

Form 5500-SFDepartment of the Treasury
Internal Revenue ServiceDepartment 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**2022****This Form is Open to Public Inspection****Part I Annual Report Identification Information**For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

- 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.)
- 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)
- D** If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. ▶

Part II Basic Plan Information—enter all requested information

1a Name of plan WORLDWIDE REFRACTORIES, INC. PENSION PLAN FOR TARENTUM HOURLY EMPLOYEES		1b Three-digit plan number (PN) ▶	027
		1c Effective date of plan	01/01/1985
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) RESCO PRODUCTS, INC. ONE ROBINSON PLAZA, SUITE 300 6600 STEUBENVILLE PIKE PITTSBURGH, PA 15205-1008		2b Employer Identification Number (EIN)	23-1279448
		2c Sponsor's telephone number	412-294-1037
		2d Business code (see instructions)	327900
3a Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor.		3b Administrator's EIN	
		3c Administrator's telephone number	
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report. a Sponsor's name c Plan Name		4b EIN	
		4d PN	
5a Total number of participants at the beginning of the plan year.....		5a	96
b Total number of participants at the end of the plan year		5b	0
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)	22
d(2) Total number of active participants at the end of the plan year.....		5d(2)	0
e Number of participants who 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.	09/19/2023	GRAHAM MCDONOUGH
	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

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

Form 5500-SF (2022)
v.220413

- 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
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year: 475824. (See instructions.)

Part III Financial Information			
7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets.....	7a	7242167	0
b Total plan liabilities.....	7b		
c Net plan assets (subtract line 7b from line 7a).....	7c	7242167	0
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers.....	8a(1)		
(2) Participants.....	8a(2)		
(3) Others (including rollovers).....	8a(3)		
b Other income (loss).....	8b	-878144	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b).....	8c		-878144
d Benefits paid (including direct rollovers and insurance premiums to provide benefits).....	8d	243003	
e Certain deemed and/or corrective distributions (see instructions).....	8e		
f Administrative service providers (salaries, fees, commissions).....	8f	42205	
g Other expenses.....	8g		
h Total expenses (add lines 8d, 8e, 8f, and 8g).....	8h		285208
i Net income (loss) (subtract line 8h from line 8c).....	8i		-1163352
j Transfers to (from) the plan (see instructions).....	8j	-6078815	

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
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	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		500000
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 lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below. Yes No

a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40..... **11a** 0

b PBGC missed contribution reporting requirements. If the plan is covered by PBGC and the amount reported on line 11a is greater than \$0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

- Yes.
- No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.
- No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.
- No. Other. Provide explanation _____

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.) If this is a defined benefit pension plan, leave line 12 blank and complete line 11 above.

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)
RESCO PRODUCTS, INC. RETIREMENT PLAN FOR UNITED STEELWORKERS OF AMERICA	23-1279448	025

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>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 2022 This Form is Open to Public Inspection
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For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

▶ **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>WORLDWIDE REFRACTORIES, INC. PENSION PLAN FOR TARENTUM HOURLY EMPLOYEES</u>	B Three-digit plan number (PN) ▶	<u>027</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>RESCO PRODUCTS, INC.</u>	D Employer Identification Number (EIN) <u>23-1279448</u>	
E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	F Prior year plan size: <input type="checkbox"/> 100 or fewer <input checked="" type="checkbox"/> 101-500 <input type="checkbox"/> More than 500	

Part I Basic Information			
1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2022</u>			
2 Assets:			
a Market value.....	2a	<u>7242167</u>	
b Actuarial value.....	2b	<u>7135704</u>	
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	<u>46</u>	<u>2347855</u>	<u>2347855</u>
b For terminated vested participants.....	<u>26</u>	<u>821387</u>	<u>821387</u>
c For active participants.....	<u>22</u>	<u>1525268</u>	<u>1586652</u>
d Total	<u>94</u>	<u>4694510</u>	<u>4755894</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>			
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>5.44 %</u>	
6 Target normal cost			
a Present value of current plan year accruals.....	6a	<u>0</u>	
b Expected plan-related expenses	6b	<u>20000</u>	
c Total (line 6a + line 6b)	6c	<u>20000</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		
	Signature of actuary	Date
	<u>NICHOLAS FRIES</u>	<u>23-07926</u>
	Type or print name of actuary	Most recent enrollment number
	<u>MERCER</u>	<u>216-830-8031</u>
	Firm name	Telephone number (including area code)
	<u>200 PUBLIC SQUARE</u> <u>SUITE 3760</u> <u>CLEVELAND, OH 44114</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

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	703698
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	703698
10	Interest on line 9 using prior year's actual return of <u>6.35</u> %	0	44685
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>5.61</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	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d - line 12).....	0	748383

Part III Funding Percentages			
14	Funding target attainment percentage	14	134.30 %
15	Adjusted funding target attainment percentage	15	150.03 %
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	125.10 %
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		
Totals ▶			18(b)	0	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	0

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: 4.75 %	2nd segment: 5.18 %	3rd segment: 5.92 %	<input type="checkbox"/> N/A, full yield curve used
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b Applicable month (enter code)..... **21b** 4

22 Weighted average retirement age **22** 64

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 Demographic and benefit information

a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. Yes No

b Is the plan required to provide a projection of expected benefit payments? 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 6c).....	31a	20000
b Excess assets, if applicable, but not greater than line 31a	31b	20000

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	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** 0

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36)	38a	0
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 the American Rescue Plan Act of 2021 (See Instructions)

41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. 2019 2020 2021

Schedule SB, line 26 — Schedule of Active Participant Data

Attained age	Years of credited service										Total
	Under 1	1–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40 & up	
Under 25											
25–29											
30–34											
35–39											
40–44				1							1
45–49					1	2					3
50–54					1		2				3
55–59					1	1	2				4
60–64				2	3	2	1				8
65–69							2				2
70 & up										1	1
Total				3	6	5	7			1	22

In each cell, the top number is the count of active participants for each age/service combination.

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**Actuarial assumptions**

Discount rate sponsor elections		
• Segment rates or full yield curve	Segment	
• Look-back months	4	
	<u>Stabilized</u>	<u>Non-stabilized</u>
• First 5 years	4.75%	1.07%
• Next 15 years	5.18%	2.68%
• Over 20 years	5.92%	3.36%
Rationale: Prescribed assumption by the IRS		
Mortality sponsor elections		
• Healthy participants	Section 430(h)(3) prescribed optional combined mortality table for small plans. These tables are based on RP-2014 mortality tables with improvements beyond 2006 removed with static mortality improvement based on IRS methodology and projection Scale MP-2020.	
Rationale: Prescribed assumption by the IRS.		
Other economic assumptions		
• Salary increases	Not applicable	
• Flat-dollar benefit increases	Not applicable	
• Social Security taxable wage base Increases	Not applicable	
• Inflation	Not applicable	
• Long-term rate of return on assets	6.10% per year for 2020, 4.75% per year for 2021 and 2022 Rationale: The expected rate of return on plan assets is based on a blend of the hypothetical past performance and the median simulated investment return using capital market assumptions published in Mercer Investment Consulting's Capital Markets Outlook for the plan's target asset mix, net of investment expenses assumed to be paid from plan assets.	
• Expenses	\$20,000 added to current year normal cost Rationale: Explicit expense load is set based on expenses paid during prior calendar year, taking into account expected current calendar year expenses.	

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods

Demographic assumptions

- Withdrawal See table of sample rates.
- Disability incidence See table of sample rates.

Attained age	Disability Incidence Percentage	Withdrawal Percentage
20	0.06%	5.44%
25	0.06%	5.29%
30	0.11%	5.07%
35	0.15%	4.70%
40	0.22%	3.50%
45	0.36%	1.77%
50	0.61%	0.40%
55	1.01%	N/A
60	1.63%	N/A

Rationale: Due to the small size of this plan, we do not have enough credible experience to analyze the disability and withdrawal rates. These assumptions were developed from prior experience and continue to provide a reasonable representation of the rates experienced by the plan. Actuarial gains and losses will be monitored to determine if prospective adjustments are necessary.

-
- Retirement age

Attained age	Percentage
62	35%
63	25%
64	30%
65	50%
66	15%
67	20%
68	20%
69	20%
70	100%

Rationale: The retirement rates are based on a blend of plan experience through 2015 and 2003 Society of Actuaries study.

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods

<hr/>			
•	Benefit commencement age for		
–	Future vested deferred	Age 65	
–	Current vested deferred	The later of Age 65 or Attained Age	
<hr/>			
•	Spouse assumptions	<u>Male participants</u>	<u>Female participants</u>
–	Percentage married	85%	85%
–	Spouse age difference	3 years younger	3 years older
<hr/>			
	Form of payment	100% assumed to take a life annuity	
<hr/>			
	Unpredictable contingent event assumptions	None	
<hr/>			

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**Actuarial Methods for Funding****Asset methods**

The asset valuation method is an average of the adjusted market value for each year during the last two years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110% and no less than 90% of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that, over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

Participant methods

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on employees participating in the plan as of the valuation date.
- **Participants excluded:** No actuarial liability is included for non-vested participants who terminated prior to the valuation date. For this purpose, participants with a break in service on the valuation date are treated as terminated participants.
- **Insurance contracts:** The plan does not have any insurance contracts.

Minimum funding methods

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual are the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

**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

2022

This Form is Open to Public Inspection

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

▶ **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 WORLDWIDE REFRACTORIES, INC. PENSION PLAN FOR TARENTUM HOURLY EMPLOYEES		B Three-digit plan number (PN) ▶	027
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF RESCO PRODUCTS, INC.		D Employer Identification Number (EIN) 23-1279448	
E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B		F Prior year plan size: <input type="checkbox"/> 100 or fewer <input checked="" type="checkbox"/> 101-500 <input type="checkbox"/> More than 500	

Part I Basic Information

1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2022</u>			
2 Assets:			
a Market value	2a		7,242,167
b Actuarial value	2b		7,135,704
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.....	46	2,347,855	2,347,855
b For terminated vested participants.....	26	821,387	821,387
c For active participants	22	1,525,268	1,586,652
d Total.....	94	4,694,510	4,755,894
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>			
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		5.44%
6 Target normal cost.....			
a Present value of current plan year accruals	6a		0
b Expected plan-related expenses	6b		20,000
c Total (line 6a + line 6b)	6c		20,000

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	<p><u>NICHOLAS FRIES NGCF</u> Signature of actuary</p>	<p><u>9/13/2023</u> Date</p>
NICHOLAS FRIES	Type or print name of actuary	2307926
MERCER	Firm name	Most recent enrollment number
		216-830-8031
		Telephone number (including area code)
200 PUBLIC SQUARE SUITE 3760 CLEVELAND OH 44114	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) 2022
v. 220413

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	703,698
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	703,698
10	Interest on line 9 using prior year's actual return of <u>6.35</u> %	0	44,685
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>5.61</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	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d - line 12)	0	748,383

Part III Funding Percentages			
14	Funding target attainment percentage	14	134.30 %
15	Adjusted funding target attainment percentage	15	150.03 %
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	125.10 %
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	
Totals ▶			18(b)	0	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	0

20	Quarterly contributions and liquidity shortfalls:	
	a Did the plan have a "funding shortfall" for the prior year?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	<input type="checkbox"/> Yes <input type="checkbox"/> 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: 4.75 %	2nd segment: 5.18 %	3rd segment: 5.92 %	<input type="checkbox"/> N/A, full yield curve used
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b Applicable month (enter code) **21b** 4

22 Weighted average retirement age **22** 64

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 Demographic and benefit information

a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment..... Yes No

b Is the plan required to provide a projection of expected benefit payments? 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 6c) **31a** 20,000

b Excess assets, if applicable, but not greater than line 31a **31b** 20,000

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	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** 0

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36) **38a** 0

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 the American Rescue Plan Act of 2021 (See Instructions)

41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. 2019 2020 2021

Schedule SB, line 22 — Description of Weighted Average Retirement Age

Each employee is assumed to retire in accordance with the table of retirement rates. The proportion of employees expected to retire at each potential retirement age is shown below. The average retirement age is 64.

(A) Retirement age	(B) Retirement Percent	(C) Lx	(D) Number of employees expected to retire (B) x (C)	(E) (A) x (D)
62	35%	10,000.00	3,500.00	217,000
63	25%	6,500.00	1,625.00	102,375
64	30%	4,875.00	1,462.50	93,600
65	50%	3,412.00	1,706.25	110,906
66	15%	1,706.25	255.94	16,892
67	20%	1,450.31	232.06	19,434
68	20%	1160.25	290.06	15,779
69	20%	928.20	185.64	12,809
70	100%	742.56	742.56	51,979
Total			10,000.00	640,774
Average				64.08

Schedule SB, Part V — Summary of Plan Provisions**Summary of major plan provisions**

Effective date and plan year	Original plan: January 1, 1985 Restated plan: January 1, 2013
Status of the plan	Plan is frozen for any new participant on or after March 6, 2006. Benefit accruals are frozen effective January 1, 2018.
Significant events that occurred during the year	None
Definitions	
• Covered employees	Any non-salaried employee of Worldwide Refractories, Inc. who is employed at Tarentum, Pennsylvania and is not covered by any other defined benefit plan maintained by Worldwide Refractories, Inc.
• Eligible Service	One year is credited if an employee has at least 1,000 hours of service during a 12 consecutive month period beginning with the period 12 months from an employee's date of hire then switching to the plan year.
• Participation	An eligible employee may enter the plan after attainment of age 21 and the completion of one year of Eligibility Service however no new participants may enter the plan on or after March 6, 2006.
• Vesting service	One year is credited if an employee has at least 1,000 hours of service during a calendar year. Hours prior to January 1, 1985 are included.
• Benefit service	One year is credited if an employee has at least 2,000 hours of service during a calendar year. Partial years are credited as hours of service divided by 2,000. Benefit accruals are frozen effective January 1, 2018.
• Accrued benefit	Monthly benefit earned at date of determination.
Normal retirement	
• Eligibility	First day of the month coincident with or next following a participant's attainment of Age 65
• Benefit	Applicable rate multiplied by Years of Benefit Service that correspond to such rate: \$12.00 times years of Benefit Service through 12/31/1984 \$16.00 times years of Benefit Service between 1/1/1985 and 12/31/1990 \$22.00 times years of Benefit Service between 1/1/1991 and 12/31/1996 \$32.00 times years of Benefit Service between 1/1/1997 and 12/31/2002 \$34.00 times years of Benefit Service after 1/1/2003 Benefit accruals are frozen effective January 1, 2018.
Early retirement	
• Eligibility	Later of age 62 or 10 Years of Vesting Service
• Benefit	The Normal Retirement Benefit reduced 0.25% for each month prior to Normal Retirement Date (on or after March 5, 2000)
• Supplement	An active participant eligible for Early Retirement Benefits who does not elect a disability retirement will receive the lesser of (a) \$250 or (b) the participant's accrued Social Security retirement benefit commencing with the first Early Retirement benefit payment and ending on the earlier of the

Schedule SB, Part V — Summary of Plan Provisions

	participant's 65th birthday or date of death. The early retirement supplement benefit was eliminated for those who retire after January 1, 2018.
Late retirement	
• Eligibility	First day of the month coincident with or next following a participant's retirement from employment after Normal Retirement Date.
• Benefit	Same as Normal Retirement Benefit.
Disability	
• Eligibility	A participant who qualifies for total disability is eligible for a disability benefit on the first day of the month coincident with or next following the date 6 months after termination of employment due to such disability. On or After March 5, 2000, 10 or more Years of Vesting Service is required for a disability benefit. The disability benefit discontinues at age 65 and is replaced by his/her Normal Retirement Benefit.
• Benefit	The disability benefit is equal to \$250 minus any income the participant may receive from workers compensation or any occupational disease law.
Pre-retirement death	
• Eligibility	Vested participant dies prior to retirement.
• Benefit	50% Qualified Pre-Retirement Survivor Annuity is payable to the participant's spouse beginning on the participant's Earliest Retirement Date or no later than the participant's Normal Retirement Date.
Actuarial Equivalence	
• Plan Equivalency	Interest: 8.50% Mortality: 1971 GAM (Male Rates) with 3 year setback for beneficiaries
• Joint & Survivor Options	Interest: 8.50% 1971 GAM (Male Rates)
• Lump Sums	417(e)(3) rate for fourth month preceding plan year of distribution 417(e)(3) prescribed mortality table for Plan Year of distribution
• Late Retirement Increases	Interest: 8.50% 1971 GAM (Male Rates)
Unpredictable contingent event benefits	None
Form of benefits	Single Life Annuity or a 50/75/100% Joint & Survivor Annuity (Spouse or Non-Spouse beneficiary).
Miscellaneous	
• Maximum compensation	Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2022, the limit is \$305,000.
• Maximum benefits	Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2022 the limit is \$245,000.
• Small Cashouts	If the present value of a participant's benefit is under \$5,000, it may be paid as a lump sum.

Schedule SB, Part V — Summary of Plan Provisions**Benefits included or excluded**

Unless noted below, all benefits provided by the plan, as restated and amended effective January 1, 2013, are included in this valuation.

- **Most recent plan amendments included:** The first amendment froze benefit accruals effective January 1, 2018 and eliminated the early retirement supplement for retirements after January 1, 2018.
- **Late retirement increases:**
 - Active participants: The plan provides benefit suspension notices to participants who work beyond normal retirement; therefore, late retirement actuarial increases only apply to participants who defer retirement beyond age $70\frac{1}{2}$. This valuation includes increases for current participants over age 70.
 - Deferred vested participants: Current deferred vested participants over normal retirement age are valued including the late retirement actuarial increase.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 415(b) have been incorporated into our calculations.

**Plan provisions specific to funding
Additional benefits included or excluded**

- **IRC Section 436 benefit restrictions:**
 - **Unpredictable contingent event benefits:** This valuation excludes restricted contingent event benefits for events that occurred before the valuation date but includes contingent event benefits for events that are expected to occur on or after the valuation date regardless of anticipated funding-based limitations.
 - **Benefit accruals:** The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.
 - **Scheduled benefit increases:** Scheduled benefit increases effective after the end of the current plan year are excluded from minimum funding requirements.

Plan provision changes since prior valuation

- Maximum benefit amounts and maximum compensation amounts under IRS rules were updated from 2021 to 2022.