

Grinders and Abrasive Wheels

About 9 minutes to deliver

The guard, the eighth-inch gap, the ring test, and why nobody stands in front of a wheel for the first minute.

A wheel spinning at ten thousand RPM that comes apart does not send fragments — it sends projectiles, at the speed of a bullet, in the plane of the wheel.

NEVER REMOVE THE GUARD

The guard is not in the way. It is the thing that puts the wheel's disintegration into the ground instead of into you. A grinder with the guard removed comes out of service. Position it between the wheel and your face and body.

On a bench grinder, 1926.303(c)(2) requires the work rest kept within one-eighth of an inch of the wheel. Wider than that and the work gets dragged down into the gap and jams — taking your hand with it. Adjust the rest with the wheel stopped, never running. The tongue guard at the top goes to within a quarter inch as the wheel wears down.

CHECK THE WHEEL BEFORE IT GOES ON

- RPM. The wheel's rated speed must be at or above the tool's maximum speed. This is the number people never look at, and the one that matters most.
- Ring test. Tap an unmounted vitrified wheel gently with a non-metal handle. Clear ring, it is sound. Dull thud, it is cracked — bin it.
- Never a chipped, cracked or dropped wheel. A wheel that hit the floor is scrap even if it looks fine.
- Blotters and correct flanges, tightened by hand pressure on the spanner — not hammered.

FIRST MINUTE

After mounting a new wheel, run it at full speed for a minute with everybody standing out of the plane of the wheel, including you. If it is going to fly apart, that is when.

USING IT

- Face shield over safety glasses. Glasses alone are not enough here — the shield keeps the sparks and fragments off the rest of your face.
- Right wheel for the job. A cut-off wheel is thin and designed for edge loading only; grind on the side of one and it shatters. A grinding wheel is not for cutting.
- Let the tool do the work. Leaning on it overheats the wheel and stalls the tool.
- Sparks travel 30 feet or more. Look where they are going before you pull the trigger — fuel, cylinders, tarps, other people, someone's face.
- Let it stop before you set it down. A coasting wheel on a bench walks off and takes the cord with it.

ASK THE CREW

- Is every guard on every grinder on this site still on it?
- Does anyone know how to check the RPM rating on the wheel they are about to fit?
- Where are today's sparks going to land?

29 CFR 1926.303 · 29 CFR 1910.215

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ATTENDANCE RECORD

Grinders and Abrasive Wheels

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Date

Job / site

Delivered by

Company

#	Print name	Signature	Date
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I delivered this talk and determined it was suitable for this crew and this work.

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