



# IMPORT QUANTITY RATIONALE: 24,000 KG GRAPHITE BLOCK

Strategic Material Acquisition  
for Hydrogen Fuel Cell &  
Automotive Manufacturing

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**ENTITY:** Hankook Precision  
Machining

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**DATE:** February 2026

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**REF PO:** KFC-260105-01

# EXECUTIVE SUMMARY: THE LOGIC OF NECESSITY

## VERIFIED IDENTITY

Importer is  
Importer is Hankook  
Precision Machining.  
We are a  
specialized  
manufacturer for  
Hydrogen and  
Automotive sectors,  
not a trading shell.

## THE CATALYST

**284%**  
**284% YoY  
Revenue Growth.**  
Driven by vertical  
demand in  
Hydrogen Fuel Cell  
Components  
(PEMFC Bipolar  
Plates).

## THE CALCULATION

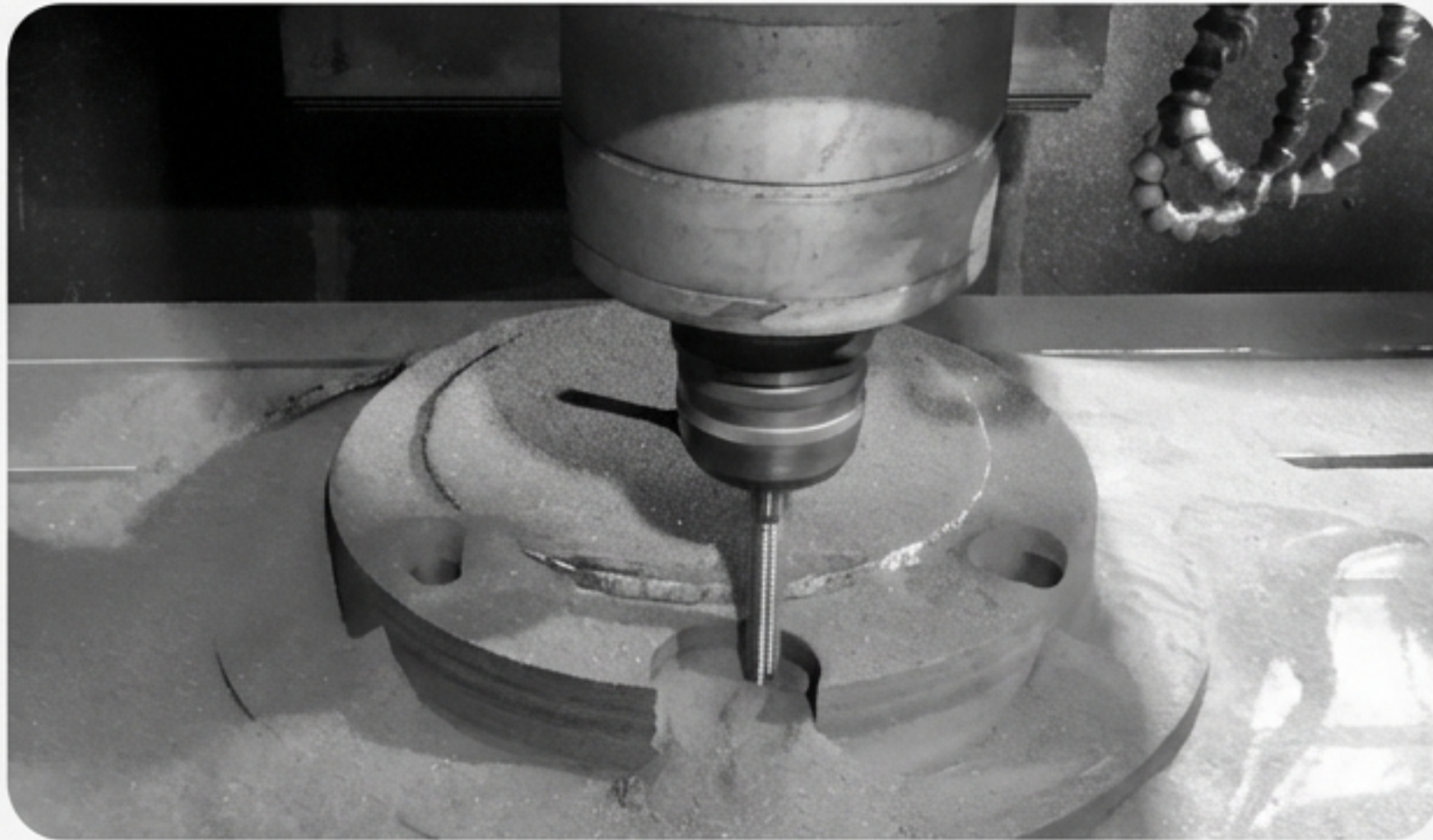
**Yield Rate Logic.**  
24 tons is the  
calculated input  
mass required to  
yield **~50,000**  
finished  
units after  
subtractive  
machining loss.

## TIMELINE

Strategic Batch.  
The entire shipment  
is allocated for  
Q1-Q2 2026  
production and  
will be consumed  
within **3 months.**

# OPERATIONAL CAPABILITY & INFRASTRUCTURE

## Hybrid Production Model: Internal Capacity + Strategic Ecosystem



### INTERNAL FACILITIES.

Operating 24/7 rotation at 100% capacity.  
Owned and operated by Hankook Precision Machining and partners.




### STRATEGIC OUTSOURCING.

Verified ecosystem of external machining partners established to handle overflow volume and mitigate domestic labor shortages.

JetBrains Mono

DOC REF: HKPM-TECH-BRIEF-2024-ES-Q4 / REV 1.2

**NOTE: Import limits must be evaluated based on total supply chain throughput, not solely on internal machine count** 

# BUSINESS PILLAR 1: AUTOMOTIVE & METAL

## AUTOMOTIVE SECTOR:

Manufacturing graphite molds for Aluminum EGR Valves.

**Client:** South Korea's largest EGR valve manufacturer.

**Application:** High-thermal stability precision casting.

## NON-FERROUS METAL SECTOR:

Manufacturing continuous casting mold dies.

**End-Clients:** Dongkuk Steel and Korea Zinc (Major domestic producers).



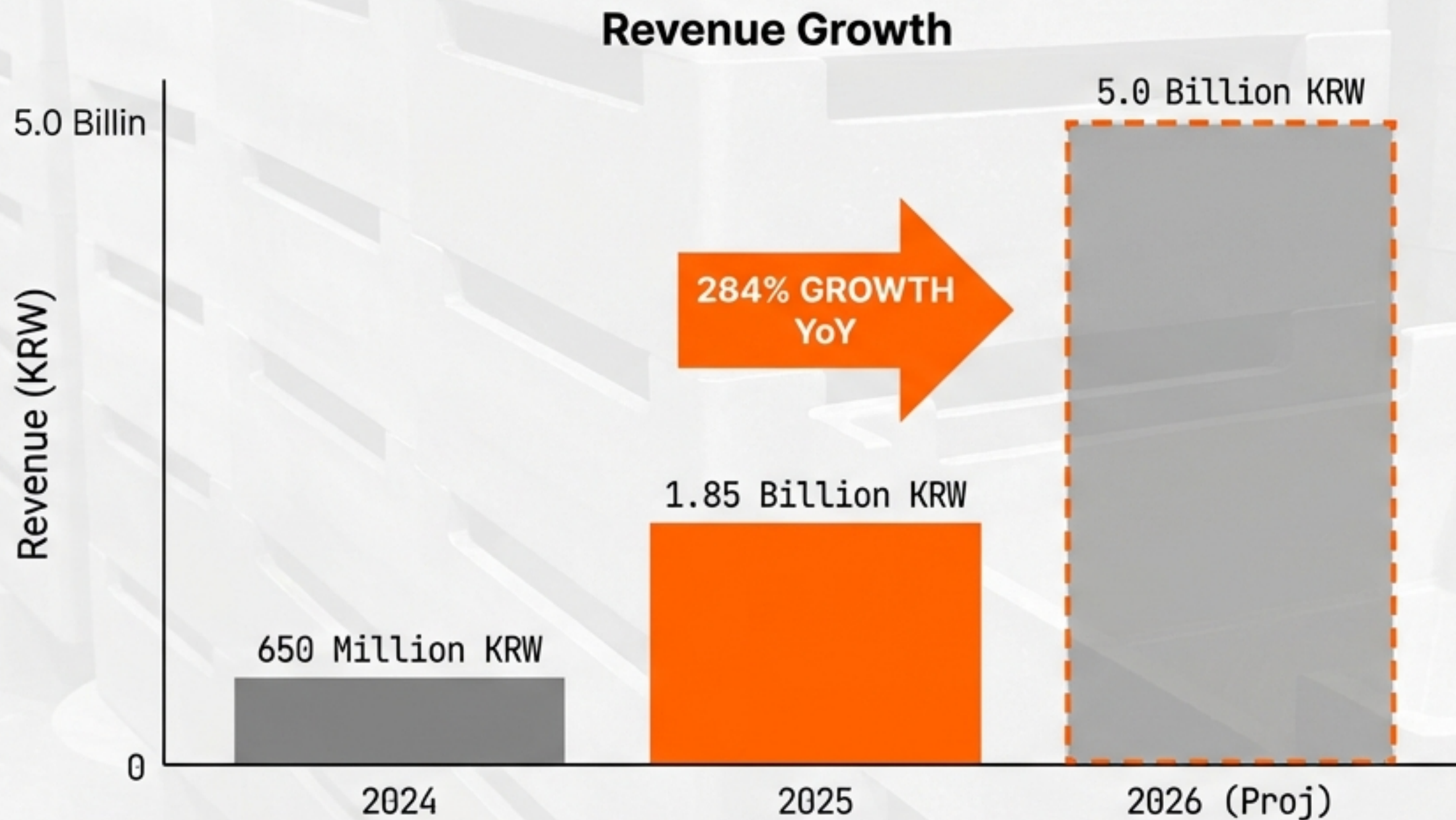
# BUSINESS PILLAR 2: THE GROWTH ENGINE (HYDROGEN)

Introducing the new demand driver.



- **FOCUS APPLICATION:** Graphite Bipolar Plates for PEMFC (Proton Exchange Membrane Fuel Cells).
- **END-USE:** Hydrogen Stacks for civilian energy and mobility.
- **MARKET CONTEXT:** Vertical surge in demand from major Korean PEMFC stack assembly companies. Shift from “Batch Ordering” to “Mass Production” procurement strategies.

# FINANCIAL TRAJECTORY: CORRELATING REVENUE TO MATERIAL DEMAND



The surge in raw material acquisition is a direct mathematical derivative of verified revenue growth.

# PRODUCTION VOLUME: PEMFC BIPOLAR PLATES

- **2024 ACTUAL:** ~2,400 plates (Prototyping).
- **2025 ACTUAL:** ~15,600 plates (Ramp-up).
- **2026 FORECAST:** Negotiating ~40,000+ plates for 1H alone.
- **PROJECT SCOPE:** Reference to 150,000 pcs/year target.

**CLOU De**  
영역: 영남 지역 제조업체의 견  
영남 코드: hankeek2148, 영남: De Clou

수신: 오승진 대표이사님  
귀하께 송부드립니다.  
유선으로 회신받은 K-Fuel Cell/양극층 확보 관련 견적을 하기와 같이 송부드립니다.

**개요**  
65500 Sheet 조립용 외장 Graphite bipolar Plate BFO  
- 150,000pcs / Year / 2 Style  
- Total 2 Year project : 300,000pcs of bipolar Plate.

**항목 설명**  
Biouter Plate의 사이즈는 4인치25인치 납땜용 제품입니다. 1인치 15인치 (15인치)  
양극 기판인 Plate 1pc와 양극 기판인 Plate 1pc 3종으로 1Set 구성 됩니다.

**고객사 Target**  
KRW 60,000/Set  
(본 Target은 현행적으로 매우 불가능해 보입니다. 이를 고객사에게 전달)

**Quote**  
- KRW79,800\$ / Set  
- KRW47,880\$ / 양극기판  
- KRW31,920\$ / 양극기판

**Condition**  
월 생산량 20%는 한국에서 제조 물량으로 상시 구비한다.  
기타 기판에 필요한 세척 사항은 추후 조망된다.

이성형(IE),  
확시 할때만 내용과 상이하거나, 누락된 점 있으시면 연락 주시면 감사하겠습니다.  
신상훈 드림

Verified RFQ: 150,000 units/year project scope.

# MATERIAL YIELD CALCULATION: WHY 24 TONS?

## SUBTRACTIVE MANUFACTURING PROCESS


$$\left[ 24,000 \text{ KG RAW BLOCK} \right] - \left[ \text{HIGH-PRECISION MILLING LOSS} \right] = \left[ \sim 50,000 \text{ FINISHED PLATES} \right]$$

**TECHNICAL CONTEXT:** Bipolar plate manufacturing requires complex channel milling. This subtractive process removes a significant percentage of the original block's mass.

**CONCLUSION:** The requested import volume is not for stockpiling; it matches the strict material yield required for the verified 1H 2026 production schedule.

# CONSUMPTION SCHEDULE & INVENTORY STRATEGY

**CONSUMPTION RATE:** The 24-ton shipment is projected to be fully consumed within 3 months.

**INVENTORY RATIONALE:** Safety stock is mandatory to prevent line stoppages during 24/7 operations.

**Current vertical demand spikes** require immediate on-hand raw material availability.

**FUTURE OUTLOOK:** Anticipating additional shipments in Q3 2026 to meet year-end targets.



# END-USE CERTIFICATION & COMPLIANCE



## 1. CIVILIAN APPLICATION ONLY

All imported materials are strictly allocated for:

- 1) Hydrogen Fuel Cell Components (Green Energy), and
- 2) Automotive Manufacturing Parts (Commercial Vehicles).

## 2. NON-DIVERSION CLAUSE

Hankook Precision Machining certifies that no products will be diverted for military use or any prohibited applications.

## 3. TRACEABILITY

Production is tracked against Purchase Order KFC-260105-01 and is fully auditable.

# CONCLUSION & READINESS

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- Hankook Precision Machining is committed to supporting high-tech industrial production in South Korea.
- The requested 24,000 kg is a calculated, essential input for verified 2026 production targets.
- **STATUS:** Production lines active. Strategic partners aligned. Ready to receive shipment.