



# OPTIMIZING SURFACING SETUP

**Best Practices for block support, thickness control, chatter  
elimination, saving polishing pads**

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# Optimizing Surfacing Setup

- **Objectives**

- Maximize block support of lens
- Minimize/eliminate chatter
- Optimize thickness control
- Optimize cribbing
- Eliminate destruction of polishing pads (Multi-FLEX?)
- Maintain high-volume surfacing throughput
- Simplify blocking process

# Optimizing Surfacing Setup - Params

- **Params Set-up (assumes digital surfacing / complex cribbing / digital fill)**
  - **Tools**
    - Build Digital Surface: **True**
    - Digital Polish: **True**
    - Polish Restrict: **True**
    - Complex Crib: **True**
    - Digital Fill: **True**
  - **Layout**
    - Digital Fill Intrusion Limit: **3.00**
  - **Cribbing**
    - Crib Uncuts: **True**
    - Crib Uncuts Close (with frame tracing): **True**
    - Complex Crib Thickness: **0.8**
    - Complex Crib Block Clearance: **0.50**

# Optimizing Surfacing Setup

## Block Selection Setup:

### Digital

- Block Size #1: **53mm**
- Block Size #2: **58mm**
- Block Size #3: **63mm**
- Block Size #4: **68mm**

## Basic Selection Criteria:

- Tries to keep everything on the **58mm** block but.....
  - Selects larger block:
    - Rx has potential for chatter
    - To provide seg clearance on a bifocal- **63mm**
  - Selects smaller block:
    - Achieve desired thickness

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## **Fortyeight (specified dept. if STOP THICKNESS Warning)**

- Block Size #1: **48 mm (48 30)**
- Block Size #2: **50mm**
- Block Size #3: **0**
- Block Size #4: **0**

**Picks standard 50mm block unless 48mm needed for seg clearance or thickness**

# Slow-Macro

**SLOW-MACRO** - slowing down the generator:

- Activates:
  - Smaller block selected to achieve thickness if:
    - Chatter is likely
    - Block < 53mm
- Avoids:
  - Chatter
  - Knocking lens off small block
- Note:
  - With proper setup, very few jobs require SLOW-MACRO
  - Will not activate on a 53mm block unless chatter is an issue

# Optimizing Surfacing Setup

SLOW-MACRO - slowing down the generator:

- Machine Wizard Filter - Right Eye Only

**Filter Definition**

Filter Name:       Description:

Job Inclusion Criteria

		Data Type	Operator	Value(s)	Eye(s)
1		Slow Macro	=	TRUE	Right
2		Slow Macro	=	FALSE	Left
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Filter Result:

Optional Formula (e.g. "(1 or 2) and 3")

modified 09/23/21 by

# Optimizing Surfacing Setup













SLOW-MACRO - slowing down the generator:

- Machine Wizard Filter - Left Eye Only

**Filter Definition**

Filter Name:       Description:

Job Inclusion Criteria

		Data Type	Operator	Value(s)	Eye(s)
1		<input type="text" value="Slow Macro"/>	<input "="" type="text" value="="/>	<input type="text" value="FALSE"/>	<input type="text" value="Right"/>
2		<input type="text" value="Slow Macro"/>	<input "="" type="text" value="="/>	<input type="text" value="TRUE"/>	<input type="text" value="Left"/>
3		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Filter Result:

Optional Formula (e.g. "(1 or 2) and 3")

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# Optimizing Surfacing Setup













## **SLOW-MACRO** - slowing down the generator:

- Machine Wizard Filter - Both Eyes

**Filter Definition**

Filter Name:       Description:

Job Inclusion Criteria

		Data Type	Operator	Value(s)	Eye(s)
1		Slow Macro	=	TRUE	Both
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Filter Result:

modified 09/23/21



# Optimizing Surfacing Setup

## **Polisher Routing**

- **Make use of new software that identifies "Thickness at Block"**
- **Identify thin edges 1mm from surface block**
- **Routing logic to appropriate polisher (manual sort or conveyor)**
- **Minimize tearing of polishing pads, reduce breakage**

# Polisher Routing

## Thickness at Block

- .2mm thick 1mm from block
- "NO" direct to gentle edger

Note: Satis/Loh "Evolution Process" available MultiFlex2, upgradable on MultiFlex1 less aggressive

WTKK | Graphic | WTKK Graphic | Invoice |  
 inv#117225 02/11/22 R> 151.0 151.1 <L

FinBlkCol: PURPLE

thick=0.2 bthk=8.9 (x=-3.8, y=-30.7)

**CZE**

Patient: **8808 LAMPAA** Bill To: Ship To: 73017 DBL:18.1

R	58	66c	6.48	R	OVATION	T67	TGY	R	Bin	F MSz	ESn78	6.50	225	1077
L	58	66c	6.48	L	OVATION	T67	TGY	L		SF MSz	ESn78	6.50	225	0475

R	Sph	Cyl	Axis	Dist PD	Near PD
R	+3.75			35.0	33.5
L	+5.00			35.0	33.5

R	Add	Seg HT	OC HT
R	225	20.0	18.0
L	225	20.0	18.0

Prism Slab Off

Bin: Name: \*CARLYLE Size: 56/17  
 Mir: Color: GUN METAL

Comments:

Titl: CZA

150891 **B/S COT**

NO

**10**

# Polisher Routing

- .9mm thick 1mm from block
- "OK" polish anywhere

WTKK | Graphic | WTKK Graphic | Invoice

RT LT TRACKER: C /26 03/10/22 13:30 R:20.9/27 27.0/160 27.2/200

FinBlkCol: BLACK

**GROOVE**

thick=0.9 bthk=8.1 (x=15.3, y=-31.0)

Patient: 40385 BRONS Bill To: Ship To: 73017 DBL:18.0

R	58	68	5.50	R	Ovation	T67	TGY	R	Bin	F MISz	ESn78	5.50	275	1218
L	58	65	5.50	L	Ovation	T67	TGY	L			SF MISz	Base	Add	OPC
											ESn78	5.50	275	0616

10

178375 B/S COT

OK

Bin	Name	*VP 126	Slav	55/18
	Color	GOLD		
Comments				
FR SKU: 129				
Tint				
Coats				





# Polisher Routing Filter

- **Digital Fill on both eyes - No thin edges**
- **All polishers can handle**
- **Print "OK" on Work Ticket or direct conveyor**


Filter Definition

Filter Name: DigFillOK      Description: Both eyes Digital Fill - Polish Anywhere

Job Inclusion Criteria

		Data Type	Operator	Value(s)	Eye(s)
1		Digitally Filled	=	TRUE	Both
2					
3					
4					

Filter Result: OK



# Polisher Routing Filter

- **Thin close to the block**
- **Problem on some polishers**
- **Print "NO" on Work Ticket or direct conveyor**

## Filter Definition

Filter Name

ThinEdges

Description

Thin Edges Close to Block - Route to Gentle Polisher

### Job Inclusion Criteria

	Data Type	Operator	Value(s)	Eye(s)
1	Thickness at Block	<	.7	
2				
3				
4				

Filter Result

NO

# Polisher Routing Filter

- **No thin edges**
- **Good on all polishers**
- **Print "OK" on Work Ticket or direct conveyor**

Filter Definition

Filter Name: ThickEdges      Description: All Polishers OK

Job Inclusion Criteria

	Data Type	Operator	Value(s)	Eye(s)
1	Thickness at Block	>=	.7	
2				
3				
4				

Filter Result: OK



# Matching Block Sizes

- Set up in Params departments (Blocks)
  - Match block = true
- Matches the smaller of the two blocks (e.g. (R) 58mm, (L) 63mm puts both on 58mm)
- Will activate SLOW MACRO if potential chatter issues
- Will not match blocks if two sizes apart - very rare - (e.g. (R) 58mm, (L) 68mm)
- Simplifies blocking process, reduces errors
- Does not affect a lot of jobs, <2%

Optimizing Surfacing Setup

**Thank you!**