

Action Summary – 28 May 2019

Analyst Theodore R. O'Neill *is initiating coverage of GHM with a Buy rating and a \$33 price target*

- Shares appear are undervalued compared to peers
- Demonstrably improved financial profile since 2006. We estimate annual sustainable EBIT up 4X since 2006 to >\$12M
- Executing on diversification strategy and gaining share
- Large and growing backlog stood at ~\$134M last quarter
- Company demonstrates extraordinary management, financial and risk skills to profitably make one-off highly engineered products
- Forecasting 10% revenue growth in 2020 which we feel is conservative

| | | | |
|---------------------------------|---------------------------|-----------------------------|-----------------------------|
| 5/24price: \$20.97 | Market cap: \$192 million | 2020 P/E: 20 | 2020 EV/Sales: 1.38 |
| Shares outstanding: 9.8 million | Insider ownership: 3.1% | Avg. trading volume: 20,000 | Dividend/Yield: \$0.40/2.0% |

Macroeconomic context

- With no debt, an increase in rates will not impact our earnings model
- Markets it serves outside defense are closely tied to world GDP

GAAP estimates (EPS in dollars – Revenue in millions)

| Period | EPS | Revenue | Op Margin |
|--------|-----------------|----------------|-------------|
| 1Q18A | \$0.11 | \$20.8 | 5.1% |
| 2Q18A | \$0.00 | \$17.2 | 0.1% |
| 3Q18A | \$(1.19) | \$17.3 | (3.5%) |
| 4Q18A | <u>\$0.09</u> | <u>\$22.2</u> | <u>5.4%</u> |
| FY18A | <u>(\$1.01)</u> | <u>\$77.5</u> | <u>2.2%</u> |
| 1Q19A | \$0.24 | \$29.6 | 8.6% |
| 2Q19A | \$0.19 | \$21.4 | 6.8% |
| 3Q19A | \$0.01 | \$17.2 | (3.3%) |
| 4Q19E | <u>\$0.17</u> | <u>\$24.8</u> | <u>7.2%</u> |
| FY19E | <u>\$0.60</u> | <u>\$93.0</u> | <u>5.6%</u> |
| 1Q20E | \$0.13 | \$23.0 | 4.9% |
| 2Q20E | \$0.19 | \$25.0 | 7.2% |
| 3Q20E | \$0.28 | \$28.0 | 10.4% |
| 4Q20E | <u>\$0.21</u> | <u>\$26.0</u> | <u>7.9%</u> |
| FY20E | <u>\$0.80</u> | <u>\$102.0</u> | <u>7.8%</u> |

Note: Numbers may not add due to rounding. See our full model in the back of this report. Upward revisions in green, downward revisions in red.

Cash balance (in millions)

| | |
|---------|----------|
| • 2018A | • \$76.5 |
| • 2019E | • \$82.8 |
| • 2020E | • \$86.7 |

Debt (in millions)

| | |
|---------|----------|
| • 2018A | • \$0.00 |
| • 2019E | • \$0.00 |
| • 2020E | • \$0.00 |

Adj. EBITDA (in millions)

| | |
|---------|----------|
| • 2018A | • \$4.2 |
| • 2019E | • \$9.8 |
| • 2020E | • \$12.4 |

Risks/Valuation

- Risks include: Falling demand/slower growth and falling price of oil
- Trading volume is low. The three-month average is 20,000 shares/day
- Our \$33 target is derived using a multiple of EV/EBIT, details of which can be found in this report

Company description: Graham Corporation designs, manufactures and sells mission-critical equipment for the energy, defense and chemical/petrochemical industries. Based in Batavia, NY, it operates a vertically integrated manufacturing plant. It maintains other sales and engineering offices in Houston, Michigan and Suzhou, China

Figure 1 – Graham Corporation - Trading snapshot

Average Trading volume @ 20K is light making it difficult to build or unwind a significant position



Source: BigCharts.Marketwatch.com

ViewPoint

We like the valuation and the new financial profile

- 1) Shares appear undervalued relative to peers
- 2) Improved financial profile – we estimate annual normalized EBIT up 4X since 2006 to \$12M
- 3) Strong and unlevered balance sheet
- 4) Gaining share in defense sector
- 5) Large and growing backlog
- 6) Trading volume is light. It would be helpful for liquidity if the Company had a managed offering
- 7) We believe the company has room to leverage its balance sheet particularly if it funded an acquisition. While the company has a history of operating with no debt, the business has changed enough that the market would likely view it favorably.

Peer Comparison and Valuation Summary

Graham is substantially undervalued relative to its peers on multiple of book, EV/Revenue and EV/EBIT as we show in summary in Figure 2 below and in detail in Figure 13 near the back of this report. It is fairly valued on a PE basis. This suggests to us is that Graham is generally undervalued and under levered.

Figure 2 – Graham Corporation - Peer Comparable Table

| GHM Valuation Discount to Blended Peers | |
|---|-----------------|
| <u>Valuation Metric</u> | <u>Discount</u> |
| 2020 EV/Revenue | 45% |
| 2019 EV/Revenue | 45% |
| EV/Normalized Annual EBIT | 38% |
| Price/Book | 25% |

Source: Litchfield Hills Research, LLC

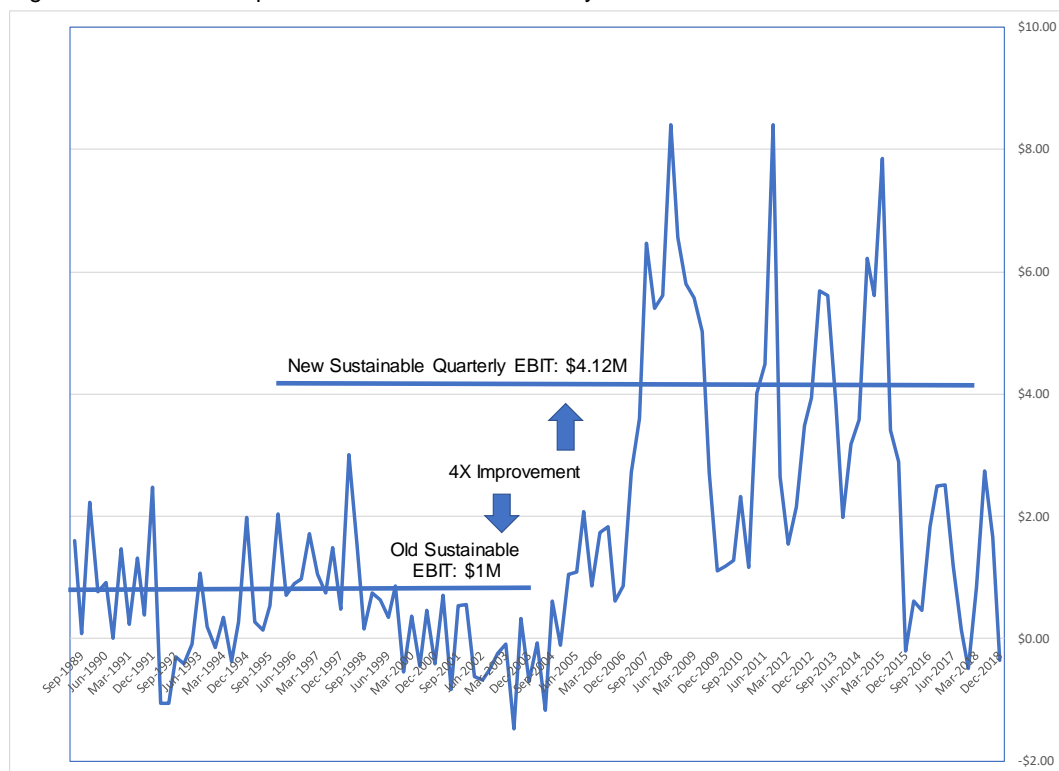
We note that for all estimates (except GHM 2020 PE) detailed in Figure 13, we are using Thomson Reuters SmartEstimate®. The SmartEstimate® does not always represent consensus, although it is often very close. These estimates weight more heavily the most recent estimates, estimates from

analysts that have a better track record in predicting results and excludes estimates more than five standard deviations away.

Significantly Changed Financial Profile

The financial profile of GHM changed dramatically after new management took control in 2006. As we show in Figure 3, normalized quarterly EBIT went from \$1M to over \$4M where it is today. A number of actions taken by management account for this improvement. It significantly invested in new flexible production equipment, it limited the scope of projects it was willing to pursue and it focused on retaining skilled workers, where it might have been unable to do anything other than lay them off in past downturns. And you can see that before 2005, it didn't have much, if any room to maneuver. While the most recent quarter's normalized EBIT was not great and it was unfavorably impacted by delays in converting backlog to sales, backlog stands at a record \$133.7M. This gives us confidence in the financial EBIT performance in FY2020.

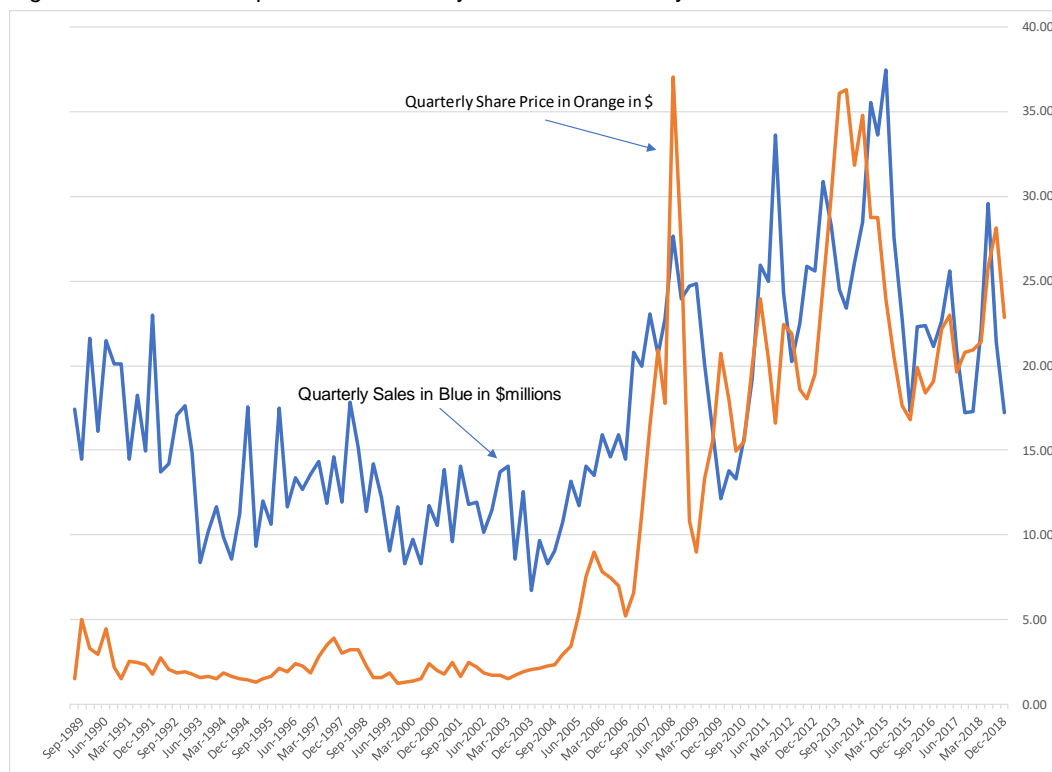
Figure 3 – Graham Corporation – Normalized Quarterly EBIT 1989-2018



Source: Litchfield Hills Research LLC and Thomson Reuters Eikon

Not only did EBIT change dramatically, so did the arc of sales. In Figure 4, you can clearly see the impact of structural changes made after 2006. The changes which included focusing more directly on certain products/services and dropping others has helped measurably. Coincidentally in this chart the scale on the right shows both the share price in dollars and quarterly sales in millions of dollars. Indeed, where there used to be little correlation, there is now a significant correlation between share price and quarterly revenue. This relationship between sales and share price buttresses our \$35 price target as GHM converts backlog to sales.

Figure 4 – Graham Corporation – Quarterly Sales and Quarterly Share Price 1989-2018



Source: Litchfield Hills Research LLC and Thomson Reuters Eikon

Forecasts & Valuation

GHM makes expensive, build-to-order highly engineered products that often part of a much larger project. Delivery delays can and do arise from change orders, delays in installing equipment from other manufacturers at the construction site and weather, all of which are outside GHM's control. From design to installation, projects may take up to five years. Therefore, there is a large margin of error in predicting results in any single quarter. For this reason, GHM provides annual guidance. GHM reiterated its full-year guidance in its F3Q19 earnings release, and as three quarters were now completed, the guidance gives us the expectation for the quarter. But for the rest of the year, our position on quarterly estimates is that "your mileage may vary." For valuation, we are using: Multiple of EV to annual normalized EBIT

Price Target Based on Multiple of annual normalized EBIT

Looking at the comp table (Figure 13) near the end of the report, we collected calendarized normalized EBIT for the past three years for GHM and 13 of its peers. We then calculated an **EV/average annual normalized EBIT** metric and removed the two outliers with the highest (ERI-NR) and lowest (NOV-NR) scores. Comparing that to GHM, we find the shares are trading at a 38% discount which would place our price target at \$29. However, we believe a more sustainable average annual normalized annual EBIT would be over \$12 million and not the \$7 million average for the last three years. Using this metric and the price target would be \$37. For the purposes of this analysis, we are using average or \$33 per share for our near-term target. We believe it is likely to get adjusted, as the company executes on its strategy of diversification through acquisition and gaining share with the U.S. Navy.

Company Overview

Graham Corporation is a global business that designs, manufactures and sells mission-critical equipment and associated aftermarket parts for the energy, defense and chemical/petrochemical industries as well as several others. The addressable market opportunity exceeds \$600 million. It specifically sells, condensers, ejectors, heat exchangers, liquid ring pumps (all of which we will get into later in this report) and associated parts and service to the following industries:

Crude Oil Processing/Petroleum Refining markets (>\$150M annual addressable market) include:

- Conventional oil refining
- Oil sands extraction and upgrading

Defense markets (~\$50M annual addressable market) include:

- Propulsion systems for nuclear-powered aircraft carriers and submarines for the U.S. Navy

Chemical and petrochemical markets (>\$150M annual addressable market) include:

- Ethylene, methanol and nitrogen producing plants
- Fertilizer plants
- Plastics, resins and fibers plants
- Downstream petrochemical plants
- Coal-to-chemicals plants
- Gas-to-liquids plants

Power Generation/Alternative Energy markets (>\$250M annually) include:

- Nuclear power generation
- Biomass plants
- Cogeneration power plants
- Geothermal power plants
- Ethanol plants
- Fossil fuel plants

Other markets include, but are not limited to:

- Oleo chemical plants
- Air conditioning and water heating systems (HVAC)
- Food processing plants
- Pharmaceutical plants
- Liquefied natural gas production facilities

The specific products it sells into these markets is detailed in Figure 5 below and ranked in our estimate of sales value opportunity:

Figure 5 – Graham Corporation – Product Detail by End Market

| Industry | Application | Vacuum System Products | | Heat Transfer Products | | | Energy Steel Subsidiary |
|------------------|--|------------------------|-----------------------------------|------------------------------|--------------------------|-----------------------|---------------------------|
| | | Ejectors | Liquid Ring Pumps and Compressors | Surface & Process Condensers | Heliflow Heat Exchangers | Plate Heat Exchangers | New and replacement parts |
| Petrochem | Chemical/Plastics Resin plant | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Energy | Petroleum refinery | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Refining | Food production and refining | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Refining | Pharmaceutical plant | | ✓ | ✓ | ✓ | ✓ | |
| Navy | Nuclear Aircraft Carrier | | | ✓ | | | ✓ |
| Navy | Nuclear Submarine | | | ✓ | | | ✓ |
| Power | Nuclear power plant | | | ✓ | | | ✓ |
| Power | Gas fired power plant | | | ✓ | | | |
| Power | Coal fired power plant | | | ✓ | | | |
| Power | Geothermal or biomass plants | | | ✓ | | | |
| Petrochem | Fertilizer plant | ✓ | | | | | |
| Other | Metal vacuum degassing | ✓ | | | | | |
| Other | Space simulation for Government agencies | ✓ | | | | | |
| Other | HVAC | | | | | ✓ | |
| Petrochem | Offshore drilling | | | | | ✓ | |
| Other | Ground water clean-up | | ✓ | | | | |
| Other | Multiple Applications | | | | ✓ | | |

Source: Litchfield Hills Research LLC and Graham Corporation application notes

Graham's Value Proposition

Graham's global brand is built upon engineering expertise in vacuum and heat transfer technology, responsive and flexible customer service and high-quality standards. It designs and manufacture custom-engineered ejectors, vacuum pumping systems, surface condensers and vacuum systems. It is also a leading nuclear code accredited fabrication and specialty machining company. It supplies components used inside reactor vessels and outside containment vessels of nuclear power facilities. GHM equipment can also be found in other diverse applications such as metal refining, pulp and paper processing, water heating, refrigeration, desalination, food processing, pharmaceutical, heating, ventilating and air conditioning.

GHM products and services are critical to the processes and systems in which they are utilized, which are often complex and function in harsh conditions where the cost of failure or downtime is high, e.g.

inside a submarine, where it cannot be repaired or replaced, or a component of a complex oil refinery that cannot be shut down without significant expense. However, since GHM products typically represent only a small portion of the costs of the overall systems or functions that they support, its customers place a high value on GHM application expertise, product reliability and the responsiveness of its service teams. We believe GHM products are globally recognized in their respective end-markets and known for product quality, reliability, efficiency and superior customer service.

Customer Focus and Concentration

Customer focus is at the center of GHM's sales efforts. It is positioned in many cases as the industry's first choice for innovative and application-critical equipment and solutions. It collaborates with its customers, becoming a part of their engineering process by drawing on GHM's deep industry and application engineering experience to develop best-in-class products that are critical to the processes and systems in which they operate.

GHM has established strong and long-standing customer relationships with numerous industry leaders.

Principal customers include:

- **End users** of its products in their manufacturing, refining and power generation processes
- **Large engineering companies** that build installations for companies in such industries
- **The original equipment manufacturers** who combine GHM products with their equipment prior to its sale to end users.

GHM products are sold by a team of sales engineers it employs directly as well as by independent sales representatives located worldwide. It uses a direct sales force to serve end-use customers because these customers typically require higher levels of technical assistance, more coordinated shipment scheduling and more complex product service than customers that purchase through distributors.

There may be short periods of time, a fiscal year for example, where one customer may make up greater than 10% of its business but it is not common. However, if this occurs in multiple years, it is usually not the same customer or project over a multi-year period. No single customer accounted for greater than 10% of business in 2018.

Key Strength:

Making a profit on one-off, highly engineered products is a key strength at GHM.

Making these products requires a special level and mix of skills. Just as difficult: making a profit. The orders GHM receives results in a highly complex engineered-to-order piece of equipment. The specifications themselves are numerous and the tolerances are tight. In Figure 6, we show the order form for a steam ejector. As you can see there are a lot of variables including the type of material. GHM engineers take that information and working with the customer, turn it into a drawing of an object that when completed may weigh tons and stand 20 meters tall.

Figure 6 – Graham Corporation – Steam Ejector Order Form

| Suction Conditions: | | | | | | |
|--|-------------|--------------|--|--|---------------------------|--------------------|
| Mass Flow and Properties of each component (100% flow) | | | | | | |
| No | Name | Flow (kg/hr) | M.W. | Vapor Press. / Temp. Pairs (mbar (abs) & °C) | Latent Heat (kJ/lb) | Vapor Cp (kJ/kg K) |
| 1 | Air | | 29 | | | |
| 2 | Water Vapor | | 18 | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| Suction Pressure (mbar(abs)) | | | | | | |
| Suction Temperature (°C) | | | | | | |
| Evacuation Performance (if applicable): | | | | | | |
| Evacuation: Initial Pressure (mbar (abs)) | | | | | Initial Temperature (°C) | |
| Volume to be evacuated (m³) | | | | | Final Pressure (bar(abs)) | |
| Time for evacuation (min) | | | | | Air-in Leakage (kg/hr) | |
| Discharge Conditions: | | | | | | |
| Maximum Discharge Pressure (bar(abs)) | | | | | | |
| Maximum Allowable Discharge Temp (°C) | | | | | | |
| Normal Barometric Pressure (bar) | | | | | | |
| Utility Conditions: | | | | | | |
| Steam: | | | | | | |
| Min. Maintainable Supply Pressure (kPa(g)) | | | | | Temperature (°C) | |
| Max. Supply Pressure (kPa(g)) | | | | | Temperature (°C) | |
| Cooling Water: | | | | | | |
| Max. Supply Temperature (°C) | | | | | Max Δ T Allowed (°C) | |
| Supply Pressure (kPa(g)) | | | | | Max Δ P Allowed (kPa) | |
| Min/Max Flow Available (L/min) | | | | | | |
| Construction (Materials unless otherwise noted) | | | | | | |
| Ejectors: | | | | | | |
| Steam Nozzle: | | | | Steam Chest: | | |
| Diffuser: | | | | Suction Chamber: | | |
| Steam Chest Design Pressure (kPa(g)): | | | | Temperature (°C): | | |
| Body Design Pressure (kPa(g)): | | | | Temperature (°C): | | |
| Condensers: | | | | | | |
| | | | <input type="checkbox"/> Shell & Tube, or | <input type="checkbox"/> Barometric (Direct Contact) | | |
| Shell: | | | <input type="checkbox"/> Baffles: | Bonnet/Channels: | | |
| Tubesheets: | | | Tubes: | | Tube OD/BWG: | |
| Design Press./Temp (kPa(g)/°C) | | | Shell Side | | Tube Side | |
| Fouling Factor (m² K/W) | | | Shell Side | | Tube Side | |
| TEMA <input type="checkbox"/> C <input type="checkbox"/> B or <input type="checkbox"/> R | | | TEMA Type | | | |
| ASME Code Yes <input type="checkbox"/> No <input type="checkbox"/> | | | Stamp Yes <input type="checkbox"/> No <input type="checkbox"/> | | | |
| Condensing In: <input type="checkbox"/> Shellside or <input type="checkbox"/> Tubeside | | | Orientation <input type="checkbox"/> Horizontal or <input type="checkbox"/> Vertical | | | |

Source: Graham Corporation

However, nothing is built before engagement with the customer. Typically, there is intense interaction between GHM project management teams and the end user or its engineering firm as product design and quality requirements are finalized after an order is placed. GHM has its own proprietary database of what materials to use and configuration of the equipment and it uses this to both work with the customer to achieve the best results and minimize change orders. In some instances, GHM will have better insight into certain variables in the design that will dramatically impact its use. GHM has built strong capabilities which we believe (and the financial results show) allows it to successfully execute high quality, engineered-to-order and build-to-spec process-critical equipment. To execute this and bring it in at a profit, it has to internally manage, order administration, risk management, cost containment, quality and engineering documentation, which are as important as the equipment itself. GHM also has to manage its supplier base. The supplier selection process begins with assessing whether a supplier can manage all aspects of an order.

We believe its customer-facing platform of sales, project estimating and application engineering are competitive advantages. It has tools and capabilities to iterate quickly and comprehensively as customers evaluate how best to integrate GHM equipment into their facilities. Early and deep involvement adds value to the process and is an important competitive differentiator in the long sales

cycle industries it serves. We believe customers need its engineering and fabrication expertise early in the project life cycle to understand how best to specify GHM equipment.

Production

GHM maintains a responsive, flexible production environment. We believe the operations platform in its businesses is adept at handling low volume, high mix orders that are highly customized. We also believe that its production environment is much different from a highly engineered standard products business. While certain equipment in a product group (e.g. steam ejectors) may look similar, there are often subtle differences which are required to deliver the desired specification. Those differences may be the materials it is made from which can have a significant impact on the lifetime of the equipment. Also, during production it is not uncommon for customer-driven engineering changes to occur that alter the configuration of what had been initially released into production. The markets that it serves demand this flexible operating model.

GHM provides after-the-sale technical support. Its engineering and service personnel go to customer sites to audit the performance of its equipment, provide operator training and troubleshoot performance issues. Technical service after a sale is important to both maintain its relationships and leveraging its equipment to maximize its capabilities.

It has a highly trained workforce. On our visit to the factory in Batavia, we observed key strengths in both machining and welding and the factory was configured in a way to easily and flexibly move from one making one type of equipment to another. Welding is an underappreciated skill when building large equipment that may be exposed to intense heat, pressure, or corrosive liquids.

On-going long-term strategy

Gain market share in the U.S. Navy's Nuclear Propulsion Program. Continue to demonstrate proficiency by successfully executing the complex Nuclear Propulsion Program orders that are currently in backlog by controlling both cost and risk, providing high-quality custom fabrication to exacting military quality control requirements and through disciplined project management.

Gain market share in the domestic and international nuclear power industry and identify additional domestic and international opportunities to serve the commercial nuclear power industry.

Continue to invest in people and capital equipment to meet the anticipated long-term growth in demand for GHM products in the oil refining, petrochemical processing and power generation industries, especially in emerging markets.

Competition

GHM's business is highly competitive. The principal bases on which it competes include technology, price, performance, reputation, delivery, and quality. Some of its competitors are listed in Figure 13:

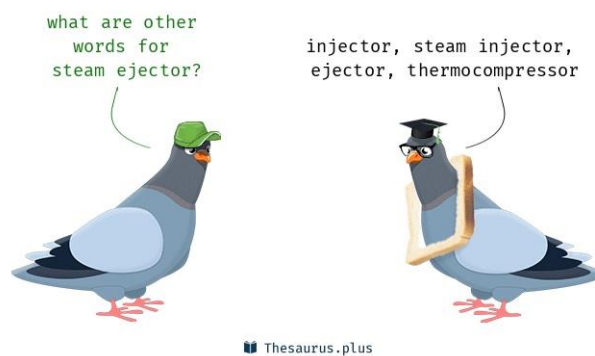
Operations

Corporate headquarters is located in Batavia, New York. It has production facilities co-located with its headquarters in Batavia and also at its wholly-owned subsidiary, Energy Steel & Supply Co. ("Energy Steel"), located in Lapeer, Michigan. GHM also has a wholly-owned foreign subsidiary, Graham Vacuum and Heat Transfer Technology (Suzhou) Co., Ltd. ("GVHTT"), located in Suzhou, China. GVHTT provides sales and engineering support in the People's Republic of China and management oversight throughout Southeast Asia.

Products – Sure they are big, expensive and weigh a lot but what do they do?

There are two broad categories of products: Vacuum System Products and Heat Transfer Products. Look back to Figure 5 to see which products fall into these categories. Explaining what these products do is not simple for the main reason that they aren't something you are likely to come into contact with unless you are a nuclear engineer at a power plant or a chemical engineer at an oil refinery. There are also no helpful synonyms for the products either. We know because we looked. Figure 7 shows synonyms for product category, Steam Ejector:

Figure 7 – Graham Corporation – Other words for Steam Ejector



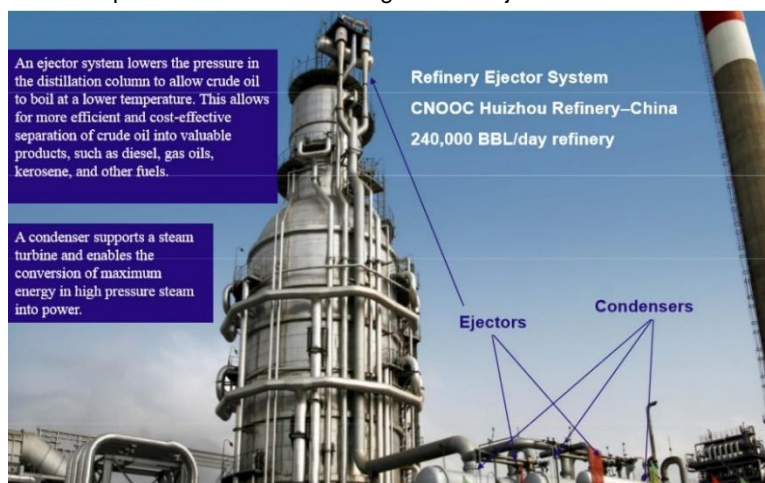
Source: thesaurus plus

We are not going to present technical papers here, but we believe that some understanding of the products would assist in understanding the opportunities for each. We have attempted to summarize the salient points of each product and include an image that shows scale.

Steam ejectors

- Highly engineered metal product – where design, welding and metal fabrication are all GHM skills
- No moving parts
- May weigh tons, up to 20 meters long and a meter wide
- Made of different types of metal depending on application and budget
- Primarily found in refineries where it is used to process gases into value added liquids but can also be used for evacuation, crystallization, drying, evaporation or cooling
- A refinery may use multiple steam ejectors as shown in Figure 8

Figure 8 – Graham Corporation – GHM Multi-stage Steam Ejectors and Condensers at a Refinery



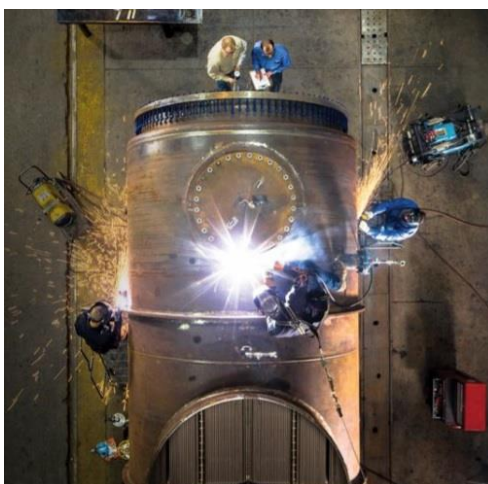
Source: Graham Corporation

Surface and Process Condensers

- Highly engineered metal product– where design, welding and metal fabrication are all GHM skills
- No moving parts
- May weigh tons, up to 20 meters long and multiple meters wide and high
- Made of different types of metal depending on application and budget
- Primarily found anywhere that steam turbines are used to power pumps or generate electricity but can also be used to separate gases as in food production or refining

A refinery or power plant may use multiple condensers. A condenser being assembled is shown in Figure 9

Figure 9 – Graham Corporation – Overhead View of a Half of a Condenser



Source: Graham Corporation

Liquid Ring Pumps and Compressors

- Highly engineered metal product– where design, welding and metal fabrication are all GHM skills
- Few moving parts
- May weigh a couple hundred pounds
- Made of different types of metal depending on application and budget
- Used in a variety of applications

A refinery may use multiple liquid ring pumps. A liquid ring pump module is shown in Figure 10. The ring pump is at the right side of the electric motor shown here in blue. The entire assembly except the motor was made by Graham.

Figure 10 – Graham Corporation – Liquid Ring Pump



Source: Graham Corporation

Heliflow Heat Exchangers

- Highly engineered metal product– where design, welding and metal fabrication are all GHM skills
- No moving parts
- May weigh as little as a couple hundred pounds up to 1000's
- Made of different types of metal depending on application and budget
- Used in a variety of applications

Used in many plants and factories for a variety of cooling applications. In Figure 11 we show a disassembled Heliflow Heat Exchanger and there is an air gun to the left of the image (in black) to show scale.

Figure 11 – Graham Corporation – Disassembled Heliflow Heat Exchanger



Source: Graham Corporation

Plate Heat Exchangers

- Highly engineered metal product– where design, welding and metal fabrication are all GHM skills
- No moving parts
- May weigh as little as a couple hundred pounds up to 1000's
- Made of different types of metal depending on application and budget
- Used in a variety of applications

Used in many plants and factories for a variety of cooling applications and shown in Figure 12.

Figure 12 – Graham Corporation – Plate Heat Exchangers



Source: Graham Corporation

Management

James R. Lines, President and Chief Executive Officer

James R. Lines became President and Chief Executive Officer in January 2008. Prior to that, Mr. Lines served as President and Chief Operating Officer and a Director of the Company since June 2006. Mr. Lines has served in various capacities since 1984. He has also previously held the positions of Vice President and General Manager, Vice President of Engineering, and Vice President of Sales and Marketing. Prior to joining the management team, he served us as an application engineer and sales engineer as well as a product supervisor. Mr. Lines holds a Bachelor of Science in Aerospace Engineering from the State University of New York at Buffalo. He is the author of numerous technical papers on design of GHM products.

Jeffrey F. Glajch, Vice President-Finance & Administration, Chief Financial Officer and Corporate Secretary

Jeffrey Glajch became Vice President - Finance & Administration and Chief Financial Officer in March 2009. From October 2006 until March 2009, he served as the Chief Financial Officer of Nukote International, a privately held global re-manufacturer of printing and imaging products, where he led the finance and information technology teams. Previously, and between June 2000 and May 2006, Mr. Glajch was the Chief Financial Officer of Fisher Scientific Canada, a global healthcare and laboratory equipment company. Mr. Glajch has also previously served as a Senior Manager of Finance and Business Planning/Analysis at Walt Disney World Company, as Director of Finance/Division Controller at Great Lakes Chemical Corporation and in various financial positions



Graham Corporation

GHM-Buy-\$33 PT

with Air Products and Chemicals, Inc. He began his career in the engineering department of Westvaco Corporation.

Mr. Glajch holds a Bachelor of Science in Chemistry from Carnegie-Mellon University, a Master of Science in Chemical Engineering from Clarkson University and an MBA from Purdue University.

Alan E. Smith, Vice President - General Manager

Alan E. Smith was appointed Vice President of Operations in July 2007. Previously, from 2005 until July 2007, Mr. Smith served as Director of Operations for Lydall, Inc., a designer and manufacturer of specialty engineering products. Prior to that, he had been employed by GHM for fourteen years, progressing from Project Engineer to Engineering Manager.

A licensed Professional Engineer, Mr. Smith holds a Master of Science in Mechanical Engineering from the Rochester Institute of Technology, a Bachelor of Science in Mechanical Engineering from Clarkson University, a Bachelor of Arts in Physics from the State University of New York at Geneseo and an MBA from Medaille College. He has participated in seven Six Sigma green belt projects and a number of professional development courses.

Figure 13 – Graham Corporation – Comp Table

| Identifier | Company Name | Market Cap (\$M) | Price 5/24 | EV (\$M) | 2020 PE | 2018 P/Book | 2020 EV/EBITDA | 2018 EV/Revenue | 2019 EV/Revenue | 2020 EV/Revenue | Multiple of Normalized EBIT |
|------------|------------------------------------|------------------|--------------|---------------|--------------|-------------|----------------|-----------------|-----------------|-----------------|-----------------------------|
| IR | Ingersoll-Rand PLC | 28,984.81 | 120.19 | 32,715.31 | 17.08 | 3.14 | 11.69 | 1.61 | 1.98 | 1.90 | 20.06 |
| XYL.N | Xylem Inc | 13,302.45 | 73.93 | 15,387.45 | 19.90 | 4.33 | 13.22 | 2.69 | 2.86 | 2.72 | 31.45 |
| DOV | Dover Corp | 13,210.45 | 90.90 | 16,264.53 | 14.55 | 3.71 | 11.27 | 1.87 | 2.25 | 2.17 | 18.99 |
| IEX | IDEX Corp | 11,577.13 | 152.92 | 11,969.89 | 24.69 | 4.81 | 16.40 | 4.02 | 4.66 | 4.46 | 26.21 |
| ALFA.ST | Alfa Laval AB | 8,921.89 | 21.27 | 9,608.95 | 14.53 | 3.39 | 10.00 | 2.13 | 2.02 | 1.94 | 16.71 |
| NOV | National Oilwell Varco Inc | 8,640.76 | 22.39 | 10,041.76 | 43.35 | 0.71 | 9.38 | 1.33 | 1.18 | 1.06 | - |
| GDI | Gardner Denver Holdings I | 7,123.78 | 35.27 | 8,490.28 | 16.89 | 2.42 | 11.63 | 2.05 | 3.11 | 2.99 | 48.34 |
| FLS | Flowserve Corp | 6,378.57 | 48.64 | 7,226.48 | 18.94 | 3.02 | 11.33 | 1.53 | 1.82 | 1.74 | 18.99 |
| CFX | Colfax Corp | 2,947.19 | 25.07 | 7,042.34 | 8.84 | 0.75 | 8.06 | 0.99 | 1.45 | 1.37 | 23.06 |
| GTLS.O | Chart Industries Inc | 2,441.85 | 76.95 | 2,907.45 | 16.08 | 2.31 | 8.79 | 2.28 | 2.12 | 1.76 | 50.79 |
| CIR | CIRCOR International Inc | 863.58 | 43.40 | 1,524.85 | 15.52 | 0.80 | 11.31 | 0.97 | 1.36 | 1.32 | 43.18 |
| GRC | Gorman-Rupp Co | 806.46 | 30.87 | 756.56 | 17.64 | 2.89 | | 1.93 | 1.75 | 1.67 | 18.86 |
| THR | Thermon Group Holdings I | 768.77 | 23.58 | 963.02 | 17.60 | 2.17 | 10.33 | 2.97 | 2.41 | 2.34 | 28.10 |
| ERII.OQ | Energy Recovery Inc | 519.73 | 9.54 | 430.96 | 13.58 | 3.20 | 7.22 | 3.59 | 5.08 | 4.11 | - |
| | Average | 7,606.24 | 55.35 | 8,952.13 | 18.52 | 2.69 | 10.82 | 2.14 | 2.43 | 2.25 | 28.73 |
| GHM | Graham Corp | 206.22 | 20.97 | 125.97 | 25.57 | 2.03 | 11.45 | 1.72 | 1.34 | 1.24 | 17.93 |
| | Graham Premium/(Discount) to peers | | | | 38% | -25% | 6% | -20% | -45% | -45% | -38% |

Source: Litchfield Hills Research, LLC and Thomson Reuters Eikon

Figure 14 - Graham Corporation - Income Statement

(\$ in thousands except per share)

| March ending year | 2016 Year | 2017 Year | 2018 | | | | 2018 Year | 2019E | | | | 2019E Year | 2020E | | | | 2020E Year |
|----------------------------|---------------|---------------|--------------|--------------|-----------------|--------------|-----------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|
| | | | Q1 | Q2 | Q3 | Q4 | | Q1A | Q2A | Q3A | Q4E | | Q1E | Q2E | Q3E | Q4E | |
| Total revenue | \$90,039 | \$91,769 | \$20,851 | \$17,224 | \$17,281 | \$22,178 | \$77,534 | \$29,551 | \$21,441 | \$17,198 | \$24,810 | \$93,000 | \$23,000 | \$25,000 | \$28,000 | \$26,000 | \$102,000 |
| <i>Growth</i> | -33% | 2% | -7% | -18% | -24% | -13% | -16% | 42% | 24% | 0% | 12% | 20% | -22% | 17% | 63% | 5% | 10% |
| Cost of Goods | 66,784 | 69,608 | 16,073 | 13,483 | 13,785 | 16,863 | 60,204 | 22,409 | 15,214 | 13,456 | 17,921 | 69,000 | 17,020 | 18,250 | 20,020 | 18,980 | 74,270 |
| Gross Profit | 23,255 | 22,161 | 4,778 | 3,741 | 3,496 | 5,315 | 17,330 | 7,142 | 6,227 | 3,742 | 6,889 | 24,000 | 5,980 | 6,750 | 7,980 | 7,020 | 27,730 |
| Gross Margin | 25.8% | 24.1% | 22.9% | 21.7% | 20.2% | 24.0% | 22.4% | 24.2% | 29.0% | 21.8% | 27.8% | 25.8% | 26.0% | 27.0% | 28.5% | 27.0% | 27.2% |
| SG&A | \$16,331 | \$14,624 | \$3,654 | \$3,671 | \$4,037 | \$4,048 | \$15,410 | \$4,551 | \$4,718 | \$4,249 | \$4,982 | \$18,500 | \$4,800 | \$4,900 | \$5,000 | \$4,900 | \$19,600 |
| % of total revenue | 18.1% | 15.9% | 17.5% | 21.3% | 23.4% | 18.3% | 19.9% | 15.4% | 22.0% | 24.7% | 20.1% | 19.9% | 20.9% | 19.6% | 17.9% | 18.8% | 19.2% |
| SG&A amortization | \$234 | \$234 | \$58 | \$60 | \$59 | \$59 | \$236 | \$59 | \$60 | \$59 | \$122 | \$300 | \$55 | \$55 | \$55 | \$55 | \$220 |
| Total Operating Expenses | 16,565 | 14,858 | 3,712 | 3,731 | 4,096 | 4,107 | 15,646 | 4,610 | 4,778 | 4,308 | 5,104 | 18,800 | 4,855 | 4,955 | 5,055 | 4,955 | 19,820 |
| Operating Income | 6,690 | 7,303 | 1,066 | 10 | (600) | 1,208 | 1,684 | 2,532 | 1,449 | (566) | 1,785 | 5,200 | 1,125 | 1,795 | 2,925 | 2,065 | 7,910 |
| Operating Margin | 7.4% | 8.0% | 5.1% | 0.1% | -3.5% | 5.4% | 2.2% | 8.6% | 6.8% | -3.3% | 7.2% | 5.6% | 4.9% | 7.2% | 10.4% | 7.9% | 7.8% |
| Total Other Items | 2,040 | (254) | 267 | (36) | (14,558) | (211) | (14,538) | 493 | 556 | 605 | 546 | 2,200 | 500 | 500 | 500 | 500 | 2,000 |
| Pre-Tax Income | 8,730 | 7,049 | 1,333 | (26) | (15,158) | 997 | (12,854) | 3,025 | 2,005 | 39 | 2,331 | 7,400 | 1,625 | 2,295 | 3,425 | 2,565 | 9,910 |
| Pre-Tax Margin | 9.7% | 7.7% | 6.4% | -0.2% | -87.7% | 4.5% | -16.6% | 10.2% | 9.4% | 0.2% | 9.4% | 8.0% | 7.1% | 9.2% | 12.2% | 9.9% | 9.7% |
| Taxes (benefit) | 2,599 | 2,026 | 398 | (36) | (3,536) | 164 | (3,010) | 702 | 178 | (56) | 676 | 1,500 | 325 | 459 | 685 | 513 | 1,982 |
| Tax Rate | 29.8% | 28.7% | 29.9% | 138.5% | 23.3% | 16.4% | 23.4% | 23.2% | 8.9% | 20.0% | 29.0% | 20.3% | 20.0% | 20.0% | 20.0% | 20.0% | 20.0% |
| Net Income (loss) | 6,131 | 5,023 | 935 | 10 | (11,622) | 833 | (9,844) | 2,323 | 1,827 | 95 | 1,655 | 5,900 | 1,300 | 1,836 | 2,740 | 2,052 | 7,928 |
| Net Margin | 6.8% | 5.5% | 4.5% | 0.1% | -67.3% | 3.8% | -12.7% | 7.9% | 8.5% | 0.6% | 6.7% | 6.3% | 5.7% | 7.3% | 9.8% | 7.9% | 7.8% |
| EPS, as reported | 0.61 | 0.52 | 0.11 | 0.00 | (1.19) | 0.09 | (1.01) | 0.24 | 0.19 | 0.01 | 0.17 | 0.60 | 0.13 | 0.19 | 0.28 | 0.21 | 0.80 |
| Diluted Shares Outstanding | 9,983 | 9,728 | 8,758 | 9,775 | 9,768 | 9,781 | 9,764 | 9,804 | 9,848 | 9,845 | 9,850 | 9,837 | 9,852 | 9,854 | 9,856 | 9,858 | 9,855 |

Sources: Company reports and Litchfield Hills Research, LLC

Figure 15 - Graham Corporation - Balance Sheet

(\$ in thousands except per share)

| March ending year | FY2020E | FY2019E | FY2018A | FY2017 | FY2016 |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Balance sheet | | | | | |
| Current Assets | | | | | |
| Cash and S.T.I. | \$86,709 | \$82,776 | \$76,479 | \$73,834 | \$65,072 |
| Accounts receivable | 19,000 | 18,000 | 17,026 | 11,483 | 12,730 |
| Inventories | 16,000 | 18,000 | 11,566 | 9,246 | 10,811 |
| Other assets | <u>10,000</u> | <u>10,000</u> | <u>10,329</u> | <u>16,163</u> | <u>14,117</u> |
| Total Current Assets | 131,709 | 128,776 | 115,400 | 110,726 | 102,730 |
| Net PP&E | 18,000 | 17,400 | 17,052 | 17,021 | 18,747 |
| Other non-current assets | <u>12,000</u> | <u>12,000</u> | <u>10,881</u> | <u>23,823</u> | <u>21,654</u> |
| Total Assets | <u>\$161,709</u> | <u>\$158,176</u> | <u>\$143,333</u> | <u>\$151,570</u> | <u>\$143,131</u> |
| Current Liabilities | | | | | |
| Accounts payable | \$13,000 | \$12,000 | \$16,151 | \$10,295 | \$10,325 |
| Accrued expenses | 33,000 | 36,000 | 21,056 | 21,319 | 17,543 |
| Other current liabilities | <u>100</u> | <u>100</u> | <u>88</u> | <u>424</u> | <u>55</u> |
| Total current liabilities | 46,100 | 48,100 | 37,295 | 32,038 | 27,923 |
| Deferred income tax liability | 2,000 | 1,400 | 1,427 | 4,051 | 3,546 |
| Other non-current | <u>1,200</u> | <u>1,200</u> | <u>1,262</u> | <u>1,371</u> | <u>2,282</u> |
| Total Liabilities | 49,300 | 50,700 | 39,984 | 37,460 | 33,751 |
| Stockholders' Equity | | | | | |
| Preferred stock | | | | | |
| Total stockholders' equity | <u>112,409</u> | <u>107,476</u> | <u>103,349</u> | <u>114,110</u> | <u>109,380</u> |
| Total Liabilities and equity | <u>\$161,709</u> | <u>\$158,176</u> | <u>\$143,333</u> | <u>\$151,570</u> | <u>\$143,131</u> |

Sources: Company reports and Litchfield Hills Research, LLC

Figure 16 - Graham Corporation - Cash Flow

| Cash Flow | 2020E | 2019E | 2018A | 2017A |
|---|----------------|----------------|----------------|----------------|
| Net Income | \$7,928 | \$5,900 | (\$9,844) | \$5,023 |
| Accounts receivable | (1,000) | (974) | (5,543) | 1,247 |
| Inventories | 2,000 | (6,434) | (2,320) | 1,565 |
| Other assets | 0 | 329 | 5,834 | (2,046) |
| PP&E | (600) | (348) | (31) | 1,726 |
| Other non-current | 0 | (1,119) | 12,942 | (2,169) |
| | | | | |
| Accounts payable | 1,000 | (4,151) | 5,856 | (30) |
| Accrued expenses | 1,000 | 157 | (1,069) | (231) |
| Customer deposits | (4,000) | 14,787 | 806 | 4,007 |
| Other current liabilities | 0 | 12 | (336) | 369 |
| Deferred income tax liability | 600 | (27) | (2,624) | 505 |
| Other non-current | 0 | (62) | (109) | (911) |
| | | | | |
| Common stock | 5 | 7 | 3 | 8 |
| Capital in excess of par | 500 | 1,174 | 650 | 861 |
| Accumulated other comp. income | 0 | 250 | 184 | 2,242 |
| Treasury stock and note | 0 | 296 | (65) | 88 |
| Dividend and tax adj. | (3,500) | (3,500) | (1,689) | (3,492) |
| Total Cash Flow | \$3,933 | \$6,297 | \$2,645 | \$8,762 |
| <i>Source: Litchfield Hills Research, LLC</i> | | | | |

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