

# SUBMITTAL DATA SHEET

## DuraMAC™ Booster Pumps Vertical Multistage Variable Speed DuraMAC™ - Duplex Booster System



See Pumps & Accessories  
Price List for Limited  
Warranty details.

### How It Works

The Yaskawa iQpump 1000 drive features powerful software combined with an internal PLC to deliver multiple features that are designed help protect the drive, pump, motor, and entire pumping system. While many of these features are factory programmed and set, many features depend on the specific pumping application and may be required to be set during install.



Changing certain parameters while the drive and pump are running may cause unwanted behavior. It is recommended to turn the drive off  before changing parameter values.

To return to home screen, hold  for 3 seconds, or press . The display should look similar to the one below. Once at the home screen, additional drive status can be viewed by pressing . Additional drive information includes output frequency, current, voltage, DC bus voltage, and kilowatts.

**Digital Operator Keypad**

**DIGITAL OPERATOR JVOP-183** ALM

QMONI: Use F1/F2  
Auto Setpoint  
U5-99= 35.0PSI  
-----  
U1-02= 0.00Hz [LSE0]  
U1-91= 0.3PSI [LREF]  
<-MONITOR->

**Annotations:**

- ALM:** Alarm light blinks if alarm or fault occurs.
- System Outlet Pressure Auto Setpoint:** U5-99= 35.0PSI
- Pump Output Frequency:** U1-02= 0.00Hz
- Transducer Feedback (Actual System Pressure):** U1-91= 0.3PSI
- HAND:** Press to turn HAND mode on. Use only for Priming and troubleshooting. Pump will run at a fixed speed. Do not run against a closed discharge.
- AUTO:** Press to turn AUTO mode on. If LED is blinking, Auto mode is active but pump is sleeping.
- OFF:** Press to turn system off.

### DuraMAC™ Vertical Multistage Variable Speed Simplex / Duplex / Triplex Booster Pump Control Features

- Set it and forget it technology
- Factory set point at 50 PSI, but can be easily be changed in the field
- Extremely reliable
- Proven product
- Yaskawa Drive



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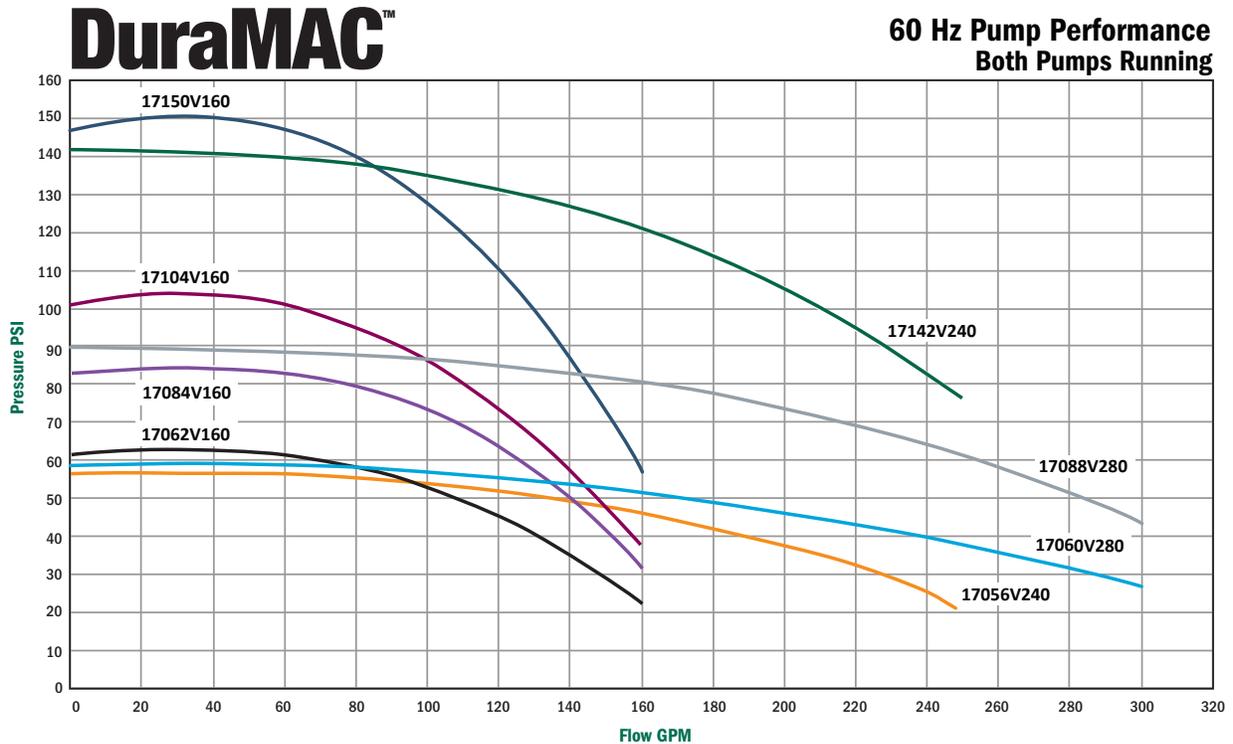
DuraMAC™ Booster Pumps  
Vertical Multistage Variable Speed

## DuraMAC™ - Duplex Booster System



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The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.



### SUBMITTAL INFORMATION

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauges
- Wafer check valves with soft seat
- Stainless steel base
- 2" Brass No-Lead isolation valves
- NEMA 1 enclosure
- Suction and discharge transducers
- Fused disconnect
- 3" Flanged stainless steel manifolds
- **Certified to:**  
NSF/ANSI/CAN 61  
NSF/ANSI 372



**NO-LEAD:** The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.



**A.Y. McDonald Mfg. Co.**  
4800 Chavenelle Rd  
Dubuque, IA 52002

**Toll Free:** 1-800-292-2737  
sales@aymcdonald.com  
aymcdonald.com

A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

**Submitted by:**

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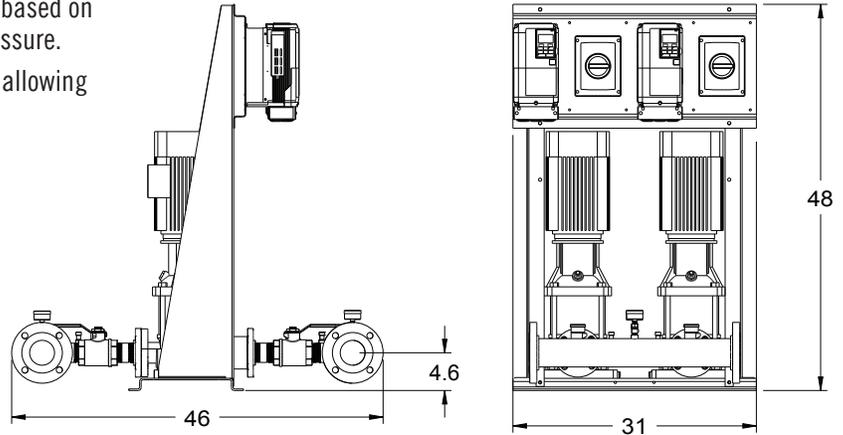
## DuraMAC™ Booster Pumps Vertical Multistage Variable Speed **DuraMAC™ - Duplex Booster System**



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### Control Features

- Variable speed control, speeds up and slows down based on the demand of system, maintaining a constant pressure.
- Lead - Lag pump control to alternate pump starts, allowing equal run times on all pumps for longer life cycles.
- Better system efficiency by applying only the power needed based on the load.
- Password protected parameter settings.
- Real time clock.
- No Flow Mode - puts pump to sleep during no flow conditions.
- Low Suction Alarm to prevent the pump from running if the incoming supply of water is interrupted.
- Internal monitors prevent the pump from running if a pipe is broken or demand exceeds capability.
- Live Zero protects the pump if the transducer cable is broken or damaged.
- Backup system transducer for pump and drive redundancy.



### Materials of Construction

- Impellers	304 Stainless Steel	- Pump Seal (rotating)	Carbon / NBR
- Pump Casing Inlet	301 Stainless Steel	- Diffuser	304 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel	- Base	304 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide		

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