MANUFACTURING TECHNOLOGY LICENSE AND ROYALTY AGREEMENT

Agreement Number: MTL-2024-VM-085 Effective Date: January 1, 2024 Agreement Term: Seven (7) Years

PARTIES

LICENSOR: Precision Manufacturing Technologies LLC 850 Technology Boulevard Pittsburgh, PA 15219 Tax ID: 25-8765432

LICENSEE: VonMech Industries, Inc. 4200 Industrial Drive Cleveland, OH 44113 Tax ID: 34-2468135

RECITALS

WHEREAS, Licensor owns proprietary manufacturing process patents and trade secrets for advanced metal forming and precision machining (the "Licensed Technology");

WHEREAS, Licensee manufactures industrial components and wishes to utilize the Licensed Technology;

WHEREAS, the parties agree to establish formula-based royalty calculations tied to production metrics, cost savings, and product performance;

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the parties agree as follows:

ARTICLE 1: DEFINITIONS

1.1 "Licensed Products" means any products manufactured using the Licensed Technology:

- Precision-machined components
- Metal stamped parts
- Forged industrial components
- Heat-treated assemblies
- Any derivative products using Licensed Technology

1.2 "Units Produced" means the total number of Licensed Product units manufactured during the Royalty Period, including: (a) Finished goods delivered to customers (b) Units in finished goods inventory (c) Units shipped to Licensee's distribution centers (d) EXCLUDING: Prototype units, samples, and defective units scrapped before shipment

1.3 "Standard Manufacturing Cost (SMC)" means the baseline cost to manufacture Licensed Products WITHOUT Licensed Technology, calculated as:

SMC = Direct Materials + Direct Labor + Manufacturing Overhead

Where:

- Direct Materials: Raw materials at standard cost per company's cost accounting
- Direct Labor: Standard hourly rate × standard hours per unit
- Manufacturing Overhead: Applied at 150% of Direct Labor

1.4 "Actual Manufacturing Cost (AMC)" means the actual cost to manufacture Licensed Products WITH Licensed Technology, using same calculation method as SMC.

1.5 "Cost Savings" means:

Cost Savings = SMC - AMC

(Calculated on per-unit basis or aggregate batch basis as specified)

1.6 "Net Selling Price (NSP)" means:

NSP = Gross Invoice Price - Allowable Deductions

Where Allowable Deductions include:

- Trade discounts actually granted (max 15%)
- Sales taxes and duties
- Freight charges separately invoiced
- Returns and allowances (max 2% of gross)
- Prompt payment discounts (max 2%)

1.7 "Royalty Period" means each calendar quarter (Q1: Jan-Mar, Q2: Apr-Jun, Q3: Jul-Sep, Q4: Oct-Dec)

1.8 "Production Tier" means cumulative annual production volume levels that trigger different royalty rate formulas

ARTICLE 2: LICENSE GRANT

2.1 Exclusive Manufacturing License Licensor grants Licensee an exclusive license in North America to manufacture Licensed Products using Licensed Technology for industrial and commercial applications.

2.2 Field of Use License restricted to:

- Automotive components
- Industrial machinery parts
- Heavy equipment components
- Aerospace fasteners and fittings (with additional approval)

2.3 Manufacturing Locations Licensed manufacturing authorized at:

- Primary facility: Cleveland, OH
- Secondary facility: Louisville, KY (subject to technology transfer completion)
- Contract manufacturers (with prior written approval)

ARTICLE 3: FORMULA-BASED ROYALTY CALCULATIONS

3.1 PRIMARY ROYALTY FORMULA - STANDARD LICENSED PRODUCTS

Formula Structure:

Quarterly Royalty = Base Component + Volume Component + Performance Component

3.1.1 Base Component Calculation

Base Component = ∑(NSP × Base Rate × Units Sold)

Where Base Rate varies by Production Tier:

Annual Production Volume Base Rate 0 - 50,000 units 3.5% 50,001 - 150,000 units 3.0% 150,001 - 300,000 units 2.5% 300,001 - 500,000 units 2.25% Over 500,000 units 2.0%

Tier Calculation Method: Marginal (each tier calculated separately)

Example: Annual production of 175,000 units:

- First 50,000 units: Royalty calculated at 3.5%
- Next 100,000 units (50,001-150,000): Royalty calculated at 3.0%
- Remaining 25,000 units (150,001-175,000): Royalty calculated at 2.5%

3.1.2 Volume Component Calculation

Volume Component = Units Produced × Per-Unit Rate

Per-Unit Rate Schedule:

Quarterly Production Volume Per-Unit Rate 0 - 15,000 units $2.50 15,001 - 40,000 units $2.25 40,001 - 80,000 units $2.00 80,001 - 125,000 units $1.75 Over 125,000 units $1.50

Application: Blended rate based on total quarterly production

Blended Rate Formula:

Blended Rate = Total Volume Royalty ÷ Total Units Produced

Example: Quarterly production of 95,000 units:

- First 15,000 units: 15,000 × $2.50 = $37,500
- Next 25,000 units: 25,000 × $2.25 = $56,250
- Next 40,000 units: 40,000 × $2.00 = $80,000
- Remaining 15,000 units: 15,000 × $1.75 = $26,250
- Total Volume Component: $200,000
- Blended Rate: $200,000 ÷ 95,000 = $2.11 per unit

3.1.3 Performance Component Calculation

Performance Component = (Cost Savings × Efficiency Rate) × Units Produced

Where:

Efficiency Rate = 25% (if Cost Savings achieved)

Cost Savings Verification:

- Calculated quarterly based on standard cost comparison
- Licensee must document SMC vs AMC with supporting data
- Auditable by Licensor per Article 8

Performance Component Example:

SMC per unit: $45.00 AMC per unit: $38.00 Cost Savings: $7.00 per unit Units Produced: 95,000 Efficiency Rate: 25%

Performance Component = $7.00 × 0.25 × 95,000 = $166,250

3.1.4 Complete Formula Example

Scenario: Q2 2024 Production and Sales

Units Produced: 95,000 Units Sold: 92,000 Average NSP: $150.00 SMC: $45.00 per unit AMC: $38.00 per unit Annual production to date: 175,000 units

Base Component Calculation:

Base Rate (marginal tier calculation):

- 50,000 units @ 3.5% = 50,000 × $150 × 3.5% = $262,500
- 92,000 units @ 3.0% = 92,000 × $150 × 3.0% = $414,000 Base Component = $676,500

Volume Component Calculation:

Per Article 3.1.2: Volume Component = $200,000 (from example above)

Performance Component Calculation:

Cost Savings = $45.00 - $38.00 = $7.00 Performance Component = $7.00 × 0.25 × 95,000 = $166,250

TOTAL Q2 2024 ROYALTY:

Base Component: $676,500 Volume Component: $200,000 Performance Component: $166,250 Total Royalty: $1,042,750

3.2 PREMIUM PRODUCT FORMULA - HIGH-PERFORMANCE COMPONENTS

For Licensed Products designated "Premium Grade" with enhanced specifications:

Premium Royalty = [(NSP - Material Cost) × Premium Rate + Technology Fee] × Units Sold

Where:

- Premium Rate: 5.5%
- Technology Fee: $8.00 per unit
- Material Cost: Actual direct material cost per unit (verified quarterly)

Minimum Premium Royalty:

MIN = $12.00 per unit sold

Premium Product Calculation:

If calculated royalty < $12.00 per unit, then: Premium Royalty = $12.00 × Units Sold

Example:

NSP: $200.00 Material Cost: $75.00 Units Sold: 8,500 Premium Rate: 5.5% Technology Fee: $8.00

Calculated = [($200 - $75) × 5.5% + $8.00] × 8,500 = [($125 × 5.5%) + $8.00] × 8,500 = [$6.875 + $8.00] × 8,500 = $14.875 × 8,500 = $126,437.50

Since $14.875 > $12.00 minimum, use calculated amount Premium Royalty = $126,437.50

3.3 PROTOTYPE AND DEVELOPMENT ROYALTY FORMULA

For pre-production and prototype runs using Licensed Technology:

Development Royalty = Development Fee + (Engineering Hours × Hourly Rate)

Where:

- Development Fee: $15,000 per unique component design
- Engineering Hours: Licensee's engineering time using Licensed Technology
- Hourly Rate: $85.00 per hour

Cap: Maximum $75,000 per prototype series

Production Transition: Once prototype moves to production (>100 units):

- Switch to Standard Formula (Section 3.1)
- Development royalties previously paid credited against first 2 quarters of production royalties

3.4 CONTRACT MANUFACTURING FORMULA

When Licensee uses third-party contract manufacturers:

CM Royalty = (CM Invoice Amount × CM Rate) + (Units Produced × Per-Unit Surcharge)

Where:

- CM Rate: 2.0% of total contract manufacturing invoice
- Per-Unit Surcharge: $1.25 per unit
- CM Invoice Amount: Total amount paid to contract manufacturer

Additional Requirements:

- Contract manufacturer must sign Technology Access Agreement
- Licensee remains primarily liable for all royalty payments
- Quarterly reporting must separately identify CM production

3.5 MINIMUM QUARTERLY ROYALTY OBLIGATIONS

Regardless of formula calculations, Licensee must pay minimum quarterly amounts:

Contract Year Q1 Min Q2 Min Q3 Min Q4 Min Annual Total Year 1 (2024) $75,000 $75,000 $85,000 $100,000 $335,000 Year 2 (2025) $100,000 $100,000 $115,000 $135,000 $450,000 Year 3 (2026) $125,000 $125,000 $145,000 $170,000 $565,000 Year 4 (2027) $150,000 $150,000 $175,000 $200,000 $675,000 Year 5 (2028) $175,000 $175,000 $200,000 $225,000 $775,000 Year 6 (2029) $190,000 $190,000 $215,000 $240,000 $835,000 Year 7 (2030) $200,000 $200,000 $225,000 $250,000 $875,000

Minimum Guarantee Application:

Quarterly Payment = MAX(Calculated Royalty, Minimum Guarantee)

Excess Royalty Credit:

- If Calculated Royalty > Minimum Guarantee, excess may offset future minimums within same Contract Year
- Excess does not carry to subsequent Contract Years
- Annual reconciliation required per Article 5

3.6 ANNUAL PRODUCTION BONUS FORMULA

Bonus payments for achieving annual production milestones:

Production Bonus = Base Bonus + (Excess Units × Bonus Rate)

Milestone Schedule:

Annual Production Threshold Base Bonus Excess Rate Calculation 250,000 units $50,000 $0.15/unit Base + (units above 250k × $0.15) 500,000 units $125,000 $0.12/unit Base + (units above 500k × $0.12) 750,000 units $225,000 $0.10/unit Base + (units above 750k × $0.10) 1,000,000 units $350,000 $0.08/unit Base + (units above 1M × $0.08)

Note: Bonuses are NON-cumulative. Only the highest achieved threshold applies.

Example:

Annual Production: 825,000 units Applicable Threshold: 750,000 units Base Bonus: $225,000 Excess Units: 825,000 - 750,000 = 75,000 Excess Payment: 75,000 × $0.10 = $7,500 Total Bonus: $225,000 + $7,500 = $232,500

3.7 QUALITY PERFORMANCE ADJUSTMENT FORMULA

Royalty adjustment based on product quality metrics:

Quality Adjustment = Quarterly Royalty × Quality Factor

Quality Factor Determination:

Defect Rate (per 10,000 units) Quality Factor Effect 0 - 10 defects +2.5% Royalty credit 11 - 25 defects 0% No adjustment 26 - 50 defects +1.5% Royalty increase 51 - 100 defects +3.0% Royalty increase Over 100 defects +5.0% Royalty increase

Quality Credit Example:

Quarterly Royalty: $1,042,750 Defect Rate: 8 per 10,000 units Quality Factor: -2.5% Quality Credit: $1,042,750 × 2.5% = $26,069 Adjusted Royalty: $1,042,750 - $26,069 = $1,016,681

Quality Surcharge Example:

Quarterly Royalty: $850,000 Defect Rate: 75 per 10,000 units Quality Factor: +3.0% Quality Surcharge: $850,000 × 3.0% = $25,500 Adjusted Royalty: $850,000 + $25,500 = $875,500

ARTICLE 4: SPECIALIZED CALCULATION SCENARIOS

4.1 NEW PRODUCT LAUNCH FORMULA

First 12 months of new Licensed Product introduction:

Launch Royalty = Reduced Rate Formula + Launch Fee

Where:

- All percentage rates reduced by 35% (e.g., 3.5% becomes 2.275%)
- All per-unit fees reduced by 30%
- Launch Fee: $25,000 per SKU (one-time, paid upon first production)

Transition: After 12 months, standard formulas apply

4.2 TECHNOLOGY IMPROVEMENT ROYALTY

If Licensee implements Licensor's technology improvements/upgrades:

Improvement Royalty = Standard Royalty × Improvement Factor

Improvement Factor: 1.15 (15% increase for improved technology)

Duration: Applied for 24 months after improvement implementation

Cap: Improvement factor applies to maximum 40% of production volume

4.3 EXPORT SALES FORMULA

For Licensed Products sold outside North America:

Export Royalty = (NSP × Export Rate) + (Shipping Value × Logistics Rate)

Where:

- Export Rate: 4.0% (flat rate, no tiers)
- Logistics Rate: 0.5% of international shipping/insurance costs
- Minimum: $5.00 per unit exported

4.4 MATERIAL COST ESCALATION ADJUSTMENT

If direct material costs increase >10% year-over-year:

Adjusted AMC = AMC × (1 + Material Escalation Factor)

Where:

Material Escalation Factor = (Current Material Cost - Baseline Material Cost) / Baseline Material Cost

Impact: Increases Cost Savings, thereby increasing Performance Component

Frequency: Reviewed annually, adjusted quarterly if triggered

ARTICLE 5: CALCULATION PROCEDURES AND REPORTING

5.1 Quarterly Calculation Process

Within 30 days after quarter end, Licensee shall:

Step 1: Compile Production Data

- Total Units Produced by product type
- Total Units Sold with NSP calculations
- Manufacturing costs (SMC and AMC documentation)
- Defect rates and quality metrics

Step 2: Execute Formula Calculations

- Calculate Base Component per Section 3.1.1
- Calculate Volume Component per Section 3.1.2
- Calculate Performance Component per Section 3.1.3
- Apply any specialized formulas (Sections 3.2-3.4, 4.1-4.4)

Step 3: Apply Adjustments

- Quality Performance Adjustment per Section 3.7
- Compare to Minimum Guarantee per Section 3.5
- Apply any excess royalty credits from prior quarters

Step 4: Prepare Royalty Report

- Detailed calculation worksheets
- Supporting documentation for all inputs
- Reconciliation to minimum guarantee
- Summary payment due

5.2 Required Documentation

Each quarterly report must include:

Production Documentation:

- Manufacturing run sheets showing units produced
- Quality control reports with defect rates
- Inventory reports (beginning, ending, units sold)

Financial Documentation:

- Standard cost breakdowns (SMC calculation)
- Actual cost data (AMC calculation)
- Sales invoices summary by product/territory
- NSP calculation details with deduction support

Formula Calculation Worksheets:

- Base Component detailed calculation
- Volume Component tier application
- Performance Component cost savings analysis
- Premium Product separate calculations
- Quality Adjustment calculation

Spreadsheet Format:

- Provided in Excel format with formulas visible
- PDF version for official record
- Certified by CFO or Controller

5.3 Annual Reconciliation

Within 60 days after Contract Year end:

Annual True-Up Calculation:

Annual True-Up = (Actual Annual Royalties) - (Sum of Quarterly Payments) + Production Bonus (if applicable) - Carryforward Credits Applied

Reconciliation Components:

- Verification of tiered rate applications
- Confirmation of minimum guarantee vs. actual
- Production Bonus calculation
- Quality adjustment annual summary

- Material cost escalation review

5.4 Formula Input Verification

Standard Manufacturing Cost (SMC) Audit:

- Licensor may request independent verification
- Must use Licensee's standard cost accounting methodology
- Engineering standards for labor hours
- Overhead rate justification

Actual Manufacturing Cost (AMC) Documentation:

- Job cost reports from manufacturing system
- Material requisitions and usage reports
- Actual labor hours and rates
- Applied overhead calculations

Cost Savings Verification:

- Side-by-side comparison of SMC vs. AMC
- Analysis must isolate Licensed Technology impact
- Exclusions for unrelated cost variations

ARTICLE 6: PAYMENT TERMS

6.1 Payment Due Dates

Quarterly royalties due:

- Q1 (Jan-Mar): Payment due April 30
- Q2 (Apr-Jun): Payment due July 31
- Q3 (Jul-Sep): Payment due October 31
- Q4 (Oct-Dec): Payment due January 31

Annual reconciliation payment/credit due within 15 days of annual report acceptance.

6.2 Payment Calculation Summary Format

Each payment shall include summary:

ROYALTY PAYMENT SUMMARY - Q[X] [YEAR]

STANDARD PRODUCTS: Base Component: $XXX,XXX Volume Component: $XXX,XXX Performance Component: $XXX,XXX Quality Adjustment: $(X,XXX) or $X,XXX Subtotal Standard: $XXX,XXX

PREMIUM PRODUCTS: Premium Formula Calculation: $XX,XXX Minimum Check ($12/unit): Pass/Applied Subtotal Premium: $XX,XXX

CONTRACT MANUFACTURING: CM Royalty: $XX,XXX

TOTAL CALCULATED ROYALTY: $X,XXX,XXX Minimum Guarantee: $XXX,XXX Greater Amount: $X,XXX,XXX

Less: Carryforward Credit: $(XX,XXX) AMOUNT DUE: $X,XXX,XXX

6.3 Late Payment

Late Payment Formula:

Late Fee = Amount Due × (Monthly Rate × Months Late) + Fixed Penalty

Where:

- Monthly Rate: 1.5% per month (18% APR)
- Fixed Penalty: $2,500 after 15 days, additional $1,000 each subsequent 15 days

6.4 Wire Transfer Instructions

Payment via wire to:

Bank: PNC Bank, N.A. Routing: 043000096 Account: 8234567890 Account Name: Precision Manufacturing Technologies LLC Reference: Agreement MTL-2024-VM-085 Q[X]-[YEAR]

ARTICLE 7: MILESTONE PAYMENTS

7.1 Production Milestone Payments

One-time payments upon achieving cumulative production:

Cumulative Production Milestone Payment Due First 50,000 units $75,000 30 days after milestone First 250,000 units $125,000 30 days after milestone First 500,000 units $200,000 30 days after milestone First 1,000,000 units $350,000 30 days after milestone

7.2 Facility Certification Milestone

Upon completion of technology transfer to secondary facility:

- Payment: $100,000
- Due: Within 30 days of Licensor certification

7.3 Product Qualification Milestones

For each major customer qualifying Licensed Products:

Customer Type Qualification Payment Tier 1 Automotive OEM $50,000 Aerospace Prime Contractor $75,000 Industrial Equipment Manufacturer $35,000

Maximum: $500,000 cumulative across all customers over contract term

ARTICLE 8: AUDIT RIGHTS

8.1 Formula Verification Audits

Licensor may audit quarterly with 45 days notice:

Audit Scope:

- Verification of production volumes
- Validation of cost data (SMC and AMC)
- Confirmation of NSP calculations
- Review of quality metrics
- Testing of formula application accuracy

Audit Duration: Up to 5 business days on-site

8.2 Cost of Audit

- Licensor bears audit costs if discrepancy <3%
- Licensee pays audit costs if discrepancy ≥3%
- If underpayment >5%, Licensee pays 25% penalty on shortfall

8.3 Disputed Calculations

If parties cannot agree on formula inputs or calculation methods:

- Independent industrial engineering firm appointed
- Firm determines appropriate values
- Each party pays 50% of independent firm costs
- Decision binding on both parties

ARTICLE 9: TERM AND TERMINATION

Initial Term: 7 years from Effective Date

Renewal: Automatic 3-year renewals unless 180 days notice

Early Termination:

- By Licensee: 24 months notice + termination fee equal to 12 months minimum guarantees
- For cause: Material breach with 90-day cure period

ARTICLE 10: TECHNOLOGY TRANSFER AND TRAINING

10.1 Initial Technology Transfer

Licensor shall provide:

- 4 weeks on-site training at Licensee facility
- Process documentation and specifications
- Quality control procedures
- Troubleshooting guides

Cost: Included in Year 1 minimum guarantees

10.2 Secondary Facility Transfer

For Louisville facility:

- 2 weeks on-site training
- Process validation support
- Certification audit
- Additional Fee: $50,000 (beyond royalty obligations)

ARTICLE 11: CONFIDENTIALITY

Both parties agree to maintain confidentiality of:

- Licensed Technology specifications
- Manufacturing processes and parameters
- Cost data and royalty calculations
- Production volumes and customer information

Duration: Through term plus 5 years after termination

ARTICLE 12: INTELLECTUAL PROPERTY

12.1 Ownership

Licensor retains all rights to Licensed Technology.

12.2 Improvements

Process Improvements by Licensee:

- If specific to Licensed Technology: Joint ownership, cross-license
- If improvement can be used independently: Licensee ownership with right of first refusal to Licensor

Technology Improvements by Licensor:

- Licensor ownership
- Licensee has right to adopt improvements per Section 4.2
- Adoption triggers Improvement Royalty formula

ARTICLE 13: WARRANTIES AND LIABILITY

13.1 Licensor Warranties

- Authority to grant license
- Licensed Technology does not infringe third-party rights
- Technology specifications are accurate

13.2 Licensee Warranties

- Qualified manufacturing capabilities
- Will maintain quality standards
- Will comply with all applicable laws and regulations

13.3 Limitation of Liability

Neither party liable for consequential damages except for:

- Breach of confidentiality
- Intellectual property infringement
- Willful misconduct

ARTICLE 14: GENERAL PROVISIONS

Governing Law: State of Pennsylvania

Dispute Resolution:

1. Good faith negotiation (30 days)
2. Mediation in Pittsburgh, PA (60 days)
3. Binding arbitration under AAA Commercial Rules

Notices: As specified in Article 15

Assignment: Prohibited without consent, except to successor entity

Force Majeure: Extends deadlines but does not reduce royalty obligations

ARTICLE 15: NOTICES

For Licensor: Chief Operating Officer Precision Manufacturing Technologies LLC 850 Technology Boulevard Pittsburgh, PA 15219 Email: licensing@precisionmfgtech.com

For Licensee: Chief Financial Officer VonMech Industries, Inc. 4200 Industrial Drive Cleveland, OH 44113 Email: finance@vonmech.com

SIGNATURES

LICENSOR:

Precision Manufacturing Technologies LLC

By: _____ Name: David R. Patterson Title: President & CEO Date: January 1, 2024

LICENSEE:

VonMech Industries, Inc.

By: _____ Name: Jennifer L. Martinez Title: President & COO Date: January 1, 2024

APPENDIX A: STANDARD MANUFACTURING COST (SMC) BASELINE

Reference Component: Industrial Valve Housing (Part # IVH-1000)

SMC Calculation (Without Licensed Technology):

Direct Materials:

- Steel alloy casting blank $18.50
- Fasteners and fittings $3.25
- Seals and gaskets $2.75 Total Direct Materials: $24.50

Direct Labor:

- Machining operations (2.5 hrs) $62.50 (at $25/hr)
- Finishing operations (0.75 hrs) $18.75 (at $25/hr)
- Assembly (0.5 hrs) $12.50 (at $25/hr) Total Direct Labor: $93.75

Manufacturing Overhead (150% of labor): $140.63

STANDARD MANUFACTURING COST: $258.88 per unit

AMC Calculation (With Licensed Technology):

Direct Materials:

- Advanced alloy casting $22.00
- Fasteners and fittings $3.25
- High-performance seals $4.50 Total Direct Materials: $29.75

Direct Labor:

- Precision machining (1.5 hrs) $37.50
- Automated finishing (0.25 hrs) $6.25
- Assembly (0.4 hrs) $10.00 Total Direct Labor: $53.75

Manufacturing Overhead (150% of labor): $80.63

ACTUAL MANUFACTURING COST: $164.13 per unit

COST SAVINGS PER UNIT: $94.75

APPENDIX B: LICENSED PRODUCTS CATALOG

Standard Products:

1. Industrial Valve Housings (IVH Series)
2. Precision-Machined Shafts (PMS Series)
3. Bearing Assemblies (BA Series)
4. Connector Blocks (CB Series)

Premium Products:

1. High-Performance Valve Systems (HPVS Series)
2. Aerospace-Grade Components (AGC Series)

Product Classification Matrix:

- Standard: NSP typically $120-$180 per unit
- Premium: NSP typically $180-$300 per unit

APPENDIX C: QUALITY METRICS DEFINITIONS

Defect Rate Calculation:

Defect Rate = (Total Defects Identified / Total Units Produced) × 10,000

Defect Categories:

- Dimensional non-conformance
- Surface finish defects
- Material defects
- Assembly errors

Measurement Period: Quarterly rolling average

APPENDIX D: SAMPLE QUARTERLY ROYALTY CALCULATION

Q2 2024 Example - Complete Calculation

PRODUCTION DATA:

- Standard Products Produced: 95,000 units
- Standard Products Sold: 92,000 units
- Premium Products Produced: 8,500 units
- Premium Products Sold: 8,500 units
- CM Production: 12,000 units
- Average NSP (Standard): $150.00

- Average NSP (Premium): $220.00
- SMC: $258.88
- AMC: $164.13
- Defect Rate: 8 per 10,000 units
- CM Invoice Total: $1,850,000

STANDARD PRODUCTS CALCULATION:

Base Component:

Cumulative annual production: 175,000 units Marginal tier application:

- First 50,000 sold × $150 × 3.5% = $262,500
- Next 42,000 sold × $150 × 3.0% = $189,000 Base Component = $451,500

Volume Component:

95,000 units quarterly production Tier calculation:

- 15,000 × $2.50 = $37,500
- 25,000 × $2.25 = $56,250
- 40,000 × $2.00 = $80,000
- 15,000 × $1.75 = $26,250 Volume Component = $200,000

Performance Component:

Cost Savings = $258.88 - $164.13 = $94.75 per unit Performance = $94.75 × 0.25 × 95,000 = $2,250,781

Quality Adjustment:

Defect rate = 8 per 10,000 (excellent performance) Quality credit = -2.5% Subtotal = $451,500 + $200,000 + $2,250,781 = $2,902,281 Credit = $2,902,281 × 2.5% = $72,557 Adjusted Standard = $2,829,724

PREMIUM PRODUCTS CALCULATION:

NSP = $220.00 Material Cost = $85.00 Technology Fee = $8.00 Premium Rate = 5.5%

Calculation = [($220 - $85) × 5.5% + $8.00] × 8,500 = [$135 × 5.5% + $8.00] × 8,500 = [$7.425 + $8.00] × 8,500 = $15.425 × 8,500 = $131,113

Minimum check: $15.425 > $12.00 ✓ Premium Royalty = $131,113

CONTRACT MANUFACTURING CALCULATION:

CM Invoice: $1,850,000 CM Rate: 2.0% Per-Unit Surcharge: $1.25 Units: 12,000

CM Royalty = ($1,850,000 × 2.0%) + (12,000 × $1.25) = $37,000 + $15,000 = $52,000

TOTAL QUARTERLY CALCULATION:

Standard Products: $2,829,724 Premium Products: $131,113 Contract Manufacturing: $52,000
———————————————————————— TOTAL CALCULATED ROYALTY: $3,012,837

Q2 2025 Minimum Guarantee: $100,000 Payment Due (greater of): $3,012,837

Excess over minimum: $2,912,837 (Available for Q3/Q4 offset if needed)

END OF AGREEMENT