

# AI-04010 CMP Prep Interview Guide

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**Fil does not have Samsung Austin specific experiences but has many translatable experiences from Curtis Wright job, prepare him for an interview so that when difficult questions arises , he will be able to articulate on how to explain how he can be of good value to the CMP department technical team.**

- 1. Create a task list for Fil on what to read about CMP and semiconductor factory operations so that there is shock and awe at interview.**
- 2. List 22 interview questions and how to respond**

I reviewed Fil's resume. His strongest angle is **not pretending to be a Samsung veteran**; it is positioning himself as a **precision manufacturing technician who already understands the fundamental disciplines that make CMP successful: contamination control, micron-level precision, process discipline, equipment interaction, defect prevention, and engineering documentation.**

Fil's resume shows experience at Curtiss-Wright manufacturing precision components with micron-level tolerances, TIG welding, machining, blueprint interpretation, quality control, and contamination control. He also has prior Molex experience with micro-assembly, surface mount components, resistance testing, and epoxy processes.

The interview strategy:

**"I may not have Samsung CMP experience yet, but I have spent my career mastering the same foundation CMP depends on: precision, repeatability, process control, quality, and preventing defects."**

# Part 1 — Fil's CMP + Semiconductor Factory Preparation Study Plan

## Phase 1: Understand the Semiconductor Manufacturing Ecosystem (Day 1)

Goal: Walk into interview knowing the big picture.

Study:

### 1. Semiconductor manufacturing flow

Understand:

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graph TD; A[Silicon Wafer] --> B[Wafer Cleaning]; B --> C[Oxidation / Deposition]; C --> D[Lithography]; D --> E[Etching]; E --> F[Ion Implantation]; F --> G[ CMP]; G --> H[ Metrology Inspection]; H --> I[ Packaging];
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Key statement:

"CMP is a critical step because every layer must be planarized before the next photolithography step. A small defect can impact thousands of chips."

## Phase 2: Master CMP Fundamentals (Days 2-3)

Fil needs to understand:

## What is CMP?

Chemical Mechanical Planarization combines:

### Chemical action

- Slurry chemistry reacts with wafer material
- Removes material selectively

### Mechanical action

- Wafer presses against polishing pad
- Physical abrasion removes material

Simple explanation:

"CMP is like precision polishing, but at the nanometer scale. The goal is not just removing material; it is achieving uniformity across the entire wafer."

## Learn CMP vocabulary

Fil should know these terms:

| Term                   | Meaning                                       |
|------------------------|-----------------------------------------------|
| Wafer                  | Silicon disk containing semiconductor devices |
| Slurry                 | Chemical polishing mixture                    |
| Pad                    | Surface used to polish wafer                  |
| Carrier head           | Holds wafer during polishing                  |
| Downforce              | Pressure applied to wafer                     |
| Removal rate           | Material removed per minute                   |
| Uniformity             | Consistency across wafer                      |
| Defect density         | Number of defects                             |
| Particle contamination | Foreign material causing failures             |

| Term      | Meaning                     |
|-----------|-----------------------------|
| Metrology | Measurement after process   |
| SPC       | Statistical Process Control |
| Yield     | Percentage of good chips    |

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## Phase 3: Connect Curtiss-Wright Experience to CMP

Fil needs to translate his background.

### Curtiss-Wright → CMP Connection

#### Precision machining

Instead of:

"I worked on machines."

Say:

"My background has always required maintaining extremely tight tolerances. CMP requires the same mindset because small process variation creates defects."

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#### Blueprint interpretation

Say:

"I am experienced reading engineering drawings and converting specifications into repeatable manufacturing results."

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#### TIG welding

Say:

"TIG welding taught me heat control, patience, hand stability, and understanding how small variations affect final quality."

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## Contamination control

Say:

"In semiconductor manufacturing contamination is the enemy. My experience following strict procedures and maintaining clean work practices transfers directly."

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## Quality inspection

Say:

"I learned that quality cannot be inspected into a product. The process must be controlled from the beginning."

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# Phase 4: Learn Samsung Semiconductor Factory Culture

Fil should understand:

Samsung values:

## 1. Zero defects

Phrase:

"My goal is not just meeting production numbers. My goal is protecting yield."

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## 2. Equipment ownership

Phrase:

"A good technician does not just operate equipment. They understand abnormal conditions and prevent problems before they become failures."

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### 3. Team collaboration

CMP interacts with:

- Process engineers
  - Equipment engineers
  - Maintenance
  - Metrology
  - Manufacturing supervisors
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## Part 2 — 22 CMP Interview Questions and Strong Responses

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### 1. Tell me about yourself.

Answer:

"I have spent my career in precision manufacturing. At Curtiss-Wright I manufacture and modify precision components using machining equipment, TIG welding, and strict engineering specifications. Before that, I worked in micro-assembly at Molex where I handled electronic components and quality testing. Although I have not worked in Samsung CMP yet, my background has always been centered around precision, contamination control, repeatability, and zero-defect manufacturing. I believe those fundamentals translate strongly into CMP."

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### 2. You do not have semiconductor experience. Why should we hire you?

Answer:

"I understand CMP is a specialized process, but the foundation is the same. Semiconductor manufacturing requires discipline, following procedures, controlling variables, and protecting quality. Those are skills I have developed throughout my career. The CMP technical knowledge can be trained, but attention to detail and manufacturing discipline are developed through experience."

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### **3. What do you know about CMP?**

Answer:

"CMP stands for Chemical Mechanical Planarization. It combines chemical slurry and mechanical polishing to create a flat wafer surface. The reason it is critical is because semiconductor layers must be extremely flat before additional processing. Poor CMP performance affects defects and yield."

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### **4. Why is cleanliness important in semiconductor manufacturing?**

Answer:

"A tiny particle can create a defect on a semiconductor wafer. In precision manufacturing, contamination control protects the final product. I have experience following controlled procedures and maintaining clean work environments."

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### **5. Describe your experience with precision work.**

Answer:

"My current role requires machining and modifying components within very tight tolerances. I use drawings, measurements, and process discipline to

| ensure the final product meets specifications."

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## **6. Tell me about a time you caught a quality issue.**

Answer:

| "In manufacturing, I learned not to assume something is correct because it looks acceptable. I verify measurements against specifications. If something does not meet requirements, I stop and address the issue before continuing."

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## **7. How do you handle repetitive work?**

Answer:

| "Repetition is where discipline matters most. The challenge is maintaining the same quality on the 1,000th part as the first part."

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## **8. How do you respond when production pressure conflicts with quality?**

Answer:

| "Quality comes first because a defective product creates larger problems downstream. The best approach is communicating the issue quickly and working with the team to recover production safely."

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## **9. What experience do you have with equipment?**

Answer:

"I have operated machining equipment including lathes, saws, and welding equipment. I understand machine setup, monitoring conditions, and recognizing when something is outside normal operation."

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## **10. How do you troubleshoot equipment problems?**

Answer:

"First I identify symptoms, check process conditions, verify measurements, review documentation, and communicate with the appropriate team. I believe troubleshooting should be systematic, not based on guessing."

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## **11. What is SPC?**

Answer:

"Statistical Process Control is using data to monitor process stability and detect variation before it creates defects."

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## **12. How do you learn new technology?**

Answer:

"My career has required learning different machines, processes, and materials. My approach is studying documentation, learning from experienced people, and practicing until I understand the process."

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## **13. Describe your safety mindset.**

Answer:

"Safety is part of quality. A controlled process protects employees, equipment, and the product."

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## **14. How would you handle making a mistake?**

Answer:

"I would immediately report it, understand the cause, correct it, and learn how to prevent it from happening again."

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## **15. Why Samsung?**

Answer:

"Samsung is one of the world's leaders in semiconductor technology. I want to apply my precision manufacturing experience in an industry where quality and technology are extremely important."

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## **16. What makes a good manufacturing technician?**

Answer:

"Someone who understands the process, follows procedures, protects quality, communicates well, and takes ownership."

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## **17. How do you handle working with engineers?**

Answer:

"I respect engineering requirements because they define the process. My role is providing accurate feedback from the manufacturing floor."

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## **18. What does continuous improvement mean?**

Answer:

"Small improvements in process, organization, and communication can create large improvements in quality and efficiency."

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## **19. What would you do if you saw abnormal equipment behavior?**

Answer:

"I would not ignore it. I would follow procedures, document the condition, notify the correct people, and prevent possible defects."

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## **20. What is your biggest strength?**

Answer:

"Precision and patience. My background has trained me to focus on details because small mistakes can have large consequences."

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## **21. What is your weakness?**

Answer:

"Because I care about quality, sometimes I spend extra time verifying details. I have learned to balance precision with production requirements."

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## 22. Why should we select you over someone with semiconductor experience?

Answer:

"Someone may have semiconductor experience, but I bring years of proven precision manufacturing discipline. I understand controlling processes, protecting quality, following documentation, and working safely. I am confident I can learn CMP quickly because the manufacturing mindset is already part of who I am."

## Fil's Final Interview Message

He should memorize this:

"I am not coming from outside manufacturing. I am coming from precision manufacturing into semiconductor manufacturing. My career has always required controlling variables, protecting quality, following specifications, and producing reliable results. CMP is a new technology area for me, but the discipline required to succeed in CMP is the same discipline I have practiced my entire career."

This positioning converts his perceived weakness ("no Samsung experience") into a strength ("experienced precision manufacturing professional ready to transfer skills").

**Explain why Samsung hires ex-military for the factory in Austin. In 1998, most of the people hired were from US Army and US Navy even if we did not have semiconductor skills. How does a machinist or a precision welder compare to those people who undergoes boot camp training and served in rigorous environment like hardship tours or submarine.**

The reason Samsung Austin hired many former military personnel in the late 1990s was **not because they already knew semiconductor manufacturing**. It was because Samsung recognized that a semiconductor fab is essentially a **high-discipline operational environment**, and the military had already trained people in the behaviors needed to succeed.

A semiconductor factory is not just a factory. It is closer to a **controlled mission environment** where small mistakes can cost millions of dollars.

A person coming from the Army, Navy, or submarine service brought something that was extremely difficult to teach:

**discipline + procedural compliance + reliability under pressure.**

The semiconductor skills could be trained.

The mindset was harder to build.

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## Why Samsung Austin Valued Military Backgrounds

### 1. Semiconductor fabs require "follow the procedure exactly" behavior

In many manufacturing environments, an experienced worker may say:

| "I know a faster way to do this."

In a semiconductor fab, that attitude can destroy yield.

A wafer process may require:

- exact chemical concentration
- exact timing
- exact temperature
- exact sequence
- exact contamination controls

Military personnel already understood:

| "The procedure exists for a reason."

This is the same mentality used in:

- aircraft maintenance

- nuclear submarines
- weapons systems
- medical procedures

## Military Skill → Semiconductor Skill Translation

| Military Experience         | Semiconductor Equivalent             |
|-----------------------------|--------------------------------------|
| Following technical manuals | Following process specifications     |
| Equipment inspections       | Preventive maintenance checks        |
| Mission readiness           | Tool uptime and production readiness |
| Chain of command            | Escalation procedures                |
| After-action reviews        | Root cause analysis                  |
| Safety protocols            | ESD and contamination control        |
| Watch standing              | Equipment monitoring                 |
| Team coordination           | Fab operations                       |

## Why Submarine Personnel Were Especially Valuable

A submarine environment is one of the closest comparisons to a semiconductor fab.

A submarine sailor learns:

- attention to detail
- equipment monitoring
- strict cleanliness
- abnormal condition recognition
- teamwork under pressure

- controlled environments

A submarine cannot tolerate:

- ignoring alarms
- skipping procedures
- poor communication

Neither can a semiconductor fab.

A bad decision underwater can threaten lives.

A bad decision in a fab can destroy millions in wafers.

The consequence scale is different, but the **operational mindset is similar**.

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## How Does a Machinist or Precision Welder Compare?

A precision machinist or TIG welder actually has several advantages because they already understand the physical side of manufacturing.

A military person brings:

| "I can operate reliably inside a strict system."

A precision craftsman brings:

| "I understand how small physical variations create failure."

Samsung needs both.

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## Precision Welder/Machinist Translation to CMP

### 1. Micron-level thinking

A good TIG welder understands:

- heat input
- distortion
- material behavior
- consistency
- hand control

CMP requires understanding:

- wafer pressure
- surface uniformity
- material removal
- process variation

The common skill:

| Controlling tiny variables to produce repeatable results.

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## 2. Defect prevention mindset

A beginner thinks:

| "Can I make this part?"

An experienced precision worker thinks:

| "How do I make 10,000 identical parts without variation?"

That second mindset is what semiconductor manufacturing requires.

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## 3. Respect for specifications

A blueprint in machining is similar to a semiconductor process recipe.

Machining:

| "The hole must be within tolerance."

CMP:

| "The wafer surface must meet thickness uniformity requirements."

Both require:

- measurement
- documentation
- process control

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## Military vs Precision Manufacturing Background

A useful comparison:

| Attribute                | Military Veteran | Precision Machinist/Welder |
|--------------------------|------------------|----------------------------|
| Discipline               | Excellent        | Excellent                  |
| Procedure compliance     | Excellent        | Excellent                  |
| Safety culture           | Excellent        | Excellent                  |
| Working with equipment   | Depends on MOS   | Strong                     |
| Understanding materials  | Limited          | Strong                     |
| Understanding tolerances | Moderate         | Strong                     |
| Cleanroom experience     | Possible         | Possible                   |
| Process repeatability    | Strong           | Strong                     |
| Troubleshooting          | Strong           | Strong                     |

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## Why Someone Like Fil Can Be Competitive

Fil's background actually resembles the type of person Samsung historically looked for.

His resume demonstrates:

- precision component manufacturing

- micron-level tolerances
- machining
- TIG welding
- blueprint interpretation
- contamination control
- quality inspection
- micro-assembly experience

His Molex experience is particularly valuable because semiconductor manufacturing is much closer to microelectronics than traditional welding. He has experience with surface mount components, specialized connectors, resistance testing, and epoxy processes.

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## The Interview Story Fil Should Tell

If asked:

**"You don't have semiconductor experience. Why should we hire you?"**

A powerful answer:

"I understand that semiconductor manufacturing requires specialized knowledge, but I believe the foundation is the same. My career has been built around precision, contamination control, following specifications, and producing repeatable results. A military background teaches discipline and operating within strict procedures. Precision manufacturing teaches controlling physical variables and understanding how small deviations create defects. I bring that same mindset. I am not learning how to be disciplined — I already have that. I am learning a new technology."

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## The Bigger Picture

Samsung in Austin in the late 1990s was building a culture, not just filling positions.

They needed people who could be trained into semiconductor technicians.

They were not asking:

|"Who already knows semiconductors?"

They were asking:

|"Who has the discipline, reliability, and technical foundation to learn a process where mistakes are unacceptable?"

A submarine technician, Army mechanic, machinist, aerospace welder, or precision assembler all share the same core DNA:

**control the process, respect the equipment, protect the mission, and do it correctly every time.**

That is exactly the foundation CMP technicians need.

**Hypothetically, using the hiring index 0-10 (10 highest), what is Fil's chance of getting hired at Samsung Austin Semiconductor Taylor site with what his experience are, longevity of employment and also, I have friends who will interview him which I said that he passed my "offsite-Samsung retiree Master Tech" interview.**

This is a good hypothetical exercise because hiring decisions at a semiconductor fab are rarely based on **one variable** (semiconductor experience). They are usually a combination of:

- technical foundation
- manufacturing discipline
- reliability
- ability to learn
- attendance history
- safety mindset
- cultural fit
- interview performance
- internal recommendation

I will score Fil as if I were a Samsung Austin Semiconductor hiring manager evaluating him for a **CMP Equipment Technician / Manufacturing Technician / Fab Technician role** at the Taylor site.

**Important assumption:** This is not a guarantee of hiring. The actual decision depends on open positions, recruiter screening, compensation, background checks, and the interview panel.

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## Samsung Austin Semiconductor Taylor Site Hiring Index (0-10)

**Overall Estimated Hiring Score:**

**8.2 / 10**

Fil is not a "perfect semiconductor candidate," but he is a **very strong transferable manufacturing candidate**.

The biggest advantage:

Samsung can teach CMP. It cannot easily teach 10+ years of precision manufacturing discipline.

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## Scoring Breakdown

| Category                           | Weight | Score | Reason                                               |
|------------------------------------|--------|-------|------------------------------------------------------|
| Precision manufacturing background | 20%    | 9/10  | Strong machining + TIG + micron tolerance experience |
| Semiconductor relevance            | 20%    | 7/10  | No fab experience, but Molex micro-assembly helps    |
| Quality mindset                    | 15%    | 9/10  | Strong inspection/specification background           |

| Category                     | Weight | Score   | Reason                                  |
|------------------------------|--------|---------|-----------------------------------------|
| Equipment experience         | 15%    | 8/10    | Hands-on machines, troubleshooting      |
| Cleanroom/process discipline | 10%    | 7/10    | Some contamination control exposure     |
| Longevity/reliability        | 10%    | 10/10   | 8+ years Curtiss-Wright shows stability |
| Interview performance        | 10%    | Depends | Your preparation can raise this         |

Weighted:

≈ 8.2/10

## Why Fil's Longevity Matters More Than People Realize

Samsung fabs are expensive environments.

Training a technician requires:

- months of classroom training
- safety certification
- tool qualification
- process training
- shadowing experienced technicians

A candidate who changes jobs every 1-2 years is a risk.

Fil has:

### **Curtiss-Wright**

- 2017–Present

Approximately 8+ years.

That tells a hiring manager:

| "This person probably shows up, learns, stays, and becomes productive."

In manufacturing, that is extremely valuable.

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## The "Hidden Score": Your Samsung Retiree Endorsement

This is where Fil's score changes.

Without your connection:

**8.2/10**

With:

| "He passed my offsite-Samsung retiree Master Tech interview."

The perception changes.

Potentially:

## 9.0/10 interview confidence score

Why?

Because experienced semiconductor technicians recognize something HR cannot:

They know the difference between:

- someone who can talk
- someone who can survive fab life

A retired Samsung master technician endorsement signals:

| "This person has the mindset we need."

It does not replace the official interview, but it can influence the confidence level of the interviewer.

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## The Biggest Question Samsung Will Have

Not:

| "Can Fil learn CMP?"

They will assume he can.

The real question:

| "Will Fil adapt to the semiconductor environment?"

Meaning:

- Can he work 12-hour shifts?
- Can he follow hundreds of procedures?
- Can he handle constant monitoring?
- Can he accept that engineers own the process?
- Can he operate in a highly controlled environment?

His answer should address this.

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## How Fil Should Frame Himself

He should avoid saying:

✗ "I don't have semiconductor experience."

Instead:



| "My experience has always been in industries where precision and reliability are critical. At Curtiss-Wright, a small deviation can affect a precision component. In semiconductor manufacturing, a small deviation affects wafer yield. The scale is different, but the discipline is the same."

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## Compared to a New Military Hire

Let's compare Fil against a typical ex-military candidate.

## Ex-Military Candidate

Strengths:

- discipline
- procedures
- reliability
- teamwork

Weakness:

- may have limited precision manufacturing experience

Score:

**8/10**

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## Fil

Strengths:

- discipline
- manufacturing experience
- machining
- tolerances
- inspection
- micro-assembly
- electronics exposure

Weakness:

- no semiconductor fab experience

Score:

**8.2-9/10**

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# Compared to Someone From Intel/TSMC/Samsung Already

Experienced semiconductor technician:

Score:

**9.5-10/10**

But these candidates are not always available, and sometimes they have disadvantages:

- higher salary expectations
- less flexibility
- process habits from another company

A strong manufacturing candidate can sometimes be preferable.

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## The "Shock and Awe" Interview Moment

If Fil answers this question:

**"Why should Samsung hire you?"**

with:

"I understand Samsung can train me on CMP technology. What I bring already is the foundation that makes CMP successful: precision manufacturing discipline, respect for procedures, equipment ownership, contamination awareness, and the ability to produce repeatable results. My career has been about controlling variation. Semiconductor manufacturing is about controlling variation at an even smaller scale."

That answer sounds like someone who already understands fab culture.

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## My Final Hiring Estimate

| Scenario                                            | Hiring Index |
|-----------------------------------------------------|--------------|
| Resume only                                         | 7.5-8        |
| Resume + CMP preparation                            | 8.2-8.5      |
| Strong interview                                    | 8.8          |
| Your Samsung retiree endorsement + strong interview | 9.0          |
| Competing against internal Samsung/TSMC technician  | 6-7          |

My assessment:

**Fil is not a semiconductor candidate trying to enter manufacturing. He is a precision manufacturing technician trying to enter semiconductors. That is a much stronger position.**

His biggest asset is not welding or machining.

It is the statement a hiring manager wants to hear:

“Give me the process. I will master it, protect it, and improve it.”

**Write a letter an encouraging letter to Fil on our earlier conversation. Include my own CMP journey in 1998 when four of my fellow new hires at Samsung Fab1, 23 years of service, date of hire is July 21, 1998 and date of retirement of precisely July 21, 2021 built the CMP department from scratch which we learn Applied Materials Mirra CMP equipment with WindowsNT OS (a relic) . Before 1998, Samsung Fab1 did not have CMP. I came from AMD-CMP 1996-1998 and before that US Army 1992-1996. After 23.0000 years of service I retired and build procedures and troubleshooting guide for CMP to go by post my departure. I started as Tech 2 and reached the highest Marter Tech level with so many coworkers being trained and mentored along the 23 years corridor. Most of the people I trained or mentored are now supervisors in the CMP area.**

I revised the letter to make it more personal and mentor-like, incorporating your CMP journey as the foundation of encouragement. I framed your story not as "I succeeded, therefore you will," but as "I recognize the qualities that made me successful because I see them in you."

Dear Fil,

Before you walk into your Samsung Austin Semiconductor interview, I want you to understand something important:

You are not walking into Samsung as someone trying to convince them you belong. You are walking in as a precision manufacturing professional who already possesses many of the qualities that make semiconductor technicians successful.

I want to share my own journey because I believe there is a lesson that applies directly to your situation.

When I joined Samsung Austin Semiconductor Fab 1 on July 21, 1998, CMP did not even exist in the factory. Four other new hires and I were part of building the CMP department from the ground up. We were not experts in Samsung CMP because there was no Samsung CMP history to inherit. We had to learn, build, troubleshoot, document, and create the foundation ourselves.

We learned the Applied Materials Mirra CMP system — equipment that ran on what seems ancient today: Windows NT operating systems. We learned the tools, the processes, the failures, and the solutions one problem at a time.

My background before Samsung was not simply semiconductor. Before Samsung, I worked at AMD CMP from 1996 to 1998. Before AMD, I served in the US Army from 1992 to 1996. Each chapter gave me something that became valuable in semiconductor manufacturing:

The Army taught me discipline, teamwork, responsibility, and the importance of following procedures.

AMD CMP taught me the technical foundation of wafer processing.

Samsung taught me how to build, improve, and mentor within a world-class manufacturing environment.

I started at Samsung as a Technician 2. Over 23 years of service, I grew into the highest technical level of Master Technician. My journey was not just about operating equipment. It was about understanding the process deeply enough to teach others, solve difficult problems, and leave behind knowledge that would continue after I retired.

On July 21, 2021 — exactly 23.0000 years after my hire date — I retired from Samsung. Before leaving, I made sure the next generation had the tools to

succeed. I helped build procedures, troubleshooting guides, and technical documentation so the CMP team would continue improving after my departure.

One of the things that makes me proudest is seeing the people I trained and mentored grow. Many of the coworkers I helped develop are now supervisors and leaders in the CMP organization. That is the true measure of a technician — not only what you can do yourself, but how many people you can help become successful.

That is why I see potential in you, Fil.

Your situation reminds me of my own beginning.

You are not coming from a traditional semiconductor path, but neither did many successful Samsung technicians when the factory was growing. Samsung historically valued people who brought discipline, reliability, and technical ability because those qualities cannot simply be taught in a classroom.

Your career at Curtiss-Wright demonstrates the same foundation.

You have spent years working with precision components, machining, TIG welding, engineering drawings, quality requirements, and strict specifications. You understand that small variations can create large consequences. You understand that a process must be controlled and repeated consistently.

That is the same mindset required in semiconductor manufacturing.

A machinist understands tolerance.

A welder understands controlling variables.

A military person understands discipline.

A semiconductor technician combines all three.

Your Molex experience also gives you valuable exposure to the electronics side of manufacturing. Working with micro-assembly, specialized connectors, resistance testing, and sensitive components shows that you already understand careful handling and precision work.

When they ask you about your lack of semiconductor experience, do not apologize.

Instead, explain your value:

"I understand CMP is a specialized semiconductor process, and I am excited to learn it. However, I am not new to precision manufacturing. My career has been built around controlling variation, following procedures, protecting quality, and producing repeatable results. I believe the technical details of CMP can be learned because the discipline required for success is already part of my experience."

That answer shows maturity.

Samsung can teach someone how to operate a CMP tool.

Samsung cannot easily teach someone to care about the process, respect the equipment, recognize abnormal conditions, and take ownership.

Those qualities come from years of experience.

During my 23 years at Samsung, I learned that the best technicians are not always the ones who know everything on day one. They are the ones who are curious, dependable, humble enough to learn, and committed enough to master their craft.

That is the opportunity in front of you.

Walk into the interview confident but humble. Be ready to learn. Be ready to show them that your experience has prepared you for this environment.

Remember:

They can teach you CMP.

They cannot easily teach you the precision mindset, craftsmanship, and work ethic you have already developed.

I started in CMP when there was no roadmap.

We built the department.

You have the opportunity to become part of the next generation of Samsung technicians who will continue that tradition.

I believe your experience gives you a strong foundation. Now go show them the professional you already are.

Respectfully,

Rigel

I would also recommend Fil tell a **short 90-second version of this story during the interview**. Your CMP origin story is powerful because it directly answers the

hidden question Samsung has: *"Can this person grow into a semiconductor technician even without starting in a fab?"* You are living proof that the answer can be yes.

### **90-second version**

This is the **90-second interview version**. Fil should not memorize it word-for-word; he should understand the message and deliver it naturally.

"One thing I would like to share is that I understand the transition from a different manufacturing background into semiconductor manufacturing.

When I joined Samsung Austin Semiconductor Fab 1 on July 21, 1998, CMP was actually a new area for the factory. Before that time, Samsung Fab 1 did not have an established CMP department. A group of us came in and had to learn the process, equipment, and troubleshooting from the ground up.

We trained on Applied Materials Mirra CMP equipment, learned the process behavior, built troubleshooting knowledge, and helped create the procedures that future technicians would use.

My own background before Samsung was also not purely semiconductor. I came from the US Army, where I learned discipline, teamwork, and the importance of following procedures. Then I worked in AMD CMP, where I developed semiconductor process experience. At Samsung, I started as a Technician 2 and over 23 years progressed to the Master Technician level.

The most rewarding part of my career was not just operating equipment. It was mentoring people, developing troubleshooting guides, and helping the next generation of technicians become successful. Many of the people I trained are now supervisors in CMP.

The reason I share this is because I see a similar opportunity with someone like Fil. Semiconductor companies can teach the specific process and equipment, but they need people who already understand precision, quality, discipline, and ownership.

Fil's background in precision manufacturing, machining, TIG welding, micro-assembly, and strict quality requirements gives him that foundation. He already understands that small variations can create big problems.

CMP is a new technology area for him, but precision manufacturing is not new to him. The same mindset that creates a quality machined component is the mindset required to protect semiconductor yield.

I believe people with the right foundation can learn CMP, grow, and become valuable long-term members of the team."

**Delivery advice for Fil:**

- Do **not** open with "I don't have semiconductor experience."
- Open with: **"My background is precision manufacturing, and I understand the transition into semiconductor."**
- Mention your story only briefly; the purpose is not to promote your career but to establish credibility that **non-semiconductor backgrounds can become world-class CMP technicians.**
- The strongest sentence for him to remember:

"Samsung can teach me the CMP process. What I already bring is the discipline, precision mindset, and manufacturing experience required to protect the process."

This aligns Fil's story with Samsung's historical hiring philosophy: **hire the right foundation, then develop the semiconductor expertise.**