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

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**FORM 8-K**

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**CURRENT REPORT**

**Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): January 17, 2023**

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**Amtech Systems, Inc.**

(Exact name of Registrant as Specified in Its Charter)

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**Arizona**  
(State or Other Jurisdiction  
of Incorporation)

**000-11412**  
(Commission File Number)

**86-0411215**  
(IRS Employer  
Identification No.)

**131 S. Clark Drive**  
**Tempe, Arizona**  
(Address of Principal Executive Offices)

**85288**  
(Zip Code)

**Registrant's Telephone Number, Including Area Code: (480) 967-5146**

**Not Applicable**

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

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Check the appropriate box below if the Form 8-K filing 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))

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

<b>Title of each class</b>	<b>Trading Symbol(s)</b>	<b>Name of each exchange on which registered</b>
Common Stock, par value \$0.01 per share	ASYS	Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

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

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## Item 1.01 Entry into a Material Definitive Agreement.

### *Merger Agreement*

On January 17, 2023, Amtech Systems, Inc., an Arizona corporation (the “*Company*”), acquired Entrepix, Inc., an Arizona corporation (“*Entrepix*”), through a reverse triangular merger resulting in Entrepix becoming a wholly owned subsidiary of the Company. The acquisition was consummated pursuant to the terms of an Agreement and Plan of Merger (the “*Merger Agreement*”), dated January 17, 2023, by and among the Company, Emerald Merger Sub, Inc., an Arizona corporation and wholly owned subsidiary of the Company (“*Merger Sub*”), Entrepix, Timothy P. Tobin, solely in his capacity as the shareholders’ representative, and the Key Shareholders (as defined in the Merger Agreement). Upon the terms and subject to the conditions set forth in the Merger Agreement, Merger Sub merged with and into Entrepix (the “*Merger*”), with Entrepix surviving the Merger as a direct, wholly owned subsidiary of the Company. At the closing of the Merger on January 17, 2023 (the “*Closing*”), the Company paid a purchase price of \$35.0 million, subject to certain customary purchase price adjustments. The Company used cash on hand and the net proceeds from the Term Loan (as described below) to pay the purchase price at the Closing.

The Merger Agreement includes representations, warranties and covenants of the parties that are customary for a transaction of this nature. The Merger Agreement also contains certain indemnification obligations with respect to breaches of representations and warranties and certain other specified matters. To provide for losses for which the Company would not otherwise be able to seek indemnification from Entrepix under the Merger Agreement, the Company purchased a buyer-side representations and warranties insurance policy (the “*R&W Policy*”), which R&W Policy was issued as of the Closing, and which will be its primary recourse with respect to breaches of Entrepix’s representations and warranties. The R&W Policy is subject to coverage limitations and certain customary terms, exclusions and deductibles, which limit the Company’s ability to make recoveries under the R&W Policy.

The foregoing description of the Merger Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Merger Agreement, a copy of which will be timely filed as an exhibit to the Company’s next Quarterly Report on Form 10-Q.

The Merger Agreement has been described above and will be filed to provide investors with information regarding its terms and is not intended to provide any factual information about the Company or Entrepix. The representations, warranties and covenants in the Merger Agreement were made only for the purpose of the Merger Agreement and solely for the benefit of the parties to the Merger Agreement as of specific dates. Such representations, warranties and covenants (i) may have been made for the purposes of allocating contractual risk between the parties to the Merger Agreement instead of establishing these matters as facts, (ii) may or may not have been accurate as of any specific date, and (iii) may be subject to important limitations and qualifications and may therefore not be complete. The representations, warranties and covenants in the Merger Agreement may also be subject to standards of materiality applicable to the contracting parties that may differ from those applicable to investors. Investors should not rely on the representations, warranties and covenants or any descriptions thereof as characterizations of the actual state of facts or condition of the Company or Entrepix or any of their respective subsidiaries or affiliates. Moreover, information concerning the subject matter of the representations, warranties and covenants may change after the date of the Merger Agreement, which subsequent information may or may not be fully reflected in the Company’s public disclosures.

### *Loan and Security Agreement*

On January 17, 2023, the Company entered into a Loan and Security Agreement (the “*LSA*”) by and among the Company, its U.S. based wholly owned subsidiaries Bruce Technologies, Inc., a Massachusetts corporation, BTU International, Inc., a Delaware corporation, Intersurface Dynamics, Incorporated, a Connecticut corporation, P.R. Hoffman Machine Products, Inc., an Arizona corporation, and Entrepix, Inc., (collectively the “*Borrowers*”), and UMB Bank, N.A., national banking association (the “*Lender*”). The LSA provides for (i) a term loan (the “*Term Loan*”) in the amount of \$12.0 million maturing January 17, 2028, and (ii) a revolving loan facility (the “*Revolver*”) with an availability of \$8.0 million maturing January 17, 2024.

The Term Loan and Revolver are secured by a first priority lien on substantially all of the Borrowers’ assets (other than certain customary excluded assets) and the LSA contains customary events of default, representations and warranties, and covenants that restrict the Borrowers’ ability to, among other things, incur additional indebtedness, other than permitted indebtedness, enter into mergers or acquisitions, sell or otherwise dispose of assets, or pay dividends, subject to customary exceptions.

The LSA additionally contains financial covenants such that, as of the end of each of its fiscal quarters, beginning March 31, 2023, the Borrowers must maintain (i) a ratio of consolidated debt owed to Lender to consolidated EBITDA (as defined in the LSA) for such fiscal quarter, of not greater than 1.50 to 1.00, through December 31, 2024, based on a building 4 quarters (as described in the LSA), and then 1.00 to 1.00 each fiscal quarter thereafter, (ii) a ratio of (a) the total for such fiscal quarter of EBITDAR (as defined in the LSA) minus the sum of all (i) income taxes paid in cash *plus* cash dividends/distributions *plus* maintenance Capital Expenditures (as defined in the LSA) *plus* management fees paid in cash, to (b) the sum for such fiscal quarter of (1) Interest Charges (as defined in the LSA) *plus* (2) required payments of principal on Debt (as defined in the LSA) (including the Term Loan, but excluding the Revolver) *plus* (3) operating lease/rent expense, of not less than 1.30 to 1.00 based on a building 4 quarters (as described in the LSA), and (iii) a consolidated

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working capital of current assets (excluding related party receivables and prepaid expenses) minus current liabilities of at least \$35.0 million.

The foregoing does not purport to be a complete description of the terms of the LSA and such description is qualified in its entirety by reference to the LSA, a copy of which will be timely filed as an exhibit to the Company's next Quarterly Report on Form 10-Q.

**Item 2.01 Completion of Acquisition or Disposition of Assets.**

The information set forth under "Item 1.01 - Entry into a Material Definitive Agreement – Merger Agreement" is incorporated in this Item 2.01 by reference.

**Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.**

The information set forth under "Item 1.01 - Entry into a Material Definitive Agreement – Loan and Security Agreement" is incorporated in this Item 2.03 by reference.

**Item 7.01 Regulation FD Disclosure.**

On January 17, 2023, the Company issued a press release announcing the entry into the Merger Agreement and the consummation of the Closing. A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated by reference herein. On January 17, 2023, the Company uploaded to its website an investor presentation as part of the announcement of the entry into the Merger Agreement. A copy of the investor presentation is attached hereto as Exhibit 99.2.

The information furnished pursuant to this Item 7.01 and the accompanying Exhibit 99.1 and Exhibit 99.2 furnished herewith, shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section, and is not to be incorporated by reference into any filing of the Company.

**Item 9.01 Financial Statements and Exhibits.**

(a) Financial Statements of Business Acquired.

The financial statements of Entrepix required by this item will be filed by amendment to this Current Report on Form 8-K no later than 71 calendar days after the date this Current Report on Form 8-K is required to be filed.

(d) Exhibits.

<b>Exhibit Number</b>	<b>Description of Exhibits</b>
<a href="#"><u>99.1</u></a>	<a href="#"><u>Press Release dated January 17, 2023</u></a>
<a href="#"><u>99.2</u></a>	<a href="#"><u>Investor Presentation dated January 17, 2023</u></a>
104	Cover page Interactive Data File (embedded within the Inline XBRL document)

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**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 hereunto duly authorized.

AMTECH SYSTEMS, INC.

Date: January 17, 2023

By: /s/ Lisa D. Gibbs  
Name: Lisa D. Gibbs

Title: Vice President and Chief Financial Officer

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## Amtech Systems Acquires Entrepix, Inc., a Globally Recognized Expert in CMP and Wafer Cleaning

TEMPE, Ariz., January 17, 2023 /PRNewswire/ -- Amtech Systems, Inc. (NASDAQ: ASYS), announced today the acquisition of Entrepix, Inc., a globally recognized expert in chemical mechanical polishing (CMP) and wafer cleaning. Entrepix is expected to expand Amtech's market opportunity and accelerate growth in the front-end wafer processing market, including silicon carbide applications.

"We are excited to add Entrepix's robust CMP technology portfolio and wafer cleaning equipment to our existing substrate polishing and wet process chemical offerings, thereby increasing our penetration into a multitude of applications that utilize smaller wafers (200mm and below), including the high growth silicon carbide market," said Michael Whang, CEO of Amtech Systems. "With the addition of Entrepix, Amtech now offers one of the industry's broadest sets of substrate processing solutions, providing robust cross-selling opportunities across both Amtech's and Entrepix's respective customer bases. I believe Entrepix will provide a strategic benefit to Amtech and create meaningful value for our shareholders from day one," added Whang.

"Joining Amtech represents the next step in the growth of Entrepix as we further penetrate the CMP industry through our engineered products, capital equipment, and services," added Tim Tobin, Entrepix CEO. "Both companies share a culture of technical leadership, combined with deep domain expertise and unparalleled customer service, which we believe will further differentiate our combined solutions and drive success."

Entrepix reported revenues of \$26.7 million (unaudited) on a trailing twelve months basis ended December 31, 2022. The transaction closed on January 17, 2023, for a purchase price of \$35 million, funded with available cash and a term loan with UMB Bank. The acquisition was structured through a reverse triangular merger wherein Amtech acquired Entrepix, Inc., resulting in Entrepix becoming a wholly owned subsidiary of the Company. The purchase price is subject to a customary working capital adjustment.

### **About Amtech Systems, Inc.**

Amtech Systems, Inc. is a leading, global manufacturer of capital equipment, including thermal processing and wafer polishing, and related consumables used in fabricating semiconductor devices, such as silicon carbide (SiC) and silicon power, analog and discrete devices, and electronic assemblies and modules focusing on enabling technologies for electric vehicles (EV) and clean technology (CleanTech) applications. We sell these products to semiconductor device and module manufacturers worldwide, particularly in Asia, North America and Europe. Our strategic focus is on semiconductor growth opportunities in power electronics, sensors and analog devices leveraging our strength in our core competencies in thermal and substrate processing. We are a market leader in the high-end power chip market (SiC substrates, 300mm horizontal thermal reactor, and electronic assemblies used in power, RF, and other advanced applications),

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developing and supplying essential equipment and consumables used in the semiconductor industry. Amtech's products are recognized under the leading brand names BTU International, Bruce Technologies™, PR Hoffman™ and Intersurface Dynamics, Inc.

#### **About Entrepix, Inc.**

Entrepix, Inc. serves the semiconductor and related industries as a leading provider of chemical mechanical polishing (CMP) technology and services to IDMs, OEMs, MEMS, nanotechnology and CMP consumables suppliers. The company renews technology for existing and emerging CMP users by refurbishing semiconductor equipment or adapting the equipment for use in novel applications, such as airbag sensors and acoustic filters. As a technology renewal partner, Entrepix enables long-term, reliable, predictable and cost-effective performance of CMP and cleaning equipment. Headquartered in Phoenix, Entrepix operates a 38,000 square foot facility housing its CMP foundry and equipment remanufacturing facilities.

#### **Cautionary Note Regarding Forward-Looking Statements**

Certain information contained in this press release is forward-looking in nature. All statements in this press release, or made by management of Amtech Systems, Inc. and its subsidiaries ("Amtech"), other than statements of historical fact, are hereby identified as "forward-looking statements" (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995). The forward-looking statements in this press release relate only to events or information as of the date on which the statements are made in this press release. Examples of forward-looking statements include statements regarding Amtech's future financial results, operating results, business strategies, projected costs, products under development, competitive positions, plans and objectives of Amtech and its management for future operations, efforts to improve operational efficiencies and effectiveness and profitably grow our revenue, and enhancements to our technologies and expansion of our product portfolio. In some cases, forward-looking statements can be identified by terminology such as "may," "plan," "anticipate," "seek," "will," "expect," "intend," "estimate," "believe," "continue," "predict," "potential," "project," "should," "would," "could," "likely," "future," "target," "forecast," "goal," "observe," and "strategy" or the negative of these terms or other comparable terminology used in this press release or by our management, which are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. The Form 10-K that Amtech filed with the Securities and Exchange Commission (the "SEC") for the year-ended September 30, 2022, listed various important factors that could affect the Company's future operating results and financial condition and could cause actual results to differ materially from historical results and expectations based on forward-looking statements made in this document or elsewhere by Amtech or on its behalf. These factors can be found under the heading "Risk Factors" in the Form 10-K and in our subsequently filed Quarterly Reports on Form 10-Qs, and investors should refer to them. Because it is not possible to predict or identify all such factors, any such list cannot be considered a

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complete set of all potential risks or uncertainties. Except as required by law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise.

Contacts:

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# ENTREPIX ACQUISITION OVERVIEW

JANUARY 2023





This Presentation may contain certain statements or information that constitute “forward-looking statements” (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995). In some, but not all, cases, forward-looking statements can be identified by terminology such as “may,” “plan,” “anticipate,” “seek,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe,” “continue,” “predict,” “potential,” “project,” “should,” “would,” “could,” “likely,” “future,” “target,” “forecast,” “goal,” “observe,” and “strategy” or the negative of these terms or other comparable terminology. Examples of forward-looking statements include statements regarding Amtech System, Inc.’s (“Amtech” or the “Company”) future financial results, operating results, business strategies, projected costs, products under development, competitive positions, plans and objectives of Amtech and its management for future operations, efforts to improve operational efficiencies and effectiveness and profitably grow our revenue, and enhancements to our technologies and expansion of our product portfolio. Such forward-looking statements and information are provided by the Company based on current expectations of the Company and reflect various assumptions of management concerning the future performance of the Company, and are subject to significant business, economic and competitive risks, uncertainties and contingencies, many of which are beyond the control of the Company. Accordingly, there can be no guarantee that such forward-looking statements or information will be realized. Actual results may differ materially from historical results and expectations based on forward-looking statements made in this document or elsewhere by Amtech or on its behalf. No representations or warranties are made as to the accuracy or reasonableness of any expectations or assumptions or the forward-looking statements or information based thereon. Only those representations and warranties that are made in a definitive written agreement related to a transaction, when and if executed, and subject to any limitations and restrictions as may be specified in such definitive agreement, shall have any effect, legal or otherwise. Each recipient of forward-looking statements should make an independent assessment of the merits of and should consult its own professional advisors. Except as required by law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise.



JANUARY 17, 2023

# “Amtech Systems Acquires Entrepix, a Globally Recognized Expert in CMP and Wafer Cleaning”



## 200mm CMP and Wafer Clean Leader



**~20%** of revenue is derived from Compound Semi customer applications, estimated



### Solid Performance

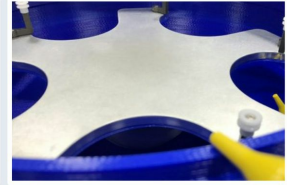
Track record of solid EBITDA performance. Less cyclical revenue streams.

### Compound Semi Customer Base

Strong participation in Compound Semi applications. Multiple product offerings.

### Entrenched in CMP

Process experts in CMP. Trusted process partner for leading fabs.



WAFER CLEANING EQUIPMENT

CMP EQUIPMENT UPGRADES

CMP PARTS & SERVICE



Supporting EV growth across the entire portfolio



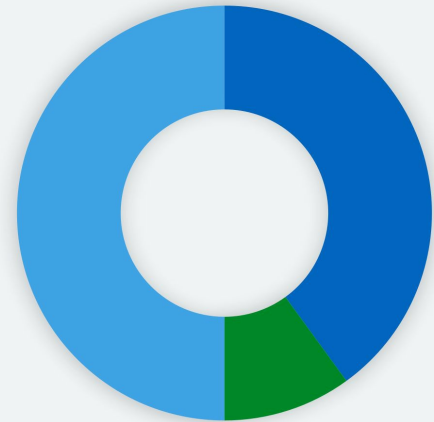
# Entrepix Revenue Streams

- OnTrak DSS-200 Cleaner
  - High growth across Si and Compound Semi customer base
- Engineered Products
  - Upgrades
  - Replacement parts
- Services
  - CMP Foundry Services
  - CMP Field Service

■ Capital Equipment  
■ Services  
■ Engineered Products

## Business Mix – Approximate

\*based on analysis of LTM and backlog



# Strategic Rationale

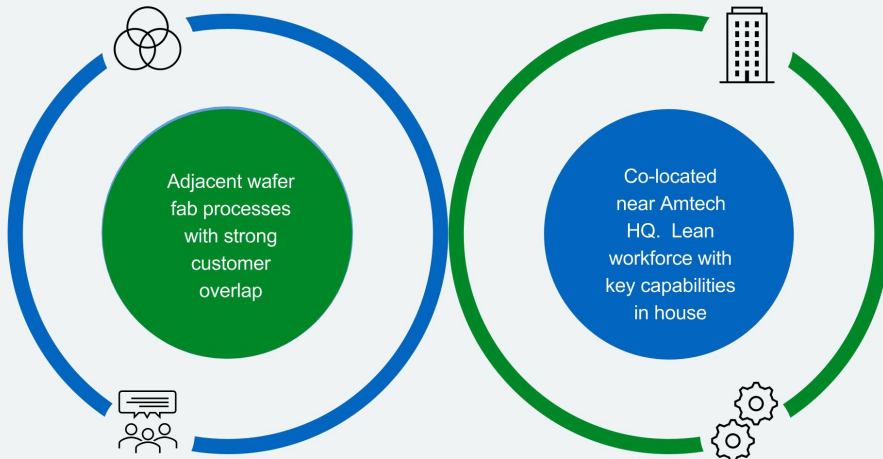


## Processes

Substrate cleaning is adjacent to existing Amtech process steps. Additional reach into front-end CMP processes.

## Customers

Significant customer overlap with even greater penetration into Silicon and Compound Semi.

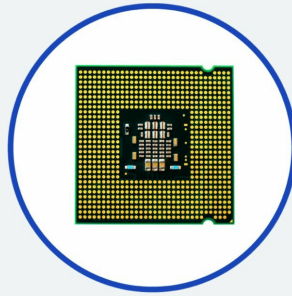
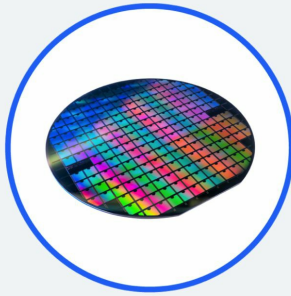


## Company

Founded in 1998 and located in Phoenix, AZ. Strong technical capability related to CMP processes.

## Capabilities

Clean room foundry and advanced fabrication capabilities.



**PR HOFFMAN**  
AMTECH GROUP

**entrepix**

**BRUCE**  
TECHNOLOGIES  
AMTECH GROUP

**BTU International**  
AMTECH GROUP

**INTERSURFACE**  
**DYNAMICS**  
AMTECH GROUP



## Value Creation – Development of Amtech CMP Ecosystem



- Entrepix's CMP leadership can enable adoption for existing Amtech companies including PR Hoffman polishing equipment and Intersurface Dynamics consumable CMP process chemicals
  - Process development
  - Demonstration center
  - Line bundling



- Allows for integrated approach for CMP process: Polish/Wet Process Chemical/Clean





## Transaction Summary



Purchase Price

\$35 million



Closing

January 17, 2023



Performance

LTM Revenue: \$26.7 million (ended December 31, 2022)



Impact

Advance Amtech Group CMP technology leadership

Broaden CMP product and service offerings

Extends reach with key capital equipment buyers



Learn More

Please join Amtech Systems fiscal Q1 earnings release and conference call  
[www.Entrepix.com](http://www.Entrepix.com)

