

Grinding and Cut-Off Wheels Reference Guide

TYPE 1		TYPE 27				
Straight wheels designed for cut-off applications		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.				
WHEEL TYPE	THICKNESS	APPLICATION		90° Angle	15° to 30° Angle	15° Angle
TYPE 1	0.035", 0.040", 0.045", 1/16", 0.125"	Where fast cutting and low kerf loss are desired		X		
	0.40", 0.45", 1/16"	For tough cutting and notching applications where stability is important		X		
	0.90", 0.125", 3/32"	Cutting only, where fast cutting and low kerf loss are desired		X		
TYPE 27	1/8"	For tough cutting and notching applications where stability is important; cutting and cleaning burr-free narrow root pass welds		X		
	1/4"	For multiple applications ranging from cutting-off and notching to light-duty side grinding		X	X	
		For heavy-duty to light grinding on the bottom/face of the wheel			X	X

GENERAL PURPOSE - SILICON CARBIDE

DEWALT
C24R - Silicon carbide grain for long wheel life. For concrete, cast iron, ductile iron, and other masonry materials.
C60T - Premium silicon carbide for aggressive cutting action. Heavy duty for concrete and other masonry materials. Fast burr-free cutting.

NORTON
Norton Masonry/Masonry RightCut - Silicon carbide for masonry applications.

HEAVY-DUTY - ZIRCONIA
DEWALT
Extended Performance Z24R - Premium tough zirconia grain for extended life and material removal. Heavy duty for ferrous metals and stainless steel.
Extended Performance Z60T - Specially treated grain combination for aggressive cutting action. Extended performance, fast, burr-free cutting in all types of ferrous metals and stainless steel.

NORTON
BlueFire - Mix of zirconia and premium aluminum oxide grain. For use with stainless steel, carbon steel, alloys, and gray iron.
BlueFire Fast Cut/INOX - Contains <1% iron, sulfur, or chlorine for contaminant free grinding.
BlueFire Foundry/Foundry HD - Zirconia alumina/silicon carbide abrasive blend and an exceptionally strong reinforcement structure. Ideal choice for aggressive, foundry applications.
BlueFire Right Cut - Longer life and faster cut rate. Less pressure required for first cut. For cutting only.

UNITED ABRASIVES - SAIT
The Ultimate Combo™ Z-tech™ - High performance, tough zirconium grain. Cutting, notching, deburring, and light grinding for the toughest applications. For use with stainless steel and ferrous metals.
Z-Tech™ - Special zirconium grain formula. Fast, non-binding cutting. For use with ferrous metals, stainless steel, and high tensile alloys.

HIGH PERFORMANCE - CERAMIC AND CERAMIC BLEND
3M
Cubitron™II - 3M precision shaped grain for ultra fast cut and long life. Cuts with less pressure. Specially formulated for stainless and mild steel.
High Performance - A blend of 3M precision shaped ceramic grain and conventional abrasive provides fast cut and long life. Specially formulated for stainless and mild steel.
Silver - 3M precision shaped grain cuts extremely quickly through stainless steel and carbon steel pipes, tube, flat sheets, and more.

NORTON
NorZon Plus - Combination of Norton SG ceramic alumina and Norzon zirconia alumina with advanced bond system. Lowest total grinding cost; highest productivity. Offer the best option when the best combination of life, cut rate, and lowest heat generation is a primary concern.
NorZon Plus Foundry - Designed to withstand the most aggressive foundry applications.
NorZon Plus Long Life - Best option when longest possible life is primary concern, rough grinding conditions require wheel durability, using high cycle, high horsepower grinders and low labor cost are key.
NorZon Plus RightCut - Noticeably longer life and faster cut rate. Less pressure required. For cutting only.

UNITED ABRASIVES - SAIT
Saitech Ultimate Performance™ - High performance, ceramic aluminum oxide grain, Very uniform, high density grain structure is extremely durable and self sharpening for long life and cooler cut, Combines fast cutting with extremely long life for tough cutting applications. For ferrous metals and stainless steel. Ideal for foundry applications (gates, risers).
Saitech™ - High performance, ceramic aluminum oxide grain. Extremely fast stock removal on hard metals with minimal pressure.

GENERAL PURPOSE - ALUMINUM OXIDE

DEWALT
A24R - Aluminum oxide grain for long life and high material removal. Heavy duty for ferrous metals.
A30N - Aluminum oxide grain combination for long wheel life. Fast material removal without loading. For use with aluminum and other non-ferrous materials.
A30S - Aluminum oxide grain for long life and high material removal. Free of iron, sulfur, and chlorine for contaminant free grinding and cutting. Ideal for use in nuclear and food applications.
A36T - Heavy duty cutting in all types of ferrous metal and stainless steel. Fast aggressive cutting in tough applications.
A60S - Proprietary aluminum oxide grain combination for aggressive cutting action. Free of iron, sulfur, and chlorine for contaminant free cutting. Used for cutting stainless steel and other high strength alloys. Ideal in nuclear and food applications.
A60T - Heavy duty cutting in all types of ferrous metal and stainless steel. Clean smooth cutting and long wheel life.
Metal AO - Softer formulation for fast cutting. Quickly cuts rebar, pipe, sheet metal, structural steel and stainless steel.
Mini Hub HP™ - Allows for more cuts per wheel vs. standard hub design. Fast tool-free wheel changes. Use for a wide range of metal cutting applications.

NORTON
Gemini - Good choice for steel and ferrous metals as well as specialty applications in aluminum and foundries. Quality aluminum oxide provides consistent performance.
Gemini 1-2-3 - For cutting, notching, and grinding.
Gemini Aluminum - Grind aluminum and softer metals without loading. Contains no wax or rubber fillers.
Gemini Fast Cut - Fastest cutting option when speed of completion is the primary concern.
Gemini Flexible - Unique formulation for better blending, finishing and polishing of stainless steel, structural steel, cast iron welds and burrs. Meets nuclear industry standards.
Gemini Free Cut - Use a more flexible binder than the Long Life wheel, for faster cutting on low-horsepower machines.
Gemini Long Life - Longest lasting when the longest possible wheel life is the primary concern.
Gemini RightCut - Precise cutting; more stability and a narrower pass. Requires less pressure, providing increased operator comfort.
Gemini RightCut Aluminum - Specially formulated for aluminum applications.
Gemini Stainless Steel - For contaminant free grinding.
Gemini XXL/XXL Pipefitter - Best on hard grade carbon steel applications, weld repairs, flashing, and any job that requires quick turn around.
Norton Metal/Metal RightCut - Aluminum for steel/ferrous metal applications.

UNITED ABRASIVES - SAIT
A24N - Fast grinding, aluminum oxide grain, soft bond for fast stock removal. For ferrous metals and low grade stainless steel.
A24R - Long life, aluminum oxide grain, general purpose. For ferrous metals.
A24T - Aluminum oxide grain, hard bond designed for edge and bevel grinding and other applications where a harder wheel is preferred. Longer life for fewer wheel changes. For ferrous metals.
A36T - Fast cutting, aluminum oxide grain. Hard bond for aggressive cutting on rough applications. For ferrous metals and stainless steel.
A46N - Aluminum oxide grain, soft bond for aggressive cutting without loading. For use with nonferrous metals and aluminum.
A60S - Special aluminum oxide grain, hard bond for extremely long life. Fast, burr-free cutting for ferrous metals.
A60T - Aluminum oxide grain, hard bond for smooth cutting. Burr-free cutting for ferrous metals and stainless steel. For use in nuclear, aerospace, automotive, foundry industries, and plant maintenance.
Challenger 3™ - Semi-Flexible, grind and blend welds in one step. Open pattern on wheel for cool grinding and blending. For metals, stainless steel, and aluminum.
Contaminant Free - Safe for use in the nuclear industry.
SAIT.M.X.™ - Special bond for cutting sheet metal and other thin gauge metals. Fast, burr-free cutting for stainless steel.
The Ultimate Combo™ A60S - General purpose, aluminum oxide grain. Provides consistent performance with long life for cutting, notching, deburring, and light grinding. For use with ferrous metals.
The Ultimate Cut™ - Cutting a wide range of stainless thin and thick gauge, flat stock, bar stock, square tubing, etc. Exceptional cutting performance on metal and aluminum.
XA24Q - Contaminant free. Specially formulated for nuclear and food processing plants. Free of iron, chlorine and sulfur compounds (Fe + Cl + S < 0.1%). For use with stainless steel and other high tensile alloys and ferrous metals.
XA46R - Contaminant free. Specially formulated for nuclear and food processing plants. Free of iron, chlorine and sulfur compounds (Fe + Cl + S < 0.1%). For use with stainless steel and other high tensile alloys.



Type 1 Toolroom Cut-Off Wheels

Designed for use on fixed machinery and preengineered for maximum versatility in toolroom cutting applications. Excellent for cutting off drill bits, steel bars, and tubing; salvaging tools; and slotting workpieces.

NOTE: Refer to Reference Guide for more detailed information on wheel types.

Dia.	Thickness	Arbor Hole	Grit	Max. RPM	Item No.
57A					
2 1/2 in		3/8"	70	30,560	4DDU2
7 in	0.0625 in	5/8"	36	8,730	4DDU7
		1/2"	36	8,730	4DDU8
10 in	0.06 in	5/8"	46	4,585	3UP21
	0.09 in	5/8"	60	4,585	4DDV4
A60					
1 1/2 in	0.035 in	1/16"	60	40,745	4DDT9
		1/8"	60	40,745	4DDU1
3 in	0.06 in	1/4"	60	25,465	4DDU3
		3/8"	60	25,465	4DDU4
4 in	0.035 in	1/4"	60	19,100	6PG88
	0.04 in	3/8"	60	19,100	4DDU5
		5/8"	60	10,185	2D752
6 in	0.035 in	1/2"	60	10,190	2D749
		3/4"	60	10,190	2D750
		5/8"	60	8,730	2D754
7 in		1 1/4"	60	8,730	2D755



Dia.	Thickness	Arbor Hole	Grit	Max. RPM	Item No.
		1/2"	60	7,640	2D758
8 in		5/8"	60	7,640	2D756
	0.06 in	1 1/4"	60	7,640	2D757
		3/8"	60	6,110	3UP22
10 in		1 1/4"	60	6,110	2D759