

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K**

**CURRENT REPORT**

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

Date of report (Date of earliest event reported): July 29, 2009

**Senesco Technologies, Inc.**

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or Other Jurisdiction  
of Incorporation)

001-31326

(Commission File Number)

84-1368850

(IRS Employer Identification No.)

303 George Street, Suite 420, New Brunswick, New Jersey

(Address of Principal Executive Offices)

08901

(Zip Code)

(732) 296-8400

(Registrant's telephone number,  
including area code)

Not applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).
- ☒ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).

**Item 1.01 Entry into a Material Definitive Agreement, Item 3.02 Unregistered Sales of Equity Securities, and Item 8.01 Other Events.**

**Transaction with Each of Robert and Tim Forbes**

On July 29, 2009, Senesco Technologies, Inc. (the “Company”) entered into a Securities Purchase Agreement, (the “Forbes Securities Purchase Agreement”) with each of Robert Forbes and Timothy Forbes, each of whom is an accredited investor, pursuant to which, subject to stockholder approval, it is anticipated that the Company will issue and sell an aggregate of 444,444 shares of common stock at \$0.90 (the Shares”) per share and each of a Series A warrant, (the “Forbes Series A Warrants”), and a Series B warrant (the “Forbes Series B Warrants”). Each of Robert Forbes and Timothy Forbes are the brothers of Christopher Forbes who is a director of Senesco. Mr. Christopher Forbes will not be deemed to be the beneficial owner of, nor will he have a pecuniary interest in the Shares or Warrants issued to his brothers.

The Forbes Series A Warrants entitle the holders to purchase in the aggregate, up to 400,00 shares of the Company’s common stock at \$0.01 per warrant share. The Forbes Series A Warrants have a term of seven years and are exercisable immediately after the date of grant.

The Forbes Series B Warrants entitle the holders to purchase in the aggregate, up to 405,556 shares of the Company’s common stock at \$0.60 per warrant share. The Forbes Series B Warrants have a term of seven years and are not exercisable until after the six-month anniversary after the date of grant.

**Transaction with Insiders and Affiliates**

On July 29, 2009, the Company entered into a Securities Purchase Agreement, (the “Affiliate’s Securities Purchase Agreement”) with each of Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst, Warren Isabelle, and the Thomas C. Quick Charitable Foundation (the “Affiliate Investors”) each of whom is an accredited investor, pursuant to which, subject to stockholder approval, it is anticipated that the Company will issue and sell an aggregate of 144,444 Shares of the Company’s common stock at \$0.90 per share and each of a Series A warrant, (the “Affiliate’s Series A Warrants”), and a Series B warrant (the “Affiliate’s Series B Warrants”). Each of Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst and Warren Isabelle serve on the Company’s board. The Thomas C. Quick Charitable Foundation is an affiliate of our board member Thomas C. Quick.

The Affiliate’s Series A Warrants entitle the holders to purchase in the aggregate, up to 130,000 shares of the Company’s common stock at \$0.01 per warrant share. The Affiliate’s Series A Warrants have a term of seven years and are exercisable immediately after the date of grant.

The Affiliate’s Series B Warrants entitle the holders to purchase, in the aggregate, up to 131,807 shares of the Company’s common stock at \$0.60 per warrant share. The Affiliates Series B Warrants have a term of seven years and are not exercisable until after the six-month anniversary after the date of grant.

**Transaction with Cato Holding Company**

On July 29, 2009, the Company entered into a Securities Agreement with Cato Holding Company (“Cato”), who is an accredited investor, pursuant to which, subject to stockholder approval, it is anticipated that the Company will issue an aggregate of 194,444 Shares of the Company’s common stock at \$0.90 per share and each of a Series A warrant (the “Cato Series A Warrant”) and a Series B warrant (the “Cato Series B Warrant”). The Shares will be issued to Cato in exchange for debt which is currently owed by us to Cato Research Ltd. in the amount of \$175,000. Cato Research Ltd. is an affiliate of Cato.

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The Cato Series A Warrant entitles the holder to purchase in the aggregate, up to 175,000 shares of the Company's common stock at \$0.01 per warrant share. The Cato Series A Warrant has a term of seven years and is exercisable immediately after the date of grant.

The Cato Series B Warrant entitles the holder to purchase, in the aggregate, up to 177,431 shares of the Company's common stock at \$0.60 per warrant share. The Cato Series B Warrant has a term of seven years and is not exercisable until after the six-month anniversary after the date of grant.

The foregoing proceeds cannot be closed upon until the Company receives stockholder approval for certain aspects of the transactions and complies with other customary closing conditions. Assuming all of the proceeds of the private placements can be closed upon, the Company anticipates it will receive gross proceeds equal to \$705,000.

The private placement remains subject to the approval of the NYSE Amex Exchange.

A complete copy of each of the Warrants and the Securities Purchase Agreements are attached hereto as exhibits and such exhibits are incorporated herein by reference. The related press release of the Company is filed herewith as Exhibit 99.1 and is incorporated herein by reference. The foregoing descriptions of the Warrants, the Securities Purchase Agreements and the press release and any other documents or filings referenced herein are qualified in their entirety by reference to such exhibits, documents or filings.

### **Important Information**

The securities sold or to be sold in the private placement have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), and may not be offered or sold in the United States in the absence of an effective registration statement or exemption from the registration requirements under the Securities Act.

In connection with the private placement, the Company will prepare a proxy statement for the Company's stockholders to be filed with the Securities and Exchange Commission (the "SEC"). The proxy statement will contain information about the Company, the private placement and related matters. STOCKHOLDERS ARE URGED TO READ THE PROXY STATEMENT CAREFULLY WHEN IT IS AVAILABLE, AS IT WILL CONTAIN IMPORTANT INFORMATION THAT STOCKHOLDERS SHOULD CONSIDER BEFORE MAKING A DECISION ABOUT APPROVING AN AMENDMENT TO THE COMPANY'S CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES.

In addition to receiving the proxy statement from the Company by mail, shareholders will be able to obtain the proxy statement, as well as other filings containing information about the Company, without charge, from the SEC's website (<http://www.sec.gov>) or, without charge, from the Company's website at [www.senesco.com](http://www.senesco.com) or by directing such request to Senesco Technologies, Inc. 303 George St., Suite 420, New Brunswick, New Jersey 08901 Attention: Joel Brooks.

The Company and its directors and executive officers and other members of management and employees may be deemed to be participants in the solicitation of proxies. Information concerning the Company and its directors and executive officers is set forth in the Company's proxy statement and Annual Report on Form 10-K previously filed with the SEC.

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**Item 9.01. Financial Statements and Exhibits.**

**(d) Exhibits.**

<u>Exhibit No</u>	<u>Description</u>
4.1	Form of Series A Warrant to be issued to each of Robert Forbes, Timothy Forbes and the Affiliate Investors. (filed herewith)
4.2	Form of Series B Warrant to be issued to each of Robert Forbes, Timothy Forbes and the Affiliate Investors. (filed herewith)
4.3	Form of Series A Warrant to be issued to Cato. (filed herewith)
4.4	Form of Series B Warrant to be issued to Cato. (filed herewith)
10.1	Securities Purchase Agreement by and between the Company and each of Robert Forbes, Timothy Forbes, Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst, Warren Isabelle and the Thomas C. Quick Charitable Foundation dated as of July 29, 2009 (filed herewith)
10.2	Securities Agreement by and between the Company and Cato Holding Company dated as of July 29, 2009 (filed herewith)
99.1	Press Release of the Company dated July 30, 2009 (filed herewith).

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SIGNATURE

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

Dated: July 30, 2009

**SENESCO TECHNOLOGIES, INC.**

By: /s/ Bruce Galton

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Name: Bruce Galton

Title: President and Chief Executive Officer

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**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS  
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON  
TRANSFER SET FORTH IN SECTION 4 OF THIS WARRANT**

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Warrant No. [    ]

Number of Shares: [    ]  
(subject to adjustment)

Date of Issuance: [        ], 2009

Original Issue Date (as defined in subsection  
2(a)): [        ], 2009

Senesco Technologies, Inc.

Common Stock Purchase Warrant

(Void after [    ], 2016<sup>1</sup>)

Senesco Technologies, Inc., a Delaware corporation (the “Company”), for value received, hereby certifies that [        ], or its registered assigns (the “Registered Holder”), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after [        ]<sup>2</sup>, 2009 and on or before 5:00 p.m. (New York time) on [        ], 2016, [        ], shares of Common Stock, \$0.01 par value per share, of the Company (“Common Stock”), at a purchase price of \$0.01 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the “Warrant Shares” and the “Purchase Price,” respectively. This Warrant is one of a series of Warrants issued by the Company in connection with a private placement of Common Stock and of like tenor, except as to the number of shares of Common Stock subject thereto (collectively, the “Company Warrants”).

1.        Exercise.

(a)        Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. A facsimile signature of the Registered Holder on the purchase form shall be sufficient for purposes of exercising this Warrant, provided that the Company receives the Registered Holder’s original signature within three (3) business days thereafter.

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<sup>1</sup> Seventh year anniversary of Closing date.

<sup>2</sup> Date of Closing date.

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(b) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) above (the “Exercise Date”). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(c) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised.

## 2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the “Original Issue Date”) effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.



(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a “Reorganization”), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. Notwithstanding the foregoing sentence, if (x) there shall occur any Reorganization in which the Common Stock is converted into or exchanged for anything other than solely equity securities, and (y) the common stock of the acquiring or surviving company is publicly traded, then, as part of such Reorganization, (i) the Registered Holder shall have the right thereafter to receive upon the exercise hereof such number of shares of common stock of the acquiring or surviving company as is determined by multiplying (A) the number of shares of Common Stock subject to this Warrant immediately prior to such Reorganization by (B) a fraction, the numerator of which is the Fair Market Value per share of Common Stock as of the effective date of such Reorganization, as determined below, and the denominator of which is the fair market value per share of common stock of the acquiring or surviving company as of the effective date of such transaction, as determined in good faith by the Board (using the principles set forth below to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Purchase Price divided by the fraction referred to in clause (B) above. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

The Fair Market Value per share of Common Stock shall be determined as follows:

(1) If the Common Stock is listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the reported closing price per share of Common Stock thereon on the trading day immediately preceding the Exercise Date (provided that if no such price is reported on such day, the Fair Market Value per share of Common Stock shall be determined pursuant to clause (2) below).

(2) If the Common Stock is not listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the “Board”) to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Company); and, upon request of the Registered Holder, the Board (or a representative thereof) shall, as promptly as reasonably practicable but in any event not later than 10 days after such request, notify the Registered Holder of the Fair Market Value per share of Common Stock and furnish the Registered Holder with reasonable documentation of the Board’s determination of such Fair Market Value. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise Date, then the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Common Stock within 15 days of a request by the Registered Holder that it do so.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the Fair Market Value per share of Common Stock, as determined pursuant to subsection 2(e) above.

4. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the "Act"), (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act or (iii) the Company agrees, in writing, to such transfer. Notwithstanding the foregoing, no registration or opinion of counsel shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 4, or (ii) a transfer made in accordance with Rule 144 under the Act. The Warrant and the Warrant Shares shall not be transferable for at least six months from the date of issuance.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

"The securities represented hereby have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may not be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration under such act or an exemption from registration, which, in the opinion of counsel reasonably satisfactory to counsel for this corporation, is available."

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144 under the Act or at such time as the Warrant Shares are sold or transferred in accordance with the requirements of a registration statement of the Company on Form S-3, or such other form as may then be in effect.

(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 4 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

5. No Impairment. The Company will not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

6. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

7. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

8. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 4 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered one business day after being sent via a reputable international overnight courier service guaranteeing next business day delivery.

10. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

11. Amendment or Waiver. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the holders of Company Warrants representing at least two-thirds of the number of shares of Common Stock then subject to outstanding Company Warrants. Notwithstanding the foregoing, (a) this Warrant may be amended and the observance of any term hereunder may be waived without the written consent of the Registered Holder only in a manner which applies to all Company Warrants in the same fashion and (b) the number of Warrant Shares subject to this Warrant and the Purchase Price of this Warrant may not be amended, and the right to exercise this Warrant may not be waived, without the written consent of the Registered Holder (it being agreed that an amendment to or waiver under any of the provisions of Section 2 of this Warrant shall not be considered an amendment of the number of Warrant Shares or the Purchase Price). The Company shall give prompt written notice to the Registered Holder of any amendment hereof or waiver hereunder that was effected without the Registered Holder's written consent. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

12. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

13. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of Delaware (without reference to the conflicts of law provisions thereof).

14. Facsimile Signatures. This Warrant may be executed by facsimile signature.

\* \* \* \* \*

EXECUTED as of the Date of Issuance indicated above.

**SENESCO TECHNOLOGIES, INC.**

By: \_\_\_\_\_  
Name:  
Title:

ATTEST:

\_\_\_\_\_

\_\_\_\_\_

PURCHASE FORM

To: Senesco Technologies, Inc.

Dated:\_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. \_\_\_\_), hereby elects to purchase (*check applicable box*):

- \_\_\_\_\_ shares of the Common Stock of Senesco Technologies, Inc. covered by such Warrant.

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$\_\_\_\_\_ in lawful money of the United States.

Signature: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. \_\_\_\_\_) with respect to the number of shares of Common Stock of Senesco Technologies, Inc. covered thereby set forth below, unto:

Name of Assignee	Address	No. of Shares
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Dated:_____	Signature:_____
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Signature Guaranteed:

By: \_\_\_\_\_

The signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended.

\_\_\_\_\_



**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS  
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON  
TRANSFER SET FORTH IN SECTION 4 OF THIS WARRANT**

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Warrant No. [    ]

Number of Shares: [    ]  
(subject to adjustment)

Date of Issuance: [    ], 2009

Original Issue Date (as defined in subsection  
2(a)): [    ], 2009

Senesco Technologies, Inc.

Common Stock Purchase Warrant

(Void after [    ], 2016<sup>1</sup>)

Senesco Technologies, Inc., a Delaware corporation (the “Company”), for value received, hereby certifies that [    ], or its registered assigns (the “Registered Holder”), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after [    ]<sup>2</sup> and on or before 5:00 p.m. (New York time) on [    ], 2016, [    ] shares of Common Stock, \$0.01 par value per share, of the Company (“Common Stock”), at a purchase price of \$0.60 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the “Warrant Shares” and the “Purchase Price,” respectively. This Warrant is one of a series of Warrants issued by the Company in connection with a private placement of Common Stock and of like tenor, except as to the number of shares of Common Stock subject thereto (collectively, the “Company Warrants”).

1. Exercise.

(a) Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. A facsimile signature of the Registered Holder on the purchase form shall be sufficient for purposes of exercising this Warrant, provided that the Company receives the Registered Holder’s original signature within three (3) business days thereafter.

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<sup>1</sup>Seventh anniversary of closing date.

<sup>2</sup>Six months and 1 day after Closing date.

(b) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) above (the “Exercise Date”). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(c) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised.

## 2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the “Original Issue Date”) effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a "Reorganization"), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. Notwithstanding the foregoing sentence, if (x) there shall occur any Reorganization in which the Common Stock is converted into or exchanged for anything other than solely equity securities, and (y) the common stock of the acquiring or surviving company is publicly traded, then, as part of such Reorganization, (i) the Registered Holder shall have the right thereafter to receive upon the exercise hereof such number of shares of common stock of the acquiring or surviving company as is determined by multiplying (A) the number of shares of Common Stock subject to this Warrant immediately prior to such Reorganization by (B) a fraction, the numerator of which is the Fair Market Value per share of Common Stock as of the effective date of such Reorganization, as determined below, and the denominator of which is the fair market value per share of common stock of the acquiring or surviving company as of the effective date of such transaction, as determined in good faith by the Board (using the principles set forth below to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Purchase Price divided by the fraction referred to in clause (B) above. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

The Fair Market Value per share of Common Stock shall be determined as follows:

(1) If the Common Stock is listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the reported closing price per share of Common Stock thereon on the trading day immediately preceding the Exercise Date (provided that if no such price is reported on such day, the Fair Market Value per share of Common Stock shall be determined pursuant to clause (2) below).

(2) If the Common Stock is not listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the "Board") to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Company); and, upon request of the Registered Holder, the Board (or a representative thereof) shall, as promptly as reasonably practicable but in any event not later than 10 days after such request, notify the Registered Holder of the Fair Market Value per share of Common Stock and furnish the Registered Holder with reasonable documentation of the Board's determination of such Fair Market Value. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise Date, then the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Common Stock within 15 days of a request by the Registered Holder that it do so.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the Fair Market Value per share of Common Stock, as determined pursuant to subsection 2(e) above.

4. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the "Act"), (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act or (iii) the Company agrees, in writing, to such transfer. Notwithstanding the foregoing, no registration or opinion of counsel shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 4, or (ii) a transfer made in accordance with Rule 144 under the Act. The Warrant and the Warrant Shares shall not be transferable for at least six months from the date of issuance.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

"The securities represented hereby have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may not be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration under such act or an exemption from registration, which, in the opinion of counsel reasonably satisfactory to counsel for this corporation, is available."

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144 under the Act or at such time as the Warrant Shares are sold or transferred in accordance with the requirements of a registration statement of the Company on Form S-3, or such other form as may then be in effect.

(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 4 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

5. No Impairment. The Company will not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

6. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

7. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

8. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 4 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered one business day after being sent via a reputable international overnight courier service guaranteeing next business day delivery.

10. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

11. Amendment or Waiver. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the holders of Company Warrants representing at least two-thirds of the number of shares of Common Stock then subject to outstanding Company Warrants. Notwithstanding the foregoing, (a) this Warrant may be amended and the observance of any term hereunder may be waived without the written consent of the Registered Holder only in a manner which applies to all Company Warrants in the same fashion and (b) the number of Warrant Shares subject to this Warrant and the Purchase Price of this Warrant may not be amended, and the right to exercise this Warrant may not be waived, without the written consent of the Registered Holder (it being agreed that an amendment to or waiver under any of the provisions of Section 2 of this Warrant shall not be considered an amendment of the number of Warrant Shares or the Purchase Price). The Company shall give prompt written notice to the Registered Holder of any amendment hereof or waiver hereunder that was effected without the Registered Holder's written consent. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

12. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

13. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of Delaware (without reference to the conflicts of law provisions thereof).

14. Facsimile Signatures. This Warrant may be executed by facsimile signature.

\* \* \* \* \*



EXECUTED as of the Date of Issuance indicated above.

SENESCO TECHNOLOGIES, INC.

By: \_\_\_\_\_  
Name:  
Title:

ATTEST:  
  
\_\_\_\_\_

\_\_\_\_\_

PURCHASE FORM

To: Senesco Technologies, Inc.

Dated:\_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. \_\_\_\_), hereby elects to purchase *(check applicable box)*:

- \_\_\_\_\_ shares of the Common Stock of Senesco Technologies, Inc. covered by such Warrant.

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of *(check applicable box or boxes)*:

- \$\_\_\_\_\_ in lawful money of the United States.

Signature: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. \_\_\_\_\_) with respect to the number of shares of Common Stock of Senesco Technologies, Inc. covered thereby set forth below, unto:

Name of Assignee	Address	No. of Shares
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Dated: _____	Signature: _____
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Signature Guaranteed:

By: \_\_\_\_\_

The signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended.

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**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS  
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON  
TRANSFER SET FORTH IN SECTION 4 OF THIS WARRANT**

Warrant No. [    ]

Number of Shares: [    ]  
(subject to adjustment)

Date of Issuance: [        ], 2009

Original Issue Date (as defined in subsection  
2(a)): [        ], 2009

Senesco Technologies, Inc.

Common Stock Purchase Warrant

(Void after [    ], 2016<sup>1</sup>)

Senesco Technologies, Inc., a Delaware corporation (the “Company”), for value received, hereby certifies that Cato Holding Company, or its registered assigns (the “Registered Holder”), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after [        ]<sup>2</sup>, 2009 and on or before 5:00 p.m. (New York time) on [        ], 2016, [        ] shares of Common Stock, \$0.01 par value per share, of the Company (“Common Stock”), at a purchase price of \$0.01 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the “Warrant Shares” and the “Purchase Price,” respectively. This Warrant is one of a series of Warrants issued by the Company in connection with a private placement of Common Stock and of like tenor, except as to the number of shares of Common Stock subject thereto (collectively, the “Company Warrants”).

1. Exercise.

(a) Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. A facsimile signature of the Registered Holder on the purchase form shall be sufficient for purposes of exercising this Warrant, provided that the Company receives the Registered Holder’s original signature within three (3) business days thereafter.

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<sup>1</sup> Seventh year anniversary of Closing date.

<sup>2</sup> Date of Closing date.

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(b) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) above (the “Exercise Date”). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(c) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised.

## 2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the “Original Issue Date”) effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

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(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

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(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a “Reorganization”), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. Notwithstanding the foregoing sentence, if (x) there shall occur any Reorganization in which the Common Stock is converted into or exchanged for anything other than solely equity securities, and (y) the common stock of the acquiring or surviving company is publicly traded, then, as part of such Reorganization, (i) the Registered Holder shall have the right thereafter to receive upon the exercise hereof such number of shares of common stock of the acquiring or surviving company as is determined by multiplying (A) the number of shares of Common Stock subject to this Warrant immediately prior to such Reorganization by (B) a fraction, the numerator of which is the Fair Market Value per share of Common Stock as of the effective date of such Reorganization, as determined below, and the denominator of which is the fair market value per share of common stock of the acquiring or surviving company as of the effective date of such transaction, as determined in good faith by the Board (using the principles set forth below to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Purchase Price divided by the fraction referred to in clause (B) above. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

The Fair Market Value per share of Common Stock shall be determined as follows:

(1) If the Common Stock is listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the reported closing price per share of Common Stock thereon on the trading day immediately preceding the Exercise Date (provided that if no such price is reported on such day, the Fair Market Value per share of Common Stock shall be determined pursuant to clause (2) below).

(2) If the Common Stock is not listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the “Board”) to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Company); and, upon request of the Registered Holder, the Board (or a representative thereof) shall, as promptly as reasonably practicable but in any event not later than 10 days after such request, notify the Registered Holder of the Fair Market Value per share of Common Stock and furnish the Registered Holder with reasonable documentation of the Board’s determination of such Fair Market Value. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise Date, then the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Common Stock within 15 days of a request by the Registered Holder that it do so.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

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3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the Fair Market Value per share of Common Stock, as determined pursuant to subsection 2(e) above.

4. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the “Act”), (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act or (iii) the Company agrees, in writing, to such transfer. Notwithstanding the foregoing, no registration, opinion of counsel or Company approval shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary or member of senior management of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 4, or (ii) a transfer made in accordance with Rule 144 under the Act and, provided further, that the transferor and transferee provide the Company with the paperwork necessary to transfer the Warrant and the Warrant Shares including representations to the effect that the transfer complies with applicable law.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

“The securities represented hereby have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may not be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration under such act or an exemption from registration, which, in the opinion of counsel reasonably satisfactory to counsel for this corporation, is available.”

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144 under the Act or at such time as the Warrant Shares are sold or transferred in accordance with the requirements of a registration statement of the Company on Form S-3, or such other form as may then be in effect.

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(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 4 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

5. No Impairment. The Company will not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

6. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

7. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

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8. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 4 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered one business day after being sent via a reputable international overnight courier service guaranteeing next business day delivery.

10. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

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11. Amendment or Waiver. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the holders of Company Warrants representing at least two-thirds of the number of shares of Common Stock then subject to outstanding Company Warrants. Notwithstanding the foregoing, (a) this Warrant may be amended and the observance of any term hereunder may be waived without the written consent of the Registered Holder only in a manner which applies to all Company Warrants in the same fashion and (b) the number of Warrant Shares subject to this Warrant and the Purchase Price of this Warrant may not be amended, and the right to exercise this Warrant may not be waived, without the written consent of the Registered Holder (it being agreed that an amendment to or waiver under any of the provisions of Section 2 of this Warrant shall not be considered an amendment of the number of Warrant Shares or the Purchase Price). The Company shall give prompt written notice to the Registered Holder of any amendment hereof or waiver hereunder that was effected without the Registered Holder's written consent. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

12. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

13. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of Delaware (without reference to the conflicts of law provisions thereof).

14. Facsimile Signatures. This Warrant may be executed by facsimile signature.

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EXECUTED as of the Date of Issuance indicated above.

**SENESCO TECHNOLOGIES, INC.**

By: \_\_\_\_\_  
Name:  
Title:

ATTEST:  
  
\_\_\_\_\_

\_\_\_\_\_

PURCHASE FORM

To: Senesco Technologies, Inc.

Dated:\_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. \_\_\_\_), hereby elects to purchase (*check applicable box*):

- \_\_\_\_\_ shares of the Common Stock of Senesco Technologies, Inc. covered by such Warrant.

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$\_\_\_\_\_ in lawful money of the United States.

Signature: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns and/or transfers all of the rights of the undersigned under the attached Warrant (No. \_\_\_\_\_) with respect to the number of shares of Common Stock of Senesco Technologies, Inc. covered thereby set forth below, unto:

Name of Assignee	Address	No. of Shares
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Dated:		Signature:	
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Signature Guaranteed:

By: \_\_\_\_\_

The signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended.

\_\_\_\_\_

**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS  
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON  
TRANSFER SET FORTH IN SECTION 4 OF THIS WARRANT**

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Warrant No. [    ]

Number of Shares: [    ]  
(subject to adjustment)

Date of Issuance: [    ], 2009

Original Issue Date (as defined in subsection  
2(a)): [    ], 2009

Senesco Technologies, Inc.

Common Stock Purchase Warrant

(Void after [    ], 2016<sup>1</sup>)

Senesco Technologies, Inc., a Delaware corporation (the “Company”), for value received, hereby certifies that Cato Holding Company, or its registered assigns (the “Registered Holder”), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after [    ]<sup>2</sup> and on or before 5:00 p.m. (New York time) on [    ], 2016, [    ] shares of Common Stock, \$0.01 par value per share, of the Company (“Common Stock”), at a purchase price of \$0.60 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the “Warrant Shares” and the “Purchase Price,” respectively. This Warrant is one of a series of Warrants issued by the Company in connection with a private placement of Common Stock and of like tenor, except as to the number of shares of Common Stock subject thereto (collectively, the “Company Warrants”).

1. Exercise.

(a) Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. A facsimile signature of the Registered Holder on the purchase form shall be sufficient for purposes of exercising this Warrant, provided that the Company receives the Registered Holder’s original signature within three (3) business days thereafter.

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<sup>1</sup>Seventh anniversary of closing date.

<sup>2</sup>Six months and 1 day after Closing date.

(b) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) above (the “Exercise Date”). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(c) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised.

## 2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the “Original Issue Date”) effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

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(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a "Reorganization"), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. Notwithstanding the foregoing sentence, if (x) there shall occur any Reorganization in which the Common Stock is converted into or exchanged for anything other than solely equity securities, and (y) the common stock of the acquiring or surviving company is publicly traded, then, as part of such Reorganization, (i) the Registered Holder shall have the right thereafter to receive upon the exercise hereof such number of shares of common stock of the acquiring or surviving company as is determined by multiplying (A) the number of shares of Common Stock subject to this Warrant immediately prior to such Reorganization by (B) a fraction, the numerator of which is the Fair Market Value per share of Common Stock as of the effective date of such Reorganization, as determined below, and the denominator of which is the fair market value per share of common stock of the acquiring or surviving company as of the effective date of such transaction, as determined in good faith by the Board (using the principles set forth below to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Purchase Price divided by the fraction referred to in clause (B) above. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

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The Fair Market Value per share of Common Stock shall be determined as follows:

(1) If the Common Stock is listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the reported closing price per share of Common Stock thereon on the trading day immediately preceding the Exercise Date (provided that if no such price is reported on such day, the Fair Market Value per share of Common Stock shall be determined pursuant to clause (2) below).

(2) If the Common Stock is not listed on a national securities exchange or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the "Board") to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Company); and, upon request of the Registered Holder, the Board (or a representative thereof) shall, as promptly as reasonably practicable but in any event not later than 10 days after such request, notify the Registered Holder of the Fair Market Value per share of Common Stock and furnish the Registered Holder with reasonable documentation of the Board's determination of such Fair Market Value. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise Date, then the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Common Stock within 15 days of a request by the Registered Holder that it do so.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

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3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the Fair Market Value per share of Common Stock, as determined pursuant to subsection 2(e) above.

4. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the “Act”), (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act or (iii) the Company agrees, in writing, to such transfer. Notwithstanding the foregoing, no registration, opinion of counsel or Company approval shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary or member of senior management of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 4, or (ii) a transfer made in accordance with Rule 144 under the Act provided further, that the transferor and transferee provide the Company with the paperwork necessary to transfer the Warrant and the Warrant Shares including representations to the effect that the transfer complies with applicable law.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

“The securities represented hereby have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may not be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration under such act or an exemption from registration, which, in the opinion of counsel reasonably satisfactory to counsel for this corporation, is available.”

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144 under the Act or at such time as the Warrant Shares are sold or transferred in accordance with the requirements of a registration statement of the Company on Form S-3, or such other form as may then be in effect.

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(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 4 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

5. **No Impairment.** The Company will not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

6. **Notices of Record Date, etc.** In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

7. **Reservation of Stock.** The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

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8. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 4 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered one business day after being sent via a reputable international overnight courier service guaranteeing next business day delivery.

10. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

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11. Amendment or Waiver. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the holders of Company Warrants representing at least two-thirds of the number of shares of Common Stock then subject to outstanding Company Warrants. Notwithstanding the foregoing, (a) this Warrant may be amended and the observance of any term hereunder may be waived without the written consent of the Registered Holder only in a manner which applies to all Company Warrants in the same fashion and (b) the number of Warrant Shares subject to this Warrant and the Purchase Price of this Warrant may not be amended, and the right to exercise this Warrant may not be waived, without the written consent of the Registered Holder (it being agreed that an amendment to or waiver under any of the provisions of Section 2 of this Warrant shall not be considered an amendment of the number of Warrant Shares or the Purchase Price). The Company shall give prompt written notice to the Registered Holder of any amendment hereof or waiver hereunder that was effected without the Registered Holder's written consent. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

12. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

13. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of Delaware (without reference to the conflicts of law provisions thereof).

14. Facsimile Signatures. This Warrant may be executed by facsimile signature.

\* \* \* \* \*

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EXECUTED as of the Date of Issuance indicated above.

**SENESCO TECHNOLOGIES, INC.**

By: \_\_\_\_\_  
Name:  
Title:

ATTEST:  
  
\_\_\_\_\_

\_\_\_\_\_

PURCHASE FORM

To: Senesco Technologies, Inc.

Dated:\_\_\_\_\_

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. \_\_\_\_), hereby elects to purchase (*check applicable box*):

- \_\_\_\_\_ shares of the Common Stock of Senesco Technologies, Inc. covered by such Warrant.

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$\_\_\_\_\_ in lawful money of the United States.

Signature: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_



ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. \_\_\_\_\_) with respect to the number of shares of Common Stock of Senesco Technologies, Inc. covered thereby set forth below, unto:

Name of Assignee	Address	No. of Shares
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Dated:_____	Signature:_____
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Signature Guaranteed:

By: \_\_\_\_\_

The signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934, as amended.

\_\_\_\_\_

**SECURITIES PURCHASE AGREEMENT**

**SECURITIES PURCHASE AGREEMENT** (this “Agreement”), dated as of July 29, 2009, by and among Senesco Technologies, Inc., a Delaware corporation (the “Company”), and the investors listed on the signature page attached hereto (the “Purchasers”).

**W I T N E S S E T H :**

**WHEREAS**, the Company desires to sell, transfer and assign to the Purchasers, and the Purchasers desires to purchase from the Company 588,888 shares (the “Shares”) of the Company’s common stock, \$0.01 par value per share (the “Common Stock”), and certain warrants, (“Warrant A” and “Warrant B”) to purchase, in the aggregate, up to 1,067,363 shares of Common Stock (collectively Warrant A and Warrant B shall be referred to herein as the “Warrants”) for an aggregate purchase price of \$530,000 (the Warrants, together with the Shares, shall be referred to herein as the “Securities”);

**NOW, THEREFORE**, in consideration of the promises and the mutual covenants contained herein, the parties hereto, intending to be legally bound, hereby agree as follows:

**SECTION I****PURCHASE AND SALE OF THE SECURITIES**

A. **Purchase and Sale.** Subject to the terms and conditions of this Agreement and on the basis of the representations, warranties, covenants and agreements herein contained, the Company hereby agrees to sell, transfer, assign and convey the respective number of Securities to the Purchasers as set forth on the signature pages attached hereto, and the Purchasers agree to purchase, acquire and accept their respective number of Securities from the Company as set forth on the signature pages attached hereto.

B. **Purchase Price.** The Securities are hereby offered at a price of (i) \$0.90 per share of Common Stock, (ii) \$0.01 for each share underlying Warrant A to purchase shares of Common Stock as more fully described below and (iii) \$0.60 for each share underlying Warrant B to purchase shares of Common Stock as more fully described below. The aggregate purchase price for the Securities to be paid by the Purchasers to the Company is \$530,000 (the “Aggregate Purchase Price”). The Aggregate Purchase Price shall be paid by the Purchasers to the Company on the Closing Date either via certified bank check or irrevocable wire transfer and shall be paid by the Purchasers in the amounts set forth on the signature pages attached hereto.

C. **Warrant A.** Warrant A shall be in the form of Exhibit A attached hereto shall have a seven year term and shall be exercisable immediately at an exercise price of \$0.01 per share. The Purchasers shall be entitled to purchase, in the aggregate, 530,000 shares of Common Stock underlying Warrant A.

D. **Warrant B.** Warrant B shall be in the form of Exhibit B attached hereto shall have a seven-year term and shall be exercisable six months from the date of issuance at an exercise price of \$0.60 per share. The Purchasers shall be entitled to purchase, in the aggregate, 537,363 shares of Common Stock underlying Warrant B.

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## SECTION II

### REPRESENTATIONS, WARRANTIES, COVENANTS AND AGREEMENTS OF THE COMPANY

Except as set forth in the accompanying disclosure schedules, or as disclosed in, and reasonably apparent from, any report, schedule, form or other document filed with, or furnished to, the SEC and publicly available prior to the date of this Agreement, the Company represents and warrants to, and covenants and agrees with, the Purchasers, as of the date hereof, that:

A. Organization; Good Standing. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has full corporate power and authority to own its properties and to conduct the business in which it is now engaged.

B. Authority. Except as set forth on Schedule IIB, the Company has the full corporate power, authority and legal right to execute and deliver this Agreement and to perform all of its obligations and covenants hereunder, and no consent or approval of any other person or governmental authority is required therefore. The execution and delivery of this Agreement by the Company, the performance by the Company of its obligations and covenants hereunder and the consummation by the Company of the transactions contemplated hereby have been duly authorized by all necessary corporate action. This Agreement constitutes a valid and legally binding obligation of the Company, enforceable against the Company in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. No Legal Bar; Conflicts. Neither the execution and delivery of this Agreement, nor the consummation of the transactions contemplated hereby, violates any provision of the Certificate of Incorporation, as amended, or By-Laws of the Company or any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency, or conflicts with or results in any breach of any of the terms of or constitutes a default under or results in the termination of or the creation of any lien pursuant to the terms of any contract or agreement to which the Company is a party or by which the Company or any of its assets is bound.

D. Non-Assessable Shares. The Securities being issued hereunder, subject to the receipt of stockholder approval for an increase in the number of authorized shares, will be duly authorized and, the Shares, when issued to the Purchasers for the consideration herein provided, and the shares of Common Stock issued upon the proper exercise of the Warrants, will be validly issued, fully paid and non-assessable.

E. SEC Documents; Financial Statements. During the two years prior to the date hereof, the Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the Securities and Exchange Commission (the “SEC”) pursuant to the reporting requirements of the Securities Exchange Act of 1934 (the “1934 Act”) (all of the foregoing filed prior to the date hereof or prior to the Closing Date, and all exhibits included therein and financial statements and schedules thereto and documents incorporated by reference therein being hereinafter referred to as the “SEC Documents”). The Company has made available to the Purchasers or their respective representatives true, correct and complete copies of the SEC Documents not available on the EDGAR system. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Documents complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied, during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto, or (ii) in the case of unaudited interim statements, to the extent they may exclude footnotes or may be condensed or summary statements) and fairly present in all material respects the financial position of the Company as of the dates thereof and the results of its operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments). No other information provided by or on behalf of the Company to the Purchasers which is not included in the SEC Documents, including, without limitation, information provided to any Purchaser by the Company in anticipation of this transaction, contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements therein, in the light of the circumstance under which they are or were made, not misleading.

F. Absence of Certain Changes. Except in the ordinary course of business, since July 28, 2009, there has been no material adverse change and no material adverse development in the business, properties, operations, condition (financial or otherwise), results of operations or prospects of the Company or its subsidiaries. Since July 28, 2009, the Company has not (i) declared or paid any dividends, (ii) sold any assets, individually or in the aggregate, in excess of \$500,000 outside of the ordinary course of business or (iii) had capital expenditures, individually or in the aggregate, in excess of \$500,000. The Company has not taken any steps to seek protection pursuant to any bankruptcy law nor does the Company have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy proceedings or any actual knowledge of any fact which would reasonably lead a creditor to do so.

G. No Undisclosed Events, Liabilities, Developments or Circumstances. Except as set forth on Schedule IIG, no event, liability, development or circumstance has occurred or exists, or is contemplated to occur, with respect to the Company or its subsidiaries or their respective business, properties, prospects, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws on a registration statement on Form S-1 filed with the SEC relating to an issuance and sale by the Company of its Common Stock and which has not been publicly announced.

H. Foreign Corrupt Practices. Neither the Company, nor any of its subsidiaries, nor any director, officer, agent, employee or other person acting on behalf of the Company or any of its subsidiaries has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

I. Sarbanes-Oxley Act. The Company is in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the SEC thereunder that are effective as of the date hereof, except where such noncompliance would not have, individually or in the aggregate, a material adverse effect.

J. Intellectual Property Rights. The Company and its subsidiaries own or possess adequate rights or licenses to use all trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and other intellectual property rights ("Intellectual Property Rights") necessary to conduct their respective businesses as now conducted. None of the Company's Intellectual Property Rights have expired or terminated, or are expected to expire or terminate within three years from the date of this Agreement, except for rights which are not necessary to conduct its business as now conducted. The Company does not have any knowledge of any infringement by the Company or its subsidiaries of Intellectual Property Rights of others. There is no claim, action or proceeding being made or brought, or to the knowledge of the Company, being threatened, against the Company or any of its subsidiaries regarding its Intellectual Property Rights. The Company is unaware of any facts or circumstances which might give rise to any of the foregoing infringements or claims, actions or proceedings. The Company and its subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their Intellectual Property Rights.

### SECTION III

#### **REPRESENTATIONS, WARRANTIES, COVENANTS AND AGREEMENTS OF THE PURCHASERS**

The Purchasers, jointly and severally, represent and warrant to, and covenants and agrees with, the Company, as of the date hereof, that:

A. Organization (if applicable). The Purchaser is, and as of the Closing will be, duly organized, validly existing and in good standing under the laws of its jurisdiction of organization.

B. Authorization. The Purchaser has, and as of the Closing will have, all requisite power and authority to execute, deliver and perform this Agreement and to consummate the transactions contemplated hereby. The execution, delivery and performance of this Agreement, and the consummation of the transactions contemplated hereby, have been duly and validly authorized by all necessary action on the part of the Purchaser. This Agreement has been duly executed and delivered by the Purchaser and constitutes its legal, valid and binding obligation, enforceable against the Purchaser in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. No Legal Bar; Conflicts. Neither the execution and delivery of this Agreement, nor the consummation by the Purchaser of the transactions contemplated hereby, violates any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency applicable to the Purchaser, or violates, or conflicts with, any contract, commitment, agreement, understanding or arrangement of any kind to which the Purchaser is a party or by which the Purchaser is bound.

D. No Litigation. No action, suit or proceeding against the Purchaser relating to the consummation of any of the transactions contemplated by this Agreement nor any governmental action against the Purchaser seeking to delay or enjoin any such transactions is pending or, to the Purchaser's knowledge, threatened.

E. Investment Intent. The Purchaser: (i) is an accredited investor within the meaning of Rule 501(a) under the Securities Act of 1933, as amended (the "Act"); (ii) is aware of the limits on resale imposed by virtue of the nature of the transactions contemplated by this Agreement, specifically the restrictions imposed by Rule 144 of the Act, and is aware that the certificates representing the Purchaser's respective ownership of the Securities will bear related restrictive legends; and (iii) except as otherwise set forth herein, is acquiring the shares of the Company hereunder without registration under the Act in reliance on the exemption from registration contained in Section 4(2) of the Act and/or Rule 506 promulgated pursuant to Regulation D of the Act, for investment for its own account, and not with a view toward, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling such shares. The information contained in the Accredited Investor Questionnaire in the form of Exhibit C attached hereto and delivered by the Purchaser in connection with this Agreement is true and complete in all respects. The Purchaser has been given the opportunity to ask questions of, and receive answers from, the officers of the Company regarding the Company, its current and proposed business operations and the Securities, and the officers of the Company have made available to the Purchaser all documents and information that the Purchaser has requested relating to an investment in the Company. The Purchaser has been given the opportunity to retain competent legal counsel in connection with the purchase of the Securities and acknowledges that the Company has relied upon the Purchaser's representations in this Section 3 in offering and selling the Securities to the Purchaser.

G. Economic Risk; Restricted Securities. The Purchaser recognizes that the investment in the Securities involves a number of significant risks. The foregoing, however, does not limit or modify the representations, warranties and agreements of the Company in Section 2 of this Agreement or the right of the Purchaser to rely thereon. The Purchaser is able to bear the economic risks of an investment in the Securities for an indefinite period of time, has no need for liquidity in such investment and, at the present time, can afford a complete loss of such investment.

H. Access to Information.

(i) The Purchaser has had access to all reports required to be filed by the Company (the “SEC Reports”) under the Securities Exchange Act of 1934, as amended.

(ii) The Purchaser represents that it has not received any information about the Company other than what has been disclosed in the documents set forth above, and has had the opportunity to ask questions of, and receive answers from, the Company regarding the foregoing documents.

(iii) The Company has engaged each of RAMPartners SA and Midtown Partners & Co., LLC to act as its financial advisors (the “Financial Advisors”). The Financial Advisors are entitled to receive compensation only if the funds raised in a financing are provided by investors who are introduced to the Company solely through the efforts of the Financial Advisors. In connection with the transaction contemplated by this Agreement, the Financial Advisors shall not receive any compensation.

I. Suitability. The Purchaser has carefully considered, and has, to the extent the Purchaser deems it necessary, discussed with the Purchaser’s own professional legal, tax and financial advisers the suitability of an investment in the Securities for the Purchaser’s particular tax and financial situation, and the Purchaser has determined that the Securities is a suitable investment.

J. Legend. The Purchaser acknowledges that the certificates evidencing the Securities will bear the following legend:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THE SHARES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE PLEDGED, HYPOTHECATED, SOLD OR TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SHARES UNDER SUCH ACT OR AN OPINION OF COUNSEL TO THE ISSUER THAT REGISTRATION IS NOT REQUIRED UNDER THE ACT.

The Company acknowledges and agrees that a Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an “accredited investor” as defined in Rule 501(a) under the Act and who agrees in writing to be bound by the provisions of this Agreement and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith, provided that any such transfer would comply with federal and state securities laws. Further, no notice shall be required of such pledge. At the appropriate Purchaser’s expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities.

Certificates evidencing the Securities shall not be required to contain such legend or any other legend (i) following any sale of such Securities pursuant to Rule 144, (ii) if such Securities are eligible for sale under Rule 144, or (iii) such legend is not required under applicable requirements of the Act (including judicial interpretations and pronouncements issued by the staff of the SEC), in each such case (i) through (iii) to the extent reasonably determined by the Company's legal counsel. At such time and to the extent a legend is no longer required for the Securities, the Company will use its best efforts to no later than five (5) trading days following the delivery by a Purchaser to the Company or the Company's transfer agent of a legended certificate representing such Securities (together with such accompanying documentation or representations as reasonably required by counsel to the Company) (such fifth trading day, the "Legend Removal Date"), deliver or cause to be delivered a certificate representing such Securities that is free from the foregoing legend.

In addition to a Purchaser's other available remedies, the Company shall pay to a Purchaser, in cash, as partial liquidated damages and not as a penalty, for each \$1,000 of Securities (based on the VWAP of the Common Stock on the date such Securities are submitted to the Company's transfer agent) delivered for removal of the restrictive legend and subject to this section, \$10 per trading day (increasing to \$20 per trading day five (5) trading days after such damages have begun to accrue) for each trading day after the second trading day following the Legend Removal Date until such certificate is delivered without a legend. Nothing herein shall limit such Purchaser's right to pursue actual damages for the Company's failure to deliver certificates representing any Securities as required, and such Purchaser shall have the right to pursue all remedies available to it at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. Notwithstanding anything herein to the contrary, in no event will the Company be obligated to make payments to any Purchaser under this section in excess of 5% of the aggregate amount invested by such Purchaser.

The Purchaser agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section is predicated upon the Company's reliance that the Purchaser will sell any Securities pursuant to either the registration requirements or the Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if Securities are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

K. Registration of the Securities. The Securities have not been and are not being registered under the Securities Act of 1933, as amended (the "Securities Act") or any state securities laws, and may not be offered for sale, sold, assigned or transferred. The Company and the Purchaser agree to rely on Rule 144 of the Securities Act, when applicable, in the event a Purchaser desires to undertake any resale of any of the Securities.

#### SECTION IV

##### **THE CLOSING AND CONDITIONS TO CLOSING**

A. Time and Place of the Closing. The closing shall be held at the offices of Morgan, Lewis & Bockius, 502 Carnegie Center, Princeton, New Jersey 08540 as soon as practicable following the satisfaction of the Company of all of the conditions to closing, as set forth below, (the "Closing Date"), or such other time and place as the Company and the Purchasers may mutually agree.



(i) Delivery by the Company. Delivery of the Securities shall be made by the Company, or by its transfer agent, as applicable, to the Purchasers as soon as reasonably practicable after the Closing Date by delivering certificates representing their respective portion of Securities as set forth on the signature pages attached hereto, each such certificate to be accompanied by any requisite documentary or transfer tax stamps.

(ii) Delivery by the Purchasers. On or before the Closing Date, the Purchasers shall deliver to the Company the Aggregate Purchase Price, based on the number of Securities purchased by such Purchasers as set forth on the signature pages attached hereto, by certified bank check or by irrevocable wire transfer to the Company.

(iii) Other Conditions to Closing. As of the Closing Date:

- (a) all requisite action by the Company's Board of Directors shall have been taken pursuant to the By-Laws of the Company; and
- (b) the Company shall have obtained the requisite stockholder vote necessary to legally consummate the transactions contemplated hereby. Should this condition to closing no longer be legally necessary, then the parties can mutually agree to waive this condition to closing.

In the event the Company is unable to obtain, if necessary, the requisite stockholder vote necessary to legally consummate the transactions contemplated hereby by December 31, 2009, then the obligations of the Purchasers and the Company to each other pursuant to this Agreement shall terminate.

## SECTION V

### MISCELLANEOUS

A. Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the transactions contemplated hereby, and no modification hereof shall be effective unless in writing and signed by the party against which it is sought to be enforced.

B. Invalidity, Etc. If any provision of this Agreement, or the application of any such provision to any person or circumstance, shall be held invalid by a court of competent jurisdiction, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

C. Headings. The headings of this Agreement are for convenience of reference only and are not part of the substance of this Agreement.

D.        Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

E.        Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable in the case of agreements made and to be performed entirely within such State, without regard to principles of conflicts of law, and the parties hereto hereby submit to the exclusive jurisdiction of the state and federal courts located in the State of New Jersey.

F.        Counterparts. This Agreement may be executed in one or more identical counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

\* \* \* \* \*

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Christoper Forbes

Name: Christopher Forbes  
Title:

Address:  
\_\_\_\_\_  
\_\_\_\_\_

Telecopy:  
\_\_\_\_\_

- (a) Investment Amount: \$88,000
- (b) Number of shares of Common Stock:97,778 shares
- (c) Warrants to purchase shares of Common Stock:  
Warrant A: 88,000 warrant shares  
Warrant B: 89,222 warrant shares

\_\_\_\_\_

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Rudolf Stalder

Name: Rudolf Stalder  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$13,500
  - (b) Number of shares of Common Stock:15,000 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 13,500 warrant shares  
Warrant B: 13,688 warrant shares
-

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton

Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Harlan W. Waksal, M.D.

Name: Harlan W. Waksal, M.D.

Title:

Address:

Telecopy:

- (a) Investment Amount: \$13,500
- (b) Number of shares of Common Stock:15,000 shares
- (c) Warrants to purchase shares of Common Stock:  
Warrant A: 13,500 warrant shares  
Warrant B: 13,688 warrant shares

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENECO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Thomas C. Quick Charitable Foundation

Name: Thomas C. Quick Charitable Foundation  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$7,000
- (b) Number of shares of Common Stock:7,778 shares
- (c) Warrants to purchase shares of Common Stock:  
Warrant A: 7,000 warrant shares  
Warrant B: 7,097 warrant shares

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ David Rector

Name: David Rector  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$3,000
- (b) Number of shares of Common Stock:3,333 shares
- (c) Warrants to purchase shares of Common Stock:  
Warrant A: 3,000 warrant shares  
Warrant B: 3,042 warrant shares

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENECO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ John N. Braca

Name: John N. Braca  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$2,000
  - (b) Number of shares of Common Stock:2,222 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 2,000 warrant shares  
Warrant B: 2,028 warrant shares
-



IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENECO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Warren Isabelle

Name: Warren Isabelle  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$2,000
  - (b) Number of shares of Common Stock:2,222 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 2,000 warrant shares  
Warrant B: 2,028 warrant shares
-

**IN WITNESS WHEREOF**, this Agreement has been duly executed by the parties hereto as of the date first above written.

**COMPANY:**

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

\_\_\_\_\_  
Name: Bruce C. Galton  
Title: President and Chief Executive Officer

**PURCHASERS:**

By: /s/ Jack Van Hulst

\_\_\_\_\_  
Name: Jack Van Hulst  
Title:

Address:

\_\_\_\_\_

Telecopy:

\_\_\_\_\_

- (a) Investment Amount: \$1,000
  - (b) Number of shares of Common Stock:1,111 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 1,000 warrant shares  
Warrant B: 1,014 warrant shares
-

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

**COMPANY:**

SENECO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

**PURCHASERS:**

By: /s/ Robert Forbes

Name: Robert Forbes  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$300,000
  - (b) Number of shares of Common Stock: 333,333 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 300,000 warrant shares  
Warrant B: 304,167 warrant shares
-

IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

PURCHASERS:

By: /s/ Timothy Forbes

Name: Timothy Forbes  
Title:

Address:

Telecopy:

- (a) Investment Amount: \$100,000
  - (b) Number of shares of Common Stock: 111,111 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 100,000 warrant shares  
Warrant B: 101,389 warrant shares
-

**Exhibit A**

**Form of Warrant**

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**Exhibit B**

**Form of Warrant**

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**Exhibit C**

**Senesco Technologies, Inc.  
Confidential Purchaser Questionnaire**

Before any sale of securities in the above-captioned Company can be made to you, this Questionnaire must be completed and returned to Joel Brooks. Defined terms herein shall have the same meaning as set forth in the underlying Securities Purchase Agreement.

1. Please check one of the following that accurately describes your status as either an accredited investor (Item 1, A through H) or a nonaccredited investor (Item 2) at the time of your purchase of the securities. Only accredited investors may participate in this offering.

(1) Purchaser is an “accredited investor” as that term is defined in Regulation D adopted pursuant to the Securities Act of 1933, as amended (the “Securities Act”) (*i.e.* qualifying for one or more of the categories set forth below):

- \_\_\_\_\_ (A) an individual whose individual net worth, or joint net worth with that individual’s spouse, exceeds \$1,000,000;
- \_\_\_\_\_ (B) an individual who had an individual income in excess of \$200,000 in each of the last two calendar years or joint income with that person’s spouse in excess of \$300,000 in each of those years and who reasonably expects to reach the same income level in the current calendar year. For purposes of this offering, individual income shall equal adjusted gross income, as reported in the investor’s federal income tax return, less any income attributable to a spouse or to property owned by the spouse, and as may be further adjusted in accordance with the rules, regulations, and releases of the Securities and Exchange Commission;
- \_\_\_\_\_ (C) a bank as defined in Section 3(a)(2) of the Securities Act, or a savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Securities Act, whether acting in its individual or fiduciary capacity; an insurance company as defined in Section 2(13) of the Securities Act; an investment company registered under the Investment Company Act of 1940 (the “1940 Act”) or a business development company as defined in Section 2(a)(48) of the 1940 Act; a Small Business Investment Company licensed by the U.S. Small Business Administration under Section 301(c) or (d) of the Small Business Investment Act of 1958; or an employee benefit plan within the meaning of Title I of the Employee Retirement Income Security Act of 1974 (“ERISA”), if the investment decision is made by a plan fiduciary, as defined in Section 3(21) of ERISA, which is either a bank, savings and loan association, insurance company or registered investment adviser, or if the employee benefit plan has total assets in excess of \$5,000,000 or if a self directed plan, with investment decisions made solely by persons that are accredited investors;
-

- \_\_\_\_\_ (D) a private business development company as defined in Section 202(a)(22) of the Investment Advisers Act of 1940;
- \_\_\_\_\_ (E) an organization described in Section 501(c)(3) of the Internal Revenue Code, a corporation, a Massachusetts or similar business trust, or a partnership, not formed for the specific purpose of acquiring the Securities;
- \_\_\_\_\_ (F) an entity in which all of the equity owners are accredited investors as set forth above;
- \_\_\_\_\_ (G) a trust (other than a Massachusetts or similar business trust) with total assets in excess of \$5 million, not formed for the specific purpose of investing in the Company, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment; or
- \_\_\_\_\_ (H) an individual who is a director or executive officer of the Company.

**IF YOU ARE NOT AN ACCREDITED INVESTOR AS DESCRIBED ABOVE, PLEASE MARK HERE:**

\_\_\_\_\_ (2) Purchaser is not an accredited investor as set forth in the criteria in (1) above, but is otherwise equally qualified, sophisticated and able to make the investment contemplated hereby.

2. Purchaser has reviewed such Purchaser's financial condition and commitments, alone and together with Purchaser's advisors, and, based on such review, Purchaser is satisfied that (a) Purchaser has adequate means of providing for Purchaser's financial needs and possible contingencies and has assets or sources of income which, taken together, are more than sufficient so that Purchaser could bear the risk of loss of the entire investment in the Stock, (b) Purchaser has no present or contemplated future need to dispose of all or any portion of the Securities to satisfy any existing or contemplated undertaking, need or indebtedness, and (c) Purchaser is capable of bearing the economic risk of an investment in the Securities for the indefinite future.

3. Purchaser understands that the Securities that may be issued to Purchaser will not have been registered under the Securities Act or any state securities law by reason of specific exemptions under the provisions thereof which depend in part upon the other representations and warranties made by Purchaser in this letter, including Purchaser's state of residency indicated on the signature page to this letter. Purchaser understands that the Company is relying upon Purchaser's representations and warranties contained in this letter for the purpose of determining whether this transaction meets the requirements for such exemptions. Purchaser will furnish any additional information requested by the Company to assure the compliance of this transaction with applicable federal and state securities laws.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]**

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**SIGNATURE PAGE TO ACCREDITED INVESTOR QUESTIONNAIRE**

PURCHASER:

\_\_\_\_\_  
Name (print):\_\_\_\_\_

State of Residency: \_\_\_\_\_

Mailing Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## SECURITIES PURCHASE AGREEMENT

**This SECURITIES PURCHASE AGREEMENT** (this "Agreement"), dated as of July 29, 2009, by and among Senesco Technologies, Inc., a Delaware corporation (the "Company"), and Cato Holding Company, a North Carolina corporation (the "Purchaser").

### W I T N E S S E T H :

**WHEREAS**, the Company is currently indebted to Purchaser in an amount in excess of one hundred seventy-five thousand dollars (US\$175,000); and

**WHEREAS**, the Purchaser is willing to purchase certain securities from the Company in exchange for the indebtedness and the Company is willing to issue such securities pursuant to the terms of this Agreement; ;

**NOW, THEREFORE**, in consideration of the promises and the mutual covenants contained herein, the parties hereto, intending to be legally bound, hereby agree as follows:

### SECTION I

#### PURCHASE AND SALE OF THE SECURITIES

A. Purchase and Sale. Subject to the terms and conditions of this Agreement and on the basis of the representations, warranties, covenants and agreements herein contained, the Purchaser agrees to purchase at the Closing and the Company hereby agrees to sell and issue to the Purchaser at the Closing the following securities: (a) one hundred ninety-four thousand four hundred forty-four (194,444) shares (the "Shares") of the Company's common stock, \$0.01 par value per share (the "Common Stock"); (b) a warrant to purchase one hundred seventy-five thousand (175,000) shares of Common Stock at an exercise price of \$0.01 per share ("Warrant A"); and (c) a warrant to purchase one hundred seventy-seven thousand, four hundred thirty-one (177,431) shares of Common Stock at an exercise price of \$0.60 per share ("Warrant B" and collectively with Warrant A, the "Warrants"). The Warrants, together with the Shares, shall be referred to herein collectively as the "Securities."

B. Price. The purchase price for the Securities shall be one hundred seventy-five thousand dollars (US\$175,000).

C. Warrant A. Warrant A shall (i) be in the form of Exhibit A attached hereto, (ii) have a seven (7) year term, (iii) be exercisable immediately, and (iv) entitle the Purchaser and/or its designees, as the case may be, to purchase an aggregate of 175,000 shares of the Company's Common Stock at an exercise price of \$0.01 per share.

D. Warrant B. Warrant B shall (i) be in the form of Exhibit B attached hereto, (ii) have a seven (7) year term, (iii) be exercisable in full beginning six (6) months from the date of issuance, and (iv) entitle the Purchaser and/or its designees, as the case may be, to purchase an aggregate of 177,431 shares of the Company's Common Stock at an exercise price of \$0.60 per share..

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## SECTION II

### REPRESENTATIONS, WARRANTIES, COVENANTS AND AGREEMENTS OF THE COMPANY

Except as disclosed in the Schedules attached hereto ("Schedules") or as disclosed in, and reasonably apparent from, any report, schedule, form or other document filed with, or furnished to, the U.S. Securities and Exchange Commission ("SEC") and publicly available prior to the date of this Agreement, the Company represents and warrants to, and covenants and agrees with, the Purchaser, as of the date hereof, that:

A. Organization; Good Standing. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has full corporate power and authority to own its properties and to conduct the business in which it is now engaged.

B. Authority. Except as set forth on Schedule IIB, the Company has the full corporate power, authority and legal right to execute and deliver this Agreement and to perform all of its obligations and covenants hereunder, and no consent or approval of any other person or governmental authority is required therefore. The execution and delivery of this Agreement by the Company, the performance by the Company of its obligations and covenants hereunder and the consummation by the Company of the transactions contemplated hereby have been duly authorized by all necessary corporate action. This Agreement constitutes a valid and legally binding obligation of the Company, enforceable against the Company in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. No Legal Bar; Conflicts. Neither the execution and delivery of this Agreement, nor the consummation of the transactions contemplated hereby, violates any provision of the Certificate of Incorporation, as amended, or By-Laws of the Company or any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency, or conflicts with or results in any breach of any of the terms of or constitutes a default under or results in the termination of or the creation of any lien pursuant to the terms of any contract or agreement to which the Company is a party or by which the Company or any of its assets is bound.

D. Non-Assessable Shares. The Securities being issued hereunder, subject to the Company's receipt of stockholder approval for an increase in the number of its authorized shares, will be duly authorized and, the Shares, when issued to the Purchaser for the consideration herein provided, and the shares of Common Stock issued upon the proper exercise of the Warrants, will be validly issued, fully paid and non-assessable.

E. SEC Documents; Financial Statements. During the two years prior to the date hereof, the Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the Securities Exchange Act of 1934 (the "1934 Act") (all of the foregoing filed prior to the date

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hereof or prior to the Closing Date, and all exhibits included therein and financial statements and schedules thereto and documents incorporated by reference therein being hereinafter referred to as the "SEC Documents"). The Company has made available to the Purchaser or their respective representatives true, correct and complete copies of the SEC Documents not available on the EDGAR system. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Documents complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied, during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto, or (ii) in the case of unaudited interim statements, to the extent they may exclude footnotes or may be condensed or summary statements) and fairly present in all material respects the financial position of the Company as of the dates thereof and the results of its operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments). No other information provided by or on behalf of the Company to the Purchaser which is not included in the SEC Documents, including, without limitation, information provided to any Purchaser by the Company in anticipation of this transaction, contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements therein, in the light of the circumstance under which they are or were made, not misleading.

F. Absence of Certain Changes. Except in the ordinary course of business, since July 28, 2009, there has been no material adverse change and no material adverse development in the business, properties, operations, condition (financial or otherwise), results of operations or prospects of the Company or its subsidiaries. Since July 28, 2009, the Company has not (i) declared or paid any dividends, (ii) sold any assets, individually or in the aggregate, in excess of \$500,000 outside of the ordinary course of business or (iii) had capital expenditures, individually or in the aggregate, in excess of \$500,000. The Company has not taken any steps to seek protection pursuant to any bankruptcy law nor does the Company have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy proceedings or any actual knowledge of any fact which would reasonably lead a creditor to do so.

G. No Undisclosed Events, Liabilities, Developments or Circumstances. Except as set forth on Schedule IIG, no event, liability, development or circumstance has occurred or exists, or is contemplated to occur, with respect to the Company or its subsidiaries or their respective business, properties, prospects, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws on a registration statement on Form S-1 filed with the SEC relating to an issuance and sale by the Company of its Common Stock and which has not been publicly announced.

H. Foreign Corrupt Practices. Neither the Company, nor any of its subsidiaries, nor any director, officer, agent, employee or other person acting on behalf of the Company or any of

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its subsidiaries has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

I. Sarbanes-Oxley Act. The Company is in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the SEC thereunder that are effective as of the date hereof, except where such noncompliance would not have, individually or in the aggregate, a material adverse effect.

J. Intellectual Property Rights. The Company and its subsidiaries own or possess adequate rights or licenses to use all trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and other intellectual property rights ("Intellectual Property Rights") necessary to conduct their respective businesses as now conducted. None of the Company's Intellectual Property Rights have expired or terminated, or are expected to expire or terminate within three years from the date of this Agreement, except for rights which are not necessary to conduct its business as now conducted. The Company does not have any knowledge of any infringement by the Company or its subsidiaries of Intellectual Property Rights of others. There is no claim, action or proceeding being made or brought, or to the knowledge of the Company, being threatened, against the Company or any of its subsidiaries regarding its Intellectual Property Rights. The Company is unaware of any facts or circumstances which might give rise to any of the foregoing infringements or claims, actions or proceedings. The Company and its subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their Intellectual Property Rights.

### SECTION III

#### **REPRESENTATIONS, WARRANTIES, COVENANTS AND AGREEMENTS OF THE PURCHASER**

The Purchaser represents and warrants to, and covenants and agrees with, the Company, as of the date hereof, that:

A. Organization. The Purchaser is, and as of the Closing will be, duly organized, validly existing and in good standing under the laws of its jurisdiction of organization.

B. Authorization. The Purchaser has, and as of the Closing will have, all requisite power and authority to execute, deliver and perform this Agreement and to consummate the transactions contemplated hereby. The execution, delivery and performance of this Agreement, and the consummation of the transactions contemplated hereby, have been duly and validly authorized by all necessary action on the part of the Purchaser. This Agreement has been duly executed and delivered by the Purchaser and constitutes its legal, valid and binding obligation, enforceable against the Purchaser in accordance with its terms, except as the enforceability

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thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. No Legal Bar; Conflicts. Neither the execution and delivery of this Agreement, nor the consummation by the Purchaser of the transactions contemplated hereby, violates any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency applicable to the Purchaser, or violates, or conflicts with, any contract, commitment, agreement, understanding or arrangement of any kind to which the Purchaser is a party or by which the Purchaser is bound.

D. No Litigation. No action, suit or proceeding against the Purchaser relating to the consummation of any of the transactions contemplated by this Agreement nor any governmental action against the Purchaser seeking to delay or enjoin any such transactions is pending or, to the Purchaser's knowledge, threatened.

E. Investment Intent. The Purchaser: (i) is an accredited investor within the meaning of Rule 501(a) under the Securities Act of 1933, as amended (the "Act"); (ii) is aware of the limits on resale imposed by virtue of the nature of the transactions contemplated by this Agreement, specifically the restrictions imposed by Rule 144 of the Act, and is aware that the certificates representing the Purchaser's respective ownership of the Securities will bear related restrictive legends; and (iii) except as otherwise set forth herein, is acquiring the shares of the Company hereunder without registration under the Act in reliance on the exemption from registration contained in Section 4(2) of the Act and/or Rule 506 promulgated pursuant to Regulation D of the Act, for investment for its own account, and not with a view toward, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling such shares. The information contained in the Accredited Investor Questionnaire in the form of Exhibit C attached hereto and delivered by the Purchaser in connection with this Agreement is true and complete in all respects. The Purchaser has been given the opportunity to ask questions of, and receive answers from, the officers of the Company regarding the Company, its current and proposed business operations and the Securities, and the officers of the Company have made available to the Purchaser all documents and information that the Purchaser has requested relating to an investment in the Company. The Purchaser has been given the opportunity to retain competent legal counsel in connection with the purchase of the Securities and acknowledges that the Company has relied upon the Purchaser's representations in this Section 3 in offering and selling the Securities to the Purchaser.

G. Economic Risk; Restricted Securities. The Purchaser recognizes that the investment in the Securities involves a number of significant risks. The foregoing, however, does not limit or modify the representations, warranties and agreements of the Company in Section 2 of this Agreement or the right of the Purchaser to rely thereon. The Purchaser is able to bear the economic risks of an investment in the Securities for an indefinite period of time, has no need for liquidity in such investment and, at the present time, can afford a complete loss of such investment.

H. Access to Information.

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(i) The Purchaser has had access to all reports required to be filed by the Company (the “SEC Reports”) under the 1934 Act.

(ii) The Purchaser represents that it has had the opportunity to ask questions of, and receive answers from, the Company regarding the foregoing documents.

I. Suitability. The Purchaser has carefully considered, and has, to the extent the Purchaser deems it necessary, discussed with the Purchaser's own professional legal, tax and financial advisers the suitability of an investment in the Securities for the Purchaser's particular tax and financial situation, and the Purchaser has determined that the Securities is a suitable investment.

J. Legend. The Purchaser acknowledges that the certificates evidencing the Securities will bear the following legend:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). THE SHARES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE PLEDGED, HYPOTHECATED, SOLD OR TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SHARES UNDER SUCH ACT OR AN OPINION OF COUNSEL TO THE ISSUER THAT REGISTRATION IS NOT REQUIRED UNDER THE ACT.

The Company acknowledges and agrees that Purchaser may from time to time, after the Closing Date (as defined below), pledge pursuant to a bona fide margin agreement with a registered broker-dealer, or grant a security interest in some or all of the Securities to a financial institution that is an “accredited investor” as defined in Rule 501(a) under the Act and who agrees in writing to be bound by the provisions of this Agreement and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. In addition, the Company acknowledges and agrees that Purchaser may from time to time assign and transfer certain Warrants to members of Purchaser’s senior management, provided that each such assignee is an “accredited investor” as defined in Rule 501(a) under the Act and agrees in writing to be bound by the provisions of this Agreement, Warrant A and/or Warrant B, as the case may be. Any such assignment, pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the assignee, pledgee, secured party or pledgor shall be required in connection therewith, provided that any such transfer would comply with applicable federal and state securities laws. Further, no notice shall be required of such pledge. At the appropriate Purchaser’s expense, the Company will execute and deliver such reasonable documentation as an assignee, pledgee or secured party of Securities may reasonably request in connection with an assignment, pledge or transfer of the Securities.

Certificates evidencing the Securities shall not be required to contain such legend or any other legend (i) following any sale of such Securities pursuant to Rule 144, (ii) if

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such Securities are eligible for sale under Rule 144, or (iii) such legend is not required under applicable requirements of the Act (including judicial interpretations and pronouncements issued by the staff of the SEC), in each such case (i) through (iii) to the extent reasonably determined by the Company's legal counsel. At such time and to the extent a legend is no longer required for the Securities, the Company will use its best efforts to no later than five (5) trading days following the delivery by a Purchaser to the Company or the Company's transfer agent of a legended certificate representing such Securities (together with such accompanying documentation or representations as reasonably required by counsel to the Company) (such fifth trading day, the "Legend Removal Date"), deliver or cause to be delivered a certificate representing such Securities that is free from the foregoing legend or any other legend.

In addition to a Purchaser's other available remedies, the Company shall pay to a Purchaser, in cash, as partial liquidated damages and not as a penalty, for each \$1,000 of Securities (based on the VWAP of the Common Stock on the date such Securities are submitted to the Company's transfer agent) delivered for removal of the restrictive legend and subject to this section, \$10 per trading day (increasing to \$20 per trading day five (5) trading days after such damages have begun to accrue) for each trading day after the second trading day following the Legend Removal Date until such certificate is delivered without a legend. Nothing herein shall limit such Purchaser's right to pursue actual damages for the Company's failure to deliver certificates representing any Securities as required, and such Purchaser shall have the right to pursue all remedies available to it at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. Notwithstanding anything herein to the contrary, in no event will the Company be obligated to make payments to any Purchaser under this section in excess of 5% of the aggregate amount invested by such Purchaser.

The Purchaser agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section is predicated upon the Company's reliance that the Purchaser will sell any Securities pursuant to either the registration requirements of the Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if Securities are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

K. Registration of the Securities. The Securities have not been and are not being registered under the Act or any state securities laws, and may not be offered for sale, sold, assigned or transferred. The Company and the Purchaser agree to rely on Rule 144 of the Securities Act, when applicable, in the event a Purchaser desires to undertake any resale of any of the Securities.

#### **SECTION IV**

##### **THE CLOSING AND CONDITIONS TO CLOSING**

A. Time and Place of the Closing. The closing shall be held at the offices of Morgan, Lewis & Bockius, 502 Carnegie Center, Princeton, New Jersey 08540 as soon as practicable following the satisfaction of the Company of all of the conditions to closing, as set forth below,

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(the "Closing Date"), or such other time and place as the Company and the Purchaser may mutually agree.

(i) Delivery by the Company. Delivery of the Securities shall be made by the Company, or by its transfer agent, as applicable, to the Purchaser as soon as reasonably practicable after the Closing Date by delivering certificates representing their respective portion of Securities as set forth on the signature pages attached hereto, each such certificate to be accompanied by any requisite documentary or transfer tax stamps.

(ii) Other Conditions to Closing. As of the Closing Date

(a) all requisite action by the Company's Board of Directors shall have been taken pursuant to the By-Laws of the Company;

(b) The representations and warranties of the Company set forth herein shall be true and correct; and

(c) the Company shall have obtained the requisite stockholder vote necessary to legally consummate the transactions contemplated hereby. Should this condition to closing no longer be legally necessary, then the parties can mutually agree to waive this condition to closing.

In the event the Company is unable to obtain, if necessary, the requisite stockholder vote necessary to legally consummate the transactions contemplated hereby (the "Stockholder Approval") by December 31, 2009, then the obligations of the Purchaser and the Company to each other pursuant to this Agreement shall terminate. In the event that Stockholder Approval is not obtained by the Company by December 31, 2009, then the indebtedness shall be reinstated in full and become due and owing to the Purchaser on December 31, 2009, with interest thereon at the rate otherwise due under the documents of indebtedness between the Purchaser and the Company.

## SECTION V

### MISCELLANEOUS

A. Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the transactions contemplated hereby, and no modification hereof shall be effective unless in writing and signed by the party against which it is sought to be enforced.

B. Invalidity, Etc. If any provision of this Agreement, or the application of any such provision to any person or circumstance, shall be held invalid by a court of competent jurisdiction, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

C. Headings. The headings of this Agreement are for convenience of reference only and are not part of the substance of this Agreement.

D. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

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E. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable in the case of agreements made and to be performed entirely within such State, without regard to principles of conflicts of law, and the parties hereto hereby submit to the exclusive jurisdiction of the state and federal courts located in the State of Delaware.

F. Counterparts. This Agreement may be executed in one or more identical counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

\* \* \* \* \*

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IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the date first above written.

**COMPANY:**

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton  
Title: President and Chief Executive Officer

**PURCHASER:**

CATO HOLDING COMPANY

By: /s/ Shawn K. Singh, JD

Name: Shawn K. Singh, JD  
Title: Managing Principal

Address:

Telecopy:

- (a) Investment Amount: Purchaser’s cancellation of \$175,000 of the Company’s indebtedness to Purchaser
  - (b) Number of shares of Common Stock: 194,444 shares
  - (c) Warrants to purchase shares of Common Stock:  
Warrant A: 175,000 warrant shares  
Warrant B: 177,431 warrant shares
-

**Exhibit A**  
**Form of Warrant**

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**Exhibit B**  
**Form of Warrant**

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**Exhibit C**  
**Senesco Technologies, Inc.**  
**Confidential Purchaser Questionnaire**

Before any sale of securities in the above-captioned Company can be made to you, this Questionnaire must be completed and returned to Joel Brooks. Defined terms herein shall have the same meaning as set forth in the underlying Securities Purchase Agreement.

1. Please check one of the following that accurately describes your status as either an accredited investor (Item 1, A through H) or a nonaccredited investor (Item 2) at the time of your purchase of the securities. Only accredited investors may participate in this offering.

(1) Purchaser is an "accredited investor" as that term is defined in Regulation D adopted pursuant to the Securities Act of 1933, as amended (the "Securities Act") (*i.e.* qualifying for one or more of the categories set forth below):

- \_\_\_\_\_ (A) an individual whose individual net worth, or joint net worth with that individual's spouse, exceeds \$1,000,000;
- \_\_\_\_\_ (B) an individual who had an individual income in excess of \$200,000 in each of the last two calendar years or joint income with that person's spouse in excess of \$300,000 in each of those years and who reasonably expects to reach the same income level in the current calendar year. For purposes of this offering, individual income shall equal adjusted gross income, as reported in the investor's federal income tax return, less any income attributable to a spouse or to property owned by the spouse, and as may be further adjusted in accordance with the rules, regulations, and releases of the Securities and Exchange Commission;
- \_\_\_\_\_ (C) a bank as defined in Section 3(a)(2) of the Securities Act, or a savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Securities Act, whether acting in its individual or fiduciary capacity; an insurance company as defined in Section 2(13) of the Securities Act; an investment company registered under the Investment Company Act of 1940 (the "1940 Act") or a business development company as defined in Section 2(a)(48) of the 1940 Act; a Small Business Investment Company licensed by the U.S. Small Business Administration under Section 301(c) or (d) of the Small Business Investment Act of 1958; or an employee benefit plan within the meaning of Title I of the Employee Retirement Income Security Act of 1974 ("ERISA"), if the investment decision is made by a plan fiduciary, as defined in Section 3(21) of ERISA, which is either a bank, savings and loan association, insurance company or registered investment adviser, or if the employee benefit plan has total assets in excess of \$5,000,000 or if a self-directed plan, with investment decisions made solely by persons that are accredited investors;
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- \_\_\_\_\_ (D) a private business development company as defined in Section 202(a)(22) of the Investment Advisers Act of 1940;
- \_\_\_\_\_ (E) an organization described in Section 501(c)(3) of the Internal Revenue Code, a corporation, a Massachusetts or similar business trust, or a partnership, not formed for the specific purpose of acquiring the Securities;
- \_\_\_\_\_ (F) an entity in which all of the equity owners are accredited investors as set forth above;
- \_\_\_\_\_ (G) a trust (other than a Massachusetts or similar business trust) with total assets in excess of \$5 million, not formed for the specific purpose of investing in the Company, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment; or
- \_\_\_\_\_ (H) an individual who is a director or executive officer of the Company.

**IF YOU ARE NOT AN ACCREDITED INVESTOR AS DESCRIBED ABOVE, PLEASE MARK HERE:**

\_\_\_\_\_ (2) Purchaser is not an accredited investor as set forth in the criteria in (1) above, but is otherwise equally qualified, sophisticated and able to make the investment contemplated hereby.

2. Purchaser has reviewed such Purchaser's financial condition and commitments, alone and together with Purchaser's advisors, and, based on such review, Purchaser is satisfied that (a) Purchaser has adequate means of providing for Purchaser's financial needs and possible contingencies and has assets or sources of income which, taken together, are more than sufficient so that Purchaser could bear the risk of loss of the entire investment in the Stock, (b) Purchaser has no present or contemplated future need to dispose of all or any portion of the Securities to satisfy any existing or contemplated undertaking, need or indebtedness, and (c) Purchaser is capable of bearing the economic risk of an investment in the Securities for the indefinite future.

3. Purchaser understands that the Securities that may be issued to Purchaser will not have been registered under the Securities Act or any state securities law by reason of specific exemptions under the provisions thereof which depend in part upon the other representations and warranties made by Purchaser in this letter, including Purchaser's state of residency indicated on the signature page to this letter. Purchaser understands that the Company is relying upon Purchaser's representations and warranties contained in this letter for the purpose of determining whether this transaction meets the requirements for such exemptions. Purchaser will furnish any

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additional information requested by the Company to assure the compliance of this transaction with applicable federal and state securities laws.

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**SIGNATURE PAGE TO ACCREDITED INVESTOR QUESTIONNAIRE**

PURCHASER:

\_\_\_\_\_

Name (print): \_\_\_\_\_

State of Residency: \_\_\_\_\_

Mailing Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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**Company Contact:**

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**SENESCO TECHNOLOGIES ENTERS INTO AGREEMENTS FOR ADDITIONAL \$700,000 IN FINANCING**

**NEW BRUNSWICK, N.J. (July 30, 2009)**—**Senesco Technologies, Inc.** (“Senesco” or the “Company”) (NYSE Amex: SNT) today announced that, on July 29, 2009, the Company entered into definitive purchase agreements with certain members of Senesco’s Board of Directors and certain accredited investors, including Cato Holding Company, which is the venture capital affiliate of Cato Research Ltd., a global contract research and development organization currently assisting Senesco with its SNS-101 development program with the emphasis on initiating a Phase I clinical trial for multiple myeloma.

Pursuant to the respective purchase agreements, Senesco will issue and sell (i) up to 783,332 shares of its common stock (the “Shares”) at a price of \$0.90 per share, (ii) warrants to purchase an aggregate of up to 705,000 shares of common stock, which warrants are exercisable immediately at an exercise price of \$0.01 per share (the “Series A Warrants”) and (iii) warrants to purchase an aggregate of up to 714,794 shares of common stock, which warrants are exercisable 6 months from the date of issuance at an exercise price of \$0.60 per share (the “Series B Warrants”). In connection with the private placement, the Company anticipates that it will receive aggregate proceeds, excluding costs and expenses, in the amount of \$530,000. In addition, Cato Holding Company has agreed to cancel \$175,000 of the Company’s indebtedness to Cato Research, Ltd., bringing the proceeds of the offering, excluding costs and expenses, to approximately \$705,000.

The closing of the foregoing transactions is contingent upon Senesco receiving stockholder approval for certain aspects of the transactions as well as other customary closing conditions. There are no registration rights associated with the securities to be issued and sold in the private placement and no placement agent was used in connection with the private placement.

Senesco primarily intends to utilize the net proceeds of these transactions to further advance its multiple myeloma research and development program with the goal of initiating a Phase I clinical trial.

“We are excited by the potential of SNS-101 as a novel treatment alternative for multiple myeloma,” said Allen Cato, MD, PhD, CEO of Cato Research. “Our recent investment reflects our confidence in the Company’s regulatory and development plans. We look forward to significant progress in the months ahead.”

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“We are gratified by the confidence expressed in us by our CRO, the Board members and accredited investors involved in this transaction,” commented Joel Brooks, Chief Financial Officer. “This funding, along with the \$1 million in financing secured several weeks ago, enables us to continue moving forward efficiently with our goal of filing an Investigational New Drug Application and initiating a Phase I clinical trial for SNS-01.”

### **Important Information**

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state. The shares of common stock have been sold pursuant to an exemption from state and federal securities laws.

In connection with the private placement, the Company will prepare a proxy statement for the Company’s stockholders to be filed with the Securities and Exchange Commission (the “SEC”). The proxy statement will contain information about the Company, the private placement and related matters. STOCKHOLDERS ARE URGED TO READ THE PROXY STATEMENT CAREFULLY WHEN IT IS AVAILABLE, AS IT WILL CONTAIN IMPORTANT INFORMATION THAT STOCKHOLDERS SHOULD CONSIDER BEFORE MAKING A DECISION ABOUT APPROVING AN AMENDMENT TO THE COMPANY’S CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES.

In addition to receiving the proxy statement from the Company by mail, shareholders will be able to obtain the proxy statement, as well as other filings containing information about the Company, without charge, from the SEC’s website (<http://www.sec.gov> ) or, without charge, from the Company’s website at [www.senescotech.com](http://www.senescotech.com) or by directing such request to Senesco Technologies, Inc. 303 George St., Suite 420, New Brunswick, New Jersey 08901 Attention: Joel Brooks.

The Company and its directors and executive officers and other members of management and employees may be deemed to be participants in the solicitation of proxies. Information concerning the Company and its directors and executive officers is set forth in the Company’s proxy statement and Annual Report on Form 10-K previously filed with the SEC.

### **About Senesco Technologies, Inc.**

Senesco Technologies, Inc. is a U.S. biotechnology company, headquartered in New Brunswick, NJ. Senesco has initiated preclinical research to trigger or delay cell death in mammals (apoptosis) to determine if the technology is applicable in human medicine. Accelerating apoptosis may have applications to development of cancer treatments. Delaying apoptosis may have applications to certain diseases inflammatory and ischemic diseases. Senesco takes its name from the scientific term for the aging of plant cells: senescence. Delaying cell breakdown in plants extends freshness after harvesting, while increasing crop yields, plant size and resistance to environmental stress. The Company believes that its technology can be used to develop superior strains of crops without any modification other than delaying natural plant senescence. Senesco has partnered with leading-edge companies engaged in agricultural biotechnology and earns research and development fees for applying its gene-regulating platform technology to enhance its partners’ products.

*Certain statements included in this press release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from such statements expressed or implied herein as a result of a variety of factors, including, but not limited to: the Company’s ability to consummate this financing as well as additional financings; the development of the Company’s gene technology; the approval of the Company’s patent applications; the successful implementation of the Company’s research and development programs and joint ventures; the success of the Company’s license agreements; the acceptance by the market of the Company’s products; success of the Company’s preliminary studies and preclinical research; competition and the timing of projects and trends in future operating performance, as well as other factors expressed from time to time in the Company’s periodic filings with the SEC. As a result, this press release should be read in conjunction with the Company’s periodic filings with the SEC. The forward-looking statements contained herein are made only as of the date of this press release, and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.*

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