

# MECHANICAL SEPARATION FILTRATION CYCLONE DUST COLLECTORS AND CLASSIFIERS

To remove heavy particulates from air streams, such as in cabinet or furniture making, IVI uses mechanical separation filtration. Two common mechanical separation devices are cyclone dust collectors and classifiers. IVI designs these devices to fit any application to meet pressure drops and space requirements.

### CYCLONE DUST COLLECTORS

Air enters a cyclone through a horizontal duct and is then spun on a vertical axis. The clean air exits through the top of the device. Cyclones can be more efficient capture devices than classifiers and thus, typically have a larger pressure drop across them.

## **CLASSIFIERS**

Air enters a classifier through a horizontal duct and is then spun around a horizontal axis perpendicular to the air stream. This causes a centrifugal force that pushes the particulate to the heel of the classifier and downward toward the hopper. The cleaned air exits the classifier horizontally, and the particulates are removed from the hopper through an airlock device.







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