



# VariPrime®

## Variable Primary Pumping

## Above and Beyond Primary/Secondary Pumping Systems

Since the introduction of variable speed drive technology, the bar for efficient hydronic heating and cooling systems has been raised above and beyond primary/secondary pumping systems. Systecon Inc. has used the advancements in equipment efficiencies, control capabilities, and application experience to create the new standard in HVAC systems - VariPrime® variable primary pumping.

Systecon Inc. is the pioneer of variable primary flow HVAC systems, being the first to implement such a system over 20 years ago. Since then, we've continued perfecting our systems and using R&D of control algorithms to make sure you get the most out of the best system possible.

Systecon's extensive experience provides an in-depth knowledge of the delicate balances between sequencing and monitoring chillers, boilers, pumps, and related devices. We're able to guarantee performance of your VariPrime® system, validated by a flow test on our certified test stand. And we take full responsibility of the pump and control system once your VariPrime® system is installed.



## Features & Benefits

### Cost Savings

- Substantial operational savings compared to a primary/secondary system
- Fewer components = less maintenance and less space

### Efficiency

- Most efficient chilled water pumping
- Maximizes chiller capacity
- Chiller sequencing optimization
- Pump sequencing independent of chiller sequencing
- Ties chiller staging to load, not flow
- Non-dedicated pumps - operational flexibility
- Self-Balancing
- Less energy usage than constant speed pumps
- Less total connected motor horsepower required
- Handles future expansion
- Guaranteed performance

### Reliability

- Most reliable solution
- More stable operation due to better control of chillers
- Redundant PLC control
- Complete interface to BAS

### How It Works

The VariPrime® water management system uses controls, advanced software, and variable speed pumps to vary the flow of system water using only a single set of pumps.

### What It Does

VariPrime® helps alleviate problems associated with low temperature differential between supply and return systems, and saves energy costs by pumping the correct amount of water. This prevents equipment from cycling on when only flow is needed.

### Critical Components

- Pumps
- High Quality Pressure Transmitters
- High Quality Flow Meters
- Sequencing Software
- Control Values
- Control Systems (Algorithms)
- VariPrime® Valve
- Enclosure

### Applications

- Air Cooled Chillers
- Water Cooled Chillers
- Hybrid Plants
- Boilers

