# General®

NONHAZARDOUS LOCATION AIR VENTILATION BLOWERS

Help conform to confined work space regulations with General's air ventilation blowers.

Left: **EP8**, 1/3 HP 115 VAC, radial airflow; Upper right: **GP8**, 3 1/2 HP, gasoline, radial airflow; Lower right: **EP12AC**, 3/4 HP, 115/230 VAC, axial airflow

General's line of portable air blowers can accommodate most nonhazardous confined space ventilation requirements. Select from 8" or 12" diameter units with power choices of gasoline, diesel, 12 VDC or 115 VAC. Both radial and axial housing configurations are available for the most demanding air flow applications.

Blowers are ideal for supplying fresh air around construction sites; removing toxic and noxious atmospheres from confined work spaces; detecting sewer line leaks and providing fresh air when working in tanks and vaults. Proper ventilation increases safety and worker productivity rates while conforming to tough federal and state OSHA regulations.

Each unit is designed to General's highest quality standards for uncompromised utility and investment return. There are no plastic parts to crack. Constructed with heavy-gauge aluminum and steel, all General blowers offer laboratory certified air flow rates from independent, third party, agency testing.

Breathe easier with a General blower on the job site...cost effective solutions to confined space ventilation.



620 Alexander Dr. S.W. • PO Box 334 Owatonna, Minnesota 55060 800.533.0524 • +507.451.5510 Fax +507.451.5511 Toll-Free Fax 877.344.4375 (Digger 5) Web: www.generalequip.com E-mail: general@generalequip.com Can you really afford anything less?

FD8C - 8" diameter

### **Duct Couplers**

Constructed of 20-gauge stainless steel, duct couplers allow ducts to be direct coupled together for extending a specific application length. Because coupling lengths of ducts together can significantly reduce air flow rates, always determine that the resulting air flow rates will meet specific applicable ventilation regulations and/or requirements before utilizing a duct coupler. (Model FD8C for use with 8" diameter ducts; FD12C for use with 12" diameter ducts).



FD12C -12" diameter



E10 Portable electric heater

### **EH10 Portable Electric Heater**

Ideal for confined space use in construction and industrial applications, the EH10 Electric Heater eliminates the operational and safety-related problems associated with propane heating devices. It is designed to utilize the output flow of ventilation blowers to raise ambient temperatures to comfortable levels within confined space jobsites. Its electric-heating system does not require a direct vent to the atmosphere. The unit features high efficiency, long life, heating coils and heavy-gauge, sheet metal construction. Self-contained, two-position legs accommodate the variances

in blower discharge heights. An internal safety thermostat provides for automatic shutdown in event of excessive heat build-up. Provision is made for an optional, remote mounted, manually controlled thermostat. Comes complete with a 15' 6-3 AWG extension cord. The extension cord plug must be field supplied and wired by qualified personnel.

### S P E C I F I C A T I O N S

Type Utilized with output flow from air ventilation blower only. Cannot be utilized alone as a combination blower/heater

31,500 Btu/Hr @ 50 amperes

Power Source 230 VAC, 60 Hz, single phase Low Output 15,750 Btu/Hr @ 25 amperes

**DUCT CONNECTION SIZE** 8" (203 mm) diameter, insulated type

**WEIGHT** 41 lbs. (18.6 kg)

HIGH OUTPUT

# PORTABLE AIR VENTILATION BLOWERS



EP8DC15, 1/6 HP, 12 VDC, axial airflow



**EP8AC**, 1/4 HP, 115 VAC, axial airflow



EP8DC, 1/6 HP, 12 VDC, axial airflow



DP8. 5 1/2 HP. diesel. radial airflow

## **Duct Length/Air Flow**

Due to friction loss caused by air moving against the inside surface, air flow rates decrease as duct lengths increase. For most 8" diameter

blowers, friction loss will usually limit the maximum practical duct length to 25'. Configurations requiring additional duct length or drastic directional changes can result in substantially lower air flow rates.

The 12" diameter Model EP12AC was specifically designed to overcome the problems normally associated with longer duct lengths. The key factor is the capacity difference between 8" and 12" diameter ducts. Greater capacity means less friction loss. The EP12AC matches the power of its motor against the high static capacity of the specially-designed propeller. This combination enables the EP12AC to better overcome friction losses and deliver higher air flow rates over longer duct lengths.

The air flow rate, regardless of duct length, directly affects the total number of times per hour the atmosphere within a confined space can be properly recirculated. Federal OSHA regulations do not specify minimum air flow standards for blowers or an air recirculation requirement. However, many states have developed individual air recirculation standards that directly affect the final ventilation configuration, blower selection, duct length and even the number of blowers required. Plan any confined space entry by first determining the amount of air flow needed. Then choose the best configuration to minimize duct length and the number of directional changes. Selection of the proper ventilation blower for the required duct length will deliver the performance needed to meet any atmospheric recirculation standard.

# NONHAZARDOUS LOCATION VENTILATION ACCESSORIES



SR815 Storage rack

**SC815** Storage canister

**CSE™** Duct



**SR1250** Storage rack with 100' of 12" diameter duct



**SR1250** Storage rack with 25' of 12" diameter duct

# CSE™ Duct Aids Confined Space Ingress/Egress

With the same physical appearance of a standard ventilation duct, the CSE™ duct incorporates a section with a flexible, spring helix configuration. The flexible helix allows the duct to crush when personnel ingress or egress a manhole or any entrance with a restricted size opening, allowing continuous air flow from the air ventilation blower. The flexible helix can be field replaced in a matter of minutes in the event of external field damage.

The CSE™ duct eliminates the need for a separate, costly, air flow dispersal device to aid in personnel ingress or egress. Unlike a separate air flow dispersal device, it can also provide standard ventilation when making confined space entries in locations with no opening restrictions. Available in an 8" nominal diameter in both 15' and 25' lengths.

### **Storage Racks and Canisters**

Storage racks feature heavy-gauge, welded-steel construction. Ventilation ducts are compressed over the inner frame and secured by integral locking levers to provide increased protection against damage. The bright enamel finished models accommodate 3', 6', 15', 25' and 100' duct lengths.

Storage canisters are formed and welded from durable, 18-gauge steel. They feature lockable, full protection covers for ultimate protection during transit or storage. The bright enamel finished models accommodate 8" diameter ducts in both 15' and 25' duct lengths.

MODEL	EP8	EP8DC	EP8DC15 BLOW-R-PAC®	EP8DC25 BLOW-R-PAC®	EP8AC
Power Source	1/3 HP (.23 kw) 1725 RPM, 60 Hz 115 volts AC, capacitor start, 4.2 amperes, full load, ball bearing and thermal protection equipped	1/6 HP (.13 kw) 3450 RPM,12 volts DC, 13 amperes, sleeve bearing and thermal protection equipped	1/6 HP (.13 kw) 3450 RPM, 12 volts DC 13 amperes, sleeve bearing and thermal protection equipped	1/6 HP (.13 kw) 3450 RPM, 12 volts DC 13 amperes, sleeve bearing and thermal protection equipped	1/4 HP (.20 kw) 3200 RPM, 60 Hz, 115/230 volts AC, capacitor start, 2.5 amperes full load, ball bearing and thermal protection equipped
SPEED CONTROL	Single speed	Single speed	Single speed	Single speed	Single speed
BLOWER					
Түре	Radial	Axial	Axial	Axial	Axial
Material Wheel Type	Cast aluminum Steel multivane	Spun steel Aluminum/plastic MultiWing <sup>®</sup> axial	Spun steel Aluminum/plastic MultiWing <sup>®</sup> axial	Spun steel Aluminum/plastic MultiWing <sup>®</sup> axial	Formed steel Aluminum/plastic MultiWing <sup>®</sup> axial
Size	8" (203 mm) nominal diameter inlet/outlet	8" (203 mm) nominal diameter outlet	8" (203 mm) diameter x 15' (4.5 m) integral duct	8" (203 mm) diameter x 25' (7.6 m) integral duct	8" (203 mm) nominal diameter inlet/outlet
GENERAL					
MOUNTING	Rubber	Rubber	Rubber	Rubber	Direct
Түре	Anti-vibration	Anti-vibration	Anti-vibration	Anti-vibration	Steel base
WEIGHT	53 lbs. (24 kg)	26 lbs. (19 kg)	47 lbs. (21 kg)	57 lbs. (26 kg)	23 lbs. (10.6 kg)
DIMENSIONS					
Неіднт	19 <sup>3</sup> /4" (502 mm)	13 <sup>1</sup> /2" (343 mm)	13 <sup>1</sup> /2" (343 mm)	13 <sup>1</sup> /2" (343 mm)	11 <sup>1</sup> /2" (292 mm)
LENGTH	18 <sup>1</sup> /4" (464 mm)	15 <sup>1</sup> /4" (387 mm)	30 <sup>1</sup> /2" (775 mm)	42 <sup>1</sup> /2" (1080 mm)	18" (457 mm)
WIDTH	14 <sup>1</sup> /2" (368 mm)	11 <sup>3</sup> /4" (298 mm)	11 <sup>3</sup> /4" (298 mm)	11 <sup>3</sup> /4" (298 mm)	8 <sup>1</sup> /8" (206 mm)
FLOW RATES					
Free Air	1277.4 CFM (35.7 CMM)	999.1 CFM (27.9 CMM)	736.7 CFM (20.6 CMM)	833.1 CFM (32.8 CMM)	670.6 CFM (18.7 CMM)
One 90 Degree Bend	738.0 CFM (20.7 CMM)	686.4 CFM (19.2 CMM)	686.4 CFM (19.2 CMM)	659.5 CFM (18.4 CMM)	393.6 CFM (10.9 CMM)
Two 90 Degree Bends	578.8 CFM (16.2 CMM)	601.8 CFM (16.8 CMM)	601.8 CFM (16.8 CMM)	545.6 CFM (15.2 CMM)	383.3 CFM (10.7 CMM)

### ٧ S D U

**Insulated Ventilation Ducts**Designed to minimize heat loss when heated air is transferred from a blower/heater to the jobsite. Construction consists of two plies of neoprene coating impregnated about a polyester material and an encapsulated layer of urethane foam insulation. Insulated ducts utilize a spring steel wire helix for support along with a heavy-duty, wearstrip for external abrasion resistance. Includes attaching strap and nylon ring-type end cuffs.

S F	PECIFIC	ATIONS	
	STANDARD	REFERENCE	
Polyester Material Weight Flammability	9-10 oz./sq. yd. Pass	UL94-VO; MINS 540-106-1; Califor- nia T-19; NFPA 701; Large Scale	
WEARSTRIP MATERIAL WEIGHT 18-22 OZ./Sq. yd. ABRASION RESISTANCE Pass FLAMMABILITY Pass		STD 191 Method 5304 UL94-VO; UL94-VO;MINS 540-106-1; Califor- nia T-19: NFPA 701: Large Scale	
Insulation Material Type FLAMMABILITY	Light density, high- thermal rated urethane polyester foam Pass	MVSS 302	
_	rass	WV55 502	
GENERAL TEMPERATURE RANGE	-40°F to +250°F (-40°C to +116°C)		
Nominal Diameter Standard Lengths R Value	8" (203 mm) 15' (4.6 m) and 25' (7.4 1.8	m)	

Non-Insulated Ventilation Ducts
Ducts are constructed from heavyweight, vinyl-impregnated polyester material. The spiralwire helix reinforcement is contained within duct carcus and utilizes a heavy-duty wearstrip which helps extend service life when dragged over pavements and other jobsite surfaces. Includes attaching strap and nylon ring-type end cuffs.

SI	PECIFIC	A T I O N S	
	STANDARD	REFERENCE	
TENSILE STRENGTH (GRAB LBS.)	Warp 125/Fill 110	FED STD 191-5100	
Tear Strength (Tongue lbs.)	Warp 41/Fill 36	FED STD 191-5513 (8" x 8" sample)	
TEMPERATURE RANGE	-20°F to +180°F (-29°C to +82°C)		
FLAME RESISTANCE (VERTICAL)	Pass	California T-19; UL94VO; UL94VTM-0; NFPA 701; Large Scale	
Ozone Protection	Inherently resistant to deterioration from ozone		
NOMINAL DIAMETERS	8" (203 mm) and 12" (305 mm)		
STANDARD LENGTHS	3' (.92m), 8" (203 mm) diameter 6' (1.8 m), 8" (203 mm) diameter 15' (4.6 m), 8" (203 mm) diameter 25' (7.4 m), 8" (203 mm) and 12" (305 mm) diameters 50' (15.3 m), 12" (305 mm) diameter		

# SPECIFICATIONS

EP8AC15 BLOW-R-PAC®	EP8AC25 BLOW-R-PAC®	GP8/GP8H	DP8	EP12AC	
1/4 HP (.20 kw) 3200 RPM, 60 Hz, 115 volts AC, capacitor start, 2.5 amperes full load, ball bearing and thermal protection equipped	1/4 HP (.20 kw) 3200 RPM, 60 Hz, 115 volts AC, capacitor start, 2.5 amperes full load, ball bearing and thermal protection equipped	3 1/2 HP (2.4 kw) @ 3600 RPM, Briggs & Stratton Model 91232 or 3.5 HP (2.4 kw) @ 3600 RPM, Honda Model GX 120, air cooled, 4-cycle gasoline engine	5 1/2 HP (4.2 kw) @ 3600 RPM, Yanmar L40 E Series, air cooled, 4-cycle diesel engine	3/4 HP (.52 kw) 3450 RPM, 60 Hz, 115/230 volts AC, capacitor start, 8.8/4.4 amperes full load, ball bearing and thermal protection equipped. Motor is factory wired for 115 volts and can be field wired for 230 volts	
Single speed	Single speed	Governor with manual speed control, adjustable to vary blower volume	Governor with manual speed control, adjustable to vary blower volume	Single speed	
Axial Spun steel Aluminum/plastic MultiWing® axial 8" (203 mm) diameter x 15' (4.5 m) integral duct	Axial Spun steel Aluminum/plastic MultiWing® axial 8" (203 mm) diameter x 25' (7.6 m) integral duct	Radial Cast aluminum Cast aluminum Radial 8" (203 mm) nominal diameter inlet/outlet	Radial Cast aluminum Cast aluminum Radial 8" (203 mm) nominal diameter inlet/outlet	Axial Formed steel Aluminum/plastic MultiWing <sup>®</sup> axial 12" (305 mm) nominal diameter inlet/outlet	
Rubber Anti-vibration 43 lbs. (20 kg)	Rubber Anti-vibration 53 lbs. (24 kg)	Spring Anti-vibration 56 lbs. (25 kg)	Spring Anti-vibration 122 lbs. (55 kg)	Rubber Anti-vibration 65 lbs. (29.5 kg)	
13 <sup>1</sup> /2" (343 mm) 30 <sup>1</sup> /2" (775 mm) 11 <sup>3</sup> /4" (298 mm)	13 <sup>1</sup> /2" (343 mm) 42 <sup>1</sup> /2" (1080 mm) 11 <sup>3</sup> /4" (298 mm)	20 <sup>1</sup> /2" (521 mm) 18" (457 mm) 16 <sup>1</sup> /4" (413 mm)	27 in. (686 mm) 24 in. (610 mm) 25 in. (635 mm)	15 <sup>1</sup> /2" (394 mm) 18 <sup>1</sup> /2" (470 mm) 12 <sup>5</sup> /8" (321 mm)	
903.2 CFM (25.2 CMM) 679.6 CFM (19.0 CMM)	929.0 CFM (26.0 CMM) 665.1 CFM (18.6 CMM)	1561.6 CFM (44.2 CMM) 1178.1 CFM (33.3 CMM)	1336.1 CFM (37.4 CMM) 1047.7 CFM (29.3 CMM)	1526.7 CFM (42.6 CMM) 1317.4 CFM (36.8 CMM) 25' duct 1210.8 CFM (33.9 CMM) 50' duct 1105.8 CFM (30.9 CMM) 100' duct	
514.0 CFM (14.4 CMM)	504.7 CFM (14.1 CMM)	1066.2 CFM (30.2 CMM)	996.3 CFM (27.9 CMM)	1300.1 CFM (36.3 CMM) 25' duct 1196.1 CFM (33.5 CMM) 50' duct 1040.1 CFM (29.1 CMM) 100' duct	

Flow rates calibrated by Colorado Engineering Experiment Station, Inc. (CEESI). Tested per AT&T standard EL2723/PL2709 in a chamber built in accordance to AMCA standard 210-67 and 210-85. Flow rates are nominal and subject to variances due to normal manufacturing tolerances. Compare testing procedure before comparing performance of competitive units. Published flow rates are to serve as a reference only. Contact the factory for detailed test report.

Blowers are designed for portable air ventilation purposes only, and not intended for transporting liquid, semi-solid or solid material. Unless properly marked with an agency listing, no blower manufactured by General Equipment Company is designed to be operated in an explosive atmosphere, nor are they to be used to transport such an atmosphere.

All specifications are general in nature and are not intended for specific application purposes. General Equipment Company reserves the right to make changes in design, engineering, or specifications and to add improvements or discontinue manufacture at any time without notice or obligation. Consult applicable operator's manual before utilizing. Refer to OSHA 2207 and/or current revisions for specific safety information. Names depicted are the registered trademarks of their respective owners.

