

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. 1\*)

(Name of Issuer)  
ATRICURE INC

(Title of Class of Securities)  
Common Stock

(CUSIP Number)  
04963C209

Check the following box if a fee  
is being paid with this statement.  
(A fee is not required only if the  
filing person: (1) has a previous  
statement on file reporting beneficial  
ownership of more than five percent  
of the class of securities described  
in Item 1; and (2) has filed no amendment  
subsequent thereto reporting beneficial  
ownership of five percent or less  
of such class.) (See Rule 13d-7).

\*The remainder of this cover page shall  
be filled out for a reporting persons  
initial filing on this form with respect  
to the subject class of securities,  
and for any subsequent amendment  
containing information which would  
alter the disclosures provided in  
a prior cover page.

The information required in the  
remainder of this cover page shall  
not be deemed to be filed for the  
purpose of Section 18 of the Securities  
Exchange Act of 1934 (Act) or otherwise  
subject to the liabilities of that section  
of the Act but shall be subject to all  
other provisions of the Act (however,  
see the Notes).

- 1 NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF PERSON  
THOMSON HORSTMANN & BRYANT, INC.  
22-3508647
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*  
N/A
- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION  
A DELAWARE CORPORATION  
NORWALK, CT 06851
- 5 SOLE VOTING POWER  
0
- 6 SHARED VOTING POWER  
0
- 7 SOLE DISPOSITIVE POWER  
0
- 8 SHARED DISPOSITIVE POWER  
NONE
- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
0
- 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*  
N/A

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
0%

12 TYPE OF REPORTING PERSON \*  
IA

ITEM 1.  
(A) ATRICURE INC  
(B) 6217 CENTRE PARK DRIVEWEST CHESTER OH 45069

ITEM 2.  
(A) THOMSON HORSTMANN & BRYANT, INC.  
(B) 501 MERRITT 7, NORWALK, CT 06851  
(C) A DELAWARE CORPORATION  
(D) COMMON  
(E) 872391107

ITEM 3.  
(E) INVESTMENT ADVISER REGISTERED UNDER SECTION  
203 OF THE INVESTMENT ADVISERS ACT OF 1940

ITEM 4.  
(A) 0  
(B) 0  
(C) (I) 0  
(II) 0  
(III) 0  
(IV) NONE

ITEM 5. N/A

ITEM 6. N/A

ITEM 7. N/A

ITEM 8. N/A

ITEM 9. N/A

ITEM 10. CERTIFICATION

By signing below I certify that,  
to the best of my knowledge and belief,  
the securities referred to above were  
acquired in the ordinary course of  
business and were not acquired for the  
purpose of and do not have the effect of  
changing or influencing the control of the  
issuer of such securities and were not  
acquired in connection with or as a  
participant in any transaction having  
such purposes or effect.

SIGNATURE

After reasonable inquiry and to the  
best of my knowledge and belief, I  
certify that the information set  
forth in this statement is true,  
complete and correct.

James Kennedy  
Date: 1/21/15