

Form 5500-SF Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation		Short Form Annual Return/Report of Small Employee Benefit Plan This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500-SF.		OMB Nos. 1210-0110 1210-0089 2016 This Form is Open to Public Inspection	
Part I Annual Report Identification Information					
For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016					
A This return/report is for:		☒ a single-employer plan ☐ a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☐ a one-participant plan ☐ a foreign plan			
B This return/report is		☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)			
C Check box if filing under:		☒ Form 5558 ☐ automatic extension ☐ DFVC program ☐ special extension (enter description)			
Part II Basic Plan Information —enter all requested information					
1a Name of plan EDAX INC. PENSION PLAN FOR HOURLY EMPLOYEES DISTRICT LODGE NO. 15		1b Three-digit plan number (PN) ▶		046	
		1c Effective date of plan		01/23/1998	
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) AMETEK, INC. 1100 CASSATT ROAD BERWYN, PA 19312		2b Employer Identification Number (EIN)		14-1682544	
		2c Sponsor's telephone number		610-647-2121	
		2d Business code (see instructions)		339900	
3a Plan administrator's name and address ☒ Same as Plan Sponsor.		3b Administrator's EIN			
		3c Administrator's telephone number			
4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN, and the plan number from the last return/report.		4b EIN			
a Sponsor's name		4c PN			
5a Total number of participants at the beginning of the plan year		5a		48	
b Total number of participants at the end of the plan year		5b		47	
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)		5c			
d(1) Total number of active participants at the beginning of the plan year		5d(1)		18	
d(2) Total number of active participants at the end of the plan year		5d(2)		18	
e Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested		5e		0	
Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.					
Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.					
SIGN HERE	Filed with authorized/valid electronic signature.	10/13/2017	HENRY POLICARE		
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator		
SIGN HERE					
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor		
Preparer's name (including firm name, if applicable) and address (include room or suite number)				Preparer's telephone number	

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? ☒ Yes ☐ No ☐ Not determined

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	2118938	2687307
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	2118938	2687307
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	500000	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	155831	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		655831
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	65076	
e Certain deemed and/or corrective distributions (see instructions) ..	8e		
f Administrative service providers (salaries, fees, commissions)	8f	19314	
g Other expenses	8g	3072	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		87462
i Net income (loss) (subtract line 8h from line 8c)	8i		568369
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

- 9a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1B 3H
- b** If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 During the plan year:		Yes	No	N/A	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X		
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X		
c Was the plan covered by a fidelity bond?	10c	X			10000000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X		
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X		
f Has the plan failed to provide any benefit when due under the plan?	10f		X		
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X		
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h				
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i				

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)	☒ Yes ☐ No
11a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	11a 0
12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA?	☐ Yes ☒ No
(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)	
a If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month Day Year 	
If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.	
b Enter the minimum required contribution for this plan year	12b
c Enter the amount contributed by the employer to the plan for this plan year	12c
d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	12d
e Will the minimum funding amount reported on line 12d be met by the funding deadline?	☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year?	☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year	13a
b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	☐ Yes ☒ No
c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)	
13c(1) Name of plan(s):	13c(2) EIN(s)
	13c(3) PN(s)

Part VIII Trust Information

14a Name of trust	14b Trust's EIN
14c Name of trustee or custodian	14d Trustee's or custodian's telephone number

Part IX IRS Compliance Questions

15a Is the plan a 401(k) plan? If "No," skip b.	☐ Yes ☐ No
15b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test ☐ "Current year" ADP test ☐ N/A
16a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
16b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No
17a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter / / and the serial number .	
17b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter / / .	
18 Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	☐ Yes ☐ No
19 Was any plan participant a 5% owner who had attained at least age 70 ½ during the prior plan year?	☐ Yes ☐ No

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>EDAX INC. PENSION PLAN FOR HOURLY EMPLOYEES DISTRICT LODGE NO. 15</u>	B Three-digit plan number (PN) ▶ <u>046</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>AMETEK, INC.</u>	D Employer Identification Number (EIN) <u>14-1682544</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2016</u>	
2 Assets:	
a Market value	2a <u>2118938</u>
b Actuarial value	2b <u>2308392</u>
3 Funding target/participant count breakdown	
a For retired participants and beneficiaries receiving payment	(1) Number of participants <u>15</u> (2) Vested Funding Target <u>606086</u> (3) Total Funding Target <u>606086</u>
b For terminated vested participants	<u>15</u> <u>262946</u> <u>262946</u>
c For active participants	<u>18</u> <u>581469</u> <u>681080</u>
d Total	<u>48</u> <u>1450501</u> <u>1550112</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate	5 <u>6.16 %</u>
6 Target normal cost	6 <u>93417</u>

Statement by Enrolled Actuary
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE		<u>09/25/2017</u>
Signature of actuary		Date
<u>JASON ROHRER, F.S.A., E.A.</u>		<u>17-07974</u>
Type or print name of actuary		Most recent enrollment number
<u>TOWERS WATSON DELAWARE INC</u>		<u>215-246-6455</u>
Firm name		Telephone number (including area code)
<u>CENTRE SQUARE EAST</u> <u>1500 MARKET STREET</u> <u>PHILADELPHIA, PA 19102</u>		
Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2016
v. 160205

Part II Beginning of Year Carryover and Prefunding Balances		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	839645
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	839645
10	Interest on line 9 using prior year's actual return of <u>-3.69</u> %	0	-30983
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		0
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.35</u> %		0
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c	Total available at beginning of current plan year to add to prefunding balance		0
d	Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	143799
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	664863

Part III Funding Percentages			
14	Funding target attainment percentage	14	106.02%
15	Adjusted funding target attainment percentage	15	148.91%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	105.81%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls					
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
01/13/2017	500000	0			
Totals ▶			18(b)	500000	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:	
a Contributions allocated toward unpaid minimum required contributions from prior years	19a 0
b Contributions made to avoid restrictions adjusted to valuation date	19b 0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c 470050
20 Quarterly contributions and liquidity shortfalls:	
a Did the plan have a "funding shortfall" for the prior year?	☐ Yes ☒ No
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	☐ Yes ☐ No
c If line 20a is "Yes," see instructions and complete the following table as applicable:	
Liquidity shortfall as of end of quarter of this plan year	
(1) 1st	(2) 2nd
(3) 3rd	(4) 4th

Part V	Assumptions Used to Determine Funding Target and Target Normal Cost		
21	Discount rate:		
a	Segment rates:	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">1st segment: 4.43%</div> <div style="text-align: center;">2nd segment: 5.91%</div> <div style="text-align: center;">3rd segment: 6.65%</div> </div>	☐ N/A, full yield curve used
b	Applicable month (enter code)	21b	0
22	Weighted average retirement age	22	62
23	Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute		
Part VI	Miscellaneous Items		
24	Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No		
25	Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No		
26	Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No		
27	If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.	27	
Part VII	Reconciliation of Unpaid Minimum Required Contributions For Prior Years		
28	Unpaid minimum required contributions for all prior years	28	0
29	Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30	Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0
Part VIII	Minimum Required Contribution For Current Year		
31	Target normal cost and excess assets (see instructions):		
a	Target normal cost (line 6)	31a	93417
b	Excess assets, if applicable, but not greater than line 31a	31b	93417
32	Amortization installments:	Outstanding Balance	Installment
a	Net shortfall amortization installment	0	0
b	Waiver amortization installment	0	0
33	If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount		33
34	Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)		34
			0
	Carryover balance	Prefunding balance	Total balance
35	Balances elected for use to offset funding requirement	0	0
36	Additional cash requirement (line 34 minus line 35)		36
			0
37	Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)		37
			470050
38	Present value of excess contributions for current year (see instructions)		
a	Total (excess, if any, of line 37 over line 36)	38a	470050
b	Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0
39	Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)		39
			0
40	Unpaid minimum required contributions for all years		40
			0
Part IX	Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)		
41	If an election was made to use PRA 2010 funding relief for this plan:		
a	Schedule elected	☐ 2 plus 7 years ☐ 15 years	
b	Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011	
42	Amount of acceleration adjustment	42	0
43	Excess installment acceleration amount to be carried over to future plan years	43	0

AMETEK, Inc.
EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15
EIN: 14-1682544; Plan Number: 046
Attachment- 2016 Schedule SB
Line 26- Schedule of Active Participant Data

Age Nearest Birthday		Completed Years of Service									
		under 1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & up
Under 25	Count	0	0	0	0	0	0	0	0	0	0
25 to 29	Count	0	0	0	0	0	0	0	0	0	0
30 to 34	Count	0	0	1	0	0	0	0	0	0	0
35 to 39	Count	0	0	0	0	1	0	0	0	0	0
40 to 44	Count	0	1	0	0	1	0	0	0	0	0
45 to 49	Count	0	1	0	1	1	0	1	0	0	0
50 to 54	Count	0	0	0	0	2	0	1	0	0	0
55 to 59	Count	0	1	1	0	0	0	1	0	1	0
60 to 64	Count	0	0	0	0	1	0	2	0	0	0
65 to 69	Count	0	0	0	0	0	0	0	0	0	0
70 & up	Count	0	0	0	0	0	0	0	0	0	0

Average Age = 51.5 Average Service = 17.3

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

EIN: 14-1682544 PN: 046

Schedule SB, Part V – Statement of Actuarial Assumptions and Methods

Statement of actuarial assumptions and methods

Economic Assumptions

Interest rate basis:

- | | January 2016
Segment Rates from one month
preceding valuation date |
|-----------------------|--|
| ▶ Applicable month | |
| ▶ Interest rate basis | |

Interest rates:

- | | Reflecting HATFA
corridors | Not reflecting
corridors |
|---|-------------------------------|-----------------------------|
| ▶ First segment rate | 4.43% | 1.41% |
| ▶ Second segment rate | 5.91% | 3.96% |
| ▶ Third segment rate | 6.65% | 4.97% |
| ▶ Effective interest rate (Reflecting HATFA
Corridors) | | 6.16% |

PBGC variable premium basis:

- | | Standard |
|-----------------------|---------------------|
| ▶ PBGC method | |
| ▶ PBGC segment rates: | 1.82%, 4.12%, 5.01% |

Annual rates of Increase

- | | |
|-------------------------------------|-------|
| ▶ Salaries | 3.75% |
| ▶ Future Social Security wage bases | 3.25% |

Demographic Assumptions

Inclusion date The valuation date coincident with or next following the date on which the employee is hired.

New or rehired employees It was assumed there will be no new or rehired employees.

Mortality

- | | |
|------------|--|
| ▶ Healthy | Separate rates for non-annuitants (based on RP-2000 "Employees" table without collar or amount adjustments, projected to 2031 using Scale AA) and annuitants (based on RP-2000 "Healthy Annuitants" table without collar or amount adjustments, projected to 2023 using Scale AA). |
| ▶ Disabled | Same as Healthy Mortality |

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

EIN: 14-1682544 PN: 046

Schedule SB, Part V – Statement of Actuarial Assumptions and Methods

Termination

Rates varying by age

► Sample rates

<i>Age</i>		
25	35	45
.053	.045	.032

Disability

Rates varying by age and sex.

► Sample rates

<i>Age/Sex</i>					
<i>25</i>		<i>40</i>		<i>55</i>	
<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
.00163	.00089	.00435	.00392	.01906	.01566

Retirement

Rates varying by age

► Sample rates

<i>Age</i>				<i>Expected Retirement Age</i>
55	60	62	65	
.00	.00	1.00	1.00	62

Benefit commencement date

Retirement benefit

Immediately upon retirement

Deferred vested benefit

Age 65

Form of payment

100% life annuity

Percentage married

100%

Spouse age

Wife three years younger than husband

Valuation pay

Base pay for the year preceding the valuation date plus the average of the bonuses accrued for the two years preceding the valuation date, adjusted to the valuation year using the assumed salary increase rate.

Covered pay

Base pay for the year preceding the valuation date plus the average of the bonuses accrued for the two years preceding the valuation date, adjusted to the valuation year using the assumed salary increase rate.

Administrative expenses

Administrative Expenses are assumed to be the actual administrative expenses paid for the prior rounded to the nearest ten-thousand dollars. The amount included this year for administrative expenses is \$40,000

Timing of benefit payments

Annuity payments are payable monthly at the beginning of the month and lump sum payments are payable on date of decrements.

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

EIN: 14-1682544 PN: 046

Schedule SB, Part V – Statement of Actuarial Assumptions and Methods

Methods

Valuation date	First day of plan year
Funding target	Present value of accrued benefits as required by regulations under IRC §430.
Target normal cost	Present value of benefits expected to accrue during plan year plus plan-related expenses expected to be paid from plan assets during plan year as required by regulations under IRC §430.
Actuarial value of assets	<p>Average of the fair market value of assets on the valuation date and 12 and 24 months preceding the valuation date, adjusted for contributions, benefits, administrative expenses and expected earnings of 6.81% (with such expected earnings limited as described in IRS Notice 2009-22) . The average asset value must be within 10% of market value, including discounted contributions receivable (discounted using the effective interest rate for the 2015 plan year.)</p> <p>The method of computing the actuarial value of assets complies with rules governing the calculation of such values under the Pension Protection Act of 2006 (PPA).</p> <p>These rules produce smoothed values that reflect the underlying market value of plan assets but fluctuate less than the market value. As a result, the actuarial value of assets will be lower than the market value in some years and greater in other years.</p> <p>However, over the long term under PPA's smoothing rules, the method has a significant bias to produce an actuarial value of assets that is below the market value of assets.</p>
Benefits Not Valued	<p>The plan pays small benefits with a present value up to \$5,000 in a single lump sum payment. Such lumps sums are not explicitly valued as such; rather such participants benefits are valued using the benefit choice assumptions described above.</p> <p>Willis Towers Watson has reviewed the plan provisions with AMETEK, Inc. and, based on that review, is not aware of any significant benefits required to be valued that were not.</p>

Data Sources

The plan sponsor furnished participant data as of 1/1/2016. Data were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date.

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

EIN: 14-1682544 PN: 046

Schedule SB, Part V – Statement of Actuarial Assumptions and Methods

We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

Assumptions Rationale – Significant Economic Assumptions

Discount rate	The basis chosen was selected by the plan sponsor from among choices prescribed by law, all of which are based on observed market data over certain periods of time.
Rates of increase in:	
<ul style="list-style-type: none">• Compensation	Assumed compensation increases are based on plan sponsor expectations for near-term years and the effect that the assumed long-term CPI and NAW will have on compensation increases over the longer term.
<ul style="list-style-type: none">• National average wages (NAW) (e.g., Social Security wage bases)	The assumed NAW is based on assumed CPI as shown below, plus assumed increases in real wages (the portion of GDP increases that becomes part of wages). Such assumed future increases in real wages based on a combination of recent rates and an expectation that the future rates will be lower (higher) than current conditions.
<ul style="list-style-type: none">• Increases in statutory limits (CPI)	The assumed CPI is based on a combination of current conditions, and future forecasts by economists. The final assumption represents a composite of current rates and long term expected rates.
<ul style="list-style-type: none">• Assumed return for asset smoothing	The assumed return used for asset smoothing is the lesser of the 3 rd segment rate and the expected return on assets assumption chosen by the client for the current plan year under U.S. GAAP. Although determining the expected rate of return on plan assets was not within the scope of our work, it is the client's best estimate and we determined that it does not significantly conflict with what would be reasonable based on their asset allocation.
Plan-related expenses	Plan-related expenses are assumed to be the actual plan-related expenses paid for the prior rounded up to the nearest ten-thousand dollars. As required by regulations, plan-related expenses should estimate the expenses to be paid from the trust during the coming year (including, for

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

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Schedule SB, Part V – Statement of Actuarial Assumptions and Methods

example, expected PBGC premiums and actuarial, accounting, legal, administration and trustee fees to be paid from the trust).

Assumptions Rationale – Significant Demographic Assumptions

Healthy Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Disabled Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Termination	Termination rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by termination patterns different than assumed.
Disability	Disability rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by disability patterns different than assumed.
Retirement	Retirement rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by retirement patterns different than assumed.

Benefit commencement date for deferred benefits:

- Preretirement death benefit Surviving spouses are assumed to begin benefits at the earliest permitted commencement date because ERISA requires benefits to start then unless the spouse elects to defer. If the spouse elects to defer, actuarial increases from the earliest commencement date must be given, so that a later commencement date is expected to be of approximately equal value, and experience indicates that most spouses do take the benefit as soon as it is available.

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- **Deferred vested benefit** Deferred vested participants' assumed commencement age is a single age intended to capture the average age at commencement.

Form of Payment The percentage of retiring participants assumed to take plan specific forms of payment is based on the plan sponsor's expectations for the future with periodic monitoring of changes caused by patterns different than assumed.

Percentage married The assumed percentage married is based on plan experience, as well as general population statistics on the marital status of individuals of retirement age.

Spouse age The assumed age difference for spouses is based on plan experience, as well as general population statistics of the age difference for married individuals of retirement age.

Source of Prescribed Methods

Funding methods The methods used for funding purposes as described in Appendix A, including the method of determining plan assets, are "prescribed methods set by law", as defined in the actuarial standards of practice (ASOPs). These methods are required by IRC §430, or were selected by the plan sponsor from a range of methods permitted by IRC §430.

Change in assumptions and methods since prior valuation

The segment interest rates used to calculate the funding target and target normal cost were updated from an applicable month of January 2015 to January 2016.

The required mortality table used to calculate the funding target and target normal cost was updated to include one additional year of projected mortality improvements.

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

► **Round off amounts to nearest dollar.**

► **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan EDAX INC. PENSION PLAN FOR HOURLY EMPLOYEES DISTRICT LODGE NO. 15	B Three-digit plan number (PN) ►	046
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF Ametek, Inc.	D Employer Identification Number (EIN) 14-1682544	

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500
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Part I Basic Information				
1	Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2016</u>			
2	Assets:			
	a Market value.....	2a	2,118,938	
	b Actuarial value.....	2b	2,308,392	
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
	a For retired participants and beneficiaries receiving payment.....	15	606,086	606,086
	b For terminated vested participants.....	15	262,946	262,946
	c For active participants.....	18	581,469	681,080
	d Total.....	48	1,450,501	1,550,112
4	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐			
	a Funding target disregarding prescribed at-risk assumptions.....	4a		
	b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor.....	4b		
5	Effective interest rate.....	5	6.16%	
6	Target normal cost.....	6	93,417	

Statement by Enrolled Actuary
 To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	<div style="text-align: center;"> Signature of actuary Jason Rohrer, F.S.A., E.A. Type or print name of actuary TOWERS WATSON DELAWARE INC Firm name CENTRE SQUARE EAST 1500 MARKET STREET PHILADELPHIA PA 19102 Address of the firm </div>	<div style="text-align: center;"> Date 1707974 Most recent enrollment number 215-246-6455 Telephone number (including area code) </div>
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If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	0	839,645
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year).....	0	0
9 Amount remaining (line 7 minus line 8).....	0	839,645
10 Interest on line 9 using prior year's actual return of <u>-3.69%</u>	0	-30,983
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year).....		0
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.35%</u>		0
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return.....		0
c Total available at beginning of current plan year to add to prefunding balance.....		0
d Portion of (c) to be added to prefunding balance.....		0
12 Other reductions in balances due to elections or deemed elections.....	0	143,799
13 Balance at beginning of current year (line 9 + line 10 + line 11d - line 12).....	0	664,863

Part III Funding Percentages

14 Funding target attainment percentage.....	14	106.02%
15 Adjusted funding target attainment percentage.....	15	148.91%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement.....	16	105.81%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.....	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
01/13/2017	500,000	0			
Totals ▶			18(b)	500,000	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b Contributions made to avoid restrictions adjusted to valuation date.....	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c	470,050

20 Quarterly contributions and liquidity shortfalls:**a** Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No**b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No**c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: 4.43 %	2nd segment: 5.91 %	3rd segment: 6.65 %	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 0
22 Weighted average retirement age				22 62
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.	☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	93,417	
b Excess assets, if applicable, but not greater than line 31a	31b	93,417	
32 Amortization installments:			
a Net shortfall amortization installment	0	Outstanding Balance	Installment
b Waiver amortization installment	0		
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	0	
		Carryover balance	Prefunding balance
35 Balances elected for use to offset funding requirement	0	0	0
36 Additional cash requirement (line 34 minus line 35)	36	0	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	470,050	
38 Present value of excess contributions for current year (see instructions):			
a Total (excess, if any, of line 37 over line 36)	38a	470,050	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011		
42 Amount of acceleration adjustment	42	0	
43 Excess installment acceleration amount to be carried over to future plan years	43	0	

Schedule SB - Statement by Enrolled Actuary

Plan Sponsor	AMETEK, Inc.
EIN/PN	14-1682544/046
Plan Name	EDAX Inc. Pension Plan for Hourly Employees District Lodge No. 15
Valuation Date	January 1, 2016
Enrolled Actuary	Jason Rohrer, FSA, EA
Enrollment Number	17-07974

The actuarial assumptions that are not mandated by IRC § 430 and regulations, represent the enrolled actuary's best estimate of anticipated experience under the plan, subject to the following conditions:

The actuarial valuation, on which the information in this Schedule SB is based, has been prepared in reliance upon the employee and financial data furnished by the plan administrator and the trustee. The enrolled actuary has not made a rigorous check of the accuracy of this information but has accepted it after reviewing it and concluding it is reasonable in relation to similar information furnished in previous years.

AMETEK, INC.

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

EIN: 14-1682544

Plan Num: 046

Attachment to 2016 Schedule SB

Schedule SB, Line 22 - Description of Weighted Average Retirement Age

The average retirement age for Line 22 was calculated by creating a hypothetical life table with retirement as the only decrement, and then computing the average retirement age for the table.

(A)	(B)	(C)	(D)	(E)
Age	Retirement Rate	Hypothetical Number of Employees	Number Retiring	(A)*(D)
55	0.000	100,000	0	0
56	0.000	100,000	0	0
57	0.000	100,000	0	0
58	0.000	100,000	0	0
59	0.000	100,000	0	0
60	0.000	100,000	0	0
61	0.000	100,000	0	0
62	1.000	100,000	100,000	6,200,000
63	1.000	0	0	0
64	1.000	0	0	0
65	1.000	0	0	0
66	1.000	0	0	0
67	1.000	0	0	0
68	1.000	0	0	0
69	1.000	0	0	0
70	1.000	0	0	0
Total:				6,200,000
Average Retirement Age:				62

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

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Schedule SB, Part V – Summary of Plan Provisions

Summary of plan provisions

Plan Provisions

Plan Name/No.	EDAX Inc. Pension Plan for Hourly Employees District Lodge No. 15/015
Effective Date	January 23, 1998. Amended and restated effective January 1, 2015.
Participation	Each employee who was a participant in the Philips Electronics Instruments Company Pension Plan for Hourly Employees District Lodge No. 15 (the "Former Plan") on January 22, 1998 is a Participant. All other hourly employees represented by District Lodge No. 15 of the International Association of Machinists and Aerospace Workers are eligible to participate on their date of hire.

Definitions

Plan Year	Twelve-month period ending December 31.
Continuous Service	Service from date of hire as a covered employee. Service is determined by the number of hours worked during a calendar year according to the following table:

<u>Hours of Service</u>	<u>Continuous Service</u>
Under 400	None
400–799	.25 year
800–999	.50 year
1,000 or more	1 year

Credited Service	Service from date of hire as a covered employee. Service is determined by the number of hours worked during a calendar year according to the following table:
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<u>Hours of Service</u>	<u>Credited Service</u>
Under 400	None
400 – 799	.25 year
800 – 1,199	.50 year
1,200 – 1,599	.75 year
1,600 or more	1 year

Normal Retirement Date (NRD)	First of month coinciding with or next following attainment of age 65 with 5 years of Vesting Service.
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Accrued Monthly Pension	Credited service during a period multiplied by the applicable Accrual Rate.
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EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

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Schedule SB, Part V – Summary of Plan Provisions

Period	Accrual Rate
prior to 5/1/2002	\$26.50
5/1/2002 – 4/30/2003	28.00
5/1/2003 – 4/30/2004	29.00
5/1/2004 – 4/30/2005	30.00
5/1/2005 – 4/30/2006	31.00
5/1/2006 – 4/30/2007	32.00
5/1/2007 – 4/30/2008	34.00
5/1/2008 – 4/30/2009	36.00
5/1/2009 – 4/30/2010	38.00
5/1/2010 – 4/30/2012	40.00
5/1/2012 – 4/30/2012	43.00
5/1/2012 – 4/30/2013	46.00
5/1/2013 – 4/30/2014	49.00
5/1/2015 – 4/30/2016	51.00
5/1/2016 and after	52.00

The total benefit is then reduced by the frozen accrual benefit under the Former Plan.

Actuarial Equivalence The conversion factors for optional forms of payment are determined using the UP 1984 Unisex mortality table and an interest rate of 6%.

Eligibility for Benefits

Normal Retirement	Retire on or after NRD.
Early Retirement	Retire before NRD but on or after both attaining age 55 and completing 10 years of vesting service.
Disability Retirement	Attainment of age 35 after completing 10 years of Vesting Service due to a total and permanent disability incurred while a covered employee, which has lasted for at least six months and results in entitlement to a Social Security disability pension.
Deferred Vested	Terminate for reasons other than death or retirement after completing 5 years of vesting service.
Preretirement Death	Die with surviving spouse while eligible for a deferred vested, early or normal retirement benefit, or after 10 years of vesting service.

EDAX, Inc. Pension Plan for Hourly Employees District Lodge No. 15

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Schedule SB, Part V – Summary of Plan Provisions

Benefits Paid Upon the Following Events

Normal Retirement	Accrued monthly pension at actual retirement date.
Early Retirement	Accrued monthly pension at early retirement date, reduced 6.0% per year for pre-NRD commencement.
Disability Retirement	Accrued monthly pension at Normal Retirement Date, with payments commencing the sixth month of disablement or the date the participant files an application for disability pension, if later.
Vested Termination	Accrued monthly pension at termination date, reduced 6.0% per year for pre-NRD commencement.
Preretirement Death	50% of accrued monthly pension as of date of death, reduced for 50% joint and survivor annuity and for payment before NRD. Lifetime payments to spouse may begin at participant's earliest retirement date.
Forms of Payment	Monthly pension benefits are paid to unmarried participants as a five year certain and continuous annuity. Married participants are entitled to actuarially equivalent benefits in the form of a 50% joint and survivor annuity. Participants may elect (with spousal consent) to receive benefits in another actuarially equivalent optional form offered by the plan.

Changes in Benefits Valued Since Prior Year

The benefit accrual rate for future service was updated from \$51 per month to \$52 per month starting May 1, 2016