



PROCX

PROCESSING RESOURCES INTERNATIONAL INC

— Firex • Fuxion • Moduline • Quantum-X —

MANUFACTURING GROUP
ENGINEERING
THE FUTURE OF
PROCESSING

WWW.PROCXINC.COM

WHO WE ARE

Proc-X Manufacturing Group is a global engineering and manufacturing organization specializing in advanced processing systems for powder, liquid, and hybrid material applications.

We design, manufacture, and integrate high-performance equipment and complete turnkey systems across five critical process stages.

Our approach is simple: engineer each process step to perform independently at the highest level—then integrate them into a seamless, intelligent system that delivers consistent, scalable, and repeatable results.

5 CRITICAL PROCESS STEPS

01

MILLING



02

MIXING



03

BULK MATERIAL HANDLING



04

EXTRUSION



05

PACKAGING



WHAT WE DO

WE DON'T JUST SUPPLY EQUIPMENT - **WE ENGINEER OUTCOMES.**
 FROM RAW MATERIAL INTAKE TO FINAL PACKAGING, PROC-X DELIVERS:

01



Stand-alone equipment engineered for performance and durability

02



Fully integrated, turnkey systems designed for efficiency and scalability

03



Custom process solutions tailored to specific materials and applications

04



Automation and controls for repeatability and precision

05



Validation support, FAT testing, and lifecycle service



Whether you are scaling from R&D to production or optimizing an existing line, Proc-X ensures your process is built for today's demands—and tomorrow's growth.



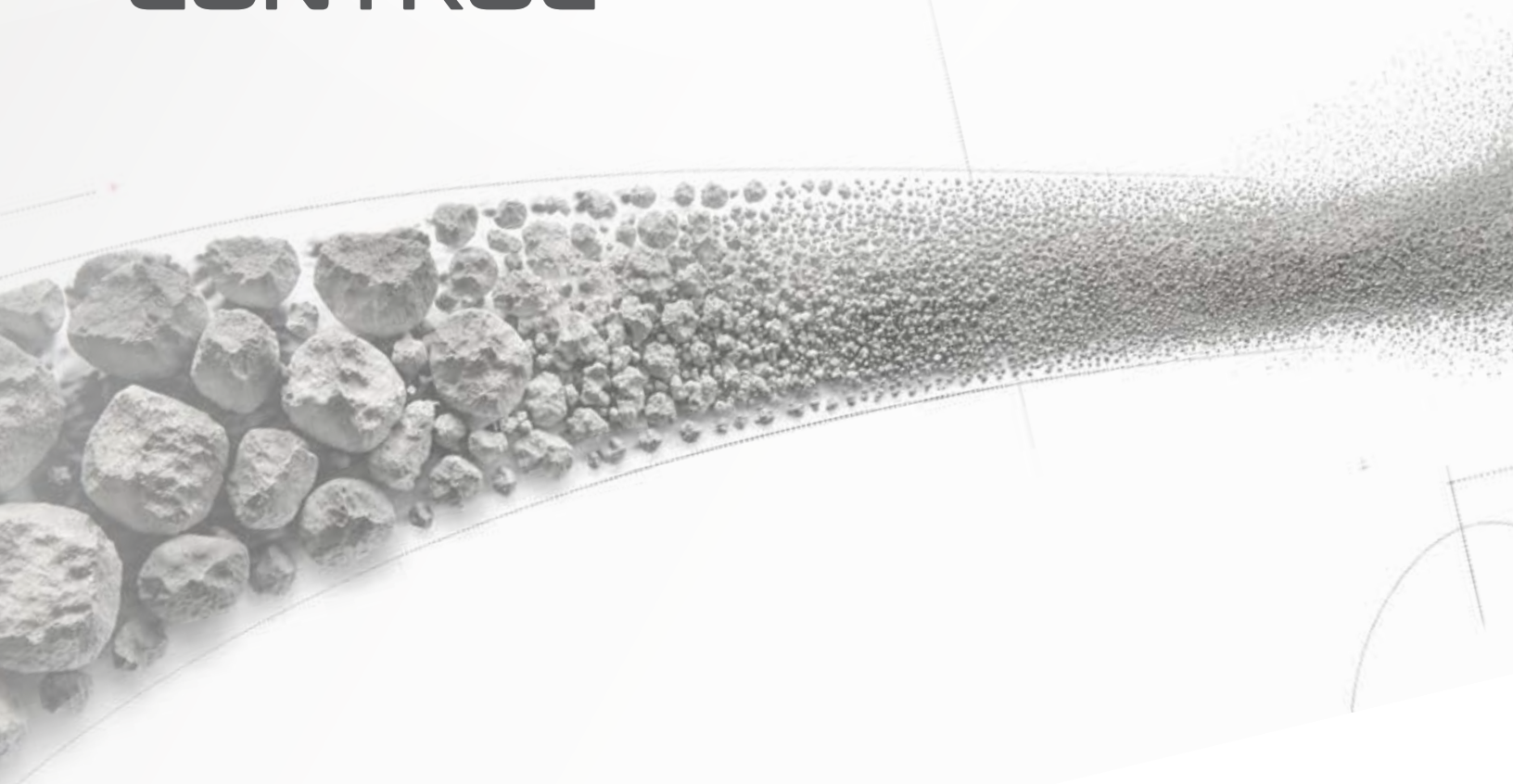
APPLICATION FOCUS



01

MILLING

PARTICLE SIZE
REDUCTION &
CONTROL



PARTICLE SIZE IS ONE OF THE MOST CRITICAL VARIABLES IN ANY PROCESS. IT DIRECTLY IMPACTS:

- ✓ *Flowability*
- ✓ *Texture and mouthfeel*
- ✓ *Downstream mixing efficiency*
- ✓ *Solubility*
- ✓ *Reactivity*

Proc-X provides advanced milling solutions designed to deliver precise and repeatable particle size distributions across a wide range of materials.



CAPABILITIES INCLUDE



Fine grinding down to micron and sub-micron levels



Tight particle size distribution control (narrow D50/D90 ranges)



Cryogenic grinding for heat-sensitive materials



High-throughput coarse grinding and size reduction



Air classification for separation and refinement

APPLICATIONS

- ✓ Pharmaceuticals (API size reduction, excipients)
- ✓ Food & beverage (sugar, spices, proteins, coffee)
- ✓ Chemicals (pigments, fillers, resins)
- ✓ Minerals (calcium carbonate, silica, abrasives)
- ✓ Recycling (e-waste, polymers, metals recovery)

ENGINEERING FOCUS

- ✓ Heat management to preserve product integrity
- ✓ Explosion-proof (ATEX) designs for combustible dusts
- ✓ Wear-resistant materials for abrasive applications
- ✓ Integration with upstream and downstream processes

02

MIXING

HOMOGENEITY,
COATING &
TRANSFORMATION



MIXING IS MORE THAN BLENDING- IT'S ABOUT ACHIEVING UNIFORMITY, CONSISTENCY, AND CONTROLLED INTERACTION BETWEEN MATERIALS.

Proc-x designs mixing Systems that deliver:

- ✔ Homogeneous blends with low CV values
- ✔ Efficient liquid-to-powder incorporation
- ✔ Agglomeration and granulation control
- ✔ Thermal processing (heating, cooling, drying)



CAPABILITIES INCLUDE



Batch and continuous mixing systems



High-intensity mixing for difficult formulations



Vacuum mixing and drying



Inline mixing, emulsification, and dispersion



Multi-phase mixing (solid/liquid/gas)

APPLICATIONS

- ✔ Nutraceuticals and protein powders
- ✔ Pharmaceuticals and fine chemicals
- ✔ Food products (sauces, coatings, powders)
- ✔ Battery materials and advanced materials
- ✔ Construction materials (cement, mortar, additives)

ENGINEERING FOCUS

- ✔ Elimination of dead zones and segregation
- ✔ Precise liquid dosing and atomization
- ✔ Scalable designs from lab to production
- ✔ Controlled shear and energy input
- ✔ Hygienic and sanitary design (FDA, GMP)

03

BULK MATERIAL HANDLING

FLOW, STORAGE
& CONTROL



EFFICIENT MATERIAL HANDLING IS THE BACKBONE OF ANY PROCESSING SYSTEM. POOR HANDLING LEADS TO:

- ✓ *Inconsistent feeding*
- ✓ *Dust generation and product loss*
- ✓ *Segregation and contamination*
- ✓ *Production downtime*

Proc-X engineers systems that ensure smooth, controlled, and reliable material movement.



CAPABILITIES INCLUDE



Bulk bag loading and unloading systems



Pneumatic and mechanical conveying



Storage silos, bins, and hoppers



Loss-in-weight and gain-in-weight feeding systems



Dust collection and containment

APPLICATIONS

- ✓ High-volume powder processing facilities
- ✓ Hygienic food and pharmaceutical plants
- ✓ Abrasive and heavy material handling
- ✓ Multi-ingredient batching systems
- ✓ Recycling (e-waste, polymers, metals recovery)

ENGINEERING FOCUS

- ✓ Consistent and accurate dosing
- ✓ Dust control and plant safety
- ✓ Integration with automation systems
- ✓ Ergonomic and operator-friendly design

04

EXTRUSION

SHAPING &
CONTINUOUS
PROCESSING



EXTRUSION TRANSFORMS MATERIALS INTO STRUCTURED, UNIFORM PRODUCTS THROUGH CONTROLLED PRESSURE, TEMPERATURE, AND MECHANICAL ENERGY.

Proc-X delivers extrusion systems for both simple and complex formulations.



CAPABILITIES INCLUDE



Single and twin-screw extrusion



High-moisture and low-moisture processing



Thermal and reactive extrusion



Continuous forming and shaping

APPLICATIONS

- ✓ Food processing (snacks, proteins, pet food)
- ✓ Plastics and polymers
- ✓ Chemical processing
- ✓ Specialty materials and composites

ENGINEERING FOCUS

- ✓ Precise temperature and pressure control
- ✓ Integration with upstream mixing and downstream cutting/drying
- ✓ Material consistency and product uniformity
- ✓ Energy-efficient operation

05

PACKAGING

FINAL PRODUCT
INTEGRITY



PACKAGING IS THE FINAL STEP- BUT IT DEFINES THE CUSTOMER EXPERIENCE AND PRODUCT QUALITY.

Proc-X integrates packaging solutions that ensure:

01

Accurate filling and dosing

02

Product protection and shelf life

03

Efficient throughput and automation



CAPABILITIES INCLUDE



Bagging systems
(small bags to
bulk super sacks)



Filling and
weighing
systems



Automated
packaging
lines



Integration
with conveying
and storage

APPLICATIONS

- ✓ Food and nutraceutical packaging
- ✓ Industrial powders and chemicals
- ✓ Bulk material distribution

ENGINEERING FOCUS

- ✓ Precision and repeatability
- ✓ Seamless integration with production lines
- ✓ Dust-free operation

TURNKEY SYSTEMS FROM CONCEPT TO COMPLETION

WHAT SETS PROC-X APART IS OUR ABILITY TO
BRING EVERYTHING TOGETHER.

We engineer complete systems that include:



Process design
and optimization



Equipment selection
and customization



Full system integration
(mechanical + controls)



PLC/HMI automation
and recipe control



Factory Acceptance
Testing (FAT)



Installation, commissioning,
and training



Our turnkey solutions eliminate the complexity of managing multiple vendors—delivering a single, accountable partner for your entire process.



ENGINEERING & TECHNOLOGY

PROC-X IS BUILT ON ENGINEERING EXCELLENCE.

Our Technology Includes:



Advanced process modeling and design



Integrated automation and smart controls



Modular system architecture for scalability



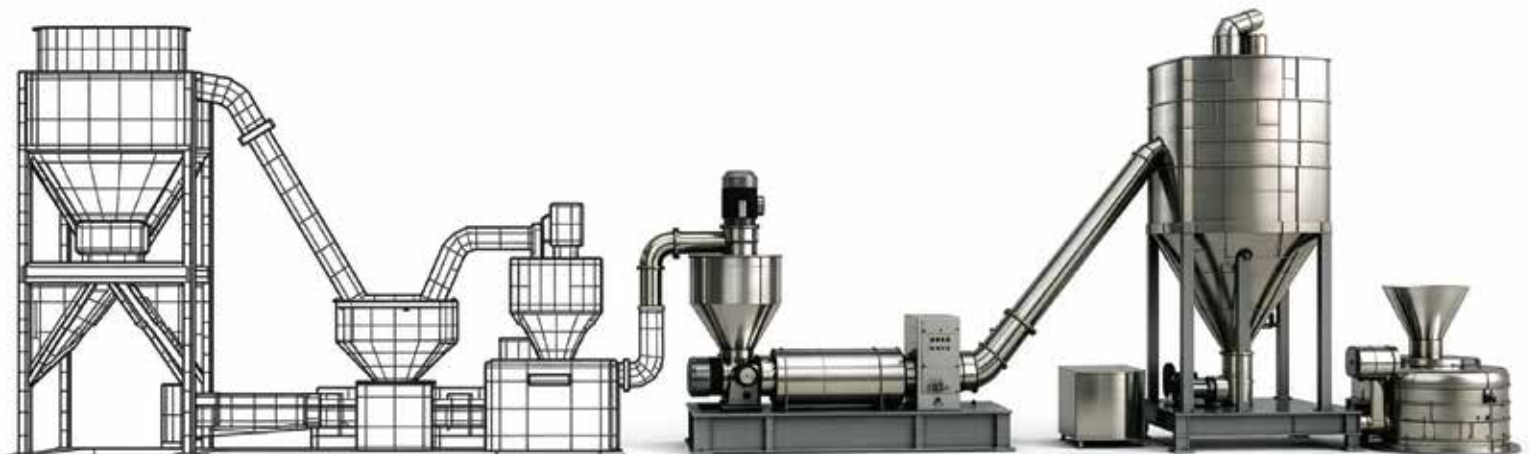
High-performance materials for durability



Precision manufacturing across global facilities




We design systems that are not only efficient—but intelligent, adaptable, and future-ready.




QUALITY & SUSTAINABILITY


QUALITY IS ENGINEERED INTO EVERY COMPONENT AND EVERY SYSTEM.




High-grade materials
(304, 316L, specialty alloys)



Rigorous testing
and validation




Compliance with global standards
(FDA, GMP, ATEX, CE)




Long service life with
reduced maintenance


SUSTAINABILITY FOCUS




Energy-efficient
equipment design



Optimized processes for
minimal environmental impact



Reduced waste
and product loss



Long-term
operational efficiency



CUSTOMER SERVICE & LIFECYCLE SUPPORT

OUR RELATIONSHIP DOESN'T
END AT DELIVERY - **IT BEGINS THERE.**

Proc-X provides:



Dedicated
project
management



Technical
support and
troubleshooting



Spare parts
and maintenance
programs



Process
optimization and
upgrades



Long-term
partnership
for growth



*We stand behind every system
we deliver—because your
success defines ours.*



INTRODUCING THE PROC-X PORTFOLIO

BEHIND EVERY PROC-X SOLUTION IS **A GROUP OF SPECIALIZED BRANDS**,
EACH FOCUSED ON MASTERING A SPECIFIC PART OF THE PROCESS:



Together, they form a unified system designed to deliver performance, reliability, and innovation at every stage.



CLOSING STATEMENT

Proc-X Manufacturing Group is redefining how processing systems are designed, built, and integrated.

We don't just build equipment.

We engineer complete solutions that perform today—and evolve with you tomorrow.





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