

**VITRIFIED SURFACE GRINDING  
WHEELS**  
STOCK ASSORTMENT | READY TO SHIP

A Tyrolit Company  
[radiac.com](http://radiac.com)



# Vitrified Surface Grinding Wheel Application Guide

Radiac is your partner for vitrified surface grinding wheels. Radiac offers an unparalleled selection of products, services, and materials to help manufacturing organizations address their requirements. When choosing a surface grinding wheel specification for a specific application, it is important to consider many factors. Whether your operation requires rapid stock removal or a fine finished precision ground surface, our team will help you choose the correct wheel. Wheels in a variety of grain types, sizes, and bond structures to suit most applications are stocked in our Salem, Illinois facility.

Contact your Sales Representative or Customer Service today to place your order!



Radiac Abrasives, Salem, Illinois

GRIT SELECTION		
GRIT SIZE	RADIUS	FINISH RMS
46	OVER .020	OVER 32
60	.016-.020	15-20
80	.010-.020	12-18
100	.008-.010	10-15
120	.005-.008	8-12

HARDNESS SELECTION			
MATERIAL	SOFT	MEDIUM	HARD
<b>HARDNESS</b>	<50 Rc	50-57 Rc	>57 Rc
<b>Wheel Grade</b>			
<b>H</b>			✓
<b>I</b>		✓	
<b>J</b>	✓		

AISI STEEL TYPES		
AISI STEEL TYPES	GRINDABILITY	GRAIN TYPE
L1 to L7, 01, 02, 06, 07, H10 to H19, W1 to W7, S1 to S6, A2 to A6, A8, A9, H20 to 26	High Easy to Grind	RA, 32A
H41 to H43, M1, M2, M8, M10, M20, M25, M30, M33, M42, T1, T2, T4, T7, T8, F1 to F3, D1 to D6	Medium Hard to Grind	WRA, 32A, RAA, 8BP
D7, M3, M6, M7, M34 to M36, M40, M50, T3, T5, T6, M4, M15, T9, T12, T15, T20, A7, Ottawa 60	Low Hard to Grind	WA, RAA, 9A, SU33A

GRAIN TYPE SELECTION						
ABRASIVE	STOCK REMOVAL PER PASS				APPLICATION	
	.001 or	.001-.002 or less	.003-.004	.005 or more	Form grinding	General purpose
32A		✓	✓			✓
8BP				✓	✓	
RA				✓		✓
RAA		✓			✓	
9A	✓				✓	
WA	✓					✓
SU33A				✓	✓	
97A		✓				✓
WRA		✓	✓			✓
GC		✓	✓			✓

## RED CENTER REDUCING BUSHINGS FOR TYPE 1 STRAIGHT WHEELS

Radiac has a variety of reducing bushings ranging from 1/2" to 1" internal diameter (ID). These bushings have an outside diameter of 1-1/4" and a thickness of 1/4" to accommodate most tool room applications. The required ID should match the arbor size. In all cases, wheel flange diameters must comply with the minimum size specified in ANSI B7.1 for the given wheel outside diameter. This will ensure that the flanges extend beyond the diameter of the bushing and bear on the sides of the wheel.

WHEEL DIAMETER	WHEEL THICKNESS	AVAILABLE BUSHINGS
6"	1/4" 1/4" to 1-1/2" Incl. Incl.	1", 15/16", 7/8", 3/4", 5/8", 1/2"
7"	1/4" to 1" incl.	1", 15/16", 7/8", 3/4", 5/8", 1/2"
8"	1/4" to 5/8" incl.	1", 15/16", 7/8", 3/4", 5/8", 1/2"
8"	over 5/8" to 1-3/4" incl.	1", 15/16", 7/8", 3/4", 5/8"

# Vitrified Surface Grinding Wheel Grain Types

## 32A - GRAY

- Good multi-purpose abrasives
- Very versatile
- Good form holding
- Light to medium stock removal .001" - .003" per pass

## 8BP - CERAMIC

- Excellent with metal of high chromium content
- Minimal dressing
- Well suited for materials greater than 40 HRC
- Heavy stock removal .005" plus per pass

## RA - RUBY

- Tough abrasive
- Excellent form holding
- Good for rough grinding
- Heavy stock removal .005" plus per pass

## RAA - PINK

- Cool cutting
- Good for heat sensitive materials
- Excellent on exotic materials
- Light to medium stock removal .001" - .002" per pass

## 9A / WA - WHITE

- Cool cutting
- Good for finish grinding
- Good for heat sensitive materials
- Light stock removal .001" or less per pass

## SU33A - STRATO ULTRA

- Reduced grinding times
- Significantly better profile retention
- Cooler grinding
- Increased wheel life

## 97A - BROWN & WHITE

- Good multi-purpose abrasive
- Open structure
- For materials with 45 HRC and below

## WRA - WHITE & RUBY

- Good multi-purpose abrasive
- Very versatile
- Good form holding
- Medium stock removal .002"- .003" per pass

## GC - GREEN SILICON CARBIDE

- Excellent for carbide cutting tools including cemented carbide
- Typically used for nonferrous materials such as glass, brass, aluminum, and titanium
- Die steels such as M2, M4, M42
- Some types of iron such as cast iron, grey iron, white iron, malleable iron, and nodular (or ductile)



# 6 - 8" Surface Grinding Wheels

SIZE	6 x 1/2 x 1-1/4"	6 x 3/4 x 1-1/4"	7 x 1/2 x 1-1/4"	7 x 3/4 x 1-1/4"	7 x 3/4 x 1-1/4"	7 x 1 x 1-1/4"	7 x 1 x 1-1/4"	8 x 1/2 x 1-1/4"	8 x 3/4 x 1-1/4"	
TYPE	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 5	TYPE 1	TYPE 5	TYPE 1	TYPE 1	
MAXIMUM SPEED	4138 RPM (a)   6500 SFPM   33 m/s			3601 RPM (a)   6600 SFPM   34 m/s				3605 RPM (a)   7550 SFPM   39 m/s		
RECESS SIZE	-	-	-	-	* 2-3/4x1/4" ** 3x1/4" *** 3-1/2x1/4"	-	* 2-3/4x1/2" ** 3x1/2" *** 3-1/2x1/2"			
32A GRAY	32A46 H14 VEQ		34078832	34135792			34078897 **	34078837	34078838	
	32A46 I8 VEQ		34078242	34078251				34078253	34078295	
	32A46 K8 VEQ							34078289		
	32A60 I8 VEQ		34305793	34078246		34078644 *	34078653 **	34078254		
	32A60 J8 VEQ	34078262								
	32A60 K8 VEQ			34078248				34078291		
	32A80 I8 VEQ			34078249				34078292		
	32A100 I8 VEQ			34078279						
8BP CERAMIC	8BP46 G800 VOS		34078852					34078854		
	8BP46 H800 VOS	34138553	34450862	34078845	34313989	34516680 **		34078846		
	8BP46 I800 VOS			34078849				34137519		
	8BP60 G800 VOS			34078853				34078855		
	8BP60 H800 VOS			34078844				34078847		
	8BP60 I800 VOS			34394956				34078848		
	8BP46 I8 V8			34078323		34126569 *	34125970 **	34078344	34078334	
	8BP46 J8 V8			34078343				34078326	34078325	
	8BP46 K8 V8			34078327				34078345		
	8BP60 I8 V8			34078324				34078346		
	8BP60 J8 V8			34078322	34099980			34078347	34078336	
	8BP60 K8 V8			34078259				34078348		
	8BP80 J8 V8			34078340				34078349		
8BW CERAMIC	8BW46 H8 V8		34078376					34078372		
	8BW60 I8 V8		34078333							
RA RUBY	RA46 G800 VOS						34078896 **		34078819	
	RA46 H800 VOS	34078820		34078805		34078895 **		34078811		
	RA60 H800 VOS		34078812	34078807				34078810	34078824	
	RA46 H8 V8			34078058				34078070		
	RA46 J8 V8	34078045	34078047	34078059	34078074		34078069	34078582 **	34078071	34078075
	RA60 J8 V8	34078046	34078048	34078193		34078634 **		34078583 **	34078072	34078076
	RA80 J8 V8	34077932		34078062					34078073	
	RA120 L8 V8			34078067						
RAA PINK	RAA46 G800 VOS		34078769				34078898 ***	34078768		
	RAA46 H800 VOS		34078762					34078765		
	RAA462 H800 VOS		34078787							
	RAA46 H+800 VOS							34078864		
	RAA60 G800 VOS		34078785							
	RAA60 H800 VOS					34078901 ***	34078904 ***	34078766		
	RAA60 H+800 VOS		34078763							

# 6-8" Surface Grinding Wheels

SIZE	6 x 1/2 x 1-1/4"	6 x 3/4 x 1-1/4"	7 x 1/2 x 1-1/4"	7 x 3/4 x 1-1/4"	7 x 3/4 x 1-1/4"	7 x 1 x 1-1/4"	7 x 1 x 1-1/4"	8 x 1/2 x 1-1/4"	8 x 3/4 x 1-1/4"	
TYPE	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 5	TYPE 1	TYPE 5	TYPE 1	TYPE 1	
MAXIMUM SPEED	4138 RPM (a)   6500 SFPM   33 m/s			3601 RPM (a)   6600 SFPM   34 m/s				3605 RPM (a)   7550 SFPM   39 m/s		
RECESS SIZE	-	-	-	-	* 2-3/4x1/4" ** 3x1/4" *** 3-1/2x1/4"	-	* 2-3/4x1/2" ** 3x1/2" *** 3-1/2x1/2"			
9A / WA WHITE	9A46 G800 VOS		34078758	34078791				34078786	34420070	
	9A46 H800 VOS									
	9A46 H+800 VOS		34078764					34516702		
	9A60 G800 VOS		34078759				34078903 ***	34078788		
	9A60 H800 VOS						34078902 ***			
	9A60 H+800 VOS		34078781	34078882				34516703	34516704	
	WA46 I8 V8			34078197			34078663 **	34078203		
	WA46 J8 V8	34078107	34101693	34078117				34078129		
	WA60 H8 V8			34078116						
	WA60 I8 V8			34078120		34078642 **		34078664 **	34078406	
	WA60 J8 V8	34078106	34078109	34078121			34078540		34078130	
	WA60 K8 V8			34077922					34077935	
	WA80 I8 V8									
	WA80 J8 V8	34078190							34078132	
WA80 K8 V8			34077951	34509536				34078407	34509539	
WA120 K8 V8			34078401							
SU33A STRATO ULTRA	SU33A46 GG8 VB1									
	SU33A46 I18 VB1									
	SU33A60 GG8 VB1									
	SU33A60 I18 VB1									
97A / WAA BROWN & WHITE	97A46 G+800 VOS									
	97A46 G+800C VOS		34078761							
	97A46 H800C VOS							34078867		
	WAA60 J8 V8		34077986							
WRA WHITE & RUBY	WRA46 H5 V8									
	WRA46 H8 V8		34078488					34078528	34078548	
	WRA46 I14 V1									
	WRA46 J8 V8		34078472					34078481	34078499	
	WRA60 H8 V8		34078463					34078465		
	WRA60 I8 V8									
	WRA60 J5 V8						34078531			
	WRA60 J8 V8			34078473					34078514	
	WRA60 K8 V8	34078509		34078474				34078484		
WRA80 J8 V8			34078475					34078521		
GC GREEN SILICON CARBIDE	GC46 H800F V4									
	GC46 H800 V4		34509531					34509532		
	GC54 G800 V4									
	GC60 J5 VL	641812	34078144	34078152	34078156	34516941 **		34439893 *	34434381	34077941
	GC80 J5 VL			34078153					34082412	

(a) Maximum RPM applies at new wheel diameter (b) Rated for 7087 SFPM [36 m/s] (c) Rated for 8858 SFPM [45 m/s]



# 8-12" Surface Grinding Wheels

SIZE	8 x 1x 1-1/4"	8 x 1 x 1-1/4"	10 X 3/4 X 3	10 x 1 x 3"	12 x 1 x 3"	12 x 1-1/2 x 3"	12 x 1 x 5"	12 x 1-1/2 x 5"	12 x 1-1/2 x 5"
TYPE	TYPE 1	TYPE 5	TYPE 1	TYPE 1	TYPE 1	TYPE 5	TYPE 1	TYPE 1	TYPE 5
MAXIMUM SPEED	3605 RPM (a)   7550 SFPM   39 m/s			2483 RPM (a)   6500 SFPM   33 m/s		2069 RPM (a)   3655 SFPM   33 m/s			
RECESS SIZE	-	-	-	-	-	* 5x1/2" ** 6x1/2"	-	-	7-1/2 x 1/2
9A / WA WHITE	9A46 G800 VOS			34078877	34078869		34493879		
	9A46 H800 VOS					34078907 *		34134903	
	9A46 H+800 VOS								
	9A60 G800 VOS								
	9A60 H800 VOS			34078862	34516705		34209449	34418476	
	9A60 H+800 VOS								
	WA46 H5 V8				34077930				34078692
	WA46 I8 V8								
	WA46 J8 V8			34078138	34078140		34078192	34087559	34152959
	WA60 H8 V8								
	WA60 I8 V8			34078408		34516777 **			
	WA60 J8 V8				34077937		34089286	34538131	34187550
	WA60 K8 V8								
	WA80 I8 V8						34099554		
WA80 J8 V8							34101691		
WA80 K8 V8			34516706	34516707					
SU33A STRATO ULTRA	SU33A46 GG8 VB1				34516782 (c)		34516786 (c)	34516790 (c)	
	SU33A46 I18 VB1				34516783 (c)		34516787 (c)	34516791 (c)	
	SU33A60 GG8 VB1				34516784 (c)		34516788 (c)	34516792 (c)	
	SU33A60 I18 VB1				34516785 (c)		34516789 (c)	34516793 (c)	
97A / WAA BROWN & WHITE	97A46 G+800 VOS			34236996					
	97A46 G+800C VOS								
	97A46 H800C VOS								
	WAA60 J8 V8								
WRA WHITE & RUBY	WRA46 H5 V8								
	WRA46 H8 V8								
	WRA46 I14 V1								
	WRA46 J8 V8				34078486				
	WRA46 K8 V8			34078512					
	WRA60 J5 V8								
	WRA60 J8 V8			34078476					
	WRA60 K5 V8						34078489		
	WRA60 K8 V8			34078490					
	WRA80 J8 V8			34078500					
GC GREEN SILICON CARBIDE	GC46 H800F V4							34139776	
	GC46 H800 V4			34509545			34509549		
	GC54 G800 V4				34138285				
	GC60 J5 VL			34097534	34080142	34516942 **	34078169	34098577	34131120
	GC80 J5 VL								

(a) Maximum RPM applies at new wheel diameter (b) Rated for 7087 SFPM [36 m/s] (c) Rated for 8858 SFPM [45 m/s]

# 12-14" Surface Grinding Wheels

SIZE		12 x 2 x 3"	12 x 2 x 5"	14 x 1 x 3"	14 x 1 x 5"	14 x 1-1/2 x 5"	14 x 1-1/2 x 5"	14 x 2 x 5"	14 x 2 x 5"	14 x 2 x 5"
TYPE		TYPE 7	TYPE 7	TYPE 1	TYPE 1	TYPE 1	TYPE 5	TYPE 1	TYPE 5	TYPE 7
MAXIMUM SPEED		2069 RPM (a)   6500 SFPM   33 m/s			1801 RPM (a)   6600 SFPM   34 m/s					
RECESS SIZE		* 2s: 6 x 1/2" ** 2s: 7-1/2 x 1/2"	2s: 7-1/2 x 1/2"	-	-	-	* 7-1/2 x 1/2" ** 7-1/2 x 3/4" *** 8 x 1/2"	-	* 8 x 1/2" ** 8 x 1"	* 2s: 7-1/2 x 1/2" ** 2s: 8 x 3/8"
32A GRAY	32A46 H14 VEQ		34078912		34135862	34135114				
	32A46 I8 VEQ		34078713		34078388	34078320	34078717 ***	34081367	34152958 **	34129030 *
	32A46 J8 VEQ									
	32A60 H8 VEQ									
	32A60 I8 VEQ				34105089	34084146			34130322 *	
	32A60 J8 VEQ							34106564		
	32A80 I8 VEQ									
8BP CERAMIC	8BP46 G800 VOS		34142307							
	8BP46 H800 VOS				34078842	34078843	761178 **(b)	34135217	34153038 *	34141808 **
	8BP46 I800 VOS									
	8BP60 G800 VOS	34141908 **								
	8BP60 H800 VOS				34137236	34137827				
	8BP60 I800 VOS									34307696 *
	8BP46 H8 V8					34078414				
	8BP46 I8 V8			34078375	34078356	34078380				
	8BP46 J8 V8									
	8BP46 K8 V8									
	8BP60 H8 V8					641855				
	8BP60 I8 V8				641849			34087262	34502064 *	
	8BP60 J8 V8									
	8BP60 K8 V8									
	8BP80 I8 V8				34468701					
8BP80 J8 V8					34516776					
RA RUBY	RA46 G800 VOS				34078827					
	RA46 H800 VOS					34078817				
	RA60 H800 VOS				34078828					
	RA46 H8 V8				34078099					
	RA46 J8 V8		34078703		34078101	34078103	34078699 ***			
	RA60 J8 V8				34078102	34078104	34078706 ***			
	RA80 J8 V8									
RAA PINK	RAA46 G800F VOS					34078880				
	RAA46 G800 VOS									
	RAA461 G800C VOS									
	RAA46 H800 VOS									
	RAA462 H800 VOS									
	RAA46 I+800 VOS				34078829					
	RAA60 G800 VOS									
	RAA60 H800 VOS									
	RAA60 J800 VOS						34143620 ***			

# 12-14" Surface Grinding Wheels

SIZE	12 x 2 x 3"	12 x 2 x 5"	14 x 1 x 3"	14 x 1 x 5"	14 x 1-1/2 x 5"	14 x 1-1/2 x 5"	14 x 2 x 5"	14 x 2 x 5"	14 x 2 x 5"
TYPE	TYPE 7	TYPE 7	TYPE 1	TYPE 1	TYPE 1	TYPE 5	TYPE 1	TYPE 5	TYPE 7
MAXIMUM SPEED	2069 RPM (a)   6500 SFPM   33 m/s			1801 RPM (a)   6600 SFPM   34 m/s					
RECESS SIZE	* 2s: 6 x 1/2" ** 2s: 7-1/2 x 1/2"	2s: 7-1/2 x 1/2"	-	-	-	* 7-1/2 x 1/2" ** 7-1/2 x 3/4" *** 8 x 1/2"	-	* 8 x 1/2" ** 8 x 1"	* 2s: 7-1/2 x 1/2" ** 2s: 8 x 3/8"
9A / WA WHITE	9A46 G800 VOS	34078911 *		34509550	34078876				
	9A46 H800 VOS								
	9A46 H+800 VOS								
	9A60 G800 VOS					34139437			
	9A60 H800 VOS				34509551			34138189	
	9A60 H+800 VOS								
	WA46 I8 V8		34078709			34078227		34081644	34128231 * 34128501 **
	WA46 J8 V8				34078200				
	WA60 H8 V8		34128939		34078226				
	WA60 I8 V8								34130637 *
	WA60 J8 V8					642929		34082882	34090147 **
	WA60 K8 V8				34078417				
	WA80 I8 V8								
	WA80 J8 V8					34294364			
WA80 K8 V8				34434898					
SU33A STRATO ULTRA	SU33A46 GG8 VB1			34516794 (c)	34516798 (c)				
	SU33A46 I18 VB1			34516795 (c)	34516799 (c)				
	SU33A60 GG8 VB1			34516796 (c)	34516800 (c)				
	SU33A60 I18 VB1			34516797 (c)	34516801 (c)				
97A / WAA BROWN & WHITE	97A46 G800C VOS				34078881				
	97A46 G+800 VOS								
	97A46 G+800C VOS								
	97A46 H800C VOS								
WRA WHITE & RUBY	WRA46 H5 V8					34078710 *			
	WRA46 I14 V1								
	WRA46 J8 V8								
	WRA46 H8 V8					34078513			
	WRA60 H8 V8				34078508				
	WRA60 I8 V8					641858	34078722 ***		34516814 **
	WRA60 J5 V8							34078723 **	
	WRA60 J8 V8								
	WRA60 K8 V8								
GC GREEN SILICON CARBIDE	GC46 G800 V4								
	GC46 H800F V4								
	GC46 H800 V4				34091907	34516815		34516816	
	GC54 G800 V4								
	GC60 J5 VL		34129266		34078171	34082041	34128619 ***	34080054	34131372 ** 34516943 **
	GC80 J5 VL								

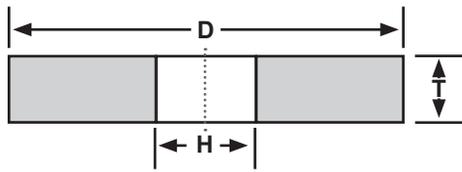
(a) Maximum RPM applies at new wheel diameter (b) Rated for 7087 SFPM [36 m/s] (c) Rated for 8858 SFPM [45 m/s]

# 16-20" Surface Grinding Wheels

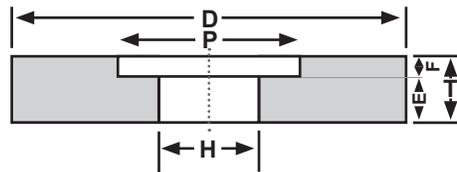
SIZE		16 x 1-1/2 x 5"	16 x 2 x 5"	20 x 2 x 8"	20 x 3 x 8"	20 x 3 x 10"	20 x 4 x 10"	20 x 6 x 10"	20 x 2 x 12"	20 x 4 x 12
TYPE		TYPE 1	TYPE 1	TYPE 7	TYPE 7	TYPE 7	TYPE 7	TYPE 7	TYPE 1	TYPE 1
MAXIMUM SPEED		1552 RPM (a)   6500 SFPM   33 m/s			1261 RPM (a)   6600 SFPM   34 m/s					
RECESS SIZE		-	-	2s: 11-1/2 x 1/2"	2s: 11-1/2 x 1/2"	1s: 12-1/4 x 1" Os: 12-1/4 x 1/2" ** 2s: 12-1/4 x 5/8"	2s: 12-1/4 x 1"	1s: 12-1/4 x 2" Os: 12-1/4 x 1"	-	-
32 A GRAY	32A46 I8 VEQ		34084723							
	32A46 I8 VEQ					34078718 **				
	32A46 J8 VEQ	34089559								
	32A60 J8 VEQ	34081520	34093572							
8BP CERAMIC	8BP46 G800 VOS									
	8BP46 H800 VOS	34135355	34224330							
	8BP46 I800 VOS									
	8BP60 G800 VOS									
RAA PINK	RAA46 G800F VOS									
	RAA46 G800 VOS									
	RAA46 G800C VOS			34078915	34078917		34078919	34078920	34516701	
	RAA461 G800C VOS					34078918				
9A / WA WHITE	9A60 H+800 VOS									
	WA46 I8 V8	34081823	34091656							
	WA46 J8 V8									
	WA60 H8 V8									
	WA60 I8 V8									
	WA60 J8 V8	34084242	34471589							
	WA60 K8 V8									
	WA80 I8 V8									
SU33A STRATO ULTRA	SU33A46 GG8 VB1	34516802 (c)	34516809 (c)							
	SU33A46 I18 VB1	34516803 (c)	34516811 (c)							
	SU33A60 GG8 VB1	34516804 (c)	34516812 (c)							
	SU33A60 I18 VB1	34516808 (c)	34516813 (c)							
97A / WAA BROWN & WHITE	97A46 G+800 VOS									
	97A46 G+800C VOS			34078916	34078910	34078908		34078921	34078799	34078883 (d)
	97A46 H800C VOS									
WRA WHITE & RUBY	WRA46 H5 V8									
	WRA46 I14 V1							34078923		
	WRA46 J8 V8									
	WRA60 H8 V8									
	WRA60 I8 V8									
GC GREEN SILICON CARBIDE	GC46 G800 V4									
	GC46 H800F V4									
	GC46 H800 V4	34516817	34516818							
	GC54 G800 V4									
	GC60 J5 VL	34516944	34338552							

(a) Maximum RPM applies at new wheel diameter (b) Rated for 7087 SFPM [36 m/s] (c) Rated for 8858 SFPM [45 m/s]

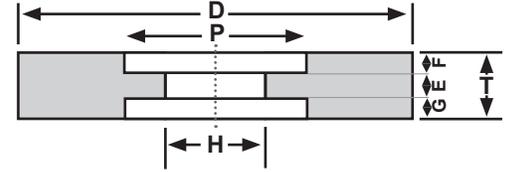
# Wheel Shapes, Guides, and Tips



Type 1 - Straight



Type 5 - Recessed One Side



Type 7 - Recessed Two Sides

## GRINDING PARAMETER GUIDE

	Rough		Finish	
Wheel Speed SFPM	3000	5000	3500	6500
Table Speed IPM	450-600	750-1000	350-525	650-975
DOC inch	0.001 - 0.003		0.0001 - 0.0005	
Table Crossfeed Wheel width 1" and up	3/4 wheel width		1/2 wheel width	
Table Crossfeed Wheel less than 1"	3/8 wheel width		1/4 wheel width	
Dresser Infeed / pass	0.001		0.001	

## TROUBLESHOOTING TIPS

Problem	Cause	Correction
<b>Burn</b>	Wheel too hard	Use softer grade wheel
	Wheel too fine	Use coarser grit wheel
	Poor coolant application	Adjust coolant flow/check concentration
	Grinding rate too fast	Slow grinding rate
<b>Chatter</b>	Poor quality coolant	Check coolant concentration
	Wheel too hard	Use softer grade wheel
	Wheel out of balance	Balance the wheel
	Set up not rigid	Check the clamping
<b>Poor Surface</b>	Dress traverse too fast	Slow dress traverse
	Wheel too soft	Use harder grade wheel
	Grinding rate too fast	Slow grinding rate
<b>Wheel Loading or Glazing</b>	Depth of cut too small	Dress wheel by increasing feed & traverse
	Poor coolant quality	Change coolant or use high detergent type
	Dressing tool worn	Replace diamond and use coarse dress

## GRINDING TRICKS

A softer grinding action can be achieved by increasing table speed first and then secondly increasing the down feed or Depth of Cut.

A harder grinding action or better finish can be achieved by slowing the table down and decreasing down feed.

On newer CNC surface grinders, wheel speed can also be adjusted to create a softer or harder action. Faster wheel speed creates a harder action. Slower wheel speed creates a softer action.

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