

## FLOORSTAND AND SWINGFRAME SNAGGING WHEELS



### CATEGORY DEFINITION

Norton snagging wheels maximize your productivity in foundries, welding shops, fabrication facilities, steel mills, and ship yards.

<b>APPLICATIONS:</b>	Removing unwanted metal on castings, removing flaws and cracks, removing gates, risers and parting lines
<b>SIZE RANGE:</b>	24" and 30" diameters in stock; other diameters available as made-to-order
<b>ABRASIVE GRAIN:</b>	Zirconia Alumina, Zirconia Alumina/Silicon Carbide blend, Aluminum Oxide
<b>SHAPE:</b>	Type 01 Straight
<b>REINFORCEMENT:</b>	Strong fiberglass webbing and steel rings for maximum strength

### FLOORSTAND SNAGGING WHEEL MATERIAL-TO-PRODUCT RECOMMENDATION GUIDE

Casting Type		<b>BEST</b> HIGHEST PRODUCTIVITY LOWEST TOTAL COST	<b>BETTER</b> EXCELLENT BLEND OF PERFORMANCE & PRICE	<b>GOOD</b> CONSISTENT PERFORMANCE LOW INITIAL PRICE
<b>Iron</b>	Gray	4ZF1434-R5B38S, ZI/25-R, ZI/26-Q	Charger Long Life	Gemini All Purpose
	Ductile / Malleable	4ZF1434-Q5B38S, ZI/25-R, ZI/26-Q	Charger Long Life	Gemini All Purpose
<b>Steel</b>	Carbon and Low Alloy	4NZ1434-R5B38S	Charger Free Cut	Gemini All Purpose
	Stainless and High Alloy	4NZ1634-Q5B38S	Charger Free Cut	Gemini All Purpose

NOTE: GRADE, GRIT AND ABRASIVE TUNING MAY BE NECESSARY TO OBTAIN OPTIMUM PERFORMANCE

### SWINGFRAME SNAGGING WHEEL MATERIAL-TO-PRODUCT RECOMMENDATION GUIDE

Casting Type		<b>BEST</b> HIGHEST PRODUCTIVITY LOWEST TOTAL COST	<b>GOOD</b> CONSISTENT PERFORMANCE LOW INITIAL PRICE
<b>Iron</b>	Gray	4ZF1234-R5B38S, ZI/25-R, ZI/26-Q	Gemini All Purpose
	Ductile / Malleable	4ZF1234-R5B38S, ZI/25-R, ZI/26-Q	Gemini All Purpose
<b>Steel</b>	Carbon and Low Alloy	4ZF1434-R5B38S	Gemini All Purpose
	Stainless and High Alloy		Gemini All Purpose
<b>Aluminum Alloy</b>		NZC142-R5B38S	
<b>Copper Alloys / Brass / Bronze</b>		NZC142-R5B38S	

NOTE: GRADE, GRIT AND ABRASIVE TUNING MAY BE NECESSARY TO OBTAIN OPTIMUM PERFORMANCE

### TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES	SUGGESTED CORRECTION
Poor stock removal	Insufficient pressure applied Wheel too coarse or hard Inadequate abrasive	Increase pressure to use all available power Use finer grit and/or softer grade wheel Try NorZon, 4ZF, or ZI/25 specification
Grinding costs too high	Wheel acting too soft Low performance specification	Use harder and/or coarser wheel Try NorZon or ZI products
Wheel loading or glazing	Grade too hard Grit too coarse Dirty, scale-covered parts	Try softer grade Try finer grit Try NZC wheels
Wheels "dusty"	Wheel too soft	Try harder grade
Wheel doesn't hold corner or wheel spalling	Wheel too coarse Wheel too soft	Use finer grit and/or 2 grit combination Use harder grade
Burning the workpiece	Wheel too hard Wheel glazed or loaded Grinding pressure too low Grinding pressure too high	Use softer grade Dress the wheel face Increase grinding force Reduce grinding force
Surface finish too rough	Wheel too coarse Wheel speed too slow Worn machine bearings	Try finer grit or try ZI/26 specification Try higher speed machine (Do not exceed maximum operating speed of wheel) Rebuild machine
Vibration	Wheel worn out of round Faulty flanges Bent machine spindle Worn machine bearings	Try truing the wheel Check flanges for flatness and burrs (see ANSI B7.1) Check spindle run-out Rebuild machine
Wheel stalls or slows	Grinding force too high Wheel too hard Machine power too low	Reduce pressure or contact area Use softer grade wheel Replace machine with higher power grinder

## FLOORSTAND AND SWINGFRAME SNAGGING WHEELS

### FEATURED PRODUCTS

#### 4ZF, 4NZ, ZI, AND NZC WHEELS

BEST CHOICE FOR DEMANDING APPLICATIONS

##### FEATURES

- 4ZF – for long life
- 4NZ – for sharpness
- ZI – zirconia grain stays sharper, longer
- NZC – zirconia alumina and silicon carbide blend

##### BENEFITS

- Engineered for high-pressure, heavy-duty, snagging operations, particularly on iron
- Exceptional wheel life
- Developed for low- to medium-pressure operations, especially on steel and steel castings
- Exceptionally high cut rate
- The most operator-friendly wheels
- The choice for iron castings: ZI/25 for tough metal removal, ZI/26 for finer surface finish
- Ideal for dirty, scale-covered castings

#### CHARGER WHEELS

BETTER CHOICE FOR STRONG PERFORMANCE TO PRICE RATIO

##### FEATURES

- Strong zirconia alumina abrasive

##### BENEFITS

- Very good cut rate and life

#### 5ZF AND GEMINI WHEELS

GOOD CHOICE FOR NUMEROUS SMALL JOBS

##### FEATURES

- Gemini – versatile aluminum oxide formulation
- Low initial price
- 5ZF – zirconia alumina

##### BENEFITS

- Works well with a variety of machines, horsepower, and operations
- The choice for initial-price-conscious end-users
- Ideal for lower horsepower or low-pressure applications

#### AVAILABILITY

SIZE (D x T x H)	MAX. RPM	TIER: STD. PKG.	BEST		BETTER		GOOD	
			SPEC.	PART #	SPEC.	PART #	SPEC.	PART #
<b>Type O1 Straight</b>								
24 x 3 x 12	1,990	1	4ZF1234-R5B38S	69083166310			5ZF14-QS	69083166858
HS Steel Rings with Fine Centers, S Webs	1,990	1	ZI/25-R	66253119637			Gemini All Purp.	69083167173
30 x 2 x 12	1,595	1	4NZ1634-Q5B38S	69210421412	Charger Free Cut Charger Long Life	69210421417 69210421418	5ZF14-R	69210467105
HS Steel Rings with	1,595	1	4ZF1434-R5B38S	69210466458			Gemini All Purp.	69210417463
Fine Centers, S Webs	1,595	1	4ZF1634-Q5B38S	69210466460				
	1,595	1	ZI/25-R	66253119636				
	1,595	1	ZI/26-Q	66253119638				
	1,595	1	NZC142-R5B38S	69210421414				

FOR YOUR SAFETY: ALL FLOORSTAND AND SWINGFRAME WHEELS HAVE STRONG FINE CENTERS, STEEL RINGS AND HIGH-STRENGTH FIBERGLASS REINFORCEMENT CONSTRUCTION.

## TECHtip

- Always ensure proper mounting of floorstand and swingframe wheels by mounting with arrow down as marked on wheel
- Always use safety guard
- Always run wheel for 1 minute before grinding
- For optimum performance, ensure adequate air pressure and air volume when using pneumatic machines
- Use constant surface foot per minute machines for highest efficiency
- Do not overdress the wheel face
- Avoid loading or glazing by changing the contact angle
- Use pressure assist whenever possible to obtain maximum cut rate



It is the user's responsibility to refer to and comply with ANSI B7.1

## How to Read an Abrasive Product Specification

Conventional Grinding Wheels																	
32A			46			I			8			V			BE		
ABRASIVE			GRIT SIZE			GRADE			STRUCTURE			BOND TYPE			NORTON SYMBOL		
ALUMINUM OXIDE	CERAMIC ALUMINUM OXIDE	SILICON CARBIDE	ZIRCONIA ALUMINA	COARSE	MEDIUM	FINE	SOFT	MEDIUM	HARD	RELATIVE GRAIN SPACING	Resin = B Shellac = E Plastic = P Rubber = R Vitrified = V	Designates a variation or modification to bond.					
23A	OXIDE	37C	4NZ	12	30	80	D	I	Q	↑ ↓	2						
25A	3SGP	39C	4ZF	16	46	100	F	K	S		4						
32A	3SGR	Crystolon	5ZF	20	54	120	G	L	T		5						
32AC (blend)	5SG	Masonry	AZ (blend)	24	60	150	H	M	U		6						
38A	BRG		BlueFire		70	220		N	V		8						
48A	SG		Charger					O	Y		12						
53A	SXG		(blend)					P	Z		16						
55A	NorZon Plus		NZ								19						
57A	(blend)		NZC (blend)								25						
U57A	NQ Quantum		NZIII								28						
64A	Targa		NZIV														
86A			NorZon														
90A			ZI														
Alundum																	
FabCut																	
India																	
Gemini																	
Metal																	
Vortex																	

## Shelf Life and Proper Storage of Grinding Wheels

It has always been Saint-Gobain Abrasives recommendation that resinoid bonded grinding wheels be used within 2 years from the date of manufacture. This recommendation assumes that resinoid bonded grinding wheels have been stored under ideal storage conditions. It might be true that under ideal storage conditions resinoid bonded grinding wheels can survive without any degradation in strength for well over two years. However, it is always wise to suspect any wheels over two years old and have them reinspected or re-speed tested to determine if there has been any degradation in strength. If the wheels are stored under less than ideal conditions, they might have a much shorter shelf life depending upon the severity of storage conditions. These same comments also apply to rubber and shellac bonded grinding wheels.

As for vitrified grinding wheels, the shelf life is less influenced by humidity and adverse storage conditions as compared to resinoid, rubber or shellac, but even vitrified grinding wheels do not have an infinite shelf life. The best procedure and the best rule of thumb is to have any wheel that is two years old or older re-speed tested and reinspected to ensure it is fit for use. The procedure for having this done and the charges will be explained by our Customer Service Department, but the cost of shipping as well as the cost of re-inspection is the customer's responsibility. Also, any wheels rejected or otherwise lost in the re-inspection process will also be the responsibility of the customer.

Keep in mind, however, that this procedure is good to verify the reliability of a product but must not be performed until you are ready to consume the wheel. If wheels are sent back after the two year time frame for re-inspection and re-testing and then put back on the shelf, there is no telling how long they will be fit for use after that last inspection. Therefore, these wheels must be consumed as soon as is practical.

