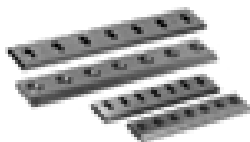


## Knife Maintenance Tips for Safely Servicing Your Equipment

### Remember: SAFETY FIRST!



- Refer to the equipment's Operation Manual before assessing any needs.
- ALWAYS make sure electrical and lockout procedures are strictly followed.
- ALWAYS wear cut-resistant gloves when handling knives.
- ALWAYS handle blades with extreme caution.



### Servicing the Knives

- ❖ Keep the knives sharp!
  - Knives must be sharpened by professionals with a precision grinding machine.
- ❖ Create a knife maintenance schedule
  - The material being processed, the number of hours of operation, etc. factor into each plant's schedule.
- ❖ Depending on the knife type, re-sharpened knives must be ground into a match set—the height (from Heal to Tip) of all rotor knives within the set is equal.
  - Refer to Operation Manual for allowable tolerance.
  - Check all knives with a micrometer to make sure the heights are equal.
  - The knife gap will be off when knives are sharpened incorrectly—a correct knife gap ensures the cutting material is spread across all knives.
  - Make sure the re-sharpening vendor uses “coolant”; “dry” re-sharpening can compromise heat treatment and cause pre-mature failure.
- ❖ Refer to Operation Manual for information on necessary knife gap.
  - Use a Feeler Gauge when checking knife gap accuracy.
  - This gap refers to the distance between the Rotor (fly) knives and the Bed (stationary) knives.
- ❖ After knives have been changed, check the gaps after one week of use.
  - Measure and re-gap to ensure proper cutting.

### QUICK TIPS

- ❖ Use a business card when a Feeler Gauge is not immediately available.
  - The knives are not sharp if a business card is not cut when run across the blade.
  - Business cards (.006" to .008" thick) can be used for spot gap checks. If the knives do not tug on or cut the card, fold the card and try again. Refer to the Operation Manual for proper gap and re-gap if the knives still do not cut the card.
- ❖ If a blower is used to evacuate the granulator, perform a spot check on the condition of the knives by placing your hand **BELOW** the discharge of the cyclone to catch some of the regrind material.
  - If excess fines are present, it could be an indication that the knives are not sharp and the gaps may be open too far.
  - If you cannot close your hand while holding the material because it is too hot, this could be another indication that the knives are not sharp and the gaps are open too far.
- ❖ Use an amp meter as a spot check method.
  - If normal amp level is 18 and you notice it has increased to 22 – 24 amps, this could indicate that the knives are not sharp and the gaps are open too far—it's more difficult for the motor to process material with dull knives and opened gaps.