



GESTAR®

The Solution!



ABRASIVE WHEEL

Grinding Wheel / Cut-Off Wheel / Flap Disc

Storage



A dry and well-ventilated premises, with temperatures between 10° and 30°C and max. 70% relative humidity, will help retain the physical properties of reinforced resin bonded abrasive wheels for up to three years, or up to two years for non-reinforced ones. The storage premises should be as close to the place of use as possible in order to avoid mechanical damage to the wheels during transport, as well as moisture condensation while in transit on colder days.

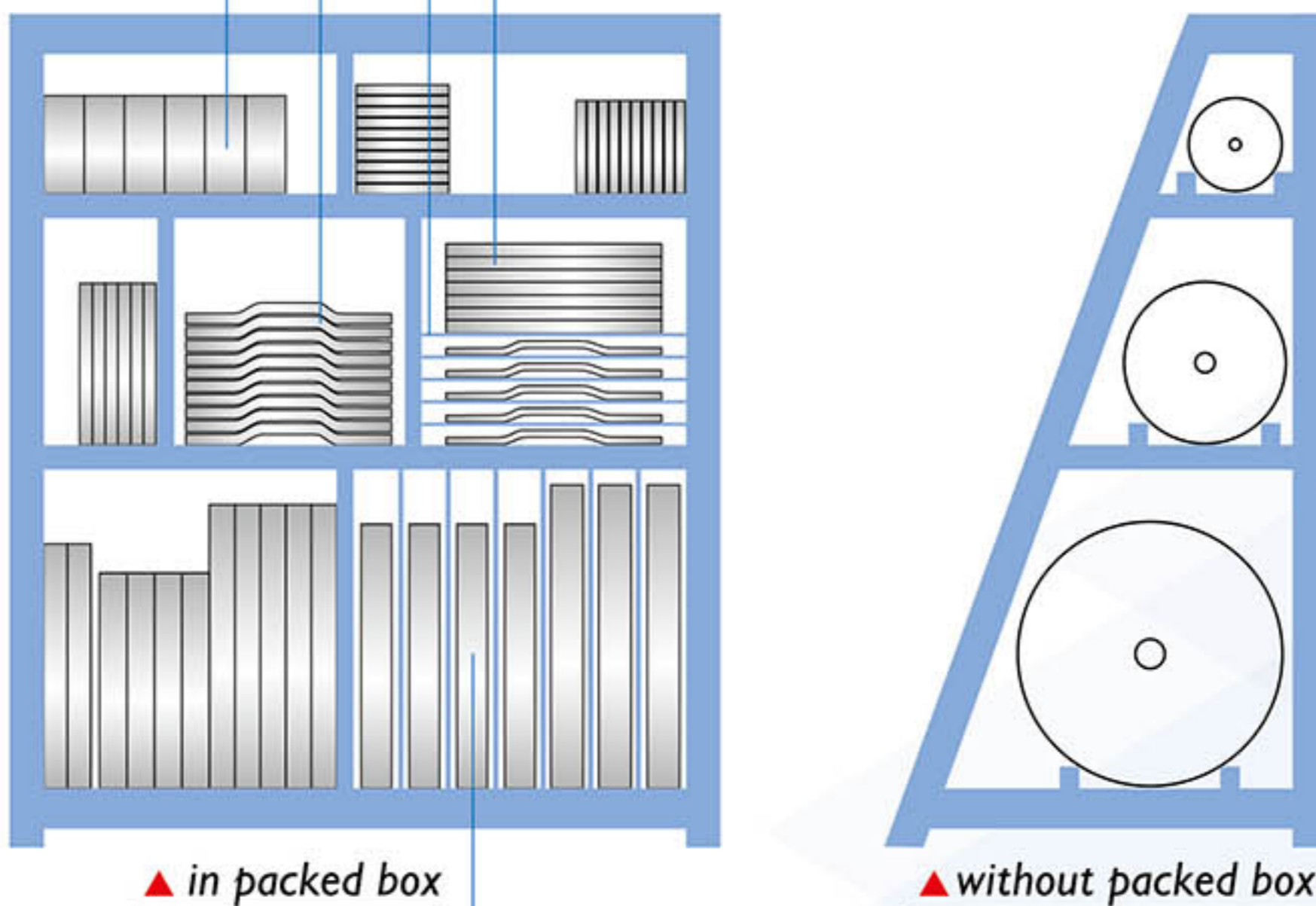
Appropriate stands, shelves, drawers and boxes for storing various types of grinding wheels are suggested:

Store small grinding wheels on upper shelves or in their original packaging.

Store depressed-centre concave grinding wheels one on top of the other or in their original packaging, up to a stack height of 120 cm.

Store wide thin-section grinding wheels in a horizontal position on a flat surface or on a steel base.

Place thinner resin bonded cutting-off wheels on a flat surface in order to prevent bending.



▲ *in packed box*

▲ *without packed box*

Store thick-section abrasive wheels of larger dimensions vertically on lower shelves, but transport them horizontally.

Safety Pictographs



Wear Safety Goggles



Wear Dust Mask



Wear Earmuff



Wear Protective Gloves

Workpiece Materials



Metals



INOX
Stainless Steel



Glass

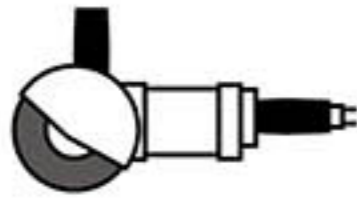


Masonry



Titanium Alloy

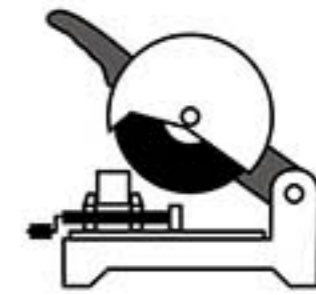
Machine for Mounting



Angle Cutting Machine



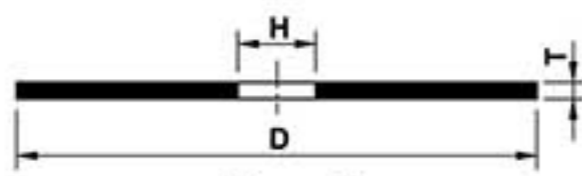
Angle Grinder Machine



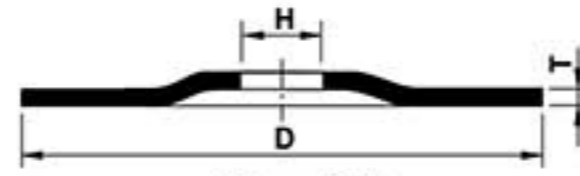
Stationary Machine

Wheel Configuration

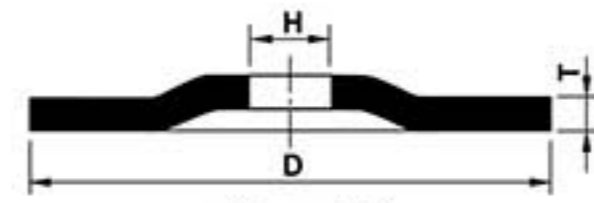
Different configurations are designed for resin bonded abrasive wheels, depending upon the purpose of the wheel is used and the desired result.



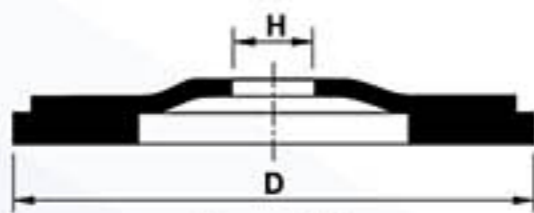
(Type 1)
Flat Cut-off Wheel



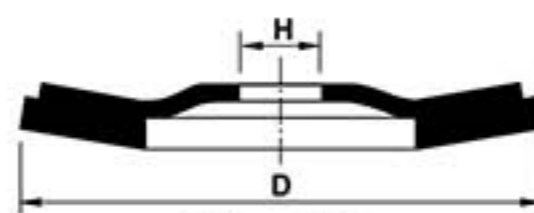
(Type 27)
Depressed Center Cut-off Wheel



(Type 27)
Depressed Grinding Wheel



(Type 27)
Flap Disc (Flat)



(Type 29)
Flap Disc (Conical)

Note :

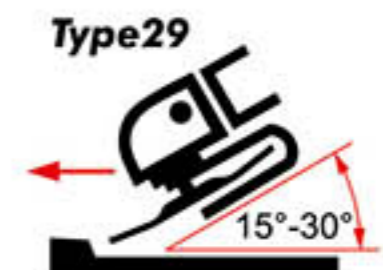
The wheel configuration shown on the left are denoted with connotations (D, T & H) that represents the dimension of the wheel.

D= External wheel diameter

H= Internal bore diameter

T= The thickness of the wheel

Always grind with assigned angle between the grinding wheel and the workpiece !



General Guide to GESTAR Wheel Grade Code

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

Markings on Wheel Labels



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.



■ 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
153-106	6" x 3/64" x 7/8"	150 x 1.2 x 22.2	A60S BF2	10,200	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)

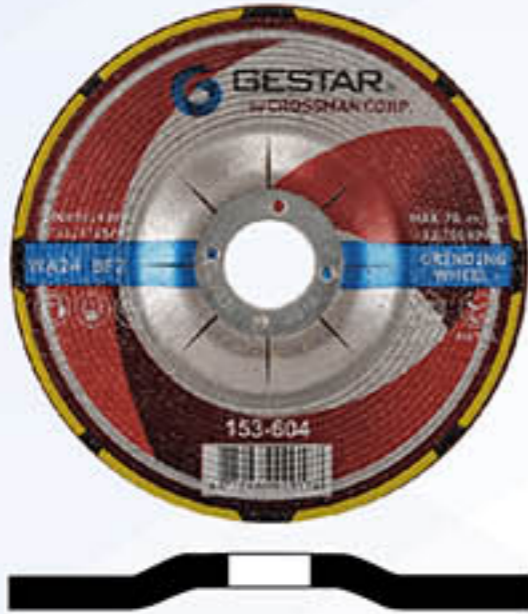


■ Stationary Cut-off Wheel (Chop Saw)

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
153-464	14" x 1/8" x 1"	355 x 2.5 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)





■ 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
153-674	4" x 1/4" x 5/8"	100 x 6.0 x 16	WA24R BF3	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
153-684	4" x 1/4" x 5/8"	100 x 6.0 x 16	WA24 BF3	15,200	70
153-625	5" x 1/4" x 7/8"	125 x 6.0 x 22.2	WA24 BF2	12,200	70
153-626	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)





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
152-531	7" x 7/8"	180 x 22.2	A40	8,500	70
152-532	7" x 7/8"	180 x 22.2	A60	8,500	70
152-533	7" x 7/8"	180 x 22.2	A80	8,500	70
152-534	7" x 7/8"	180 x 22.2	A100	8,500	70
152-535	7" x 7/8"	180 x 22.2	A120	8,500	70

Flap Disc ; Flat (Type 27)



PREMIUM





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




Material : Zirconia

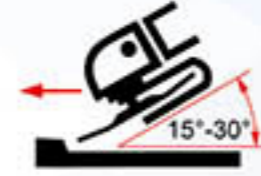
Flap Disc

Item No.	Wheel Size (D x H)		Material & Mesh Grit	Max. Speed	
	inch	mm		RPM	m/sec
152-712	4-1/2" x 7/8"	115 x 22.2	ZA60	13,300	80
152-713	4-1/2" x 7/8"	115 x 22.2	ZA80	13,300	80
152-715	4-1/2" x 7/8"	115 x 22.2	ZA120	13,300	80

Flap Disc ; Conical (Type 29)



HIGH PERFORMANCE



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


■ Clean & Strip Disc

Item No.	Wheel Size (D x H)		Max. Speed RPM
	inch	mm	
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)


PREMIUM

■ Clean & Strip Disc – Super Premium

Item No.	Wheel Size (D x H)		Max. Speed RPM
	inch	mm	
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 27)


SUPER PREMIUM
