




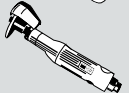


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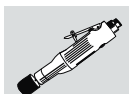
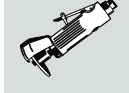
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## DEPRESSED CENTER WHEELS

MACHINE USED



### CATEGORY DEFINITION

Depressed center wheels may also be referred to as raised hub wheels or by their shape designation of "Type", with Type 27 being the most popular. The depressed center design allows the flange/lock nut to recess within the wheel so that it can be used for various grinding and cutting applications. Depressed center wheels are designed to handle the most severe right angle grinding applications from heavy stock removal to rough blending. More recently, depressed center wheels have been designed to increase the utility of the tool for cut-off applications. While large right angle grinders (7" & 9") have been around for many years, small or mini grinders that handle 4", 4-1/2" and 5" wheels have made this machine, and wheel category, the most popular in power tools.

- APPLICATIONS:** Grinding, stock removal, edge chamfering, beveling, weld blending, and cutting-off
- SIZE RANGE:** 2" – 9"
- THICKNESS RANGE:** .040 – 1/4"
- GRIT RANGE:** 24 – 46 grits for stock removal; 60, 80 grits for blending and finishing
- ABRASIVE GRAIN:** Ceramic Alumina, Diamond, Zirconia Alumina, Aluminum Oxide, Silicon Carbide
- MOUNTING OPTIONS:** Plain hole (3/8", 5/8" and 7/8") and discard mount (5/8"-11)
- SHAPE:** Type 27, Type 28, Type 29

### TYPE-TO-APPLICATION RECOMMENDATION GUIDE

WHEEL TYPE/THICKNESS	APPLICATIONS		
<b>TYPE 27</b> 	<b>Type 27 wheels are essentially straight wheels that have a "depressed center/raised hub". Different types of fiberglass reinforcement mesh give the product stability for use on the periphery, on the face, or a combination of the two.</b>	 90° ANGLE	 30° ANGLE
.040", .045", and 1/16" Type 27/42 RightCut	Cutting only, where fast cutting and low kerf loss are desired	■	
.3/32" and .125" Type 27/42	For tough cutting and notching applications where stability is important; cutting and cleaning burr-free narrow root pass welds	■	
1/8" Type 27	For multiple applications ranging from cutting-off, notching and light-duty side grinding	■	■
1/8" Pipe Notcher Type 27	2-1/2 pieces of reinforcement; durable face grinding; root pass grinding without removing pipe material	■	■
1/8" Type 27 Flexible	For light stock/blending/finishing/polishing		■
1/8" Type 27 Foundry Notchers	Triple-reinforced for grinding steel and dirty/scale-covered castings; removing and cleaning gates and risers	■	■
1/4" Type 27	For heavy-duty to light grinding on the bottom/face of the wheel		■
1/4" Type 27 Foundry Snaggers	Designed for cleaning parting lines, pads and slag		■
1/4" Type 27 Heavy-Duty Foundry	Triple-reinforced for the most aggressive foundry applications		■
<b>TYPE 28</b> 	<b>Type 28 wheels are constructed with a downward angle built into the grinding section to facilitate a flatter grinding angle. These wheels can only be used on the face and never on the periphery for cutting-off.</b>		 15° ANGLE
1/4" Type 28 Saucers	Smooth, gouge-free grinding at shallow angles		■
<b>TYPE 29</b> 	<b>Type 29 wheels are constructed with an upward angle built into the grinding section to provide full face contact for light stock removal and blending operations. These wheels can only be used on the face and never on the periphery for cutting-off.</b>		 15° ANGLE
1/8" Type 29 Flexible, AVOS	Polishing and blending applications		■

## DEPRESSED CENTER WHEELS

MACHINE USED



### MATERIAL/APPLICATION-TO-PRODUCT RECOMMENDATION GUIDE

	<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>Cutting</b>			
Mild Carbon / High Tensile Steel	Norton NorZon Plus	Norton BlueFire	Norton Metal
Stainless Steel / Alloys	Norton NorZon Plus	Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Contaminate Free		Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Cast Iron	Norton NorZon Plus	Norton BlueFire	Norton Gemini
Gray Iron		Norton BlueFire Foundry	
Aluminum / Bronze / Brass			Norton Gemini Aluminum
Asphalt / Brick / Concrete			Norton Masonry
Fiberglass / Plastic			Norton Masonry
<b>Notching</b>			
Mild Carbon / High Tensile Steel	Norton NorZon Plus	Norton BlueFire	Norton Metal
Stainless Steel / Alloys	Norton NorZon Plus	Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Contaminate Free		Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Cast Iron	Norton NorZon Plus	Norton BlueFire	Norton Gemini
<b>Grinding</b>			
Mild Carbon / High Tensile Steel	Norton NorZon Plus	Norton BlueFire	Norton Metal
Stainless Steel / Alloys	Norton NorZon Plus	Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Contaminate Free		Norton BlueFire <b>FC/INOX/SS</b>	Norton Gemini <b>INOX/SS</b>
Cast Iron	Norton NorZon Plus	Norton BlueFire	Norton Gemini
Gray Iron	Norton NorZon Plus Foundry	Norton BlueFire Foundry	Norton Gemini
Aluminum / Bronze / Brass			Norton Gemini Aluminum
Asphalt / Brick / Concrete			Norton Masonry
<b>Blending</b>			
Mild Carbon / High Tensile Steel			Norton Gemini Flexible
Stainless Steel / Alloys			Norton Gemini Flexible
Aluminum / Bronze / Brass			Norton Gemini Flexible
Fiberglass / Plastic			Norton Gemini Flexible

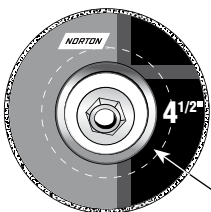
TYPICAL STEEL, STAINLESS STEEL, CAST IRON PRODUCTS: ANGLE IRON, BAR STOCK, DUCTILE PIPE, CHANNEL IRON, DECKING, REBAR, I-BEAMS, RAIL STEEL, STUDS, TUBING, AND WELDS

### HOW TO PICK THE RIGHT BOND TYPE

<b>Standard</b>	Unmarked	Where an excellent blend of cut rate and life is needed
<b>Fast Cut</b>	<b>FC</b>	Where fast stock removal is needed, or the application only allows for low-pressure or under-horsepowered grinders
<b>Long Life</b>	<b>LL</b>	Where durability is needed due to severe application, and when horsepower of the grinder allows for heavy pressure
<b>Contaminate Free</b>	<b>INOX/SS</b>	Contain <0.1% iron, sulfur or chlorine for rust-free and corrosion-free results. Will not contaminate stainless steel

### HOW TO PICK THE RIGHT MOUNT

Most wheel sizes come with a plain hole or a discard mount option. While the plain hole has a small, initial cost advantage, the discard mount can provide a labor cost advantage with the quicker wheel change.

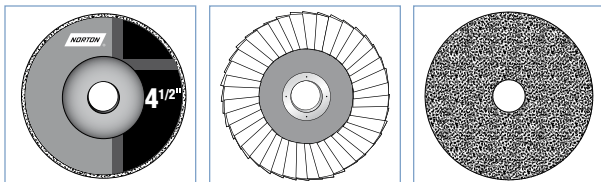


#### Mini-Mount Hub

Our unique, patented mini-mount hub used on 4-1/2" and 5" depressed center wheels provides up to 30% more wheel life because the hub covers just a small surface area, providing maximum grinding area exposure and usage.

STANDARD THROW-AWAY HUB SIZE

### WHY CHOOSE DEPRESSED CENTER WHEELS?



#### Depressed Center Wheels vs. Flap Discs or Fiber Discs

- Up to 5X life over flap discs, less downtime
- Up to 100X life over fiber discs, less downtime
- Rigidity for severe operations and high power grinders
- 1/8" wheels can be used for cutting and grinding
- Can be used to grind inside corners at outer edge of wheel

## DEPRESSED CENTER WHEELS

MACHINE USED



### CROSS REFERENCE GUIDES

TYPE 27/42 RIGHTCUT – .040" - 1/16"

TOTAL PERFORMANCE

INITIAL PRICE

SPECIALTY

NORTON	BEST		GOOD			GOOD	
	NorZon Plus	BlueFire	Gemini INOX/SS	Gemini Long Life	Gemini	Metal	Gemini Aluminum
Brilliant	—	—	—	Brill-Blade Heavy Duty	Brill-Blade Extra FC	Hornet	—
Bullard	—	ZA60T	—	TA46T, TA60T TA60U	SGA60U	A46T, A60T Comp.	AL46N
Camel	—	ZA Quickie Cut	A60-T-BF, WA60R Quickie Cut	Super Quickie Cut	A36-S-BF	—	A46 Quickie Cut
Flexovit	—	—	—	Razorblade A60SST	Razorblade A24T, 30V, 36T	—	—
Pearl	—	Redline Max Slimcut	—	Slimcut	—	Slimcut Pro-V, Silverline	—
Pferd	—	SGP-ZA-Q-INOX	SG-A-R-INOX, SGP-A-S-INOX	SG-A-S, SGP-A-T	—	PSF-A-P	S-G-N-ALU
Sait	—	Z-tech	XA46R	—	A60S, Saitech	SAIT.M.X	A46N
Spedecut	—	—	—	—	—	A46, 60 TBXX	—
Walter	—	—	A-60SS-ZIP	—	A-60-ZIP, A-30-ZIP	—	A-60-ZIP-ALU

TYPE 27 AND 28 – 1/8" AND 1/4"

TOTAL PERFORMANCE

INITIAL PRICE

SPECIALTY

NORTON	BEST		BETTER			GOOD				GOOD	
	NorZon Plus	NorZon Plus Long Life	BlueFire FC/INOX/SS	BlueFire	BlueFire Foundry	Gemini	Gemini Fast Cut	Gemini INOX/SS	Metal	Gemini Aluminum	Masonry
Brilliant	—	—	Brill-Max Z24R	—	—	Brill-TEX A24UHPXL, A30T	Brill-TEX A24R Super-G	Brill-TEX A30P	Hornet Metal	Brill-TEX 30ALU	Brill-TEX C30P, Hornet Concrete
Bullard	TA24S	—	ZA24R	ZA24R Competitor	—	A24R	A24N	A46Q	A24R Competitor	AL36N	C24R
Camel	—	—	ZA24T	—	—	A24R	Ultra A24-N-BF, A24T Super Quickie Cut	WA24S	A24N, R&T Fast Cut	A30N, Fast Cut	C24R
Flexovit	Flexon ZA20Q	Flexon ZA24P ZA30T	—	Metalhog AXT24S	Flexon ZA16U	High Performance A24/30T	High Performance A30S, Specialist A30Q & R	Free Grind A30Q	—	Specialist A24ALU	High Performance C24/30P
Metabo	—	—	ZA24T	—	—	A24R & T	A24N	A360	—	A36M	C24N
Pearl	—	—	Z24T	—	—	Premium Metal A24S, Redline Max A/WA24S	Premium Metal A24R, Redline Max A/WA24R	WA24R, SRT24	Silver Line A24R & S	D.A. Series AL24M	Silver Line C24S
Pferd	—	—	ZA R SGP, Z-SG	ZA S GP, ZA T SGP	—	A-PS, A-SG	—	A-SG INOX, A-PS INOX	—	A-SG ALU	S-SG, Masonry
Sait	Saitech Attacker, Pipeline	Saitech Ultimate Performance	Z24R Z-tech	—	CA24R - Foundry	A24R, A24 Turbo	A24N	XA24Q	—	A46N - Aluminum	C24N
Tyrolit	—	—	ZA24N-BFX	ZA24P-BFX	ZZA24R-BFX	A30S & Q-BFX	A30R-BFX	A30-BF INOX	A30-BF	A36N-BFX WA46-BF	C30-BF
Walter	—	—	Double-X, Allsteel	Allsteel XX	—	HP	—	Stainless	—	Aluminum	Concrete

TYPE 27 – FLEXIBLE 1/8"

NORTON	GOOD Gemini Flex
Brilliant	Brill-Flex
Bullard	Flexlite AC
Camel	FGF, Special Wheel
Flexovit	Flexcel
Metabo	Z-Plus
Pearl	Flexible AC
Pferd	SG-Flex
Sait	Challenger II
Walter	Flexcut

## DEPRESSED CENTER WHEELS

MACHINE USED



### AVAILABILITY



TIER: **GOOD**  
 TRADENAME: **NORTON GEMINI**  
 SHAPE: Type 27  
 ABRASIVE: Aluminum Oxide  
 MATERIAL: ALUMINUM

SIZE (D x T x H)	MAX. RPM	STD. PKG.	GRIT	PART #
<b>1/8", 1/4" – Cutting / Grinding / Blending – Type 27</b>				
4-1/2 x .045 x 7/8	13,580	25	36	66252841909
4-1/2 x 1/8 x 5/8-11	13,580	10	46	66252842029
4-1/2 x 1/8 x 7/8	13,580	25	46	66252842030
4-1/2 x 1/4 x 5/8-11	13,580	10	46	66252842031
4-1/2 x 1/4 x 7/8	13,580	25	46	66252842034
5 x .045 x 7/8	12,225	25	36	66252841910
5 x 1/4 x 7/8	12,225	25	46	66252842039
6 x .045 x 7/8	10,185	25	36	66252841911
7 x 1/4 x 5/8-11	8,600	10	24	66252940514
	8,600	10	46	66252940515
7 x 1/4 x 7/8	8,600	20	24	66252940516
9 x 1/4 x 5/8-11	6,600	10	24	66253049045

### AVAILABILITY



TIER: **GOOD**  
 TRADENAME: **NORTON MASONRY**  
 SHAPE: Type 27  
 ABRASIVE: Silicon Carbide  
 MATERIAL: MASONRY

SIZE (D x T x H)	MAX. RPM	STD. PKG.	PART #
<b>1/8", 1/4" – Cutting / Grinding – Type 27</b>			
4 x 1/8 x 5/8	15,280A	25	66252842013
4 x 1/4 x 5/8	15,280	25	66252842010
4-1/2 x 1/8 x 7/8	13,580	25	66252843601
4-1/2 x 1/4 x 5/8-11	13,580	10	66252843599
4-1/2 x 1/4 x 7/8	13,580	25	66252843600
5 x 1/4 x 7/8	12,225	25	66252843602
7 x 1/4 x 5/8-11	8,600	5	07660775942
9 x 1/4 x 5/8-11	6,600	5	07660775937

### AVAILABILITY



TIER: **BETTER**  
 TRADENAME: **NORTON AVOS GEMINI**  
 SHAPE: Type 29  
 ABRASIVE: Aluminum Oxide  
 MATERIAL: ALUMINUM



TIER: **GOOD**  
 TRADENAME: **NORTON GEMINI FLEXIBLE**  
 SHAPE: Type 27  
 ABRASIVE: Aluminum Oxide  
 MATERIAL: ALUMINUM



TIER: **GOOD**  
 TRADENAME: **NORTON GEMINI FLEXIBLE**  
 SHAPE: Type 29  
 ABRASIVE: Aluminum Oxide  
 MATERIAL: ALUMINUM

SIZE (D x T x H)	MAX. RPM	STD. PKG.	GRIT	PART #	PART #	PART #
<b>1/8", 1/4" Flexible – Blending – Type 27 and 29</b>						
2 x 1/8 x 3/8	30,560	25	60		66252835632*	
	30,560	25	80		66252835633*	
4 x 1/8 x 5/8	15,280	20	36		66243529721#	
	15,280	20	60		66243529722#	
4-1/2 x 1/8 x 5/8-11	12,000	10	36	66252842208		66252842203
4-1/2 x 1/8 x 7/8	12,000	25	36	66252842209	66252830424#	66252842204
	12,000	25	46	66252842210		
	12,000	25	60	66252842211	66252830425#	
5 x 1/8 x 7/8	12,225	25	36	66252842212		66252842205
7 x 1/8 x 5/8-11	8,600	10	36		66252939024	66252917052
7 x 1/8 x 7/8	8,600	20	36		66252939028#	66252917051

\*5 WHEELS PER DISPLAY PACK; 5 DISPLAY PACKS PER STANDARD PACKAGE.

# THESE WHEELS ARE PACKED 20 PER BOX, AND MUST BE USED WITH A BACK PLATE. TWO BACK PLATES ARE INCLUDED IN EACH BOX.

### DEPRESSED CENTER WHEEL DESCRIPTION CODES

**BLANK** = ALL PURPOSE    **FC** = FAST CUT    **HD** = HEAVY DUTY    **INOX/SS** = CONTAMINANT FREE    **LL** = LONG LIFE    **1-2-3** = CUTTING/NOTCHING/GRINDING  
**ALU** = ALUMINUM    **FOU** = FOUNDRY    **MAS** = MASONRY    **STN** = STAINLESS    **STE** = STEEL / METAL