NEWPORT CORP
Form 10-K
March 11, 2008

Table of Contents

**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**Washington, DC 20549**

# FORM 10-K

(Mark One)

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

**For the fiscal year ended December 29, 2007**

**OR**

o **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: 000-01649**

## NEWPORT CORPORATION

*(Exact name of registrant as specified in its charter)*

| **Nevada** | **94-0849175** |
|---|---|
| *(State or other jurisdiction of incorporation or organization)* | *(IRS Employer Identification No.)* |

**1791 Deere Avenue, Irvine, California 92606**
*(Address of principal executive offices) (Zip Code)*
Registrant s telephone number, including area code: **(949) 863-3144**

Securities registered pursuant to Section 12(b) of the Act:

| Title of Each Class | Name of Each Exchange on Which Registered |
|---|---|
| **Common Stock, Par Value $0.1167 per share** | **The NASDAQ Stock Market LLC** |

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No þ

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No þ

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 þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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

Large accelerated filer o Accelerated filer þ

Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company o
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No þ
As of June 30, 2007, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately $585.3 million, calculated based upon the closing price of the registrant s common stock as reported by the NASDAQ Global Market on such date.
As of March 5, 2008, 35,937,226 shares of the registrant s sole class of common stock were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant s Proxy Statement for its Annual Meeting of Stockholders to be held on May 20, 2008 are incorporated by reference into Part III of this Annual Report on Form 10-K.

**TABLE OF CONTENTS**

Table of Contents

*This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Annual Report on Form 10-K except for historical information may be deemed to be forward-looking statements. Without limiting the generality of the foregoing, words such as may, will, expect, believe, anticipate, intend, could, would, estimate, or continue or the negative or other variations thereof or comparable terminolog intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.*

*The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to predict accurately and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1 (Business) and Item 1A (Risk Factors) of Part I and Item 7 (Management s Discussion and Analysis of Financial Condition and Results of Operations) of Part II of this Annual Report on Form 10-K. Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to place undue reliance on such forward-looking information. We undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.*

## PART I

### Item 1. Business

### General Description of Business

We are a global supplier of advanced technology products and systems to a wide range of industries, including scientific research, microelectronics, aerospace and defense/security, life and health sciences, and industrial manufacturing. We provide a broad portfolio of products to customers in these end markets, allowing us to offer them an end-to-end resource for products that make, manage and measure light.

As the demands of research and commercial applications for higher precision and miniaturization continue to increase, photonics, the science and technology of making, managing and measuring light, has become a key enabling technology, permitting researchers and commercial users to perform tasks that cannot be accomplished by existing electrical, mechanical or chemical processes. In addition, in markets such as microelectronics and life and health sciences, photonics technology is replacing these current processes in a number of applications it can accomplish faster, better or more economically.

We provide a wide range of products designed to enhance the capabilities and productivity of our customers photonics and other precision applications, including:

- lasers and laser technology, including solid-state, gas and dye lasers, high-power diode lasers, fiber lasers and amplifiers, and ultrafast laser systems;

- optical components and subassemblies, including precision optics and opto-mechanical subassemblies, thin-film optical filters, ruled and holographic diffraction gratings and crystals;

- photonics instruments and components, including optical meters, light sources, monochromators and spectroscopy instrumentation;

Table of Contents

high-precision positioning and vibration isolation products and systems; and

advanced automated manufacturing systems used in the manufacture of communications and electronics devices.

In addition to our individual product offerings, we have significant expertise in integrating our products into systems and subsystems that are engineered to meet our customers specific application requirements. We believe that our ability to develop and manufacture these integrated solutions, together with our broader portfolio of products and technologies, gives us a significant competitive advantage over our competitors.

For over four decades, we have serviced the needs of research laboratories for precision equipment. We have acquired a number of companies, which has led to the expansion of our product offerings, technology base and geographic presence and has allowed us to evolve from a provider of discrete components and instruments primarily for research applications to a company that manufactures both components and integrated systems for both research and commercial applications.

In February 2002, we acquired Micro Robotics Systems, Inc. (MRSI), a manufacturer of high-precision, fully-automated assembly and dispensing systems for back-end packaging applications in the semiconductor, microwave communications and fiber optic communications industries. MRSI has significant expertise in the design and manufacture of automated high-precision manufacturing systems. During the past two years, MRSI has focused its development efforts on automated laser-based manufacturing systems, particularly for disk drive and photovoltaic module manufacturing applications. MRSI is now part of our Photonics and Precision Technologies (PPT) Division.

In July 2004, we acquired Spectra-Physics, Inc. and certain related entities (collectively, Spectra-Physics). This acquisition significantly increased the scope of our expertise and product offerings in our target customer end markets, adding to our product portfolio solid-state, gas and dye lasers, high-power diode lasers, and ultrafast laser systems, as well as photonics instruments and components, including light sources, monochromators, spectroscopy instrumentation, optical filters, ruled and holographic diffraction gratings and crystals. This acquisition approximately doubled our size with respect to revenue, number of employees and facilities. At the time of the acquisition, we established Spectra-Physics laser and laser-related technology business as our Lasers Division, and we combined Spectra-Physics photonics businesses with the existing businesses that comprised our former Industrial and Scientific Technologies Division to create our PPT Division.

Following the acquisition of Spectra-Physics, we conducted a strategic review of all of our businesses and concluded that our robotic systems operations in Richmond, California, which served the front-end semiconductor equipment industry with product lines including wafer-handling robots, load ports and equipment front-end modules, were no longer core to our overall strategy. Consequently, in the first quarter of 2005, our Board of Directors approved a plan to sell these operations. At that time, we classified our robotic systems operations as discontinued operations. We completed the sale of these operations in December 2005. The robotic systems operations represented a substantial portion of our former Advanced Packaging and Automation Systems (APAS) Division. As a result of our decision to divest these operations, we realigned our business segments to include all remaining operations of our former APAS Division within our PPT Division. Accordingly, our operations are now conducted through two divisions, our Lasers Division and our PPT Division.

We will continue to pursue acquisitions of companies, technologies and complementary product lines that we believe will further our strategic objectives. Conversely, from time to time, we review our different businesses, including our acquired companies, to ensure that they are key to our strategic plans, and close or divest businesses that we determine are no longer of strategic importance. See Item 7, Management s Discussion and Analysis of Financial Condition and Results of Operations Overview, beginning on page 35, and Notes 2 and 3 of the Notes to Consolidated Financial Statements beginning on page F-13 of this Annual Report on Form 10-K.

Table of Contents

## Our Markets

We sell our products, subsystems and systems to original equipment manufacturer (OEM) and end-user customers across a wide range of markets and applications, including:

*Scientific Research*. We are one of the world s leading suppliers of lasers and photonics products to scientific researchers. For more than forty-five years, we have worked closely with the research community to pioneer new applications and technologies. Today, we continue to help researchers break new ground in a variety of scientific research areas, including spectroscopy, ultrafast phenomena, multiphoton microscopy, terahertz imaging, optical coherence tomography, laser induced fluorescence, light detection and ranging (LIDAR) and nonlinear optics.

*Microelectronics*. Photonics technology addresses a number of vital applications in the microelectronics market, and is a key enabler of the industry roadmap driving smaller feature sizes with the increased functionalities needed for next-generation consumer technology products, including cellular phones, personal digital assistants and digital cameras. Our products are used in several key applications in this market, including semiconductor wafer inspection and metrology, memory yield enhancement, lithography, wafer dicing and scribing, wafer and component marking and resistor trimming, as well as in disk drive, printed circuit board, flat panel display and photovoltaic module manufacturing applications.

*Life and Health Sciences*. Photonics is increasingly becoming a key enabling technology in the life and health sciences market. We provide products for use in diagnostic and analytical instrumentation and cosmetic and therapeutic applications. Our products are used in applications such as optical coherence tomography, multiphoton and confocal microscopy, flow cytometry, matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry, laser microdissection, DNA microarrays and blood analysis to enable advancements in the fields of molecular biology, proteomics and drug discovery. In addition, we supply high-power diode lasers to OEM customers for incorporation into laser systems for hair removal and a variety of dermatological and dental procedures.

*Aerospace and Defense/Security*. The drive for more technologically advanced weapons and sensors is producing increased investment in light-based technologies that can remotely, rapidly and non-invasively detect threats, improve intelligence gathering, provide secure communications systems and improve the performance of weapons and countermeasures. In addition, innovative optical sensors are augmenting human vision on the battlefield, providing remote sensing, ranging and observation capabilities that offer high-resolution imaging and night vision. Our high-precision products are used by aerospace and defense engineers to develop, assemble, test and calibrate equipment for a wide range of applications, including target recognition and acquisition, LIDAR, range finding, missile guidance and advanced weapons development.

*Industrial Manufacturing, Marking and Engraving*. Our lasers and photonics products are used in a wide range of precision industrial manufacturing applications, including rapid prototyping, micromachining, heat-treating, welding and soldering, cutting, illumination, drilling and high-precision marking and engraving. We also offer laser solutions for image recording and graphics applications including pre-press (computer-to-plate), on-press, ultra-high speed printing, photo finishing and holography.

Table of Contents

**Our Operating Divisions**

We operate our business in two divisions, our Lasers Division and our PPT Division, which are organized around our primary product categories.

***Lasers Division***

Our Lasers Division, which was formed in July 2004 in connection with our acquisition of Spectra-Physics, offers a broad portfolio of laser technology products and services to OEM and end-user customers across a wide range of markets and applications. Our lasers and laser-based systems include ultrafast lasers and amplifiers, diode-pumped solid-state lasers, diode lasers, high-energy pulsed lasers, tunable lasers, gas lasers, and fiber lasers and amplifiers. We have established close relationships with OEM customers involved in microelectronics, life and health sciences and industrial manufacturing. In addition to supplying our existing lasers and laser systems to these customers, we also work closely with our OEM and industrial customers to develop laser and laser system designs optimized for their product and technology roadmaps. We offer our end-user customers a full range of laser technology solutions and accessories.

*Products*

The following table summarizes our primary laser and laser-based system product offerings by product category, and includes representative applications for each category:

| Category | Products | Representative Applications |
|---|---|---|
| Ultrafast Lasers and Systems | Mai Tai® one box femtosecond Ti:sapphire lasers<br>Tsunami® ultrafast Ti:sapphire lasers<br>Opal® femtosecond optical parametric oscillator (OPO)<br>Spitfire® Pro ultrafast Ti:sapphire amplifier<br>TOPAS automated ultrafast optical parametric amplifier (OPA)<br>Solstice One Box Ultrafast Amplifier | Femtosecond spectroscopy<br>Materials processing<br>Multiphoton microscopy<br>Optical coherence tomography<br>Semiconductor metrology<br>Terahertz imaging<br>Time-resolved photoluminescence |

Table of Contents

| Category | Products | Representative Applications |
|---|---|---|
| Diode-Pumped Solid State Q-Switched Lasers | BL series low power lasers<br>V-series high-repetition lasers<br>Tristar high repetition rate UV laser<br>Navigator lasers<br>HIPPO high-power lasers<br>Pulseo high peak power UV laser<br>Explorer low-power UV lasers<br>Empower green/UV lasers | Diamond processing<br>Disk texturing<br>Laser microdissection<br>Matrix-assisted laser desorption/ionization<br>Memory yield enhancement systems<br>Microelectronics material processing<br>Pump source for Ti:sapphire lasers<br>Rapid prototyping<br>Resistor trimming<br>Sapphire scribing<br>Silicon micromachining<br>Solar cell manufacturing<br>Wafer marking |
| Diode-Pumped Solid State Continuous Wave (CW) and Quasi-CW Lasers | Millennia® Pro i/s CW lasers<br>MG series CW solid state green lasers<br>Reveal CW forensic lasers<br>Centennia® CW thin-disk lasers<br>Excelsior low power CW lasers<br>Vanguard quasi-CW solid state UV lasers<br>3900S and Matisse® CW tunable Ti:sapphire lasers<br>Cyan compact low power CW lasers | Flow cytometry<br>Forensic investigations<br>Image recording<br>Laser cooling<br>Materials processing<br>Optical trapping<br>Raman imaging<br>Semiconductor wafer inspection and metrology<br>Solar cell manufacturing<br>Spectroscopy<br>Ti:Sapphire pumping |

Table of Contents

| Category | Products | Representative Applications |
|---|---|---|
| Diode Lasers | Open heatsink diode laser bars<br>Multi-bar modules<br>Fiber-coupled diode laser bars<br>Fiber-coupled single emitter diodes<br>Open heatsink single emitter diodes<br>Integra industrial diode laser systems | Graphics and printing<br>Hair removal<br>Material heat treatment and processing<br>Medical, therapeutic and cosmetic procedures<br>Pump source for solid state and fiber lasers<br>Soldering and welding |
| High Energy Pulsed Nd:YAG and Tunable Lasers | Quanta-Ray® PRO, LAB and PIV series pulsed Nd:YAG lasers<br>Quanta-Ray® INDI series compact Nd:YAG lasers<br>MOPO® series High Energy optical parametric oscillator (OPO)<br>Tunable dye lasers | Flat-panel display manufacturing<br>Laser ablation<br>Laser cleaning<br>LIDAR<br>Mass spectrometry<br>Particle imaging velocimetry combustion diagnostics<br>Plastic and ceramic component marking<br>Remote sensing<br>Spectroscopy |
| Gas Lasers | Air-cooled argon ion lasers<br>Water-cooled ion laser systems<br>Nitrogen lasers | Confocal microscopy<br>DNA sequencing<br>Flow cytometry<br>Laser doppler anemometry<br>Raman spectroscopy<br>Semiconductor wafer inspection<br>Spectroscopy<br>Holography<br>Laser-doppler velocimetry<br>Lithography<br>Fluorescence immunoassay<br>Matrix-assisted laser desorption/ionization |

Table of Contents

*Fiber Laser Business Group*

During 2006, we established a Fiber Laser business group within our Lasers Division, which is engaged in the development of fiber laser and fiber amplifier technology. We introduced the first product from this group, the Pantera quasi-continuous wave mode-locked high-power ultraviolet laser, in the fourth quarter of 2007. The fiber laser and fiber amplifier products from this group incorporate our leading-edge capabilities in diode lasers, fiber coupling, frequency conversion, optics and photonics packaging.

***Photonics and Precision Technologies Division***

Our PPT Division s products and systems are used in applications across all of our target end markets. In addition, we sell subsystems to OEM customers that integrate our products into their systems, particularly for microelectronics and life and health sciences applications. The products sold by this division include photonics instruments and systems, precision micro-positioning systems and subsystems, vibration isolation systems and subsystems, optics, optical hardware, opto-mechanical subassemblies and crystals. The PPT Division also offers automated systems and subsystems for advanced applications in the manufacturing of communications and electronic devices, including disk drives, photovoltaic cells and microwave, optical, radio frequency (RF) and multi-chip modules.

*Products*

The following table summarizes our PPT Division s primary product offerings by product category, and includes representative applications for each category:

| Category | Products | Representative Applications |
|---|---|---|
| Photonics Instruments and Systems | Optical meters | Characterization of light |
| | Laser diode instruments | emitted by lasers, light emitting diodes |
| | Light sources | and broadband light sources |
| | Solar simulators | Chemical composition analysis |
| | Solar cell test instruments | Colorimetry |
| | Photonics test systems | Optical power and energy |
| | Optical detectors | measurement for free space and |
| | Dispersive and Fourier transform (FT) | fiber-directed laser light |
| | spectrometers | Solar cell characterization |
| | Monochromators and spectrographs | and measurements |
| | Ultrafast laser pulse measurement | Testing and characterization |
| | systems | of optical fibers and passive fiber optic |
| | | components |
| | | Spectroscopy |

Table of Contents

| Category | Products | Representative Applications |
|---|---|---|
| Precision Micro-Positioning Devices, Systems and Subsystems | Precision air-bearing motion systems<br>Motorized linear and rotation stages<br>Motorized actuators and optics mounts<br>Custom multi-axis positioning systems<br>Motion controllers and drivers<br>Manual linear and rotation stages<br>Fiber alignment stages and accessories<br>Micrometers and adjustment screws | High-precision positioning and motion control apparatus for manufacturing, in-process inspection and final test applications<br>High-precision positioning systems for thin-film solar panel manufacturing<br>Laser system alignment and beam steering for inspection, laser processing and communications<br>Precision positioning of semiconductor wafers for metrology and fabrication<br>Precision alignment in fiber optic, telecommunication and laser device assembly<br>Sample or sensor manipulation for imaging and microscopy<br>Sample sorting and sequencing for DNA research<br>Tracking and targeting test systems for aerospace and defense/security applications |
| Vibration Isolation Systems and Subsystems | Optical tables and support systems<br>Workstations<br>Active and passive isolation systems<br>Active vibration damping systems<br>Honeycomb, granite and rigid structures<br>Elastomeric mounts | Foundation platforms for laser systems<br>Isolated platform for semiconductor lithography equipment<br>Reduction of impact of external vibration sources on high-precision research, manufacturing test and assembly systems<br>Scanning electron microscope, |

| | |
|---|---|
| | atomic force microscope, and optical microscope base isolation |
| | Workstation platforms for fiber optic device fabrication |
| | Workstation platforms for microscopy and other advanced imaging applications |

Table of Contents

| Category | Products | Representative Applications |
|---|---|---|
| Optics and Optical Hardware | Lenses<br>Mirrors<br>Prisms and windows<br>Thin-film filters and coatings<br>Filters and attenuators<br>Collimators<br>Ultrafast laser optics<br>Beamsplitters and polarization optics<br>Ruled and holographic diffraction gratings<br>Optical mounts<br>Bases and brackets<br>Posts and rod systems<br>Beam routing and enclosing systems<br>Laser-to-fiber couplers<br>Educational kits | Analytical instrumentation for life and health sciences<br>Components for research and product development activities<br>Deep ultraviolet optics for semiconductor lithography, wafer inspection and wafer processing<br>Development and manufacture of laser systems<br>Electro-optic sensors and imaging systems for defense/security applications<br>High-precision alignment of optical instruments<br>Optical measurement and communications systems<br>Spectroscopy<br>Ultrafast laser, terahertz imaging and laser fusion research |
| Opto-Mechanical Subassemblies and Subsystems | Laser beam delivery and imaging assemblies<br>Integrated electro-optic-mechanical subsystems<br>Objective lens systems<br>Refractive beam shaper assemblies<br>Fast steering mirrors<br>Laser beam attenuators | Analytical instrumentation for life and health sciences<br>High-speed cell sorting for genomic research<br>Laser beam delivery systems for solar cell manufacturing<br>Laser beam stabilization for industrial metrology<br>Light detection and ranging<br>Optical coherence tomography for non-invasive diagnostics<br>Optical data storage<br>Semiconductor mask patterning<br>Semiconductor wafer defect inspection<br>Thin-film measurement of semiconductor wafers |

Table of Contents

| Category | Products | Representative Applications |
|---|---|---|
| Crystals | Optical crystals<br>Scintillation crystals<br>Crystal imaging arrays<br>Electro optics | Infrared spectroscopy (FT-IR) for quality assurance<br>Optical and acoustic applications including frequency doubling,<br>optical modulators and Q switches<br>X-ray detection such as steel thickness gauging<br>X-ray imaging for security, industrial and medical applications |
| Advanced Manufacturing Systems | Automated manufacturing/ assembly<br>systems<br>Automated dispensing systems | Automated manufacturing and<br><br>assembly of microelectronic and optoelectronic devices<br>High-speed, high-accuracy automated dispensing applications for<br>microwave modules, optical modules, hybrid<br>circuits, multi-chip modules and |