Construction Mills in Film and Television Productions

Guidance on equipment proven to control workplace exposure to harmful dust particles

Issued: March 15, 2023

This resource addresses workplace safety concerns cited by IATSE 891 members.

In Spring 2022, IATSE 891 engaged Aura Health and Safety Corporation and Ventilation Engineer Ed Chessor to meet with members of its Construction Department Task Force to discuss, identify and work to address ongoing health and safety concerns common in Film and TV Production Workplaces.

Disclaimer: This resource is provided for informational purposes only. It is the responsibility of users to ensure that their controls comply with applicable standards and guidelines e.g., building and fire codes as well as occupational health and safety regulations.

Concern: Crew carpenters are exposed to hazards including dust particles and noise.

Dust exposure can lead to respiratory health effects including asthma, scarring of the lungs and cancer. Long-term exposure to high levels of noise can lead to noise-induced hearing loss.

Find in this document guidance on equipment known to reduce dust exposure.

Local exhaust ventilation controls can effectively control much of the dust hazard. This guide provides advice on equipment proven to help reduce dust exposure without contributing substantially to existing noise levels in the shop.

> **Table 1 - Dust Control Equipment Recommendations**
> Find specific recommendations for dust control equipment that should accompany construction mill equipment to reduce exposure to harmful dust particles.

> **Table 2 - Dust Control Equipment Sources and Estimated Costs**
> Find cost estimates and links to *some* stores that stock recommended equipment. Note this is not an exhaustive list of equipment vendors, nor an endorsement of any specific product vendor or manufacturer.

Table 1 - Dust Control Equipment Recommendations

Find below the dust control equipment that should accompany construction mill equipment to reduce harm from exposure to dust particles. **NOTE:** Dust collectors with more than the HP indicated are acceptable as well as HEPA filtration, but HEPA filters would require more frequent replacement.

Construction Mill: **Overall Shop**

	Dust Control Equipment	☐ **Air Cleaners** (Minimum 4)
		Specs: 1200 CFM/each
		Location: Suspended 10-15 feet above floor

Construction Mill Equipment: **Table Saw**

Dust Control Equipment

☐ **Modern saw with shroud under blade**
☐ **Dust Collector**
☐ **One Micron Canister Filter**
☐ **Overarm Dust Collector Blade Guard**

Note: Older saws should be replaced.
Specs: At minimum 1.5 HP/each equipped with One Micron Canister Filter
Location: Connected to the shroud fitted close under the blade and an overarm dust collection blade guard

Construction Mill Equipment: **Jointer or Planer**

Dust Control Equipment

☐ **Dust Collector**
☐ **One Micron Canister Filter**

Specs: At minimum 1 HP equipped with One Micron Canister Filter
Location: At each jointer

Construction Mill Equipment: **Belt of Disc Sander**

Dust Control Equipment

☐ **Dust Collector**
☐ **One Micron Canister Filter**

Note: Sanders that lack close fitting shrouds around the disc and belt should be replaced.
Specs: Smaller size of sander - 1 HP
Larger size (10 inch or large disc) - 1.5 HP
Equipped with One Micron Canister Filter
Location: At each belt or disc sander

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Table 1 - Dust Control Equipment Recommendations *continued*

Find below the dust control equipment that should accompany construction mill equipment to reduce harm from exposure to dust particles. **NOTE:** Dust collectors with more than the HP indicated are acceptable as well as HEPA filtration, but HEPA filters would require more frequent replacement.

Construction Mill Equipment: **Router**

| Dust Control Equipment | ☐ **Dust Collector** |
| | ☐ **One Micron Canister Filter** |

Specs: At minimum 1.5 HP equipped with One Micron Canister Filter
Location: At router fence and under the table

Construction Mill Equipment: **Bandsaw**

| Dust Control Equipment | ☐ **Dust Collector** |
| | ☐ **One Micron Canister Filter** |

Specs: Up to 14 inch – 1 HP; Larger - 1.5 HP, equipped with One Micron Canister Filter
Location: At underside of table and bottom wheel

Construction Mill Equipment: **Cut-Off Saw, Mitre Saw, Compound Mitre Saw**

Dust Control Equipment	☐ **Pre-Separator**
	☐ **Vacuum Cleaner**
	☐ **One Micron Canister Filter**

Specs: Connect to blade guard, vacuum cleaner with One Micron Canister Filter and exhaust at 80 CFM

Construction Mill Equipment: **Cut-Off Saw (without dust exhaust connection on blade guard)**

Dust Control Equipment	☐ **Receiving hood behind saw**
	☐ **Dust Collector**
	☐ **One Micron Canister Filter**

Specs: At minimum 1 HP, equipped with One Micron Canister Filter

Table 2 - Dust Control Equipment Sources

Find below cost estimates as of November 2022 and links to some stores with dust control equipment available. Important: This is not an exhaustive list, nor a specific vendor endorsement.

☐ **Air Cleaners** (~$300-$900)

Equipment sources

- Busy Bee Tools
- Camfil
- KMS Tools
- Lee Valley Tools

☐ **Dust Collector** (~$500 to $1,300)

Equipment sources

- Busy Bee Tools
- KMS Tools
- Lee Valley Tools

☐ **One Micron Filter Canister** (~$400)

Equipment sources

- Busy Bee Tools
- KMS Tools

☐ **HEPA Filter** (~$400-$700)

Equipment sources

- Busy Bee Tools
- KMS Tools

Table 2 - Links to Dust Control Equipment Sources *continued*

Find below dust control equipment cost estimates as of November 2022 and a list of stores with equipment available. **NOTE:** This is not an exhaustive list, nor an endorsement.

Overarm Dust Collector Blade Guard (~$500)

Equipment sources

- KMS Tools

- Lee Valley Tools

- Summit Tools

Note: There is the overarm dust collector itself PLUS the plastic blade guard.

Pre-Separator (~$70 for cyclone only, $130+ for kit)

Equipment sources

- KMS Tools

- Lee Valley Tools

Tip: Can purchased together. The bottom part collects the dust and can be on wheels.

Vacuum Cleaner (~$200-$500)

Equipment sources

- Home Depot: Shop Vacuum

- Summit Tools

Tip: Insert another vacuum bag inside the rigid vacuum cleaner to extend life of the blue vacuum filter.