ABB LTD Form SC 13D/A October 17, 2002

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

SCHEDULE 13D/A Amendment #2

Under the Securities Exchange Act of 1934

IXYS Corporation

(Name of Issuer)

Common Stock par value \$0.01 per share

(Title of Class of Securities)

46600W-10-6

(CUSIP Number)

E. Barry Lyon Assistant General Counsel Asea Brown Boveri Inc. P.O. Box 5308 501 Merritt 7 Norwalk, CT 06856 Telephone: (203) 750-2326

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

February 12, 2002

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box. o

The information required on 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 (the "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).

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NAME OF REPORTING PERSON **Asea Brown Boveri Atkiengesellschaft** S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS

2	CHECK THE APPROPRIATE ROW IF A MEMBER OF A GROUP (See Instructions) (a)(b)				
3	SEC USE ONLY				
4	SOURCE OF FUNDS Share exchange pursuant to a merger				
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)				
6	CITIZENSHIP OR PLACE OF ORGANIZATION Germany				
	NUMBER OF SHARES BENEFICIALLY	7	SOLE VOTING POWER 6,068,281 shares of common stock of the Issuer (the "Common Stock").		
	OWNED BY EACH REPORTING PERSON WITH	8	SHARED VOTING POWER 6,068,281 shares of Common Stock.		
		9	SOLE DISPOSITIVE POWER 6,068,281 shares of Common Stock.		
		10	SHARED DISPOSITIVE POWER 6,068,281 shares of Common Stock.		
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,068,281 shares of Common Stock.				
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES				
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 19.1% (based on 31,826,692 shares of Common Stock outstanding as of August 12, 2002), representing the percentage of shares held by Asea Brown Boveri Atkiengesellschaft.				
14	TYPE OF REPORTING PER-	SON			
CUSIP	No. 46600W-10-6		SCHEDULE 13D	Page 3 of 9 Pages	
1	NAME OF REPORTING PERSON Asea Brown Boveri Inc. S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS				
2	CHECK THE APPROPRIATE ROW IF A MEMBER OF A GROUP (See Instructions) (a)				

3 SEC USE ONLY 4 SOURCE OF FUNDS Share exchange pursuant to a merger 5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware					
Share exchange pursuant to a merger 5 CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION					
6 CITIZENSHIP OR PLACE OF ORGANIZATION					
	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)				
NUMBER OF 7 SOLE VOTING POWER SHARES 0 BENEFICIALLY					
OWNED BY 8 SHARED VOTING POWER EACH REPORTING 0 PERSON WITH					
9 SOLE DISPOSITIVE POWER 0					
10 SHARED DISPOSITIVE POWER 0					
AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,068,281 shares of Common Stock, representing the shares held by Asea Brown Boveri Atkiengesellschaft; Asea Brown Boveri Inc. disclaims any beneficial ownership of such shares.					
CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES					
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14 TYPE OF REPORTING PERSON CO					
CUSIP No. 46600W-10-6 SCHEDULE 13D Pag	ge 4 of 9 Pages				
NAME OF REPORTING PERSON ABB Ltd. S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS					
CHECK THE APPROPRIATE ROW IF A MEMBER OF A GROUP (See Instructions) (a) (b)	C				

3 SEC USE ONLY

4	SOURCE OF FUNDS Share exchange pursuant to a merger				
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)				
6	CITIZENSHIP OR PLACE OF ORGANIZATION Switzerland				
	NUMBER OF SHARES BENEFICIALLY	7	SOLE VOTING POWER 0		
	OWNED BY EACH REPORTING PERSON WITH	8	SHARED VOTING POWER 6,068,281 shares of Common Stock, representing the shares held by Asea Brown Boveri Atkiengesellschaft.		
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		10	SHARED DISPOSITIVE POWER 6,068,281 shares of Common Stock, representing the shares held by Asea Brown Boveri Atkiengesellschaft.		
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14	TYPE OF REPORTING PERSON CO				

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SCHEDULE 13D

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ABB Ltd. ("ABB Ltd."), Asea Brown Boveri Atkiengesellschaft ("ABB AG") and Asea Brown Boveri Inc. ("ABB Inc." and together with ABB Ltd. and ABB AG, the "Reporting Group") hereby collectively amend their statement on Schedule 13D/A filed with the Securities and Exchange Commission on October 29, 1999 with respect to the Common Stock of IXYS Corporation.

Item 5. Interest in Securities of Issuer.

On February 12, 2002, 824,975 shares of Common Stock were sold at \$8.05 per share, of which 178,876 shares were held by ABB Inc. and 646,099 shares were held by ABB AG.

On May 30, 2002, 705,825 shares of Common Stock were sold at \$8.00 per share, all of which were held by ABB AG.

As of October 17, 2002, ABB AG has beneficial ownership of 6,068,281 shares of Common Stock and ABB Ltd. also has beneficial ownership of 6,068,281 shares of Common Stock. All of the shares for which ABB AG and ABB Ltd. have beneficial ownership are held directly by ABB AG. After the sale of 178,876 shares of Common Stock by ABB Inc. in February 2002, it has no beneficial ownership of any shares of Common Stock. Both ABB AG and ABB Inc. are wholly-owned subsidiaries of ABB Ltd.

Item 7. Material to be Filed as Exhibits.

Exhibit 1 Agreement of ABB AG, ABB Inc. and ABB Ltd. to file Amendment #2 to Schedule 13D jointly.

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SCHEDULE 13D

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SIGNATURE

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

Dated: October 17, 2002

ASEA BROWN BOVERI ATKIENGESELLSCHAFT

By: /s/ E. BARRY LYON

Name/Title: Authorized Representative

CUSIP No. 46600W-10-6

SCHEDULE 13D SIGNATURE

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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.

Dated: October 17, 2002

ASEA BROWN BOVERI INC.

By: /s/ E. BARRY LYON

Name/Title: Vice President and Assistant General Counsel

CUSIP No. 46600W-10-6

SCHEDULE 13D SIGNATURE Page 8 of 9 Pages

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.

Dated: October 17, 2002

ABB LTD.

By: /s/ E. BARRY LYON

Name/Title: Authorized Representative

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Exhibit 1

Agreement To File Jointly

The undersigned hereby agree as follows:

- (i) Each of them is individually eligible to use the Amendment to Schedule 13D to which this Exhibit is attached, and such Amendment to Schedule 13D is filed on behalf of each of them; and
- (ii) Each of them is responsible for the timely filing of such Amendment to Schedule 13D and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other person making the filing, unless such person knows or has reason to believe that such information is inaccurate.
- (iii) This agreement may be signed in two or more counterparts, each of which, when executed shall be deemed to be an original but all of which taken together shall constitute one and the same instrument.

Dated: October 17, 2002

Asea Brown Boveri Atkiengesellschaft

By: /s/ E. BARRY LYON

Name/Title: Authorized Representative

Asea Brown Boveri Inc.

Bv: /s/ E. BARRY LYON

Name/Title: Vice President and Assistant General Counsel

ABB Ltd.

By: /s/ E. BARRY LYON

Name/Title: Authorized Representative

QuickLinks

Item 5. Interest in Securities of Issuer.
Item 7. Material to be Filed as Exhibits.
SIGNATURE
Exhibit 1 Agreement To File Jointly