



**CFRA**

# Industry Surveys

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## Machinery

MAY 2023

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## NEW THEMES



**What's Changed:** In line with the recent changes to the GICS classification system, the Construction Machinery & Heavy Trucks and Industrial Machinery sub-industries have been renamed to Construction Machinery & Heavy Transportation Equipment and Industrial Machinery & Supplies & Components, respectively.



**What's Changed:** While we believe the globalization trend will persist over the longer term, we note the recent uptrend in onshoring as companies work to secure supply chains and reduce their exposure to global shocks. Read more on pages 14-15.

# EXECUTIVE SUMMARY

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CFRA has a neutral outlook on the Construction Machinery & Heavy Transportation Equipment, Industrial Machinery & Supplies & Components, and Agricultural & Farm Machinery sub-industries. Here we highlight the key themes and our outlook for 2023.

## ***U.S. Federal Infrastructure Spending***

After years of waiting in anticipation, U.S. federal infrastructure stimulus was finally signed into law on November 15, 2021. The \$1.2 trillion bipartisan plan is the largest federal investment in infrastructure in over 10 years. Spending is targeted on highways, bridges, broadband access, the power grid, and more, with strengthening infrastructure against climate change impacts being a key initiative. Project work will favor more sustainable methods and machinery, we believe. As a result, we think machinery names that are already working on more green operations will outpace peers' growth as project work ramps up. The Biden administration released several action plans in 2022 to accelerate project work and we anticipate activity around federally funded infrastructure projects to pick up through 2023.

## ***Manufacturing Reshoring: Supply Chain Revamp***

Machinery companies were materially impacted by shutdowns and social distancing practices during the Covid-19 pandemic. While CFRA thinks the second quarter of 2020 marked the low point for sales, demand, volume, productivity, etc., significant global supply chain headwinds have persisted into 2023. Machinery companies have seen gradual improvements in recent quarters, though they are still facing a challenging environment. Backlogs are being worked down on easing constraints but remain above historical levels even as order rates have moderated. One response to limited component availability has been to move manufacturing back into the U.S. to shorten and secure supply chain networks, a practice referred to as "reshoring." Recent construction spending on manufacturing facilities indicates the momentum behind this trend, becoming a key driver of growth in U.S. nonresidential construction spending.

## ***Trade with China: Tensions Run High***

China had committed to buy at least \$227.9 billion of U.S. exports in 2020 and \$274.5 billion in 2021 under the Phase 1 trade deal, totaling \$502.4 billion of purchases over the two-year period. U.S. exports to China fell well below what was agreed upon, with only 57% of commitments ultimately being met. Multiple challenges related to the pandemic, including recession and supply-chain issues, were cited by Chinese officials as reasons for not meeting the agreed-upon terms. In response, the U.S. has kept many tariffs in place that were implemented during Trump's presidency. Tensions have intensified following the Biden administration's restrictions on Chinese companies from purchasing advanced semiconductor chips and chip-making equipment. In the last four years, it has been hard to think about the Industrials sector without acknowledging the significant impact tariffs and the trade war have had across the sector. Machinery companies have often been at the center of the tariff and trade conversations.

## ***Conflict in Ukraine***

The invasion of Ukraine has resulted in deepening sanctions against Russia from the U.S. and other countries. In addition to oil and natural gas, Russia is a significant global producer of various metals. Companies within the Machinery industry have limited direct exposure to Russia. However, the ongoing conflict has contributed to significant inflationary pressures on commodity prices, elevated geopolitical risks, and further global supply chain disruptions. Peace negotiations between Russia and Ukraine have stalled, though several countries have tried to help facilitate a resolution. The conflict has the potential to decelerate global economic growth as it continues, with European countries being particularly vulnerable due to their dependence on Russian energy. Many U.S. machinery companies have exited their business operations in Russia entirely. While Europe's economy expanded in the fourth quarter of 2022 due to lower energy usage resulting from a warmer-than-usual winter, the risk of energy supply persists in the winter this year.

# MACHINERY

Outlook: Neutral

## MARKET CAP BREAKDOWN\*

RANK NO.	SUB-INDUSTRY†	MARKET CAP (\$ billion)
1	Industrial Machinery & Supplies & Components	393.5
2	Construction Machinery & Heavy Transportation Equipment	221.1
3	Agricultural & Farm Machinery	134.1

Market cap as of April 30, 2023.

Source: CFRA, S&P Global Market Intelligence.

\*Companies included in the S&P 1500 index.

†Refer to the Comparative Company Analysis section of this survey for companies in the sub-industries.

## BY THE NUMBERS

**53%**  
Growth in U.S. manufacturing construction spending during 2022

**Net-Zero**  
Biden's target to achieve net-zero emissions by 2050

**\$1,036/ton vs. \$1,122/ton**  
March 2023 vs. March 2022 domestic hot-rolled coil steel pricing

**+0.2% and +1.8%**  
Industrial production forecast in 2023 and 2024

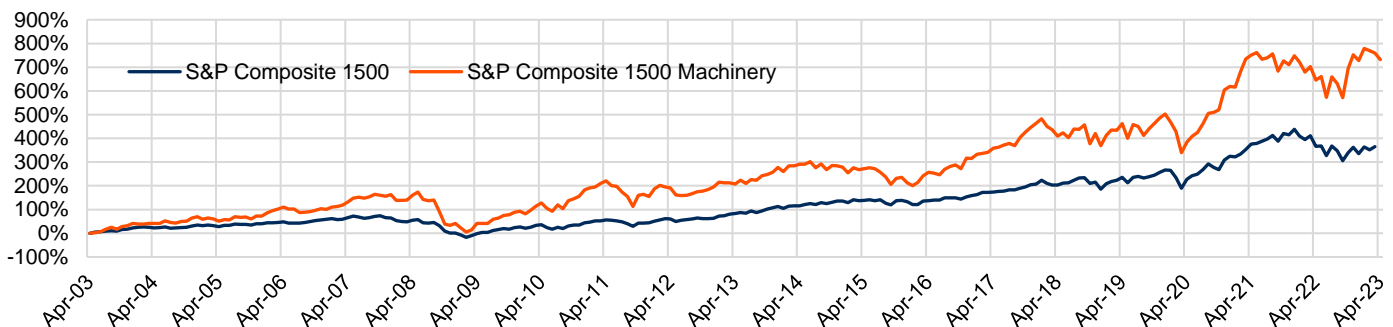
**2.5% and 3.4%**  
Forecasted growth for U.S. total construction spending in 2023 and 2024

**23%**  
Percent of U.S. greenhouse gas emissions that can be attributed to manufacturing sector

## ETF FOCUS

<b>XLI</b> Industrial Select Sector SPDR	AUM (\$M) <b>13,231</b>	Expense Ratio <b>0.10</b>
<b>VIS</b> Vanguard Industrials	AUM (\$M) <b>3,771</b>	Expense Ratio <b>0.10</b>
<b>IYJ</b> iShares U.S. Industrials	AUM (\$M) <b>1,182</b>	Expense Ratio <b>0.39</b>
<b>VEGI</b> iShares MSCI Agriculture Producers	AUM (\$M) <b>255</b>	Expense Ratio <b>0.39</b>
<b>FTAG</b> First Trust Indxx Global Agriculture	AUM (\$M) <b>18</b>	Expense Ratio <b>0.70</b>

## 20-YEAR INDEX PERFORMANCE

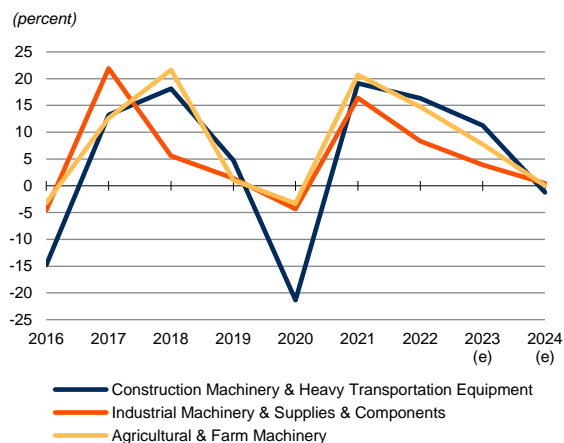


\*Data through April 30, 2023.

Source: CFRA, S&P Global Market Intelligence.

# FINANCIAL METRICS

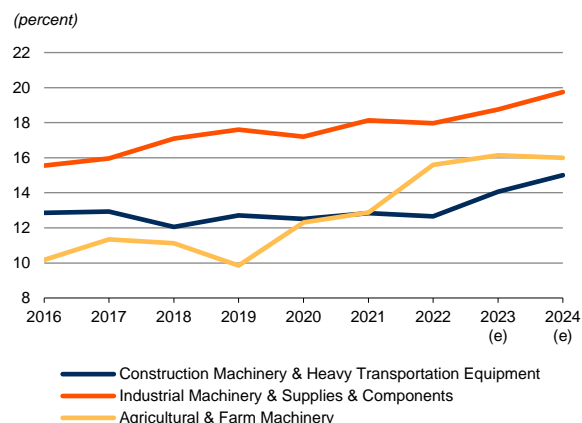
## Revenue Growth



Source: CFRA, S&P Global Market Intelligence.

- ◆ We expect revenue growth for the Construction Machinery & Heavy Transportation Equipment (“Construction Machinery & Heavy Trucks”) sub-industry to slow in 2023 and 2024 as we see strong pricing and volume growth from Heavy Trucks to be offset by sluggish Construction Machinery demand.
- ◆ Similarly for the Industrial Machinery & Supplies & Components (“Industrial Machinery”) sub-industry, we expect revenue growth to slow in 2023 and 2024 as weak consumer spending drags machinery demand. Despite moderating order rates/demand, backlogs remain extended above historical levels from supply chain challenges in 2022. Growth in 2023 would likely be supported as elevated backlogs are worked down and converted into sales.
- ◆ We see the revenue for the Agricultural & Farm Machinery sub-industry to normalize in 2023 and into 2024 following a strong growth in 2021 and 2022 on the back of strong agricultural commodity prices.

## EBITDA Margin

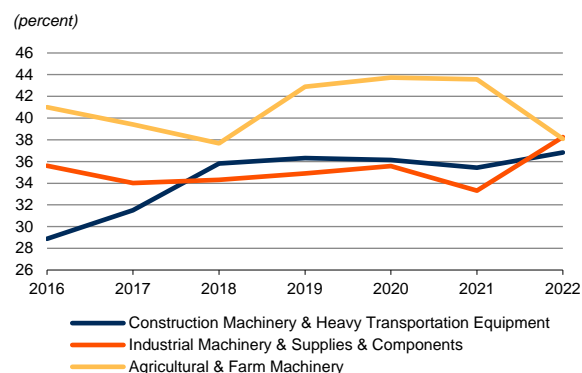


Source: CFRA, S&P Global Market Intelligence.

- ◆ We expect the EBITDA margin for all three sub-industries to remain elevated in 2023 and 2024.
- ◆ We attribute the elevated margin to the strong pricing realization and capitalization of cost-saving measures that firms made over the past years during the pandemic.
- ◆ Strong pricing has been the key to offsetting inflation and driving margin expansion. However, we see risks of margin pressure from prolonged price inflation, as well as a deeper-than-expected economy slowdown or a recession.

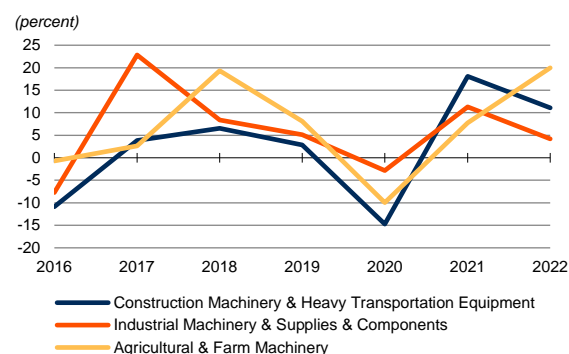


## Long-term Debt-to-Capital



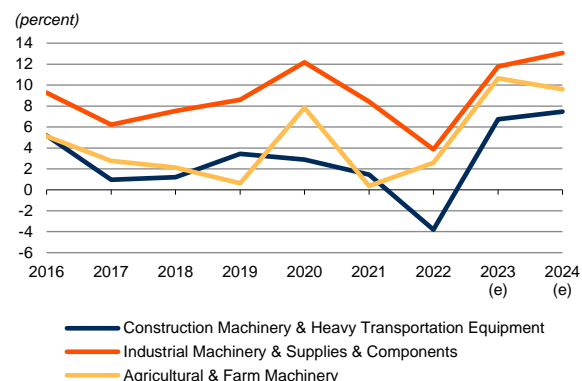
- ◆ The long-term debt-to-capital ratios for the sub-industries started to converge in 2017, primarily due to declining margins for Construction Machinery & Heavy Trucks. Agricultural & Farm Machinery expanded above other machinery sub-industries due to improving debt metrics.
- ◆ As of March 31, 2023, the Federal Reserve had increased the fed funds rate nine times since the start of 2022, bringing it to the 4.75-5.00% range, with potential for more increases. On the back of such high-interest rate environment, we anticipate companies in the sub-industries to cut back debts in order to keep borrowing costs in check.

## Research & Development Expenditure



- ◆ Research & development (R&D) spending for the Machinery industry rebounded strongly in 2021 and 2022 after it fell into negative territory in 2020 on sinking demand due to the Covid-19 pandemic.
- ◆ We expect moderation of R&D spending from these three sub-industries in 2023 and 2024 as market uncertainty and sticky price inflation raise demand uncertainty for machineries.

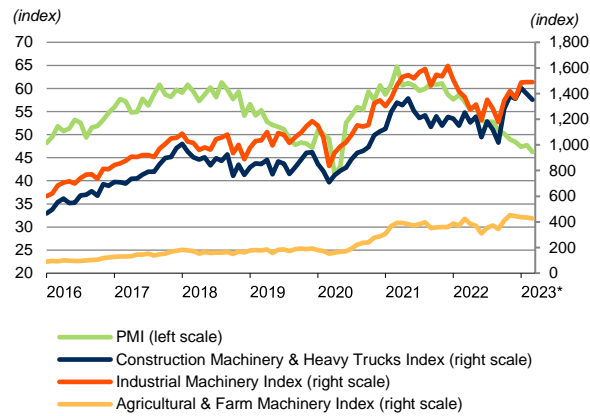
## Free Cash Flow Margin



- ◆ Free cash flow margins for Construction Machinery & Heavy Trucks and Industrial Machinery declined in 2021 and 2022, driven by increased investments and working capital expansion.
- ◆ We believe that moderation in investments and working capital growth, along with strong revenues and margins, will increase free cash flow margins for all three sub-industries in 2023 and 2024.

# KEY INDUSTRY DRIVERS

## Index Value and Purchasing Managers' Index

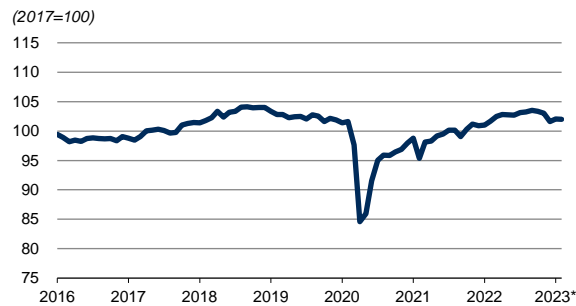


\*Data through March 2023.

Source: S&P Global Market Intelligence, Institute for Supply Management.

- ◆ The Purchasing Managers' Index (PMI) measures the business confidence of supply chain managers across 19 industries. An index level above 50% generally indicates the manufacturing economy is expanding.
- ◆ Action Economics anticipates the PMI to average 48.5 in 2023 and 51.1 in 2024.
- ◆ In 2022, the PMI averaged 53.5, a decline from the average of 60.7 in 2021, mainly affected by a weakening economy, high inflation, and supply chain disruptions, in our view.

## Industrial Production Index



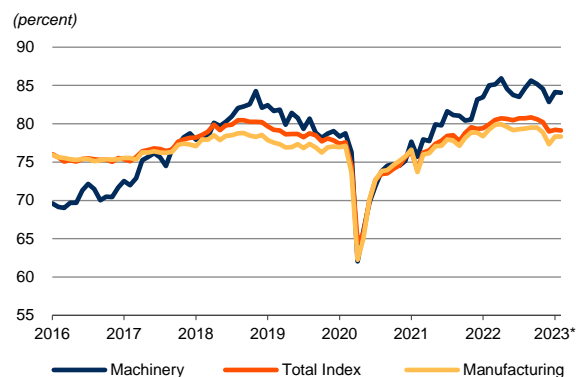
\*Data through February 2023.

Source: Federal Reserve Board.

- ◆ Action Economics expects the Industrial Production (IP) index to expand by 0.2% in 2023 and 1.8% in 2024.
- ◆ In 2022, the IP index averaged 102.6, up 3.4% from 2021, driven by higher output across the board.



## Capacity Utilization

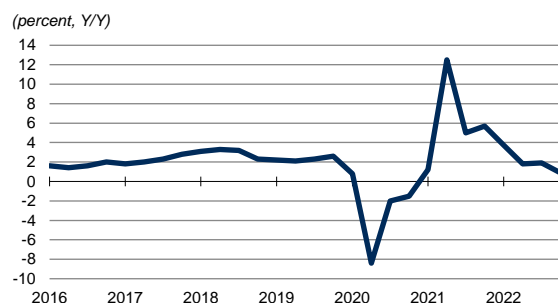


\*Data through February 2023.

Source: Federal Reserve Board.

- ◆ Higher employed capacity suggests the potential for higher industry pricing, increased levels of business spending, and a potential increase in capacity to meet burgeoning demand.
- ◆ Action Economics forecasts the total capacity utilization to average 79.3% in 2023 and 79.5% in 2024.
- ◆ In 2022, the Machinery industry had a capacity utilization of 84.5%, compared to 79.7% in 2021, and above the five-year average of 79.6.
- ◆ The manufacturing segment recorded an average capacity utilization of 80.3% in 2022, versus 77.6% in 2021 (versus the five-year average of 77.8).

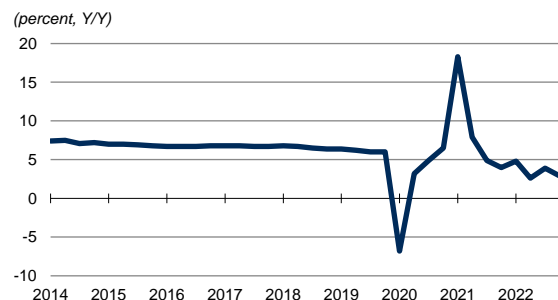
## U.S. Real GDP Growth



Source: U.S. Bureau of Economic Analysis.

- ◆ U.S. real GDP is expected to grow 1.6% in 2023 and 1.5% in 2024, according to estimates by Action Economics.
- ◆ Real GDP growth in the U.S. fell to 2.1% in 2022 from 5.9% in 2021 as a result of rising interest rates and a slowing economy.

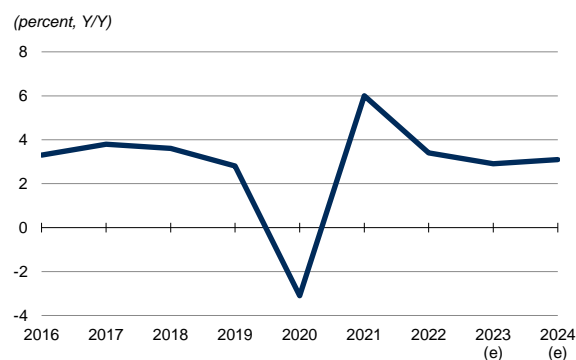
## China Real GDP Growth



Source: China National Bureau of Statistics.

- ◆ The International Monetary Fund (IMF) expects China's real GDP growth rate to improve to 5.2% in 2023 and 4.5% in 2024, from 3.0% in 2022. We credit the economy's reopening and large stimulus for the higher growth.
- ◆ China's real GDP growth in the fourth quarter of 2022 increased 2.9%, compared to 4.0% in the fourth quarter of 2021. Although the real estate sector continued to decline in the fourth quarter of 2022, the positive growth from the construction, industrial, manufacturing, IT, and agricultural sectors were enough to offset the drag.

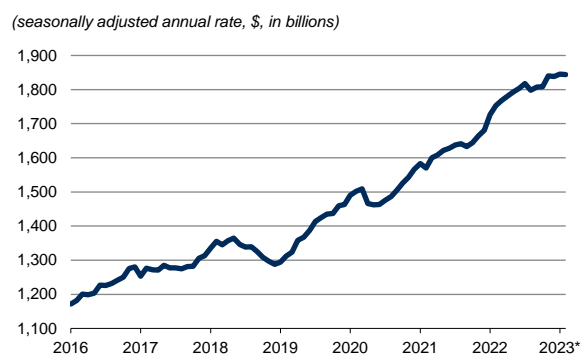
## Global Real GDP Growth



Source: International Monetary Fund.

- ◆ The IMF projects global GDP growth to drop to 2.9% in 2023 as the cost of living is under pressure due to challenges such as decades-high inflation, tightening financial conditions in most regions, Russia's invasion of Ukraine, and the lingering Covid-19 pandemic, all of which weigh heavily on the outlook.
- ◆ In January 2023, the IMF projects a global GDP growth rate of 2.9% in 2023, compared to 6.2% in 2021 and 3.4% in 2022, due to the effects of the war in Ukraine and the global fight against inflation.

## Construction Spending Growth



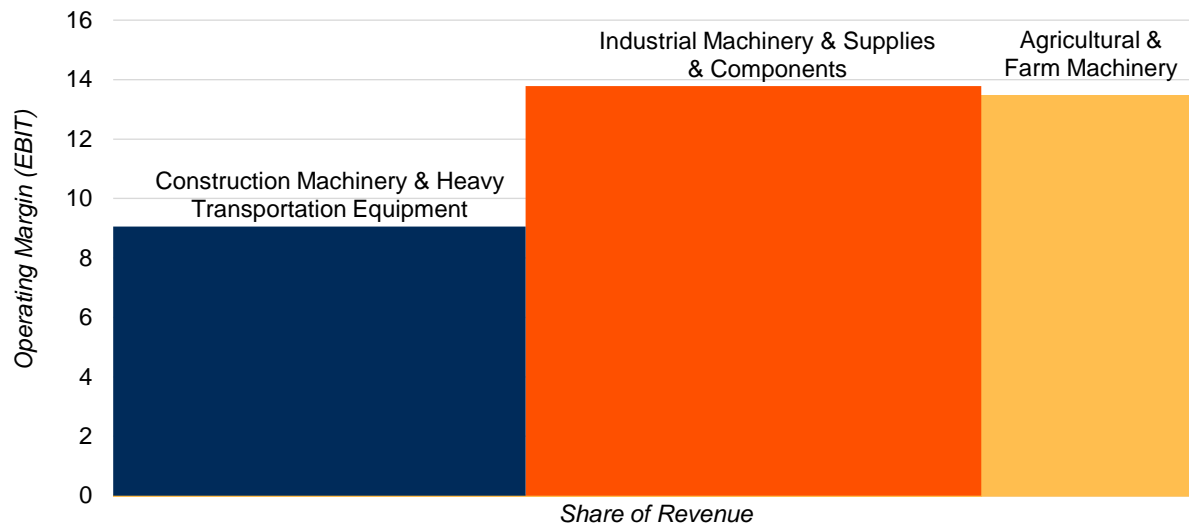
\*Data through February 2023.  
Source: U.S. Census Bureau.

- ◆ Construction spending grew 10.3% in 2022, compared to 8.4% in 2021.
- ◆ Action Economics projects construction spending growth to slow to 2.5% in 2023 and tick up to 3.4% in 2024. Although we expect to see construction investment negatively affected by high interest rates and a gloomy economic outlook, recent legislative initiatives like the Inflation Reduction Act, CHIPS Act, and IIJA should partially offset the slowdown and support the industry as a whole.

# INDUSTRY TRENDS

## PROFIT-POOL MAP OF MACHINERY INDUSTRY

(for the year of 2022)



Source: CFRA, S&P Global Market Intelligence.

In 2022, the Industrial Machinery & Supplies & Components (or “Industrial Machinery”) sub-industry had the largest share of Machinery industry revenue at 41.8%, followed by the Construction Machinery & Heavy Transportation Equipment (or “Construction Machinery & Heavy Trucks”) sub-industry at 38.6%. In terms of earnings before interest and tax (EBIT) margins, the Industrial Machinery sub-industry enjoyed the highest margins out of all Machinery sub-industries.

### LARGEST FIVE COMPANIES BY MARKET CAPITALIZATION FOR EACH SUB-INDUSTRY\*

Construction Machinery & Heavy Trucks				Industrial Machinery				Agricultural & Farm Machinery			
Rank No.	Company	Market Cap (\$ billion)	Share (%)	Rank No.	Company	Market Cap (\$ billion)	Share (%)	Rank No.	Company	Market Cap (\$ billion)	Share (%)
1	Caterpillar	113.0	51.1	1	Illinois	73.7	18.7	1	Deere & Co	112.0	83.5
2	PACCAR	39.0	17.7	2	Parker-Hannifin	41.7	10.6	2	The Toro	10.9	8.1
3	Cummins	33.3	15.0	3	Fortive	35.3	9.0	3	AGCO	9.3	6.9
4	Wabtec	17.6	7.9	4	Ingersoll Rand	23.1	5.9	4	Lindsay	1.3	1.0
5	Oshkosh	5.0	2.3	5	Otis	22.3	5.7	5	Titan International	0.6	0.5
	Others	13.2	6.0		Others	197.5	50.2				
<b>Total</b>		<b>221.1</b>		<b>Total</b>		<b>393.5</b>		<b>Total</b>		<b>134.1</b>	

\*Data as of April 30, 2023.

Source: CFRA, S&P Global Market Intelligence

## Competitive Environment

Below, we use the Porter's Five Forces framework as a tool to analyze the competitive environment of the overall Machinery industry.

Porter's Five Forces Analysis	
<b>Degree of Rivalry/ Competition (High)</b>	The Machinery industry is one of the largest industries in the economy, and companies in the industry face intense competition both domestically and in global markets. It is also a very diversified and fragmented industry where major firms offer a wide variety of different products and services. Companies can set themselves apart from competitors in a few different ways. A focus on R&D is critical in creating and maintaining an innovative product line. Companies whose products and services communicate all the way through the supply chain set themselves apart from less integrated offerings from peers. Another differentiation technique is to offer products or services that other close peers do not offer. How well a company can capitalize on emerging benefits can also set it apart from peers.
<b>Bargaining Power of Customers (Low)</b>	Buyers/customers have low bargaining power. The imbalance between the number of companies that sell machinery and the number of customers is heavily tilted in favor of the machinery companies (even more so for the dominant firms in the industry). Switching costs are very high for large machinery and due to contract structure. Some things that affect customer power are the size of the order, the number of companies that produce the product needed, and the cost to the customer to switch providers.
<b>Bargaining Power of Suppliers (Medium)</b>	Supplier bargaining power is based on scarcity of the product or material supplied, competition for the product or material, supplier size, and switching costs. Typically, the power of these suppliers is quite low overall, especially for large firms that use products and materials from many suppliers. But in the current operating environment, suppliers have more power than normal. Assuming a supplier has inventory, they have outsized power over customers due to supply chain constraints that are limiting the available supply. In a more normal supply environment, if one supplier begins to pressure firms, there is a high probability that the firm will search for a new provider (especially for raw materials). With the stress on the current supply chain, firms have fewer options to search for a new supplier, and thus are more likely to accept higher prices and less favorable terms.
<b>Threat of Substitutes (Low/Medium)</b>	The threat of substitutes is low to moderate. Dominant firms in the industry are differentiated enough that each has some unique offerings or service terms in addition to products that peers may also produce. High capital requirements for new entrants make it hard for new companies to make a dent in the market. A firm can fend off substitutes through efficient total supply chain integration, innovative technology, and product offerings (and releasing such products before competitors) and by capitalizing on emerging markets before peers.
<b>Threat of New Entrants or New Entry (Low)</b>	The threat of new entrants is low for the industry. It is challenging for a new entrant to raise adequate capital to establish itself as a viable competitor. Additional hurdles include absolute cost advantages, government policies and regulation, access to suppliers and distribution channels, product differentiation, name brand loyalty, patents and proprietary knowledge, and switching costs. New firms do have the opportunity to introduce new products, services, or innovative technologies. They can pressure larger firms through lower pricing and lower costs. Established firms can keep barriers high if they dedicate focused efforts to R&D.

# Operating Environment

## Commodity Prices

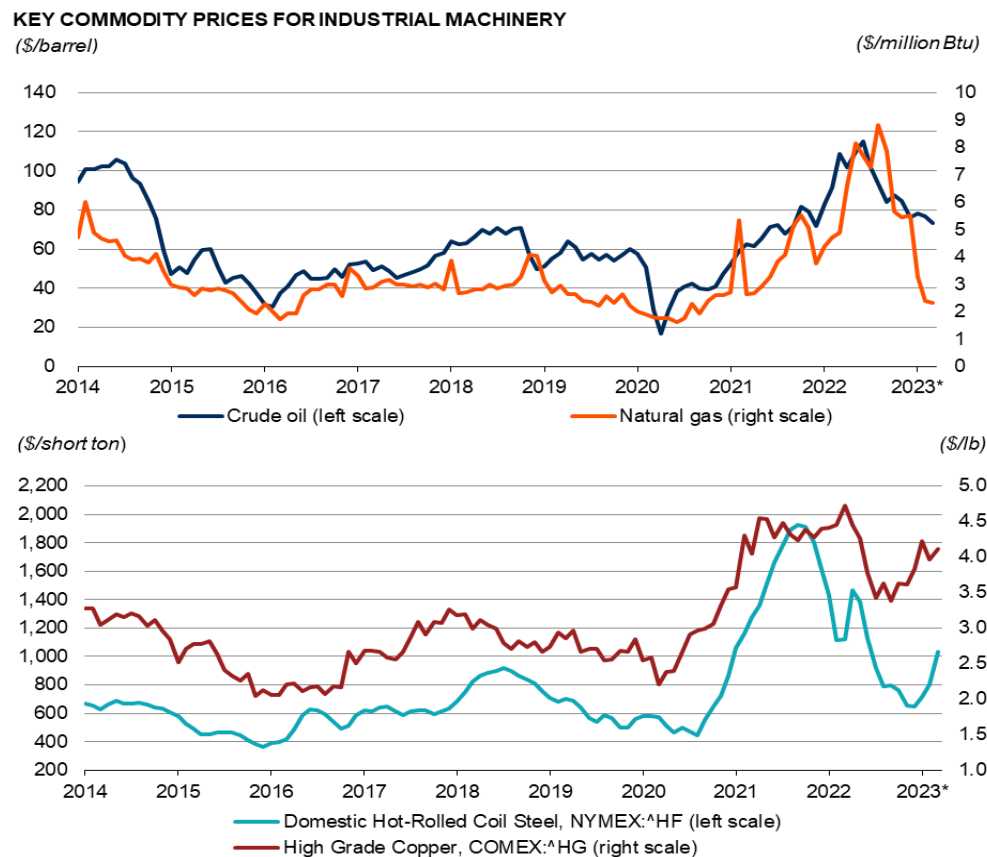
To keep up with the demand of their production processes, vendors in the Machinery industry are typically large consumers of several raw materials and commodities, including steel, copper, oil, and natural gas. Accordingly, a review of the key prices is important in understanding the industry.

◆ **Steel.** The price of domestic hot-rolled coil steel (NYMEX:^HF) averaged \$1,036 per short ton in March 2023, down 7.7% from \$1,122 per short ton a year ago, as the weakening global economy and the downturn of China's property market dim the demand of steel. However, it has crawled back from the low of \$650 in December 2022 as a result of increased demand brought on by the reopening of China.

◆ **Copper.** In March 2023, high grade copper spot prices (COMEX:^HG) averaged \$4.12 per pound, down 12.7% from the \$4.72 average in March 2022, affected by weaker demand.

◆ **Oil.** The average price per barrel of West Texas Intermediate (WTI) crude oil was \$73.28 in March 2023, down 32.5% from the average of \$108.5 a year ago. The U.S. Energy Information Administration (EIA) expects WTI crude oil prices to average \$85.01 per barrel in 2023 and \$81.21 per barrel in 2024.

◆ **Natural gas.** In March 2023, Henry Hub natural gas price averaged \$2.31 per million British thermal units (MMBtu), a decrease of 52.9% compared to \$4.90 per MMBtu a year ago, as a result of lower winter usage and ample inventories. The EIA expects Henry Hub spot prices to increase to \$2.94 per MMBtu in 2023 and \$3.71 per MMBtu in 2024.



\*Data through March.

Source: S&P Capital IQ, U.S. Energy Information Administration

Commodity prices have moderated from peak levels near the first half of 2022 but are still significantly higher since the second quarter of 2020. Machinery firms that have been actively hedging commodity prices or including protective terms in customer contracts against price surges should gain an edge over the firms that do not and are positioned well to achieve high margin heading into 2023, in our view.

## **China**

The Chinese economy – the world’s second largest economy after the U.S. – has seen slower expansion in recent years. China’s real GDP grew a mere 3.6% in 2022 compared to 8.8% in 2021 and over 6.5% between 2014 and 2019, as the country’s economy was weighed down by a real estate downturn that was exacerbated by the default and liquidity issues of real estate developers, power outages, supply chain challenges, and Covid-19 lockdowns.

In April 2023, Bloomberg reported that China plans to increase spending on major construction projects by almost 25% this year as Beijing continues to rely on infrastructure to spur an economy being hindered by consumers still hurt from years of pandemic restrictions. Many regions of China have announced plans for major projects such as transport infrastructure, energy generation, and industrial parks this year, totaling more than \$1.8 trillion.

The International Monetary Fund projects the country’s GDP to grow 5.2% in 2023, followed by 4.5% in 2024, compared to the world output growth of 2.9% in 2023 and 3.1% in 2024.

## **Globalization: An Ongoing Process**

Locating manufacturing facilities internationally, especially in regions with low operating costs, makes sense for suppliers in numerous ways. By relocating to low-cost regions, suppliers can reduce their production costs and thereby improve their competitiveness and overall margins. In addition, with emerging markets likely to account for a growing share of demand, these regions offer lower transportation costs, reduced shipping time, increased customer contact capability, and improved aftermarket servicing. Setting up manufacturing facilities in these markets can also increase the pace of innovation and enhance a company’s adaptability to changing market dynamics.

Another important reason for machinery companies to have a global footprint, in CFRA’s view, is to provide stability through diversity. Growth may be accelerating in one region, while slowing in another. We witnessed this in 2008, as strong growth in emerging markets outpaced growth in the U.S. and other developed markets. Current trade conditions and tariffs diminish the benefits of globalization for some companies with global manufacturing footprints, but in the long run, globalization provides stability, in CFRA’s view.

New market openings provide avenues of growth that would not otherwise be available to the industry. A global workforce allows companies to reduce both labor and manufacturing costs along with product prices, thus increasing their competitiveness. Globalization also creates a greater need for one-stop shopping, whereby customers are marketed differentiated products depending on location, but under the same procurement strategy and budget. Suppliers of the Machinery industry have three choices: expand their operating presence into new regions, partner with local companies to offer a global suite of products, or acquire direct foreign competitors. Finally, the opening of global markets has increased the availability and number of potential suppliers, which can give the largest vendors a higher degree of purchasing leverage. Besides opening new avenues for growth, globalization has allowed machinery companies to become more competitive and gain increased market share via mergers and acquisitions (M&A) on a global scale.

As emerging markets industrialize, local suppliers and machinery vendors are taking root. The result is an increase in competition for both domestic and global suppliers, particularly in the more fragmented segments of the industry.

CFRA thinks criticism of globalization has led to a localization counter-trend called “on-shoring.” Notably, large manufacturers such as Caterpillar have implemented or announced plans to bring offshore manufacturing back to the U.S. The Covid-19 pandemic complicated globalization trends as lockdowns, social distancing, and other actions to minimize the spread of the virus significantly changed the global flow of goods and people. Companies with foreign manufacturing presence faced shutdowns in some regions that caused production to halt, even if the point of sale (or service) was in a region not facing shutdowns.

Significant disruptions to the global supply chain network during and following the pandemic shined a light on vulnerabilities tied to overseas manufacturing, with supply bottlenecks greatly limiting the capacity of companies to meet demand. While we maintain a positive view of globalization and believe the trend will persist over the longer term, we note the recent uptrend in onshoring as companies work to secure supply chains and reduce their exposure to global shocks.

## Regulatory Updates

### U.S. Infrastructure and Manufacturing Investment

Following President Joe Biden’s election in November 2020, ongoing infrastructure talks took on a new element: green initiatives. As a result, we forecast increased regulatory focus surrounding the environment and expect the Environmental Protection Agency budget to increase. We anticipate increased regulation for large construction projects in an effort to lower carbon footprints and minimize negative impacts to the environment through construction work. We also expect accelerating timelines for getting electric trucks to market due to increased government funding.

In November 2021, the \$1.2 trillion Infrastructure Investments & Jobs Act (IIJA), also known as the Bipartisan Infrastructure Bill, was signed into law by President Biden. The plan includes projects that are supported by both Democrats and Republicans, including 5G, electrical grid modernization, electric-vehicle charging, environmental remediation, and road/bridge/rail construction. The plan is expected to be paid for with a variety of federal revenue streams, including repurposed funds originally meant for pandemic relief, unused unemployment insurance supplemental funds, additional tax enforcement on cryptocurrencies, and economic growth resulting from the infrastructure spending.

In August 2022, the Inflation Reduction Act was signed into law. The Act is expected to guide about \$369 billion toward energy and climate spending, including wind, solar, clean energy storage, and other clean energy manufacturing projects.

The CHIPS Act was also signed into law in August 2022. The Act is set to provide around \$53 billion for U.S. semiconductor research, development, manufacturing, and workforce development. \$39 billion in subsidies is expected to be funneled towards domestic chip manufacturing. It also provides a 25% investment tax credit for capital expenses for manufacturing semiconductors and related equipment.

CFRA believes that project activity stemming from IIJA, Inflation Reduction Act, and CHIPS Act stimulus is likely to ramp up in 2023, and that machinery names that are already working on more green operations will outpace peers’ growth.

Construction spending is projected to grow 2.5% in 2023 and 3.4% in 2024, compared to a growth of 8.4% in 2021 and 10.3% in 2022, according to Action Economics. CFRA anticipates construction spending to stagnate during 2023-2024 given negative impacts from rising interest rates. We think IIJA-related supplementary federal infrastructure investments, as well as funding from the CHIPS Act, will partially offset this slowdown and support sales growth across the industry. Project work from IIJA stimulus is expected to materially ramp up in 2023.



# HOW THE INDUSTRY OPERATES

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The Machinery industry (particularly the Industrial Machinery sub-industry) is the lifeblood of production and manufacturing processes and is the backbone of most modern machines. For manufacturers in a wide variety of sectors, industrial machinery is the heart of operations that occupy the factory floors and other industrial processes. In commercial enterprises, for example, industrial machinery consists of the refrigeration units needed to keep food from spoiling along the entire value chain from production, transportation, and finally to the grocery store display cases. Additional examples include automation products – such as conveyor belts, pumps, valves, robotics, and other industrial machines – used in a high number of manufacturing processes. Industrial machinery also includes motors, generators, heating and cooling systems, and other electrical equipment.

Producers of industrial machinery are diverse and may offer very different products, including electric motors, pumps, and valves. Increasingly, this equipment relies on industrial automation systems that involve robotics, sensors, lasers, computer systems, and software, as well as other high-tech advances. All these products have one thing in common: they must use sophisticated technology to win and retain customers' business.

Companies in the Construction Machinery & Heavy Trucks sub-industry manufacture heavy duty trucks, rolling machinery, earth-moving and construction equipment, and related parts. Companies in the Agricultural & Farm Machinery sub-industry manufacture agricultural machinery, farm machinery, and related parts. Firms manufacture machinery for the production of crops, tractors for planting and fertilizing, and grain dryers and blowers.

Operating performance in the Machinery industry generally tends to lag global economic growth to some extent, as the industry's largest customers prefer to hold off significant increases in capital spending until they are more certain that an economic recovery is gaining steam. Demand is not entirely cyclical, nor is it completely late-cycle, because customers eventually need to replace aging equipment.

Other machinery products help customers maintain and repair the current installed base of machinery. In addition, many other products are early-cycle and are sold to customers whose operations gain coincidentally with economic growth, such as automotive manufacturers or residential construction. CFRA also notes that aftermarket services add a noncyclical component to a machinery provider's revenue base. Customers who choose to retain older equipment will need maintenance on these machines and will look toward machinery vendors to provide this service.

Customers who choose to retain older equipment must do a cost-benefit analysis over the lifetime of the equipment to determine if the extra maintenance from breakdowns is likely to exceed the cost of buying new equipment or additional capacity. While new equipment is less likely to break down, it also entails a high up-front purchase price. In addition to a cost-benefit analysis, capacity utilization rates and projections of future product demand will drive capacity increases or decreases for machinery vendors. When capacity utilization rates are high (around 80%, in CFRA's view) and/or demand growth is anticipated, companies will typically purchase additional machinery and equipment in an effort to expand manufacturing capacity. Conversely, when capacity utilization rates are low and management expects little or no long-term pickup in demand levels, companies will likely forgo the purchase of industrial machinery.

## Raw Materials

The major raw material costs incurred by electrical equipment manufacturers are steel, copper, and, to a lesser extent, aluminum or other metals. Many companies, recognizing the need to buy these commodities on a regular basis, hedge their exposure to spot commodity prices in an inflationary

environment. Companies may protect themselves by including language in customer contracts that calls for surcharges or price escalators when raw material costs increase. Some machinery companies also hedge their commodity price exposure via the purchase or sale of derivative securities. Neither technique is perfect; there may be a time lag between the point when cost increases begin to occur and the surcharges are activated, and it may not be possible to fully hedge against cost increases.

### **Sales Channels**

Machinery manufacturers sell their goods either under their own brand name or under another company's brand name (as original equipment manufacturers, or OEMs). Most companies use a combination of direct and indirect sales channels. For larger accounts, companies will typically assign a direct sales agent while making exclusive or nonexclusive distributors available to serve smaller customers. To distribute goods through third parties, manufacturers establish and support networks of independently owned dealers. Dealers stock samples and maintain inventories for sale. They are also responsible for gathering orders and passing them through to the manufacturer.

Most dealers are affiliated with a single manufacturer. The manufacturer typically supports the dealer's sales and marketing efforts (with cash payments, marketing strategies and materials, purchase financing, and the like), provides wholesale financing of the dealer's inventory, and offers sales and lease financing to retail customers. Manufacturers can also give discounts, rebates, and other marketing subsidies to stimulate sales when necessary.

### **Concentration and Competition**

The Machinery industry is relatively fragmented, with about a dozen major competitors and a large number of smaller suppliers. While price competition is certainly to be expected, as in any industry, firms also compete based on the depth of their product offerings to customers or product compatibility. Particularly in the case of larger sales or project work that involves an entire manufacturing system, a provider may ensure that the hardware works properly with the customer's automation technology and may offer technical support after installation in the event that problems arise. For customers, it is important that new equipment operates well with their pre-existing factory footprint.

### **Industrial Automation**

Industrial automation refers to the system of controls for factory and manufacturing equipment, including robotics, sensors, and programmable logic controllers. By automating certain aspects of manufacturing production and processes, a company can reduce labor costs, improve consistency of product quality, reduce waste, and even run real-time diagnostics to assess plant efficiency, increase product throughput, perform equipment diagnostics, or acquire other informational metrics.

### **R&D Is Crucial**

Industrial automation products typically work in conjunction with the broader plant-level and enterprise-level products used across the production process and throughout the entire supply chain. For this reason, customers place increasing importance on product reliability and the ability of their control products to "talk" to other computers throughout the organization and supply chain, sharing information and enabling the company to adjust production in real time. Vendors must continually revamp their automation product lines to yield innovative improvements. Thus, R&D is a critical element in the fortunes of industrial automation companies.

# HOW TO ANALYZE A COMPANY IN THIS INDUSTRY

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At CFRA, we recommend a top-down approach to valuation. An examination of the industry drivers outlined beginning on pages 8 to 10 – Purchasing Managers' Index, industrial production, capacity utilization, GDP growth, and construction spending – is a good starting point.

## Industry Drivers

◆ **Gross domestic product.** We look at GDP growth for both the U.S. and the world. International GDP is compiled by the International Monetary Fund (IMF). U.S. GDP is compiled quarterly by the U.S. Department of Commerce, and measures the total value of goods and services produced in the U.S. GDP is an important indicator used to gauge the health of the U.S. economy, which in turn supports or hurts demand for products and services.

◆ **Purchasing Managers' Index.** Released monthly by the Institute for Supply Management (ISM), the Purchasing Managers' Index (PMI) is a composite measure composed of five seasonally adjusted diffusion indices. The five measures are evenly weighted within the PMI and comprise new orders, production, employment, supplier deliveries, and inventories. Measurements of more than 50 tend to indicate improving conditions.

◆ **Industrial production.** Reported by the Federal Reserve Board in the middle of each month for the previous month, these indices measure the seasonally adjusted output of the U.S. manufacturing, mining, and utility segments. The base year is currently 2017 (2017=100). The data are divided into various categories based on industry, industry group, and market aggregates.

◆ **Capacity utilization.** Capacity utilization is another measure released monthly by the Federal Reserve Board. It measures actual monthly production relative to total production potential and is expressed as a percentage. Rising capacity utilization or readings of more than 80% are usually associated with higher industrial production and increasing demand and may portend higher future prices.

◆ **Manufacturers' shipments/new orders/inventories.** The U.S. Census Bureau, a data-gathering agency within the U.S. Department of Commerce (DOC), tracks manufacturers' shipments on a monthly basis. It divides these data into various categories, including (but not limited to) farm machinery equipment, construction machinery, and industrial machinery, along with aggregate amounts such as the capital goods or nondefense capital goods, excluding aircraft (an important proxy for capital expenditures). Statistics are disseminated 60 days after the close of each month but are typically revised after the final release.

◆ **Order backlog/unfilled orders.** For some companies in the Machinery industry, the order backlog can be a useful indication of demand levels and expected revenues. However, it may be difficult to compare order backlogs across companies due to different reporting practices; therefore, this measure is most useful as a gauge of order strength relative to a company's own prior historical backlog data. The DOC derives the unfilled orders (backlog) time series from the same data as manufacturers' shipments.

## Company Analysis

Machinery companies derive most of their revenue from the manufacture, sale, and servicing of equipment used in a variety of industries. Although each category has its own nuances, there are many similarities in operations and in performance measures for industry participants.

The segments covered by this industry survey typically involve products that are customer-specified to some degree. Many of the products are manufactured in either batch or specific job orders. Customers may order these products in a competitive bidding process or through detailed negotiations for larger product categories. For smaller and lower price point products, customer orders may involve a range of channels, including distributors, resellers, and a direct sales force. Manufacturers may also provide service and support on their equipment and may offer warranties as well.

## **Qualitative Factors**

It is important to consider how well a company is positioned within the industry, and how well the company is managed. How does the company differentiate itself from its rivals? What are the company's competitive advantages and its disadvantages? What is the company's long-term plan for growth (organic versus acquisitions), and how does the company thrive compared with its competitors? How much market share does the company have, and does the company have pricing power? What is the competitive landscape, and how will it affect the company's growth prospects for growth?

### **Market Position**

Market leadership is important for each sub-industry within the Machinery industry. Economies of scale are large, as the industry requires large sums of capital, and fixed costs make up a large proportion of total expenses. Companies whose products and services communicate all the way through the supply chain set themselves apart from less integrated offerings from peers. A company's ability to capitalize on emerging benefits or offer products or services that other close peers do not offer can also set it apart from peers.

### **Quality of Management**

The management teams of companies in the Machinery industry should be steadfast and strategic, given market conditions, regulations, and the economic environment. Given the mature nature of the industry, CFRA favorably views management teams with proven records of driving efficient operations throughout the business cycle. In evaluating a company, it is important to assess the company's leaders to determine if they have demonstrated the ability to deliver on guidance in the past. It is also important to assess whether company management has the skill-set necessary to reach the current goals. Consider the tenure of each member of management. It is also very important to be aware of management's personal holdings (stock or options) in the company. Stock ownership by executives helps ensure that management acts in the best interests of shareholders.

## **Quantitative Factors**

### **Backlog, New Orders, and Book-To-Bill Ratio**

Companies in the Machinery industry typically receive orders for products from customers and, depending on product lead times, often generate a backlog. In its most general sense, backlog represents the accumulation of unshipped orders. However, there are different kinds of backlog. Gross orders represent the value of new orders that the firm has received. Net orders represent gross orders minus the value of any cancellations. Backlog is reported in dollars and typically includes orders to be shipped within a year, but sometimes represents long-term orders. It is usually reported on a rolling 12-month basis. As a result, we prefer to analyze backlog trends on a sequential basis rather than year-over-year.

Some orders are firm and funded – the customer has made an initial deposit and is thus obligated to pay the balance upon shipment – and cannot be canceled. Others are unfunded, such as contracts with government bodies that must authorize funds for financing the purchases. The quality of a company's backlog will highly depend on its accounting practices and sales processes.

While an increase in backlog can indicate an upswing in demand, it should not be viewed in isolation; a higher backlog without a corresponding increase in the value of new orders may indicate production problems and longer time to completion. A comparison of new orders to sales (the book-to-bill ratio) can provide insights into the underlying demand trends. A ratio greater than 1.0 may indicate increasing demand and growth in the backlog, while a ratio below 1.0 implies falling demand and declining backlogs.

When examining these figures, one should also be keenly aware of how a company calculates data. When examining orders, it is necessary to know whether the company is disclosing gross, firm, or net orders, whether backlogs represent firm and funded backlogs and whether the backlog is cancellable, or if the company has increased the backlog's worth by including the value of options (contracts permitting a customer to buy additional units at a specified price).

Financial statement analysis is one of the principal tasks in evaluating a company. The investor should, over the course of a business cycle, examine trends in revenue, gross profit margin, earnings per share (EPS), times-interest-earned, and other leverage ratios. The resulting analysis will likely indicate if the company is profitable and growing and if the balance sheet is in good health.

### **Income Statement Analysis**

Analysis of a company's income statement provides the data needed to measure operating performance over a specified period. Analysis of longer-term results lets one discern and examine trends in sales and profits over the course of a business cycle.

### **Sales and Revenues**

Generally accepted accounting principles (GAAP) require that companies recognize a sale when it is realized, or realizable, and earned. For machinery companies, this typically occurs when a product is shipped, or a service is rendered.

On occasion, manufacturers of large custom-built machinery or equipment will receive long-term contracts to make highly specific equipment. These companies normally record sales on a percentage-of-completion basis, reflecting the portion of the sales contract that they have fulfilled.

Recording revenues under percentage-of-completion contracts can be tricky because of the flexibility in measuring contract mileposts. Under the percentage-of-completion accounting method, sales and profits recognized on individual contracts or jobs are based on a project's overall expected profitability and are also subject to adjustment upon completion of the projects.

Another caveat is that companies have wider latitude to manage earnings under this type of accounting, by recognizing more or less profit in a given accounting period. In periods when overall profits are higher than expected, a company might recognize a lower profit on individual contracts, which would hold earnings at a desired level. Conversely, when business is slow, profits that had been deferred might be recognized to increase reported earnings. While such an earnings management approach may enable the company to report an earnings increase that meets investors' expectations, CFRA does not think it provides a desirable level of transparency into a company's financial position or financial performance.

In contrast, manufacturers of large custom-built machinery or equipment could use the completed contract method of revenue recognition, which would recognize revenues and expenses only once the contractual obligations are complete. This method may improve transparency, but it also increases the "lumpiness" of revenues and earnings and, thus, is seldom used in practice.

### **Gross Profit Margin Ratio**

Gross margin is one of the clearest performance measures of a company's operations because it excludes the impact that a company's corporate overhead and financial cost structure have on its ultimate profitability.

Gross profit margins can lend important insight into trends in market pricing, product mix, costs of raw materials and labor, and the competitive pricing environment. In addition, they can help the investor discern the effect of raw material and labor costs on the business. Tracked over time, gross margins can provide a reliable read on a company's productivity.

Comparing gross margins across companies is tricky, as different companies derive gross profits in various ways. Some include depreciation expense in the cost of goods sold, while others list it separately as an operating expense. Other ways in which gross profit margins may differ across firms include the inclusion or exclusion of general expenses, advertising costs, warranty expenses, or one-time expenses.



**Watch Out!** Companies in the Machinery industry are fixed asset intensive, making depreciation a significant expense for most of these companies. Since depreciation is based on estimates of asset lives, management can manipulate these estimates to manage earnings. Specifically, extending the depreciable life of an asset will boost a company's earnings while shortening depreciable lives will decrease earnings.

### R&D Expense

Research & development (R&D) is an expense item that merits close attention. Because the Machinery industry uses advanced technology to improve the functionality and value proposition of its products for customers, a company's long-term prospects increasingly depend on ongoing innovation.

Typically, a company will target a certain percentage of sales as its R&D budget. Companies with relatively higher spending on R&D are more likely to generate new products that could create sustainable advantages over the competition, potentially leading to higher sales and profitability.



**Watch Out!** Management can manipulate earnings by delaying, cutting back, or capitalizing discretionary expenses for R&D. Under U.S. GAAP, R&D costs must be expensed as incurred. A sharp decline in R&D costs relative to sales raises concern that a company may be delaying or cutting back on R&D costs in the current period to boost earnings. This practice may benefit current period earnings at the expense of future earnings as the company suffers due to inadequate investment in new products resulting from lower R&D. Management should be questioned in any instance where R&D costs are not being expensed as incurred, and any boost to earnings growth from abnormally low R&D expense should be deemed unsustainable.

### SG&A Expense

Another overhead cost – selling, general, and administrative (SG&A) expense – can be a function of the company's distribution strategy. The largest portion of SG&A expense often comes from selling expenses, although SG&A also frequently incorporates other support expenses, such as staff compensation, legal expenses, and occasional bad debt expenses.

Companies with large direct sales forces and branch offices throughout the regions they serve typically have higher SG&A expenses. In return, however, they are more likely to have a knowledgeable sales force and greater penetration of their target markets, which could yield improved sales. Companies that rely more on independent dealers incur lower costs, but with the potential trade-off of a less knowledgeable sales force and/or nonexclusive arrangements, whereby the dealers also sell competing products. Lower SG&A and R&D expenses help increase operating profit margin, especially when gross margin is also higher.



**Watch Out!** Companies record special charges for unusual or infrequent items, e.g., restructuring charges. Such charges are often excluded from non-GAAP earnings, and therefore provide dishonest management with the ability to enhance analysts' perception of its profitability through aggressive use of these special charges. Specifically, we caution that companies may boost non-GAAP earnings in the current period by bundling normal, recurring costs into the special charges. Alternatively, the company may position itself to boost reported earnings in future periods by either (a) recording excess reserves on the liability side of the balance sheet or (b) by reducing the carrying value of assets that will be used in a subsequent period.

## Earnings

It is also important to look at a company's actual GAAP, especially its sales and expense recognition methods. Machinery companies with high quality earnings will experience few one-off events that increase or reduce earnings, in CFRA's view. Earnings stability is another important consideration: a company that delivers smooth upward earnings growth (without earnings management techniques, as described earlier) is regarded more favorably than one that delivers erratic returns. Finally, companies generating earnings that are more cash-based, versus accrual-based earnings, should be viewed more positively.

## Balance Sheet Indicators

A company's balance sheet provides important information about its financial strength that is not observable from the income statement. While the income statement offers a view of a company's performance for a certain period (such as the most recent fiscal year, or the most recent quarter), the balance sheet offers a snapshot of a company's assets, liabilities, and equity at a specific point in time.

## Debt-To-Capitalization Ratio

The debt-to-capitalization ratio indicates the extent to which a company finances its operations and capital expenditures through borrowings that must be paid back in the future. The other financing alternative, equity financing, occurs when a company issues new shares to the public or when a company retains and reinvests earnings. Including such hybrid financing alternatives as preferred debt, the combination of debt, equity, and alternative financing is the total of a company's capital, or financing sources.

The higher the debt-to-capitalization ratio, the greater the financial leverage that a company is using. While greater leverage typically enables a company to increase sales, operating activity, and return on equity, it also increases the interest expense, thus reducing profitability and increasing the company's financial risk.

Most companies in the Machinery industry use some debt to finance their operations and capital expenditure requirements. However, too much debt can elevate the risk of investing in shares of a company, as a greater proportion of cash that the company generates has to go toward interest payments and bond principal payments, rather than being reinvested in the business for further growth or returned to shareholders in the form of dividends and/or share repurchases.

## Current Ratio

The current ratio measures the value of current assets (assets that can be turned into cash in less than one year) against the value of current liabilities (payments that the company must make in less than one year). The current ratio, therefore, is a good indicator of a company's near-term liquidity because it suggests that company's ability to meet all its immediate obligations to creditors.

## Accounts Receivable and Days Sales Outstanding

Accounts receivable are usually short-term (ranging anywhere from a few days up to a year) credit lines that a company extends to customers and represent amounts owed for products sold or services



rendered but have yet to be paid. Receivables typically increase along with growth in revenue. In this regard, accounts receivable should be examined relative to revenue.

Days sales outstanding is a measure of the average number of days it takes a company to collect receivables from customers. CFRA thinks this measure is useful when tracked over time. A significant increase in days sales outstanding may be indicative of customers' weakening financial position, relaxation of credit terms, and/or a lower quality of earnings. (Days sales outstanding is calculated as the average receivables balance over a certain period of time divided by sales, multiplied by the number of days in the period.)



**Watch Out!** Companies can overstate earnings by inadequately reserving for potentially uncollectible receivables. Companies rely upon estimates to calculate the appropriate provision and allowance related to potentially uncollectible receivables. The estimates are generally based on factors such as an aging of receivables and the financial condition of customers. Generally speaking, however, the allowance should remain at a fairly consistent percentage of receivables over time, and any material deviations from historical percentages should be investigated further.

### Inventory Levels and Turnover

Inventories are comprised of raw materials, work-in-progress, and finished goods that represent assets ready or nearly ready for sale. As with other current assets, inventories will tend to increase at rates similar to revenue growth. Circumstances that may result in inventory growth differing from revenue include an anticipation of higher future demand, increasing raw material costs, the choice of inventory accounting methodologies, slowing customer demand, or overproduction. The inventory turnover ratio (calculated by cost of goods sold divided by the average inventories) can be used to examine inventory levels over time and across different firms. A decline in the inventory turnover ratio may be indicative of excess inventory stemming from weakening demand, overproduction, or both.

Inventory cost accounting methods can also change the analysis of a company's inventory levels and inventory turnover ratio (and, in turn, the analysis of cost of goods sold). Machinery companies typically account for inventory via one of two methods: first-in, first-out (FIFO) or last-in, first-out (LIFO). In periods of rising costs, companies using LIFO accounting will typically report a higher cost of goods sold and lower inventory levels, which can alter the comparative analysis of any ratios using these metrics.

### Statement of Cash Flows

The statement of cash flows serves as a bridge between a company's income statement and its balance sheet. It provides a level of financial detail that is otherwise not available on other financial statements and details a company's sources and uses of cash. The statement of cash flows is broken down into three segments: operating, investing, and financing cash flow. Each provides insight into the operations of a machinery company.

### Cash Flow from Operations

Cash flow from operations (CFO) is a measure of the cash coming into the firm from operating sources. It is typically calculated by adjusting net income for non-cash income and expenses along with any cash-related changes in operating assets. Over time, growth in CFO should approximate net income growth for established companies. Net income growth that is faster than CFO or negative CFO could indicate earnings manipulation.



**Watch Out!** *Supplier financing arrangements (also known as reverse factoring) can delay a company's payments to its suppliers. There are several variations of these programs, but basically, a company arranges for a financial institution to pay its suppliers and the company repays the financial institution later. This effectively lengthens the supplier payment terms and thus improves working capital. However, operating cash flows can be overstated if the cash payment to the financial institution is presented as financing outflows rather than operating cash flows, which would be the case if the company pays the supplier directly. Furthermore, companies may not reclassify accounts payable under reverse factoring programs into financial liabilities, which may understate leverage ratios.*

CFO can also be a useful gauge of financial stability for a machinery company. Companies that generate large levels of cash tend to be more financially stable, need less external financing, can readily pay down debt, and have dividends that are more secure.

### **Capital Expenditures and Free Cash Flow**

Capital expenditures, found in the investing section of the cash flow statement, represent both cash investments in long-term assets, including property, facilities, and equipment, and spending to maintain current assets. In this respect, capital expenditures are important as they represent investments made for growth and spending to maintain current business levels.

All else being equal, companies with larger capital expenditures have lower free cash flow (FCF). As with CFO, companies with greater FCF generally have greater financial flexibility and generally lower financial risk. FCF measures cash available to the firm after cash payments to maintain or continue present levels of growth.

### **Cash Flow for Acquisitions**

Another important item in the investing section of the cash flow statement is expenditures related to acquisitions. This intermittent line item represents the cash outlays used to acquire other companies within a given period. Companies that typically make large or continual acquisitions will generally require higher levels of CFO, FCF, or access to external financing to fund any purchases.

### **Financing Cash Flow Activities**

Cash flow from financing activities (CFF) is a measure of the net cash flow between the company and its shareholders, creditors, and other investors. Line items typically incorporated in CFF include dividend payments to shareholders, the issuance and payment of short-term and long-term debt, and issuance and repurchase of common stock. CFF can provide investors insight into how a company is financing its operations and other activities.

### **Valuation Metrics**

Several valuation metrics can be used to compare how expensive a company's equity shares are relative to competitors in its universe. Caution must be exercised in the interpretation of these metrics. A company that appears cheap relative to its peers, for example, may have certain competitive disadvantages, such as a relative lack of new product innovations, higher debt levels, lack of exposure to higher growth markets, or lower profit margins, to name a few. As a result, other investors may place a lower valuation on the shares of such a company.

### **EV/EBITDA**

This ratio compares enterprise value (EV) with a company's earnings before interest, taxes, depreciation, and amortization (EBITDA). EV is the market value of a company's equity shares and debt financing, less cash. EBITDA is indicative of a firm's earning power, regardless of capital structure, tax planning or non-cash charges, and can be compared with those of other companies on an apples-to-apples basis.

Machinery companies typically use varying degrees of debt financing and have varying interest expenses. Requirements for new capital spending, which incurs depreciation and amortization (D&A) expenses, also differ. The EV/EBITDA calculation levels the playing field by adjusting for such variations. Were we to look only at earnings, a company that invests a great deal (thereby incurring a high D&A expense) would be unfairly penalized relative to a company that invests almost nothing. A company with an EV/EBITDA valuation that is lower than those of its peers is considered less expensive.

### **P/E Ratio**

The price-to-earnings (P/E) ratio compares the market value of one share of a company versus its earnings per share (EPS). Typically, the P/E is calculated with the current price against the expected earnings in the following fiscal year.

Wide swings can occur in the Machinery industry's P/E ratio, as the industry goes in and out of favor with the investing public. This depends on factors such as interest rates, inflation, or company-specific factors, including demand, the company's expected growth, or the riskiness. In general, the ratio of price to forward 12-month earnings typically falls in the 12x–20x range.

### **P/S Ratio**

The price-to-sales (P/S) ratio is calculated by dividing a company's equity market value by its revenue, with revenue expressed as sales from the last fiscal year or from the preceding four quarters or using expected revenue in the following fiscal year.

The P/S ratio has limitations – it does not consider the capital or tax structure of companies, for example – and thus, CFRA thinks it should be used sparingly in the valuation of machinery companies. We typically use a P/S valuation ratio only for companies that are experiencing temporarily depressed levels of earnings.

### **Management Efficiency**

An important way to measure how management is performing and how well it is using the company's capital is to examine the profitability on various balance sheet items. Investors can look at profitability derived from total assets, or in relation to just the company's equity base, or they can look at what returns it generates from the amount of capital it invests annually.

### **Return on Assets**

A company's return on assets (ROA) measures the net income created during a one-time period, usually a 12-month span, such as a year, versus the average value of the company's assets in that particular period. The ROA does not consider any financial leverage used to generate the net income; therefore, it is often considered a more conservative metric.

### **Return on Equity**

A company's return on equity (ROE) measures the net income generated in a particular time period, such as a fiscal year, against the average value of the equity in the company during that period. Since it uses only equity, this metric incorporates a company's use of financial leverage, and by definition is higher than ROA when financial leverage is employed. A company with a higher ROE than its peers likely generates relatively more income given its level of equity. However, investors should always be alert to the amount of leverage employed to generate the ROE.

### **Return on Invested Capital**

A company's return on invested capital (ROIC) is one of the most important efficiency metrics for the Machinery industry. The ROIC measures the net operating profit after tax during a particular time period, usually 12 months, against the amount of capital the company has invested during that time frame. The

higher a company's ROIC is over its cost of capital, the greater the value that is created through its operations.

### **Dividend Payout Ratio**

The dividend payout ratio compares the dividend per share, which a company returns to its shareholders in cash, with the EPS that it generates. For example, a company that pays out 15 cents per share in cash to its shareholders each year, and which generates \$1 per share of earnings, has a dividend payout ratio of 15%. The company uses the remaining 85% of the earnings (which would be referred to as the retention rate) internally – to fund operations, make new capital investments, or pay down existing debt. The product of ROE and the retention rate in percentage can suggest a company's sustainable growth level of shareholders' equity in the future.

# GLOSSARY

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**Backlog**—The buildup of orders, work, or paperwork that must be completed by a company.

**Capacity utilization**—How much potential economic output a company actually realizes out of 100% (or maximum utilization).

**Compressor**—A machine for compressing air or other gases.

**Continuous automation**—An automation process that helps manufacturers ensure the temperature, viscosity, flow rate, composition, and other characteristics of a product during the assembly/manufacturing process.

**Discrete automation**—This process involves the assembly of parts into products that can be measured in units such as automobiles, food products, computers, household appliances, and electronics.

**Electric motor**—A machine that converts electrical power into mechanical power in the form of a rotating shaft.

**Fractional horsepower motor**—An electric motor with output of less than one horsepower.

**Horsepower (hp)**—A measure of the rate of work. An electrical device with one hp can lift 33,000 pounds to a height of one foot in one minute.

**Hybrid automation**—A manufacturing process that combines the aspects of continuous and discrete automation processes.

**Original equipment manufacturer (OEM)**—A company whose goods are used as components in products manufactured either by that same company or other companies that sell the finished items to users.

**Purchasing Managers' Index (PMI)**—An indicator of the economic health of the manufacturing sector. The Index is published each month.

# INDUSTRY REFERENCES

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## TRADE ASSOCIATIONS

### **International Monetary Fund**

[imf.org](http://imf.org)

International trade organization that publishes the “World Economic Outlook,” whose forecasts are based on members’ key macroeconomic indicators.

### **Institute for Supply Management**

[instituteforsupplymanagement.org](http://instituteforsupplymanagement.org)

Nonprofit association representing the purchasing and supply management profession; provides statistics on the general manufacturing industry.

## ONLINE RESOURCES

### **Action Economics**

[actioneconomics.com](http://actioneconomics.com)

Provides economic reports and commentary.

### **Reuters**

[reuters.com](http://reuters.com)

International news organization and provider of market data.

### **The Wall Street Journal**

[wsj.com](http://wsj.com)

English-language daily news organization that focuses on business and markets.

## GOVERNMENT AGENCIES

### **Board of Governors of the Federal Reserve System**

[federalreserve.gov](http://federalreserve.gov)

The Federal Reserve, or the Fed, is the U.S. central bank, an independent government organization that supervises and regulates banks, conducts U.S. monetary policy, and provides services to the U.S. government and the public.

### **U.S. Census Bureau**

[census.gov](http://census.gov)

A division of the U.S. Department of Commerce; collects U.S. population and economic data.

### **U.S. Department of Commerce**

[commerce.gov](http://commerce.gov)

Provides data and research about the U.S. economy and businesses.

### **U.S. Department of Commerce: Economics and Statistics Administration**

[esa.doc.gov](http://esa.doc.gov)

Provides economic analysis, disseminates national indicators, and oversees the U.S. Census Bureau and Bureau of Economic Analysis.

### **U.S. Energy Information Administration**

[eia.gov](http://eia.gov)

Publishes the “Short-Term Energy Outlook,” which discusses current trends in the energy sector as well as forecasts.

# COMPARATIVE COMPANY ANALYSIS

			Operating Revenues															
			Million \$							CAGR (%)			Index Basis (2012=100)					
Ticker	Company	Yr. End	2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																		
ALG	§ ALAMO GROUP INC.	DEC	1513.62	1334.22	1163.47	1119.14	1008.82	912.38	844.748	9.10862	10.654	13.446	179.18	157.94	137.73	132.48	119.42	108.01
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	1274.5	1095.5	1024.4	1169.6	1171.6	1184.74	1147.43	3.13207	1.4713	16.34	111.07	95.474	89.278	101.93	102.11	103.25
CAT	▮ CATERPILLAR INC.	DEC	59427	50971	41748	53800	54722	45462	38537	-1.0248	5.5035	16.59	154.21	132.27	108.33	139.61	142	117.97
CMI	▮ CUMMINS INC.	DEC	28074	24021	19811	23571	23771	20428	17509	4.93988	6.5653	16.873	160.34	137.19	113.15	134.62	135.76	116.67
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	1434.8	1213.2	1130.8	1221.3	1089.5	898.5	707.9	5.97338	9.8132	18.266	202.68	171.38	159.74	172.52	153.91	126.92
OSK	† OSHKOSH CORPORATION	DEC	8282	7952.5	6856.8	8382	7705.5	6829.6	6279.2	0.17174	3.9317	4.1434	131.9	126.65	109.2	133.49	122.71	108.77
PCAR	▮ PACCAR INC	DEC	28819.7	23522.3	18728.5	25599.7	23495.7	19456.4	17033.3	5.38899	8.1746	22.521	169.2	138.1	109.95	150.29	137.94	114.23
TEX	† TEREX CORPORATION	DEC	4417.7	3886.8	3076.4	4353.1	4517.2	3793.7	4443.1	-4.4743	3.0924	13.659	99.428	87.479	69.24	97.974	101.67	85.384
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	2977.7	1747.9	2792.2	3033.59	2519.46	2169.16	2679.52	5.11751	6.5412	70.359	111.13	65.232	104.21	113.21	94.027	80.953
TRN	§ TRINITY INDUSTRIES, INC.	DEC	1977.3	1516	1749.7	2752.4	2509.1	2397.4	3089.8	-6.3532	-3.78	30.429	63.994	49.065	56.628	89.08	81.206	77.591
WNC	§ WABASH NATIONAL CORPORATION	DEC	2502.13	1803.27	1481.89	2319.14	2267.28	1767.16	1845.44	5.52141	7.2029	38.755	135.58	97.715	80.3	125.67	122.86	95.758
WAB	▮ WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	8362	7822	7556	8200	4363.5	3881.7	2931.19	13.3368	16.589	6.9036	285.28	266.85	257.78	279.75	148.86	132.43
AGRICULTURAL AND FARM MACHINERY																		
AGCO	† AGCO CORPORATION	DEC	12651.4	11138.3	9149.7	9041.4	9352	8306.5	7410.5	2.41848	8.7788	13.585	170.72	150.3	123.47	122.01	126.2	112.09
DE	▮ DEERE & COMPANY	OCT	52563	43983	35514	39233	37318	29071	26549	3.81628	12.576	19.508	197.98	165.67	133.77	147.78	140.56	109.5
LNN	§ LINDSAY CORPORATION	AUG	770.743	567.646	474.692	444.072	547.705	517.985	516.411	3.40837	8.2726	35.779	149.25	109.92	91.921	85.992	106.06	100.3
TTC	† THE TORO COMPANY	OCT	4514.66	3959.58	3378.81	3138.08	2618.65	2505.18	2392.18	8.70911	12.501	14.019	188.73	165.52	141.24	131.18	109.47	104.72
TWI	§ TITAN INTERNATIONAL, INC.	DEC	2169.38	1780.22	1259.31	1448.67	1602.41	1468.92	1265.5	1.76777	8.1104	21.861	171.43	140.67	99.511	114.47	126.62	116.07
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																		
DDD	§ 3D SYSTEMS CORPORATION	DEC	538.031	615.639	557.24	636.354	691.545	646.069	632.965	4.28587	-3.594	-12.61	85.002	97.263	88.036	100.54	109.25	102.07
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	1034.89	929.24	900.61	1054.13	982.479	863.717	779.839	3.12268	3.6822	11.369	132.71	119.16	115.49	135.17	125.98	110.76
B	§ BARNES GROUP INC.	DEC	1261.87	1258.85	1124.39	1491.12	1495.89	1436.5	1230.75	3.11221	-2.559	0.2401	102.53	102.28	91.358	121.15	121.54	116.72
GTLS	† CHART INDUSTRIES, INC.	DEC	1612.4	1317.7	1177.1	1215.5	1003.9	842.9	722	4.74589	13.852	22.365	223.32	182.51	163.03	168.35	139.04	116.75
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	786.919	758.667	765.219	957.262	1013.47	505.492	590.259	-0.7161	9.2555	3.7239	133.32	128.53	129.64	162.18	171.7	85.639
CR	CRANE COMPANY	DEC	3374.9	3408	2936.9	3074.5	3345.5	2786	2748	2.72587	3.9097	-0.971	122.81	124.02	106.87	111.88	121.74	101.38
DCI	† DONALDSON COMPANY, INC.	JUL	3306.6	2853.9	2581.8	2844.9	2734.2	2371.9	2220.3	2.86358	6.8703	15.863	148.93	128.54	116.28	128.13	123.15	106.83
DOV	▮ DOVER CORPORATION	DEC	8508.09	7907.08	6683.76	7136.4	6992.12	6820.89	6043.22	2.53067	4.5197	7.6009	140.79	130.84	110.6	118.09	115.7	112.87
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	571.223	528.66	493.292	654.758	641.303	616.591	1149.41	-7.7263	-1.517	8.0511	49.697	45.994	42.917	56.965	55.794	53.644
NPO	§ ENPRO INDUSTRIES, INC.	DEC	1099.2	840.4	800	1205.7	1274.1	1101.4	1187.7	-0.7421	-0.04	30.795	92.549	70.759	67.357	101.52	107.27	92.734

Note: Data as originally reported. CAGR-Compound annual growth rate.

□Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.



## Operating Revenues

Ticker	Company	Yr. End	Million \$							CAGR (%)			Index Basis (2012=100)					
			2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																		
ESAB	† ESAB CORPORATION	DEC	2,593.5	2,428.1	1,950.1	2,247.0	2,247.0	0.0	0.0	NA	NA	6.8	NA	NA	NA	NA	NA	NA
ESE	§ ESCO TECHNOLOGIES INC.	SEP	857.5	715.4	730.5	726.0	683.7	685.7	571.5	6.0	4.6	19.9	150	125	128	127	120	120
FLS	† FLOWSERVE CORPORATION	DEC	3,615.1	3,541.1	3,728.1	3,939.7	3,835.7	3,660.8	3,990.5	-2.7	-0.3	2.1	91	89	93	99	96	92
FTV	† FORTIVE CORPORATION	DEC	5,825.7	5,254.7	4,634.4	4,563.9	3,800.4	5,756.1	5,378.2	0.1	0.2	10.9	108	98	86	85	71	107
FELE	§ FRANKLIN ELECTRIC CO., INC.	DEC	2,043.7	1,661.9	1,247.3	1,314.6	1,298.1	1,124.9	949.9	8.7	12.7	23.0	215	175	131	138	137	118
GGG	† GRACO INC.	DEC	2,143.5	1,987.6	1,650.1	1,646.0	1,653.3	1,474.7	1,329.3	7.8	7.8	7.8	161	150	124	124	124	111
HI	§ HILLENBRAND, INC.	SEP	2,940.9	2,864.8	2,517.0	1,807.3	1,770.1	1,590.2	1,538.4	11.6	13.1	2.7	191	186	164	117	115	103
IEX	□ IDEX CORPORATION	DEC	3,181.9	2,764.8	2,351.6	2,494.6	2,483.7	2,287.3	2,113.0	5.0	6.8	15.1	151	131	111	118	118	108
ITW	□ ILLINOIS TOOL WORKS INC.	DEC	15,932.0	14,455.0	12,574.0	14,109.0	14,768.0	14,314.0	13,599.0	0.7	2.2	10.2	117	106	92	104	109	105
IR	□ INGERSOLL RAND INC.	DEC	5,916.3	5,152.4	3,973.2	2,017.5	2,689.8	2,375.4	1,939.4	9.6	20.0	14.8	305	266	205	104	139	122
ITT	† ITT INC.	DEC	2,987.7	2,765.0	2,477.8	2,846.4	2,745.1	2,585.3	2,405.4	3.0	2.9	8.1	124	115	103	118	114	107
JBT	§ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	2,166.0	1,868.3	1,727.8	1,945.7	1,919.7	1,635.1	1,350.5	9.0	5.8	15.9	160	138	128	144	142	121
KMT	§ KENAMETAL INC.	JUN	2,012.5	1,841.4	1,885.3	2,375.2	2,367.9	2,058.4	2,098.4	-3.0	-0.5	9.3	96	88	90	113	113	98
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	3,761.2	3,234.2	2,655.4	3,003.3	3,028.7	2,624.4	2,274.6	2.8	7.5	16.3	165	142	117	132	133	115
MLI	§ MUELLER INDUSTRIES, INC.	DEC	3,982.5	3,769.3	2,398.0	2,430.6	2,507.9	2,266.1	2,055.6	6.2	11.9	5.7	194	183	117	118	122	110
NDSN	□ NORDSON CORPORATION	OCT	2,590.3	2,362.2	2,121.1	2,194.2	2,254.7	2,067.0	1,809.0	6.3	4.6	9.7	143	131	117	121	125	114
OTIS	□ OTIS WORLDWIDE CORPORATION	DEC	13,685.0	14,298.0	12,756.0	13,118.0	12,915.0	12,323.0	12,323.0	NA	2.1	-4.3	111	116	104	106	105	100
PH	□ PARKER-HANNIFIN CORPORATION	JUN	15,861.6	14,347.6	13,695.5	14,320.3	14,302.4	12,029.3	11,360.8	1.9	5.7	10.6	140	126	121	126	126	106
PNR	□ PENTAIR PLC	DEC	4,121.8	3,764.8	3,017.8	2,957.2	2,965.1	2,845.7	2,780.6	-0.4	7.7	9.5	148	135	109	106	107	102
PRLB	§ PROTO LABS, INC.	DEC	488.4	488.1	434.4	458.7	445.6	344.5	298.1	14.5	7.2	0.1	164	164	146	154	150	116
SNA	□ SNAP-ON INCORPORATED	DEC	4,842.5	4,842.5	4,601.7	4,067.7	4,070.4	4,000.3	3,711.8	4.6	3.9	5.2	130	130	124	110	110	108
SPXC	§ SPX TECHNOLOGIES, INC.	DEC	1,460.9	1,219.5	1,128.1	1,123.6	1,512.6	1,425.8	1,472.3	-11.4	0.5	19.8	99	83	77	76	103	97
SXI	§ STANDEX INTERNATIONAL CORPORATION	JUN	735.3	656.2	604.5	639.9	595.5	647.9	751.6	1.9	2.6	12.1	98	87	80	85	79	86
SWK	□ STANLEY BLACK & DECKER, INC.	DEC	16,947.4	16,947.4	15,281.3	12,912.9	13,982.4	12,966.6	11,593.5	5.4	5.5	10.9	146	146	132	111	121	112
TNC	§ TENNANT COMPANY	DEC	1,092.2	1,090.8	1,001.0	1,137.6	1,123.5	1,003.1	808.6	4.0	1.7	0.1	135	135	124	141	139	124
MIDD	† THE MIDDLEBY CORPORATION	DEC	4,032.9	4,032.9	3,250.8	2,959.4	2,722.9	2,335.5	2,267.9	14.5	11.5	24.1	178	178	143	130	120	103
TKR	† THE TIMKEN COMPANY	DEC	4,496.7	4,132.9	3,513.2	3,789.9	3,580.8	3,003.8	2,669.8	3.0	8.4	8.8	168	155	132	142	134	113
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	1,979.5	1,809.2	1,508.6	1,600.5	1,564.9	1,456.7	1,398.4	3.3	6.3	9.4	142	129	108	114	112	104
XYL	□ XYLEM INC.	DEC	5,522.0	5,195.0	4,876.0	5,249.0	5,207.0	4,707.0	3,771.0	3.8	3.2	6.3	146	138	129	139	138	125

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

# Net Income

		Million \$								CAGR (%)			Index Basis (2012=100)					
Ticker	Company	Yr. End	2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																		
ALG	§ ALAMO GROUP INC.	DEC	101.9	80.2	57.8	63.1	73.5	44.3	40.0	13.4	18.1	27.0	255	200	144	158	184	111
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	-0.1	15.8	46.0	22.3	-60.4	37.8	55.2	NA	NM	NM	0	29	83	40	-110	69
CAT	▯ CATERPILLAR INC.	DEC	6,705.0	6,489.0	2,998.0	6,093.0	6,147.0	754.0	-67.0	1.7	54.8	3.3	NM	NM	NM	NM	NM	NM
CMI	▯ CUMMINS INC.	DEC	2,151.0	2,131.0	1,789.0	2,260.0	2,141.0	999.0	1,394.0	2.7	16.6	0.9	154	153	128	162	154	72
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	120.4	100.6	96.2	108.5	94.0	61.6	43.8	NA	14.3	19.7	275	230	220	248	215	141
OSK	† OSHKOSH CORPORATION	DEC	173.9	427.4	321.5	579.4	471.9	285.6	216.4	-2.8	-9.4	-59.3	80	198	149	268	218	132
PCAR	▯ PACCAR INC	DEC	3,011.6	1,865.5	1,301.2	2,387.9	2,195.1	1,675.2	521.7	10.5	12.4	61.4	577	358	249	458	421	321
TEX	† TEREX CORPORATION	DEC	300.0	220.9	-10.6	54.4	113.7	128.7	-176.1	11.0	18.4	35.8	-170	-125	6	-31	-65	-73
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	46.9	32.4	49.0	71.1	151.8	116.1	183.2	-2.2	-16.6	44.8	26	18	27	39	83	63
TRN	§ TRINITY INDUSTRIES, INC.	DEC	60.1	182.0	-147.3	137.6	159.3	702.5	343.6	-13.5	-38.8	-67.0	17	53	-43	40	46	204
WNC	§ WABASH NATIONAL CORPORATION	DEC	112.3	1.2	-97.4	89.6	69.4	111.4	119.4	0.6	0.1	9,544.2	94	1	-82	75	58	93
WAB	▯ WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	633.0	558.0	414.0	327.0	294.9	262.3	304.9	9.7	19.3	13.4	208	183	136	107	97	86
AGRICULTURAL AND FARM MACHINERY																		
AGCO	† AGCO CORPORATION	DEC	889.6	897.0	427.1	125.2	285.5	186.4	160.1	5.5	36.7	-0.8	556	560	267	78	178	116
DE	▯ DEERE & COMPANY	OCT	7,131.0	5,963.0	2,751.0	3,253.0	2,368.0	2,159.0	1,523.9	8.8	27.0	19.6	468	391	181	213	155	142
LNN	§ LINDSAY CORPORATION	AUG	65.5	42.6	38.6	2.2	20.3	23.2	20.3	4.2	23.1	53.8	323	210	191	11	100	114
TTC	† THE TORO COMPANY	OCT	443.3	409.9	329.7	274.0	271.9	267.7	231.0	13.1	10.6	8.2	192	177	143	119	118	116
TWI	§ TITAN INTERNATIONAL, INC.	DEC	176.3	49.6	-60.4	-48.4	16.1	-60.0	-37.6	5.1	NM	255.5	-469	-132	161	129	-43	160
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																		
DDD	§ 3D SYSTEMS CORPORATION	DEC	-122.7	322.1	-149.6	-69.9	-45.5	-66.2	-38.4	NA	13.1	NM	319	-838	389	182	118	172
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	95.8	118.5	98.6	132.4	82.9	33.1	52.7	11.9	23.7	-19.2	182	225	187	251	157	63
B	§ BARNES GROUP INC.	DEC	13.5	99.9	63.4	158.4	166.2	59.4	135.6	-17.8	-25.7	-86.5	10	74	47	117	123	44
GTLS	† CHART INDUSTRIES, INC.	DEC	24.0	59.1	308.1	46.4	88.0	28.0	28.2	-10.3	-3.0	-59.4	85	210	1093	165	312	99
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	19.4	-61.6	-218.6	-137.8	-39.4	11.8	10.1	-4.5	10.5	NM	192	-610	NM	NM	-390	117
CR	CRANE COMPANY	DEC	401.1	435.4	181.0	133.3	335.6	171.8	122.8	6.3	18.5	-7.9	327	355	147	109	273	140
DCI	† DONALDSON COMPANY, INC.	JUL	332.8	286.9	257.0	267.2	180.3	232.8	190.8	2.3	7.4	16.0	174	150	135	140	94	122
DOV	▯ DOVER CORPORATION	DEC	1,065.4	1,123.8	683.5	677.9	570.3	811.7	508.9	2.8	5.6	-5.2	209	221	134	133	112	159
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	15.7	38.1	0.7	-249.1	-21.6	-66.2	-105.2	-15.8	NM	-58.8	-15	-36	-1	237	21	63
NPO	§ ENPRO INDUSTRIES, INC.	DEC	205.1	177.9	177.6	38.3	19.6	539.8	-40.1	17.5	-17.6	15.3	-511	-444	-443	-96	-49	NM

Note: Data as originally reported. CAGR-Compound annual growth rate.

▯ Company included in the S&P 500. † Company included in the S&P MidCap 400. § Company included in the S&P SmallCap 600. # Of the following calendar year.

Source: S&P Capital IQ.

		Net Income																
Ticker	Company	Yr. End	Million \$							CAGR (%)			Index Basis (2012=100)					
			2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																		
ESAB	† ESAB CORPORATION	DEC	223.7	235.1	157.4	172.9	172.9	0.0	0.0	NA	NA	-4.8	NA	NA	NA	NA	NA	NA
ESE	§ ESCO TECHNOLOGIES INC.	SEP	82.3	63.5	99.4	81.0	92.1	53.7	45.9	5.8	8.9	29.6	179	138	217	177	201	117
FLS	† FLOWSERVE CORPORATION	DEC	188.7	125.9	130.4	238.8	104.5	2.7	132.5	-8.3	134.7	49.8	142	95	98	180	79	2
FTV	▯ FORTIVE CORPORATION	DEC	755.2	608.4	1,613.3	738.9	2,913.8	1,044.5	872.3	-0.1	-6.3	24.1	87	70	185	85	334	120
FELE	§ FRANKLIN ELECTRIC CO., INC.	DEC	187.3	153.9	100.5	95.5	105.9	78.2	78.7	8.5	19.1	21.8	238	195	128	121	134	99
GGG	† GRACO INC.	DEC	460.6	439.9	330.5	343.9	341.1	252.4	40.7	11.9	12.8	4.7	1133	1081	812	845	839	621
HI	§ HILLENBRAND, INC.	SEP	208.9	249.9	-60.1	121.4	76.6	126.2	112.8	7.1	10.6	-16.4	185	222	-53	108	68	112
IEX	▯ IDEX CORPORATION	DEC	586.9	449.4	377.8	425.5	410.6	337.3	271.1	31.6	11.7	30.6	216	166	139	157	151	124
ITW	▯ ILLINOIS TOOL WORKS INC.	DEC	3,034.0	2,694.0	2,109.0	2,521.0	2,563.0	1,687.0	2,035.0	0.6	12.5	12.6	149	132	104	124	126	83
IR	▯ INGERSOLL RAND INC.	DEC	604.7	562.5	-33.3	159.1	269.4	18.4	-36.6	8.7	101.1	7.5	NM	NM	91	-435	-736	-50
ITT	† ITT INC.	DEC	367.0	316.3	72.5	325.1	333.7	113.5	186.1	11.3	26.5	16.0	197	170	39	175	179	61
JBT	§ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	130.7	118.4	108.8	129.0	104.1	80.5	67.6	13.7	10.2	10.4	193	175	161	191	154	119
KMT	§ KENNAMETAL INC.	JUN	144.6	54.4	-5.7	241.9	200.2	49.1	-226.0	-7.3	24.1	165.7	-64	-24	3	-107	-89	-22
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	472.2	276.5	206.1	293.1	287.1	247.5	198.4	6.3	13.8	70.8	238	139	104	148	145	125
MLI	§ MUELLER INDUSTRIES, INC.	DEC	658.3	468.5	139.5	101.0	104.5	85.6	99.7	23.1	50.4	40.5	660	470	140	101	105	86
NDSN	▯ NORDSON CORPORATION	OCT	513.1	454.4	249.5	337.1	377.4	295.8	271.8	8.6	11.6	12.9	189	167	92	124	139	109
OTIS	▯ OTIS WORLDWIDE CORPORATION	DEC	1,253.0	1,246.0	906.0	1,116.0	1,049.0	636.0	636.0	NA	14.5	0.6	197	196	142	175	165	100
PH	▯ PARKER-HANNIFIN CORPORATION	JUN	1,315.6	1,746.1	1,202.0	1,524.5	1,060.8	983.4	806.8	1.3	6.0	-24.7	163	216	149	189	131	122
PNR	▯ PENTAIR PLC	DEC	480.9	553.0	358.6	355.7	347.4	666.5	522.2	NA	-6.3	-13.0	92	106	69	68	67	128
PRLB	§ PROTO LABS, INC.	DEC	-103.5	33.4	50.9	63.7	76.6	51.8	42.7	NA	NM	NM	-242	78	119	149	179	121
SNA	▯ SNAP-ON INCORPORATED	DEC	911.7	911.7	820.5	693.5	679.9	557.7	546.4	11.5	10.3	11.1	167	167	150	127	124	102
SPXC	§ SPX TECHNOLOGIES, INC.	DEC	0.2	425.4	99.0	70.9	81.2	89.3	-85.3	-49.4	-70.5	-100.0	0	-499	-116	-83	-95	-105
SXI	§ STANDEX INTERNATIONAL CORPORATION	JUN	61.4	36.5	20.2	67.9	36.6	46.5	52.1	7.1	5.7	68.3	118	70	39	130	70	89
SWK	▯ STANLEY BLACK & DECKER, INC.	DEC	1,062.5	1,062.5	1,689.2	955.8	605.2	1,227.3	968.0	1.9	-2.8	-37.1	110	110	175	99	63	127
TNC	§ TENNANT COMPANY	DEC	66.3	64.9	33.7	45.8	33.4	-6.2	46.6	4.8	NM	2.2	142	139	72	98	72	-13
MIDD	† THE MIDDLEBY CORPORATION	DEC	436.6	436.6	488.5	352.2	317.2	298.1	284.2	13.7	7.9	-10.6	154	154	172	124	112	105
TKR	† THE TIMKEN COMPANY	DEC	407.4	369.1	284.5	362.1	302.8	203.4	140.8	-1.9	14.9	10.4	289	262	202	257	215	144
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	251.5	165.7	114.3	131.5	128.0	73.1	84.2	13.9	28.0	51.8	299	197	136	156	152	87
XYL	▯ XYLEM INC.	DEC	355.0	427.0	254.0	401.0	549.0	331.0	260.0	1.8	1.4	-16.9	137	164	98	154	211	127

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Return on Revenues (%)						Return on Assets (%)						Return on Equity (%)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																				
ALG	§ ALAMO GROUP INC.	DEC	6.7	6.0	5.0	5.6	7.3	4.9	7.8	6.7	5.2	5.2	10.2	6.9	13.7	12.0	9.6	11.7	15.4	10.6
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	NM	1.4	4.5	1.9	NM	3.2	NM	1.7	5.4	2.8	NM	4.2	NM	2.5	7.4	3.7	NM	5.6
CAT	▯ CATERPILLAR INC.	DEC	11.3	12.7	7.2	11.3	11.2	1.7	8.2	7.8	3.8	7.8	7.8	1.0	41.4	40.7	20.0	42.5	44.2	5.6
CMI	▯ CUMMINS INC.	DEC	7.7	8.9	9.0	9.6	9.0	4.9	7.1	9.0	7.9	11.5	11.2	5.5	22.2	23.5	20.8	27.1	26.6	13.0
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	8.4	8.3	8.5	8.9	8.6	6.9	7.9	7.4	8.0	9.3	9.2	6.2	14.6	13.5	14.3	18.5	19.0	14.2
OSK	† OSHKOSH CORPORATION	DEC	2.1	5.4	4.7	6.9	6.1	4.2	2.2	6.2	5.5	10.4	8.9	5.6	5.4	0.0	11.8	22.7	19.6	13.3
PCAR	▯ PACCAR INC	DEC	10.4	7.9	6.9	9.3	9.3	8.6	9.1	6.3	4.6	8.4	8.6	7.1	24.3	17.0	12.9	26.1	26.4	22.6
TEX	† TEREX CORPORATION	DEC	6.8	5.7	NM	1.2	2.5	3.4	9.6	7.7	NM	1.7	3.3	3.7	26.2	21.4	1.0	23.4	23.2	8.1
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	1.6	1.9	1.8	2.3	6.0	5.4	1.2	1.0	1.5	2.4	6.2	4.8	3.6	2.3	5.9	7.3	13.1	14.4
TRN	§ TRINITY INDUSTRIES, INC.	DEC	3.0	12.0	NM	5.0	6.3	29.3	0.7	2.2	NM	1.6	2.0	7.4	7.7	2.4	NM	5.0	2.9	13.3
WNC	§ WABASH NATIONAL CORPORATION	DEC	4.5	0.1	NM	3.9	3.1	6.3	9.3	0.1	NM	6.9	5.3	8.2	31.2	0.3	NM	18.0	14.2	22.8
WAB	▯ WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	7.6	7.1	5.5	4.0	6.8	6.8	3.4	3.0	2.2	1.7	3.4	4.0	6.3	5.5	4.1	5.1	10.2	9.0
AGRICULTURAL AND FARM MACHINERY																				
AGCO	† AGCO CORPORATION	DEC	7.0	8.1	4.7	1.4	3.1	2.2	8.8	9.8	5.0	1.6	3.7	2.3	23.9	27.9	14.2	4.2	9.3	6.4
DE	▯ DEERE & COMPANY	OCT	13.6	13.6	7.7	8.3	6.3	7.4	7.9	7.1	3.7	4.5	3.4	3.3	36.8	38.0	22.6	28.7	22.7	26.8
LNN	§ LINDSAY CORPORATION	AUG	8.5	7.5	8.1	0.5	3.7	4.5	9.2	6.7	6.8	0.4	4.1	4.6	17.9	13.4	13.6	0.8	7.4	8.9
TTC	† THE TORO COMPANY	OCT	9.8	10.4	9.8	8.7	10.4	10.7	12.5	14.0	11.6	11.8	17.3	17.9	35.4	36.2	33.4	35.9	42.3	45.9
TWI	§ TITAN INTERNATIONAL, INC.	DEC	8.1	2.8	NM	NM	1.0	NM	13.7	4.2	NM	NM	1.3	NM	58.7	23.3	NM	NM	3.2	NM
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
DDD	§ 3D SYSTEMS CORPORATION	DEC	NM	52.3	NM	NM	NM	NM	NM	20.8	NM	NM	NM	NM	NM	50.6	NM	NM	NM	NM
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	9.3	12.7	10.9	12.6	8.4	3.8	5.8	7.6	6.4	9.0	5.8	2.4	11.1	14.0	12.8	20.3	14.1	6.0
B	§ BARNES GROUP INC.	DEC	1.1	7.9	5.6	10.6	11.1	4.1	0.6	3.9	2.4	5.8	5.9	2.5	1.0	7.1	4.8	12.8	13.5	4.9
GTLS	† CHART INDUSTRIES, INC.	DEC	1.5	4.5	26.2	3.8	8.8	3.3	0.4	1.9	12.0	1.9	4.6	1.6	3.8	3.8	5.0	3.0	4.1	3.7
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	2.5	NM	NM	NM	NM	2.3	1.9	NM	NM	NM	NM	0.6	13.2	NM	NM	NM	NM	2.2
CR	CRANE COMPANY	DEC	11.9	12.8	6.2	4.3	10.0	6.2	9.1	9.7	3.9	3.0	8.3	4.8	21.5	25.9	12.0	7.5	23.3	13.8
DCI	† DONALDSON COMPANY, INC.	JUL	10.1	10.1	10.0	9.4	6.6	9.8	12.8	12.0	11.4	12.5	9.1	11.8	29.3	26.8	27.0	30.4	21.1	28.6
DOV	▯ DOVER CORPORATION	DEC	12.5	14.2	10.2	9.5	8.2	11.9	9.8	10.8	7.5	7.8	6.8	7.6	25.1	29.7	21.3	23.4	16.5	18.2
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	2.7	7.2	0.1	NM	NM	NM	2.1	4.6	0.1	NM	NM	NM	5.4	10.4	1.7	1.9	0.9	NM
NPO	§ ENPRO INDUSTRIES, INC.	DEC	18.7	21.2	22.2	3.2	1.5	49.0	7.7	6.0	8.5	1.9	1.1	28.6	0.3	4.7	NM	0.9	NM	82.1

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Return on Revenues (%)						Return on Assets (%)						Return on Equity (%)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
ESAB	† ESAB CORPORATION	DEC	8.6	9.7	8.1	7.7	0.0	0.0	6.0	6.8	4.6	5.0	NA	NA	11.9	9.5	6.1	0.0	0.0	0.0
ESE	§ ESCO TECHNOLOGIES INC.	SEP	9.6	8.9	13.6	11.2	13.5	7.8	5.0	4.0	7.3	5.5	7.3	4.3	8.0	6.4	2.6	9.8	12.1	8.3
FLS	† FLOWSERVE CORPORATION	DEC	5.2	3.6	3.5	6.1	2.7	0.1	3.9	2.7	2.5	4.8	2.3	0.1	10.7	7.6	8.0	14.4	6.6	0.3
FTV	▯ FORTIVE CORPORATION	DEC	13.0	11.6	34.8	16.2	76.7	18.1	4.8	3.7	10.1	4.2	22.6	9.9	7.9	6.6	17.7	3.8	9.4	27.2
FELE	§ FRANKLIN ELECTRIC CO., INC.	DEC	9.2	9.3	8.1	7.3	8.2	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GGG	† GRACO INC.	DEC	21.5	22.1	20.0	20.9	20.6	17.1	18.9	18.0	16.6	20.3	23.2	18.2	25.8	29.4	28.6	38.7	46.2	38.9
HI	§ HILLENBRAND, INC.	SEP	7.1	8.7	NM	6.7	4.3	7.9	5.4	6.2	NM	5.4	4.1	6.5	18.4	22.1	NM	16.7	10.8	18.2
IEX	▯ IDEX CORPORATION	DEC	18.4	16.3	16.1	17.1	16.5	14.7	10.6	9.1	8.6	11.2	11.8	9.9	20.1	16.8	15.7	20.0	21.2	19.7
ITW	▯ ILLINOIS TOOL WORKS INC.	DEC	19.0	18.6	16.8	17.9	17.4	11.8	19.7	16.8	13.5	16.7	17.2	10.1	90.4	79.1	67.9	80.2	65.3	38.1
IR	▯ INGERSOLL RAND INC.	DEC	10.2	10.9	NM	7.9	10.0	0.8	4.1	3.7	NM	3.4	6.0	0.4	6.5	5.7	NM	5.5	17.1	2.1
ITT	† ITT INC.	DEC	12.3	11.4	2.9	11.4	12.2	4.4	9.7	8.9	1.7	7.9	8.7	3.1	16.5	14.7	3.3	16.6	19.5	7.6
JBT	§ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	6.0	6.3	6.3	6.6	5.4	4.9	5.1	5.5	6.0	6.7	7.2	5.8	16.2	17.1	18.0	25.2	23.2	26.4
KMT	§ KENNAMETAL INC.	JUN	7.2	3.0	NM	10.2	8.5	2.4	5.6	2.0	NM	9.1	6.8	2.0	11.3	4.4	NM	19.0	18.0	5.1
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	12.6	8.5	7.8	9.8	9.5	9.4	14.8	10.7	8.9	12.4	12.2	10.3	49.8	33.4	25.6	34.3	31.5	30.1
MLI	§ MUELLER INDUSTRIES, INC.	DEC	16.5	12.4	5.8	4.2	4.2	3.8	29.4	27.1	9.1	7.4	7.6	6.5	43.2	46.2	19.6	17.3	19.4	11.8
NDSN	▯ NORDSON CORPORATION	OCT	19.8	19.2	11.8	15.4	16.7	14.3	13.4	12.0	6.8	9.6	11.0	8.7	23.0	23.2	14.9	22.2	29.0	29.5
OTIS	▯ OTIS WORLDWIDE CORPORATION	DEC	9.2	8.7	7.1	8.5	8.1	5.2	12.8	10.1	8.5	11.5	11.5	7.0	NM	NM	NM	55.8	49.6	0.0
PH	▯ PARKER-HANNIFIN CORPORATION	JUN	8.3	12.2	8.8	10.6	7.4	8.2	5.1	8.6	6.0	8.7	6.9	6.3	15.2	23.8	19.7	25.8	19.1	20.0
PNR	▯ PENTAIR PLC	DEC	11.7	14.7	11.9	12.0	11.7	23.4	7.5	11.6	8.5	8.6	9.1	7.7	18.8	24.6	17.6	19.1	9.4	2.5
PRLB	§ PROTO LABS, INC.	DEC	NM	6.8	11.7	13.9	17.2	15.0	NM	3.6	6.8	9.4	12.4	10.0	NM	4.5	8.3	11.3	15.3	12.3
SNA	▯ SNAP-ON INCORPORATED	DEC	18.8	17.8	15.9	17.0	16.7	13.9	13.1	12.1	9.6	12.2	12.7	10.6	21.5	20.9	17.8	21.7	22.9	20.4
SPXC	§ SPX TECHNOLOGIES, INC.	DEC	0.0	34.9	8.8	6.3	5.4	6.3	0.0	16.2	4.2	3.3	3.9	4.4	1.8	6.8	12.9	16.6	22.5	33.2
SXI	§ STANDEX INTERNATIONAL CORPORATION	JUN	8.3	5.6	3.3	10.6	6.1	7.2	6.6	3.8	2.2	7.4	4.0	5.4	12.2	8.0	8.9	10.6	7.1	10.1
SWK	▯ STANLEY BLACK & DECKER, INC.	DEC	6.3	11.1	9.7	7.4	4.3	9.5	4.3	6.0	5.2	4.6	3.1	6.4	1.6	13.7	11.4	11.3	7.5	16.7
TNC	§ TENNANT COMPANY	DEC	6.1	5.9	3.4	4.0	3.0	NM	6.1	6.1	3.1	4.3	3.4	NM	14.6	15.4	8.8	13.5	10.9	NM
MIDD	† THE MIDDLEBY CORPORATION	DEC	10.8	15.0	8.2	11.9	11.6	12.8	6.4	7.7	4.0	7.0	7.0	8.9	16.5	21.9	10.6	19.5	21.0	22.7
TKR	† THE TIMKEN COMPANY	DEC	9.1	8.9	8.1	9.6	8.5	6.8	7.1	7.1	5.6	7.5	6.8	6.0	17.6	16.6	14.0	20.8	19.6	14.5
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	12.7	9.2	7.6	8.2	8.2	5.0	13.0	8.9	6.6	7.6	7.7	4.2	20.3	14.8	11.2	14.1	14.9	9.3
XYL	▯ XYLEM INC.	DEC	6.4	8.2	5.2	7.6	10.5	7.0	4.5	5.2	2.9	5.2	7.6	4.8	10.6	13.8	8.5	14.0	20.7	14.0

Note: Data as originally reported. CAGR-Compound annual growth rate.

□Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Current Ratio						Debt/Capital Ratio (%)						Debt as a % of Net Working Capital					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																				
ALG	§ ALAMO GROUP INC.	DEC	3.8	3.2	3.3	3.5	4.5	3.9	26.8	26.5	29.8	42.7	14.3	11.8	53.5	60.6	75.4	104.2	24.1	20.6
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	2.5	2.8	3.3	2.9	3.0	3.4	12.4	0.4	0.3	0.3	9.3	0.2	20.7	0.7	0.5	0.5	16.1	0.4
CAT	▯ CATERPILLAR INC.	DEC	1.4	1.5	1.5	1.5	1.4	1.3	37.3	37.0	38.6	38.1	36.2	35.2	77.1	71.1	70.2	71.7	77.1	80.5
CMI	▯ CUMMINS INC.	DEC	1.3	1.7	1.9	1.5	1.5	1.6	49.7	31.3	32.4	22.8	23.9	18.9	242.6	77.4	73.1	72.6	67.8	56.0
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	2.9	2.5	2.7	2.3	2.1	2.6	29.5	26.4	23.2	25.5	28.3	37.7	102.7	108.0	82.6	109.7	123.4	148.4
OSK	† OSHKOSH CORPORATION	DEC	1.9	2.0	2.2	2.0	1.9	1.8	16.0	20.4	22.4	24.0	24.6	26.0	28.7	38.3	42.2	49.1	51.8	59.8
PCAR	▯ PACCAR INC	DEC	2.5	2.6	2.7	2.4	2.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TEX	† TEREX CORPORATION	DEC	2.0	1.9	2.6	2.3	2.0	2.3	39.4	37.5	55.8	55.5	58.4	44.4	79.9	77.5	100.8	101.6	100.2	72.5
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	2.1	1.9	2.3	2.7	3.1	3.4	57.4	51.4	50.1	37.0	25.1	31.7	144.4	141.4	116.3	86.5	46.6	56.6
TRN	§ TRINITY INDUSTRIES, INC.	DEC	2.3	1.9	2.7	1.8	2.1	5.4	33.0	23.5	18.2	18.0	13.4	14.7	85.6	87.7	54.2	118.9	64.9	28.8
WNC	§ WABASH NATIONAL CORPORATION	DEC	1.7	1.8	2.3	2.1	2.0	2.0	49.9	56.8	52.5	46.6	51.5	49.9	161.5	178.2	144.5	161.5	181.1	172.2
WAB	▯ WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	1.2	1.3	1.2	1.3	2.7	1.4	27.0	28.4	27.2	30.2	56.9	39.2	436.2	439.9	579.8	463.9	135.3	263.6
AGRICULTURAL AND FARM MACHINERY																				
AGCO	† AGCO CORPORATION	DEC	1.4	1.5	1.3	1.3	1.3	1.4	24.7	30.9	30.2	32.7	33.1	34.4	77.1	96.3	128.3	158.9	183.4	166.1
DE	▯ DEERE & COMPANY	OCT	2.0	2.2	2.3	2.1	1.9	2.1	31.5	38.0	44.7	34.5	32.8	37.9	26.8	31.5	34.0	22.2	22.3	22.2
LNN	§ LINDSAY CORPORATION	AUG	3.0	3.0	3.4	3.8	4.1	3.2	22.7	25.4	27.9	30.2	29.5	30.2	36.5	41.6	47.1	50.1	46.3	58.1
TTC	† THE TORO COMPANY	OCT	1.6	1.6	1.7	1.5	1.7	1.6	42.3	37.5	38.3	41.9	31.8	33.1	162.0	125.2	120.9	169.7	86.3	90.4
TWI	§ TITAN INTERNATIONAL, INC.	DEC	2.0	1.8	2.0	2.0	2.1	2.1	52.0	66.6	68.3	62.4	51.1	49.0	89.5	124.8	131.8	135.2	100.6	99.2
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
DDD	§ 3D SYSTEMS CORPORATION	DEC	5.5	5.8	2.0	2.3	2.4	2.1	37.4	34.7	4.3	8.1	4.1	0.0	65.9	52.3	10.6	21.5	10.7	0.0
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	4.0	3.6	3.8	3.1	3.1	3.4	33.6	28.8	33.4	37.9	45.1	46.6	70.0	64.5	78.0	103.3	123.6	130.7
B	§ BARNES GROUP INC.	DEC	2.4	2.2	2.2	2.2	2.3	2.4	29.6	29.4	33.4	39.6	43.6	29.6	132.3	161.0	199.9	196.3	207.1	116.3
GTLS	† CHART INDUSTRIES, INC.	DEC	3.4	1.2	1.1	1.8	1.8	1.6	43.2	27.0	12.3	39.0	38.3	35.6	78.2	376.4	324.9	263.2	184.5	179.8
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	2.2	2.0	2.2	2.4	2.3	2.0	75.7	79.3	77.2	62.1	59.5	56.7	209.1	255.1	244.1	189.3	213.8	249.3
CR	CRANE COMPANY	DEC	1.2	2.0	1.5	1.6	1.8	1.8	38.5	31.5	51.3	42.8	38.2	26.8	357.7	111.8	235.7	170.0	151.3	72.6
DCI	† DONALDSON COMPANY, INC.	JUL	2.2	2.1	2.7	2.3	2.4	2.4	36.5	31.9	38.3	39.4	38.9	40.3	83.4	79.9	90.0	91.7	80.4	84.1
DOV	▯ DOVER CORPORATION	DEC	1.2	1.4	1.5	1.5	1.4	1.3	50.9	43.3	47.9	51.0	55.4	43.7	565.7	385.1	353.1	383.6	467.8	496.4
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	2.2	2.7	3.2	2.4	3.0	1.7	39.3	29.8	41.5	60.1	47.4	51.5	107.8	78.6	108.2	105.4	72.5	198.5
NPO	§ ENPRO INDUSTRIES, INC.	DEC	3.2	2.1	2.9	2.4	2.5	3.1	35.4	48.7	30.2	40.6	35.0	40.6	164.0	266.1	129.3	143.4	105.1	112.1

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Current Ratio						Debt/Capital Ratio (%)						Debt as a % of Net Working Capital					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
ESAB	† ESAB CORPORATION	DEC	1.6	1.6	1.7	2.1	0.0	0.0	46.7	0.0	0.0	0.0	NA	NA	314.8	0.0	0.0	0.0	NA	NA
ESE	§ ESCO TECHNOLOGIES INC.	SEP	1.8	1.7	1.7	2.0	2.0	2.0	11.3	11.6	4.0	24.3	20.8	27.5	52.3	70.1	21.3	108.8	102.3	128.9
FLS	† FLOWSERVE CORPORATION	DEC	2.0	2.1	2.5	2.2	2.2	2.1	39.5	40.4	49.4	43.3	45.8	46.9	100.3	99.1	97.4	97.5	107.6	112.3
FTV	¶ FORTIVE CORPORATION	DEC	0.9	0.7	1.6	1.1	1.4	1.8	18.9	16.0	24.0	39.5	31.0	51.6	NM	NM	178.4	2,177.9	303.8	303.7
FELE	§ FRANKLIN ELECTRIC CO., INC.	DEC	2.1	1.8	3.0	3.1	2.3	2.4	7.7	8.7	9.8	10.4	11.4	15.1	19.7	27.5	22.1	24.4	29.1	36.6
GGG	† GRACO INC.	DEC	3.0	2.7	3.2	2.8	2.4	2.6	5.0	6.6	12.0	14.5	27.2	24.5	11.9	13.8	24.5	34.0	65.5	58.5
HI	§ HILLENBRAND, INC.	SEP	1.3	1.4	1.6	1.7	1.1	1.2	52.4	49.6	58.4	44.6	31.7	36.8	375.9	303.7	292.9	142.8	436.8	545.7
IEX	¶ IDEX CORPORATION	DEC	2.6	3.5	4.2	3.5	3.0	2.8	32.6	29.8	29.1	27.3	29.8	31.3	171.6	99.4	83.0	93.9	116.6	133.5
ITW	¶ ILLINOIS TOOL WORKS INC.	DEC	1.4	1.8	2.5	2.9	1.6	2.4	78.0	67.6	71.0	71.9	64.9	69.0	399.3	245.1	197.6	189.2	269.7	197.1
IR	¶ INGERSOLL RAND INC.	DEC	2.4	2.8	2.6	2.7	2.2	2.6	22.6	27.2	29.5	45.9	49.6	58.1	117.8	127.9	162.6	163.7	224.2	227.3
ITT	† ITT INC.	DEC	1.5	1.9	2.2	2.0	1.9	1.6	20.2	9.2	5.5	4.6	6.7	10.6	70.1	25.9	11.2	10.9	15.9	29.4
JBT	§ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	1.4	1.3	1.3	1.5	1.3	1.3	53.1	47.3	45.3	55.2	45.9	46.1	393.7	399.5	331.0	299.2	291.0	255.2
KMT	§ KENNAMETAL INC.	JUN	2.1	2.3	1.6	2.6	1.7	2.4	32.6	30.6	58.8	30.1	32.5	39.8	114.2	105.8	202.0	81.3	89.8	106.6
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	1.8	1.7	2.0	1.9	2.3	2.6	55.6	48.6	47.7	48.8	44.4	43.3	169.2	144.1	127.6	145.8	101.4	84.2
MLI	§ MUELLER INDUSTRIES, INC.	DEC	4.4	2.7	2.4	3.0	3.0	3.1	0.1	0.1	26.3	36.4	46.5	45.6	0.1	0.2	59.0	82.4	104.2	90.3
NDSN	¶ NORDSON CORPORATION	OCT	1.4	2.6	2.8	2.1	2.5	1.4	13.1	26.6	37.8	40.5	47.0	52.1	115.6	108.7	162.4	201.5	240.8	522.1
OTIS	¶ OTIS WORLDWIDE CORPORATION	DEC	0.9	1.3	1.0	1.1	1.1	1.1	434.9	170.5	289.3	1.7	1.2	0.6	NM	361.1	NM	13.7	8.7	2.9
PH	¶ PARKER-HANNIFIN CORPORATION	JUN	2.1	1.8	1.6	2.4	1.6	1.4	60.0	43.9	60.3	56.9	47.7	53.3	180.7	261.2	444.0	157.2	257.3	389.9
PNR	¶ PENTAIR PLC	DEC	1.5	1.2	1.3	1.4	1.3	1.5	46.1	27.0	28.5	34.5	30.0	22.2	467.8	354.4	414.4	328.9	356.9	262.2
PRLB	§ PROTO LABS, INC.	DEC	2.6	3.3	4.8	5.0	4.1	3.8	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	4.1
SNA	¶ SNAP-ON INCORPORATED	DEC	3.5	3.1	2.6	2.5	2.3	1.8	0.4	0.4	0.5	5.9	6.0	6.2	0.7	0.8	1.0	14.2	14.7	19.8
SPXC	§ SPX TECHNOLOGIES, INC.	DEC	2.2	2.1	1.2	1.0	1.3	1.4	18.5	17.4	43.2	52.1	48.6	53.5	63.2	50.1	398.1	1,663.0	282.4	206.5
SXI	§ STANDEX INTERNATIONAL CORPORATION	JUN	2.5	2.6	2.7	2.4	2.4	2.3	25.9	28.3	30.1	29.9	30.1	32.0	76.6	86.5	95.2	102.8	87.0	95.5
SWK	¶ STANLEY BLACK & DECKER, INC.	DEC	1.2	1.0	1.3	1.0	1.1	1.0	49.5	41.4	27.7	28.8	36.0	25.5	530.5	NM	287.4	6,982.7	739.0	1,691.6
TNC	§ TENNANT COMPANY	DEC	2.2	1.8	1.9	1.7	1.9	1.8	38.5	37.7	42.3	46.0	50.9	53.7	94.1	111.4	124.4	149.2	149.1	185.4
MIDD	† THE MIDDLEBY CORPORATION	DEC	2.0	1.9	1.8	2.0	1.9	2.0	48.9	49.1	46.9	49.3	53.2	42.9	263.0	303.9	305.8	307.7	376.6	223.4
TKR	† THE TIMKEN COMPANY	DEC	2.5	2.5	2.4	2.5	2.5	2.2	45.9	38.3	42.4	46.2	51.0	41.2	131.3	110.2	134.6	146.1	159.0	115.8
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	2.5	2.1	2.3	1.8	2.1	2.4	10.2	10.8	15.6	17.3	26.6	36.4	25.8	31.3	50.0	64.7	86.8	104.0
XYL	¶ XYLEM INC.	DEC	1.9	2.3	1.8	1.6	1.5	1.9	34.9	43.1	56.5	46.3	47.8	46.6	132.2	137.9	196.8	244.0	327.4	226.6

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.



Ticker	Company	Yr. End	Earnings per Share (\$)						Tangible Book Value per Share (\$)						Share Price (High-Low, \$)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																				
ALG	§ ALAMO GROUP INC.	DEC	8.5	6.8	4.9	5.4	6.3	3.8	35.3	27.1	21.0	14.2	32.3	27.0	160.7 - 108.3	166.0 - 134.5	145.4 - 71.0	129.9 - 74.6	120.6 - 72.5	119.6 - 70.5
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	0.0	0.7	2.0	1.0	-2.6	1.6	24.7	25.9	25.3	24.2	23.4	26.4	73.0 - 31.0	80.0 - 50.3	63.9 - 25.2	43.9 - 26.2	64.8 - 27.9	73.4 - 45.7
CAT	CATERPILLAR INC.	DEC	12.6	11.8	5.5	10.7	10.3	1.3	19.0	17.0	14.0	12.4	10.3	9.0	245.1 - 160.6	246.7 - 179.3	183.8 - 87.5	148.9 - 111.8	173.2 - 112.1	158.7 - 90.3
CMI	CUMMINS INC.	DEC	15.1	14.6	12.0	14.5	13.2	6.0	27.9	41.8	39.3	34.7	33.7	31.5	254.1 - 184.3	277.1 - 203.4	244.7 - 101.0	186.7 - 130.0	194.2 - 124.4	181.8 - 134.1
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	2.0	1.6	1.6	1.8	1.5	1.0	3.3	2.4	2.6	1.5	0.2	-1.2	50.6 - 31.9	48.9 - 31.8	34.9 - 23.3	35.8 - 19.4	28.3 - 18.4	23.6 - 13.1
OSK	† OSHKOSH CORPORATION	DEC	2.6	6.2	4.7	8.2	6.3	3.8	25.8	25.3	20.9	17.2	14.3	10.5	125.2 - 69.3	137.5 - 84.0	95.2 - 46.7	95.6 - 59.0	100.3 - 51.4	94.2 - 61.7
PCAR	PACCAR INC	DEC	5.8	3.6	2.5	4.6	4.2	3.2	25.2	22.3	20.0	18.7	16.5	15.3	71.5 - 51.3	68.8 - 52.0	63.9 - 32.7	55.6 - 37.2	53.1 - 35.6	50.5 - 41.3
TEX	† TEREX CORPORATION	DEC	4.3	3.1	-0.2	0.8	1.5	1.4	13.2	11.8	9.3	9.3	8.4	11.7	47.5 - 26.6	55.6 - 34.0	36.9 - 11.5	38.6 - 22.8	50.2 - 25.5	48.9 - 28.7
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	1.4	1.0	1.5	2.1	4.7	3.7	33.7	34.6	33.6	33.0	35.0	31.9	53.5 - 23.8	50.2 - 33.3	38.0 - 12.9	46.0 - 21.3	64.9 - 37.4	54.5 - 39.1
TRN	§ TRINITY INDUSTRIES, INC.	DEC	0.7	1.8	-1.3	1.1	1.1	4.5	10.1	10.5	14.3	15.2	15.0	28.5	35.4 - 20.9	33.8 - 24.7	26.9 - 14.5	26.6 - 16.0	39.4 - 19.0	38.3 - 25.0
WNC	§ WABASH NATIONAL CORPORATION	DEC	2.3	0.0	-1.8	1.6	1.2	1.8	2.2	0.4	0.6	0.2	-1.0	-1.0	26.2 - 12.2	20.6 - 13.0	19.2 - 6.3	16.7 - 12.7	26.5 - 12.3	24.2 - 15.8
WAB	WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	3.5	3.0	2.2	1.8	3.1	2.7	-10.0	-11.3	-11.8	-13.1	-6.8	-8.9	105.5 - 78.3	97.7 - 71.1	81.5 - 35.1	81.8 - 61.0	115.4 - 65.5	93.8 - 69.2
AGRICULTURAL AND FARM MACHINERY																				
AGCO	† AGCO CORPORATION	DEC	11.9	11.9	5.7	1.6	3.6	2.3	29.4	23.4	16.2	14.0	11.3	10.5	150.3 - 88.6	158.6 - 101.0	104.6 - 35.3	81.4 - 54.0	75.1 - 49.5	76.0 - 57.8
DE	DEERE & COMPANY	OCT	23.3	19.0	8.7	10.2	7.2	6.7	50.2	44.1	26.3	22.7	19.9	25.0	448.4 - 283.8	400.3 - 263.9	273.6 - 106.1	180.5 - 132.7	175.3 - 128.3	159.1 - 103.5
LNN	§ LINDSAY CORPORATION	AUG	5.9	3.9	3.6	0.2	1.9	2.2	28.1	22.9	19.1	16.6	17.2	14.0	183.1 - 116.8	179.3 - 123.7	130.2 - 71.9	99.9 - 73.0	109.5 - 83.6	96.2 - 73.3
TTC	† THE TORO COMPANY	OCT	4.2	3.8	3.0	2.5	2.5	2.4	1.8	2.9	2.6	1.4	3.2	2.9	115.6 - 71.9	118.1 - 92.6	95.4 - 52.1	81.8 - 54.6	67.8 - 53.0	73.9 - 55.8
TWI	§ TITAN INTERNATIONAL, INC.	DEC	2.8	0.8	-1.0	-0.8	0.1	-1.1	6.0	3.4	2.9	3.7	4.5	5.1	19.8 - 9.2	11.8 - 4.7	6.1 - 1.1	7.3 - 2.3	14.5 - 4.5	14.2 - 8.0
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
DDD	§ 3D SYSTEMS CORPORATION	DEC	-1.0	2.6	-1.3	-0.6	-0.4	-0.6	2.1	3.5	1.9	2.1	2.5	2.5	22.7 - 7.0	56.5 - 10.3	12.8 - 4.6	14.5 - 6.5	21.8 - 8.6	23.7 - 7.9
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	3.0	3.7	3.0	4.1	2.6	1.0	20.9	20.3	18.0	14.4	12.1	10.8	106.6 - 75.2	93.4 - 65.1	79.9 - 30.5	92.0 - 60.4	82.2 - 58.0	65.7 - 43.5
B	§ BARNES GROUP INC.	DEC	0.3	2.0	1.2	3.1	3.2	1.1	1.4	-0.5	-3.8	-4.8	-7.6	1.2	48.8 - 27.9	57.6 - 39.8	68.6 - 30.2	63.1 - 42.4	72.7 - 49.1	72.9 - 45.5
GTLS	† CHART INDUSTRIES, INC.	DEC	0.5	1.4	8.5	1.3	2.7	0.9	27.5	1.8	6.0	-3.0	1.1	1.8	242.6 - 107.7	206.3 - 115.9	123.2 - 15.0	95.7 - 52.3	80.3 - 43.5	48.8 - 32.0
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	1.0	-3.1	-10.9	-6.9	-2.0	0.7	-10.7	-14.4	-16.9	-13.4	-18.2	-21.1	29.8 - 13.3	43.2 - 24.2	46.6 - 8.0	47.8 - 20.7	54.9 - 19.7	73.0 - 42.3
CR	CRANE COMPANY	DEC	7.0	7.4	3.1	2.2	5.5	2.8	-0.8	-3.8	-7.4	-8.5	-6.1	-2.3	114.9 - 82.1	108.7 - 72.5	89.5 - 36.8	91.2 - 69.0	102.7 - 67.2	90.7 - 67.6
DCI	† DONALDSON COMPANY, INC.	JUL	2.7	2.2	2.0	2.1	1.4	1.7	5.6	6.0	4.8	4.0	4.5	4.4	61.9 - 46.0	69.4 - 54.8	58.2 - 31.1	58.3 - 41.6	59.4 - 40.3	50.1 - 41.3
DOV	DOVER CORPORATION	DEC	7.4	7.7	4.7	4.6	3.8	5.1	-12.3	-12.0	-12.3	-12.5	-14.1	-3.8	184.0 - 114.5	183.0 - 115.9	127.4 - 63.0	116.1 - 69.1	109.1 - 65.8	102.1 - 75.4
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	0.3	0.6	0.0	-4.0	-0.4	-1.1	0.3	1.3	0.3	-0.2	3.4	-4.2	27.4 - 16.1	28.8 - 18.7	26.3 - 13.3	27.9 - 20.3	31.0 - 19.1	29.2 - 21.6
NPO	§ ENPRO INDUSTRIES, INC.	DEC	9.8	8.6	8.7	1.9	0.9	24.8	-12.9	-27.6	-4.7	-3.2	11.5	10.3	127.7 - 76.1	113.5 - 71.1	76.7 - 30.0	75.7 - 55.4	94.8 - 55.5	94.8 - 61.4

Note: Data as originally reported. CAGR-Compound annual growth rate.

||Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Earnings per Share (\$)						#	Tangible Book Value per Share (\$)						#	Share Price (High-Low, \$)					
			2022	2021	2020	2019	2018	2017		2022	2021	2020	2019	2018	2017		2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																						
ESAB	† ESAB CORPORATION	DEC	3.7	3.9	2.6	0.0	0.0	0.0	-11.6	6.8	0.0	0.0	0.0	0.0	58.1 - 32.1	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
ESE	\$ ESCO TECHNOLOGIES INC.	SEP	3.2	2.4	3.8	3.1	3.5	2.1	6.2	4.1	7.8	2.1	1.3	-2.2	96.7 - 60.0	115.8 - 75.2	107.1 - 62.6	93.2 - 62.9	71.5 - 54.4	66.0 - 50.3		
FLS	† FLOWSERVE CORPORATION	DEC	1.4	1.0	1.0	1.8	0.8	0.0	4.0	3.5	2.6	2.9	1.9	1.7	37.6 - 23.9	44.4 - 28.2	51.3 - 19.0	54.2 - 36.2	56.9 - 35.9	52.1 - 37.5		
FTV	‡ FORTIVE CORPORATION	DEC	2.1	1.6	4.5	2.0	8.2	3.0	-8.1	-9.8	-5.0	-10.2	-6.0	-5.8	76.5 - 52.5	79.9 - 64.6	82.1 - 37.3	89.5 - 63.5	88.3 - 62.9	75.7 - 53.0		
FELE	\$ FRANKLIN ELECTRIC CO., INC.	DEC	4.0	3.3	2.1	2.0	2.2	1.7	11.0	7.9	9.7	8.8	7.6	7.1	96.2 - 68.3	97.0 - 67.7	72.6 - 41.3	57.7 - 41.7	51.5 - 38.5	47.2 - 36.0		
GGG	† GRACO INC.	DEC	2.7	2.5	1.9	2.0	2.0	1.5	8.1	7.1	4.6	3.3	1.7	1.5	80.9 - 56.5	81.1 - 64.3	73.5 - 38.4	53.9 - 40.2	49.7 - 37.4	46.0 - 27.5		
HI	\$ HILLENBRAND, INC.	SEP	2.9	3.3	-0.8	1.9	1.2	2.0	-12.9	-12.0	-13.9	-0.5	-5.4	-6.7	53.7 - 36.2	54.2 - 38.2	40.1 - 13.6	46.0 - 26.0	53.4 - 36.2	46.5 - 34.7		
IEX	‡ IDEX CORPORATION	DEC	7.7	5.9	4.9	5.6	5.3	4.4	-7.2	0.5	3.0	1.3	-1.1	-3.0	246.2 - 172.2	240.3 - 185.2	199.5 - 104.6	174.0 - 120.9	157.8 - 117.7	135.7 - 88.3		
ITW	‡ ILLINOIS TOOL WORKS INC.	DEC	9.8	8.5	6.6	7.7	7.6	4.9	-8.3	-7.4	-7.2	-7.2	-7.5	-4.2	249.8 - 173.5	248.1 - 192.9	224.7 - 115.9	182.3 - 122.6	179.1 - 117.8	169.7 - 120.1		
IR	‡ INGERSOLL RAND INC.	DEC	1.5	1.3	-0.1	0.8	1.3	0.1	-1.1	-2.2	-0.6	-3.3	-5.0	-6.0	62.6 - 39.3	62.2 - 40.6	46.8 - 17.0	37.2 - 19.7	38.0 - 18.7	34.6 - 19.9		
ITT	† ITT INC.	DEC	4.4	3.7	0.8	3.7	3.8	1.3	14.0	14.0	12.2	11.2	8.8	5.8	105.0 - 63.8	105.5 - 74.5	79.6 - 35.4	74.6 - 46.8	63.0 - 44.9	54.8 - 36.9		
JBT	\$ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	4.1	3.7	3.4	4.0	3.2	2.5	-15.0	-10.0	-7.0	-9.4	-3.0	-3.0	163.3 - 81.6	177.6 - 110.5	129.7 - 56.2	128.0 - 68.1	123.9 - 66.3	120.6 - 80.7		
KMT	\$ KENNAMETAL INC.	JUN	1.7	0.7	-0.1	2.9	2.4	0.6	10.9	11.1	10.0	10.6	8.8	6.5	38.4 - 20.2	43.0 - 32.5	39.2 - 14.5	42.0 - 27.5	52.5 - 30.3	49.3 - 31.3		
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	8.0	4.6	3.4	4.7	4.4	3.7	2.9	4.8	5.4	5.0	7.2	8.7	150.7 - 118.2	148.5 - 110.5	122.5 - 59.3	98.3 - 75.5	101.3 - 72.3	99.6 - 75.9		
MLI	\$ MUELLER INDUSTRIES, INC.	DEC	11.6	8.3	2.5	1.8	1.8	1.5	27.7	17.3	9.3	7.6	5.9	6.1	70.4 - 49.4	63.1 - 34.1	36.7 - 16.8	34.2 - 22.5	37.6 - 21.5	44.0 - 27.7		
NDSN	‡ NORDSON CORPORATION	OCT	8.8	7.7	4.3	5.8	6.4	5.1	2.8	1.5	-6.2	-8.3	-11.3	-17.0	256.1 - 194.9	272.3 - 178.6	216.9 - 96.5	169.0 - 111.9	151.8 - 110.2	150.5 - 107.2		
OTIS	‡ OTIS WORLDWIDE CORPORATION	DEC	3.0	2.9	2.1	2.5	2.4	0.0	-16.4	-13.4	-14.1	-1.0	0.0	0.0	88.2 - 62.5	92.8 - 61.3	68.2 - 38.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
PH	‡ PARKER-HANNIFIN CORPORATION	JUN	10.1	13.4	9.3	11.6	7.8	7.3	-15.8	-24.6	-42.3	-9.9	-12.5	-19.8	340.0 - 230.4	335.0 - 247.4	280.3 - 93.0	212.1 - 143.8	212.8 - 140.8	200.8 - 139.9		
PNR	‡ PENTAIR PLC	DEC	2.9	3.3	2.1	2.1	2.0	3.6	-10.0	-3.1	-3.7	-3.8	-3.0	14.4	73.5 - 38.6	80.4 - 51.1	58.8 - 22.0	46.5 - 34.4	74.8 - 35.3	71.8 - 56.5		
PRLB	\$ PROTO LABS, INC.	DEC	-3.8	1.2	1.9	2.4	2.8	1.9	14.6	14.2	18.7	16.4	14.6	11.7	61.1 - 22.0	286.6 - 47.6	203.9 - 63.2	130.6 - 88.8	166.6 - 100.1	109.1 - 48.0		
SNA	‡ SNAP-ON INCORPORATED	DEC	16.8	14.9	11.4	12.4	11.9	9.5	59.6	51.7	47.7	41.2	35.3	31.3	245.6 - 190.1	260.0 - 165.9	183.2 - 90.7	174.0 - 141.5	189.5 - 135.3	181.7 - 140.8		
SPXC	\$ SPX TECHNOLOGIES, INC.	DEC	0.0	9.2	2.2	1.6	1.8	2.0	4.9	5.1	-0.7	-4.5	-4.1	-3.5	75.3 - 41.7	68.2 - 51.6	56.9 - 25.5	52.2 - 26.2	39.3 - 25.2	32.7 - 22.0		
SXI	\$ STANDEX INTERNATIONAL CORPORATION	JUN	5.1	3.0	1.6	5.4	2.9	3.7	12.3	10.7	6.9	5.8	12.1	5.0	111.9 - 79.0	121.4 - 75.1	81.1 - 37.5	83.2 - 59.3	114.2 - 62.0	110.0 - 84.3		
SWK	‡ STANLEY BLACK & DECKER, INC.	DEC	6.8	10.2	7.5	6.1	4.0	8.1	-21.3	-14.2	-13.9	-34.0	-35.4	-30.7	196.5 - 70.2	225.0 - 167.7	195.0 - 70.0	169.5 - 115.0	176.6 - 106.4	170.9 - 114.9		
TNC	\$ TENNANT COMPANY	DEC	3.6	3.4	1.8	2.5	1.8	-0.4	11.5	7.7	3.8	1.5	-0.8	-3.5	85.3 - 54.9	87.4 - 66.7	87.1 - 46.6	80.4 - 50.3	86.0 - 49.0	76.8 - 60.1		
MIDD	† THE MIDDLEBY CORPORATION	DEC	8.0	8.6	3.8	6.3	5.7	5.3	-26.2	-29.3	-25.3	-24.0	-25.8	-12.3	201.3 - 120.3	199.0 - 123.9	149.4 - 41.7	143.0 - 99.1	138.9 - 96.7	150.9 - 107.5		
TKR	† THE TIMKEN COMPANY	DEC	5.5	4.8	3.7	4.7	3.9	2.6	5.6	8.0	4.8	1.5	-1.5	6.6	76.3 - 50.9	92.4 - 63.0	78.5 - 22.3	58.5 - 36.3	55.7 - 34.0	53.1 - 40.1		
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	7.5	4.9	3.4	3.9	3.7	2.1	17.9	13.2	9.7	7.2	5.3	2.7	195.6 - 116.3	212.0 - 113.4	123.0 - 69.0	100.9 - 61.9	93.4 - 61.2	78.1 - 59.2		
XYL	‡ XYLEM INC.	DEC	2.0	2.4	1.4	2.2	3.0	1.8	-0.9	-3.3	-5.4	-5.9	-8.0	-8.0	121.1 - 72.1	138.8 - 94.6	101.9 - 54.6	85.7 - 63.8	82.4 - 60.7	69.9 - 46.7		

Note: Data as originally reported. CAGR-Compound annual growth rate.

[]Company included in the S&P 500. †Company included in the S&P MidCap 400. \$Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Price/Earnings Ratio (High-Low)						Dividend Payout Ratio (%)							Dividend Yield (High-Low, %)						
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	0	2022	2021	2020	2019	2018	2017	
CONSTRUCTION MACHINERY AND HEAVY TRANSPORTATION EQUIPMENT																						
ALG	§ ALAMO GROUP INC.	DEC	19 - 13	24 - 20	29 - 15	24 - 14	19 - 12	31 - 19		8.4	8.3	10.6	8.9	7.0	10.4		0.6 - 0.5	0.7 - 0.4	0.4 - 0.3	0.7 - 0.4	0.6 - 0.4	0.6 - 0.3
ASTE	§ ASTEC INDUSTRIES, INC.	DEC	NM - NM	114 - 73	31 - 14	43 - 27	NM - NM	44 - 28		NM	64.6	21.7	44.8	NM	24.4		1.4 - 1.1	1.5 - 0.7	0.9 - 0.6	1.6 - 0.7	1.7 - 1.0	1.3 - 0.6
CAT	▯ CATERPILLAR INC.	DEC	19 - 13	21 - 15	33 - 17	14 - 10	16 - 11	124 - 72		36.4	35.9	74.8	35.0	31.7	242.8		2.2 - 1.8	3.0 - 1.9	2.4 - 1.7	4.5 - 2.3	3.6 - 2.4	3.1 - 1.8
CMI	▯ CUMMINS INC.	DEC	17 - 12	19 - 14	20 - 9	13 - 9	15 - 10	30 - 23		39.7	38.0	43.7	33.7	33.5	70.2		2.8 - 2.4	3.2 - 2.4	2.8 - 2.0	5.1 - 2.3	3.7 - 2.6	3.6 - 2.2
FSS	§ FEDERAL SIGNAL CORPORATION	DEC	25 - 16	29 - 20	22 - 15	19 - 11	18 - 12	22 - 13		18.1	21.9	20.2	17.8	19.9	27.3		0.8 - 0.6	1.1 - 0.7	1.0 - 0.7	1.3 - 0.9	1.7 - 0.9	1.5 - 1.1
OSK	† OSHKOSH CORPORATION	DEC	47 - 27	22 - 14	20 - 10	11 - 7	15 - 8	24 - 16		56.0	21.7	25.4	13.0	15.1	22.0		2.1 - 1.5	2.1 - 1.2	1.6 - 1.0	2.5 - 1.3	1.9 - 1.3	1.8 - 1.0
PCAR	▯ PACCAR INC	DEC	12 - 9	19 - 15	25 - 13	12 - 8	13 - 9	16 - 13		0.2	0.0	95.3	18.2	36.6	17.2		4.4 - 3.8	3.6 - 2.7	3.6 - 2.0	7.2 - 2.1	6.1 - 4.4	5.7 - 2.8
TEX	† TEREX CORPORATION	DEC	11 - 6	17 - 11	NM - NM	47 - 30	33 - 17	35 - 21		11.9	15.2	NM	57.7	26.4	22.9		1.4 - 1.0	1.9 - 1.0	1.3 - 0.0	3.8 - 0.0	1.9 - 1.2	1.3 - 0.6
GBX	§ THE GREENBRIER COMPANIES, INC.	AUG	37 - 20	50 - 27	22 - 9	30 - 10	12 - 9	13 - 8		76.3	109.9	71.8	46.7	19.7	21.4		4.4 - 2.8	3.8 - 2.0	4.3 - 2.2	8.2 - 3.0	3.7 - 1.6	2.3 - 1.7
TRN	§ TRINITY INDUSTRIES, INC.	DEC	48 - 29	18 - 14	NM - NM	24 - 15	36 - 18	8 - 6		128.0	48.6	NM	59.7	48.6	10.3		4.7 - 2.9	4.3 - 2.6	3.4 - 2.5	5.2 - 3.2	4.2 - 2.0	2.5 - 1.3
WNC	§ WABASH NATIONAL CORPORATION	DEC	11 - 5	890 - 588	NM - NM	10 - 8	22 - 10	13 - 8		14.3	1411.9	NM	19.9	25.6	13.7		1.4 - 1.1	2.6 - 1.2	2.4 - 1.6	5.0 - 1.7	2.6 - 2.0	2.3 - 1.1
WAB	▯ WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION	DEC	30 - 23	33 - 24	37 - 19	42 - 33	37 - 22	34 - 25		17.5	16.5	22.5	25.1	15.7	16.1		0.7 - 0.6	0.7 - 0.5	0.7 - 0.5	1.2 - 0.6	0.8 - 0.5	0.7 - 0.4
AGRICULTURAL AND FARM MACHINERY																						
AGCO	† AGCO CORPORATION	DEC	12 - 8	13 - 8	18 - 6	49 - 33	20 - 14	32 - 25		7.7	6.4	11.2	38.3	16.5	23.9		4.6 - 3.8	6.0 - 0.5	0.7 - 0.4	1.7 - 0.7	1.2 - 0.8	1.2 - 0.7
DE	▯ DEERE & COMPANY	OCT	19 - 12	21 - 12	27 - 13	17 - 13	23 - 18	20 - 13		18.4	17.4	34.8	29.0	34.0	35.4		1.3 - 1.0	1.6 - 1.0	1.4 - 0.9	2.7 - 1.4	2.3 - 1.7	2.0 - 1.4
LNN	§ LINDSAY CORPORATION	AUG	28 - 20	45 - 24	31 - 20	536 - 383	54 - 45	44 - 32		22.3	33.3	35.3	615.8	64.1	53.9		1.0 - 0.7	1.1 - 0.7	1.4 - 0.7	1.7 - 1.1	1.6 - 1.1	1.4 - 1.2
TTC	† THE TORO COMPANY	OCT	25 - 17	31 - 21	29 - 18	29 - 21	26 - 21	30 - 19		28.4	27.4	32.7	35.1	31.3	28.3		1.4 - 1.0	1.6 - 1.0	1.2 - 0.9	1.8 - 1.1	1.7 - 1.2	1.4 - 1.1
TWI	§ TITAN INTERNATIONAL, INC.	DEC	7 - 3	14 - 6	NM - NM	NM - NM	218 - 71	NM - NM		0.0	0.0	NM	NM	7.5	NM		0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	1.8 - 0.0	0.9 - 0.3	0.3 - 0.1
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																						
DDD	§ 3D SYSTEMS CORPORATION	DEC	NM - NM	21 - 4	NM - NM	NM - NM	NM - NM	NM - NM		0.0	0.0	0.0	0.0	0.0	0.0		0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
AIN	§ ALBANY INTERNATIONAL CORP.	DEC	34 - 25	25 - 19	26 - 10	22 - 15	32 - 23	63 - 43		27.6	21.9	24.9	17.6	26.5	66.0		1.2 - 0.8	1.1 - 0.8	1.2 - 0.9	2.4 - 0.9	1.2 - 0.8	1.2 - 0.8
B	§ BARNES GROUP INC.	DEC	183 - 107	29 - 21	54 - 26	20 - 14	23 - 16	66 - 42		240.2	32.4	51.1	20.6	19.4	49.7		1.7 - 1.4	2.3 - 1.3	1.6 - 1.1	2.0 - 1.0	1.5 - 1.0	1.1 - 0.8
GTLS	† CHART INDUSTRIES, INC.	DEC	384 - 176	122 - 70	14 - 2	69 - 38	28 - 16	53 - 35		0.0	0.0	0.0	0.0	0.0	0.0		0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
CIR	§ CIRCOR INTERNATIONAL, INC.	DEC	30 - 14	NM - NM	NM - NM	NM - NM	NM - NM	102 - 60		0.0	0.0	0.0	0.0	0.0	21.3		0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
CR	CRANE COMPANY	DEC	16 - 12	14 - 10	29 - 12	40 - 31	18 - 12	31 - 25		26.4	23.1	55.5	69.9	24.9	45.6		2.4 - 1.5	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
DCI	† DONALDSON COMPANY, INC.	JUL	26 - 17	29 - 20	29 - 16	28 - 20	38 - 31	27 - 20		33.1	37.4	41.4	37.3	52.5	39.7		1.9 - 1.4	2.0 - 1.3	1.9 - 1.3	2.5 - 1.4	1.9 - 1.3	1.7 - 1.4
DOV	▯ DOVER CORPORATION	DEC	24 - 16	23 - 15	27 - 14	25 - 15	28 - 17	19 - 14		27.0	25.5	41.6	41.6	49.7	35.0		1.5 - 1.3	1.7 - 1.1	1.7 - 1.1	3.0 - 1.6	2.9 - 1.7	2.6 - 1.8
EPAC	§ ENERPAC TOOL GROUP CORP.	AUG	96 - 63	45 - 28	2258 - 1173	NM - NM	NM - NM	NM - NM		15.4	6.3	334.6	NM	NM	NM		0.2 - 0.1	0.2 - 0.2	0.2 - 0.1	0.3 - 0.1	0.2 - 0.1	0.2 - 0.1
NPO	§ ENPRO INDUSTRIES, INC.	DEC	13 - 8	13 - 8	9 - 4	40 - 30	101 - 59	4 - 2		11.4	12.6	12.2	54.6	103.6	3.5		1.3 - 0.9	1.5 - 0.9	1.5 - 1.0	3.3 - 1.4	1.8 - 1.3	1.7 - 0.9
Note: Data as originally reported. CAGR-Compound annual growth rate.																						
[§]Company included in the S&P 500. †Company included in the S&P MidCap 400. \$Company included in the S&P SmallCap 600. #Of the following calendar year.																						
Source: S&P Capital IQ.																						

Note: Data as originally reported. CAGR-Compound annual growth rate.

▯ Company included in the S&P 500. † Company included in the S&P MidCap 400. § Company included in the S&P SmallCap 600. # Of the following calendar year.

Source: S&P Capital IQ.

Ticker	Company	Yr. End	Price/Earnings Ratio (High-Low)						Dividend Payout Ratio (%)						Dividend Yield (High-Low, %)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
INDUSTRIAL MACHINERY AND SUPPLIES AND COMPONENTS																				
ESAB	† ESAB CORPORATION	DEC	15 - 9	NA - NA	NA - NA				2.7	0.0	0.0	0.0	0.0	0.0	0.4 - 0.3	0.6 - 0.4	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
ESE	\$ ESCO TECHNOLOGIES INC.	SEP	30 - 19	47 - 31	27 - 17	27 - 19	20 - 16	30 - 21	10.0	13.1	8.4	10.2	9.0	15.4	0.4 - 0.3	0.5 - 0.3	0.4 - 0.3	0.5 - 0.3	0.5 - 0.4	0.6 - 0.5
FLS	† FLOWERVE CORPORAION	DEC	26 - 17	46 - 30	51 - 19	29 - 20	70 - 45	2555 - 1852	55.4	83.1	79.9	41.7	95.1	3741.8	2.7 - 2.2	3.3 - 2.2	2.7 - 1.8	4.2 - 1.5	2.1 - 1.4	1.9 - 1.4
FTV	‡ FORTIVE CORPORATION	DEC	36 - 25	48 - 40	18 - 9	45 - 32	10 - 8	25 - 18	13.2	21.7	10.1	22.0	4.5	9.3	0.4 - 0.4	0.5 - 0.4	0.4 - 0.4	0.7 - 0.3	0.4 - 0.3	0.4 - 0.3
FELE	\$ FRANKLIN ELECTRIC CO., INC.	DEC	24 - 17	29 - 21	33 - 19	28 - 21	23 - 17	28 - 22	19.4	21.2	28.7	28.3	20.7	25.3	1.1 - 0.9	1.1 - 0.7	1.0 - 0.7	1.5 - 0.9	1.3 - 1.0	1.2 - 0.9
GGG	† GRACO INC.	DEC	30 - 21	31 - 25	37 - 20	26 - 20	24 - 18	30 - 18	30.9	28.9	35.4	31.0	26.1	31.9	1.4 - 1.2	1.5 - 1.0	1.1 - 0.9	1.8 - 1.0	1.7 - 1.2	1.4 - 1.1
HI	\$ HILLENBRAND, INC.	SEP	18 - 13	15 - 8	NM - NM	27 - 14	43 - 32	20 - 15	29.7	25.6	NM	43.3	68.0	41.1	2.4 - 1.6	2.3 - 1.6	3.2 - 1.7	5.9 - 2.5	3.2 - 1.6	2.3 - 1.6
IEX	‡ IDEX CORPORATION	DEC	31 - 22	41 - 31	40 - 23	31 - 22	29 - 22	31 - 20	30.2	35.8	40.2	34.6	31.0	33.0	1.1 - 1.0	1.4 - 0.9	1.1 - 0.9	1.8 - 1.0	1.4 - 1.1	1.4 - 1.0
ITW	‡ ILLINOIS TOOL WORKS INC.	DEC	25 - 18	29 - 23	33 - 18	23 - 16	23 - 16	35 - 25	50.8	54.3	65.4	52.4	43.9	55.8	2.4 - 2.1	2.9 - 2.0	2.4 - 1.9	3.6 - 2.1	3.4 - 2.4	3.3 - 1.7
IR	‡ INGERSOLL RAND INC.	DEC	41 - 27	45 - 30	NM - NM	47 - 26	27 - 14	341 - 203	5.4	1.5	0.0	0.0	0.0	0.0	0.2 - 0.1	0.2 - 0.1	0.2 - 0.1	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
ITT	† ITT INC.	DEC	24 - 15	28 - 20	94 - 45	20 - 13	16 - 12	42 - 30	24.0	24.0	81.4	16.0	14.2	40.0	1.5 - 1.1	1.6 - 0.8	1.1 - 0.8	1.8 - 1.2	0.8 - 1.2	0.9 - 0.8
JBT	\$ JOHN BEAN TECHNOLOGIES CORPORATION	DEC	40 - 20	47 - 30	38 - 18	31 - 17	38 - 21	47 - 32	10.0	10.8	11.8	9.8	12.6	15.8	0.5 - 0.3	0.5 - 0.2	0.4 - 0.2	0.7 - 0.3	0.6 - 0.3	0.5 - 0.3
KMT	\$ KENAMETAL INC.	JUN	24 - 13	65 - 39	NM - NM	15 - 10	21 - 14	69 - 34	46.0	122.6	NM	27.2	32.5	130.5	3.9 - 2.6	3.1 - 1.9	3.1 - 1.9	5.3 - 2.1	2.6 - 1.8	2.4 - 1.5
LECO	† LINCOLN ELECTRIC HOLDINGS, INC.	DEC	18 - 15	31 - 24	35 - 17	21 - 16	23 - 16	26 - 20	27.7	44.1	57.3	40.2	35.6	37.4	1.8 - 1.5	2.0 - 1.5	1.8 - 1.4	3.3 - 1.7	2.6 - 2.1	2.5 - 1.6
MLI	\$ MUELLER INDUSTRIES, INC.	DEC	6 - 4	7 - 4	14 - 7	19 - 13	20 - 12	29 - 19	8.5	6.2	16.0	22.1	21.7	26.6	1.7 - 1.3	2.0 - 0.9	1.4 - 0.8	2.2 - 1.2	1.9 - 1.2	1.7 - 1.1
NDSN	‡ NORDSON CORPORATION	OCT	30 - 22	33 - 23	49 - 23	26 - 19	23 - 17	25 - 19	24.5	21.5	35.4	24.4	19.2	21.6	1.3 - 1.0	1.2 - 0.8	0.9 - 0.7	1.5 - 0.7	1.3 - 0.9	1.1 - 0.8
OTIS	‡ OTIS WORLDWIDE CORPORATION	DEC	29 - 21	32 - 21	32 - 19	NA - NA	NA - NA		37.1	31.5	28.7	0.0	0.0	0.0	1.5 - 1.3	1.8 - 1.1	1.4 - 1.0	1.7 - 1.2	0.0 - 0.0	0.0 - 0.0
PH	‡ PARKER-HANNIFIN CORPORATION	JUN	33 - 23	24 - 13	23 - 10	16 - 12	26 - 19	22 - 14	43.3	27.2	37.7	27.1	34.4	35.1	2.3 - 1.5	2.1 - 1.2	2.0 - 1.1	3.6 - 1.6	2.3 - 1.6	1.9 - 1.3
PNR	‡ PENTAIR PLC	DEC	25 - 13	24 - 15	25 - 11	22 - 17	38 - 18	19 - 15	28.8	24.1	35.4	34.5	53.9	37.8	2.0 - 1.5	2.2 - 1.1	1.6 - 1.0	3.3 - 1.4	2.1 - 1.6	3.2 - 1.5
PRLB	\$ PROTO LABS, INC.	DEC	NM - NM	208 - 40	99 - 34	55 - 38	58 - 36	54 - 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
SNA	‡ SNAP-ON INCORPORATED	DEC	14 - 11	17 - 11	16 - 8	14 - 11	16 - 11	19 - 15	34.3	33.6	38.8	31.2	28.2	30.4	2.9 - 2.5	3.0 - 2.4	2.8 - 1.9	4.5 - 2.4	2.8 - 2.2	2.4 - 1.7
SPXC	\$ SPX TECHNOLOGIES, INC.	DEC	16571 - 9501	7 - 6	25 - 12	32 - 16	20 - 14	15 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
SXI	\$ STANDEX INTERNATIONAL CORPORATION	JUN	23 - 16	36 - 17	49 - 23	21 - 12	38 - 31	27 - 20	20.0	31.4	52.5	14.5	24.3	16.9	1.3 - 0.9	1.2 - 0.9	1.7 - 0.9	2.3 - 1.0	1.3 - 0.6	0.8 - 0.6
SWK	‡ STANLEY BLACK & DECKER, INC.	DEC	27 - 10	21 - 16	24 - 9	26 - 18	43 - 27	21 - 14	44.4	29.2	36.5	42.1	63.6	29.6	4.4 - 3.3	4.5 - 1.6	1.8 - 1.3	3.8 - 1.5	2.4 - 1.7	2.4 - 1.4
TNC	\$ TENNANT COMPANY	DEC	24 - 15	24 - 19	47 - 27	31 - 20	45 - 27	NM - NM	28.5	27.0	48.4	34.9	45.8	NM	1.8 - 1.5	1.8 - 1.2	1.4 - 1.1	1.8 - 1.0	1.8 - 1.1	1.5 - 1.0
MDD	† THE MIDDLEBY CORPORATION	DEC	25 - 15	22 - 14	37 - 12	22 - 16	24 - 17	27 - 21	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0
TKR	† THE TIMKEN COMPANY	DEC	14 - 9	19 - 13	21 - 6	12 - 8	14 - 9	20 - 15	22.5	25.0	30.6	23.4	28.3	41.0	1.8 - 1.4	2.3 - 1.6	1.8 - 1.3	4.6 - 1.5	3.3 - 2.1	3.0 - 1.9
WTS	† WATTS WATER TECHNOLOGIES, INC.	DEC	26 - 16	43 - 23	36 - 21	26 - 16	23 - 17	36 - 28	15.7	20.7	27.5	23.9	22.1	35.4	0.8 - 0.7	1.0 - 0.5	0.8 - 0.5	1.3 - 0.8	1.4 - 0.9	1.2 - 0.9
XYL	‡ XYLEM INC.	DEC	61 - 37	58 - 40	71 - 40	38 - 29	27 - 20	38 - 26	61.1	47.5	74.0	43.4	27.7	39.3	1.4 - 1.0	1.6 - 0.9	1.2 - 0.8	1.8 - 1.1	1.4 - 1.1	1.3 - 1.0

Note: Data as originally reported. CAGR-Compound annual growth rate.

[‡]Company included in the S&P 500. †Company included in the S&P MidCap 400. \$Company included in the S&P SmallCap 600. #Of the following calendar year.

Source: S&P Capital IQ.

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