

REFERENCES

- [1] Lang, K. (2010). 2. Global warming: Heating by the greenhouse effect. *Tufts University* (Available at https://ase.tufts.edu/cosmos/view_chapter.asp).
- [2] Ramphull, M., & Surroop, D. (2017). Greenhouse gas emission factor for the energy sector in Mauritius. *Journal of environmental chemical engineering*, 5(6), 5994-6000.
- [3] Wismandani, Tusiana, and Widjonarko Widjonarko. "Pengaruh Konsumsi Energi Listrik Kawasan Permukiman Terhadap Emisi Karbon Dioksida Kota Semarang" *Teknik PWK (Perencanaan Wilayah Kota)* 6.4 (2017): 220-231.
- [4] Nugroho, A., & Fazzry, B. (2016). Analisis Emisi Gas Rumah Kaca (CO₂) Angkutan Antar Kota Dalam Propinsi (AKDP) di Jawa Timur. *Prosiding SENIATI*, 16-A.
- [5] Nugrahayu, Q., Nurjannah, N. K., & Hakim, L. (2017). Estimasi emisi karbondioksida dari sektor permukiman di kota Yogyakarta menggunakan IPCC guidelines. *Jurnal Sains & Teknologi Lingkungan*, 9(1), 25-36.
- [6] Bolin, B., & Doos, B. R. (1989). Greenhouse effect.
- [7] Hidup, K. L. (2013). Pedoman teknis penyusunan inventarisasi emisi pencemar udara di perkotaan. *Jakarta Asdep Pengendali. Pencemaran Udar. Sumber Berger. Deputi Bid. Pengendali. Pencemaran Lingkung. Kementeri. Lingkung. Hidup Pencemaran Udar. di Daerah. Jakarta.*
- [8] Eggleston, H S, Buendia, L, Miwa, K, Ngara, T, & Tanabe, K. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Japan.
- [9] Omae, I. (2006). Aspects of carbon dioxide utilization. *Catalysis Today*, 115(1-4), 33-52.
- [10] Zhou, P., & Wang, M. (2016). Carbon dioxide emissions allocation: A review. *Ecological economics*, 125, 47-59.
- [11] Xu, B., & Lin, B. (2016). Reducing carbon dioxide emissions in China's manufacturing industry: a dynamic vector autoregression approach. *Journal of Cleaner Production*, 131, 594-606.
- [12] Browning, L., & Bailey, K. (2006). Current methodologies and best practices

- for preparing port emission inventories. *ICF Consulting report to Environmental Protection Agency*.
- [13] Lončarević, Š., Ilinčić, P., Šagi, G., & Lulić, Z. (2022). Problems and directions in creating a national non-road mobile machinery emission inventory: a critical review. *Sustainability*, 14(6), 3471.
- [14] Bernstein, L., Bosch, P., Canziani, O., Chen, Z., Christ, R., & Riahi, K. (2008). IPCC, 2007: climate change 2007: synFinal project report.
- [15] Menteri ESDM
- [16] Indonesia, P. R. (1999). Peraturan Pemerintah No. 41 Tahun 1999 Tentang: Pengendalian Pencemaran Udara. *Lembaran Negara RI Tahun*, 86.
- [17] Fatimah, S. (2019). *Pengantar transportasi*. Myria Publisher.
- [18] Mamduhan, B. H., Huboyo, H. S., & Sutrisno, E. (2015). *Studi Beban Emisi Pencemar Gas Rumah Kaca Dari Sektor Industri, Sektor Rumah Tangga, Dan Sektor Sampah Di Kota Semarang* (Doctoral dissertation, Diponegoro University)
- [19] EPA. 2017. Understanding Global Warming Potentials
- [20] Bappenas/GIZ, Kerangka NAMA Indonesia, 2011
- [21] Kementerian Energi Sumber Daya dan Mineral. (2013). *Kajian Inventarisasi Emisi Gas Rumah Kaca Sektor Energi*. Jakarta: Pusat Data dan Teknologi Informasi ESDM
- [22] Dewi, A. E., Maryono, M., & Warsito, B. (2019). Implementasi Program Kampung Iklim Di Kota Surakarta. In *Proceeding Biology Education Conference: Biology, Science, Enviromental, and Learning* (Vol. 16, No. 1, pp. 221-228).
- [23] Environmental Protection Agency, Direct Emissions from Stationary Combustion Sources, GreenhouseGas Inventory Guidance. January 2016
- [24] EPA Center for Corporate Climate Leadership: Greenhouse Gas Inventory Guidance Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases
- [25] Kainou, K (2005). 'Revision of default net calorific values, carbon content

factors, carbon oxidization factors and carbon dioxide emission factors for various fuels in 2006 IPCC GHG Inventory Guidelines'. RIETI, IAI, Govt of Japan.

- [26] Nilsson, K and. Nilsson, M (2004). 'The climate impact of energy peat utilization in Sweden - the effect of former land use and after-treatment'. Report IVL B1606.
- [27] Uppenberg, S. Zetterberg, L. and Åhman, M. (2001). 'Climate impact from peat utilisation in Sweden'. (2001). Report IVL B1423.
- [28] Savolainen, I., Hillebrand, K., Nousiainen, I. and Sinisalo, J. (1994). 'Greenhouse gas impacts of the use of peat and wood for energy.' Espoo, Finland'. VTT Research Notes 1559. 65p.+app.

APPENDIX A

LIST OF MACHINES

List Of Machines	Power Consumption (Volt)	Power Consumption (Ampere)	Power Consumption (Watt)	Power Consumption (Kwh)	Lama Pemakaian Perhari
MESIN PREPRESS					
Mesin Imaging CTP ESKO CDI 4835	230	11	2530	2.53	2
Mesin Kodak Flexcel NX Imager	220	8	1760	1.76	2
Mesin Cuci Plate (Concept 305 DW)	350	10	3500	3.5	5
Mesin Dupont Cyrel 1000 ECCLF		-	9500	9.5	5
				-	-
MESIN GALLUS					
Mesin Flexo F2	400	47	18800		Based On CERM
Mesin Flexo F3	400	47	18800	18.8	Based On CERM
Mesin Flexo F4	400	47	18800	18.8	Based On CERM
Mesin Flexo F5	400	63	25200	25.2	Based On CERM
Mesin Flexo F6	400	97	38800	38.8	Based On CERM
Mesin Flexo F7	400	71	28400	28.4	Based On CERM
				-	-
MESIN CHILLER					
Mesin Chiller 2	380	13	4940		Based On CERM
Mesin Chiller 3	380	13	4940	4.94	Based On CERM
Mesin Chiller 4	380	13	4940	4.94	Based On CERM
Mesin Chiller 5	380	53	20140	20.14	Based On CERM
Mesin Chiller 6	380	21.8	8284	8.284	Based On CERM
Mesin Chiller 8	400	21.8	8720	8.72	Based On CERM
				-	-
MESIN LETTER PRESS					
MESIN LETTER PRESS				-	
Mesin Letter Press (LP1).1		-	250	0.25	2
Mesin Letter Press (LP3).2		-	250	0.25	2
				-	-
MESIN SCHOUBER					
Mesin Sittling	300	20	6000	6	21 7
Mesin Seaming 1	300	22	6600	6.6	21 7
Mesin Die Cut Seaming	350	35	12250	12.95	14 4
Mesin Inspection	320	22	7040	8	21 7
				-	-
MESIN TOOLING					
Mesin Plate Washer	230	0.85	195.5	0.1955	21 7
Mesin Plate Cleaner 1	220	0.85	187	0.187	21 7
Mesin Mounting Plate 1 (Mark Andy)	180	3	540	0.54	21 7
Mesin Mounting Plate 2	220	5	1100	1.1	21 7
Mesin Mounting Plate 3	220	5	1100	1.1	21 7
Mesin Cleanning (Screen)	230	5.8	1334	1.334	21 7
Mesin Screen Blade Grinder 1	230	3.3	759	0.759	21 7
Mesin Rotascreen	220	5	1100	1.1	21 7
				-	-
MESIN FINISHING					
Mesin Die Cut Labelman	350	20	7000	7	8
Mesin Sittling S4	220	20	4400	4.4	21 7
Mesin Sittling S7	220	20	4400	4.4	21 7
Mesin Sittling S8	220	20	4400	4.4	21 7
Mesin Sittling S9	240	20	4800	4.8	21 7
Mesin Sittling S10	330	20	6600	6.6	21 7
Mesin Sampling SM1	220	15	3300	3.3	14 4
Mesin Sampling SM2	220	15	3300	3.3	14 4
Mesin Sampling SM3	220	15	3300	3.3	14 4
Mesin Sampling SM4	220	15	3300	3.3	14 4
Mesin Sampling SM6	220	15	3300	3.3	14 4
Mesin Cutting CM2	230	20	4600	4.6	14 4
Mesin Cutting CM3	230	20	4600	4.6	14 4
Mesin Cutting CM4 (Karville LM4)(Web Contr	320	20	6400	6.4	14 4
Mesin Barcode (REA JET PRINT & SCAN QR)	230	20	4600	4.6	21
MATO	380	5.76	2,189	1	4
Lift Barang	380	2.2	836	3	15
				-	-
UNIT COMPRESSOR					
Unit Compressor 1	380	22	8360	8.36	24
Unit Compressor 2	380	22	8360	8.36	24

APPENDIX A
PHOTO OF MACHINES



Figure 5 Flexo Machine E280
(Source: <https://www.tecnoconverting2000.com/>)



Figure 6 Flexo Machine E410
(Source: <https://www.exapro.com/gallus-em410-p90304108/>)



Figure 7 Chiller

(Source: <https://osunflexo.en.made-in-china.com/>)



Figure 8 Machines Dupont Cyrel 1000 ECDLF

(Source: <https://www.flexo.com/product/dupont-cyrel-1000bp-14343/>)



Figure 9 Letter Press Machine
(Source: <https://machineryline.id/>)



Figure 10 Die Cut Label Man
(Source: <https://www.labelmen.com/product/high-speed-full-rotary-die-cutting-machine/>)

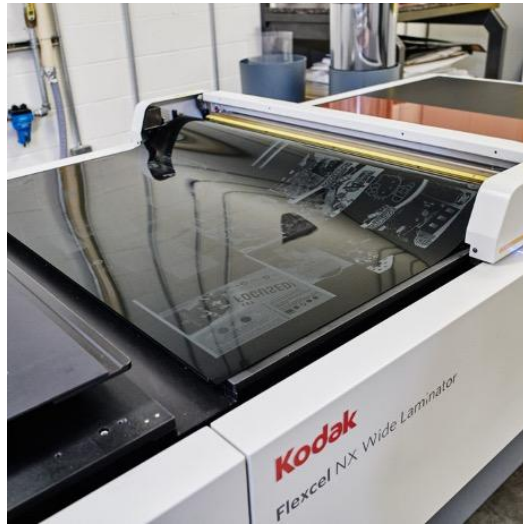


Figure 11 Machine Kodak Flexcel NX Imager

(Source: <https://www.dksh.com/id-id/products/ppc/miraclon-kodak-flexcel-nx-systems>)



Figure 12 Plate Washer (Concept 305 DW)

(Source: <https://indonesian.alibaba.com/>)



Figure 13 Compressor Unit
(Source: <https://www.directindustry.com/>)



Figure 12 Flexo Machine (Omet)
(Source: <https://printing.omet.com/en/flexo-printing-machine/12/iflex/>)