Ampco-Pittsburgh
Moving forward.

Producing Quality Products Since 1929 — Always Moving Forward!

Investor Presentation

August 2022

Disclaimer

Forward-Looking Statements - The Private Securities Litigation Reform Act of 1995 (the "Act") provides a safe harbor for forward-looking statements made by us or on behalf of the Corporation. Presentation may include, but is not limited to, statements about operating performance, trends and events that the Corporation expects or anticipates will occur in the future, statements about sales and production levels, restructurings, the impact from global pandemics (including COVID-19), profitability and anticipated expenses, inflation, the global supply chain, future proceeds from the exercise of outstanding warrants, 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," "will," "intend," "believe," "expect," "anticipate," "estimate," "project," "forecast" 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; fluctuations of the value of the U.S. dollar relative to other currencies; increases in commodity prices, reductions in electricity and natural gas supply or shortages of key production materials; limitations in availability of capital to fund our operations and strategic plan; inability to maintain adequate liquidity in order to meet our operating cash flow requirements, repay maturing debt and meet other financial obligations; inability to obtain necessary capital or financing on satisfactory terms in order to acquire capital expenditures that may be required to support our growth strategy; inoperability of certain equipment on which we rely; liability of our subsidiaries for claims alleging personal injury from exposure to asbestos-containing components historically used in certain products of our subsidiaries; changes in the existing regulatory environment; inability to successfully restructure our operations; consequences of global pandemics (including COVID-19); work stoppage or another industrial action on the part of any of our unions; inability to satisfy the continued listing requirements of the New York Stock Exchange or the NYSE American Exchange; potential attacks on information technology infrastructure and other cyber-based business disruptions; failure to maintain an effective system of internal controls; disruptions caused by hostilities, including any disruptions caused by the hostilities in Ukraine; and those discussed more fully elsewhere in this report and 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, and Part II of the latest Quarterly Report on 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, the Corporation assumes no obligation, and disclaims any obligation, to update forward-looking statements whether as a result of new information, events or otherwise.

Non-GAAP Financial Measures – The Corporation presents non-GAAP adjusted (loss) income from operations as a supplemental financial measure to GAAP financial measures regarding the Corporation's operational performance. This non-GAAP financial measure excludes unusual items affecting comparability, as described more fully in the footnotes to the attached "Non-GAAP Financial Measures Reconciliation Schedule." Non-GAAP adjusted (loss) income from operations is calculated as (loss) income from operations excluding the Asbestos-Related Charge, the Reorganization-Related Costs and the Proceeds from Business Interruption Insurance Claim for each of the years, as applicable. This non-GAAP financial measure is not based on any standardized methodology prescribed by accounting principles generally accepted in the United States of America and may not be comparable to similarly-titled measures presented by other companies.

The Corporation has presented non-GAAP adjusted (loss) income from 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 its business. This non-GAAP financial measure excludes significant charges or credits, that are one-time charges or credits, unrelated to the Corporation's ongoing results of operations or beyond its control. Additionally, a portion of the incentive and compensation arrangements for certain employees is based on the Corporation's business performance. The Corporation believes this non-GAAP financial measure helps identify underlying trends in its business that could otherwise be masked by the effect of the items that it excludes from adjusted (loss) income from operations. In particular, the Corporation believes that the exclusion of items such as the Impairment Charge, Asbestos-Related Charge, Restructuring-Related Costs, Reorganization-Related Costs, Change in Employee Benefit Policy, Refund of Excess COVID-19 Subsidies, and the Proceeds from Business Interruption Insurance Claim can provide a useful measure for period-to-period comparisons of the Corporation's core business performance. The Corporation also believes this non-GAAP financial measure provides useful information to management, shareholders and investors, and others in understanding and evaluating its operating results, enhancing the overall understanding of its past performance and future prospects and allowing for greater transparency with respect to key financial metrics used by the Corporation's management in its financial and operational decision-making.

Adjusted (loss) income from operations is not 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 adjusted (loss) income from operations rather than (loss) income from operations, which is the nearest GAAP equivalent. Among other things, there can be no assurance that additional expenses similar to the Asbestos-Related Charge and the Reorganization-Related Costs or additional benefits similar to the Proceeds from Business Interruption Insurance Claim will not occur in future periods. The adjustments reflected in adjusted (loss) income from operations are pre-tax.

Snapshot

Ampco-Pittsburgh
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Ampco-Pittsburgh (NYSE:AP)
(NYSE: AP-WS)

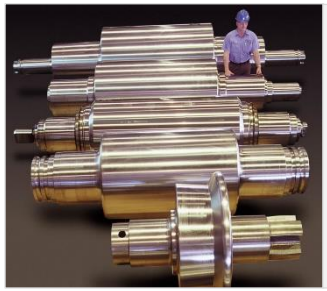
Year Founded	**1929**
Number of Employees	**1,500**
2021 Revenue	**$345M**
Market Cap *(as of 8/2/2022)** ** Common shares outstanding 19,403,518; Share price $4.48*	**$87M**

Headquarters: Carnegie, PA

Revenue Mix

~ 75%
Forged and Cast Engineered Products

~ 25%
Air and Liquid Processing



#1 North America & #1 Europe for forged and cast rolls

#1 North American producer of heat exchangers
for Nuclear Power Generation

#1 producer of pumps
for U.S. Navy Combat Ships

Union Electric Steel
Forged and Cast Engineered Products
TM

Forged and Cast Engineered Products Segment

Market Share Leader in Forged & Cast Rolls

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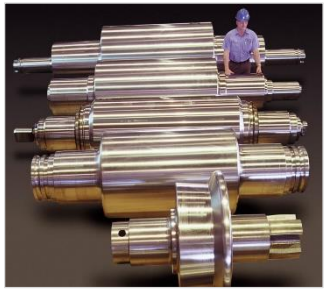
Forged and Cast Engineered Products

75%
of 2021 Revenue



#1 in North American & #1 European production of forged and cast rolls

$260M
2021 Net segment sales

90% of segment sales

Forged engineered products used in automotive tooling, plastic injection molding, infrastructure, general industrial, and oil & gas.

10% of segment sales

Key roll customers:

ArcelorMittal
ARCONIC
CLIFFS
CLEVELAND-CLIFFS INC.
JSW Steel
Novelis
NUCOR
posco
Steel Dynamics, Inc.
TATA STEEL
Ternium
thyssenkrupp
United States Steel Corporation

Competitive Advantages

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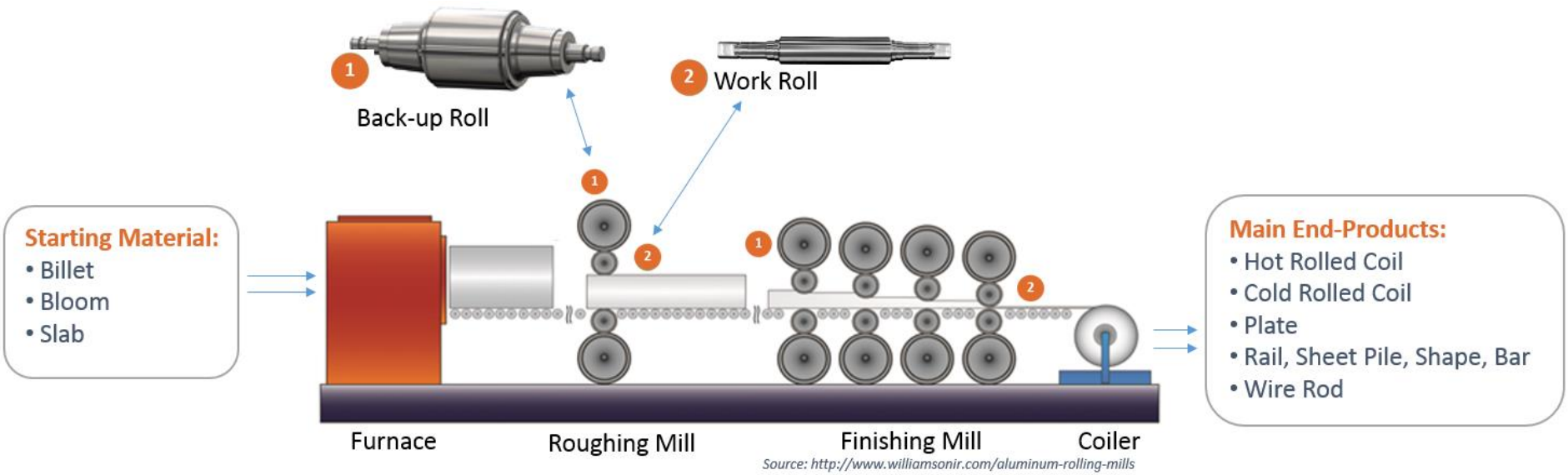
Union Electric Steel
Forged and Cast Engineered Products

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

What is a "Roll"?
Consumable for rolled steel and aluminum production



Source: http://www.williamsonir.com/aluminum-rolling-mills

- A sheet of metal will pass through a series of rolls, flattening the metal **like a rolling pin** until the required thickness and profile is achieved.
- Rolls are **consumables**; our customers provide the ***"razor"* (the mill)**; we provide the ***"blade"* (the roll)**.
- **Over 75%** of steel and aluminum products require rolling.

Strategic Game Plan for Ampco-Pittsburgh

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Turn Around Stages

2018 - 2021

Stabilize

New Leadership

Strengthened the Balance Sheet

Divested Underperforming Businesses

Improved Efficiencies

Navigate Impacts of Pandemic/Inflation

2022 - 2023

Invest

Invest in State-of-the-art Equipment

Further Improve Efficiencies

Leverage Deglobalization

Future State

Grow

Increase Asset Utilization and Operational Efficiencies

Expansion into Addressable Markets

Goal	
Revenue	$450 million
Net Income	$25 million
Adjusted EBITDA Margin	Double-digit

Resuming Growth and Meaningful Profitability

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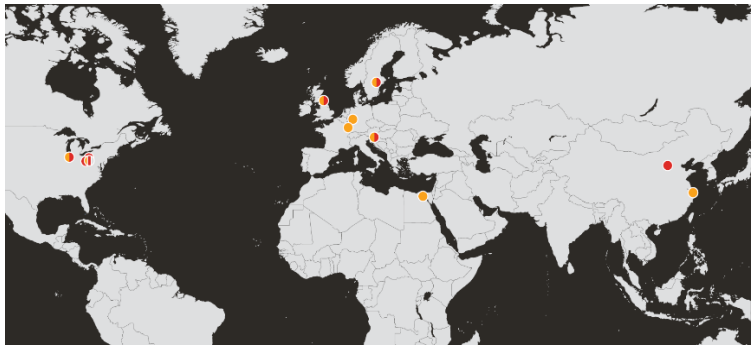
Modernize Production Assets

- Replace single-purpose machines with multi-purpose machines
- Increased automated processes

Expand Addressable Markets

- Leverage forged roll production assets to manufacture and enter new open-die forging markets
  - Increase non-roll open-die forged engineered products **(FEP)** business by threefold



Well-positioned for Deglobalization

- As steel and aluminum companies focus on security of supply, our Western plants are well-positioned to provide regional support

Resuming Growth and Meaningful Profitability
Modernize Production Assets

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Capital Investment of $26M

Replace single-purpose machines with multi-purpose machines

Expand forged and heat treatment capacity for FEP

- ✓ Efficiency Improvements
- ✓ Repair & Maintenance Savings
- ✓ Working Capital Reduction
- ✓ Labor Savings
- ✓ Capacity Expansion

Expected Completion Mid-2023

Annual projected P&L benefit ~ $8M
Also helps enable future footprint consolidation

Resuming Growth and Meaningful Profitability
Expanding the Addressable Markets

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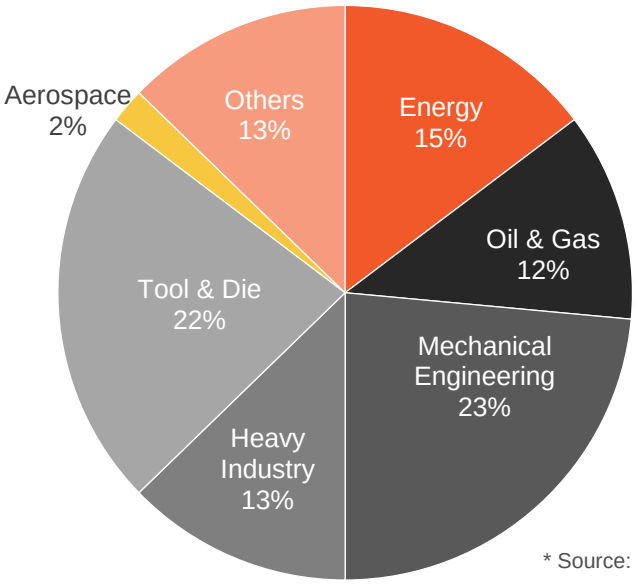
Enter new End Markets

Open-die Forged Engineered Products Market = **$800M +**

Diversified Mix of Industries

Aerospace	Tool & Die
Heavy Industry	Mechanical Engineering
Oil & Gas	Energy

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



* Source: SMR Premium GmBH

Global Roll Demand*

~ $2B Annually
2/3 Cast Rolls
1/3 Forged Rolls
Over 3,900 Rolling Mills

Union Electric Steel services more than 50% of the world's rolling mills*

* Based on 2020 UES Marketing and Sales estimates

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

Resuming Growth and Meaningful Profitability
Expanding the Addressable Market

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Revenue Mix 2021

■ Air and Liquid ■ FEP ■ Forged and Cast Rolls

Revenue Mix 2023

■ Air and Liquid ■ FEP ■ Forged and Cast Rolls

Expect threefold increase in FEP open-die forging through new end market penetration

Less reliance on steel market cycles

Increased capacity utilization

Incremental revenue opportunities

Leveraging deglobalization

Air and Liquid Processing Segment

Air and Liquid Processing Segment

Leading Player in Niche Markets

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Air and Liquid Processing Segment

25%
of 2021 Revenue

$85M
2021 Net segment sales

AEROFIN Heat Transfer Products

Heat exchangers and heat transfer products

Used in nuclear power, industrial process and HVAC

29% of Segment Sales

BUFFALO AIR HANDLING

Large custom air handling systems

Used in commercial, institutional and industrial buildings

31% of Segment Sales

Buffalopumps

Centrifugal pumps

Used in commercial refrigeration, power generation, and marine defense

40% of Segment Sales

#1
Pumps for U.S. Navy combat ships

#1
Heat exchangers for N.A. Nuclear Power Generation

Preferred Supplier
Air handling for operating rooms & MRI Labs

Principal Supplier
Pharmaceutical and biotechnology critical air handling applications

Air and Liquid Processing Segment

Key Customers

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AEROFIN Heat Transfer Products

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

BUFFALO AIR HANDLING

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

Buffalopumps

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

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

Air and Liquid Processing Segment

Resilient Financial Performance Throughout Economic Cycles and COVID-19

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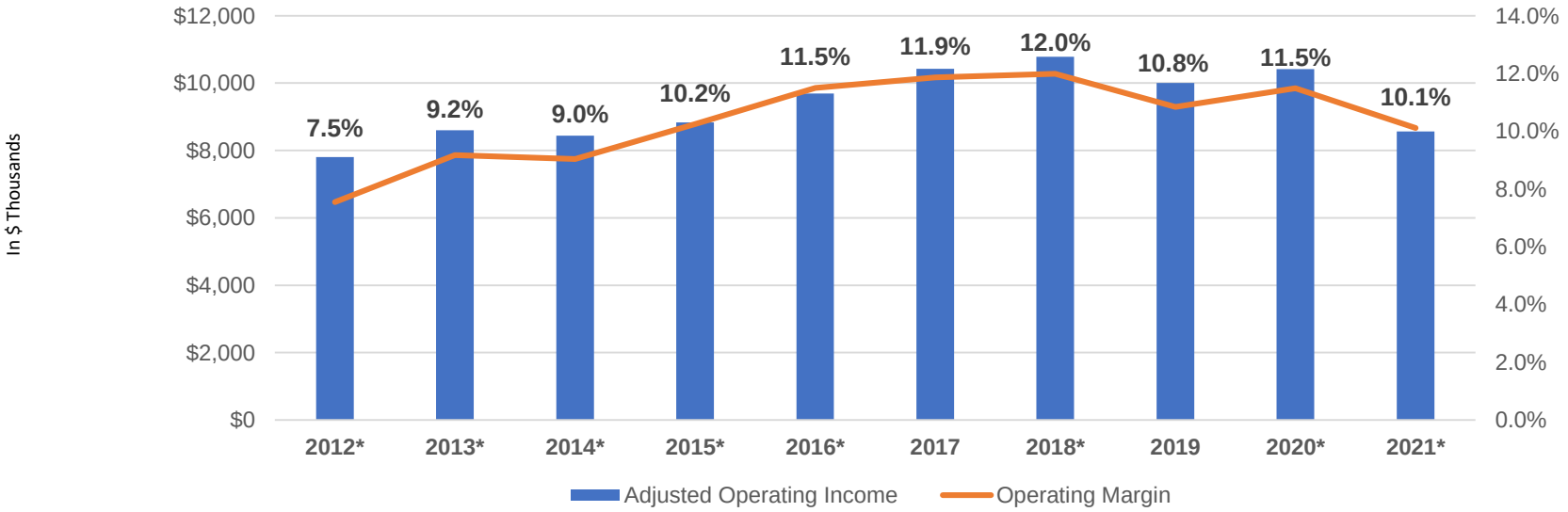
A decade of **consistently generating 8% to 12%** operating income margin	**$10 million average** adjusted operating income from this segment last five years	Asset Light Model **$34 million in production assets**** < $1 million in annual capex	**#1 position** in end markets	Barriers to entry in mission-critical functions



* Excludes the following net pre-tax (charges) recoveries for asbestos-related litigation and asbestos-related insurance recoveries, in $ thousands: 2012 ($540); 2013 $16,340; 2014 ($4,487); 2015 $14,333; 2016 ($4,565); 2018 ($32,910); 2020 ($283); and 2021 ($6,661)
** Identifiable Assets of $155,718 thousand in 2021 less asbestos-related insurance receivables of $121,297 thousand.

Air and Liquid Processing Segment

Strategies for Growth

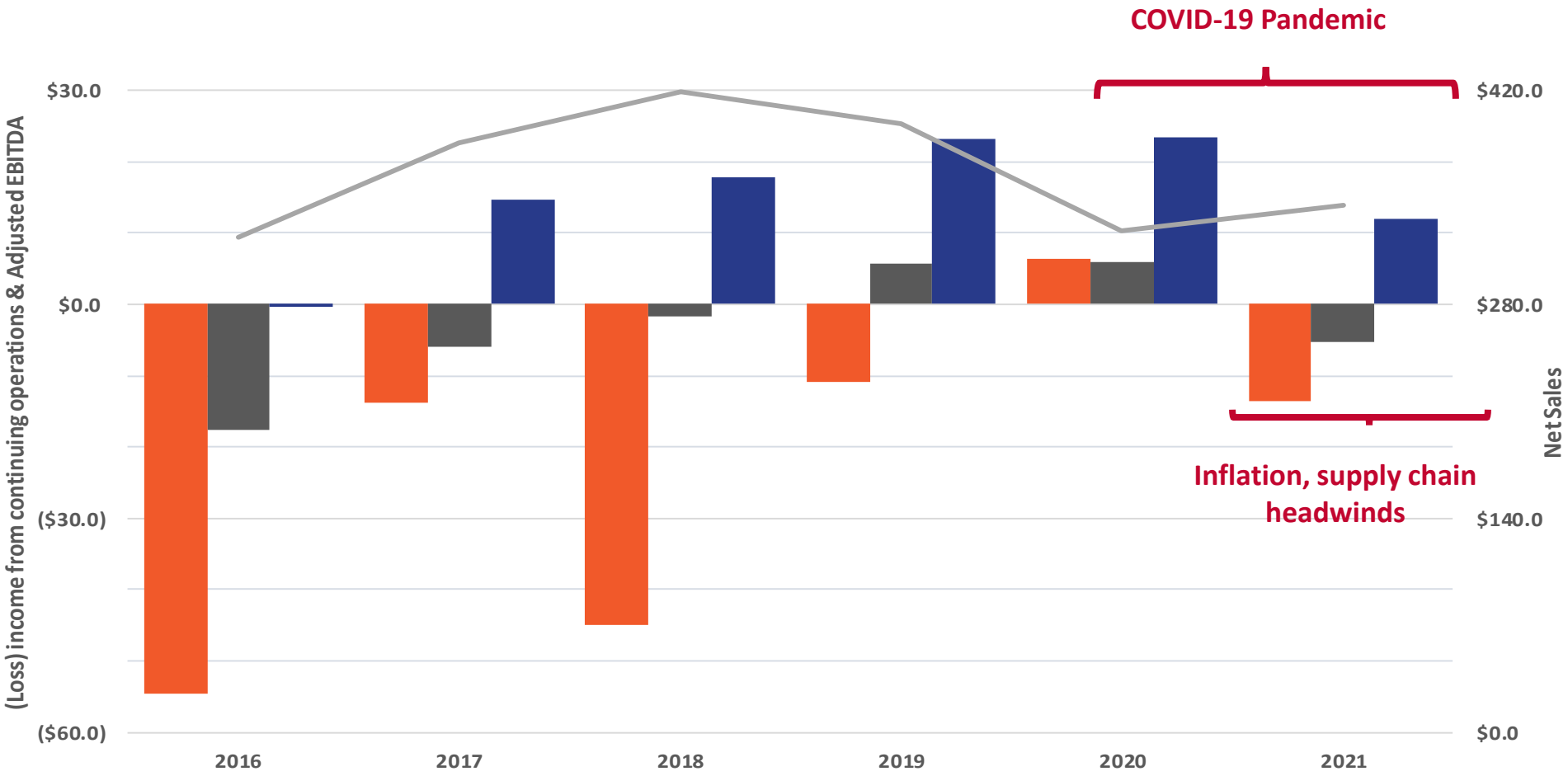
- **New leadership** pivoting towards asset light growth strategy model
- Investment in **additional sales and support resources** to increase sales volume
- Create business development team to **identify new opportunities**
- **Increase production capabilities** for current and future volume growth

		Sales Growth Targets (5-yr CAGR)
AEROFIN Heat Transfer Products	• Evaluate opportunities to use code welding capabilities to expand beyond current markets • Business development opportunities: U.S. military, small modular reactor nuclear plants, oil & gas market and other equipment	6-8%/yr
BUFFALO AIR HANDLING	• Immobilize on options to manufacture beyond current plant limitations • Business development opportunities: geographic expansion of current markets, data centers, after-market parts	7-9%/yr
Buffalopumps	• Assess alternative distribution options • Business development opportunities: oil field services industry, desalination plants, non-U.S. military	4-6%/yr

Summary Financials

Consolidated Financial Trend Improvement

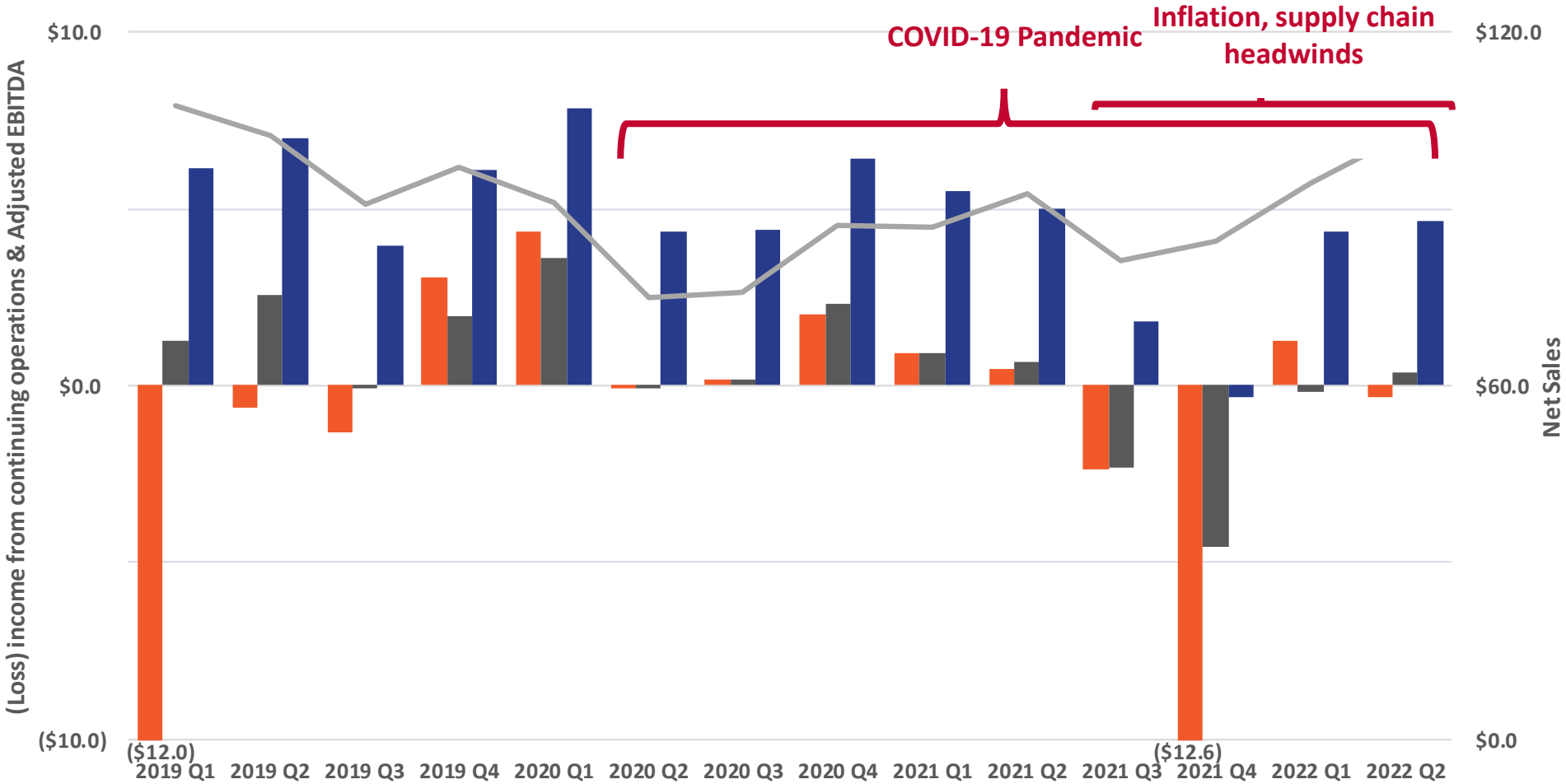
($MM's)



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

Consolidated Financial Quarterly Trend

($MM's)



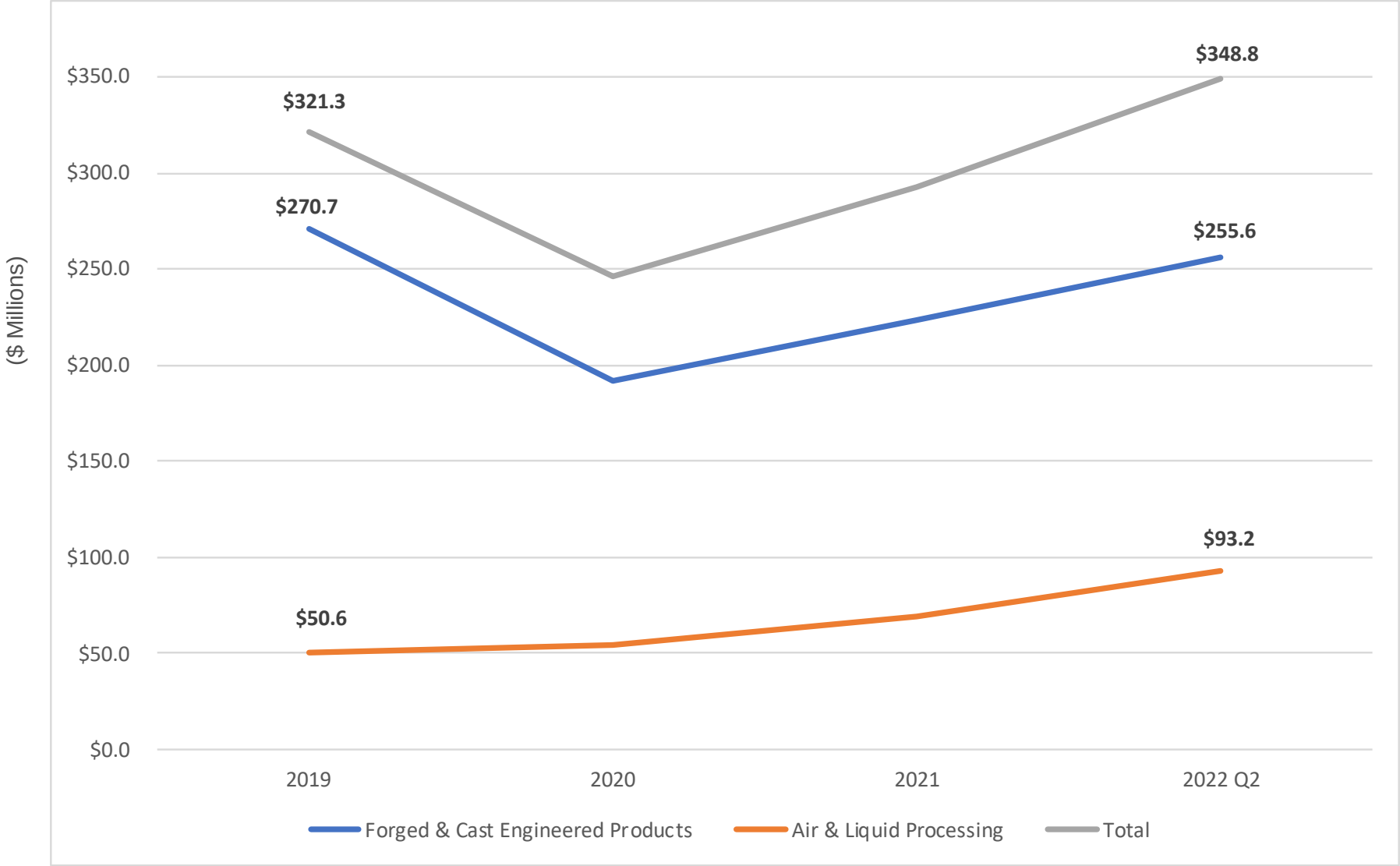
** See non-GAAP Reconciliation Schedule in the Appendix*

Near-Term Challenges and Opportunities

Unfavorable manufacturing variances	• Lower production levels, higher raw material prices, inflation of energy rates, transportation costs in excess of lagging customer pass-throughs, and lower volume of shipments
Supply chain disruptions and cost inflation	• **Proactive procurement/sourcing actions** to mitigate longer lead times and availability issues for key components and services • **Price increase actions** to protect/restore margins • **Expanded surcharges** to include electricity, natural gas, and transportation
Equipment reliability	• Increase planned preventive/predictive maintenance activities and key equipment rebuilds. **Prepared for higher production rates in 2022** • Strategic capex investment to modernize machining and expand forge and FEP capacity
Significant operating leverage to grow with recoveries in the steel, aluminum, and energy markets	• Roll business recovery following steel and aluminum up-cycles • Expanding open-die FEP product offerings/market penetration
Infrastructure Bill	• Incremental demand capture • Increase in North American steel capacity

Backlog Trend

Post-pandemic recovery and growth



Investment Highlights

#1 or #2 player in defensible niche markets	• # 1 in Europe and #1 in North America • Growing position in other niche industrial markets
Organic growth initiatives to diversify revenue mix	• Introduce new products utilizing existing forging assets • Expand addressable market by threefold
Air and Liquid Segment offers stable & attractive returns	• A decade of consistent approx. 8-12% operating income margin performance • $10 million operating income from this segment during 2020 • Barriers to entry: mission-critical functions across demanding end markets
Near-Term Financial Goals:	• Operating leverage and further efficiencies to drive double-digit EBITDA margin • $450 million in Revenue • $25 million in Net Income

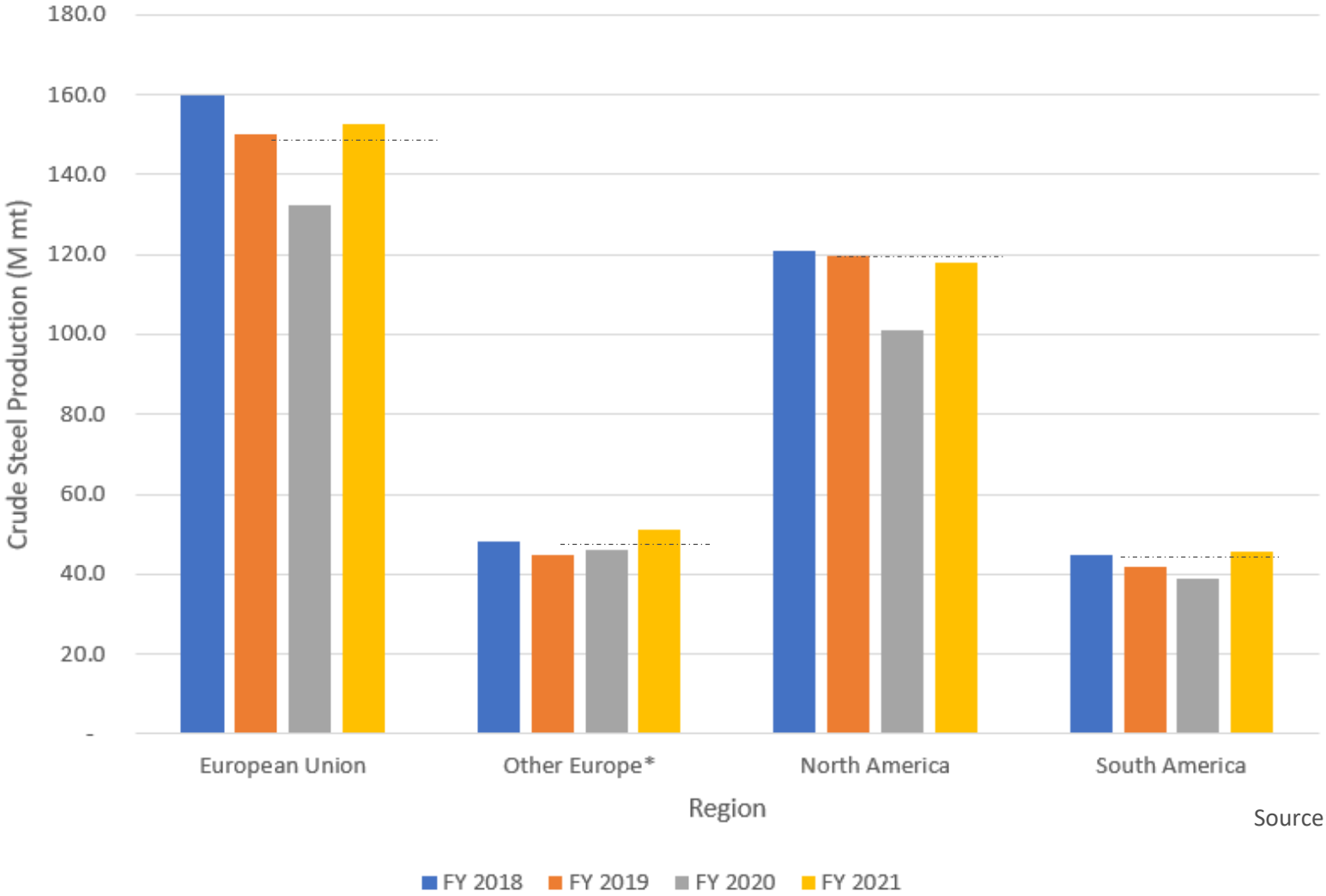
Thank You

ampcopgh.com

Appendix

Ampco-Pittsburgh Global Footprint

Steel Production Returns to Pre-pandemic Volumes



Source: worldsteel

Other Europe includes Bosnia-Herzegovina, Macedonia, Norway, Serbia, Turkey, United Kingdom

Non-GAAP Reconciliation

($000's)

		2016	2017	2018	2019	2020	2021
Net (loss) income, as reported (GAAP)		$ (79,820)	$ (12,089)	$ (69,335)	$ (20,986)	$ 7,970	$ (12,695)
Add:							
Income tax provision (benefit)		22,712	(1,355)	268	2,108	(470)	2,305
Other (income) expense, including interest expense		2,990	3,673	(1,085)	(2,541)	(2,254)	(3,787)
Depreciation and amortization		20,463	21,376	21,379	18,967	18,575	17,877
EBITDA (non-GAAP)		(33,654)	11,605	(48,774)	(2,452)	23,821	3,700
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	-	-	-	-	-
Change in employee benefit policy	[12]	-	-	-	-	-	-
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/Reorganization-related costs	[6]	-	-	981	2,350	-	1,600
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)	(769)	-
Asbestos-related charges	[10]	4,565	-	32,910	-	283	6,661
Adjusted EBITDA (non-GAAP)		$ (314)	$ 14,585	$ 17,867	$ 23,200	$ 23,335	$ 11,961
Net Sales		$324,342	$385,156	$419,432	$397,904	$328,544	$344,920
Adjusted EBITDA Margin		-0.1%	3.8%	4.3%	5.8%	7.1%	3.5%

Non-GAAP Reconciliation

($000's)

		2016	2017	2018	2019	2020	2021
(Loss) income from continuing operations, as reported (GAAP)		$(54,530)	$(13,769)	$(44,892)	$(10,908)	$6,446	$(13,616)
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	-	-	-	-	-
Change in employee benefit policy	[12]	-	-	-	-	-	-
ASW operating loss - sold in September 2019	[4]	1,615	-	-	-	-	-
Acquisition-related costs	[5]	3,056	-	-	-	-	-
Restructuring-related costs/Reorganization-related costs	[6]	-	-	981	2,350	-	1,600
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)	(769)	-
Asbestos-related charges	[10]	4,565	-	32,910	-	283	6,661
(Loss) income from continuing operations, as adjusted (non-GAAP)		$(17,679)	$ (6,040)	$ (1,652)	$ 5,659	$5,960	$ (5,355)

Non-GAAP Reconciliation

($000's)

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		2019					2020					2021					2022	
		Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q1
(Loss) income from continuing operations, as reported (GAAP)		$(11,959)	$ (653)	$ (1,340)	$ 3,044	$(10,908)	$ 4,351	$ (86)	$ 178	$ 2,003	$ 6,446	$ 907	$ 469	$ (2,361)	$(12,631)	$(13,616)	$ 1,243	$ (320)
Impairment charge	[1]	10,082	-	-	-	10,082	-	-	-	-	-	-	-	-	-	-	-	-
Change in employee benefit policy	[12]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1,431)	-
Refund of Excess COVID-19 Subsidies	[13]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	664
Restructuring-related costs/Reorganization-related costs	[6]	921	171	561	697	2,350	-	-	-	-	-	-	176	35	1,389	1,600	-	-
Excess costs of Avonmore	[7]	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)	-	-	-	(769)	-	-	-	-	-	-	-
Asbestos-related charge	[10]	-	-	-	-	-	-	-	-	283	283	-	-	-	6,661	6,661	-	-
Income (loss) from continuing operations, as adjusted (non-GAAP)		$ 1,246	$ 2,569	$ (94)	$ 1,938	$ 5,659	$ 3,582	$ (86)	$ 178	$ 2,286	$ 5,960	$ 907	$ 645	$ (2,326)	$ (4,581)	$ (5,355)	$ (188)	$ 344

		2019					2020					2021					2022	
		Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q1
Net (loss) income, as reported (GAAP)		$ (15,149)	$ (3,857)	$ (5,055)	$ 3,075	$ (20,986)	$ 4,142	$ 668	$ 968	$ 2,192	$ 7,970	$ 167	$ 1,063	$ (1,589)	$ (12,336)	$ (12,695)	$ 1,645	$ 403
Add:																		
Income tax provision (benefit)		643	644	429	392	2,108	(2,783)	504	630	1,179	(470)	381	1,372	291	261	2,305	56	389
Other (income) expense, including interest expense		(51)	(1,076)	(546)	(868)	(2,541)	2,532	(1,451)	(1,690)	(1,645)	(2,254)	212	(2,127)	(1,186)	(686)	(3,787)	(422)	(1,231)
Depreciation and amortization		5,259	4,650	4,502	4,556	18,967	4,699	4,653	4,511	4,712	18,575	4,743	4,493	4,279	4,362	17,877	4,487	4,440
EBITDA (non-GAAP)		(9,297)	360	(670)	7,155	(2,452)	8,590	4,374	4,419	6,438	23,821	5,503	4,801	1,795	(8,399)	3,700	5,766	4,001
Add:																		
Impairment charge	[1]	10,082	-	-	-	10,082	-	-	-	-	-	-	-	-	-	-	-	-
Change in employee benefit policy	[12]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1,431)	-
Refund of Excess COVID-19 Subsidies	[13]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	664
Loss from discontinued operations, net of tax	[4]	2,242	3,391	3,398	54	9,085	-	-	-	-	-	-	-	-	-	-	-	-
Restructuring-related costs/Reorganization-related costs	[6]	921	171	561	697	2,350	-	-	-	-	-	-	176	35	1,389	1,600	-	-
Excess costs of Avonmore	[7]	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)	-	-	-	(769)	-	-	-	-	-	-	-
Asbestos-related charge	[10]	-	-	-	-	-	-	-	-	283	283	-	-	-	6,661	6,661	-	-
Adjusted EBITDA (non-GAAP)		$ 6,150	$ 6,973	$ 3,974	$ 6,103	$ 23,200	$ 7,821	$ 4,374	$ 4,419	$ 6,721	$ 23,335	$ 5,503	$ 4,977	$ 1,830	$ (349)	$ 11,961	$ 4,335	$ 4,665
Net Sales		$107,494	$102,518	$ 90,872	$ 97,019	$397,904	$ 91,063	$ 74,778	$ 75,674	$ 87,029	$328,544	$ 86,800	$ 92,428	$ 81,185	$ 84,507	$344,920	$ 94,426	$102,582
Adjusted EBITDA Margin		5.7%	6.8%	4.4%	6.3%	5.8%	8.6%	5.8%	5.8%	7.7%	7.1%	6.3%	5.4%	2.3%	-0.4%	3.5%	4.6%	4.5%

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. 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 impact of ASU No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," if applied to 2016. The impact of ASU 2017-07 is included in (loss) income from continuing operations, as reported (GAAP) for all other periods.

[3] Represents integration-related restructuring expenses and unfavorable effects from purchase accounting associated principally with our acquisition of Åkers.

[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] For 2019 and 2018, represents professional fees associated with our overall restructuring plan and employee severance costs due to reductions in force. For 2021, represents severance costs associated with early-retirement incentives for two executive officers, employee terminations at one of the Corporation's cast roll facilities and costs associated with the closing of a foreign sales office.

[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. For 2020, represents a charge for the potential insolvency of an asbestos-related insurance carrier. For 2021, represents a charge for changes in the estimated costs of pending and future asbestos claims, net of additional insurance recoveries, through 2052.

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

[12] Represents an accounting benefit resulting from the change in the method by which certain employees earn certain benefits.

[13] Represents excess COVID-19 subisidies received in 2020 to be returned in 2022.