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

FORM 6-K

**Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934**

For the month of May 2018

Commission File Number 000-12790

ORBOTECH LTD.

(Translation of Registrant's name into English)

7 SANHEDRIN BOULEVARD, NORTH INDUSTRIAL ZONE, YAVNE 8110101, ISRAEL
(Address of principal executive offices)

Indicate by check mark whether the Registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Information Contained in this Report on Form 6-K

Amendment to Merger Agreement

On May 11, 2018, KLA-Tencor Corporation (“KLA-Tencor”), Orbotech Ltd. (“Orbotech”) and Tiburon Merger Sub Technologies Ltd. (“Merger Sub”) entered into Amendment No. 1 (the “Amendment”) to the Agreement and Plan of Merger dated as of March 18, 2018 (the “Merger Agreement”). The Amendment: (i) clarified that the Excluded Shares (as defined below) would remain outstanding through the effective time of the merger, (ii) provided that Merger Sub (and, as a result of the merger, the surviving company) may be a wholly owned direct or indirect subsidiary of KLA-Tencor, and (iii) contained an acknowledgment that the confirmation received from the Israeli Investment Center of the Israeli Ministry of Economy (the “Investment Center”) that the approval of the Investment Center is not required with respect to the change in ownership of the Company to be effected by the merger was sufficient to satisfy a closing condition in the Merger Agreement relating to Investment Center approval, unless such confirmation is revoked withdrawn, or amended by the Investment Center prior to the closing of the merger. In the Amendment, “Excluded Shares” include Orbotech ordinary shares held in the treasury of Orbotech, reserved for future grants under Orbotech’s employee and director equity compensation plans, owned on behalf of Orbotech by the trustee appointed by Orbotech from time to time in accordance with the provisions of the Israeli Income Tax Ordinance [New Version], 1961 or held by KLA-Tencor or any direct or indirect wholly-owned subsidiary of Orbotech or KLA-Tencor.

The foregoing description of the Amendment does not purport to be complete and its qualified in its entirety by reference to the Amendment, which is attached hereto as Exhibit 99.1 and incorporated by reference herein. The Amendment has been attached as an exhibit to this report to provide investors and security holders with information regarding its terms. It is not intended to provide any factual information about KLA-Tencor, Orbotech or Merger Sub.

Antitrust Clearance in Germany

On May 9, 2018, the German Federal Cartel Office provided antitrust clearance for the proposed merger with KLA-Tencor.

This report on Form 6-K, including the exhibit attached hereto, is filed with the SEC and is incorporated by reference into the Registration Statements on Form S-8 (Registration No. 33-25782, Registration No. 33-78196, Registration No. 333-05440, Registration No. 333-06542, Registration No. 333-08404, Registration No. 333-09342, Registration No. 333-11124, Registration No. 333-12692, Registration No. 333-127979, Registration No. 333-154394, Registration No. 333-169146 and Registration No. 333-207878) of Orbotech Ltd. previously filed with the Securities and Exchange Commission.

Cautionary Statement Regarding Forward-Looking Statements

This report contains forward-looking statements as defined in the Securities Exchange Act of 1934 and is subject to the safe harbors created therein. These forward-looking statements involve risks and uncertainties that could significantly affect the expected results of the proposed transaction and are based on certain key assumptions. Due to such uncertainties and risks, no assurances can be given that such expectations will prove to have been correct, and readers are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date hereof. The forward-looking statements contained herein include, but are not limited to, the manner in which the parties plan to effect the transaction, including the share repurchase program; the ability of KLA-Tencor to raise additional capital necessary to complete the repurchase program within the time frame expected; the expected benefits, synergies and costs of the transaction; management plans relating to the transaction, including with respect to Orbotech’s ownership interest in Frontline P.C.B. Solutions Limited Partnership; the expected timing of the completion of the transaction; the parties’ ability to complete the transaction considering the various closing conditions, including conditions related to regulatory and Orbotech shareholder approvals; the plans, strategies and objectives of management for future operations; product development, product extensions, product integration, complementary product offerings and growth opportunities in certain

business areas; the potential future financial impact of the transaction; and any assumptions underlying any of the foregoing. Actual results may differ materially from those referred to in the forward-looking statements due to a number of important factors, including but not limited to the possibility that expected benefits of the transaction may not materialize as expected; that the transaction may not be timely completed, if at all; or that KLA-Tencor may not be able to successfully integrate the solutions and employees of the two companies or ensure the continued performance or growth of Orbotech's products or solutions.

In addition, other risks that KLA-Tencor faces include those detailed in KLA-Tencor's filings with the Securities and Exchange Commission, including KLA-Tencor's annual report on Form 10-K for the year ended June 30, 2017 and quarterly reports on Form 10-Q for the quarters ended December 31, 2017 and March 31, 2017, respectively. Other risks that Orbotech faces include those detailed in Orbotech's filings with the Securities and Exchange Commission, including Orbotech's annual report on Form 20-F for the year ended December 31, 2017.

Additional Information and Where to Find It

This report is being made in respect of a proposed business combination involving KLA-Tencor and Orbotech. This report does not constitute an offer to sell or the solicitation of an offer to buy or subscribe for any securities or a solicitation of any vote or approval nor shall there be any sale, issuance or transfer of securities in any jurisdiction in which such offer, solicitation, sale, issuance or transfer would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. The proposed transaction will be submitted to the shareholders of Orbotech for their consideration. KLA-Tencor intends to file with the SEC a Registration Statement on Form S-4 that will include a preliminary prospectus with respect to KLA-Tencor's common stock to be issued in the proposed transaction and a proxy statement of Orbotech in connection with the merger of an indirect subsidiary of KLA-Tencor with and into Orbotech, with Orbotech surviving. The information in the preliminary proxy statement/prospectus is not complete and may be changed. KLA-Tencor may not sell the common stock referenced in the proxy statement/prospectus until the Registration Statement on Form S-4 filed with the SEC becomes effective. The proxy statement/prospectus will be provided to the Orbotech shareholders. KLA-Tencor and Orbotech also plan to file other documents with the SEC regarding the proposed transaction.

This report is not a substitute for any prospectus, proxy statement or any other document that KLA-Tencor or Orbotech may file with the SEC in connection with the proposed transaction. Investors and security holders of KLA-Tencor and Orbotech are urged to read the proxy statement/prospectus and any other relevant documents that will be filed with the SEC carefully and in their entirety when they become available because they will contain important information about the proposed transaction.

You may obtain copies of all documents filed with the SEC regarding this transaction, free of charge, at the SEC's website (www.sec.gov). In addition, investors and security holders will be able to obtain free copies of the proxy statement/prospectus (when they become available) and other documents filed with the SEC by KLA-Tencor on KLA-Tencor's Investor Relations page (ir.kla-tencor.com) or by writing to KLA-Tencor Corporation, Investor Relations, 1 Technology Drive, Milpitas, CA 95035 (for documents filed with the SEC by KLA-Tencor), or by Orbotech on Orbotech's Investor Relations page (investors.Orbotech.com) or by writing to Orbotech Ltd., Investor Relations, 7 Sanhedrin Boulevard, North Industrial Zone, Yavne 8110101 Israel (for documents filed with the SEC by Orbotech).

EXHIBITS

<u>Exhibit #</u>	<u>Description</u>
99.1	Amendment No. 1 to Agreement and Plan of Merger, dated as of May 11, 2018, by and among KLA-Tencor Corporation, Tiburon Merger Sub Technologies Ltd., and Orbotech Ltd.

SIGNATURES

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

ORBOTECH LTD.
(Registrant)

By: /s/ Alon Rozner
Alon Rozner
Corporate Vice President and
Chief Financial Officer

Date: May 11, 2018

AMENDMENT NO. 1 TO AGREEMENT AND PLAN OF MERGER

AMENDMENT NO. 1 (this “**Amendment**”), dated May 11, 2018, to the Agreement and Plan of Merger, dated as of March 18, 2018 (the “**Merger Agreement**”), among KLA-Tencor Corporation, a Delaware corporation (“**Parent**”), Tiburon Merger Sub Technologies Ltd., a company organized under the Laws of the State of Israel and an indirect wholly owned subsidiary of Parent (“**Merger Sub**”), and Orbotech Ltd., a company organized under the Laws of the State of Israel (the “**Company**,” and together with Parent and Merger Sub, the “**Parties**”). Capitalized terms used in this Amendment and not otherwise defined shall have the meaning given to them in the Merger Agreement.

RECITALS

A. Section 8.4 of the Merger Agreement provides that, subject to Applicable Law, the Merger Agreement may be amended at any time by execution of an instrument in writing signed on behalf of each of Parent, Merger Sub and the Company, except that if the Merger Agreement has been approved by the shareholders of the Company in accordance with Israeli law, no amendment shall be made to the Merger Agreement that requires the approval of such shareholders of the Company without such approval.

B. As of the date of this Amendment, the Merger Agreement has not yet been approved by the shareholders of the Company.

C. Parent, Merger Sub, and the Company intended to provide in the Merger Agreement that each Company Share held in the treasury of the Company (dormant shares), together with any Company Shares reserved for future grants under the Company Plans, or owned by the 102 Trustee on behalf of the Company, or held by Parent or any direct or indirect wholly owned Subsidiary of the Company or of Parent immediately prior to the Effective Time, if any, would remain outstanding after the Effective Time, with no Merger Consideration or any other consideration due or delivered in exchange therefor.

D. Parent, Merger Sub, and the Company also desire to clarify that, notwithstanding anything in the Merger Agreement to the contrary, Merger Sub (and, as a result of the Merger, the Surviving Company) may be a wholly owned direct or indirect Subsidiary of Parent.

E. In addition, the Company has received confirmation from the Investment Center that the approval of the Investment Center is not required with respect to the change in ownership of the Company to be effected by the Merger.

F. Parent, Merger Sub, and the Company desire to amend certain terms of the Merger Agreement and to make certain acknowledgments as set forth below to properly reflect the intent set forth in Recitals C, D and E.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and the matters set forth herein, as well as other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and accepted, and intending to be legally bound, Parent, Merger Sub, and the Company hereby agree as follows:

1. *Owned Company Shares.* Section 2.7(a)(ii) of the Merger Agreement is amended and restated as follows:

“(ii) *Owned Company Shares.* Each Company Share held in the treasury of the Company (dormant shares), together with any Company Shares reserved for future grants under the Company Plans, or owned by the 102 Trustee on behalf of the Company, or held by Parent or any direct or indirect wholly owned Subsidiary of the Company or of Parent immediately prior to the Effective Time (collectively, the “**Excluded Company Shares**”), if any, shall remain outstanding, and no Merger Consideration or any other consideration shall be due or delivered in exchange therefor.”

2. *Treatment of Company Options.* Section 2.9 of the Merger Agreement is amended and restated as follows:

“2.9 *No Further Ownership Rights in Company Shares.* From and after the Effective Time, except for Excluded Company Shares which shall be treated in accordance with Section 2.7(a)(ii), all issued and outstanding Company Shares shall no longer be outstanding and shall automatically be cancelled, retired and cease to exist, and each holder of a Certificate or Uncertificated Share theretofore representing any Company Shares shall cease to have any rights with respect thereto, except the right to receive the Merger Consideration payable therefor upon the surrender or acknowledgment of the conversion thereof in accordance with the provisions of Section 2.8. The Merger Consideration paid in accordance with the terms of this Article II shall be deemed to have been paid in full satisfaction of all rights pertaining to such Company Shares. From and after the Effective Time, there shall be no further registration of transfers on the records of the Surviving Company of Company Shares that were issued and outstanding immediately prior to the Effective Time, other than Excluded Company Shares. If, after the Effective Time, for any reason (a) Certificates are presented to the Surviving Company, or (b) acknowledgments are delivered to the Exchange Fund Agent of the conversion of any Uncertificated Shares, such Certificates or Uncertificated Shares, as the case may be, shall be cancelled and the holder thereof shall be entitled to receive the Merger Consideration, in each case as provided for, and in accordance with the procedures set forth, in this Article II.”

3. *Merger Sub.* Parent, Merger Sub, and the Company hereby agree and acknowledge that, (a) notwithstanding any reference in the Merger Agreement (i) to Merger Sub as an “indirect wholly owned subsidiary of Parent” or (ii) that, as a result of the Merger, the Surviving Company shall become “an indirect wholly owned direct Subsidiary of Parent” or an “indirect wholly owned Subsidiary of Parent,” Merger Sub may be (and the Surviving Company may become, as a result of the Merger) either a wholly owned direct or a wholly owned indirect Subsidiary of Parent, and (b) any reference in the Merger Agreement to any action to be taken by the “sole shareholder of Merger Sub” shall be deemed to include any such action that is taken by the unanimous approval of each of the shareholders of Merger Sub, in the event there is more than one such shareholder at the applicable time.

4. *Investment Center Approval.* Parent, Merger Sub and the Company hereby agree and acknowledge that, notwithstanding anything in the Merger Agreement to the contrary, the confirmation provided by the Investment Center to the Company on April 29, 2018, that the approval of the Investment Center is not required with respect to the change in ownership of the Company, shall be deemed to constitute the “Investment Center Approval” under the Merger Agreement and shall satisfy the condition to Closing set forth in Section 7.1(i) of the Merger Agreement, unless revoked, withdrawn, or amended by the Investment Center prior to Closing.

5. *Headings.* The headings set forth in this Amendment are for convenience of reference purposes only and shall not affect or be deemed to affect in any way the meaning or interpretation of this Amendment or any term or provision hereof.

6. *Confirmation of the Merger Agreement.* Other than as expressly modified pursuant to this Amendment, all provisions of the Merger Agreement remain unmodified and in full force and effect.

7. *Miscellaneous.* The provisions of Section 8.4 and Article IX (other than Section 9.1) of the Merger Agreement shall apply to this Amendment, *mutatis mutandis*.

[Signature page follows.]

IN WITNESS WHEREOF, Parent, Merger Sub, and the Company have executed this Amendment as of the date written above.

KLA-TENCOR CORPORATION

By: /s/ RICHARD P. WALLACE
Name: Richard P. Wallace
Title: President and Chief Executive Officer

TIBURON MERGER SUB TECHNOLOGIES LTD.

By: /s/ VIRENDRA KIRLOSKAR
Name: Virendra Kirloskar
Title: Director

ORBOTECH LTD.

By: /s/ ASHER LEVY
Name: Asher Levy
Title: Chief Executive Officer

By: /s/ AMICHAJ STEIMBERG
Name: Amichai Steimberg
Title: President and Chief Operating Officer