

WHEEL SPEED EXPRESSED IN SFPM AND MPH

Abrasive wheel speed is marked on the wheel in revolution per minute (RPM). As an industry, we convert RPM into surface feet per minute (SFPM) because it allows us to set a product's safe operating speed across many different wheel diameters. However, because most of us drive or ride in automobiles, it is easier for us to relate speed in miles per hour (MPH). Below is a list of common abrasive wheels, their standard speed in SFPM and MPH.

Product Example	SFPM	MPH	KPH
Bench Wheel	6,500	74	119
Precision Wheel	8,500	97	156
Portable Wheel	9,500	108	173
Foundry/Snagging Wheel	12,500	142	228
Large Cut-Off Wheel	14,200	161	259
Depressed Center T27/28	16,000	182	292
Small Cut-Off Wheel	20,000	227	365

The MPH shown above is the distance in miles any one abrasive grain on the peripheral surface of an abrasive wheel travels in one hour. You can convert abrasive wheel's RPM into MPH using the following formulas.

Step One: Convert RPM into SFPM

$.2618 \times \text{diameter in inches} \times \text{RPM}$

Example: 16" diameter wheel, 3390 revolutions per minute

Surface Feet Per Minute = $.2618 \times 16 \times 3,390 = 14,200$ SFPM

Step Two: Convert SFPM into MPH

$\text{SFPM} / 5,280 \text{ feet per minute} \times 60 \text{ minutes per hour}$

Example: 16" diameter wheel, 14,211 surface feet per minute

$14,200 / 5,280 \times 60 = 161$ MPH

In summary, it is very important that you understand the speed of the abrasive wheel before you mount it onto a tool. Learn the speed of your wheel and machine. You must NEVER EXCEED THE MAXIMUM SAFE OPERATING SPEED AN ABRASIVE WHEEL or any abrasive product. Exposing an abrasive wheel to excessive operating speed is not only an OSHA/ANSI safety violation, but is EXTREMELY dangerous! Do not become an accident statistic, return to your family safe and healthy every night. Always "Play it Safe at the Wheel!"

For additional information on this topic or if you need any other abrasive safety information, please review ANSI, OSHA and all literature provided by the abrasive wheel and machine manufacturer. You may contact the Saint-Gobain Product Safety Department at (508) 795-2317, Fax (508) 795-5120 or contact your Saint-Gobain Abrasives representative with any safety related questions.

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PLAY IT SAFE AT THE WHEEL

