

UNIVERSITAS BRAWIJAYA

LAMPIRAN



Hasil Perhitungan Unjuk Kerja :

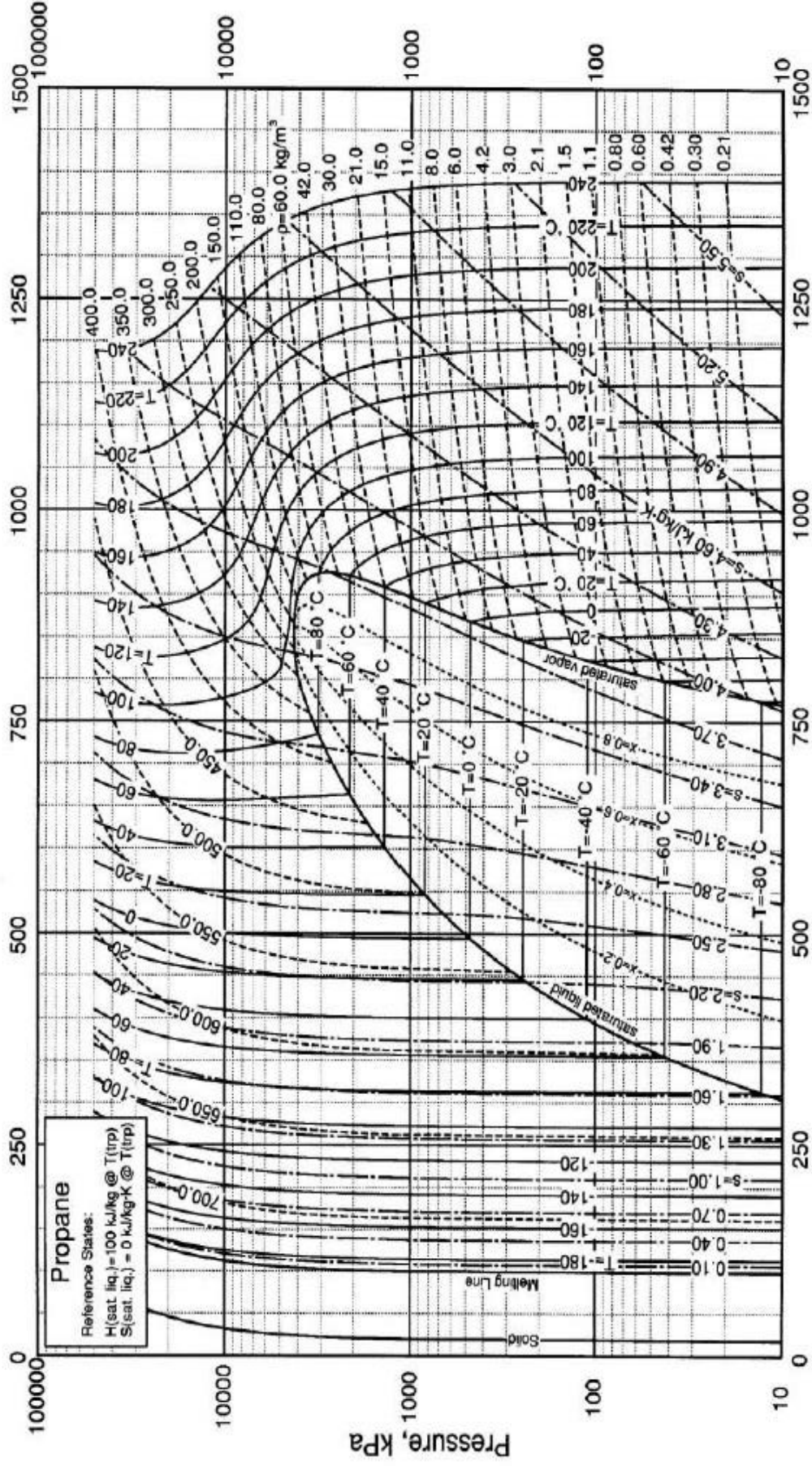
Siklus Teoritis

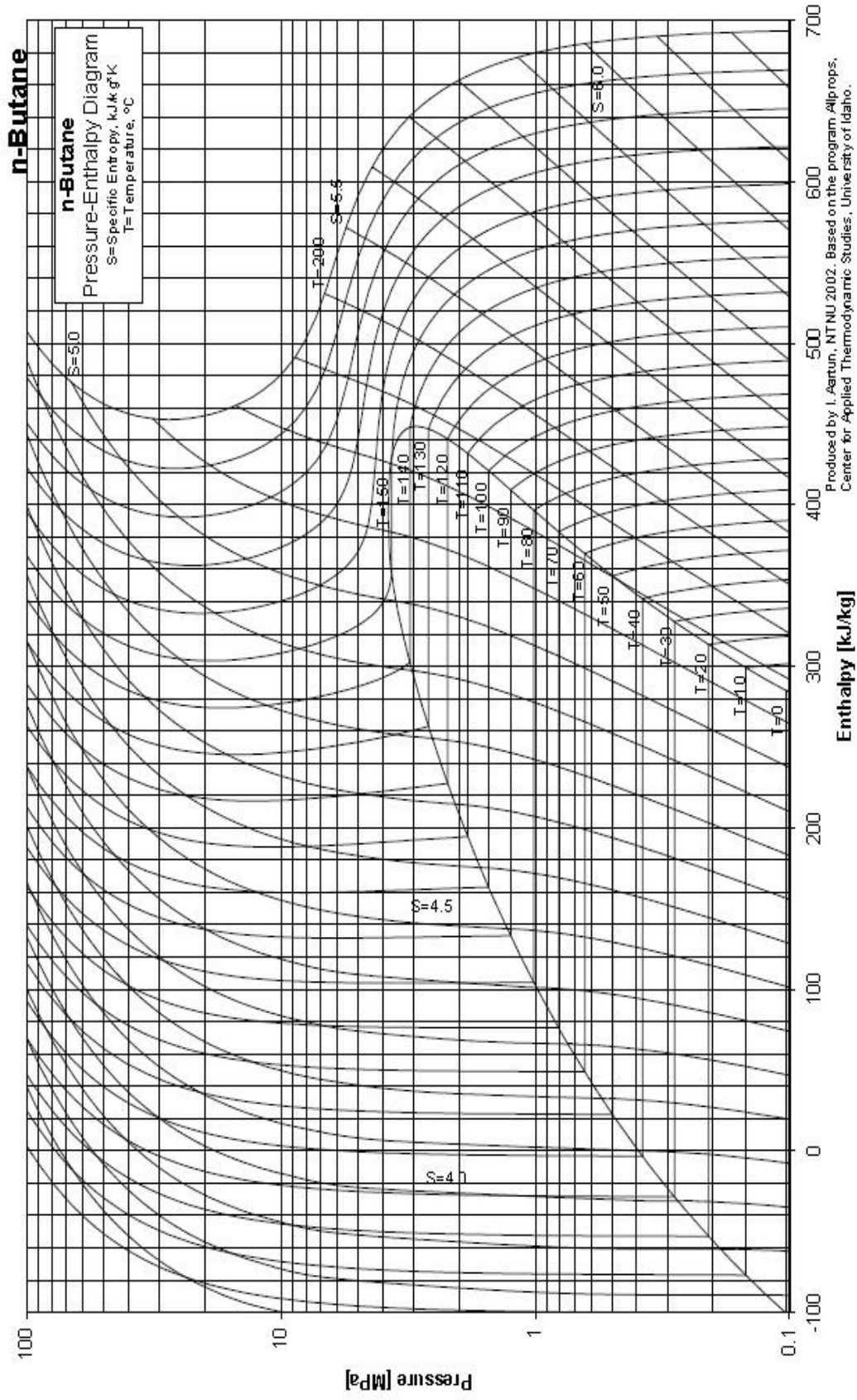
| Refrigeran | Massa | h1 | h2 | h3 | h4 | Q | P | COP |
|------------|--------|------------------------|--------|--------|--------|-----------------------|----------|------|
| | [gram] | [kJ kg ⁻¹] | | | | [kJ s ⁻¹] | | |
| Propan | 200 | 900,00 | 950,00 | 510,00 | 510,00 | 7,444706 | 1,12 | 6,65 |
| Butan | | 305,00 | 357,00 | 17,00 | 17,00 | | | |
| Propan | 300 | 905,00 | 953,00 | 510,00 | 510,00 | 7,55451 | 1,13098 | 6,68 |
| Butan | | 310,00 | 365,00 | 17,00 | 17,00 | | | |
| Propan | 400 | 900,00 | 955,00 | 530,00 | 530,00 | 7,367843 | 1,163922 | 6,33 |
| Butan | | 319,00 | 370,00 | 18,00 | 18,00 | | | |
| Propan | 500 | 905,00 | 960,00 | 540,00 | 540,00 | 7,28 | 1,207843 | 6,03 |
| Butan | | 320,00 | 375,00 | 22,00 | 22,00 | | | |

Siklus Aktual

| Massa | ha | hb | hcon | mcon | mo | ma | mb | vd | A |
|--------|------------------------|-------|--------|--------------------|---------|---------|---------------------------------|----------------|---------|
| [gram] | [kJ kg ⁻¹] | | | kg s ⁻¹ | | | m ³ kg ⁻¹ | m ² | |
| 200 | 92,00 | 40,00 | 100,59 | 0,00028 | 0,01302 | 0,01330 | 0,01302 | 0,82000 | 0,00126 |
| 300 | 92,00 | 38,00 | 100,59 | 0,00034 | 0,01320 | 0,01354 | 0,01320 | 0,81200 | 0,00126 |
| 400 | 92,50 | 41,00 | 100,59 | 0,00032 | 0,01304 | 0,01336 | 0,01304 | 0,82200 | 0,00126 |
| 500 | 93,00 | 43,00 | 100,59 | 0,00026 | 0,01298 | 0,01325 | 0,01298 | 0,83200 | 0,00126 |

| Massa | Q | W | COP |
|--------|-----------------------|-----------------------|-------------|
| [gram] | [kJ s ⁻¹] | [kJ s ⁻¹] | |
| 200 | 6,745808 | 1,431370352 | 4,712832006 |
| 300 | 7,098535 | 1,434403274 | 4,948772005 |
| 400 | 6,689347 | 1,438615664 | 4,649849824 |
| 500 | 6,471317 | 1,442996551 | 4,484637877 |





Produced by I. Aertun, NTNU 2002. Based on the program Alprops, Center for Applied Thermodynamic Studies, University of Idaho.

