

ENERGY SAVINGS

PROACTIVE CONTROL



 **NEUTON™**  
CONTROLLED CHILLED BEAM PUMP MODULE

### NEUTON™ KEY BENEFITS

- Active condensation control system effectively eliminates chilled beam condensation
- Reduces cost of a chilled beam installation by 30% or more by allowing for smaller pipe diameters, fittings and feet of pipe
- Cuts the amount of zone piping and fittings in half by eliminating the need for building-level secondary loops for the chilled beams
- Simplifies installation, controls, and beam system commissioning
- Increases beam cooling and heating output allowing all coil passes to be used for cooling and heating
- Eliminates the frustration and cost of customized controls development and installation
- High efficiency, variable speed pump uses a fraction of the energy of traditional pump loops

**NEUTON™ is the HVAC industry's first smart, plug-and-play controlled chilled beam pump module (CCBPM) for reducing chilled beam system installation and operational costs.**

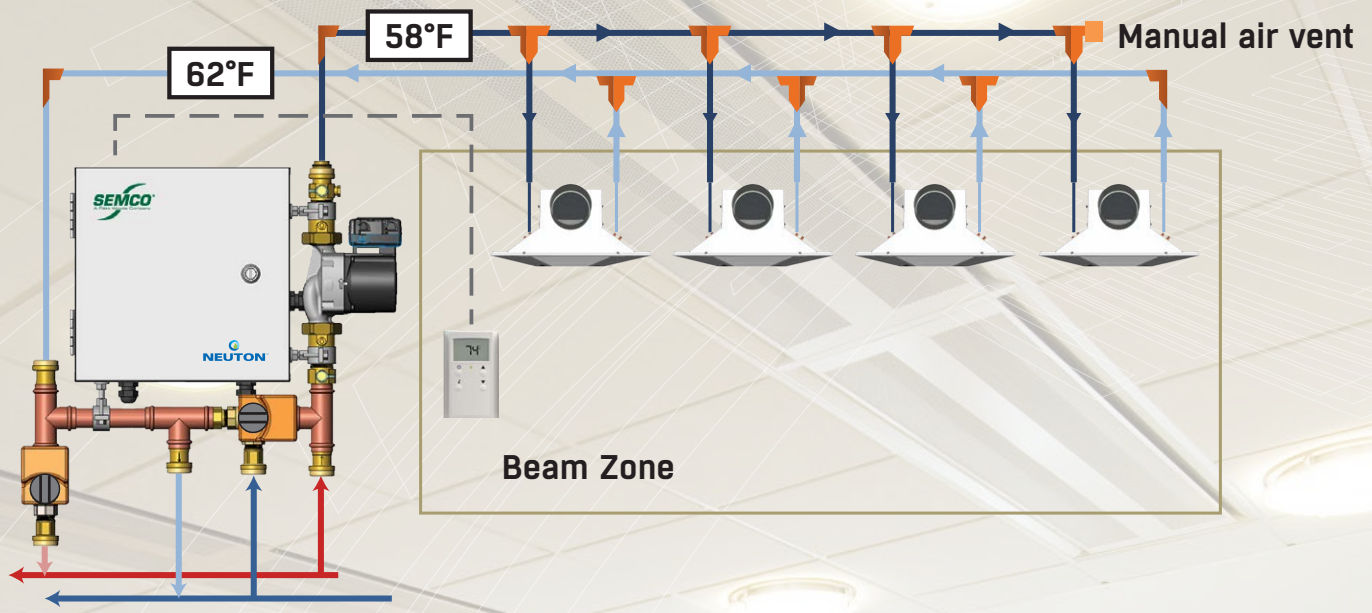
NEUTON™ is a factory-built and pre-tested CCBPM package complete with its own powered integrated direct digital controller, chilled and hot water connections, valves, variable-speed electronically commutated motor (ECM) pumps, smart sensors, and other unique features. The device provides active condensation control effectively addressing one of the key design concerns regarding active chilled beams.

The intuitiveness of NEUTON™ eliminates the expense of a separate chiller, boiler, and secondary water distribution system associated with conventional chilled beam designs. Instead of expensive secondary piping loops, each NEUTON™ blends and re-circulates return water within its zone to convert typical 42°F and 140°F primary loop water temperatures to optimal 58°F or 100°F chilled beam discharge temperatures. This prevents cooling mode condensation and heating season heat stratification.

Each NEUTON™ can control up to 10 chilled beams, depending upon the water flow rate required.

  
**NEUTON™**

**SEMCO®**  
A FlaktGroup Brand

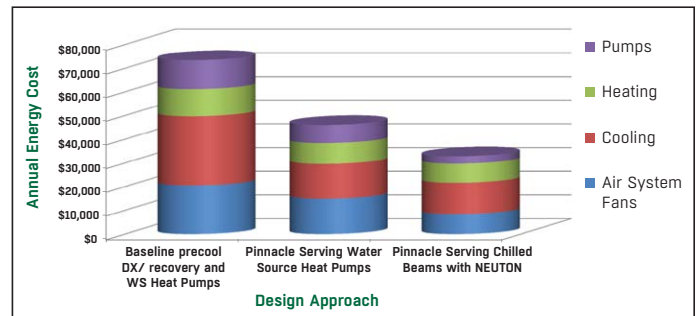


### UNIQUE ADVANTAGES

- Improved response to occupied/unoccupied and low load conditions - novel control sequences vary water flow and/or temperature, as needed, to accommodate changes in zone load conditions
- Available in 8 gpm or 11 gpm at 12 feet of head with single or dual actuators
- Can be used with any brand of active or passive chilled beam
- ZS Pro Zone Sensor with displayed temperature, humidity and CO<sub>2</sub> level readouts available
- NEUTON™ Automated Logic Corp.-based software was developed by SEMCO engineering, is compatible with all SEMCO DOAS and building automation system (BAS) protocols and has passed all field tests at several beta-test sites for more than two years
- Assigned zone control set-ups can report operation data to the BAS, which in turn, transmits control commands to the DOAS for outdoor air and humidity control

- ECM pumps draw amperage equivalent to a 70-watt light bulb
- Chilled beams can cut fan energy costs in a building by up to 50% versus fan coil and variable air volume (VAV) systems

### ENERGY USE COMPARISON FOR THREE ENERGY EFFICIENT SYSTEMS:



Based on our e<sup>3</sup> concept, we provide innovative and sustainable products to help you achieve or surpass your environmental targets while optimizing your investment and Life Cycle Cost.

### EXPERIENCE & EXPERTISE

With over a half-century of innovation and expertise to share with our customers, SEMCO® is a global leader in air management. With market presence in 65 countries, we are in a unique position to be a local supplier and an international partner in our customers' projects. Our constant aim is to provide systems that precisely deliver the best indoor air quality and performance, while maximizing energy efficiency.

SEMCO® A FläktGroup Brand  
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U.S. patented technology: 9,625,222

**WE BRING AIR TO LIFE**