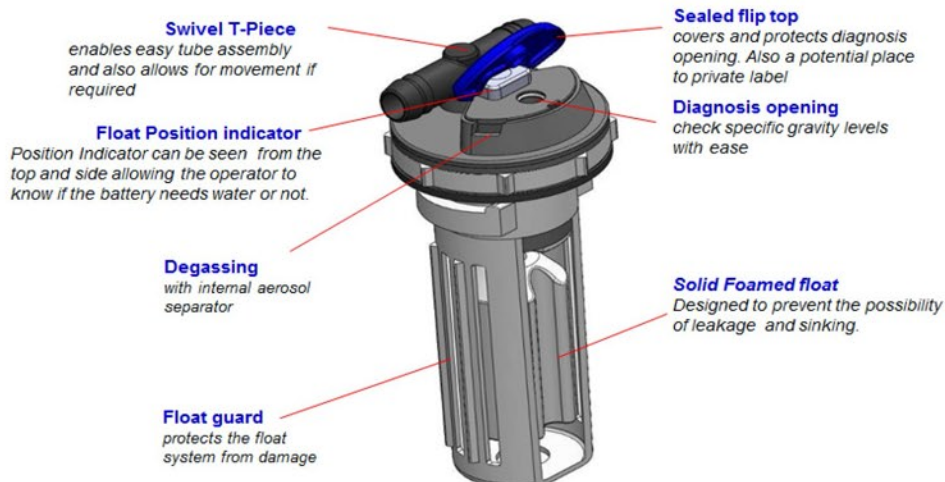


Chart # 1					
Fill Level	29mm	32mm	36mm	40mm	44mm
Float #	3	4	5	6	7

Chart # 2	
FROTEK Standard Gray Male QD	Male QD #1
Colder Connector BWT™ Male QD	Male QD #2
Colder Connector FlowRite™ Male QD	Male QD #3
Colder OLD Philadelphia Scientific™ Male QD	Male QD #4



FROTEK VALVE	FILL LEVEL	OVERALL	BATTERY MANUFACTURING USAGE
#4 Valve	32mm / 1.26"	52mm / 2.04"	BATTERY BUILDERS (BBI), HAWKER
#5 Valve	36mm / 1.41"	57mm / 2.24"	CROWN, DEKA** (SEE NOTE), DOUGLAS - with adaptors, ENERSYS: E55L, E75L, E75, E90, E100, E100X (FC), E110, 55GL, 75GL, 75G, 85G, 85P, 100G, 100P POWER FLOW, REACO **When ordering for a DEKA battery, it is essential to specify this on the order as a thicker gasket is required on the valves.
#6 Valve	40mm / 1.57"	62mm / 2.44"	BULLDOG ( # 3 valve for the 2XREP)
#7 Valve	44mm / 1.74"	67mm / 2.64"	ENERSYS: E90D, E100D, E125, E125D, E140, E140X (FC), E155, 125G, 125P
GNB VALVE			GNB ** NOTE** - GNB part numbers are designed as follows: AQLP/GNB - number of cells-QD# (EX: AQLP/GNB-12-01 which denotes Aqual Low Profile GNB valve, 12 cell battery, with FROTEK QD).





**NEW\*\*\* AQUA LOW PROFILE PUSH-IN WATERING SYSTEM**

To determine the Item Number for the FROETEK AQUA Low Profile Battery PUSH-IN Watering System please use the following Example

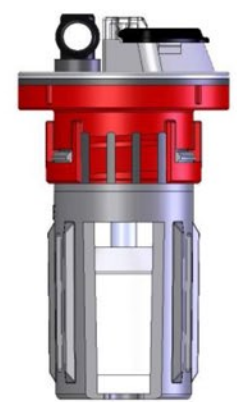
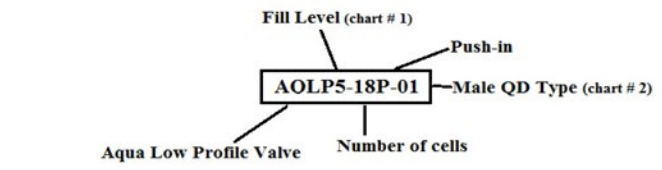


Chart # 1			
Fill Level	32mm	36mm	40mm
Float #	4	5	6

Chart # 2	
FROETEK Standard Gray Male QD	Male QD #1
Colder Connector BWT™ Male QD	Male QD #2
Colder Connector FlowRite™ Male QD	Male QD #3
Colder OLD Philadelphia Scientific™ Male QD	Male QD #4

FROETEK VALVE	FILL LEVEL	OVERALL	BATTERY MANUFACTURING USAGE
#4 Valve	32mm / 1.26"	52mm / 2.04"	BATTERY BUILDERS (BBI), HAWKER
#5 Valve	36mm / 1.41"	57mm / 2.24"	CROWN, DEKA** (SEE NOTE), DOUGLAS-with adaptors , EnerSys E55L, E75L, E75, E90, E100, E100X (FC), E110, 55GL, 75GL, 75G, 85G, 85P, 100G, 100P, POWER FLOW, REACO <i>** When ordering for a DEKA battery, it is essential to specify this on the order as a thicker gasket is required on the valves.</i>
#6 Valve	40mm / 1.57"	62mm / 2.44"	Bulldog ( # 3 valve for the 2XREP)
GNB VALVE			GNB **NOTE** - GNB part numbers are designed as follows: AQLP/GNB-number of cells- QD# (EX: AQLP/GNB-12-01 which denotes Aqua Low Profile GNB valve, 12 cell battery, with FROETEK QD).

**Float position Indicator**

Position Indicator can be seen from the top and side of the valve allowing the operator to know if the battery needs watering or not

**Swivel T-Piece**

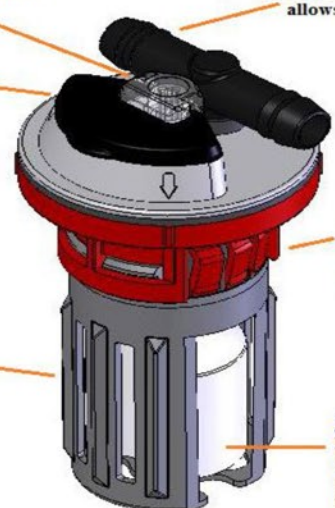
Enables easy tube assembly and allows for movement if required

**Sealed Diagnostic Top**

Covers and protects the diagnostic opening. Also a potential location for private labeling

**Float Guard**

Protects the float system from damage



**R-24 Push-In Style Valve**































Designed for a long lasting tight fit in most USA manufactured batteries

**Solid Foam Float**

First watering system introduced using a 100% solid foamed float. Designed to eliminate sinking from leakage and also to provide a long lasting accurate watering level in a battery.



## Single Point Watering System Parts

 <p>Aqua Low Profile Watering Valves (R24) FRP-VALVE - (** MUST SUPPLY VALVE NUMBER - CALL IF UNSURE)</p>	 <p>Valve Installation tool for AQLP Low Profile Valves FRP-INSTALL TOOL</p>	 <p>1/4 turn to push-in adaptor FRP-PIADAPTOR</p>	 <p>AQLP Push In Watering Valves FRP- VALVE(Insert #) P</p>	
 <p>Endcap FRP-ENDCAP</p>	 <p>Clamp - 10mm FRP-CLAMP10</p>	 <p>T-piece 6x6x6mm FRP-TEE6MM</p>	 <p>4 Way Cross FRP-4CROSS6</p>	 <p>T-piece 6x10x6mm FRP-TEE10MM</p>
 <p>Rubber Tubing 6mm 12" FRP-6MM-RTB 10mm 12" FRP-10MM-RTB</p>	 <p>8" cable ties FRP-TIES</p>	 <p>Inline Flow Indicator w/ Built In Screen Flow Indicator w/ filter 6mm FRP-FLOW6 Flow Indicator w/ filter 10mm FRP-FLOW10</p>	 <p>FROETEK Hydrometer with Thermometer (1.06 to 1.30 sg.) Designed to fit AQLP test port FRP-HYDRO2</p>	
 <p>6mm FROETEK Female 10mm FROETEK Female 6mm = FRP-FMQD6-01 10mm = FRP-FMQD10-01</p>	 <p>6mm FROETEK Male 10mm FROETEK Male 6mm = FRP-MQD6-01 10mm = FRP-MQD10-01</p>	 <p>FROETEK Dust Cap FRP-DUSTCAP-01</p>	 <p>FROETEK Feed Assembly 6mm FRS-FEEDASSY6-01 10mm FRS-FEEDASSY10-01</p>	
 <p>Colder Female BWT™ compatible 10mm = FRP-MQD10-02</p>	 <p>Colder Male BWT™ compatible 6mm = FRP-MQD6-02 10mm = FRP-MQD10-02</p>	 <p>Red Colder Dust Cap BWT™ compatible FRP-DUSTCAP-02</p>	 <p>6mm Feed Assembly BWT™ compatible 6mm = FRS-FEEDASSY6-02 10mm = FRS-FEEDASSY10-02</p>	
 <p>Colder Female FlowRite™ compatible 10mm = FRP-FMQD10-03</p>	 <p>Colder Male FlowRite™ compatible 6mm = FRP-MQD6-03 10mm = FRP-MQD10-03</p>	 <p>Black Colder Dust Cap FlowRite™ compatible FRP-DUSTCAP-03</p>	 <p>6mm Feed Assy FlowRite™ compatible 6mm = FRS-FEEDASSY6-03 10mm = FRS-FEEDASSY10-03</p>	
 <p>OLD Philadelphia Scientific™ compatible 6mm = FRP-MQD6-04</p>	 <p>Flip Top Vent Caps 1/4 turn Style FRS-1/4VENTCAP</p>	 <p>Flip Top Vent Caps Push in Style FRP-PIVENTCAP</p>	 <p>DEPTH GAUGE FRP-DEPTHGAUGE</p>	
 <p>Push In Baskets FRP-YLBSKT55 FRP-WHTBSKT48 Yellow Basket 55 mm White Basket 48 mm</p>				



## Direct Connect Filling Systems

### DIRECT CONNECT FILL GUN - FRS-GUN10-01



FRS-GUN10-02 BWT™ Female QD  
FRS-GUN10-03 FlowRite™ Female QD

20 PSI Regulator  
Hose Nozzle  
Nozzle end reducer  
Quick Connect Set

### DIRECT FILL LINK - FRS-DFL10-01



FRS-DFL10-02 BWT™ Female QD  
FRS-DFL10-03 FlowRite™ Female QD

Quick Connect Set  
20 PSI Regulator  
Inline Valve  
Nozzle end reducer

### FROETEK MANUAL WATERING GUN ITEM NUMBER FRS-TOPGUN



The FROETEK Manual Watering Gun has been designed to protect operators from coming into direct contact with battery acid. It was also designed to fill to your precise level. This tool assists in watering the battery cells (of many different types) along with keeping your battery clean and ready to go. Always remember to NOT water a battery until it has been completely charged as the acid level in a battery has a tendency to swell and increase during charge.

### DIRECT FILL FLEET ITEM NUMBER FRS-DIRECTFILLFLEET-NO HOSE



*FRS-DIRECTFILLFLEET-01	FROETEK Female QD
*FRS-DIRECTFILLFLEET-02	BWT™ Female QD
*FRS-DIRECTFILLFLEET-03	FLOWRITE™ Female QD
**FRS-DIRECTFILLFLEET20-01	FROETEK Female QD
**FRS-DIRECTFILLFLEET20-02	BWT™ Female QD
**FRS-DIRECTFILLFLEET20-03	FLOWRITE™ Female QD

\*Ships with 5 feet hose  
\*\*Ships with 20 feet hose

## 7.9 GALLON Gravity Feed Filling Tank

Part # **FRS-TANK-01** Gravity Feed Fill Tank with FROTEK Standard Gray Disconnect  
**FRS-TANK-02** Gravity Feed Fill Tank with BWT™ Female QD  
**FRS-TANK-03** Gravity Feed Fill Tank FlowRite™ Female QD



The FROTEK 7.9 Gravity Fill Tank is designed as an economical way to ensure that your batteries are filled to the proper level when you have a spare moment or two to fill them. This tank comes equipped with 10' (feet) of hose, a 10mm Inline Flow Indicator with a Built -In Screen to protect from any foreign debris floating in your tank, and a Standard 10mm Gray Quick Connect (QD) which can be adapted to any of our competitor disconnects for an additional cost.

Chart # 2	
FROTEK Standard Gray Female QD	Female Quick Disconnect #1
Colder Connector BWT™ Female QD	Female Quick Disconnect #2
Colder Connector FlowRite™ Female QD	Female Quick Disconnect #3





## FROETEK Level Indicator (FLI)

The FROETEK Level Indicator (FLI) is an electrolyte level monitoring device for lead acid batteries. The FROETEK Level Indicator (FLI) consists of a housing with an optical device to which a long externally insulated lead electrode is attached and comes into contact with the battery electrolyte through a designated "Pilot" battery cell cover. At least one or more of the fully insulated and fused cables are attached to the FLI for the voltage power and signal transmission. The amount and type of cables used is depending on the type of FLI you are using and also the type of battery you are connecting them too.



FROETEK FLI ITEM NUMBER	FROETEK LEVEL INDICATOR (FLI) DESCRIPTION	END TYPE	KIT
FRS-ADFLI-(FL)KIT	Advanced FLI Level Indicator - WITH Flexible Link	10mm connector	Yes *
FRS-ADFLI-(M4)KIT	Advanced FLI Level Indicator - WITH M4-RING LUG	4m Ring lug	Yes **
FRS-ADFLI-EXT-(FL)KIT	Advanced FLI Level Indicator - W/ Flexible Link and Remote Display	10mm connector	Yes *
FRS-ADFLI-EXT-(M4)KIT	Advanced FLI Level Indicator - WITH M4 Lug and Remote Display	m4 Ring lug	Yes **
FRS-FLI-(M4)KIT	FLI Level Indicator w/ M4-RING LUG KIT (Just green or off)	m4 Ring lug	Yes **

\* Kit for the Flexible 10mm connector link includes m8 or m10 bolt and copper distance ring and plastic distance ring

\*\* Kit for the M4 Lug includes M4 self tapping screw for lead posts, epoxy to cover screw to prevent corrosion

### Basic Functions:

When the FROETEK FLI is immersed in the battery electrolyte, The LED indicator will blink green indicating the acid levels are where they should be. When the electrolyte level drops and there is no contact with the acid, the LED indicator will blink red.

### Filling Level Verification:

Before each LED flash, the FLI will carry out a fill level check. The device will attempt to allow a testing current flow of  $I \approx 25\text{mA}$  for a period of about  $t = 380 \mu\text{s}$  (millisecond). If this is possible, the contact to the electrolyte is secured. Otherwise the LED blinks red. With this programming step, false indications caused by current leakage are avoided. Should contact only be on hand due to current leakage, the FLI will also show this as a red LED.

### Swash Hysteresis Function:

In order to avoid a too frequent switch over (red to green and back to red while truck is in motion) of the FROETEK FLI, the switchover behavior will be delayed by means of a damped asymmetric switch over.

- Green LED blinks. Contact to the electrolyte breaks off, switch over to red LED after 25-40 seconds.
- Red LED blinks. Contact to the electrolyte occurs, switch over to green after 8-12 seconds.

### Water Shortage Life Indicator:

With an increased period of time without contact of the electrode to the electrolyte in the battery, the red LED indicator blinks faster. Rule of thumb is "per day one Hz blink frequency" or the red LED blinking frequency will increase by one more blink per day until 5 days at which time the FLI will indicate a permanent red LED.

**NOTE:** ALL FROETEK FLI PRODUCTS NEED TO BE CUT TO LENGTH PER THE INSTALLATION OPERATION MANUAL AS DIFFERENT BATTERY TYPES AND MANUFACTURERS REQUIRE DIFFERENT LENGTH ELECTRODES.