



TECH TIPS

Helping You Get More Out of Your Production Line



EXTRUSION



COATING



PELLETIZING



WINDING



SERVICE/SPARE PARTS
/INSTALLATION



RESEARCH AND
TECH CENTER

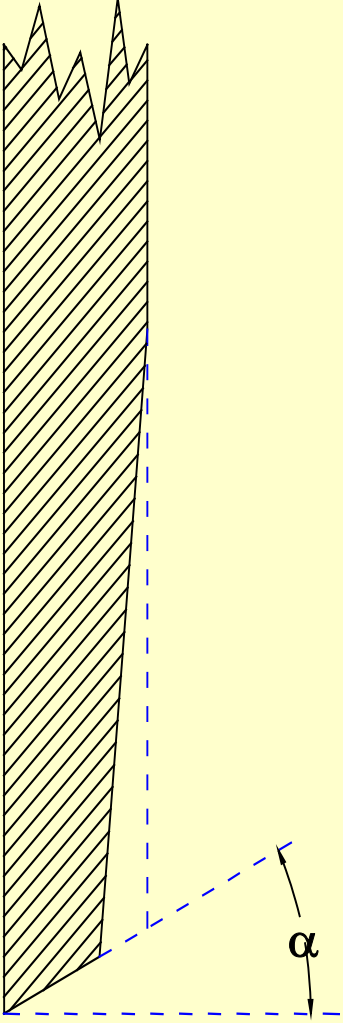


DRIVES AND
CONTROLS

TIP SHEET *For Shear Slitters*

1. **Grind Primary Bevel** of top Slitter Knives to the attached chart.
2. **Reduce** the amount of **web deflection** by adding a 15° off vertical secondary bevel starting after .04” horizontally from tip of primary bevel.
3. Have top slitter knives **honed** to 8 RMS. Minimum surface finish to be 12 RMS.
4. Check blades for small nicks with a Q-Tip around sharp edge.
5. **Inspect** both top slitters and bottom bands to insure **axial** run out is within .003” total and bottom bands for .006” 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 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 .008” total **radial** run out.
9. Check blades for small nicks with a Q-Tip around sharp edge.
10. Set proper penetration of top knife = .03” 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 5-10 pounds
 - Plastic Films 5-10 pounds
 - Fine Paper 5-10 pounds
 - Light Board 8-12 pounds
 - Heavy Board 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.

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

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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
(0.008” GAP FOR 1” 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 CLOSED LOOP SPEED CONTROL DRIVES AND 10% FOR OPEN LOOP DRIVES.

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