

CATEGORY DEFINITION

For consistent, quality performance in foundries, welding shops, fabrication facilities, steel mills and shipyards, Norton snagging wheels maximize your productivity. Used on horizontal/straight shaft grinders or right angle cup portable grinders.

APPLICATIONS: Removing flaws, cracks, gates, risers and parting lines, smoothing weld seams, cleaning castings, and rough beveling

SIZE RANGE: Type 01 Straight Wheels: 2-1/2" – 8" diameter
Type 06 and 11 Cup Wheels: 4" – 6" diameter
Cones and Plugs: Type 16, 17, 17R, 18 and 18R

GRIT RANGE: 14 – 24

ABRASIVE TYPES: Zirconia Alumina NZ, 4NZ, Zirconia Alumina/Aluminum Oxide Blend AZ, Zirconia Alumina/Silicon Carbide Blend NZC, AZC, Aluminum Oxide 57A, Aluminum Oxide/Silicon Carbide Blend 57AC, Silicon Carbide 37C



MATERIAL-TO-PRODUCT RECOMMENDATION GUIDE

		BEST HIGHEST PRODUCTIVITY LOWEST TOTAL COST	BETTER EXCELLENT BLEND OF PERFORMANCE & PRICE	GOOD CONSISTENT PERFORMANCE LOW INITIAL PRICE
Iron	Gray	NorZon Plus NZ14-R	BlueFire 4NZ16-QBX406	Gemini 57A16-Q
	Ductile/Malleable	NorZon Plus NZ14-R	BlueFire 4NZ16-QBX406	Gemini 57A16-Q
	Dirty/Scale-covered		BlueFire NZC16-QBX406	Gemini 57AC16-Q
Steel	Carbon and Low Alloy	NorZon Plus NZ16-Q	BlueFire 4NZ16-QBX406	Gemini 57A16-Q
	Stainless and High Alloy	NorZon Plus NZ16-P	BlueFire 4NZ16-QBX406	Gemini 57A16-Q
Aluminum, Copper, Brass, & Bronze Alloys			BlueFire NZC16-QBX406	Gemini 57AC16-Q

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

CROSS REFERENCE GUIDE FOR TYPE 01, 06 AND 11

	TOTAL PERFORMANCE ←			INITIAL PRICE →		
	BEST NorZon Plus NZ	BETTER BlueFire 4NZ	BlueFire NZC	GOOD Gemini 57A	Gemini 57AC	Gemini 37C
Brilliant	—	ZA16QB	—	A16QB	—	C16QB
Bullard	—	ZA16PB	—	A16R	AC16	C16P
Camel	—	—	—	A	CA	C
Flexovit	ZA16PB	—	—	A16QB	AC16QB	C16PB
Gulf States	Zirconium	—	—	A16	—	C16
Pacific	Z, Z-GPC	—	—	A	CA	—
Pearl	—	—	—	A16Q	—	C16-Q
Pferd	ZA 16 Q SG	—	—	A 16 Q SG	—	C 16 Q SG
Sait	—	Z16	—	A16, 20	CA16	C16
Tyrolit	—	—	—	A16PB	—	C16PB
Walter	—	—	—	A	—	C

FEATURED PRODUCTS



NORTON NORZON PLUS WHEELS, CONES AND PLUGS

BEST CHOICE FOR HEAVY-DUTY STOCK REMOVAL ON HIGH HORSEPOWER GRINDERS

FEATURES

- NZ Plus (NorZon) – premium zirconia alumina grain

BENEFITS

- Engineered for high-powered machines 10X life, 50% faster grinding versus aluminum oxide



NORTON BLUEFIRE SNAGGING WHEELS, CONES AND PLUGS

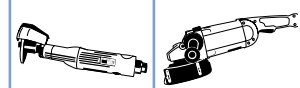
BETTER CHOICE FOR STOCK REMOVAL ON HIGH AND MEDIUM HORSEPOWER GRINDERS

FEATURES

- More friable zirconia alumina grain and durable resin bond technologies

BENEFITS

- Higher metal removal rates, faster, freer-cutting than standard zirconia alumina blends
- Up to 5X the life of aluminum oxide with better grinding action
- NZC – zirconia alumina/silicon carbide blend
- Highly effective on dirty, scale-covered castings



AVAILABILITY

TIER:	BEST	BETTER	BETTER	GOOD
TRADENAME:	NORTON NORZON PLUS	NORTON BLUEFIRE	NORTON CHARGER	NORTON GEMINI
SHAPE:	Type 01	Type 01	Type 01	Type 01
ABRASIVE:	Zirconia Alumina	Zirconia Alumina 4NZ Zirconia Alumina/ Silicon Carbide NZC	Zirconia Alumina/ Aluminum Oxide AZ, Zirconia Alumina/ Silicon Carbide AZC	Aluminum Oxide 57A, Silicon Carbide 37C, Aluminum Oxide/ Silicon Carbide 57AC

SIZE (D x T x H)	MAX. RPM	STD. PKG.	SPEC	PART NO.	SPEC	PART NO.	SPEC	PART NO.	SPEC	PART NO.
Type 01 Straight										
2-1/2 x 1/2 x 3/8	21,700	10							57A24-R	66243522381
3 x 1/4 x 3/8	20,370	10					AZ20-T	66243509999**	57A24-T	66243528831
3 x 3/8 x 3/8	18,080	10							57A24-R	66243522415
3 x 1/2 x 3/8	18,080	10							57A24-P	66243522417
4 x 1/4 x 3/8	15,280	10					AZ20-T	66243510000	57A24-R	66243522221
6 x 1 x 5/8	8,000	5	NZ14-Q	66252838075			AZC16-Q	66252837965		
S Webs		10	NZ14-R	66252837961	4NZ14-RBSX406	66253198589			57A16-QS	66252809563
8 x 3/4 x 5/8	6,000	10					AZ14-R	66253006674		
S Webs										
8 x 1 x 5/8	6,000	5	NZ16-O	66253030778			AZC14-Q	66253030782		
S Webs		10	NZ16-Q	66253044532	4NZ16-QBSX406	66253198590	AZ14-R	66253006672		
					NZC16-QBSX406	66253198592	AZ14-T	66253006673		
Type 06 Straight Cup										
6 x 2 x 5/8-11	6,000	5	NZ16-R	66252838577						
Rim 2" Back 3/4"										
Type 11 Flaring Cup										
4/3 x 2 x 5/8-11	9,070	10	NZ16-Q	66243530761	4NZ16-QBX406	66253198583			57A16-Q	66243510512
Rim 3/4" Back 3/4"										
5/3-3/4 x 2 x 5/8-11	7,260	10			4NZ16-QBX406	66253146918			57A16-Q	66252809598
Rim 1" Back 3/4"										
6/4-3/4 x 2 x 5/8-11	6,000	5	NZ16-Q	66252838568	4NZ16-QBX406	66253146925	AZ16-P	66252825197	57A16-Q	66252825201
Rim 1" Back 3/4"			NZ16-R	66252838566						
6/4-3/4 x 2 x 5/8-11	6,000	5	NZ16-P	66252830765	4NZ16-QBX406	66253198584	AZ14-R	66252809211	37C16-P	66252809609
Rim 1-1/2" Back 3/4"					NZC16-QBX406	66253146922			57A16-Q	66252809618
									57AC16-Q	66252809608
Type 11 Flaring Cup with Steel Back										
4/3 x 2 x 5/8-11	9,070	10			4NZ16-QBX406	66253146917				
Rim 3/4" Back 3/4"										
5/3-13/16 x 2 x 5/8-11	7,260	10			4NZ16-QBX406	66253146920				
Rim 1" Back 3/4"										
6/4-13/16 x 2 x 5/8-11	6,000	5			4NZ16-QBX406	66253198586	AZ14-R	66252809213	57A16-Q	66252809599
Rim 1-1/2" Back 3/4"					NZC16-QBX406	66253146929	AZ16-Q	66252809212	57AC16-Q	66252809600

** STD.PKG. = 50



AVAILABILITY





TIER:
TRADENAME:
ABRASIVE:

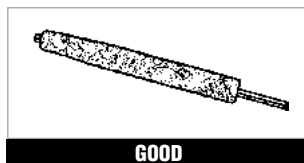
BEST
NORTON NORZON PLUS
Zirconia Alumina

BETTER
NORTON CHARGER
Zirconia Alumina/Aluminum Oxide

GOOD
NORTON GEMINI
Aluminum Oxide

SIZE (D x T x H)	MAX. RPM	STD. PKG	SPEC	PART NO.	SPEC	PART NO.	SPEC	PART NO.
Type 16 Cones 								
1 x 3 x 3/8-24 (ME 107019)	36,290	10					57A24-R	61463622342
1-1/2 x 2-1/2 x 3/8-24 (ME 44436)	24,190	10					57A24-R	61463622349
1-1/2 x 3 x 3/8-24 (ME 139029)	24,190	10			AZ24-R	61463614587		
1-1/2 x 3 x 5/8-11 (ME 70535)	24,190	10	NZ20-R	61463644231	AZ20-R	61463614588	57A24-R	61463622190
1-3/4 x 3 x 3/8-24 (ME49226)	20,735	10					57A24-R	61463614503
1-3/4 x 3 x 5/8-11 (ME 33432)	20,740	10					57A24-R	61463622195
2 x 3 x 5/8-11 (ME 28229)	18,145	10	NZ20-R	61463644232	AZ20-R	61463614604	57A24-R	61463622218
2-3/4 x 3-1/2 x 5/8-11 (ME 18265)	13,195	10			AZ16-R	61463614599	57A24-R	61463622387
Type 17 Cones, Square Tip 								
1-1/2 / 1/2 x 3 x 3/8-24	24,190	10					57A24-R	61463622194
2 / 1/2 x 3 x 5/8-11	18,145	10					57A24-R	61463615722
Type 17R Cones, Round Tip 								
2 / 3/4 x 3 x 5/8-11 (ME 151373)	18,145	10			AZ20-R	61463615866		
Type 18 Plugs, Square Tip 								
1-1/2 x 2-1/2 x 3/8-24	24,190	10					57A24-R	61463622217
1-1/2 x 2-1/2 x 5/8-11	24,190	10	NZ20-R	61463644224	AZ20-R	61463644256	57A24-R	61463622351
1-1/2 x 3 x 5/8-11	24,190	10			AZ20-R	61463644257	57A24-R	61463622191
2 x 3 x 5/8-11	18,145	10	NZ20-R	61463644234	AZ20-R	61463614601	57A24-R	61463622219
					AZ24-R	61463614595		
2 x 4 x 5/8-11	18,145	10					57A24-R	61463622366
Type 18R Plugs, Round Tip 								
1-1/2 x 3 x 3/8-24	24,190	10					57A24-R	61463622192
2 x 3 x 5/8-11	18,145	10			AZ20-R	61463644259	57A24-R	61463622220

AVAILABILITY



TIER:
BRAND:
ABRASIVE:

GOOD
NORTON

Silicon Carbide

SIZE (T x W x L)	STD. PKG.	SPEC.	PART NO.
Stock Resinoid Core Files – Silicon Carbide			
1/2 x 1 x 10	5	37C24-SB	61463610314

FLOORSTAND AND SWINGFRAME SNAGGING WHEELS



CATEGORY DEFINITION

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

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

FLOORSTAND SNAGGING WHEEL MATERIAL-TO-PRODUCT RECOMMENDATION GUIDE

Casting Type		BEST HIGHEST PRODUCTIVITY LOWEST TOTAL COST	BETTER EXCELLENT BLEND OF PERFORMANCE & PRICE	GOOD CONSISTENT PERFORMANCE LOW INITIAL PRICE
Iron	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
Steel	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		BEST HIGHEST PRODUCTIVITY LOWEST TOTAL COST	GOOD CONSISTENT PERFORMANCE LOW INITIAL PRICE
Iron	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
Steel	Carbon and Low Alloy	4ZF1434-R5B38S	Gemini All Purpose
	Stainless and High Alloy		Gemini All Purpose
Aluminum Alloy		NZC142-R5B38S	
Copper Alloys / Brass / Bronze		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

FEATURED PRODUCTS

4ZF, 4NZ, ZI, AND NZC WHEELS

BEST CHOICE FOR DEMANDING APPLICATIONS

FEATURES

- 4ZF – for long life
- 4NZ – for sharpness
- NEW! ZI – new 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
- Competitively priced
- 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	STD. PKG.	TIER: BEST		BETTER		GOOD	
			SPEC.	PART NO.	SPEC.	PART NO.	SPEC.	PART NO.
Type O1 Straight								
24 x 3 x 12	1,990	1	4ZF1234-R5B38S	69083166310			5ZF14-QS	69083166858
HS Steel Rings with Fine Centers, S Webs		1	ZI/25-R	66253119637			5ZF14-QS	69083123732*
		1					Gemini All Purp.	69083167173
30 x 2 x 12	1,595	1	4NZ1634-Q5B38S	69210421412	Charger Free Cut	69210421417	5ZF14-R	69210467105
HS Steel Rings with Fine Centers, S Webs			4ZF1434-R5B38S	69210466458	Charger Long Life	69210421418	Gemini All Purp.	69210417463
			4ZF1634-Q5B38S	69210466460				
			ZI/25-R	66253119636				
			ZI/26-Q	66253119638				
			NZC142-R5B38S	69210421414				

* PACKAGED 10 WHEELS PER PALLET. MUST BE ORDERED IN MULTIPLES OF 10.

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