UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

ANNUAL REPORT

Pursuant to Section 15(d) of the

Securities Exchange Act of 1934

For the fiscal year ended December 31, 2012

Commission File Number 1-5828

SAVINGS PLAN OF

CARPENTER TECHNOLOGY CORPORATION

(Full title of the plan)

CARPENTER TECHNOLOGY CORPORATION

(Name of issuer of the securities held pursuant to the plan)

P.O. Box 14662

Reading, Pennsylvania, 19610

(Address of principal executive office of the issuer)

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Report of Independent Registered Public Accounting Firm

To the Participants and Administrator of
the Savings Plan of Carpenter Technology Corporation

We have audited the accompanying statements of net assets available for benefits of the Savings Plan of Carpenter Technology Corporation (the Plan) as of December 31, 2012 and 2011, and the related statement of changes in net assets available for benefits for the year ended December 31, 2012. These financial statements are the responsibility of the Plan s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2012 and 2011, and the changes in net assets available for benefits for the year ended December 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary Schedule of Assets (Held at End of Year) as of December 31, 2012 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplementary schedule is the responsibility of the Plan s management. The supplementary schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ ParenteBeard LLC

Reading, Pennsylvania
June 28, 2013

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Savings Plan of Carpenter Technology Corporation

Statements of Net Assets Available for Benefits

December 31, 2012 and 2011

Dollars in thousands	**2012**	**2011**
Investments, at fair value:		
Registered investment companies	$ 310,736	$ 276,401
Interest in Carpenter Technology Master Trust Fund	162,664	168,933
Total investments	473,400	445,334
Notes receivable from participants	11,542	10,798
Net assets reflecting investments at fair value	484,942	456,132
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(3,430)	(2,655)
Net assets available for benefits	$ 481,512	$ 453,477

See accompanying notes to financial statements.

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Savings Plan of Carpenter Technology Corporation

Statement of Changes in Net Assets Available for Benefits

Year Ended December 31, 2012

Dollars in thousands		
Investment income:		
Net appreciation in fair value of registered investment companies	$	29,653
Interest in Carpenter Technology Master Trust Fund income		4,431
Dividends		8,340
Total investment income		42,424
Interest income from notes receivable from participants		460
Contributions:		
Participant		14,639
Participant rollover		494
Employer		5,974
Total contributions		21,107
Benefits paid to participants		(35,612)
Administrative expenses		(344)
Net increase		28,035
Net assets available for benefits, beginning of year		453,477
Net assets available for benefits, end of year	$	481,512

See accompanying notes to financial statements.

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Savings Plan of Carpenter Technology Corporation

Notes to Financial Statements

December 31, 2012 and 2011

1. Description of the Plan

The following description of the Savings Plan of Carpenter Technology Corporation (the Plan) provides general information. A more complete description of the Plan s provisions can be found in the plan document, which is available to participants upon request from Carpenter Technology Corporation, or any participating affiliate (collectively referred to as the Company).

General

The Plan is a profit-sharing and stock bonus plan which covers substantially all domestic non-union employees of the Company hired prior to January 1, 2012. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Contributions

Each year, participants may contribute up to 100% of annual compensation on a pre-tax basis, and up to 100% of annual compensation on an after-tax basis, as defined by the plan document. The combined contributions cannot exceed 100% of annual compensation on both a pre-tax and after-tax basis. Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions , which are additional pre-tax contributions. Participants may also contribute amounts representing rollover distributions from other qualified pension plans. Participant contributions to the Plan are recorded in the period that payroll deductions are made from the participants. The Company contributes an amount equal to 3% of each employee s base pay and, effective January 1, 2012, a matching contribution of up to 3% for certain employees of the Company s Shalmet affiliate, as defined by the plan document. Participants direct the investment of all contributions into various investment options offered by the Plan. Contributions are subject to certain limitations.

Participant Accounts

Each participant s account is credited with the participant s contribution, the Company s contribution on behalf of the participant, and an allocation of plan earnings based on account balances, as defined. Effective July 1, 2012, each participant s account is charged with a $20 annual fee for recordkeeping administration, and participants of the Carpenter Technology Stock Fund are charged an administrative fee based on the fund balance. The benefit to which a participant is entitled is the benefit that can be provided from the participant s vested account.

Vesting

All contributions and plan earnings thereon are immediately and fully vested and non-forfeitable.

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Savings Plan of Carpenter Technology Corporation

Notes to Financial Statements

December 31, 2012 and 2011

1. Description of the Plan (continued)

Notes Receivable from Participants

Participants may borrow from their accounts a minimum of $1,000 up to a maximum equal to the lesser of $50,000 minus the amount of the highest outstanding loan balance on any plan loan during the preceding twelve months, or 50% of their vested account balance minus the current outstanding balance on any other plan loan. Terms range from one to five years for a general purpose loan, and one to ten years for a primary residence loan. The loans are secured by the balance in the participant s account and bear interest at rates that range from 4.25% to 10.5% at December 31, 2012, which represent the Prime Rate plus 1% on the last business day of the month in which the loan was distributed. Principal and interest are paid ratably through bi-weekly payroll deductions.

Payment of Benefits

Benefits paid to participants include participant withdrawals and participant distributions. Participant withdrawals include hardship withdrawals, non-hardship withdrawals, and withdrawals after age 59½. Participant withdrawals are subject to certain restrictions as defined by the plan document. Upon termination of service due to death, disability, retirement, or other reasons, participants are eligible to receive a lump sum distribution. A participant may elect to defer such distribution provided the account balance is at least $5,000. The total distribution of benefits to all separated participants must occur by April 1st of the year following the year in which the participant attains age 70½. The payment of benefits from the Carpenter Technology Stock Fund is made in shares of the Company s common stock or cash, at the participant s option. All other payments of benefits are made in cash.

2. Summary of Significant Accounting Policies

Basis of Accounting

The financial statements of the Plan are prepared on the accrual method of accounting.

Investment contracts held by a defined contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan. A portion of the Plan s assets are invested in fully benefit-responsive investment contracts through its investment in the Standish Mellon Stable Value Fund within the Carpenter Technology Master Trust Fund.

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Savings Plan of Carpenter Technology Corporation

Notes to Financial Statements

December 31, 2012 and 2011

2. Summary of Significant Accounting Policies (continued)

Basis of Accounting (continued)

The Statements of Net Assets Available for Benefits present the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive contracts from fair value to contract value. The Statement of Changes in Net Assets Available for Benefits is prepared on a contract value basis.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

The Plan s investments are stated at fair value. Fair value is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for detailed discussion of fair value measurements.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the gains and losses on investments bought and sold as well as held during the year.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent notes receivable are recorded as distributions based upon the terms of the plan document.

Administrative Expenses

The Plan s assets are administered under a contract with The Vanguard Group (the Trustee). The Trustee invests funds received from contributions, investment sales, interest, and dividend income and makes benefit payments to participants. Transaction fees and certain administrative fees are paid by the participant. The remaining administrative fees are netted against investment income in the Statement of Changes in Net Assets Available for Benefits. All other fees are paid by the Company.

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Savings Plan of Carpenter Technology Corporation

Notes to Financial Statements

December 31, 2012 and 2011

2. Summary of Significant Accounting Policies (continued)

Payment of Benefits

Benefit payments to participants are recorded when paid.

Reclassifications

Certain items in the 2011 financial statements have been reclassified to conform to the 2012 presentation.

3. Fair Value Measurements

The Plan measures its investments at fair value on a recurring basis in accordance with accounting principles generally accepted in the United States of America. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The framework that the authoritative guidance establishes for measuring fair value includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs used in determining valuations into three levels. The level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement. The levels of the fair value hierarchy are as follows:

Level 1 Fair value is based on unadjusted quoted prices in active markets that are accessible to the Plan for identical assets. These generally provide the most reliable evidence and are used to measure fair value whenever available.

Level 2 Fair value is based on significant inputs, other than Level 1 inputs, that are observable either directly or indirectly for substantially the full term of the asset through corroboration with observable market data. Level 2 inputs include quoted market prices in active markets for similar assets or liabilities, quoted market prices in inactive markets for identical or similar assets, and other observable inputs.

Level 3 Fair value would be based on significant unobservable inputs. Examples of valuation methodologies that would result in Level 3 classification include option pricing models, discounted cash flows, and similar techniques.

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Savings Plan of Carpenter Technology Corporation

Notes to Financial Statements

December 31, 2012 and 2011

3. Fair Value Measurements (continued)

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2012 and 2011.

Registered Investment Companies: Valued at closing price reported on the active market on which the individual securities are traded.

Carpenter Technology Master Trust Fund:

Carpenter Technology Stock Fund - Valued at closing price of the Company s common stock as reported on the active market on which the securities are traded.

Standish Mellon Stable Value Fund - This fund invests in high credit quality fixed income securities within contracts that are intended to minimize market volatility and guaranteed investment contracts (GICs) issued by financial institutions which are backed by investment-grade, fixed-income securities and bond mutual funds, and money market securities. These investments are valued based on the fair value of the underlying assets which consists of short-term investment funds, Traditional GICs, Fixed Maturity Synthetic GICs and Constant Duration Synthetic GICs as follows:

- Short-term investment funds are valued based on quoted market values reported on active markets on which the individual securities are traded.

- Traditional GICs are unsecured, general account obligations of insurance companies backed by the general account assets of the insurance company that writes the investment contract. The fair values for traditional GICs are calculated using the present value for the contract s future cash flows discounted by comparable duration.

- Fixed maturity synthetic GICs consist of an asset or collection of assets that are owned by the fund and a benefit responsive, book value wrap contract purchased for the portfolio. The fair values of the book value wrap contracts are not considered material to the overall valuation of the underlying contracts. Underlying assets consist of bond funds, U.S. Government securities, mortgage backed securities and other securities. The fair values for fixed maturity GICs are calculated using the sum, of all the underlying assets market values based on market values reported on active markets on which the individual securities are traded. However, the individual contracts are not actively traded.

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Savings Plan of Carpenter Technology Corporation

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December 31, 2012 and 2011

3. Fair Value Measurements (continued)

Standish Mellon Stable Value Fund (continued)

• Constant duration synthetic GICs consist of a portfolio of securities owned by the fund and a benefit responsive, book value wrap contract purchased for the portfolio. The fair values of the book value wrap contracts are not considered material to the overall valuation of the underlying contracts. Underlying assets consist of bond funds, U.S. Government securities, mortgage backed securities and asset backed securities. The fair values for constant duration synthetic GICs are determined by reference to the net asset values reported by the investment managers holding the funds.

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, the Plan s assets at fair value as of December 31, 2012 and 2011. Information for the Plan s investment in the Carpenter Technology Master Trust can be found in Note 5.

Dollars in thousands

2012	**Level 1**	**Level 2**	**Level 3**	**Total**
Short-term reserve funds	$ 17,031	$	$	$ 17,031
Bond funds	44,998			44,998
Balanced funds	92,388			92,388
Domestic equity funds	121,476			121,476
International equity funds	34,843			34,843
Total registered investment companies	310,736			310,736

2011	**Level 1**	**Level 2**	**Level 3**	**Total**
Short-term reserve funds	$ 15,454	$	$	$ 15,454
Bond funds	36,641			36,641

Balanced funds