



Industrial Contractors' Supplies, Inc.

- Dust Director Division -

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5" & 7" SURFACE DUST GUARDS – MANUAL

5" Concrete Grinder - Surface Dust Guard



P/N: 5SDG

No Restrictions when Grinding into Corners

No visible dust when fitted to a suitable dust collector vacuum. Use deep dish 4", 4-1/2" and 5" diamond wheels – guard is suitable for floors, walls and other flat surfaces.

Installs onto 4-1/2", 5" and 6" angle grinders and 7" polishers (Hitachi & Makita). Includes color-coded inserts to fit all major brands: Bosch, Metabo, Makita, Milwaukee, Hitachi, DeWalt, Ryobi, Fein, Flex. Also includes flat washers for adjusting the grinding wheel height.

7" Concrete Grinder - Surface Dust Guard



P/N: 7SDG

No Restrictions when Grinding along Wall Edges

No visible dust when fitted to a suitable dust collector vacuum. Use deep dish 7" diamond wheels – guard is suitable for floors, walls and other flat surfaces.

Installs onto All major 9" angle grinders with included color coded inserts - Bosch, Metabo, Makita, Milwaukee, Hitachi, DeWalt, Ryobi, Fein, Flex. Also includes flat washers for adjusting the grinding wheel height.

**Replacement Seals • Quick adjust velcro strip • Steel Construction
Grinding against walls • No friction or suck down • A+ Dust Control**

For our Surface Dust Guard you will need: Angle Grinder, diamond grinding wheel with 5/8-11 hub (recommended), vacuum dust collector with a minimum hose diameter of 1-1/2". Better dust control is obtained with a variable speed angle grinder or polisher.

Excellent for: Preparation before coating or tiling • Leveling floor slabs and joints • Grinding floor against walls • Removal of paint and glue • Exposing aggregate

Fitting Instructions - Enclosed

FITTING THE Surface Dust Guard TO AN ANGLE GRINDER

PLACE THE CORRECT INSERT OVER THE GRINDER BEARING HOUSING

The 7" Surface Dust Guards inserts are color coded to specific angle grinders:

Deep Blue - Makita, Yellow - DeWalt, Green - Hitachi, Red - Milwaukee, Black - Metabo. The Bosch angle grinders fit neatly without using an insert. If a grinder bearing housing size falls within there insert sizes, it may be possible to smash or grind the outside diameter and still maintain a tight mounting with three clamping screws.

Should the insert ends touch during this process, the insert can be removed and the end cut shorter with a saw blade before continuing to clamp.

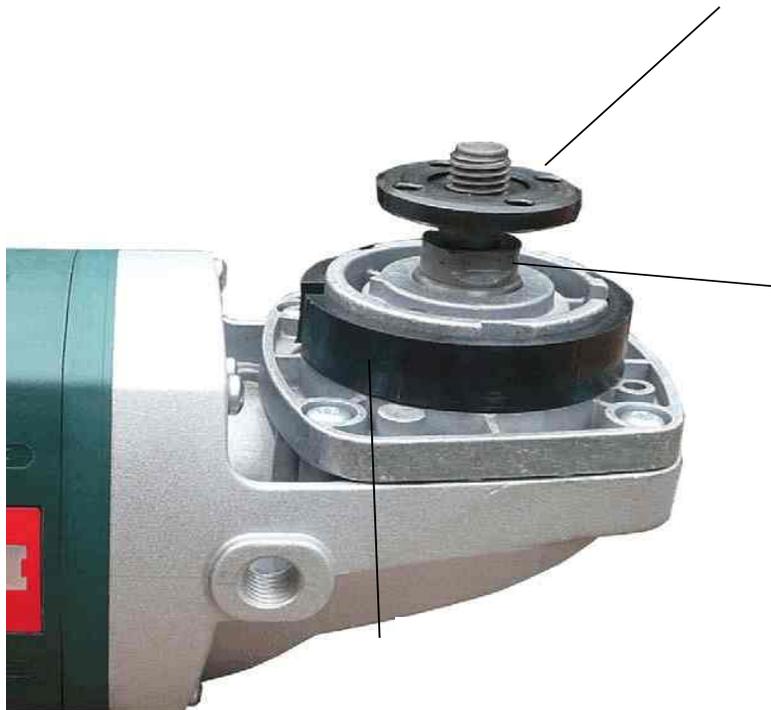
The 5" Corner Surface Dust Guard inserts are also color coded to specific angle grinders however, sometimes a color will fit more than one brand. Deep Blue - Makita, Light Blue - Bosch, Yellow - DeWalt, Milwaukee, Green - Hitachi, Black - Metabo and some Hitachi grinders. Trial will determine the best fit. These inserts will also enable 7" polishers to be fitted to the Surface Dust Guard with the exception of the Milwaukee polisher (does not have a bearing housing). The Green Insert fits the Makita 9227C Polisher.

When installing the 5" Surface Dust Guard onto a **METABO Spring-Lever Angle Grinder (Models W8, 9, 11 & 14)**. The spring-lever on the grinder must be removed from its pivot pin. Use the Black Insert Collar with the Metabo grinders and proceed with the installation.



Plastic bearing housings – mainly 5" grinders

Some five inch grinders have plastic bearing housings with various sections cut out to enable ratchet adjustment of the grinder guard. When fitting the guard try to align the screws so that they do not clamp opposite a cutout section, instead clamp the screws opposite a full section of the bearing housing to prevent the guard from being tilted by the screw when it is tightened.



Use the original nut that is provided to hold a cut-off wheel for clamping the diamond cup wheel.

On 5" grinders the inside flange nut that is used under the wheel can be use instead of the enclosed flat washers before placing the grinding wheel on the shaft.

* Normally only use the spacers provided with your Surface Dust Guard on the bare shaft or for low profile cupwheels and abrasive Type 27 grinding wheels (like ZEC® Discs).

Available extension nut (#23283K).



FITTING THE Surface Dust Guard TO AN ANGLE GRINDER

FIT THE GUARD OVER THE PLASTIC INSERT COLLAR

Place the guard over the insert which should be a neat fit under most circumstances, otherwise the fit should be the best possible. Position the guard so that the edging flats are where you would like them to be and the clamping screws are accessible with a screwdriver. Tighten the screws with even pressure until the guard is fixed into position then tighten the screws with firm pressure.

Spacers – Flat washers

Each surface dust guard kit comes with flat washers that fit onto the shaft (arbor) of the grinder. They are used under the cup wheel to adjust the height of the cup wheel so that it does not touch the metal guard at its edging flat. Note: The original inner blade clamp can also be used. The clearance between the grinding disc and the metal guard body edging section once the grinding wheel nut has been tightened can be as low as 1/32". Remove the spacers until the smallest clearance has been achieved.

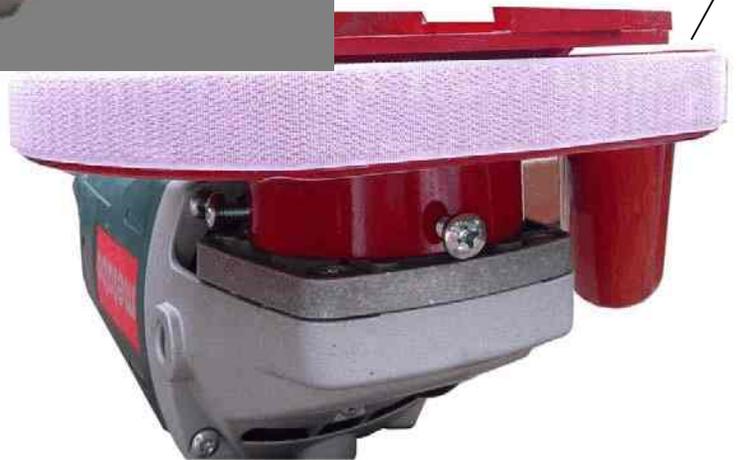
* Important note for longer threaded shafts (arbors) - i.e. Metabo

Sometimes the nut will bind on the bottom of the shaft when the minimum clearance between the grinding wheel and the metal guard body has been obtained so the nut may appear to be tight, but the grinding wheel will be loose or only lightly clamped. If this occurs, remove the nut and wheel and add another spacer, then try again and test to make sure the grinding wheel is solidly clamped.



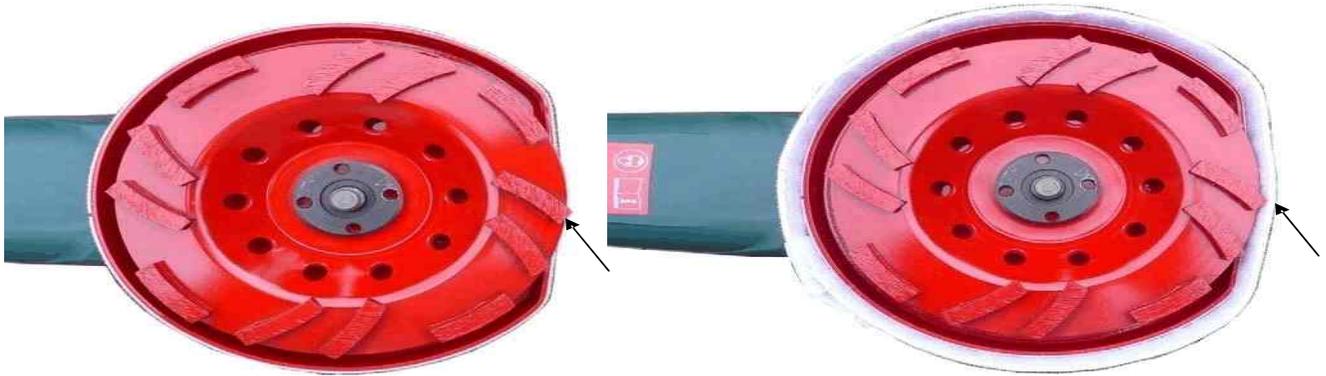
Adjust the height of the diamond cup wheel with the spacers (included with a Surface Dust Guard) or the inner blade clamps (included with the angle grinder.)

Make sure there is a small gap (1/32") between the underside of the grinding wheel and the steel body of the Surface Dust Guard.



EDGING FEATURE 7" AND 5"

7" SURFACE DUST GUARD



The diamond cup grinding wheel will extend past the edging flat on the Surface Dust Guard

The diamond cup wheel will cut through the main seal when it is pressed against a wall while edging. It will not cut through the outer edging cover seal.

5" SURFACE DUST GUARD



The diamond cup grinding wheel will extend past BOTH edging flats on the Surface Dust Guard



The diamond cup wheel will cut through the main seal IN TWO PLACES when it is pressed against a WALL CORNER while edging. It will not cut through the outer edging cover seal.

ADJUSTING THE SURFACE DUST GUARD SEAL



The strong airflow underneath the seal is what picks up dust on the floor as the Surface Dust Guard passes over, leaving the floor clean. Be sure to leave a small gap between the seal and the floor.

Replace the main seal and adjust the seal height.

After fitting the grinding wheel turn the grinder over and fit the main seal leaving a small gap of approximately 1/32" to 1/16" between the seal and the floor. The grinding wheel should be held flat on the floor while the rubber seal is wrapped around the guard. This will prevent any friction when operating the grinder and will force the air under the seal where the dust is generated resulting in better dust pick-up.

When to re-adjust the seal height The seal only needs to be adjusted under the following conditions:

1. When a new grinding wheel is fitted.
2. If the floor is soft and grinding too fast causes the guard to suck itself to the floor. If this occurs, increase the gap size.
3. On rough floors where dust is escaping from under the seal, the seal can be lowered until the floor is smooth again.

Replacing the seal. Seals usually last the life of approximately four grinding wheels. The rubber seal will wear slightly as the grinding wheel is worn lower and it will also push up slightly on the hook and loop. New seals are simply wrapped around the dust guard and a seal set includes the edging cover strip.

Adjust Rubber Seal Height on the Surface Dust Guard - Depends on Vacuum Suction

The seal height above the floor can be adjusted to compensate for a stronger or weaker vacuum system. If a large, powerful vacuum is connected the seal can be raised to provide a larger gap which will reduce the suck-down and sticking tendency and allow for faster grinding. If a small vacuum dust collector is used, the seal can be lowered to provide a smaller gap between the seal and the floor to increase the suction pressure within the guard.

TROUBLESHOOTING

Problem	Remedy
Dust guard is loose	Tighten the three screws that hold the dust guard onto the grinder.
Dust is escaping while edging	<p>Is the vacuum dust collector operating correctly and turned on.</p> <p>Check the filters of the vacuum dust collector and clean if necessary.</p> <p>Remove the hose from the dust guard and check for good airflow or a blocked hose.</p> <p>Longer vacuum hoses will reduce the power of the vacuum. If a longer hose is required, upgrade to a 2" diameter hose (see ICS Vacuums - Accessories).</p> <p>Use a 2 or 3-Motor Dust Collector.</p> <p>Sometimes larger particles of sand will escape at the front of the guard, this is not dust. Check the height of the seal and lower if necessary.</p> <p>Check the condition of the seal and replace if there are tears other than where the diamond wheel protrudes.</p> <p>If the bottom edge of the seal is damaged remove the seal and and place it upside down with the top edge now at the bottom. Replace the seal set if it is too worn.</p>
Dust escapes from under the guard	<p>See above Remedies under Dust Escapes While Edging.</p> <p>Hold the grinder so that the diamond grinding wheel is flat on the floor and the main seal of the dust guard is evenly adjusted all around the guard.</p> <p>Is the dust guard operating on a flat surface? Uneven surfaces will reduce the vacuum force around the main seal.</p> <p>Is the edging cover strip attached and properly adjusted for height?</p> <p>On the 5" guard, it is possible to block off only one edging section with the edging cover strip to increase vacuum effectiveness while edging.</p> <p>Is the grinder being used over an edge which will reduce the suction around the seal.</p> <p>Check the condition of the seal and replace if there are tears other than at the front where the diamond grinding wheel protrudes.</p> <p>Use a finer diamond mesh sized grinding wheel.</p>
Dust escapes from under the guard.	<p>On soft concrete a coarse diamond wheel can grind concrete faster than the vacuum can collect. Use a harder bond diamond grinding wheel. Soft bond diamond segments are used on hard concrete and may dig into soft concrete too quickly for efficient collection ability of the vacuum.</p>

Diamond grinding wheel rubs against the steel guard when fitted	<p>Use more spacers under the diamond grinding wheel. If the wheel is too flat in profile purchase an extended nut and spacer instead of using the spacer washers.</p> <p>Check to see that the dust guard's mounting collar is pushed down hard against the grinder's bearing housing.</p> <p>Use a deeper dished diamond grinding wheel.</p>
Dust guard mounting boss will not push over the insert collar.	<p>Push hard because sometimes the paint is applied thicker than normal and this is enough to tighten the fit. Unscrew the clamping screws until they are no longer protruding into the inside of the mounting collar.</p> <p>Change the insert to a smaller thickness.</p>
Hook material has come loose from the dust guard	<p>Replace the dust guard. The hook material is permanently attached to the dust guard body and is normally loosened only by allowing the dust guard to get too hot by grinding hard concrete with the wrong type of diamond grinding wheel.</p>
The grinder jumps and debris is being thrown from under the seal	<p>Use a less aggressive diamond grinding wheel. PCD scraper wheels can cause this problem. It is rare for it to occur with diamond segmented grinding wheels.</p>

SAFETY

Always turn on the vacuum before using the dust guard.

Do not use diamond grinding wheels with a larger diameter than recommended for the guard.

Always use the original main seals.

Use a dust collector vacuum with sufficient power and only use one attachment for each dust collector.

Wear suitable breathing safety equipment while grinding. Wear hearing protection while grinding.

Wear eye protection goggles while grinding.

Do not lift the guard from the surface being ground while the grinder is still operating.

Keep the filters of the vacuum clean. Empty dust into sealed receptors or use sealed plastic bags.

Do not sweep floors after grinding which creates airborne dust - always use a vacuum and floor nozzle to remove surface dust.

Never place any part of your body or objects under the dust guard while the motor is activated.

Do not grind over electrical cables, metal objects or loose material that could fly out from under the main seal at high speed.

Clean the dust guard thoroughly with a brush and vacuum to remove loose dust before storage.

Before removing the hose from the dust collector shake the hose with the vacuum motor operating to dislodge loose dust that may fall out later.

Accessories

NUT SETS

1. *Low Profile / Flush Grinding Nut Set* - For 5" Surface Dust Guards, P/N 23283K. Includes an inner blade nut and an outer *countersunk* nut. For use with all Type 27 low profile grinding wheels such as abrasive grinding discs (ZEC Discs) that do not have a 5/8-11 threaded-hub.
2. *Low Profile / Flush Grinding Nut Set* - For 7" Surface Dust Guards, P/N 55039. Includes an inner blade nut and an outer *countersunk* nut. For use with all Type 27 low profile grinding wheels such as abrasive grinding discs (ZEC Discs) that do not have a 5/8-11 threaded-hub.
3. *Tall - Clamping Nut Set* - For both 5" and 7" Surface Dust Guards, P/N 449264K. Includes a thick or taller inner blade nut and an outer blade clamp. For use with all types of *diamond cup wheels* that do not have a 5/8-11 threaded-hub.

REPLACEMENT RUBBER SEALS

4. 5" Replacement Rubber Seal - P/N 5SEAL. Recommended replacement is every 5 diamond cup wheels.
5. 7" Replacement Rubber Seal - P/N 7SEAL. Recommended replacement is every 5 diamond cup wheels.

LOOP HANDLES - Attaches to fit over the head of the angle grinder, for improved handling, control and downward pressure directly over the grinding wheel - exactly where it is needed. Handles include the nuts and washers.

6. 7" Loop Handle - P/N 7HANDLE. Fits the Makita 7" Angle Grinder (Model No. GA7011S). This grinder is recommended because of its lightweight and low RPMs (6,000) - Most other 7" and 9" angle grinders have RPMs over 8500.
7. 9" Loop Handle - P/N 9HANDLE. Fits most 7" and 9" angle grinders on the market, including the following: Makita 9" (6000 RPM), Metabo 7" and 9" (8500+ RPM).

COLLAR INSERT - P/N 09. Attachment collar ring for using the 7" Surface Dust Guard with the 7" Makita Polisher (Model No. 9227C).

Clean Extreme Vacuum Filter Bags. Installs into your vacuum! Transforms any standard wet/dry vacuum cleaner into a high performance vacuum for extracting dry powders without filter clogging. Bags also collect wet debris without changing the bag plus the tank and cartridge filters (including HEPA) are kept clean. Installs into any W/D vacuum with deflector port in its tank. HL500-25 fits 10-16 gallon tanks, HL501-25 fits 17-30 gallon tanks.