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## INDIVIDUAL AIR CLEANERS vs. CENTRAL SYSTEM

ITEM	INDIVIDUAL AIR CLEANERS	CENTRAL SYSTEMS
FLEXIBILITY	Maximum degree of flexibility. Operating equipment can be put into service, taken out of service, moved, etc., without affecting other	Minimum degree of flexibility for future equipment changes; the ductwork is tailor-made for the job, and permanent.
ENGINEERING	Design calculations are simple and can be done locally on-the-spot.	Design calculations are more time consuming. Layout of system must be in complete detail with all obstructions cleared and lengths of runs accurately determined.
RELIABILITY	Any malfunction affects only the machine or area you are collecting.	A malfunction puts entire system and all equipment being collected out of service. The complexity of the ducting network adds additional opportunity for failure, such as erosion at elbows, plugging of ductwork, or improper balance of airflow.
TROUBLE SHOOTING	Trouble shooting is simple because the equipment is smaller and problems are inherently simple.	More difficult due to size of equipment and complexity of the system.
MAINTENANCE	Individual units benefit from operator interest and attention. The air cleaner is close to the machine being collected and the machine operator will care about its performance and notice any change in performance. The operator can provide routine preventive maintenance.	Central systems become the responsibility of central maintenance. Their first priority is the production equipment. Seldom are problems identified before a complete failure occurs, resulting in lost production.
SPACE	Individual units require a greater plan area, but in several pieces. They require less head room, and no overhead space is lost due to ductwork.	Central systems require less plan area, but it must be all in one piece. They require more head room, and overhead space is lost to ductwork.
RECIRCULATION	When cleaned air is recirculated, no return ductwork is required. The operator's attention to air cleaner performance assures better reliability when recirculating.	When cleaned air is recirculated, return ductwork generally is required. In cold climates, return air ducts and central collector must be insulated when located outside the building. A larger, more expensive makeup air system is required initially with a central system if no return air duct system is employed. A failure of one bag in a central system collector negates recirculation of entire air volume until broken bag is located and replaced.
CASH OUTLAY	Can be minimized because individual units can be purchased one or several at a time to spread out costs. May be able to buy under dept. budget.	One shot deal - one large capital outlay required. Need major corporate budget approval.
DUCTWORK COST	MINIMAL. As only hoods and short ductwork/hoses are needed.	HIGH. Installation can equal the cost of equipment.
INSTALLATION COST	MINIMAL. Portable units are rolled in and plugged in, or easily installed. Can be done by plant personnel.	HIGH. Outside contractor required. May require off-hours to install and may be disruptive to production.
POWER COST	MINIMUM. Modular air cleaners mean minimum power cost. Also some units are shut down when not in use, saving additional power.	HIGHER. HP required to pull the air through the central ductwork system. Also, the whole system has to run all the time even though part of the machinery is not running.
TIMING	QUICK. Individual units can be ordered and shipped in 2 to 4 weeks and be up and running.	SLOW. May take months to let the contract, fabricate the ductwork, and arrange for installation. Can take from 2 to 6 months or more to be up and running.