

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended **October 27, 2018**

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 0-13200

AstroNova, Inc.

(Exact name of registrant as specified in its charter)

Rhode Island
(State or other jurisdiction of
incorporation or organization)

05-0318215
(I.R.S. Employer
Identification No.)

600 East Greenwich Avenue,
West Warwick, Rhode Island
(Address of principal executive offices)

02893
(Zip Code)

(401) 828-4000

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Stock, \$.05 Par Value – 6,952,794 shares
(excluding treasury shares) as of November 30, 2018

ASTRONOVA, INC.

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Part I. FINANCIAL INFORMATION

Item 1. Financial Statements

ASTRONOVA, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, Except Share Data)

	<u>October 27, 2018</u>	<u>January 31, 2018</u>
	<u>(Unaudited)</u>	
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	\$ 7,816	\$ 10,177
Securities Available for Sale	—	1,511
Accounts Receivable, net of allowance for doubtful accounts of \$501 at October 27, 2018 and \$377 at January 31, 2018	21,717	22,400
Inventories, net	28,330	27,609
Prepaid Expenses and Other Current Assets	2,014	1,251
Total Current Assets	<u>59,877</u>	<u>62,948</u>
PROPERTY, PLANT AND EQUIPMENT		
Less Accumulated Depreciation	(34,459)	(33,125)
Property, Plant and Equipment, net	<u>10,109</u>	<u>9,752</u>
OTHER ASSETS		
Intangible Assets, net	30,685	33,633
Goodwill	12,283	13,004
Deferred Tax Assets	1,827	1,829
Other	1,275	1,147
Total Other Assets	<u>46,070</u>	<u>49,613</u>
TOTAL ASSETS	<u>\$ 116,056</u>	<u>\$ 122,313</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts Payable	\$ 5,355	\$ 11,808
Accrued Compensation	3,853	2,901
Other Liabilities and Accrued Expenses	2,697	2,414
Current Portion of Long-Term Debt	5,116	5,498
Current Portion of Royalty Obligation	1,750	1,625
Revolving Credit Facility	1,500	—
Current Liability – Excess Royalty Payment Due	1,246	615
Deferred Revenue	374	367
Income Taxes Payable	—	684
Total Current Liabilities	<u>21,891</u>	<u>25,912</u>
NON CURRENT LIABILITIES		
Long-Term Debt, net of current portion	14,068	17,648
Royalty Obligation, net of current portion	10,408	11,760
Deferred Tax Liabilities	614	698
Other Liabilities	1,667	2,648
TOTAL LIABILITIES	<u>48,648</u>	<u>58,666</u>
SHAREHOLDERS' EQUITY		
Common Stock, \$0.05 Par Value, Authorized 13,000,000 shares; Issued 10,196,755 shares and 9,996,120 shares at October 27, 2018 and January 31, 2018, respectively	510	500
Additional Paid-in Capital	52,948	50,016
Retained Earnings	47,693	45,700
Treasury Stock, at Cost, 3,259,473 and 3,227,942 shares at October 27, 2018 and January 31, 2018, respectively	(32,960)	(32,397)
Accumulated Other Comprehensive Loss, net of tax	(783)	(172)
TOTAL SHAREHOLDERS' EQUITY	<u>67,408</u>	<u>63,647</u>
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	<u>\$ 116,056</u>	<u>\$ 122,313</u>

See Notes to condensed consolidated financial statements (unaudited).

ASTRONOVA, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(In thousands, Except Per Share Data)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Revenue	\$ 34,196	\$ 28,760	\$ 99,490	\$ 80,701
Cost of Revenue	20,288	16,966	60,073	49,342
Gross Profit	13,908	11,794	39,417	31,359
Operating Expenses:				
Selling and Marketing	6,587	5,532	19,484	15,958
Research and Development	2,123	2,033	5,844	5,340
General and Administrative	2,836	2,597	8,298	6,780
Operating Expenses	11,546	10,162	33,626	28,078
Operating Income, net	2,362	1,632	5,791	3,281
Other Income (Expense)	(538)	(12)	(1,320)	(45)
Income before Income Taxes	1,824	1,620	4,471	3,236
Income Tax Provision	407	201	1,046	579
Net Income	<u>\$ 1,417</u>	<u>\$ 1,419</u>	<u>\$ 3,425</u>	<u>\$ 2,657</u>
Net Income per Common Share—Basic:	<u>\$ 0.21</u>	<u>\$ 0.21</u>	<u>\$ 0.50</u>	<u>\$ 0.38</u>
Net Income per Common Share—Diluted:	<u>\$ 0.20</u>	<u>\$ 0.21</u>	<u>\$ 0.49</u>	<u>\$ 0.38</u>
Weighted Average Number of Common Shares Outstanding:				
Basic	6,925	6,725	6,858	6,968
Diluted	7,167	6,821	7,056	7,082
Dividends Declared Per Common Share	\$ 0.07	\$ 0.07	\$ 0.21	\$ 0.21

See Notes to condensed consolidated financial statements (unaudited).

ASTRONOVA, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Thousands)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Net Income	\$ 1,417	\$ 1,419	\$ 3,425	\$ 2,657
Other Comprehensive Income (Loss), Net of Taxes and Reclassification Adjustments:				
Foreign Currency Translation Adjustments	(157)	(108)	(775)	210
Change in Value of Derivatives Designated as Cash Flow Hedge	221	60	766	(700)
Losses (Gains) from Cash Flow Hedges Reclassified to Income Statement	(150)	(58)	(605)	646
Unrealized Holding Gain (Loss) on Securities Available for Sale	—	(2)	—	5
Realized Gain on Securities Available for Sale reclassified to income statement	—	—	3	—
Other Comprehensive Income (Loss)	(86)	(108)	(611)	161
Comprehensive Income	<u>\$ 1,331</u>	<u>\$ 1,311</u>	<u>\$ 2,814</u>	<u>\$ 2,818</u>

See Notes to condensed consolidated financial statements (unaudited).

ASTRONOVA, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)
(Unaudited)

	Nine Months Ended	
	October 27, 2018	October 28, 2017
Cash Flows from Operating Activities:		
Net Income	\$ 3,425	\$ 2,657
Adjustments to Reconcile Net Income to Net Cash Provided (Used) by Operating Activities:		
Depreciation and Amortization	4,633	2,394
Amortization of Debt Issuance Costs	38	22
Share-Based Compensation	1,339	1,125
Deferred Income Tax Provision	(67)	(14)
Changes in Assets and Liabilities, Net of Impact of Acquisition:		
Accounts Receivable	248	(575)
Inventories	(1,140)	(1,769)
Income Taxes	(244)	(1,078)
Accounts Payable and Accrued Expenses	(6,043)	(610)
Other	(916)	(175)
Net Cash Provided (Used) by Operating Activities	1,273	1,977
Cash Flows from Investing Activities:		
Proceeds from Sales/Maturities of Securities Available for Sale	1,511	3,766
Purchases of Securities Available for Sale	—	(321)
Cash Paid for TrojanLabel Acquisition, net of cash acquired	—	(9,007)
Cash Paid for Honeywell Asset Purchase and License Agreement	—	(14,873)
Cash Paid for Honeywell Asset Purchase and License Agreement—TSA Agreement	(400)	—
Payments Received on Line of Credit Issued to Label Line	—	85
Additions to Property, Plant and Equipment	(1,902)	(1,719)
Net Cash Provided (Used) by Investing Activities	(791)	(22,069)
Cash Flows from Financing Activities:		
Net cash proceeds from Common Shares Issued Under Employee Benefit Plans and Employee Stock Option Plans, Net of Payment of Minimum Tax Withholdings	1,041	471
Purchase of Treasury Stock	—	(11,238)
Proceeds from Issuance of Long-Term Debt	—	9,200
Borrowings under Revolving Credit Facility	3,000	14,600
Repayments under Revolving Credit Facility	(1,500)	—
Change in Fair Value of Trojan Label Earn-Out	—	(477)
Principal Payments of Long-Term Debt	(4,012)	(552)
Payments of Debt Issuance Costs	—	(155)
Dividends Paid	(1,446)	(1,470)
Net Cash Provided (Used) by Financing Activities	(2,917)	10,379
Effect of Exchange Rate Changes on Cash and Cash Equivalents	74	81
Net Decrease in Cash and Cash Equivalents	(2,361)	(9,632)
Cash and Cash Equivalents, Beginning of Period	10,177	18,098
Cash and Cash Equivalents, End of Period	\$ 7,816	\$ 8,466
Supplemental Disclosures of Cash Flow Information:		
Cash Paid During the Period for Interest	\$ 449	\$ 138
Cash Paid During the Period for Income Taxes, Net of Refunds	\$ 3,154	\$ 1,736
Schedule of Non-Cash Financing Activities:		
Value of Shares Received in Satisfaction of Option Exercise Price	\$ 366	\$ 242

See Notes to condensed consolidated financial statements (unaudited).

ASTRONOVA, INC.
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

(1) Overview

Headquartered in West Warwick, Rhode Island, AstroNova, Inc. leverages its expertise in data visualization technologies to design, develop, manufacture and distribute a broad range of specialty printers and data acquisition and analysis systems. Our products are distributed through our own sales force and authorized dealers in the United States. We also sell to customers outside of the United States primarily through our Company offices in Canada, China, Europe, Mexico and Southeast Asia as well as through independent dealers and representatives. AstroNova, Inc. products are employed around the world in a wide range of aerospace, apparel, automotive, avionics, chemical, computer peripherals, communications, distribution, food and beverage, general manufacturing, packaging and transportation applications.

The business consists of two segments, Product Identification, which includes specialty printing systems sold under the QuickLabel[®] and TrojanLabel[®] brand names, and Test & Measurement which includes test and measurement systems sold under the AstroNova[®] brand name.

Products sold under the QuickLabel and TrojanLabel brands are used in industrial and commercial product packaging, branding and labeling applications to digitally print custom labels and corresponding visual content in house. Products sold under the AstroNova brand enable our customers to acquire and record visual and electronic signal data from local and networked data streams and sensors. The recorded data is processed and analyzed and then stored and presented in various visual output formats. In the aerospace market, the Company has a long history of using its data visualization technologies to provide high-resolution light-weight flight deck and cabin printers.

Unless otherwise indicated, references to “AstroNova,” the “Company,” “we,” “our,” and “us” in this Quarterly Report on Form 10-Q refer to AstroNova, Inc. and its consolidated subsidiaries.

(2) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission, and reflect all adjustments consisting of normal recurring adjustments which, in the opinion of management, are necessary for a fair presentation of the results of the interim periods included herein. These financial statements do not include all disclosures associated with annual financial statements and, accordingly, should be read in conjunction with footnotes contained in the Company’s Annual Report on Form 10-K for the fiscal year ended January 31, 2018.

Results of operations for the interim periods presented herein are not necessarily indicative of the results that may be expected for the full year.

The presentation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported and disclosed in the condensed consolidated financial statements and accompanying notes. Some of the more significant estimates relate to revenue recognition, the allowances for doubtful accounts and credits, inventory valuation, impairment of long-lived assets and goodwill, income taxes, share-based compensation, accrued expenses and warranty reserves. Management’s estimates are based on the facts and circumstances available at the time estimates are made, historical experience, risk of loss, general economic conditions and trends, and management’s assessments of the probable future outcome of these matters. Consequently, actual results could differ from those estimates.

Certain amounts in the prior year financial statements have been reclassified to conform to the current year’s presentation.

(3) Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts and transactions are eliminated in consolidation.

(4) Revenue Recognition

On February 1, 2018 we adopted Accounting Standards Update 2014-09, "Revenue from Contracts with Customers (Accounting Standards Codification "ASC" Topic 606)," which superseded nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASC Topic 606 is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASC Topic 606 defines a five step process to recognize revenue and requires more judgment and estimates within the revenue recognition process than required under previous U.S. GAAP, which includes identifying contracts with customers, identifying performance obligations in the contract, determining and estimating the amount of any variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation and recognizing revenue when the entity satisfies each performance obligation.

We adopted this standard using the modified retrospective method and have applied the guidance to all contracts within the scope of ASC Topic 606 as of the February 1, 2018 adoption date. Under ASC Topic 606, based on the nature of our contracts and consistent with prior practice, we recognize the large majority of our revenue upon shipment, which is when the performance obligation has been satisfied. Accordingly, the adoption of this standard did not have a material impact on our revenue recognition and there was no cumulative effective adjustment as of February 1, 2018 as a result of the adoption of ASC Topic 606.

Significant judgments primarily include the identification of performance obligation arrangements as well as the pattern of delivery for those services.

We derive revenue from the sale of (i) hardware including, digital color label printers and specialty OEM printing systems, portable data acquisition systems and airborne printers used in the flight deck and in the cabin of military, commercial and business aircraft, (ii) related supplies required in the operation of the hardware, (iii) repairs and maintenance of equipment and (iv) service agreements.

The vast majority of our revenue is generated from the sale of distinct products. Revenue is measured as the amount of consideration the Company expects to receive in exchange for such products, which is generally at the contractually stated prices, and is recognized when we satisfy a performance obligation by transferring control of a product to a customer. The transfer of control generally occurs at one point in time, upon shipment, when title and risk of loss pass to the customer. Returns and customer credits are infrequent and are recorded as a reduction to revenue. Sales taxes and value added taxes collected concurrently with revenue generating activities are excluded from revenue.

Many of the contracts entered into with customers are commonly comprised of a combination of equipment, supplies, installation and/or training services. We determine performance obligations by assessing whether the products or services are distinct from other elements of the contract. In order to be distinct, the product must perform either on its own or with readily available resources and must be separate within the context of the contract.

The majority of our hardware products contain embedded operating systems and data management software which is included in the purchase price of the equipment. The software is deemed incidental to the systems as a whole as it is not sold or marketed separately and its production costs are minor compared to those of the hardware system. Hardware and software elements are typically delivered at the same time and are accounted for as a single performance obligation for which revenue is recognized at the point in time when ownership is transferred to the customer.

Installation and training services vary based on certain factors such as the complexity of the equipment, staffing availability in a geographic location and customer preferences, and can range from a few days to a few months. The delivery of installation and training services are not assessed to determine whether they are separate performance obligations, as the amounts are not material to the contract.

Shipping and handling activities that occur after control over a product has transferred to a customer are accounted for as fulfillment activities rather than performance obligations, as allowed under a practical expedient provided by ASC Topic 606. The shipping and handling fees charged to customers are recognized as revenue and the related costs are included in cost of revenue at the point in time when ownership of the product is transferred to the customer.

We may perform service at the request of the customer, generally for the repair and maintenance of products previously sold. These services are short in duration, typically less than one month, and total less than 9% of revenue for the nine months ended October 27, 2018. Revenue is recognized as services are rendered and accepted by the customer. We also provide service agreements on certain of our Product Identification equipment. Service agreements are purchased separately from the equipment and provide for the right to obtain service and maintenance on the equipment for a period of typically one to two years. Accordingly, revenue on these agreements is recognized over the term of the agreements. The portion of service agreement contracts that are uncompleted at the end of any reporting period are included in deferred revenue.

We generally provide warranties for our products. The standard warranty period is typically 12 months for most hardware products except for airborne printers, which typically have warranties that extend for 4-5 years, consistent with industry practice. Such assurance-type warranties are not deemed to be separate performance obligations from the hardware product and costs associated with providing the warranties are accrued in accordance with ASC 450, "Contingencies," as we have the ability to ascertain the likelihood of the liability and can reasonably estimate the amount of the liability. Our estimate of costs to service the warranty obligations is based on historical experience and expectations of future conditions. To the extent that our experience in warranty claims or costs associated with servicing those claims differ from the original estimates, revisions to the estimated warranty liability are recorded at that time, with an offsetting adjustment to cost of revenue. On occasion, customers request a warranty period longer than our standard warranty. In those instances, in which extended warranty services are separately quoted to the customer, an additional performance obligation is created, and the associated revenue is deferred and recognized as service revenue ratably over the term of the extended warranty period. The portion of service contracts and extended warranty services agreements that are uncompleted at the end of any reporting period are included in deferred revenue.

Revenues disaggregated by primary geographic markets and major product type are as follows:

Primary geographical markets:

(In thousands)	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
United States	\$ 21,542	\$ 18,116	\$ 60,752	\$ 51,048
Europe	7,573	6,771	23,292	20,545
Canada	1,560	1,428	4,653	3,854
Asia	1,860	1,183	5,836	2,270
Central and South America	921	1,045	3,078	2,529
Other	740	217	1,879	455
Total Revenue	\$ 34,196	\$ 28,760	\$ 99,490	\$ 80,701

Major product type:

(In thousands)	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Hardware	\$ 13,096	\$ 9,394	\$ 37,989	\$ 25,285
Supplies	18,107	16,608	52,690	47,734
Service and Other	2,993	2,758	8,811	7,682
Total Revenue	\$ 34,196	\$ 28,760	\$ 99,490	\$ 80,701

Accounts Receivable

Credit is extended based upon an evaluation of the customer's financial condition. Accounts receivable are stated at their estimated net realizable value. The allowance for doubtful accounts is based on a variety of factors, including the age of amounts outstanding relative to their contractual due date, specific customer factors, historical write-off experience and current market assessments. Standard payment terms are typically 30 days after shipment, but vary by type and geographic location of our customers.

Contract Assets and Liabilities

We normally do not have contract assets, which are primarily unbilled accounts receivable that are conditional on something other than the passage of time. Our contract liabilities, which represent billings in excess of revenue recognized, are related to advanced billings for purchased service agreements and extended warranties and were \$374,000 and \$367,000 at October 27, 2018 and January 31, 2018, respectively, and are recorded as deferred revenue in the condensed consolidated balance sheet. The slight increase in the deferred revenue at October 27, 2018 is primarily due to approximately \$610,000 of revenue recognized during the period that was included in the deferred revenue balance at January 31, 2018, offset by cash payments received in advance of satisfying performance obligations.

Contract Costs

We recognize an asset for the incremental direct costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that certain costs related to obtaining sales contracts for our aerospace printer products meet the requirement to be capitalized. These costs are deferred and amortized based on the forecasted number of units sold over the estimated benefit term. There has been no change in the Company's accounting for these contracts as a result of the adoption of ASC Topic 606. The balance of these contract assets at January 31, 2018 was \$832,000 and was reported in other assets in the consolidated balance sheet. In the first quarter of fiscal 2019, the Company incurred an additional \$150,000 in incremental direct costs which were deferred. The amortization of incremental direct costs was \$50,000 and \$65,000 for the three and nine months periods ended October 27, 2018. The balance of the deferred incremental direct contract costs net of accumulated amortization at October 27, 2018 is \$916,000 and is reported in other assets in the condensed consolidated balance sheet. This amount is expected to be amortized over its estimated remaining period of benefit, which we currently estimate to be approximately 8 years.

We apply the practical expedient to expense costs incurred for costs to obtain a contract when the amortization period would have been less than a year. These costs include sales commissions paid to the internal direct sales team as well as to third-party representatives and distributors. Contractual agreements with each of these parties outline commission structures and rates to be paid. Generally speaking, the contracts are all individual procurement decisions by the customers and do not include renewal provisions and as such the majority of the contracts have an economic life of significantly less than a year.

(5) Acquisitions

On September 28, 2017, AstroNova, Inc. entered into an Asset Purchase and License Agreement (the "Honeywell Agreement") with Honeywell International, Inc. to acquire an exclusive perpetual world-wide license to manufacture Honeywell's narrow-format flight deck printers for two aircraft families along with certain inventory used in the manufacturing of the licensed printers. The purchase price consisted of an initial upfront payment of \$14.6 million in cash. The Honeywell Agreement also provided for guaranteed minimum royalty payments of \$15.0 million, to be paid to Honeywell over the next ten years, based on gross revenues from the sales of the printers, paper and repair services of the licensed products. The royalty rates vary based on the year in which they are paid or earned and product sold or service provided, and range from single-digit to mid double-digit percentages of gross revenue.

This transaction was evaluated under Accounting Standard Update 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business," and was accounted for as an asset acquisition.

The initial upfront payment of \$14.6 million was paid at the closing of this transaction using borrowings from the Company's revolving credit facility under its amended Credit Agreement with Bank of America, N.A.

The minimum royalty payment obligation of \$15.0 million was recorded at the present value of the annual minimum royalty payments using a present value factor of 2.8%, which is based on the estimated after tax cost of debt for similar companies. At October 27, 2018, the current portion of the minimum royalty obligation to be paid over the next twelve months is \$1.8 million and is reported as a current liability, and the remainder of \$10.4 million is reported as a long-term liability on the Company's condensed consolidated balance sheet. For the three and nine months ended October 27, 2018, the Company incurred \$0.7 million and \$2.0 million, respectively, in excess royalty expense, which is included in cost of revenue in the Company's condensed consolidated statement of income for the period ended October 27, 2018. A total of \$1.2 million of excess royalty is payable at October 27, 2018 and reported as a current liability on the Company's condensed consolidated balance sheet.

In connection with the Honeywell Agreement, the Company also entered into a Transition Services Agreement ("TSA") with Honeywell related to the transfer of the manufacturing and repair of the licensed printers from their current locations to AstroNova's plant in West Warwick, Rhode Island. During the current year, the Company paid \$0.4 million to acquire an additional repair facility revenue stream in accordance with the terms of the TSA. The additional \$0.4 million TSA obligation payment was included as part of the Honeywell Agreement purchase price and recorded as an increase to the related intangible asset.

Under the terms of the TSA, the Company is required to pay for certain expenses incurred by Honeywell during the period in which product manufacturing is transferred to the Company's facilities. In the first quarter of fiscal 2019, a change in accounting estimates for product costs and operating expenses related to the TSA resulted in an increase of \$1.0 million in operating income (\$0.8 million net of tax or \$0.12 per diluted share). Additionally, in the first quarter of fiscal 2019, a change in accounting estimates for revenue subject to customer rebates under the Honeywell Agreement increased operating income by \$0.4 million (\$0.3 million net of tax or \$0.05 per diluted share). These changes in accounting estimates were the result of actual amounts billed and received differing from initial estimates.

Transaction costs incurred for this acquisition were \$0.3 million and were included as part of the purchase price.

The assets acquired in connection with the acquisition were recorded by the Company at their estimated relative fair values as follows:

(In thousands)	
Inventory	\$ 1,411
Identifiable Intangible Assets	27,243
Total Purchase Price	\$ 28,654

The purchase price, including the initial payment, the minimum royalty payment obligation, transaction costs, and the subsequent TSA \$0.4 million obligation payment, were allocated based on the relative fair value of the assets acquired. The fair value of the intangible assets acquired was estimated by applying the income approach. These fair value measurements are based on significant inputs that are not observable in the market and therefore represent a Level 3 measurement as defined in ASC 820, "Fair Value Measurement and Disclosure." Key assumptions in estimating the fair value of the intangibles include (1) the remaining life of the intangibles based on the term of the Honeywell Asset Purchase and License Agreement of 10 years, (2) a range of annual earnings projections from \$3.9 million – \$5.4 million and (3) the Company's internal rate of return of 21.0%.

The acquired identifiable intangible assets are as follows:

(In thousands)	Fair Value	Useful Life (Years)
Customer Contract Relationships	\$ 27,243	10

TrojanLabel

On February 1, 2017, our wholly-owned Danish subsidiary, ANI ApS, completed the acquisition of the issued and outstanding equity interests of TrojanLabel ApS (TrojanLabel). The purchase price of this acquisition was 62.9 million Danish Krone (approximately \$9.1 million), net of cash acquired of 976,000 Danish Krone (approximately \$0.1 million), of which 6.4 million Danish Krone (approximately \$0.9 million) was placed in escrow to secure certain post-closing working capital adjustments and indemnification obligations of the sellers. In the first quarter of fiscal 2019, the Company settled the post-closing adjustments with TrojanLabel and recovered approximately 891,000 Danish Krone (approximately \$145,000) of the amount held in escrow account, which was recognized as an adjustment to the allowance account for TrojanLabel receivables. The remaining escrow balance was retained by TrojanLabel.

(6) Net Income Per Common Share

Basic net income per share is calculated by dividing net income by the weighted average number of shares outstanding during the period. Diluted net income per share is calculated by dividing net income by the weighted average number of shares and, if dilutive, common equivalent shares, determined using the treasury stock method for stock options, restricted stock awards and restricted stock units outstanding during the period. A reconciliation of the shares used in calculating basic and diluted net income per share is as follows:

	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Weighted Average Common Shares Outstanding - Basic	6,924,554	6,725,414	6,858,365	6,968,285
Effect of Dilutive Options, Restricted Stock Awards and Restricted Stock Units	242,074	95,507	197,760	114,076
Weighted Average Common Shares Outstanding - Diluted	7,166,628	6,820,921	7,056,125	7,082,361

For the three and nine months ended October 27, 2018, the diluted per share amounts do not reflect common equivalent shares outstanding of 228,600 and 333,175, respectively. For the three and nine months ended October 28, 2017, the diluted per share amounts do not reflect common equivalent shares outstanding of 609,934 and 612,248, respectively. These outstanding common equivalent shares were not included due to their anti-dilutive effect. Anti-dilutive shares consist of those common stock equivalents that have an exercise price above the average stock price for the period or for which the common stock equivalent's related average unrecognized stock compensation expense is sufficient to "buy back" the entire amount of shares. Restricted stock units which vest based upon achievement of performance targets are excluded from the diluted shares outstanding unless the performance targets have been met as of the end of the reporting period, regardless of whether such performance targets are probable of achievement as of the end of the measurement period.

(7) Intangible Assets

Intangible assets are as follows:

(In thousands)	October 27, 2018				January 31, 2018			
	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment	Net Carrying Amount
Miltope:								
Customer Contract Relationships	\$ 3,100	\$ (1,644)	\$ —	\$ 1,456	\$ 3,100	\$ (1,438)	\$ —	\$ 1,662
RITEC:								
Customer Contract Relationships	2,830	(667)	—	2,163	2,830	(461)	—	2,369
Non-Competition Agreement	950	(633)	—	317	950	(491)	—	459
TrojanLabel:								
Existing Technology	2,327	(624)	130	1,833	2,327	(350)	313	2,290
Distributor Relations	937	(176)	51	812	937	(99)	130	968
Honeywell:								
Customer Contract Relationships	27,243 *	(3,139)	—	24,104	26,843	(958)	—	25,885
Intangible Assets, net	\$ 37,387	\$ (6,883)	\$ 181	\$ 30,685	\$ 36,987	\$ (3,797)	\$ 443	\$ 33,633

* Includes additional \$0.4 million related to the payment in fiscal 2019 in accordance with the terms of the TSA.

There were no impairments to intangible assets during the periods ended October 27, 2018 and October 28, 2017. With respect to the acquired intangibles included in the table above, amortization expense of \$1,039,000 and \$508,000 related to the above acquired intangibles has been included in the condensed consolidated statement of income for the three months ended October 27, 2018 and October 28, 2017, respectively. Amortization expense of \$3,085,000 and \$1,111,000 related to the above acquired intangibles has been included in the condensed consolidated statement of income for the nine months ended October 27, 2018 and October 28, 2017, respectively.

Estimated amortization expense for the next five fiscal years is as follows:

(In thousands)	Remaining 2019	2020	2021	2022	2023
Estimated amortization expense	\$ 1,031	\$ 4,228	\$ 4,098	\$ 4,010	\$ 4,006

(8) Share-Based Compensation

At the Company's annual meeting of shareholders held on June 4, 2018, the Company's shareholders approved the AstroNova, Inc. 2018 Equity Incentive Plan (the "2018 Plan"). The 2018 Plan provides for, among other things, the issuance of awards with respect to up to 650,000 shares of the Company's common stock, plus an additional number of shares equal to the number of shares subject to awards granted under the 2018 Plan or the Company's 2015 Equity Incentive Plan (the "2015 Plan" and, together with the 2018 Plan, the "Plans") that are, following the effectiveness of the 2018 Plan, forfeited, cancelled, satisfied without the issuance of stock, otherwise terminated (other than by exercise), or, for shares of stock issued pursuant to any unvested award, reacquired by the Company at not more than the grantee's purchase price (other than by exercise). Following the approval of the 2018 Plan at the Company's annual meeting of shareholders, the Company ceased granting new equity awards pursuant to the 2015 Plan.

The Company has a Non-Employee Director Annual Compensation Program (the "Program") under which each non-employee director receives an automatic grant of restricted stock awards ("RSAs") on the first business day of each fiscal quarter. Under the Program, the number of whole shares to be granted each quarter is equal to 25% of the number calculated by dividing the director

compensation amount by the fair market value of the Company's stock on such day. The director annual compensation amount was \$65,000 in fiscal year 2018 and is \$75,000 in fiscal year 2019. In addition, the Chairman of the Board receives RSAs with an aggregate value of \$6,000, and the Chairs of the Audit and Compensation Committees each receive RSAs with an aggregate value of \$4,000, also issued in quarterly installments and calculated in the same manner as the directors' RSA grants. RSAs granted prior to March 30, 2017 became fully vested on the first anniversary of the date of grant. RSAs granted subsequent to March 30, 2017 become vested three months after the date of grant. A total of 5,300 and 7,314 shares were awarded to the non-employee directors as compensation under the Program in the third quarter of fiscal 2019 and 2018, respectively.

In April 2013 (fiscal year 2014), the Company granted options and RSUs to officers ("2014 RSUs"). The 2014 RSUs vested as follows: twenty-five percent vested on the third anniversary of the grant date, fifty percent vested upon the Company achieving its cumulative budgeted net revenue target for fiscal years 2014 through 2016 (the "Measurement Period"), and twenty-five percent vested upon the Company achieving a target average annual ORONA (operating income return on net assets as calculated under the Domestic Management Bonus Plan) for the Measurement Period. The grantee may not sell, transfer or otherwise dispose of more than fifty percent of the common stock issued upon vesting of the 2014 RSUs until the first anniversary of the vesting date. In April 2016, 9,300 of the 2014 RSUs vested, as the Company achieved the targeted average annual ORONA, as defined in the plan, for the Measurement Period and another 9,300 vested as a result of the third year anniversary date of the grant. Additionally, on February 1, 2014, the Company accelerated the vesting of 4,166 of the 2014 RSUs held by Everett Pizzuti in connection with his retirement.

In March 2015 (fiscal year 2016), the Company granted 50,000 options and 537 RSAs to its Chief Executive Officer pursuant to an Equity Incentive Award Agreement dated as of November 24, 2014 ("CEO Equity Incentive Agreement"), and 35,000 options to other key employees.

In May 2015 (fiscal year 2016), the Company granted an aggregate of 80,000 time-based and 155,000 performance-based RSUs ("2016 RSUs") to certain officers of the Company. The time-based 2016 RSUs vest in four equal annual installments commencing on the first anniversary of the grant date. The performance-based 2016 RSUs vest over three years based upon the increase in revenue, if any, achieved each fiscal year relative to a three-year revenue increase goal. Performance-based 2016 RSUs that are earned based on organic revenue growth are fully vested when earned, while those earned based on revenue growth via acquisitions vest annually over a three-year period following the fiscal year in which the revenue growth occurs. Any performance-based 2016 RSUs that were not earned at the end of fiscal 2018 were forfeited. The expense for such shares was recognized in the fiscal year in which the results were achieved, however, the shares were not fully earned until approved by the Compensation Committee in the first quarter of the following fiscal year. Based upon revenue in fiscal 2018, 2017 and 2016, 33,638, 9,025 and 15,810 shares of the performance based RSUs were earned in the first quarter of fiscal 2019, 2018 and 2017, respectively.

In March 2016 (fiscal year 2017), the Company granted 50,000 options and 4,030 RSAs to its Chief Executive Officer pursuant to the CEO Equity Incentive Agreement.

In May 2016 (fiscal year 2017) the Company granted 37,000 options to certain key employees. On August 1, 2016 (fiscal year 2017) the Company granted 5,000 options to its Chief Financial Officer.

In March 2017 (fiscal year 2018), the Company granted 50,000 options to the Chief Executive Officer pursuant to the CEO Equity Incentive Agreement. In February and April 2017 the Company granted 52,189 options to certain other key employees. In December 2017, upon election to the Board, the Company granted 5,000 non-qualified options and 675 RSUs to a Board member. In January 2018, the Company granted 50,000 non-qualified options and 15,000 RSUs to the newly appointed Chief Financial Officer.

In April 2018 (fiscal year 2019), the Company granted 5,000 non-qualified options and 341 RSUs to a newly elected member of the Board of Directors.

In May 2018, the Company granted 40,000 options to certain key employees.

In June 2018, the Company granted an aggregate of 25,000 non-qualified options to the members of the Board of Directors. Also in June 2018, the Company granted an aggregate of 126,000 options, 44,275 time-based RSUs and 38,000 performance-based RSUs to certain officers of the Company, all of which vest over three years. The number of performance-based RSUs that are eligible to vest will be determined based upon achievement of fiscal 2019 revenue and operating income targets.

Share-based compensation expense was recognized as follows:

(In thousands)	Three Months Ended		Nine Months Ended	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Stock Options	\$ 215	\$ 105	\$ 571	\$ 316
Restricted Stock Awards and Restricted Stock Units	290	436	757	800
Employee Stock Purchase Plan	5	3	11	9
Total	<u>\$ 510</u>	<u>\$ 544</u>	<u>\$ 1,339</u>	<u>\$ 1,125</u>

Stock Options

The fair value of stock options granted during the nine months ended October 27, 2018 and October 28, 2017 was estimated using the following assumptions:

	Nine Months Ended	
	October 27, 2018	October 28, 2017
Risk Free Interest Rate	2.6%	1.7%
Expected Volatility	39.3%	37.9%
Expected Life (in years)	9.0	8.0
Dividend Yield	1.5%	2.2%

There were no options granted during the three month period ended October 27, 2018. The weighted average fair value per share for options granted was \$7.41 during the nine month period ended October 27, 2018, compared to \$4.46 during the nine month period ended October 28, 2017.

Aggregated information regarding stock options granted under the Plans for the nine months ended October 27, 2018, is summarized below:

	Number of Options	Weighted Average Exercise Price
Outstanding at January 31, 2018	745,270	\$ 12.52
Granted	196,000	18.21
Exercised	(144,875)	10.65
Forfeited	(11,250)	14.61
Canceled	(3,700)	8.95
Outstanding at October 27, 2018	<u>781,445</u>	<u>\$ 14.28</u>

Set forth below is a summary of options outstanding at October 27, 2018:

Outstanding				Exercisable		
Range of Exercise prices	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life	Number of Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Life
\$ 5.00-10.00	78,181	\$ 7.71	2.8	78,181	\$ 7.71	2.8
\$ 10.01-15.00	457,664	\$ 13.65	7.1	302,497	\$ 13.65	6.4
\$ 15.01-20.00	245,600	\$ 17.56	9.1	30,000	\$ 15.17	7.7
	<u>781,445</u>	<u>\$ 14.28</u>	<u>7.3</u>	<u>410,678</u>	<u>\$ 12.63</u>	<u>5.8</u>

As of October 27, 2018, there was approximately \$1.7 million of unrecognized compensation expense related to stock options which is expected to be recognized over a weighted average period of approximately 2.5 years.

Restricted Stock Units (RSUs) and Restricted Stock Awards (RSAs)

Aggregated information regarding RSUs and RSAs granted under the Plans for the nine months ended October 27, 2018 is summarized below:

	RSAs & RSUs	Weighted Average Grant Date Fair Value
Unvested at January 31, 2018	\$ 177,347	\$ 13.99
Granted	101,764	17.80
Vested	(52,371)	14.35
Forfeited	(82,672)	14.05
Unvested at October 27, 2018	<u>\$ 144,068</u>	<u>\$ 16.53</u>

As of October 27, 2018, there was approximately \$1.2 million of unrecognized compensation expense related to RSUs and RSAs which is expected to be recognized over a weighted average period of 1.2 years.

Employee Stock Purchase Plan

AstroNova has an Employee Stock Purchase Plan allowing eligible employees to purchase shares of common stock at a 15% discount from fair value on the first or last day of an offering period, whichever is less. A total of 247,500 shares were reserved for issuance under this plan. During the nine months ended October 27, 2018 and October 28, 2017, there were 3,912 and 4,657 shares, respectively, purchased under this plan. As of October 27, 2018, 35,294 shares remain available.

(9) Inventories

Inventories are stated at the lower of cost (first-in, first-out) and net realizable value and include material, labor and manufacturing overhead. The components of inventories are as follows:

(In thousands)	October 27, 2018	January 31, 2018
Materials and Supplies	\$ 15,557	\$ 13,715
Work-In-Process	1,790	1,404
Finished Goods	15,696	17,210
	33,043	32,329
Inventory Reserve	(4,713)	(4,720)
	<u>\$ 28,330</u>	<u>\$ 27,609</u>

(10) Income Taxes

The Company's effective tax rates for the period are as follows:

	Three Months Ended	Nine Months Ended
Fiscal 2019	22.3%	23.4%
Fiscal 2018	12.4%	17.9%

The Company determines its estimated annual effective tax rate at the end of each interim period based on full-year forecasted pre-tax income and facts known at that time. The estimated annual effective tax rate is applied to the year-to-date pre-tax income at the end of each interim period with the cumulative effect of any changes in the estimated annual effective tax rate being recorded in the fiscal quarter in which the change is determined. The tax effect of significant unusual items is reflected in the period in which they occur.

During the three months ended October 27, 2018, the Company recognized an income tax expense of approximately \$407,000. The effective tax rate in this period was directly impacted by a \$98,000 benefit arising from windfall tax benefits related to the Company's stock. During the three months ended October 28, 2017, the Company recognized an income tax expense of approximately \$201,000. The effective tax rate in this period was directly impacted by \$334,000 of prior period tax benefits.

recognized upon the completion of an R&D study, partially offset by tax increases due to the mix of forecasted pre-tax earnings to higher taxing jurisdictions .

During the nine months ended October 27, 2018, the Company recognized an income tax expense of approximately \$1,046,000. The effective tax rate in this period was directly impacted by a \$210,000 benefit arising from windfall tax benefits related to the Company's stock and a \$78,000 benefit related to the expiration of the statute of limitations on a previously uncertain tax position. During the nine months ended October 28, 2017, the Company recognized an income tax expense of approximately \$579,000. The effective tax rate in this period was impacted by \$334,000 of prior period tax benefits recognized upon the completion of an R&D study, partially offset by tax increases due to the mix of forecasted pre-tax earnings to higher taxing jurisdictions.

The Company maintains a valuation allowance on some of its deferred tax assets in certain jurisdictions. A valuation allowance is required when, based upon an assessment of various factors, including recent operating loss history, anticipated future earnings, and prudent and reasonable tax planning strategies, it is more likely than not that some portion of the deferred tax assets will not be realized.

Unrecognized tax benefits represent the difference between tax positions taken or expected to be taken in a tax return and the benefits recognized for financial reporting purposes. As of October 27, 2018, the Company's cumulative unrecognized tax benefits totaled \$626,000 compared to \$665,000 as of January 31, 2018. During the first quarter, the Company was notified by the IRS that the fiscal 2015 and 2017 income tax returns were selected for audit. No adjustments have been raised at this time. There were no other developments affecting unrecognized tax benefits during the quarter ended October 27, 2018.

On December 22, 2017, the President signed into law the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act significantly changes U.S. tax law by, among other things, lowering the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018. As a result of the Tax Act, we wrote down our net deferred tax assets as of January 31, 2018 by \$1.0 million to reflect the estimated impact of the Tax Act. Accordingly, we recorded a corresponding provisional net one-time non-cash charge of \$1.0 million, related to re-measurement of certain net deferred tax assets using the lower U.S. corporate income tax rate. We were capable of reasonably estimating the impact of the reduction to the U.S. Corporate tax rate on the deferred tax balances. However, the estimate may be affected by other aspects of the Tax Act.

The Tax Act taxes certain unrepatriated earnings and profits ("E&P") of our foreign subsidiaries (the "Transition Tax"). In order to determine the Transition Tax, we must determine, along with other information, the amount of our accumulated post-1986 E&P for our foreign subsidiaries, as well as the non-U.S. income tax paid by those subsidiaries on such E&P. We were capable of reasonably estimating the one-time deemed repatriation tax and recorded a provisional expense of \$0.1 million at January 31, 2018.

ASC 740, "Income Taxes," requires a company to record the effects of a tax law change in the period of enactment. ASU 2018-05 allows a company to record a provisional amount when it does not have the necessary information available, prepared, or analyzed in reasonable detail to complete its accounting for the changes in the Tax Reform Act. The measurement period ends when the company has obtained, prepared and analyzed the information necessary to finalize its accounting, but cannot extend beyond one year from the date of enactment of the Tax Reform Act.

During the nine months ended October 27, 2018, there were no changes made to the provisional amounts recognized in fiscal 2018. While we have substantially completed our provisional analysis of the income tax effects of the Tax Act and recorded a reasonable estimate of such effects, the net one-time charge related to the Tax Act may differ, possibly materially, due to, among other things, further refinement of our calculations, changes in interpretations and assumptions that we have made, additional guidance that may be issued by the U.S. Government, and actions and related accounting policy decisions we may take as a result of the Tax Act. We will complete our analysis over a one-year measurement period ending December 22, 2018, and any adjustments during this measurement period will be included in net earnings from continuing operations as an adjustment to income tax expense in the reporting period when such adjustments are determined.

The Tax Act also established a new law that affects fiscal 2019 and beyond, which includes, but is not limited to, (1) a reduction of the U.S. corporate income tax rate from 35% to 21%; (2) general elimination of U.S. federal income taxes on dividends from foreign subsidiaries; (3) a new limitation on the deduction of interest expense; (4) repeal of the domestic production activity deduction; (5) additional limitations on deduction of compensation for certain executives; (6) a new provision designed to tax global intangible low-taxed income ("GILTI") which allows for the possibility of utilizing foreign tax credits ("FTCs") and a deduction of up to 50% to offset the income tax liability (subject to certain limitations); (7) the introduction of the base erosion anti-abuse tax which represents a new minimum tax; (8) limitations on utilization of FTCs to reduce U.S. income tax liability; (9) a new provision designed to provide a preferential tax rate for income derived by domestic corporations from servicing foreign markets ("FDII") and (10) limitations on net operating losses ("NOLs") generated after December 31, 2017 to 80% of taxable income.

(11) Credit Agreement

On February 28, 2017, the Company and its wholly owned Danish subsidiaries, ANI ApS and TrojanLabel ApS (together, the “Parties”), entered into a Credit Agreement with Bank of America, N.A. (the “Lender”). The Credit Agreement provided for a term loan to ANI ApS in the principal amount of \$9.2 million. The Credit Agreement also provided for a \$10.0 million revolving credit facility available to the Company for general corporate purposes.

In connection with the Honeywell Purchase and License Agreement, on September 28, 2017, the Parties entered into a First Amendment to the Credit Agreement with the Lender. The First Amendment amended the existing Credit Agreement to permit the Honeywell Asset Purchase and License Agreement and temporarily increased the amount available for borrowing under the revolving credit facility from \$10.0 million to \$15.0 million. The initial upfront payment of \$14.6 million for the Honeywell Agreement was paid using borrowings under the Company’s revolving credit facility.

On November 30, 2017, the Parties entered into a Second Amendment to the Credit Agreement with the Lender. The Second Amendment provided for a term loan to the Company in the principal amount of \$15.0 million, in addition to the revolving credit facility for the Company and the term loan previously borrowed by ANI ApS at the original closing under the Credit Agreement. The proceeds from the term loan were used to repay the entire \$14.6 million principal balance of the revolving loans outstanding under the revolving credit facility. The principal amount of the revolving credit facility which had been temporarily increased to \$15.0 million was reduced to \$10.0 million effective upon the closing of the Second Amendment and the maturity date for the revolving credit facility was extended to November 30, 2022.

On April 17, 2018, the Parties entered into a Third Amendment to the Credit Agreement with the Lender. The Third Amendment provides that no “Immaterial Subsidiary” will be required to become a guarantor or securing party under (unless requested by the Lender during default) or have its equity pledged pursuant to the Credit Agreement. The Third Amendment defines “Immaterial Subsidiary” as any subsidiary of the Company with (a) consolidated total assets that do not exceed 5.0% of the consolidated total assets of the Company and its subsidiaries and (b) revenues that do not exceed 5.0% of the consolidated revenues of the Company and its subsidiaries, as of the last day of the most recent fiscal quarter; provided that Immaterial Subsidiaries shall not account for, in the aggregate, more than 10% the of consolidated total assets or consolidated revenues of the Company and its subsidiaries.

In connection with the Credit Agreement, AstroNova and ANI ApS entered into certain hedging arrangements with the Lender to manage the variable interest rate risk and currency risk associated with its payments in respect of the term loans. Refer to Note 13, “Derivative Financial Instruments and Risk Management” for further information about these arrangements.

Revolving credit loans may be borrowed, at the Company’s option, in U.S. Dollars or, subject to certain conditions, Euros, British Pounds, Canadian Dollars or Danish Krone. Amounts borrowed under the revolving credit facility bear interest at a rate *per annum* equal to, at the Company’s option, either (a) the LIBOR rate (or in the case of revolving credit loans denominated in a currency other than U.S. Dollars, the applicable quoted rate), plus a margin that varies within a range of 1.0% to 1.5% based on the Company’s consolidated leverage ratio, or (b) a fluctuating reference rate equal to the highest of (i) the federal funds’ rate plus 0.50%, (ii) Bank of America’s publicly announced prime rate or (iii) the LIBOR rate plus 1.00%, plus a margin that varies within a range of 0.0% to 0.5% based on the Company’s consolidated leverage ratio. The Company is required to pay a commitment fee on the undrawn portion of the revolving credit facility at the rate of 0.25% *per annum* .

The Parties must comply with various customary financial and non-financial covenants under the Credit Agreement. The financial covenants consist of a maximum consolidated leverage ratio and a minimum consolidated fixed charge coverage ratio. The Credit Agreement contains limitations, in each case subject to various exceptions and thresholds, on the Company’s and its subsidiaries’ ability to incur future indebtedness, to place liens on assets, to conduct mergers or acquisitions, to sell assets, to alter their capital structure, to make investments and loans, to change the nature of their business, and to prepay subordinated indebtedness. The Credit Agreement permits the Company to pay cash dividends on and repurchase shares of its common stock, subject to certain limitations. The Company believes it is in compliance with all of the covenants in the Credit Agreement as of October 27, 2018.

The Lender is entitled to accelerate repayment of the loans and to terminate its revolving credit commitment under the Credit Agreement upon the occurrence of any of various customary events of default, which include, among other events, the following: failure to pay when due any principal, interest or other amounts in respect of the loans, breach of any of the Company’s covenants or representations under the loan documents, default under any other of the Company’s or its subsidiaries’ significant indebtedness agreements, a bankruptcy, insolvency or similar event with respect to the Company or any of its subsidiaries, a significant unsatisfied judgment against the Company or any of its subsidiaries, or a change of control of the Company.

The obligations of ANI ApS in respect of the \$9.2 million term loan are guaranteed by the Company and TrojanLabel. The Company’s obligations in respect of the \$15.0 million term loan, revolving credit facility and its guarantee in respect of the ANI ApS

term loan are secured by substantially all of the assets of the Company (including a pledge of a portion of the equity interests held by the Company in ANI ApS and the Company's wholly-owned German subsidiary Astro-Med GmbH), subject to certain exceptions.

In the second quarter of the current year, \$3.0 million was drawn on the revolving credit facility, of which \$1.5 million was repaid and \$1.5 million remains outstanding as of October 27, 2018. The outstanding balance bears interest at a weighted average annual rate of 5.5% and \$38,000 of interest has been accrued on this obligation and included in other expense in the accompanying condensed consolidated income statement for the three and nine months ended October 27, 2018. As of October 27, 2018, there is \$8.5 million available for borrowing under the revolving credit facility.

(12) Debt

Long-term debt in the accompanying condensed consolidated balance sheets is as follows:

(In thousands)	October 27, 2018	January 31, 2018
USD Term Loan with a rate equal to LIBOR plus a margin of 1.0% to 1.5%, (3.74% as of October 27, 2018 and 2.85% as of January 31, 2018), and maturity date of November 30, 2022	\$ 12,000	\$ 15,000
USD Term Loan with a rate equal to LIBOR plus a margin of 1.0% to 1.5%, (3.74% as of October 27, 2018 and 3.06% as of January 31, 2018), and maturity date of January 31, 2022	7,360	8,372
	<u>19,360</u>	<u>23,372</u>
Debt Issuance Costs, net of accumulated amortization	(176)	(226)
Current Portion of Term Loan	<u>(5,116)</u>	<u>(5,498)</u>
Long-Term Debt	<u>\$ 14,068</u>	<u>\$ 17,648</u>

The schedule of required principal payments remaining during the next five years on long-term debt outstanding as of October 27, 2018 is as follows:

(In thousands)	
Fiscal 2019 (remaining)	\$ 1,486
Fiscal 2020	4,840
Fiscal 2021	5,208
Fiscal 2022	5,576
Fiscal 2023	<u>2,250</u>
	<u>\$ 19,360</u>

(13) Derivative Financial Instruments and Risk Management

The Company has entered into a cross-currency interest rate swap to manage the interest rate risk and foreign currency exchange risk associated with the floating-rate foreign currency-denominated term loan borrowing by our Danish Subsidiary and an interest rate swap to manage the interest rate risk associated with the variable rate \$15.0 million term loan borrowing by the Company. In accordance with the guidance in ASC 815 "Derivatives and Hedging," both swaps have been designated as cash flow hedges of floating-rate borrowings.

The cross-currency interest rate swap agreement utilized by the Company effectively modifies the Company's exposure to interest rate risk and foreign currency exchange rate risk by converting approximately \$8.9 million of the Company's floating-rate debt denominated in U.S. Dollars on our Danish subsidiary's books to a fixed-rate debt denominated in Danish Krone for the term of the loan, thus reducing the impact of interest-rate and foreign currency exchange rate changes on future interest expense and principal repayments. This swap involves the receipt of floating rate amounts in U.S. Dollars in exchange for fixed-rate interest payments in Danish Krone, as well as exchanges of principal at the inception spot rate, over the life of the term loan. As of October 27, 2018, the total notional amount of the Company's cross-currency interest rate swap was \$6.7 million and is included in other long term liabilities in the Company's condensed consolidated balance sheet at its fair value amount of \$0.5 million.

The interest rate swap agreement utilized by the Company on the \$15.0 million term loan effectively modifies the Company's exposure to interest rate risk by converting the Company's floating-rate debt to fixed-rate debt over the life of the loan, thus reducing the impact of interest-rate changes on future interest expense. This swap involves the receipt of floating rate amounts in U.S. Dollars in exchange for fixed rate payments in U.S. dollars over the life of the term loan. As of October 27, 2018, the total notional amount of

the Company's interest rate swap was \$12.0 milli on and is included in other assets in the Company's condensed consolidated balance at its fair value amount of \$0.2 million.

The following tables present the impact of the derivative instruments in our condensed consolidated financial statements for the three and nine months ended October 27, 2018 and October 28, 2017:

Cash Flow Hedge (In thousands)	Three Months Ended				
	Amount of Gain (Loss) Recognized in OCI on Derivative		Location of Gain (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain (Loss) Reclassified from Accumulated OCI into Income	
	October 27, 2018	October 28, 2017		October 27, 2018	October 28, 2017
Swap contracts	\$ 283	\$ 137	Other Income (Expense)	\$ 192	\$ 134

Cash Flow Hedge (In thousands)	Nine Months Ended				
	Amount of Gain (Loss) Recognized in OCI on Derivative		Location of Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain (Loss) Reclassified from Accumulated OCI into Income	
	October 27, 2018	October 28, 2017		October 27, 2018	October 28, 2017
Swap contracts	\$ 981	\$ (898)	Other Income (Expense)	\$ 775	\$ (819)

At October 27, 2018, the Company expects to reclassify approximately \$0.3 million of net gains on the swap contracts from accumulated other comprehensive income (loss) to earnings during the next 12 months due to changes in foreign exchange rates and the payment of variable interest associated with the floating-rate debt.

(14) Accumulated Other Comprehensive Loss

The changes in the balance of accumulated other comprehensive loss by component are as follows:

(In thousands)	Foreign Currency Translation Adjustments	Unrealized Holding Gain/(Loss) on Available for Sale Securities	Net Unrealized Gain/(Loss) on Cash Flow Hedges	Total
Balance at January 31, 2018	\$ (181)	\$ (3)	\$ 12	\$ (172)
Other Comprehensive Income (Loss) before reclassification	(775)	—	766	(9)
Amounts reclassified from AOCI to Earnings	—	3	(605)	(602)
Other Comprehensive Income (Loss)	(775)	3	161	(611)
Balance at October 27, 2018	\$ (956)	\$ —	\$ 173	\$ (783)

The amounts presented above in other comprehensive loss are net of taxes except for translation adjustments associated with our German and Danish subsidiaries.

(15) Segment Information

AstroNova reports two segments: Product Identification and Test & Measurement (T&M). The Company evaluates segment performance based on the segment profit before corporate expenses.

Summarized below are the Revenue and Segment Operating Profit for each reporting segment:

(In thousands)	Three Months Ended				Nine Months Ended			
	Revenue		Segment Operating Profit		Revenue		Segment Operating Profit	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Product Identification	\$ 21,684	\$ 20,458	\$ 2,014	\$ 2,657	\$ 63,407	\$ 59,945	\$ 5,833	\$ 7,761
T&M	12,512	8,302	3,184	1,572	36,083	20,756	8,256	2,300
Total	<u>\$ 34,196</u>	<u>\$ 28,760</u>	<u>5,198</u>	<u>4,229</u>	<u>\$ 99,490</u>	<u>\$ 80,701</u>	<u>14,089</u>	<u>10,061</u>
Corporate Expenses			2,836	2,597			8,298	6,780
Operating Income			2,362	1,632			5,791	3,281
Other Income (Expense), Net			(538)	(12)			(1,320)	(45)
Income Before Income Taxes			1,824	1,620			4,471	3,236
Income Tax Provision			407	201			1,046	579
Net Income			<u>\$ 1,417</u>	<u>\$ 1,419</u>			<u>\$ 3,425</u>	<u>\$ 2,657</u>

(16) Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

Share-Based Compensation

In June 2018, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2018-07 “Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting.” ASU 2018-07 reduces the cost and complexity and improves financial reporting by expanding the scope of Topic 718 to include share-based payment transactions to nonemployees. ASU 2018-07 is effective for public companies for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years with early adoption permitted. The Company adopted the provisions of this guidance effective beginning in the second quarter of the current year. The adoption of this guidance did not have a material impact on the Company’s consolidated financial statements.

Income Taxes

In March 2018, the FASB issued ASU 2018-05—“Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118.” ASU 2018-05 provides guidance for companies related to the U.S. government-enacted comprehensive tax legislation commonly referred to as the Tax Act. ASU 2018-05 allows for a measurement period of up to one year after the enactment date of the Tax Act to finalize the recording of the related tax impacts. This ASU is effective immediately as new information is available to adjust provisional amounts that were previously recorded. The Company adopted this standard in the first quarter of fiscal 2019 and expects the accounting for the tax effects of the Tax Act to be completed during the measurement period.

Comprehensive Income

In February 2018, the FASB issued ASU 2018-02, “Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.” ASU 2018-02 amends ASU Topic 220 and allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act, to eliminate the stranded tax effects resulting from the Tax Act. This ASU is effective for fiscal years beginning after December 15, 2018 with early adoption permitted. The amendments in this update should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recognized. The Company early adopted this amendment in the second quarter of fiscal 2019 and reclassified \$14,000 from accumulated other comprehensive income to retained earnings.

Revenue Recognition

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers (Topic 606).” ASU 2014-09 completes the joint effort by the FASB and International Accounting Standards Board to improve financial reporting by creating common revenue recognition guidance for U.S. GAAP and International Financial Reporting Standards. ASU 2014-09 applies to all companies that enter into contracts with customers to transfer goods or services. Under this guidance, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The Company adopted this guidance effective February 1, 2018 using the modified retrospective method. The adoption of this guidance did not have a material impact on the Company’s consolidated financial statements. Refer to Note 4, “Revenue Recognition” for further details.

Derivatives and Hedging

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities.” The objective of this new guidance is to improve the financial reporting of hedging relationships by, among other things, eliminating the requirement to separately measure and record hedge ineffectiveness. ASU 2017-12 is effective for public companies for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years with early adoption permitted. We adopted the provisions of this guidance effective for the first quarter of fiscal 2019. The adoption of this guidance did not have a material impact on the Company’s consolidated financial statements.

Share-Based Compensation

In May 2017, the FASB issued ASU 2017-09 “Stock Compensation: Scope of Modification Accounting.” ASU 2017-09 provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC 718. The Company adopted this guidance effective February 1, 2018. The adoption of this guidance did not have a material impact on its consolidated financial statements.

Statement of Cash Flows

In August 2016, the FASB issued ASU 2016-15, “Classification of Certain Cash Receipts and Cash Payments (Topic 230).” ASU 2016-15 addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice for certain cash receipts and cash payments. The Company adopted this guidance effective February 1, 2018. The adoption of this guidance did not have a material impact on the Company’s consolidated financial statements.

Recent Accounting Standards Not Yet Adopted

Internal-Use Software

In August 2018, the FASB issued ASU 2018-15, “Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.” ASU 2018-15 reduces complexity for the accounting for costs of implementing a cloud computing service arrangement and aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). This ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019 (Q1 fiscal 2021 for AstroNova), with early adoption permitted. Implementation should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. The Company is currently evaluating the impact this new guidance will have on its consolidated financial statements.

Fair Value Measurement

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.” ASU 2018-13 modifies the disclosure requirements for fair value measurements by removing, modifying or adding certain disclosures. This ASU is effective for annual periods beginning after December 15, 2019 including interim periods within those fiscal years (Q1 fiscal 2021 for AstroNova), with early adoption permitted. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. The Company is currently evaluating the impact this new guidance will have on its consolidated financial statements and related disclosures.

Leases

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842).” ASU 2016-02 supersedes current guidance related to accounting for leases and is intended to increase transparency and comparability among organizations by requiring lessees to recognize assets and liabilities in the balance sheet for operating leases with lease terms greater than twelve months. The update also requires improved disclosures to help users of financial statements better understand the amount, timing and uncertainty of cash flows arising from leases. In July 2018, the FASB issued ASU 2018-11, “Leases (Topic 842) Targeted Improvements,” which amends ASU 2016-02 to provide an additional (and optional) transition method to adopt the new lease standard. These ASUs will be effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years (Q1 fiscal 2020 for AstroNova), with early adoption permitted. The Company is currently evaluating the effect of this new guidance and expects this guidance to result in recognizing leased assets and lease liabilities on our consolidated balance sheets.

No other new accounting pronouncements, issued or effective during the first nine months of the current year, have had or are expected to have a material impact on our consolidated financial statements.

(17) Fair Value

Assets and Liabilities Recorded at Fair Value on a Recurring Basis

Fair value is applied to our financial assets and liabilities including money market funds, available for sale securities, derivative instruments and a contingent consideration liability relating to an earnout payment on future TrojanLabel operating results.

The following tables provide a summary of the financial assets and liabilities that are measured at fair value as of October 27, 2018 and January 31, 2018:

<i>Assets measured at fair value:</i> (in thousands)	Fair value measurement at October 27, 2018				Fair value measurement at January 31, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Money Market Funds (included in Cash and Cash Equivalents)	\$ —	\$ —	\$ —	\$ —	\$ 1,798	\$ —	\$ —	\$ 1,798
State and Municipal Obligations (included in Securities Available for Sale)	—	—	—	—	—	1,511	—	1,511
Swap Contracts (included in Other Assets)	—	220	—	220	—	101	—	101
Total assets	\$ —	\$ 220	\$ —	\$ 220	\$ 1,798	\$ 1,612	\$ —	\$ 3,410

<i>Liabilities measured at fair value:</i> (in thousands)	Fair value measurement at October 27, 2018				Fair value measurement at January 31, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Swap Contracts (included in Other Liabilities)	\$ —	\$ 549	\$ —	\$ 549	\$ —	\$ 1,513	\$ —	\$ 1,513
Earnout liability (included in Other Liabilities)	—	—	15	15	—	—	15	15
Total liabilities	\$ —	\$ 549	\$ 15	\$ 564	\$ —	\$ 1,513	\$ 15	\$ 1,528

For our money market funds and municipal obligations, we utilize the market approach to measure fair value. The market approach is based on using quoted prices for identical or similar assets.

We also use the market approach to measure fair value of our derivative instruments. Derivative instruments were measured at fair value using readily observable market inputs, such as quotations on interest rates and foreign exchange rates, and is classified as Level 2 because they are an over-the-counter contract with a bank counterparty that is not traded in an active market.

The fair value of the earnout liability incurred in connection with the Company’s acquisition of TrojanLabel was determined using the option approach methodology which includes using significant inputs that are not observable in the market and therefore classified as Level 3. Key assumptions in estimating the fair value of the contingent consideration liability included (1) the estimated earnout targets over the next seven years of \$0.5 million-\$1.4 million, (2) the probability of success (achievement of the various contingent events) from 0.0%-0.9% and (3) a risk-adjusted discount rate of approximately 2.68%-4.9% used to adjust the probability-weighted earnout payments to their present value. At each reporting period, the contingent consideration liability is recorded at its fair value with changes reflected in general and administrative expense in the condensed consolidated statements of operations. There was no change in the fair value of the earnout liability for the nine months ended October 27, 2018.

Assets and Liabilities Not Recorded at Fair Value

As of October 27, 2018 and January 31, 2018, the Company's long-term debt, including the current portion of long-term debt not reflected in the financial statements at fair value, is reflected in the table below:

<u>(In thousands)</u>	<u>Fair Value Measurement at</u> <u>October 27, 2018</u>				<u>Carrying</u> <u>Value</u>
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>	
Long-Term Debt and related Current Maturities	\$ —	\$ —	\$ 19,961	\$ 19,961	\$ 19,360

<u>(In thousands)</u>	<u>Fair Value Measurement at</u> <u>January 31, 2018</u>				<u>Carrying</u> <u>Value</u>
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>	
Long-Term Debt and related Current Maturities	\$ —	\$ —	\$ 24,873	\$ 24,873	\$ 23,372

The fair value of the Company's long-term debt, including the current portion, is estimated by discounting the future cash flows using current interest rates at which similar borrowings with the same maturities would be made to borrowers with similar credit ratings and is classified as Level 3.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Business Overview

This section should be read in conjunction with the AstroNova condensed consolidated financial statements included elsewhere herein and our Annual Report on Form 10-K for the fiscal year ended January 31, 2018.

AstroNova is a multi-national enterprise that leverages its proprietary data visualization technologies to design, develop, manufacture, distribute and service a broad range of products that acquire, store, analyze and present data in multiple formats. The Company organizes its structure around a core set of competencies, including research and development, manufacturing, service, marketing and distribution. It markets and sells its products and services through the following two segments:

- **Product Identification**—offers product identification and digital label printer hardware, software, servicing contracts, parts and supplies. Supplies includes the media (substrate) and ink, toner, and thermal transfer ribbon used with the Company's printers and the various parts used to maintain the printers.
- **Test and Measurement (T&M)**—offers a suite of products and services that acquire data from local and networked data streams and sensors as well as wired and wireless networks. The recorded data is processed and analyzed and then stored and presented in various visual output formats. The T&M segment also includes a line of aerospace printers that are used to print hard copies of data required for the safe and efficient operation of aircraft, including navigation maps, arrival and departure procedures, flight itineraries, weather maps, performance data, passenger data, and various air traffic control data. Aerospace products also include Ethernet switches which are used in military aircraft and vehicles to connect multiple computers or Ethernet devices.

The Company markets and sells its products and services globally through a diverse distribution structure of direct sales personnel, manufacturers' representatives and authorized dealers that deliver a full complement of branded products and services to customers in our respective markets.

On September 28, 2017, AstroNova entered into an Asset Purchase and License Agreement with Honeywell International, Inc. (the "Honeywell Agreement") pursuant to which it acquired the exclusive perpetual world-wide license to manufacture Honeywell's narrow format flight deck printers for the Boeing 737 and Airbus 320 aircraft. Revenue from the sales of these printers is reported as part of our Test & Measurement segment beginning in the third quarter of fiscal year 2018. Refer to Note 5, "Acquisitions," in the condensed consolidated financial statements included elsewhere in this report.

Results of Operations

Three Months Ended October 27, 2018 vs. Three Months Ended October 28, 2017

Revenue by segment and current quarter percentage change over prior year for the three months ended October 27, 2018 and October 28, 2017 were:

(Dollars in thousands)	October 27, 2018	As a % of Revenue	October 28, 2017	As a % of Revenue	% Change Over Prior Year
Product Identification	\$ 21,684	63.4%	\$ 20,458	71.1%	6.0%
T&M	12,512	36.6%	8,302	28.9%	50.7%
Total	\$ 34,196	100.0%	\$ 28,760	100.0%	18.9%

Revenue for the third quarter of the current year was \$34.2 million, representing an 18.9% increase compared to the previous year third quarter revenue of \$28.8 million. Revenue through domestic channels for the current year third quarter was \$21.5 million, an increase of 18.9% over the prior year's third quarter. International revenue for the third quarter of the current year was \$12.7 million, also an 18.9% increase over the previous year's third quarter and represents 37% of AstroNova's third quarter revenue. Current year third quarter international revenue includes an unfavorable foreign exchange rate impact of \$0.2 million.

Hardware revenue in the current quarter was \$13.1 million, a 39.4% increase compared to the prior year's third quarter revenue of \$9.4 million. The increase was primarily due to Test & Measurement hardware sales of aerospace printers related to the Honeywell Agreement entered into at the end of the third quarter of the prior year.

Supplies revenue in the current quarter was \$18.1 million, a 9.0% increase over the prior year's third quarter supplies revenue of \$16.6 million. The current quarter increase compared to the third quarter of the prior year is primarily attributable to increased demand for label and tag products within the Product Identification segment, and to a lesser degree, increased demand for supplies in the Test & Measurement segment from a larger installed customer base as a result of the Honeywell Agreement.

Service and other revenues of \$3.0 million in the current quarter increased 7.1% from prior year third quarter service and other revenues of \$2.8 million, primarily due to an increase in customer demand for repair services in the Test & Measurement segment during the third quarter of the current year due to a larger installed customer base as a result of the Honeywell Agreement.

Current year third quarter gross profit was \$13.9 million, a 17.9% increase compared to prior year third quarter gross profit of \$11.8 million. The Company's current quarter gross profit margin of 40.7% reflects a 0.3 percentage point decrease from the prior year third quarter gross profit margin of 41.0%. The lower gross profit margin for the current quarter compared to the prior year is primarily attributable to increased period costs and unfavorable product mix.

Operating expenses for the current quarter were \$11.5 million, a 13.6% increase compared to prior year third quarter operating expenses of \$10.2 million. Specifically, selling and marketing expenses for the current quarter increased to \$6.6 million compared to \$5.5 million in the third quarter of the prior year due primarily to the amortization of the Company's identifiable intangibles purchased in connection with the Honeywell Agreement, as well as an increase in employee bonuses. G&A expenses increased in the third quarter to \$2.8 million compared to \$2.6 million in the prior year third quarter. The increase is primarily due to an increase in employee benefits, slightly offset by a decrease in professional fees in the third quarter of the current year. R&D expenses were \$2.1 million in the current quarter, compared to \$2.0 million in the prior year third quarter with the increase attributable primarily to increased employee benefits. The R&D spending as a percentage of revenue for the current quarter is 6.2% compared to 7.1% for the same period of the prior year.

Other expense in the third quarter of fiscal 2019 was \$0.5 million compared to \$12 thousand in the prior year third quarter. Current quarter other expense includes interest expense on debt of \$0.2 million and foreign exchange loss of \$0.3 million. Other income for the third quarter of fiscal 2018 includes \$0.1 million of interest expense on debt and \$0.2 million of foreign exchange loss, offset by \$0.3 million of investment income and income received from the settlement of a legal matter related to patent infringement.

The provision for federal, state and foreign income taxes for the third quarter of the current year was \$0.4 million, which includes a \$0.1 million benefit related to windfall tax benefits related to the Company's stock and reflects an effective tax rate of 22.3%. This compares to the prior year's third quarter tax provision on income of \$0.2 million which was impacted by \$0.3 million of prior period tax benefits recognized upon the completion of an R&D study, partially offset by tax increases from the mix of forecasted pre-tax earnings to higher taxing jurisdictions and reflected an effective tax rate of 12.4%.

The Company reported net income of \$1.4 million or \$0.20 per diluted share for the third quarter of the current year, consistent with net income for the prior year third quarter of \$1.4 million or \$0.21 per diluted share. Net income was 4.1% of revenue for the third quarter of fiscal 2019 compared to 4.9% for the third quarter of fiscal 2018.

Nine Months Ended October 27, 2018 vs. Nine Months Ended October 28, 2017

Revenue by product group and current quarter percentage change over prior year for the nine months ended October 27, 2018 and October 28, 2017 were:

(Dollars in thousands)	October 27, 2018	As a % of Revenue	October 28, 2017	As a % of Revenue	% Change Over Prior Year
Product Identification	\$ 63,407	63.7%	\$ 59,945	74.3%	5.8%
T&M	36,083	36.3%	20,756	25.7%	73.8%
Total	\$ 99,490	100.0%	\$ 80,701	100.0%	23.3%

Revenue for the first nine months of the current year was \$99.5 million, representing a 23.3% increase compared to the previous year's first nine months of revenue of \$80.7 million. Revenue through domestic channels for the first nine months of the current year was \$60.8 million, an increase of 19.2% from the prior year. International revenue for the first nine months of the current year was \$38.7 million, a 30.3% increase from the previous year. The current year's first nine months international revenue included a favorable foreign exchange rate impact of \$0.9 million.

Hardware revenue in the first nine months of the current year was \$38.0 million, a 50.2% increase compared to the prior year's first nine months of revenue of \$25.3 million primarily due to the increase in Test & Measurement hardware sales of aerospace printers related to the Honeywell Agreement entered into at the end of the third quarter of the prior year. Also contributing to the increase in hardware sales for the current year was growth in sales of both ink jet and Trojan Label printers.

Supplies revenue in the first nine months of the current year was \$52.7 million, representing a 10.4% increase over the prior year's first nine months revenue of \$47.7 million. The current year increase in supplies revenue is related primarily to increases in digital color printer supplies product revenue, and label and tag revenue in the Product Identification segment.

Service and other revenues were \$8.8 million in the first nine months of the current year, a 14.7% increase compared to the prior year's first nine months service and other revenues of \$7.7 million, primarily due to an increase in demand for parts and repair services in the Test & Measurement segment related to the Honeywell Agreement entered into at the end of the third quarter of the prior year.

Gross profit for the first nine months of the current year was \$39.4 million, a 25.7% increase from prior year's first nine months gross profit of \$31.4 million. The Company's current year gross profit margin of 39.6% reflects an increase from the prior year's first nine months gross profit margin of 38.9%. The higher gross profit and related margin for the current year compared to the prior year is primarily due to higher sales and favorable product mix.

Operating expenses for the first nine months of the fiscal year were \$33.6 million, a 19.8% increase compared to prior year's first nine months operating expenses of \$28.1 million. Selling and marketing expenses for the current year of \$19.5 million increased 22.1% compared to the previous year's first nine months due primarily to the amortization of the Company's identifiable intangibles purchased in connection with the Honeywell Agreement, as well as increases in employee compensation. G&A expenses increased to \$8.3 million in the first nine months of the current year compared to prior year's first nine months G&A expenses of \$6.8 million, primarily due to an increase in employee compensation. R&D spending in the first nine months of the current year was \$5.8 million, a 9.4% increase compared to prior year's first nine months spending of \$5.3 million. Current year spending on R&D represents 5.8% of revenue compared to the prior year's first nine months level of 6.6%.

Other expense during the first nine months of the current year was \$1.3 million compared to \$45 thousand in the first nine months of the previous year. Current year other expense includes interest expense on debt of \$0.6 million and foreign exchange loss of \$0.8 million, partially offset by investment and other income of \$0.1 million. Other expense for fiscal 2018 included interest expense on debt of \$0.2 million and foreign exchange loss of \$0.2 million, partially offset by \$0.3 million of investment and other income received from the settlement of a legal matter related to patent infringement.

The Company recognized \$1.0 million of income tax expense for the first nine months of the current fiscal year. The 23.4% effective tax rate in this period was directly impacted by a \$0.2 million tax benefit arising from windfall tax benefits related to the Company's stock and a \$0.1 million tax benefit related to the expiration of the statute of limitations on a previously uncertain tax position. The prior year's first nine months income tax expense was \$0.6 million. The 17.9% effective tax rate for the nine months ended October 28, 2017 was impacted by \$0.3 million of prior period tax benefits recognized upon the completion of an R&D study, partially offset by tax increases from the mix of forecasted pre-tax earnings to higher taxing jurisdictions.

The Company reported net income of \$3.4 million, or \$0.49 per diluted share, for the first nine months of the current year, which included \$0.8 million of after-tax income, or \$0.12 per diluted share, as a result of a change in accounting estimates in the first quarter for product cost and operating expenses related to a transition services agreement entered into with Honeywell in connection with the Honeywell Agreement. In addition, during the first quarter of fiscal 2019, a change in accounting estimate for revenue subject to customer rebates under the Honeywell Agreement increased net income by \$0.3 million or \$0.05 per diluted share. In the prior year's first nine months, the Company recognized net income of \$2.7 million, or \$0.38 per diluted share. Net income was 3.4% of revenue for the first nine months of fiscal 2019 compared to 3.3% for the first nine months of fiscal 2018.

Segment Analysis

The Company reports two segments: Product Identification and Test & Measurement (T&M) and evaluates segment performance based on the segment profit before corporate and financial administration expenses. Summarized below are the Revenue and Segment Operating Profit for each reporting segment:

(In thousands)	Three Months Ended				Nine Months Ended			
	Revenue		Segment Operating Profit		Revenue		Segment Operating Profit	
	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017	October 27, 2018	October 28, 2017
Product Identification	\$ 21,684	\$ 20,458	\$ 2,014	\$ 2,657	\$ 63,407	\$ 59,945	\$ 5,833	\$ 7,761
T&M	12,512	8,302	3,184	1,572	36,083	20,756	8,256	2,300
Total	\$ 34,196	\$ 28,760	5,198	4,229	\$ 99,490	\$ 80,701	14,089	10,061
Corporate Expenses			2,836	2,597			8,298	6,780
Operating Income			2,362	1,632			5,791	3,281
Other Income (Expense), Net			(538)	(12)			(1,320)	(45)
Income Before Income Taxes			1,824	1,620			4,471	3,236
Income Tax Provision			407	201			1,046	579
Net Income			\$ 1,417	\$ 1,419			\$ 3,425	\$ 2,657

Product Identification

Revenue from the Product Identification segment increased 6.0% in the third quarter of the current year, with revenue of \$21.7 million compared to \$20.5 million in the same period of the prior year. Hardware revenue increased 14.4% compared to prior year primarily due to an increase in demand for the new TrojanLabel printer products. The current year third quarter also received a solid contribution from the supplies product line revenue, which increased 5.6% from the same period in the prior year. The current quarter increase in supplies revenue is due to the continued increase in demand for label and tag supplies, which have increased 9.7% in the current year third quarter compared to the same period in the prior year. Product Identification current quarter segment operating profit was \$2.0 million, reflecting a profit margin of 9.3%. This compares to the prior year's third quarter segment profit of \$2.7 million and related profit margin of 13.0%. The decline in Product Identification current year third quarter segment operating profit and margin is primarily due to product mix and higher manufacturing and operating expenses.

Revenues from the Product Identification segment increased 5.8% to \$63.4 million in the first nine months of the current year from \$59.9 million in the same period of the prior year, attributable to an increase in supplies revenue of 5.9% due to increased demand for digital color printer supplies products, as well as label and tag products. The increase in current year revenue was also due to a contribution from increased sales of TrojanLabel printers, which experienced double-digit growth rates in the current year. Product Identification current year segment operating profit of \$5.8 million and profit margin of 9.2% declined from the prior year segment operating profit of \$7.8 million and related profit margin of 12.9%. The decrease in current year segment operating profit and margin is primarily due to product mix and higher manufacturing and operating expenses.

Test & Measurement—T&M

Revenue from the T&M segment was \$12.5 million for the third quarter of the current fiscal year, representing a 50.7% increase compared to revenue of \$8.3 million for the same period in the prior year. The increase is due primarily to the increase in revenue from aerospace printer hardware and supplies as a result of the Honeywell Agreement entered into at the end of the third quarter of the prior year as well as a contribution from increased sales of data acquisition products for the current year. T&M third quarter segment operating profit was \$3.2 million, reflecting a profit margin of 25.4%, compared to the prior year segment operating profit of \$1.6 million and related operating margin of 18.9%. The increase in segment operating profit and related margin were due to higher sales revenue and favorable product mix.

Revenue from the T&M segment was \$36.1 million for the first nine months of the current fiscal year, a 73.8% increase compared to sales of \$20.8 million for the same period in the prior year. The increase is due primarily to the increase in revenue from aerospace printer hardware and supplies as a result of the Honeywell Agreement entered into at the end of the third quarter of the prior year as well as a contribution from increased sales of data acquisition products for the current year. The segment's first nine months operating profit of \$8.3 million resulted in a 22.9% profit margin compared to prior year segment operating profit of \$2.3 million and related operating margin of 11.1%. The higher segment operating profit and related profit margin for the current year is due to higher revenue and product mix.

Financial Condition and Liquidity

Overview

Generally, our primary source of liquidity is cash generated from operating activities. We may also utilize amounts available under our revolving credit facility, as described below, to supplement operating activities and to fund a portion of our capital expenditures, contractual contingent consideration obligations, and future acquisitions. We believe that our current level of cash and short-term financing capabilities along with future cash flows from operations will be sufficient to meet our operating and capital needs for at least the next 12 months.

During the first quarter of fiscal 2019, we converted our securities available for sale to cash. In the second quarter of fiscal 2019, we drew \$3.0 million on our revolving credit facility, of which \$1.5 million was repaid and \$1.5 million remains outstanding as of October 27, 2018. Our cash and cash equivalents at the end of the third quarter were \$7.8 million and we have \$8.5 million remaining available under our revolving credit facility.

Indebtedness

On February 28, 2017, the Company and its wholly owned Danish subsidiaries, ANI ApS and TrojanLabel ApS (together, the “Parties”), entered into a Credit Agreement with Bank of America, N.A. (the “Lender”). The Credit Agreement provided for a term loan to ANI ApS in the principal amount of \$9.2 million. The Credit Agreement also provided for a \$10.0 million revolving credit facility available to the Company for general corporate purposes.

In connection with the Honeywell Purchase and License Agreement, on September 28, 2017, the Parties entered into a First Amendment to the Credit Agreement with the Lender. The First Amendment amended the existing Credit Agreement to permit the Honeywell Agreement and temporarily increased the amount available for borrowing under the revolving credit facility from \$10.0 million to \$15.0 million. The initial upfront payment of \$14.6 million for the Honeywell Agreement was paid using borrowings under the Company’s revolving credit facility.

On November 30, 2017, the Parties entered into a Second Amendment to the Credit Agreement with the Lender. The Second Amendment provided for a term loan to the Company in the principal amount of \$15.0 million, in addition to the revolving credit facility for the Company and the term loan previously borrowed by ANI ApS at the original closing under the Credit Agreement. The proceeds from the term loan were used to repay the entire \$14.6 million principal balance of the revolving loans outstanding under the revolving credit facility. The principal amount of the revolving credit facility which had been temporarily increased to \$15.0 million was reduced to \$10.0 million effective upon closing of the Second Amendment and the maturity date was extended to November 30, 2022.

On April 17, 2018, the Parties entered into a Third Amendment to the Credit Agreement with the Lender. The Third Amendment provides that no “Immaterial Subsidiary” will be required to become a guarantor or securing party under (unless requested by the Lender during default) or have its equity pledged pursuant to the Credit Agreement. The Third Amendment defines “Immaterial Subsidiary” as any subsidiary of the Company with (a) consolidated total assets that do not exceed 5.0% of the consolidated total assets of the Company and its subsidiaries and (b) revenues that do not exceed 5.0% of the consolidated revenues of the Company and its subsidiaries, as of the last day of the most recent fiscal quarter; provided that Immaterial Subsidiaries shall not account for, in the aggregate, more than 10% the of consolidated total assets or consolidated revenues of the Company and its subsidiaries.

In connection with the Credit Agreement, AstroNova and ANI ApS entered into certain hedging arrangements with the Lender to manage the variable interest rate risk and currency risk associated with its payments in respect of the term loans.

Revolving credit loans may be borrowed, at the Company’s option, in U.S. Dollars or, subject to certain conditions, Euros, British Pounds, Canadian Dollars or Danish Krone. Amounts borrowed under the revolving credit facility bear interest at a rate *per annum* equal to, at the Company’s option, either (a) the LIBOR rate (or in the case of revolving credit loans denominated in a currency other than U.S. Dollars, the applicable quoted rate), plus a margin that varies within a range of 1.0% to 1.5% based on the Company’s consolidated leverage ratio, or (b) a fluctuating reference rate equal to the highest of (i) the federal funds’ rate plus 0.50%, (ii) Bank of America’s publicly announced prime rate or (iii) the LIBOR rate plus 1.00%, plus a margin that varies within a range of 0.0% to 0.5% based on the Company’s consolidated leverage ratio. The Company is required to pay a commitment fee on the undrawn portion of the revolving credit facility at the rate of 0.25% *per annum*. Outstanding borrowings under the revolving credit line during fiscal 2019 bear interest at an annual rate of 5.5% and the Company has accrued \$38 thousand on the outstanding obligation for the nine months ended October 27, 2018.

The obligations of ANI ApS in respect of the \$9.2 million term loan are guaranteed by the Company and TrojanLabel. The Company’s obligations in respect of the \$15.0 million term loan, revolving credit facility and its guarantee in respect of the ANI ApS term loan are secured by substantially all of the assets of the Company (including a pledge of a portion of the equity interests held by the Company in ANI ApS and the Company’s wholly-owned German subsidiary Astro-Med GmbH), subject to certain exceptions.

The Parties must comply with various customary financial and non-financial covenants under the Credit Agreement.

The Lender is entitled to accelerate repayment of the loans and to terminate its revolving credit commitment under the Credit Agreement upon the occurrence of any of various customary events of default.

As of October 27, 2018, we believe the Company is in compliance with all of the covenants in the Credit Agreement.

Cash Flow

The Company's statements of cash flows for the nine months ended October 27, 2018 and October 28, 2017 are included on page 6 of this report. Net cash provided by operating activities was \$1.3 million for the first nine months of fiscal 2019 compared to \$2.0 million for the same period of the previous year. The decrease in net cash provided by operations for the first nine months of the current year is primarily due to payments of prior quarters' accrued expenses to Honeywell under the TSA agreement and the increase in inventory to support the transition of the production of printers to the West Warwick facility in accordance with the Honeywell TSA. The combination of these factors on working capital decreased cash by \$7.2 million in the first nine months of fiscal 2019, compared to a decrease of \$2.4 million for the same period in fiscal 2018. The current year decrease in cash provided by operations was slightly offset by an increase in non-cash amortization related to the Honeywell acquisition. The accounts receivable balance was \$21.7 million at the end of the third quarter compared to \$22.4 million at year end and the collection cycle decreased to 50 days compared to 55 days at year end. The inventory balance increased to \$28.3 million at the end of the third quarter of fiscal 2019, compared to \$27.6 million at year end and inventory days on hand increased to 126 days at the end of the current quarter from 124 days at the prior year end.

The decreased cash and investment position at October 27, 2018 as compared to year end, primarily resulted from increased cash used in operations as discussed above, principal payments of long-term debt of \$4.0 million, dividends paid of \$1.4 million and cash used to acquire property, plant and equipment of \$1.9 million.

The Company's backlog increased 15.1% from year-end to \$24.5 million at the end of the third quarter of fiscal 2019.

Contractual Obligations, Commitments and Contingencies

There have been no material changes to our contractual obligations as disclosed in the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2018, other than those which occur in the ordinary course of business.

Critical Accounting Policies, Commitments and Certain Other Matters

In the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2018, the Company's most critical accounting policies and estimates upon which our financial status depends were identified as those relating to revenue recognition, warranty claims, bad debts, inventories, income taxes, long-lived assets, goodwill and share-based compensation. We considered the disclosure requirements of Financial Release ("FR") 60 regarding critical accounting policies and FR-61 regarding liquidity and capital resources, certain trading activities and related party disclosures, and concluded that nothing materially changed during the quarter that would warrant further disclosure under these releases.

Forward-Looking Statements

This Quarterly Report on Form 10-Q may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not statements of historical fact, but rather reflect our current expectations concerning future events and results. We generally use the words "believes," "expects," "intends," "plans," "anticipates," "likely," "continues," "may," "will," and similar expressions to identify forward-looking statements. Such forward-looking statements, including those concerning our expectations, involve risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements to be materially different from those expressed or implied by such forward-looking statements. Factors which could cause actual results to differ materially from those anticipated include, but are not limited to (a) general economic, financial and business conditions; (b) declining demand in the test and measurement markets, especially defense and aerospace; (c) competition in the specialty printer industry; (d) ability to develop market acceptance of our products and effective design of customer required features; (e) competition in the data acquisition industry; (f) the impact of changes in foreign currency exchange rates on the results of operations; (g) the ability to successfully integrate acquisitions and realize benefits from divestitures; (h) the business abilities and judgment of personnel and changes in business strategy; (i) the efficacy of research and development investments to develop new products; (j) the launching of significant new products which could result in unanticipated expenses; (k) bankruptcy or other financial problems at major suppliers or customers that could cause disruptions in the Company's supply chain or difficulty in collecting amounts owed by such customers; and (l) other risks included under "Item 1A-Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended January 31, 2018. We assume no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law.

Item 3. **Quantitative and Qualitative Disclosures About Market Risk**

During the nine months ended October 27, 2018, there were no material changes to our market risk disclosures as set forth in Part II, Item 7A “Quantitative and Qualitative Disclosures About Market Risk” in our Annual Report on Form 10-K for the year ended January 31, 2018.

Item 4. **Controls and Procedures**

Evaluation of Disclosure Controls and Procedures

Our management has evaluated, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (Exchange Act). Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures are effective in ensuring that information required to be disclosed in our Exchange Act reports is (1) recorded, processed, summarized and reported in a timely manner, and (2) accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to have materially affected, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

There are no pending or threatened legal proceedings against the Company believed to be material to the financial position or results of operations of the Company.

Item 1A. Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, one should carefully consider the factors discussed in Part I, Item 1A “Risk Factors” in the Company’s Annual Report on Form 10-K for the fiscal year ended January 31, 2018, which could materially affect our business, financial condition or future operating results. The risks described in our Annual Report on 10-K are not the only risks that could affect our business, as additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results as well as adversely affect the value of our common stock.

There have been no material updates to the risk factors previously disclosed in the Company’s Annual Report on Form 10-K for the fiscal year ended January 31, 2018.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

During the third quarter of fiscal 2019, the Company made the following repurchases of its common stock:

	Total Number of Shares Repurchased	Average Price paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares That May Be Purchased Under The Plans or Programs
August 1- August 31	—	—	—	390,000
September 1-September 30	—	—	—	390,000
October 1- October 31	—	—	—	390,000

Item 6. **E xhibits**

- 3A [Restated Articles of Incorporation of the Company and all amendments thereto \(incorporated by reference to Exhibit 3A to the Company's Quarterly Report on Form 10-Q for the quarter ended April 30, 2016\).](#)
- 3B [By-laws of the Company as amended to date \(incorporated by reference to Exhibit 3B to the Company's Annual Report on Form 10-Q for the fiscal year ended January 31, 2008 \(File no. 000-13200\)\).](#)
- 31.1 [Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 31.2 [Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 32.1 [Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 32.2 [Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 101 The following materials from Registrant's Quarterly Report on Form 10-Q for the period ended October 27, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Income, (iii) the Condensed Consolidated Statements of Comprehensive Income, (iv) the Condensed Consolidated Statements of Cash Flows, and (vi) the Notes to the Condensed Consolidated Financial Statements. Filed electronically herein.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: December 4, 2018

ASTRONOVA, INC. (Registrant)

By /s/ Gregory A. Woods
Gregory A. Woods,
President and Chief Executive Officer
(Principal Executive Officer)

By /s/ David S. Smith
David S. Smith,
Vice President, Chief Financial Officer and Treasurer (Principal
Accounting Officer and Principal Financial Officer)

CERTIFICATION

Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Gregory A. Woods certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AstroNova, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

December 4, 2018

/s/ Gregory A. Woods

Gregory A. Woods,
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

Certification of Chief Financial Officer Section 302 of the Sarbanes-Oxley Act of 2002

I, David S. Smith, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AstroNova, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

December 4, 2018

/s/ David S. Smith

David S. Smith,

Vice President, Chief Financial Officer and Treasurer (Principal Accounting Officer and Principal Financial Officer)

ASTRONOVA, INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of AstroNova, Inc. (the "Company") on Form 10-Q for the period ended October 27, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory A. Woods, President and Chief Executive Officer, certify, pursuant to Rule 13a-14(b) and 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

December 4, 2018

/s/ Gregory A. Woods

Gregory A. Woods,
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to AstroNova, Inc. and will be retained by AstroNova, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

ASTRONOVA, INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of AstroNova, Inc. (the "Company") on Form 10-Q for the period ended October 27, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David S. Smith, Vice President, Chief Financial Officer and Treasurer of the Company, certify, pursuant to Rule 13a-14(b) and 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

December 4, 2018

/s/ David S. Smith

David S. Smith,
Vice President, Chief Financial Officer and Treasurer
(Principal Accounting Officer and Principal Financial
Officer)

A signed original of this written statement required by Section 906 has been provided to AstroNova, Inc. and will be retained by AstroNova, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.