



# FAIRBANKS NIJHUIS® INTELLIBOOST™ REVOLUTIONARY ADVANCEMENTS IN BOOSTER CONTROLS



# FAIRBANKS NIJHUIS® INTELLIBOOST™ Revolutionary Advancements in Booster Controls

Pentair Intelliboost provides building customers with steady water pressure or flow with easy start-up, preventative maintenance alerts and communication while only using the energy required to get the job done.

## Auto Commission Single Button Control



All system adjustments are made on a large 5.7" color touch screen and based on the building's unique profile demands, reducing the need for a technical expert to perform start-ups.

## Preventative Maintenance Alerts

Receive alerts, before a problem occurs, to schedule preventative maintenance at a time convenient for you.

## Auto Optimization

Intelliboost determines how many pumps are needed, their sequencing, and what speed they should operate at to maintain desired pressure, providing an economical solution and a longer lasting booster system.

## Future Expansion

Additional pumps can be added after initial installation and controlled by the Intelliboost's VFD by simply connecting a communication wire from the new pump.



# Reduced Carbon Footprint

The Intelliboost monitors its own kW consumption, reducing a building’s carbon footprint and providing up to 100% ROI within 2 years or less\*.

# Increased Life Expectancy

The "No Flow" indication greatly reduces on/off cycling increasing product life expectancy up to 200%, running only when demand is present and only at the speed needed to meet demand.

# Agency Listings

ETL third party listing ensures each system is built to the latest NEC, UL/cUL and CSA codes. Each system is ULQCZJ7, CN listed, specifically for pressure booster applications and NSF 61/372 listed to ensure the latest codes for safe drinking water are met.

# Communication Made Easy

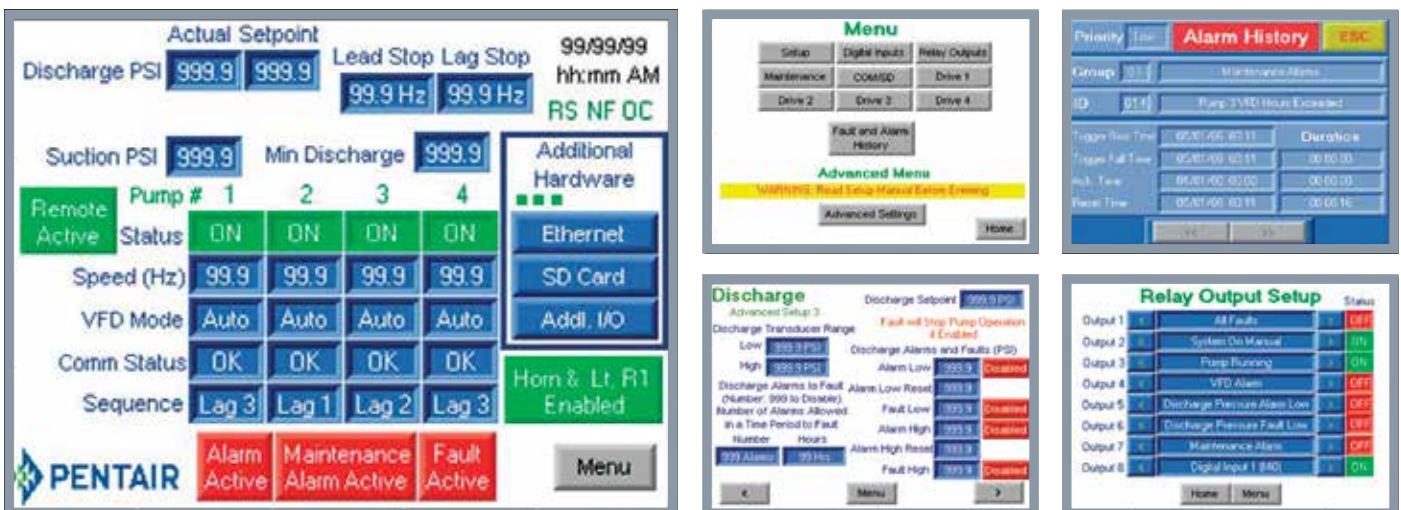
The Intelliboost offers customizable methods for communicating with building systems, eliminating the need for special converters or hard wiring alarms and status to relay cards. The built in webserver uses any device that has access to Internet Explorer or Modbus RTU/TCB to easily connect to existing SCADA for alerts, faults or remote pressure or flow changes. Remote shut down can be achieved through remote input or Modbus.

# Configure, Monitor, Maintain

The Intelliboost Variable Speed Constant Pressure Booster System is controlled using our latest technology. Configure the system settings to your exact needs and tolerances.

Intelliboost will sound an alarm if any of your pre-determined tolerances are reached. System faults protect your investment by automatically shutting down the system when tolerances are exceeded.

Alarms, faults, and maintenance indicators can be easily viewed on the homescreen.



\*Based on comparison between variable speed booster systems and constant speed booster systems

# Standard Features

## Electrical

- 5.7" color HMI touch screen – clear information and status screen with screen saver
- Preventative maintenance alerts – on-screen alarm plus relay output or Ethernet
- System can be adjusted while in operation through touch screen
- 2 levels of password protection
- Individual VFD manual speed control and monitoring through touch screen
- Auto-Commission – one button booster commissioning and fine tuning of parameters for pump operation
- Remote enable or disable for booster system
- Alarm and fault set points for suction and discharge PSI and flow in GPM
- Faults and alarm clearly displayed – current and historical
- No flow detection – to reduce cycling and save kW
- Real time operation and control
- 4 configurable input and output contacts
- Selectable sequence of operation: Timed rotation or same lead pump
- Reasons to start booster – psi drop is not the only reason to start the pumps – several choices to determine starting of the booster
- Simple reaction speed adjustment through touch screen – to allow the user to determine best set points to meet the building's demand

## Mechanical

- Selectable two, three or four pump operation
- Painted carbon steel base
- #304 stainless steel manifold with full port isolation valves
- Built in fusible disconnects VFD
- Constant pressure or flow control – GPM (requires an additional external flow Xducer)
- Individual isolation valves and check valve on discharge – allows maintenance or pump replacement while system is in operation
- Liquid filled gauges – read systems pressure and suction pressure accurately



# Optional Features

## Alternate Communication

- Ethernet Modbus TCP-30 readable fields utilize existing SCADA/BMS and 3 writable fields to change system set points or enable/disable the booster system
- Webserver IP (includes SD card) – remote viewing of booster system screen using a standard internet connection
  - All set points to SD card backup – one button save or upload
- Additional 4 configurable input and output contacts through touch screen

## Customer Connections

- Single-point disconnect
- Flanged suction and discharge customer connections

## Hostile Environment Adaptability

- #316 stainless steel manifolds
- #304 stainless steel base
- NEMA 12 or 4/4X rated VFD
- NEMA 4X clear coverplate over touchscreen

# Optional Ship Loose Accessories

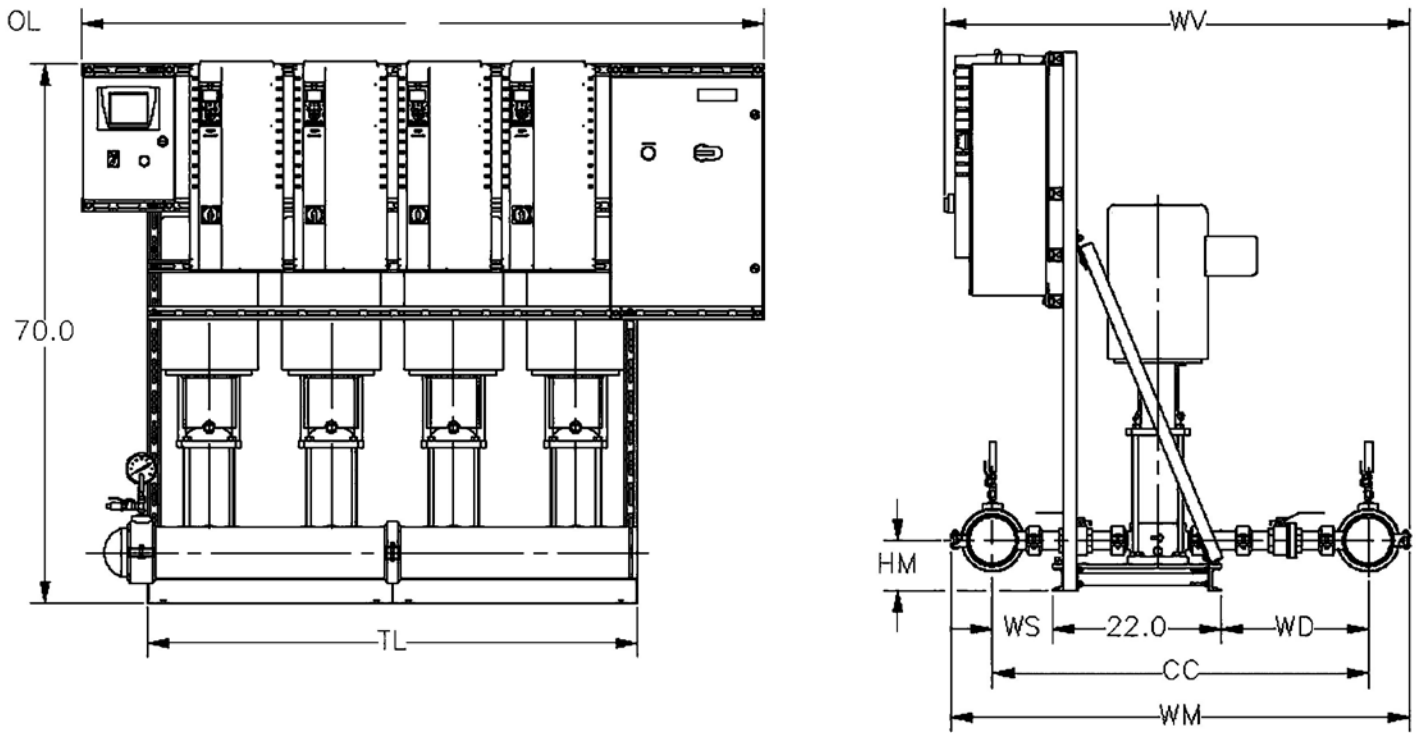
## Optional Features

- Factory program backup
- SD card program settings backup
- Webserver IP (includes SD card) - views all program's current settings and values
- Additional four digital inputs configurable through touch screen
- Pressure tanks
- Additional four relay outputs configurable through touch screen
- #316 stainless steel manifolds
- Single point disconnect
- Stainless steel base
- Nema 12, 3R, 4 and 4X
- Flanged suction and discharge connections



PRESSURE TANKS

# Booster System Dimensions



PVM(X) PUMP SERIES	MANIFOLD SIZE	BRANCH SIZE	SKID LENGTH (TL)			OVERALL LENGTH (OL)			ANCHOR BOLT LOCATION (HL)			WIDTH					SUCTION AND DISCHARGE HEIGHT (HM)
			DUPLEX	TRIPLEX	QUADRA- PLEX	DUPLEX	TRIPLEX	QUADRA- PLEX	DUPLEX	TRIPLEX	QUADRA- PLEX	MANIFOLD CENTER TO CENTER (CC)	SUCTION CENTER (WS)	DISCHARGE CENTER (WD)	MANIFOLD TO MANIFOLD (WM)	MANIFOLD TO PANEL (WV)	
PVM(X) 1,3 & 5	3	1-1/4	31.8	47.7	63.6	57.0	68.5	80.0	27.8	43.7	27.8	41.7	7.0	12.7	48.9	52.1	5.4
PVM(X) 10 & 15	4	2	31.8	47.7	63.6	57.0	68.5	80.0	27.8	43.7	27.8	46.7	6.7	18.0	55.0	57.9	6.5
PVM(X) 20	6	2	31.8	47.7	63.6	62.2	76.3	90.4	27.8	43.7	27.8	48.8	7.7	19.1	59.7	62.3	6.5
PVM(X) 33	6	2-1/2	31.8	47.7	63.6	62.2	76.3	90.4	27.8	43.7	27.8	52.7	7.2	23.5	63.6	66.7	7.5

Note: All dimensions are in inches. For exact dimensions refer to GA drawing on web.



3601 FAIRBANKS AVENUE, KANSAS CITY, KANSAS 66106 WWW.FAIRBANKSNIJHUIS.COM

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