Experience

2019 PAUL MUELLER COMPANY ANNUAL REPORT

MUELLER

Customer *Experience*

When our customers look for solutions — personalized, digital experiences satisfy functional and emotional values. As a trusted partner, we are innovating the best personalized, digital experiences possible for our customers. From our cloud-based milk monitoring app for the farm, to trackable product ordering on our website, to the personalized, one-on-one attention delivered through our customer care system, we are laser-focused on the ways we can make our buyers' journeys easier.

> *As a trusted partner, we are innovating the best personalized, digital experiences possible for our customers.*

Paul Mueller Company's milk monitoring app.

Order tracking on myMUELLER.

FINANCIAL HIGHLIGHTS

Operating Results for the Year

Amounts in thousands, except for share data and ratios.	2019	2018	2017
Net Sales	$ 197,177	$ 201,210	$ 167,957
Income Before Taxes	8,594	3,111	3,347
Provision for Income Taxes	2,005	472	5,673
Net Income (Loss)	$ 6,589	$ 2,639	$ (2,326)
Earnings (Loss) Per Common Share:			
Basic	$ 5.51	$ 2.21	$ (1.94)
Diluted	$ 5.51	$ 2.21	$ (1.94)

Year-End Position

	2019	2018	2017
Total Assets	$ 124,894	$ 130,188	$ 139,894
Working Capital	$ 9,695	$ 9,352	$ 12,621
Current Ratio	1.22	1.20	1.25
Shareholders' Investment	$ 32,415	$ 27,628	$ 27,981
Book Value Per Share	$ 27.11	$ 23.10	$ 23.39
Common Shares Outstanding	1,195,866	1,196,187	1,196,261
Backlog – United States (Unaudited)	$ 69,506	$ 83,587	$ 70,079
Backlog – The Netherlands (Unaudited)	$ 10,285	$ 13,767	$ 23,964

To the Shareholders of Paul Mueller Company:

We have the pleasure of reporting good results, at a time when it is difficult to celebrate them. We are proud of our coworker's efforts, which have increased this month. In addition to building the products in our sizable backlog and seeking new orders, we are now spending considerable time managing the effects of COVID-19 on our operations, and on our coworkers, and their families.

In 2019, the Company generated its highest earnings since 2014. Net income was $6.6 million on revenue of $197.2 million showing improved results in the United States and The Netherlands. Net income in the United States was $7.4 million, an increase of 58%, on revenue of $144.5 million, an increase of 5.4%. The stronger performance was achieved due to operational improvements in the industrial product lines and on the strength of the pharmaceutical market, and despite the weak demand for dairy farm products. The Netherlands reported a loss of $0.8 million, an improvement of $1.3 million. The Dutch milk cooler market continues to be weak; however, operational and cost improvements are beginning to offset this difficulty.

The source of the Company's performance has changed significantly over the last year. Historically, the most consistent source of financial performance was the dairy farm segment. During 2019 that segment was globally weak. In The Netherlands, the market for dairy farm equipment has been weak for two years. The Dutch company's performance improved in 2019 due to operational and cost improvements after consolidating into one physical location, but it still generated a loss. In the United States, the change in our markets can be seen very clearly in our backlog of orders. The backlog for dairy farm products, in the United States, at the beginning of 2019 was a historically typical $18.7 million. This number fell all year to $2.7 million at the end of 2019. At the same time, the backlog for pharmaceutical products (Biopharm and PyroPure) was a historically strong $40.4 million. During the year, both product lines generated high revenue and replenished their backlog, ending 2019 with $41.4 million in backlog. Overall, consolidated backlog from both countries fell from $97.4 million to $79.8 million. Looking forward, after two months in 2020, backlog increased to $107.7 million driven by an order for a juice storage facility awarded to Mueller Field Operations. This is the Company's highest backlog since 2006.

A few comments are in order concerning the market for dairy farm products. Comparing the last two years to the previous four, sales of traditional milk cooling tanks in the United States dropped by 76%. Over the same period, cooler exports from the United States rose by 41%. A combination of factors caused this drop in domestic sales and partial replacement with exports. For five years, the average milk price in the United States has been below $17 per hundredweight (cwt), a level that makes profitability difficult for the farms. In the last two years, there have been favorable changes in the quota system in Canada and good business conditions for farms in Japan. Looking forward, if conditions for farms in the United States improve, the market for farm equipment could improve rapidly because there has been little equipment purchased for a couple of years. Conditions that make trade more difficult could have a negative impact on farm equipment sales. A very similar situation exists in The Netherlands, where local conditions for farm equipment have been poor for a couple of years due to the regulations faced by farmers. Exports have partially replaced domestic sales. The type of equipment needed has also changed worldwide, and our coworkers in both countries have responded with innovative product development. Farms have increased in size as has the importance of automation and robotic milking. We have responded with the introduction of on-farm silos, new controls, and new chillers.

We measure our business unit profitability at earnings before tax (EBT) and 2019 domestic EBT was up $2.9 million over 2018, a 43.9% increase. Historically, the Dairy Farm Equipment (DFE) group has contributed a significant portion of the domestic earnings. However, in 2019, DFE EBT was down over $2 million (58.6%). PyroPure's 2019 EBT was still historically strong, but was unfavorable to the record earnings in 2018. These decreases were offset by EBT improvements driven in part by the favorable effects of LIFO in 2019, and increased revenue and profitability in the BioPharm group and the Food and Dairy group. These improvements are contributing to the increase in profitability for Industrial Equipment as shown in the segment data of the annual report.

In The Netherlands, revenues were down $10.9 million to $54.4 million driven by the continued soft dairy farm market in the Benelux. The change in regulation from a milk quota system to a phosphate quota system to control animal waste is still causing uncertainty. This along with the low milk prices is restraining farmer reinvestment. However, even with this lower revenue, 2019 EBT improved $2.7 million over 2018 from improved operational efficiencies and cost savings. For the first two months of 2020, the EBT for the Dutch operations was a loss of $0.2 million which is an improvement of $0.7 million over the 2019 loss. The cost savings and operational improvements achieved by this team in 2019 occurred under the leadership of their General Manager, Menko van Gorkum, who began his time with Mueller B.V. as Sales Manager. In late 2019, Joe Meissert, a manager from Springfield, previously responsible for Temp-Plate, Accu-Therm, and Components, volunteered to oversee Mueller B.V., and began working in The Netherlands nearly full time. Menko continued as General Manager, but with the support of Joe he was able to spend more time working on sales. The COVID-19 crisis has made their collaboration more complicated, but Joe continues to support Menko from Springfield.

The Company's balance sheet continues to improve. Total debt has decreased from $31.8 million on December 31, 2018, to $21.5 million as of December 31, 2019. As of March 30, 2020, total debt is approximately $20.0 million and there is over $14.0 million in cash and cash equivalents on hand.

We begin 2020 with a strong backlog and balance sheet, but with unprecedented uncertainty. The demands of the COVID-19 crisis change daily. The crisis has affected our internal operations with remote work and physical separation within our facilities. It has affected our ability to receive customers and vendors in our facility and our ability to visit them for selling activities and to work in their facilities. It has increased the stress and complexity of all these activities for everyone involved. We have had no confirmed cases of COVID-19 among our coworkers although some are under evaluation and many have people in their lives who have contracted the disease. While we begin the year in a strong position, these conditions make us very uncertain about the year to come.

I am personally thankful to be managing this situation with our team. This team of nearly a thousand individuals have reduced our safety incident rate by more than 82% since I became President. They have prepared the Company to have a great year in a weak market for dairy farm equipment, a feat which would not have been possible when I started. I have no doubt that they will manage the current situation in a financially responsible and compassionate way. We all thank you for your confidence in us, and are grateful for your interest in the Company.

David Moore

David Moore
President and CEO

April 7, 2020

Consolidated Statements of Operations for the Years Ended December 31, 2019, 2018, and 2017

Amounts in thousands, except for share data.	2019	2018	2017
Net Sales	$ 197,177	$ 201,210	$ 167,957
Cost of Sales	142,435	150,260	118,987
Gross profit	54,742	50,950	48,970
Selling, General, and Administrative Expenses	45,672	47,137	44,046
Operating income	9,070	3,813	4,924
Other Income (Expense):			
Interest income	261	177	7
Interest expense	(827)	(920)	(330)
Other, net	90	41	(1,254)
Total Other (Expense)	(476)	(702)	(1,577)
Income before provision for income taxes	8,594	3,111	3,347
Provision for Income Taxes	2,005	472	5,673
Net Income (Loss)	$ 6,589	$ 2,639	$ (2,326)
Earnings (Loss) Per Common Share:			
Basic	$ 5.51	$ 2.21	$ (1.94)
Diluted	$ 5.51	$ 2.21	$ (1.94)

The accompanying notes are an integral part of these consolidated statements.

Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2019, 2018, and 2017

Amounts in thousands.	2019	2018	2017
Net Income (Loss)	$ 6,589	$ 2,639	$ (2,326)
Other Comprehensive Income (Loss), Net of Tax:			
Foreign currency translation adjustment	$ (589)	$ (1,659)	$ 4,061
Change in pension liability	(1,204)	(1,330)	(4,121)
Amortization of de-designated hedges	–	–	3
Comprehensive Income (Loss)	$ 4,796	$ (350)	$ (2,383)

The accompanying notes are an integral part of these consolidated statements.

Consolidated Balance Sheets as of Year End December 31, 2019, 2018, and 2017

Amounts in thousands, except for share data.	2019	2018	2017
ASSETS			
Current Assets:			
Cash and cash equivalents	$ 1,072	$ 715	$ 6,571
Accounts receivable, less reserve for doubtful accounts of $1,060 for 2019, $693 for 2018, and $558 for 2017	28,509	27,533	22,680
Costs and estimated earnings in excess of billings	1,243	258	77
Inventories: Raw materials and components	11,232	9,468	10,752
Work-in-process	3,805	8,108	12,540
Finished goods	5,515	9,102	7,788
	20,552	26,678	31,080
Prepayments	2,520	1,808	2,442
Current net investment in sales-type lease	47	–	–
Total current assets	53,943	56,992	62,850
Property, Plant, and Equipment:			
Land and land improvements	8,147	8,190	5,328
Buildings	27,626	27,772	17,886
Fabrication equipment	82,020	84,070	86,377
Transportation, office, and other equipment	17,920	16,925	17,722
Construction-in-progress	372	328	20,571
	136,085	137,285	147,884
Less: Accumulated depreciation	(88,679)	(86,586)	(96,298)
	47,406	50,699	51,586
Right of Use for Operating Lease	815	–	–
Right of Use for Financing Lease	606	–	–
Goodwill	14,320	14,539	15,195
Deferred Taxes	6,682	7,348	9,474
Other Assets	353	610	789
Long-Term Net Investment in Sales-Type Lease	769	–	–
Total Assets	$ 124,894	$ 130,188	$ 139,894
LIABILITIES AND SHAREHOLDERS' INVESTMENT			
Current Liabilities:			
Short-term borrowings	$ 4,875	$ 8,942	$ 2,717
Current maturities of long-term debt	1,333	1,390	1,304
Accounts payable	10,534	11,177	14,242
Current lease liability for operating	295	–	–
Current lease liability for financing	190	–	–
Income taxes	86	–	–
Accrued expenses: Payroll and benefits	6,640	6,385	5,887
Vacations	774	960	1,058
Other	2,250	3,411	5,617
Advance billings	8,852	15,179	17,679
Billings in excess of costs and estimated earnings	8,419	196	1,725
Total current liabilities	44,248	47,640	50,229
Long-Term Pension Liabilities	30,395	32,081	34,766
Long-Term Debt, Less Current Maturities	15,334	21,478	23,562
Other Long-Term Liabilities	1,566	1,361	3,356
Operating Lease Liability	520	–	–
Financing Lease Liability	416	–	–
Total Liabilities	92,479	102,560	111,913
COMMITMENTS AND CONTINGENCIES			
Shareholders' Investment:			
Common stock, par value $1 per share – Authorized 20,000,000 shares – Issued 1,507,481 shares	1,508	1,508	1,508
Paid-in surplus	9,708	9,708	9,708
Retained earnings	68,484	61,895	59,256
	79,700	73,111	70,472
Less: Treasury stock – 311,615 shares for 2019, 311,294 shares for 2018, and 311,220 shares for 2017, at cost	(6,341)	(6,332)	(6,329)
Accumulated other comprehensive (loss)	(40,944)	(39,151)	(36,162)
Total Shareholders' Investment	32,415	27,628	27,981
Total Liabilities and Shareholders' Investment	$ 124,894	$ 130,188	$ 139,894

The accompanying notes are an integral part of these consolidated statements.

Consolidated Statements of Shareholders' Investment for the Years Ended December 31, 2019, 2018, and 2017

Amounts in thousands.	Common Stock	Paid-in Surplus	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total
Balance – December 31, 2016	$ 1,508	$ 9,708	$ 61,582	$ (6,227)	$ (36,105)	$ 30,466
Add (Deduct):						
Net (loss)	–	–	(2,326)	–	–	(2,326)
Other comprehensive (loss), net of tax	–	–	–	–	(57)	(57)
Treasury stock acquisition	–	–	–	(102)	–	(102)
Balance – December 31, 2017	1,508	9,708	59,256	(6,329)	(36,162)	27,981
Add (Deduct):						
Net income	–	–	2,639	–	–	2,639
Other comprehensive (loss), net of tax	–	–	–	–	(2,989)	(2,989)
Treasury stock acquisition	–	–	–	(3)	–	(3)
Balance – December 31, 2018	1,508	9,708	61,895	(6,332)	(39,151)	27,628
Add (Deduct):						
Net income	–	–	6,589	–	–	6,589
Other comprehensive (loss), net of tax	–	–	–	–	(1,793)	(1,793)
Treasury stock acquisition	–	–	–	(9)	–	(9)
Balance – December 31, 2019	$ 1,508	$ 9,708	$ 68,484	$ (6,341)	$ (40,944)	$ 32,415

The accompanying notes are an integral part of these consolidated statements.

Consolidated Statements of Cash Flows for the Years Ended December 31, 2019, 2018, and 2017

Amounts in thousands.	2019	2018	2017
Cash Flows from Operating Activities:			
Net income (loss)	$ 6,589	$ 2,639	$ (2,326)
Adjustments to reconcile net income (loss) to net cash provided (required) by operating activities:			
Pension contributions (greater) less than expense	(2,890)	(4,015)	(984)
Bad debt expense	398	161	28
Depreciation and amortization	6,248	5,794	5,747
(Gain) on sales of equipment	(36)	(164)	(46)
Interest on lease liability for financing	(17)	–	–
Deferred tax expense	979	1,182	5,389
Other	–	–	(20)
Changes in assets and liabilities –			
(Increase) in accounts and notes receivable	(1,100)	(4,856)	(4,405)
(Increase) decrease in costs and estimated earnings in excess of billings	(985)	(182)	97
Decrease (increase) in inventories	6,126	4,402	(6,953)
(Increase) decrease in prepayments	(644)	2,000	(375)
Decrease (increase) in other assets	52	(57)	23
(Increase) in net investment is sales-type leases	(816)	–	–
(Increase) decrease in deferred taxes	(382)	(422)	(1,315)
(Decrease) increase in accounts payable	(642)	(3,065)	5,797
(Decrease) increase in other accrued expenses	(1,006)	(1,805)	5,119
(Decrease) increase in advance billings	(6,327)	(2,500)	5,444
Increase (decrease) in billings in excess of costs and estimated earnings	8,223	(1,529)	674
Increase in lease liability for operating	1,189	–	–
Increase in lease liability for financing	770	–	–
Increase (decrease) in long-term liabilities	206	(1,997)	394
Net cash provided (required) by operating activities	15,935	(4,414)	12,288
Cash Flows (Requirements) from Investing Activities:			
Intangibles	(118)	–	–
Proceeds from sales of equipment	49	173	172
Additions to property, plant, and equipment	(4,340)	(4,838)	(23,750)
Net cash (required) by investing activities	(4,409)	(4,665)	(23,578)
Cash Flow Provisions (Requirements) from Financing Activities:			
(Repayment) of principal portion of lease liability for operating	(374)	–	–
(Repayment) of principal portion of lease liability for financing	(147)	–	–
(Repayment) proceeds of short-term borrowings	(4,088)	6,313	(4,747)
Long-term debt proceeds	–	6,137	19,255
Principal payments on long-term debt	(5,893)	(7,059)	(251)
Treasury stock acquisitions	(9)	(3)	(102)
Net cash (required) provided by financing activities	(10,511)	5,388	14,155
Effect of Exchange Rate Changes	(658)	(2,165)	3,349
Net Increase (Decrease) in Cash and Cash Equivalents	357	(5,856)	6,214
Cash and Cash Equivalents at Beginning of Year	715	6,571	357
Cash and Cash Equivalents at End of Year	$ 1,072	$ 715	$ 6,571

The accompanying notes are an integral part of these consolidated statements.

Notes to Consolidated Financial Statements

(1) Summary of Accounting Policies:

Principles of Consolidation and Lines of Business – The financial statements include the accounts of Paul Mueller Company and its wholly owned subsidiaries: Mueller Transportation, Inc.; Mueller Field Operations, Inc.; and Mueller B.V. and its subsidiaries (collectively "Company"). All significant intercompany balances and transactions have been eliminated in consolidation. The Company provides manufactured equipment and components for the food, dairy, beverage, chemical, pharmaceutical, and other industries, as well as the dairy farm market. The Company also provides field fabrication, service, repair, construction, and transportation services in these industries.

Use of Estimates – The preparation of the consolidated financial statements, in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

Revenue Recognition – Net Sales reported on the statement of operations solely consists of revenue from customer contracts. Management has concluded that the Segment Data disaggregation of revenue provided in Footnote 9 also satisfies the revenue disaggregation disclosure requirement under Accounting Standards Update (ASU) No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." During the year ended December 31, 2019, there was $15,506,000 of revenue recognized that was included on the December 31, 2018, Consolidated Balance Sheets as advance billings and billings in excess of costs and estimated earnings (contract liabilities). During the year ended December 31, 2018, there was $19,040,000 of revenue recognized that was included on the December 31, 2017, Consolidated Balance Sheets as advance billings and billings in excess of costs and estimated earnings (contract liabilities).

Revenue from sales of fabricated products or services is recognized based upon the transfer of promised products or services to the customer in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those products or services. Transfer of the products or services may occur at the time of shipment from the Company's dock, at the time of delivery to the customer's location, when projects are completed in the field and accepted by the customer, or throughout the progress of the project dependent upon contract terms and exclusivity of the products or services. For each project, distinct products or services are identified as performance obligations and revenue is recognized appropriately for each performance obligation independently. The revenue allocated to each performance obligation will align with the determination of stand-alone selling price. The Company determines its stand alone selling price using the cost plus margin method. In situations where the contract dictates that control transfers to the customer upon delivery, then freight is to be a fulfillment activity for the performance obligation and the freight cost allocable to that performance obligation will be added to the performance obligation revenue. In situations where the contract dictates that control transfer to the customer upon shipment, but the Company is responsible for the shipping and handling activities after transfer of control, the Company has elected the accounting policy to treat those shipping and handling activities as fulfillment activities and not promised services that have to be further evaluated under ASC 606. If the products or services of a performance obligation have an alternative use, then the performance obligation will be recognized at a point-in-time. If the products or services do not have an alternative use or are field-fabricated at the customer's location, then the performance obligation will be recognized over-time.

The point-in-time method recognizes revenue of each performance obligation as it is shipped or delivered to the customer (as determined by the contract) or completed and accepted by the customer for services. The applicable manufacturing cost of each performance obligation is identified and charged to cost of sales as revenue is recognized.

Total revenue recognized at a point-in-time and over-time was as follows for the years ended December 31, 2019 and 2018:

	2019	2018
Revenue recognized at a point-in-time	$ 161,113	$ 176,066
Revenue recognized over-time	36,064	25,144
Net sales	$ 197,177	$ 201,210

The over-time method recognizes revenue using certain methods to measure progress toward the complete satisfaction of performance obligations. The Company uses the input methods of cost incurred and hours performed for field-fabricated and plant-fabricated equipment, respectively. Under the hours performed method, revenues and profits for plant-fabricated projects are recorded by applying the ratio of total manufacturing hours incurred to date for each project to estimated total manufacturing hours for each project. This method provides an accurate depiction of progress on the project because manufacturing labor hours are level (loaded across the duration of the project) as opposed to material costs, which are heavily expended in the beginning of the project and drop off at the end. For field-fabricated projects, revenues and profits are recorded by applying the ratio of costs incurred to date for each contract to the estimated total costs for each contract at completion. This method provides an accurate depiction of progress on the project because of the various types of cost on the field-fabrication projects (e.g., material, labor, rental, and subcontractor, etc.). As these costs occur in the project it is an accurate picture of the progress of the work in total versus looking at one specific component. Other considerations evaluated in the over-time method are significant financing components and variable consideration. A significant financing component does not exist for the Company's projects because a vast majority complete within one year and if a project extends beyond one year there will be progress billings. Variable consideration is accounted for if it is likely to exist on a project (an example would be liquidated damages for delay in the contract and the project is projecting to be late).

The Company generally provides limited-assurance-type warranties for standard products and work performed under its contracts. The warranty periods typically extend for a limited duration following transfer of control of the product. See note 6 for further information on warranty costs incurred. The Company does not consider these warranties to be performance obligations. Occasionally, the Company offers extended warranties to customers, which are purchased separately. Extended warranties are considered to be separate performance obligations.

Sales commissions paid to sales personnel, as well as associated payroll taxes and retirement plan contributions (together, sales commissions and associated costs) that are incremental to the acquisition of customer contracts, are capitalized as deferred contract costs on the balance sheet when the period of benefit is determined to be greater than one year. The Company has elected to apply the practical expedient to expense sales commissions and associated costs as incurred when the expected amortization period is one year or less. The Company determines the period of benefit for sales commissions paid and associated costs for the acquisition of an initial contract by taking into consideration the initial estimated customer life, as well as future expectations about whether the renewal commission will be commensurate with the initial commission. Amortization is recognized on a straight-line basis commensurate with the pattern of revenue recognition.

At December 31, 2019 and 2018, there are customer contracts of which some, but not all, performance obligations have been satisfied. The Company is electing the optional exemption to not disclose the total amount of the transaction price allocated to these performance obligations, or explain when the Company expects to recognize the transaction price allocated to these performance obligations, because the Company believes the performance obligations will be satisfied in one year or less.

Costs and estimated earnings on uncompleted contracts and related amounts billed as of December 31, 2019, 2018, and 2017, were as follows (in thousands):

	2019	2018	2017
Costs incurred on uncompleted contracts	$ 23,829	$ 27,506	$ 17,473
Estimated earnings	8,989	6,259	1,588
	32,818	33,765	19,061
Less: Billings to date	39,994	31,915	20,709
	$ (7,176)	$ 1,850	$ (1,648)

Amounts included in the accompanying Consolidated Balance Sheets as of December 31, 2019, 2018, and 2017, under the following captions were (in thousands):

	2019	2018	2017
Costs and estimated earnings in excess of billings on uncompleted contracts (contract assets)	$ 1,243	$ 258	$ 77
Income earned not invoiced included in accounts receivable	–	1,788	–
Billings in excess of costs and estimated earnings on uncompleted contracts (contract liabilities)	(8,419)	(196)	(1,725)
	$ (7,176)	$ 1,850	$ (1,648)

Costs and estimated earnings in excess of costs (contract assets) and billings in excess of costs and estimated earnings (contract liabilities) relate to contracts in progress and are included in the accompanying Consolidated Balance Sheets as current assets and current liabilities. The change in these accounts from year to year reflects the timing of these large projects. At December 31, 2018, a large project was winding down. At December 31, 2019, a large project had just begun, which is reflected by an increase in costs of materials inventoried, but not yet put into the production process (contract assets), and an increase in funds paid by customer in advance for work that had not yet been completed (contract liabilities).

Contracts with some customers provide for a portion of the sales amount to be retained by the customer for a period of time after completion of the contract. Retainages included in accounts receivable as of December 31, 2019, were $5,000. Retainages included in accounts receivable as of December 31, 2018, were $115,000. As of December 31, 2017, no retainages were included in accounts receivable.

The Company has elected the practical expedient to not adjust the promised consideration for the effects of a significant financing component, because at contract inception the Company believes that the time between when the Company transfers its products or services to a customer and when the Company will receive payment for such goods or services will be less than one-year. Most of the Company's projects have a less-than-one-year duration, and for those that extend longer, the Company negotiates progress payments that reduce or eliminate the financing component along the length of the project.

When evaluating variable consideration of the Company's projects, there are limited areas in which variable consideration would arise. The most prominent of these would be concessions provided in the event of a delivery delay. These concessions could take the form of liquidated damages agreed to in the contract or expected back-charges for a customer's direct impact of delay. The Company has significant experience with both standard and custom products, and has appropriate expense mitigation language included in its contracts of sale related to its products. For variable consideration arising from liquidated damages, the schedule of damages will be outlined in the contract and the Company would be able to calculate the exact reduction in transaction price arising from a delay in delivery, if the customer were to pursue the liquidated damages. Whether or not the customer would pursue the liquidated damages would be estimated using the expected value method and treated as a direct reduction to the total transaction price. For contracts without a liquidated damages provision, the Company has protection from highly variable costs because of contractual language limiting the costs that its customers can expect to have reimbursed by the Company. More so, it is a minority of projects where the Company is late delivering its obligations and even less that result in concessions being given. For this reason, the application of the variable consideration constraint does not result in the amount of variable consideration included in the contract price being constrained. The Company utilizes the expected value method to estimate and account for variable consideration of its projects.

Shipping fees charged are included in revenue, whereas sales, use, and other taxes collected from customers are excluded from revenue. The Company has elected an accounting policy that excludes, from the transaction price, all taxes assessed by a government authority that are both imposed on and concurrent with a specific revenue transaction and are collected by the Company from a customer. Outbound shipping and handling costs are included in cost of sales.

For the year ended December 31, 2019, there were no bill-and-hold transactions. For the year ended December 31, 2018, revenue of $762,977, attributable to two customers, was recorded prior to delivery as bill-and-hold transactions, due to both customers requesting delayed delivery and storage of the completed equipment. As of December 31, 2018, the remaining performance obligations related to the storage of the equipment and those performance obligations were fulfilled during the year ended December 31, 2019. As of December 31, 2018, accounts receivable related to bill-and-hold transactions were zero. For the year ended December 31, 2017, there were no bill-and-hold transactions.

Prior to the adoption of ASC 606 for the year ended December 31, 2017, revenue from sales of fabricated products is recognized upon passage of title to the customer. Passage of title may occur at the time of shipment from the Company's dock, at the time of delivery to the customer's location, or when projects are completed in the field and accepted by the customer. For large multi-unit projects that are fabricated in the plant, revenue is recognized under the units-of-delivery method, which is a modification of the percentage-of-completion method of accounting for contracts. The units-of-delivery method recognizes as revenue the contract price of units completed and shipped or delivered to the customer (as determined by the contract) or completed and accepted by the customer for field-fabrication projects. The applicable manufacturing cost of each unit is identified and charged to cost of sales as revenue is recognized.

Revenues from long-term, fixed-price contracts that involve only a few deliverables are generally recognized under the percentage-of-completion method of accounting. Under this method, revenues and profits for plant-fabricated projects are recorded by applying the ratio of total manufacturing hours incurred to date for each project to estimated total manufacturing hours for each project. For field-fabricated projects, revenues and profits are recorded by applying the ratio of costs incurred to date for each contract to the estimated total costs for each contract at completion.

For percentage of completion projects in all years reported, estimates of total manufacturing hours and total contract costs for relevant contracts are reviewed continually and, if necessary, are updated to properly state the estimates. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Costs and estimated earnings in excess of billings on uncompleted contracts arise when costs have been incurred and revenues have been recorded, but the amounts are not yet billable under the terms of the contracts. Such amounts are recoverable from customers upon various measures of performance, including achievement of certain milestones, completion of specified units, or completion of the contracts. Billings in excess of costs and estimated earnings on uncompleted contracts arise as a result of advance and progress billings on contracts.

Trade Accounts Receivable – Trade accounts receivable, reduced by a reserve for doubtful accounts, are reported at the resulting net realizable value on the Consolidated Balance Sheets. The Company's reserves for doubtful accounts are determined based on a variety of factors, including length of time receivables are past due, customer credit ratings, financial stability of customers, past customer history, historical trends, and market conditions. Accounts are evaluated on a regular basis and reserves are established as deemed appropriate, based on the above criteria. Increases to the reserves are charged to the provision for doubtful accounts, and reductions to the reserves are recorded when receivables are written off or subsequently collected.

For standard products and services, the Company's standard payment terms provide for payment in full within thirty (30) days of shipment of the products or completion of the services. For products that are designed and built to customer specifications or are field-fabricated, the Company may have a payment schedule agreement with the customer that provides for advances and progress billings prior to transfer of control of the products or completion of the field-fabrication. In such circumstances, an invoice is issued by the Company based upon the terms of the contract, and the effect on the consolidated financial statements is to record an account receivable and a liability in advance billings. No revenue is recognized on these transactions. The open accounts receivable related to these invoices are netted with advanced billings at each reporting period. As of December 31, 2019, 2018, and 2017, the amounts in advanced billings were $8,852,000, $15,179,000, and $17,679,000, respectively.

For most customer orders, there is no right of return provided to the customer. The exception to this would be for standard parts orders in which the Company would allow for return and refund of the purchase price, less an applicable restocking fee. For the orders where returns would be allowed, the Company evaluates the likelihood of return on those orders and treats the probable returns as a direct reduction to the transaction price.

Inventories – Inventories are valued at the lower of cost or market. For 2019, inventories are adjusted using the internal index method for calculating last-in, first-out ("LIFO"). For 2018 and 2017, inventory is adjusted using the inventory price index computation ("IPIC") method, which bases the inflation measurements on data published by the U.S. Bureau of Labor Statistics. Under the first-in, first-out ("FIFO") method of accounting, which approximates current cost, Company inventories would have been $13,192,000, $13,236,000, and $11,171,000 higher than those reported as of December 31, 2019, 2018, and 2017, respectively.

Inventories of Mueller B.V. were $11,060,000, $13,061,000, and $18,243,000 as of December 31, 2019, 2018, and 2017, respectively, and are recorded at the lower of cost on a FIFO basis, or market.

Intercompany profits in inventory have been eliminated in the preparation of the consolidated financial statements for the years ended December 31, 2019, 2018, and 2017.

The pretax results for the twelve months ended December 31, 2019, were favorably affected by a $44,000 decrease in the LIFO reserve. The pretax results for the twelve months ended December 31, 2018 and 2017, were unfavorably affected by $2,065,000 and $697,000 increases in the LIFO reserve, respectively.

Property, Plant, and Equipment – The Company provides for depreciation expense using principally the double-declining-balance method for new items and the straight-line method for used items. Depreciation expense was $6,200,000, $5,724,000, and $5,506,000 for the years ended December 31, 2019, 2018, and 2017, respectively. The economic useful lives within each property classification are as follows:

	Years
Buildings	33 – 40
Land improvements	10 – 20
Fabrication equipment	5 – 10
Transportation, office, and other equipment	3 – 10

With the new production facility under construction in Groenlo, The Netherlands, Mueller B.V. entered into a sale agreement during the fourth quarter of 2017 on the old production facility in Lichtenvoorde, The Netherlands. The facility was included in land and buildings as of December 31, 2017, at a value of $4,917,000. The sale price was $3,827,000 and the assets were impaired $1,090,000 as of December 31, 2017. The sale was consummated on April 17, 2018.

Maintenance and repairs are charged to expense as incurred. The cost and accumulated depreciation of assets retired are removed from the accounts, and any resulting gains or losses are recorded in the Consolidated Statements of Income.

Research and Development – Research and development costs are charged to expense as incurred and were $672,000 during 2019, $890,000 during 2018, and $468,000 during 2017.

Impairment of Plant and Equipment – Plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is evaluated by comparing the carrying amount of an asset to future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment is determined by measuring the amount by which the carrying amount of the asset exceeds the fair value of the asset as determined by the future net undiscounted cash flows. There were no impairments as of December 31, 2019 and 2018. Based on the contract to sell the production facility in Lichtenvoorde, The Netherlands, land and buildings were impaired $1,090,000 as of December 31, 2017.

Earnings Per Common Share – The following table sets forth the computation of basic and diluted earnings per common share (in thousands, except for share data):

	2019	2018	2017
Net income (loss)	$ 6,589	$ 2,639	$ (2,326)
Shares for basic earnings per common share –			
Weighted-average shares outstanding	1,195,866	1,196,187	1,196,261
Shares for diluted earnings per common share –			
Adjusted weighted-average shares outstanding	1,195,866	1,196,187	1,196,261
Earnings (loss) per common share:			
Basic	$ 5.51	$ 2.21	$ (1.94)
Diluted	$ 5.51	$ 2.21	$ (1.94)

Comprehensive Income (Loss) – The components of other comprehensive income (loss) for the years ended December 31, 2019, 2018, and 2017, were as follows (in thousands):

	2019	2018	2017
Foreign currency translation adjustment	$ (589)	$ (1,659)	$ 4,061
Tax	–	–	–
Foreign currency translation adjustment, net of tax	(589)	(1,659)	4,061
Change in pension liability	(1,585)	(1,751)	(5,436)
Tax	381	421	1,315
Change in pension liability, net of tax	(1,204)	(1,330)	(4,121)
Amortization on de-designated hedges	–	–	3
Other comprehensive (loss)	$ (1,793)	$ (2,989)	$ (57)

Statements of Cash Flows – For purposes of the Consolidated Statements of Cash Flows, the Company considers investments with an original maturity of three months or less to be cash equivalents.

Interest and income tax payments made during the years ended December 31, 2019, 2018, and 2017, were as follows (in thousands):

	2019	2018	2017
Interest payments	$ 594	$ 753	$ 359
Income tax payments	$ 110	$ 428	$ 181
Non-cash activities related to investing and financing activities:			
Change in equity related to swap position	$ –	$ –	$ 3

Shareholders' Investment – The following table sets forth the analysis of common stock issued and held as treasury stock:

	Shares	
	Common	Treasury
Balance – December 31, 2016	1,507,481	307,460
Treasury stock acquisition	–	3,760
Balance – December 31, 2017	1,507,481	311,220
Treasury stock acquisition	–	74
Balance – December 31, 2018	1,507,481	311,294
Treasury stock acquisition	–	321
Balance – December 31, 2019	1,507,481	311,615

Goodwill and Other Intangible Assets – The Company's goodwill was recorded as a result of the Company's business combinations using the acquisition method of accounting. The Company does not amortize goodwill, but tests it at least annually at November 30 for recoverability. Other intangible assets include patents, brand names, and customer relations. Such intangible assets are amortized on a straight-line basis over their estimated useful lives.

Impairment: Finite-lived intangible assets, other than goodwill, are tested for impairment based on undiscounted cash flows at an asset group level when circumstances indicate impairment may exist and, if impaired, written down by the amount by which the carrying value of the asset group exceeded its fair value, based on either discounted cash flows or market values. However, the carrying amount of a finite-lived intangible asset can never be written down below its fair value.

Goodwill is tested annually for impairment, or sooner when circumstances indicate an impairment may exist, using a fair-value approach at the reporting unit level. A reporting unit is the operating segment, or a business which is one level below that operating segment (the "component" level) if discrete financial information is prepared and regularly reviewed by segment management at the component level. Components are aggregated as a single reporting unit if they have similar economic characteristics. The Company may elect to first perform a qualitative assessment, based on relevant events and circumstances, to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount. If the carrying amount exceeds the fair value of the reporting unit, the impairment charge will be measured as the amount by which the carrying value exceeds the fair value. No goodwill impairment charge was required for the years ended December 31, 2019, 2018, and 2017.

Fair Value of Financial Instruments – Financial instruments consist mainly of cash and cash equivalents, accounts receivable, notes receivable, accounts payable, and bank borrowings. These instruments are short-term in nature and their carrying amount approximates fair value. The Company estimated the fair value of long-term debt as of December 31, 2019, based upon borrowing rates available for indebtedness with similar terms and average maturities incorporating the nonperformance risk of the Company, and believes the carrying amount approximates its fair value.

Income Taxes – The Company accounts for income taxes in accordance with FASB ASC 740, "Accounting for Income Taxes." Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the tax bases of assets and liabilities and their carrying amount for financial reporting purposes, as measured by the enacted tax rates which will be in effect when these differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. In assessing the realizability of deferred income tax assets, the Company considers whether it is more likely than not, according to the criteria of FASB ASC 740, that some portion or all of the deferred income tax assets will be realized. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. FASB ASC 740 requires that the Company recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority.

As of December 31,2019, 2018, and 2017, no provision has been made for U.S. federal deferred income taxes on $22,443,000, $23,248,000, and $25,331,000, respectively, of accumulated and undistributed earnings of foreign subsidiaries, since it is the intention of management to indefinitely reinvest the undistributed earnings in those foreign subsidiaries at the U.S. level.

Recent Accounting Pronouncements – In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)." The guidance in this ASU supersedes the leasing guidance in Topic 840, "Leases." Under the new guidance, lessees are required to recognize lease assets and lease liabilities on the balance sheet. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. As an accounting policy, the Company has elected not to apply the recognition requirements of ASC Topic 842 to short-term leases of less than twelve months.

The Company has adopted ASU 2016-02, "Leases (Topic 842)," using the modified retrospective method as of January 1, 2019. The effect to the financials as of January 1, 2019, was insignificant, so no adjustment was recorded. The Company has elected to take the practical expedient package, which was applied consistently across both leases as lessee and lessor, that includes the expedients (i) to not reassess the classification of leases that were in effect prior to January 1, 2019, but instead use the classification of such leases according to ASC Topic 840; (ii) the election not to reassess initial direct costs for leases existing prior to adoption on January 1, 2019; and (iii) the election not to assess whether any expired or existing contracts are or contain a lease. The Company has also elected the hindsight practical expedient, which was applied consistently across both leases as lessee and lessor, and allows the entity to use hindsight in determining the lease term and in assessing impairment of the entity's right of use assets.

As Lessee: Upon adoption of ASC Topic 842, the effect to the balance sheet as of January 1, 2019, was to record Right of Use ("ROU") assets totaling $707,000 for operating leases and $343,000 for finance leases, and to record lease liabilities totaling $707,000 for operating leases and $343,000 for finance leases. The ROU assets represented on the balance sheet for the year ended December 31, 2019, are made up of $815,000 in operating lease ROU assets and $606,000 in finance lease ROU assets. The lease liabilities represented on the balance sheet for year ended December 31, 2019, are made up of $815,000 in operating lease liabilities and $606,000 in finance lease liabilities.

The Company has operating leases for office equipment, buildings, plant equipment, and company vehicles related to its operations in The Netherlands, and the Company had an operating lease for the tractor trailers related to the Mueller Transportation, Inc. subsidiary, but that lease expired in October 2019. The Company has finance leases for company vehicles related to its operations in The Netherlands.

The lease of office space in a building in Germany has variable lease payments that are determined by the local pricing index, but all other leases have fixed lease payments. There are only two leases that include options to renew: a Vietnam building lease and the Germany building lease. Both leases go to year-over-year renewals after the initial term, unless either party terminates in accordance with the notice provisions of each lease. None of the leases provide a residual value guarantee to the lessor.

In applying ASC Topic 842, the Company was unable to determine the implicit rates for each lease, so lending rates from the Company's lending institutions were used. Rates were selected based on length of remaining lease term as of January 1, 2019.

For the year ended December 31, 2019, the financial statements include finance lease costs of $147,000 in amortization of the ROU assets and $17,000 in interest on the lease liabilities and the operating lease costs of $372,000.

The following weighted averages apply to the Company's operating and finance leases:

Weighted average remaining lease term, finance lease	4.0 years
Weighted average remaining lease term, operating lease	3.6 years
Weighted average discount rate, finance lease	2.15%
Weighted average discount rate, operating lease	2.15%

As Lessor: Upon adoption of ASC Topic 842, the effect to the financials as of January 1, 2019, was insignificant, so no adjustment was recorded. For the year ending December 31, 2019, total income from operating leases was $4,365,000, which is included in the consolidated income statement in net sales. For the year ending December 31, 2019, for sales-type leases, total revenue recorded was $699,000, and total costs of goods sold recorded was $365,000, which are included in the consolidated income statement in net sales and cost of sales, respectively.

The Company has a fleet of rental milk coolers and related equipment that are leased out to farmers from the operations in The Netherlands. The lease payments are fixed for the duration of the lease and do not have a variable component. These leases are operated on a month-to-month basis and the assumption of a 113-month average lease term was used in adopting ASC Topic 842. These leases do allow the farmers to purchase the equipment, but in practice this option is not typically taken (less than 10% of leases end in purchase).

Depreciation expense for assets subject to operating leases is provided primarily on the straight-line method over the term of the lease in amounts necessary to reduce the carrying amount of the asset to its estimated residual value. Estimated and actual residual values are reviewed on a regular basis to determine that depreciation amounts are appropriate. Depreciation expense relating to machinery and equipment held as investments in operating leases was $761,000 for 2019.

Investments in operating leases at December 31, 2019, are as follows (in thousands):

Machinery and equipment, at cost	$	16,547
Accumulated depreciation		(11,400)
Net investments in operating leases	$	5,147

A maturity analysis of the annual undiscounted cash flows of the operating lease payments to be received as of December 31 are as follows (in thousands):

2020	$	3,850
2021		3,647
2022		3,454
2023		3,188
2024		2,876
Thereafter		7,062
	$	24,077

The components of lease receivables for the net investment in sales-type leases at December 31, 2019, are as follows (in thousands):

Total minimum lease receivables	$	603
Less: Allowance for credit loss		–
Net minimum lease payments receivable	$	603
Estimated residual values of leased property		213
Net investments in sales-type leases	$	816
Current portion	$	47
Long-term portion	$	769

A maturity analysis of the annual undiscounted cash flows of the sales-type lease payments to be received as of December 31 are as follows (in thousands):

2020	$	86
2021		86
2022		86
2023		86
2024		86
Thereafter		311
	$	741
Less discounted cash flow adjustment		(138)
Total minimum lease receivable	$	603

In January 2017, the FASB issued ASU 2017-04, "Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." The ASU simplifies the measurement of goodwill impairment by eliminating the requirement that an entity compute the implied fair value of goodwill based on the fair values of its assets and liabilities to measure impairment. Instead, goodwill impairment will be measured as the difference between the fair value of the reporting unit and the carrying value of the reporting unit. The ASU also clarifies the treatment of the income tax effect of tax deductible goodwill when measuring goodwill impairment loss. ASU 2017-04 was adopted by the Company beginning on January 1, 2019.

In August 2018, the FASB issued ASU 2018-14, "Compensation – Retirement Benefits – Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans," which modifies the disclosure requirements for defined benefit pension plans and other post-retirement plans. This ASU is effective for the Company for fiscal years ending after December 15, 2020 and must be applied on a retrospective basis. The Company is currently evaluating the impact of this new standard on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement," which modifies the disclosure requirements for fair value measurements by removing, modifying, or adding certain disclosures. ASU 2018-13 is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company is currently evaluating the impact of this new standard on its consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes," which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in ASC 740 and also clarifies and amends existing guidance to improve consistent application. This guidance is effective for public entities for fiscal years beginning after December 15, 2020, and for interim periods within those fiscal years. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements.

(2) Goodwill and Intangible Assets:

Intangible assets as of December 31, 2019, 2018, and 2017, consisted of the following and are included in other assets on the Consolidated Balance Sheets (in thousands):

	Brand Names	Patents	Customer Relationships	Total
Balance as of December 31, 2016	$ 52	$ 139	$ 213	$ 404
Amortization 2017	–	(41)	(200)	(241)
Foreign currency fluctuation	5	20	16	41
Activated patent costs at DEG	–	14	–	14
Balance as of December 31, 2017	$ 57	$ 132	$ 29	$ 218
Amortization 2018	(3)	(39)	(28)	(70)
Foreign currency fluctuation	(3)	(5)	(1)	(9)
Balance as of December 31, 2018	$ 51	$ 88	$ –	$ 139
Amortization 2019	(3)	(35)	–	(38)
Foreign currency fluctuation	(1)	(1)	–	(2)
Balance as of December 31, 2019	$ 47	$ 52	$ –	$ 99

Average amortization periods for brand names and patents are eighteen and nine years, respectively. Aggregate amortization of intangible assets was $38,000, $70,000, and $241,000 for the years ended December 31, 2019, 2018, and 2017, respectively. Estimated aggregate amortization for the next five years and thereafter are as follows (in thousands):

2020	$ 24
2021	9
2022	9
2023	9
2024	9
Thereafter	39
	$ 99

The changes in the carrying amount of goodwill for the years ended December 31, 2019, 2018, and 2017, were as follows (in thousands):

Balance as of December 31, 2016	$ 13,554
Foreign currency fluctuation	1,641
Balance as of December 31, 2017	$ 15,195
Foreign currency fluctuation	(656)
Balance as of December 31, 2018	$ 14,539
Foreign currency fluctuation	(219)
Balance as of December 31, 2019	$ 14,320

An additional $16,000 of computer software costs were included in the accompanying balance sheet as of December 31, 2019. The computer software project was completed as of September 30, 2019; the total amortization amount charged to expense was $10,000 as of December 31, 2019. The unamortized computer software cost included in the accompanying balance sheets was $102,000 for December 31, 2018. No software cost was recognized for the year ended December 31, 2017. The computer software project was not complete as of December 31, 2018; the total amount charged to expense was zero for December 31, 2018 and 2017.

(3) Retirement Plans:

The Company has a Profit Sharing and Retirement Savings Plan [401(k) plan] in which substantially all domestic employees are eligible to participate. The 401(k) plan provides for a match of employees' contributions up to a specified limit. The assets of the 401(k) plan are deposited with a trustee and are invested at the employee's option in one or more investment funds. Total Company contributions to the 401(k) plan were $1,008,000 for 2019, $939,000 for 2018, and $850,000 for 2017.

The Company has pension plans covering domestic employees who are represented by a bargaining unit and employees who are not represented by a bargaining unit. Benefits under the pension plans are based on a flat benefit formula and final average pay, respectively. Employees not represented by the bargaining unit that are first hired after December 31, 2006, will not be covered under the applicable pension plan. Also, after December 31, 2010, there will be no further accrual of benefits for participants under the pension plan for employees not represented by the bargaining unit. Employees represented by the bargaining unit that are first hired after June 30, 2007, will not be covered under the applicable pension plan. Also, after June 30, 2011, there will be no further accrual of benefits for participants under the pension plan for employees represented by the bargaining unit.

The Company also contributes to a union sponsored multi-employer benefit plan for certain domestic employees. Benefits under this multi-employer plan are generally based on compensation levels and years of service. For the Company, the financial risks of participating in a multi-employer plan are different from single-employer plans in the following respects:

> Assets contributed to the multi-employer plan by one employer may be used to provide benefits to employees of other participating employers.
>
> If a participating employer discontinues contributions to a plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
>
> If a participating employer chooses to stop participating in a plan, a withdrawal liability may be created based on the unfunded vested benefits for all employees in the plan.

Under federal legislation regarding multi-employer pension plans, in the event of a withdrawal from a plan or plan termination, companies are required to continue funding their proportionate share of such plan's unfunded vested benefits. The Company is a participant in a union sponsored multi-employer plan, and, as a plan participant, the Company's potential obligation could be significant. The amount of the potential obligation is not currently ascertainable because the information required to determine such amount is not identifiable or readily available.

The Company's participation in the plan for the year ended December 31, 2019, is outlined in the following table. The "EIN/Pension Plan Number" column provides the Employer Identification Number ("EIN") and the three digit plan number. The zone status is based on the latest information that the Company received from the plan and is certified by the plan's actuary. Plans in the red zone are generally less than 65 percent funded, plans in the yellow zone are generally less than 80 percent funded, and plans in the green zone are generally at least 80 percent funded. The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan ("FIP") or a rehabilitation plan ("RP") is either pending or has been implemented. The "Surcharge Imposed" column includes plans in a red zone status that require a payment of a surcharge in excess of regular contributions. The last column lists the expiration date of the collective-bargaining agreement to which the plan is subject.

Pension Fund	EIN/Pension Plan Number	Pension Protection Act Zone Status 2019	2018	2017	FIP/RP Status Pending/ Consolidated	Company Contributions 2019	2018	2017	Surcharge Imposed	Expiration Date of Collective-Bargaining Agreement
Boilermaker-Blacksmith National Pension Trust	48-6168020/001	Red	Yellow	Red	Yes	$503,594	$493,883	$391,375	No	Described Below [(a)]

(a) The Company's collective bargaining agreement with the Boilermaker-Blacksmith National Pension Trust is under a National Maintenance Agreement, which is evergreen in terms of expiration. However, the agreement allows for termination of the collective bargaining agreement by either party with a predetermined written notice.

Mueller B.V. has pension plans covering employees who are represented by a union and employees who are not represented by a union. The plans are defined contribution plans, and contributions included in the accompanying Consolidated Statements of Income were $1,233,000 for 2019, $1,311,000 for 2018, and $1,262,000 for 2017.

Total domestic pension expense under the plans was $1,686,000 for 2019, $843,000 for 2018, and $1,787,000 for 2017. The required minimum contributions to be made in 2020 are estimated to be $4,001,000. The Company uses a January 1 measurement date for its plans.

The following table sets forth the required disclosures for the domestic pension plans as of December 31 (in thousands):

	2019	2018	2017
Change in projected benefit obligation –			
Benefit obligation as of beginning of year	$ 92,349	$ 99,908	$ 89,509
Interest cost	3,733	3,413	3,955
Actuarial (gain) loss	9,815	(5,046)	11,409
Benefits paid and expenses	(5,283)	(5,539)	(4,965)
Lump sum paid	–	(387)	–
Benefit obligation as of end of year	$ 100,614	$ 92,349	$ 99,908
Change in plan assets –			
Fair value of plan assets as of beginning of year	60,268	65,141	57,881
Actual return on plan assets	10,277	(4,227)	8,140
Employer contributions	4,957	5,280	4,086
Benefits paid and expenses	(5,283)	(5,539)	(4,966)
Lump sum paid	–	(387)	–
Fair value of plan assets as of end of year	$ 70,219	$ 60,268	$ 65,141
Funded status	$ (30,395)	$ (32,081)	$ (34,767)
Funded status as of end of year	$ (30,395)	$ (32,081)	$ (34,767)

Components of pension expense for the three years were (in thousands):

	2019	2018	2017
Interest cost	$ 3,733	$ 3,413	$ 3,955
Expected return on plan assets	(3,839)	(4,234)	(3,561)
Amortization of prior service cost	1,792	1,664	1,393
Net periodic pension expense	$ 1,686	$ 843	$ 1,787

Projected benefit obligations, accumulated benefit obligations, and fair value of plan assets were as follows as of December 31 (in thousands):

	2019	2018	2017
Projected benefit obligations	$ 100,614	$ 92,349	$ 99,908
Accumulated benefit obligations	$ 100,614	$ 92,349	$ 99,908
Fair value of plan assets	$ 70,219	$ 60,268	$ 65,141

Weighted average assumptions used to determine benefit obligations as of December 31 were as follows:

	2019	2018	2017
Discount rate	3.15%	4.16%	3.50%
Rate of compensation increase	N/A	N/A	N/A

Weighted average assumptions used to determine net periodic pension expense for the three years ended December 31 were as follows:

	2019	2018	2017
Discount rate	4.16%	3.50%	4.55%
Expected long-term return on plan assets	6.42%	6.37%	6.40%
Rate of compensation increase	N/A	N/A	N/A

Pension expense is calculated based upon a number of actuarial assumptions established on January 1 of the applicable year (detailed in the table above), including the weighted average discount rate, the expected long-term rate of return on plan assets, and the rate of increase in future compensation levels for the applicable plan. Discount rates were determined by creating hypothetical portfolios of high-quality bonds available without call features and in U.S. dollars as of the measurement date. These portfolios were constructed in such a way that all expected benefit payments from the plans could be provided by the coupon and maturity payments of the bonds as they become payable. Although the match could not be exact, the portfolios were constructed so that the excess bond payments were held to a minimum and were paid out as soon as possible. The discount rate used to determine pension expense decreased from 4.55% for 2017 to 3.50% for 2018, and increased to 4.16% for 2019. The effect of the rate increase was to increase pension expense by $351,278 for 2019. In developing the expected long-term rate of return assumption for plan assets (which consist mainly of U.S. equity and fixed income securities), input was considered from the actuaries and the investment advisors. The rate is intended to reflect the average rate of return expected to be earned on the funds invested or to be invested to provide plan benefits. In determining the rate, appropriate consideration was given to historical performance of the major asset classes held or anticipated to be held by the plans and the forecast for future rates of return for those asset classes. The long-term rate of return assumption was 6.42% for 2019, 6.37% for 2018, and 6.40% for 2017.

The Company has adopted a pension investment policy designed to achieve an adequate funding status based on expected benefit payouts and to establish an asset allocation that will meet or exceed the long-term rates of return assumptions, while maintaining a prudent level of risk. The Company uses the services of outside consultants in setting appropriate asset allocation targets and monitoring investment performance. Plan assets are invested in equity securities, fixed income securities, and cash.

Within the equities asset class, the investment policy provides for investments in a broad range of publicly traded securities, including both domestic and American depositary receipts ("ADRs") diversified by value, growth, and capitalization. An ADR is a negotiable security that represents the underlying securities of a non-United States company that trades in the U.S. financial markets. Within the fixed income class, the investment policy provides for investments in a broad range of high-quality corporate debt securities and U.S. government securities, in addition to pooled separate accounts maintained by an insurance carrier.

The weighted average asset allocations of the pension plans as of December 31 were as follows:

	2019	2018	2017
Asset category:			
Equities	62%	58%	64%
Fixed income	37%	41%	35%
Other	1%	1%	1%
	100%	100%	100%

The long-term asset allocation on average will approximate 60% in equities and 40% in fixed income securities. The objective on a long-term basis is to achieve an excess return over the actuarial assumptions for the expected long-term rates of return on plan assets. The investment strategy employed is a long-term risk-control approach using diversified investment options with no exposure to volatile investment options, such as financial futures, derivatives, etc. The plans use a diversified allocation of equity and fixed income securities that are customized to each plan's cash flow benefit needs.

Assets are categorized into fair value, based upon the assumptions (inputs) used to value the assets in accordance with the fair value hierarchy established in FASB ASC 820, "Fair Value Measurements and Disclosures." The following table summarizes the fair value of the Company's plans' assets as of December 31, 2019, 2018, and 2017 (in thousands):

Asset Category	Fair Value at 12-31-19	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments at Net Asset Value
Cash and cash equivalents	$ 509	$ 509[(a)]	$ –	$ –	$ –
Equity securities	43,239	43,239[(b)]	–	–	–
Fixed income securities	26,471	17,266[(c)]	–	–	9,205[(d)]
Total plan assets	$ 70,219	$ 61,014	$ –	$ –	$ 9,205

Asset Category	Fair Value at 12-31-18	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments at Net Asset Value
Cash and cash equivalents	$ 850	$ 850[(a)]	$ –	$ –	$ –
Equity securities	34,366	34,366[(b)]	–	–	–
Fixed income securities	25,052	15,786[(c)]	–	–	9,266[(d)]
Total plan assets	$ 60,268	$ 51,002	$ –	$ –	$ 9,266

Asset Category	Fair Value at 12-31-17	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments at Net Asset Value
Cash and cash equivalents	$ 723	$ 723[(a)]	$ –	$ –	$ –
Equity securities	41,427	41,427[(b)]	–	–	–
Fixed income securities	22,991	12,440[(c)]	–	–	10,551[(d)]
Total plan assets	$ 65,141	$ 54,590	$ –	$ –	$ 10,551

(a) The assets consist primarily of institutional money market mutual funds.

(b) The assets consist primarily of exchange traded funds and institutional mutual funds which hold domestic and international equities.

(c) The assets consist primarily of fixed income investments in pooled separate accounts and institutional mutual funds that include issues of the U.S. government and its agencies and high quality corporate issues.

(d) In accordance with ASC 820-10, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of financial position.

Pension benefits expected to be paid over the next ten years are as follows (in thousands):

2020	$ 5,473
2021	5,516
2022	5,538
2023	5,540
2024	5,762
2025 through 2029	28,631
	$ 56,460

Included in accumulated other comprehensive loss as of December 31, 2019, are the following amounts that have not yet been recognized in net periodic pension expense: unrecognized actuarial losses of $51,236,000 ($40,420,000, net of tax). Included in accumulated other comprehensive loss as of December 31, 2018, are the following amounts that have not yet been recognized in net periodic pension expense: unrecognized actuarial losses of $49,650,000 ($36,339,000, net of tax). Included in accumulated other comprehensive loss as of December 31, 2017, are the following amounts that have not yet been recognized in net periodic pension expense: unrecognized actuarial losses of $47,899,000 ($30,301,000, net of tax). The actuarial loss included in accumulated other comprehensive loss and expected to be recognized in net periodic pension expense during the year ended December 31, 2020, is $1,875,000.

(4) Income Taxes:

The provision (benefit) for taxes on income before income taxes included (in thousands):

	2019	2018	2017
Current tax expense	$ 1,026	$ (710)	$ 284
Deferred, net	979	1,182	5,389
	$ 2,005	$ 472	$ 5,673

Deferred tax assets and liabilities arise from the differences between financial reporting and tax reporting of assets and liabilities that most often result from differences in timing of income and expense recognition. The detail of the deferred tax assets and liabilities as of December 31, 2019, 2018, and 2017, is shown below (in thousands):

	2019	2018	2017
Deferred tax assets:			
Worker's compensation	$ 165	$ 155	$ 108
Vacation	118	171	212
Warranty	85	88	83
Doubtful accounts	72	57	61
Pensions	6,831	7,296	7,970
Inventory	565	195	196
Tax attribute carryforward	1,128	1,944	2,134
Other	766	383	368
Net deferred tax assets	$ 9,730	$ 10,289	$ 11,132
Deferred tax liabilities:			
Intangibles	$ (24)	$ (33)	$ (1,482)
Property, plant, and equipment	(3,075)	(2,699)	(1,526)
Other liabilities	(285)	(622)	(504)
Net deferred tax liabilities	$ (3,384)	$ (3,354)	$ (3,512)
Net deferred tax assets	$ 6,346	$ 6,935	$ 7,620

As of December 31, 2019, net deferred tax assets were $9,730,000 and net deferred tax liabilities were $3,384,000. As of December 31, 2018, net deferred tax assets were $10,289,000 and net deferred tax liabilities were $3,354,000. As of December 31, 2017, net deferred tax assets were $11,132,000 and net deferred tax liabilities were $3,512,000. On the accompanying Consolidated Balance Sheets, domestic net deferred tax assets are included as non-current assets and foreign deferred tax liabilities are included in other long-term liabilities, as appropriate. Income taxes receivable (payable) at December 31, 2019, 2018, and 2017, were $137,000 receivable and ($86,000) payable, $928,000, and $901,000, respectively, and are included in accounts receivable on the accompanying Consolidated Balance Sheets. For balance sheet presentation, the deferred tax assets and liabilities are required to be netted by jurisdiction, as shown below (in thousands):

	2019	2018	2017
Deferred tax assets, United States	$ 8,759	$ 9,348	$ 11,132
Deferred tax liability, United States	$ (2,077)	$ (2,000)	$ (1,658)
Net deferred tax assets, United States	$ 6,682	$ 7,348	$ 9,474
Net deferred tax liabilities, The Netherlands	$ (336)	$ (413)	$ (1,854)

The Company's deferred income tax assets include certain future tax benefits. As of December 31, 2019, the tax effected deferred tax assets included $158,000 related to state net operating losses and none related to federal net operating losses, which expire between the years 2020 and 2035.

A reconciliation between the expected income tax expense at the statutory federal income tax rate (21%) and the reported income tax expense for each of the three years ended December 31, 2019, 2018, and 2017, follows (in thousands):

	2019	Rates	2018	Rates	2017	Rates
Statutory federal income tax expense (benefit)	$ 1,805	21.00%	$ 653	21.00%	$ 1,138	34.00%
Increase (decrease) in taxes resulting from:						
Tax credits	(262)	(3.06%)	(92)	(2.96%)	(86)	(2.57%)
State tax, net of federal benefit	298	3.48%	234	7.52%	172	5.16%
Net unrecognized tax positions	65	.76%	(45)	(1.45%)	(178)	(5.32%)
International taxes	189	2.28%	(579)	(18.62%)	347	10.37%
Deferred rate change	–	–	70	2.25%	46	1.37%
Tax reform rate change	–	–	–	–	3,251	97.15%
Transition tax	–	–	–	–	920	27.49%
Permanent differences	(40)	(.47%)	31	1.01%	40	1.20%
Other, net	(50)	(.58%)	200	6.43%	23	.66%
	$ 2,005	23.41%	$ 472	15.18%	$ 5,673	169.51%

A reconciliation of the beginning and ending amounts of unrecognized tax benefits follows. The balances as of December 31, 2019, 2018, and 2017, are included in other long-term liabilities and in the deferred tax liabilities on the accompanying Consolidated Balance Sheets (in thousands):

Balance as of December 31, 2017	420
Additions based on tax positions related to the current year	30
Reductions for tax positions of prior years	(56)
Balance as of December 31, 2018	394
Additions based on tax positions related to the prior year	65
Reductions for tax positions of prior years	–
Balance as of December 31, 2019	$ 459

Federal tax returns are generally subject to examination for tax years 2016 and forward. State statutes vary, but state income tax returns are generally subject to examination from 2015 and forward. The unrecognized benefits of $459,000 as of December 31, 2019, would affect the Company's effective tax rate, if recognized. The Company records potential interest and penalties related to uncertain tax positions as a component of income tax expense. Interest and penalty expense were not significant for the years ended December 31, 2019, 2018, and 2017.

(5) Borrowings:

In 2014, the Company entered into a domestic bank borrowing facility of $15,000,000. On November 16, 2018, the Company amended the domestic bank borrowing facility agreement to extend the agreement until November 16, 2021. The Company has a financial leverage covenant of Total Debt to EBITDA and a minimum fixed charge coverage at each quarter for the trailing twelve months.

Borrowings under the facility incur interest at the 30-day LIBOR Daily Floating Rate plus 1.15% as defined, and are secured by domestic accounts receivable and inventory. The rate at December 31, 2019, was 2.89%. As of December 31, 2019, the balance outstanding was $4,296,000 under the facility. As of December 31, 2018, the balance outstanding was $6,083,000 under the facility. As of December 31, 2017, the balance outstanding was zero under the facility.

On December 31, 2019, Mueller B.V.'s bank borrowing facility was reduced to $4,480,000. Borrowings under the facilities are at variable rates of one-month Euribor plus 1.55%. The rate at December 31, 2019, was 1.51%. Total borrowing under the facilities was $579,000 as of December 31, 2019, $2,859,000 as of December 31, 2018, and $2,717,000 as of December 31, 2017. Mueller B.V. has a financial leverage covenant of a minimum EBITDA, Total Debt to EBITDA, and a minimum fixed charge coverage at each quarter for the trailing twelve months.

As of December 31, 2019, the Company had long-term notes payable with an outstanding balance of $15,334,000. Domestic note payable matures in April 2020. The Company is currently negotiating renewal of the loan with similar terms. Listed below is a summary of amounts outstanding for notes payable. The current portion is included in current maturities of long-term debt, and the long-term portion is included in long-term debt on the accompanying Consolidated Balance Sheets (in thousands).

	Outstanding Balance		
	2019	2018	2017
Mueller B.V. note payable related to intercompany loan. Note matures in 2027 with a variable rate of 30-day LIBOR plus 2.0%. The rate at year-end was 4.75%. Payments are made annually.	$ 12,285	$ 8,586	$ 5,532
Mueller B.V. note payable secured by equipment and certain assets. Note matures in 2027. The rate at year-end was .48%. Note paid in full as of April 2018.	–	–	305
Mueller B.V. note payable related to mortgage loan secured by real estate, fixed assets, accounts receivable, inventory, and insurance proceeds. Note matures in 2033 with a fixed rate of 2.60%. Payments are made quarterly.	8,176	8,778	9,600
Mueller B.V. note payable related to mortgage loan secured by real estate, fixed assets, accounts receivable, inventory, and insurance proceeds. Note matures in 2035 with a current variable rate of 1.62%. Payments are made quarterly.	5,880	11,229	10,348
Mueller B.V. mortgage loan secured by land and buildings. Note was paid off with the sale of former production facility.	–	–	1,500
Notes payable related to Mueller B.V. and subsidiaries.	26,341	28,593	27,285
Domestic notes payable secured by land, buildings, and equipment. Note matures in 2020 with a variable rate of 30-day LIBOR plus 1.5%. The rate at year-end was 3.24%. Payments are made monthly.	2,611	2,861	3,113
Current maturities	(1,333)	(1,390)	(1,304)
Elimination of intercompany loans	(12,285)	(8,586)	(5,532)
Total notes payable	$ 15,334	$ 21,478	$ 23,562

The principal payments of the notes payable as of December 31, 2019, and for future years are listed below (in thousands):

2020	$ 1,333
2021	1,320
2022	1,320
2023	1,320
2024	1,320
Thereafter	10,054
	$ 16,667

(6) Guarantees:

The Company has two standby letter-of-credit facilities of $5,000,000 and $1,787,000. As of December 31, 2019, there were standby letters of credit totaling $825,000 and $1,787,000, respectively, issued under these facilities, which will expire within one to two years.

The standard warranty provided by the Company is against defects in materials and workmanship and a compliance to specifications for a period of twelve (12) months after shipment of the equipment or completion of the services as applicable in each case.

The Company's provisions for warranty expense have historically been a relatively consistent percentage of sales. Warranty claims tend to occur shortly after product delivery, as a significant portion of the Company's sales are engineered-to-order products built to customer specifications. A warranty provision is recorded when notification is received of a potential claim based on an estimate of the cost to repair or replace, in addition to a general reserve provision based on a multi-year lag analysis. Warranty claims are reviewed monthly and reserves are adjusted to properly reflect the remaining estimated cost to complete the repair or to provide a replacement. The following is a reconciliation of changes in the warranty reserve, which is included with other accrued expenses on the Consolidated Balance Sheets for the years ended December 31, 2019, 2018, and 2017 (in thousands):

	2019	2018	2017
Beginning balance	$ 1,359	$ 1,177	$ 1,044
Costs incurred to satisfy warranty claims	(1,126)	(1,422)	(851)
Aggregate warranty reserves made	1,189	2,159	1,095
Aggregate changes to warranty reserves	(264)	(555)	(111)
Ending balance	$ 1,158	$ 1,359	$ 1,177

(7) Contingencies:

The Company has operating leases with total aggregate future minimum payments of $844,000 and financing leases with total aggregate future minimum payments of $632,000, with terms exceeding one year. The lease expense for the year ended December 31, 2019, was $538,000. The lease expense under ASC 840 was $1,179,000 and $1,214,000 for 2018 and 2017, respectively.

The future minimum lease payments for each of the years subsequent to December 31, 2019, will be (in thousands):

	Operating	Finance
2020	$ 285	$ 192
2021	216	163
2022	163	112
2023	122	91
2024	47	62
2025 and after	121	12
	$ 844	$ 632
Less discounted cash flow adjustment	(29)	(15)
Less interest	–	(11)
Lease liability	$ 815	$ 606

(8) Segment Data:

The Company has four reportable segments: Dairy Farm Equipment, Industrial Equipment, Field Fabrication, and Transportation. Dairy Farm Equipment segment sales are made by the Company to independent dealers for resale. Mueller B.V. also sells directly to farmers and provides service for farmers and milk coolers for rent to farmers. Products include milk cooling and storage equipment and accessories, refrigeration units, and heat recovery equipment for use on dairy farms. The Industrial Equipment segment includes sales of the following products directly to industrial customers: food, beverage, chemical, and industrial processing equipment; biopharmaceutical equipment; and pure water equipment. The Field Fabrication segment includes sales of very large, field-fabricated tanks and vessels that cannot be built and shipped from the plant. Typical projects are large stainless steel storage tanks for sanitary and industrial process applications. The Transportation segment includes the delivery of products to customers and backhauls of materials and components. The segment also includes the transportation of components for the Field Fabrication segment and contract carriage for third parties.

Management evaluates performance and allocates resources based on income or loss before income taxes for the segments. The accounting policies of the reportable segments are the same as those described in Summary of Accounting Policies (Note 1) to these consolidated financial statements.

Reportable segments are managed separately because they offer different products and serve different markets. Industrial Equipment products have been aggregated because they are designed and built to a customer's specifications, and they use common processes and resources. Similar economic conditions affect the long-term financial performance of the product lines included in the Industrial Equipment segment.

The Dairy Farm Equipment segment includes standard products that are built to stock and are available for sale from inventory. The demand for Dairy Farm Equipment products is affected by the economic factors that influence the profitability of dairy farmers. The Field Fabrication segment uses different skills and fabrication methods and requires different technology and expertise than other segments. The Transportation segment is a trucking operation.

Net sales include revenues from sales to unaffiliated and affiliated customers and include intersegment eliminations (in thousands). The Other/Corporate classification includes other revenues, unallocated corporate assets and expenses, and corporate other income (expense).

2019	Dairy Farm Equipment	Industrial Equipment	Field Fabrication	Transportation	Other/ Corporate	Consolidated
Net sales	$ 77,997	$ 104,710	$ 11,985	$ 2,485	$ –	$ 197,177
Depreciation and amortization expense	$ 3,417	$ 2,208	$ 70	$ 255	$ 298	$ 6,248
Income (loss) before income tax	$ 973	$ 8,055	$ 739	$ (93)	$ (1,080)	$ 8,594
Assets	$ 70,314	$ 38,537	$ 3,329	$ 1,559	$ 11,155	$ 124,894
Additions to property, plant, and equipment	$ 927	$ 1,996	$ 50	$ 1,084	$ 283	$ 4,340

2018	Dairy Farm Equipment	Industrial Equipment	Field Fabrication	Transportation	Other/ Corporate	Consolidated
Net sales	$ 83,000	$ 104,889	$ 10,457	$ 2,864	$ –	$ 201,210
Depreciation and amortization expense	$ 3,384	$ 2,005	$ 67	$ 58	$ 280	$ 5,794
Income (loss) before income tax	$ 1,612	$ 2,951	$ 856	$ 354	$ (2,662)	$ 3,111
Assets	$ 76,526	$ 37,365	$ 2,801	$ 522	$ 12,974	$ 130,188
Additions to property, plant, and equipment	$ 3,141	$ 1,231	$ 171	$ 196	$ 99	$ 4,838

	2017					
	Dairy Farm Equipment	Industrial Equipment	Field Fabrication	Transportation	Other/ Corporate	Consolidated
Net sales	$ 77,269	$ 78,916	$ 9,065	$ 2,707	$ –	$ 167,957
Depreciation and amortization expense	$ 3,429	$ 1,907	$ 29	$ 83	$ 299	$ 5,747
Income (loss) before income tax	$ 2,920	$ 2,345	$ 286	$ 51	$ (2,255)	$ 3,347
Assets	$ 80,031	$ 36,617	$ 1,811	$ 431	$ 21,004	$ 139,894
Additions to property, plant, and equipment	$ 17,591	$ 5,858	$ 58	$ 54	$ 189	$ 23,750

Revenues from external customers by product category for the three years ended December 31, 2019, were (in thousands):

	2019	2018	2017
Milk cooling and storage equipment	$ 77,630	$ 82,527	$ 77,156
Process vessels and tanks	107,740	103,472	80,717
Other industrial equipment	11,807	15,211	10,084
	$ 197,177	$ 201,210	$ 167,957

Revenues from external customers by geographic location are attributed to countries based on the final destination of the goods and for the three years ended December 31, 2019, were (in thousands):

	2019	2018	2017
United States	$ 118,953	$ 118,944	$ 99,588
North America (excluding the U.S.)	14,347	16,694	15,916
Asia and the Far East	8,793	12,454	4,208
The Netherlands	26,577	24,286	19,803
EU countries	27,150	25,285	26,049
Europe (Non-EU countries)	696	–	–
Other areas	661	3,547	2,393
	$ 197,177	$ 201,210	$ 167,957

During 2019, 2018, and 2017, export sales to any one country were not in excess of 10% of consolidated sales.

During 2019, sales to any one customer were in excess of 10% of Consolidated Sales. Net sales from one domestic customer represented $21,422,000 in 2019. Net sales from this customer was less than 0.2% in 2018 and 2017.

Long-lived assets owned by the Company for the three years ended December 31, 2019, were (in thousands):

	2019	2018	2017
North America	$ 15,628	$ 14,902	$ 14,599
Asia and the Far East	1,161	1,413	1,698
The Netherlands	46,566	49,062	50,702
	$ 63,355	$ 65,377	$ 66,999

(9) Long-Term Incentive Plans:

The Company has two stock-based compensation plans: the 2009 Long-Term Incentive Plan ("Employee Plan") and the Non-Employee Director Stock Option and Restricted Stock Plan ("Director Plan"). The Employee Plan has an expiration date of February 12, 2019.

The Employee Plan provides for restricted stock, incentive stock options, and nonqualified stock option awards for executives and key employees. An aggregate of 200,000 shares of common stock can be awarded under the Employee Plan. There were no grants under either plan for 2019, 2018, and 2017.

The authority to make additional restricted stock grants under the Director Plan, last approved by a shareholder vote in 2002, expired on January 31, 2012. The remaining shares of restricted stock previously granted to non-employee directors under this plan vested in May 2015.

No stock options are outstanding as of December 31, 2019.

Under the Plans, restricted shares of stock vest five years after the effective date of grant. Compensation expense was computed by multiplying the number of shares granted by the fair market value of the common stock on the date of grant. The expense is amortized ratable over the vesting period.

No compensation expense recognized for restricted shares for the years ended December 31, 2019, 2018, and 2017. As of December 31, 2019, zero shares of restricted stock were outstanding under the Plans. The total remaining unrecognized stock based compensation cost related to unvested restricted stock as of December 31, 2019, was zero.

(10) Subsequent Events:

On January 17, 2020, the Company amended the domestic bank borrowing facility agreement to allow for the ability to distribute up to $3,360,000 to Mueller B.V., if necessary. In addition, the financial leverage covenant of maximum Total debt to EBITDA was reduced from 3 to 1 to 2.25 to 1 at the end of each quarter for the trailing twelve months.

On February 25, 2020, Mueller B.V. amended its credit agreement as follows:

- The capacity of the bank borrowing facility will be reduced from $4,480,000 to $3,360,000 on March 31, 2020.
- Quarterly loan covenants were modified as follows effective June 30, 2020:
    - Minimum EBITDA for the trailing twelve months reduced from $6,720,000 to $3,080,000.
    - Maximum total debt to EBITDA for the trailing twelve months is reset to 4.50 to 1 as of June 30, 2020, and decreases annually until it reaches 3.25 to 1 as of June 30, 2024, and thereafter.

On March 30, 2020, the Company refinanced the long-term note payable maturing on March 31, 2025, in an amount of $4,000,000 at a fixed rate of 2.50%.

The spread of COVID-19, a novel strain of coronavirus, is altering the behavior of businesses and people throughout the United States. Further, financial markets have recently experienced a significant decline attributed to coronavirus concerns. The continued spread of COVID-19 may adversely impact the local, regional, and national economies. The extent to which the coronavirus impacts the Company's results will depend on future developments, which are highly uncertain and cannot be predicted. The impact is highly dependent on the breadth and duration of the outbreak and could be affected by other factors that cannot currently be predicted. Accordingly, management cannot presently estimate the overall operational and financial impact to the Company, but such an impact could have a material adverse effect on the financial condition of the Company.

This page has been intentionally left blank.

Safe Harbor for Forward-Looking Statements

The President's message on pages 3 and 4 of this Annual Report contains certain statements that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. All statements regarding future performance, growth, sales and earnings projections, conditions, or developments are forward-looking statements. Words such as "anticipates," "believes," "intends," "expects," "may," "will," "should," "could," "plans," "forecasts," "estimates," "predicts," "projects," "potential," "continue," "outlook," and similar expressions may be intended to identify forward-looking statements.

Actual future results may differ materially from those described in the forward-looking statements due to a variety of factors, including the fact that the worldwide economy generally, and the dairy farm equipment, industrial equipment, field-fabrication markets, and factors affecting the trucking industry specifically are all currently subject to uncertainty, making it difficult to determine if past experience is a good guide to the future. A downturn in the Company's business segments could adversely affect the Company's revenues and results of operations. Other factors affecting forward-looking statements, some of which are identified in the discussion relating to such forward-looking statements, include, but are not limited to, the following: specific economic conditions in the food, dairy, beverage, chemical, pharmaceutical, biotechnological and other process industries, and the international dairy farm equipment market and the impact of such conditions on the Company's customers in such markets; the cyclical nature of some of the Company's markets; milk prices, feed costs, weather conditions, dairy farm consolidation, and other factors affecting the profitability of dairy farmers; the price of stainless steel; the highly competitive nature of the markets for the Company's products, as well as pricing pressures that may result from such competitive conditions; business relationships with major customers and suppliers; the continued operation and viability of the Company's major customers; the Company's execution of internal performance plans; difficulties or delays in manufacturing; cost-reduction and productivity efforts; competing technologies and difficulties in entering new markets, both domestic and foreign; changes in product mix; future levels of indebtedness and capital spending; claims, including, without limitation, warranty claims, product liability claims, charges or dispute resolutions; ability of suppliers to provide materials as needed and the Company's ability to recover any price increases for materials and product pricing; the Company's ability to attract and retain key technical and other personnel; labor relations; the failure of customers to make timely payment; the Company's ability, both domestically and in Europe, to maintain adequate financing for operations; any inadequacy of the Company's intellectual property protection or the potential for third-party claims of infringement; global economic factors, including currency exchange rates; general economic conditions, including interest rates, the rate of inflation, and commercial and consumer confidence; energy prices; governmental laws and regulations affecting domestic and foreign operations, including tax obligations; changes in accounting standards; worldwide political stability; the effects of terrorist activities and resulting political or economic instability, including U.S. military action overseas; and the effect of acquisitions, divestitures, restructurings, product withdrawals, and other unusual events.

The Company cautions the reader that these lists of cautionary statements and risk factors may not be exhaustive. The Company expressly disclaims any obligation or undertaking to release publicly any updates or changes to these forward-looking statements that may be made to reflect any future events or circumstances.

RSM

RSM US LLP

Independent Auditor's Report

To the Board of Directors
Paul Mueller Company and Subsidiaries

Report on the Financial Statements
We have audited the accompanying consolidated financial statements of Paul Mueller Company and Subsidiaries, which comprise the consolidated balance sheets as of December 31, 2019, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), shareholders' investment and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the financial statements).

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Paul Mueller Company and Subsidiaries as of December 31, 2019, 2018 and 2017, and the results of their operations and their cash flows for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter
As discussed in Note 1 to the consolidated financial statements, effective January 1, 2019, Paul Mueller Company and Subsidiaries adopted Accounting Standards Update No. 2016-02, *Leases (Topic 842)*, using the modified retrospective approach. In addition, effective January 1, 2019, Paul Mueller Company and Subsidiaries adopted Accounting Standards Update No. 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.* Our opinion was not modified with respect to this matter.

RSM US LLP

Kansas City Missouri
April 7, 2020

Selected Financial Data – Five-Year Summary for the Years 2019, 2018, 2017, 2016, and 2015

Selected Financial Data – Five-Year Summary

Amounts in thousands, except for share data, historical exchange rates, and number of employees.

	2019	2018	2017	2016	2015
Net sales	$ 197,177	$ 201,210	$ 167,957	$ 168,021	$ 178,595
Net income (loss)	$ 6,589	$ 2,639	$ (2,326)	$ (2,281)	$ 8,604
Earnings (loss) per common share:					
Basic	$ 5.51	$ 2.21	$ (1.94)	$ (1.88)	$ 6.97
Diluted	$ 5.51	$ 2.21	$ (1.94)	$ (1.88)	$ 6.95
Common shares outstanding	1,195,866	1,196,187	1,196,261	1,200,021	1,237,220
Total assets	$ 124,894	$ 130,188	$ 139,894	$ 104,665	$ 118,596
Long-term debt	$ 15,334	$ 21,478	$ 23,562	$ 4,558	$ 5,003
Shareholders' investment	$ 32,415	$ 27,628	$ 27,981	$ 30,466	$ 31,747
Working capital	$ 9,695	$ 9,352	$ 12,621	$ 7,538	$ 9,270
Book value per common share	$ 27.11	$ 23.10	$ 23.39	$ 25.39	$ 25.66
Average number of employees	958	967	928	918	954
Historical exchange rates (Euro to U.S. Dollar):					
Year-end	$ 1.12	$ 1.14	$ 1.20	$ 1.05	$ 1.09
Year-end average	$ 1.12	$ 1.18	$ 1.13	$ 1.11	$ 1.11

Financial Highlights by Quarter (Unaudited) and Market Information by Quarter for the Years 2019 and 2018

Financial Highlights by Quarter, Unaudited

Amounts in thousands, except for share data.

	Quarter Ended March 31		Quarter Ended June 30		Quarter Ended September 30		Quarter Ended December 31	
	2019	2018	2019	2018	2019	2018	2019	2018
United States:								
Net sales	$ 27,912	$ 32,633	$ 40,110	$ 40,072	$ 36,168	$ 33,197	$ 40,310	$ 31,188
Gross profit	$ 3,978	$ 6,460	$ 8,999	$ 7,718	$ 8,558	$ 7,733	$ 10,456	$ 6,803
Net income (loss)	$ (1,056)	$ 854	$ 2,877	$ 1,261	$ 2,272	$ 1,574	$ 3,319	$ 997
The Netherlands:								
Net sales	$ 14,663	$ 13,608	$ 14,419	$ 22,896	$ 10,310	$ 14,107	$ 15,043	$ 14,730
Gross profit	$ 6,108	$ 5,792	$ 6,117	$ 6,740	$ 4,341	$ 4,810	$ 6,202	$ 4,860
Net income (loss)	$ 6	$ (497)	$ 80	$ 306	$ (1,083)	$ (740)	$ 192	$ (1,152)
Consolidated:								
Net sales	$ 41,882	$ 46,078	$ 54,061	$ 62,705	$ 45,968	$ 46,809	$ 55,266	$ 45,618
Gross profit	$ 10,056	$ 12,276	$ 15,121	$ 14,465	$ 12,851	$ 12,533	$ 16,714	$ 11,676
Net income (loss)	$ (1,080)	$ 382	$ 2,964	$ 1,573	$ 1,140	$ 824	$ 3,565	$ (140)
Earnings (loss) per common share:								
Basic	$ (.90)	$ .32	$ 2.48	$ 1.31	$ .95	$ .69	$ 2.98	$ (.12)
Diluted	$ (.90)	$ .32	$ 2.48	$ 1.31	$ .95	$ .69	$ 2.98	$ (.12)

Market Information by Quarter

	2019 Quarter Ended				2018 Quarter Ended			
	Mar. 31	June 30	Sept. 30	Dec. 31	Mar. 31	June 30	Sept. 30	Dec. 31
Market price of stock:								
High	$ 35.00	$ 31.50	$ 32.50	$ 31.00	$ 39.40	$ 34.00	$ 31.05	$ 31.00
Low	$ 24.76	$ 25.50	$ 22.60	$ 26.45	$ 32.81	$ 29.51	$ 27.55	$ 25.00

The Company's common stock is traded over-the-counter based on quotes obtained by market makers from OTC Markets Group. The market price data was obtained from NASDAQ for 2019 and 2018.

CORPORATE PROFILE

Headquarters

Paul Mueller Company, Inc.
1600 West Phelps Street
Springfield, Missouri 65802, U.S.A.

General Information

Paul Mueller Company was founded in 1940 and incorporated in 1946 in Missouri. Mueller® products and services are used in a wide variety of industries including animal health, beverage, brewing, chemical, dairy farm, dairy processing, food, heat transfer, HVAC, industrial construction, oil and gas, personal care, pharmaceutical, pure water, tank fabrication, and wine.

Business Segments

Dairy Farm Equipment
Milk cooling and storage, refrigeration products, and heat recovery equipment.

Field Fabrication
Large field-erected tanks, equipment installation, process piping, retrofit and/or repair of process systems, turnkey design, and construction of complete processing plants.

Industrial Equipment
Standard and customized stainless steel and alloy processing and storage tanks, pure water equipment, and heat transfer products.

Transportation
Delivery of products and components to customers and field fabrication sites, backhauls of material, and contract carriage.

SHAREHOLDER INFORMATION

Board of Directors

** **CURTIS L. DINAN**
Senior Vice President, Commercial –
ONE Gas, Inc.

* ** *** **JOHN J. GHIRARDELLI**
Chairman of the Board
President and CEO –
Keystone Digital
Managing Partner –
Qdoba Franchisee,
MO, AR, and OK

* **DAVID T. MOORE**
President and CEO

*** **JEAN L. MORRIS**
Marketing and Design Coordinator –
Big Cedar Lodge

*** **JOHN P. (JACK) STACK**
Chairman, President, and CEO –
SRC Holdings Corporation

* ** **LEE J. VIOREL, III**
Member –
Lowther Johnson Attorneys at Law, L.L.C.

* Executive Committee Member
** Audit Committee Member
*** Nominating and Compensation Committee Member

Officers

DAVID T. MOORE
President and CEO

KENNETH E. JEFFRIES
Chief Financial Officer

DENISE M. SILVEY
Secretary

Subsidiaries

MUELLER FIELD OPERATIONS, INC.

Officers

JEREMY W. ROGLES – President

KENNETH E. JEFFRIES – Vice President

MICHAEL R. PAYNE – Secretary

PATRICIA K. WEBSTER – Treasurer

MUELLER TRANSPORTATION, INC.

Officers

JEREMY W. ROGLES – President

KENNETH E. JEFFRIES – Controller

MICHAEL R. PAYNE – Secretary

PATRICIA K. WEBSTER – Treasurer

MUELLER B.V.

Managing Director

PAUL MUELLER COMPANY

Transfer Agent

Computershare, Inc.
250 Royall Street
Canton, MA 02021

Field *Experience*

Our field division team received an inquiry for a big field tank installation with a well-known, global paint manufacturer. Upon reviewing the request, our team was able to identify a less-than-efficient heat transfer specification. Consulting with Mueller® internal engineering experts, we offered a better heat transfer solution to maintain proper temperature and save the customer a significant amount of money. Our customer said none of the other tank fabricators had looked at the design the way we did. We won the project!

"Our customer said none of the other tank fabricators had looked at the design the way we did. We won the project!

Mueller co-workers Marcus Gilles and Zach Wilson.

Large tank heads headed to a job site.

Mutual *Experience*

A large Mueller milk cooler on its way to Ireland.

Kingston Refrigeration, our longtime dairy farm equipment dealer in Ireland, had a farmer who was losing milk because of inadequate milk storage capacity. Owner Sam Kingston had a great idea! His solution was to bring in a large Mueller silo and the largest milk cooler they have ever installed in Ireland. Sam said Mueller craftsmanship is part of Kingston Refrigeration's story and the reason they are able to meet their customers' demands. Sam and our Groenlo sales and marketing teams made a video capturing the making of the 28,000-liter silo and the 32,000-liter milk cooler, and their journey from Groenlo to Southern Ireland for installation on the farm. The Kingston Refrigeration video will make its way to both social media channels and the Dutch and English websites!

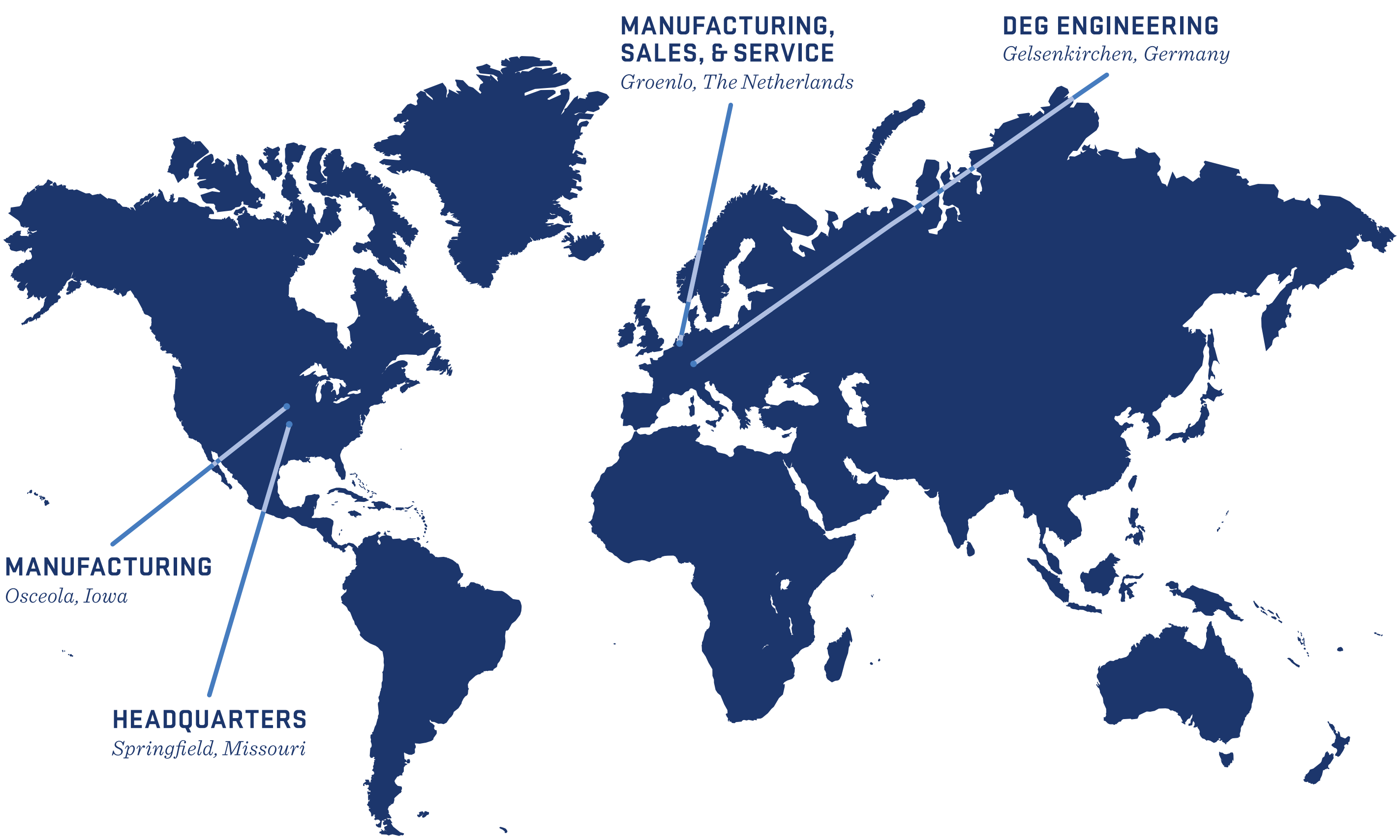
A Groenlo co-worker welding a milk tank.

> ***Sam said Mueller craftsmanship is part of Kingston Refrigeration's story and the reason they are able to meet their customers' demands.***

PAUL MUELLER COMPANY

PAUL MUELLER, OUR FOUNDER

At Paul Mueller Company, we are united by a belief in quality that works for life. Our goal is to have lasting impact with every piece of processing equipment we build. This collective vision has led us from a small sheet metal shop into a global supplier of heating, cooling, processing, and storage solutions. Our equipment allows farmers, brewers, and engineers to keep their products fresh and their inventory strong. Whether our equipment preserves milk in rural areas or helps manufacture medicine with broad health benefits, we are making an impact across the globe.



1-800-MUELLER | PAULMUELLER.COM