

EGM^{LLC}

PROCESS & CHEMICAL FEED EQUIPMENT

Oil & Gas • Power Generation • Chemical Processing • Mining • Pulp and Paper • Water Resources • Pharmaceutical

BOOSTER PUMP SYSTEMS



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Reliable water flow is critical to certain chemical make-down processes (such as polymer dilution). EGM has developed a simple, yet effective water pressure boost unit to help stabilize chemical make-down operations using simple, rugged and reliable components.

The EBP booster pump units are complete skid mounted, self-contained, stainless steel systems. EGM has selected Grundfos, multi-stage centrifugal pumps specifically for this application because they have proven to be extremely rugged and deliver smooth, pulse-free flow while generating minimal motor load.

The manual units are designed to start and stop via a relay connection from a remote signal, or locally by a system H-O-A control. Automated booster units have the same capabilities as the manual units as well as the ability to implement closed loop and DCS control on the water booster process via a magnetic flowmeter and VFD. Power configurations can also be changed for worldwide use.

All units come with complete CD-ROM based operation and installation guide.



SPECIFICATIONS

Unit Capabilities:

Manual Booster Units (5 to 25 gpm)
Automated Booster Units (20 to 280 gpm)

Standard Unit:

Configuration:
ALL: Primary Configuration
Service:
ALL: 480VAC, 3Ø, 60Hz Service

Unit Options:

Service:
ALL: 575VAC, 3Ø, 60Hz Service
Note: 575VAC 3Ø service includes CSA certification.

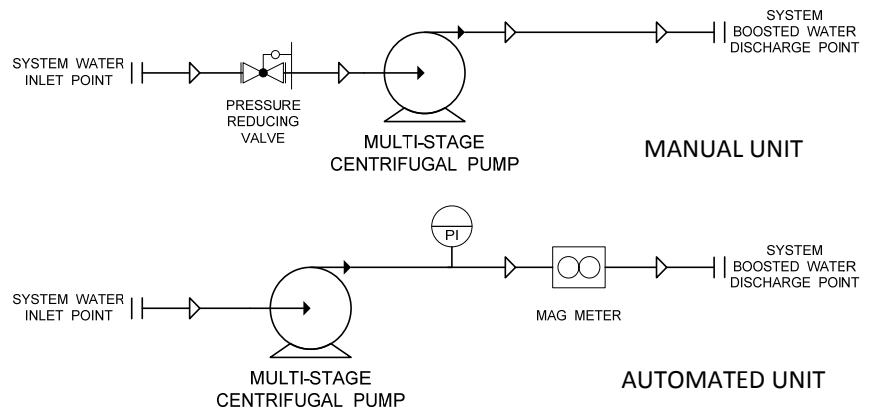
Water Process:

Water Flow Control:
Manual Units: Manual Control (System H-O-A)
Remote Control (Relay Contact / Supported Equipment)
Automated Units: Manual Control (VFD)
Closed Loop Control (VFD / Magnetic Flowmeter)
DCS Control (4-20mA Signal)
Water Flow Indication:
Manual Units: None
Automated Units: Automated (Magnetic Flowmeter)

Split Flow:

Automated Units Only:
2, 3, 4, 5, 6, 7, 8 position, manual or automated discharge balancing with Magnetic Flowmeters at each position

THEORIES OF OPERATION



STANDARD COMPONENTS

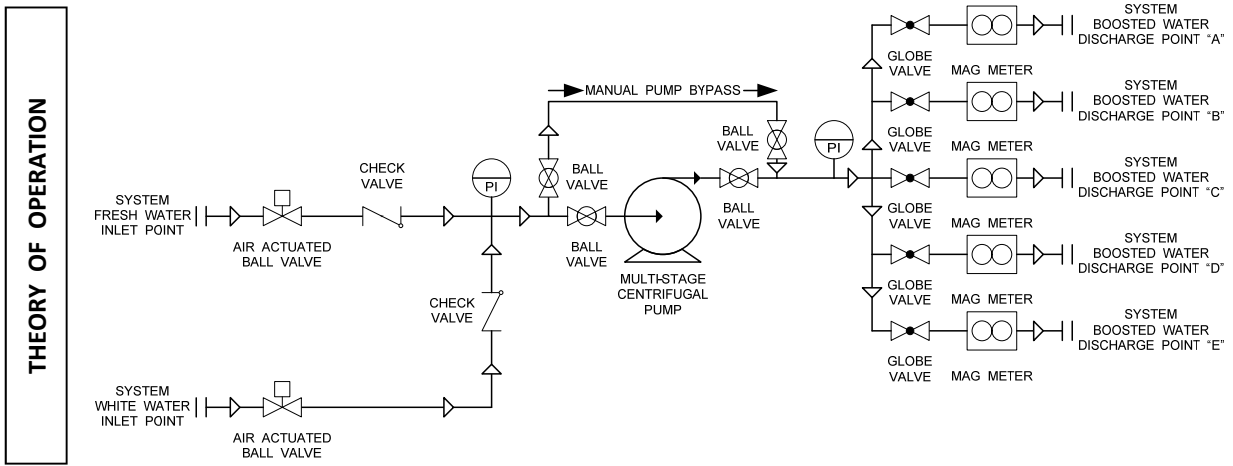
Grundfos	Multi-Stage Centrifugal Booster Pump
Baldor	Washdown Duty Motor
Endress+Hauser	Magnetic Flow meters
OCV	Air Actuated Ball Valve
Parker	Instrument Air Filter / Regulator w/ 0-160 psi gauge
FNW	316SS Flow Control (Globe) Valve
WIKA	Liquid Filled, 316SS Pressure Gauge
ACTECH	Variable Frequency AC Motor Drive

The Boosted Flow Distribution Systems manufactured at EGM are designed to allow for precise control and split-feeding of a given flow at elevated discharge pressures and velocities. These systems incorporate a multi-stage centrifugal booster pump with oversized motor to deliver non-pulsating flow through four separate outlets. Each discharge line is configured with magnetic flow meter and can be regulated with either manually operated valves or automated control valves.

- SYSTEMS ADVANTAGES:**
- EGM’s Boosted Flow Distribution system offers a reliable and robust means for developing high velocity injection or boosted discharge pressures
 - E+H Magnetic flow meters installed on each leg allow for both local and remote flow indication
 - Grundfos multi-stage centrifugal pump delivers steady flow with efficient power consumption
 - Control and flow balance can be achieved locally via manually operated globe valves or remotely with optional automated control valve assemblies
 - Variable speed drive can modulate system discharge pressure for application flexibility.



This four position boosted flow distribution system is capable of 80 gallons per minute. Models are available in a wide range of sizes and capacities to meet end-user requirements.



EGM BOOSTER PUMP FEED UNIT MODEL CODE EXAMPLE

EBP- A 25 CRN15/8- 480 X X

Series:

EBP = EGM Booster Pump System

Configuration:

M = Manually Operated System
A = Automatically Operated System

Capacity:

5 = 5 gallons / minute
10 = 10 gallons / minute
20 = 20 gallons / minute
25 = 25 gallons / minute
40 = 40 gallons / minute
65 = 65 gallons / minute
120 = 120 gallons / minute
200 = 200 gallons / minute
280 = 280 gallons / minute

Pump Code:

Designates specific pump used
Example —CRN15/8 = Grundfos CRN 15-8 Vertical Centrifugal

Power:

480 = 480 VAC
575 = CAS Certified 575 VAC

Option 1:

Built-in discharge manifold
X = None
2 = two discharge ports
3 = three discharge ports
4 = four discharge ports
5 = five discharge ports
6 = six discharge ports

Option 2:

X = None



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