



# Packaged Systems

- VARIABLE SPEED PUMPING
- PRESSURE BOOSTING
- HEAT TRANSFER
- HVAC

D-118C

# BELL & GOSSETT'S TECHNOLOGIC® FAMILY OF CONTROLLERS

Xylem Bell & Gossett has engineered a complete family of control systems with application-specific features. The Technologic family offers performance and quality with real affordability.

## Technologic 5500

Advanced dedicated variable-speed pump controller for even the most complex systems. Versatility for a wide range of applications including zone valve control and variable speed primary pumping. Latest Building Automation System communication options include Modbus, Johnson N2, LonWorks and BTL Certified BACnet.

## Technologic 502

Economical variable speed controller for one to four parallel pump systems. Easy navigation and setup. Simple interface to Building Automation Systems.

## Technologic Constant Speed Panel

Reliable constant speed controls for up to six parallel pumps in pressure booster and closed loop applications. EZ-Start feature and wide range of communication options.



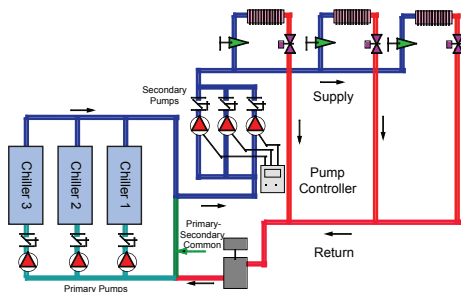
## FEATURE COMPARISON

	Pressure Boosting	HVAC	Variable Speed Pump Control	Zone Valve Control	Variable Speed Primary
<b>Technologic 5500</b>	✓	✓	✓	✓	✓
<b>Technologic 502</b>	✓	✓	✓		
<b>Technologic Constant Speed</b>	✓	✓			

# CUSTOMIZED CONTROLS PROVIDE MORE FLEXIBILITY FOR HVAC AND PRESSURE BOOSTING PUMPING SYSTEMS.

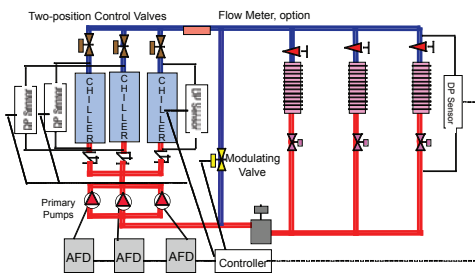
## HVAC Applications

There are many ways modern HVAC & plumbing systems can be pumped. Designers must consider present and future system use, cost and operator ability level. Below are just a few common systems. Whatever the design, Bell & Gossett's Technologic controllers provide reliable, energy efficient controls for your system.



## Primary-Secondary Pumping System

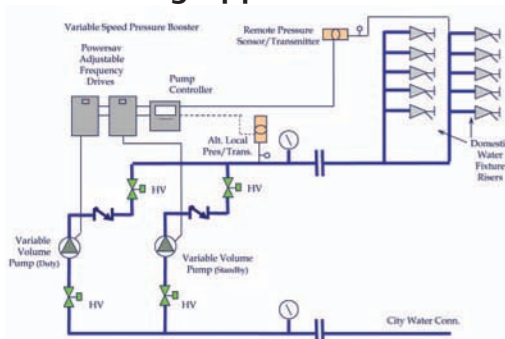
- Primary-Secondary's Basic Principle: When two circuits are interconnected, flow in one will not cause flow in the other if the pressure drop in the common piping to both is eliminated.
- A Primary-secondary pumping arrangement provides the means for the constant volume pumping of the low horsepower primary pumps through a chiller or boiler. These pumps are lower horsepower than the secondary pumps because they only have to overcome the friction loss associated with the chiller pipes, and valves in the primary loop.
- The secondary pumps operate in the energy saving variable volume mode.
- Building owners achieve optimal building comfort while consuming the least amount of energy when using B&G Technologic® pump controls and properly placed differential pressure transducers.



## Variable Volume Primary System

- The concept behind Variable Speed Primary Pumping is the elimination of the secondary pumps to reduce first cost, space requirements, and maintenance. Constant volume is no longer maintained through the chillers. Variable system flow is directly achieved through the modulation of flow through the chillers.
- Variable Primary Pumping is particularly attractive in primary-pumped retrofit applications since space may not be available for additional pumps and piping.
- The common pipe is not eliminated in primary variable speed pumping. It is modified into a low-flow bypass. To ensure that minimum flow is always maintained through the chiller, a bypass with a modulating control valve is employed.

## Plumbing Applications



## Variable Speed Pressure Booster System

- Variable speed pressure boosters provide energy savings resulting in lower operating costs. Reduction in pump speeds translates to reduction in horsepower.
- Technologic pressure booster controls automatically adjust to variations in flow, friction and suction pressure in order to provide smooth, efficient system operation.
- Initial costs of variable speed systems are approaching costs of fixed speed systems. Typical payback is 1 to 3 years.

## PACKAGED PUMP SYSTEMS

Bell & Gossett has over 80 years of pump system experience and more than 45 years of designing and manufacturing packaged systems for variable speed pumping, heat transfer and pressure boosting. Only Bell & Gossett offers a true Xylem package with unit responsibility for pumps, controls, valves, air separators, heat exchangers, expansion tanks and other system components. That experience translates into reduced energy consumption, as well as reduced installation and maintenance costs.



### Variable Speed Pumping Systems

B&G designs, manufactures and qualifies all the elements of its variable speed pumping systems. Our engineers will work directly with you to design the perfect variable speed pumping system for your application, maximizing energy savings while minimizing installed cost.



### Pressure Boosting

Whether constant speed or variable speed, Bell & Gossett can help you choose the most efficient method of controlling pressure in your application. Standard systems are available with flows up to 1600 GPM , bearing NSF 61 certification. From simple one- or two- pump constant-speed systems to large, sophisticated variable-speed pressure boosting systems, B&G is the only source you need.

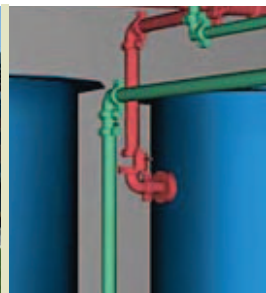




# SAVE ENERGY, MAXIMIZE EFFICIENCY AND INCREASE COMFORT.

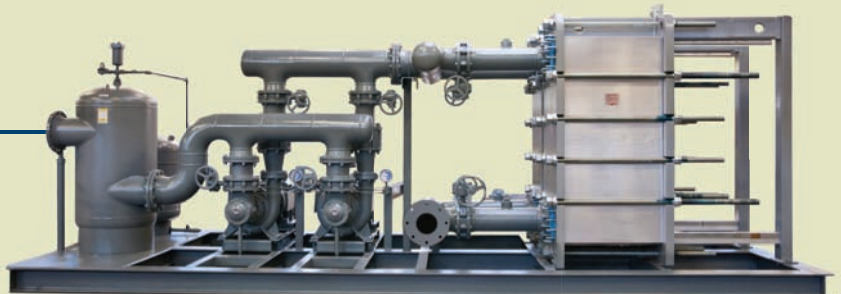
Bell & Gossett's full range of packaged systems meet the needs of a variety of commercial, residential, institutional and industrial applications. From hospitals to industrial plants, Bell & Gossett UL QCJZ Packaged Systems are listed and trusted for their reliability, flexibility and maximum energy savings. Applications include:

- Heating and cooling water applications
- Water Supply: transfer and distribution from water systems; pressure boosting in apartment buildings and hotels; potable water supply
- Water Treatment: filtration, reverse osmosis systems and ultrafiltration
- Process/plant water systems requiring potable water, such as breweries
- Agriculture/irrigation systems



## Heat Transfer Packages – Constant or Variable Speed

Packages are designed to handle a wide range of heat transfer requirements for schools, hospitals, commercial buildings and industrial plants. Compact design reduces the space and engineering required for mounting and installing individual components.



GMU Glycol Solution/Water Make-up Unit

Standard HTP

# CONFIGURATIONS

Bell & Gossett provides a variety of system configurations to meet your exact needs, whether for new construction, retrofit or where space is at a premium. Configurations are almost limitless from the simplest to the most sophisticated systems.



## Frame-mounted systems

- Easy to install.
- Pump controller, AFD(s) and Bypass; factory pre-wired and tested.
- New construction or retrofit.
- Popular among engineers and contractors because it eliminates the guess-work and risk of matching components from multiple manufacturers.
- All electric components are mounted and wired on a stand-alone frame.
- Just wire incoming power to the unit, outgoing power to the pumps, and control wiring to the zone sensors.
- Pumps can be installed in any fashion your system layout requires.
- Ideal for existing building using existing pumps and motors, or new buildings where access to the mechanical room is limited.
- Most frames can fit in freight elevators.
- Complete factory electrical test prior to shipment.



# FOR OPTIMUM FLEXIBILITY

## Skid-mounted systems

- Electrical components, pumps and piping all factory-assembled.
- Quick installation and commissioning.
- New construction or retrofit.
- Potential configurations are limitless, but we have the capability to build any of them, from the simplest to the most sophisticated systems.
- Electric components, pumps and piping are all factory assembled, piped and wired.
- Incoming power, control wiring (sensors and BAS communications) and two pipe connections are all that's required to install.
- ASME certified welders.
- Hydrostatic and complete electrical test provided at factory.



## Components

- For fully flexible system layouts or extremely tight spaces.
- System shipped to job site as individual components.
- New construction or retrofit.
- When flexible layout is a priority or space is extremely limited, we can ship individual components to the jobsite.
- Contractors wire the incoming and outgoing power, interconnecting wiring between components, and remote sensors.
- You get the same exceptional quality B&G components that go into our skid- or frame-mounted systems.
- System electrical test performed prior to shipment.





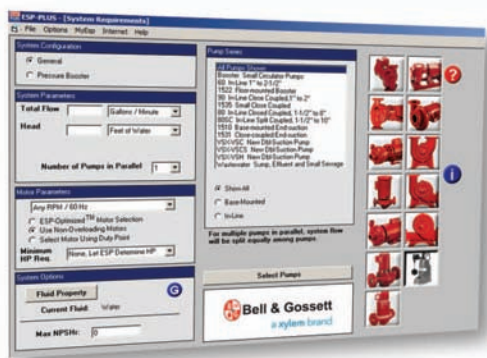


## TRUST THE NAME THAT SETS THE STANDARD IN THE INDUSTRY - BELL & GOSSETT

Bell & Gossett provides smart, efficient and cost-saving pump systems suitable for residential and commercial HVAC and pressure booster applications. From apartment buildings to schools and hospitals, Bell & Gossett controls and packaged systems are trusted for their reliability, flexibility and maximum energy savings.

For over 90 years Bell & Gossett has brought you the most reliable and innovative products for hydronic, HVAC and plumbing systems. From pumps and heat exchangers, to air management systems and valves, Bell & Gossett knows what you need to get the job done right the first time and provide lasting value.

Your local Bell & Gossett representative is an experienced professional with a wealth of technical expertise. Because they know systems from design to operation, they can give you the advice and support you need to successfully install, operate and maintain your pumping systems.



### Use Our Software to Choose Your Hardware Equipment Selection Program

Our ESP-PLUS® software program helps you choose the right equipment by giving you expert system and product application assistance, plus automatic calculations of payback and annual operating costs, equipment schedules, submittals, specifications and more.



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