PROC-X MANUFACTURING GROUP INC.

MINERALS, ADVANCED MATERIALS & NANOTECHNOLOGY PROCESSING SOLUTIONS

Engineering the materials that power innovation across energy, electronics, aerospace, defense, ceramics, catalysts and advanced industries.

FROM RAW MATERIAL TO ENGINEERED PERFORMANCE.



- Control the Particle
- Control the Surface
- Control the Environment
- Control the Process

PRECISE MATERIALS. | INTELLIGENT SYSTEMS. | SUPERIOR PERFORMANCE.

PROC-X MANUFACTURING GROUP INC.

FROM RAW MATERIAL TO ENGINEERED PERFORMANCE

Proc-X integrates proven process technologies and nano-enabled systems to deliver consistent, repeatable results for advanced materials and nanotechnology applications across every industry.



RECEIVE → STORE → MILL → BLEND → DISPERSE → DRY / CONDITION → QUALITY CONTROL → PACKAGE → DELIVER

ENGINEERED SOLUTIONS FOR ADVANCED MATERIALS

- Industrial Minerals
- Technical Ceramics
- Catalyst Materials
- Carbon Materials
- Graphite & Graphene
- Nanomaterials
- Specialty Powders
- Conductive Materials
- Functional Fillers
- Advanced Composites
- Coatings & Additives
- Performance Critical Materials

ENGINEERED FOR PRECISION

BUILT FOR RELIABILITY

DESIGNED FOR SCALABILITY

FOCUSED ON RESULTS

PROC-X MANUFACTURING GROUP INC.

ONE CONNECTED ADVANCED MATERIALS PLATFORM

Proc-X integrates multiple specialized process technologies into one coordinated platform for advanced materials, mineral processing and nanotechnology manufacturing.



AIS
Automated Ingredient Systems
bulk material handling, conveying, weighing, dosing and batching.

DP Mills
particle size reduction, classification, jet milling, micronization and powder conditioning.

QuantumX
advanced mixing, blending, vacuum processing, coating, drying and thermal transformation.

EmulXion
wet dispersion, nano-dispersion, colloid milling and homogenization.

FuXion
compounding & extrusion, polymer processing and hot-melt systems.

PROC-X Automation
controls, FAT, commissioning and lifecycle support.

SPECIALIST TECHNOLOGIES. INTEGRATED SOLUTIONS.
ONE PARTNER. ENDLESS POSSIBILITIES.

PROC-X MANUFACTURING GROUP INC.

MATERIALS WE PROCESS



1. INDUSTRIAL MINERALS

- Calcium Carbonate
- Silica
- Talc
- Mica
- Barite



2. TECHNICAL CERAMICS

- Alumina
- Zirconia
- Silicon Carbide
- Silica
- Ceramic Precursors



3. CATALYSTS & SUPPORTS

- FCC Catalysts
- Zeolites
- Alumina Supports
- Silica Supports
- Specialty Catalysts



4. CARBON MATERIALS

- Graphite
- Carbon Black
- Hard Carbon
- Activated Carbon
- Specialty Carbons



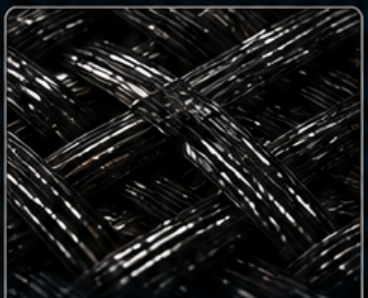
5. GRAPHITE & GRAPHENE

- Graphite Flakes
- Graphene Powder
- Few-Layer Graphene
- Graphene Oxide
- Graphene Dispersions



6. NANOMATERIALS

- Nano Oxides
- Nano Silica
- Nano Alumina
- CNTs
- Specialty Nanoparticles



7. ADVANCED COMPOSITES

- Polymer Composites
- Ceramic Composites
- Carbon Composites
- Metal Matrix Composites
- Hybrid Materials



8. FUNCTIONAL FILLERS

- Conductive Fillers
- Thermal Fillers
- Flame Retardants
- Barrier Fillers
- Performance Additives

ONE MATERIAL. MANY APPLICATIONS. ENGINEERED RESULTS.

PROC-X MANUFACTURING GROUP INC.

PARTICLE ENGINEERING & SIZE CONTROL SOLUTIONS

Precision particle size reduction for even the hardest and most abrasive materials.

JET MILLS



- Ultra-fine grinding
- 1–20 micron d50
- High purity
- Minimal contamination

AIR CLASSIFIER MILLS



- Precise top-size control
- High efficiency
- Tight particle distribution
- Scalable performance

PIN MILLS



- Impact pin milling
- Moderate fineness
- Durable construction
- Consistent results

CRYOGENIC MILLS



- Low temperature milling
- Heat-sensitive materials
- Fine particle sizes
- Reduced agglomeration

PRECISE SIZE CONTROL

CONSISTENT PSD

LOW CONTAMINATION RISK

BUILT FOR ABRASIVE MATERIALS

PROC-X MANUFACTURING GROUP INC.

ADVANCED MIXING, COATING & THERMAL PROCESSING

QuantumX systems combine high-intensity mixing, vacuum and pressure processing with thermal transformation for advanced materials.



RIBBON MIXING
Uniform blending of dry powders and additives.

PLOUGHSHARE MIXING
High-intensity for coatings, liquid addition and agglomerate breakdown.

PADDLE MIXING
Gentle yet effective for fragile or sensitive materials.

VACUUM PROCESSING
Moisture removal, solvent recovery and deaeration.

PRESSURE PROCESSING
Reactions, gas-solid interactions and special environments.

THERMAL PROCESSING
Drying, activation and transformation up to 450°C and beyond.

MATERIAL INTEGRITY

UNIFORM BLENDING

THERMAL CONTROL

REPEATABLE RESULTS

BUILT FOR MATERIAL PERFORMANCE

PROC-X MANUFACTURING GROUP INC.

NANOTECHNOLOGY & HIGH-SHEAR DISPERSION

EmulXion high-shear and high-pressure homogenization systems for nano-dispersion and advanced slurry preparation.



HIGH-SHEAR DISPERSION

Rapid wetting and deagglomeration of difficult powders.

HIGH-PRESSURE HOMOGENIZATION

Nano-scale particle size reduction and uniform dispersions.

NANO-EMULSIONS

Stable nano-emulsions and colloidal systems.

DEAERATION

Remove entrained air for stable fluids and consistency.

NANO-SCALE DISPERSION

STABLE SUSPENSIONS

IMPROVED RHEOLOGY

LAB TO PLANT SCALABILITY

FROM DEVELOPMENT TO PRODUCTION
WE ENGINEER EVERY STEP

Proc-X supports you from concept and R&D through scale-up, production and long-term performance.

PROCESS DEVELOPMENT
concept testing to optimized process design.

PILOT TESTING
validate results and refine parameters.

SCALE-UP ENGINEERING
seamless transition from pilot to commercial production.

SYSTEM INTEGRATION
full automation, controls, FAT and commissioning.

LIFECYCLE SUPPORT
parts, service, training and ongoing technical support.

GLOBAL PARTNERSHIP
trusted partner across every stage of your success.



LET'S ENGINEER THE FUTURE OF ADVANCED MATERIALS TOGETHER.

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