



**FESTOOL®**

# Better Job-Site Dust Control and Lighting

Stay healthy, do your best work, and avoid callbacks

BY FESTOOL USA

## TWO LONG-OVERLOOKED PAIN POINTS

on building and remodeling job sites are poor lighting and construction dust. Ignoring them can be costly, preventing contractors from doing their best work and staying healthy.

We are only now beginning to understand the serious effects of prolonged dust exposure. And it's not just contractors who are affected—customers suffer too. Leave a home full of drywall dust and you'll get frustrated phone calls, and worse, no calls at all in the future. The good news is that dust-collection technology has advanced rapidly and new solutions are simple and effective.

Like clouds of dust, poor lighting is another frustrating fact of life on many job sites. Again, affordable products have leapt into the gap, able to flood workspaces with color-correct light and target specific tasks with smaller, specialized units, helping contractors and DIYers stay safe and do their best work.

Proper lighting and dust control are especially important for finish work, such as drywall, paint, countertops, and trim, where surface quality is critical and large quantities of fine dust are produced. But regardless of the task, good lighting and efficient dust collection will have you working faster, better, and healthier. The science is in and the math is undeniable.

### **Know the Dust Risks**

Construction and remodeling tools produce a wide variety of particulate matter in dangerously high concentrations. All dust irritates airways, making allergy symptoms worse and triggering respiratory infections. A few types of dust can have catastrophic health effects.

In 2002, wood dust went from being a nuisance to a known carcinogen. That's when the U.S. government (via NIOSH—the National Institute for Occupational Safety and Health) linked hardwood dust to a variety of nose, throat, and lung cancers, especially in workers who experience heavy exposure over many years.

Other dust types are dangerous too. The fine particles from medium-density fiberboard (MDF) contain formaldehyde, another known carcinogen. Dust from drywall compounds is especially troublesome, as multiple sanding stages produce clouds of it, with workers' faces often just inches away. "Over time, breathing the dust from drywall joint compounds may cause persistent throat and airway irritation, coughing, phlegm production, and breathing difficulties similar to asthma," according to NIOSH. "Smokers or workers with sinus or respiratory conditions may risk even worse health problems. When silica is present [in the compound], workers may also face an increased risk of silicosis and lung cancer."

A recent NIOSH health hazard study found that drywall workers are "exposed to as much as 10 times the permissible exposure limit (PEL) of 15 mg/m<sup>3</sup> for total dust set by the Occupational Safety and Health Administration (OSHA)."

The good news is that there are simple solutions for managing all types of job-site dust. Ignore them and the potential health costs range from significant to staggering, from lost work days to damage to long-term health.

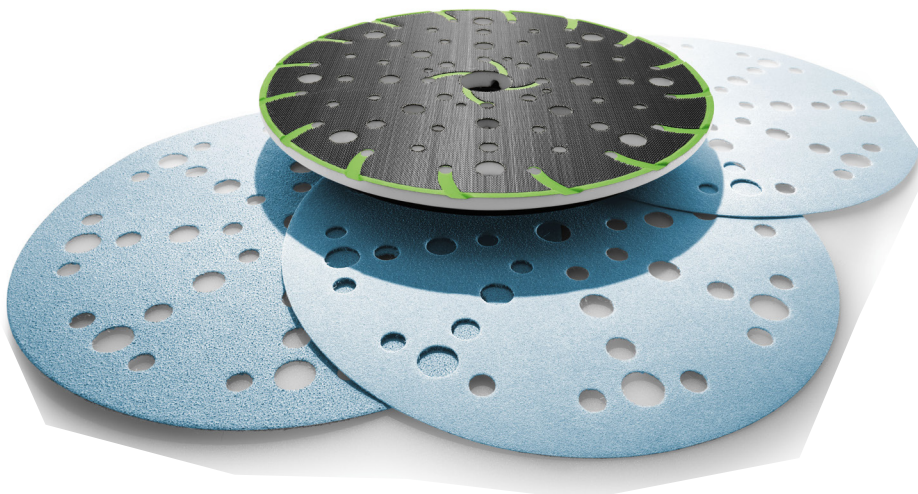
## Best Practices for Dust: Capture and Contain

Particulate matter of all kinds is far easier and healthier to capture at the source than gather up after the fact. For tools like sanders, simply connecting the tool to a vacuum will bring dust-collection efficiency to 90% or higher. Temporary plastic curtains can help contain the mess, and brooms and vacuums can collect most of it after the fact, but dust has a way of hanging in the air and migrating past the best barriers. The main problem with airborne dust is that the finest particles are both the most dangerous—penetrating deepest into lungs and airways—and the hardest to collect.

The bottom line: Let dust escape at the outset, and you'll end up breathing it in—and struggling to keep it out of living spaces. Simply vacuuming a remodeling job site at the end of the day leaves a customer's HVAC system full of construction dust, which will settle on every surface in the home. On the other hand, capture it as you make it, and you'll save time and hassle at the end of the job. You'll save on sandpaper, too. Another benefit to removing dust as you sand is that abrasives stay cooler and sharper, extending their life multiple times over.

For drywall sanding, past approaches to dust management—wet sanding, dust masks, and respirators—are ineffective. According to NIOSH, "Wet sanding is generally avoided because of concerns about drying time and finish texture. [And] when respiratory protection is worn, it is often used incorrectly with little thought to training, proper selection, or fit."

As for collection at the source, the jury is in. When NIOSH last studied drywall-sanding systems that connect to portable vacuums (NIOSH Publication Number 99113), the results were definitive. The best systems reduce dust exposure by nearly 95%, well below the permissible exposure limit set by OSHA.



## Complete dust collection with Multi-Jetstream 2 sanding pads

The newly released sanding pads from Festool were engineered to minimize dust left on the work surface while maximizing efficiency in material removal. The ported pads help optimize intake and exhaust air in order to provide virtually 100% dust extraction beneath the sander, even up to the outer edges of the tool. This not only helps create a healthier workspace, but it prolongs the performance of the discs by keeping them from caking up with dust.

## The best tools are vac-ready

While many of today's power tools can be connected to a shop vacuum, not all are optimized for efficient dust collection. Look for tools that are designed to connect to standard vacuum hoses and engineered to grab dust as it's made and draw it efficiently through the tool. All Festool power tools connect to all Festool dust extractors (shop vacuums). And Festool's new MULTI-JETSTREAM 2 sanding pads, available for many of its power sanders, have far more collection holes than competitors' pads, and pair with matched abrasive disks to collect dust right up to the edges of the pad.





### **How to compare shop vacuums**

There's little sense in collecting dust at the source if your outdated vacuum is blowing the finest and most troublesome particles back into the air. At the other end of dust collection is filtration—another area that has improved dramatically as occupational science has matured. In general, whether connecting to a tool or cleaning up when the job is complete, you want powerful suction and a state-of-the-art filter. But the story isn't quite that simple.

Shop vacuums range widely in performance and features. If your vac lacks power, it won't pull dust efficiently from your power tools. So be sure to check the specifications before buying. Even if a vacuum is powerful, a clogged filter will choke airflow. For fine dust or dust that tends to cake, the best vacuums employ either a self-cleaning filter mechanism or some kind of pre-filter. Pre-filters are often paper or fleece bags that grab the majority of the particles before they can reach the finer filter, letting the latter do its job without compromising suction power.

Other key features include the ability to plug a power tool into the vac, so that starting the tool triggers the vacuum. The best new vacuums can also be triggered via Bluetooth, for use with cordless tools.

### **Powerful, portable shop vacuums**

While there are a few fundamental features every shop vacuum should have, special tasks sometimes call for special setups. For example, while fine wood dust calls for HEPA-level filtration, particles produced by sanding drywall compound are both larger and more prone to caking, requiring a slightly different vac setup, according to Thomas Auer, North America product manager for Festool. Here are two portable, powerful dust extractors. Depending on the work you do, each could be the perfect hub for an efficient job-site dust-management system.

# DUST-CONTROL PRODUCTS

Optimized for efficient collection and state-of-the-art filtration, these industry-leading products from Festool keep job sites and airways cleaner and healthier, save time and money, and create happier customers. This list is focused on sanding and finishing. Visit [FestoolUSA.com](http://FestoolUSA.com) for a broad range of tools optimized for dust management.

## Festool Dust Extractors

The larger-capacity of the CT-36 AC collector is the best choice for Festool's industry-leading PLANEX drywall sanding tools. Particles from drywall compound are larger yet more prone to caking than wood dust, and this vacuum combines a slightly coarser filter with an automatic filter-cleaning mechanism to keep airflow and power at its peak. The auto-clean function means you can operate this vac without the using the SELFCLEAN filter bags, though they make waste disposal cleaner. For all-purpose, go-anywhere dust control, contractors and DIYers turn to the Festool CT-26, which offers industry-leading power and performance in a compact unit. Like all Festool vacs, the CT-26 can be triggered by plugging in a tool or by using the optional Bluetooth module for cordless tools.



## SELFCLEAN Filter Bags

The design of these bags, which can be used in all extractors, allow them to serve as a pre-filter to keep each vac's HEPA filters unclogged and flowing freely. Unlike competitors' bags, SELFCLEAN bags can be filled to the brim without choking airflow to the unit.





## VAC-READY SANDING TOOLS

When connected to a Festool dust extractor, all of Festool's sanders will collect more than 95% of the dust they generate, keeping the air clean and saving you hours of cleanup.

### Drywall Sander LHS 225 EQ-Plus/SW PLANEX

Engineered for both rough and finish sanding with unmatched dust collection, Festool's new PLANEX drywall sander has no competition. The motor is in the head (as opposed to in the handle with a drive cable transferring power). This makes it easy to add or subtract a handle section for a best-in-class adjustment range of 43 to 83 inches, letting workers reach farther or bring their eyes closer to the work during the finishing stages—without breathing dust. At full suction power, the head is pulled against the wall, making the tool feel lighter. For fine sanding, the suction can be reduced for a lighter touch. The sander has variable-speed options and a removable front guard that lets you sand much closer to an adjacent wall, leaving less hand-sanding to do. Simply put, PLANEX is a game-changer for drywall professionals worldwide.



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## SANDING TOOLS CONTINUED...

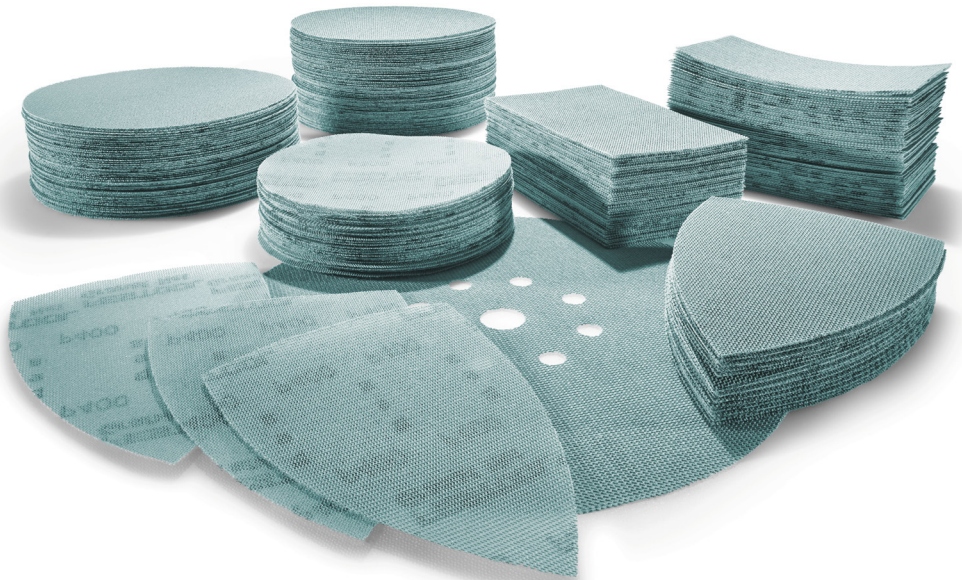


### **Festool ROTEX Random-orbit sanders**

Festool ROTEX sanders are three state-of-the-art tools in one, switching instantly from rotary mode for fast material removal to the classic eccentric action for fine sanding and back to rotary for polishing with Festool polishes and polishing sponges. Festool's new MULTI-JETSTREAM 2 sanding pads are standard, collecting dust from more areas of the disk, including the edges, for better efficiency, cooler operation, and longer abrasive life.

### **GRANAT Net Abrasives**

GRANAT is a revolutionary addition to Festool's abrasives line, offering the longest life, fastest stock removal, and most efficient dust collection. Available in grits ranging from 40 to 1,500, sized and configured for all Festool sanding tools, GRANAT is built on a tough net structure that resists tearing and enables dust extraction across the entire surface, with a hardened aluminum-oxide abrasive that is well suited for nearly all applications, including bare wood, paints, clear coats, solid-surface materials, acrylics, and composites. For tasks that demand hand sanding, Festool offers their HSK-A blocks, which close the last gap in your dust-management system. Whether hand sanding on wood, drywall, or any other common surface—Festool offers range of foam blocks in a variety of sizes and profiles, and accept all Festool hook-and-loop abrasives.





## ATTACK THE JOB SITE WITH THREE TIERS OF LIGHT

Lighting is another area where builders are finding better ways to work and tool companies are answering the call. New construction is especially challenging to light, but even when remodeling, existing house lights usually fall short, leaving walls and corners in the dark.

Like dust management, lighting is about efficiency. Once you can see what you're doing, you'll work faster and better—and wonder how you ever got along without proper job-site lights.

As we have with dust, we've learned a lot about lighting, and new technologies like LEDs offer new solutions. Occupational safety experts recommend three types of lights for construction work: general, spot, and task. The first and most important is an overall work light that can flood a space with bright, color-correct illumination. These lights are usually mounted on tripods that can position the lights for optimal coverage of a wall, ceiling, floor, or all three.

OSHA standards call for a minimum light intensity of 5 foot-candles in general construction areas. Since today's longest-lasting, brightest lights are LEDs, which are rated by the amount of lumens they produce, not foot-candles, let's do some simple math. Five foot-candles equals 5 lumens per square foot of surface. With today's open floor plans and two-story ceilings, a single work light can easily be called upon to illuminate as much as 1,500 square feet of ceiling, floor, and walls. Multiplying that square footage by 5 gives us 7,500 lumens, which becomes the gold standard for a general workplace light. More



light is almost always a good thing, so the same amount of light would bring a smaller room well over the minimum OSHA requirement—and right where you want to be.

The second type is a smaller, more portable light that can fit in tighter spaces and target smaller spots.

And the last line of attack is task-specific lighting. On construction job sites and in workshops alike, an inspection light is indispensable, designed to cast a low-angle, raking light across finished surfaces. Low-angle light casts surface texture in high contrast, revealing imperfections in sanding and painting that would be otherwise missed. If you don't check every inch of a drywall finish, for example, you can be sure that mistakes will show up later when the paint is on and light floods the room.

Like dust management, lighting makes a job site safer through all stages of construction, but is most critical in the finish stages. That's why the best job-site lights are color-correct, so you can be sure paint and countertop colors are working, and mix colors on site for things like the seams between the sections of solid-surface countertop material.





# SMARTER LIGHTING PRODUCTS

From general to spot and task lights, Festool offers unmatched features and performance. All three are color-balanced at 5000K, all are sealed against dust and water intrusion (IP 55 rating), and all SYSLITES are drop-tested at 2 meters.

## GENERAL LIGHTING: Festool DUO SYSLITE Work Light

With a market-leading 80 LEDs and 8,000 lumens of color-correct light, diffused evenly over a full 180° without the cage shadows cast by its competitors, the new DUO SYSLITE will help you work safer and better in challenging environments. On its own, the DUO works in two positions—on the floor or hanging on a wall—but reaches full potential when paired with the robust Festool Tripod ST DUO 200, which features the broad base and quick, positive adjustments of the best photography stands.

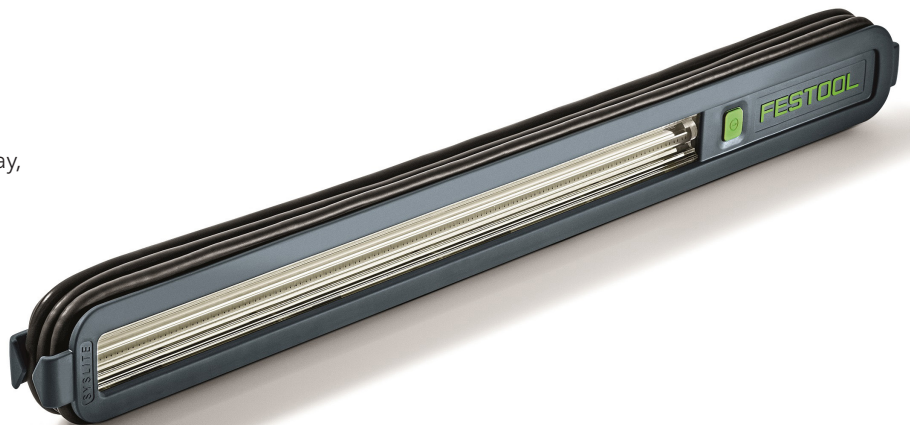


## SPOT LIGHTING: Festool KAL II SYSLITE Work Light

Designed to pair with Festool cordless batteries, the cord-free and compact KAL II SYSLITE can easily fit into the darkest nooks and crannies. The SYSLITE KAL II Work Light can also be plugged directly into a power source. Packaged in a shock-resistant body, the light features 12 LEDs, enough to light up an attic, crawlspace or cabinet, and its multi-angle body works in three positions. The KAL II can also be hung on the wall, attached to a steel beam with an optional magnetic adaptor, or mounted on a tripod.

## TASK-SPECIFIC: Festool Inspection Light STL 450

With a brilliant 1,500 lumens arranged in a linear array, the STL 450 specializes in low-angle light, revealing surface detail so you'll never miss another flaw or defect. Whether you are painting a wall or finishing a tabletop, you'll see every sanding scratch or brush stroke. The STL 450 Inspection Light also attaches to the Tripod ST DUO 200 for 360° positioning and hands-free operation, and is balanced at 5,000K for accurate color representation.





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been this easy.

**NEW!**

**PLANEX  
EASY\***



#### **PLANEX LHS-E 225 EQ**

- Simple set-up and intuitive controls
- Low weight and perfect balance reduces fatigue
- Flexible sanding head design
- EC-TEC Brushless Motor
- Integrated Dust Extraction Design

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\*Planex Easy with optional CT and Blast Gate that are not included.