

**STP LOAD CLACULATIONS**

**MADAVELI SEWERAGE**

item no.	Description	Unit	Qty
	CIVIL WORKS		
1	STP Capacity ( 30years design Horizon)	m3/day	500
2	15 years design horizon capacity	m3/day	400
3	Civil construction works (for 30 years)		
3.1	Grit Channel		
	350/24/60	m3/min	0.35
3.2	O/G Seperator (30 min retention)		
	(350/24) x 0.5	m3	5.5 x 2
3.3	Equalization tank (1 hr retention)		
	350/24	m3	10.5 x 2
3.4	Areation Tank (18hr holding cap)	m3	187.5 x 2
3.5	Clarifier tank (4 hrs of AWWF)	m3	41.6 x 2
3.6	Clear Water tank ( No size Requirement), 1 hr	m3	20.8
3.7	Sludge Holding tank (no size requirement)	m3	15
3.8	Sludge drying beds ( 42.3 sqm)	m2	15.1 x 4

**EQUIPMENT (FOR 15 YEARS DESIGN HORIZON)**

item no.	Description	Unit	Head, M	Capacity Needed	Quantity needed		
4.1	Areation blowers	m3/min	0.4kg/m2	3.6	2	HL 080, 1450rpm, (KFM)	5.5 kw
4.2	Fine bubble areators (EPDM)	nos	3	62	2		
4.3	Pumps PST - AT. 400/24/60 /2 X 4.78	m3/min	6	0.66	2	SEV.80.80.40.4.51D	4.9 kw
4.4	Pumps Sea Outfall	m3/min	18	0.66	2	SEV.80.80.40.4.51D	4.9 kw
4.5	Pumps SHT - SDB 0. 1m3/min	m3/min	6	0.1	2	SEG.40.09.2.50B	1.4kw
4.6	Pumps for effluent recovery from SDB - AT	m3/min	6	0.1	2	SEG.40.09.2.50B	1.4kw