

BRUSH ENGINEERED MATERIALS INC

FORM 8-K (Current report filing)

Filed 8/22/2007 For Period Ending 8/22/2007

Address	17876 ST. CLAIR AVE. CLEVELAND, Ohio 44110
Telephone	216-383-4062
CIK	0001104657
Industry	Metal Mining
Sector	Basic Materials
Fiscal Year	12/31

Powered By **EDGAR**Online

<http://www.edgar-online.com/>

© Copyright 2006. All Rights Reserved.

Distribution and use of this document restricted under EDGAR Onlines Terms of Use.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) August 22, 2007

Brush Engineered Materials Inc.

(Exact name of registrant as specified in its charter)

Ohio

(State or other jurisdiction
of incorporation)

001-15885

(Commission File Number)

34-1919973

(IRS Employer
Identification No.)

17876 St. Clair Avenue, Cleveland, Ohio

(Address of principal executive offices)

44110

(Zip Code)

Registrant's telephone number, including area code

216-486-4200

Not Applicable

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
-
-

Item 7.01 Regulation FD Disclosure

On August 22, 2007, Management of Brush Engineered Materials Inc., an Ohio corporation (the “Company”), will make a presentation on Williams Advanced Materials Inc. A copy of the presentation is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

Exhibits:

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
99.1	Williams Advanced Materials Presentation

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Brush Engineered Materials Inc.

August 22, 2007

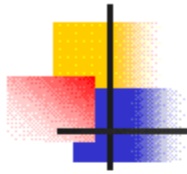
By: Michael C. Hasychak
Michael C. Hasychak
Vice President, Treasurer and Secretary



WAM Vision

- Globally Recognized High Quality/Technology Supplier of Products and Services for "State Of The Art", Emerging and Leading Edge Markets and Industries.
- Williams will Create a "Unique" Business Model with its Central Focus being to Relentlessly Strive for Product Differentiation through a Combination of Technology, Services and Quality, Providing "Remarkable" Solutions.
- Our Business Values and Corporate Integrity will be the Cornerstone of the way we relate to our Customers, Partners, Suppliers, the Communities we Reside and most Importantly our Employees.



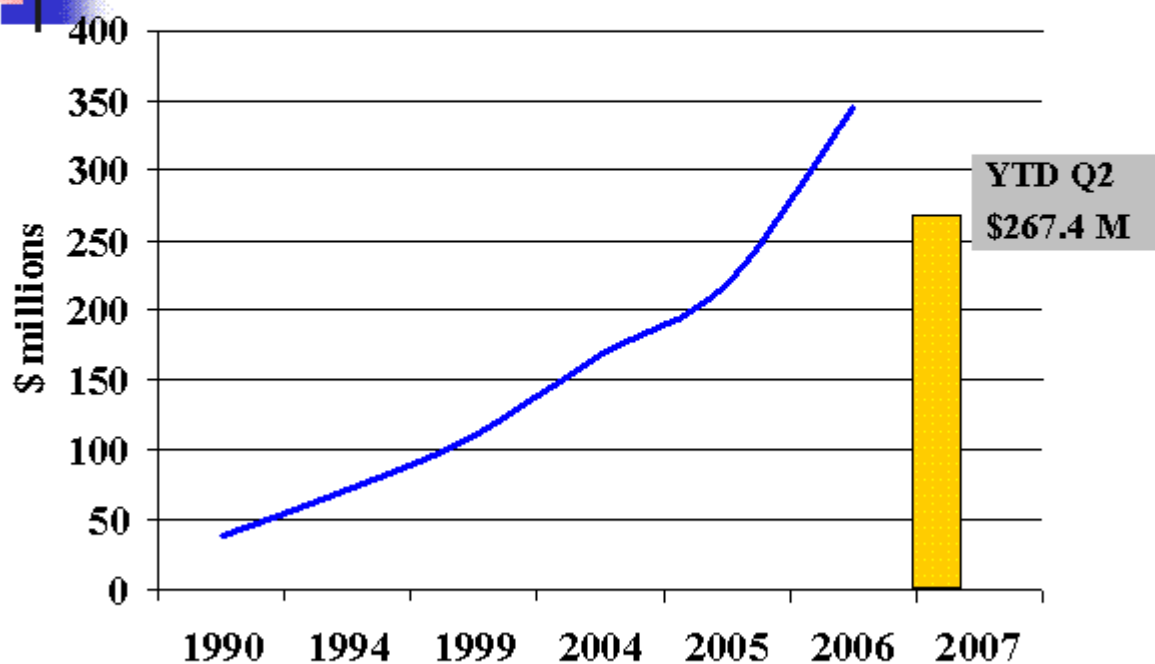


What We Do

Williams Advanced Materials develops, manufactures and markets materials and services of unique value for the Magnetic and Optical Data Storage, Wireless, Photonics, Semiconductor, Optics, Security, Hybrid Microelectronics and Performance Coating industries. We also support emerging technologies such as Photovoltaic, TFT/LCD, Memory, FCCL, Medical and Nanotechnology. Williams' products are primarily based on specialty metal products used in high reliability and performance applications.



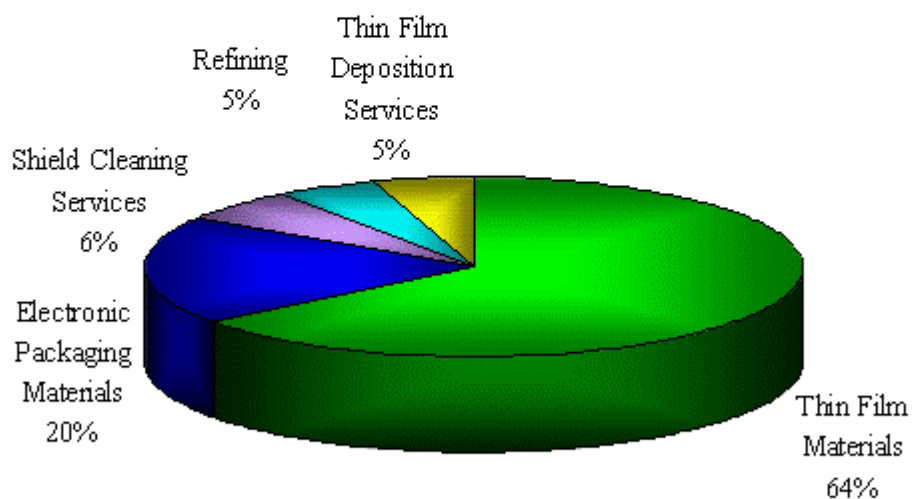
Sales History





Product Mix

Q2 - 2007





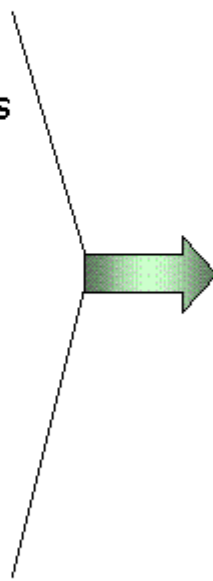
Thin Film Products

- **PVD Materials**

- Precious Metal Target Materials
- Non-Precious Metal, Cermets, Ceramics
 - Vacuum Induction Melting
 - Hot Pressing
 - Hot Isostatic Pressing
- EVAPro™ Evaporation Materials
- Localized Target Bonding

- **Chamber Services**

- Shield Cleaning and Conditioning
- PM Refining and Upgrading
- Logistics Support

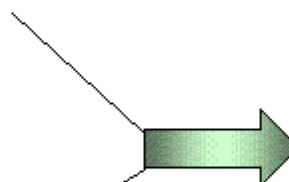


Buffalo
Brewster
Milwaukee
Wheatfield
Singapore
Taiwan
Santa Clara
Ireland
Suzhou,
China
Louny,
Czech



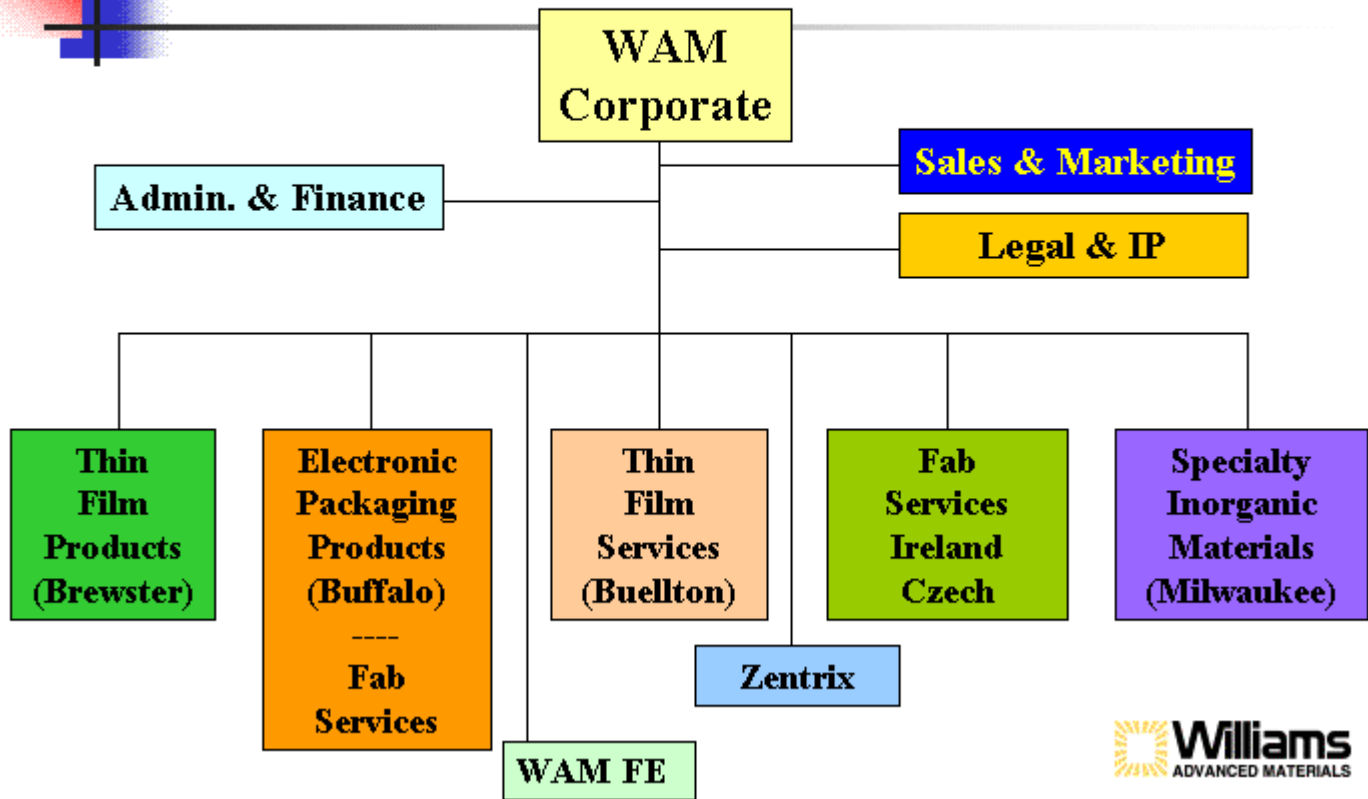
Packaging Materials

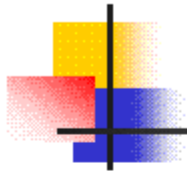
- FLA/Combo-Lid®
- Seam Seal/Microlid™
- Preforms
- Clad Materials
- Braze Materials
- Ni Alloys
- Dental
- Coating, Patterning and Visi-Lid™ (TFT)
- Packages (Zentrix)



Buffalo
Singapore
Wheatfield
Buellton
WAM
Taiwan
WAM
Philippines

Business Structure Today and Evolving





WAM Headquarters



Buffalo, NY USA - Manufacturing Facility

- 100,000 Sq. Ft. overall, 6,500 Sq. Ft. of cleanroom, state-of-the-art machining/milling/rolling/stamping/cladding centers, target bonding, hydrostatic wire extrusion, high purity refining/recycling, metals casting, automated plating, full analytical capabilities, product Research & Development.



Specialty Alloys Operations



- **Wheatfield, NY USA - *Williams Specialty Alloys***
 - 35,000 Sq. ft. with volume vacuum casting, rolling, annealing, powder atomizing, machining, and chamber services. 10 acres for expansion.



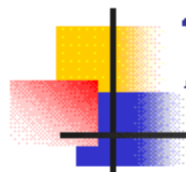
Williams-Thin Film Products Operations



■ **Brewster, NY USA –**

- 35,000 Sq. Ft. with vacuum melting, hot-pressing, milling, hot & cold rolling automated machining and target bonding capabilities.
- 35,000 Sq. ft. expansion completed April 2007.





Thin Film Technology (TFT)



■ **Buellton, CA**

- Thin film coating and substrate patterning.
- Visi-Lid™ supply chain management.
- Capabilities: Electron Beam Evaporation, DC/RF Magnetron Sputtering, Photolithography (Substrate Patterning), Dicing, Tooling design, In-House Machine shop.





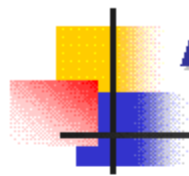
CERAC



■ Milwaukee, WI

- Subsidiary of WAM
- Physical Vapor Deposition (PVD) materials for ophthalmic, optic and performance applications
- Specialty Inorganic Materials
- Unique technologies in chemical and powder processing





European Operations



■ **Limerick, Ireland – OMC Scientific, Ltd.**

- Subsidiary of WAM
- Provides precision parts cleaning and reconditioning services for film Physical Vapor Deposition (PVD) customers in Europe.
- Unique technology applied to opportunities in North America and Asia.
- Efforts focused in the semiconductor, magnetic media and other technology based markets.





Czech Republic Operations



■ **Louny, Czech Republic – OMC Scientific, Ltd.**

- 20,000 Sq ft.
- Provides precision parts cleaning and reconditioning services for film Physical Vapor Deposition (PVD) customers in central and eastern Europe
- State-of-the-art cleaning, stripping and packaging operations
- Markets Serve: Semiconductor, Compound Semiconductor, UBM, MEMS, Data Storage



Far East Operations



Singapore - WAM Far East Pte.Ltd.

- Administrative Hdqtr, Target bonding, bonding wire production, Combo-Lids® assembly



Subic Bay, Philippines

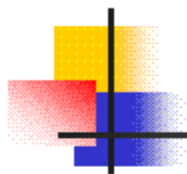
- Combo-Lids®, low-cost lids and preform - assembly, inspection and packaging



Taoyuan County, Taiwan - WAM Taiwan

- Target bonding, evaporation materials & bonding wire





Suzhou - China

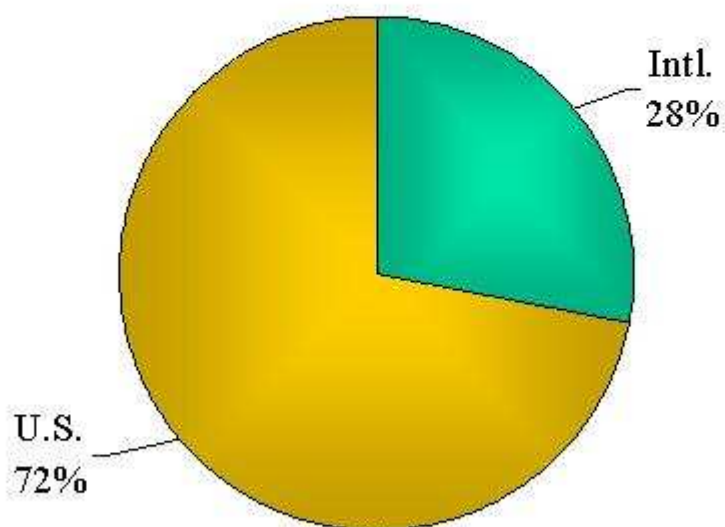


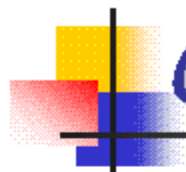
- **Suzhou, China**

- 20,000 Sq ft.
 - Target & Evaporation materials manufacturing, Target bonding services, Distribution, Warehousing, Sourcing, MgF manufacturing and packaging.
 - Located near Shanghai Airport and close to many technology centers located in Eastern China.
 - Markets Serve: Semiconductor, Compound Semiconductor, UBM, MEMS, Data Storage, Security and Optics.
-



International/Domestic Revenue - 2007





Global Service and Support

- **Regional Offices** (Sales and Applications Engineering support)

Buffalo, NY
Brewster, NY
Boston, MA
Tucson, AZ
Santa Clara, CA
Buellton, CA
Milwaukee, WI
Dallas, Texas

Tokyo, Japan
Taoyuan, Taiwan
Singapore
Manila, Philippines
London, England
Seoul, Korea
Limerick, Ireland
Shanghai, China

- **Representative**

Italy
Sweden

France
Israel

China
India

Germany



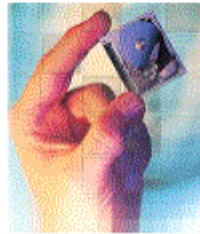
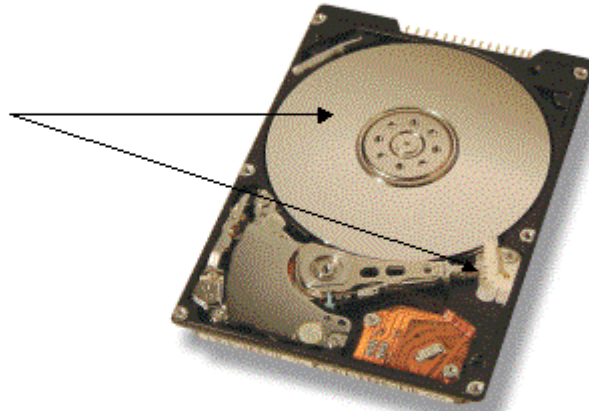


2007 Key Initiatives

- **China - Subsidiary** Geographic Expansion, Building, Licenses, Permits, etc.
- **Czech Republic Subsidiary** Chamber Services / Manufacturing / Warehousing
- **WAM - Brewster** Successful Facility Expansion/Media Materials
- **Wheatfield Expansion** Successful completion of Chamber Services move and expansion
- **R & D** Rapid Development Cell – R & D Accelerator

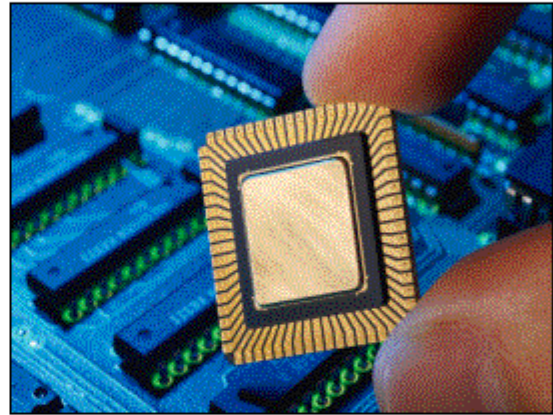
Key Markets – Magnetic Head and Media

- Thin film materials for both the read/write head and disc platter.
- Chamber Services complement materials offering.
- Applications growing into many commercial and mobile electronic products.



Key Markets – Semiconductor Packaging

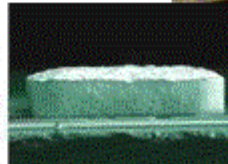
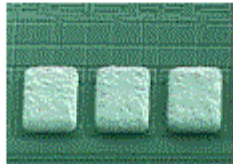
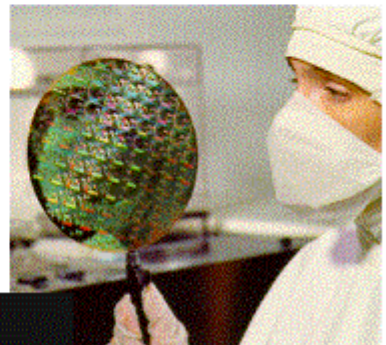
- High reliability semiconductor packaging materials.
- Applications focused in space, military and satellite market segments.



 **Williams**
ADVANCED MATERIALS

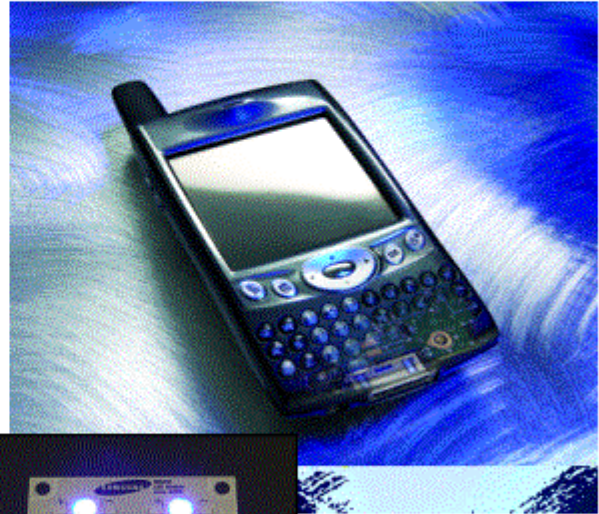
Key Markets – Semiconductor Wafer Fabrication

- Thin film materials and chamber services for silicon wafer and UBM (Under Bump Metallization) technologies.
- Numerous commercial and military microelectronic applications.



Key Markets – Wireless and Photonics

Thin Film and Packaging materials for varied wireless and photonic applications including RF Power Amplifiers, HBT's, SAW Devices, Light Emitting Diodes (LEDs), Laser Recorders and Micro Electro Mechanical Systems (MEMS)





TFT Capabilities & Markets

■ **Production Capability**

- Thermal Evap. & E-Beam Evaporation
- IBD EBeam Evap.
- DC/RF Sputtering
- Comb. Evap/Sputter
- TF Hybrid Substrates
- Photolithography
- Specialty Coatings
- Dicing / Singulation
- Electroplating

■ **Markets Served**

- Optics A/R
- Infrared Long & Mid
- Telecom
- Defense
- Medical
- Microwave
- Hybrids
- Sensors
- NIST Standards
- Semiconductor



Optics Markets

- **Security**

- ZnS , MgF_2 , SiO_2

- **Laser optics**

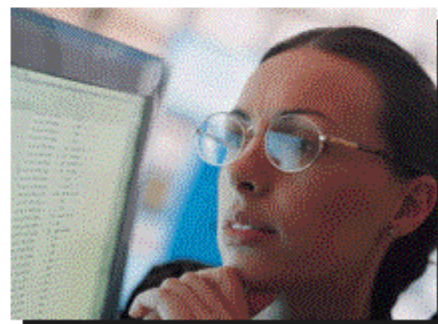
- ThF_4 , YF_3 , SiO_2 , Ge

- **Communications**

- SiO_2 , Ta_2O_5 , Nb_2O_5 ,
- LaB_6 Cathodes

- **Ophthalmics**

- SiO_2 , Al_2O_3 , Ti_3O_5 , Cr-SiO



Opto-Electronic Markets

- **Resistor material for hybrid circuits**
 - Cr-Si, W-Ti
- **Projection Display Products**
 - HfO_2 , Cr, SiO_2 , MgF_2
- **Clear conductive coatings**
 - ZnO
- **Data Storage**
- **Photovoltaics (Solar)**
 - CdS, CdTe, Cu-In-Ga-Se



 **Williams**
ADVANCED MATERIALS

Specialty Inorganics Markets

- **Protective coatings for aerospace applications**
 - TiB_2 , B_4Si
- **Defense Applications**
- **Semiconductor gas precursors**
 - Zn_3As_2
- **Data Storage**
- **Medical devices**
 - V_2O_5
- **Specialty Batteries**
 - Li_2O , CoS_2



Chamber Services Value Package

- **SHIELD CLEANING SERVICE DESCRIPTION**
- **STRIPPING**
- **SURFACE TEXTURIZING**
- **FINAL CLEAN AND CLEAN ROOM PACKAGING**
 - Ultrasonic cleaning with particle count monitoring
 - Drying a.k.a. baking a.k.a. outgassing
 - Clean room packaging
 - These steps must take place in a class 100 clean room (2007) and SPC data must be collected
- **PACKAGING FOR SHIPMENT**
- **PRECIOUS METAL REFINES AND SETTLEMENT**
- **LOGISTICS**





Chamber Services/Refine





Distinctive Competencies



End Product Examples Utilizing Thin Film Deposition Materials

**Williams Thin Film
Deposition Materials**



**Sputtering
Deposition Chamber**



**Williams Products
Bring Technology to Life!**



**Wafer Coated with
Deposition Materials**

