# **HydroBoosters**<sup>™</sup>

# Minimize Tower Basin Cleaning and Maintain Downstream Heat Transfer Efficiencies



# How it works:

Utilizing a patented vortexing action - flow is magnified as it passes through the HydroBoosters. When strategically implemented in a basin, the "directed turbulence" causes more solids to reach the filtration system - resulting in a cleaner cooling tower and protecting downstream equipment.





LAKOS High Efficiency eTCX Systems are only compatible with eHB Models (yellow color HydroBooster) and TSN nozzles.

### HydroBoosters Features and Benefits:

- Patented LAKOS HydroBoosters create sweeping action on the cooling tower basin floor to reduce under-deposit corrosion, cooling tower nozzle clogging and extend cooling tower life
- HB and eHB HydroBoosters Vortexing action moves cooling tower solids towards the filtration system by using directed turbulence, thereby preventing solids accumulation on the basin floor, and removing the food source for biological activity
- Minimize manual basin cleaning, cooling tower maintenance, risk of injury associated with basin floor cleaning, and system downtime
- HB and eHB HydroBoosters are designed for durability and to resist cooling tower water chemicals

## **Operating Requirements:**

#### **Minimum Pressure Required:**

- HB Models: 20psi (1.4 bar)
- TSN Models: 20psi (1.4 bar)
- eHB Models: 10psi (.7 bar)

#### **Recommended Water Depth:**

- HB and eHB Models minimum water depth: 3 inches (76.2 mm)
- HB and eHB Models maximum water depth: 3 feet (1524 mm) \*
- TSN minimum water depth: 2 inches (50.8 mm)
- \* For greater water depths, LAKOS recommends using Eductors. See LAKOS literature LS-633





# Models & Dimensions

Model	System Compatibility	Connection	Input Pressure		Flow Input/Output	
			psi	bar	US GPM	m³/hr
НВ-10-К	TC/TB	3/4-inch male NPT	20	1.4	10/60	2/12
HB-18-K	TC/TB	3/4-inch male NPT	20	1.4	18 / 108	4/24
TSN-0025-B*	eTCX, TC/TB	1/4-inch male NPT	20	1.4	4.2	1
eHB-10-K	eTCX	1/2-inch male NPT	10	0.7	10/60	2/14

\* The TSN is a brass, flat-fan spray nozzle for use in applications in which there is a shallow deck in the basin. Can be used along with HydroBoosters<sup>M</sup> (see diagram below)

# **LAKOS High Efficiency Product**™



eHB-10-K attached to PVC pipe using an optional HBC-10 clip adapter



HB-10-K using an HB-10-K adapter, attached to PVC pipe using an optional HBC-10 clip adapter



*HydroBooster layout in field erected cooling tower* 

# **Installation Best Practices:**

- Start with a clean basin.
- Required submergence of 2" above centerline inlet of HydroBoosters.
- Position the HydroBoosters to direct solids toward the filtration system's pump intake and away from any other system pump suction areas.
- Use a closed-loop header in order to equalize the pressure to each HydroBooster.
- Eliminate weirs, baffles or other devices which may promote settling or dead spots within the sump.
- Where possible, take advantage of any existing slopes to direct solids toward the low end of a sump.
- When possible, position the system's pump intake where solids are most likely to enter the sump.

LAKOS Corporation, headquartered in Fresno California since 1972, is recognized worldwide for engineering, manufacturing and marketing the original centrifugal action solids from liquids separator and being the world-wide leader in cyclonic separation technology.

LAKOS Separators are manufactured in the USA.

LAKOS is a proud and contributing member of ASHRAE for over 30 years



LAKOS Separators are manufactured and sold under one or more of the following U.S. Patents: 5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

LAKOS<sup>®</sup> and HydroBoosters<sup>™</sup> are trademarks of LAKOS Corporation





1365 North Clovis Avenue Fresno, CA 93727 **www.lakos.com**  Tel: (559) 255-1601 Fax: (559) 255-8093

info@lakos.com