



MAXPRO SPU 4.5 Pharmaceutical Waste processing system. In plant installation complete with elevated platform for direct discharge to 55 gallon barrels. System also included a cement silo (located outside the building) with screw auger feed for dustless charging of MAXPRO with solidification agents.

The MAXPRO SPU is uniquely designed to process and solidify unusable pharmaceutical products for safe disposal. There is no other system like it in the world.

The MAXPRO SPU combines granulation and solidification within an integrated system. Disposed pills, tablets and capsules are rendered unusable, reduced to grain size, and then encapsulated into a solid inert form that can be landfilled without posing any risks to the environment or public health.

The MAXPRO SPU is simple to operate, easy to maintain, and has the lowest costs when compared to any other pharmaceutical product disposal option.



MAXPRO SPU 2.0 Pharmaceutical Waste processing system. Portable unit, trailer mounted for easy towing behind one ton pickup truck. MAXPRO includes hydraulic barrel loader, that will grab, lift, swing and rotate drums up to 55 gallon or 800 lbs capacity.

MAXPRO SPU - Solidification Processing Unit

Pharmaceutical waste management and disposal are issues of great international concern because of their threats to the environment leading to potentially serious impacts on humans and wildlife. In addition, the improper disposal of expired and unusable drugs and pharmaceutical product could result in pilfering and diversions to markets for misuse and resale. Accordingly, the U.S. Environmental Protection Agency and similar agencies worldwide are aggressively enacting regulations, standards and enforcement policies to minimize and eliminate such concerns and impacts.

Encapsulation, or solidification, including cement-based solidification, is internationally-recognized and endorsed as a preferred option for the safe disposal of pharmaceutical waste and unusable pharmaceutical products. In comparison to other disposal options, cement-based solidification technologies have very low capital and operating costs, are simple and easy to operate and maintain, and they have far less environmental impacts and restrictions when compared to incineration.



Discharge options include hydraulic gate for controlled discharge of processed pharmaceutical waste. Processed waste can be discharged direct back into original storage container for final disposal.



MAXPRO SPU 1.0 Pharmaceutical Waste processing system. Unit shown in electrical power configuration. Cementitious material is fed into the processor by screw auger from a silo located outside the building. The MAXPRO is equipped with optional discharge swivel chutes to allow for direct charging to 20yd³ rolloff box located in a pit behind the unit.

Maxon Industries is the world-leader in providing systems for the solidification and stabilization of pharmaceutical waste and unusable products, hazardous waste, and other special wastes. Maxon Industries offers complete, turn-key cement-based solidification systems and equipment, both nationally and internationally, with services ranging from treatability studies and design through installation, start-up and commissioning.

Waste Encapsulation Systems

MAXON PHARMACEUTICAL WASTE PROCESSING SYSTEMS

Maxon provides complete, turn-key, design-build pharmaceutical waste solidification systems that include the following:

Pre-Processing Systems & Equipment

- Product & Waste Unloading & Handling
- Interim Storage, Inventory Control & Security

Processing Systems & Equipment

- Product Preparation: Shredding, Crushing Or Granulation
- Product Loading Or Charging
- Reactant Handling & Feed: Cement, Water & Additives
- Processing: Blending & Mechanical Mixing
- Treated Residue Discharge

Residue Handling Systems & Equipment

- Discharge Handling & Conveying
- Residue Containment & Solidification
- Container Handling & Disposal Equipment



A cross section of a test cylinder is shown with pharmaceutical waste 24 hours after processing.

OTHER RELATED MAXON SERVICES & OFFERINGS

Technical Support Services

- Bench-Top & Full-Scale Treatability Studies
- Engineering & Design Support
- Architectural & Engineering Drawings

Facility & Infrastructure Components

- Shelving & Rack Storage Systems
- Emergency & Back-up Generators
- Quality Control Analysis Equipment

Installation & Related Support

- Field Supervision & Oversight
- Start-up & Commissioning
- Performance Testing
- Operator Training



MAXPRO SPU 7.0 Pharmaceutical Waste Processing System. Unit shown discharging processed waste into a plastic lined form box, handled by a fork lift truck. Once the encapsulated pharmaceutical waste solidifies (approximately 4 hours) the form box is stripped and reused, and the block of encapsulated pharma waste is hauled to the local landfill.

Pharmaceutical Waste Processing Systems

MAXON INDUSTRIES PHARMACEUTICAL WASTE PROCESSING SYSTEMS			
PRIMARY CEMENT-BASED SYSTEM OPERATIONS & PROCESSES			
SOLIDIFICATION SYSTEM OPERATIONS	SOLIDIFICATION SYSTEM PROCESSES	SOLIDIFICATION SYSTEM OPTIONS	
Pre-Processing	1. Product Container Unloading & Handling		
	2. Product Container Storage & staging		
	3. Product Preparation	Shredding	
		Crushing or Granulation	
Processing	1. Product Loading or Charging		
	2. Reactant Handling & Feeding	--- Portland Cement	Silos or Super Sacks
		--- Water	
		--- Additives	Aggregate, Sand, Other
		3. Treated Residue Discharge	
	Treated Residue Disposal	1. Residue Conveying & Handling	
2. Containment & Solidification		Fiber Drums or Boxes	
		Metal Drums or Bins	
		Wooden Forms	
3. Container Handling & Disposal			



MAXPRO SPU 2.0 Pharmaceutical Waste processing system. Cementitious material for encapsulation is charged manually by 90 lbs. sack. After material is processed, it is discharged into a fiber reinforced, plastic lined cardboard box, allowed to solidify and hauled to a local landfill.

To learn more about Maxon's complete line of waste encapsulation and solidification equipment, please visit our website at www.maxon.com or contact us directly at the numbers provided below.

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