

Tabel D.2 Daftar Perkiraan Harga Peralatan Proses

No	Nama Alat	Jumlah	Harga Satuan (\$)	2020		2026	
				US\$	Rp	US\$	Rp
1	Tangki Metanol	1	275,000	275,000	3,938,000,000	312,943	4,481,349,972
2	Tangki Dimetil Eter	1	372,000	372,000	5,327,040,000	423,327	6,062,044,325
3	Pompa	3	15,400	46,200	661,584,000	52,574	752,866,795
4	Heat Exchanger	1	17,200	17,200	246,304,000	19,573	280,288,071
6	Kompresor	2	50,000	100,000	1,432,000,000	113,798	1,629,581,808
7	Reaktor	1	324,000	324,000	4,639,680,000	368,704	5,279,845,057
8	Expander	1	64,000	64,000	916,480,000	72,830	1,042,932,357
9	Condensor	2	39,000	78,000	1,116,960,000	88,762	1,271,073,810
10	Flash Drum	1	67,000	67,000	959,440,000	76,244	1,091,819,811
11	Vaporizer	2	225,000	450,000	6,444,000,000	512,089	7,333,118,135
12	PSA	2	79000	158000	2262560000	179800.2274	257473925
TOTAL				1,951,400	27,944,048,000	2,220,647	31,799,659,398

Sumber : (Superpro)

Total harga peralatan proses :

-	Harga Dolar (11 Juli 2020)	: US\$14.320	
-	Harga peralatan proses, A	: US\$ 2.220.647	= Rp 31.799.659.398
-	Biaya transportasi dan asuransi, 12,5%A	: US\$ 277.581	= Rp 3.974.957.425
-	PPN 10%	: 222.064,66	= Rp 3.179.965.939,83
-	Pajak bea cukai, 7%A	: <u>US\$ 155.455,26</u>	= <u>Rp 2.225.976.158+</u>
	Total	: US\$ 2.875.737	= Rp 41.180.558.920,79

Tabel D.3 Daftar Perkiraan Harga Peralatan Utilitas

No	Alat	Jumlah	2020			2026	
			US\$	\$	Rp	\$	Rp
1	Pompa air sungai ke Bak Penampung	2	15,705	31,410	449,791,200.00	35,744	511,851,645.84
2	Bak penampungan Air Sungai	2	48,853	97,706	1,399,149,920.00	111,187	1,592,199,201.17
3	Pompa bak penampungan ke Raw Water	1	16,976	16,976	243,096,320.00	19,318	276,637,807.70
4	Tangki Pelarutan Alum	1	15,755	15,755	225,611,600.00	17,929	256,740,613.83
5	Pompa Larutan Alum	1	12,320	12,320	176,422,400.00	14,020	200,764,478.73
6	Tangki Pelarutan Kapur Tohor	1	15,755	15,755	225,611,600.00	17,929	256,740,613.83
7	Pompa Larutan Kapur Tohor	1	12,091	12,091	173,143,120.00	13,759	197,032,736.39
8	Tangki Pelarutan kaporit	1	15,755	15,755	225,611,600.00	17,929	256,740,613.83
9	Pompa Larutan Kaporit	1	12,321	12,321	176,436,720.00	14,021	200,780,774.54
10	Unit Pengolahan Raw Water	1	44,711	44,711	640,261,520.00	50,880	728,602,322.11
11	Pompa Raw Water ke Sand filter	1	16,976	16,976	243,096,320.00	19,318	276,637,807.70
12	Sand filter						

		2	44,711	89,422	1,280,523,040.00	101,760	1,457,204,644.21
13	Pompa Sand filter ke Bak Air Bersih	1	15,511	15,511	222,117,520.00	17,651	252,764,434.21
14	Bak penampungan air bersih	2	44,711	89,422	1,280,523,040.00	101,760	1,457,204,644.21
15	Pompa Bak Air Bersih ke Softener Tank	1	15,511	15,511	222,117,520.00	17,651	252,764,434.21
16	Softener tank	2	143,222	286,444	4,101,878,080.00	325,966	4,667,839,313.66
17	Pompa ST ke Tangki Air Demin	2	18,422	36,844	527,606,080.00	41,928	600,403,121.28
18	Tangki air demin	1	143,522	143,522	2,055,235,040.00	163,325	2,338,808,402.26
19	Pompa air demin masuk Deaerator	1	12,091	12,091	173,143,120.00	13,759	197,032,736.39
20	Pompa air Demin menuju Plant	1	16,976	16,976	243,096,320.00	19,318	276,637,807.70
21	Pompa Plant menuju Cooling Tower	1	23,571	23,571	337,536,720.00	26,823	384,108,727.93
22	Cooling tower	1	295,610	295,610	4,233,135,200.00	336,397	4,817,206,782.17
23	Air Handling Unit	1	205,000	205,000	2,935,600,000.00	233,285	3,340,642,706.08
24	Pompa Plant menuju Deaerator	1	12,091	12,091	173,143,120.00	13,759	197,032,736.39
25	Deaerator	1	11,082	11,082	158,694,240.00	12,611	180,590,255.95

26	Pompa Dearator menuju Boiler	1	12,081	12,081	172,999,920.00	13,748	196,869,778.21
27	Boiler	1	200,311	200,311	2,868,453,520.00	227,949	3,264,231,615.11
Total		33.00		1,757,265	25,164,034,800	1,999,726	28,636,070,756

Sumber : (www.alibaba.com/www.matches.com)

Total harga peralatan utilitas :

-	Harga peralatan utilitas,(B)	: US\$ 1.999.726	= Rp 28.636.070.756
-	Biaya transportasi dan asuransi, 12,5% B	: US\$ 249.966	= Rp 3.579.508.844
-	PPN 10% B	: US\$ 199.972,56	= Rp 2.863.607.075,56
-	Pajak bea cukai, 7% B	: <u>US\$ 139.980,79</u>	= <u>Rp 2.004.524.953+</u>
	Total	: US\$ 2.589.645	= Rp 37.083.711.629

Total harga peralatan = harga peralatan proses + harga peralatan utilitas

= US\$\$ **2.875.737**+ US\$ **2.589.645**

= US\$ 5.465.382