



SUBMITTAL DATA

Date: March 26, 2025
Project: CMAID
Contractor: Comfort Systems
Engineer: Clarks Enersen

PUMPS & HYDRONIC ACCESSORIES

Qty of one (1) Pump tagged: HRP-1
Qty of one (1) 3" x 2" Suction Diffuser
Qty of one (1) 3" Triple Duty Valve
Qty of two (2) 3" Flexible Pump Connectors
Qty of one (1) Chemical Feed Unit tagged: CF-1
Qty of one (1) High Efficiency 3" Air/Dirt Eliminator tagged: AS-1
Qty of one (1) Expansion Tank tagged: ET-1
Qty of one (1) Glycol Feed System tagged: GF-1

6815 Dewaffelbaker Dr., Maumelle, AR 72113

Phone (501) 663-8886 • Fax (501) 663-8738

www.fluidsolutionsinc.com

Project name	: Default	Tag Number	: 001
Consulting engineer	:	Service	:
Customer	:	Model	: SD3020-125
Customer ref. / PO	:	Quantity	: 1
Quote Number / ID	: 74588	Grundfos Partner	: FLUID SOLUTIONS INC
Date last saved	: 03/26/2025 2:03 PM	Quoted By (Sales Engineer)	: James Dayer

Construction

Grundfos Suction Diffusers

Nozzle	Size (in.)	Nozzle Configuration	Pos'n
Inlet	3	-	Top
Outlet	2	-	Side

Difuser Body	: Cast Iron, ASTM-A126, CL B
Hardware	: Steel, ASTM A-283C
Internal Magnet	: -
Strainer	: SS 304, ASTM-A240, 3.5MM Holes
Mesh Grid (Startup strainer)	: SS 304, ASTM-A240, (#20 Mesh)
Strainer Cover	: Cast Iron, ASTM-A126, CL B
O Rings	: EPDM
Coating	: Standard Manufacturers Paint
Construction Code/Part Number	: 97523149

Weights (Approx.)

Estimated Shipping gross weight	: 27.00 lb
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Description

Grundfos Series SD, Suction diffuser provides and ensures a uniform flow pattern to the suction side of the pump ensuring a stable NPSH. Suction diffuser makes it possible to install the pump in a very narrow spacing as no long bends are necessary.

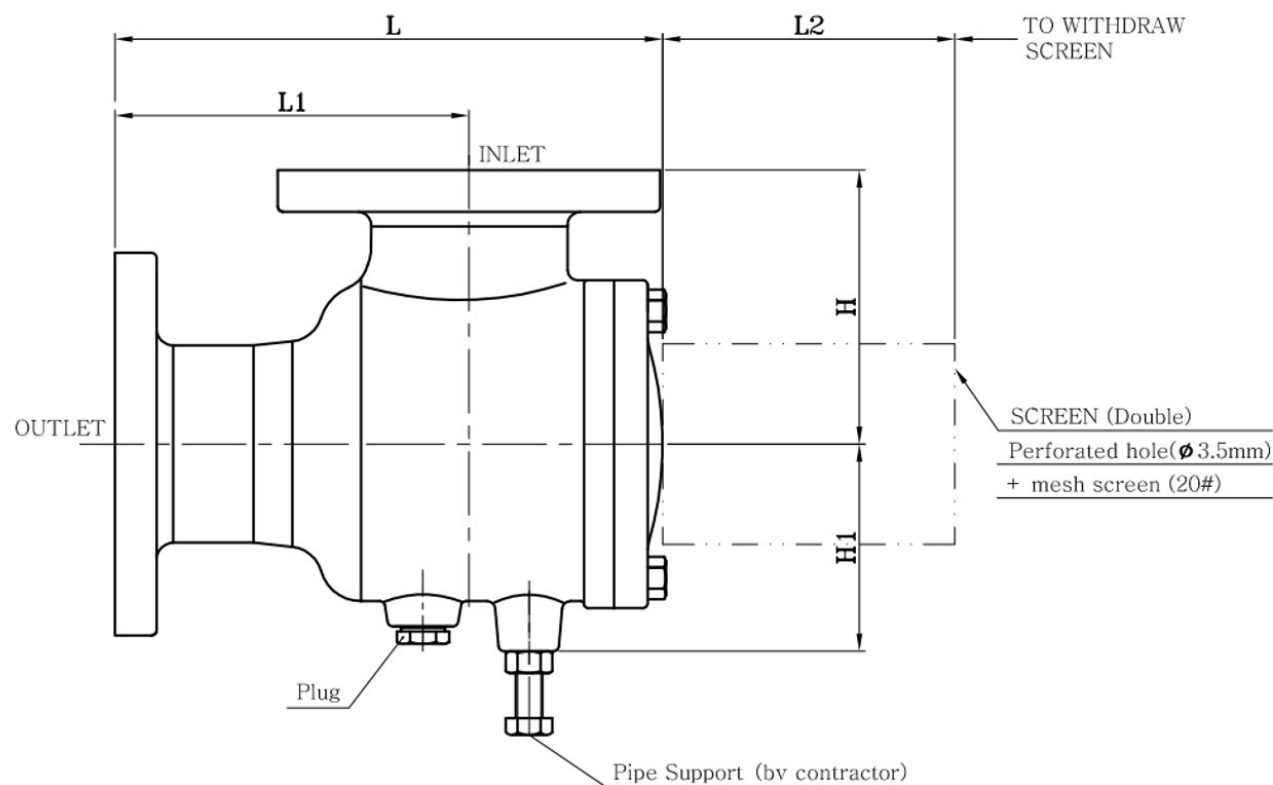
The suction diffuser incorporates a cylindrical strainer preventing impurities from entering the pump. Additional feature includes an adjustable support for mounting.

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General Arrangement

Project name : Default
 Consulting engineer :
 Customer :
 Customer ref. / PO :
 Quote Number / ID : 74588
 Date last saved : 03/26/2025 2:03 PM

Tag Number : 001
 Service :
 Model : SD3020-125
 Quantity of pumps : 1
 Grundfos Partner : FLUID SOLUTIONS INC
 Quoted By (Sales Engineer) : James Dayer



NOT FOR CONSTRUCTION, UNLESS CERTIFIED AND REFERENCED ON ORDER

Units	Inlet (in)	Outlet (in)	Strainer Area (sq in)	L (in)	L1 (in)	L2 (in)	H1 (in)	H (in)	Weight (lbs)	Purge
inches	3	2	38	10.50	7.10	5.60	3.70	5.60	27.00	1/2" NPT

Project name	: Default	Tag Number	: 001
Consulting engineer	:	Service	:
Customer	:	Model	: CV30-125
Customer ref. / PO	:	Quantity	: 1
Quote Number / ID	: 74588	Grundfos Partner	: FLUID SOLUTIONS INC
Date last saved	: 03/26/2025 2:04 PM	Quoted By (Sales Engineer)	: James Dayer

Construction

Grundfos Combination Valves

Nozzle	Size (in.)	Nozzle Configuration	Pos'n
Inlet	3	-	Side
Outlet	3	-	Side

Valve Body	: ASTM A395
Seat Guide	: -
Disc	: Bronze ASTM B124 C37700
Spring	: Stainless Steel, ASTM A240-304
Packing Gland	: Bronze ASTM B124 C37700
Stem Packing	: -
Yoke	: Steel ASTM A283-C
Indicator	: -
Hand wheel	: Ductile iron A395
Construction Code/Part Number	: 96877844

Weights (Approx.)

Estimated Shipping gross weight	: 52.00 lb
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Description

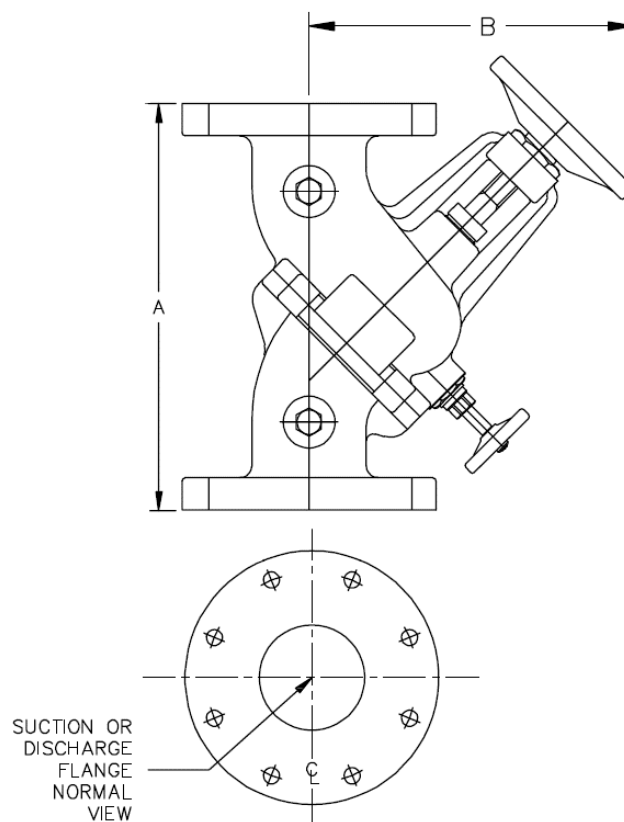
Grundfos Series CV, Combination valve combines three valves in one: shut-off valve, balancing valve, and check valve. The combination valve makes it possible to reduce the overall system pressure drop since fewer individual components are needed when installing a pump.

The combination valve provides the feature of changing the flange orientation to allow 90° pipe connection. Additional feature includes a built-in bypass valve allowing for drainage of water upstream of the check valve.

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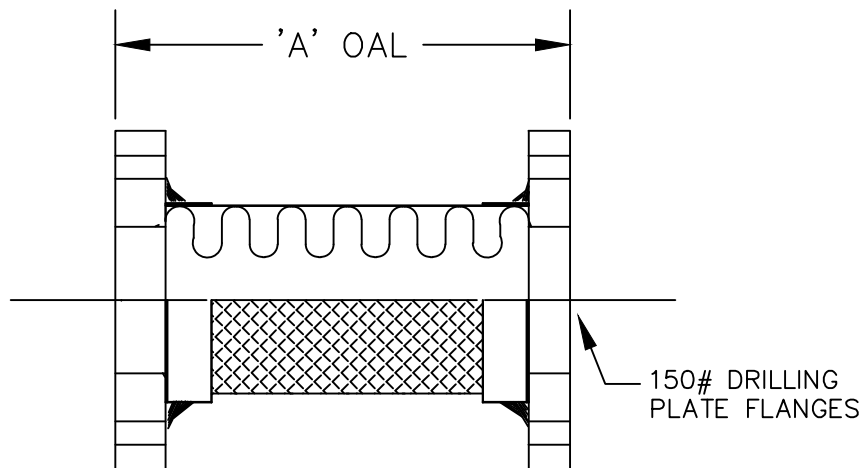
General Arrangement

Project name	: Default	Tag Number	: 001
Consulting engineer	:	Service	:
Customer	:	Model	: CV30-125
Customer ref. / PO	:	Quantity of pumps	: 1
Quote Number / ID	: 74588	Grundfos Partner	: FLUID SOLUTIONS INC
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NOT FOR CONSTRUCTION, UNLESS CERTIFIED AND REFERENCED ON ORDER

Units	Inlet (in)	Outlet (in)	A (in)	B (in)	Weight (lbs)
inches	3	3	11.65	9.61	52.00



BILL OF MATERIAL:

HOSE: T-321 STN STL
 BRAID: T-304 STN STL
 FLANGE: CARBON STEEL

MAXIMUM LATERAL DEFLECTION = 1/8"

FOR TEMP.
ABOVE 70°F

TEMP. F	FACTOR
70	1.00
200	0.94
300	0.88
400	0.83
500	0.78
600	0.74

TAG #	LOCATION	HOSE DIA[IN]	KEFLEX PART #	PRES @ 70°F	'A' OAL
		2"	F020SKSSPCF	400	9"
		2 1/2"	F024SKSSPC	320	9"
Pumps	Qty 2	3"	F030SKSSPC	310	9"
		4"	F040SKSSPC	250	9"
		5"	F050SKSSPC	185	11"
		6"	F060SKSSPC	165	11"
		8"	F080SKSSPC	150	12"
		10"	F100SKSSPC	150	13"
		12"	F120SKSSPC	120	14"

NOTE: FOR SAFE WORKING PRESSURE MULTIPLY PRESSURE RATING AT 70 F° BY THE APPLICABLE CORRECTION FACTOR.

CUSTOMER: Comfort Systems
 PROJECT : CAMID
 ENGINEER: _____
 ARCHITECT: _____

DRAWN DG		KEFLEX PRODUCTS 1425 LAKE AVENUE WOODSTOCK, ILLINOIS 60098			
DATE 12 NOV 01					
CHECKED		TITLE SILVER SERIES – STAINLESS STEEL PUMP CONNECTOR 150# PLATE FLANGES			
APPROVED DG					
QC		SIZE	FSCM NO.	DWG NO.	REV
FILE SUBSFLG4.DWG		A	87738	SUBMITTAL DRAWING	—
JOB SUBMITTAL		SCALE NONE		SHEET 1 OF 1	

VFT Series Chemical By-Pass Feeder Tank

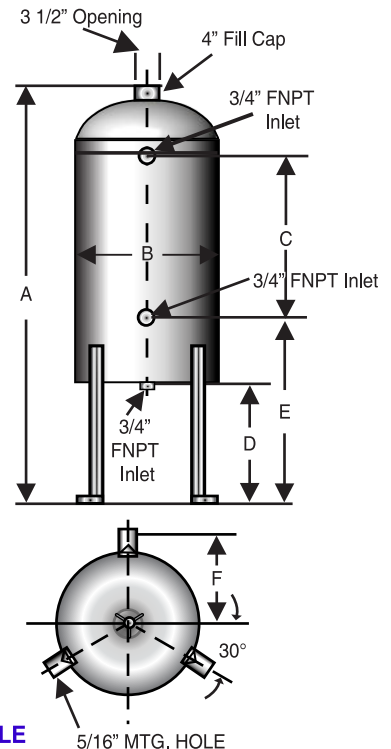
The Wheatley Chemical By-Pass Feeder Tank is design for water treatment in closed circulating water systems and boilers. Great for use with chilled water treatment such as cooling systems and hot water treatment in heating systems. This series assist prolongs life of heating and cooling systems.

Features:

- Carbon Steel Construction
- Self Supported Bottom
- Coarse Thread with 2 1/2 turn design
- Working pressure rated at 300 PSI
- Caps are Easy Quick Opening
- Cap is Cast Iron with Buna N Ring Wide Mouth
- Bottom of cap is epoxy coated for liquid
- F Models Includes built in support for filter assembly



DISHED BOTTOM OUT-STYLE



PART NUMBER	VOL. GALS.	HGT A (IN.)	DIAM. B (IN.)	C (IN.)	D (IN.)	E (IN.)	F (IN.)	WGT (LBS)
VFT-002-O	2	31 1/4"	6"	12 3/4"	8 5/8"	13 1/4"	4 1/8"	23
VFT-002-F	2	31 1/4"	6"	12 3/4"	8 5/8"	13 1/4"	4 1/8"	23
VFT-005-O	5	29 3/4"	10"	10 1/2"	8"	13"	6 1/8"	38
VFT-005-F	5	29 3/4"	10"	10 1/2"	8"	13"	6 1/8"	38

VFT-O Optional Parts

Support/Filter Bag sold separately



FBK-002 Support
FBK-005 Support
FBK-6 PACK Replacement Bags



VFT-F Optional Parts

Cartridge Filter sold separately



FC-005 5 Micron
FC-020 20 Micron



All packaging materials, thread protectors, plastic plugs and caps must be removed before installation.

Dimensions are subject to change without notice, please confirm actual dimensions with factory at time of order.

JOB NAME CAMID
LOCATION _____

CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY

Standard Features

1. Air Vent
2. Flanged Connections
3. Blow Down Valve
4. Skim Valve
5. Removable or Fixed Head
6. ASME Nameplate
7. Sight Glass (4)*
8. Gauge Tap (2)*

*Less Options:

- Minus Sight Glass x4
Minus Gauge Tap x2

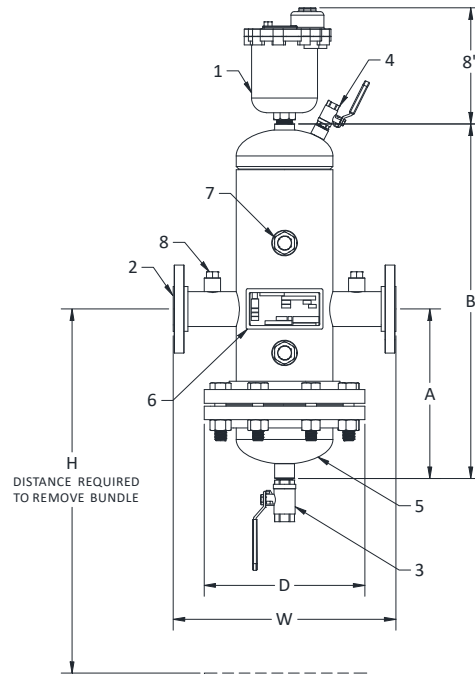
MATERIALS OF CONSTRUCTION

Coalescing Media	Stainless Steel
Shell	Carbon Steel
Blow Down Valve	Bronze
Skim Valve	Bronze
Air Vent	Model 720

NOTE: IF REQUIRED, THE LOWER HEAD AND COALESCING MEDIA ARE REMOVABLE FOR CLEANING ON THE 'R' TYPE HEAD.

MAXIMUM OPERATING CONDITIONS

Maximum Working Pressure (2"-12")	175 PSIG
Maximum Working Pressure (14"-24")	150 PSIG
Maximum Working Temperature	250° F



Model Designation



Grundfos

Separation Type

A=Air Only
D=Dirt Only
B=Both Air and Dirt
4=Hydraulic Separator

Velocity

S=Standard Velocity
H=High Velocity

Head Type

R=Removable
F=Fixed

Connection Size

example: 025 = 2.5"
or 100 = 10.0"

Options

W=with options
X=less options*

DIMENSIONS

MODEL	CONNECTION SIZE**	(INCHES)					FLOW (GPM)	WEIGHT (LBS.) GBSR	WEIGHT (LBS.) GBSF
		A	B	D	W	H			
GBS*-020-*	2"	12.00	24.50	11.00	15.25	26.50	65	150	120
GBS*-025-*	2.5"	12.00	24.50	11.00	15.75	26.50	95	150	120
GBS*-030-*	3"	12.00	24.50	11.00	20.25	26.50	150	150	120
GBS*-040-*	4"	15.00	29.00	13.50	20.63	33.00	250	250	200
GBS*-050-*	5"	19.00	39.00	16.00	27.75	44.00	380	310	240
GBS*-060-*	6"	19.00	41.00	19.00	27.75	44.00	560	375	265
GBS*-080-*	8"	24.00	49.00	23.50	33.63	54.50	970	700	530
GBS*-100-*	10"	33.00	63.00	27.50	37.50	75.00	1510	1000	730
GBS*-120-*	12"	38.00	78.00	32.00	42.50	90.00	2130	1500	1110
GBS*-140-*	14"	43.00	94.00	35.00	45.00	104.00	2880	1950	1670
GBS*-160-*	16"	56.00	118.00	35.00	50.00	141.00	3760	2325	2045
GBS*-180-*	18"	55.00	121.00	41.62	56.00	138.00	4760	3250	2800
GBS*-200-*	20"	68.00	145.00	41.62	61.50	175.00	5880	4575	4125
GBS*-240-*	24"	73.00	150.00	55.00	72.00	175.00	8460	7250	6370

**ANSI B16.5 150 PSI FLANGE

DESIGNED AND CONSTRUCTED PER ASME SECTION VIII, DIV. 1

Job Name CAMID

Location _____

Engineer _____

Architect _____

Sales Rep. _____

Contractor Comfort Systems

Model Number GBSF-030-L

Temperature _____

Capacity 150 GPM

Liquid _____

Notes _____

**SUBMITTAL****GNLA-SERIES****HYDRONIC EXPANSION TANKS****Models:** GNLA- 35 thru GNLA-800L**Submittal Sheet No.** A-1010A**Date:** 1/18

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

Description

Grundfos GNLA Tanks are ASME removable bladder type pre-charged 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 GNLA expansion tanks can be installed vertically or horizontally.

Construction

Shell: Carbon Steel
Bladder: Heavy Duty Butyl
System Connection: Carbon Steel

Performance Limitations

Maximum Design Temperature: 240°F
Maximum Design Pressure: 125 PSIG*

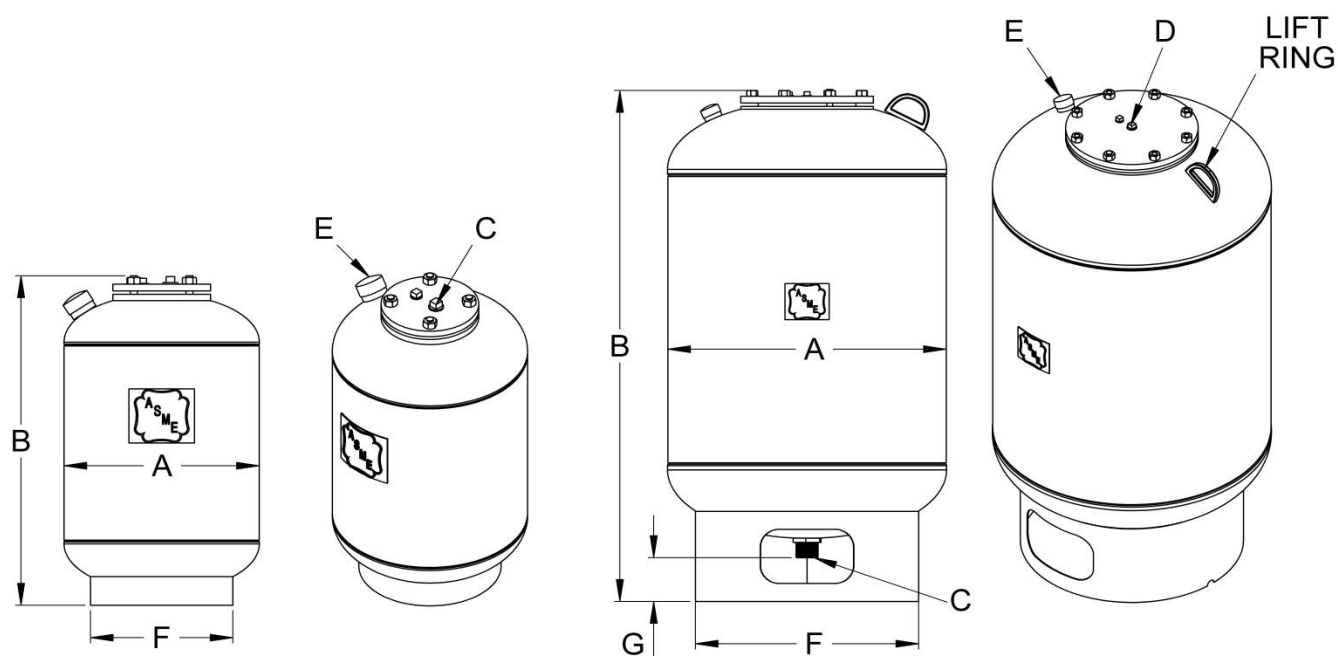
*200 & 250 PSIG available

Model Number	Part Number	Tank Volume (Gallons)	Tagging Information	Quantity
GNLA-35	99397643	10		
GNLA-50	99397644	13		
→ GNLA-85	99397645	23	ET-1	
GNLA-130	99397646	35		
GNLA-200	99397647	53		
GNLA-300	99397648	79		
GNLA-400	99397649	106		
GNLA-500	99397650	132		
GNLA-600	99397651	158		
GNLA-800L	99397652	211		

Typical Specification

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

Each tank shall be Grundfos model number GNLA-_____ or approved equal.



GNLA-35 and GNLA-50

GNLA-85 thru GNLA-800L

Dimensions & Weights

Model Number	Dimensions in Inches							Approx. Ship Wt. (lbs)
	A	B	System Connection		Charging Valve	F	G	
			C	D	E			
GNLA-35	12	23 1/2	3/4	-	0.302" - 32NC	10	-	40
GNLA-50	14	24		-		10	-	50
GNLA-85	16	37	1	1/2		12	5 1/2	90
GNLA-130	20					16		125
GNLA-200	24	43	1 1/2	3/4		20	5 1/4	210
GNLA-300		55						225
GNLA-400	30	49						24
GNLA-500		57				335		
GNLA-600		65				360		
GNLA-800L		32			76	28		475

Notes

- Tanks are factory pre-charged at 12 psi and field adjustable.
- California code-sight glass is available upon request.
- Both top and bottom connections (C and D) access the bladder.
- Available with mounting clips.

**SUBMITTAL****GGMPT-SERIES****TWIN GLYCOL MAKE-UP PACKAGE****Models:** GGMPT-33050 thru GGMPT-35100**Submittal Sheet No.** I-1104B**Date:** 4/16

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

Description

The twin GGMPT unit is designed to automatically supply a pressurized solution, such as glycol and water, to a combined two unit closed loop heating, chilled water, snowmelt, radiant heating, sprinkler, or process control system to ensure minimum system pressure requirements are met. These systems are equipped with two alternating fail-safe motors, pumps, and HOA controls that allow one pump to operate if the other pump malfunctions. These units are also equipped with an adjustable pressure reducing valve (PRV), pressure gauge, and low level alarm that cuts power to the pumps and actuates an audible and visual alarm when solution levels are too low.

Performance Limitations

Maximum Temperature: 160°F

Factory Discharge Pressure Setting: 12 PSIG

Maximum Discharge Pressure: 70 PSIG*

*Higher Discharge pressures available.

Available Options

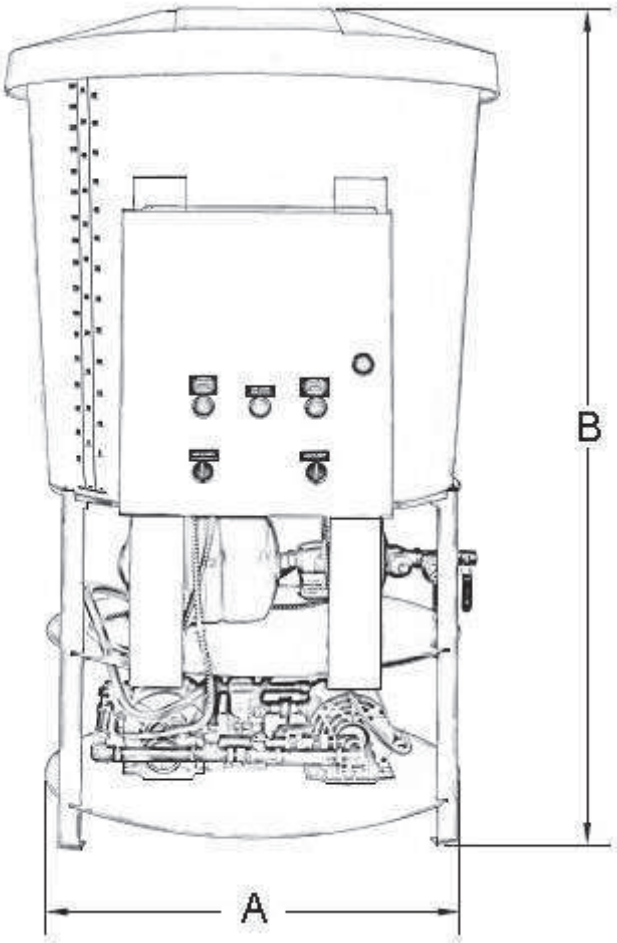
- High level alarm
- Protective skirt

Model Number	Part Number	Tank Volume (Gallons)	Tagging Information	Quantity
GGMPT-33050	07103170	50	GF-1	1
GGMPT-33100	07103175	100		
GGMPT-35050	07103180	50		
GGMPT-35100	07103185	100		

Typical Specification

Furnish and install, as indicated on the plans and specifications, a prefabricated, automatic and autonomous twin make-up package capable of producing _____ GPM at _____ psig to a paired glycol system or to a system where fail-safe redundancy is required. The package shall consist of two paired, 110V, 60Hz powered, autonomous pumping assemblies, a sturdy steel frame, and a graduated polyethylene solution container with removable lid designed to work together to maintain a specific fill pressure in the glycol system(s). The make-up package must feature HOA controls for each magnetic starter, a protective low water cut-off alarm, two alternating _____ HP (1/3 or 1/2) motors with brass rotary vane pumps and a fail-safe alternator that allows one pump to operate if the other pump malfunctions, a pressure tank with pressure controls, pressure reducing valves, pressure gauges, and a system isolation valve. A 110V signal shall be available for a remote alarm.

Each glycol make-up package shall be model GGMPT - _____ as manufactured or approved equal.



GGMPT-33050 thru GGMPT-35100

Dimensions & Weights

Model Number	Dimensions In Inches		HP	Pressure Range (psi)	Make-Up Capacity (gpm @ psi)	Approx Shipping Weight (lbs)
	A	B				
GGMPT-33050	28	55	1/3	10-70	1.8 @ 70	153
GGMPT-33100		78				166
GGMPT-35050		55	1/2			153
GGMPT-35100		78				166