



*The Solution!*

# ABRASIVE WHEEL

Grinding Wheel / Cut-Off Wheel / Flap Disc





## Symbol Legend

### Safety Pictographs



Wear Safety Goggles



Wear Dust Mask



Wear Earmuff



Wear Protective Gloves

### Workpiece Materials



Metals



INOX  
Stainless Steel



Glass

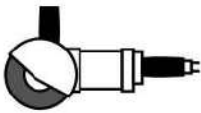


Masonry



Titanium Alloy

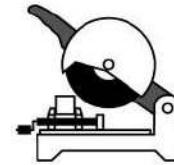
### Machine for Mounting



Angle Cutting Machine



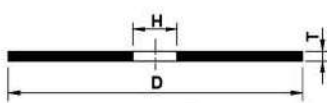
Angle Grinder Machine



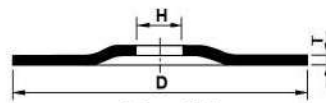
Stationary Machine

### Wheel Configuration

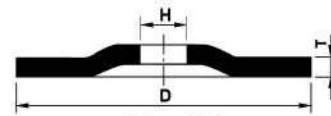
Different configurations are designed for resin bonded abrasive wheels, depending upon the purpose of the wheel is used and the desired result.



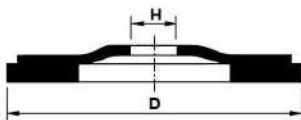
(Type 1)  
Flat Cut-off Wheel



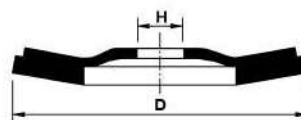
(Type 27)  
Depressed Center Cut-off Wheel



(Type 27)  
Depressed Grinding Wheel



(Type 27)  
Flap Disc (Flat)



(Type 29)  
Flap Disc (Conical)

Note :

The wheel configuration shown on the left are denoted with connotations (D, T & H) that represents the dimension of the wheel.

D= External wheel diameter

H= Internal bore diameter

T= The thickness of the wheel



**General Guide to GESTAR Wheel Grade Code**

<b>A</b>	<b>30</b>	<b>S</b>	<b>B</b>	<b>F</b>	<b>2</b>
<b>Components</b>	<b>Mesh Grit</b>	<b>Hardness grade</b>	<b>Bond Type</b>	<b>Fiber</b>	<b>Layer of glassfiber</b>
<b>A</b> : Alumina (Reddish Brown) <b>WA</b> : White Alumina <b>C</b> : Silicon Carbide (Black) <b>AC</b> : Alumina (A) and Silicon Carbide (C) <b>GC</b> : Green Silicon Carbide <b>ZA</b> : Zirconia	<b>24</b> Coarse <b>30</b> <b>36</b> <b>40</b> Medium <b>46</b> <b>60</b> <b>80</b> <b>100</b> Fine <b>120</b> <b>180</b> <b>240</b> <b>320</b> Super-fine	L ↑ M ↔ N ↓ Soft  O ↑ P ↔ Q ↓ Medium  R ↑ S ↔ T ↓ Hard	<b>B</b> : Resinoid	<b>F</b> : Glassfiber for additional reinforcement	<b>No Digit</b> : 1 Layer  <b>2</b> : 2 or 2.5 Layers  <b>3</b> : 3 Layers

**Interpretation**

**◆ Components**

- A & WA: Good for ferrous metals and alloys with high tensile strength.
- AC: Good for cast iron or non-ferrous metals.
- C & GC: For nonferrous metals and low-tensile strength metals (cast iron, ductile iron, asphalt, concrete, stone, and marble).
- ZA: Sharp but costly.

**◆ Mesh Grit**

- Coarser grain: For faster cutting (grinding), thinner workpiece or softer material (mild steel or green concrete).
- Smaller grain: For smoother surface or high horsepower machine (higher speed) or harder material (harder steel or cured concrete).

**◆ Layer(s) of glassfiber**

Woven fabric of long strand fiberglass, impregnated with phenolic resins, is molded into to strengthen the wheel.

**◆ Hardness grade**

- Softer grade wheel:
  - For harder materials (stainless steel or high carbon steel) or thinner workpiece.
  - For good finish.
  - For machine with low horsepower.
- Medium grade wheel:
  - If softer grade does not give enough cuts.
  - Needs longer operation life.
- Harder grade wheel:
  - For softer materials, fine grinding, or high horsepower machine.
  - Needing longest operation life.
  - For machine with adequate horsepower (about 1 hp per inch of wheel diameter).
  - For minimum burr and finish requirements.

**◆ Bond Type & Fiber**

- B: For dynamic, forceful usage. Abrasive wheels using resin as bond should be used within 3 years from the production date! Severe condition may reduce its life.
- BF: With larger resistance to dynamic forces for heavy usage.

1 SOCKETS

2 WRENCHES

3 SCREWDRIVERS

4 HEX WRENCH

5 FASTENER DRIVE TOOLS

6 HAND TOOLS

7 STORAGE

8 PNEUMATIC

9 DIAMOND WHEELS

10 CORE BITS

11 HOLE SAWS

12 ABRASIVES



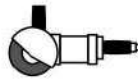
## Cut-Off Wheel



### ■ Abrasive Cut-off Thinner Wheel

Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
111-105	4" x 3/64" x 5/8"	105 x 1.2 x 16	A60T BF2	15,200	80
153-104	4" x 3/64" x 5/8"	107 x 1.2 x 16	A60S BF2	15,200	80
153-114	4" x 3/64" x 5/8"	107 x 1.2 x 16	WA46T BF	15,200	80
153-145	4-1/2" x 3/64" x 7/8"	115 x 1.2 x 22.2	A60S BF2	13,300	80
153-105	5" x 3/64" x 7/8"	125 x 1.2 x 22.2	A60S BF2	12,200	80
153-107	7" x 1/16" x 7/8"	180 x 1.6 x 22.2	A46S BF2	8,500	80
153-109	9" x 5/64" x 7/8"	230 x 1.8 x 22.2	A36S BF2	6,600	80

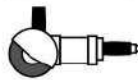
Cut-off Thinner Wheel ; Flat Wheel (Type 1)



### ■ Abrasive Cut-off Wheel

Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
112-105	4" x 5/64" x 5/8"	105 x 2.0 x 16	A36S BF2	15,200	80
153-245	4-1/2" x 1/16" x 7/8"	115 x 1.6 x 22.2	A46S BF2	13,300	80
153-345	4-1/2" x 3/32" x 7/8"	115 x 2.5 x 22.2	A36S BF2	13,300	80
153-205	5" x 1/16" x 7/8"	125 x 1.6 x 22.2	A46S BF2	12,200	80
153-305	5" x 3/32" x 7/8"	125 x 2.5 x 22.2	A30R BF2	12,200	80
153-206	6" x 1/16" x 7/8"	150 x 1.6 x 22.2	A46S BF2	10,200	80
153-207	7" x 1/8" x 7/8"	180 x 3.0 x 22.2	A30S BF2	8,500	80
153-309	9" x 1/8" x 7/8"	230 x 3.0 x 22.2	A30R BF2	6,600	80

Cut-off Wheel ; Flat Wheel (Type 1)



### ■ Stationary Cut-off Wheel (Chop Saw)

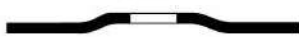
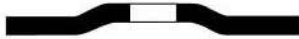
Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
153-312	12" x 1/8" x 1"	305 x 3.2 x 25.4	A30R BF	5,100	80
153-322	12" x 1/8" x 1"	305 x 3.2 x 25.4	A30R BF2	5,100	80
153-334	14" x 1/8" x 1"	355 x 3.2 x 25.4	A30R BF2	4,400	80
153-434	14" x 1/8" x 1"	355 x 2.8 x 25.4	WA36P BF	4,400	80
153-344	14" x 1/8" x 1"	355 x 3.0 x 25.4	A30R BF	4,400	80
153-336	16" x 1/8" x 1"	405 x 3.2 x 25.4	A30R BF2	3,800	80
153-346	16" x 1/8" x 1"	405 x 3.2 x 25.4	A30R BF	3,400	70

Stationary Cut-off Wheel (Chop Saw) ; Flat Wheel (Type 1)





## Grinding Wheel



### ■ Abrasive Grinding Wheel

Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
153-604	4" x 1/4" x 5/8"	100 x 6.0 x 16	A24R BF2	15,200	80
153-645	4-1/2" x 1/4" x 7/8"	115 x 6.0 x 22.2	A24R BF2	13,300	80
153-605	5" x 1/4" x 7/8"	125 x 6.0 x 22.2	A24R BF2	12,200	80
153-607	7" x 1/4" x 7/8"	180 x 6.0 x 22.2	A24R BF2	8,500	80
153-609	9" x 1/4" x 7/8"	230 x 6.0 x 22.2	A24R BF2	6,600	80

Grinding Wheel ; Depressed Center (Type 27)



### ■ Abrasive Grinding Wheel

Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
153-654	4" x 1/4" x 5/8"	100 x 6.0 x 16	WA24 BF2	15,200	70
153-625	5" x 1/4" x 7/8"	125 x 6.0 x 22.2	WA24 BF2	12,200	70
153-627	7" x 1/4" x 7/8"	180 x 6.0 x 22.2	WA24 BF2	8,500	80

Grinding Wheel ; Depressed Center (Type 27)



### ■ Abrasive Flexible Grinding Wheel

Item No.	Wheel Size (D x T x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
121-311	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC36 BF	13,700	70
121-313	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC46 BF	13,700	70
121-314	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC60 BF	13,700	70
121-354	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC80 BF	13,700	70
121-355	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC100 BF	13,700	70
121-364	4" x 1/8" x 5/8"	100 x 3.2 x 16	AC120 BF	13,700	70
121-434	4" x 1/8" x 5/8"	100 x 3.2 x 16	WA60 BF	13,700	70
121-444	4" x 1/8" x 5/8"	100 x 3.2 x 16	WA80 BF	13,700	70
121-454	4" x 1/8" x 5/8"	100 x 3.2 x 16	WA120 BF	13,700	70
121-514	4" x 1/8" x 5/8"	100 x 3.2 x 16	GC60 BF	13,700	70
121-524	4" x 1/8" x 5/8"	100 x 3.2 x 16	GC80 BF	13,700	70
121-534	4" x 1/8" x 5/8"	100 x 3.2 x 16	GC120 BF	13,700	70

Flexible Grinding Wheel ; Depressed Center (Type 27)



1 SOCKETS

2 WRENCHES

3 SCREWDRIVERS

4 HEX WRENCH

5 FASTENER DRIVE TOOLS

6 HAND TOOLS

7 STORAGE

8 PNEUMATIC

9 DIAMOND WHEELS

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## Flap Disc



Material : Alumina

### ■ Flap Disc

Item No.	Wheel Size (D x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
152-501	4" x 5/8"	100 x 16	A40	13,700	70
152-502	4" x 5/8"	100 x 16	A60	13,700	70
152-503	4" x 5/8"	100 x 16	A80	13,700	70
152-504	4" x 5/8"	100 x 16	A100	13,700	70
152-505	4" x 5/8"	100 x 16	A120	13,700	70
152-506	4" x 5/8"	100 x 16	A180	13,700	70
152-507	4" x 5/8"	100 x 16	A240	13,700	70
152-508	4" x 5/8"	100 x 16	A320	13,700	70
152-511	4"-1/2" x 7/8"	115 x 22.2	A40	13,300	70
152-512	4"-1/2" x 7/8"	115 x 22.2	A60	13,300	70
152-513	4"-1/2" x 7/8"	115 x 22.2	A80	13,300	70
152-514	4"-1/2" x 7/8"	115 x 22.2	A100	13,300	70
152-515	4"-1/2" x 7/8"	115 x 22.2	A120	13,300	70
152-521	5" x 7/8"	125 x 22.2	A40	12,200	70
152-522	5" x 7/8"	125 x 22.2	A60	12,200	70
152-523	5" x 7/8"	125 x 22.2	A80	12,200	70
152-524	5" x 7/8"	125 x 22.2	A100	12,200	70
152-525	5" x 7/8"	125 x 22.2	A120	12,200	70
152-021	6" x 7/8"	150 x 22.2	A40	10,200	70
152-022	6" x 7/8"	150 x 22.2	A60	10,200	70
152-023	6" x 7/8"	150 x 22.2	A80	10,200	70
152-024	6" x 7/8"	150 x 22.2	A100	10,200	70
152-025	6" x 7/8"	150 x 22.2	A120	10,200	70

Flap Disc ; Flat (Type 27)



**PREMIUM**

## Flap Disc



Material : Alumina

### Flap Disc

Item No.	Wheel Size (D x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
152-541	4" x 5/8"	100 x 16	A40	13,700	70
152-542	4" x 5/8"	100 x 16	A60	13,700	70
152-543	4" x 5/8"	100 x 16	A80	13,700	70
152-544	4" x 5/8"	100 x 16	A100	13,700	70
152-545	4" x 5/8"	100 x 16	A120	13,700	70
152-546	4" x 5/8"	100 x 16	A180	13,700	70
152-547	4" x 5/8"	100 x 16	A240	13,700	70
152-548	4" x 5/8"	100 x 16	A320	13,700	70
152-551	4-1/2" x 7/8"	115 x 22.2	A40	13,300	80
152-552	4-1/2" x 7/8"	115 x 22.2	A60	13,300	80
152-553	4-1/2" x 7/8"	115 x 22.2	A80	13,300	80
152-554	4-1/2" x 7/8"	115 x 22.2	A100	13,300	80
152-555	4-1/2" x 7/8"	115 x 22.2	A120	13,300	80
152-571	7" x 7/8"	180 x 22.2	A40	8,500	80
152-572	7" x 7/8"	180 x 22.2	A60	8,500	80
152-573	7" x 7/8"	180 x 22.2	A80	8,500	80
152-574	7" x 7/8"	180 x 22.2	A100	8,500	80
152-575	7" x 7/8"	180 x 22.2	A120	8,500	80

Flap Disc ; Flat (Type 27)



**SUPER PREMIUM**



Material : Zirconia

### Flap Disc

Item No.	Wheel Size (D x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
152-581	4" x 5/8"	100 x 16	ZA40	13,700	70
152-582	4" x 5/8"	100 x 16	ZA60	13,700	70
152-583	4" x 5/8"	100 x 16	ZA80	13,700	70
152-585	4" x 5/8"	100 x 16	ZA120	13,700	70
152-591	4-1/2" x 7/8"	115 x 22.2	ZA40	13,300	80
152-592	4-1/2" x 7/8"	115 x 22.2	ZA60	13,300	80
152-593	4-1/2" x 7/8"	115 x 22.2	ZA80	13,300	80
152-595	4-1/2" x 7/8"	115 x 22.2	ZA120	13,300	80
152-611	7" x 7/8"	180 x 22.2	ZA40	8,500	80
152-612	7" x 7/8"	180 x 22.2	ZA60	8,500	80
152-613	7" x 7/8"	180 x 22.2	ZA80	8,500	80
152-615	7" x 7/8"	180 x 22.2	ZA120	8,500	80

Flap Disc ; Flat (Type 27)



**HIGH PERFORMANCE**





## Flap Disc, Clean & Strip Disc – Super Premium



Material : Alumina

### ■ Flap Wheel

Item No.	Wheel Size (D x H)		Material & Mesh Grit	Max. Speed
	inch	mm		RPM
152-811	6" x 1" x 1"	150 x 25 x 25	A40	5,700
152-812	6" x 1" x 1"	150 x 25 x 25	A60	5,700
152-813	6" x 1" x 1"	150 x 25 x 25	A80	5,700
152-814	6" x 1" x 1"	150 x 25 x 25	A120	5,700
152-815	6" x 1" x 1"	150 x 25 x 25	A150	5,700
152-816	6" x 1" x 1"	150 x 25 x 25	A180	5,700
152-817	6" x 1" x 1"	150 x 25 x 25	A240	5,700
152-818	6" x 1" x 1"	150 x 25 x 25	A320	5,700
152-711	6-1/2" x 1" x 1"	165 x 25 x 25	A40	5,200
152-712	6-1/2" x 1" x 1"	165 x 25 x 25	A60	5,200
152-713	6-1/2" x 1" x 1"	165 x 25 x 25	A80	5,200
152-714	6-1/2" x 1" x 1"	165 x 25 x 25	A120	5,200
152-715	6-1/2" x 1" x 1"	165 x 25 x 25	A150	5,200
152-716	6-1/2" x 1" x 1"	165 x 25 x 25	A180	5,200
152-717	6-1/2" x 1" x 1"	165 x 25 x 25	A240	5,200
152-718	6-1/2" x 1" x 1"	165 x 25 x 25	A320	5,200
152-721	6-1/2" x 2" x 1"	165 x 50 x 25	A40	5,200
152-722	6-1/2" x 2" x 1"	165 x 50 x 25	A60	5,200
152-723	6-1/2" x 2" x 1"	165 x 50 x 25	A80	5,200
152-724	6-1/2" x 2" x 1"	165 x 50 x 25	A120	5,200
152-725	6-1/2" x 2" x 1"	165 x 50 x 25	A150	5,200
152-726	6-1/2" x 2" x 1"	165 x 50 x 25	A180	5,200
152-727	6-1/2" x 2" x 1"	165 x 50 x 25	A240	5,200
152-728	6-1/2" x 2" x 1"	165 x 50 x 25	A320	5,200



## Clean & Strip Disc



### Clean & Strip Disc

Item No.	Wheel Size (D x H)		Max. Speed
	inch	mm	RPM
122-401	4" x 5/8"	100 x 16	9,900
122-402	4-1/2" x 7/8"	115 x 22.2	8,600
122-403	5" x 7/8"	125 x 22.2	7,800
122-404	7" x 7/8"	180 x 22.2	5,600

Clean & Strip Disc ; Flat (Type 27)



### Clean & Strip Disc – Super Premium

Item No.	Wheel Size (D x H)		Max. Speed
	inch	mm	RPM
122-411	4" x 5/8"	100 x 16	9,900
122-412	4-1/2" x 7/8"	115 x 22.2	8,600
122-413	5" x 7/8"	125 x 22.2	7,800
122-414	7" x 7/8"	180 x 22.2	5,600

Clean & Strip Disc ; Flat Type (Type 27)



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