GSI GROUP INC Form PRE 14A March 25, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

SCHEDULE 14a

(RULE 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of

the Securities Exchange Act of 1934

Filed by the Registrant x

Filed by a Party other than the Registrant "

Check the appropriate box:

xPreliminary Proxy Statement "Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2)) "Definitive Proxy Statement "Definitive Additional Materials "Soliciting Material Pursuant to §240.14a-12 GSI Group Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other than Registrant)

Payment of Filing Fee (check the appropriate box):

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- (2) Aggregate number of securities to which transaction applies:
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(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

GSI GROUP INC.

125 Middlesex Turnpike

Bedford, Massachusetts 01730

(781) 266-5700

April [], 2016

Dear Shareholder:

It is my pleasure to invite you to the annual and special meeting of shareholders of GSI Group Inc. to be held at 2:00 p.m. (ET) on Tuesday, May 10, 2016 at the offices of Latham & Watkins LLP, 885 Third Avenue, 12th Floor, New York, New York 10022.

The purposes of the meeting are to (i) elect the Board of Directors, (ii) approve, on an advisory basis, the Company's executive compensation, (iii) appoint PricewaterhouseCoopers LLP as our independent registered public accounting firm, and (iv) adopt a resolution approving Articles of Amendment to change the name of the Company to Novanta Inc.

Information regarding the above matters is contained in the formal notice of meeting and management proxy circular on the following pages. The GSI Group Inc. Annual Report for the fiscal year ended December 31, 2015 accompanies this management proxy circular. We urge you to read the proxy materials in their entirety and to consider them carefully.

It is important that your shares be represented at the annual and special meeting, regardless of the size of your holdings. Accordingly, whether or not you expect to attend the meeting, we urge you to vote promptly by returning the enclosed proxy form. You may revoke your proxy at any time before it has been voted.

On behalf of the Board of Directors, I thank you for your participation.

Very truly yours,

Stephen W. Bershad Chairman of the Board of Directors

GSI GROUP INC.

125 Middlesex Turnpike

Bedford, Massachusetts 01730

(781) 266-5700

NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

TO BE HELD ON TUESDAY, MAY 10, 2016

NOTICE IS HEREBY GIVEN that the annual and special meeting of shareholders of GSI Group Inc., a New Brunswick corporation, which we refer to in this notice and in the attached management proxy circular as the Company, will be held at 2:00 p.m. (ET) on Tuesday, May 10, 2016 at the offices of Latham & Watkins LLP, 885 Third Avenue, 12th Floor, New York, New York 10022, for the following purposes:

- 1. To elect Stephen W. Bershad, Harry L. Bosco, Dennis J. Fortino, Ira J. Lamel, Dominic A. Romeo, John A. Roush and Thomas N. Secor to our Board of Directors until the next annual meeting of shareholders, until his successor is elected or appointed, or until his earlier death, resignation or removal;
- 2. To approve, on an advisory basis, the Company's executive compensation;
- 3. To appoint PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm to serve until the 2017 annual meeting of shareholders;
- 4. To adopt a resolution approving Articles of Amendment to change the name of the Company to Novanta Inc.; and
- 5. To transact such other business as may properly come before the meeting or any postponement, continuation or adjournment thereof.

Only shareholders of record as of the close of business on Friday, April 1, 2016 will be entitled to attend and vote at the meeting and at any postponement, continuation or adjournment thereof, provided that a subsequent transferee of shares may vote at the meeting if the transferee establishes ownership of the shares and requests not later than ten (10) days before the meeting to be added to the list of shareholders entitled to vote at the meeting.

All shareholders are requested to complete, sign, date and return the form of proxy in the enclosed envelope to Computershare Investor Services Inc., the Company's transfer agent, at 100 University Avenue, 8th Floor, Toronto, Ontario, Canada M5J 2Y1, before 2:00 p.m. (ET) on Friday, May 6, 2016, or, if the meeting is postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned meeting. If you are a shareholder of record, you may also vote by telephone or on the Internet by following the instructions on the enclosed proxy form, no later than 2:00 p.m. (ET) on Friday, May 6, 2016, or, if the meeting is postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned meeting. Shareholders who vote by telephone or the Internet should not return a proxy form.

A copy of the management proxy circular and a proxy form accompany this notice. This notice, the management proxy circular, the proxy form and the Company's 2015 Annual Report will be forwarded on or about Wednesday, April [], 2016 to the holders of the Company's common shares as of the close of business on Friday, April 1, 2016.

All monetary amounts listed in the proxy circular are in U.S. dollars, unless otherwise indicated.

DATED at Bedford, Massachusetts this [] day of April, 2016.

By Order of the Board of Directors

John A. Roush Chief Executive Officer

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GSI GROUP INC.

125 Middlesex Turnpike

Bedford, Massachusetts 01730

(781) 266-5700

MANAGEMENT PROXY CIRCULAR

INFORMATION CONCERNING VOTING AND SOLICITATION

GSI Group Inc., a New Brunswick corporation, which we refer to in this management proxy circular as the Company, will hold its annual and special meeting (the "2016 Annual and Special Meeting") at 2:00 p.m. (ET) on Tuesday, May 10, 2016 at the offices of Latham & Watkins LLP, 885 Third Avenue, 12th Floor, New York, New York 10022. This management proxy circular and the enclosed proxy form are furnished in connection with the solicitation of proxies by the Board of Directors, or the Board, of the Company for use at the meeting. The solicitation will be made by mail, but proxies may also be solicited personally, by telephone or by email by directors, officers or other employees of the Company. The cost of solicitation has been or will be borne by the Company. The Company may also pay brokers or nominees holding common shares of the Company in their names or in the names of their principals for their reasonable expenses in sending solicitation material to their principals.

The notice of the meeting, this management proxy circular, the proxy form and a copy of the Company's annual report for the fiscal year ended December 31, 2015 (the "2015 Annual Report") will be forwarded on or about Wednesday, April [], 2016 to the holders of the Company's common shares as of the close of business on Friday, April 1, 2016 (the "Record Date").

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

FOR THE SHAREHOLDER MEETING TO BE HELD ON MAY 10, 2016

The Company's Management Proxy Circular and 2015 Annual Report are available at

http://gsig.investorroom.com/shareholdermeeting

The following proxy materials are available for review at:

http://gsig.investorroom.com/shareholdermeeting

the management proxy circular; the Company's 2015 Annual Report; and

any amendments to the foregoing materials that are required to be furnished to shareholders.

Shareholders may receive directions to attend the meeting in person by calling the Company's investor relations staff at 781-266-5137 or by emailing InvestorRelations@gsig.com.

Matters to Be Voted On

At the meeting, you will be entitled to vote on the following proposals:

- 1. To elect Stephen W. Bershad, Harry L. Bosco, Dennis J. Fortino, Ira J. Lamel, Dominic A. Romeo, John A. Roush and Thomas N. Secor to our Board of Directors until the next annual meeting of shareholders, until his successor is elected or appointed, or until his earlier death, resignation or removal (see page 4);
- 2. To approve, on an advisory (non-binding) basis, the Company's executive compensation (see page 7);
- 3. To appoint PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm to serve until the 2017 annual meeting of shareholders (see page 9);
- 4. To adopt a resolution approving Articles of Amendment to change the name of the Company to Novanta Inc. (see page 11); and
- 5. To transact such other business as may properly come before the meeting, or any postponement, continuation or adjournment thereof.

We are not aware of any other business to be brought before the meeting. If any additional business is properly brought before the meeting, the designated officers serving as proxies will vote in accordance with their best judgment.

Board Recommendations

The Board recommends that you vote your shares as follows:

"FOR" the election of each of the nominees for director named in this management proxy circular;

"FOR" the approval, on an advisory basis, of the Company's executive compensation;

"FOR" the appointment of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm to serve until the 2017 annual meeting of shareholders; and "FOR" the adoption of a resolution approving Articles of Amendment to change the name of the Company to Novanta

Inc. Appointment and Revocation of Proxies

The persons named in the enclosed proxy form are officers of the Company. A shareholder may appoint a person to represent him or her at the meeting, other than the persons already named in the enclosed proxy form, by inserting the name of such other person in the blank space provided in the proxy form or by completing another proper form of proxy. Such person need not be a shareholder. The completed proxy form must be deposited with the Company at its principal executive offices at 125 Middlesex Turnpike, Bedford, Massachusetts 01730, USA, or with Computershare Investor Services Inc., 100 University Avenue, 8th Floor, Toronto, Ontario, Canada, M5J 2Y1, in either case no later than 2:00 p.m. (ET) on Friday, May 6, 2016, or, if the meeting is postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned meeting.

If you are a shareholder of record, you may also vote by telephone or on the Internet by following the instructions on the enclosed proxy form, no later than 2:00 p.m. (ET) on Friday, May 6, 2016, or, if the meeting is postponed, continued or adjourned, prior to 2:00 p.m. (ET) on the last business day prior to the date fixed for the postponed, continued or adjourned meeting. Shareholders who vote by telephone or the Internet should not return a proxy form.

The shareholder executing the proxy form may revoke it as to any matter on which a vote has not already been cast pursuant to the authority conferred by such proxy: (a) by delivering another properly executed proxy form bearing a later date and depositing it in the manner and by the deadline described above; (b) by delivering an instrument in writing revoking the proxy, executed by the shareholder or by the shareholder's attorney authorized in writing: (i) at the registered office of the Company, at any time up to and including the last business day preceding the date of the meeting, or at any reconvened meeting following its postponement, continuation or adjournment, or (ii) with the chairman of the meeting on the day of the meeting, or at any reconvened meeting following its postponement, continuation or adjournment; or (c) in any other manner permitted by law.

Voting of Proxies

The officers named in the proxy form enclosed with this management proxy circular will vote or withhold from voting the common shares of the Company in respect of which they are appointed proxy in accordance with the directions of the shareholder appointing them and, if a shareholder specifies a choice with respect to any matter to be acted upon, the shares will be voted accordingly. In the absence of such direction, the shares will be voted:

"FOR" the election of each of the nominees for director named in this management proxy circular;

"FOR" the approval, on an advisory basis, of the Company's executive compensation;

"FOR" the appointment of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm to serve until the 2017 annual meeting of shareholders; and

"FOR" the adoption of a resolution approving Articles of Amendment to change the name of the Company to Novanta Inc.

Voting and Ownership of Shares

At the close of business on the Record Date, the Company had [] common shares outstanding and entitled to vote. Each share is entitled to one vote. The failure of any shareholder to receive a notice of meeting of shareholders does not deprive the shareholder of a vote at the meeting.

The following votes are required to approve each of the proposals at the meeting.

Election of Directors. The vote for the election of the nominees for director named in this management proxy circular is cumulative and is described in more detail below.

Advisory Vote on the Company's Executive Compensation. The proposal regarding the approval, on an advisory basis, of the Company's executive compensation requires the approval of a majority of the common shares represented and cast in respect of such matter.

Appointment of Independent Registered Public Accounting Firm. The proposal regarding the approval of the appointment of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm requires the approval of a majority of the common shares represented and cast in respect of such matter. Adoption of Resolution Approving Articles of Amendment to Change Name of Company. The proposal regarding the adoption of a resolution approving Articles of Amendment to change the name of the company to Novanta Inc. requires the approval of not less than two-thirds of the common shares represented and cast in respect of such matter. No votes may be taken at the meeting, other than a vote to adjourn, unless a quorum has been constituted consisting of the representation of at least thirty-three and one-third percent (33 1/3%) of the outstanding shares as of the Record Date. Votes will be tabulated by the Company's transfer agent, Computershare Investor Services Inc., which is also serving as the inspectors of election for the meeting.

The enclosed form of proxy confers discretionary authority on the persons named therein with respect to amendments to or variations of matters identified in the notice of meeting and such other matters that may properly come before the meeting or any postponement, continuation or adjournment thereof. As of the date of this management proxy circular, the management of the Company knows of no such amendments, variations or other matters to be presented at the meeting.

Voting for the Election of Directors

Section 65(1) of the Business Corporations Act (New Brunswick) provides for cumulative voting for the election of directors so that each shareholder entitled to vote at an election of directors has the right to cast an aggregate number of votes equal to the number of votes attached to the shares held by such shareholder multiplied by the number of directors to be elected, and may cast all such votes in favor of a single candidate or distribute them among the candidates in any manner the shareholder decides. The statute further provides, in section 65(2), that a separate vote of shareholders shall be taken with respect to each candidate nominated for director unless a resolution of the shareholders is passed unanimously permitting two or more persons to be elected by a single resolution. Where a shareholder has voted for more than one candidate without specifying the distribution of votes among such candidates, the shareholder shall be deemed to have divided the votes equally among the candidates for whom such shareholder voted. If a shareholder desires to distribute votes otherwise than equally among the nominees for whom such shareholder has directed the persons in the enclosed form of proxy to vote, such shareholder must do so personally at the meeting or by another form of proxy. On any ballot for the election of directors, the persons named in the proxy will be deemed to have cast their votes equally among all the proposed nominees, unless: (a) any nominee is excluded by the shareholder in their proxy; or (b) the shareholder has directed that the shares be withheld from voting for the election of directors. If the number of candidates nominated for director exceeds the number of positions to be filled, the candidates who receive the least number of votes shall be eliminated until the number of candidates remaining equals the number of positions to be filled.

Counting of Votes

For purposes of determining the presence or absence of a quorum, abstentions and broker non-votes will be counted as present. With respect to the approval of any particular proposal, abstentions and broker non-votes will not be counted in determining the number of votes cast. A broker non-vote occurs when a broker submits a proxy form with respect to common shares held in a fiduciary capacity (typically referred to as being held in "street name"), but declines to vote on a particular matter because the broker has not received voting instructions from the beneficial owner. Brokers will return your proxy as a broker non-vote if the broker does not receive voting instructions from you and if, under applicable stock exchange or other rules, the broker does not have the discretion to vote those shares on one or more

of the matters that come before the meeting.

ITEM 1-ELECTION OF DIRECTORS

The Articles of the Company provide that our Board is to be comprised of a minimum of five (5) and a maximum of fifteen (15) directors, as determined from time to time by resolution of the Board. The Board has resolved that the entire Board shall consist of seven (7) directors.

Each nominee presented below, if elected, will serve as a director until the next annual meeting of shareholders, until his successor is elected or appointed, or until his earlier death, resignation or removal. All of the nominees listed below have given their consent to be named as nominees for election and have indicated their intention to serve if they are elected. The Board does not anticipate that any of the nominees will be unable to serve as a director, but in the event that a nominee is unable to serve or for good cause will not serve, the Board may either propose an alternate nominee, in which case the proxies will be voted for the alternative nominee unless directed to withhold from voting, or elect to reduce the size of the Board.

The names of the nominees presented for election as directors at the 2016 Annual and Special Meeting are listed below, along with information regarding when they joined the Board, their present principal occupation, recent business experience and their service on other companies' boards of directors.

All of the nominees currently serve on the Board. There are no family relationships between any of the nominees or between the nominees and any of our officers.

Director Nominees

THE BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" ALL OF THE NOMINEES NAMED BELOW.

| | Director | r | |
|--|---------------|----|---------------------|
| Name, Principal Occupation and Municipality of Primary Residence Stephen W. Bershad | Since 2010 | Ū | Independent? Yes |
| Chairman of the Board, GSI Group Inc. Santa Fe, New Mexico, U.S.A. | | | |
| Harry L. Bosco | 2012 | 70 | Yes |
| Former President and Chief Executive Officer, Opnext, Inc. | | | |
| DeBary, Florida, U.S.A. | | | |
| Dennis J. Fortino | 2010 | 69 | Yes |
| Private Consultant | | | |

| Scottsdale, Arizona, U.S.A. | 2010 | (0 | V |
|---|------|----|-----|
| Ira J. Lamel | 2010 | 68 | Yes |
| Former Executive Vice President and Chief Financial Officer, The Hain Celestial | | | |
| Group, Inc. | | | |
| Westhampton Beach, New York, U.S.A. | | | |
| Dominic A. Romeo | 2012 | 56 | Yes |
| | | | |
| Former Senior Vice President and Chief Financial Officer, Thor Industries, Inc. | | | |
| Lake Bluff, Illinois, U.S.A. | | | |
| John A. Roush | 2010 | 51 | No |
| | | | |
| Chief Executive Officer, GSI Group Inc. | | | |
| Beverly, Massachusetts, U.S.A. | | | |
| Thomas N. Secor | 2012 | 45 | Yes |
| Thomas IV. Secon | 2012 | 43 | 105 |
| Managing Director, Morningside Heights Capital | | | |
| | | | |
| New York, New York, U.S.A. | | | |

Stephen W. Bershad Chairman of the Board

Mr. Bershad has been a Director of the Company since July 23, 2010 and Chairman of the Board of Directors since July 30, 2010. Mr. Bershad was Chairman of the Board and Chief Executive Officer of Axsys Technologies, Inc. ("Axsys"), a manufacturer of surveillance and imaging equipment, from 1986 until 2009. Prior thereto, he was a Managing Director of Lehman Brothers, Inc., an investment banking firm, and its predecessor firms, where he held a series of senior management positions in private equity and mergers and acquisitions. Mr. Bershad is the Chairman of the Board of Directors of EMCOR Group, Inc., a Fortune 500[®] leader in mechanical and electrical construction, energy infrastructure and facilities services for a diverse range of businesses. Mr. Bershad has a Bachelor of Science Degree from the University of Southern California and a Juris Doctorate from the University of California at Los Angeles. As a senior executive with Lehman Brothers for more than 15 years and the Chief Executive Officer of Axsys for more than 20 years, Mr. Bershad has an invaluable background in investment banking, finance and business.

Harry L. Bosco Director

Mr. Bosco has been a Director of the Company since June 14, 2012. Mr. Bosco served as President and Chief Executive Officer of Opnext, Inc. ("Opnext"), a global leader in the design and manufacture of optical modules, components and subsystems for the telecom industry, from December 9, 2010 to July 23, 2012, and previously served as the President and Chief Executive Officer of Opnext from November 2000 until March 31, 2009. Mr. Bosco also served as a Director of Opnext from November 2000 and as Chairman of the Board of Opnext from April 1, 2009 until July 23, 2012. On July 23, 2012, Opnext merged with Oclaro, Inc., a tier-one provider and innovator of optical communications and laser solutions and Mr. Bosco stepped down as President, Chief Executive Officer and Chairman of Opnext and became a Director of Oclaro until January 2014. Mr. Bosco served in various management, engineering and executive positions at Lucent Technologies, AT&T and Bell Laboratories from 1965 until October 2000, including as Optical Networking Group President. Mr. Bosco also served as a Director of Arris, Inc., a global communications technology company specializing in the design and supply of broadband equipment, from 2002 to May 2016. Mr. Bosco brings to the Board a strong technical background in the optical industry, extensive operational experience, and significant experience as a CEO and Director of a public high technology company.

Dennis J. Fortino Director

Mr. Fortino has been a Director of the Company since July 23, 2010. Mr. Fortino is a business consultant specializing in the development of business rationalization and growth plans for companies and also serves as an executive coach. Prior to becoming a business consultant in 2006, Mr. Fortino served as the Executive Vice President of the Lithography & Parametric Solutions Group at KLA-Tencor Corporation ("KLA-Tencor"), a supplier of process control and yield management solutions for the semiconductor and related microelectronics industries between September 2000 and November 2005. From August 1997 to September 2000, he served as Vice President and General Manager of the Surfscan Division of KLA-Tencor and from November 1995 to July 1997 as the Vice President and General Manager of the Surface Metrology Division of KLA-Tencor. Mr. Fortino served as Vice President and General Manager for Spectra-Physics Lasers from July 1991 to October 1995. Mr. Fortino has a Bachelor of Science Degree in Industrial Engineering from the University of Illinois, at Urbana and MBA from Loyola University Chicago. Mr. Fortino has more than 20 years of experience in the semiconductor and related microelectronics industries to the Company's Board of Directors significant technology, operating experience, business acumen and insight into current and emerging business trends.

Ira J. Lamel Director

Mr. Lamel has been a Director of the Company since July 23, 2010. Mr. Lamel was Senior Advisor to the CEO from September 1, 2013 to August 31, 2014, prior to which he was Executive Vice President and Chief Financial Officer from October 1, 2001 to August 31, 2013 of The Hain Celestial Group, Inc. ("Hain"), a leading natural and organic food and personal care products company operating in North America and Europe. Prior to joining Hain on October 1, 2001, Mr. Lamel was an audit partner in the New York area practice of Ernst & Young LLP. He retired from Ernst & Young LLP after a 29-year career serving clients in various industries, one of which included Excel Technology, Inc. ("Excel"), that was acquired by the Company in August 2008. Mr. Lamel served as the audit partner on Excel beginning with the audit for the year ended December 31, 2000 and through the review for the quarter ended June 30, 2001. In addition, Mr. Lamel served on the Board of Directors of Excel between 2004 and 2008. Mr. Lamel also served on the Board of Directors of Harvey") between 2004 and 2007. On each such board at Excel and Harvey, Mr. Lamel was the chairman of the Audit Committee and a member of the Compensation Committee. Mr. Lamel brings to the Company's Board of Directors extensive financial, accounting and auditing expertise, including an understanding of accounting principles, financial reporting rules and regulations and financial reporting processes acquired over the course of his 41-year career. In addition, Mr. Lamel's prior service on the Board of Directors and as Chairman of the audit committee at Excel Technology, Inc. provides him with invaluable experience.

Dominic A. Romeo Director

Mr. Romeo has been a Director of the Company since June 14, 2012. Mr. Romeo served as Senior Vice President and Chief Financial Officer of Thor Industries, Inc. (NYSE: THOR), a leading manufacturer of recreational vehicles, commercial buses and ambulances, from February 2013 to October 2013. From 2004 to 2011, Mr. Romeo served as Vice President and Chief Financial Officer of IDEX Corporation (NYSE: IEX), a leading global manufacturer of pump products, dispensing equipment, and other engineered products. Prior to joining IDEX, Mr. Romeo served in several financial leadership positions at Honeywell International, Inc., a diversified technology and manufacturing company that services customers globally, including Vice President and Chief Financial Officer of Honeywell Aerospace from 2001 to 2004; Vice President and Chief Financial Officer of Honeywell International's Engine Systems and Services divisions from 1999 to 2001; and various other senior finance positions from 1994 to 1999. Mr. Romeo also served as Vice President of Finance for AAR Trading, aircraft products and services provider, from 1992 to 1994, and held multiple financial roles in audit and financial planning for GE Aircraft Engines, a subdivision of the General Electric Company, from 1987 to 1992. Mr. Romeo currently serves on the board of BBB Industries, an automotive parts manufacturer, and Charter NEX Films, a manufacturer of packaging films, which are both held by Pamplona Capital Management. Mr. Romeo served on the Board of Directors and as a member of the Audit Committee of Federal Signal Corporation, a leading global designer and provider of safety and security products and solutions, from 2010 to April 2013. Mr. Romeo has a Bachelor of Arts Degree in both Accounting and Business Administration from Manchester University. Mr. Romeo brings to the Company's Board of Directors extensive expertise in finance and accounting for several global industrial manufacturers, as well as experience in efficiently adapting company operations to changing market conditions.

John A. Roush Chief Executive Officer, Director

Mr. Roush was appointed the Company's Chief Executive Officer and elected as a member of the Board of Directors on December 14, 2010. Mr. Roush joined the Company after a twelve year career with PerkinElmer, Inc. ("PerkinElmer"), a provider of technology and services to the diagnostics, research, environmental, safety and security, industrial and laboratory services markets, where he was a corporate officer and served in several senior leadership positions. From 2009 to December 2010, Mr. Roush served as president of PerkinElmer's Environmental Health business. From 2004 to 2009, Mr. Roush led PerkinElmer's Optoelectronics business unit, which supplies specialty photonics products to biomedical and industrial OEMs. From 1999 to 2004, Mr. Roush served in various general management roles within the Optoelectronics business unit. Prior to joining PerkinElmer, Mr. Roush held management positions with Outboard Marine Corporation, AlliedSignal, Inc., now Honeywell International, McKinsey & Company Inc. and General Electric. Mr. Roush also serves as a director of Lemaitre Vascular, Inc. (NASDAQ: LMAT), a global provider of medical devices and implants for the treatment of peripheral Vascular disease, and as a member of its Audit Committee. Mr. Roush holds a Bachelor of Science degree in Electrical Engineering from Tufts University and M.B.A. from Harvard University. As the Company's Chief Executive Officer, Mr. Roush provides an insider's perspective in Board discussions about the business and strategic direction of the Company.

Thomas N. Secor Director

Mr. Secor has been a Director of the Company since June 14, 2012. Mr. Secor has been Managing Director of Morningside Heights Capital, an investment firm, since March 2012. From April 2007 until March 2012, Mr. Secor was employed by Goldman Sachs & Co, where he worked with Liberty Harbor, an absolute-return investment fund. While at Liberty Harbor, Mr. Secor focused on the fund's fundamental investment strategies, including debt and equity transactions. From 2005 until March 2007, Mr. Secor was a Director and member of the legal group at Amaranth Advisors, an investment advisor. From 1998 until 2005, Mr. Secor was an attorney with Cleary, Gottlieb, Steen & Hamilton where he specialized in corporate and securities law. Mr. Secor currently serves on the board of directors of The Great Atlantic and Pacific Tea Company (A&P). Mr. Secor received his B.A., cum laude, from Pomona College and his J.D., cum laude, from the University of Chicago Law School. Mr. Secor brings to the Company's Board of Directors more than 15 years of experience in strategic transactions, corporate finance and profit management across a

wide range of industries, as well as extensive corporate governance experience.

ITEM 2-aDVISORY VOTE ON THE

COMPANY'S EXECUTIVE COMPENSATION

Background

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 provides our shareholders with the opportunity to vote to approve, on an advisory (non-binding) basis, the compensation of our named executive officers (which currently consist of our Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, and former Vice President, Human Resources), as disclosed in this management proxy circular in accordance with the SEC's rules. The Company has determined to hold a "say-on-pay" advisory vote every year. Accordingly, the next "say-on-pay" advisory vote following this one will occur at the 2017 annual meeting of shareholders.

Summary

In accordance with Section 14A of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), we are asking our shareholders to provide advisory approval of the compensation of our named executive officers as such compensation is described in the "Compensation Discussion and Analysis" section, the tabular disclosure regarding such compensation and the accompanying narrative disclosure set forth in this management proxy circular, beginning on page 21.

Our executive compensation programs are designed to provide a compensation package that incentivizes and retains a highly qualified executive team and rewards both short-term and long-term sustainable performance as measured against established goals. Our executive compensation program seeks to promote this philosophy primarily through a combination of the following types of compensation: base salary, cash bonus incentive awards and long-term equity-based incentive awards in the form of service-based restricted stock units. The following is a summary of some of the key points of our executive compensation program. We urge our shareholders to review the "Compensation Discussion and Analysis" section of this management proxy circular and the tabular disclosure following such section for more information.

Pay-for-Performance. We aim to align our executive compensation with both annual and long-term performance goals. Our Senior Management Incentive Plan provides cash bonus incentive awards based on adjusted EBITDA. The adjusted EBITDA target levels of performance are correlated with the Company's annual sales and income growth objectives. The Company's performance exceeded the target performance level for the adjusted EBITDA-based objective in the first half of 2015. The Company's performance exceeded the threshold performance level, but did not meet or exceed the target performance level for adjusted EBITDA in the second half of 2015. The Company's performance exceeded the target performance level for the adjusted EBITDA in the full year of 2015. The table on page 27 of the "Compensation Discussion and Analysis" section shows how these results translated into payouts under the Senior Management Incentive Plan.

Long-Term Compensation. Grants of restricted stock units that vest over three years are intended to align the interests of executives with those of our shareholders, encourage retention and focus the executives on long-term profitable growth and shareholder value creation.

Prudent Corporate Governance. We are committed to maintaining a prudent corporate governance model and to continually improving our compensation practices and policies. Key practices in this regard include annual review of the Company's compensation program by the Compensation Committee and maintenance of a Compensation

Committee composed entirely of independent, non-employee directors who satisfy applicable independence requirements.

Independent Compensation Consultation. The Compensation Committee uses an independent global executive compensation consulting firm, Towers Watson, to advise the Compensation Committee on matters related to executive compensation and has adopted annual frequency for our "say-on-pay" advisory vote.

The Compensation Committee believes that the policies and procedures articulated in the "Compensation Discussion and Analysis" are effective in achieving the Company's goals and that the compensation of the Company's named executive officers reported in this management proxy circular reflects and supports these compensation policies and objectives. We encourage shareholders to review the "Compensation Discussion and Analysis" beginning on page 21 of this management proxy circular. The Company has retained the services of Pearl Meyer & Partners, LLC to assess 2016 executive compensation. The 2016 executive compensation will include changes to long-term compensation provided to the Company's executives.

Recommendation

Our Board of Directors believes that the information provided above and within the "Compensation Discussion and Analysis" section of this management proxy circular demonstrates that our executive compensation program was designed appropriately and is working to ensure that management's interests are aligned with our shareholders' interests to support long-term value creation.

The following resolution will be submitted for a shareholder vote at the 2016 Annual and Special Meeting:

RESOLVED, that the shareholders of GSI Group Inc. approve, on an advisory basis, the compensation of GSI Group Inc.'s named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the "Compensation Discussion and Analysis", compensation tables and narrative discussion set forth in this management proxy circular.

This vote on our executive compensation is advisory, and therefore not binding on the Company, the Compensation Committee or the Board of Directors. However, the Compensation Committee will consider the outcome of the vote when making future compensation decisions for the named executive officers.

Required Vote

The affirmative vote of a majority of the common shares represented and cast in respect of this matter at the 2016 Annual and Special Meeting is required to approve, on an advisory (non-binding) basis, the compensation of our named executive officers. Abstentions and broker non-votes will not be counted in determining the number of votes cast, and thus will not affect the voting results of this proposal.

THE BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THE ADOPTION OF THE RESOLUTION APPROVING THE COMPANY'S EXECUTIVE COMPENSATION.

ITEM 3-appointment of independent

registered public accounting firm

At the 2016 Annual and Special Meeting, the shareholders will be asked to approve the appointment of PricewaterhouseCoopers LLP ("PricewaterhouseCoopers") as the Company's independent registered public accounting firm and to authorize the Audit Committee to fix the auditors' remuneration. PricewaterhouseCoopers has served as the Company's independent registered public accounting firm since 2013.

We expect a representative of PricewaterhouseCoopers to be present at the meeting to answer appropriate questions and to have an opportunity to make a statement if desired.

Required Vote

The affirmative vote of a majority of the common shares represented and cast in respect of this matter at the 2016 Annual and Special Meeting is required to approve the appointment of PricewaterhouseCoopers as the Company's independent registered public accounting firm to serve until the 2017 annual meeting of shareholders. Abstentions will not be counted in determining the number of votes cast, and thus will not affect the voting results of this proposal. Because brokers have discretionary authority to vote on the appointment of PricewaterhouseCoopers, we do not expect any broker non-votes in connection with this proposal.

THE BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THIS APPOINTMENT.

Independent Registered Public Accounting Firm Fees and Services

Set forth below are the fees paid by the Company to its independent registered public accounting firm, PricewaterhouseCoopers, for the fiscal years ended December 31, 2015 and 2014.

| | 2015 | 2014 |
|------------------------|-------------|-------------|
| Audit Fees (1) | \$1,780,000 | \$1,985,000 |
| Audit-Related Fees (2) | 53,700 | 21,000 |
| Tax Fees (3) | 141,000 | 305,000 |
| All Other Fees (4) | 2,700 | 1,800 |
| Total | \$1,977,400 | \$2,312,800 |

(1)Consists of fees billed for professional services rendered for the audit of the Company's annual consolidated financial statements, review of the Company's interim consolidated financial statements included in quarterly reports and services that are normally provided in connection with statutory and regulatory filings or engagements.

(2)Consists principally of fees for services related to financial due diligence associated with acquisition targets.

(3)Consists of fees billed for professional services rendered for tax compliance, tax advice and tax planning.

(4)Represents fees billed for online research tools.

Pre-Approval Policies and Procedures

The Audit Committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by the Company's independent registered public accounting firm. This policy generally provides that the Company will not engage its independent registered public accounting firm to render audit or non-audit services unless the Audit Committee specifically approves the service in advance, or the engagement is entered into pursuant to the pre-approval procedure described below.

Pursuant to the Audit Committee Charter, the Audit Committee may delegate pre-approval authority to an individual member of the Audit Committee. The decisions of any individual Audit Committee member to whom pre-approval authority is delegated must be presented to the full Audit Committee at its next scheduled meeting. The Audit Committee has delegated to the Chairman of the committee the authority to pre-approve any audit, non-audit or other service provided to the Company by the Company's independent registered public accounting firm, except for the annual audit engagement and fees, which must be approved by the committee. The prior approval of the Audit Committee or the pre-approval of the designated member of the Audit Committee was obtained for all services provided by PricewaterhouseCoopers in fiscal year 2015.

Report of the Audit Committee

The primary purpose of the Audit Committee is to assist the Board of Directors in its oversight of the accounting and financial reporting processes of the Company and the audits of the financial statements of the Company.

In conjunction with the specific activities performed by the Audit Committee in its oversight role, it issued the following report:

- 1. The Audit Committee has reviewed and discussed the audited financial statements as of and for the year ended December 31, 2015 with the Company's management.
- 2. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed under Statement on Auditing Standards No. 16, as adopted by the Public Company Accounting Oversight Board.
- 3. The Audit Committee has received from the independent registered public accounting firm the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accounting firm's communications with the Audit Committee concerning independence, and the Audit Committee has discussed with the independent registered public accounting firm their independence from the Company.

Based on the review and discussions referred to in paragraphs (1) through (3) above, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015 for filing with the SEC.

Mr. Ira J. Lamel (Chairperson)

Mr. Dominic A. Romeo

Mr. Thomas N. Secor

The foregoing Report is not soliciting material, is not deemed filed with the SEC and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

ITEM 4–Adoption of resolution approving ARTICLES OF AMENDMENT TO CHANGE NAME OF COMPANY TO NOVANTA INC.

On February 24, 2016, the Board of Directors adopted a resolution approving, and recommending that the Company's shareholders approve, Articles of Amendment to change the name of the Company to Novanta Inc. (the "Name Change Amendment"). The full text of the Name Change Amendment is as follows: "The new name of the corporation is: NOVANTA INC."

The following resolution will be submitted for a shareholder vote at the 2016 Annual and Special Meeting:

RESOLVED, that the shareholders of GSI Group Inc. approve Articles of Amendment to change the name of the Company to Novanta, Inc. (the "Name Change Amendment"), and that the Board of Directors of the Company may revoke this special resolution and abandon the Name Change Amendment herein authorized without further approval of the shareholders at any time prior to the filing of the Name Change Amendment.

If the foregoing resolution is adopted by the Company's shareholders at the 2016 Annual and Special Meeting, the Name Change Amendment will become effective upon the Company's filing of the Name Change Amendment with the New Brunswick Director of Corporations. Notwithstanding approval of the Name Change Amendment by the Company's shareholders, the Board of Directors may abandon the Name Change Amendment without further approval of the shareholders at any time prior to the filing of the Name Change Amendment with the New Brunswick Director of Corporations.

Reason for the Name Change

The Company has made a significant strategic transformation since 2011. The Company has positioned itself as a leading provider of precision component and subsystem technologies to Original Equipment Manufacturers in the medical and advanced industrial markets, while shifting away from its legacy focus on the semiconductor capital equipment market. The Company is proposing to rebrand itself to emphasize this new strategic direction. The name Novanta stands for The Innovation Advantage, as innovation and technical collaboration with customers are at the core of the Company's value proposition. The Company believes that the Novanta name reinforces the Company's new strategy.

Ticker Symbol Change

We have reserved the ticker symbol "NOVT" on the NASDAQ Global Select Market. If the Name Change Amendment is approved by shareholders, we intend to request that the ticker symbol under which our common shares are listed and traded be changed from "GSIG" to "NOVT" or another symbol selected by us. We expect the ticker symbol change to become effective, if at all, on or about the same time as effectiveness of the Name Change Amendment.

Effects of the Name Change

If the resolution approving the Name Change Amendment is adopted by the Company's shareholders and the Name Change Amendment is filed with the New Brunswick Director of Corporations, the voting and other rights that accompany the Company's common shares will remain unchanged. The name change will not affect the validity or transferability of any currently outstanding stock certificates nor will it be necessary for shareholders with certificated shares to surrender or exchange any stock certificates they currently hold as a result of the name change. Uncertificated shares currently held in direct registration accounts and any new stock certificates that are issued after the effectiveness of the name change will bear the name Novanta Inc.

If the resolution approving the Name Change Amendment is not adopted by the Company's shareholders, or if such resolution is adopted but the Board of Directors chooses to abandon the Name Change Amendment, the name change described above will not be made and the Company's name and ticker symbol will remain unchanged.

Required Vote

The affirmative vote of not less than two-thirds of the common shares represented and cast in respect of this matter is required to adopt the resolution approving the Articles of Amendment to change the name of the Company to Novanta Inc. Abstentions will not be counted in determining the number of votes cast, and thus will not affect the voting results of this proposal. Because brokers have discretionary authority to vote on the resolution approving the Name Change Amendment, we do not expect any broker non-votes in connection with this proposal.

THE BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THE ADOPTION OF THE RESOLUTION APPROVING ARTICLES OF AMENDMENT TO CHANGE THE NAME OF THE COMPANY TO NOVANTA INC. AS DESCRIBED ABOVE.

EXECUTIVE OFFICERS

Set forth below is information regarding the Company's current executive officers who are not also directors. Information concerning John A. Roush, our Chief Executive Officer, may be found above in the section entitled "Item 1–Election of Directors" on page 6 of this management proxy circular.

Robert Buckley Chief Financial Officer Age: 42

Executive Officer Since: March 2011

Mr. Buckley was appointed the Company's Chief Financial Officer on March 31, 2011. Prior to joining the Company in February 2011, Mr. Buckley had a ten-year career with PerkinElmer, Inc. ("PerkinElmer"), a provider of technology and services to the diagnostics, research, environmental, safety and security, industrial and laboratory services markets, where he served in several financial positions of increasing responsibility. From September 2008 to February 2011, Mr. Buckley served as Vice President and Chief Financial Officer of PerkinElmer's Environmental Health business. From September 2005 to September 2008, Mr. Buckley was Chief Financial Officer of PerkinElmer's Asian operations. From April 2001 to August 2005, Mr. Buckley served in various financial management roles at PerkinElmer. Prior to joining PerkinElmer, Mr. Buckley held management positions with Honeywell International, Inc. (formerly AlliedSignal, Inc.) and Georgeson & Company, Inc. Mr. Buckley holds a B.A. in Finance from Manhattanville College and an M.B.A. from University of California Los Angeles (U.C.L.A.)

Matthijs Glastra Chief Operating Officer Age: 47

Executive Officer Since: October 2012

Mr. Glastra was appointed the Company's Chief Operating Officer on February 26, 2015. Prior to that, he served as the Company's Vice President and Group President of Laser Products and Vision Technologies from March 1, 2014 to February 26, 2015, and as Vice President and Group President of Laser Products from October 15, 2012 to March 1, 2014.

Mr. Glastra joined the Company in 2012 after an 18-year career with Philips, a technology company, where he most recently served as Chief Executive Officer of Philips Entertainment Lighting. He previously served as Chief Operating Officer and Executive Vice President of Worldwide Operations of Philips Lumileds from 2007 to 2012, and held multiple general manager positions at various Philips business units, including Philips LCD Backlighting and Philips Semiconductors, from 2001 to 2007. He also served as Director of Corporate Strategy in the Philips corporate headquarters from 1999 to 2001. He started his career at Philips as product manager of Computed Tomography in the Philips Healthcare division in October 1994. Mr. Glastra holds a Master of Science Degree in Applied Physics from Delft University of Technology, as well as an Advanced Engineering Degree in Applied Physics and Electronics from ESPCI in Paris, France, and an MBA from INSEAD in Fontainebleau, France.

CORPORATE GOVERNANCE

The Board of Directors

The Board is elected annually and each of our directors stands for election every year. Presently, the Board is comprised of seven directors, and all except Mr. Roush have been determined by the Board to be independent under the rules of The NASDAQ Stock Market LLC, or NASDAQ. In making this determination, the Board has affirmed that each of the independent directors meets the objective requirements for independence set forth by NASDAQ. The independent directors are Stephen W. Bershad, Harry L. Bosco, Dennis J. Fortino, Ira J. Lamel, Dominic A. Romeo and Thomas N. Secor. Mr. Roush is not independent because he is the Company's Chief Executive Officer.

In evaluating and determining the independence of the directors, the Board considered that in the ordinary course of business, transactions may occur between the Company and its subsidiaries and entities with which some of the directors are or have been affiliated and that the Company may have other relationships with its directors. Specifically, the Board considered that Mr. Bershad is a significant shareholder of the Company. The Board determined that this relationship did not impair Mr. Bershad's independence.

Please see the biography of each director under the section entitled "Item 1–Election of Directors" for the public company boards on which each director serves.

Board Leadership Structure and Role in Risk Oversight

The Board is responsible for the overall stewardship of the Company. The Board discharges this responsibility directly and through delegation of specific responsibilities to its committees, the Chairman of the Board and officers of the Company. The Board has established three standing committees to assist with its responsibilities: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee has a charter defining its responsibilities. The Board of Directors does not have an executive committee.

The Company's By-Laws require the Chairman of the Board to be a director and provide the Board with the ability to appoint the Chief Executive Officer of the Company as the Chairman of the Board. This approach gives the Board the necessary flexibility to determine whether these positions should be held by the same person or by separate persons based on the leadership needs of the Company at any particular time. We recognize that different board leadership structures may be appropriate for companies in different situations.

Based on the Company's present circumstances, the Board believes that the Company and its shareholders are best served by having Mr. Bershad serve as its Chairman of the Board and Mr. Roush serve as its Chief Executive Officer. Our current leadership structure permits Mr. Roush to focus his attention on managing our Company and permits Mr. Bershad to manage the Board. Accordingly, we believe our current leadership structure is the optimal structure for us at this time.

The Board recognizes the importance of appropriate oversight of potential business risks in running a successful operation and meeting its fiduciary obligations to our business, our shareholders, and our other stakeholders. While our senior executives, including the Chief Executive Officer, Chief Operating Officer, and Chief Financial Officer, have responsibility for the day-to-day assessment and management of business risks, the Board maintains

responsibility for creating an appropriate culture of risk management and setting a proper "tone at the top." In this role, the Board, directly and through its committees, takes an active role in overseeing our aggregate risk potential and in assisting our executives with addressing specific risks, including competitive, legal, regulatory, operational and financial risks. The Board does not believe that its role in the oversight of the Company's risks affects the Board's leadership structure.

Corporate Governance Highlights

The following table summarizes our board structure and key elements of our corporate governance framework:

| Size of Board | Seven Directors |
|---|-------------------------|
| Number of Independent Directors | Six |
| Board Leadership Structure | Separate Chairman & CEO |
| Board Self-Evaluation | Annual |
| Review of Independence of Board | At Least Annually |
| Independent Directors Meet Without Management Present | Yes |
| All Directors Elected Annually | Yes |
| Voting Standard for Election of Directors | Cumulative |
| Corporate Governance Guidelines | Yes |
| Prohibition on Hedging Company Stock | Yes |

Board Committees and Meetings

The Board maintains three standing committees whose functions are described below. All members of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are independent directors. The following table sets forth the membership of the Board's standing committees:

| | | | Nominating and |
|--------------------|-----------|--------------|----------------|
| | | | Corporate |
| | Audit | Compensation | Governance |
| Name | Committee | Committee | Committee |
| Stephen W. Bershad | | CHAIR | Х |
| Harry L. Bosco | | | Х |
| Dennis J. Fortino | | Х | CHAIR |
| Ira J. Lamel | CHAIR | Х | |
| Dominic A. Romeo | Х | | |
| John A. Roush | | | |
| Thomas N. Secor | X | | X |

Each standing committee maintains a written charter detailing its authority and responsibilities. These charters are reviewed and updated periodically as legislative and regulatory developments and business circumstances warrant. The committee charters are available in their entirety on our website at http://www.gsig.com in the Investors Relations section, under the Corporate Governance tab.

Meetings

The Board and standing committees met as follows during the year ended December 31, 2015:

| | Number |
|---|----------|
| | of |
| Name | Meetings |
| Board of Directors | 8 |
| Audit Committee | 7 |
| Compensation Committee | 3 |
| Nominating and Corporate Governance Committee | 2 |

The independent directors also meet routinely in executive session in connection with regular meetings of the Board. Mr. Bershad presides over all executive sessions at which he is present.

During 2015, each director attended all meetings of the Board and all meetings of committees on which the director served, except for one director who attended 94% of such meetings. Members of our Board of Directors are strongly encouraged to attend our annual meeting of shareholders. In 2015, all of our directors attended our annual meeting of shareholders.

The Audit Committee

The Audit Committee consists of Mr. Lamel, Mr. Romeo and Mr. Secor, with Mr. Lamel serving as Chairman. All members of the Audit Committee meet the membership requirements of NASDAQ, including the requirements regarding financial literacy and

financial sophistication, and the Board has determined that each member of the Audit Committee is independent under the listing standards of NASDAQ and the rules of the SEC regarding audit committee membership. The Board has further determined that Mr. Lamel is an "audit committee financial expert" as defined by the SEC.

The Audit Committee is directly responsible for the appointment, compensation and oversight of the work of the independent registered public accounting firm, and is responsible for reviewing and discussing with management and the independent registered public accounting firm our audited consolidated financial statements included in our Annual Report on Form 10-K and our interim financial statements. The Audit Committee also reviews the independence and quality control procedures of the independent registered public accounting firm, reviews management's assessment of the effectiveness of internal controls, and discusses with management the Company's policies with respect to risk assessment and risk management.

The Compensation Committee

The Compensation Committee consists of Mr. Bershad, Mr. Fortino and Mr. Lamel, with Mr. Bershad serving as Chairman. All members of the Compensation Committee meet the membership requirements of NASDAQ, and each member of the Compensation Committee is independent under the listing standards of NASDAQ regarding compensation committee membership.

The Compensation Committee is responsible for assisting our Board in fulfilling its fiduciary duties with respect to the oversight of the Company's compensation plans, policies and programs, including assessing our overall compensation structure, reviewing all executive compensation programs, incentive compensation plans and equity-based plans and determining executive compensation. Specifically, the Compensation Committee reviews and approves the compensation and benefits of our Chief Executive Officer and our other officers, oversees the performance evaluation of our Chief Executive Officer and other named executive officers, and reviews and approves our Senior Management Incentive Plan (including grants of equity compensation and annual cash incentive compensation for our officers and certain other key employees).

The Compensation Committee has the authority under its charter to directly retain and cause the Company to pay reasonable compensation for compensation consultants, legal counsel and other advisors as it deems necessary or appropriate. In 2015, the Compensation Committee retained Towers Watson, as its independent compensation consultant to assist the Compensation Committee with its responsibilities related to our executive compensation programs.

For a discussion of the Compensation Committee's processes and procedures for considering and determining compensation for our officers, please see the "Compensation Discussion and Analysis" section.

The Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee (the "NCG Committee") consists of Mr. Fortino, Mr. Bershad, Mr. Bosco and Mr. Secor, with Mr. Fortino serving as Chairman. All members of the NCG Committee meet the membership requirements of NASDAQ.

The NCG Committee is responsible for: (a) identifying individuals qualified to become Board members and recommending such individuals to the Board as director nominees; (b) developing and recommending to the Board a set of corporate governance principles applicable to the Company; (c) reviewing the qualifications of directors eligible to become members of the different committees of the Board and recommending to the Board director nominees for

each committee; (d) overseeing periodic performance reviews of the Board; and (e) evaluating and making recommendations to our Board regarding director compensation.

Selection and Evaluation of Director Candidates

In searching for qualified director candidates for election to the Board and to fill vacancies on the Board, the NCG Committee solicits current directors for the names of potentially qualified candidates and may ask directors to pursue their own business contacts for the names of potentially qualified candidates. In addition, the NCG Committee has retained an outside search firm to assist in the search for qualified candidates. In the event there is or is expected to be a vacancy on the Board, the NCG Committee will consider suggestions from shareholders for nominees for election as directors and evaluate such suggested nominees on the same terms as candidates identified by directors, officers, outside advisors or search firms selected by the NCG Committee.

The criteria that the NCG Committee has established regarding the minimum qualifications for nominees are available on the Company's website at http://www.gsig.com, in the "Investor Relations" section, under the Corporate Governance tab, with the title of "New Director Selection Process." The criteria focuses on finding candidates who have the highest level of integrity, are financially literate, have motivation and sufficient time to devote themselves to Company matters and who have skills that complement the skills and knowledge of the current directors. The Board and NCG Committee have not established a formal policy on the consideration of diversity in director candidates.

Once potential candidates are identified, the NCG Committee reviews the backgrounds of those candidates, conducts interviews of candidates and establishes a list of final candidates. To the extent practicable, final candidates are then interviewed by

each member of the NCG Committee, the Chairman of the Board and the Chief Executive Officer. Reasonable efforts are made to have all remaining directors interview final candidates.

The NCG Committee and the Board have not established a formal policy with regard to the consideration of director candidates recommended by shareholders. This is due to the following factors: (i) the limited number of such recommendations, (ii) the need to evaluate such recommendations on a case-by-case basis, and (iii) the expectation that recommendations from shareholders would be considered in the same manner as recommendations by directors, officers, outside advisors or search firms in the event there is or is expected to be a vacancy on the Board.

Any shareholder who intends to recommend a candidate to the NCG Committee for nomination as a director should deliver written notice to the Company with the following information: (a) the suggested candidate's biographical data (including business experience, service on other boards, and academic credentials), (b) all transactions and relationships, if any, between the recommending shareholder or such candidate, on the one hand, and the Company or its management, on the other hand, as well as any relationships or arrangements, if any, between the recommending shareholder and the candidate and any other transactions or relationships of which the Board should be aware in order to evaluate such candidate's potential independence as a director, (c) details of whether the candidate or the recommending shareholder is involved in any on-going litigation adverse to the Company or is associated with an entity which is engaged in such litigation, and (d) whether the candidate or any company for which the candidate serves or has served as an officer or director is, or has been, the subject of any bankruptcy, SEC or criminal proceedings or investigations, any civil proceedings or investigations related to fraud, accounting or financial misconduct, or any other material civil proceedings or investigations. The notice must also contain a written consent confirming the candidate's (a) consent to be nominated and named in the Company's management proxy circular and, if elected, to serve as a director of the Company and (b) agreement to be interviewed by the NCG Committee and submit additional information if requested to do so. Any such notice should be delivered to the Company sufficiently in advance of the Company's annual meeting to permit the NCG Committee, in the event there is or is expected to be a vacancy on the Board, to complete its review in a timely fashion.

Under the Company's Articles, a shareholder may propose a director candidate for inclusion in the Company's notice of meeting if the proposal is signed by one or more holders of shares representing in the aggregate not less than 5% of the common shares of the Company entitled to vote at the shareholders' meeting at which the nomination is to be presented. Any shareholder, as described in the preceding sentence, wishing to propose a director candidate for inclusion in the Company's notice of meeting must provide notice to the Company by February 9, 2017 and include the information about such nominee as discussed above with respect to director candidates recommended by shareholders.

Communications with the Board

The Board has not established a formal process for shareholders to send communications to the Board and/or individual directors due to the limited number of such communications historically. However, the names of all directors are available to shareholders in this management proxy circular and on the Company website. If the Company receives any shareholder communication intended for the full Board or any individual director, the Company will forward all such communications to the full Board or such individual director, unless the communication is clearly of a marketing nature or is unduly hostile, threatening, illegal or similarly inappropriate. Any shareholder communications should be sent to: GSI Group Inc., 125 Middlesex Turnpike, Bedford, Massachusetts 01730, Attention: Investor Relations.

Code of Ethics and Business Conduct

All of the Company's directors, officers and employees must act in accordance with the Code of Ethics and Business Conduct, which has been adopted by the Company's Board of Directors. A copy of the Code of Ethics and Business

Conduct is available on the Company's website at http://www.gsig.com in the "About GSI Group" section. The Company intends to satisfy the disclosure requirement under Nasdaq rules regarding waivers or under Item 5.05 of Form 8-K regarding disclosure of an amendment to, or waiver from, a provision of this Code of Ethics and Business Conduct with respect to its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, by posting such information on the Company's website discussed above, unless a Form 8-K is otherwise required by law or applicable listing rules.

Orientation and Continuing Education

The Company's Corporate Governance Guidelines provide that directors are expected to participate in an orientation program within six months of the annual meeting at which new directors are elected or the date on which new directors are appointed. In addition, the Company may periodically make available to its directors continuing educational opportunities designed to assist them in performing their Board and committee functions.

Assessments

The NCG Committee is responsible for annually overseeing a review of the performance of the Board, and each of the NCG Committee, Audit Committee and Compensation Committee is responsible for annually reviewing such committee's own

performance. In December 2015, the NCG Committee adopted a self-evaluation questionnaire for the Board and each of the Board's standing committees. Each director completed a questionnaire evaluating the performance of the Board as a whole and each committee on which such director served, and a summary of the results of these self-evaluations was discussed by the Board at its February 24, 2016 meeting.

DIRECTOR COMPENSATION

In general, the Company uses a combination of cash and equity-based compensation to attract and retain candidates to serve on the Company's Board of Directors. The Company does not compensate directors who are also employees for their service on the Board of Directors. Accordingly, during the year ended December 31, 2015, Mr. Roush, who served as the Company's Chief Executive Officer, did not receive any compensation for his service on the Board of Director compensation is overseen by the Nominating and Corporate Governance Committee rather than the Compensation Committee, which focuses on employee compensation. The Nominating and Corporate Governance directors and makes recommendations to the Board of Directors for any adjustments.

The Board of Directors approved the following compensation for non-employee directors:

Each non-employee member of the Board of Directors will receive an annual retainer in the amount of \$125,000. The Chairperson of the Audit Committee will receive an additional annual retainer in the amount of \$15,000. The Chairpersons of the Compensation Committee and the Nominating and Corporate Governance Committee will each receive an additional annual retainer in the amount of \$10,000 (unless any such Chairperson is also serving as non-executive Chairperson of the Board of Directors).

The non-executive Chairperson of the Board of Directors will receive an additional annual retainer in the amount of \$125,000.

Fifty percent of the foregoing non-employee director compensation will be paid in the form of cash and the remaining fifty percent of such compensation will be payable in the form of deferred stock units, which will be convertible into shares of the Company's common stock upon a holder's termination of directorship with the Company.

As of the end of the Company's fiscal year ended December 31, 2015, each director was also a party to an indemnification agreement with the Company. Such indemnification agreements generally provide, among other things, that each director shall be indemnified to the fullest extent permitted by applicable law against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by such director in connection with any proceeding by reason of his or her relationship with the Company. In addition, such indemnification agreements provide for the advancement of expenses incurred by such director in connection with any proceeding covered by such indemnification agreements, subject to the conditions set forth therein and to the extent such advancement is not prohibited by law.

Director Compensation Table

The following table sets forth information regarding the compensation earned during the fiscal year ended December 31, 2015 by the Company's non-employee directors.

| Name | Fees | Stock | Total |
|------|---------|---------------|-------|
| | Earned | | |
| (a) | | Awards | (\$) |
| | or Paid | | |
| | in Cash | (\$)(2)(3)(4) | (h) |

(c)

(\$)(1)

| | (b) | | |
|--------------------|---------|---------|---------|
| Directors | | | |
| Stephen W. Bershad | 125,000 | 125,002 | 250,002 |
| Harry L. Bosco | 62,500 | 62,501 | 125,001 |
| Dennis J. Fortino | 67,500 | 67,506 | 135,006 |
| Ira J. Lamel | 70,000 | 70,008 | 140,008 |
| Dominic A. Romeo | 62,500 | 62,501 | 125,001 |
| Thomas N. Secor | 62,500 | 62,501 | 125,001 |

- (1)All fees earned by the Company's Board of Directors during the year ended December 31, 2015 were paid in full prior to December 31, 2015.
- (2) Amounts shown do not reflect compensation actually received. Rather, amounts shown represent the aggregate grant date fair value of each director's deferred stock unit award determined in accordance with Accounting Standards Codification ("ASC") 718, "Compensation-Stock Compensation" (based on the closing price of the Company's common stock on the last business day prior to the date of grant). The deferred stock units granted by the Company were fully vested on the grant date and the associated expense was recognized in full on the grant date in accordance with ASC 718.
- (3)All awards were granted at the closing price of the Company's common stock on the NASDAQ Global Select Market on the last business day prior to the date of grant. The amounts represent the aggregate grant date fair value associated with the respective

annual deferred stock unit award granted to each director on January 1, 2015. In accordance with the compensation arrangement with the Board of Directors, the number of deferred stock units granted on January 1, 2015 was determined based on the closing price of the Company's common stock of \$14.72 per share as of the last day of the preceding fiscal year, December 31, 2014.

(4) The aggregate deferred stock unit awards outstanding by directors as of December 31, 2015:

| Deferred Stock |
|-------------------|
| Units(1) |
| (#) |
| 81,231 |
| 20,007 |
| 42,219 |
| 45,491 |
| 20,007 |
| 20,007 |
| 228,962 |
| |

(1)Represents all deferred stock units granted to the directors as of December 31, 2015. Such deferred stock units were fully vested on the date of grant and will convert into an equal number of shares of the Company's common stock as of the date the respective director ceases his membership on the Board of Directors. Includes the following:

| | Mr. | Mr. | Mr. | Mr. | Mr. | Mr. |
|-------------------|---------|--------|---------|--------|--------|--------|
| Grant Date | Bershad | Bosco | Fortino | Lamel | Romeo | Secor |
| September 2, 2010 | 23,149 | | 11,575 | 12,963 | | |
| February 15, 2011 | 11,815 | | 5,908 | 6,617 | | |
| January 1, 2012 | 12,219 | | 6,110 | 6,843 | | |
| July 2, 2012 | | 2,982 | 239 | | 2,982 | 2,982 |
| January 1, 2013 | 14,435 | 7,218 | 7,795 | 8,084 | 7,218 | 7,218 |
| January 1, 2014 | 11,121 | 5,561 | 6,006 | 6,228 | 5,561 | 5,561 |
| January 1, 2015 | 8,492 | 4,246 | 4,586 | 4,756 | 4,246 | 4,246 |
| Total | 81,231 | 20,007 | 42,219 | 45,491 | 20,007 | 20,007 |

COMPENSATION DISCUSSION AND ANALYSIS

The following discussion and analysis contains statements regarding individual and Company performance targets and goals. These targets and goals are disclosed in the limited context of the Company's compensation programs and should not be understood to be statements of management's expectations or estimates of results or other guidance. The Company specifically cautions investors not to apply these statements to other contexts.

The following details the Company's philosophy and policies regarding executive compensation, the process that is used to set executive compensation within the Company, the elements of the executive compensation program, and the role of the Compensation Committee of the Board of Directors of GSI Group Inc. and the executive staff in setting executive compensation. In this section, the terms, "we", "our", and "us" refer to the Company, and the "Board" and "Board of Directors" refer to the Board of Directors of GSI Group Inc., unless otherwise specified.

The following table shows our named executive officers for fiscal year 2015:

| Executive | Title | Officer Since |
|--------------------|--|--|
| John A. Roush | Chief Executive Officer | 2010 |
| Robert J. Buckley | Chief Financial Officer | 2011 |
| Matthijs Glastra | Chief Operating Officer | 2012 |
| Deborah A. Mulryan | Former Vice President, Human Resources | 2011 (resigned as of January 13, 2015) |
| EXECUTIVE SUMMARY | · | |

2015 Business and Compensation Highlights

Fiscal year 2015 was a solid year from a financial and strategic perspective. Strategically, the Company:

- •Completed the sale of its fiber laser business, operated under the JK Lasers brand name, for \$29.6 million in cash, net of working capital adjustments;
- •Acquired Applimotion Inc., a Loomis, California-based provider of advanced precision motor and motion control technology to OEM customers in the medical and advanced industrial markets, for a total purchase price of \$14.0 million;
- •Acquired Lincoln Laser Company, a Phoenix, Arizona-based provider of ultrafast precision polygon scanners and other optical scanning solutions for the medical, food processing, and advanced industrial markets, for a total purchase price of \$12.2 million;
- •Acquired Skyetek Inc., a Denver, Colorado-based provider of embedded and standalone radio frequency identification solutions for original equipment manufacturer ("OEM") customers in the medical and advanced industrial markets, for a total purchase price of \$2.8 million;
- •Finalized an agreement to divest the Company's 50% owned joint venture in India, Excel Laser Technology Private Limited, for net cash proceeds of \$0.2 million;
- •Finalized the 2015 restructuring program to eliminate redundant costs, as a result of acquisition and divestiture activities, to better align our operations to our strategic growth plans, to further integrate our business lines, and as a consequence of our productivity initiatives; and
- •Initiated the 2016 restructuring program targeting annualized savings of \$4.5 million to \$5.5 million after the program is fully executed. The 2016 restructuring program includes consolidating our manufacturing operations to optimize our facility footprint and to better utilize resources, and reducing redundant costs due to productivity cost

savings and business volume reductions in certain business lines.

Financially, we achieved many of the goals set forth by management and the Board at the outset of the year and made significant progress toward our long-term goals.

•For the full year of 2015, the Company generated revenue of \$373.6 million, an increase of 2.4% from \$364.7 million for the full year of 2014;

•For the full year of 2015, operating income from continuing operations was \$28.9 million, compared to a loss of \$16.8 million for the full year of 2014; and

· For the full year of 2015, diluted earnings per share was \$1.02, an increase of \$1.51 per share from a loss per share of (0.49) for the full year of 2014.

Our executive compensation program results for fiscal year 2015 reflected this strategic and financial progress. The cash component of our Senior Management Incentive Plan ("SMIP") for executives paid out above target for fiscal year 2015 based on the following:

- •Company adjusted EBITDA for the first half of the year was above the target, resulting in a payout of 132% of the target;
- •Company adjusted EBITDA for the second half of the year was below target, resulting in a payout of 84% of the target; and
- •Company adjusted EBITDA for the full year was above the target, resulting in a full year payout of 104% of the target.

Finally, we maintained strong governance of our executive compensation program. In particular, during fiscal year 2015, the Compensation Committee:

·Convened three times;

- •Reviewed the performance of the Chief Executive Officer (the "CEO");
- ·Reviewed the performance of other NEOs; and
- ·Considered the results of our fiscal year 2014 say-on-pay voting results.

We feel that our executive compensation programs continue to provide a strong link between pay and performance, provide appropriate incentives and provide a fair and balanced total compensation opportunity to the executives. Our shareholders agree, as evidenced by the approval of our executive compensation by 95% of the votes cast with respect to our 2015 say-on-pay proposal.

COMPENSATION PHILOSOPHY

The Company is a global leader and supplier of precision photonics and motion control components and subsystems to original equipment manufacturers ("OEM's") in the medical equipment and advanced industrial technology markets. The Company operates in an ever-evolving and fast-paced environment, in which the Company is moving aggressively to position itself in leading high growth medical and advanced industrial markets. Our ability to compete in this environment depends, to a large extent, on our success in identifying, recruiting, developing and retaining management talent.

In support of our goals, we have designed an executive compensation program that is a robust, highly performance-driven program intended to generate both long-term sustainable shareholder value and near-term focus on financial performance, operational excellence, quality and innovation. The program is based on the following principles:

- •Competitive compensation. The compensation program is intended to attract and retain executive talent with the capability to lead within a global company, while remaining affordable for the Company, including with respect to its impact on earnings and cash flow, avoiding the promotion of inappropriate or excessive risk-taking and maintaining flexibility to respond to the changing needs of the business.
- •Pay-for-performance. The Compensation Committee reviews the overall design of our executive compensation program on an annual basis to ensure that our executive compensation is aligned with both annual and long-term performance goals. Additionally, in 2016, the Company adopted changes to the long-term compensation provided to our named executive officers to further reinforce our compensation philosophy. These changes include granting 50% of long-term compensation in the form of performance based restricted stock units and stock options. The Company considers options to be a form of long-term performance based compensation.
- Compensation mix with a larger percentage of "at-risk" compensation. Through the adoption of a compensation structure offering both cash-based and equity-based incentives, the Compensation Committee has increased the percentage of "at-risk" compensation for named executive officers. The Compensation Committee may also consider

further increasing the emphasis on "at-risk" elements of compensation in the future by reducing or maintaining base salaries and increasing short-term and/or long-term incentive potentials. This compensation mix is intended to support the following compensation objectives:

- oEmphasis on variable pay to align executive compensation with the achievement of results that drive the Company's business strategy; and
- oUtilization of equity-based incentive plans to tie a significant portion of compensation to the Company's long-term results, to align the executive's financial interests with those of our shareholders and to facilitate an ownership culture among executives.

•Prudent corporate governance. We are committed to maintaining a prudent corporate governance model and to continually improving our compensation practices and policies. Key practices include:

o Annual review of the compensation philosophy of the Company by the Compensation Committee.

o Maintenance of a Compensation Committee composed entirely of independent, non-employee directors who satisfy applicable independence requirements.

oEngagement of an independent outside compensation consultant, Towers Watson, to perform market-based analyses of competitive pay levels and practices for key positions within the Company.

oLimitation on engaging in hedging transactions by our named executive officers.

o Annual "say-on-pay" advisory voting.

The following graphs depict the average target pay mix of base salary, short-term cash bonus incentives and long-term equity-based incentives for our Chief Executive Officer and for our other named executive officers (other than Ms. Mulryan who resigned effective as of January 13, 2015).

(1)Based on annual base salary, annual target cash bonus and annual equity grant in the CEO's 2015 compensation package.

(2)Based on: annual base salary, annual target cash bonus and annual equity grant in the 2015 compensation packages for Mr. Buckley and Mr. Glastra. Excludes compensation for Ms. Mulryan who resigned effective as of January 13, 2015.

Highlights of our 2015 Executive Compensation Program

During 2015, we continued to implement compensation practices and arrangements that reinforce our compensation philosophy. A summary of such compensation practices are set forth below:

Continuation of the SMIP, a pay-for-performance compensation structure for senior executives, which seeks to balance the percentage of compensation provided in the forms of base salary, cash bonus incentive awards and long-term equity-based awards. The SMIP provides a competitive market-based compensation structure with direct alignment to shareholder interests that enables the Company to attract and retain key management talent. Equity incentive awards were granted pursuant to the SMIP to align executive compensation with the long-term goal of enhancing shareholder value and to promote executive retention with the Company by granting awards that vest over three years. Named executive officers are encouraged to retain the shares granted to them to further drive long-term value creation and interests that align with those of the shareholders. Additionally, in 2016, the Company intends to adopt changes to the long-term compensation provided to our named executive officers to further reinforce our compensation philosophy.

The cash bonus incentive awards pursuant to the SMIP are determined based on performance metrics, based on the Board's belief that the Company's growth and future success are dependent upon the achievement of financial results. For our named executive officers, the metric is Company adjusted EBITDA. The Company currently defines Company adjusted EBITDA as operating income from continuing operations before deducting depreciation, amortization, non-cash stock-based compensation and other non-recurring or non-operating charges. The respective adjusted EBITDA target levels of performance are correlated with the Company's annual sales and income growth objectives. See the "Executive

Compensation Program Elements" section below for additional information about the performance metrics applicable to the 2015 cash bonus incentive awards.

In addition to the compensation practices described above, the Company has agreed to certain compensation terms and conditions that are set forth in employment or severance agreements or letters with the named executive officers. For a full description of the Company's executive compensation program, please also see "Executive Compensation Program Elements." For a description of the employment and severance agreements and letters, see "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table" and "Potential Payments upon Termination or Change of Control".

THE EXECUTIVE COMPENSATION DECISION MAKING PROCESS

Compensation Committee Members and Independence

The Compensation Committee is comprised of Messrs. Bershad, Fortino and Lamel. None of the current members were, at any time, officers or employees of the Company or its subsidiaries and the Board has determined that each member of the Compensation Committee is an independent director under the applicable rules of NASDAQ.

Role of the Compensation Committee, Management and Outside Advisors

The Compensation Committee is responsible for designing, implementing and evaluating the Company's executive compensation plans and policies. Among its responsibilities, the Compensation Committee:

- •Reviews the Compensation Committee Charter (the "Charter") annually and amends it as appropriate;
- •Establishes our compensation philosophy and the framework for determining the compensation of our named executive officers;
- •Reviews, evaluates and approves base salaries, cash-based incentives, long-term equity-based incentives and all other forms of compensation for these individuals;
- •Evaluates the performance of the CEO and receives performance evaluations of the other named executives as reported by the CEO, which will impact the following year's compensation decisions;
- •Reviews and approves the performance objectives, including the target financial objectives for the cash-based incentives, applicable to each of the named Executive officers; and
- •Certifies performance at the end of each year and approves annual cash bonus payouts.

In performing the responsibilities above, the Compensation Committee receives advice and input, as applicable, from the Board of Directors, the CEO, members of management, outside consultants, human resources representatives and the Company's outside legal counsel on compensation issues and regarding general compensation policies, including the appropriate level and mix of the compensation for executive officers.

The Compensation Committee meets in executive session and, where appropriate, with members of management, including the CEO, outside consultants, human resources representatives and the Company's outside legal counsel. Although the CEO is generally present during the non-executive sessions of the Compensation Committee meetings and provides input to the Compensation Committee with regard to his direct reports, the Compensation Committee makes all decisions with regard to CEO compensation in executive sessions and the CEO has no vote in the actual approval of compensation for any named executive officer.

Pursuant to the Charter, the Compensation Committee may form and delegate authority to subcommittees of the Compensation Committee, to the extent consistent with the Company's Articles of Association, Bylaws, Corporate Governance Guidelines, applicable law and NASDAQ rules, except that it may not delegate its responsibilities for any matters that involve executive compensation or any matters where it has determined such compensation is intended to comply with Section 162(m) of the Internal Revenue Code (the "Code"), by virtue of being approved by a committee of

"outside directors" or is intended to be exempt from Section 16(b) under the Securities Exchange Act of 1934 pursuant to Rule 16b-3 by virtue of being approved by a committee of "non-employee directors."

Executive Compensation and Comparable Company Data

Generally, the Compensation Committee reviews each named executive officer's total compensation each year and, in connection therewith, considers market data for similar positions at other public companies and other relevant sources. The Compensation Committee may retain the services of advisors and it has the budgetary authority to hire such advisors as it deems necessary for its compensation review. In 2015, the Compensation Committee worked directly with its external advisor, Towers Watson, which helps the Compensation Committee assess whether the total compensation paid to the named executive officers is fair,

reasonable and competitive. The Company has assessed the independence of Towers Watson and its representatives and has determined that no conflicts of interest exist. In order to avoid any conflict of interest, Towers Watson did not provide other executive compensation consulting services to the Company during 2015.

Generally, the types of compensation and benefits provided to the named executive officers are intended to be similar to those provided to executive officers at other public companies. While the Compensation Committee does not believe it is appropriate to set executive compensation levels based exclusively on compensation surveys and comparable company data, the Compensation Committee uses publicly available surveys and comparable company data as tools for internally assessing whether the Company's executive compensation program is, in the aggregate, reasonable in scope, market-competitive, and consistent from year to year. The surveys referenced by the Compensation Committee in 2015 include the 2014 Towers Watson's Top Management Compensation Survey and the 2014 Mercer Executive Compensation Survey.

In addition to reviewing the general publicly available survey data described above, the Compensation Committee also develops a list of competitor companies for consideration as the Company's peer group based on relevant factors, including: industry, fiscal year or trailing twelve-month revenue, market capitalization, total shareholder return and EBITDA. In early 2015, Towers Watson was asked to develop a compensation report that identifies market-based compensation structures, pay practices and rates of compensation for targeted positions at the Company as compared to the Company's peer group. The peer group used in this compensation report prepared by Towers Watson dated February 2015, which was used in establishing the 2015 compensation of our named executive officers, was comprised of the following companies:

| Analagia Comparation | MTC Sustama Comparation |
|--|---|
| Analogic Corporation | MTS Systems Corporation |
| •Coherent Inc. | Cognex Corporation |
| •Newport Corp. | •American Science & Engineering Inc. |
| •Rofin-Sinar Technologies Inc | c.•Fabrinet |
| •II-VI Inc. | •MKS Instruments, Inc. |
| •IPG Photonics Corporation | •Brooks Automation, Inc. |
| •Greatbatch, Inc. | •CTS Corporation |
| •LMI Aerospace, Inc. | •Astronics Corporation |
| •NN, Inc. | - |

The Company has retained the services of Pearl Meyer & Partners, LLC to assess 2016 executive compensation and, in connection with this review, the Company's peer group was further reconstituted to include the following companies: Allied Motion Technologies Inc., American Science & Engineering Inc., Analogic Corporation, Astronics Corporation, Brooks Automation, Inc., Cognex Corporation, Coherent Inc., CTS Corporation, FARO Technologies Inc., II-VI Inc., IPG Photonics Corporation, LMI Aerospace Inc., MTS Systems Corporation, Newport Corp., NN Inc., Rofin-Sinar Technologies Inc., SL Industries Inc., and Vishay Precision Group, Inc.

Outside of survey and peer group information, other important factors that drive compensation decisions include individual qualifications and expertise, responsibilities, particular industry and market conditions of a business segment, complexity of position and specific market factors in the locations in which our named executive officers are employed. The Compensation Committee also considers the performance of the Company's named executive officers, the individual's historical compensation and any retention concerns, and the CEO's recommendations (in the case of named executive officers other than the CEO) before determining the compensation arrangement for each of them.

Shareholder Say-On-Pay Vote

At our 2015 annual meeting of shareholders, the Company provided our shareholders with the opportunity to cast an annual advisory vote to approve the Company's executive compensation. Approximately 95% of the votes cast on this "2015 say-on-pay vote" were voted in favor of the proposal. We have considered the 2015 say-on-pay vote and we believe that the overwhelming support of our shareholders for 2015 say-on-pay vote indicates that our shareholders are generally supportive of our approach to executive compensation. The Company did not make any changes to its executive compensation arrangements in response to the 2015 say-on-pay vote. In the future, the Company will continue to consider the outcome of the say-on-pay votes when making compensation decisions regarding its named executive officers.

Executive Compensation Program Elements

Executive compensation at the Company includes base salary, short-term cash bonus incentives, long-term equity-based incentives, employee benefits and, in certain situations, severance and other compensation. These elements (and the amounts of compensation and benefits thereunder) were selected because the Compensation Committee believes they are necessary to help us attract and retain executive talent which is fundamental to our success. The elements of compensation may vary among executives based on the Compensation Committee's determination as to what is appropriate under the policies set forth above. Below is a summary of the current executive compensation programs as they relate to our named executive officers, excluding, in general, Ms. Mulryan who resigned effective as of January 13, 2015.

Base Salary

Base salary levels for the named executive officers are generally determined based on the Compensation Committee's evaluation of the named executive officer's position, experience, qualifications, prior employment (including historical compensation), current and individual performance, industry knowledge, quality of leadership, scope of responsibilities (including potential growth in responsibilities), internal pay equity, tax deductibility, cost of living, and competitive external market data (which includes peer group information as described above). No specific weighting is applied to the factors. Generally, the Compensation Committee refers to the median of the relevant competitive market for the position as part of the base salary evaluation, but any individual named executive officer may have a base salary above or below the median of the market. The Compensation Committee's philosophy is that base salaries are the minimum payment for satisfactory performance and should meet the objective of attracting and retaining the executive talent needed to run a complex business.

The annual base salaries for each of our named executive officers, effective on and after April 6, 2014 and April 5, 2015, respectively, are listed below:

| | 2014 | 2015 |
|-------------|-----------|-----------|
| Mr. Roush | \$567,840 | \$587,714 |
| Mr. Buckley | \$367,744 | \$380,615 |
| Mr. Glastra | \$399,000 | \$412,965 |

Cash Bonus Incentives

In 2015, the SMIP included cash bonus incentives that were designed to motivate and reward the Company's key management team members for driving short-term performance within their respective organizations and across the Company. The cash bonus incentives pursuant to the SMIP are earned semi-annually based on Company adjusted EBITDA (the "Financial Objectives"). For purposes of payment of cash bonus incentives, adjusted EBITDA is defined as operating income from continuing operations before deducting depreciation, amortization, non-cash stock-based compensation and other non-recurring or non-operating charges. The target level of the Financial Objectives (provided below) is correlated with the Company's annual growth objectives. Although the target financial metrics of cash bonus are intended to be achievable, a maximum bonus would require very high levels of performance. Actual performance against the Financial Objectives must be within an established range of the target to result in any payout for the respective Financial Objectives, as described in more detail below.

Each of our named executive officers has an established bonus incentive target, which is based on a percentage of his or her current annual base salary. Pursuant to the SMIP, the target bonus would be payable upon 100% achievement of each of the applicable Financial Objectives. The table below describes the cash bonus incentive for each named

executive officer under the SMIP, including the annual target as a percentage of base salary and the annual target in dollars. Ms. Mulryan did not participate in the SMIP in 2015.

| | Cash | | | |
|-------------|-----------|-------------|-----------|-------------|
| | Bonus | | Cash | |
| | Incentive | Cash | Bonus | Cash |
| | | Bonus | Incentive | Bonus |
| | Annual | Incentive | | Incentive |
| | Target (% | | Minimum | |
| | of base | Annual | Payout | Maximum |
| | salary) | Target (\$) | (\$) | Payout (\$) |
| Mr. Roush | 100% | 587,714 | | 1,469,285 |
| Mr. Buckley | 75% | 285,461 | | 713,653 |
| Mr. Glastra | 65% | 268,427 | | 671,068 |

The following chart shows the weightings of each of the performance metrics under the SMIP for the named executive officers.

| | First-half | Second-half | Full-year |
|--------------|------------|-------------|-----------|
| | Financial | Financial | Financial |
| | | | |
| | Objective | Objective | Objective |
| Participants | 40% | 40% | 20% |

The cash bonus incentives with respect to the Financial Objectives are eligible to be earned in six-month cycles, subject to availability of consolidated financial statements for the respective six-month cycle. Payouts for all named executive officers are calculated for each cycle as the achievement against the respective Financial Objectives multiplied by the target bonus percentages and the base salary for the applicable period for each participant. The target payout date for the first-half payout is August 15 of the then-current year and the target payout date for the second-half is March 15 of the following year. The cash bonus incentives with respect to the full-year Financial Objective are eligible to be earned over the full year and are paid at the same time as the second-half bonus incentive payout.

Amounts earned based on the Financial Objectives will vary depending upon the level of achievement of the assigned Financial Objectives, and are calculated on payout curves. The threshold, target and maximum payouts pursuant to the respective Financial Objectives are presented below:

First Half of 2015

| | Performance against | Payout for Respective |
|-----------|------------------------------------|-----------------------|
| | Financial Objectives | Financial Objectives |
| Threshold | 50% or less of performance target | 0% of target payout |
| Target | 100% of performance target | 100% of target payout |
| Maximum | 175% or more of performance target | 250% of target payout |

Second Half and Full Year of 2015

| | Performance against | Payout for Respective |
|-----------|------------------------------------|-----------------------|
| | Financial Objectives | Financial Objectives |
| Threshold | 75% or less of performance target | 0% of target payout |
| Target | 100% of performance target | 100% of target payout |
| Maximum | 175% or more of performance target | 250% of target payout |

The targets that would have resulted in a 100% payout of the respective Financial Objectives, as applicable, to each of the named executive officers in 2015 are as follows: first half financial target: Company adjusted EBITDA of \$26.7 million; second half financial target: Company adjusted EBITDA of \$33.3 million; full year financial target: Company adjusted EBITDA of \$60.0 million.

The table below presents the actual cash bonus incentives earned in 2015 under the SMIP, by performance objective, as applicable, for each of the named executive officers:

First-halfSecond-halfFull-yearFinancialFinancialFinancialObjectiveObjectiveObjectiveTotal (\$)

| Mr. Roush (1) | \$310,313 | \$ 197,472 | \$122,245 | \$630,030 |
|-----------------|-----------|------------|-----------|-----------|
| Mr. Buckley (1) | \$150,724 | \$ 95,915 | \$59,376 | \$306,015 |
| Mr. Glastra (1) | \$141,730 | \$ 90,192 | \$55,833 | \$287,755 |

(1) Cash bonus incentive earned was determined based on achievement of 116% of the Financial Objective in the first half, resulting in a payout of 132% of the target amount with respect to such objective based on the payout curve; achievement of 92% of the Financial Objective in the second half, resulting in a payout of 84% of the target amount with respect to such objective based on the payout curve; and achievement of 102% of the Financial Objective based on the payout curve; and achievement of 102% of the Financial Objective in the full year, resulting in a payout of 104% of the target amount with respect to such objective based on the payout curve; and achievement of 102% of the Financial Objective based on the payout curve; amount with respect to such objective based on the payout of 104% of the target amount with respect to such objective based on the payout curve.

Equity-Based Compensation

The Company uses equity-based compensation to align executive compensation with long-term goals that enhance shareholder value and to promote executive retention with the Company by extending vesting periods over several years. Accordingly, the Company intends to make equity-based compensation a significant portion of compensation for the named executive officers, as demonstrated by the significant grants made to the named executive officers (other than Ms. Mulryan) in 2015 under the SMIP.

Our annual grants of equity-based compensation are currently in the form of service-based restricted stock units that generally vest in one-third increments over three years based on continued service. The named executive officers' employment agreements or letters mandate the minimum values of their annual equity grants.

The following table presents the equity grants awarded to the Company's named executive officers in 2015:

| | Number of | |
|-------------|------------|---|
| | Restricted | |
| | Stock | |
| | Units | |
| | (#)(1) | Value of Restricted Stock Units (\$)(2) |
| Mr. Roush | 88,445 | 1,175,434 |
| Mr. Buckley | 42,959 | 570,925 |
| Mr. Glastra | 31,074 | 412,973 |

- (1)Our annual grants of restricted stock units vest over a three-year period and are subject to accelerated vesting in certain situations as described more fully in the "Potential Payments Upon Termination or Change of Control" section below.
- (2) Based on the stock price \$13.29 on the date of grant.

Employee Benefits and Other Compensation

In addition to the elements of compensation discussed above, the Company offers the named executive officers contributions towards health, dental, life, accidental death and dismemberment, and disability insurance premiums consistent with the Company's contribution levels offered to all other employees of the Company. The Company does not offer a deferred compensation program, nor does it offer retirement benefits other than a 401(k) defined contribution plan. This plan provides for Company matching contributions of 100% of the first three percent of compensation up to the maximum amount allowed under the Code.

Messrs. Roush and Buckley are provided with life insurance benefits in excess of those available to all other employees, to comply with the terms of their respective employment agreements that stipulate that the Company will provide life insurance benefits in the face amount equal to no less than 400% of their respective annual base salaries. The life insurance benefits were negotiated in connection with our hiring of Messrs. Roush and Buckley to assist in their recruitment and retention. The cost of such supplemental life insurance benefits for Messrs. Roush and Buckley in 2015 equaled \$1,517 and \$540, respectively. The Company does not intend to offer life insurance benefits in excess of the maximum allowed under its Group Life Insurance policy to its other named executive officers.

Severance and Change of Control Benefits

The Company has certain obligations to its named executive officers in specified circumstances, including termination of employment or a change of control of GSI Group Inc., pursuant to the terms of individualized employment and severance agreements and letters. See "Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table" for a description of the employment agreements and letters and "Potential Payments Upon Termination or Change of Control" for a description of the severance and change in control obligations in such agreements and letters.

As described under "Potential Payments Upon Termination or Change of Control", effective January 13, 2015, the Company entered into a letter agreement with Ms. Mulryan (the "Mulryan Letter Agreement") specifying the terms of her resignation. The letter agreement provides for continuation of base salary through March 31, 2016 and continued

benefits (or reimbursement for the cost of equivalent coverage) through the third anniversary of termination date. In addition, the letter agreement provides for a payment equal to \$45,500, which consists of Ms. Mulryan's second half 2014 bonus payment based on target Financial Objective and non-financial objective performance. Finally, the letter agreement provides for the accelerated vesting of all restricted stock unit awards held by Ms. Mulryan (22,472 units) as of her resignation date. Both the Company and Ms. Mulryan executed a release of claims in favor of the other party in consideration for entering into the Mulryan Letter Agreement.

The respective employment agreements with Messrs. Roush and Buckley contain a "Section 280G tax gross-up" provision, which provides for a payment to Messrs. Roush and Buckley if they should become subject to parachute payment excise taxes imposed in connection with any change of control of the Company. These provisions were negotiated in connection with our hiring of Messrs. Roush and Buckley. To the extent a change of control of the Company occurred on December 31, 2015, it was not expected that Messrs. Roush or Buckley would be subject to parachute payment excise taxes and therefore no payments under the "Section 280G tax gross-up" provisions would have been received by Messrs. Roush and Buckley. Although the Company determined that such provisions were appropriate for Messrs. Roush and Buckley in order to assist in their recruitment and retention and in order to help ensure a stable senior management team in the event of any future change of control transaction, the Company does not currently plan to implement similar tax gross-ups for other executives in the future.

Policy Prohibiting Hedging by Executive Officers

The Company's insider trading policy prohibits our executive officers and other persons covered by the policy from engaging in hedging transactions with respect to the Company's shares.

Tax and Accounting Implications

In 2015, the Company's compensation programs were affected by each of the following:

Accounting for Stock-Based Compensation: The Company accounts for stock-based compensation in accordance with the requirements of Accounting Standards Codification ("ASC") 718, "Stock Compensation". The Company also takes into consideration ASC 718 and other generally accepted accounting principles in determining changes to policies and practices for its stock-based compensation programs.

Section 162(m) of the Code: This section generally limits the deductibility, for U.S. corporate income tax purposes, of compensation for a public company's chief executive officer and its three other most highly compensated officers (other than the chief financial officer) unless the compensation is less than \$1 million during any fiscal year or is "performance-based" under Section 162(m). The Company periodically reviews the potential consequences of Section 162(m), and it generally intends to structure the performance-based portion of executive compensation, where appropriate, to comply with exemptions in Section 162(m) so that the compensation remains tax deductible to the Company. The Compensation Committee in its judgment may, however, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such compensation is appropriate and in the best interests of the shareholders after taking various factors into consideration, including business conditions and the performance of such executive officer.

Compensation Committee Report

The Compensation Committee has reviewed and discussed with management the Company's "Compensation Discussion and Analysis", and based on such review and discussions, has recommended to the board of directors that the "Compensation Discussion and Analysis" be included in the Company's 2016 Management Proxy Circular.

Mr. Stephen W. Bershad (Chairperson)

Mr. Dennis J. Fortino

Mr. Ira J. Lamel

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth information regarding the compensation earned during the fiscal years ended December 31, 2015, 2014 and 2013 by each of the Company's named executive officers. For the year ended December 31, 2015, the Company's named executive officers consisted of: (i) the individual who served as the Chief Executive Officer during the year ended December 31, 2015 (J. Roush), (ii) the individual who served as the Chief Financial Officer during the year ended December 31, 2015 (R. Buckley), (iii) the one most highly compensated executive officer other than Chief Executive Office and Chief Financial Officer who was serving as of December 31, 2015 (M. Glastra), and (iv) one additional executive officer as of December 31, 2015 (D. Mulryan) (the individuals described in (i) through (iv) above, collectively, the "Named Executive Officers" or "NEOs").

Non-Equity

| | | | | Stock | Incentive Plan | All Other | |
|---|----------------------|----------|-------|-------------------------------------|-------------------------------|---------------------------|-------------------------------------|
| Name and | | Salary | Bonus | Awards | Compensation | Compensation | Total |
| Principal Position | Year | (\$) | (\$) | (\$)(1) | (\$)(2) | (\$)(3) | (\$) |
| (a) | (b) | (c) | (d) | (e) | (g) | (i) | (j) |
| Executive Officers | | | | | | | 0 |
| John A. Roush Chief Executive Officer | 2015 2014 2013 | 553,392 | | 1,175,434 1,135,692 1,092,005 | 630,030 517,870 442,589 | 13,061 11,630 8,477 | 2,403,378 2,218,584 2,085,597 |
| | 2010 | 0.12,020 | | 1,072,000 | | 0,177 | 2,000,077 |
| Robert J. Buckley Chief Financial Officer | 2015 2014 2013 | 358,387 | | 570,925 551,620 530,409 | 306,015 254,295 214,972 | 10,143 8,593 6,902 | 1,265,845 1,172,895 1,103,634 |
| | | | | | | | |
| Matthijs Glastra Chief Operating Officer (4) | 2015 2014 2013 | 387,892 | | 412,973 159,612 152,001 | 287,755 183,939 142,289 | 7,666 5,903 2,603 | 1,119,349 737,346 678,355 |
| Former Executive Officer | | | | | | | |
| Deborah A. Mulryan Vice President, Human | 2015 | 9,000 (5 | 5) — | 310,114 | (6) — | 364,192 | 683,306 |
| Resources | 2014 2013 | , | _ | 130,008 125,008 | 93,639 75,727 | 9,422 2,033 | 486,454 453,729 |

- (1) Amounts shown do not reflect compensation actually received. Rather, amounts shown represent the aggregate grant date fair value or modification date fair value, as applicable, of these awards determined in accordance with ASC 718 (disregarding any reduction in such value due to any estimate of forfeitures related to service-based vesting conditions and based on the closing price of the Company's common stock on the grant date or effective date of modification, as applicable). Under ASC 718, compensation expense with respect to stock awards is generally recognized over the vesting periods applicable to the awards.
- (2) Amounts shown consist of awards earned during the period based on performance under the applicable annual cash bonus incentive plan. Amounts shown in 2015, 2014 and 2013 relate to the SMIP, which is applicable to each of the NEOs. Amounts earned under the SMIP are generally payable semi-annually, subject to continued employment through the date of payment.
- (3) Amounts in 2015 include the following:

Mr. Roush Mr. Buckley

(\$) (\$)