

OWTS 1

TANK to be CAST with 24" ORENCO RISER ADAPTORS

NOTES:

- 1). EXCAVATION SPECIFICATIONS:
LENGTH 11' - 0"
WIDTH 9' - 0"
DEPTH BELOW INLET 5'-4"
- 2). DON CHAPIN PRE-CAST MAY MAKE CHANGES TO THE DESIGN AND OR TO THE DIMENSIONS WITHOUT NOTICE. PLEASE CONTACT DON CHAPIN PRE-CAST WHENEVER NECESSARY TO CONFIRM DESIGN CRITERIA.
- 3). CERTIFIED ENGINEERING IS AVAILABLE UPON REQUEST.
- 4). THIS IS ALSO AVAILABLE AS AN H20 RATED ASSEMBLY
- 5). INTEGRAL TOP TO BODY DESIGN

TOP VIEW
SCALE: 1/8"

SIDE VIEW CUTAWAY
SCALE: 1/8"

Risers:
Orenco FLD24 (2)

Lids:
Orenco RR2412 (2)

NOTE: INLET AND OUTLET PIPES ARE FITTED WITH WATERTIGHT A-LOK PIPE CONNECTIONS (STANDARD).

END VIEW
SCALE: 1/8"

Height (inches)	Volume in Gallons (ignore baffles)
0	0
1	34.234
2	68.658
3	103.274
4	138.081
5	173.08
6	208.271
7	243.655
8	279.233
9	315.003
10	350.968
11	387.126
12	423.48
13	460.028
14	496.772
15	533.711
16	570.847
17	608.179
18	645.708
19	683.434
20	721.358
21	759.481
22	797.802
23	836.322
24	875.04
25	913.959
26	953.078
27	992.397
28	1031.916
29	1071.638
30	1111.56
31	1151.785
32	1192.012
33	1232.542
34	1273.274
35	1314.211
36	1355.351
37	1396.696
38	1438.245
39	1479.999
40	1521.959
41	1564.125
42	1606.497
43	1649.075
44	1691.861
45	1734.853
46	1778.054
47	1821.463
48	1865.08
49	1908.907
50	1952.942
51	1997.188
52	2041.643
53	2086.309
54	2131.186
55	2176.274
56	2221.572

EF-6
1500 gpd

NSF
AQUADIAL®
(Standard 40)

24 in. of
T-Baffle™
baffle.

4" Sch. 40 &
SDRI-35

NSF
1500 GPD
AQUADIAL®
(Standard 40)

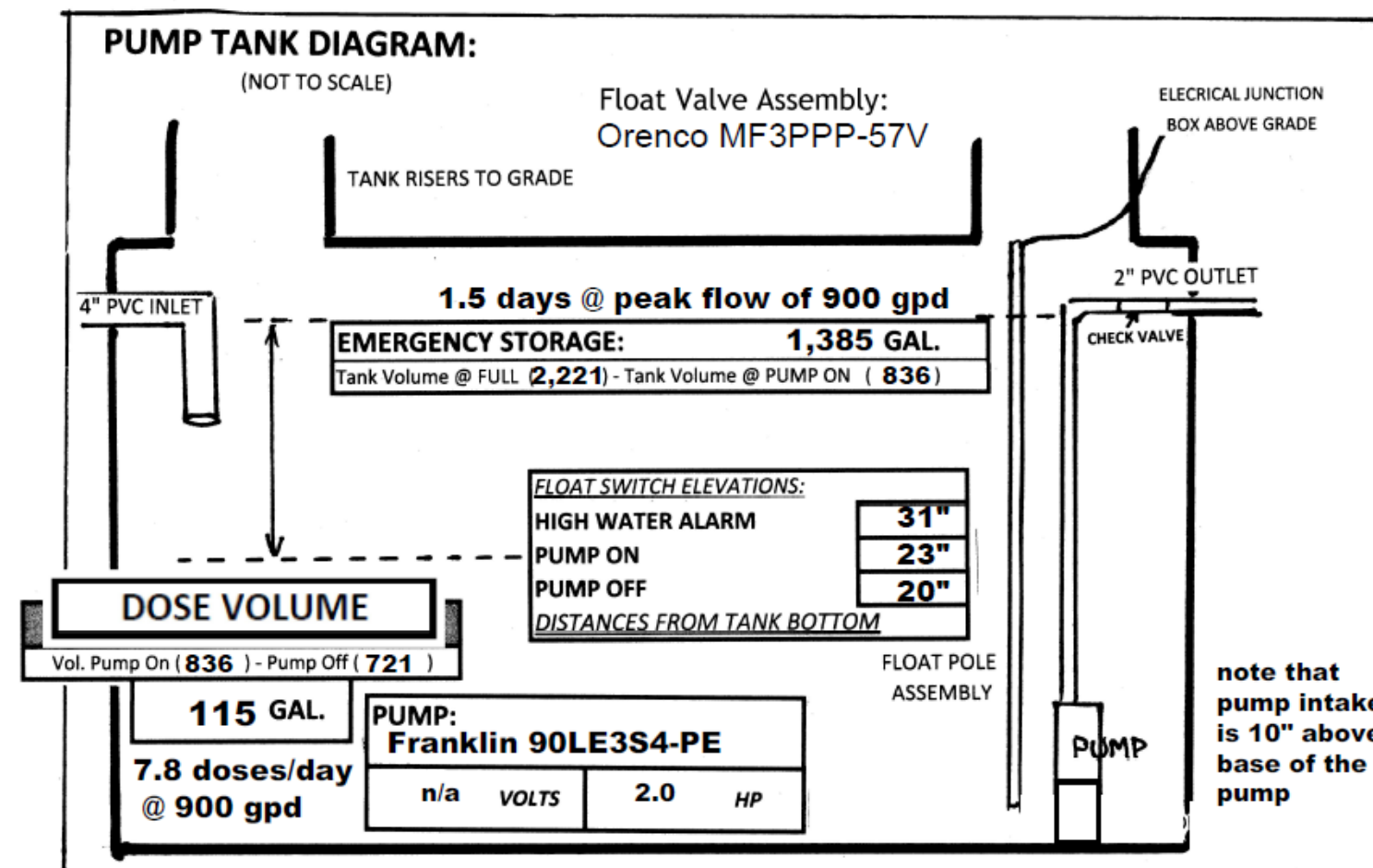
**TB-6
T-Baffle™**
NSF
AQUADIAL®
(Standard 40)

Molded-in
Gas/Solids
Deflector

The image contains three technical drawings for a trench installation:

- Top Drawing (Side View):** Shows a trench cross-section. Labels include:
 - FILTER FABRIC SILT BARRIER** (top left)
 - 12" MIN. NATIVE TOPSOIL BACKFILL** (top center)
 - 2" DRAIN ROCK ABOVE PIPE** (left)
 - 1 1/2" PVC PRESSURE DISTRIBUTION PIPE** (left)
 - TRENCH INSPECTION STANDPIPE W/ END CAP** (right)
 - INSPECTION RISER, W/ THREADED END CAP** (right)
 - (SEE DIAGRAM BELOW for DETAIL)** (bottom right)
- Bottom Left Drawing (End View):** Shows a trench cross-section. Labels include:
 - UTILITY BOX** (top left)
 - FINISHED GRADE** (top right)
 - FILTER FABRIC SILT BARRIER** (left)
 - 3/4" TO 1 1/2" DRAIN ROCK** (left)
 - 12" MIN.** (vertical dimension for trench depth)
 - 2.5' trench depth** (vertical dimension)
 - 1.0' drainrock under pipe** (vertical dimension)
 - 3.0'** (vertical dimension for total trench depth)
 - END VIEW** (bottom center)
- Bottom Right Drawing (Purge Valve & Inspection Riser Detail):** A detailed view of the riser assembly. Labels include:
 - Purge Valve & Inspection Riser** (title)
 - (At end of each drainfield trench)** (note)
 - Ball valve (Sch. 90) pressure-rated** (top left)
 - Threaded Caps** (top center)
 - 90 degree sweep fitting** (left)
 - 1 1/2" PVC PD LATERAL** (left)
 - 4" PVC slotted within drainrock** (right)
 - Trench Bottom** (bottom left)
 - Bottom cap** (bottom right)
 - SIDE VIEW (not to scale)** (note)

FLOW RATE - The orifice discharge rate for 3/16" diameter at 5 ft residual head is 0.93 gpm (SOURCE: COWA PD Design Manual, p. 153)									
<i>Calculator of hydraulics is hybrid of both sides of diverter using most orifices, longest pipe run, and most pipe fittings.</i>									
Flow (# orifices):	100 ft DF	19	18 gpm		489 ft DF	94	88 gpm		
PRESSURE - Note: All PVC is Schedule 40. $f = L \{Q/K\}^{1.85}$ (SOURCE: COWA Manual, p. 154)									
								NOTE THAT FLOWS, LENGTHS & ELEVATIONS ARE EXAGGERATED FOR CONSERVATIVE	
1. Lift in pump tank from pump discharge to outlet:									5.0 ft
2. Elevation lift to PD laterals:									1.0 ft
3. 2"PVC Supply Length & Fittings: 220 ft pipe length +									
(1xCheck valve 19ft, 8x90o 44ft, 4 x 45° 10ft, 3 x T-Turn 36ft, 8 x T-thru 32ft, 2xgate valve 4 ft)					365 ft (88 gpm/284.5) ^{1.85} =	41.6 ft			
4. Pipe size reduction at PD lateral (2" to 1 1/2" coupler fitting) equivalent length is 60 ft.					60 ft (18 gpm/284.5) ^{1.85} =	0.4 ft			
5. 1 1/2" PVC PD Lateral: 100 ft Pipe + 39 ft fittings (90 degree sweep 3 ft + ball valve 36 ft)					139 ft (18 gpm/147.5) ^{1.85} =	2.8 ft			
6. Residual Head									5.0 ft
								TOTAL:	55.8 ft
This design point (88 gpm @ 56 ft) are labeled on the pump performance curve for the selected pump.									



(AT HEAD OF EACH DRAINFIELD TRENCH)

Not To Scale

GRADE

~ 1.5 ft

VALVE BOX w/ LID

Soil Cover

2" PVC SUPPLY

2" Gate Valve (Sch. 80)

2" Per Gravel

2" to 1 1/2" PVC coupler fitting

PD Lateral 1 1/2" PVC

Drainrock

to Drainfields (NORTH)

All 2" PVC

to Drainfields (SOUTH)

2" PVC from pump

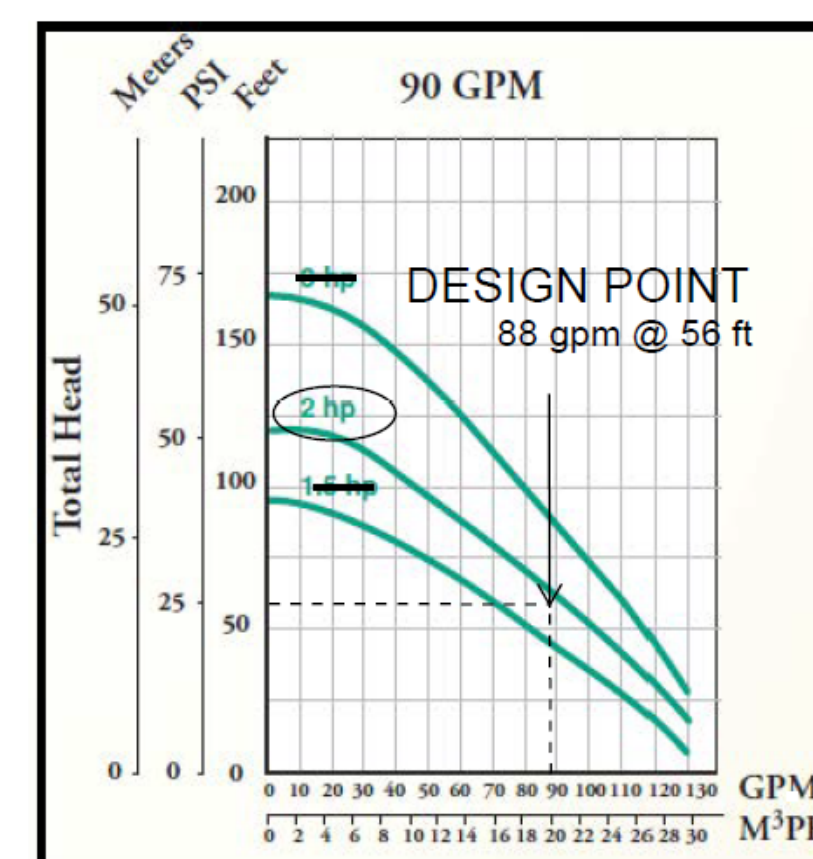
2 x 2 ft valve box w/ lid

Pressure-rate BALL VALVE (brass - 2")

=flow direction

Note: Adjusting Valves at Each DF.

ORIFICES per LATERAL:		12 O'Clock	6 O'Clock (last orifice)	1st / Last Distance to Trench/Lateral Ends
NORTH	100 ft trenches:	18	1	60"
	89 ft trench:	17	1	24"
	94 ORIFICES			
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SOUTH	100 ft trenches:	18	1	60"
	50 ft trench:	8	1	60"
	93 ORIFICES	7	1	24"

[illegible]

OWTS 2	Pressure-based Trench Septic System (To Serve Proposed Agricultural Housing - 2 units 3 BR each)	DETAIL	Property on Pacheco Pass Rd., Gilroy, CA 95020 APN 841-49-014 (SR0867923)	OWNER: GangQiang Zhen Tel. 707-319-7818 Email: detontorus49@yahoo.com	PLAN BY: Christopher Day, R.E.H.S. P.O. Box 26, Redwood City, CA 94064 Tel. 650-293-1945 Email: christopherday@aol.com	ORIG 23 AUG 22 REV 1: 8 AUG 2023 REV 2:
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