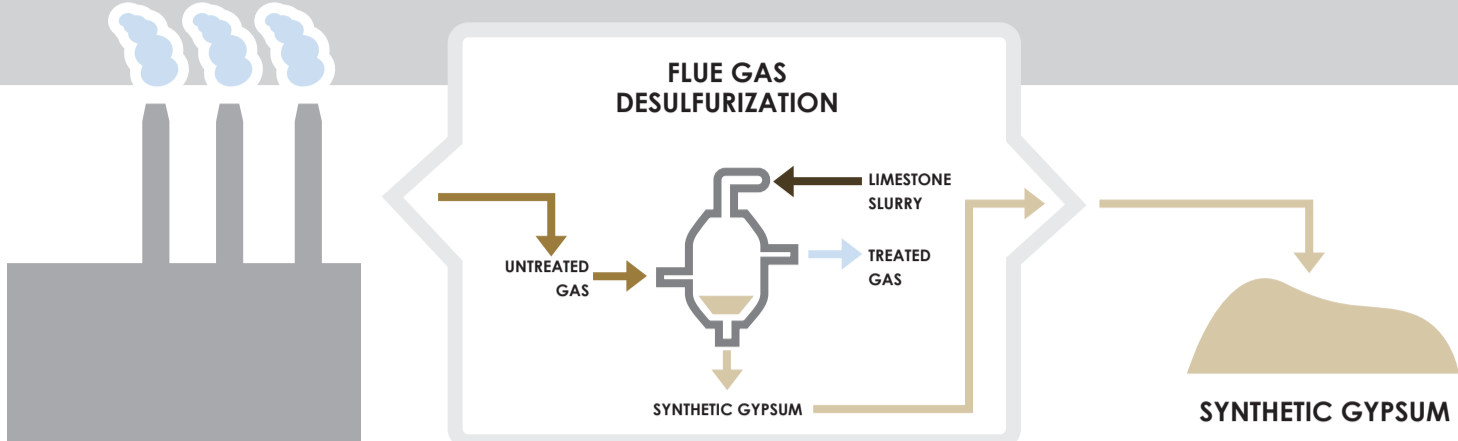


# SYNTHETIC (FGD) GYPSUM:

Turning an industry byproduct into a value-added **soil amendment**

Synthetic gypsum (aka FGD gypsum or syn gyp) is gaining popularity for the many benefits it can offer. Most commonly, it is processed via pelletizing for use as a soil amendment.



## BENEFITS OF SYNTHETIC GYPSUM



### REDUCES NEED FOR MINING

The use of synthetic gypsum reduces the need to mine natural, finite gypsum sources



### DECREASES BURDEN ON LANDFILLS

The use of synthetic gypsum turns a waste into a usable product, avoiding landfills



### CREATES REVENUE FROM WASTE

Using a synthetic gypsum as a soil amendment creates a revenue source where waste management costs would otherwise be incurred

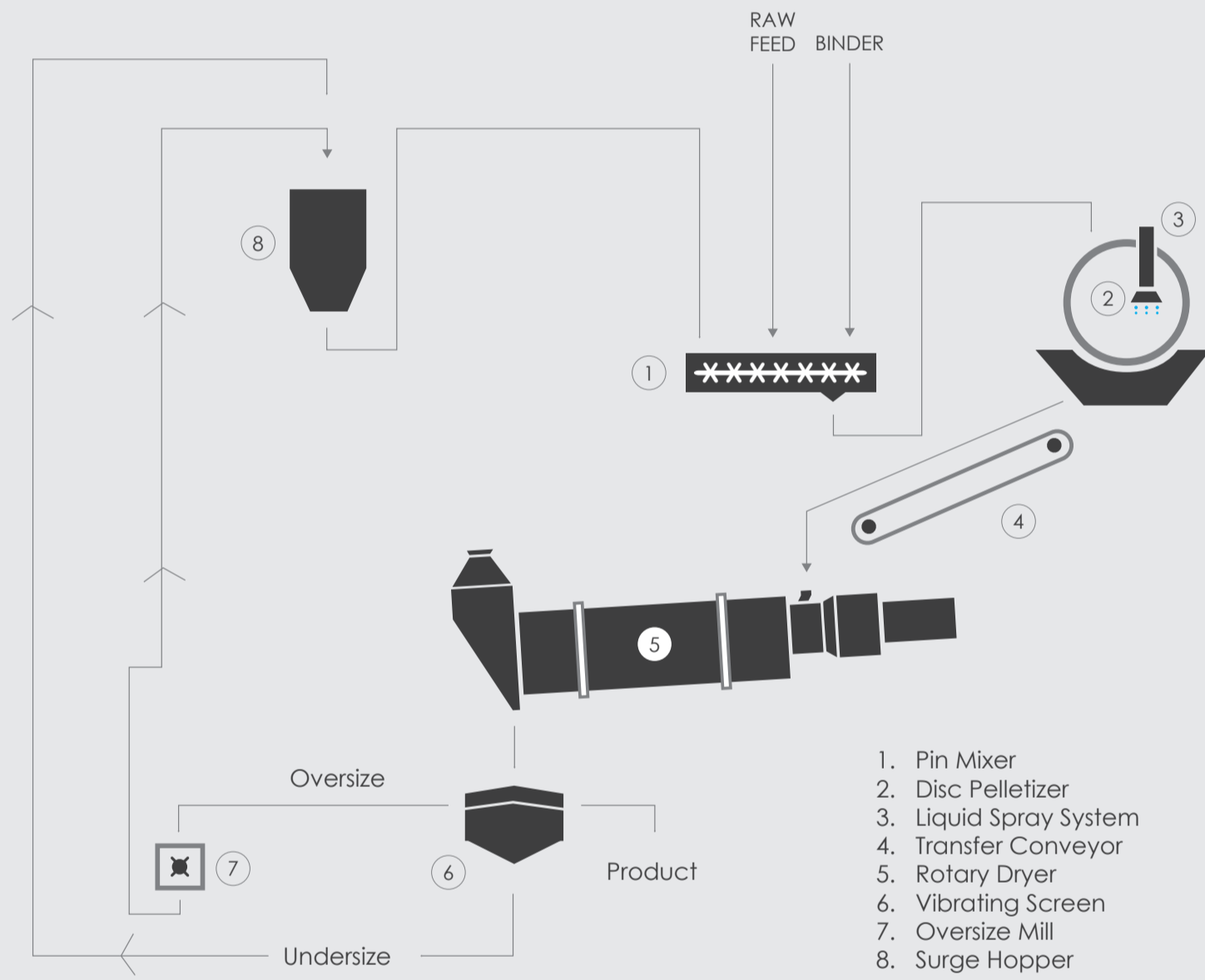
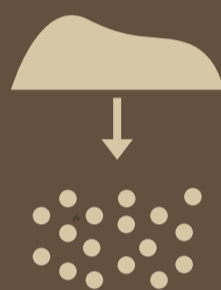


### COMPARABLE TO NATURAL GYPSUM

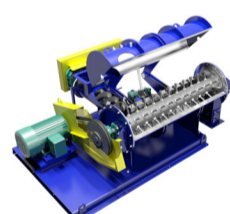
As a soil amendment, synthetic gypsum can provide the same benefits as natural gypsum.

## PROCESSING SYN GYP INTO A SOIL AMENDMENT

Synthetic gypsum is processed from a powder into a rounded granule for use as a soil amendment. This mitigates dust and handling issues and improves application. Shown below is a simplified flow diagram for a typical synthetic gypsum pelletizing operation. This process also employs a pin mixer for preconditioning.



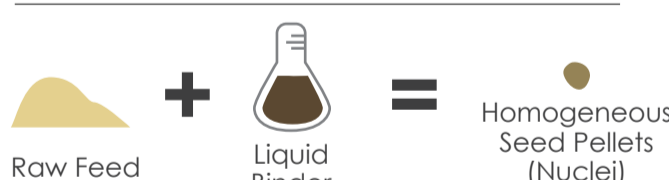
1. Pin Mixer
2. Disc Pelletizer
3. Liquid Spray System
4. Transfer Conveyor
5. Rotary Dryer
6. Vibrating Screen
7. Oversize Mill
8. Surge Hopper



**FEECO**  
Pin Mixer

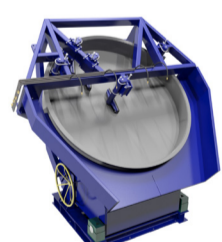
### STEP ONE: PRECONDITIONING

Not all processes utilize a preconditioning step, but those that do see significant benefits. Preconditioning in a pin mixer serves to thoroughly mix the binder and material into a homogeneous mixture and prepare it for pellet formation.



### BENEFITS TO PRECONDITIONING:

- Increased Production
- Easier Processing & Handling
- Improved Product Control
- Reduced Binder



**FEECO**  
Disc Pelletizer

### STEP TWO: PELLET GROWTH

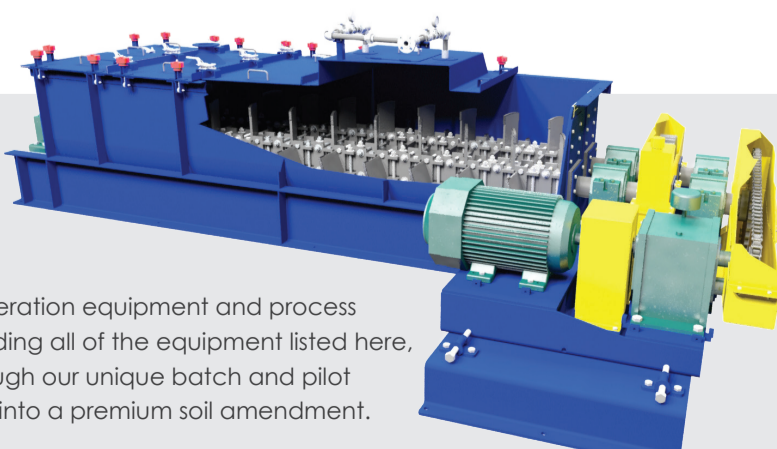
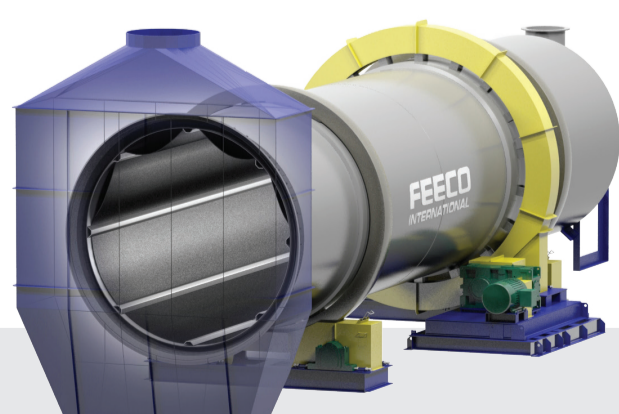
Seed pellets from the pin mixer are fed to the disc pelletizer. The rotation of the disc, combined with a continuous addition of binder and feedstock "grow" the pellets to the desired size via coalescence.



**FEECO**  
Rotary Dryer

### STEP THREE: DRYING

"Green" (wet) pellets are fed to the rotary dryer to reduce the moisture content. The tumbling action of the rotating dryer further rounds and polishes the pellet product, yielding a premium product.



## AGGLOMERATION SOLUTIONS

FEECO is the world's top provider of tumble growth agglomeration equipment and process solutions. We offer custom agglomeration equipment, including all of the equipment listed here, as well as process and product development services. Through our unique batch and pilot testing facility, we can help you turn your synthetic gypsum into a premium soil amendment.

For more information, contact us today at [FEECO.com/contact](http://FEECO.com/contact)