

Wide Belt Troubleshooting Guide

Problem

Probable Causes

Problems with Work Piece Quality

Chatter

- 1) Belt splice incorrect or defective
- 2) Contact drum out of round
- 3) Loose or worn stiff drive belts
- 4) Excessive dust build-up behind belts
- 5) Irregular tracking
- 6) Excessive sanding pressure
- 7) Worn bearings in some rotating member

Poor Tolerance

- 1) Drum or platen alignment
- 2) Worn feed belt
- 3) Hold down rolls or shoes out of alignment

Streaking

Follows belt tracking

- 1) Fasteners or trash in board damaged belt
- 2) Grit carryover from previous belt
- 3) Improper workpiece feeding
- 4) Insufficient belt tension

Straight line marks

- 1) Drum worn, grooved or build-up
- 2) Platen covering or cushion damaged
- 3) Hold down shoes damaged

Deep Scratches

- 1) Not removing previous grit scratches
- 2) Carryover of swarf between adjacent heads

Edges Rounded Over

- 1) Drum and/or platen too high or low
- 2) Infeed or outfeed rolls/shoes too high

Problems With Belt Life

Belt Tracking Off

- 1) Contact element & idler not parallel
- 2) Low belt tension
- 3) Tracking mechanism not adjusted properly
- 4) Damaged edge or cone shaped belt
- 5) Sanding pressure too high

Belt Breaking

- 1) Belt creased or damaged in handling
- 2) Uneven sanding pressure
- 3) Incorrect joint or belt mounted in wrong direction
- 4) Belt tension too low
- 5) Dumbbell shaped drum or idler roll

Belt Creasing

- 1) Incorrect belt geometry
- 2) Low belt tension
- 3) Dumbbell shaped drum or idler roll

Poor Belt Life

- 1) Improper product, grit, or joint for application
- 2) Improper storage conditions for belts
- 3) Dust collection restricted or inadequate

Sanding Tips



- š Hang belts prior to use and store them off the floor
- š Use coarsest grit size to do the job properly
- š Follow stock removal guidelines set up by the manufacturer
- š Load workpieces evenly across feed belt
- š Finish head should only remove pencil mark
- š Check platens and recover regularly
- š Use low angle inspection lights at the outfeed
- š Check dust hoods regularly to ensure open air flow
- š Load overlap jointed belts in correct direction
- š Use paper vs. cloth belts whenever possible
- š Tape jointed belts may be reversed to extend life

FRACTIONS - DECIMALS - MILLIMETERS

	INCHES	MILLIMETERS		INCHES	MILLIMETERS
	1/64	.015625		33/64	.515625
	1/32	.03125		17/32	.53125
	3/64	.046875		35/64	.546875
1/16		.0625	9/16		.5625
	5/64	.078125		37/64	.578125
	3/32	.09375		19/32	.59375
	7/64	.109375		39/64	.609375
1/8		.125	5/8		.625
	9/64	.140625		41/64	.640625
	5/32	.15625		21/32	.65625
	11/64	.171875		43/64	.671875
3/16		.1875	11/16		.6875
	13/64	.203125		45/64	.703125
	7/32	.21875		23/32	.71875
	15/64	.234375		47/64	.734375
1/4		.25	3/4		.75
	17/64	.265625		49/64	.765625
	9/32	.28125		25/32	.78125
	19/64	.296875		51/64	.796875
5/16		.3125	13/16		.8125
	21/64	.328125		53/64	.828125
	11/32	.34375		27/32	.84375
	23/64	.359375		55/64	.859375
3/8		.375	7/8		.875
	25/64	.390625		57/64	.890625
	13/32	.40625		29/32	.90625
	27/64	.421875		59/64	.921875
7/16		.4375	15/16		.9375
	29/64	.453125		61/64	.953125
	15/32	.46875		31/32	.96875
	31/64	.484375		63/64	.984375
1/2		.5	1		1.00
		12.70000			25.40000

FORMULAS FOR LOCATING THE CAUSE OF CHATTER MARKS

Measure the distance between 11 consecutive marks and divide that number by 10 to come up with a more accurate measurement of chatter spacing.

EXAMPLE:
$$\text{RPM of belt} = \frac{\text{belt speed (SFPM)} \times 12}{\text{belt length (inches)}}$$

$$\text{Surface Feet Per Minute} = \frac{\text{dia. of contact roll in inches} \times 3.14 \times \text{roll RPM}}{12}$$

1) SPLICES
$$\text{Mark Spacing} = \frac{\text{feed belt speed (inches per minute)}}{\text{RPM of belt}}$$

2) CONTACT ROLL
$$\text{Mark Spacing} = \frac{\text{feed belt speed (inches per minute)}}{\text{RPM of roll}}$$

3) TRACKING MECHANISM
$$\text{Mark Spacing} = \frac{\text{feed belt speed (inches per minute)}}{\text{\# of reversals per minute}}$$