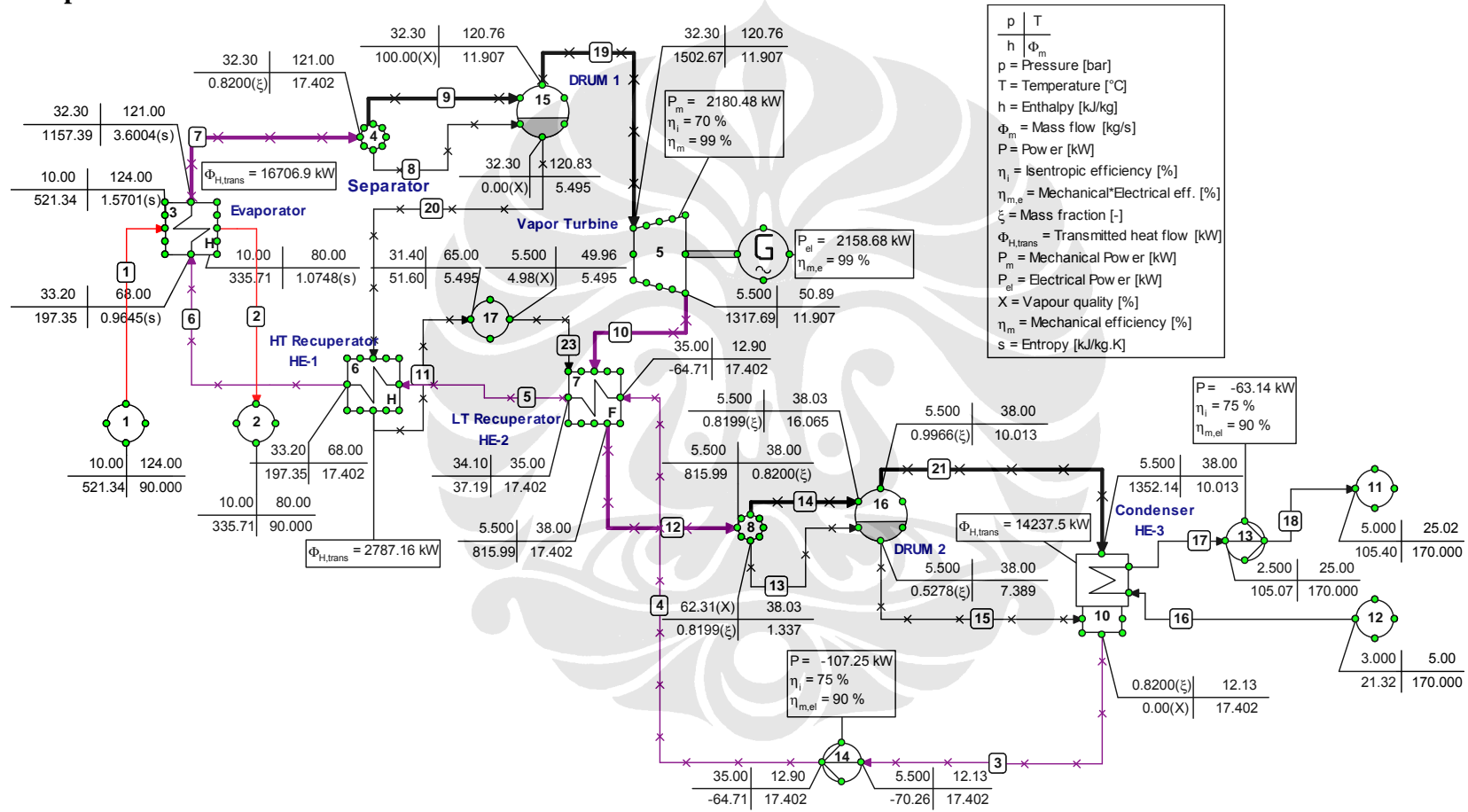
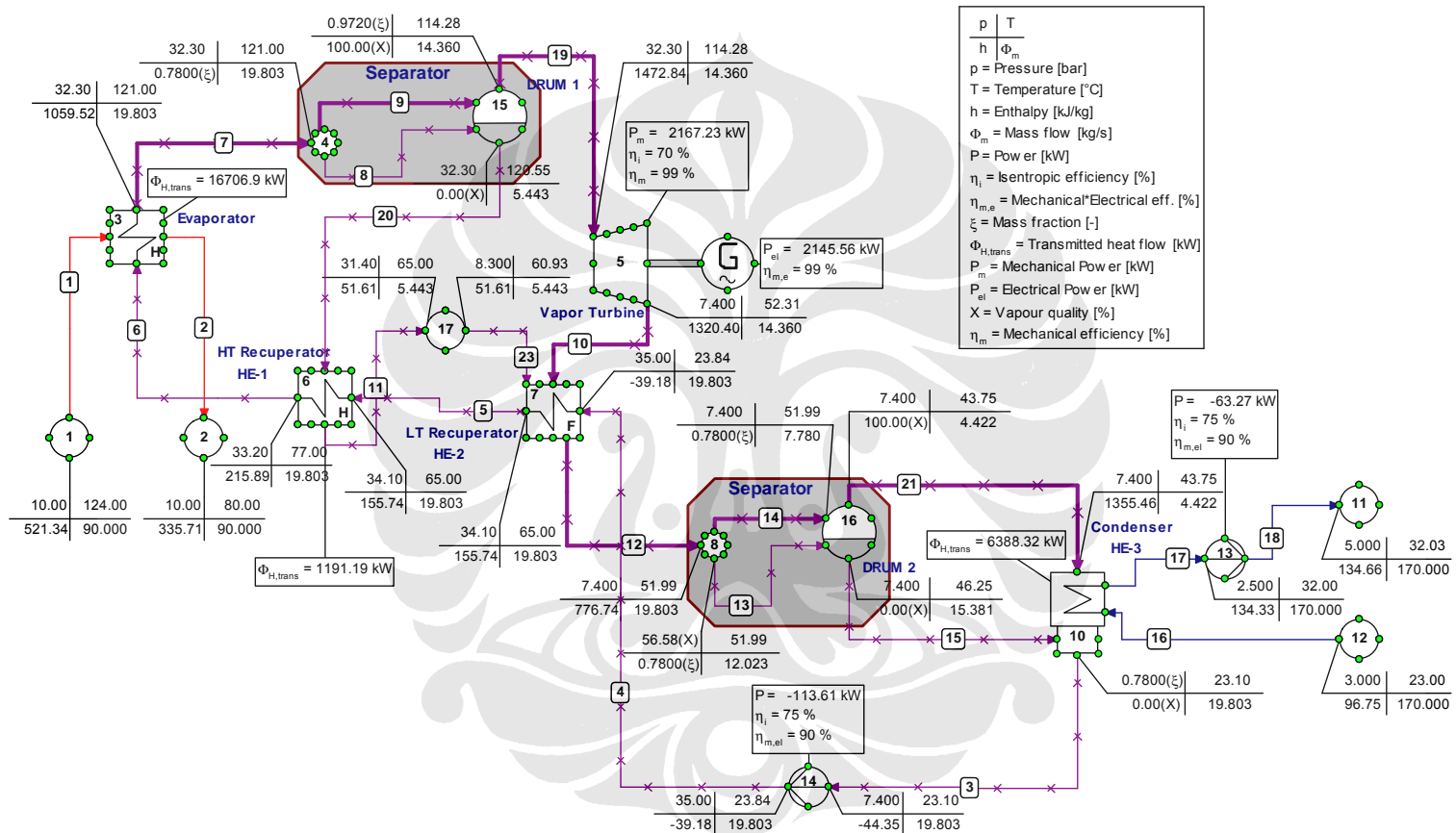


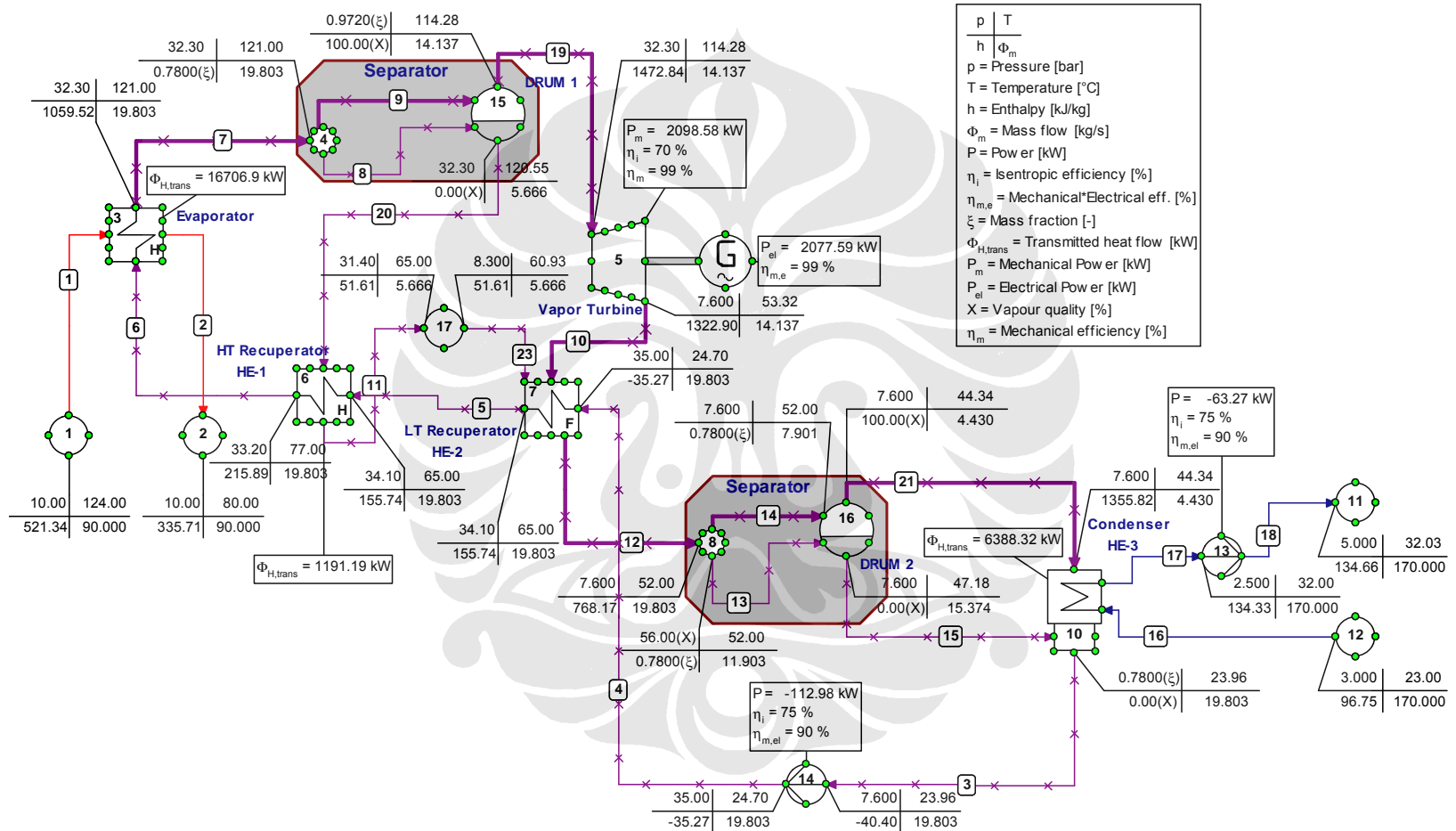
### Lampiran 1. Skema Hasil Simulasi



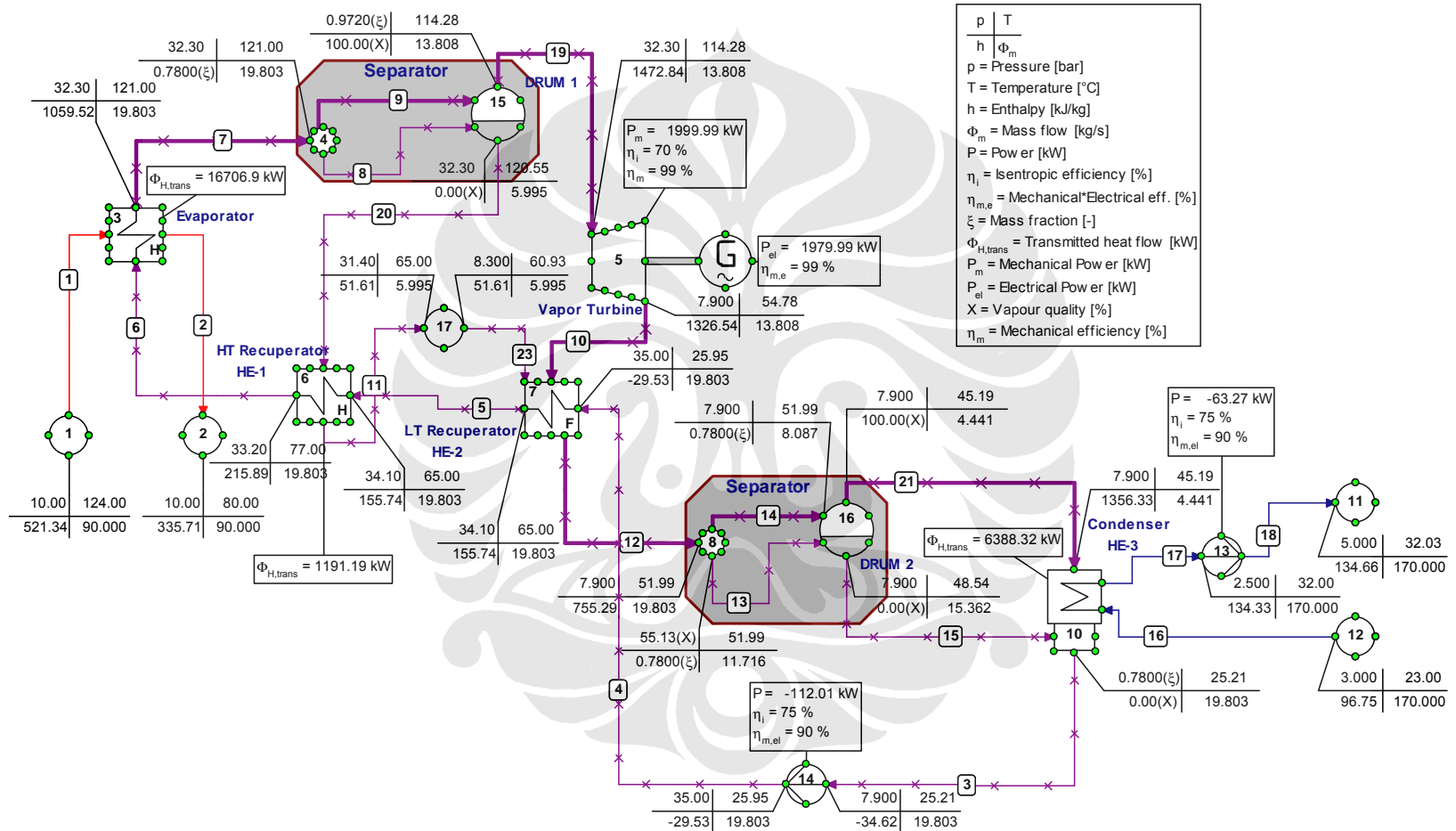
Skema 1. Hasil simulasi KCS 34, husavic, Islandia



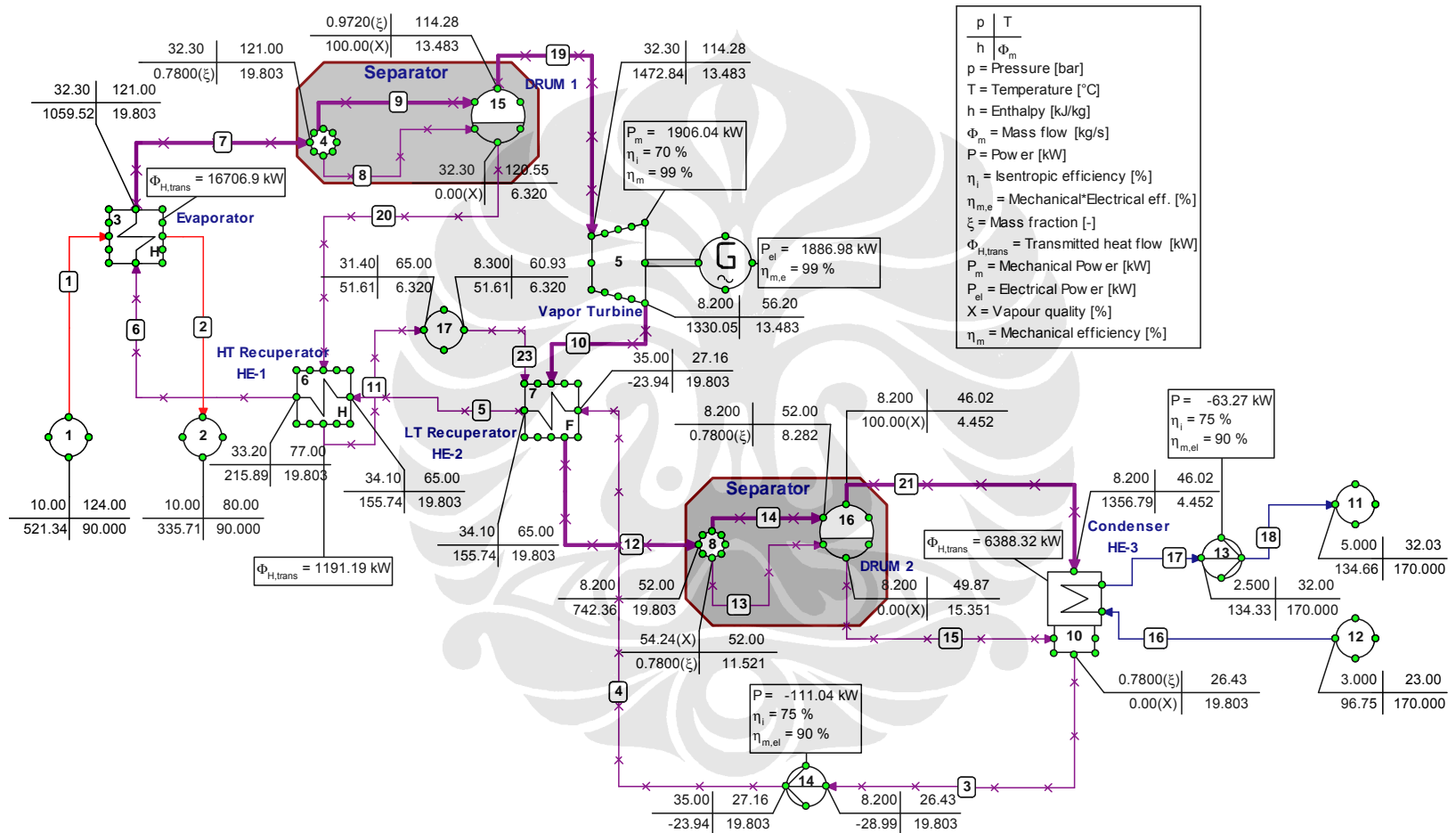
Skema 2. KCS 34 fraksi massa 78%, tekanan 7.4 bar



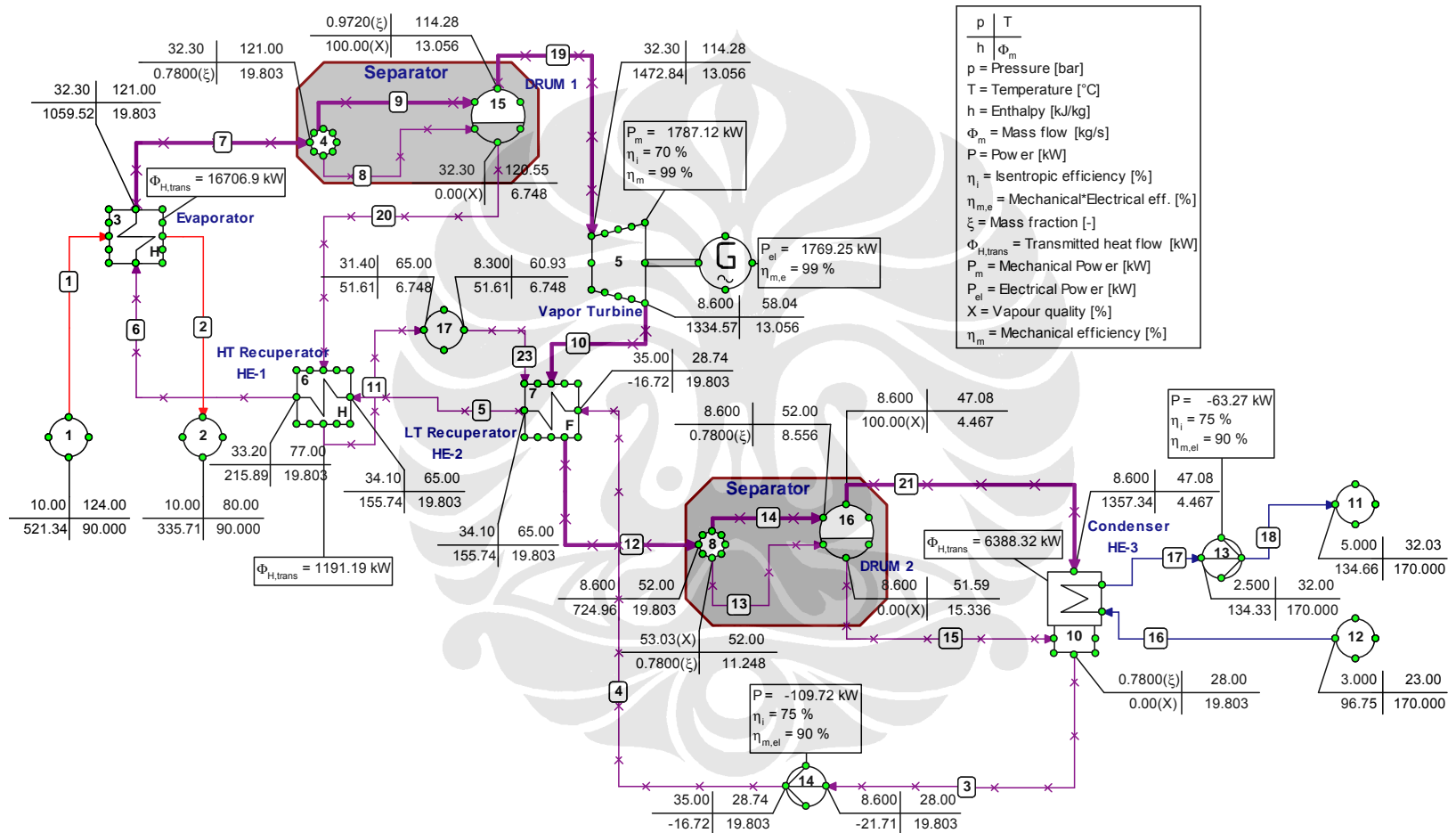
Skema 3. KCS 34 Fraksi massa 78%, tekanan 7.6 bar



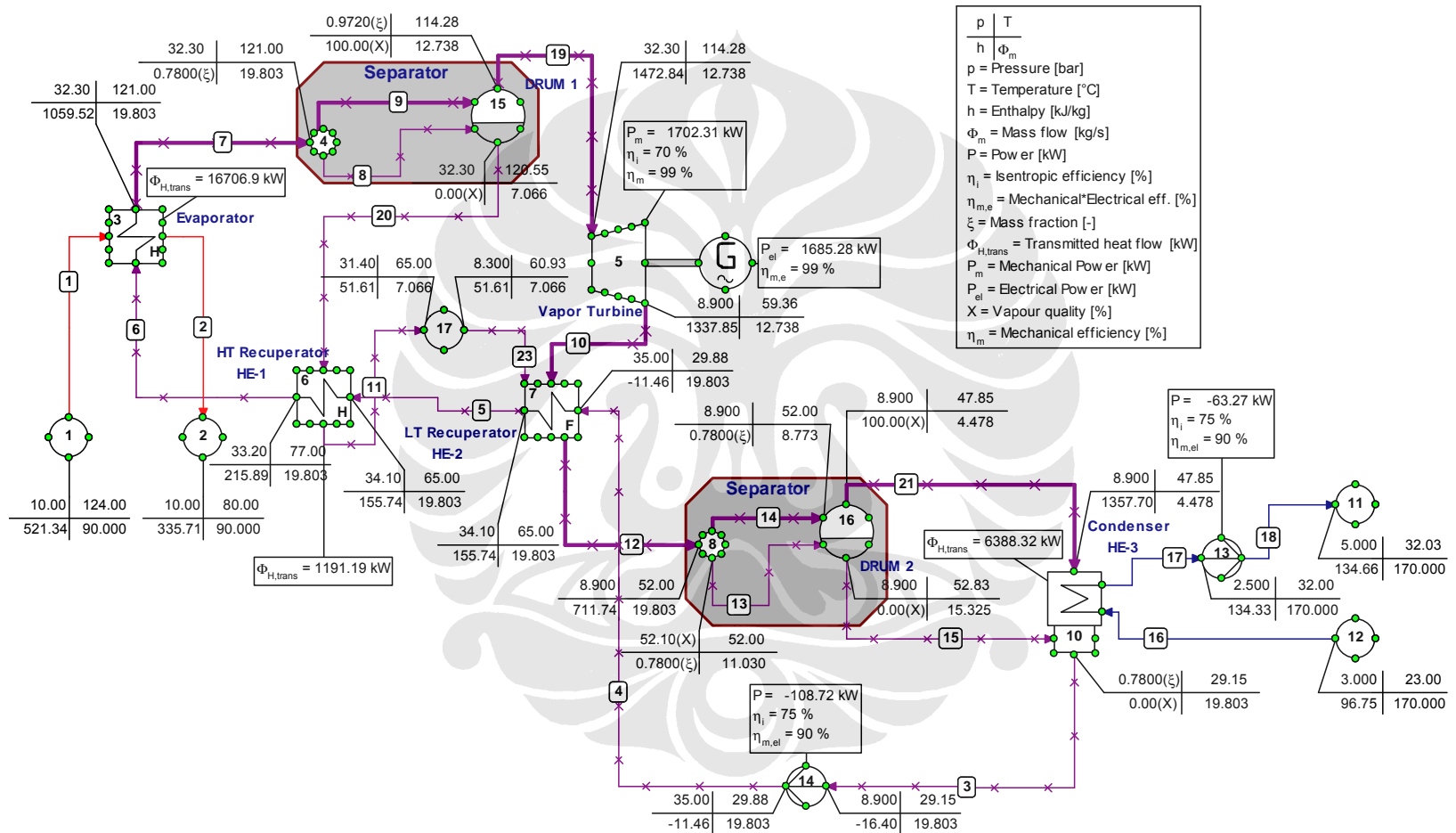
Skema 4. KCS 34 Fraksi massa 78%, tekanan 7.9 bar



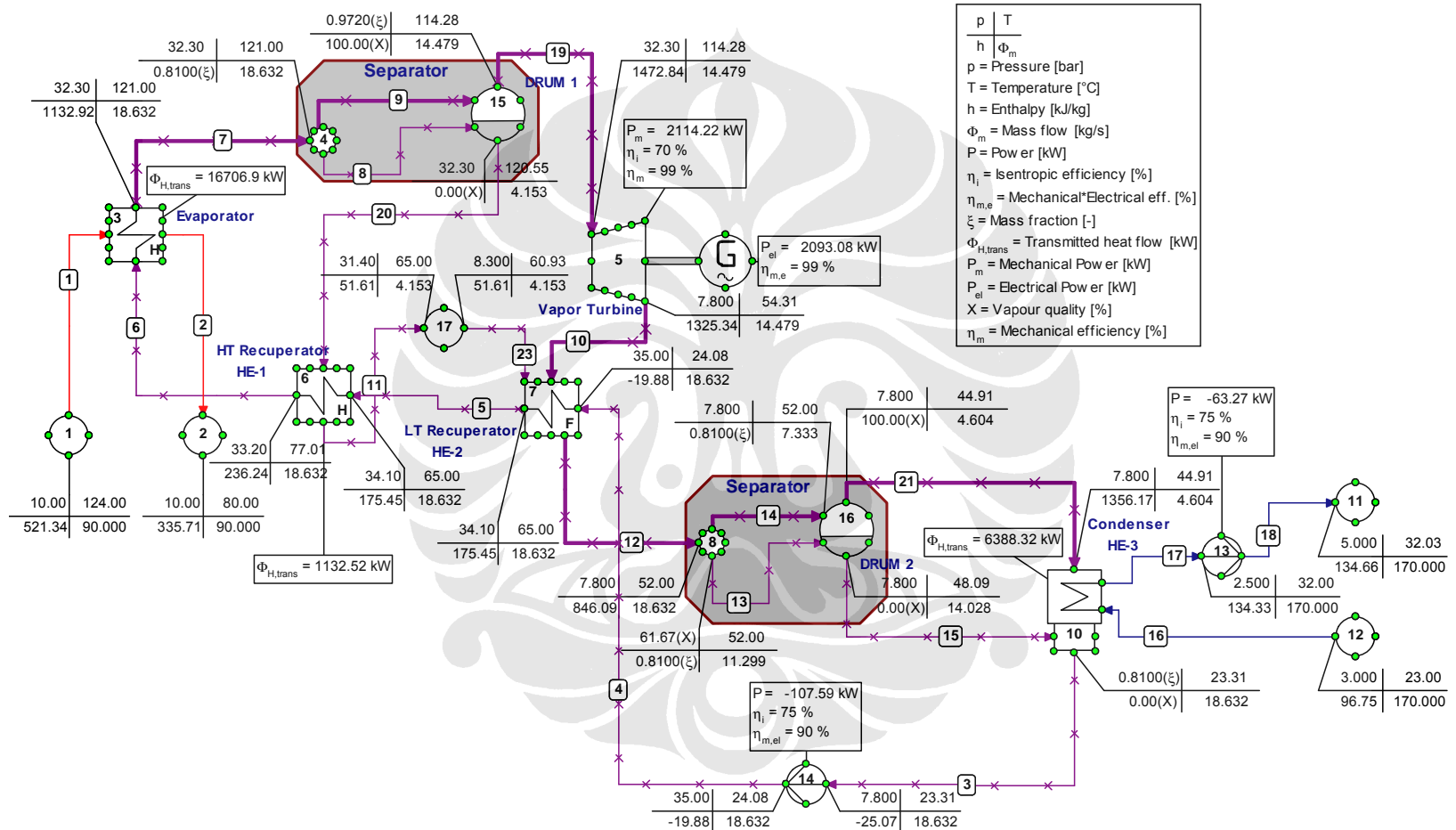
Skema 5. KCS 34 fraksi massa 78%, tekanan 8.2 bar



Skema 6. KCS 34 fraksi massa 78%, tekanan 8.6 bar

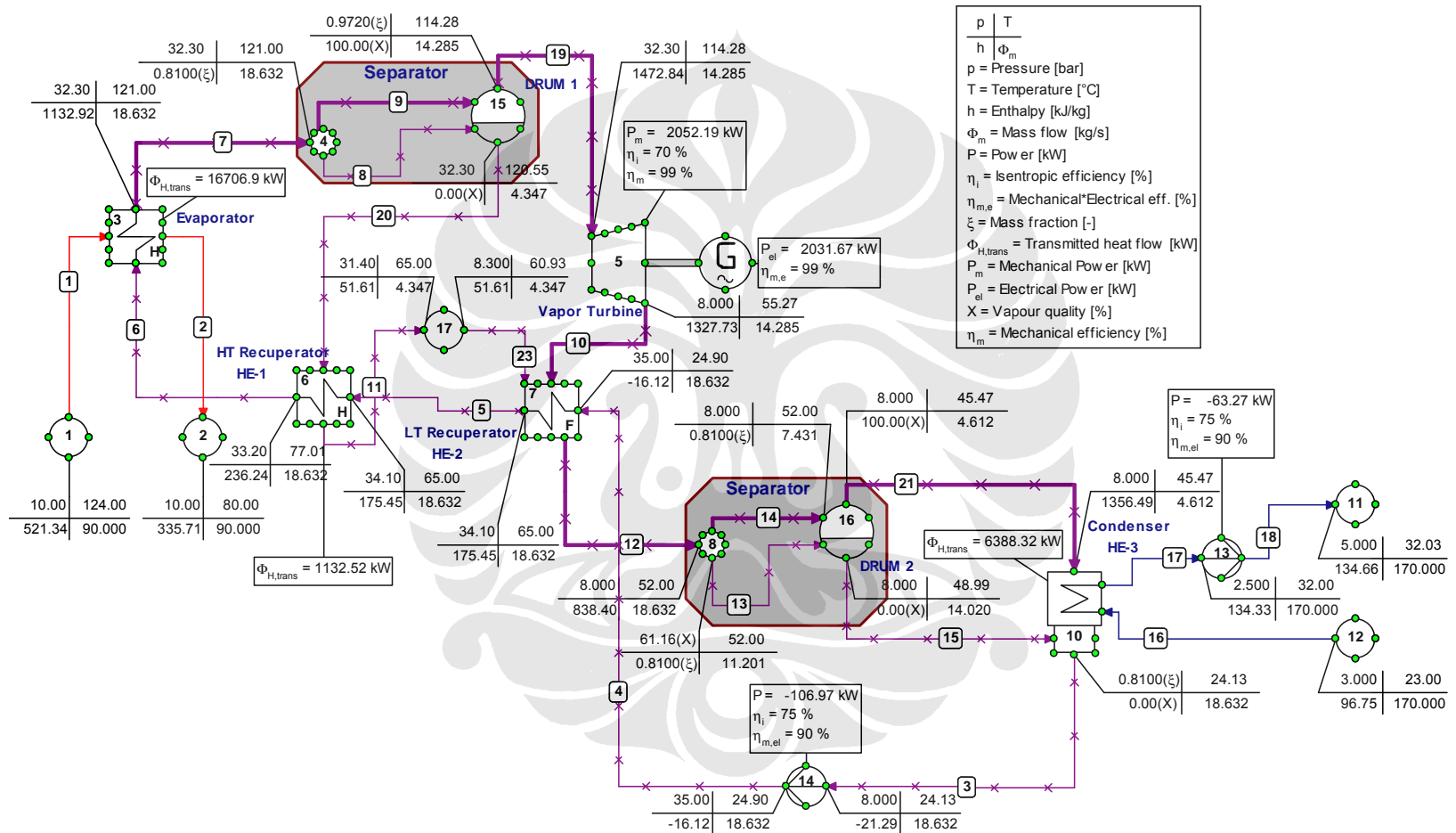


Skema 7. KCS 34 fraksi massa 78%, tekanan 8.9 bar

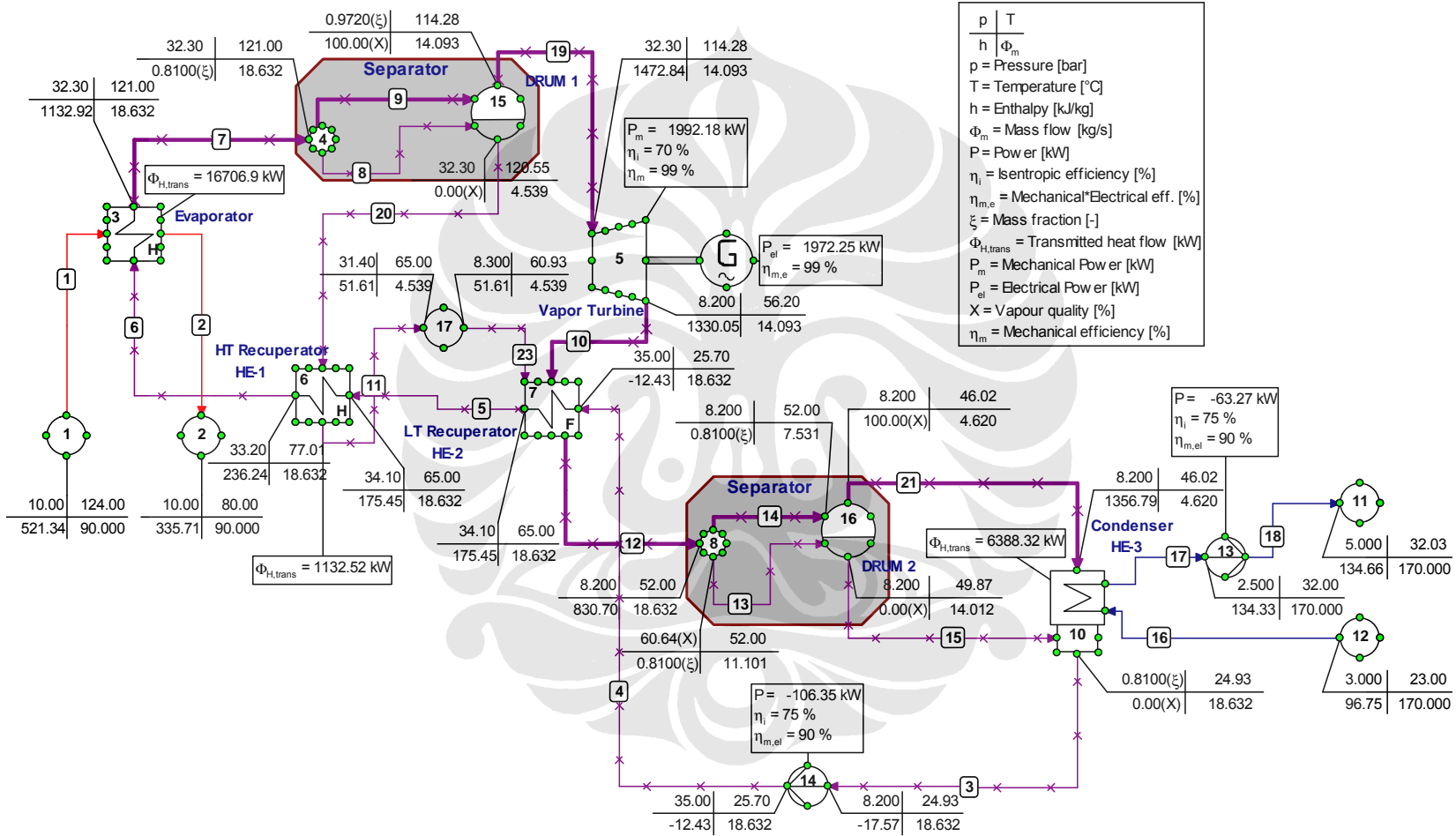


Skema 8. KCS 34 fraksi massa 81%, tekanan 7.8 bar

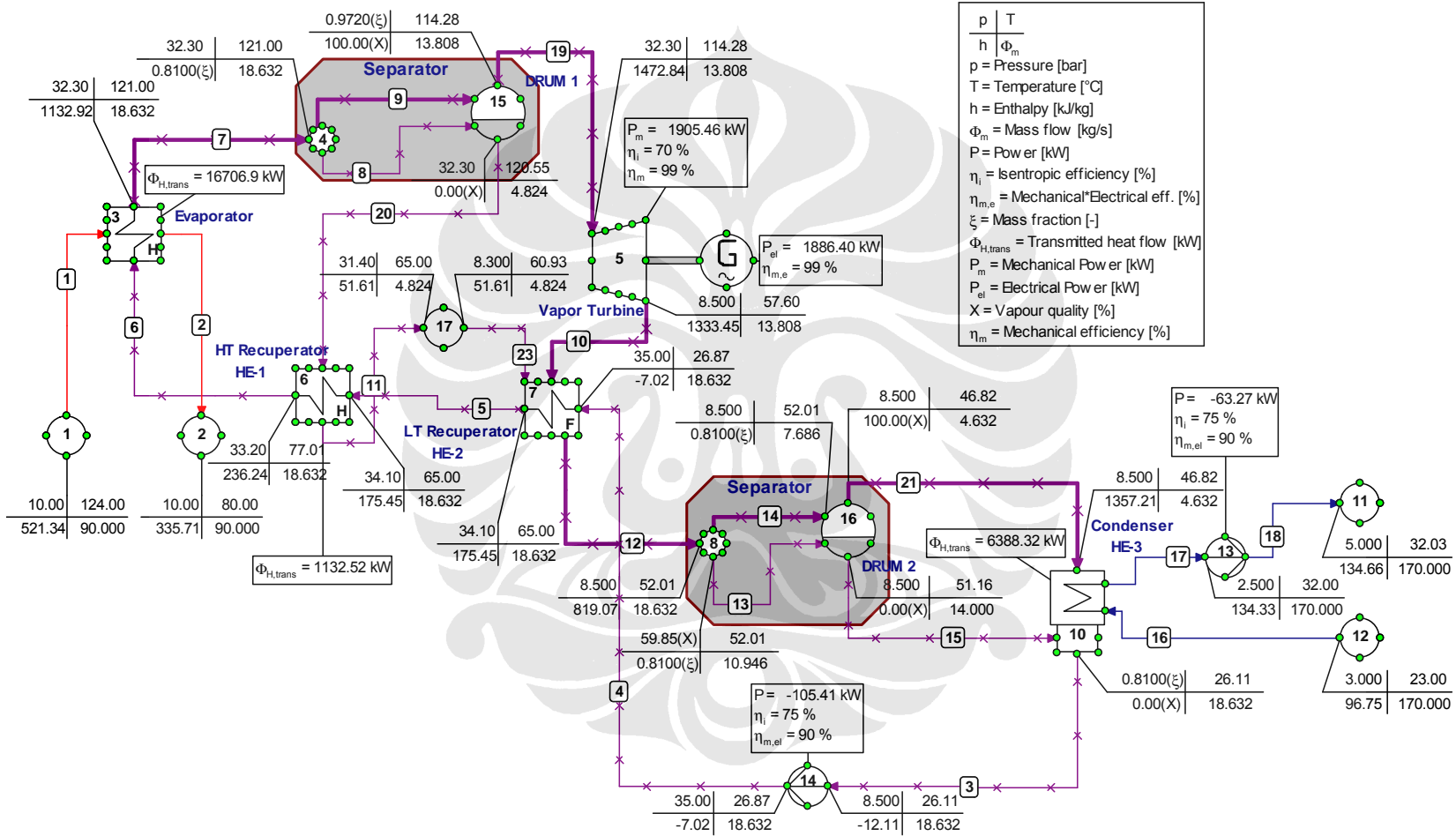




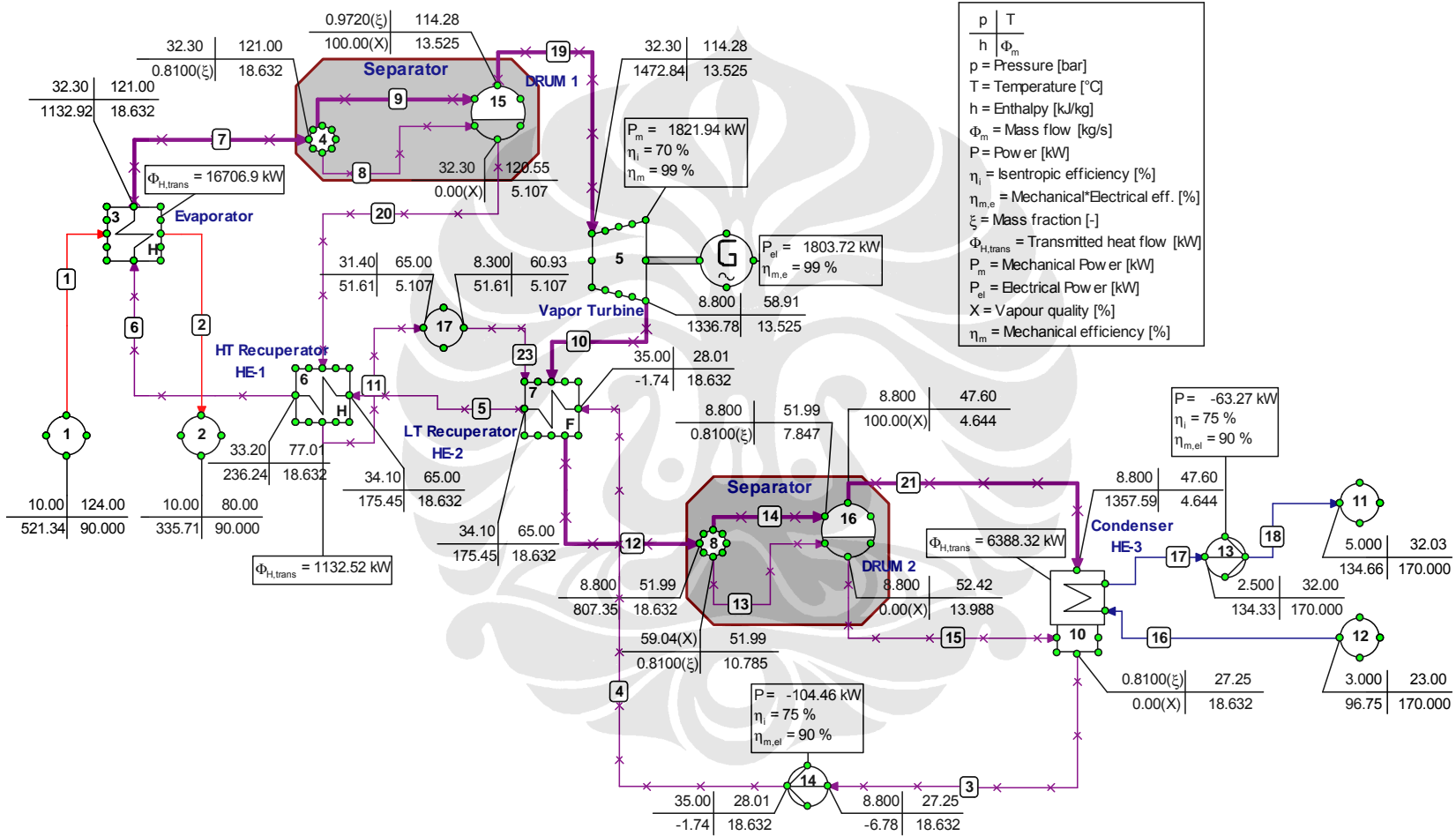
Skema 9. KCS 34 fraksi massa 81%, tekanan 8.0 bar



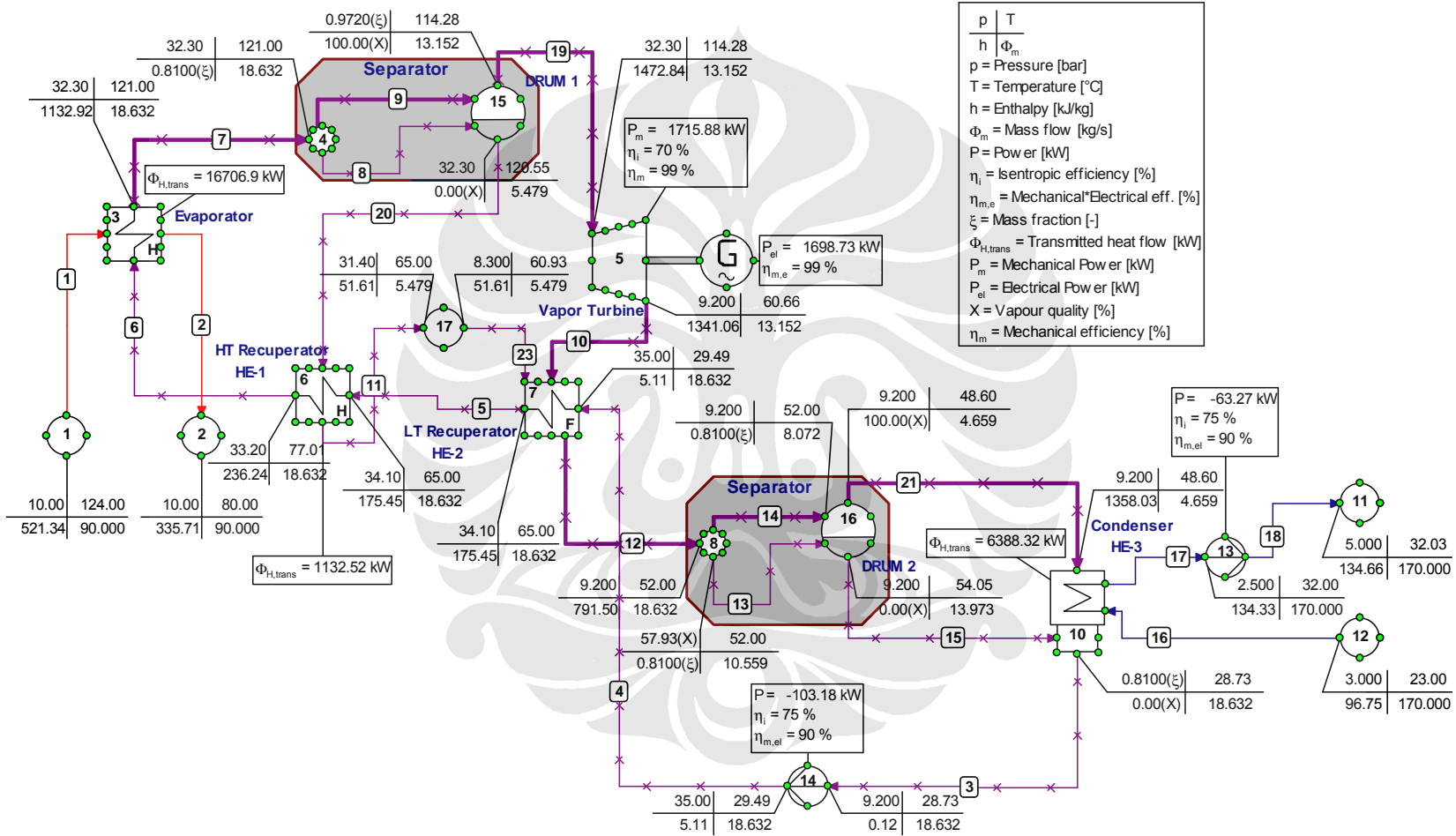
Skema 10. KCS 34 fraksi massa 81%, tekanan 8.2 bar



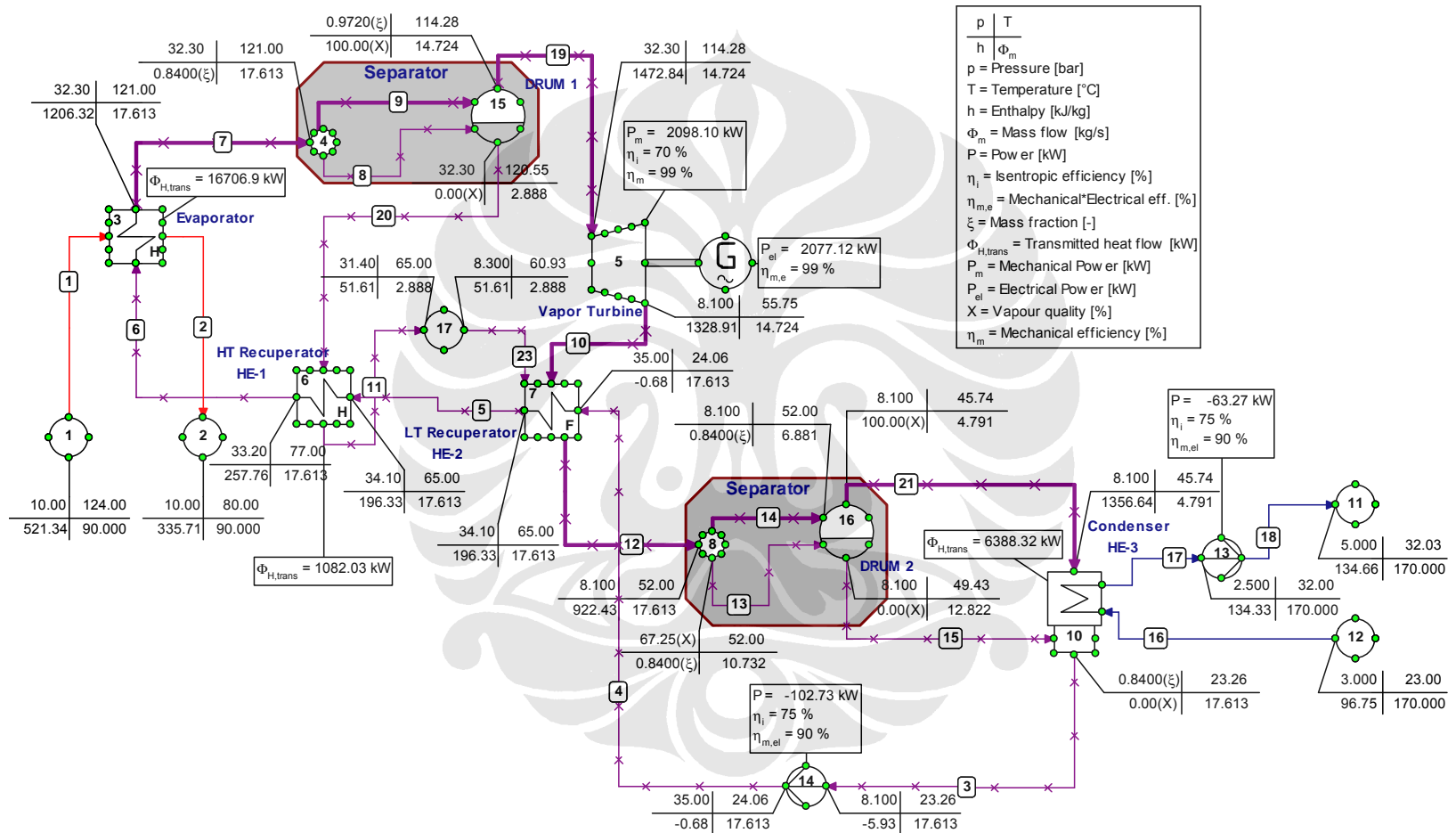
Skema 11. KCS 34 fraksi massa 81%, tekanan 8.5 bar



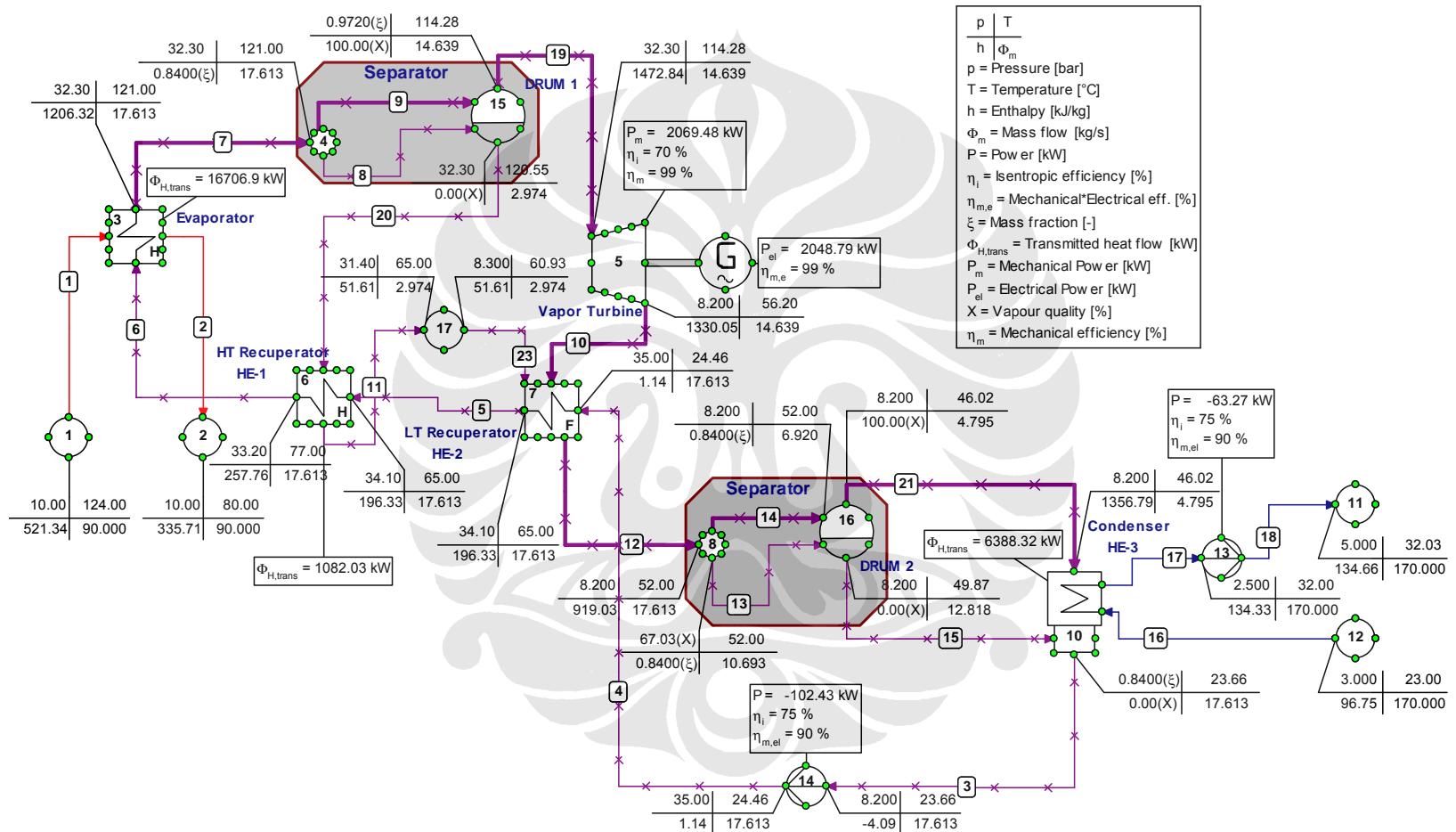
Skema 12. KCS 34 fraksi massa 81%, tekanan 8.8 bar



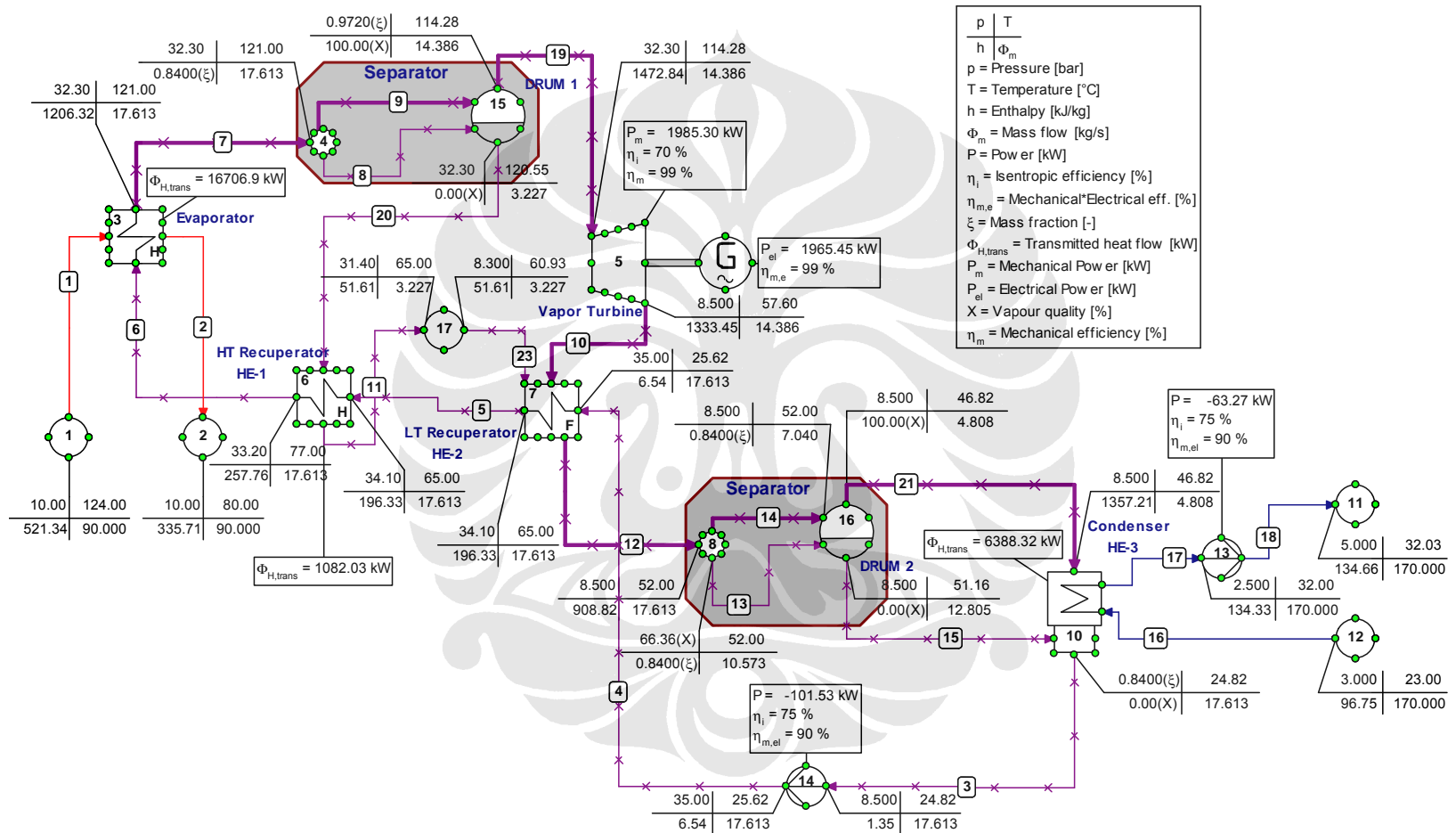
Skema 13. KCS 34 fraksi massa 81%, tekanan 9.2 bar



Skema 14. KCS 34 fraksi massa 84%, tekanan 8.1 bar

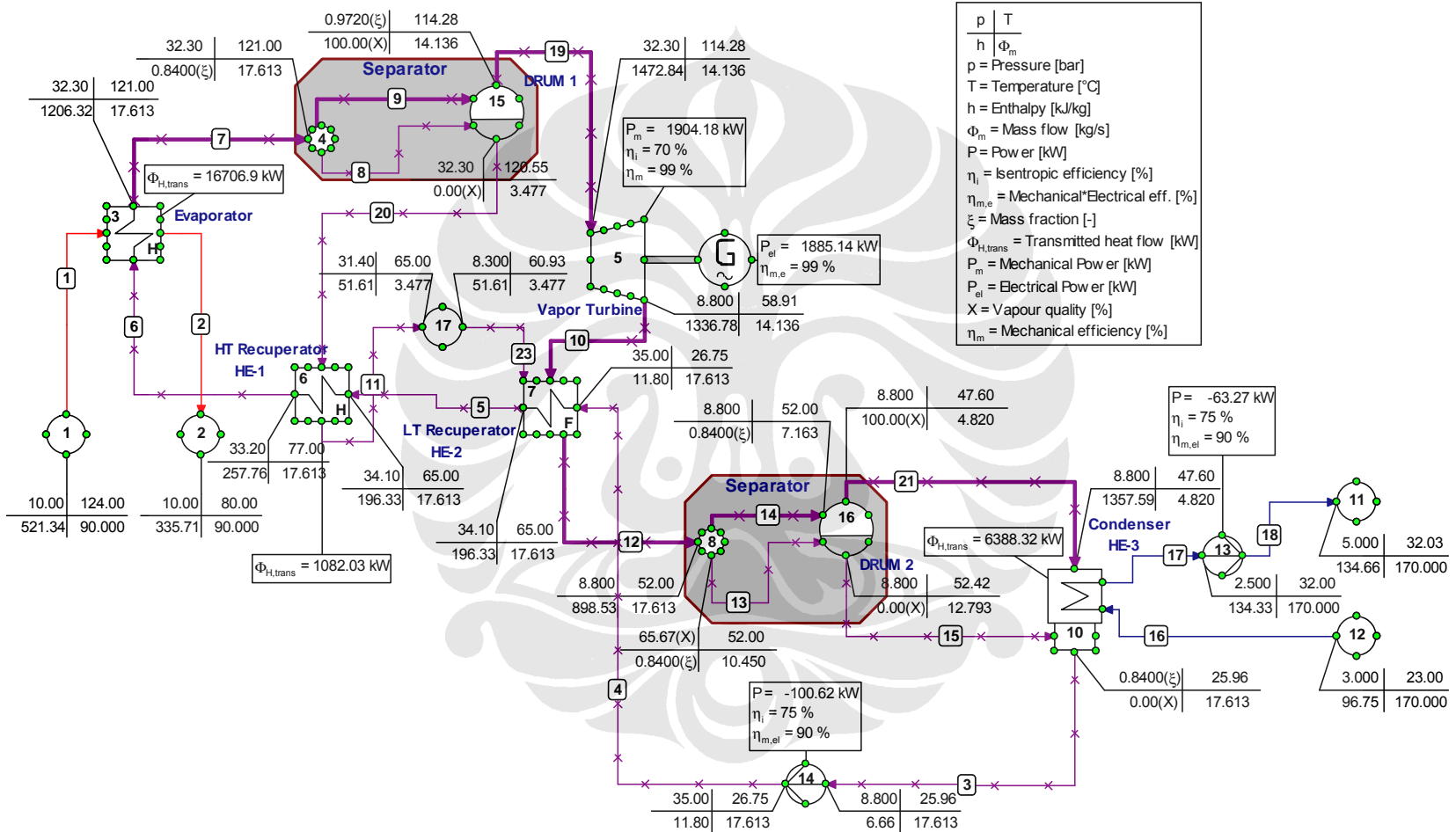


Skema 15. KCS 34 fraksi massa 84%, tekanan 8.2 bar

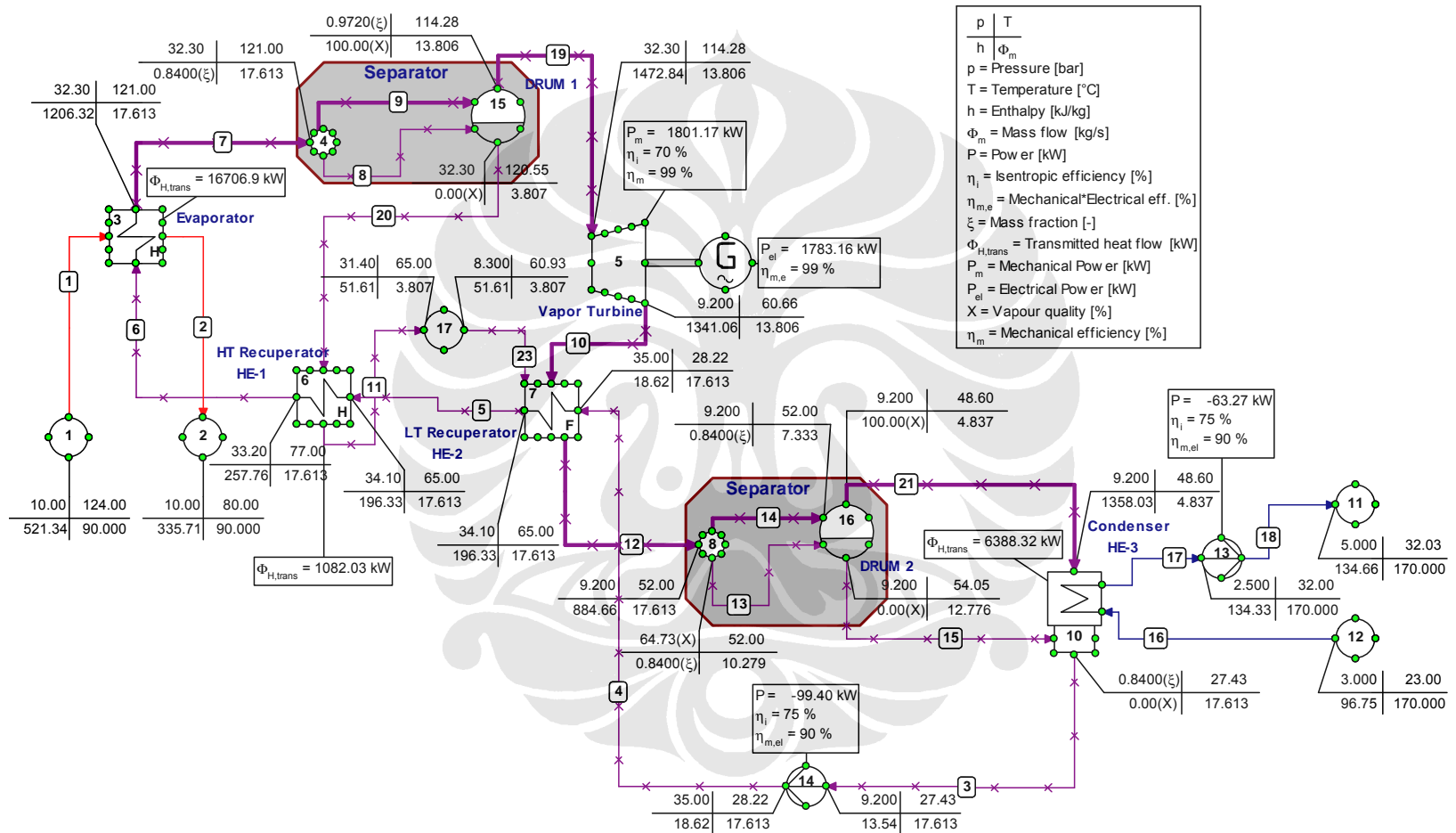


Skema 16. KCS 34 fraksi massa 84%, tekanan 8.5 bar

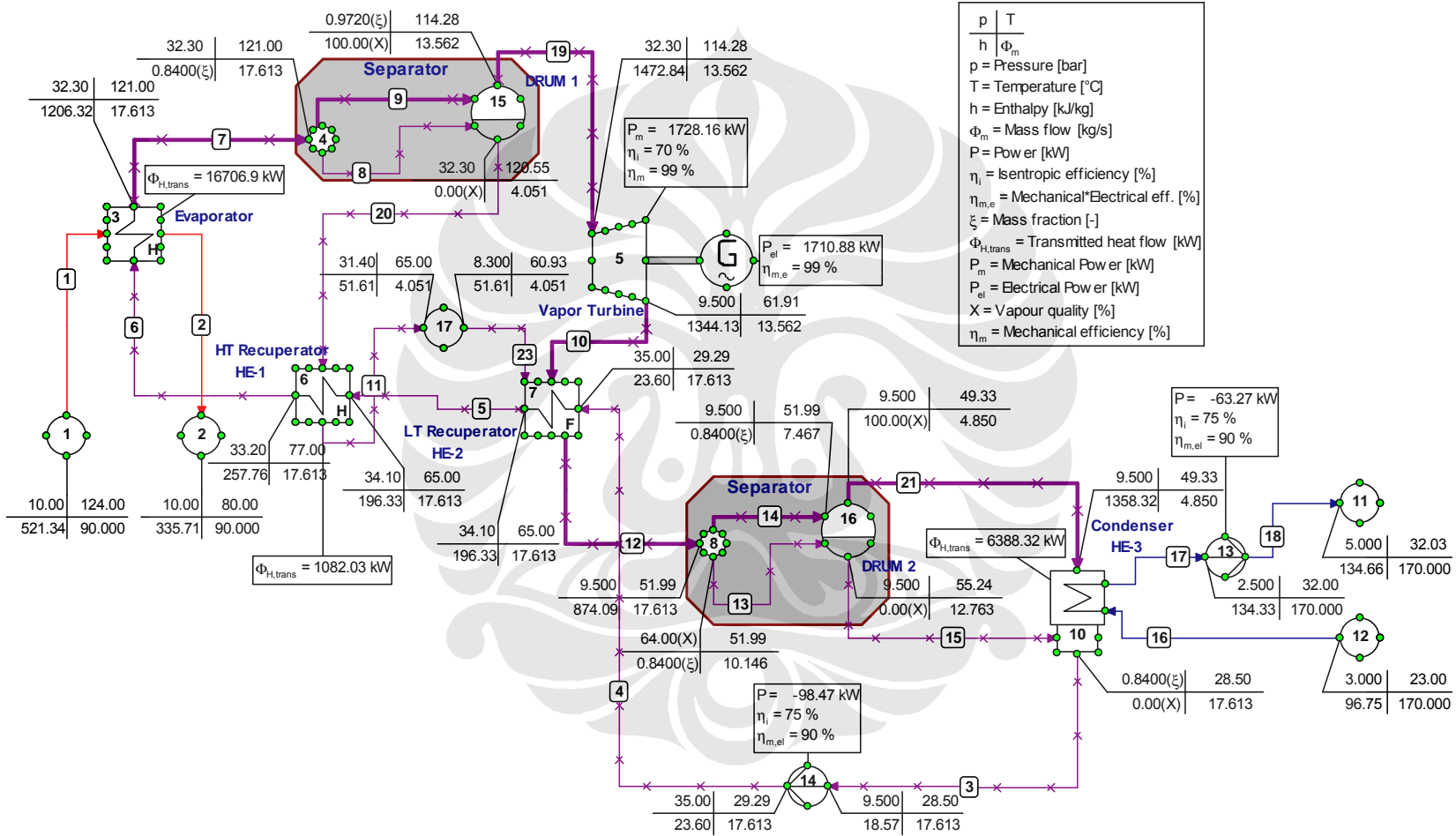




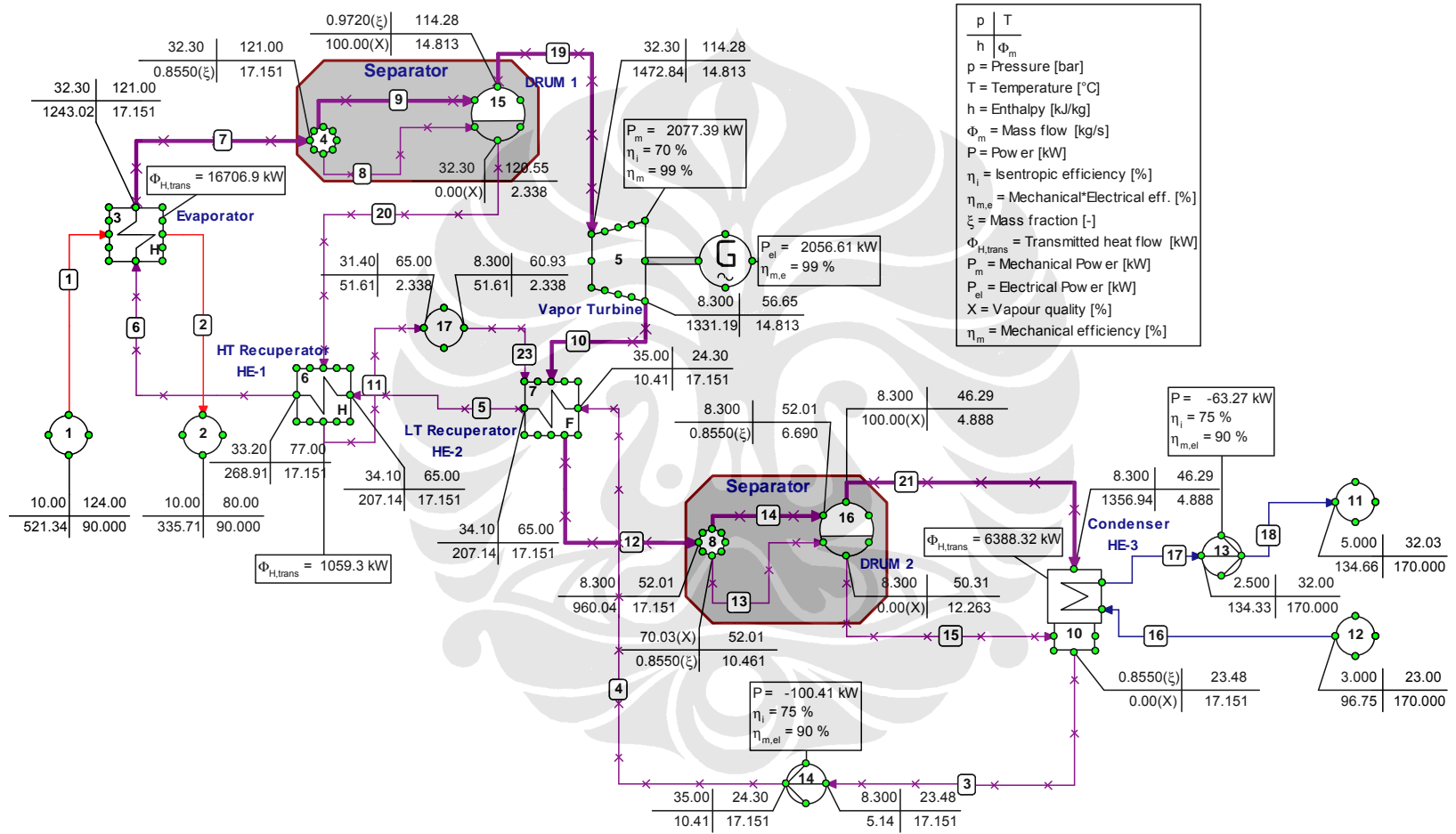
Skema 17. KCS 34 fraksi massa 84%, tekanan 8.8 bar



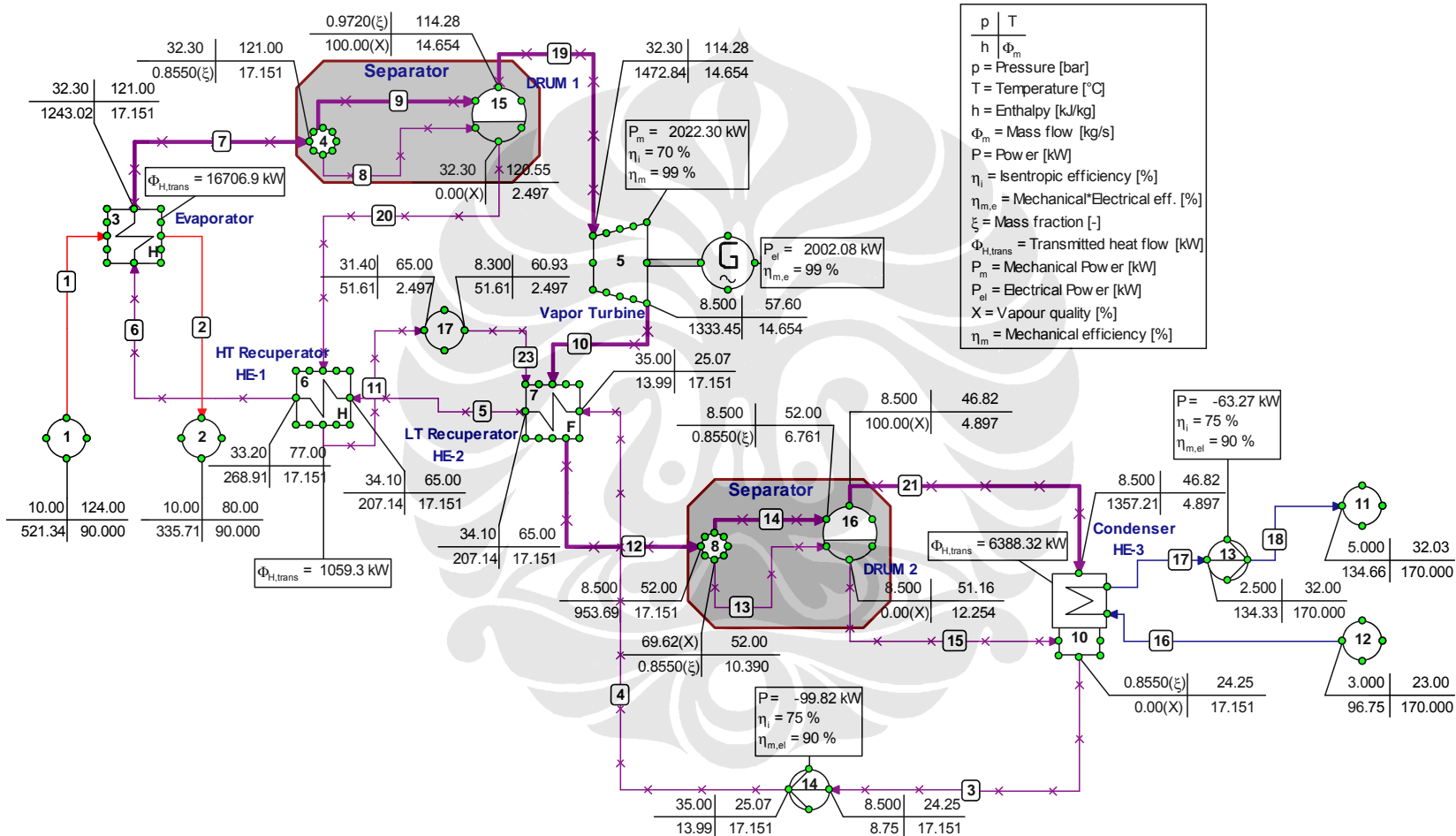
Skema 18. KCS 34 fraksi massa 84%, tekanan 9.2 bar



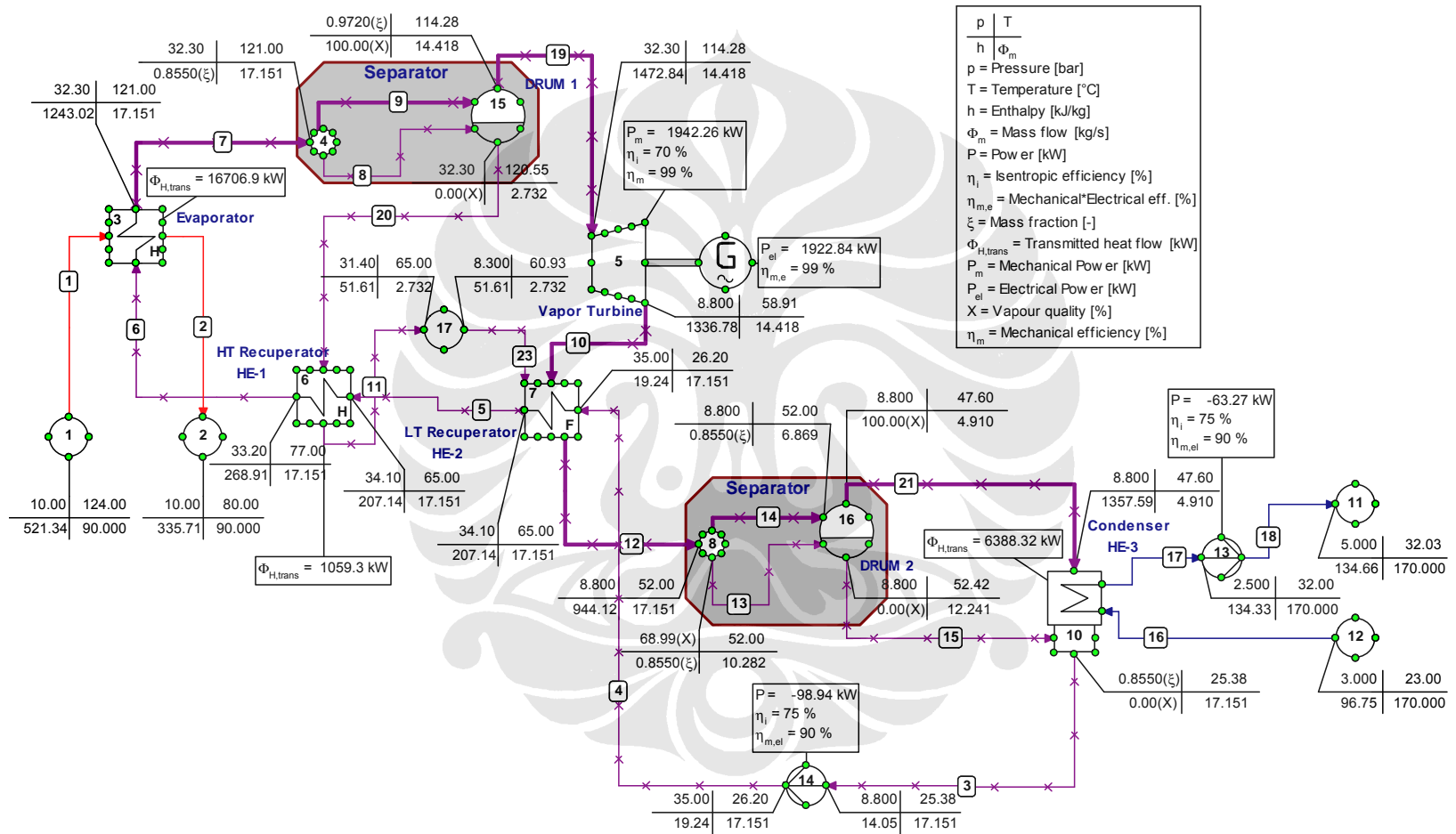
Skema 19. KCS 34 fraksi massa 84%, tekanan 9.5 bar



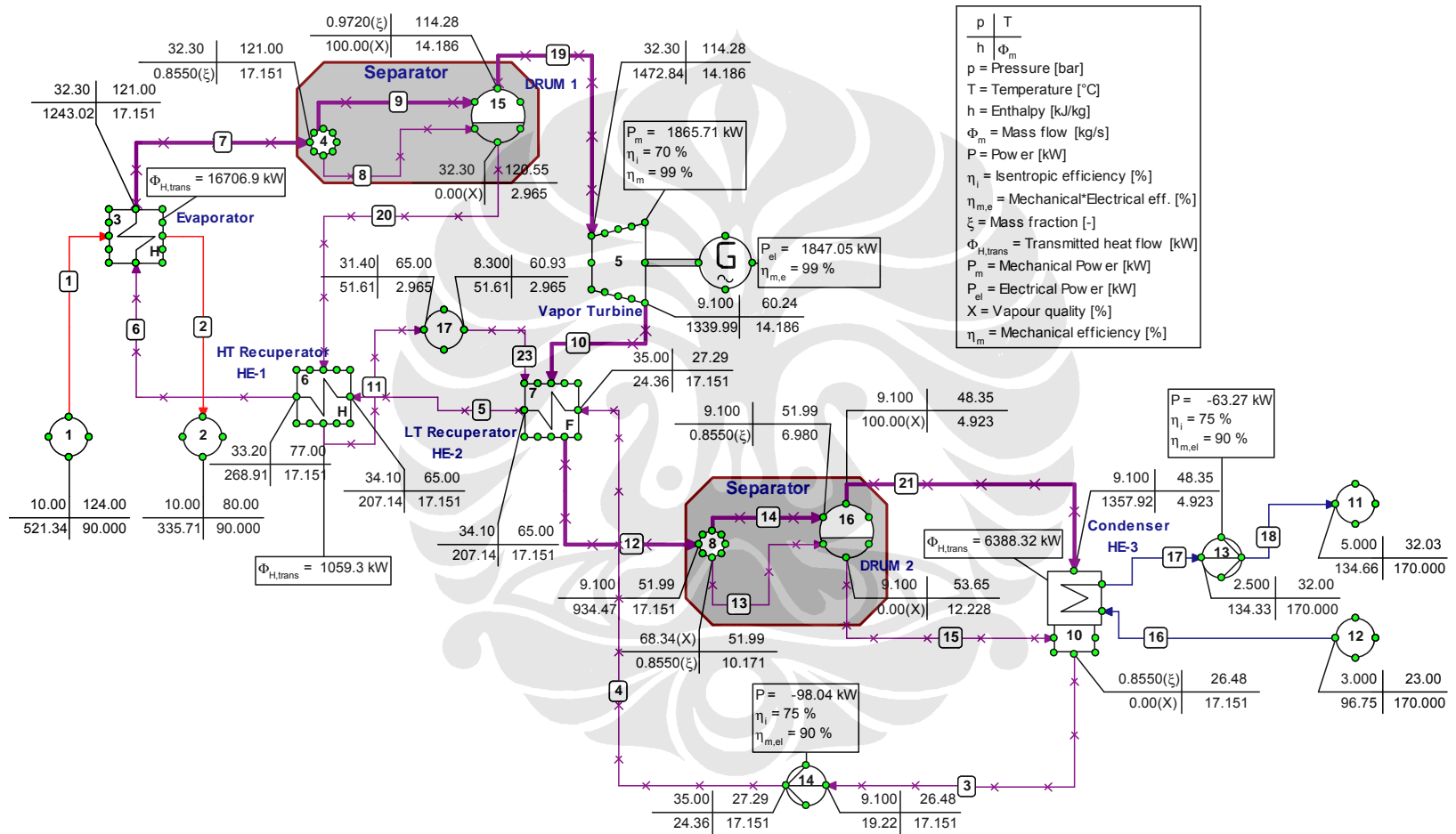
Skema 20. KCS 34 fraksi massa 85.5%, tekanan 8.3 bar



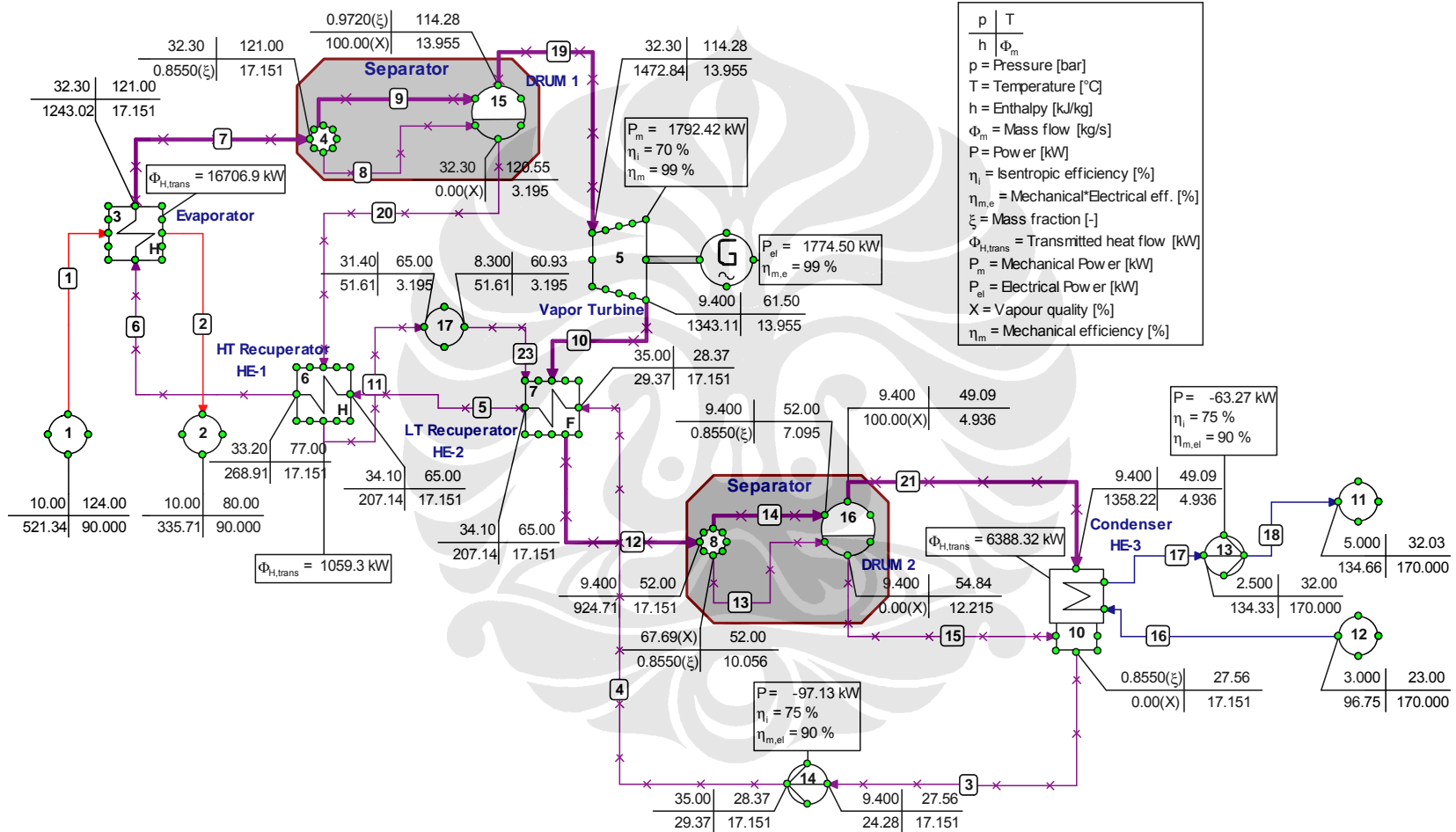
Skema 21. KCS 34 fraksi massa 85.5%, tekanan 8.5 bar



Skema 22. KCS 34 fraksi massa 85.5%, tekanan 8.8 bar

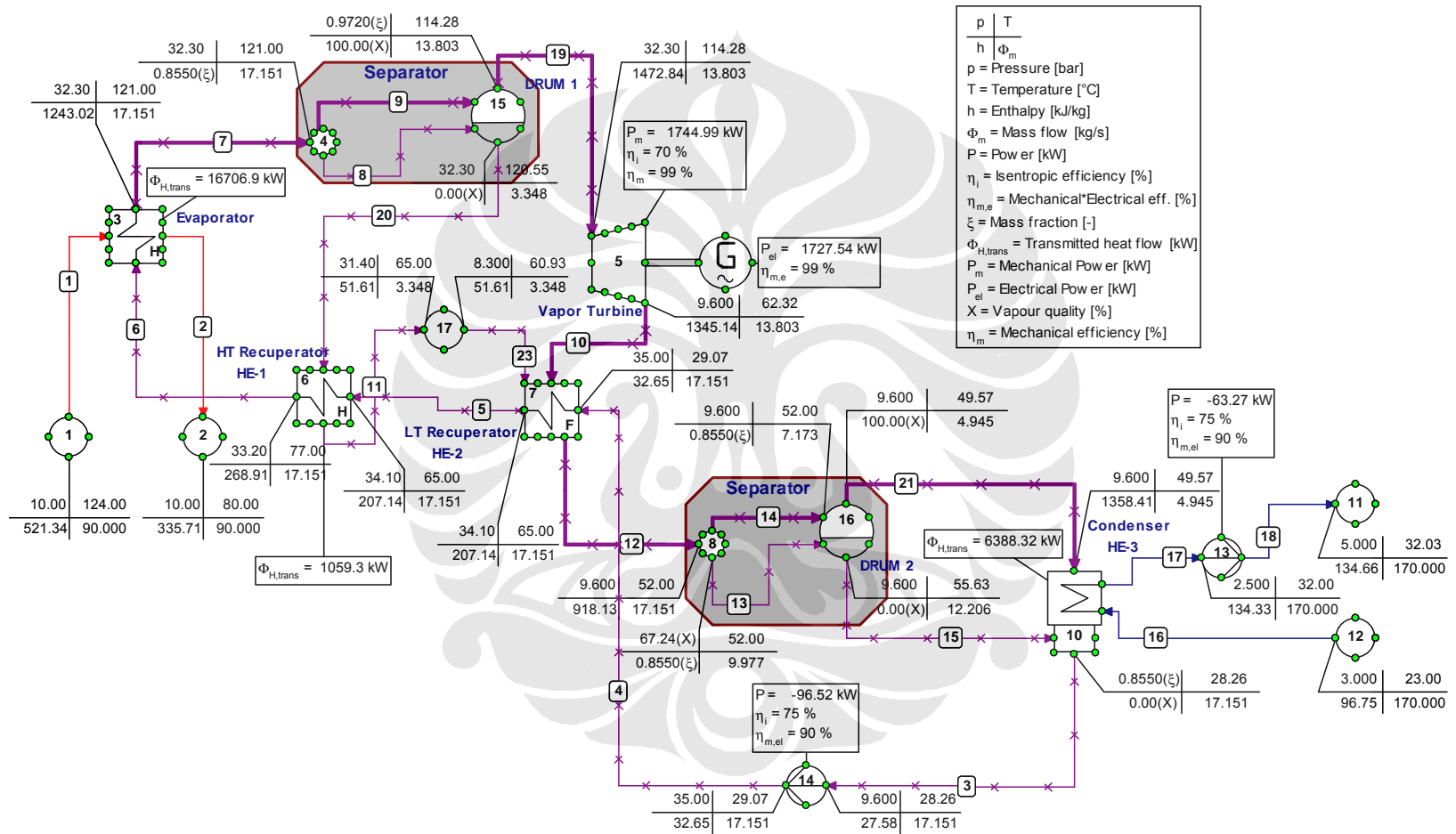


Skema 23. KCS 34 fraksi massa 85.5%, tekanan 9.1 bar



Skema 24. KCS 34 fraksi massa 85.5%, tekanan 9.4 bar





Skema 25. KCS 34 fraksi massa 85.5%, tekanan 9.6 bar

## Lampiran 2.

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 7.4 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	20174.36	20174.36	0	3433.67	3433.67	0
	20174.36	20174.36		3433.67	3433.67	
4	20072.11	20072.11	0	3508.84	3508.84	0
	20072.11	20072.11		3508.84	3508.84	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	209.94	209.94	0	841.99	841.99	0
	2106.73	2106.73		1372.9	1372.9	
9	1476.14	1476.14	0	5920.27	5920.27	0
	1476.14	1476.14		5920.27	5920.27	
10	905.89	905.89	0	3974.53	3974.53	0
	905.89	905.89		3974.53	3974.53	
11	1543.45	1543.45	0	218.29	218.29	0
	1543.45	1543.45		218.29	218.29	
12	3914.06	3914.06	0	3556.97	3556.97	0
	3914.06	3914.06		3556.97	3556.97	
13	2376.31	2376.31	0	2159.51	2159.51	0
	12248.28	12248.28		2084.65	2084.65	
14	1537.75	1537.75	0	1397.46	1397.46	0
	1537.75	1537.75		1397.46	1397.46	
15	7605.61	7605.61	0	774.87	774.87	0
	7605.61	7605.61		774.87	774.87	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1283.24	1283.24	0	7055.49	7055.49	0
	1283.24	1283.24		7055.49	7055.49	
20	95.73	95.73	0	466.29	466.29	0
	95.73	95.73		466.29	466.29	
21	21.39	21.39	0	1260.64	1260.64	0
	21.39	21.39		1260.64	1260.64	
23	1543.45	1543.45	0	203.82	203.82	0
	1543.45	1543.45		201.04	201.04	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 7.6 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	20096.22	20096.22	0	3432.53	3432.53	0
	20096.22	20096.22		3432.53	3432.53	
4	19994.54	19994.54	0	3507.38	3507.38	0
	19994.54	19994.54		3507.38	3507.38	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	181.46	181.46	0	727.76	727.76	0
	1820.91	1820.91		1186.64	1186.64	
9	1504.62	1504.62	0	6034.5	6034.5	0
	1504.62	1504.62		6034.5	6034.5	
10	856.44	856.44	0	3965.62	3965.62	0
	856.44	856.44		3965.62	3965.62	
11	1606.61	1606.61	0	227.22	227.22	0
	1606.61	1606.61		227.22	227.22	
12	4083.72	4083.72	0	3586.39	3586.39	0
	4083.72	4083.72		3586.39	3586.39	
13	2454.49	2454.49	0	2155.57	2155.57	0
	12078.66	12078.66		2063.1	2063.1	
14	1629.24	1629.24	0	1430.82	1430.82	0
	1629.24	1629.24		1430.82	1430.82	
15	7535.88	7535.88	0	778.3	778.3	0
	7535.88	7535.88		778.3	778.3	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1263.34	1263.34	0	6946.05	6946.05	0
	1263.34	1263.34		6946.05	6946.05	
20	99.65	99.65	0	485.37	485.37	0
	99.65	99.65		485.37	485.37	
21	19.81	19.81	0	1279.2	1279.2	0
	19.81	19.81		1279.2	1279.2	
23	1606.61	1606.61	0	212.16	212.16	0
	1606.61	1606.61		209.62	209.62	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 7,9 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19981.71	19981.71	0	3431.3	3431.3	0
	19981.71	19981.71		3431.3	3431.3	
4	19880.89	19880.89	0	3505.64	3505.64	0
	19880.89	19880.89		3505.64	3505.64	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	139.33	139.33	0	558.82	558.82	0
	1398.21	1398.21		911.18	911.18	
9	1546.74	1546.74	0	6203.44	6203.44	0
	1546.74	1546.74		6203.44	6203.44	
10	786.29	786.29	0	3948.86	3948.86	0
	786.29	786.29		3948.86	3948.86	
11	1700.02	1700.02	0	240.43	240.43	0
	1700.02	1700.02		240.43	240.43	
12	4338.68	4338.68	0	3629.26	3629.26	0
	4338.68	4338.68		3629.26	3629.26	
13	2566.84	2566.84	0	2147.14	2147.14	0
	11821.54	11821.54		2030.02	2030.02	
14	1771.84	1771.84	0	1482.12	1482.12	0
	1771.84	1771.84		1482.12	1482.12	
15	7433.76	7433.76	0	783.65	783.65	0
	7433.76	7433.76		783.65	783.65	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1233.9	1233.9	0	6784.2	6784.2	0
	1233.9	1233.9		6784.2	6784.2	
20	105.44	105.44	0	513.59	513.59	0
	105.44	105.44		513.59	513.59	
21	17.6	17.6	0	1306.29	1306.29	0
	17.6	17.6		1306.29	1306.29	
23	1700.02	1700.02	0	224.49	224.49	0
	1700.02	1700.02		223.36	223.36	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 8.2 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19870.23	19870.23	0	3430.6	3430.6	0
	19870.23	19870.23		3430.6	3430.6	
4	19770.29	19770.29	0	3504.42	3504.42	0
	19770.29	19770.29		3504.42	3504.42	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	97.8	97.8	0	392.24	392.24	0
	981.41	981.41		639.56	639.56	
9	1588.28	1588.28	0	6370.02	6370.02	0
	1588.28	1588.28		6370.02	6370.02	
10	720.42	720.42	0	3926.34	3926.34	0
	720.42	720.42		3926.34	3926.34	
11	1792.13	1792.13	0	253.46	253.46	0
	1792.13	1792.13		253.46	253.46	
12	4594.85	4594.85	0	3665.94	3665.94	0
	4594.85	4594.85		3665.94	3665.94	
13	2673.24	2673.24	0	2132.81	2132.81	0
	11560.29	11560.29		1995.89	1995.89	
14	1921.61	1921.61	0	1533.14	1533.14	0
	1921.61	1921.61		1533.14	1533.14	
15	7334.41	7334.41	0	789.22	789.22	0
	7334.41	7334.41		789.22	789.22	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1204.87	1204.87	0	6624.6	6624.6	0
	1204.87	1204.87		6624.6	6624.6	
20	111.15	111.15	0	541.42	541.42	0
	111.15	111.15		541.42	541.42	
21	15.59	15.59	0	1332.55	1332.55	0
	15.59	15.59		1332.55	1332.55	
23	1792.13	1792.13	0	236.66	236.66	0
	1792.13	1792.13		236.03	236.03	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 8.6 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19725.97	19725.97	0	3430.39	3430.39	0
	19725.97	19725.97		3430.39	3430.39	
4	19627.23	19627.23	0	3503.51	3503.51	0
	19627.23	19627.23		3503.51	3503.51	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	43.11	43.11	0	172.92	172.92	0
	432.65	432.65		281.95	281.95	
9	1642.96	1642.96	0	6589.34	6589.34	0
	1642.96	1642.96		6589.34	6589.34	
10	638.52	638.52	0	3889.03	3889.03	0
	638.52	638.52		3889.03	3889.03	
11	1913.4	1913.4	0	270.61	270.61	0
	1913.4	1913.4		270.61	270.61	
12	4939.48	4939.48	0	3714.18	3714.18	0
	4939.48	4939.48		3714.18	3714.18	
13	2805.44	2805.44	0	2109.51	2109.51	0
	11203.61	11203.61		1948.33	1948.33	
14	2134.04	2134.04	0	1604.66	1604.66	0
	2134.04	2134.04		1604.66	1604.66	
15	7205.96	7205.96	0	796.95	796.95	0
	7205.96	7205.96		796.95	796.95	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1166.65	1166.65	0	6414.48	6414.48	0
	1166.65	1166.65		6414.48	6414.48	
20	118.67	118.67	0	578.05	578.05	0
	118.67	118.67		578.05	578.05	
21	13.2	13.2	0	1366.36	1366.36	0
	13.2	13.2		1366.36	1366.36	
23	1913.4	1913.4	0	252.67	252.67	0
	1913.4	1913.4		252.17	252.17	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 78%, tekanan 8.9 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19620.84	19620.84	0	3430.74	3430.74	0
	19620.84	19620.84		3430.74	3430.74	
4	19523	19523	0	3503.31	3503.31	0
	19523	19523		3503.31	3503.31	
5	16212.02	16212.02	0	3680.56	3680.56	0
	16212.02	16212.02		3680.56	3680.56	
6	15020.84	15020.84	0	3820.04	3820.04	0
	15020.84	15020.84		3820.04	3820.04	
7	1686.08	1686.08	0	6762.26	6762.26	0
	1686.08	1686.08		6762.26	6762.26	
8	2.49	2.49	0	9.98	9.98	0
	24.96	24.96		16.27	16.27	
9	1683.59	1683.59	0	6752.28	6752.28	0
	1683.59	1683.59		6752.28	6752.28	
10	581.24	581.24	0	3855.8	3855.8	0
	581.24	581.24		3855.8	3855.8	
11	2003.49	2003.49	0	283.35	283.35	0
	2003.49	2003.49		283.35	283.35	
12	5201.15	5201.15	0	3745.1	3745.1	0
	5201.15	5201.15		3745.1	3745.1	
13	2896.9	2896.9	0	2085.92	2085.92	0
	10928.27	10928.27		1910.83	1910.83	
14	2304.25	2304.25	0	1659.18	1659.18	0
	2304.25	2304.25		1659.18	1659.18	
15	7112.42	7112.42	0	802.94	802.94	0
	7112.42	7112.42		802.94	802.94	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1138.26	1138.26	0	6258.37	6258.37	0
	1138.26	1138.26		6258.37	6258.37	
20	124.26	124.26	0	605.27	605.27	0
	124.26	124.26		605.27	605.27	
21	11.61	11.61	0	1390.89	1390.89	0
	11.61	11.61		1390.89	1390.89	
23	2003.49	2003.49	0	264.57	264.57	0
	2003.49	2003.49		265.02	265.02	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 7.8 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19812.69	19812.69	0	3603.18	3603.18	0
	19812.69	19812.69		3603.18	3603.18	
4	19715.86	19715.86	0	3674.35	3674.35	0
	19715.86	19715.86		3674.35	3674.35	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	223.12	223.12	0	864.98	864.98	0
	1758.47	1758.47		1286.93	1286.93	
9	1539.79	1539.79	0	5969.32	5969.32	0
	1539.79	1539.79		5969.32	5969.32	
10	841.75	841.75	0	4113.5	4113.5	0
	841.75	841.75		4113.5	4113.5	
11	1177.65	1177.65	0	166.55	166.55	0
	1177.65	1177.65		166.55	166.55	
12	3581.27	3581.27	0	3693.42	3693.42	0
	3581.27	3581.27		3693.42	3693.42	
13	2171.76	2171.76	0	2239.77	2239.77	0
	12014.86	12014.86		2185.05	2185.05	
14	1409.51	1409.51	0	1453.65	1453.65	0
	1409.51	1409.51		1453.65	1453.65	
15	6817.31	6817.31	0	713.77	713.77	0
	6817.31	6817.31		713.77	713.77	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1293.83	1293.83	0	7113.7	7113.7	0
	1293.83	1293.83		7113.7	7113.7	
20	73.04	73.04	0	355.78	355.78	0
	73.04	73.04		355.78	355.78	
21	19	19	0	1345.97	1345.97	0
	19	19		1345.97	1345.97	
23	1177.65	1177.65	0	155.51	155.51	0
	1177.65	1177.65		154.36	154.36	



Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 8.0 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19742.17	19742.17	0	3602.23	3602.23	0
	19742.17	19742.17		3602.23	3602.23	
4	19645.9	19645.9	0	3673.08	3673.08	0
	19645.9	19645.9		3673.08	3673.08	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	190.54	190.54	0	738.66	738.66	0
	1501.66	1501.66		1098.99	1098.99	
9	1572.37	1572.37	0	6095.64	6095.64	0
	1572.37	1572.37		6095.64	6095.64	
10	796.44	796.44	0	4109.86	4109.86	0
	796.44	796.44		4109.86	4109.86	
11	1232.68	1232.68	0	174.34	174.34	0
	1232.68	1232.68		174.34	174.34	
12	3724.49	3724.49	0	3723.81	3723.81	0
	3724.49	3724.49		3723.81	3723.81	
13	2239.06	2239.06	0	2238.65	2238.65	0
	11868.41	11868.41		2165.56	2165.56	
14	1485.44	1485.44	0	1485.17	1485.17	0
	1485.44	1485.44		1485.17	1485.17	
15	6755.46	6755.46	0	717.04	717.04	0
	6755.46	6755.46		717.04	717.04	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1276.48	1276.48	0	7018.34	7018.34	0
	1276.48	1276.48		7018.34	7018.34	
20	76.45	76.45	0	372.4	372.4	0
	76.45	76.45		372.4	372.4	
21	17.54	17.54	0	1364.48	1364.48	0
	17.54	17.54		1364.48	1364.48	
23	1232.68	1232.68	0	162.78	162.78	0
	1232.68	1232.68		161.52	161.52	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 8.2 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19672.89	19672.89	0	3601.5	3601.5	0
	19672.89	19672.89		3601.5	3601.5	
4	19577.17	19577.17	0	3672.03	3672.03	0
	19577.17	19577.17		3672.03	3672.03	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	158.29	158.29	0	613.65	613.65	0
	1247.53	1247.53		913	913	
9	1604.62	1604.62	0	6220.65	6220.65	0
	1604.62	1604.62		6220.65	6220.65	
10	752.98	752.98	0	4103.77	4103.77	0
	752.98	752.98		4103.77	4103.77	
11	1287.14	1287.14	0	182.04	182.04	0
	1287.14	1287.14		182.04	182.04	
12	3868.12	3868.12	0	3753.6	3753.6	0
	3868.12	3868.12		3753.6	3753.6	
13	2304.61	2304.61	0	2236.39	2236.39	0
	11721.07	11721.07		2145.77	2145.77	
14	1563.5	1563.5	0	1517.21	1517.21	0
	1563.5	1563.5		1517.21	1517.21	
15	6694.72	6694.72	0	720.39	720.39	0
	6694.72	6694.72		720.39	720.39	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1259.32	1259.32	0	6923.97	6923.97	0
	1259.32	1259.32		6923.97	6923.97	
20	79.83	79.83	0	388.86	388.86	0
	79.83	79.83		388.86	388.86	
21	16.18	16.18	0	1382.61	1382.61	0
	16.18	16.18		1382.61	1382.61	
23	1287.14	1287.14	0	169.97	169.97	0
	1287.14	1287.14		169.52	169.52	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 8.5 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19571.16	19571.16	0	3600.79	3600.79	0
	19571.16	19571.16		3600.79	3600.79	
4	19476.29	19476.29	0	3670.83	3670.83	0
	19476.29	19476.29		3670.83	3670.83	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	110.44	110.44	0	428.16	428.16	0
	870.43	870.43		637.03	637.03	
9	1652.47	1652.47	0	6406.13	6406.13	0
	1652.47	1652.47		6406.13	6406.13	
10	690.85	690.85	0	4089.47	4089.47	0
	690.85	690.85		4089.47	4089.47	
11	1367.95	1367.95	0	193.47	193.47	0
	1367.95	1367.95		193.47	193.47	
12	4084.68	4084.68	0	3793.82	3793.82	0
	4084.68	4084.68		3793.82	3793.82	
13	2399.71	2399.71	0	2228.83	2228.83	0
	11497.87	11497.87		2115.43	2115.43	
14	1684.97	1684.97	0	1564.99	1564.99	0
	1684.97	1684.97		1564.99	1564.99	
15	6605.6	6605.6	0	725.56	725.56	0
	6605.6	6605.6		725.56	725.56	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1233.85	1233.85	0	6783.95	6783.95	0
	1233.85	1233.85		6783.95	6783.95	
20	84.84	84.84	0	413.27	413.27	0
	84.84	84.84		413.27	413.27	
21	14.29	14.29	0	1409.15	1409.15	0
	14.29	14.29		1409.15	1409.15	
23	1367.95	1367.95	0	180.64	180.64	0
	1367.95	1367.95		180.7	180.7	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 8.8 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19471.92	19471.92	0	3600.51	3600.51	0
	19471.92	19471.92		3600.51	3600.51	
4	19377.9	19377.9	0	3670.04	3670.04	0
	19377.9	19377.9		3670.04	3670.04	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	63.05	63.05	0	244.43	244.43	0
	496.92	496.92		363.67	363.67	
9	1699.86	1699.86	0	6589.86	6589.86	0
	1699.86	1699.86		6589.86	6589.86	
10	631.71	631.71	0	4073.95	4073.95	0
	631.71	631.71		4073.95	4073.95	
11	1448	1448	0	204.79	204.79	0
	1448	1448		204.79	204.79	
12	4303.13	4303.13	0	3835	3835	0
	4303.13	4303.13		3835	3835	
13	2490.87	2490.87	0	2219.89	2219.89	0
	11271.34	11271.34		2084.16	2084.16	
14	1812.26	1812.26	0	1615.11	1615.11	0
	1812.26	1812.26		1615.11	1615.11	
15	6518.73	6518.73	0	730.89	730.89	0
	6518.73	6518.73		730.89	730.89	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1208.63	1208.63	0	6645.25	6645.25	0
	1208.63	1208.63		6645.25	6645.25	
20	89.81	89.81	0	437.45	437.45	0
	89.81	89.81		437.45	437.45	
21	12.58	12.58	0	1434.93	1434.93	0
	12.58	12.58		1434.93	1434.93	
23	1448	1448	0	191.21	191.21	0
	1448	1448		191.95	191.95	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 81%, tekanan 9.2 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19343.21	19343.21	0	3600.74	3600.74	0
	19343.21	19343.21		3600.74	3600.74	
4	19250.35	19250.35	0	3669.57	3669.57	0
	19250.35	19250.35		3669.57	3669.57	
5	16076.52	16076.52	0	3837.72	3837.72	0
	16076.52	16076.52		3837.72	3837.72	
6	14944	14944	0	3969.09	3969.09	0
	14944	14944		3969.09	3969.09	
7	1762.91	1762.91	0	6834.3	6834.3	0
	1762.91	1762.91		6834.3	6834.3	
8	0.46	0.46	0	1.77	1.77	0
	3.61	3.61		2.64	2.64	
9	1762.45	1762.45	0	6832.52	6832.52	0
	1762.45	1762.45		6832.52	6832.52	
10	557.91	557.91	0	4042.39	4042.39	0
	557.91	557.91		4042.39	4042.39	
11	1553.72	1553.72	0	219.74	219.74	0
	1553.72	1553.72		219.74	219.74	
12	4598.33	4598.33	0	3880.35	3880.35	0
	4598.33	4598.33		3880.35	3880.35	
13	2606.07	2606.07	0	2199.16	2199.16	0
	10962.62	10962.62		2040.69	2040.69	
14	1992.26	1992.26	0	1681.19	1681.19	0
	1992.26	1992.26		1681.19	1681.19	
15	6406.16	6406.16	0	738.22	738.22	0
	6406.16	6406.16		738.22	738.22	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1175.31	1175.31	0	6462.07	6462.07	0
	1175.31	1175.31		6462.07	6462.07	
20	96.37	96.37	0	469.39	469.39	0
	96.37	96.37		469.39	469.39	
21	10.56	10.56	0	1468.23	1468.23	0
	10.56	10.56		1468.23	1468.23	
23	1553.72	1553.72	0	205.17	205.17	0
	1553.72	1553.72		206.39	206.39	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 8.1 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19517.92	19517.92	0	3774.06	3774.06	0
	19517.92	19517.92		3774.06	3774.06	
4	19425.47	19425.47	0	3842	3842	0
	19425.47	19425.47		3842	3842	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	265.98	265.98	0	1002.15	1002.15	0
	1623.25	1623.25		1367.34	1367.34	
9	1567.46	1567.46	0	5905.91	5905.91	0
	1567.46	1567.46		5905.91	5905.91	
10	803.51	803.51	0	4261.6	4261.6	0
	803.51	803.51		4261.6	4261.6	
11	819.04	819.04	0	115.84	115.84	0
	819.04	819.04		115.84	115.84	
12	3166.78	3166.78	0	3819.7	3819.7	0
	3166.78	3166.78		3819.7	3819.7	
13	1929.53	1929.53	0	2327.36	2327.36	0
	11892.36	11892.36		2299.55	2299.55	
14	1237.25	1237.25	0	1492.34	1492.34	0
	1237.25	1237.25		1492.34	1492.34	
15	6152.15	6152.15	0	657.49	657.49	0
	6152.15	6152.15		657.49	657.49	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1315.79	1315.79	0	7234.45	7234.45	0
	1315.79	1315.79		7234.45	7234.45	
20	50.8	50.8	0	247.44	247.44	0
	50.8	50.8		247.44	247.44	
21	17.49	17.49	0	1425.65	1425.65	0
	17.49	17.49		1425.65	1425.65	
23	819.04	819.04	0	108.16	108.16	0
	819.04	819.04		107.59	107.59	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 8.2 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19485.44	19485.44	0	3773.61	3773.61	0
	19485.44	19485.44		3773.61	3773.61	
4	19393.26	19393.26	0	3841.39	3841.39	0
	19393.26	19393.26		3841.39	3841.39	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	246.72	246.72	0	929.59	929.59	0
	1505.71	1505.71		1268.33	1268.33	
9	1586.71	1586.71	0	5978.48	5978.48	0
	1586.71	1586.71		5978.48	5978.48	
10	782.2	782.2	0	4263.02	4263.02	0
	782.2	782.2		4263.02	4263.02	
11	843.16	843.16	0	119.25	119.25	0
	843.16	843.16		119.25	119.25	
12	3226.56	3226.56	0	3835.49	3835.49	0
	3226.56	3226.56		3835.49	3835.49	
13	1958.8	1958.8	0	2328.48	2328.48	0
	11829.36	11829.36		2290.91	2290.91	
14	1267.76	1267.76	0	1507.01	1507.01	0
	1267.76	1267.76		1507.01	1507.01	
15	6124.2	6124.2	0	659	659	0
	6124.2	6124.2		659	659	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1308.19	1308.19	0	7192.66	7192.66	0
	1308.19	1308.19		7192.66	7192.66	
20	52.3	52.3	0	254.73	254.73	0
	52.3	52.3		254.73	254.73	
21	16.79	16.79	0	1435.05	1435.05	0
	16.79	16.79		1435.05	1435.05	
23	843.16	843.16	0	111.34	111.34	0
	843.16	843.16		111.05	111.05	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 8.5 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19389.63	19389.63	0	3772.54	3772.54	0
	19389.63	19389.63		3772.54	3772.54	
4	19298.26	19298.26	0	3839.86	3839.86	0
	19298.26	19298.26		3839.86	3839.86	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	189.38	189.38	0	713.55	713.55	0
	1155.78	1155.78		973.57	973.57	
9	1644.05	1644.05	0	6194.52	6194.52	0
	1644.05	1644.05		6194.52	6194.52	
10	719.8	719.8	0	4260.84	4260.84	0
	719.8	719.8		4260.84	4260.84	
11	914.97	914.97	0	129.4	129.4	0
	914.97	914.97		129.4	129.4	
12	3406.48	3406.48	0	3881.99	3881.99	0
	3406.48	3406.48		3881.99	3881.99	
13	2044.94	2044.94	0	2330.4	2330.4	0
	11639.77	11639.77		2264.69	2264.69	
14	1361.54	1361.54	0	1551.6	1551.6	0
	1361.54	1361.54		1551.6	1551.6	
15	6041.81	6041.81	0	663.63	663.63	0
	6041.81	6041.81		663.63	663.63	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1285.56	1285.56	0	7068.22	7068.22	0
	1285.56	1285.56		7068.22	7068.22	
20	56.75	56.75	0	276.42	276.42	0
	56.75	56.75		276.42	276.42	
21	14.83	14.83	0	1462.7	1462.7	0
	14.83	14.83		1462.7	1462.7	
23	914.97	914.97	0	120.83	120.83	0
	914.97	914.97		120.87	120.87	



Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 8.8 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19296.17	19296.17	0	3771.89	3771.89	0
	19296.17	19296.17		3771.89	3771.89	
4	19205.61	19205.61	0	3838.73	3838.73	0
	19205.61	19205.61		3838.73	3838.73	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	132.71	132.71	0	500.02	500.02	0
	809.92	809.92		682.23	682.23	
9	1700.72	1700.72	0	6408.04	6408.04	0
	1700.72	1700.72		6408.04	6408.04	
10	660.23	660.23	0	4257.85	4257.85	0
	660.23	660.23		4257.85	4257.85	
11	985.95	985.95	0	139.44	139.44	0
	985.95	985.95		139.44	139.44	
12	3587.67	3587.67	0	3925.19	3925.19	0
	3587.67	3587.67		3925.19	3925.19	
13	2128.64	2128.64	0	2328.89	2328.89	0
	11448.82	11448.82		2237.94	2237.94	
14	1459.03	1459.03	0	1596.29	1596.29	0
	1459.03	1459.03		1596.29	1596.29	
15	5961.5	5961.5	0	668.42	668.42	0
	5961.5	5961.5		668.42	668.42	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1263.19	1263.19	0	6945.23	6945.23	0
	1263.19	1263.19		6945.23	6945.23	
20	61.15	61.15	0	297.87	297.87	0
	61.15	61.15		297.87	297.87	
21	13.06	13.06	0	1489.57	1489.57	0
	13.06	13.06		1489.57	1489.57	
23	985.95	985.95	0	130.2	130.2	0
	985.95	985.95		130.7	130.7	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 9.2 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19174.95	19174.95	0	3771.6	3771.6	0
	19174.95	19174.95		3771.6	3771.6	
4	19085.49	19085.49	0	3837.78	3837.78	0
	19085.49	19085.49		3837.78	3837.78	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	58.07	58.07	0	218.8	218.8	0
	354.41	354.41		298.54	298.54	
9	1775.36	1775.36	0	6689.26	6689.26	0
	1775.36	1775.36		6689.26	6689.26	
10	585.64	585.64	0	4243.3	4243.3	0
	585.64	585.64		4243.3	4243.3	
11	1079.44	1079.44	0	152.66	152.66	0
	1079.44	1079.44		152.66	152.66	
12	3832.05	3832.05	0	3979.51	3979.51	0
	3832.05	3832.05		3979.51	3979.51	
13	2236.5	2236.5	0	2322.56	2322.56	0
	11191.07	11191.07		2201.22	2201.22	
14	1595.55	1595.55	0	1656.95	1656.95	0
	1595.55	1595.55		1656.95	1656.95	
15	5857.45	5857.45	0	674.99	674.99	0
	5857.45	5857.45		674.99	674.99	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1233.73	1233.73	0	6783.25	6783.25	0
	1233.73	1233.73		6783.25	6783.25	
20	66.95	66.95	0	326.11	326.11	0
	66.95	66.95		326.11	326.11	
21	10.97	10.97	0	1524.28	1524.28	0
	10.97	10.97		1524.28	1524.28	
23	1079.44	1079.44	0	142.54	142.54	0
	1079.44	1079.44		143.39	143.39	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 84%, tekanan 9.5 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19086.42	19086.42	0	3771.79	3771.79	0
	19086.42	19086.42		3771.79	3771.79	
4	18997.8	18997.8	0	3837.46	3837.46	0
	18997.8	18997.8		3837.46	3837.46	
5	15955.52	15955.52	0	3997.77	3997.77	0
	15955.52	15955.52		3997.77	3997.77	
6	14873.48	14873.48	0	4124.17	4124.17	0
	14873.48	14873.48		4124.17	4124.17	
7	1833.43	1833.43	0	6908.07	6908.07	0
	1833.43	1833.43		6908.07	6908.07	
8	2.72	2.72	0	10.25	10.25	0
	16.61	16.61		13.99	13.99	
9	1830.71	1830.71	0	6897.81	6897.81	0
	1830.71	1830.71		6897.81	6897.81	
10	533.74	533.74	0	4229.57	4229.57	0
	533.74	533.74		4229.57	4229.57	
11	1148.76	1148.76	0	162.47	162.47	0
	1148.76	1148.76		162.47	162.47	
12	4018.09	4018.09	0	4017.84	4017.84	0
	4018.09	4018.09		4017.84	4017.84	
13	2314.59	2314.59	0	2314.45	2314.45	0
	10994.59	10994.59		2172.71	2172.71	
14	1703.5	1703.5	0	1703.39	1703.39	0
	1703.5	1703.5		1703.39	1703.39	
15	5781.53	5781.53	0	680.06	680.06	0
	5781.53	5781.53		680.06	680.06	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1211.88	1211.88	0	6663.13	6663.13	0
	1211.88	1211.88		6663.13	6663.13	
20	71.25	71.25	0	347.05	347.05	0
	71.25	71.25		347.05	347.05	
21	9.59	9.59	0	1549.54	1549.54	0
	9.59	9.59		1549.54	1549.54	
23	1148.76	1148.76	0	151.7	151.7	0
	1148.76	1148.76		152.52	152.52	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 8.3 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	18979.22	18979.22	0	3857.63	3857.63	0
	18979.22	18979.22		3857.63	3857.63	
4	18892.35	18892.35	0	3921.98	3921.98	0
	18892.35	18892.35		3921.98	3921.98	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	17.05	17.05	0	63.42	63.42	0
	90.72	90.72		83.01	83.01	
9	1849.56	1849.56	0	6881.65	6881.65	0
	1849.56	1849.56		6881.65	6881.65	
10	529.19	529.19	0	4325.24	4325.24	0
	529.19	529.19		4325.24	4325.24	
11	949.37	949.37	0	134.27	134.27	0
	949.37	949.37		134.27	134.27	
12	3705.57	3705.57	0	4079.48	4079.48	0
	3705.57	3705.57		4079.48	4079.48	
13	2155.69	2155.69	0	2373.21	2373.21	0
	11041.01	11041.01		2244.14	2244.14	
14	1549.88	1549.88	0	1706.27	1706.27	0
	1549.88	1549.88		1706.27	1706.27	
15	5507.12	5507.12	0	652.22	652.22	0
	5507.12	5507.12		652.22	652.22	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1233.43	1233.43	0	6781.61	6781.61	0
	1233.43	1233.43		6781.61	6781.61	
20	58.88	58.88	0	286.81	286.81	0
	58.88	58.88		286.81	286.81	
21	9.34	9.34	0	1587.01	1587.01	0
	9.34	9.34		1587.01	1587.01	
23	949.37	949.37	0	125.37	125.37	0
	949.37	949.37		125.82	125.82	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 8.5 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19035.96	19035.96	0	3857.5	3857.5	0
	19035.96	19035.96		3857.5	3857.5	
4	18948.55	18948.55	0	3922.2	3922.2	0
	18948.55	18948.55		3922.2	3922.2	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	57.85	57.85	0	215.24	215.24	0
	307.9	307.9		281.71	281.71	
9	1808.76	1808.76	0	6729.84	6729.84	0
	1808.76	1808.76		6729.84	6729.84	
10	563.46	563.46	0	4331.52	4331.52	0
	563.46	563.46		4331.52	4331.52	
11	906.08	906.08	0	128.15	128.15	0
	906.08	906.08		128.15	128.15	
12	3592.7	3592.7	0	4053.67	4053.67	0
	3592.7	3592.7		4053.67	4053.67	
13	2106.53	2106.53	0	2376.81	2376.81	0
	11161.47	11161.47		2261.79	2261.79	
14	1486.17	1486.17	0	1676.86	1676.86	0
	1486.17	1486.17		1676.86	1676.86	
15	5555.27	5555.27	0	648.99	648.99	0
	5555.27	5555.27		648.99	648.99	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1247.07	1247.07	0	6856.62	6856.62	0
	1247.07	1247.07		6856.62	6856.62	
20	56.2	56.2	0	273.74	273.74	0
	56.2	56.2		273.74	273.74	
21	10.22	10.22	0	1570.04	1570.04	0
	10.22	10.22		1570.04	1570.04	
23	906.08	906.08	0	119.65	119.65	0
	906.08	906.08		120.52	120.52	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 8.8 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19122.68	19122.68	0	3857.59	3857.59	0
	19122.68	19122.68		3857.59	3857.59	
4	19034.45	19034.45	0	3922.77	3922.77	0
	19034.45	19034.45		3922.77	3922.77	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	119.4	119.4	0	444.27	444.27	0
	635.52	635.52		581.47	581.47	
9	1747.21	1747.21	0	6500.81	6500.81	0
	1747.21	1747.21		6500.81	6500.81	
10	616.9	616.9	0	4337.63	4337.63	0
	616.9	616.9		4337.63	4337.63	
11	840.78	840.78	0	118.91	118.91	0
	840.78	840.78		118.91	118.91	
12	3425.3	3425.3	0	4013.99	4013.99	0
	3425.3	3425.3		4013.99	4013.99	
13	2031.32	2031.32	0	2380.43	2380.43	0
	11340.37	11340.37		2287.68	2287.68	
14	1393.99	1393.99	0	1633.56	1633.56	0
	1393.99	1393.99		1633.56	1633.56	
15	5628.9	5628.9	0	644.23	644.23	0
	5628.9	5628.9		644.23	644.23	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1267.65	1267.65	0	6969.77	6969.77	0
	1267.65	1267.65		6969.77	6969.77	
20	52.15	52.15	0	254.01	254.01	0
	52.15	52.15		254.01	254.01	
21	11.68	11.68	0	1544.03	1544.03	0
	11.68	11.68		1544.03	1544.03	
23	840.78	840.78	0	111.03	111.03	0
	840.78	840.78		111.33	111.33	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 9.1 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19211.41	19211.41	0	3858.02	3858.02	0
	19211.41	19211.41		3858.02	3858.02	
4	19122.37	19122.37	0	3923.68	3923.68	0
	19122.37	19122.37		3923.68	3923.68	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	181.61	181.61	0	675.71	675.71	0
	966.59	966.59		884.39	884.39	
9	1685	1685	0	6269.37	6269.37	0
	1685	1685		6269.37	6269.37	
10	673.43	673.43	0	4343	4343	0
	673.43	673.43		4343	4343	
11	774.79	774.79	0	109.58	109.58	0
	774.79	774.79		109.58	109.58	
12	3259.78	3259.78	0	3969.14	3969.14	0
	3259.78	3259.78		3969.14	3969.14	
13	1954.3	1954.3	0	2379.58	2379.58	0
	11517.61	11517.61		2312.96	2312.96	
14	1305.48	1305.48	0	1589.57	1589.57	0
	1305.48	1305.48		1589.57	1589.57	
15	5704.31	5704.31	0	639.58	639.58	0
	5704.31	5704.31		639.58	639.58	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1288.45	1288.45	0	7084.12	7084.12	0
	1288.45	1288.45		7084.12	7084.12	
20	48.05	48.05	0	234.07	234.07	0
	48.05	48.05		234.07	234.07	
21	13.3	13.3	0	1517.34	1517.34	0
	13.3	13.3		1517.34	1517.34	
23	774.79	774.79	0	102.31	102.31	0
	774.79	774.79		102.71	102.71	

Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 9.4 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19302.28	19302.28	0	3858.82	3858.82	0
	19302.28	19302.28		3858.82	3858.82	
4	19212.43	19212.43	0	3924.95	3924.95	0
	19212.43	19212.43		3924.95	3924.95	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	244.61	244.61	0	910.12	910.12	0
	1301.92	1301.92		1191.19	1191.19	
9	1622	1622	0	6034.95	6034.95	0
	1622	1622		6034.95	6034.95	
10	733.22	733.22	0	4340.24	4340.24	0
	733.22	733.22		4340.24	4340.24	
11	707.95	707.95	0	100.12	100.12	0
	707.95	707.95		100.12	100.12	
12	3095.68	3095.68	0	3923.13	3923.13	0
	3095.68	3095.68		3923.13	3923.13	
13	1875.42	1875.42	0	2376.71	2376.71	0
	11693.7	11693.7		2337.75	2337.75	
14	1220.26	1220.26	0	1546.42	1546.42	0
	1220.26	1220.26		1546.42	1546.42	
15	5781.61	5781.61	0	635.05	635.05	0
	5781.61	5781.61		635.05	635.05	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1309.51	1309.51	0	7199.94	7199.94	0
	1309.51	1309.51		7199.94	7199.94	
20	43.91	43.91	0	213.88	213.88	0
	43.91	43.91		213.88	213.88	
21	15.11	15.11	0	1489.91	1489.91	0
	15.11	15.11		1489.91	1489.91	
23	707.95	707.95	0	93.49	93.49	0
	707.95	707.95		93.52	93.52	



Tabel Energi dan exergi pada pipa KCS 34 fraksi massa 85.5%, tekanan 9.6 bar

Pipe no.	Total Energy flow [kW]	Therm.Mec. Energy flow [kW]	Chemical energy [kW]	Total Exergy flow [kW]	Therm.Mec. Exergy flow [kW]	Chemical exergy [kW]
1	35595.49	35595.49	0	4674.46	4674.46	0
	35595.49	35595.49		4674.46	4674.46	
2	18888.58	18888.58	0	1481.72	1481.72	0
	18888.58	18888.58		1481.72	1481.72	
3	19364.11	19364.11	0	3859.58	3859.58	0
	19364.11	19364.11		3859.58	3859.58	
4	19273.74	19273.74	0	3926.01	3926.01	0
	19273.74	19273.74		3926.01	3926.01	
5	15899.6	15899.6	0	4078.74	4078.74	0
	15899.6	15899.6		4078.74	4078.74	
6	14840.3	14840.3	0	4202.64	4202.64	0
	14840.3	14840.3		4202.64	4202.64	
7	1866.61	1866.61	0	6945.08	6945.08	0
	1866.61	1866.61		6945.08	6945.08	
8	287.07	287.07	0	1068.1	1068.1	0
	1527.91	1527.91		1397.97	1397.97	
9	1579.54	1579.54	0	5876.97	5876.97	0
	1579.54	1579.54		5876.97	5876.97	
10	774.66	774.66	0	4339.66	4339.66	0
	774.66	774.66		4339.66	4339.66	
11	662.9	662.9	0	93.75	93.75	0
	662.9	662.9		93.75	93.75	
12	2986.85	2986.85	0	3890.46	3890.46	0
	2986.85	2986.85		3890.46	3890.46	
13	1821.76	1821.76	0	2372.9	2372.9	0
	11810.7	11810.7		2354.06	2354.06	
14	1165.09	1165.09	0	1517.56	1517.56	0
	1165.09	1165.09		1517.56	1517.56	
15	5834.25	5834.25	0	632.11	632.11	0
	5834.25	5834.25		632.11	632.11	
16	4944.29	4944.29	0	92.27	92.27	0
	4944.29	4944.29		92.27	92.27	
17	1444.03	1444.03	0	30.05	30.05	0
	1444.03	1444.03		30.05	30.05	
18	1500.98	1500.98	0	72.85	72.85	0
	1500.98	1500.98		72.85	72.85	
19	1323.71	1323.71	0	7277.99	7277.99	0
	1323.71	1323.71		7277.99	7277.99	
20	41.12	41.12	0	200.27	200.27	0
	41.12	41.12		200.27	200.27	
21	16.42	16.42	0	1471.19	1471.19	0
	16.42	16.42		1471.19	1471.19	
23	662.9	662.9	0	87.54	87.54	0
	662.9	662.9		87.54	87.54	

### Lampiran 3

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 7.4 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2145.56		2145.56	
					2145.56		2145.56
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	113.61		113.61	
					176.88		176.88
Delivered net power							
					1968.68		1968.68
Efisiensi	gross (%)			12.84235		67.20121	
	net (%)			11.23932		61.66114	

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 7.6 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2077.59		2077.59	
					2077.59		2077.59
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	112.98		112.98	
					176.25		176.25
Delivered net power							
					1901.34		1901.34
Efisiensi	gross (%)			12.43551		65.07232	
	net (%)			10.85487		59.55198	

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 7.9 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1979.99	1979.99	1979.99	1979.99
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	112.01		112.01	
					175.28		175.28
Delivered net power					1804.71		1804.71
Efisiensi gross (%)				11.85132		62.01538	
Efisiensi net (%)				10.3032		56.52543	

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 8.2 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1886.98	1886.98	1886.98	1886.98
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	111.04		111.04	
					174.31		174.31
Delivered net power					1712.67		1712.67
Efisiensi gross (%)				11.29461		59.10221	
Efisiensi net (%)				9.77774		53.64264	

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 8.6 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1769.25	1769.25	1769.25	1769.25
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	109.72		109.72	
					172.99		172.99
Delivered net power					1596.26		1596.26
Efisiensi	gross (%)			10.58993		55.41478	
	net (%)			9.113148		49.99655	

Tabel Effisiensi sistem KCS 34 fraksi massa 78%, tekanan 8.9 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1685.28	1685.28	1685.28	1685.28
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	108.72		108.72	
					171.99		171.99
Delivered net power					1513.29		1513.29
Efisiensi	gross (%)			10.08732		52.78476	
	net (%)			8.639468		47.39785	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 7.8 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2093.08		2093.08	
					2093.08		2093.08
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	107.59		107.59	
					170.86		170.86
Delivered net power					1922.22		1922.22
Efisiensi	gross (%)			12.52823		65.55748	
	net (%)			10.97407		60.20597	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 8.0 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2031.67		2031.67	
					2031.67		2031.67
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	106.97		106.97	
					170.24		170.24
Delivered net power					1861.43		1861.43
Efisiensi	gross (%)			12.16066		63.63406	
	net (%)			10.62702		58.30196	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 8.2 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1972.25		1972.25	
					1972.25		1972.25
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	106.35		106.35	
					169.62		169.62
Delivered net power					1802.63		1802.63
Efisiensi gross (%)				11.805		61.77296	
Efisiensi net (%)				10.29133		56.46028	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 8.5 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1886.4		1886.4	
					1886.4		1886.4
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	105.41		105.41	
					168.68		168.68
Delivered net power					1717.72		1717.72
Efisiensi gross (%)				11.29114		59.08405	
Efisiensi net (%)				9.806571		53.80081	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 8.8 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1803.72		1803.72	
					1803.72		1803.72
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	104.46		104.46	
					167.73		167.73
Delivered net power					1635.99		1635.99
Efisiensi gross (%)				10.79625		56.49442	
Efisiensi net (%)				9.33997		51.24094	

Tabel Effisiensi sistem KCS 34 fraksi massa 81%, tekanan 9.2 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1698.73		1698.73	
					1698.73		1698.73
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	103.18		103.18	
					166.45		166.45
Delivered net power					1532.28		1532.28
Efisiensi gross (%)				10.16783		53.20602	
Efisiensi net (%)				8.747883		47.99263	

Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 8.1 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2077.12		2077.12	
					2077.12		2077.12
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	102.73		102.73	
					166		166
Delivered net power					1911.12		1911.12
Efisiensi	gross (%)			12.4327		65.0576	
	net (%)			10.9107		59.8583	

Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 8.2 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2048.79		2048.79	
					2048.79		2048.79
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	102.43		102.43	
					165.7		165.7
Delivered net power					1883.09		1883.09
Efisiensi	gross (%)			12.26313		64.17027	
	net (%)			10.75068		58.98037	



Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 8.5 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1965.45		1965.45	
					1965.45		1965.45
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	101.53		101.53	
					164.8		164.8
Delivered net power					1800.65		1800.65
Efisiensi gross (%)				11.76429		61.55998	
Efisiensi net (%)				10.28002		56.39827	

Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 8.8 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1885.14		1885.14	
					1885.14		1885.14
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	100.62		100.62	
					163.89		163.89
Delivered net power					1721.25		1721.25
Efisiensi gross (%)				11.28359		59.04458	
Efisiensi net (%)				9.826724		53.91137	

Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 9.2 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1783.16		1783.16	
					1783.16		1783.16
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	99.4		99.4	
					162.67		162.67
Delivered net power					1620.49		1620.49
Efisiensi gross (%)				10.67319		55.85046	
Efisiensi net (%)				9.251479		50.75546	

Tabel Effisiensi sistem KCS 34 fraksi massa 84%, tekanan 9.5 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1710.88		1710.88	
					1710.88		1710.88
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	98.47		98.47	
					161.74		161.74
Delivered net power					1549.14		1549.14
Efisiensi gross (%)				10.24055		53.58657	
Efisiensi net (%)				8.844137		48.52071	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 8.3 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2056.61		2056.61	
					2056.61		2056.61
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	100.41		100.41	
					163.68		163.68
Delivered net power					1892.93		1892.93
Efisiensi	gross (%)			12.30994		64.4152	
	net (%)			10.80686		59.28857	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 8.5 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	2002.08		2002.08	
					2002.08		2002.08
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	99.82		99.82	
					163.09		163.09
Delivered net power					1838.99		1838.99
Efisiensi	gross (%)			11.98354		62.70727	
	net (%)			10.49891		57.59912	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 8.8 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1922.84		1922.84	
					1922.84		1922.84
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	98.94		98.94	
					162.21		162.21
Delivered net power					1760.63		1760.63
Efisiensi gross (%)				11.50925		60.22539	
Efisiensi net (%)				10.05155		55.1448	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 9.1 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1847.05		1847.05	
					1847.05		1847.05
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	98.04		98.04	
					161.31		161.31
Delivered net power					1685.74		1685.74
Efisiensi gross (%)				11.05561		57.85156	
Efisiensi net (%)				9.623995		52.79916	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 9.4 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1774.5		1774.5	
					1774.5		1774.5
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	97.13		97.13	
					160.4		160.4
Delivered net power					1614.1		1614.1
Efisiensi gross (%)				10.62135		55.57922	
Efisiensi net (%)				9.214998		50.55532	

Tabel Effisiensi sistem KCS 34 fraksi massa 85.5%, tekanan 9.6 bar

	No.	Apparatus	Type	Energy [kW]	Total	Exergy [kW]	Total
Absorbed power	3	Heat Exchgr.	12	16706.91		3192.74	
					17516.01		3192.74
Delivered gross power	1	Generator	G	1727.54		1727.54	
					1727.54		1727.54
Aux. power consumption	13	Pump	8	63.27		63.27	
	14	Pump	8	96.52		96.52	
					159.79		159.79
Delivered net power					1567.75		1567.75
Efisiensi gross (%)				10.34027		54.10838	
Efisiensi net (%)				8.950383		49.10359	

