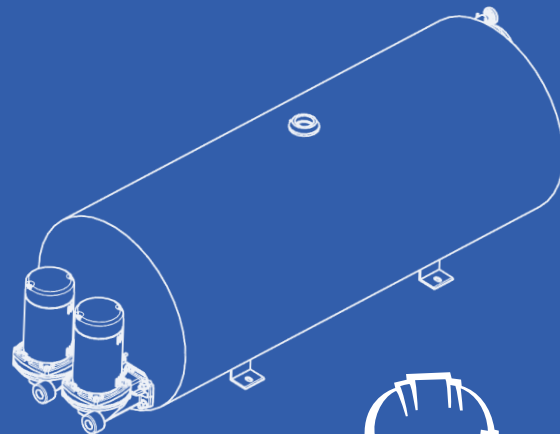
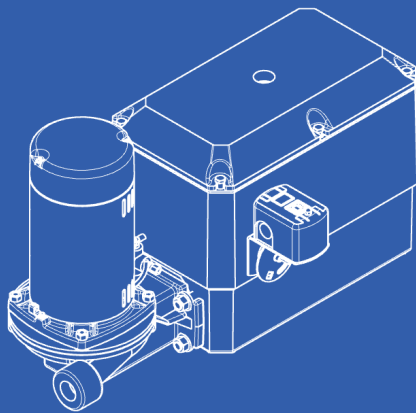
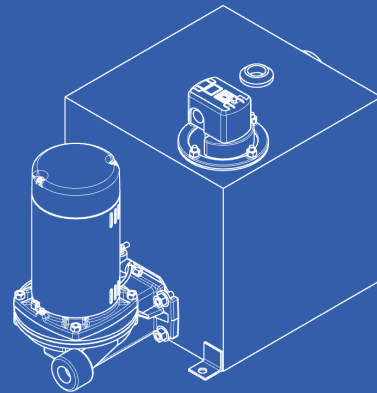
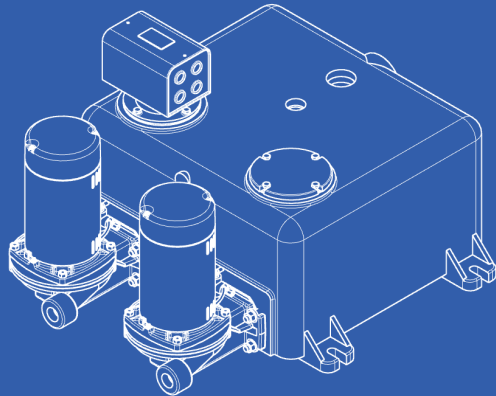


Skidmore®

A Swan Group Company



CONDENSATE, BOILER FEED
AND TRANSFER SYSTEMS



The Protector

Description

The Protector Series condensate and boiler feed units are capable of handling hot (210°F) or cold water. The series is available in simplex or duplex; either condensate return or boiler feed. Many units have low profiles for low headroom applications.

Typical model number

EX: P S B - 49 D N

P=PROTECTOR SERIES

RECEIVER CONSTRUCTION

C=CAST IRON S=STEEL

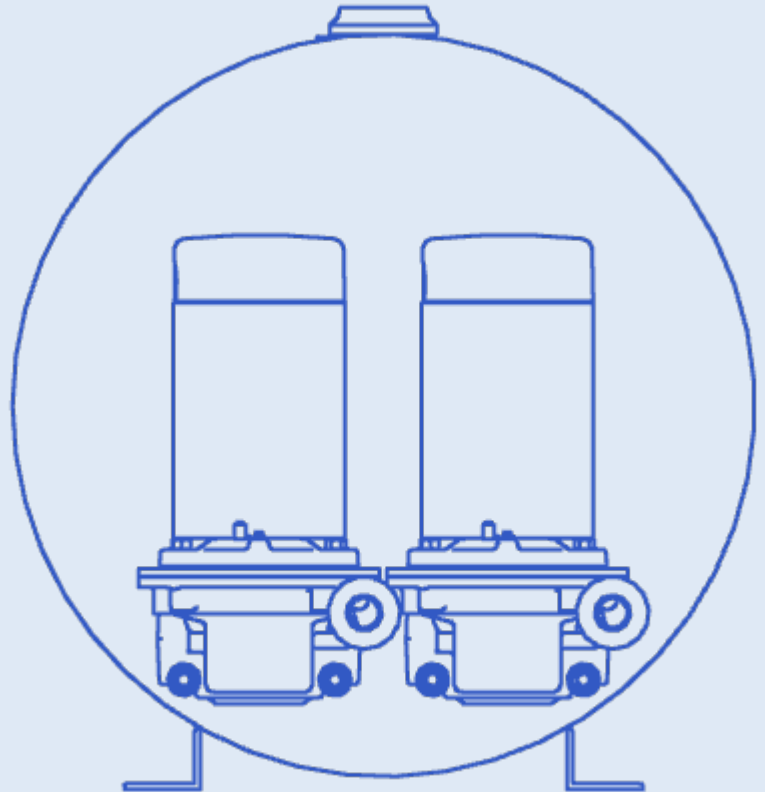
B=BOILER FEED

(BLANK)=CONDENSATE RETURN

NUMBER=RECEIVER GALLON SIZE

D=DUPLEX

(BLANK)=SIMPLEX



Protector

- Applications
- Boiler feed
 - Condensate management and transfer
 - Cooling/Refrigeration coil condensate
 - Heating
 - Liquid transfer
 - Residential effluent
 - Remote liquid transfer
 - Assembly line drainage

- Protector Features
- Low NPSH Requirements
 - Water temperatures up to 210F
 - Energy savings
 - Competitively priced
 - Prompt delivery
 - High temp Noryl impeller for increased durability
 - Compact design for ease of ingress and maneuverability
 - Hassel free field installation
 - Manufactured and assembled in the USA
 - Large product range to fit a variety of applications
 - Simplex units equipped for future second pump (except PC-6N and PS-10N)

Competitive Analysis

Condensate Units

Protector	Hoffman Watchman
PC6N	WC-6-20-B
PC15N	WC-12-20-B
PC15DN	WC-12-20-B MA
PS10N	WCS-8-20-B
PS20N	WCS-12-20-B
PS20DN	WCS-12-20-B MA

Vertical Boiler Feed Units

Protector	Hoffman Watchman
VPSB49N	50VBFS
VPSB49DN	50VBFD
VPSB117N	100VBFS
VPSB117DN	100VBFD

Protector Specifications

1. Condensate Return / Boiler Feed Pump with Cast Iron / Steel Receiver

1.1 (Condensate Return). Furnish and install according to plans and manufacturer's instructions the quantity of condensate pump units as shown on the drawings. Each unit shall consist of one (1) condensate receiver, (1/2) condensate pumps, and (1) mechanical alternator / float switch assembly.

1.1 (Boiler Feed). Furnish and install according to plans and manufacturer's instructions the quantity of boiler feed pump units as shown on the drawings. Each unit shall consist of one (1) boiler feed receiver, (1/2) condensate pumps, and (1) float operated mechanical make-up valve.

1.2 The condensate pumps shall require less than 2' NPSHr at the designed operating point. They shall be centrifugal design; driven by vertical close coupled drip proof motors with drip covers. The motor and rotating parts shall be removable without disturbing suction or discharge piping. Pumps shall be bronze fitted with enclosed bronze centrifugal impeller, stainless steel motor shaft, dripless mechanical seals suitable for 250°F, mechanical seal face flushing line with vent to receiver, (Optional: suction isolation valve integral to the volute casting). Capacities and electrical characteristics shall be as scheduled on the drawings.

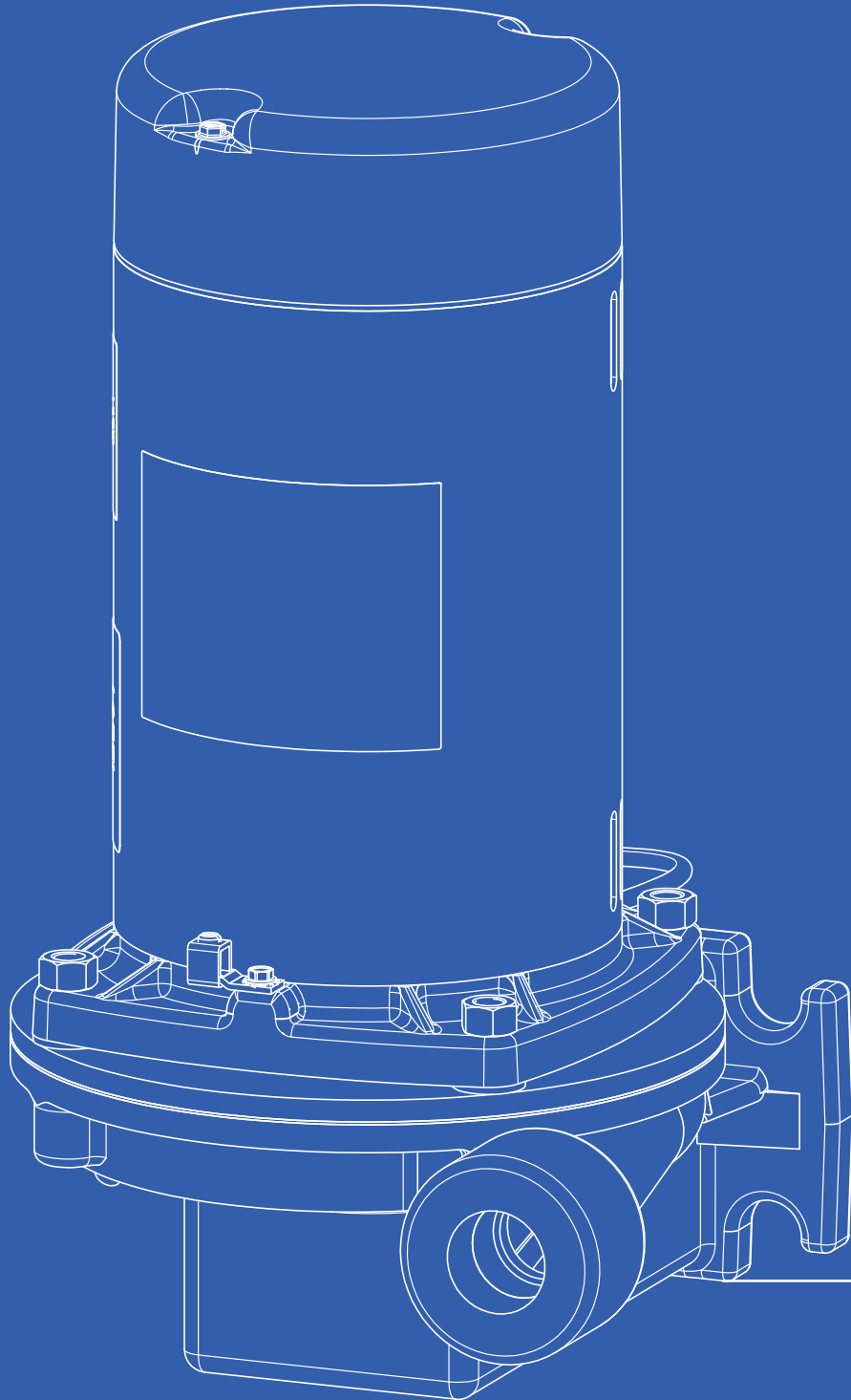
1.3 The receiver shall be manufactured of (corrosion resistant steel / close grain cast iron) and shall have a capacity of not less than that shown on the drawings. The receiver shall have an NPT vent opening for proper venting of vapor and flash steam and shall be equipped with floor mounting feet for secure installation (NOT 6 GAL CI).

Complete Pump and Motor Assembly

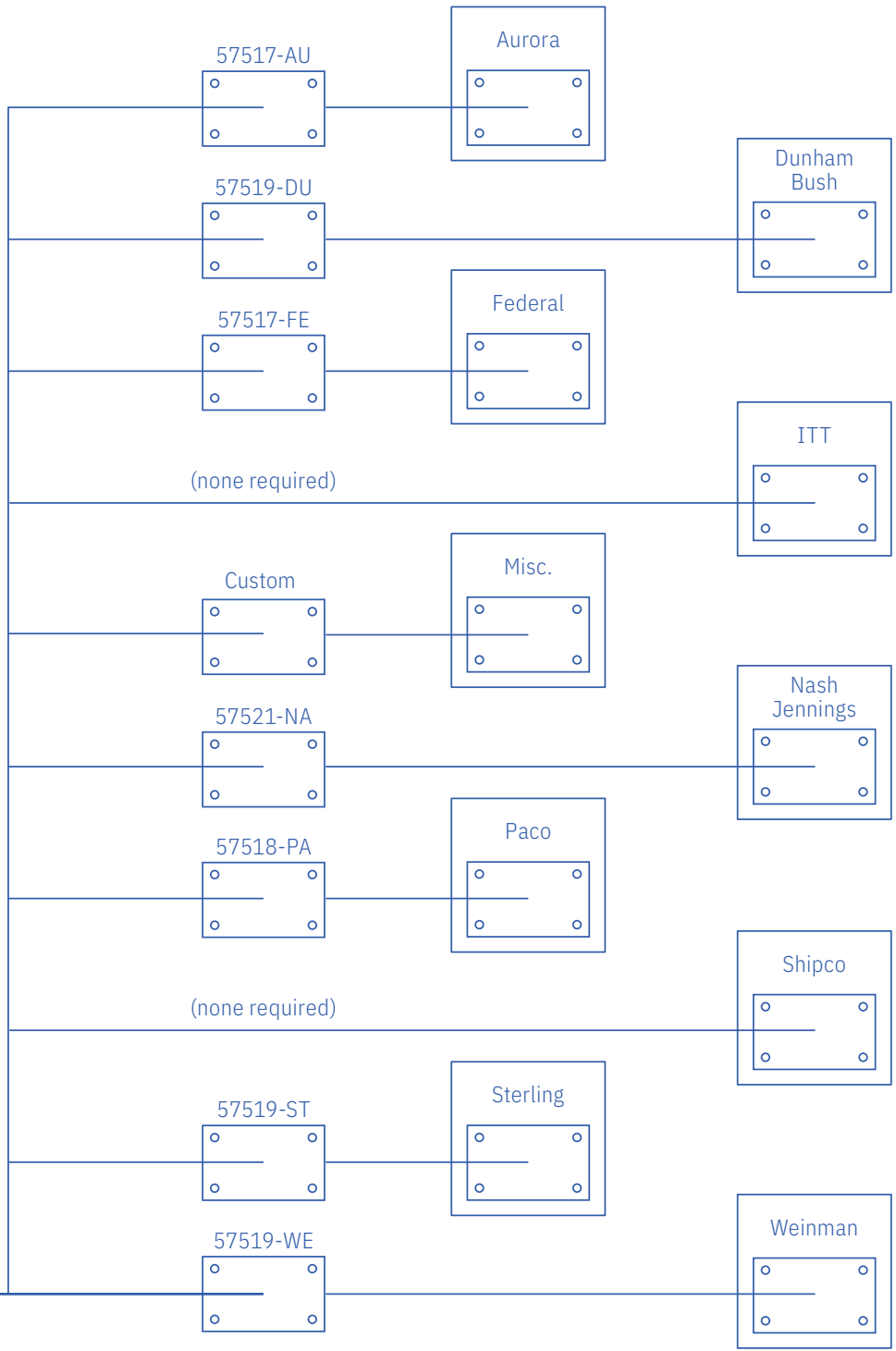
Pump Characteristics

GPM	PSI	NPSHR
10	25	2'
20	20	2'
30	15	2'
40	10	3.5'

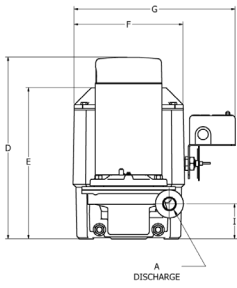
1/3 HP 115/230 V 60 Hz 1ph



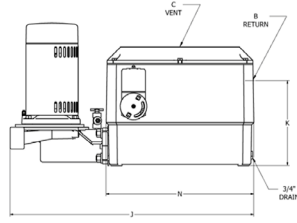
Interchangeability



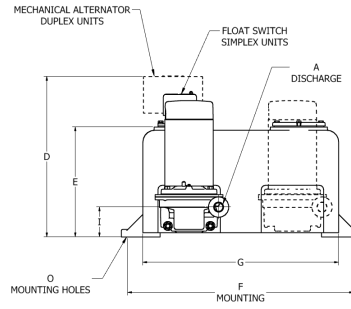
Stock Pump Assembly



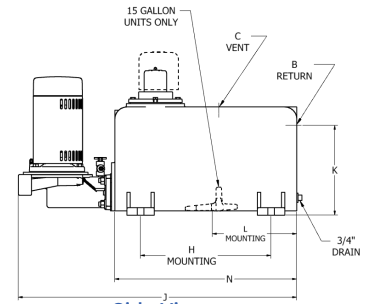
Front View
cast iron 6 gallon
simplex unit



Side View
cast iron 6 gallon
simplex unit



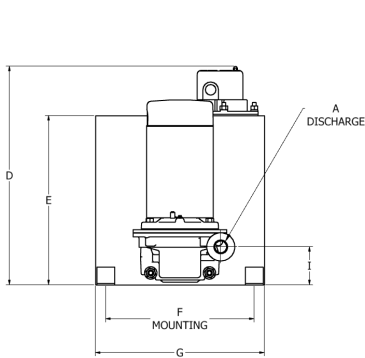
Front View
cast iron 15 and 21 gallon
simplex and duplex units



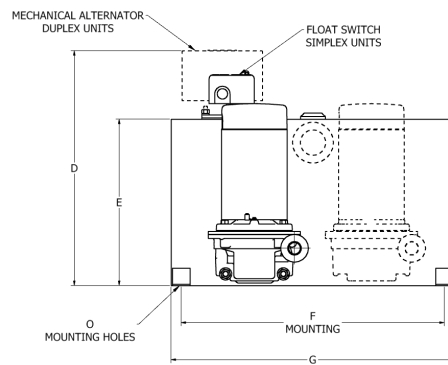
Side View
cast iron 15 and 21 gallon
simplex and duplex units

MODEL	UNIT STYLE	DISCH RETURN VENT			D	E	F	G	H	I	J	K	L	N	O
		A	B	C											
PC6N	simplex 6 gallon	1	2	1	15.3	12.8	9.4	13.7	-	3.0	26.2	9.1	-	15.9	-
PC15N	simplex 15 gallon	1	2	1	19.7	15.2	19.9	17.3	-	3.0	25.6	13.0	8.8	15.0	Ø0.5
PC15DN	duplex 15 gallon	1	2	1	21.5	15.2	19.9	17.3	-	3.0	25.6	13.0	8.8	15.0	Ø0.5
PC21N	simplex 21 gallon	1	2	1.25	16.9	12.8	25.5	22.8	14.9	3.5	31.8	10.3	-	20.8	Ø0.75
PC21DN	duplex 21 gallon	1	2	1.25	18.7	12.8	25.5	22.8	14.9	3.5	31.8	10.3	-	20.8	Ø0.75

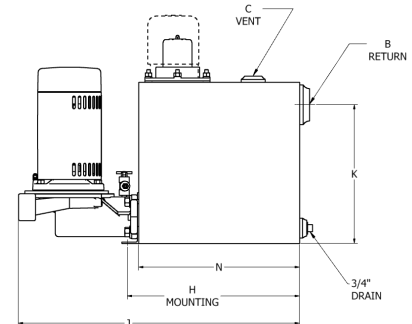
*NOTE: All dimensions are approximate



Front View
steel 10 gallon
simplex unit



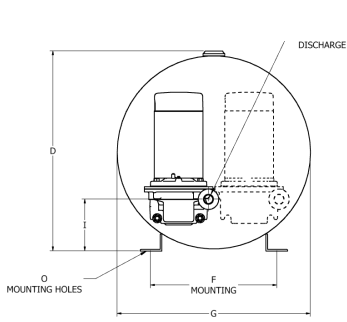
Front View
steel 20 gallon simplex and
duplex unit



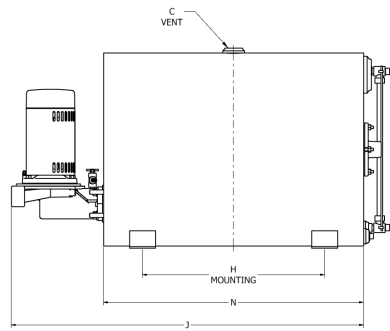
Side View
steel 10 and 20 gallon simplex
and duplex unit

MODEL	UNIT STYLE	DISCH RETURN VENT			D	E	F	G	H	I	J	K	N	O
		A	B	C										
PS10N	simplex 10 gallon	1	2	1	18.4	14.2	12.5	14.2	15.2	3.2	24.8	12.2	14.2	Ø0.6
PS20N	simplex 20 gallon	1	2	1	18.4	14.2	22.5	24.2	15.2	3.2	24.8	12.2	14.2	Ø0.6
PS20DN	duplex 20 gallon	1	2	1	20.1	14.2	22.5	24.2	15.2	3.2	24.8	12.2	14.2	Ø0.6

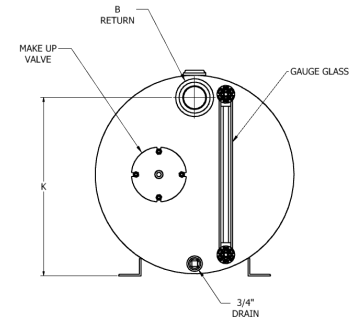
*NOTE: All dimensions are approximate



Front View
steel cylindrical



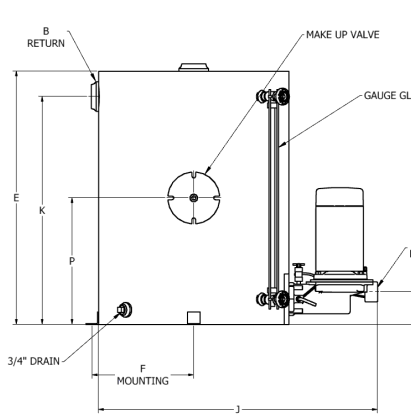
Side View
steel cylindrical



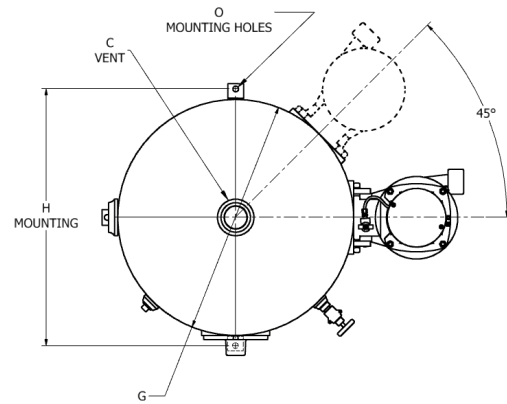
Back View
steel cylindrical

SIMPLEX	DUPLX	UNIT STYLE	DISCH	RETURN	VENT	D	F	G	H	I	J	K	N	O
			A	B	C									
PSB49N	-	49 Gallon	1	2.5	1.25	23.1	15	22.3	21	6	40.6	20.0	30	Ø0.6
PSB71N	-	71 Gallon	1	3	1.5	25.2	15	24.3	21	5.8	46.6	21.5	36	Ø0.6
PSB117N	PSB117DN	117 Gallon	1	4	2	25.6	15	24.3	30	5.8	70.6	21.5	60	Ø0.6

*NOTE: All dimensions are approximate



Front View
49, 71, and 117 gallon



Top View
49, 71, and 117 gallon

SIMPLEX	DUPLX	UNIT STYLE	DISCH	RETURN	VENT	E	F	G	H	I	J	K	O	P
			A	B	C									
VPSB49N	VPSB49DN	49 gallon	1	2.5	1.25	30	12	22	24.5	3.8	33	26.5	Ø0.6	15
VPSB71N	VPSB71DN	71 gallon	1	3	1.5	36	13	24	26	3.8	35	32.5	Ø0.6	18
VPSB117N	VPSB117DN	117 gallon	1	4	2	60	13	24	26	3.8	35	56.5	Ø0.6	30

*NOTE: All dimensions are approximate

We believe great ideas make great products. We built our company culture on this philosophy in 1921, and continue to stand by it today.

Every pump that leaves our doors has been carefully crafted and tested against the strictest standards, assuring you receive the highest-quality product possible.

skidmorepump.com

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