



Corporate Facts at a Glance

- Founded in 1898
- Global headquarters in Grand Rapids, Michigan
- 850 employees worldwide

Markets Served

- Cabinet makers and contractors (via distributors)
- OEMS
- Consumers (via retailers)
- Office supply dealers

Corporate Overview

Knap & Vogt Manufacturing Company (“KV”) is a privately held corporation and headquartered in Grand Rapids, Michigan. KV operates manufacturing and warehousing facilities in Grand Rapids, MI; Taipei, Taiwan; Petaluma, California; and, Toronto, Ontario, Canada. We are a global leader specializing in the design, manufacture, and distribution of functional hardware; office ergonomics products; and storage-related components for original equipment manufacturers, specialty distributors, hardware chains and major home centers.

Greenhouse Gas Emissions Inventory Background

This document represents KV’s greenhouse gas (“GHG”) emissions inventory background, and KV’s inventory management plan (“IMP”) for collecting, calculating and maintaining GHG data. This IMP is updated periodically to reflect the most up-to-date information.

Organization Information

Organization Name	Knap & Vogt Manufacturing Corporation
Corporate Address	2700 Oak Industrial Dr NE Grand Rapids, MI 49505
Inventory Contact Name	Michelle Stewart, Director of EHS & S
Contact Information	(616) 258-5245 Michelle.Stewart@kv.com

Boundaries of GHG Inventory

Organizational Boundary: <i>(Select the organizational boundary approach used for GHG inventory.)</i>	Control Approach (Organizational Control)
Organizational Boundary Selection Process	Since KV’s facilities are rented, organizational control was chosen.
List of Facilities Included Under Selected Organizational Boundary	<ol style="list-style-type: none"> 1. Oak Industrial Manufacturing (Leased) 2. Eastern Distribution Center Warehouse (Leased)
List of Operations or Source Categories for each GHG	<ol style="list-style-type: none"> 1) Carbon Dioxide (CO2) <ol style="list-style-type: none"> i) Onsite Boilers for process & steam heat (Natural Gas) ii) Onsite Ovens (Natural Gas & Electric) <ol style="list-style-type: none"> (1) A-6 Ovens (2) Powder Coat Ovens (3) Burnoff Ovens iii) Air makeup units (Natural Gas & Electric) iv) Radiant Air Heater (Natural Gas) v) Flammable gases (Acetylene, Propane) for welding and machine use vi) Emergency Generator (Diesel) vii) Transfer trucks (Diesel) viii) HVAC Systems (Electricity) 2) Methane (CH4) <ol style="list-style-type: none"> i) Onsite Boilers for process & steam heat (Natural Gas) ii) Onsite Ovens (Natural Gas & Electric) <ol style="list-style-type: none"> (1) A-6 Ovens (2) Powder Coat Ovens (3) Burnoff Ovens iii) Air makeup units (Natural Gas & Electric) iv) Radiant Air Heater (Natural Gas) v) Flammable gases (Acetylene, Propane) for welding and machine use vi) Emergency Generator (Diesel) vii) Transfer trucks (Diesel) viii) HVAC Systems (Electricity)

<p>List of Operations or Source Categories for each GHG (continued)</p>	<p>3) Nitrous Oxide (N₂O)</p> <ul style="list-style-type: none"> i) Onsite Boilers for process & steam heat (Natural Gas) ii) Onsite Ovens (Natural Gas & Electric) <ul style="list-style-type: none"> (1) A-6 Ovens (2) Powder Coat Ovens (3) Burnoff Ovens iii) Air makeup units (Natural Gas & Electric) iv) Radiant Air Heater (Natural Gas) v) Flammable gases (Acetylene, Propane) for welding and machine use vi) Emergency Generator (Diesel) vii) Transfer trucks (Diesel) viii) HVAC Systems (Electricity) <p>4) Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur Hexafluoride (SF₆), Nitrogen Trifluoride (NF₃)</p> <ul style="list-style-type: none"> a) HVAC Units
<p>Emissions Source Identification Procedure</p>	<ul style="list-style-type: none"> • Operations knowledge, audits, and surveys • Utility billing • Vendor-provided data • Contractor-provided data • Technical specifications • EPA's Greenhouse Gas Emissions Hub • EPA's AP-42 Emission Factors
<p>Organization-wide Scope 1 Direct Sources of GHG Emissions: (List the organization Scope 1 direct sources of GHG emissions.)</p>	<p><u>Manufacturing Operations</u></p> <ul style="list-style-type: none"> • Ovens (Natural Gas) • Makeup Air Units (Natural Gas) • Radiant Heaters (Natural Gas) • Boilers (Natural Gas) • Emergency Backup Generator (300 kW, Diesel-powered) • HVAC Units (Various) • Welding Operations (Acetylene) <p><u>Warehouse</u></p> <ul style="list-style-type: none"> • Transfer Truck (Diesel-powered) • Switcher Truck (Diesel-powered) • HVAC Units (Various)
<p>Organization-wide Scope 2 Indirect Sources of GHG Emissions: (List the organization Scope 2 indirect sources of GHG emissions.)</p>	<p><u>Manufacturing Operations</u></p> <ul style="list-style-type: none"> • Blowers / Fans / Exhaust Units (Various) • Ovens (Electrical) • Makeup Air Units (Electrical) • Manufacturing Operations (electrical installations, equipment, machinery, etc.) • Office and Support Operations • Shipping/Receiving and Material Handling Equipment <p><u>Warehouse</u></p> <ul style="list-style-type: none"> • Warehousing Operations (Electrical) • Support Operations (Electrical) • Makeup Air Units (Electrical) • Manufacturing Operations (electrical installations, equipment, machinery, etc.) (Electrical) • Office and Support Operations (Electrical) • Shipping/Receiving and Material Handling Equipment (Electrical)
<p>Organization-wide Scope 3 Indirect Sources of GHG Emissions: (List the organization Scope 3 indirect sources of GHG emissions.)</p>	<p>Not evaluated at this time.</p>

Quantification Method	<ul style="list-style-type: none"> Stationary Sources: U.S. EPA. Greenhouse Gas Inventory Guidance. Direct Emissions from Stationary Combustion Sources. January 2016. Mobile Sources: U.S. EPA. Greenhouse Gas Inventory Guidance. Direct Emissions from Mobile Combustion Sources. January 2016. Refrigeration/AC Use: U.S. EPA. Greenhouse Gas Inventory Guidance. Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases. November 2014. Indirect Electricity/Steam Purchases: U.S. EPA. Greenhouse Gas Inventory Guidance. Indirect Emissions from Purchased Electricity. January 2016.
Emission Factors and Other Constants:	<ul style="list-style-type: none"> US EPA GHG Emissions Factor Hub AP-42 Compilation of Air Emission Factors; Chapters 1 & 3 Emissions Factor for Diesel Trucks: https://www.transportpolicy.net/standard/us-heavy-duty-fuel-consumption-and-ghg/
Adjustment – Structural Changes: <i>(List the structural changes that will lead to an adjustment of the organization base year emissions. Default adjustments are provided. If other methods are also used, include the methods.)</i>	Base year emissions or emission reports will be adjusted only under the following conditions: <ul style="list-style-type: none"> The acquisition of operations or facilities which existed prior to the organization base year. The divestiture of operations or facilities. If applicable, normalization factor for goal-tracking will also be adjusted.
Adjustment – Methodology Changes: <i>(List the methodology changes that will lead to an adjustment of the organization base year emissions. Default adjustments are provided. If other methods are also used, include the methods.)</i>	Base year emissions or emission reporting will be adjusted only under the following conditions: <ul style="list-style-type: none"> Significant change (greater than 0.5% difference in total base year emissions) in emission factors, constants, or methodologies. Errors are discovered in previously submitted data that significantly change (greater than 0.5% difference in total base year emissions) the base year emissions.

Greenhouse Gas Emissions Inventory

A summary of the inventory for the reporting year (FY23), as well as the base year (FY19), are included as an attachment below.

Greenhouse Gas Emissions Reduction Targets

Using guidance provided by the Science-Based Targets Initiative (SBTI), KV has set a near term target of 4.2% per year by FY2029, with the intent to purchase offsets or renewable energy sources as available to meet the recommended 80% goal. See attachment below for detailed targets.

ANNUAL GHG INVENTORY SUMMARY AND TARGET TRACKING FORM

Data Entry: Calculated:

Organization Name:	Knap & Vogt Manufacturing	
Reporting Year:	FY2023	
Inventory Contact Person:	Michelle Stewart	Title: Director of EHS
Telephone Number:	616-258-5245	
Email Address:	Michelle.Stewart@kv.com	

GHG Inventory - U.S.	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EMISSIONS - Annual CO₂-eq. (metric tons)											
Scope 1 Direct Emissions											
Stationary Combustion Sources	4,640				3,602						
Mobile Combustion Sources	0				0						
Refrigeration / AC Equip. Use	0				0						
Fugitive / Process (specify source):											
Total Scope 1 Direct U.S. Emissions	4,640	0	0	0	3,602	0	0	0	0	0	0
Scope 2 Indirect Emissions											
<i>Enter location- or market-based (depending on target)</i>											
Purchased Electricity	7,088				4,732						
Purchased Steam	0				0						
Purchased Hot Water	0				0						
Purchased Chilled Water	0				0						
Total Scope 2 Indirect U.S. Emissions	7,088	0	0	0	4,732	0	0	0	0	0	0
Scope 3 Indirect Emissions (specify source):											
Not evaluated											
Total Scope 3 Indirect U.S. Emissions	0	0	0	0	0	0	0	0	0	0	0
Total Emissions											
Total U.S. Emissions (all scopes)	11,728	0	0	0	8,334	0	0	0	0	0	0

U.S. BIOMASS SUPPLEMENTAL INFORMATION											
<i>Biomass CO₂ Emissions - (metric tons/yr.)</i>											
Stationary Biomass CO ₂											
Mobile Biomass CO ₂											
Indirect Biomass CO ₂											

CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)											

GHG Inventory - Non-U.S.	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
EMISSIONS - Annual CO₂-eq. (metric tons)											
Scope 1 Direct Emissions											
Stationary Combustion Sources											
Mobile Combustion Sources											
Refrigeration / AC Equip.											
Fugitive / Process (specify source):											
Total Scope 1 Direct Non-U.S. Emissions	0	0	0	0	0	0	0	0	0	0	0
Scope 2 Indirect Emissions											
<i>Enter location- or market-based depending on target</i>											
Purchased Electricity											

ANNUAL GHG INVENTORY SUMMARY AND TARGET TRACKING FORM

Data Entry: Calculated:

Organization Name:
 Reporting Year:

Purchased Steam												
Purchased Hot Water												
Purchased Chilled Water												
Total Scope 2 Indirect Non-U.S. Emissions	0	0	0	0	0	0	0	0	0	0	0	0
Scope 3 Indirect Emissions (specify source):												
Not evaluated												
Total Scope 3 Indirect Non-U.S. Emissions	0	0	0	0	0	0	0	0	0	0	0	0
Total Emissions												
Total Non-U.S. Emissions (all scopes)	0	0	0	0	0	0	0	0	0	0	0	0

NON-U.S. BIOMASS SUPPLEMENTAL INFORMATION												
<i>Biomass CO₂ Emissions - (metric tons/yr.)</i>												
Stationary Biomass CO ₂												
Mobile Biomass CO ₂												
Indirect Biomass CO ₂												

CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)												
--	--	--	--	--	--	--	--	--	--	--	--	--

Organization-Wide GHG Inventory - Total (U.S. + Non-U.S.)	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
EMISSIONS - Annual CO₂-eq. (metric tons)												
Scope 1 Direct Emissions												
Stationary Combustion Sources	4,640	--	--	--	3,602	--	--	--	--	--	--	
Mobile Combustion Sources	--	--	--	--	0	--	--	--	--	--	--	
Refrigeration / AC Equip. Use	--	--	--	--	--	--	--	--	--	--	--	
Fugitive / Process (specify source):												
	--	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	--	
Total Scope 1 Direct Emissions	4,640	0	0	0	3,602	0	0	0	0	0	0	
Scope 2 Indirect Emissions												
Purchased Electricity	7,088	--	--	--	4,732	--	--	--	--	--	--	
Purchased Steam	--	--	--	--	--	--	--	--	--	--	--	
Purchased Hot Water	--	--	--	--	--	--	--	--	--	--	--	
Purchased Chilled Water	--	--	--	--	--	--	--	--	--	--	--	
Total Scope 2 Indirect Emissions	7,088	0	0	0	4,732	0	0	0	0	0	0	
Scope 3 Indirect Emissions												
Not evaluated	--	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	--	
Total Scope 3 Indirect Emissions	0	0	0	0	0	0	0	0	0	0	0	
Total Emissions												
Total Emissions (all scopes)	11,728	0	0	0	8,334	0	0	0	0	0	0	

SUPPLEMENTAL INFORMATION												
<i>Biomass CO₂ Emissions - (metric tons/yr.)</i>												
Total Stationary Biomass CO ₂	--	--	--	--	--	--	--	--	--	--	--	
Total Mobile Biomass CO ₂	--	--	--	--	--	--	--	--	--	--	--	
Total Indirect Biomass CO ₂	--	--	--	--	--	--	--	--	--	--	--	

ANNUAL GHG INVENTORY SUMMARY AND TARGET TRACKING FORM

Data Entry: Calculated:

Organization Name:
 Reporting Year:

CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)

Offsets	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<i>Reductions from Offsets - Annual CO₂-eq. (metric tons)</i>											

Base Year:	2019
Target Year:	2030
Target Emissions Tracking:	Absolute
Emissions Target:	Absolute
(expressed as a percent decrease from base year)	

Target Tracking	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
ABSOLUTE EMISSIONS TARGET TRACKING											
	CO ₂ -eq. (metric tons)	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr
Total U.S. Emissions	11,728	--	--	--	--	8,334	-28.9%	--	--	--	--
Total Non-U.S. Emissions	--	--	--	--	--	--	--	--	--	--	--
Total Emissions	11,728	--	--	--	--	8,334	-28.9%	--	--	--	--
	CO ₂ -eq. (metric tons)	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr
Total Reductions from Offsets	--	--	N/A	--	N/A	--	N/A	--	N/A	--	N/A
Total Net Emissions	11,728	--	--	--	--	8,334	-28.9%	--	--	--	--

Date Form Completed:

Number of times base year has been adjusted since the first inventory submittal:

Identify and describe any structural or methodology changes applied to the base year inventory since the previous reporting (e.g. acquisitions, new operations in North America):

Identify any major differences from the previous year's inventory (e.g. emission reduction activities, changes in operations):

Other general comments: