

**CLEANING PROCEDURES  
FOR  
GEMCO BLENDERS AND DRYERS**



**GEMCO®**

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## **1. SAFETY CONSIDERATIONS**

### **BEFORE CLEANING**

- (A) Remove fuses in electrical panel and/or lock out main disconnect.
- (B) Make sure air pressure is on brake so vessel can not rotate.
- (C) NO personnel shall enter the inside of vessel unless items 1 and 2 are completed.
- (D) Refer to OSHA standards for complete details for entering hazardous and confined spaces.
- (E) If rotating vessel during cleaning procedure, first check that no personnel or loose items are inside the vessel. All assemblies shall be secured, all valves closed and all access covers in place and secured. NO personnel shall be in the vicinity of the rotating vessel. Reconnect electrical circuits.

#### **NOTE**

Cleaning solutions depend on what is compatible with your products.

## **CLEANING PROCEDURES**

### **1. TUMBLE BLENDER SOLIDS (NO AGITATOR)**

#### **NOTE**

These cleaning procedures are noted here only as a rule of thumb. It is up to each individual company to develop a Cleaning Procedure that works for them.

- (A) Check internal wall surfaces. Clean off as much adhered material as possible. Adhered material can be scraped off and vacuumed or washed out thoroughly. Be careful not to scratch walls of vessel.
- (B) Solids blenders can be filled to 25% of total capacity for optimum cleaning.
- (C) Dry unit thoroughly prior to recharging to prevent sticking.

### **2 BLENDERS EQUIPPED WITH AGITATORS**

#### **CAUTION**

Do not fill vessel more than 25% of total volume with cleaning solution.

- (A) Disassemble blades and discs from agitator bar and clean.
- (B) Check internal wall surfaces. Clean off as much adhered material as possible. Adhered material can be scraped off and vacuumed or washed out thoroughly. Be careful not to scratch walls of vessel.
- (C) Charge vessel with cleaning solution and rotate vessel (see Safety #5)

- (D) If equipped with liquid feedbar—remove plug at shaft end-inspect hollow shaft-and flush thoroughly.
- (E) Let unit dry . Reassemble agitator discs and blades.

**NOTE**

Remove and replace felt ring seal in agitator. (May be saturated with cleaning solution)

### **3 FORMULATORS AND AIRLESS 1 SYSTEMS**

- (A) Follow cleaning procedure for “BLENDERS EQUIPPED WITH AGITATORS”.
- (B) **AIRLESS 1 SYSTEM**
  - 1. Remove spray nozzle (airless spray).  
Check for material build up. Flush lines.
  - 2. After each Batch:
    - (a) Flush ALL LINES.
    - (b) Flush Dispense Valve
    - (c) Clean out manifold and replace line filter.  
(Line filters can be cleaned and re used)
    - (d) Airless pump-Check manufacturers manual for cleaning procedure.
  - ♦Always check that vacuum head filter is in place.
  - 3. Remove vacuum head filter-replace felt and or bag with clean assembly.
  - 4. Check access cover . Be sure to clean cover and flange gasket of any residues to prevent vacuum leak.

**NOTE**

- ♦Never submerge vacuum tube in cleaning solution.
- ♦Check instructions on packing glands for agitator and vacuum tube.

### **VACUUM SYSTEMS**

- (A) Every 400 hours:
  - 1. Add one gallon of suitable solution to vacuum vessel. Close off vessel-rotate unit.
  - 2. Set heating system to 100 degrees F. Turn on vacuum and heat system.
  - 3. Flush system with solution. Check flow rate of condensate. Check receiver for complete solution recovery (if incomplete recovery-condenser may need to be cleaned)
  - 4. Condenser remove end caps. Inspect internal types for blockage, clean if necessary.

**NOTE**

On mechanical pump-when pulling vacuum, open valves slowly.

- (B) Every batch:
  - 1. Check solids-entrainer or filter. Remove, clean and or replace.
  - 2. Inspect vacuum tube for product build up. Disassemble and or flush if necessary.

### **5 MECHANICAL SEAL**

- (A) Check inner and outer agitator shaft ends for leakage. Replace if necessary.