



BLOWER BRIEFS



Rotating Engineered Products, Inc. - Volume I No.4 March 1993

BLOWER & VACUUM PUMP PACKAGE CONSIDERATIONS

So now that you have determined the flow and pressure requirements for your application, it's time to spec out the entire package. You have many decisions to make regarding your package. Consider the following:

1) Continuous or intermittent duty (continuous is operation over 8 hours per day)

2) Power available to drive package (electric motor, engine, etc.)

3) Direct drive for unit or v-belt drive, gear drive

4) Where will the package be located, inside, outside, near workers, isolated, in a residential area, and/or corrosive area

5) Electrical classification such as: Class 1 Division 1 or 2 area, NEMA 1, NEMA 4

6) Will the package include a motor starter (if motor is used). Will you start the motor across the line, reduced voltage, etc.

Under each of the items listed would be several sub-categories of decisions regarding package design.

For instance, if you have a continuous duty service, you need to establish how many years of service are required. Different units may be selected based on the life desired. In general units operated at a lower speed will last longer. Selecting a unit which is rated for a higher differential pressure will also effect the life of your unit.

The power available at the installation is important. Typical blower packages are driven via a motor. If a motor is to be used, you must specify the voltage, phase number and frequency at which the motor will be operated. Typically, single phase motors can be used up to 5HP, but three phase at 240 or 460 volt is preferred due to

lower energy usage. If you have a choice between 230 and 460 volt, 460 volt will result in a lower total installed and operating cost. Other drives may be considered such as:

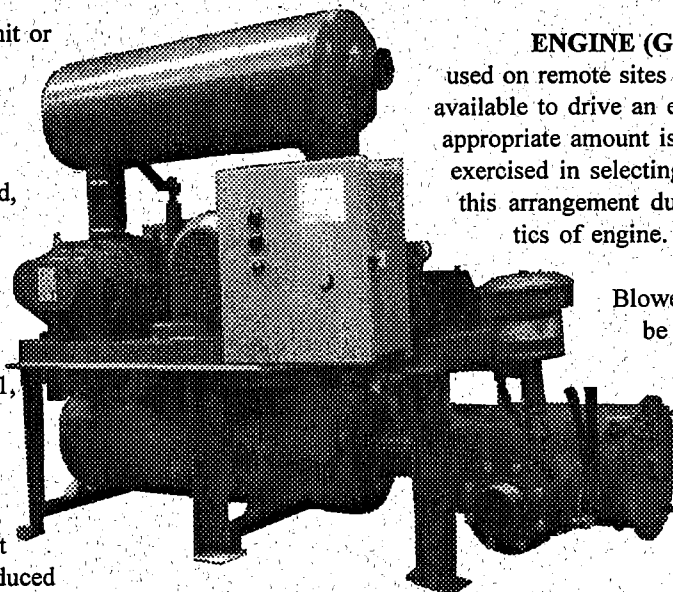
VARIABLE FREQUENCY AC: allows for variable speed of the motor which may be preferable in some applications.

DC MOTOR DRIVE: may be used in some installations where this type of power is available.

STEAM TURBINE: may be used in process application or sights where excess steam or a steam reducing station is desired,

ENGINE (GAS OR DIESEL): may be used on remote sites or sites where gas is available to drive an engine and electricity in the appropriate amount is not. Care must be exercised in selecting the drive components in this arrangement due to torsional characteristics of engine.

Blowers and vacuum pumps can be driven through a variety of drive arrangements. Most typical is a v-belt drive or direct connected. Drive via a gear box is sometimes used as well as jack shafts to minimize the loading on the drive bearing of the blower.



Equipment location is also important to determine what particular requirements the equipment should possess. If the equipment is located near workers, will noise attenuation be required? If required, how will it be accomplished? Full enclosures, partial enclosures, treatment of the surrounding area are all options. Locations of the other equipment, building materials, and building structure can all effect the noise level of the equipment.

Ambient conditions such as explosive vapors, airborne corrosive materials, and heavy dust loads, (to name a few) will determine the drive type to be used and the materials of construction of the blower or vacuum pump package. Perhaps fiberglass enclosures or stainless steel bases may be required to reduce environmental effects on the package.

It is the responsibility of the owner to indicate if any

REP PRICING SCHEDULE

special electrical classifications are required. Most importantly, it must be indicated if you are locating the equipment in a Class 1 division 1 or 2 region. Classification must also specify the Group such as Class I - Group A,B,C,D or Class II Group E,F,G.

Finally, you must specify how much of the package is going to be supplied by the supplier. In most cases, the package consists of a blower, base, drive, silencers, filters, relief valve, check valve, pressure or vacuum gauge and the prime mover (typically a motor). Sometimes the motor starter is included. The items must be specified.

FACTORY INTRODUCES

Recently, Gardner-Denver introduced AEON PD blower lubricant. AEON PD is a specialty formulated synthetic lubricant designed specifically for positive displacement blowers. AEON PD synthesized hydrocarbon fluid properties offer numerous advantages over mineral based oil.



ADVANTAGES

- Extended lubricant life
- Exceeds blower manufacturers recommendations
- Contains additives for greater corrosion protection
- High Viscosity reduces friction and energy consumption
- Reduced operating temperatures extend blower life
- Compatible with most seal materials
- Fewer oil drain and service intervals reduces cost
- Unequalled lubrication in severe cold weather
- Superior protection in high temperature environments

AEON PD LUBRICANT		
PACKAGE SIZE	PART NUMBER	PRICE
1 Quart	28G23	\$8.75
(12) 1 Quart	28G24	\$95.40
5 Gallon	28G25	\$150.00
55 Gallon	28G28	\$1,595.00

**PLEASE TAKE YOUR OIL TO A
RECYCLING CENTER AND DON'T POLLUTE!!**

SUTORBILT CALIFORNIA SERIES TYPICAL REPAIR PRICING			
BLOWER GEAR DIAMETER	STANDARD OVERHAUL	GEARS*	"B" SERIES THRUST KIT
2	\$420	\$151	\$78
3	\$420	\$159	\$82
4	\$446	\$213	\$90
5	\$700	\$300	\$97
6	\$946	\$483	\$185
7	\$1096	\$487	\$170
8	\$1136	\$676	\$219

Standard Overhaul replaces bearings, seals and gaskets. Some "B" series units have thrust kits which include a thrust spacer and thrust bearings. *Gear and thrust kit pricing reflect adders to the standard overhaul cost. Price subject to change without notice. (July 1991)

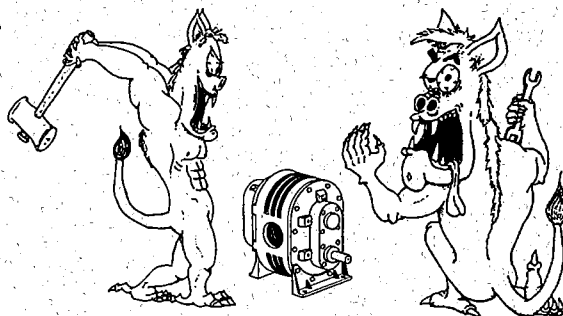
SERVICE RATE SCHEDULE

- \$44.00/hour in shop
- \$55.00/hour on site
- \$80.00/hour on Sundays & Holidays
- \$0.50/mile mileage reimbursement
- Food & Lodging at Cost

Travel time will be calculated based on the on-site rate.

SUTORBILT 4500 SERIES TYPICAL REPAIR PRICING		
BLOWER GEAR DIAMETER	STANDARD OVERHAUL	TIMING GEARS*
6	\$1,617	\$536
7	\$1,757	\$629
8	\$1,957	\$774

Standard Overhaul includes, bearings, seals, gaskets, timing gear grip rings and bearing cartridge O-Rings. *Timing gear adder does not include gear hubs. Pricing subject to change without notice. (July 1991)



**IF YOU DON'T TRUST THE BLOWER GREMLINS
CALL REP AT
1-800-536-9933**