



# DuraMAC™

## Water Pressure Booster System



# The World's Most Versatile Residential Booster System

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The **DuraMAC™** Water Pressure Booster System was built with one simple goal in mind - to be **the World's Most Versatile Residential Booster System.**

## Versatile

It is the first booster pump of its kind to be designed for virtually all residential boosting applications. In **Pressure Mode**, the pump starts with a pressure drop and stops on low flow. In **Flow Mode**, the pump starts and stops by sensing flow. In **Conservation Mode**, the pump only operates at peak demand, such as multiple showers, bathtubs, or irrigation systems running.

## Simple

A single-speed, totally enclosed fan-cooled motor drives the **DuraMAC™** booster pump with single phase power. It is controlled with one dial, and tells you it is working properly by illuminating a single status light. The settings and readouts are simple and easy to understand.

## Sophisticated

Electronic circuitry and a pressure transducer constantly monitor your water system, making sure that you have good, reliable pressure when you want it.

## Reliable

Electronic components are completely separated from piping and water ways for added safety and ease of field repair. The **DuraMAC™** is built from scratch with one purpose in mind - boosting residential water pressure. Each component of the system is specifically designed to work together as one harmonious unit. The result is a complete package backed by an industry leading three year warranty.



Transducer

Continuously monitors system pressure



# DuraMAC™

## Water Pressure Booster System

### State-of-the-Art Control in an Ea



## How It Works

The **DuraMAC™ Water Pressure Booster System** can be set to three separate modes, which can accommodate virtually any household application.



### Pressure Mode

**START METHOD:** Pressure drop

**STOP METHOD:** Low flow

**TYPICAL INSTALLATION:** Standard household installation

**RESULT:** Pump operates continuously while there is a need for water



### Flow Mode

**START METHOD:** Water flow

**STOP METHOD:** Low flow

**TYPICAL INSTALLATION:** Application where pressure fluctuates, or occasional leaks may be present

**RESULT:** Pump operates only when usage of water exceeds approximately one gallon per minute



### Conservation Mode

**START METHOD:** Pressure drop

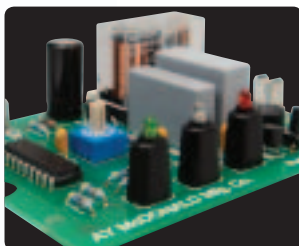
**STOP METHOD:** Low Flow

**TYPICAL INSTALLATION:** Application where pressure is adequate for most uses and boosting is only necessary for high demand

**RESULT:** Pump operates only when system pressure is below city supplied pressure and continuously runs while there is demand for water

#### Pressure Tank

Eliminates short cycling and helps accommodate thermal expansion



#### Circuit Board

Sophisticated programming ensures proper operation in all conditions



#### Pressure Gauge

Displays total system pressure



#### Digital Control

Single knob for simple pressure adjustment. Status light indicates standby, run, and fault modes

#### Union Swivel

Allows for 360° adjustment of discharge

#### Motor

Totally enclosed fan-cooled motor for quiet operation and low power consumption



#### Inlet w/Check Valve

No Lead Brass NPT thread with large wrench flats for easy & secure pipe connections

#### Pump

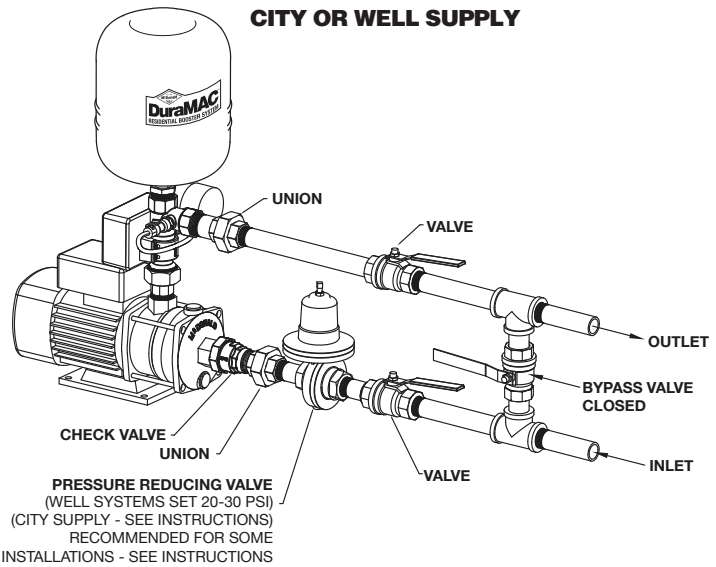
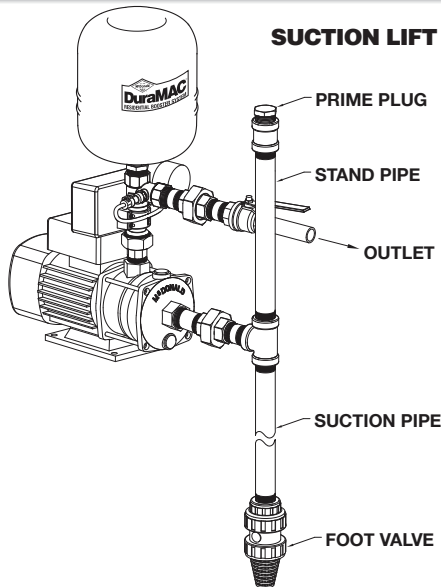
All stainless steel construction for tough water conditions



## Easy-to-Operate Booster Package

See Pumps & Accessories Price List for Limited Warranty details.

# Typical Installations



## Specifications / Dimensions

### Sizing Information

**DuraMAC™ Booster Systems** are designed to shut off when no flow is detected. Pump total pressure boost should be added to current household system pressure to determine total system pressure when boosted. Note: It is not recommended to exceed 80 PSI total boosted household pressure.

**Example:**

Household system pressure before boost = 30 PSI

$$\begin{array}{r}
 \mathbf{30} \\
 \text{Household} \\
 \text{Pressure}
 \end{array}
 +
 \begin{array}{r}
 \text{Total Pump} \\
 \text{Pressure}
 \end{array}
 =
 \begin{array}{r}
 \text{Total Pressure} \\
 \text{After Boost}
 \end{array}$$

\*Not Recommended to Exceed 80 PSI

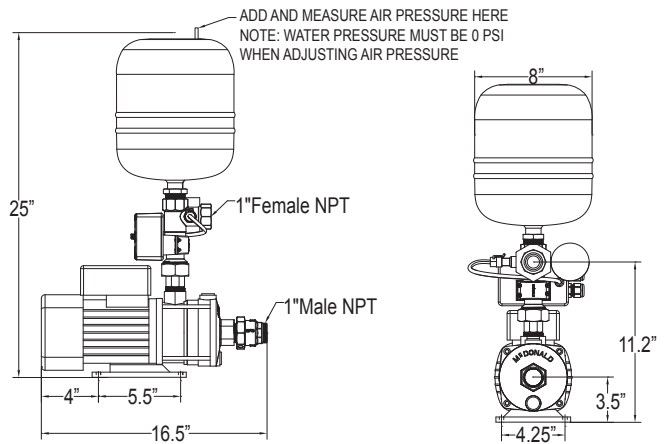
**Models Available:**

17035R020PC1	+35
17052R020PC1	+52
17070R020PC2	+70

$$\begin{array}{r}
 \mathbf{30} \\
 \text{Household} \\
 \text{Pressure}
 \end{array}
 +
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 \end{array}$$

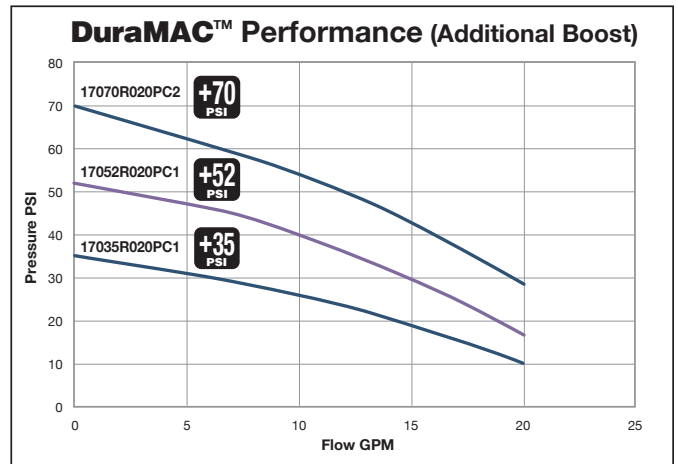
Based on this example, the recommended model for this application is the 17035R020PC1.

For systems with fluctuating pressure, a pressure reducing valve is recommended to assure system pressure stays below 80 PSI.



### Materials of Construction

Impellers	304 Stainless Steel
Pump Casing Inlet	301 Stainless Steel
Pump Casing Outlet	301 Stainless Steel
Pump Seal (stationary)	Silicon Carbide
Pump Seal (rotating)	Carbon (synthetic)
Diffuser	304 Stainless Steel
Suction Check Valve	No-Lead Brass
Pump Control Body	No-Lead Brass



DuraMAC™ Model	Pump Boost	Voltage	Power	*Maximum incoming pressure
17035R020PC1	35 psi	120 - 60 Hz	1/2 HP	45 psi
17052R020PC1	52 psi	120 - 60 Hz	3/4 HP	28 psi
17070R020PC2	70 psi	230 - 60 Hz	1 HP	10 psi (For use with holding tank)



PUMPS | WATERWORKS | PLUMBING VALVES | GAS VALVES  
**A.Y. McDonald Mfg. Co.**