

Webster®

Fuel Pumps & Valves

BULLETIN

SUBSPMB

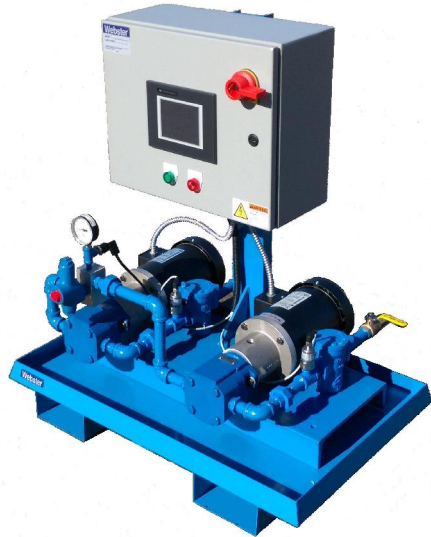
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Div of Capital City Tool Inc.

219 Hahn Road

Frankfort, KY 40601

Tele: 800.766.1233 Fax: 502.223.4629 www.websterfuelpumps.com



SUBMITTAL DATA

TRANSFER / SUPPLY PUMP

DUPLEX UNITS

SPMB

DATE

ARCHITECT

ENGINEER

CONTRACTOR

WEBSTER
REPRESENTATIVE

EQUIPMENT

CONTENTS

TRANSFER / SUPPLY PUMP / DUPLEX UNITS SUBMITTAL DATA**DATA**

JOB NAME	MODEL #	
LOCATION		
CITY	DUPLEX MANUAL	
STATE	ZIP	DUPLEX AUTO.

PUMP

TOTAL FIRING RATE GPH	MAXIMUM HEAD _____ FEET
SUCTION: LIFT IN FEET	FLOW GPH
VALVE ADJUST: PRESSURE RANGE MINIMUM _____ PSI	MAXIMUM _____ PSI

MOTOR

HORSE POWER	RPM		
VOLTS	PHASE	HZ	ENCLOSURE

ACCESSORIES

CHECK VALVE	VACUUM BREAKER
COMPOUND GAUGE	OIL SAFETY VALVE
ELECTRIC ALTERNATOR	MECHANICAL ALTERNATOR
COMMON DISCHARGE MANIFOLD	SENSORS
RELIEF VALVE	REGULATING VALVE
CONTAINMENT BASIN WITH LEAK SENSOR	BACK PRESSURE VALVE
STRAINERS	BALL VALVES
OTHER:	

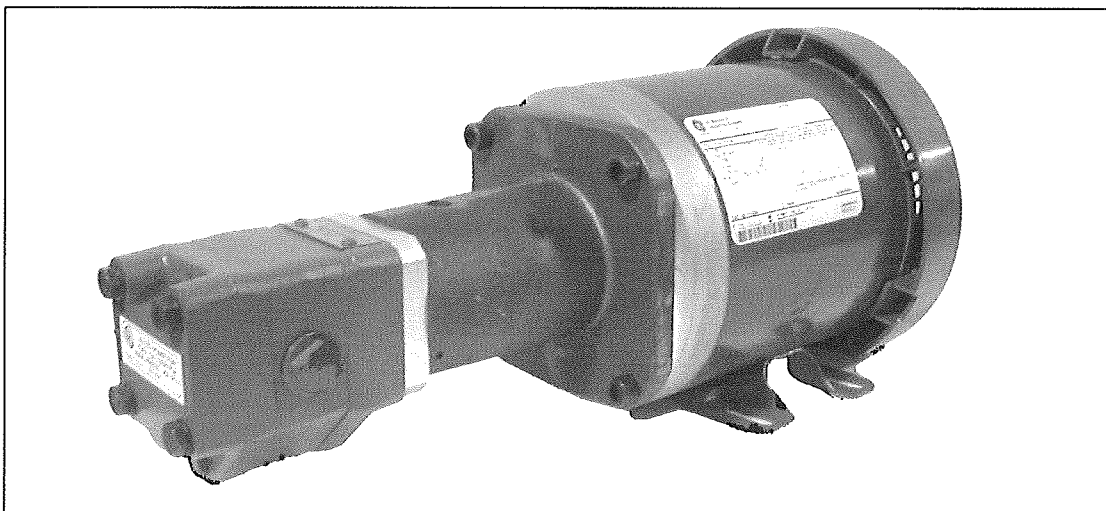
SPECIFICATIONS SPMB 18B-R / 37B-R / 47B-R / 59B-R

CAPACITIES:	82, 159, 220, and 292 GPH.
PRESSURE:	Maximum operating pressure to 80 PSI or 200' of head.
MOTORS:	All motors are 60 HERTZ, 1725 RPM, continuous duty. SPLIT PHASE, 115 OR 230 VOLT operation 1/2 HP: Capacitor start / induction run, TEFC, DUAL 115/230 VOLT Motors are clockwise as viewed from motor shaft end. 50 HERTZ and/or 3 PHASE motors are available upon request.
PUMPS:	18B-R, 37B-R, 47B-R, 59B-R
PORTING:	18B, 37B, 47B 1/2" NPTF side inlet and outlet 59B 3/4" NPTF side inlet and outlet
SEAL:	All models - Double lip type. VITON
MOUNTING:	All models - Four bolt foot mount.
FILTER:	Use of external line filter recommended.
VALVES:	External pressure regulating or relief valve recommended.
GAUGE:	2 1/2" DIA., Calibrated from 30" of HG vacuum to 100 PSI.
INLET VACUUM:	All units - 15" HG <u>maximum</u> .

NATIONAL FIRE PROTECTION ASSOCIATION COMPLIANCE REQUIRES
FUEL INLET PRESSURE NOT TO EXCEED 3 PSIG.

CONTROLS:	Duplex automatic with lead-lag switch, alarm, and push button test switch. Duplex manual with selector switch only. Additional controls are available. Contact the factory.
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SPMB Series Single and Duplex Supply Units



B series transfer pumps are designed to provide efficient pumping of #1 to #6 fuel oils, in capacities from 80 to 290 gallons per hour, at pressures up to 500 PSI (except #1 oil). With high-density gray iron body construction, heat-treated alloy steel gears and shafts, and special antifriction bearings. B series transfer pumps offer superior durability and

high mechanical efficiency. Double lip Viton seals, are standard. These pumps are also available in pump and motor packages. Available in 115/230 volt single phase or 230/460 volt three phase, simplex, duplex automatic and duplex manual configurations. All B series pumps are UL approved.

SPMB Pump Selection Table

Selection Table			SPMB Series Supply Pumps			
Models and Design Data Table						
		Required	Required			
Pump Head	Type	Motor HP	Motor HP	Max	Valve Adjustment	Max Flow
Model No.		@ 25 psi	@100 psi	Head	Range	@100 psi
18BR	Single Stage	.25	.25	200'	No Adjustment	150
37BR	Single Stage	.25	.25	200'	No Adjustment	160
47BR	Single Stage	.25	.50	200'	No Adjustment	220
59BR	Single Stage	.25	.50	200'	No Adjustment	290

External Relief or Regulating Valve Required. The RV3003 is mounted to the discharge manifold on the DA package

Supply Pump and Motor Code Breakdown

Examples: SPM-50AT2R213... SPMB-50AT59BR... SPMV-100BT086K-DA... SPMV-50BT086K-DA-PLC

Basic Prefix	Pump Head	Dash	Motor HP	Motor Phase	Motor Enclosure	Webster	Dash	No Letter or
Supply Pump & Motor	Series		.25=1/4 hp	Voltage	TEFC, OPDP	Pump Head		Blank = Single
	No Letter-Standard		500=5 hp	A=1 Phase	E- Explosion Proof	P/N Prefix		DA = Duplex Automatic
				B=3 Phase				DM = Duplex Manual
				X=Special				DA-PLC
				50 or 60 cy.				PLC Control Panel
SPM	B-V-No Letter		.25 - 500	A, B or X	T, O or E	Pump #		Blank, DA, DA-PLC or DM

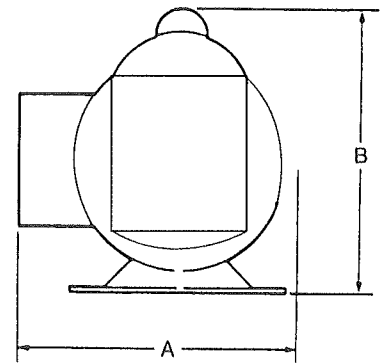
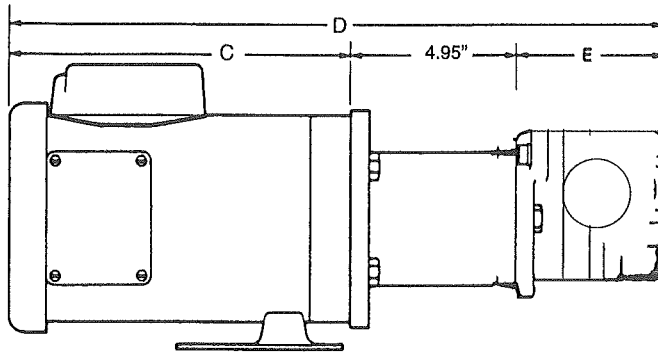
SPMB Series Single and Duplex Supply Units

DIMENSIONS

Motor			A	B	C
HP	NEMA Frame Size	Type (Standard)			
.50	56C	TEFC	9.00	8.25	9.20
.75	56C	TEFC	9.00	8.25	9.20
1.00	56C	TEFC	9.00	8.25	10.20
1.50	56C	TEFC	9.00	8.25	11.20
2.00	56C	TEFC	9.00	8.25	11.20
3.00	182TC	OPDP	9.63	11.05	11.00
5.00	184TC	OPDP	9.63	11.05	12.40
7.50	213TC	OPDP	11.63	13.00	13.90

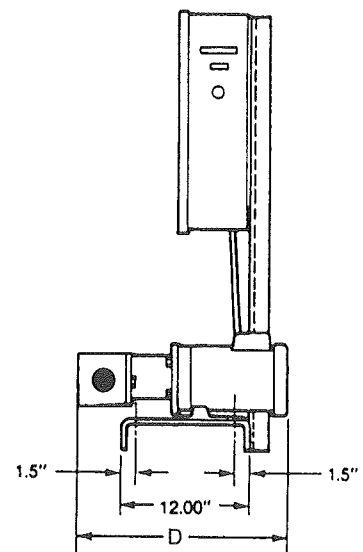
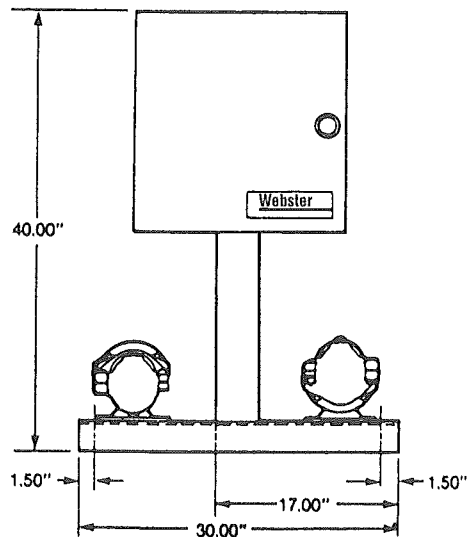
Pump Model	E	D
18BR	3.36	(.50HP) 17.06
37BR	3.71	(.75HP) 17.41
47BR	4.05	(.75HP) 17.75
59BR	4.40	(.75HP) 18.10

SPMB SINGLE SUPPLY UNIT

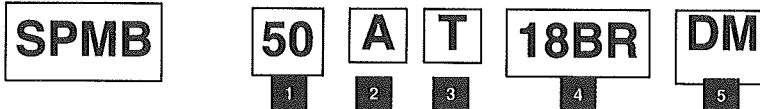


SPMB DUPLEX SUPPLY UNIT

(Dimensions are for
3 Phase Duplex
Automatic
Consult Factory
for Single Phase
Dimensions)



SPMB Ordering Code



MOTOR HORSEPOWER (1725 RPM STANDARD)

1	No.	Description
*	25	.25 HP
	33	.33 HP
	50	.50 HP
	75	.75 HP
	100	1.0 HP
	150	1.5 HP
	200	2.0 HP
	300	3.0 HP

* = only available in 115V or 230V single phase

MOTOR HORSEPOWER (1725 RPM STANDARD)

4	Under pressure, read horsepower required at 1750 RPM				
	Maximum gph Nominal	25 psi	100 psi	200 psi	300 psi
Pump Model					
18BR	82	.25	.25	.25	.33
37BR	159	.25	.25	.50	.75
47BR	220	.25	.50	.75	1.00
59BR	292	.25	.50	.75	1.50

MOTOR PHASE

2	Code	Description
	A	Single Phase / 60 cycle / 115/208/230 VAC
	B	Three Phase / 60 cycle / 208 / 230 / 460 VAC
	X	Consult factory for other types

MOTOR ENCLOSURE

3	Code	Description
	T	TEFC Std/ thru 2 HP
	O	OPDP Std. over 2 HP

SPMB Duplex Ordering Code

When ordering SPMB Duplex models add suffix:

"DM," for manual control models, or "DA," for automatic control models.

Example: SPMB-50AT/18BR-DA

5	Code	Duplex Units
	DM	Duplex with manual controls
	DA	Duplex with automatic controls
	DA-PLC	Duplex with PLC OIL Management Control Panel

When sizing SPMB units, remember that the pressures indicated are at the pump outlet.

All pumps relying on atmospheric pressure to push the fuel oil into them are subject to cavitation. As fuel viscosity (thickness) increases, the tendency for cavitation becomes greater. Therefore, it is best to mount the pump at the base of the tank and to use the largest diameter, shortest length, and straightest inlet possible.

A large diameter inlet pipe or hose necked-down at the pump is preferable to a longer length of similar diameter pipe because the fuel tends to adhere to the inside of the pipe.

When initially starting a unit, it is desirable and sometimes necessary to have a vent valve or plug on the pressure side of the pump to facilitate its priming.

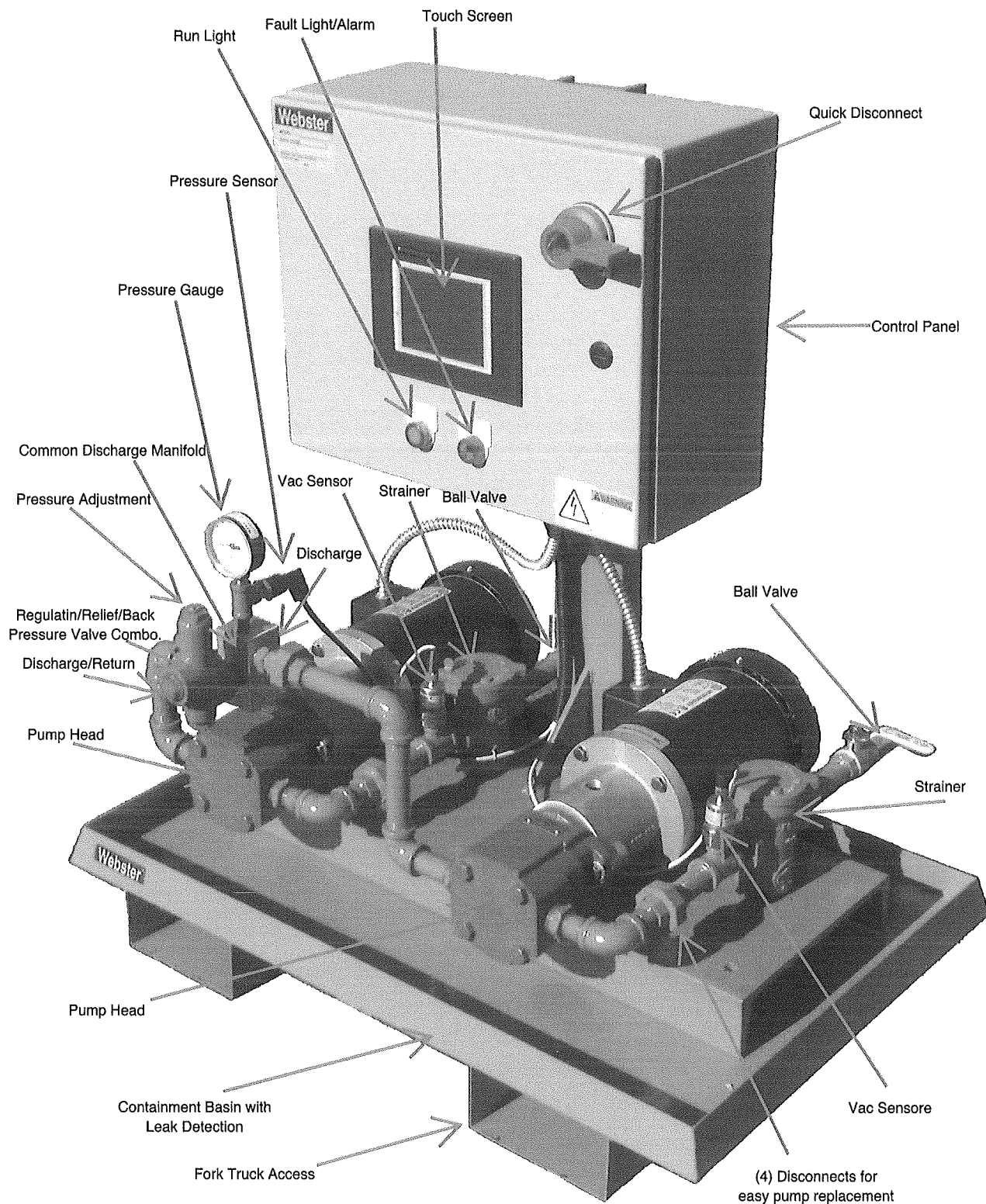
The Duplex Automatic Pump and Motor PLC Based Oil Management Control Panel options are as follows.

- Microprocessor Base Programmable Logic Controller
- Remote Monitoring Capabilities via Ethernet and or Wireless Communication. Internet connection is needed to interface with the PLC panel in order to provide real time remote monitoring.
- Audio and Visual Alarm
- Duplex Automatic Panel with Automatic Switch Over
- High/Low Level and Leak Detection Interface with Alarm and Shut Down
- Automatic Alternation to allow for equal run time between pump sets every 14 days
- Pressure Transducer to detect pump failure and to allow back-up pump to energize
- 6" LED Touch Display Panel
- Vacuum and Pressure Monitoring
- Motor Starters with MCP's (Motor circuit protector)
- Quick Disconnect
- ETM Time Elapsed Recorders for Each Pump Set for Later Verification
- Event Summary
- NEMA 4/12 Enclosure
- Control System is equipped to monitor and control
 1. Hand-Off-Automatic Control
 2. Lead Pump Selection – Auto/Manual
 3. Pump Status – Off/Run/Standby
 4. Pressure and Vacuum Status - Normal/High/Low
 5. Main Tank/Day Tank Status – Normal/High/Low/Leak
- Controllers are field expandable using plug-in input modules to monitor up to 4 storage tanks and 12 discriminating leak sensors.
- Motor Failure Alarm
- Light to indicate normal power on, run, and off conditions
- Remote HMI Access for real time remote monitoring and control (APP Download Required)
- Advanced features of Touch Panel: Remote Access and Control feature. Send email with embedded PLC data, Send logged data to an external PC, Retrieve logged panel data remotely via the internet, Clear old logged data on a routing frequency. Unit can communicate with different brands of PLCs at the same time.

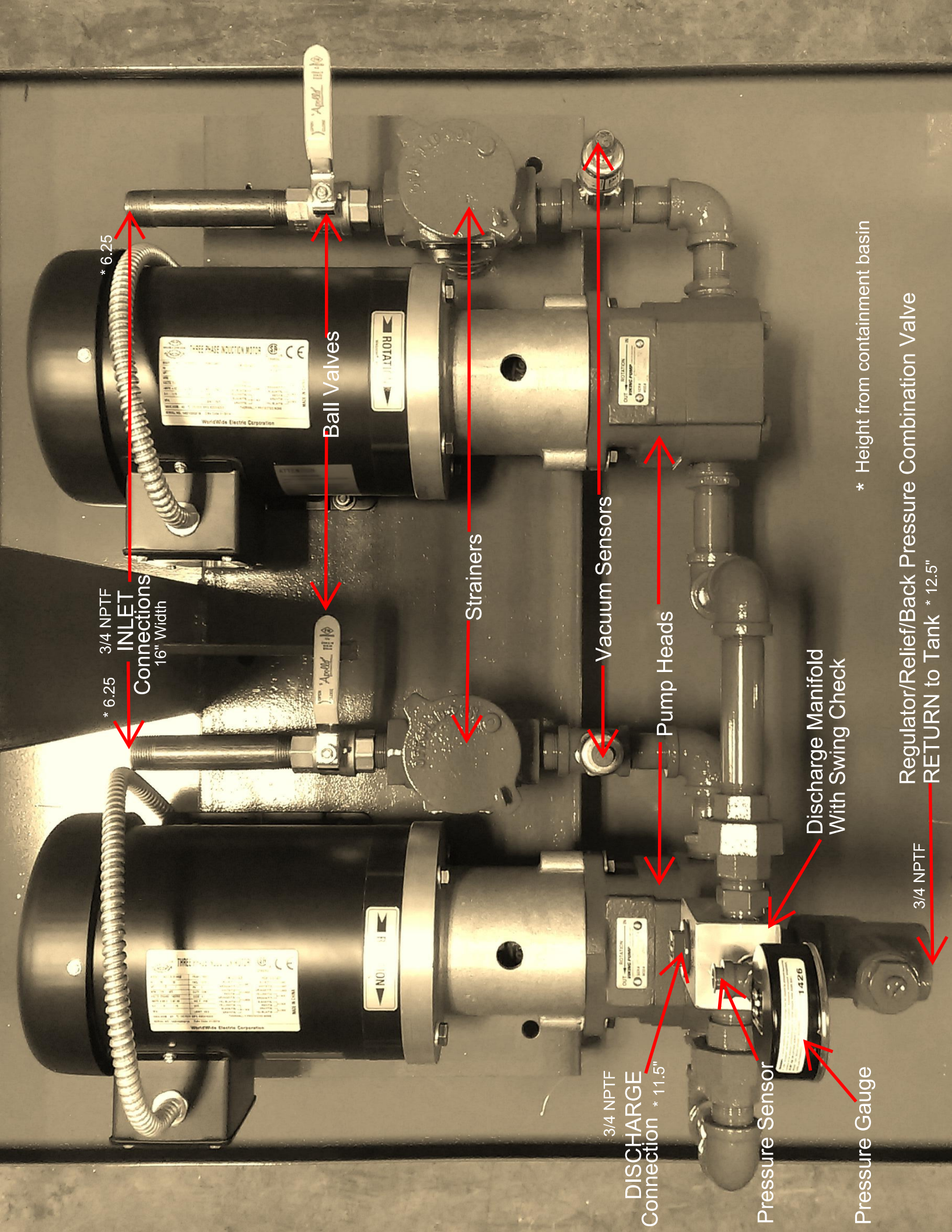
NOTE: Installer should be familiar with PLC based controls and remote wireless interface in order to enable all the features this panel can provide.

The Complete PLC Duplex Pump and Motor Assembly will also include...

- Flow rates available from 80 GPH up to 290 GPH
- Discharge pressures from 10-55 psig
- 1725 rpm Direct Drive Motors
- Two Pump and Motor assemblies
- One Compound Gauge on discharge block
- One Discharge connection
- One regulator/relief/back pressure valve combination on common discharge manifold
- Two Inlet Strainers
- Containment Basin (36" x 24") with drain plug, leak sensor and fork lift access
- Inlet Isolation Valves



The above SPM pump set is sitting on a 36" x 24" containment basin. Dimensions may vary depending on model. Sensors are not included with our standard panel.



* 6.25

3/4 NPTF
INLET
Connections
16" Width

Ball Valves

Strainers

Vacuum Sensors

Pump Heads

Discharge Manifold
With Swing Check

DISCHARGE
Connection * 11.5"

Pressure Sensor

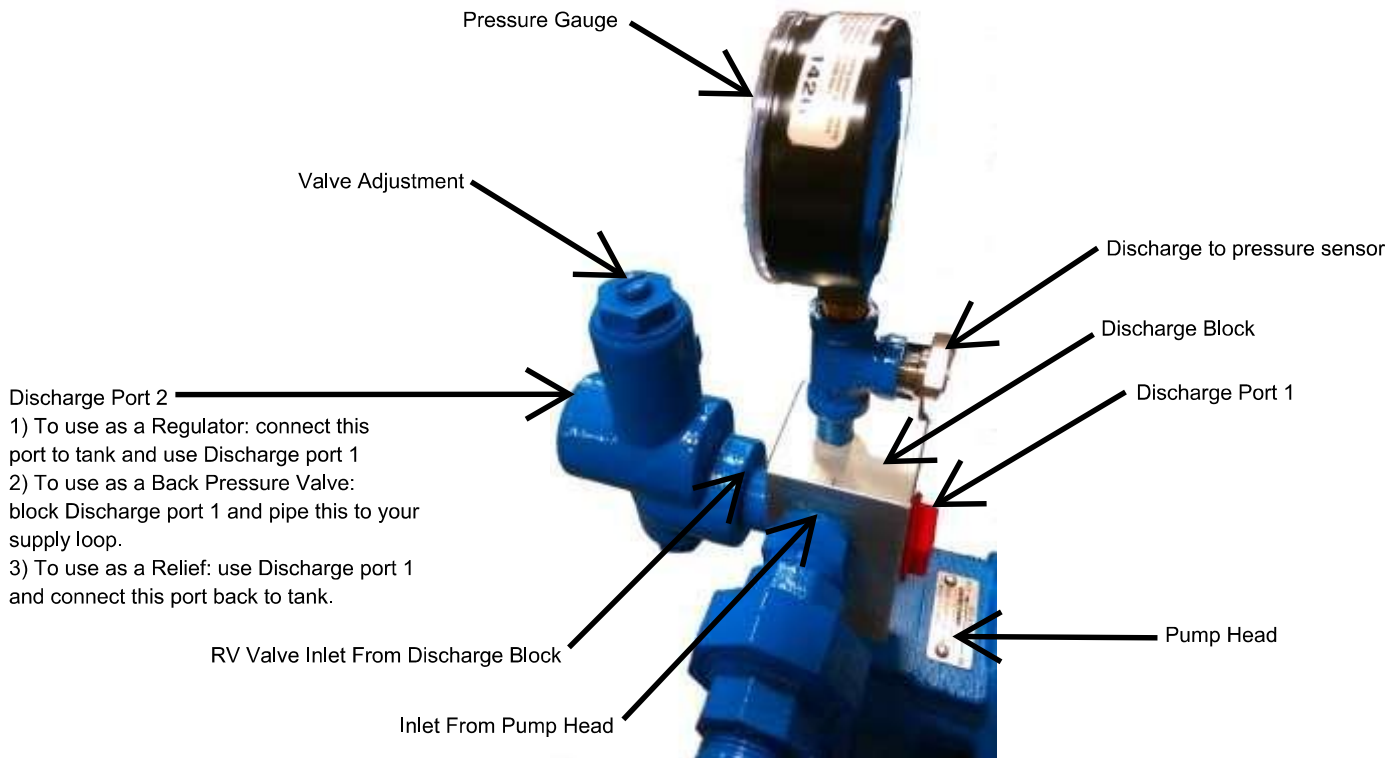
Pressure Gauge

* Height from containment basin

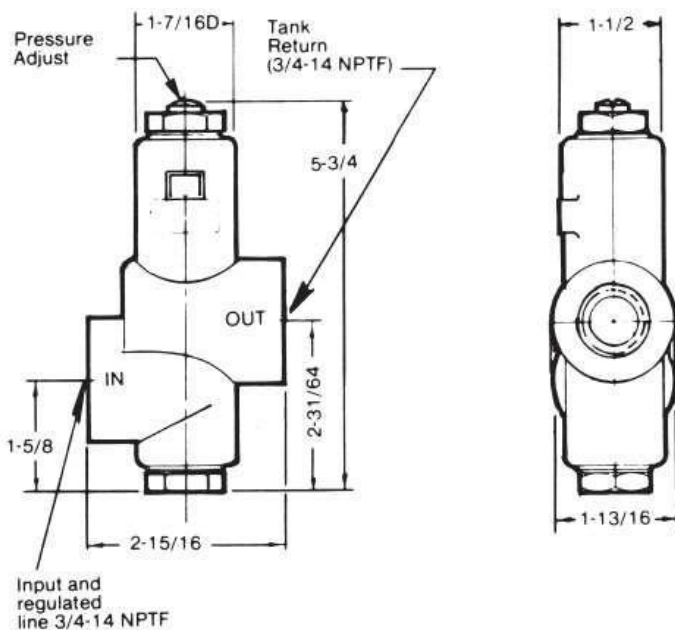
Regulator/Relief/Back Pressure Combination Valve
RETURN to Tank * 12.5"

3/4 NPTF

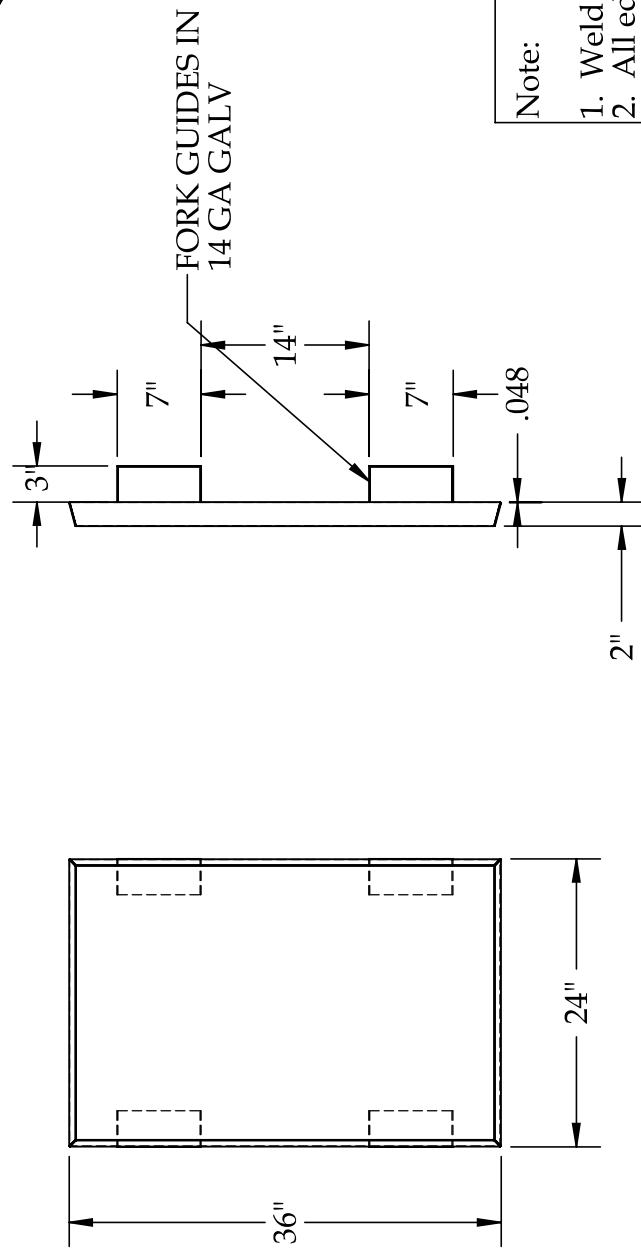
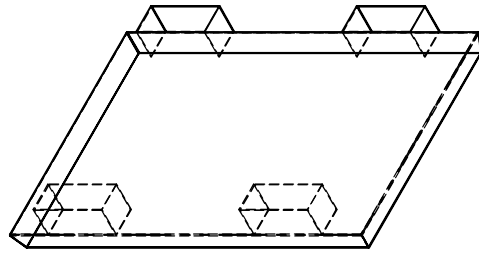
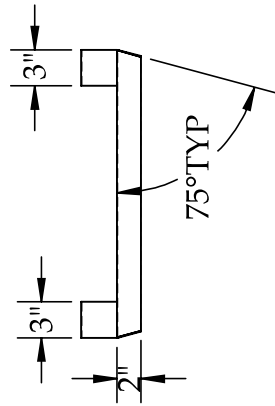
Discharge Manifold Description and Set-up



RV-3000



The RV3003 has a 10-55 PSI Adjustment



Note:

1. Weld Corners Water Tight
2. All edges hemmed at .5"
3. No burrs or weld splatter
4. Minimize burn marks

36" X 24" Containment Basin

P/N 56444-1

Webster, Inc. warrants that Heating Products shall be free from defects in materials and workmanship for a period of two (2) years from the date of manufacture, or one (1) year from the date of installation, whichever period expires first. Webster will rebuild or replace, at its option, all Heating Products proven to its satisfaction to be defective within such warranty period and returned to the Webster factory, transportation charges prepaid. Webster's sole obligation and buyer's exclusive remedy hereunder is limited to such rebuilding or replacement.

No products may be returned to the Webster factory unless the prior written consent for said return shall have been obtained from the Heating Products Customer Service Department in Frankfort, Kentucky. This Limited Warranty does not cover shipping costs to and from the Webster factory, any costs for labor or otherwise related to product removal or replacement, or any other costs of any nature without prior written consent by Webster.

Parts, products and accessories made by others are warranted only to the extent of the original manufacturer's warranty to Webster.

This warranty shall not apply to acts of God, war or civil insurrection, nor shall it apply to products which, in the sole judgment of Webster, have been subject to negligence, abuse, accident, misapplication, tampering, alteration; nor due to other than normal application, use or service, including but not limited to, operational failures caused by corrosion, rust or other foreign materials in the system, or operation at pressures in excess of recommended maximums.

Purchaser shall be solely responsible for determining suitability for use of Webster Heating Products. Webster shall not in any event whatsoever, have any liability with respect to such determinations.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WEBSTER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER.

NOTE TO CONSUMERS: THIS LIMITED WARRANTY IS EXTENDED TO THE COMMERCIAL CUSTOMERS, DEALERS AND INSTALLERS OF WEBSTER ONLY. THE SUPPLIER/INSTALLER WILL EXTEND WARRANTY COVERAGE TO YOU WHICH COVERS WEBSTER'S PRODUCTS. WEBSTER'S WARRANTY TO SUCH CUSTOMERS, DEALERS AND INSTALLERS WILL BACK UP THE WARRANTY EXTENDED TO THE CONSUMER.
