

PRESSURE DISTRIBUTION & MOUND DIMENSION DETAILS

CLIENT'S NAME: Peyser Lot A
 DATE: 7/31/2018 PERFORMED BY: S. Revell LAG Project #: 17041

Design Flow Rate		490	GPD
Width of Distribution Stone Bed/Trench		9	FEET
Length of Distribution Stone Bed/Trench		55	FEET
Thickness of Sand Beneath Distribution Stone Bed/Trench		2.25	FEET
Thickness of Stone Beneath Laterals		6	INCHES
Soil Cover Thickness at Edge of Level Area		12	INCHES
Front Slope of Finished Mound		33	PERCENT
Side and Rear Slope of Finished Mound		33	PERCENT
Percolation Rate		30	MPI
Natural Ground Slope		8	PERCENT
Thickness of Sand on Upper Side of Level Area		2.92	FEET
Thickness of Sand on Lower Side of Level Area		3.80	FEET
Width of Level Area		11	FEET
Length of Level Area		57	FEET
Area of Distribution Stone Bed/Trench		495	SQUARE FT
Volume of Stone Required		11	CUBIC YARDS
Proposed Basal Area		1496	SQUARE FEET
Volume of Mound Sand Required		309.5	CUBIC YARDS
Number of Laterals		4	
Length of Each Lateral		25.5	FEET
Number of Orifices in the Manifold		0	
Number of Orifices in Each Lateral		9	
Distance Between Manifold and First Orifice		1.5	FEET
Distance Between Orifices (on center)		3	FEET
Distribution Area per Orifice		13.75	SQ. FT.
Design Pressure Head		3	FEET
Diameter of Orifices (enter as fraction)		0.188	INCHES
Elevation From Pump Intake to Laterals (0 if siphon)		12	FEET
Diameter of Force Main		1.5	INCHES
Length of Force Main		115	FEET
Length of Manifold to Lateral		2.5	FEET
Diameter of Manifold Pipe		1.5	INCH
Diameter of Lateral Pipe		1.5	INCH
Friction Loss in Force Main		6.60	FEET
Friction Loss in Manifold		0.04	FEET
Friction Loss in Section 1		0.01	FEET
Friction Loss in Entire Lateral		0.03	FEET
Discharge Rate at First Orifice		0.72	GPM
Discharge Rate at Last Orifice		0.71	GPM
Percent Difference in Flow Rate First to Last Orifice		0.45	PERCENT
Total Dynamic Head Loss		21.768	FEET
Total Distribution System Flow		25.84	GPM
Volume of Distribution System		9.36	GALLONS
Pump Capacity	25.84 GPM vs	21.768	FEET OF HEAD
Volume per Dose		125	GALLONS
On/Off Float Swing (1000 gal. Tank)		4.5	INCHES

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DIMENSIONS OF MOUND SYSTEM

Dimensions of Mound Sand

7.1 feet from level area to uphill sand toe	10.1 ft corner of level area to upper toe corner
11 ft wide level area	8.8 ft to side toe from upper edge of level area
9 ft wide stone bed/trench	
55 ft long stone bed/trench	11.5 ft to side toe from lower edge of level area
57 ft long level area	
15.2 feet from level area to downhill sand toe	21.5 ft corner of level area to lower toe corner

Dimensions of Final Cover

9.6 feet from level area to uphill toe	13.5 ft corner of level area to upper fill toe
	11.9 ft to side toe from upper edge of level area
11 ft wide level area	
57 ft long level area	
	14.5 ft to side toe from lower edge of level area
	27.2 ft corner of level area to lower fill toe
19.2 feet from level area to downhill toe	

PLOW AREA LAYOUT MEASUREMENTS

Center of Bed/Trench to Downslope Toe	53.7 feet
End of Level Area @ Midpoint to Downslope Toe	31.3 feet
Center of Bed/Trench to Upslope Toe	40.9 feet
End of Level Area @ Midpoint to Upslope Toe	17.8 feet

Lot A

HYDROMATIC®

SHEF40

Submersible High Head Effluent Pump

Applications

- Septic Tank Effluent
- High Head Sump
- Dewatering



HYDROMATIC®
Pentair Pump Group

SHEF40 - Submersible Effluent Pump

DETAILS

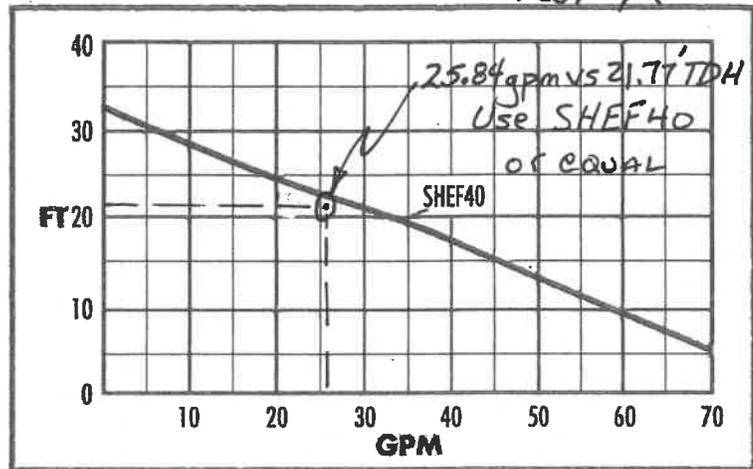
Pump Characteristics

Pump/Motor Unit	Submersible	
Manual Models	SHEF40M1	SHEF40M2
Automatic Models	SHEF40A1	SHEF40A2
Horsepower	4/10	
Full Load Amps	12	6.5
Motor Type	Shaded Pole (4 Pole)	
R.P.M.	1550	
Phase	1Ø	
Voltage	115	230
Hertz	60	
Temperature	120° F Max. Fluid Temp.	
NEMA Design	A	
Insulation	Class A	
Discharge Size	1 1/2" NPT	
Solids Handling	3/4"	
Weight	28 lbs.	
Power Cord	1Ø/3, SJTW, 20' std. (30' optional)	

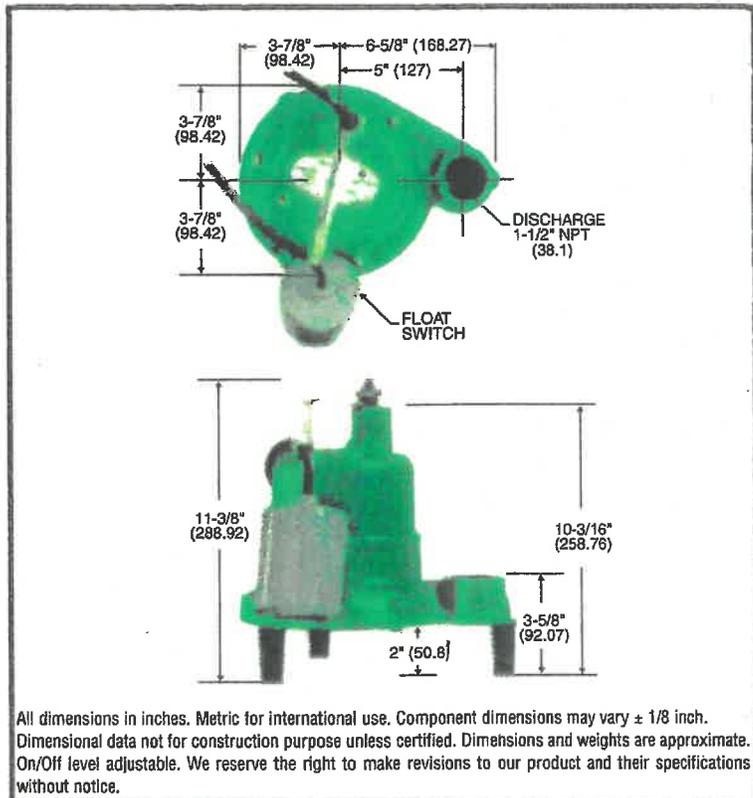
Materials of Construction

Handle	Stainless Steel
Lubricating Oil	Dielectric Oil
Motor Housing	Cast Iron
Pump Casing	Cast Iron
Shaft	Steel
Mechanical Shaft Seal	Seal Faces: Carbon/Ceramic Seal Body: Anodized Steel Spring: Stainless Steel Bellows: Buna-N
Impeller	Engineered Thermoplastic
Upper Bearing	Bronze Sleeve Bearing
Lower Bearing	Single Row Ball Bearing
Bottom Plate	Polyester Coated Steel
Fasteners	Stainless Steel
Legs	Engineered Thermoplastic

Performance Data



Dimensional Data



HP **HYDROMATIC**
Pentair Pump Group

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