GREENHECK
Building Value in Air.

Laboratory Exhaust Systems
Centrifugal Dilution Selection Criteria & Consideration Facts

		Greenheck	Loren Cook	MK Plastics	Plasticair		Twin City
Feature	**Benefit / Comment**	 **Vektor®-CD**	 **CA-VP/S/A**	 **Axijet F/S**	 **Skyplume G1-EL**	 **Skyplume G1-SC**	 **BAIFE/BCIFE**
Performance Ranges	Volume and static pressure each fan is capable of exhausting.	1,500 - 122,000 cfm Up to 13.5 in. wg	1,500 - 143,800 cfm Up to 12.0 in. wg	1,200 - 95,000 cfm Up to 10.0 in. wg	Up to 75,000 cfm Up to 12.0 in. wg	Up to 123,000 cfm Up to 17.0 in. wg	Up to 135,000 cfm Up to 16.0 in. wg
AMCA Certification	Independent, third-party certification of air and sound performance.	Induced Flow Fan Air and Sound	FEI, Induced Flow Fan Air and Sound	Induced Flow Fan Air and Sound (on certain sizes)	Induced Flow Fan Air and Sound	Induced Flow Fan Air and Sound	BAIFE: Induced Flow Fan Air and Sound
UL Certification	Independent, third-party certification of UL 705 for electrical.	Yes	Yes	No Data	No Data	No Data	Yes
Windload Certification	MPH rating the entire system can withstand without the use of guy wires.	125 mph	125 mph	125 mph	125 mph	125 mph	125 mph
Vibration Balance / Testing AMCA 204-05	Level of factory testing performed. Written vibration report available from Greenheck at no charge.	Category BV-4 <0.10 in/sec peak	Yes No Data	Category BV-3 <0.15 in/sec peak	No Data	No Data	Category BV-3 <0.15 in/sec peak
Drive Arrangement	**Belt:** Easier field adjustments for airflow and static pressure (Arrg. 1, 9 and 10). **Direct:** Direct coupled.	Belt and Direct	Belt and Direct	Belt and Direct	Belt and Direct	Belt and Direct	Belt and Direct
Wheel Type	Type of wheel used in fan housing.	Centrifugal, backward inclined airfoil	Centrifugal, backward inclined airfoil	Centrifugal, backward inclined airfoil	Centrifugal, backward inclined	Centrifugal, backward inclined airfoil	Centrifugal, backward inclined airfoil
Materials of Construction and Finish	Material for correct application and finish. Epoxy and FRP material break down with exposure to sunlight.	Coated Steel with LabCoat™	Coated Steel with Phenolic Epoxy	Fiberglass Reinforced Polymers (FRP)	Fiberglass Reinforced Plastic (FRP)	Coated Steel or Aluminum	Steel, Aluminum, Stainless
Dilution / Nozzle	Entrains ambient air to dilute the lab exhaust air. Results in greater mass flow at discharge and greater plume rise.	Yes	Yes	Yes	Yes	Yes	Yes
Dilution / Nozzle Construction	Material for correct application and finish. Offer superior resistance and longevity for lab exhaust applications. Epoxy and FRP material break down with exposure to sunlight.	Coated Aluminum with LabCoat™ (4 to 6 mils)	Fiberglass Reinforced Plastic (FRP), Aluminum, or Coated Steel with Phenolic Epoxy Powder with UV Topcoat (5 mils)	Fiberglass Reinforced Polymers (FRP) with Plastifier™ Epoxy	Fiberglass Reinforced Plastic (FRP) with Epoxy	Coated Steel or Aluminum with Heresite 413-P	Coated Steel or Aluminum with Epoxy
Spark Proof Construction	Ability to meet demands of application for spark resistance. NOTE: FRP blowers require optional graphite liner.	AMCA B or C	AMCA A, B or C	AMCA A, B or C	AMCA A, B or C	AMCA A, B or C	AMCA A, B or C
Bearings	Bearing type and life.	Concentric Lock L_{10} 80,000 hours, std. L_{10} 200,000 hours, opt.	No Data L_{10} 40,000 hours	No Data L_{10} 200,000 hours	Pillow Block L_{10} 200,000 hours	Ball or Roller Type L_{10} 110,000 hours	Pillow Block L_{10} 200,000 hours
Drain in Housing and/or Plenum	Allows for removal of rain or condensation.	Fan and Plenum	Fan Only	Fan Only	No Data	No Data	Fan and Plenum
Sizing of Belts	Indication of durability. Industry Standard = 150% of BHP.	200%	150%	150%	150%	150%	200%
Vibration Isolation	Used to isolate the fan from building structure. Isolation may be required in seismic zones.	Restrained Vibration Isolators	Vibration Isolators	No Data	No Data	No Data	Vibration Isolators