Ampco-Pittsburgh
Moving forward.

Producing Quality Products Since 1929 — Always Moving Forward!

Union Electric Steel
Forged and Cast Engineered Products

AEROFIN
Heat Transfer Products

BUFFALO
AIR HANDLING

Buffalopumps

Investor Presentation

July 2020

Rights Offering Disclaimer

This free writing prospectus relates to the proposed offering (the "Rights Offering") of subscription rights to purchase units of Ampco-Pittsburgh Corporation, a Pennsylvania corporation (the "Corporation), each unit consisting of shares of common stock of the Corporation, par value $1.00 per share ("Common Stock") and a Series A warrant exercisable to acquire shares of Common Stock, which are being registered on a Registration Statement on Form S-1 (Registration No. 333-239446) (as amended, the "Registration Statement"). This free writing prospectus should be read together with the prospectus included in that Registration Statement, which has not yet been declared effective and which can be accessed through the SEC's EDGAR website.

The Corporation has filed the Registration Statement with the U.S. Securities and Exchange Commission (the "Commission") in connection with the Rights Offering to which this presentation relates. Before you invest, you should read the prospectus, including the documents incorporated by reference into the prospectus, and the other documents the Corporation filed with the Commission for more complete information about the Corporation and the Rights Offering. You may obtain these documents for free by visiting EDGAR on the Commission website at www.sec.gov. Alternatively, the Corporation will arrange to send you the Registration Statement if you request it.

The information contained in this free writing prospectus speaks only as of the date hereof and is subject to change, completion or amendment without notice. The delivery of this free writing prospectus at any time shall not, under any circumstances, create any implication that there has been no change in the information set forth in this free writing prospectus or in the Corporation's affairs since the date of this free writing prospectus. The corporation assumes no obligation to update the information contained in this free writing prospectus except as required by applicable law.

This free writing prospectus may contain trademarks, service marks, trade names and copyrights of other companies, which are the property of their respective owners. Solely for convenience, some of the trademarks, service marks, trade names and copyrights referred to in this free writing prospectus may be listed without the SM, ©, ® or ™ symbols, but the Corporation will assert, to the fullest extent under applicable law, the right of the applicable owners, if any, to these trademarks, service marks, trade names and copyrights.

Disclaimer

Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995, as amended (the "Act") provides a safe harbor for forward-looking statements made by or on behalf of the Corporation. The information offered in this presentation may include, but are not limited to, statements about operating performance, trends, events that we expect or anticipate will occur in the future, statements about sales levels, restructuring, the impact from global pandemics (including COVID-19), profitability and anticipated expenses and cash outflows. All statements in this document other than statements of historical fact are statements that are, or could be, deemed "forward-looking statements" within the meaning of the Act and words such as "may," "intend," "believe," "expect," "anticipate," "estimate," "project," "forecast," "goal" and other terms of similar meaning that indicate future events and trends are also generally intended to identify forward-looking statements. Forward-looking statements speak only as of the date on which such statements are made, are not guarantees of future performance or expectations, and involve risks and uncertainties. For the Corporation, these risks and uncertainties include, but are not limited to: cyclical demand for products and economic downturns; excess global capacity in the steel industry; increases in commodity prices or shortages of key production materials; consequences of global pandemics (including COVID-19); new trade restrictions and regulatory burdens associated with "Brexit"; inability of the Corporation to successfully restructure its operations; limitations in availability of capital to fund the Corporation's operations and strategic plan; inability to satisfy the continued listing requirements of the New York Stock Exchange; potential attacks on information technology infrastructure and other cyber-based business disruptions; and those discussed more fully elsewhere in documents filed with the Securities and Exchange Commission by the Corporation, particularly in Item 1A, Risk Factors, in Part I of the Corporation's latest annual report on Form 10-K for the year ended December 31, 2019, and Part II of the Corporation's latest Form 10-Q. The Corporation cannot guarantee any future results, levels of activity, performance or achievements. In addition, there may be events in the future that the Corporation may not be able to predict accurately or control which may cause actual results to differ materially from expectations expressed or implied by forward-looking statements. Except as required by applicable law, we assume no obligation, and disclaim any obligation, to update forward-looking statements whether as a result of new information, events or otherwise.

Non-GAAP Financial Measures

The Corporation presents certain non-GAAP financial measures, including adjusted income (loss) from continuing operations and adjusted EBITDA, as supplemental financials measure to GAAP financial measures regarding the Corporation's operational performance. These non-GAAP financial measures exclude certain unusual items affecting comparability, as described more fully in the footnotes to the attached non-GAAP financial measures reconciliation schedules, which reconcile to the most directly comparable GAAP financial measure.

The Corporation has presented non-GAAP adjusted income (loss) from continuing operations because it is a key measure used by the Corporation's management and Board of Directors to understand and evaluate the Corporation's operating performance and to develop operational goals for managing the business. Management believes this non-GAAP financial measure provides useful information to investors and others in understanding and evaluating the operating results of the Corporation, enhancing the overall understanding of the Corporation's past performance and future prospects, and allowing for greater transparency with respect to key financial metrics used by management in its financial and operational decision-making. Non-GAAP adjusted income (loss) from continuing operations should be used only as a supplement to GAAP information, in conjunction with the Corporation's consolidated financial statements prepared in accordance with GAAP, and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP. There are limitations related to the use of non-GAAP adjusted income (loss) from continuing operations rather than GAAP income (loss) from continuing operations. Among other things, the Excess Costs of Avonmore, which are excluded from the non-GAAP financial measure, necessarily reflect judgments made by management in allocating manufacturing and operating costs between Avonmore and the Corporation's other operations and in anticipating how the Corporation will conduct business following the sale of Avonmore, which was completed on September 30, 2019.

The Corporation presents non-GAAP adjusted EBITDA, defined as net (loss) income attributable to Ampco-Pittsburgh (which is the most directly comparable GAAP measure), with other (income) expense including interest expense, income tax provision (benefit), depreciation and amortization expense and other certain unusual items, as footnoted, added back. Management believes that adjusted EBITDA is widely used as a measure of operating performance and is a useful indicator of the Company's operational strength and performance. Nevertheless, the measure should not be considered in isolation or as a substitute for net (loss) income, income (loss) from continuing operations, cash flows from operating activities or any other measure for determining liquidity that is calculated in accordance with GAAP.

Rights Offering Registration Filed

- Ampco-Pittsburgh Corporation (NYSE: AP) (the "Corporation") announced on June 26th 2020, that it had filed a registration statement on Form S-1 with the Securities and Exchange Commission (the "SEC") for a proposed rights offering.

- Ampco-Pittsburgh intends to use the net proceeds of the rights offering to accelerate its restructuring efforts, improve overall liquidity and reduce its indebtedness.

- The Corporation plans to distribute to its shareholders non-transferable subscription rights to purchase up to $20.0 million of units. Each unit will consist of shares of common stock (the "Common Shares") and warrants to purchase Common Shares.

- The distribution of rights and commencement of the rights offering will occur promptly following the effectiveness of the registration statement. The record date for the distribution of the rights, the dates for both the subscription period and the expiration of the rights offering, and related pricing information will be included in the final prospectus.

Link to Registration Statement:

Registration Statement

The Vision

Our Vision is Simple:

- #1 Market Share position for the customers we serve – **Top Line Growth**

- Deliver an annual Minimum Net Income of $25M – **Financial Resilience**

- Target Double Digit EBITDA Margin -

Legacy Challenges Being Addressed

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- Underperforming and underutilized assets
- Significant gaps in leadership
- Poor productivity impacting costs, product lead time, and predictability of performance
- Complex flow path and excessive overhead structure driving unnecessary costs

The Plan of Attack

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Moving forward.

- Divest underperforming and non-core businesses
- Replace key leadership positions
- Maximize core assets through operational efficiency improvements growing margins, customer share, and opening new markets
- Consolidate manufacturing footprint through asset upgrades further reducing overhead, labor, and working capital

The Plan of Attack

Ampco-Pittsburgh
Moving forward.

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CAPEX and Use of Funds

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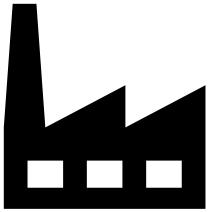
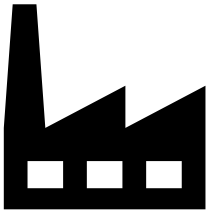
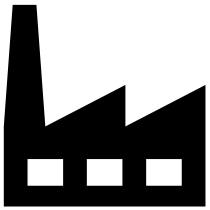
Current State – 3 Forge Facilities

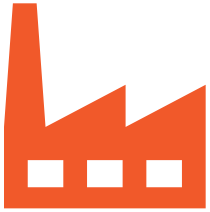
Future State – 2 Forge Facilities

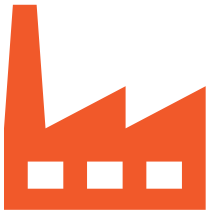






18 to 36 Month Timeline – Machine OEM Dependent





Replace Single-Purpose Machines with Multi-Purpose Machines

- ✓ **Efficiency Improvements**
- ✓ **Working Capital Reduction**
- ✓ **Labor Savings**
- ✓ **Transportation Savings**
- ✓ **Repair & Maintenance Savings**
- ✓ **Overhead Savings**

Annual Savings of $9 Million - $12.5 Million

Turnaround Strategy is working!

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New Leadership

- **Brett McBrayer** introduced as new CEO in July 2018 with a focus on operational improvements, reducing complexity, and rightsizing the business for future growth and profitability
- **Sam Lyon** appointed Segment President with new plan to reduce costs, streamline operations, and improve product mix

Divestment of non-core assets

- Sold specialized parts and service provider to North American rolling mills, **Vertical Seal**
- Sold Canadian specialty steel operations, **ASW Steel**
- Sold North American cast roll operations, **Akers National Roll**
    - Improved income from operations **$9-10M annually**

Cost Reduction

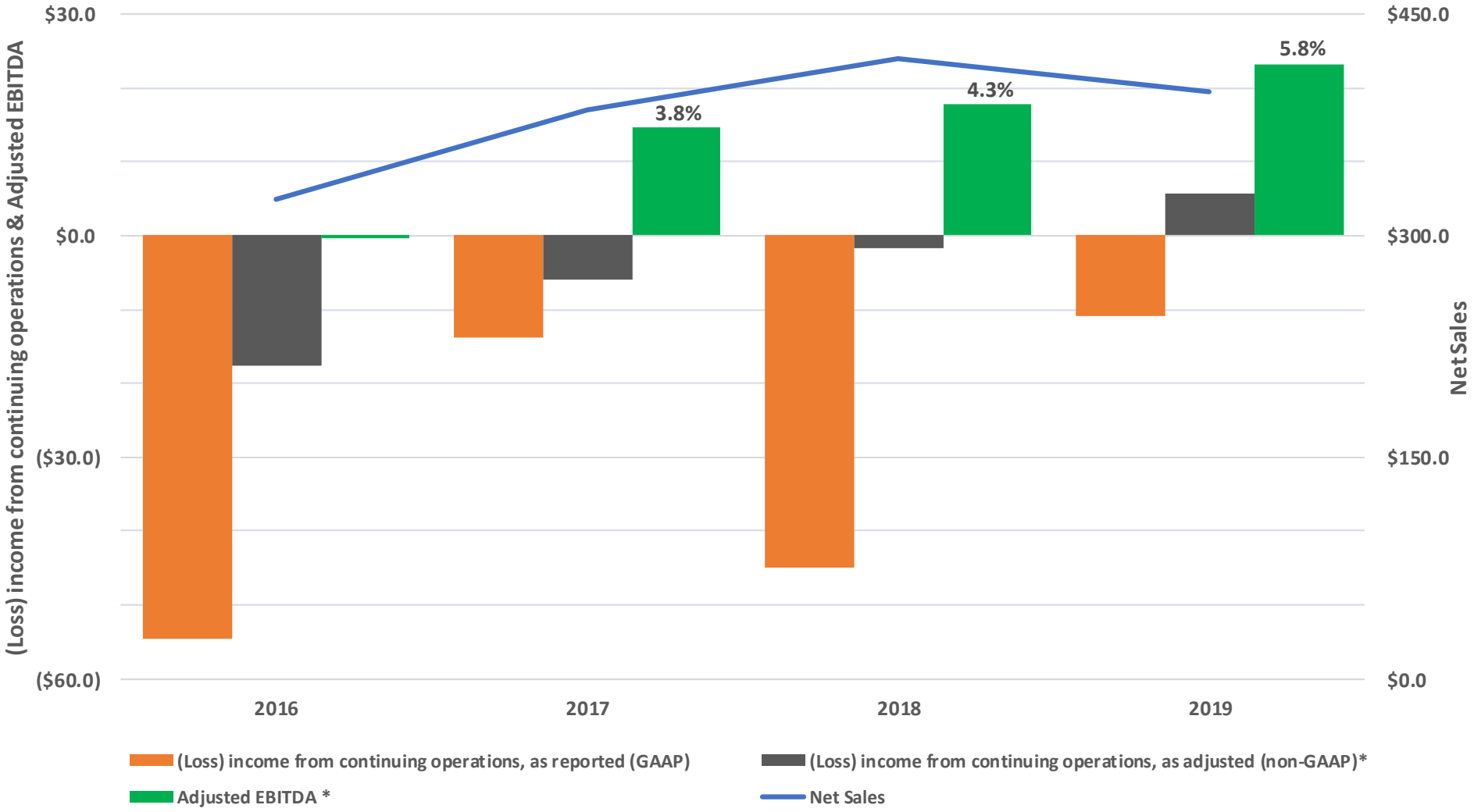
- Expect **~$3-4M** operating cost reduction in the European cast roll operations in 2020
- Target to reduce corporate expenses by **10-15%** in 2020 vs. 2019

Develop and diversify non-roll, open-die forged business

Focus on increasing operating cash flow for capital investments to increase productivity and improve margins

Consolidated Financial Trend Improvement

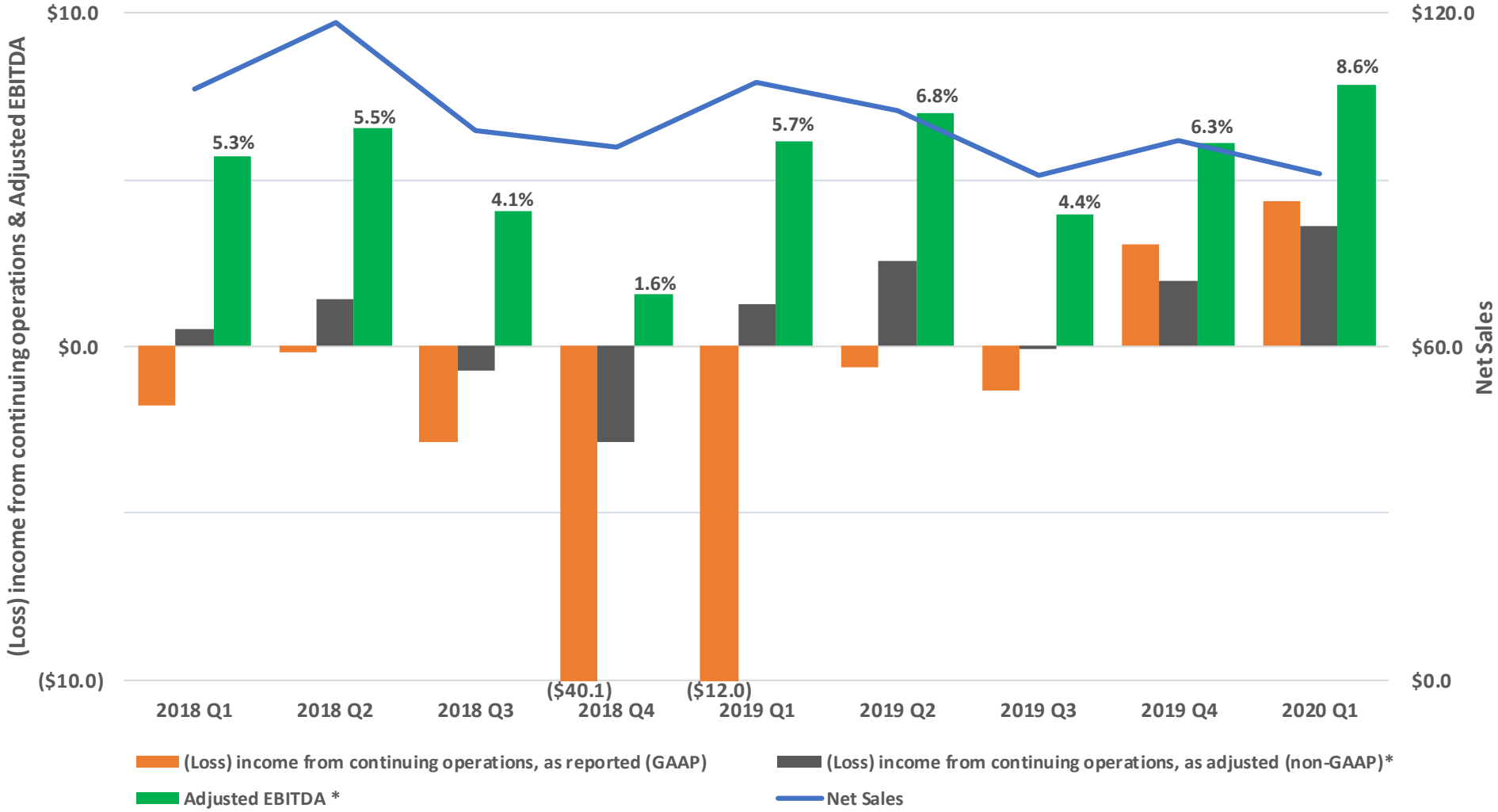
($MM's)



** See non-GAAP Reconciliation Schedule in the Appendix*

Consolidated Financial Quarterly Trend

($MM's)



** See non-GAAP Reconciliation Schedule in the Appendix*

Ampco-Pittsburgh Corporation

A manufacturer of highly engineered, high-performance specialty metal products and customized equipment utilized by industry throughout the world.

Forged and Cast Engineered Products

Manufactures and develops metallurgical alloys and processes for forged and cast hardened steel rolls used in rolling mills by producers of steel, aluminum and other metals. Produces ingot and forged engineered products used in industries such as automotive tooling, plastic injection molding, infrastructure, general industrial, and oil & gas.

Air and Liquid Processing

Manufactures products such as heat exchangers, custom designed air handling systems, and centrifugal pumps used in a variety of end markets.

Headquarters: Carnegie, PA, U.S.

Founded in 1929

NYSE: AP

2019 Total Revenue: $397.9M
(from Continuing Operations)

Market Capitalization: $36.58M
(as of 6/25/2020)

Total Debt: $68.2M
(as of 3/31/2020)

Ampco-Pittsburgh Global Footprint

Ampco-Pittsburgh Corporation

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Union Electric Steel
Forged and Cast Engineered Products

AEROFIN
Heat Transfer Products

BUFFALO
AIR HANDLING

Buffalopumps

2019 Revenue*	$305.6M	$92.3M
2018 Revenue*	$329.5M	$89.9M
2017 Revenue*	$297.3M	$87.9M

** From Continuing Operations*

Ampco-Pittsburgh Customers

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Steel Dynamics, Inc.
United States Steel Corporation
NASA
Johns Hopkins Medicine
Ontario Power Generation
Tata Steel
JSW Steel
Arconic
Trane
Exelon
Johnson Controls
ArcelorMittal
Ameren
U.S. Air Force
Daikin
Micron
POSCO
Ternium
Bronswerk
Dominion Energy
Nucor
AK Steel
Air Enterprises
Novelis
thyssenkrupp
outokumpu
Duke Energy
DTE Energy
American Electric Power
Merck
Lilly
Bristol-Myers Squibb
Sanofi
Pfizer
General Dynamics Bath Iron Works
York
Johnson & Johnson
Dana-Farber Cancer Institute
General Dynamics NASSCO
Trane
Duke University Medical Center
University of Maryland Medical Center
REX UNC Health Care
Solar Turbines A Caterpillar Company
Johnson Controls
Carrier
Northeast Georgia Health System
Memorial Sloan Kettering Cancer Center
Harvard Medical School
Siemens Ingenuity for life
Weill Cornell Medicine
Massachusetts Institute of Technology
VCU
Ingalls Shipbuilding

Forged and Cast Engineered Products

$306M

2019 NET SALES*

A world-leading manufacturer and partner for our rolling mill customers in the development of specialty alloys for forged and cast rolls.

Produces ingot and forged engineered products used in industries such as automotive tooling, plastic injection molding, infrastructure, general industrial, and oil & gas.

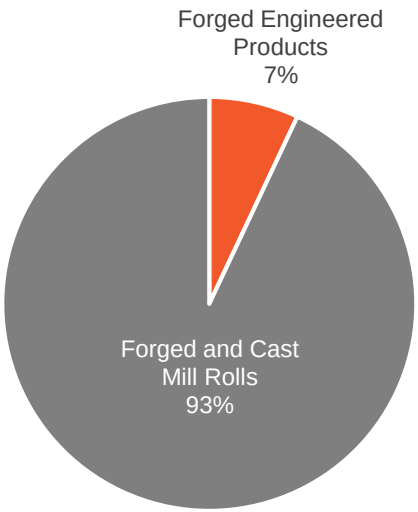
Global Footprint

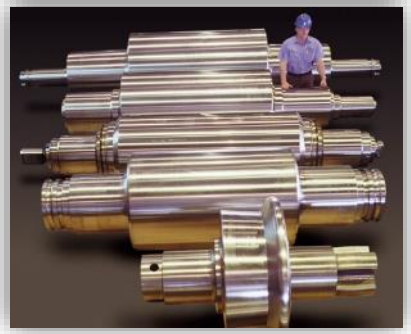
Manufacturing Facilities: 5 in U.S., 3 in Europe, 3 JV's in China

Global sales network

Key Customers:

ArcelorMittal, U.S. Steel, Novelis, Tata Steel, Ternium, Nucor





** From Continuing Operations*

Key Rolling Mill Customers

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DIVERSIFIED BASE OF GLOBALLY RECOGNIZABLE CUSTOMERS

Steel Dynamics, Inc.

United States Steel Corporation

TATA STEEL

JSW Steel

ARCONIC

posco

Ternium

ArcelorMittal

NUCOR

AK Steel

Novelis

thyssenkrupp

outokumpu

End Markets for Forged and Cast Engineered Products

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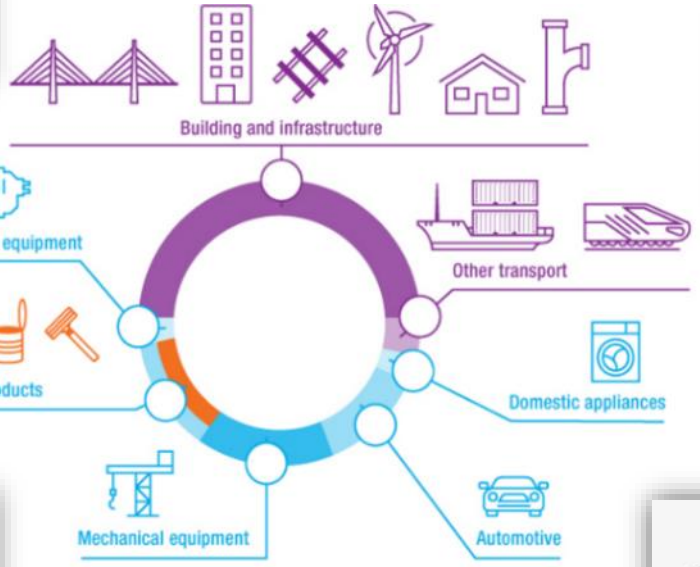
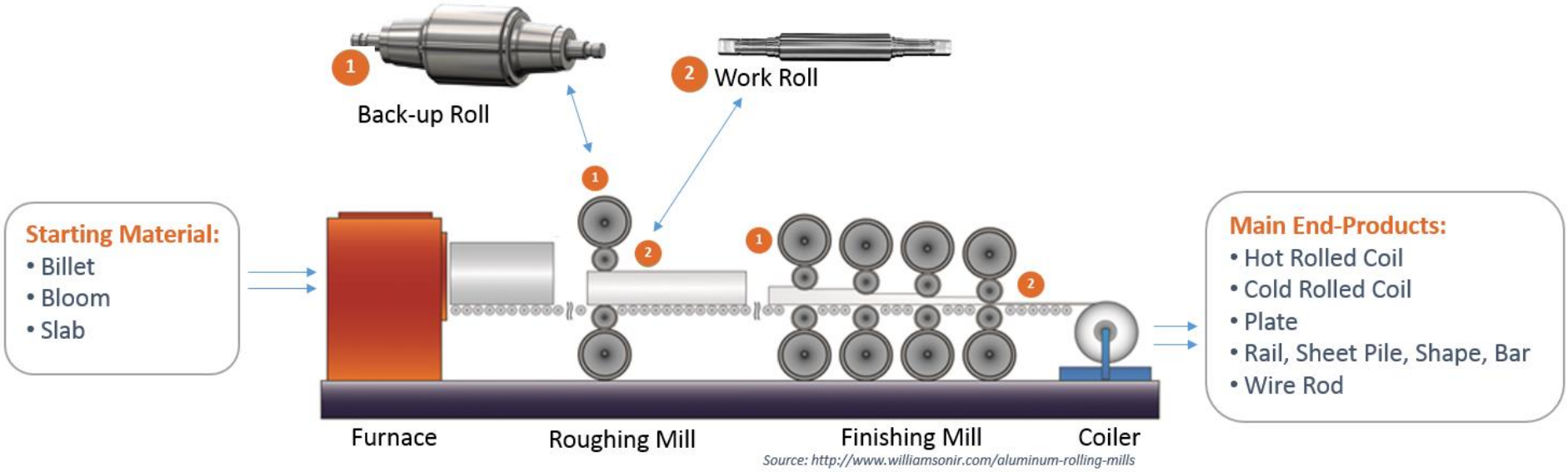
Moving forward.



Source: World Steel Association

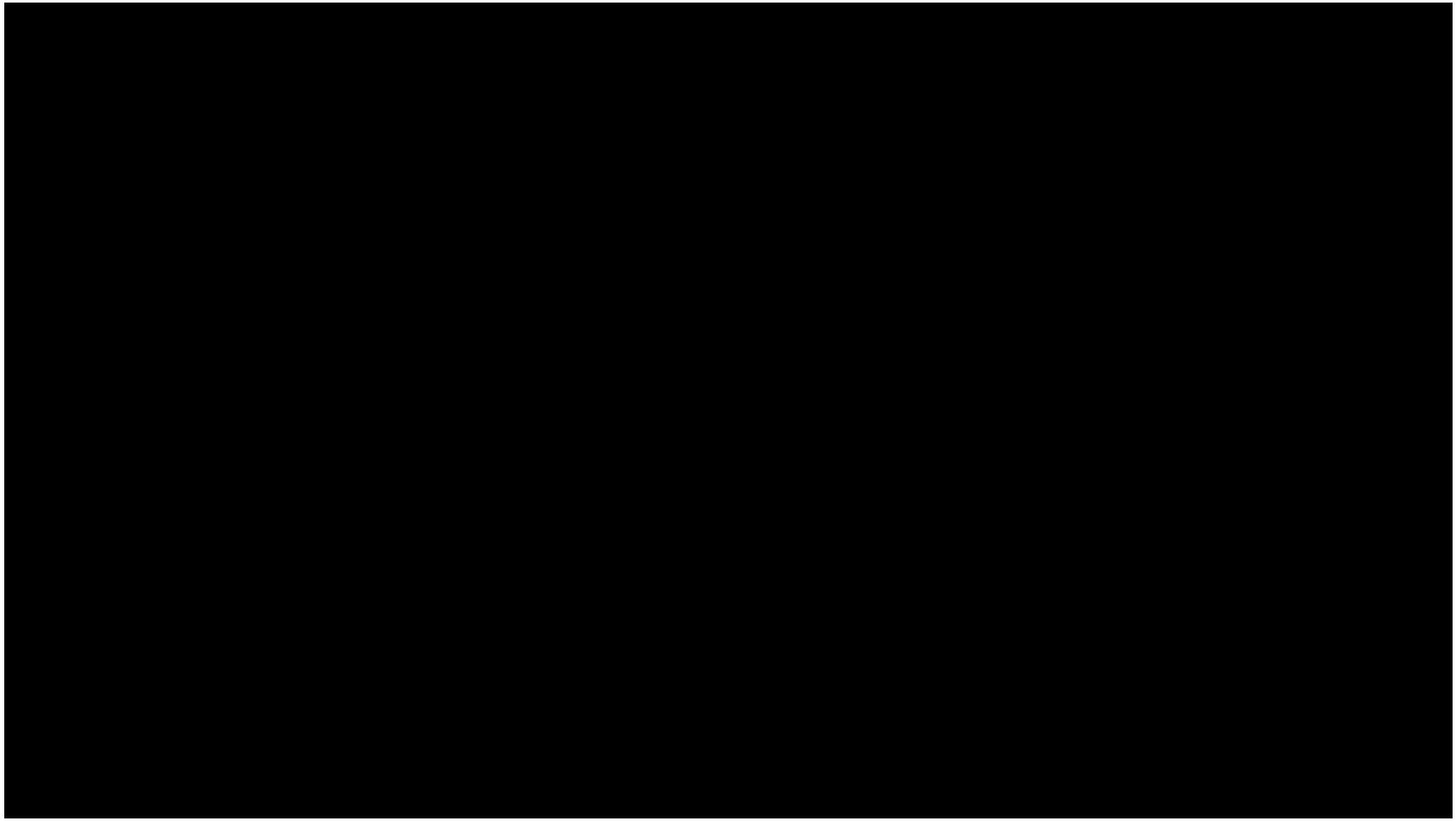
Steel and aluminum play critical roles in virtually every phase of our lives.

What is a "Roll"?



- A sheet of metal will pass through a series of rolls, flattening the metal **like a rolling pin for dough** until the required thickness profile is achieved.
- Rolls are **consumables**; our customers provide the ***"razor"* (the rolling mill)**; we provide the ***"blade"* (the rolls)**.

Hot Rolled Strip Mill Manufacturing Process



This video is the result of a collaboration between the Association for Iron & Steel Technology (AIST) and Purdue University Calumet's Center for Innovation Through Visualization and Simulation (CIVS) with contributions from the Colorado School of Mines' Advanced Steel Processing and Products Research Center (CSM-ASPPRC).Visit AIST.org for more information.

Competitive Advantages

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The Industry's Needs	Union Electric Steel's Solutions
☐ Over 75% of aluminum and steel products require rolling	☑ The **largest non-government owned roll manufacturer** in the world
☐ Wide range of roll types required for varying applications	☑ Provides the **most diverse range** of roll types and chemistries in the industry
☐ Rolls require customization to meet mill demands and characteristics	☑ **Integrated melting and heat treatment** with **global** technical support

Diversification into Open-Die Forging Market

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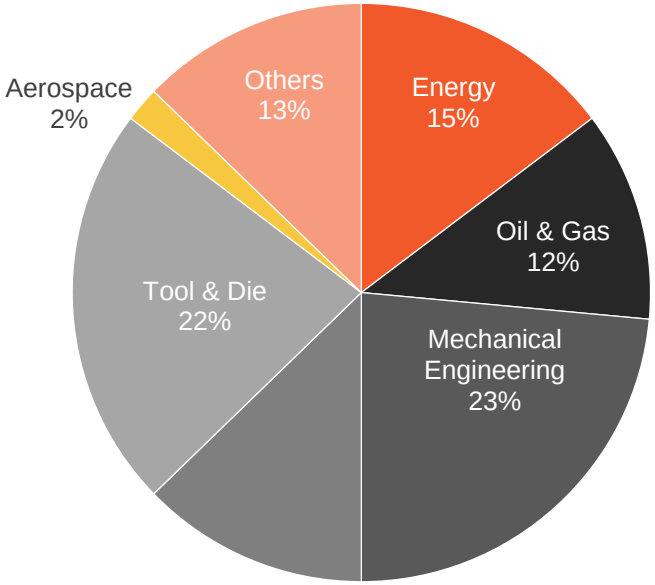
Manufacturing requirements for open-die forge market are **a strong match** for our manufacturing assets

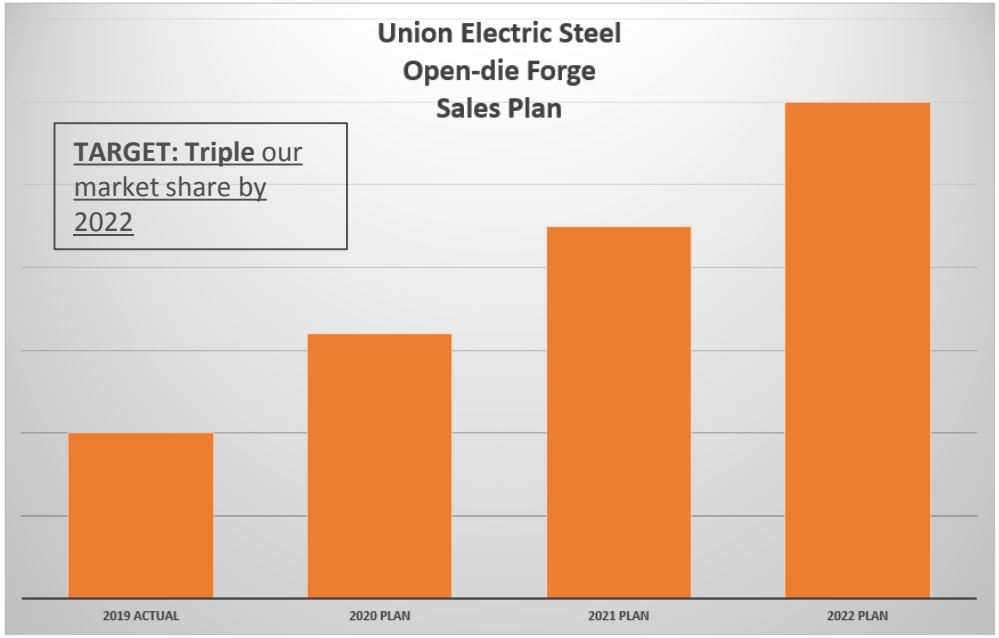
Open-die forgings are used in **a variety of industries:**



Source: SMR Premium GmbH

Open-die Forge Addressable Market = $800M+

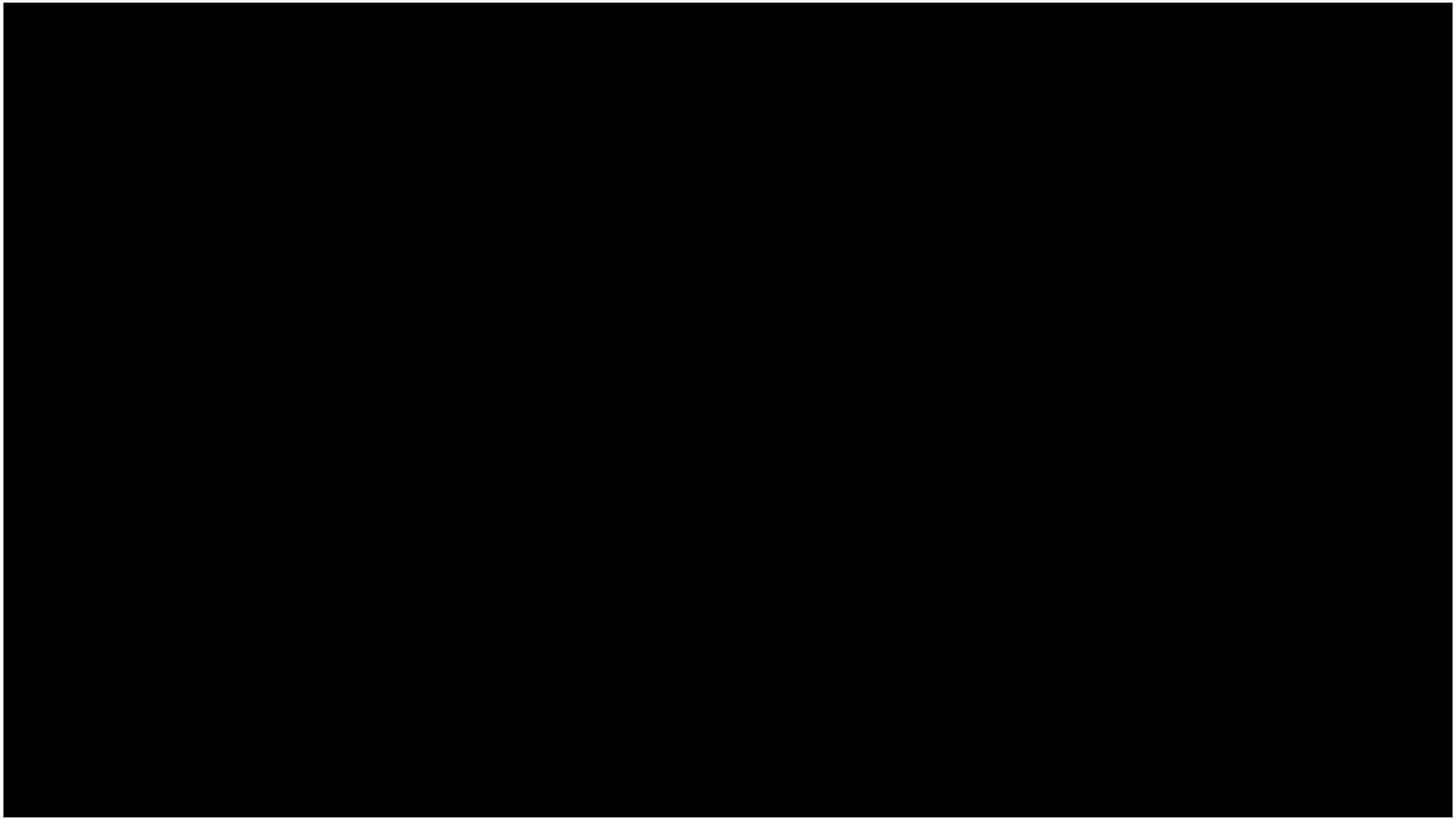
- **Union Electric Market Share = 2.4%**



Open-die Forging Market

Activity is currently underway with **customers requiring custom forged steel products** for bridges, power generation, building construction, and more!

Forging Process



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Air and Liquid Processing

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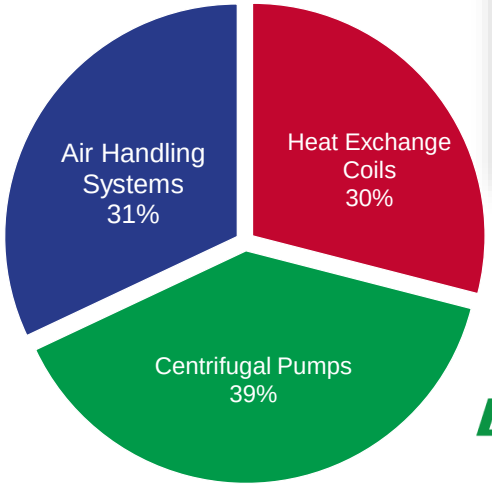
$92M

2019 NET SALES

Aerofin: Produces **custom engineered** heat exchangers and heat transfer products used in industries such as **nuclear power, industrial process and HVAC**

Buffalo Air Handling: Produces large custom air handling systems used in **commercial, institutional and industrial buildings**



Buffalo Pumps: Manufactures a line of centrifugal pumps for **refrigeration, power generation, and marine defense**

Key Customers

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AEROFIN Heat Transfer Products

NASA
JOHNS HOPKINS MEDICINE
ONTARIO POWER GENERATION
Carrier
TRANE
Exelon
Johnson Controls
Ameren
U.S. AIR FORCE
DAIKIN
Micron
AIRENTERPRISES
BRONSWERK ONBOARD CLIMATE ENGINEERING
Dominion Energy
DUKE ENERGY
BUFFALO AIR HANDLING
DTE Energy
AMERICAN ELECTRIC POWER

BUFFALO AIR HANDLING

MERCK
Lilly
Johnson & Johnson
Bristol-Myers Squibb
SANOFI
Pfizer
Dana-Farber Cancer Institute
DUKE UNIVERSITY MEDICAL CENTER
UNIVERSITY of MARYLAND MEDICAL CENTER
REX UNC HEALTH CARE
Northeast Georgia Health System
Memorial Sloan Kettering Cancer Center
HARVARD MEDICAL SCHOOL
Weill Cornell Medicine
Massachusetts Institute of Technology
VCU

Buffalopumps

Carrier
GENERAL DYNAMICS NASSCO
GENERAL DYNAMICS Bath Iron Works
TRANE
Johnson Controls
Ingalls Shipbuilding
Solar Turbines A Caterpillar Company
YORK
SIEMENS Ingenuity for life

Mission-Critical Functions Across Demanding End Markets

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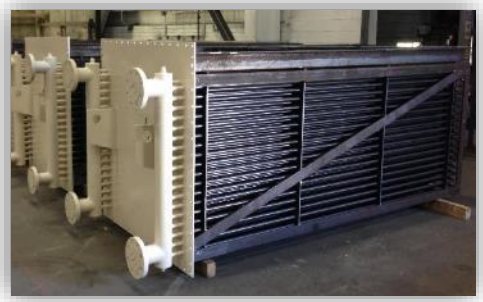
AEROFIN
Heat Transfer Products



BUFFALO
AIR HANDLING

Buffalopumps

Competitive Advantages

The Industry's Needs	Air and Liquid Processing's Solutions
High quality and reliability that meet strict industry certification requirements	**Trusted source** for research and medical labs, military, and the nuclear industry
Ease of selection for custom applications from one source	**Proprietary software** for quick and customizable solutions
Solutions-driven engineering from a trusted brand	**In-house engineering** with longstanding industry experience

Differentiators

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AEROFIN
Heat Transfer Products

#1 heat exchanger supplier to the North American Nuclear Power Generation market. Equipment is **installed in 93% of all North American plants**

Broadest range of coil sizes and materials of construction **in the industry**

BUFFALO AIR HANDLING

Principle source for all major Pharmaceutical and Biotechnology corporations' critical air handling applications, such as Gene and Protein Therapy. Cell Manipulation, Tablet and Pill Coating, and R&D for life altering treatments

Preferred supplier for Hospital and Healthcare applications, such as Operating and Patient Rooms, and Cath and Magnetic Resonance Imaging (MRI) Labs

Buffalopumps

Industry leader in Navy/Marine, Power Generation, Oil and Gas, and Industrial Refrigeration markets

Pumps installed in critical applications **onboard 80% of the ships in US Navy** surface fleet

2-3 Year Growth Initiatives

Diversifying product offerings in open-die forged products and **increase market share** to three times current position

Invest in modernization of machining to increase automated processes resulting in higher margins

Increase sales and productivity in the Air and Liquid Processing business through productivity improvements and capturing market growth

Other Catalysts for Growth

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- Infrastructure bill proposals could **drive higher steel demand**
- Significant **operating leverage for market recoveries** in steel and oil & gas
- **Pending trade actions** in the U.S. shale oil & gas market
- Post pandemic-related **new growth opportunities** in pharmaceutical, hospital and biotech research

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Producing Quality Products Since 1929 — Always Moving Forward!

Thank You

ampcopgh.com

Appendix

Non-GAAP Reconciliation

($000's)

		2016	2017	2018	2019
(Loss) income from continuing operations, as reported (GAAP)		$(54,530)	$(13,769)	$(44,892)	$(10,908)
Impairment charges	*[1]*	26,676	-	-	10,082
Impact of ASU No. 2017-07 on 2016	*[2]*	(945)	-	-	-
Integration-related restructuring expenses and unfavorable effects from purchase accounting	*[3]*	4,444	-	-	-
ASW operating loss - sold in September 2019	*[4]*	1,615	-	-	-
Acquisition-related costs	*[5]*	3,056	-	-	-
Restructuring-related costs	*[6]*	-	-	981	2,350
Excess costs of Avonmore	*[7]*	(2,560)	7,729	9,349	4,572
Bad debt expense	*[8]*	-	-	-	1,366
Proceeds from business interruption insurance claim	*[9]*	-	-	-	(1,803)
Asbestos-related charges	*[10]*	4,565	-	32,910	-
(Loss) income from continuing operations, as adjusted (non-GAAP)		$(17,679)	$ (6,040)	$ (1,652)	$ 5,659

Non-GAAP Reconciliation

($000's)

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Moving forward.

		2018					2019					2020
		Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1
(Loss) income from continuing operations, as reported (GAAP)		$ (1,777)	$ (189)	$ (2,847)	$(40,078)	$(44,892)	$(11,959)	$ (653)	$ (1,340)	$ 3,044	$(10,908)	$ 4,351
Impairment charge	[1]	-	-	-	-	-	10,082	-	-	-	10,082	-
Restructuring-related costs	[6]	-	-	379	602	981	921	171	561	697	2,350	-
Excess costs of Avonmore	[7]	2,308	1,602	1,750	3,689	9,349	2,202	1,685	685	-	4,572	-
Bad debt expense	[8]	-	-	-	-	-	-	1,366	-	-	1,366	-
Proceeds from business interruption insurance claim	[9]	-	-	-	-	-	-	-	-	(1,803)	(1,803)	(769)
Asbestos-related charge	[10]	-	-	-	32,910	32,910	-	-	-	-	-	-
Income (loss) from continuing operations, as adjusted (non-GAAP)		$ 531	$ 1,413	$ (718)	$ (2,877)	$ (1,652)	$ 1,246	$ 2,569	$ (94)	$ 1,938	$ 5,659	$ 3,582

		2018					2019					2020
		Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1
Net income (loss)		$ 941	$ (2,994)	$ (7,039)	$(60,243)	$ (69,335)	$ (15,148)	$ (3,858)	$ (5,055)	$ 3,075	$ (20,986)	$ 4,142
Add:												
Income tax (benefit) provision		(463)	546	800	(615)	268	643	644	429	392	2,108	(2,783)
Other (income) expense, including interest expense		(2,772)	256	(634)	2,065	(1,085)	(51)	(1,076)	(546)	(868)	(2,541)	2,532
Depreciation and amortization		5,600	5,448	5,361	4,971	21,379	5,259	4,650	4,502	4,556	18,967	4,699
EBITDA		3,306	3,255	(1,512)	(53,823)	(48,773)	(9,297)	360	(670)	7,155	(2,452)	8,590
Add:												
Impairment charge	[1]	-	-	-	-	-	10,082	-	-	-	10,082	-
Loss from discontinued operations, net of tax	[4]	69	1,709	3,443	18,679	23,901	2,242	3,391	3,398	54	9,085	-
Gain on sale of joint venture	[11]	-	-	-	(500)	(500)	-	-	-	-	-	-
Restructuring-related costs	[6]	-	-	379	602	981	921	171	561	697	2,350	-
Excess costs of Avonmore	[7]	2,308	1,602	1,750	3,689	9,349	2,202	1,685	685	-	4,572	-
Bad debt expense	[8]	-	-	-	-	-	-	1,366	-	-	1,366	-
Proceeds from business interruption insurance claim	[9]	-	-	-	-	-	-	-	-	(1,803)	(1,803)	(769)
Asbestos-related charge	[10]	-	-	-	32,910	32,910	-	-	-	-	-	-
Adjusted EBITDA		$ 5,684	$ 6,567	$ 4,060	$ 1,557	$ 17,867	$ 6,150	$ 6,973	$ 3,974	$ 6,103	$ 23,200	$ 7,821

Non-GAAP Reconciliation

($000's)

		2016	2017	2018	2019
Net (loss) income		$ (79,820)	$ (12,089)	$ (69,335)	$ (20,986)
Add:					
Income tax provision (benefit)		22,712	(1,355)	268	2,108
Other (income) expense, including interest expense		2,990	3,673	(1,085)	(2,541)
Depreciation and amortization		20,463	21,376	21,379	18,967
EBITDA		(33,654)	11,605	(48,774)	(2,452)
Add:					
Impairment charges	*[1]*	26,676	-	-	10,082
Impact of ASU 2017-07 on 2016	*[2]*	(945)	-	-	-
Integration-related restructuring expenses and unfavorable effects from purchase accounting	*[3]*	4,444	-	-	-
Loss (income) from discontinued operations, net of tax	*[4]*	1,303	(3,749)	23,901	9,085
Gain on sale of joint venture	*[11]*	(500)	(1,000)	(500)	-
Acquisition-related costs	*[5]*	3,056	-	-	-
Restructuring-related costs	*[6]*	-	-	981	2,350
Excess costs of Avonmore	*[7]*	(5,259)	7,729	9,349	4,572
Bad debt expense	*[8]*	-	-	-	1,366
Proceeds from business interruption insurance claim	*[9]*	-	-	-	(1,803)
Asbestos-related charges	*[10]*	4,565	-	32,910	-
Adjusted EBITDA		$ (314)	$ 14,585	$ 17,867	$ 23,200

Non-GAAP Reconciliation Footnotes

Ampco-Pittsburgh
Moving forward.

[1] Impairment charge for 2016 represents principally the write-off of goodwill associated with the Forged and Cast Engineered Products reporting unit deemed to be impaired. For 2019, impairment charge was recognized in the first quarter of 2019 to record the sale of certain assets of Akers National Roll Company, an indirect subsidiary of ours located in Avonmore, Pennsylvania (the "Avonmore Plant") to its estimated net realizable value less costs to sell in anticipation of its sale, which was completed in September 2019.

[2] Represents the recast impact of ASU No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," if applied to 2016. ASU 2017-07 became effective for us on January 1, 2018, and was applied retrospectively for all other periods presented herein.

[3] Represents integration-related restructuring expenses and unfavorable effects from purchase accounting associated principally with our acquisition of Åkers, as previously disclosed in our Annual Report on Form 10-K filed on March 16, 2017.

[4] Represents the operating loss of ASW Steel Inc. ("ASW") for 2016, which has been added back for comparative purposes. The operating results of ASW after 2016 were classified as discontinued operations for all other periods presented herein. Additionally, loss (income) from discontinued operations, net of tax, has been removed from EBITDA to determine Adjusted EBITDA.

[5] Represents transaction costs associated with our acquisitions of Åkers AB and certain of its affiliated companies, including Åkers AB's 60% equity interest in a Chinese joint venture company (collectively, "Åkers") and ASW.

[6] Represents professional fees associated with our overall restructuring plan and employee severance costs due to reductions in force.

[7] Represents estimated net operating costs not expected to continue after the sale of the Avonmore Plant, which was completed in September 2019. The estimated excess costs include judgments made by management in allocating manufacturing and operating costs between Avonmore and our other operations and in anticipating how it will conduct business following the sale of the Avonmore Plant.

[8] Represents bad debt expense for a British cast roll customer who filed for bankruptcy in 2019.

[9] Represents business interruption insurance proceeds received for equipment outages that occurred in 2018.

[10] For 2016, represents an asbestos-related charge taken to extend the estimated costs of pending and future asbestos claims, net of estimated insurance recoveries and a settlment with an insurance carrier for an amount greater than originally estimated, from 2024 through 2026. For 2018, represents an asbestos-related charge taken to extend the estimated costs of pending and future asbestos claims, net of additional insurance recoveries, from 2026 through 2052, the estimated final date by which we expect to have settled all asbestos-related claims.

[11] Represents proceeds received from the 2016 sale of a portion of our equity interest in a forged roll Chinese joint venture.