TOOLBOX TALK BRIEFKIT

Abrasive Wheels & Cutting Discs

A ready-to-deliver toolbox talk for foremen and supervisors. 8-10 minute spoken script plus briefing register for operative sign-in.

REFERENCE	TBT-ABRASIVE-WHEELS-001	**DURATION**	8-10 minutes
DATE		**SITE**	
TRAINER (PRINT)		**SIGNATURE**	

1 Why it matters

Abrasive wheels cause some of the nastiest injuries in construction, deep cuts, lost fingers, eye injuries and worse, usually from a disc shattering, the wrong disc being used, or the guard being taken off. On top of the immediate danger, cutting concrete and stone throws out silica dust, which is a long-term killer. These tools are fine in trained hands set up right, and lethal when they're not.

2 PPE required for this task

- Impact goggles and a face shield, not just safety glasses
- Close-fitting gloves, never loose
- Hearing protection
- RPE / dust mask when cutting dusty materials (see the silica talk)

3 What to say

Spoken script for the supervisor. Read or paraphrase, in order.

1 Only trained people change and use these

Fitting an abrasive wheel is a job for someone trained and competent, and that's a legal requirement under PUWER, not a nice-to-have. If you've not had abrasive wheels training, you do not change the disc, simple as that. Come and find someone who has. Most of the worst incidents start with the wrong person fitting a disc wrong.

2 Match the disc speed to the tool, every time

Every disc has a maximum operating speed marked on it. That speed has to be equal to or higher than the tool's maximum spindle speed. Put a disc rated slower than the grinder on, run it up to full revs, and it can burst, and a bursting disc at that speed is like shrapnel. So check the disc's marked speed against the tool before you fit it, every single time. Don't assume because it fits, it's right.

3 Right disc for the job, and never side-grind a cutting disc

Cutting discs are for cutting, grinding discs are for grinding, and you don't mix them up. A thin cutting disc used on its side to grind, or twisted and levered in a cut, will shatter, and that's one of the most common ways people lose fingers or take a disc fragment in the face. Use the right disc for the material too, metal disc for metal, stone disc for stone. The disc tells you what it's for, read it.

4 Inspect the disc and check the date

Before fitting, look the disc over for cracks, chips or any damage, and check the expiry date. Bonded discs have a shelf life, usually three years from manufacture, and an out-of-date or damaged disc can fail under load. Anything that's been dropped or knocked about in the van gets binned, not used, because the damage you can't see is the one that fails. If in doubt, throw it out, discs are cheap.

5 The guard stays on

The guard is there to throw a burst disc and the sparks away from your face and body. You never remove it, and you never wedge it back to squeeze into a tight spot, get a tool that fits the space instead. Keep the guard positioned between you and the wheel. Anyone running a grinder with the guard off is one bad disc away from losing a hand or an eye, and I'll stop the job if I see it.

6 Start it up safely and let it run up to speed

When you start it, stand to one side, out of line with the wheel, in case it bursts on start-up, those first few seconds are when a bad disc lets go. Let it reach full speed before you bring it to the work. And don't jam it or force it through, let the disc do the cutting at its own pace, because forcing it causes kickback and shatters discs.

7 Secure the work, mind kickback and the dust

Clamp or secure whatever you're cutting, don't hold a small offcut in one hand and cut towards yourself, that's how hands get cut. Keep a firm two-handed grip, stand balanced, and be ready for kickback if the disc snatches. And remember, if you're cutting concrete, block, stone or screed, that's silica dust coming off, so use water suppression or on-tool extraction and the right mask, same as we covered in the silica talk.

8 Sparks mean fire, and check what you're cutting into

The sparks come off hot and they'll set light to anything flammable nearby, so clear the area or screen it, and on some jobs you'll need a hot work permit. And before you cut into a wall, a floor or a duct, check there's nothing live behind it, no cables, gas or other services, because cutting blind into a structure is how people hit something they really didn't want to.

4 Common mistakes to call out

- Untrained operatives changing discs (it's a legal competence requirement under PUWER)
- Fitting a disc rated slower than the tool's maximum speed
- Using a cutting disc for grinding or side-grinding (it shatters)
- Removing or wedging back the guard to reach a tight spot
- Using cracked, chipped, dropped or out-of-date discs
- Standing in line with the wheel on start-up instead of to one side
- Applying the disc before it's reached full speed, or forcing and jamming it
- Cutting an unsecured workpiece held by hand
- Cutting concrete or stone dry with no dust control or RPE (silica)
- Cutting into walls or floors without checking for buried services

5 Watch on site this week

What the supervisor should be actively spotting on walk-arounds.

Anyone changing a disc who hasn't had abrasive wheels training

Discs fitted without the speed rating being checked against the tool

Cutting discs being used on their side to grind

Grinders running with the guard removed or wedged back

Damaged, cracked or out-of-date discs in use or in the van

Operatives standing directly in line with the wheel at start-up

Workpieces held by hand instead of clamped or secured

Dry cutting of concrete or stone with a cloud of dust and no extraction

Just safety glasses, no face shield, on cutting or grinding

Hot sparks landing near flammable materials with nothing screening them

6 Confirm the team understood

Ask one or two of these at the end of the talk.

1. How do you know a disc is safe to fit to your grinder? (Its marked maximum speed must be equal to or higher than the tool's speed, and it must be undamaged and in date.)
2. Why must you never side-grind with a cutting disc? (It's thin and not made for side loads, so it can shatter and fly apart.)
3. Where should you stand when you start a grinder up? (To one side, out of line with the wheel, in case it bursts.)
4. You're cutting concrete blocks all afternoon. What's the hidden hazard besides the disc? (Silica dust, so you need water suppression or on-tool extraction and the right RPE.)

Briefing register: Abrasive Wheels & Cutting Discs

All operatives who attend this toolbox talk must sign below. Their signature confirms they have heard and understood the briefing.

Briefing delivered by:

Name (print):		**Date:**	
Signature:		**Time:**	
Site:			

Attendees. I confirm I have heard and understood the briefing detailed above:

#	Name (print)	Company / Role	Signature	Date	CSCS / Ticket No.
1					
2					
3					
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Keep this register in the site Safety File. Additional sheets may be appended if more than 12 operatives are briefed.