



THE POWER HOUSE AT UNION STATION • 401 S. 18th ST., STE. 400 • SAINT LOUIS, MISSOURI 63103-2296
314-531-4321 • FAX 314-531-6966 • www.HornerShifrin.com

Shop Drawing Review

To: Peter Steuterman c/o Hastings & Chivetta	From: Dave Lauver
Project name and number: 2217700 – Jeff Co Crime Lab	Date: 07/12/2024
Subject: HYDRONIC PUMPS	

Review is for general compliance with contract documents.

No responsibility is assumed for correctness of dimensions, quantities, or details.

REVIEWER'S RESPONSE:

ACTIONS REQUIRED:

- NO EXCEPTIONS TAKEN
- MAKE CORRECTIONS NOTED
- REJECTED- SEE REMARKS
- ACCEPTED AS INFORMATION ONLY

- NO RESUBMITTAL REQUIRED
- PARTIAL RESUBMITTAL REQUIRED
- RESUBMITTAL REQUIRED

Horner & Shifrin inc.

DATE: *July 12, 2024*

BY: *Paul Pisciotta*



K&S Associates Inc

12963 Maurer Industrial Dr St Louis, MO 63127 Ph : 314-647-3535 Fax: 314-647-5302

www.ksqgstl.com

Submittal

Job: KS 4830

JEFFERSON COUNTY CRIME LAB
1177 MASON CIRCLE
PEVELY, MO 63070

Spec Section No: 232123

Submittal No: 1

Revision No: 0

Sent Date: 7/9/2024

Spec Section Title: HYDRONIC PUMPS

Submittal Title: Hydronic Pumps Product Data

Contractor:

K&S Associates Inc

Contractor's Stamp

K&S Associates, Inc. 12963 Maurer Industrial Drive St. Louis, MO 63127			
GENERAL CONTRACTOR REVIEW			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
REVIEWED	REVISE & RESUBMIT	REJECTED	
BY <i>B. G.</i>		DATE 7/9/2024	
<small>This review is only for general conformance of the submittal with the documents. Corrections or comments made on this submittal during review do not relieve Subcontractor/Supplier from compliance with the requirements of the plans and/or specifications. Subcontractor/Supplier is responsible for verifying all dimensions and quantities. Fabrication is to be confirmed and completed with actual field dimensions by Subcontractor/Supplier.</small>			

Other:

HASTINGS+CHIVETTA ARCHITECTS
PETER STEUTERMAN

Architect's Stamp

Engineer's Stamp

GWS CONTRACTORS INC.

100 Industrial Drive
Bonne Terre, MO 63628



Telephone (573) 358-3040
Fax (573) 358-3167

SUBMITTAL NO. 232123 – 1.0 – REV No. 0 – Hydronic Pumps – Product Data

Date: June 21, 2024

GWS Job Number:

Job Name: Jefferson Crime Lab

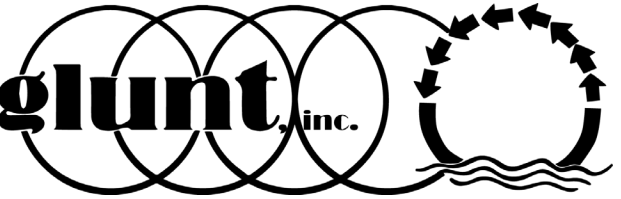
GENERAL CONTRACTOR APPROVAL:

ARCHITECT APPROVAL:

MECHANICAL CONTRACTORS

Industrial, Commercial, Institutional, Municipal Piping, Plumbing, HVAC, & Treatment Plants

blackmore and glunt, inc.



12 Kimler Drive

Maryland Heights, MO 63043

314-878-4313

fax 314-878-6029

Job: Jefferson County Crime Lab

Engineer: Horner & Shifrin

Contractor: GWS

Order No.: 24-00153

Prepared By: Greg Hoekstra

Date: June 25, 2024

- Submittal -

Qty Description & Tag

HVAC

Tag: B 01

1 Riello Condexa Pro 117 Condensing Wall-hung Boiler

Tag: ET 01

1 Model NLA 35 ASME Bladder Tank (10 GAL)

Tag: P 01 & 02

2 B&G ecocirc XL 55-45 (1/2HP – 230/1)

Performance: 33.6 GPM @ 30 FT TDH

2 B&G 1-1/2" set of (2) Pump Companion Flanges (Pair)

Tag: PSAV 01

1 Wessels PSAV-2 ASME Primary/Secondary Header with Air/Dirt Separation 2 Inch Flanged Connections

1 B&G #98 High Capacity Air Vent 1/2in

~~PLUMBING~~

~~Tag: HWRP 1~~

~~1 B&G ecocirc 20-18, 70W, 115/1/60 SS F Pump~~

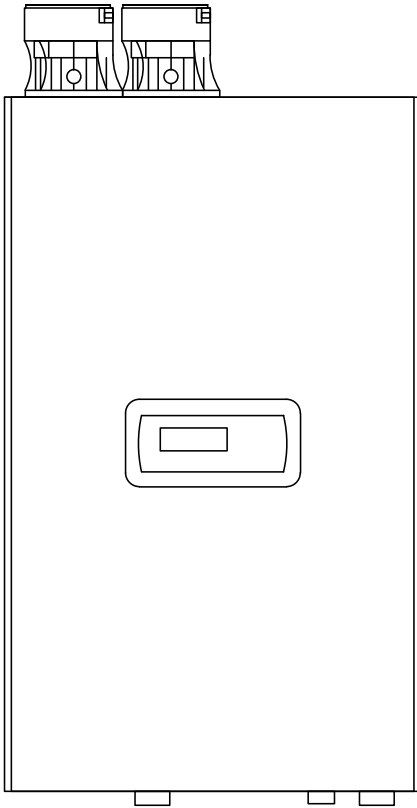
~~Performance: 8 GPM @ 15 FT TDH~~

~~1 B&G S.S. Flange Set Complete 3/4" NPT 2 Bolt~~

CONDEXA PRO 117 NA

Wall Hung Boiler/ Submittal Sheet

Project Name:	Jefferson County Crime Lab	Mechanical Contractor:	GWS
Location:		Architect/Engineer:	
Gas Type:	Natural	Wholesaler:	
Date:	06/25/2024		

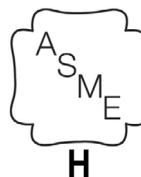


Features:

- Thermal efficiency of 95%
- 10:1 turndown ratio
- Low NOx emissions (SCAQMD)
- Automatic air purge
- Field convertible from natural gas to propane
- Automatic self-diagnostics, featuring easy to use control panel with back-lit display
- Built-in cascade control (up to 64 units)
- Compatible w/ BACnet and LAN via gateway
- Direct connection to Modbus
- Warm weather shutdown
- Domestic hot water priority options available
- Seize protection
- Frost protection
- NPT threading for gas and plumbing connections
- Easily accessible terminal strip for quick connections to accessories
- Universal vent adapter
- Venting options include concentric or two pipe direct vent options in rigid PP, flexible PP and CPVC (PVC can be used on the intake only)
- Cascade vent up to 6 units
- Modular stands available (row or back-to-back configuration)

Built-in Components:

- Nickel chrome stainless steel pre-mix burner
- Stainless Steel Primary Heat Exchanger (AISI 316)
- Electronic, direct spark ignition
- Low water Cutoff
- 50 psi pressure relief valve
- Flue high-limit
- Automatic air vent
- Flowmeter
- Flow check valve
- Flue damper
- Grundfos 26-99 pump



Technical Data

Model		Condexa Pro 117 NA	
Input - Output			
Maximum input - central heating (0 - 2,000 ft/ 0 - 610 m)		Btu/hr	399,204
Minimum input - central heating (0 - 2,000 ft/ 0 - 610 m)		Btu/hr	39,920
Maximum output - central heating (0 - 2,000 ft/ 0 - 610 m)		Btu/hr	379,244
Minimum output - central heating (0 - 2,000 ft/ 0 - 610 m)		Btu/hr	37,941
Thermal Efficiency			
Thermal Efficiency		%	95
Gas			
Fuel		Natural Gas/ LPG	
Flue Gas Values			
Thermal losses in Standby mode		Btu/hr	423
		%	0.1
Nox Emissions (*)		mg/kWh	38.7
Emissions at max / min firing rate natural gas	CO ₂	%	9.0/9.0
	CO	ppm	91.5/7.5
Emissions at max / min firing rate LPG	CO ₂	%	10.4/10.4
	CO	ppm	159/11
Flue temperature at max p. and min. 180-149 ° F		°F	172/144
Flue temperature at max p. and min. 122-86 ° F		°F	120/95
Smoke mass flow rate (**)		lb/s	0.223
System Data			
Combustion chamber		Vertical	
Noise Level		dB(A)	56
Maximum pressure relief valve operating pressure		psi	50
Minimum operating pressure		psi	10
Maximum permitted temperature		°F	212
Water highlimit safety thermostat		°F	203
Minimum temperature setting		°F	86
Maximum temperature setting		°F	176***
Water content		US gal.	4.49
Max. Condensation production at 100% (122-86 ° F)		gal./h	3.96
Electric Data			
Power supply		V-Hz	120-60
Power consumption at full load	max	W	203
Power consumption at partial load	min	W	31
Power consumption in stand-by mode		W	6
Max Vent Length			
Max length horizontal coaxial 4/6"		ft	50
Max length vertical coaxial 4/6"		ft	50
Max total length horizontal 2 pipe 4" (air + vent)		ft	50
Max total length vertical 2 pipe 4" (air + vent)		ft	100+100
Max total length horizontal 2 pipe 5" (air + vent)		ft.	100+100
Max total length vertical 2 pipe 5" (air + vent)		ft	100+100
Minimum Clearances To Combustibles			
Top - front - rear		in	TBD - 2 - 0
Left - right		in	2 - 2

(*) Weight values calculated according to EN 15502 standard.

(**) Values referred to atmospheric pressure above sea level.

(***) Up to 185 ° F if combined with the plate exchanger accessory.

Technical Data

Model

Condexa Pro 117 NA

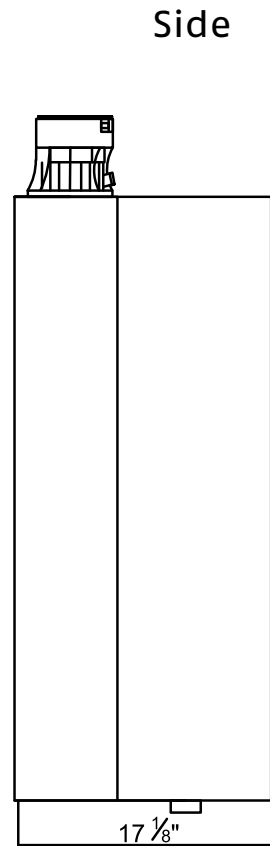
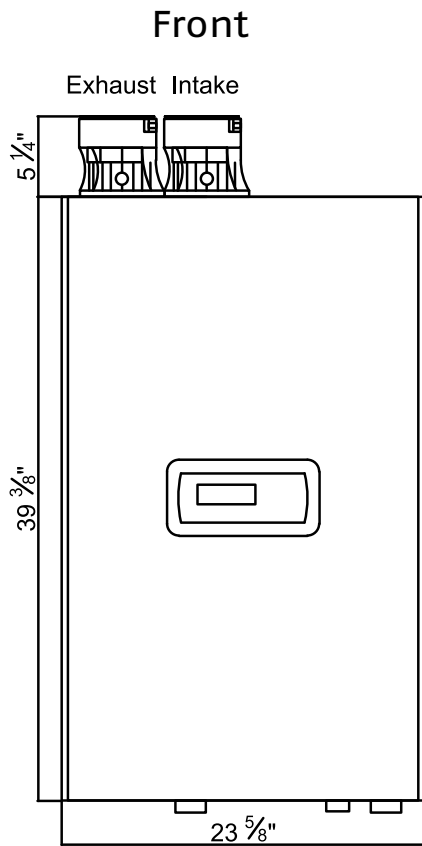
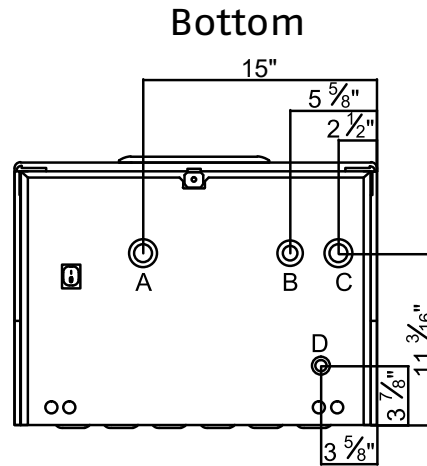
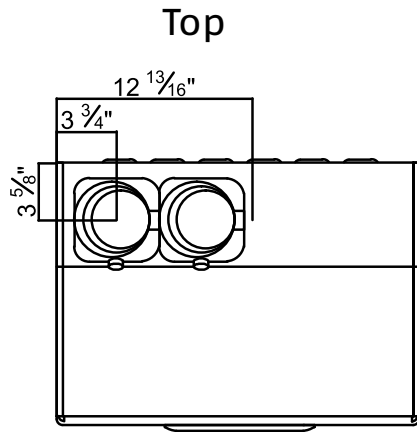
Pipe Connections

Gas supply connection (shut off valve)	in	1 1/4" MPT
Boiler in connection	in	1 1/2" MPT
Boiler out connection	in	1 1/2" MPT
Pressure relief valve	in	3/4" MPT
Condensate connection diameter (rubber flexible)	in	1"

Boiler Dimensions & Weight

Boiler Dimensions	in	39 3/8"x23 5/8"x17 11/16"
Weight	lb.	172

Product Dimensions



Description

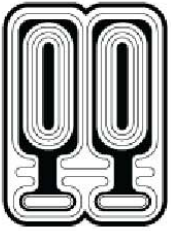
- | | |
|---|----------------------------------|
| A | 1 1/2" CH Return |
| B | 1 1/4" Gas Supply Connection |
| C | 1 1/2" CH Supply Connection |
| D | 7/8" Condensate Drain Connection |

In order to improve its products, RIELLO reserves the right to modify the characteristics and information shown in this technical sheet at any time and without advance warning. This technical sheet, therefore, cannot be considered as contractually binding on third parties.

RIELLO

Evergreen Products International Inc.
2125 South Service Rd. W Unit A, Oakville, ON L6L 5W2

Technical Support Hotline : 1.844.387.4663 ext. 503
Professional Resources: egproductsolutions.com
Email: info@egproductsolutions.com



SINCE 1908
wessels
company

SUBMITTAL

NLA-SERIES
 HVAC EXPANSION TANKS

Models: NLA-35 to NLA-800L
 Submittal Sheet No. A-1010A Rev. 1 5/17/2018

Job Name _____	Submitted By _____	Date _____
Location _____	Approved By _____	Date _____
_____	Order No. _____	Date _____
Engineer _____	Notes _____	_____
Contractor _____	_____	_____
Sales Rep. _____	_____	_____

Description:

Wessels patented NLA tanks are ASME removeable bladder type pre-charged HVAC expansion tanks. They are designed to absorb the expansion forces and control the pressure in heating/cooling systems. The system's expanded water (fully compatible with water/glycol mixtures) is contained in a full acceptance heavy-duty butyl bladder that prevents tank corrosion and waterlogging problems. All NLA expansion tanks can be installed vertically or horizontally.

Construction:

Shell: Carbon Steel
 Heads: Carbon Steel
 Exterior: Carbocoat 140 - Harvester Red
 Interior: Heavy Duty Butyl Bladder

Design Parameters:

Maximum Design Pressure: 125 PSIG*
 Temperature Range: -20°F to 240°F

*150, 200 & 250 PSIG available

Model Number	Part Number	Tank Volume (Gallons)	Tagging Information	Quantity
NLA-35	22010035	10		
NLA-50	22010050	13		
NLA-85	22010085	23		
NLA-130	22010130	35		
NLA-200	22010200	53		
NLA-300	22010300	79		
NLA-400	22010400	106		
NLA-500	22010500	132		
NLA-600	22010600	158		
NLA-800L	22010805	211		

Typical Specification

Furnish and install, as shown on plans, a _____ gallon _____" diameter X _____" (high) pre-charged steel HVAC expansion tank with heavy-duty butyl bladder. The tank shall have multiple water-side connections to eliminate stagnate water within the tank, a 0.302"-32 charging valve connection (standard tire valve) to facilitate the on-site charging of the tank to meet system requirements, a pressure gauge, and bladder integrity monitor. The tank must be constructed in accordance with the most recent addendum of Section VIII Division 1 of the ASME Boiler and Pressure Vessel Code and rated for 125 psig.

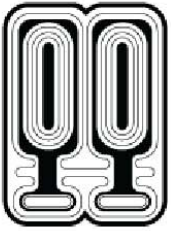
Each tank shall be Wessels model number NLA-_____ or approved equal.

E-mail



SINCE 1908
wessels
company

101 Tank Street Greenwood, IN 46143
 P: 317-888-9800 F: 317-865-7411
 www.westank.com

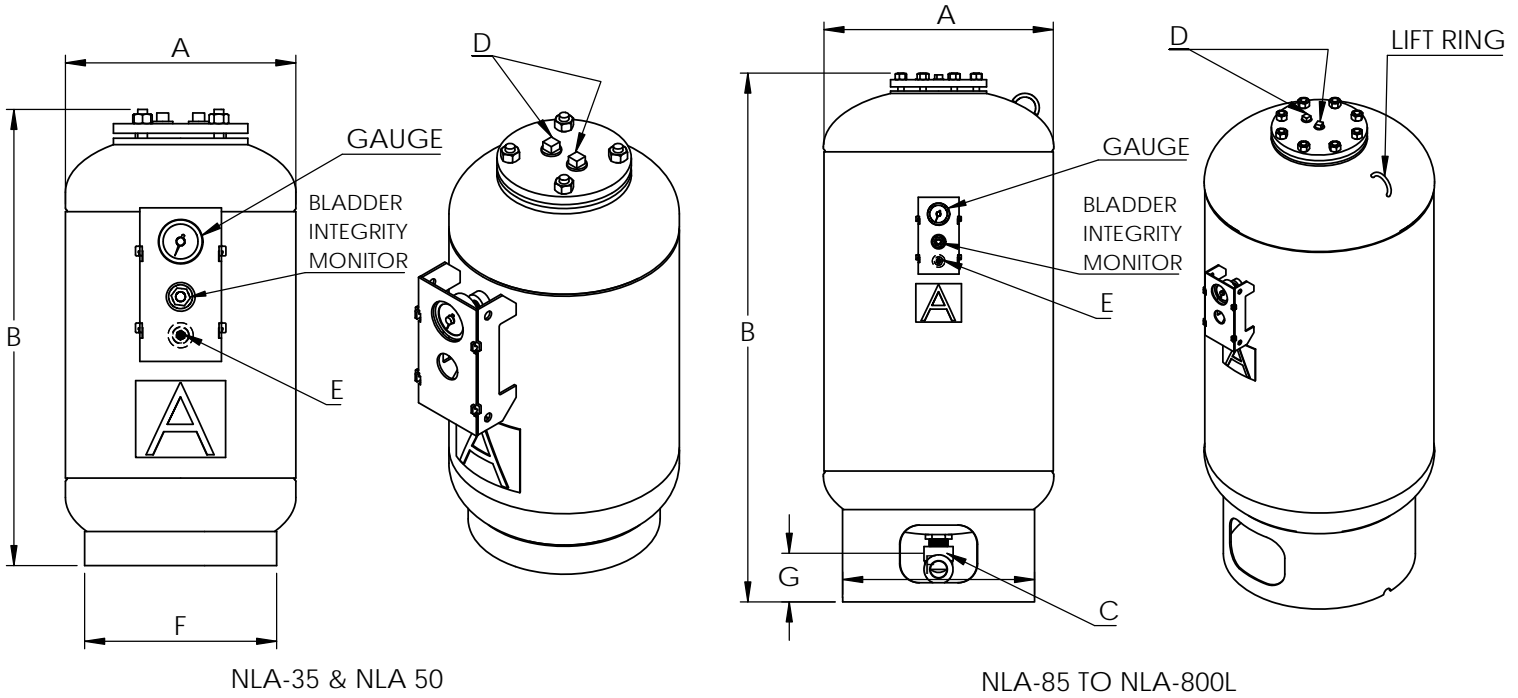


SINCE 1908
wessels
 company

SUBMITTAL

NLA-SERIES
 HVAC EXPANSION TANKS

Models: NLA-35 to NLA-800L
 Submittal Sheet No. A-1010A Rev. 1 5/17/2018



Dimensions & Weights:

Model Number	Dimensions in Inches						Approx. Shipping Weight (lbs)	
	A	B	System Connection		Charging Valve	F		G
			C	D	E			
NLA-35	12	23 1/2	-			10	-	40
NLA-50	14	24				10	-	50
NLA-85	16	37	1 NPT			12	5 1/2	90
NLA-130	20					16		125
NLA-200	24	43	1 1/2 NPT	3/4 NPT	0.302"-32NC	20	5 1/4	210
NLA-300		55						225
NLA-400	30	49				24	5 1/4	300
NLA-500		57						335
NLA-600	32	65	2 NPT					360
NLA-800L		76						475

Notes:

- Tanks are factory pre-charged at 40 psig and field adjustable.
- California code-sight glass is available upon request.
- Both top and bottom connections (C & D) access the bladder.
- Mounting clips are available upon request.
- U.S. Patent No. 8,633,825 B2



SINCE 1908
wessels
 company

101 Tank Street Greenwood, IN 46143
 P: 317-888-9800 F: 317-865-7411
 www.westank.com

Job/Project: 24-00153 Jefferson County Crime Lab	Representative: Greg Hoekstra	
ESP-Systemwize: WIZE-D0E8EC29	Created On: 06/25/2024	Phone: 314-878-4313
Location/Tag: P 01 & 02	Email: aneal@b-g.com	
Engineer: McClure Engineering	Submitted By:	Date:
Contractor: GWS Contractors	Approved By:	Date:

High Efficiency Large Wet Rotor Circulator with ECM Motor
Series: ecocirc® XL

Model: 55-45

The ecocirc® XL circulator is designed with a highly efficient electronically commutated permanent magnet motor (ECM/PM Technology). Cast Iron model designed for closed loop hydronic heating and cooling systems pumping water or water/glycol mix. Stainless Steel body pump designed for plumbing systems or open loop heating and cooling systems.



Selection Summary

Duty Point Flow	33.6 US gpm
Duty Point Head	30.0 ft
Control Head	0.0 ft
WTW Efficiency at Duty Point	40.1 %
WTW PLEV Efficiency	0.0 %
Motor Power	0.5
Electrical Input Power	0.634 hp
RPM @ Duty Point	4219 rpm
NPSHr	---
Minimum Shutoff Head	47.9 ft
Fluid Temperature	68 °F
Fluid Type	Water
Phase	1
Voltage	208-230
Weight (approx. - consult rep for exact)	22 lbs

Performance Curve

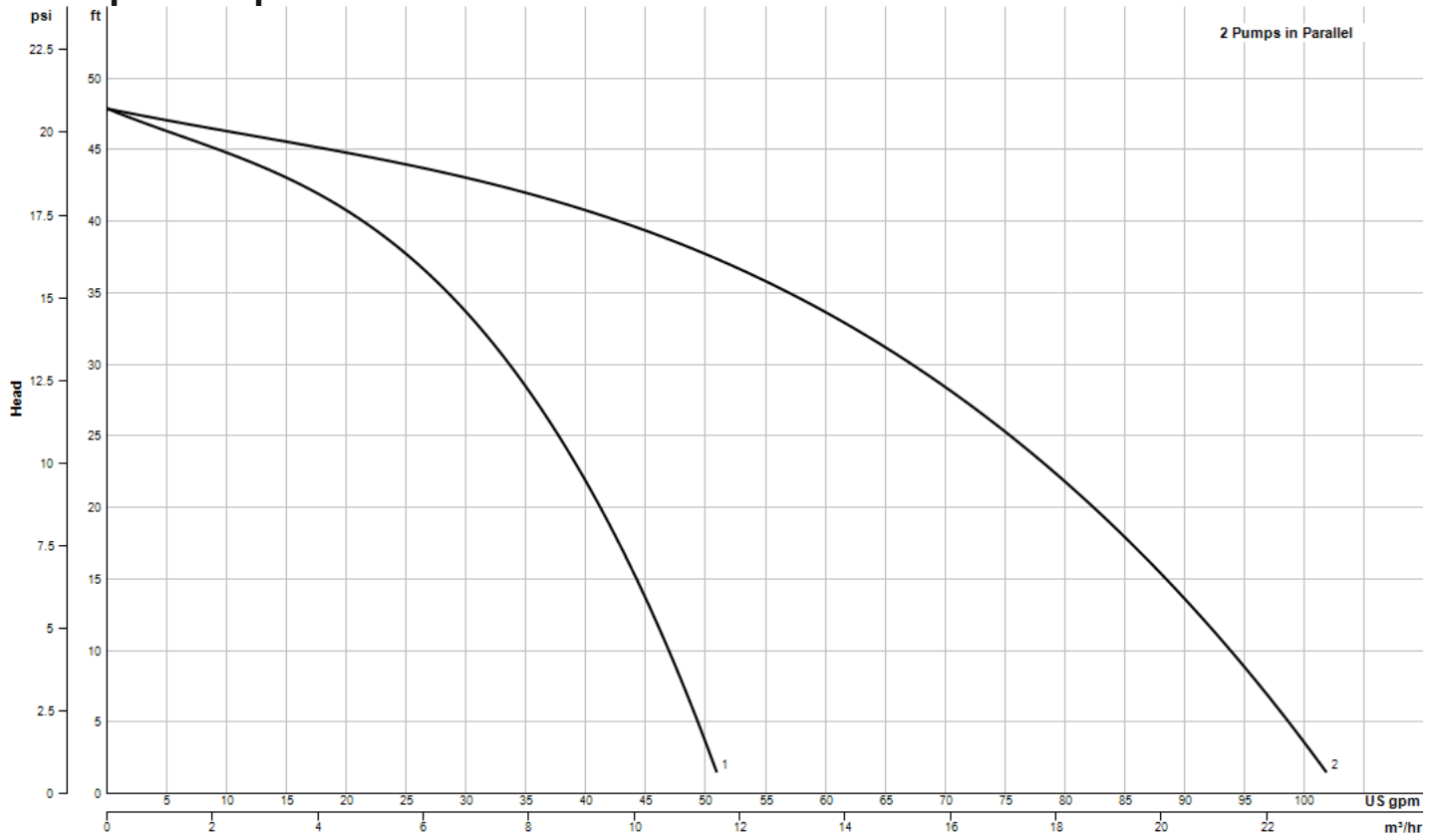


ecocirc XL
Ecocirc XL 55-45

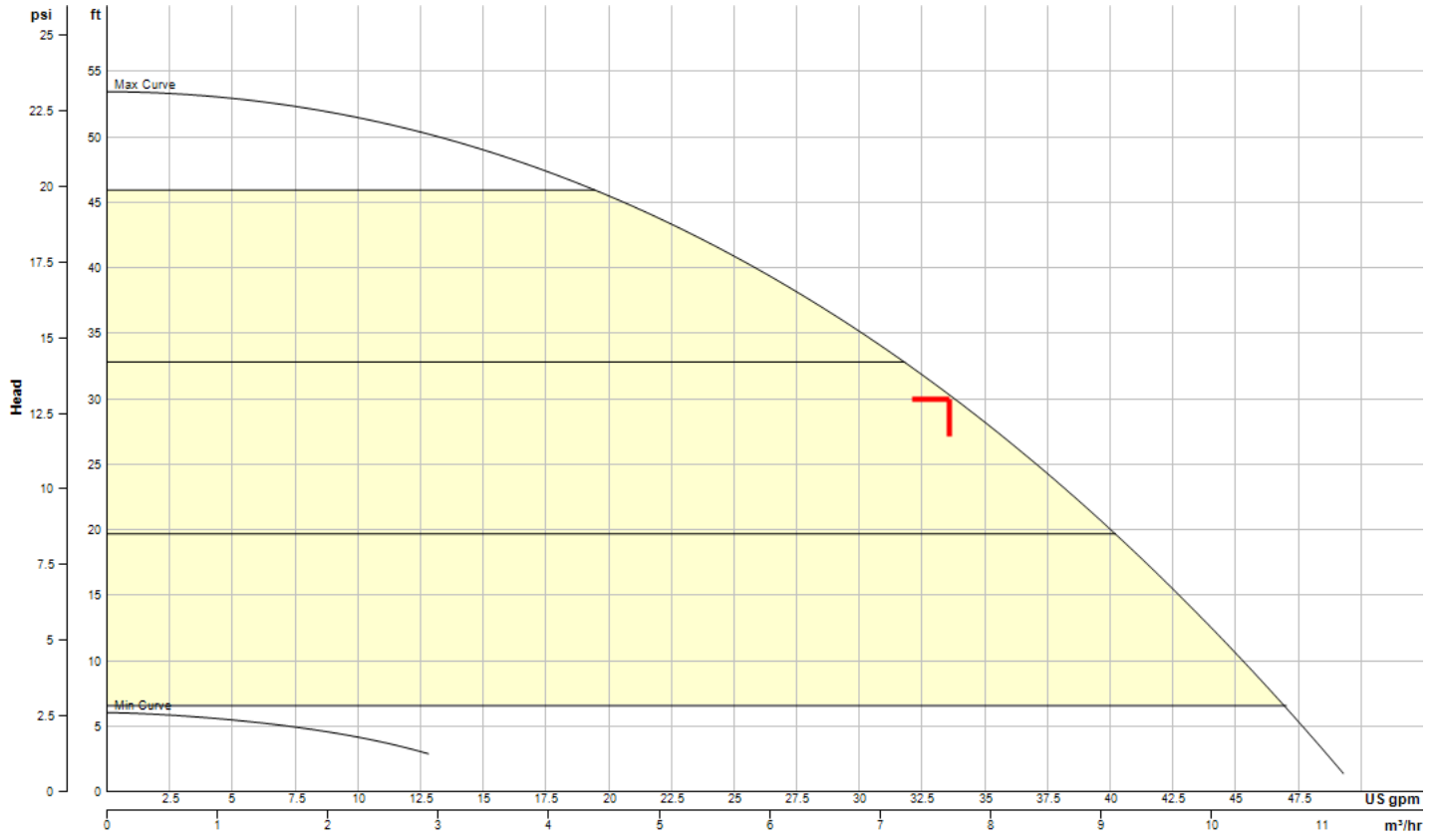


Performance curve meets 14.6 / ISO 9906 acceptance criteria

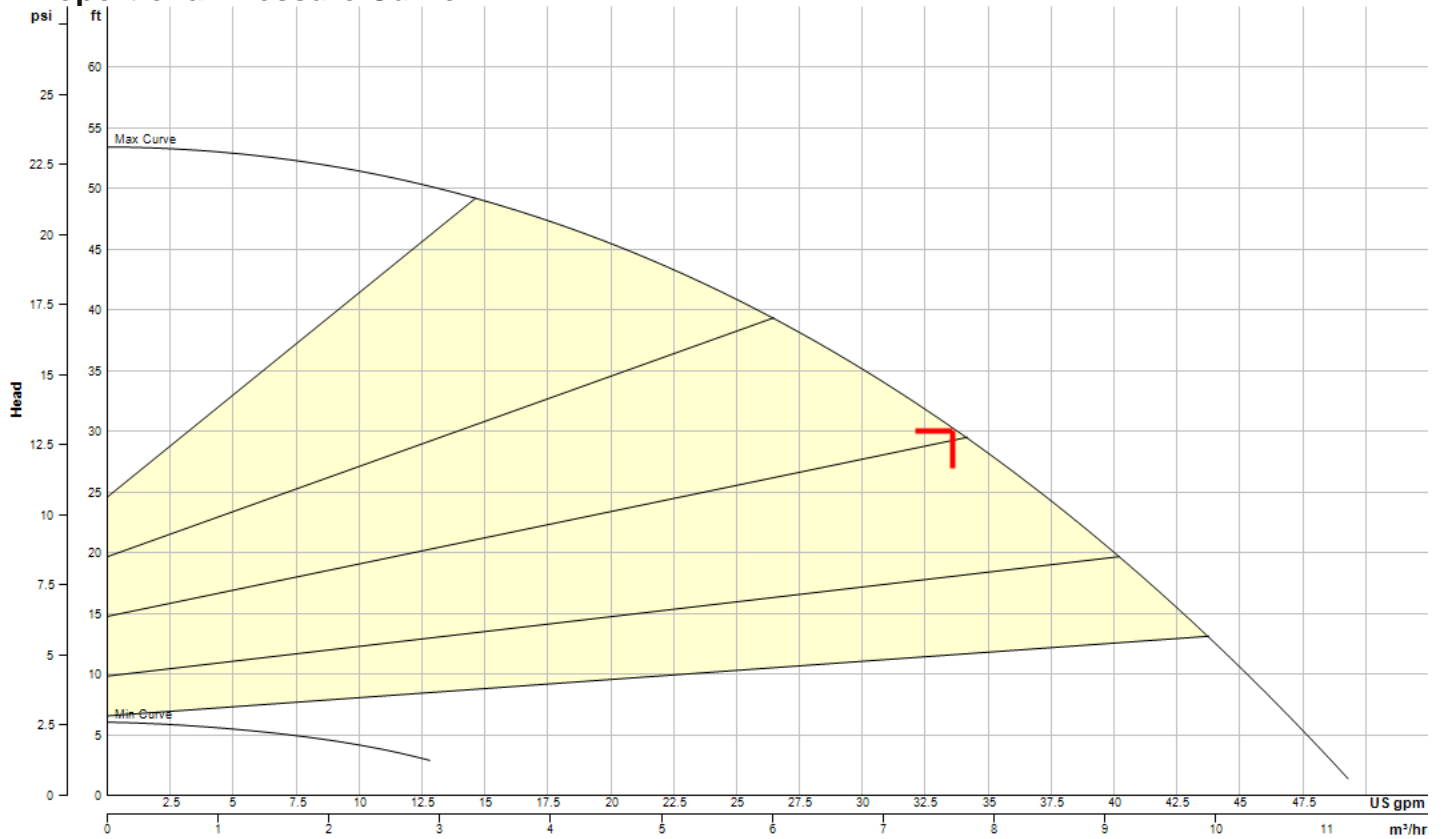
Multiple Pump Curve

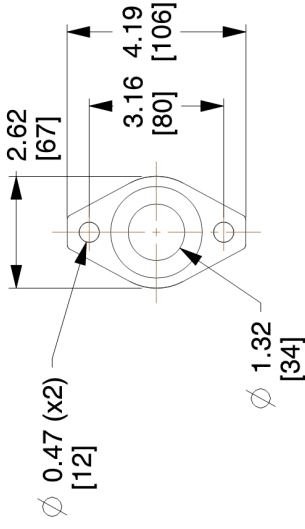
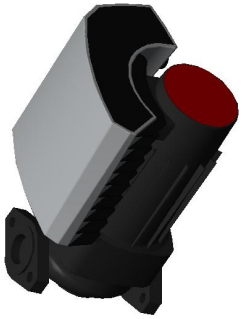


Constant Pressure Curve

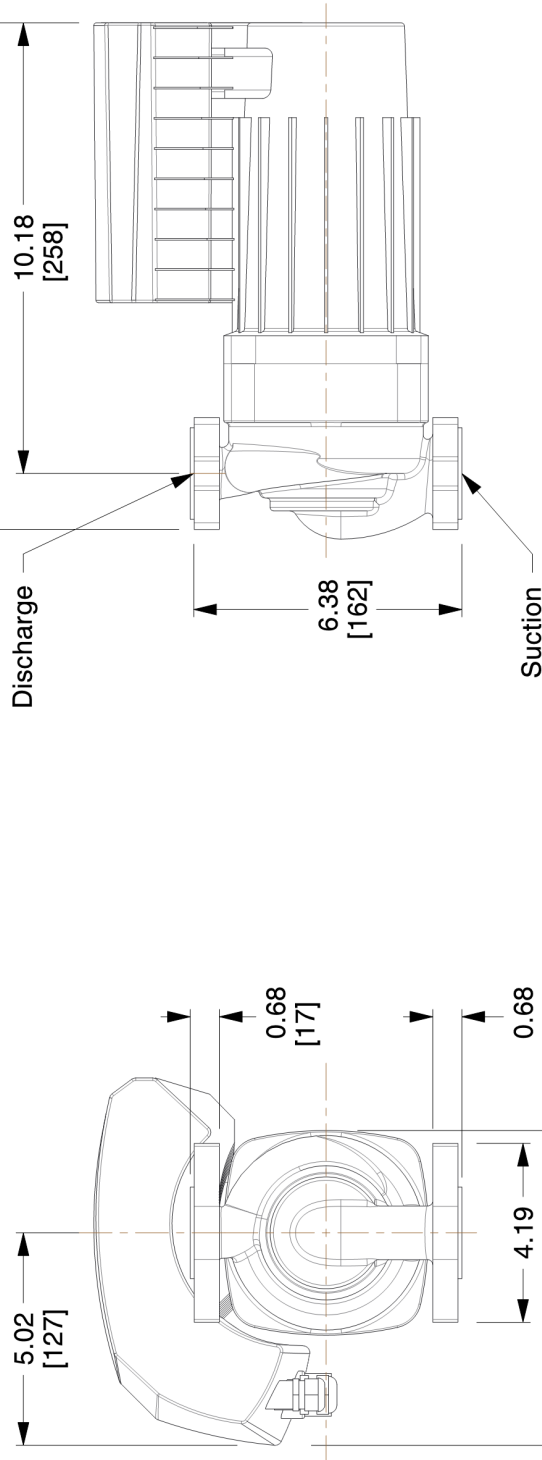


Proportional Pressure Curve





**SUCTION & DISCHARGE
FLANGE DETAILS**



a xylem brand

8200 N. Austin Ave.
Morton Grove, IL 60053, USA

This drawing and the information depicted therein is the property of Xylem. Copies are issued in strict confidence and shall not be reproduced or copied, or used as the basis for the manufacture or sale of products without prior written permission of Xylem.

Dimensions are subject to change

Not to be used for construction unless certified

BG-104306 ECOCIRC XL 55-45

Series ecocirc XL High Efficiency Large Wet Rotor Circulator with (ECM)

Motor Hp:1/2 | Voltage:208-230 | Phase:1 | Watts Range:30-500 | Amp Range:0.2-2.0

Dimensions : IN (mm)

Scale : N.T.S.

Submittal # : A-429C

Standard Materials of Construction

Pump Body Construction:	Cast Iron or Stainless Steel
Impeller	Poly-phenylene Sulfide or Stainless Steel
Shaft	AISI 420 Stainless Steel
Rotor	Permanent Magnet
Bearing	Carbon Sleeve
Gasket/O-Ring	EPDM
All Other Wetted Parts	AISI 304 Stainless Steel
Motor Type	Electronically Commutated Motor/Permanent Magnet
Motor Insulation Class	F

Operating Data

Max Working Pressure	175 psi (12 bar)
Minimum Working Temperature	14°F (-10°C)
Maximum Working Temperature	230°F (110°C)
Ambient Temperature Range	32°F - 104°F (0°C - 40°C)



STANDARD OPERATING MODES



CONSTANT SPEED



The pump maintains a constant speed at any flow rate. The desired speed is set on the interface panel of the pump.



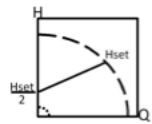
CONSTANT PRESSURE (Δp -c)



The pump maintains a constant differential pressure at any flow demand until the maximum speed is reached. The desired head of the pump can be set via user interface. Recommended for use in systems with small or constant pressure losses.



PROPORTIONAL PRESSURE (Δp -v)



The differential pressure continuously increases or decreases based on the flow demand. The set point head can be set on the pump user interface. Use for systems with large pressure losses.



NIGHT MODE

The pump will automatically reduce speed when there is an abrupt change in fluid temperature. The change in fluid temperature is from a boiler operating in night time setback mode. The built-in temperature sensor is used. (Fixed Speed, Constant Pressure, Proportional Pressure)

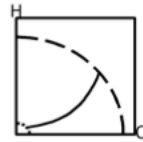
INPUT SIGNALS

- One 0-10V (Analog): Speed Control by external controller
- One 4-20mA (Analog): Connection with an external differential pressure sensor for pressure control mode (two differential pressure sensor ranges: 0-15 and 0-30 PSIG) on single phase models.
- Two absolute pressure sensors 4-20mA (Analog) input for three phase models.
- One external temperature sensor input for Differential Temp operating mode. Sensor Type: KYT38, P/N: 104502
- One built-in temperature sensor for Set Point Temp and Differential-Temp operating mode.

START/STOP CONNECTIONS: Connect to external dry contact relay or use with a thermostat.

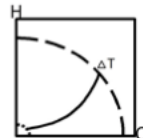
TEMPERATURE DEPENDENT OPERATING MODES

SET POINT TEMPERATURE (Δp -T)



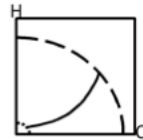
The nominal differential pressure set point is modified based on the fluid temperature. Uses the built-in temperature sensor.

SET POINT TEMPERATURE (T)



The pump maintains a constant temperature in a system, such as domestic hot water system or a single temperature heating system. Uses the built-in temperature sensor.

DIFFERENTIAL TEMPERATURE (ΔT)



The pump maintains a constant differential temperature between the built-in and external temperature sensors.

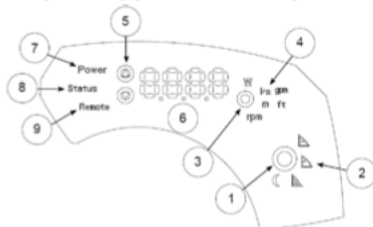
REMOTE BUILDING MANAGEMENT SYSTEM CAPABILITIES

- The pump can be monitored or controlled by a signal from BMS (Building Management System). Built-in protocols are BACnet and Modbus. Direct connection to a PC is available.
- An optional wireless module can be added to create a short range wireless field for remote connection to the pump. An internet browser can be used to program the advanced settings. Module P/N: 104500

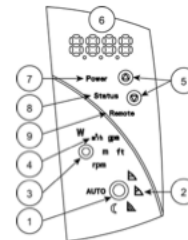
OUTPUT RELAY(single phase): Normally Open Dry Contact Relay for Fault Mode indication.

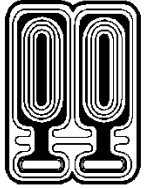
OUTPUT RELAYS (three phase): Two Normally Open Dry Contact Relays for Fault Mode and Run indication.

ONBOARD USER INTERFACE



1. Control mode button
2. Control mode indicators
3. Parameter button
4. Parameter indicators
5. Setting buttons
6. Numeric display
7. Power indicator
8. Status / Fault indicator
9. Remote control indicator





SINCE 1908
wessels
 company

SUBMITTAL

PSAV-SERIES

ASME PRIMARY/SECONDARY HEADER

Models: PSAV-2 thru PSAV-16

Submittal Sheet No. J-1002B

Date: 6/17

Job Name _____	Submitted By _____	Date _____
Location _____	Approved By _____	Date _____
_____	Order No. _____	Date _____
Engineer _____	Notes _____	
Contractor _____	_____	
Sales Rep. _____	_____	

Description

Wessels Primary/Secondary ASME WessVent Headers are used in heating and cooling systems that require the primary and secondary loops of their system to be interlocked. The PSAV is designed to keep both connected hydraulic circuits completely independent from one another. The PSAV replaces the need for an air/dirt separator. Internal coalescence coils in the tank eliminate entrained air and separate debris associated with start-up and maintenance of the system.

Construction

Shell: Carbon Steel
 Coalescing Medium: Stainless Steel

Performance Limitations

Maximum Design Temperature: 450°F
 Maximum Design Pressure: 150 PSIG*

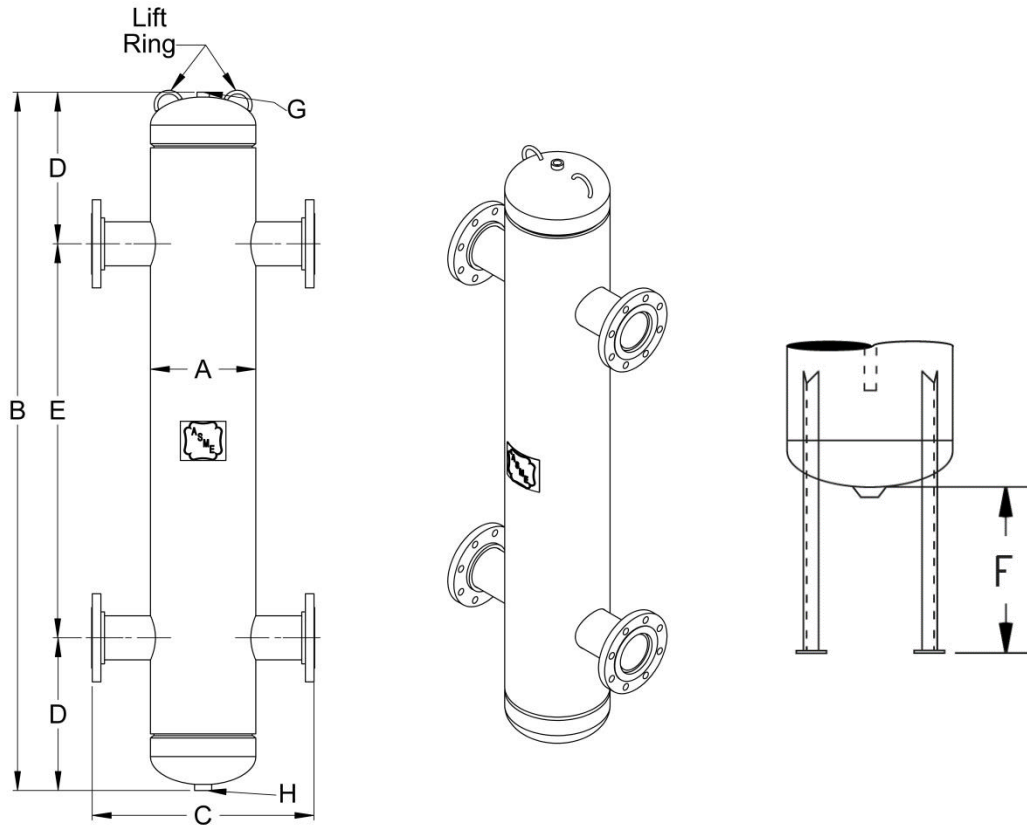
*200 & 250 PSIG available

Model Number	Part Number	Flow Rate (GPM)	Tagging Information	Quantity
PSAV-2	71102020	69		
PSAV-2.5	71102025	108		
PSAV-3	71102030	144		
PSAV-4	71102040	255		
PSAV-5	71102050	398		
PSAV-6	71102060	570		
PSAV-8	71102080	945		
PSAV-10	71102100	1440		
PSAV-12	71102120	2100		
PSAV-14	71102140	2550		
PSAV-16	71102160	3300		

Typical Specification

Furnish and install, as shown on plans, a PSAV-_____ as manufactured by Wessels Company. The Primary/Secondary Header must also utilize in its design a stainless steel coalescing medium to aid in the separation of air and dirt in the system's entrained water. The PSAV must be constructed in accordance with the most recent addendum of Section VIII Division 1 of the ASME Boiler and Pressure Vessel Code and shall be constructed and stamped for 150 PSI working pressure @ 450°F.

Each tank shall be Wessels model number PSAV-_____ or approved equal.



PSAV-2 thru PSAV-16

Dimensions & Weights

Model Number	Dimensions in Inches									Approx Shipping Wt (lbs)
	Connection Size	A	B	C	D	E	F	G	H	
PSAV-2	2	6 5/8	34 1/4	14 3/4	6 3/4	20 3/4	-	1/2	1/2	90
PSAV-2.5	2 1/2		39 1/4		7 1/4	24 3/4				115
PSAV-3	3	49 1/2	18 3/4	9 3/8	30 3/4	225				
PSAV-4	4	70 1/4	22 3/4	15	40 1/4	330				
PSAV-5	5	14	80 1/2		26	50 1/2				415
PSAV-6	6	18	93 3/4	30	16 1/2	60 3/4	14	1/2	1	420
PSAV-8	8	24	122 3/4	36	21 3/8	80				575
PSAV-10	10	30	149 1/4	42	24 1/2	100 1/4				935
PSAV-12	12		179 1/2		30	119 1/2				1165
PSAV-14	14	42	199 1/4	54	34	131 1/4	2	2430		
PSAV-16	16	48	224 1/4	60	37 1/8	150		3260		

JOB: 24-00153 Jefferson County Crime Lab

REPRESENTATIVE: Blackmore and Glunt

UNIT TAG:

ENGINEER: McClure Engineering

CONTRACTOR: GWS Contractors

ORDER NO.:

SUBMITTED BY: Greg Hoekstra

APPROVED BY:

DATE: 6/25/2024

DATE:

DATE:



Miscellaneous Accessories

DESCRIPTION

NO. 87, 67, and 7 AUTOMATIC AIR VENTS - are designed to vent the accumulation of troublesome air wherever it can be trapped. These non-ferrous automatic air vents are 4-3/4"x2-1/4", 3-3/16"x1-1/2", and 4-1/6"x2-3/16"(height and width), respectively, and are rated for a maximum operating temperature of 240°F at pressures of 150, 35, and 75 PSI, respectively. The No. 87 has a combination of 1/2" FPT / 3/4"MPT connection, whereas No's. 67 and 7 have 1/8" MPT and 1/8" FPT connections, respectively.

No. 26 VACUUM BREAKER - Designed to protect closed vessels and piping systems against collapse when the induced vacuum exceeds design conditions. When used on steam heating piping systems, the No. 26 Vacuum Breaker controls induced vacuum permitting normal return of condensate to the boiler. Adjustable range 1/4" to 20" (mercury) vacuum - 150 PSIG maximum working pressure - 240 ° F maximum operating temperature (Factory set at 4" mercury).

No. 17 SR. AUTOMATIC AIR VALVE - No. 17 Sr. Valve is a deluxe, hygroscopic air valve with manual shut-off. 1/8" MNPT connection.

30 PSIG Working Pressure
225 °F Maximum Operating Temperature

No. 4V "COIN-OPERATED" AIR VENT - This vent is specially designed for the new types of radiators. A particular feature is that it projects only slightly, being almost flush with the radiator.

150 PSIG Working Pressure
250 °F Maximum Operating Temperature

NO. 107A HIGH CAPACITY AIR VENT - A rugged High Capacity Air Vent designed to purge free air from liquid systems at operating pressures up to 150 psig. The Model 107A Air Vent has a cast iron body and bonnet, with stainless steel, brass, and EPDM internal components and is suitable for a maximum operating temperature of 250°F. The Model 107A Air Vent has a 3/4" FNPT inlet and 3/8" FNPT outlet.

RV-125A READOUT VALVE AND RP-250B READOUT PROBE - The RV-125A is designed for use wherever pressure tapings are required to monitor flow or pressures. This Readout Valve is fitted with an EPT insert which incorporates a unique check valve feature designed to check flow when the Readout Valve is not being used to monitor flow. Use companion RP-250B Readout Probes with the RV-125A Readout Valve. 300 PSIG working pressure - 250°F maximum operating temperature.

DT-2 DRAIN-O-TANK® AIR CHARGER - The Drain-O-Tank Air Charger offers a sure, quick way to recharge a water-logged compression tank.

125 PSIG Working Pressure
240 °F Maximum Operating Temperature

No. 97 Air Vent - is a float type automatic air vent that is designed to vent troublesome air from hydronic heating systems. The 97 vent has forged brass body and cap with non-ferrous internals. The vent is 3-1/8"x1-7/8" with a maximum operating pressure of 150 PSI and temperature of 240°F.

150 PSIG Working Pressure
240 °F Maximum Operating Temperature

No. 98 Air Vent - is a high capacity automatic air vent that is designed to remove air in closed loop systems. The No. 98 high capacity air vent has brass body and cap with non-ferrous internals. The vent is 4-1/2"x2-1/4" with with 1/2" NPTF connection.

150 PSIG Working Pressure
250 °F Maximum Operating Temperature

SCHEDULE

MODEL NUMBER	PART NUMBER	PRODUCT	MAXIMUM WORKING PRESSURE PSIG	MAXIMUM OPERATING TEMPERATURE °F	TAGGING INFORMATION	QUANTITY
4V	113055	Air Vent	150	250		
67	113020	Automatic Air Vent	35	240		
7	113001	Automatic Air Vent	75	240		
87	113021	Automatic Air Vent	150	240		
107A	113076	High Capacity Automatic Air Vent	150	250		
17 Sr.	113004	Automatic Air Valve	30	225		
26	113075	Vacuum Breaker	150	250		
DT-2	113041	Drain-O-Tank	125	240		
97	113222	Automatic Air Vent	150	240		
➡ 98	113246	High Capacity Automatic Air Vent	150	250	PSAV 01	1
RV-125A	113100	Readout Valve	300	250		
RP-250B	113102	Readout Probe	300	250		

DIMENSIONS AND WEIGHTS

MODEL NUMBER	PART NUMBER	DIMENSIONS INCHES		CONNECTIONS INCHES NPT		APPROX. SHPG. WT. LBS.	
		WIDTH	HEIGHT	SIZE	TYPE	CARTON OF	TOTAL
4V	113055	5/8	5/8	1/8	M	48	2.0
67	113020	1-1/2	3-3/16	1/8	M	12	3.0
7	113001	2-3/16	4-1/16	1/8	F	12	6.0
87	113021	2-1/4	4-3/4	3/4 1/2	M F	12	8.0
107A	113076	4-1/2	9-5/8	3/4	F	1	10.0
17 Sr.	113004	13/16	1-1/4	1/8	M	12	2.0
26	113075	1-1/4	3	3/4	M	6	3.0
DT-2	113041	2-1/4	9-5/16	1/2	M	12	8.0
97	113222	1-7/8	3-1/8	1/8	M	10	4.0
➡ 98	113246	2-1/4	4-1/2	1/2	F	10	8.0
RV-125A	113100	1/2	1-3/32	1/8	M	50	4.0
RP-250A	113102	1/2	1-31/32	7/16	M	6	0.1

* All dimensions and weights are approximate and not to be used for construction, pre-piping or freight rating unless certified by Bell & Gossett in writing.

MATERIALS OF CONSTRUCTION

Body (all products except Model 107A High Capacity Air Vent): Brass

Body & Bonnet (Model 107A High Capacity Air Vent): Cast Iron

Internals: Nonferrous

ITT
8200 N. Austin Avenue
Morton Grove, IL 60053
Phone (847)966-3700
Facsimile (847)966-9052
www.bellgossett.com