

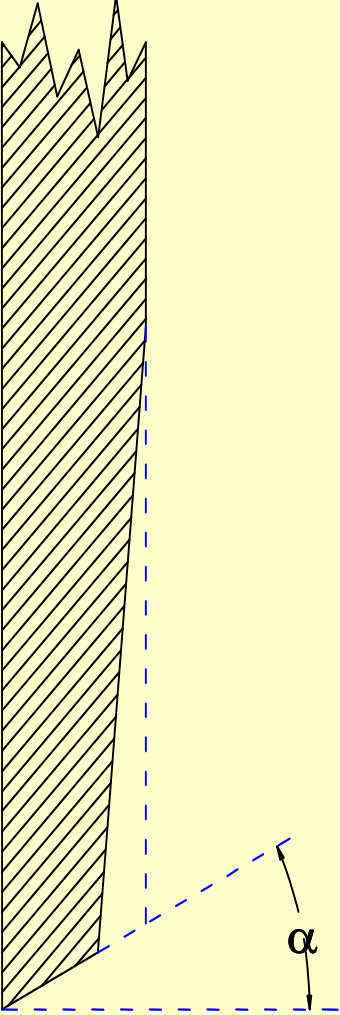


## TIP SHEET *For Shear Slitters*

1. **Grind Primary Bevel** of top Slitter Knives to the Attached Chart. Grind Bottom Knife Bands at a 3 degree grind angle.
2. **Reduce** the amount of **web deflection** by adding a 15° degree off vertical secondary bevel starting after 1mm horizontally from tip of primary bevel. See Attached Chart.
3. Have top slitter knives **honed** to 8 RMS. Minimum surface finish to be 12 RMS.
4. After Sharpening, **check** blades for small nicks with a Q-Tip around sharp edge.
5. After Sharpening, **inspect** both top slitters and bottom bands to insure **axial** run out is within 0.05 mm total and bottom bands for 0.1mm total **radial** run out after grinding.
6. Knives should be **dipped in plastic** to protect the edges from damage and for handling safety.
7. **Always** thoroughly **clean** mounting surfaces with Clean Cloth when mounting slitter knives.
8. After installing, **check** both top slitters and bottom bands to insure **axial** run out is within .004" total and bottom bands for 0.2mm total **radial** run out.
9. After installing, **check** blades for small nicks with a Q-Tip around sharp edge.
10. Set proper penetration of top knife = 0.75mm plus web thickness. Use **overlap template** to insure consistent top slitter overlap to bottom knife.
11. When slitter jump occurs, **always inspect bottom** knife for damage, and change out the top slitters.
12. Set **side load force** according to below:
  - **Nonwovens**      2.3-4.5 kilograms (5-10 pounds)
  - **Plastic Films**    2.3-4.5 kilograms (5-10 pounds)
  - **Fine Paper**      2.3 - 4.5 kilograms ( 5 -10 pounds)
  - **Light Board**     3.5 -5.5 kilograms (8-12 pounds)
  - **Heavy Board**    4.5 -6.8 kilograms (10-15 pounds)
13. Once top slitters are mounted, engage knives and rotate opposite direction of web path **10-15 times** to ensure proper blade seating.

# TOP KNIFE GRINDING BEVEL

## Application Chart

| CUTTING BEVEL  | ANGLE OF BEVEL<br>- $\alpha$ - | APPLICATION AREAS   |
|--|--------------------------------|---|
|  | 0 – 10°                        | Metals,<br>laminates,<br>plastic materials,<br>low edge<br>distortion |
|  | 30°                            | Paper, foils,<br>laminates,<br>fleece,<br>cardboard                   |
|  | 45°                            | Nonwovens   |
|  | 60°                            | Special cases,<br>film industry,<br>sensitive cutting<br>edges        |

## **TOP KNIFE SHEAR ANGLE**

- **SHEAR ANGLE SHOULD BE FIXED (NON ADJUSTABLE)**
- **0- 1/4 DEGREES FOR METAL AND BRITTLE PRODUCTS**
- **1/2 DEGREE FOR GENERAL PURPOSE SLITTING  
(0.2MM GAP FOR 2.5 CM CORD LENGTH)**
- **1 DEGREE FOR VERY DIFFICULT TO CUT MATERIALS**
- **GREATER THE SHEAR ANGLE –  
SHARPER THE CUT  
FASTER THE KNIFE WEAR**

## **BOTTOM BAND OVERSPEED**

- **SUFFICIENT OVERSPEED SO TOP KNIFE RUNS FASTER THAN  
WEB SPEED - ESPECIALLY DURING ACCELERATION.**
- **DEEPER TOP KNIFE PENETRATION - MORE OVERSPEED REQ'D.**
- **HIGHER LOFT PRODUCTS- MORE OVERSPEED REQ'D.**
- **TOO MUCH OVERSPEED - HIGHER KNIFE WEAR**
- **TOO MUCH OVERSPEED - GREATER DUSTING**
- **RULE OF THUMB - 3 TO 5% OVER LINE SPEED FOR CLOSED LOOP  
SPEED CONTROL DRIVES AND 10% FOR OPEN LOOP DRIVES**
- **KEEP BOTTOM KNIVES SHARP WITH A 3 DEGREE GRIND ANGLE**

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